Lighting The Essential Arteries of Society

HSCapes™
HOLOPHANE outdoor lighting

HOLOPHANE®
LEADER IN LIGHTING SOLUTIONS

HL-2161 10/06

experience lighting's best.

Lighting The Essential Arteries of Society

Highway transportation system — essential to our economic vitality

Power generation facilities — providing energy to business

Water treatment plants — providing clean water for industry and homes

Seaports and airports — points of entrance for imported goods and exit for exports

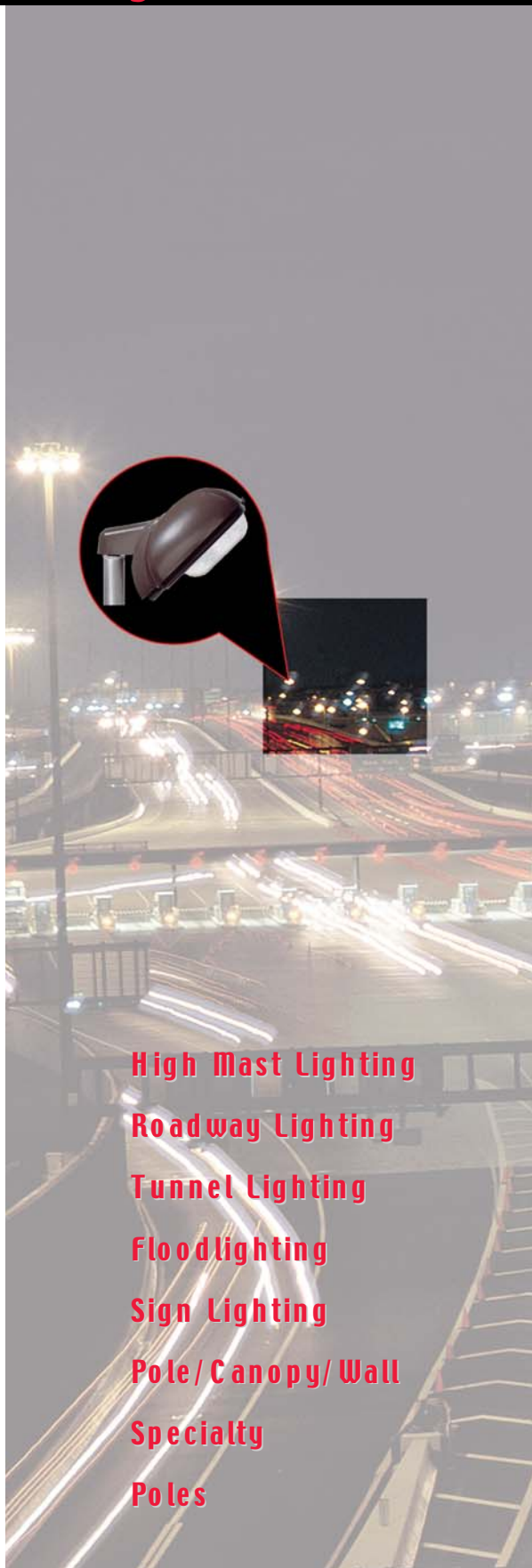
Railroads — a vital part of a transportation system

Industrial facilities — providing jobs, goods, and services for a strong economy

All of the above applications are inter-connected to provide goods and services to supply a national economy, as a result, none can function alone, while being dependent upon the other. These vital organs of the economy provide essential benefits to sustain its health and growth, and all must function 24/7/365. Outdoor lighting plays a critical role in maintaining the functionality of each and every part of this "body".

For more than 100 years, Holophane has made a significant impact in outdoor lighting for infrastructure applications. From the first glass street lighting globes in the early 1900's, the cobra head refractor in the 1940's, high mast lowering systems in the 1970's to the Mongoose® luminaire today, Holophane has been responsible for many innovations in lighting for infrastructure. We continue into the 21st century with advances in technology that will improve the socioeconomic value of lighting for the future.

Holophane Infrastructure Outdoor Lighting.
Lighting the essential arteries of society.




PAY TOLL
1000 FEET
CARS $100
REDUCE
SPEED
Keith Ave
EXIT 56
Keith Ave

Product Selection Matrix

High Mast Lighting

HMSC

HMSD

HMSP

Roadway Lighting

Mongoose

RSL-200

Floodlighting

Predator

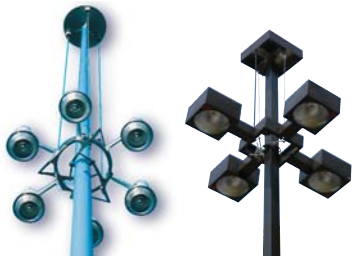
Prismbeam II

Pole | Canopy | Wall

Module 600

Parkpak

HMST



Lowering Devices

Surveillance Camera

Index

Median Mount

Vector

Tunnel Lighting

Tunnel Predator

Module 600

Sign Lighting

Panel-Vue

Sign-Vue II

Wallpack IV

Specialty

Outdoor Substation

High Mast Lighting

Union Pacific Railroad Company; Western United States

Holophane high mast lighting systems provide superior benefits for lighting large areas. The system has proven to be reliable and dependable in severe environmental conditions. By incorporating multiple luminaires per pole, fewer poles are required to light an area, resulting in fewer foundations and trenching.

Typically, high mast systems require fewer luminaires to light an area than when shorter poles are utilized, resulting in less connected load for energy savings and fewer luminaires to maintain for reduced maintenance costs. Luminaires can be lowered to the ground for normal relamping, eliminating the need for lift trucks or contract maintenance fees.

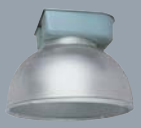
Fewer poles mean fewer obstacles to avoid. For roadways, high mast poles can be placed away from traffic areas. In ports, high activity spaces, poles can be properly located in areas where they will not interfere with production.

Holophane can provide a completely integrated system including the pole, lowering device and luminaires as a single source supplier, along with field technical assistance during installation by qualified factory technicians. This assures the system will provide decades of reliable service.

Luminaires

HMSC

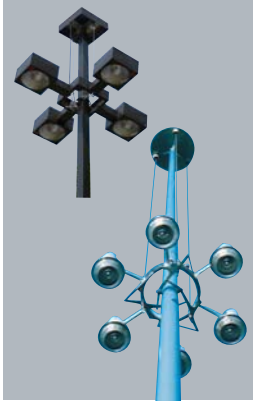
HMSD



HMSP

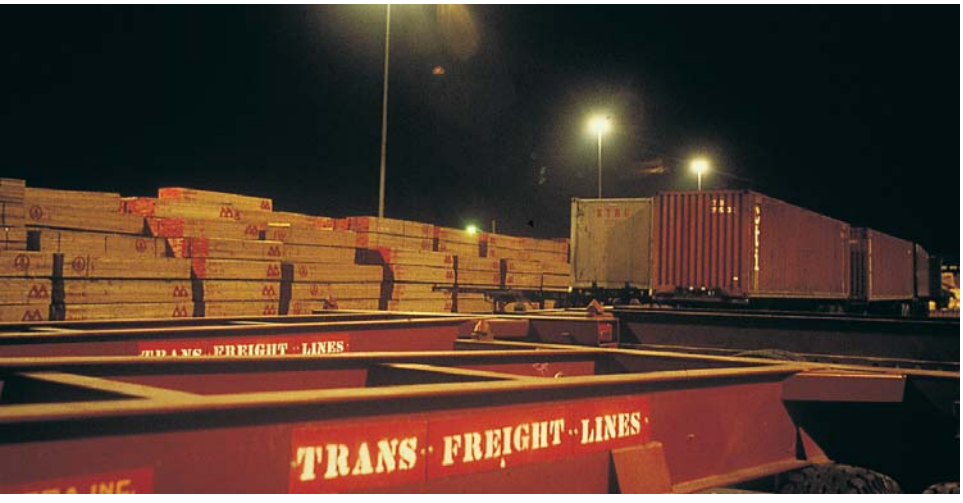
HMST

Lowering Devices



Cameras

Versatility



Typical Applications

- Highways
- Interchanges
- Ports
- Rail Yards
- Container Yards
- Correctional Facilities
- Parking Areas
- Truck Stops
- Petrochemical Operations
- Treatment Plants
- Security Lighting
- Sports Lighting

Features

- Superior optical performance
- Increased safety
- Unitized electrical assembly
- Optimized light control
- Symmetric, asymmetric and long and narrow distributions
- Less dirt depreciation
- Ground level maintenance
- Reduced installation and operating costs
- Mounting heights from 50' - 150'

Lamp Types

- 400-1000 watt metal halide
- 400-1000 high pressure sodium

Approvals

- UL/CUL

Highways and interchanges.
Motorists entering a multi-level, high speed, complex interchange need the full panoramic view provided by HMS® lighting to safely assess their situation and proceed. The HMS scenic illumination improves visibility, reduces glare, reduces eye fatigue, and increases driver safety.

Prisons.
Nighttime security, including TV surveillance and protection of vital equipment, is enhanced by the uniformity of vertical and horizontal lighting provided by the HMS system. Easy maintenance of the system assures that this protection will not be interrupted.

Freight terminals and railroad yards.
High vertical surface lighting on railroad cars, trucks, and containers reduces the possibility of pilferage and speeds identification. Fewer pole locations mean more usable space and improved freight movement.

Public parks and sports.
High mounting (50' - 150') reduces vandalism to luminaires. HMS poles and lowering devices may be combined with Prismbeam® II luminaires for floodlighting of athletic fields. This provides ease of maintenance because the lowering device eliminates hard-to-reach towers and cages.

Commercial parking lots.
Wide pole spacings provide clean, uncluttered view of building facades and signs; more parking spaces are available; customer security is improved and vandalism is reduced. Optional cylindrical or rectangular decorative covers are available for architectural blending with building design.

Industrial plants, petrochemical facilities, and storage areas.
Uniform illumination helps improve around-the-clock production, with less pole blockage of motorized handling equipment. Placed outside hazardous areas, HMS permits nighttime operations with reduced energy consumption.

HMSC®

The High Mast Cutoff (HMSC) luminaire produces seven, highly effective light patterns that enable fewer luminaires and poles to be used while providing a lighting solution that resembles natural daylight.

The HMSC luminaire in combination with a Holophane lowering device results in low cost maintenance with tool-free lamp replacement, reflector positioning, and terminal block wiring from ground level.

Overall, it is difficult to find a more reliable combination than this luminaire and lowering device combination.

HMSD

The High Mast Cutoff Open (HMSD) luminaire provides highly efficient lighting while protecting against the concerns of light pollution. The optimized light control provided by this luminaire can be utilized in a wide variety of applications in areas near observatories or locations sensitive to light trespass. The optional extra-low-brightness reflector increases this luminaire's effectiveness by reducing direct glare even further.

The open ventilated glass optical system provides both lower dirt depreciation and easy maintenance. When combined with a Holophane Lowering Device, the HMSD luminaire provides efficient and effective lighting with a system that reduces maintenance and relamping time.

HMSP

Holophane HMSP luminaires feature the Prismetal® optical system that utilizes a rear surfaced metallized glass reflector to produce a highly efficient, sealed optical system. This patented optical system produces various distribution patterns classified as IESNA cutoff and full cutoff and include long and narrow, narrow asymmetric, wide asymmetric and square contours.

With zero uplight, the HMSP meets IESNA full cutoff requirements. The optical system features an open ventilated design that minimizes dirt depreciation and improves overall efficiency.

The new HMSP Prismetal series is an excellent choice for lighting roadways and large areas that require precise and uniform lighting.

HMST®

Holophane High Mast Series HMST luminaires provide the best combination of horizontal and vertical illumination in high mast lighting by unitizing a prismatic glass reflector and refractor. This combination can deliver pole spacing of up to eight mounting heights. Combine the long spacing with a 40°C ambient rating for long ballast component life and a multi-stage pretreatment and paint process over die cast aluminum housings and that translates into lower installation cost and lower life cycle cost for the entire high mast lighting system. The HMST Series offers 35 different combinations of wattage and distributions, including cutoff choices, to satisfy all high mast application lighting requirements.

Product Features

1 **Ballast assembly** is provided with quick disconnects for fast installation or removal. UL listing for 40°C ambients provides extended ballast and capacitor life.

2 **Terminal block** provides for positive lead connection and is pre-wired to the quick disconnect.

3 **Weathertight design** UL wet location listed.

4 **Adjustable slipfitter bracket entry** is designed for 51mm (2") nominal pipe and permits a vertical positioning adjustment of ±3°.

5 **Lamp support** is provided by a porcelain-enclosed socket with nickel-plated lamp grip screw shell. 1000W standard lamp versions are provided with a stainless steel lamp clamp.

6 **Variety of lamp positions** raises or lowers main optical beam to provide different fixture spacing ratios.

7 **Die cast aluminum housing** provides a corrosion resistant enclosure for ballast components.

8 **Weather shield** permits air passage for reflector self-cleaning. It also prevents snow, ice or wind driven rain from entering the lamp/optical chamber.

Cutaway showing sealed optical assembly

9 **Sealed optical system** consists of spun on aluminum cover with high temperature silicone sealant at top and bottom. Hermetically seals reflecting prisms from all contaminants.

10 **Refractor assembly** consists of a prismatic borosilicate glass refractor and stainless steel clamping ring. Various refractor/reflector combinations provide the 35 different cutoff, semi-cutoff and non-cutoff light distributions.

Specifications

The luminaire shall be Holophane Catalog No. _____. The fixture shall be UL/CUL Listed for wet locations in 40° C ambient temperatures.

The ballast and lamp housings shall be die cast of low copper content aluminum alloy. The castings shall be subjected to a 7-stage pretreatment cleaning prior to being finished with an electrostatically applied and baked on polyester powder coat paint. The bracket arm clamp shall attach to a 51mm (2") nominal pipe and allow for +/-3° adjustment for leveling the luminaire. A porcelain-enclosed socket with a nickel-plated grip screw shell provides lamp support. A stainless steel lamp clamp lined with woven glass cloth shall be provided for standard 1000 watt HID lamps. The fixture shall pass a vibration fatigue test simulating a minimum 1-g peak acceleration.

The ballast shall be copper wound with a power factor over 90%. It shall have a published ballast factor of 1 to ensure full lamp output. All ballast components shall be completely removable as a unitized assembly. All ballasts shall provide starting temperatures to -40°F. Quick disconnects and a terminal block shall be provided to simplify wiring and provide positive electrical connections. A protected starter, if specified, shall sense an inoperative or missing HPS lamp and automatically shut down to prevent damage to the ballast windings.

The HMST optical assembly shall consist of an open ventilated borosilicate glass reflector and refractor. The reflector glass shall be protected and sealed by a spun on aluminum cover. The exposed inner glass surface shall be smooth and continuously cleaned by the chimney effect of airflow through the reflector and not subject to permanent deterioration. The lamp shall operate in the vertical position for maximum life and lumen maintenance. The refractor shall be held by a stainless steel band and shall produce symmetric, asymmetric or long and narrow distributions as specified. The refractor shall be able to rotate for field aiming of the main beam distribution.

The HMSD optical assembly shall consist of an open ventilated borosilicate glass reflector producing a symmetric distribution. The reflector glass shall be protected and sealed by a spun on aluminum cover. The exposed inner glass surface shall be smooth and continuously cleaned by the chimney effect of airflow through the reflector and not subject to permanent deterioration. The lamp shall operate in the vertical position for maximum life and lumen maintenance. Low brightness optics to reduce direct glare can be specified with an ELB finish on the reflector cover.

The HMSP optical assembly shall consist of an open ventilated borosilicate glass reflector producing a symmetric, asymmetric or long and narrow distribution as specified. The reflecting prisms shall be rear-surfaced metallized. The reflector glass shall be protected and sealed by a spun on aluminum cover. The exposed inner glass surface shall be smooth and continuously cleaned by the chimney effect of airflow through the reflector and not subject to permanent deterioration. The lamp shall operate in the vertical position for maximum life and lumen maintenance. Asymmetric and long and narrow reflectors shall be able to rotate for field aiming of the main beam distribution.

The HMSC optical assembly shall consist of formed aluminum reflectors with anodized finish. The IES cutoff symmetric distribution reflectors are spun and fluted. The IES cutoff asymmetric distribution reflectors are hydro formed and housed in a spun aluminum cover. All optical systems are enclosed with a clear drop borosilicate glass lens in a gasketed doorframe. The doorframe includes four stainless steel latches and a hinge for re-lamping.

Warranty

The electrical assembly shall be fully warranted for a period of 6 years and the housing for a period of 2 years from the date of manufacture.

Asymmetric

Symmetric

HMSC

Standard

ELB option

HMSD

Asymmetric

Symmetric

HMSP

Asymmetric

Symmetric

HMST

Photometric test number, IES distribution type, and cutoff classification

IES Distribution: FCO = Full Cutoff; CO = Cutoff; SCO = Semi-Cutoff; NCO = Non Cutoff **Example:** IV, FCO = IES Type IV, Full Cutoff

HMST Series		Watts/Lamp				
		400 HPS	750 HPS	1000 HPS	1000 HPS Compact	1000 MH
Symmetric						
S1				**36357** V NCO		
S7		**36647** V CO				
S8		**36649** V CO	**42411** V CO			**36643** V CO
S9		**36383** V SCO	**42412** V SCO			**36644** V CO
F0					**43351** V SCO	
F8					**43354** V CO	
F9					**43360** V CO	
Asymmetric						
A1				**36370** II SCO		
A7		**46972** III CO				
A8		**46973** III SCO	**46978** II SCO			**46870** II SCO
A9		**46974** III NCO	**46980** III NCO			**46970** II NCO
E0					**47151** IV NCO	
E7					**46975** II CO	
E8					**46977** II SCO	
E9					**46979** II SCO	
Long & Narrow						
D0					**43352** II NCO	
D8					**43355** I CO	
D9					**43359** I SCO	
L1				**36794** II NCO		
L7		**36803** I CO	**42407** I CO			
L8		**36802** I SCO	**42408** I SCO			**36800** I SCO
L9		**36801** II NCO	**42413** I NCO			**36799** II SCO

See holophane.com for all photometric distributions

Photometric test number, IES distribution type, and cutoff classification

IES Distribution: FCO = Full Cutoff; CO = Cutoff; SCO = Semi-Cutoff; NCO = Non Cutoff **Example:** IV, FCO = IES Type IV, Full Cutoff

HMSP Series		Watts/Lamp					
		400 HPS	400 MH	750 HPS	1000 HPS	1000 HPS COMPACT	1000 MH
Symmetric							
S7		**51752** II CO	**51818** III CO	**51813** III CO	**51764** IV CO	**51807** III CO	**51806** IV CO
S8		**51751** IV CO	**51817** IV CO	**51814** IV CO		**51808** IV CO	
S9		**51736** IV CO	**51816** IV SCO	**51815** IV SCO	**51763** IV SCO	**51809** IV SCO	**51805** IV SCO
Asymmetric-Wide							
A7		**100901** II FCO	**100859** II FCO	**100854** II FCO	**100848** III SCO	**100843** II FCO	**100857** III CO
A8		**100900** III FCO	**100860** II FCO	**100902** III FCO		**100841** III FCO	
A9		**100844** III SCO	**100861** III FCO	**100856** III SCO	**100847** III SCO	**100853** III CO	**100858** III SCO
Asymmetric-Narrow							
B7		**101631** I FCO	**101717** I FCO	**101660** I FCO	**101633** I SCO	**101740** I FCO	**101641** II SCO
B8		**101627** I FCO	**101718** II FCO	**101659** I FCO		**101665** I CO	
B9		**101880** I SCO	**101721** II SCO	**101661** I SCO	**101634** I SCO	**101663** II SCO	**101640** II NCO
Long & Narrow							
L7		**100898** I FCO	**100879** I FCO	**100875** I FCO	**100876** I SCO	**100866** I FCO	**100882** I SCO
L8		**100899** I FCO	**100880** I FCO	**101191** I SCO		**100864** I FCO	
L9		**100871** I SCO	**100881** I CO	**100873** I SCO	**100877** I SCO	**100867** I SCO	**100883** I NCO

HMSD Series		Watts/Lamp					
		400 HPS	400 MH	750 HPS	1000 HPS	1000 HPS COMPACT	1000 MH
Symmetric							
S7		**48248** V FCO	**48663** V FCO	**48662** V FCO	**48385** V FCO	**48446** V FCO	**48452** V FCO
S8		**48425** V FCO	**48658** V FCO	**48661** V FCO	**48386** V FCO	**48445** V FCO	**48451** V CO
S9		**48426** V CO	**48657** V CO	**48660** V CO	**48397** V CO	**48444** V CO	**48450** V CO
Symmetric ELB							
S7-ELB		**48038** V FCO	**48654** V FCO	**48653** V FCO	**48392** V FCO	**48447** V FCO	**48453** V FCO
S8-ELB		**48036** V FCO	**48655** V FCO	**48652** V FCO	**48391** V FCO	**48448** V FCO	**48454** V CO
S9-ELB		**48427** V CO	**48656** V CO	**48651** V CO	**48395** V CO	**48449** V CO	**48455** V CO

HMSC Series		Watts/Lamp			
		400 HPS	750 HPS	1000 HPS	1000 MH
Symmetric					
C7		**43841** V CO	**43839** V CO	**43816** V CO	**43821** V CO
C8		**43837** V CO	**43840** V CO	**43817** V CO	**43820** V CO
C9		**43842** V CO	**43838** V CO	**43818** V CO	**43819** V CO
Asymmetric-Wide					
A7		**43198** II CO	**43197** II CO	**43199** III CO	**43272** II CO
A8					
A9		**43191** II CO	**43194** II CO	**43247** III CO	**43201** II SCO
Asymmetric-Narrow					
B7		**43130** II CO	**43128** II CO	**43252** II CO	**43254** II CO
B8					
B9		**43122** II CO	**43123** III CO	**43265** II CO	**43266** I CO

See holophane.com for all photometric distributions

Ordering Information

How to Construct a Catalog Number

Example:

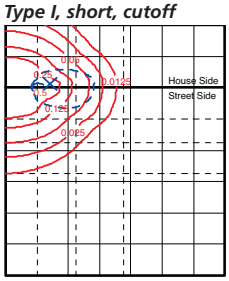
HMSD	400HP	12	B	8	PS	SD-292-90
1	2	3	4	5	6	7
Luminaire	Wattage	Voltage	Optical	Beam Angle	Options	Accessories
HMSC	400HP	08	A	0	R	F1
HMSD	40RHP	12	B	1	PS	F2
HMSP	750HP	20	C	7	FD1	PS-100
HMST	C10HP	24	D	8	FD2	PS-1000
	CP1HP	27	E	9		Lamp
	400MH	34	F			SD-115
	C10MH	40	L			J
		48	S			L
		MT				M
						N
						SD-292-90
						SD-292-120
						SD-292-180
						HMSTCYLBK
						HMSTCYLLSBK
						HMSTCYLBZ
						HMSTCYLLSBZ
						HMSTSQRBK
						HMSTSQRLSBK
						HMSTSQRLSBZ
						SD-79-90
						SD-79-120
						SD-79-180
						SD-120-90
						SD-120-120
						SD-120-180

c UL us LISTED

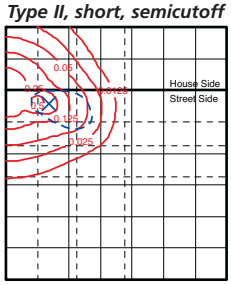
Distributions

Mounting heights are 100'

Type I, short, cutoff



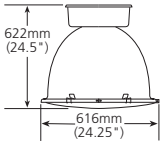
Type II, short, semicutoff



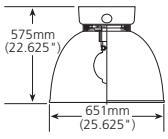
Catalog Number Information

STEP 1: Luminaire

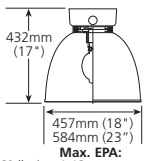
HMSC	High Mast Cutoff Enclosed
HMSD	High Mast Cutoff Open
HMSP	Prismetal
HMST	High Mast



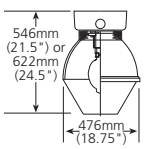
HMSC
Maximum Weight: 27 kg. (60 lbs.)
Maximum EPA: 1.56
Sq. Cover 4.35
Cyl. Cover 2.62



HMSD
Maximum Weight: 36 kg. (79 lbs.)
Maximum EPA: 1.66



HMSP
Max. Weight:
"S" Optic 27 kg. (60 lbs.)
"A"/"L" Optic 32 kg. (71 lbs.)
Max. EPA:
1.13
1.30



HMST
Maximum Weight: 30 kg. (67 lbs.)
Maximum EPA: 1.40
Sq. Cover 4.35
Cyl. Cover 2.62

STEP 2: Source and Wattage

400HP	400W HPS
40RHP[1]	400W HPS, mag reg
750HP[1]	750W HPS
C10HP	1000W HPS
CP1HP[2]	Compact 1000W HPS
400MH[2]	400W MH
C10MH	1000W MH

1 Not available with "MT"
2 Not available with HMSC

STEP 3: Voltage

08[1]	208V
12	120V
20	208V
24	240V
27	277V
34	347V
40[1]	240V
48	480V
MT[2]	Multi-voltage

1 Isolated Secondary C/UL
2 For120/208/240/277V

STEP 4: Optical

HMSC

A[1]	Narrow Asymmetric
B[1]	Wide Asymmetric
C	Symmetric

HMSD

S	Symmetric
B	Symmetric, Extra Low Brightness

HMSP

A	Wide Asymmetric
B	Narrow Asymmetric
L	Type I, Long and Narrow
S	Type V, Square Symmetric

HMST

A	Asymmetric
D[2]	Long and Narrow
E[2]	Asymmetric
F[2]	Symmetric
L	Long and Narrow
S	Symmetric

1 Available with 7 & 9 beam angle
2 For CP1HP compact lamp only

STEP 5: Beam Angle

HMSC/HMSD/HMSP

7	Low
8[1]	Medium
9	High

HMST

7[2]	Medium
8[3]	Broad
9[3]	Wide
0	Wide – Compact Lamps only
1	Broad – C10HP Lamp Only

1 Available with "C" optics only
2 Not available with C10HP and C10MH
3 Not available with C10HP

STEP 6: Options

R[1]	Photocontrol Receptacle (NEMA type)
PS[2]	Protected Starter for HPS
FD1[3]	Single Fuse Disconnect Assembly for 120,240,277 and 347V
FD2[4]	Double Fuse Disconnect Assembly for 208, 240 and 480V

1 NA with "MT"
2 NA with 750W HPS
3 NA with 750HPS, 347V
4 C10HP and CP1HP handled through TSG only

STEP 7: Accessories

(Ships separately)

F1	Single Fuse Assembly for 120, 240, 277 or 347V
F2	Double Fuse Assembly for 208, 240 or 480V
PS-100	Replacement Protected Starter for 400RHP and 400HP
PS-1000	Replacement Protected Starter for C10HP
Lamp	Appropriate Lamp Installed
SD-115	Vertical Cutoff Shield X 360° Horizontal

STEP 7: Accessories *(Continued)*

HMSC

J[1]	Cylindrical Cover, Black
L[1]	Cylindrical Cover, Bronze
M[1]	Square Cover, Black
N[1]	Square Cover, Bronze

HMSD

SD-292-90	90° Shield
SD-292-120	120° Shield
SD-292-180	180° Shield

HMST

Cylindrical Cover, Black or Bronze

HMSTCYLBK	With Acrylic Skirt
HMSTCYLLSBK	Without Acrylic Skirt
HMSTCYLBZ	With Acrylic Skirt
HMSTCYLLSBZ	Without Acrylic Skirt

Square Cover, Black or Bronze

HMSTSQRBK	With Acrylic Skirt
HMSTSQRLSBK	Without Acrylic Skirt
HMSTSQRBZ	With Acrylic Skirt
HMSTSQRLSBZ	Without Acrylic Skirt

Shields

SD-79-90[2]	90° Shield
SD-79-120[2]	120° Shield
SD-79-180[2]	180° Shield
SD-120-90[3]	90° Shield
SD-120-120[3]	120° Shield
SD-120-180[3]	180° Shield

HMSP

S Optic Shields

SD-313-90	90° Shield
SD-313-120	120° Shield
SD-313-180	180° Shield

A and L Optic Shields

SD-337-120	120° Shield
SD-314-180	180° Shield

1 NA with "R" option
2 HMST for 400, 750W HPS, 1000W Compact HPS, 1000W MH with Symmetric and Asymmetric Optics
3 HMST for 1000W HPS and All Long and Narrow and Asymmetric Units (NA with C10HP)

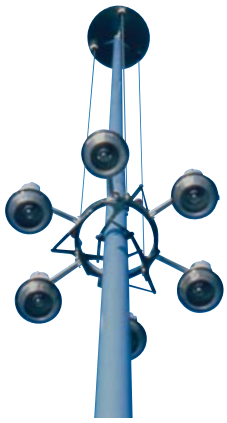

DO NOT ENTER
LANES
13&14 11&12
LANES
9&10 7&8
TERMINAL 5
TUES. 12/16/97
LANES 1-8 OPEN

Port of Oakland; Oakland, California

Lowering Devices

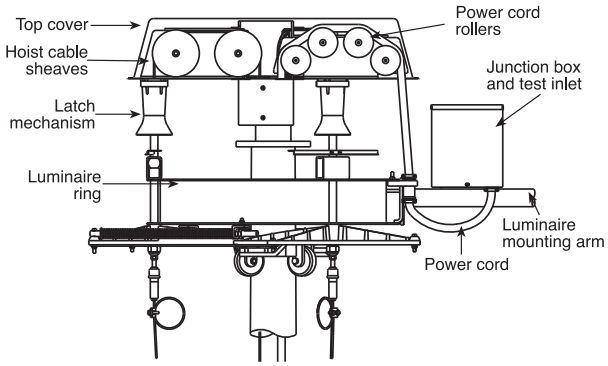
Since 1970, Holophane has been the most reliable supplier of high mast systems in the world. Holophane has the largest established base of high mast systems in the industry, with over 40,000 installed worldwide. Holophane stands behind every lowering device it has supplied, from the first systems installed in the early 1970's to today's installations at major ports, highways, railroads and many other facilities around the world.

While other companies have come and gone, Holophane has continued its commitment to engineering and producing the highest quality lowering device system in the world. The reliability and longevity of Holophane lowering devices provide the best choice in high mast systems today and into the future.

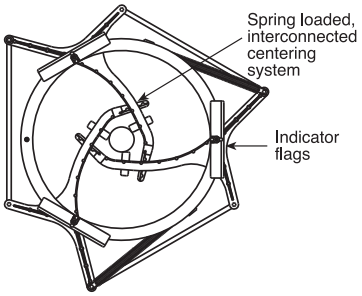


High Mast Lowering Device System (50' – 150')

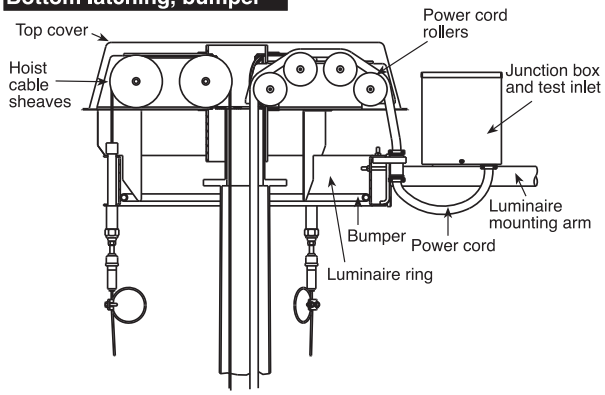
Top latching, centering system



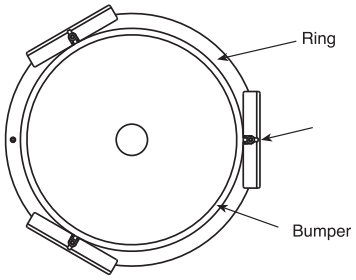
Ring assembly, with centering system



Bottom latching, bumper



Ring assembly, with inner bumper



Specifications

The lowering device, lighting fixtures and pole shall be manufactured and tested as an integral system and be provided and warranted by one manufacturer. The specifications shall consist of detailed line drawings, and the following written specifications. Any proposed deviation to be considered must include an analysis and certified test data demonstrating equal or greater performance.

The lowering device shall consist of three main sub-assemblies; headframe, lowering ring and winch assembly. All material shall be of corrosive resistant nature including stainless steel, aluminum or galvanized steel unless otherwise specified. All fixtures utilized on the lowering device shall have passed an accelerated vibration test of at least 1-g. The complete high mast system, consisting of lowering device and the specified luminaires have been subjected to full-scale wind tunnel testing to determine actual loading for the high mast pole design.

Head frame assembly

The head frame shall consist of a one piece welded assembly with a hot dip galvanized finish after fabrication. All fasteners used for additional covers or other items shall be stainless steel. The head frame shall incorporate six hoist cable sheaves. Each sheave shall be a minimum six-inch diameter and the cable groove shall be machined with a circular cross-section to match the cable diameter. The sheaves shall have oil impregnated, pressed-in sintered bronze bushings. Each sheave shall be fabricated from steel and have a zinc electroplated finish per ASTM A633, including a yellow chromate dip. The sheaves shall meet or exceed the requirements of the Wire Rope Technical Board. Wire rope cables that operate over the sheaves shall be 7 x 19 construction cable, 3/16" as specified, either zinc coated or stainless steel. The cables shall meet the strength requirements of Federal Specification RR-W-410e.

The head frame shall incorporate a power cord roller assembly consisting of multiple rollers providing a minimum 7-inch bending radius for the cord. The design shall prevent the power cord from riding up the sides of the rollers and shall incorporate keeper bars on each end to secure the cord.

Top latching

Three high strength cast aluminum latch barrels shall be provided on the headframe assembly. Each latch barrel shall be designed to hold the entire weight of the ring and luminaires. All cam surfaces of the barrel shall be internally located and not affected by environmental conditions such as icing. The latch barrels shall support the ring in a top-latched position, unloading the transition assembly, wire rope cables and the winch when the device is not in operation.

Bottom latching (Not available with types 15 or 18)

Three formed steel locating stop brackets shall be provided on the headframe. The stop brackets shall be designed to center the luminaire ring assembly to the head frame and prevent rotation of the ring assembly due to high winds or pole deflection. The stop brackets shall be zinc electroplated with a yellow chromate dip for corrosion protection.

Ring assembly

The ring shall be fabricated of #7 gauge steel with a hot dip galvanized finish. The assembly shall include the appropriate number of luminaire mounting arm brackets fabricated from 2" pipe of sufficient strength to support the specified luminaire. The mounting arms shall be hot dip galvanized finished and shall bolt to the ring with stainless steel hardware.

A weatherproof aluminum junction box shall be provided that includes a weatherproof inlet on its exterior for testing of the luminaires and lamps at ground level. The enclosure shall be factory pre-wired with the appropriate number of 16/3 Type ST cords for luminaires and appropriately sized main power cord. The power cord shall be securely attached to the ring using cable clamps.

Ring Assembly-top latch systems

Three 1-piece, investment cast stainless steel latch pins shall be provided on the ring. Each latch pin shall be capable of individually supporting the entire weight of the ring and luminaires. Each latch pin shall be capable of individual rotation. Indicating flags shall distinguish the latching/unlatching sequence, and shall be visible from ground level. The latching or unlatching sequence shall impart no more than one 1-g of force to any component of the system including luminaires and lamps.

Self centering ring assembly
The centering system shall consist of roller contact, spring loaded, cast aluminum arms designed to protect the pole, luminaires and lamps from damage during raising and lowering of the luminaire ring assembly. The centering system shall keep the ring concentric to the pole during the raising and lowering operation. The centering arms shall be interconnected to prevent jamming of the system on the pole during high winds. The springs shall be stainless steel. The rollers shall be non-marking.

Non-centering ring assembly
The ring shall be provided with a tubular, polyethylene bumper secured to the inside diameter of the ring. The bumper shall provide a moderate degree of protection to the ring, pole, luminaires and lamps by cushioning any contact of the ring with the pole.

Transition assembly
The transition assembly shall be designed to prevent misalignment of the three hoist cables. The wire rope cables shall be attached to the transition assembly with properly sized wire rope thimbles and factory swaged fittings. The attachment shall prevent the wire rope cable from untwisting under load. The transition plate shall be fabricated of steel with a zinc-plated finish.

Winch
The internal winch assembly shall have an ultimate strength of five (5) times the lifted load. The winch shall include a 30:1 worm gear reduction and an internal drag brake on the input shaft to prevent free spooling of the winch drum. The drum shall be supported on both ends and shall include a stainless steel cable keeper designed to aid the correct spooling of the winch cable. The winch drum shall be factory pre-wound with minimum 1/4" or 5/16" diameter zinc coated or stainless steel high strength 7 x 19 construction aircraft cable.

Branch circuit protection
The assembly shall include a circuit breaker sized for the correct voltage & phasing supplied for the luminaire load. An aluminum or zinc plated steel cover shall be supplied for the circuit breaker. A pigtail cord and plug shall be supplied from the circuit breaker assembly. The cord and plug shall match the main power cord of the lowering device system.

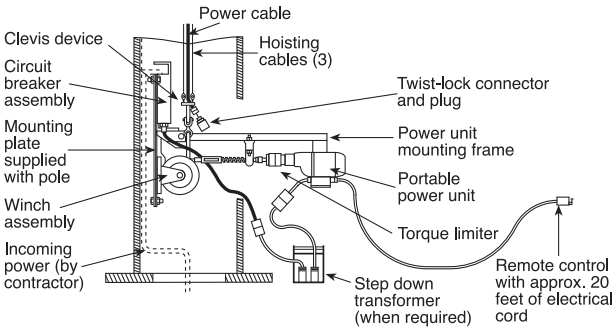
Drive motor
The drive motor assembly shall include a minimum 1hp heavy duty reversing type electric motor with a stalled torque at least twice that required to operate the lowering device. The motor shall drive the winch through a torque limiter coupling to limit the driving force on the hoist and winch cables. The torque limiter shall be factory pre-set. In addition there shall be a back-up shear pin designed to shear at a torque level between 50% and 100% over the torque limiter setting. The drive motor assembly shall have a 20' cord with drum switch for remote operation. The drive motor assembly shall be supplied with a step-down transformer to provide 120V to the motor.

Portable Drive Motor – Types 05, 07, 08 & 09
The drive motor described above shall be portable and shall interface with the winch assembly to operate the lowering device.

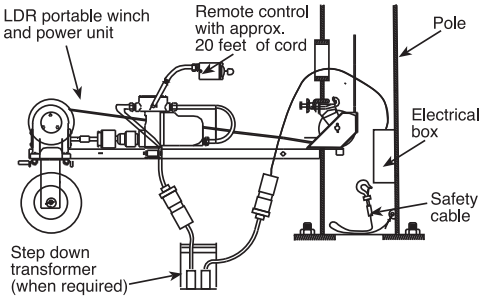
Portable winch & drive motor – Types 15 & 18
The motor and winch as described above shall be mounted to a steel frame that includes wheel assemblies for transport to each pole location. The frame shall include provisions to lock the assembly to the pole hand hole during raising and lowering operations.

Internal winch & motor – Types 25, 27, 28 & 29
The winch and drive motor as specified above shall be secured inside the base of each pole mounted on a zinc electroplated steel plate.

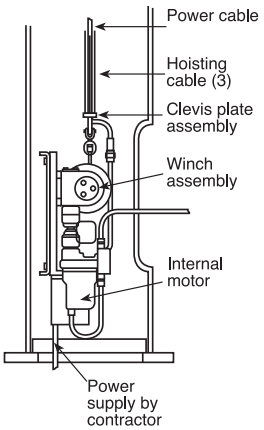
Types 05, 07, 08, 09



Types 15, 18



Types 25, 27, 28, 29



Choice of Systems

Holophane provides many options in choosing a lowering system. Top latching systems provide a high level of safety for personnel, equipment and public areas. Top latching also provides long life to the system by removing all weight from the raising and lowering components. Bottom latching systems are also available from Holophane as an alternative.

Additional choices are available to assure the correct system is specified for the application.

The choices include:

- Top or bottom latching
- Self-centering luminaire ring or non-centering with bumper
- Winch mounted in the pole base or portable winch
- Portable drive motor or motor mounted in pole base
- Wide variety of luminaire styles

Ground-level testing

The weather-tight, ring-mounted power inlet enables the system to be energized and tested at ground level. There is no electro-mechanical disconnect at the pole top.

Complete, self contained system

Holophane supplies a complete lowering device system. All moving latching components are on the lowering ring; only the pulleys and rollers are permanently installed at the top of the pole. The luminaire mounting ring lowers to within 3' of the pole base for service and inspection. All electrical connections are provided at ground level for easy maintenance.

High stability suspension

Holophane's most popular system includes three heavy duty top support latches and continuous contact iris-action, self-centering guide arms to keep the luminaire ring level and centered during raising, lowering and latching. High strength steel, zinc-plated wire rope cables meet federal specifications. With a top latching system cable life expectancy can be 30 years. Stainless steel cables are available for use in extremely corrosive environments.

Full-support latching

Pole top latching removes all weight from the cables, ensuring long cable life since no stress is placed on them except when the lowering device is in use. Positive-action latches are automatically activated by slightly raising the luminaire ring. Indicator "flags" turn automatically during locking process, providing a signal visible from ground level that latch is securely locked. Each latch is strong enough to support three (3) times the weight of the entire ring and the maximum number of luminaires, providing a 9 to 1 safety factor.

Ordering Information

How to Construct a Catalog Number

Example:

05	1	04	HA	7H	E	100	A	LR	09249
1	2	3	4	5	6	7	8	9	10
Device	No. of Circuits	Luminaire Qty.	Luminaire	Wattage	Phasing	Pole Height	Cable	Options	Accessories
05 07 08 09 15 18 25 27 28 29	1 2	02 03 04 05 06 07 08 09 10 12	HA HC HD HS HT MY PB PF	1H 1M 4H 4M 4R 5M 6N 7H 7M	A B C D E F G H J K L	050 060 070 080 090 100 110 120 130 140 150 15M 20M 30M 35M 40M 45M	A B C D E F	1 2 R FAA1-XXX FAA2-XXX FAA2TR-XXX FLAG FWC-XX LR	LDM-W-X-Y-Z 09249 LDG-W-X-Y-Z LDS-W-X-Y-Z

Catalog Number Information

STEP 1: Device

Top Latching

05 [1]	Centering System
08 [1]	Non-centering System
15 [3]	Centering System
18 [3]	Non-centering
25 [2]	Centering System
28 [2]	Non-centering

Bottom Latching

07 [1]	Centering System
09 [1]	Non-centering System
27 [2]	Centering System
29 [2]	Non-centering System

1 With internal winch
2 With internal winch and drive motor
3 External winch and motor required

STEP 2: Number of Circuits

1	1 circuit
2	2 circuits

STEP 3: Quantity of Luminaires

02	2
03	3
04	4
05	5
06	6
07	7
08	8
09	9
10	10
12	12

STEP 4: Luminaire

HC	HMSC
HD	HMSD
HA	HMSP (Asymmetric)
HS	HMSP (Symmetric)
HT	HMST
MY	Mongoose
PB	Prismbeam II
PF	Predator

HC

HD

HA/HS

HT

MY

PF

PB

STEP 5: Source and Wattage

4H	400W HPS
4M	400W MH
4R	400W HPS, mag reg
7H	750W HPS
7M	750W MH
1H	1000W HPS
1M	1000W MH
5M	1500W MH
6M	1650W MH

STEP 6: Frequency, Voltage and Phasing

A	120V, Single Phase
B [1]	120/208V, 3 Phase
C	208V, Single Phase
D	208V, 3 Phase
E	240V, Single Phase LL
F	240V, Single Phase LN
G	277V, Single Phase
H [1]	277/480V, 3 Phase
J [1]	347/600V, 3 Phase
K	480V, Single Phase
L	480V, 3 Phase

1 4 wire

STEP 7: Pole Height

050	50′
060	60′
070	70′
080	80′
090	90′
100	100′
110	110′
120	120′
130	130′
140	140′
150	150′
15M	15 meters
20M	20 meters
25M	25 meters
30M	30 meters
35M	35 meters
40M	40 meters
45M	45 meters

STEP 8: Cable Type

05/07/08/09/25/27/28/29

A [1]	Galvanized – 1/4″dia. Cable
B [1]	Galvanized – 5/16″ dia. Cable
C [1]	Stainless steel – 1/4″ dia. Cable
D [1]	Stainless steel – 5/16″ dia. Cable

15/18

E [1]	Galvanized Hoisting Cables
F [1]	Stainless Steel Hoisting Cables

1 3/16″ dia. hoisting cable

STEP 9: Options

1	Lightning Arrestor on Circuit Breaker Enclosure in Pole Base
2	Lightning Arrestor on Ring Junction Box
R	Photocontrol Receptacle on Ring Junction Box
FAA1-XXX [1]	Single Aircraft Warning Light
FAA2-XXX [1]	Double Aircraft Warning Light
FAA2TR-XXX [1]	Double Aircraft Warning Light with Transfer Relay
FLAG [2]	Flag Indicator
FWC-XX [3]	Fixed Wireway Cover on Ring
LR	Lightning Rod

STEP 10: Accessories

(Ships separately)

LDM-W-X-Y-Z [4, 6]	Portable Drive Motor for Types 05, 07, 08 and 09
09249 [5]	Leveling Block Assembly
LDG-W-X-Y-Z [6]	Portable Winch and Drive Motor Unit with Galvanized Cable for Types 15 and 18
LDS-W-X-Y-Z [6]	Portable Winch and Drive Motor Unit with Stainless Steel Cable for Types 15 and 18

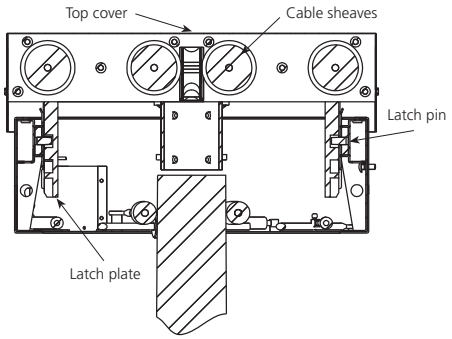
1 XXX = Voltage of LD
2 Available on "07", "09", "27" and "29" only
3 XX = number of fixtures
4 NA for "15", "25","27", "28", "29"
5 Available on type 05,08,15, 18, 25 and 28 only
6 To specify, "W" = Number of circuits, (1,2);
"X" = Phase, (1 for single phase, 3 for 3 phase, 4 for 3 phase/4Wire);
"Y" = Voltage, (120, 208, 240, 277, 480, 600);
"Z" = Amps, (30, 50, 100)

LMS™ Lowering Device

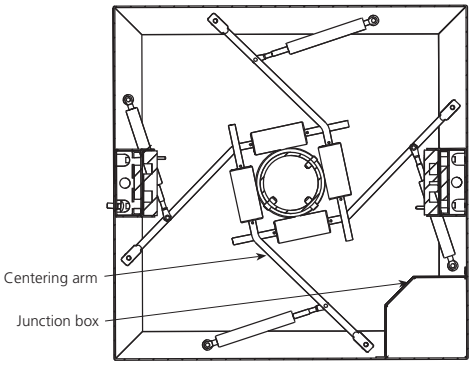
The LMS Lowering Device is an aesthetically pleasing design that blends with a variety of architectural styles. The LMS Lowering Device integrates all of the best features of the original HMS Lowering Device and packages it in a system suited for lower mounting heights in applications that require a clean, unobtrusive appearance. Coupled with the ability to easily lower the luminaires for maintenance, the new LMS is the ideal solution for a variety of applications.

LMS™ Lowering Device System (30' – 100')

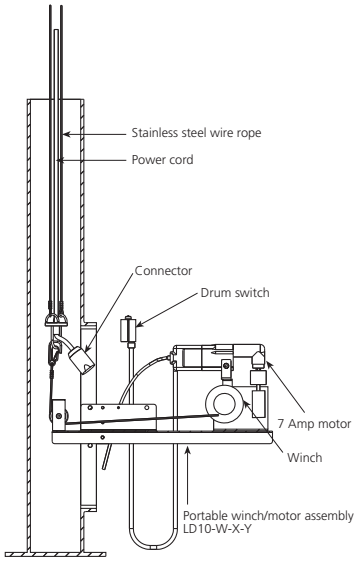
Top latching, head frame



Lowering box assembly



Lowering mechanism



Specifications

The lowering device, lighting fixtures and pole shall be manufactured and tested as an integral system and be provided and warranted by one manufacturer. The specifications shall consist of detailed line drawings, and the following written specifications. Any proposed deviation to be considered must include an analysis and certified test data demonstrating equal or greater performance.

The lowering device shall consist of three main sub-assemblies: head-frame, lowering box and winch/motor assembly. All material shall be of corrosive resistant nature including stainless steel, aluminum or galvanized steel unless otherwise specified. All fixtures utilized on the lowering device shall have passed an accelerated vibration test of at least 1G. The complete high mast system, consisting of lowering device and the specified luminaires shall be subjected to full-scale load testing to determine actual loading for the high mast system with 5:1 safety factor.

Head Frame Assembly
The head-frame shall consist of fabricated stainless steel channel or pre-galvanized steel channel. All fasteners used for additional covers or other items shall be stainless steel. The head-frame shall incorporate four hoist cable sheaves of high strength nylon rated for 1400 lbs. each. Each sheave shall be a minimum four-inch diameter and the cable groove shall be formed with a circular cross-section to match the cable diameter. The sheaves shall have oil impregnated, pressed-in, sintered bronze bushings. Wire rope cables that operate over the sheaves shall be 7 x 19 construction aircraft cable, 3/16" diameter stainless steel. The cables shall meet Federal Specification RR-W-410e. The head-frame shall incorporate power cord pulleys providing a minimum 7-inch bending radius for the main power cord. The design shall prevent the main power cord from riding up the sides of the rollers and shall incorporate keeper bars on each end to secure the cord. The stainless steel wire rope hoist cables and main power cord shall be factory pre-strung in the head-frame assembly.

Top Latching
Two one-piece high strength cast aluminum latch plates shall be provided on the head frame assembly. Each latch plate shall be designed to hold the entire weight of the lowering box and luminaires. All cam surfaces of the latch plate shall be shielded from environmental conditions such as icing. The latch plates shall support the luminaire box assembly in a top-latched position, unloading the hoist cables, transition assembly and winch when the device is not in operation.

Lowering Box Assembly
The lowering box assembly shall be fabricated of #12 gauge stainless steel or pre-galvanized steel. Pre-galvanized steel assemblies shall be finished with powder coat paint finish. The assembly shall include the appropriate number of luminaire mounting arm brackets fabricated from 2" aluminum pipe of sufficient strength to support the specified luminaire. The mounting arms shall bolt to the lowering box with stainless steel hardware. A wiring enclosure shall be provided of formed aluminum with a removable cover. The entire assembly shall be weatherproof. The enclosure shall include a weatherproof inlet for testing of the luminaires and lamps at ground level. The enclosure shall include a factory pre-wired terminal block, the appropriate number of 16/3 Type ST cords for luminaires and appropriately sized main power cord. The power cord shall be securely attached to the ring using cable clamps that grip the outer jacket of the cord. The luminaire mounting arms shall be factory installed to the lowering box assembly and the luminaire power cords pre-wired and pulled through the mounting arms. Two stainless steel latch pins shall be provided on the lowering box. Each latch pin shall be capable of individually supporting the entire weight of the luminaires and lowering box assembly. Each latch pin shall be capable of individual operation. Indicator flags shall distinguish the latching and unlatching position, which shall be visible from ground level. The latching or unlatching sequence shall impart no more than one (1) G of force to any component of the system including luminaires and lamps.

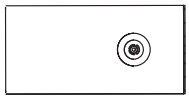
Self-Centering Assembly
The centering system shall consist of roller contact, spring loaded, stainless steel arms with non-marking rollers designed to protect the pole, luminaires and lamps from damage during raising and lowering of the luminaire ring assembly. The centering system shall keep the lowering box assembly concentric to the pole during the raising and lowering operation. The centering arms shall be designed to prevent jamming of the system on the pole during raising and lowering operation. The springs shall be contained in a sealed sleeve.

Transition Assembly
The transition assembly shall be designed to prevent misalignment of the two hoist cables. The wire rope cables shall be attached to the transition assembly with properly sized wire rope thimbles and factory swaged fittings. The attachment shall prevent the wire rope cable from untwisting under load. The transition plate shall be fabricated of steel with a zinc plated finish including yellow chromate dip.

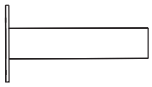
Winch/Motor Assembly
The portable winch/motor assembly shall have an ultimate strength of five (5) times the lifted load. The assembly shall consist of aluminum frame construction. The motor and winch shall be mounted to the aluminum frame and include handles for transport. The frame shall include provisions to lock the assembly to the pole hand hole during raising and lowering operations. The winch shall include a 51:1 worm gear reduction. The drum shall be supported on both ends and the winch shall include a cable keeper designed to aid the correct spooling of the winch cable. The winch drum shall be factory pre-wound with minimum 3/16" diameter stainless steel high strength 7x19 construction cable.The drive motor assembly shall include a minimum 7-amp heavy duty reversing type electric motor with a stalled torque at least twice that required to operate the lowering device. The motor shall drive the winch through a torque limiter coupling to limit the driving force on the hoist and winch cables. The torque limiter shall be factory pre-set. The drive motor assembly shall have a 20ft cord with drum switch for remote operation. The drive motor assembly shall be supplied with a step-down transformer to provide 120V to the motor. The drive motor described above shall be portable and shall interface with the pole hand-hole to operate the lowering device.

Branch Circuit Protection
The assembly shall include a circuit breaker sized for the correct voltage and phasing supplied for the luminaire load. An aluminum or zinc plated steel cover shall be supplied for the circuit breaker. A pigtail cord and plug shall be supplied from the circuit breaker assembly. The cord and plug shall match the main power cord of the lowering device system.

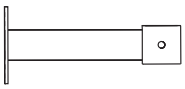
Mounting arms



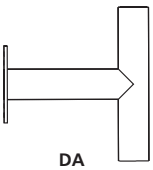
BIA
BALLAST IN ARM
Luminaire: AV, MS



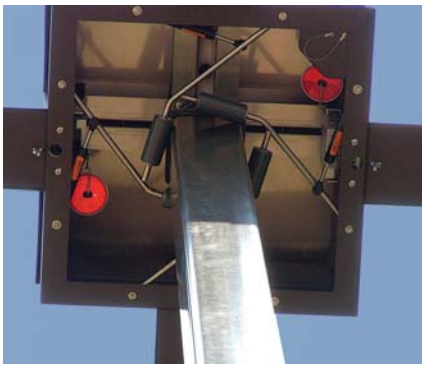
SA
SINGLE
Luminaire: HC, HD, HA, HS, HT, MH



BE
BOX END
Luminaire: MY, AS, U5, U7, IS, PB, PF



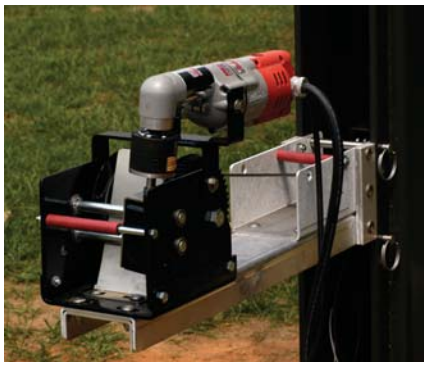
DA
DOUBLE
Luminaire: HC, HD, HA, HS, HT



Top Latching System

Latch mechanisms with stainless steel latch pins and high strength cast aluminum latch plates are completely enclosed inside the top assembly. Reflecting latch indicators are visible from the pole base.

Spring loaded centering system utilizes stainless steel arms and non-marking rollers.



Portable Winch Motor

The winch/motor assembly is easily transported between pole locations. Worm gear winch has 51:1 gear reduction.

The assembly includes a torque limiter between the motor and winch for safe operation.

Circuit Breaker

Individual branch circuit protection in each pole base is standard. Circuit breaker and power cords all sized for correct voltage and phasing supplied for the luminaire load.

LMS Lowering Device System

Typical Applications

- Shopping Centers and Malls
- Commercial Parking Lots
- Educational Facilities
- Industrial Sites
- Automotive Dealerships
- Streets and Highways
- Rest Areas
- Port Facilities
- Airports

Features

- Top latching secures luminaires and ensures safety
- Centering system stabilizes luminaires during raising and lowering
- Multiple luminaire arrangements per ring
- Rugged construction
- Portable winch/motor system
- Circuit breaker in pole base

Ordering Information

How to Construct a Catalog Number

Example:

10	1	6	HT	4H	K	060	BZ	1	LD10-W-X-Y
1	2	3	4	5	6	7	8	9	10
Device	No. of Circuits	Luminaire Qty.	Luminaire	Wattage	Phasing	Pole Height	Color	Options	Accessories
10 11	1 2	2 4 6	AS AV HA HC HD HS HT IS MA MH MS MY PB PF U5 U7	2H 2M 4H 4M 4R 7H 7M 1H 1M	A B C D E F G H J K L	030 040 050 060 070 080 090 100	BK BZ NS WH	1 2 3 4 5 R	LD10-W-X-Y

Catalog Number Information

STEP 1: Device

10 Top latching, centering arms. Stainless steel.

11 Top latching, centering arms. Pre-galvanized steel, powder coat finish

STEP 2: Number of Circuits

1 1 circuit
2 2 circuits

STEP 3: Quantity of Luminaires

2 2, all wattages
4 4, all wattages
6 6, 400 watt maximum

STEP 4: Luminaire

AS ASP Ameri-Sport
AV AVL with Ballast in Arm
HA HMSP (Asymmetric)
HC HMSC
HD HMSD
HS HMSP (Symmetric)
HT HMST
IS Interstate II Series 77
MA Mongoose (Architectural Mount)
MH Mongoose (Horizontal Mount)
MS MirroStar with Ballast in Arm
MY Mongoose (Yoke Mount)
PB Prismbeam II
PF Predator (Medium)
U5 Ultraflood Series 75
U7 Ultraflood Series 77

STEP 5: Source and Wattage

2H 200W HPS
2M 200W MH
4H 400W HPS
4M 400W MH
4R 400W HPS, mag reg
7H 750W HPS
7M 750W MH
1H 1000W HPS
1M 1000W MH

STEP 6: Frequency, Voltage and Phasing

A 120V, Single Phase
B[1] 120/208V, 3 Phase
C 208V, Single Phase
D[1] 208V, 3 Phase
E 240V, Single Phase LL
F 240V, Single Phase LN
G 277V, Single Phase
H[1,2] 277/480V, 3 Phase
J[1,2] 347/600V, 3 Phase
K 480V, Single Phase
L[1] 480V, 3 Phase

1 Not available with double circuits
2 4 wire

STEP 7: Pole Height

030 30′
040 40′
050 50′
060 60′
070 70′
080 80′
090 90′
100 100′

STEP 8: Color

BK Black
BZ Bronze
NS Natural Stainless Steel
WH White

STEP 9: Options

1 Lightning Arrestor on Circuit Breaker Enclosure
2[1] Single Aircraft Warning Light
3[1] Double Aircraft Warning Light
4[1] Double Aircraft Warning Light with Transfer Relay
5 Lightning Rod

1 Two or four luminaires only

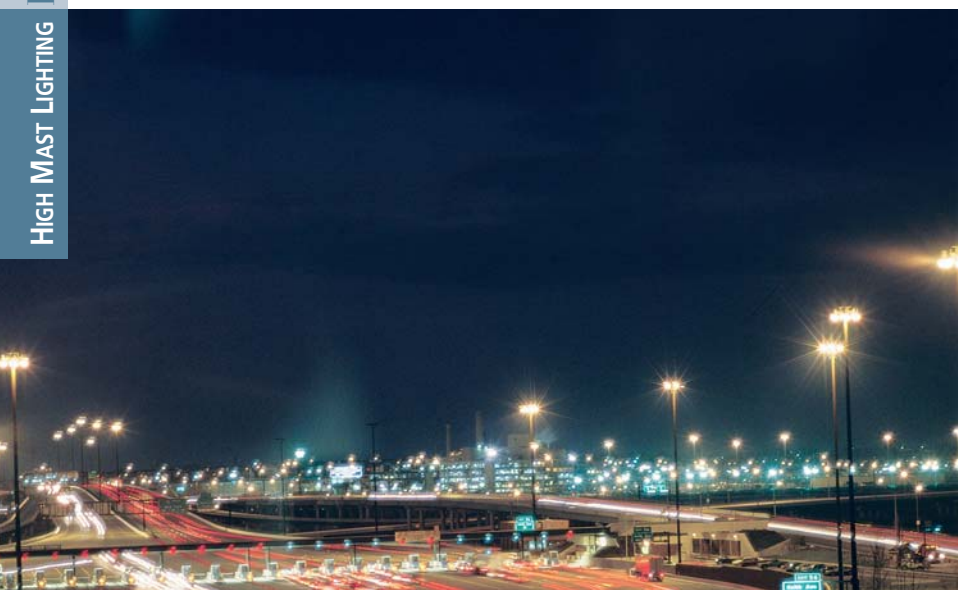
STEP 10: Accessories

(Ships separately)

LD10-W-X-Y[1] Portable Winch and Drive Motor with Stainless Steel 3/16" Winch Cable

1 To specify, "W" = Number of circuits, (1,2);
"X" = Phase, (1 for single phase, 3 for 3 phase, 4 for 3 phase/4Wire);
"Y" = Voltage, (120, 208, 240, 277, 480, 600)

HMS® with Surveillance Camera



Highways / Interchanges

Ports / Container and Rail Yards

Airports

The HMS Lighting with Surveillance Camera System is an excellent solution choice for lighting, surveillance and security requirements. This system, which can be customized to meet any application need, combines Holophane engineered products with an Ultrak camera system or with an existing camera and control system.

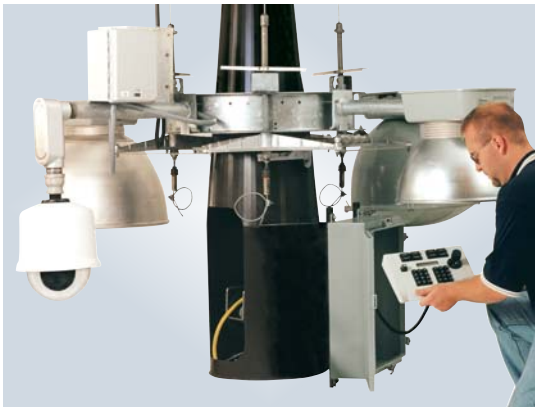
The customized system includes a choice of a wide selection of Holophane high mast luminaires and floodlights, Holophane lowering devices, and the option of an Ultrak camera system or a system that is "camera ready" to use with another choice in CCTV equipment.

Ordering information

The high mast lowering device and surveillance camera combinations are all custom specific, allowing you freedom when ordering. Holophane will help design this product to fit your needs. Your local Holophane factory sales representative or technical services group can be contacted for details, design help and additional ordering information at 740-345-9631.

Complete system shown in lowered position

Ultrak® Surveillance Camera
Holophane has made available for your selection two different surveillance cameras designed specifically for outdoor use - the UltraDome™ KD6NP and the UltraDome™ KD6 WeatherDome. The camera is enclosed in a weather-resistant shell to protect it from the elements and is mounted on an arm and attached to the Holophane lowering device.



Holophane has designed an enclosure that will be installed at base level that will permanently house the circuit breakers and connections for the video control system. In addition, a technician will be able to check camera operation utilizing equipment in this enclosure and an Ultrak JPD Series joystick telemetry controller.

Roadway Lighting

Richmond Virginia Expressway; Richmond, Virginia

There are more than 50,000 miles of highway in America that can be described as carrying high speed, high volume traffic over a complex system with limited access and separated intersections. Millions of vehicles use these roadways annually and a considerable portion of this use takes place between dusk and dawn. A strong need exists for highway lighting that can provide increased visibility and safety.

Holophane meets this need with luminaire systems designed specifically for effective, and economical roadway operation. These systems include a wide selection of lamp types, wattages, light patterns, materials, poles, mounting configurations and mounting accessories.

Along with these product capabilities, Holophane offers a broad base of technological support through our engineering resources, and Holophane can provide recommendations and technical assistance through lighting studies, specific layout suggestions, computer aided design and cost analysis.

Holophane. Roadway lighting that provides the best in visibility, energy efficiency and reliability.

Luminaires

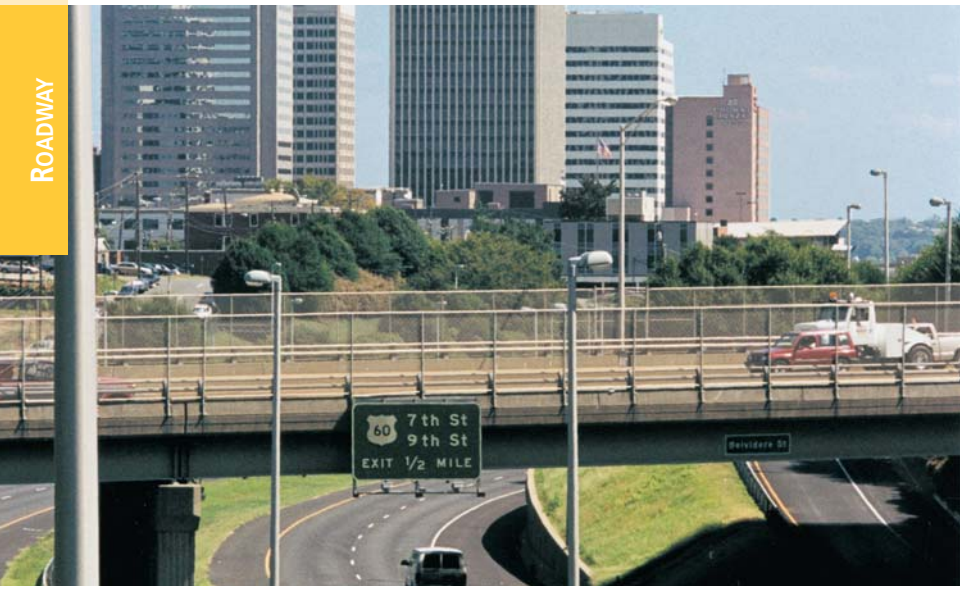
Mongoose

RSL-200

Median Mount

Vector

Applications



Typical Applications

- Municipalities
- Commercial Developments
- Residential Streets
- Parking Lots
- Parkways
- Airports
- Institutions
- Power Plants
- Highways
- Railways
- Ports
- Correctional Facilities

Features

- Up to 14 optical distributions
- Available in 4 mounting types
- Variable tilts between 0° and 45°
- Full cutoff through semi-cutoff distributions
- Increases safety
- Economical and energy efficient

Lamp Types

- 175-750 metal halide
- 100-400 high pressure sodium

Approvals

- UL/CUL

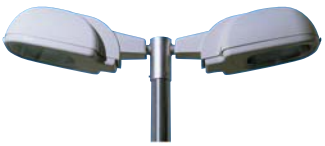
Mongoose®

The Mongoose roadway and area lighting luminaire offers paramount versatility of application with advanced optical systems and an aesthetically pleasing design. The ability to configure the Mongoose optics, tilt, and mounting method to meet specific arrangements enables it to be used in diverse applications ranging from interstates to parking lots. With fourteen optical configurations, including wide roadway, narrow roadway, medium roadway, forward throw, wide flood, narrow flood, and square distributions, as well as tilts ranging from 0° to 45°, it provides unparalleled solutions for a multitude of lighting requirements. The Mongoose luminaire has full cutoff through semi-cutoff distributions providing complete optical flexibility where required.

Flat Glass Optics
(Architectural mount)

Drop Glass Optics
(Tenon mount)

Flat Glass Optics
(2 units in a line)



Flat Glass Optics
(Horizontal mount)

Product Features

Installation

- No mast arms necessary
- Easy to handle
- One person installation
- External wiring chamber

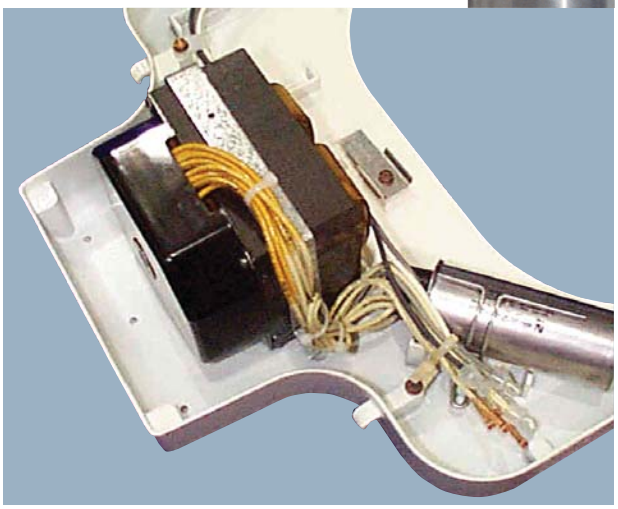
Maintenance

- 60 second, single person, tool-less electrical change out
- Quick disconnect ballast door assembly eliminates need to replace the entire fixture
- Less traffic disruption
- Increased maintenance crew safety.

Superior optical performance is only half of the Mongoose story. At the heart of the Mongoose series is a dedication to reduction of long term maintenance costs.

The first element of the lowest life cycle cost solution is the use of the highest grade components available. Holophane's copper wound ballasts use high grade electrical steel which means lower operating temperature and consequently longer component life. 90°C capacitors used in Mongoose have a rated life of 60,000 hours, almost two and a half times the life of the standard 100°C capacitors used in most roadway luminaires. All Holophane starters are encapsulated in a polyester resin which protects the electrical components from mechanical and thermal shock.

The superior design and high-grade components ensure that maintenance trips to the luminaire will be minimized. However, the attention to superior performance moves beyond component design.



In the rare event that an electrical component does fail, the entire electrical door can be replaced in under one minute without the need for tools. The "Quick-Change" electrical door allows the maintenance crew to replace only the failed components and not the entire fixture, consequently, saving time and saving money. An added benefit is that the doors on all Mongoose luminaires are interchangeable. Cutoff or prismatic, narrow or wide, offset or close-in can all be maintained by simply replacing the "Quick-Change" electrical door.

Optical Tilt Suggestions

The Mongoose luminaire is available in a choice of two tilts – "low tilt" or "high tilt" for flexibility in specifying the luminaire based upon your particular application requirements.

Low Tilt (0° to 18°)

Low tilt Mongoose luminaires can be tilted between 0° and 18° and provide full cutoff, cutoff, and semi-cutoff distributions. For areas with night skies concerns, low tilt provides a solution to light trespass issues. Mongoose luminaires with low tilt are most frequently used in areas that are typically lit by cobrahead or shoebox fixtures.

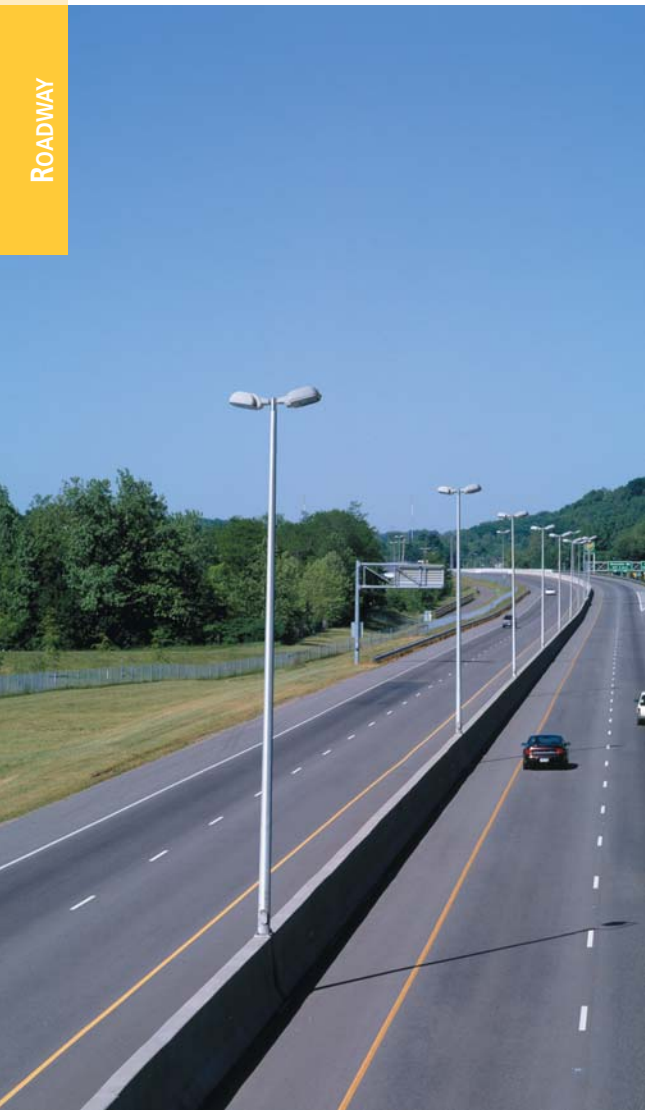
- May be set back up to 20 feet from road for optimal performance
- Two or four lane coverage
- Choice of three lenses – flat glass, clear drop glass, and prismatic refractor
- Optics for full cutoff, cutoff, and semi-cutoff distributions
- 100 – 400W HPS and MH
- Narrow and wide distribution patterns

High Tilt (27° to 45°)

High Tilt Mongoose luminaires can be tilted between 27° and 45°. Mongoose luminaires with high tilt are offset luminaires that are typically mounted up to 1.5 mounting heights off the roadway. In addition, offset luminaires are also extensively used in institutional, correctional, and industrial applications for perimeter and security lighting.

- May be set back 15 to 50 feet from roadway for optimal performance
- Up to six lane coverage
- Choice of two lenses - clear drop glass and prismatic refractor
- 100 – 400W HPS and MH
- Narrow and wide distribution patterns

Technical Data



Specifications

Luminaire shall be Holophane Mongoose, Catalog No. G _____. It shall consist of mounting, optical, support and electrical systems as well as finish cover and will provide certain performance characteristics as follows:

Mechanical Construction
The housing, door and fitter shall be die cast aluminum. They shall undergo a 7-stage cleaning and pretreatment process and over-coated with an electrostatically applied 2 to 4 mil coat of TGIC polyester powder paint cured at 425°F. The finish shall withstand a 160 inch-pound impact measured with a standard Gardner impact tester. It shall have passed a 1000 hour salt spray test as specified by ASTM B-117. It shall exhibit no cracking or loss of adhesion from a 180° bend over a 1/8" mandrel diameter per ASTM D522. All external hardware shall be corrosion resistant. Housing access shall not require tools. The fitter shall be built in and accommodate a standard 2 inch tenon or arm. Units can be tilted between 0° and 18° or 27° and 45°. Electrical connection shall be inside the fitter assembly and not require fixture entry. A terminal block located inside the fitter shall be provided if specified.

Quick Disconnect Electrical Assembly
The fixture door shall contain all ballast components and be hinged for fast tool-free removal and replacement. Complete replacement shall take less than 60 seconds.

Ballast
Shall be copper wound, high power factor type as specified. It shall reliably start the lamp in ambient temperatures to minus 40°F. The plug-in HPS starter shall be totally encapsulated with a material that electrically and thermally insulates all components from lamp and ballast heat. A protected starter, if specified, shall sense an inoperative lamp and shut down automatically to prevent continuous pulsing and thermal damage to itself and the ballast secondary winding. The Mongoose luminaire is UL/CUL listed for 40°C ambient. (347V, 400W HPS restricted to 25°C ambient.)

Optical and Socket Assembly
The reflector shall consist of high purity (#3002 alloy) aluminum of minimum 0.08" thick sheet. Flat lens shall be 1/8" fully tempered glass. Pressed prismatic or clear drop lens shall be manufactured of borosilicate glass. The reflector and lens optical assembly shall be designed to provide the IESNA pattern specified. The socket shall be pulse rated, nickel-plated and lamp grip porcelain enclosed. It shall prevent undue lamp vibration and withdrawal.

ANSI Lamp Label
A self-adhesive label shall be provided which identifies the lamp type and size. It shall meet ANSI C-136 standards.

Warranty
The electrical assembly shall be fully warranted for a period of 6 years and the housing for a period of 2 years from the date of manufacture.

Photometric test number, IES distribution type, and cutoff classification

IES Distribution: FCO = Full Cutoff; CO = Cutoff; SCO = Semi-Cutoff; NCO = Non Cutoff **Example:** IV, FCO = IES Type IV, Full Cutoff

	Narrow Roadway			Wide Roadway			Forward Throw		Square		Offset-Narrow		Offset-Medium		Offset-Wide	
Watts/ Lamp	Flat Glass LNF	Clear Drop LNC	Prismatic Refractor LNR	Flat Glass LWF	Clear Drop LWC	Prismatic Refractor LWR	Flat Glass LFF	Clear Drop LFC	Flat Glass LSF	Clear Drop LSC	Clear Drop HNC	Prismatic Refractor HNR	Clear Drop HDC	Prismatic Refractor HDR	Clear Drop HWC	Prismatic Refractor HWR
100 HPS	**49293** I, M, FCO	**51853** II, M, CO	**49498** I, M, CO	**49416** III, M, FCO	**51851** III, M, CO	**49499** II, M, CO										
150 HPS	**49274** I, M, FCO	**51850** II, M, CO	**49506** I, M, CO	**49419** III, M, FCO	**51854** III, M, CO	**494513** II, M, CO	**51431** IV, VS, FCO	**51444** IV, S, NCO		**51151** IV, M, SCO	**49739** IV, L, NCO	**49738** IV, L, NCO	**101210** III, M, NCO	**101290** III, L, NCO	**49922** IV, L, NCO	**49923** IV, L, NCO
175 MH	**49488** I, M, FCO	**51876** I, M, CO	**49418** I, M, CO	**49449** II, M, FCO	**51875** II, M, CO		**51449** IV, VS, FCO	**51443** IV, M, NCO	**51048** III, S, FCO	**51039** IV, S,NCO	**49747** III, M, NCO	**49745** IV, L, NCO	**101292** II, M, NCO	**101291** III, M, NCO	**49983** IV, L, NCO	**49984** IV, L, NCO
250 HPS	**49260** II, M, FCO	**51562** II, M, CO	**49427** II, M, CO	**49395** III, M, FCO	**51844** III, M, CO	**49524** II, M, CO	**51437** IV, VS, FCO	**51440** IV, S, SCO		**51135** IV, M, SCO	**49736** III, M, NCO	**49734** IV, M, NCO	**50379** III, M, NCO	**50380** III, M, NCO	**49986** IV, M, NCO	**49985** III, M, NCO
250 MH	**49296** I, M, FCO	**51868** II, M, CO		**49420** III, M, FCO	**51849** III, M, CO		**51452** IV, VS, FCO	**51442** IV, S, NCO	**51046** III, S, FCO	**51041** IV, VS, SCO	**49757** IV, L, NCO	**49758** IV, L, NCO	**101299** III, M, NCO	**101298** III, M, NCO	**50000** IV, L, NCO	**49999** IV, L, NCO
400 HPS	**49257** II, M, FCO	**51561** II, M, CO	**49482** II, M, CO	**49396** III, M, FCO	**51843** III, M, CO	**49484** II, M, CO	**51419** IV, VS, FCO	**51417** IV, S, SCO		**51132** IV, M, SCO	**49730** IV, M, NCO	**49732** III, M, NCO	**50347** III, M, NCO	**50346** III, M, NCO	**49899** IV, M, NCO	**49900** IV, L, NCO
400 MH	**50281** II, S, FCO	**52307** II, M, CO	**50278** II, M, CO	**50276** II, M, FCO	**52306** II, M, CO	**50279** II, M, CO				**51031** IV, VS, NCO	**49291** II, M, NCO	**49530** II, M, NCO	**101300** III, L, NCO	**101302** III, M, NCO	**49982** III, M, NCO	**49981** III, M, NCO
400 MH Compact							**51448** IV, VS, FCO	**51441** IV, S, NCO	**51055** III, S, FCO							

See holophane.com for all photometric distributions

Ordering Information

How to Construct a Catalog Number

Example:

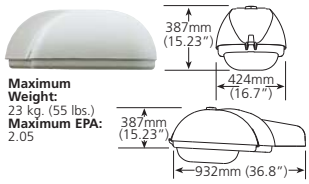
G	400HP	12	L	NC	A	Z	B	F1
1	2	3	4	5	6	7	8	9
Luminaire	Wattage	Voltage	Tilt Range	Optics	Mounting	Finish	Options	Accessories
G	100HP 15AHP 250HP 400HP 175MH 250MH 400MH	08 12 20 24 27 34 40[1] 48 MT MA MB MC MD VT	L H	DC DR FC FF NC NF NR ND WD SC SF WC WF WR	A H T V	K Z N W G	B C P R T 3 6	F1 F2 Lamp BKT-5-G BR-1091-XX

Catalog Number Information

c UL us LISTED

STEP 1: Luminaire

G Mongoose



Maximum Weight: 23 kg. (55 lbs.)
Maximum EPA: 2.05

STEP 2: Source and Wattage

100HP	100W HPS
15AHP	150W HPS
250HP	250W HPS
400HP	400W HPS
175MH	175W MH
250MH	250W MH
400MH	400W MH

STEP 3: Voltage

08[1]	208V
12	120V
20	208V
24	240V
27	277V
34	347V
40[1]	240V
48	480V
Multi-Volt	
MA	Pre-wired to 120V tap
MB	Pre-wired to 208V tap
MC	Pre-wired to 240V tap
MD	Pre-wired to 277V tap
VT[2]	Vari-tap

1 Isolated Secondary C/UL
2 For 120/277/347V

STEP 4: Tilt Range

L	Low Tilt, 0° to 18°
H	High Tilt, 27° to 45°

STEP 5: Optics

Medium Roadway

DC[2]	Clear Drop Glass
DR[2]	Prismatic Refractor

Forward Throw

FC[1,4]	Clear Drop Glass
FF[1,4]	Flat Glass

Narrow Roadway

NC[3]	Clear Drop Glass
NF[1]	Flat Glass
NR	Prismatic Refractor

Flood

ND[2]	Narrow
WD[2]	Wide

Square Distribution

SC[1]	Clear Drop Glass
SF[1,4]	Flat Glass for 175, 250 and 400W MH

Wide Roadway

WC	Clear Drop Glass[3]
WF[1]	Flat Glass
WR	Prismatic Refractor

1 Available with "L" tilt range only
2 Available with "H" tilt range only
3 "L" Comes with shallow glass optic
4 400MH must use compact lamp

STEP 6: Mounting

A	Architectural Arm
H	Horizontal Arm
T	Yoke Mount
V	Vertical Tenon

STEP 7: Finish

K	Black
Z	Bronze
N	Green
W	White
G	Gray

Standard colors

*Colors are not exact, Custom colors available upon request

STEP 8: Options

B[1]	Terminal Block and NEMA Decal
C[2]	NEMA Decal
P	Protected Starter for HPS
R	NEMA Twist-off Photocontrol Receptacle
T[3]	Spade Termination for Ballast Leads
3[4]	3" to 2" Tenon Adapter, Same Color as Fixture
6	6' Pigtail

STEP 9: Accessories

(Ships separately)

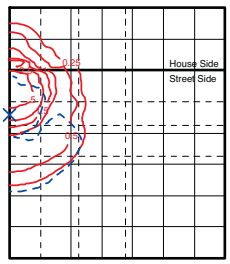
F1	Single Fusing for 120,240, 277 and 347V
F2[5]	Double Fusing for 208, 240 and 480V
Lamp	Appropriate Lamp Shipped
BKT-5-G	Galvanized Wood Pole Bracket
BR-1091-XX[6]	3" to 2" Tenon Adapter Bracket,

1 Not available with "C" option
2 Not available with "B" option
3 Available with "MT", "MA", "MB", "MC", "MD" and "VT" ballasts only
4 Available with "V" mounting only
5 Not available with "08" or "40"
6 Insert Finish – K (Black), Z (Bronze), N (Green), (W) White or (G) Green for "XX"

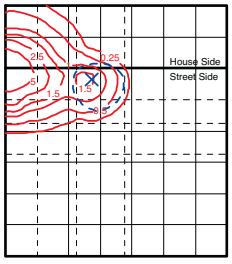
Distributions

Mounting heights are 30'

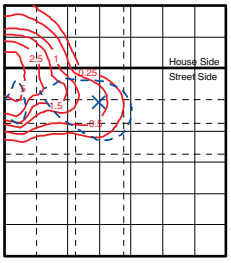
Forward Throw



Narrow Throw



Wide Distribution



RSL-200®

The RSL-200 luminaire offers energy-saving and cost effective solutions for new street lighting as well as for retrofitting existing installations. Available with pole spacings of up to 11 times the mounting height, the RSL-200 luminaire is designed for primary use on residential and local roadways.

Efficient light distribution is achieved because of a vertical burning lamp, which distributes over 90% of its lumens to the sides. The precisely engineered RSL-200 refractor can efficiently control this light without the use of a reflector. Furthermore, the refractors improve driver and pedestrian visibility by providing sufficient high-angle candlepower for required surface and pavement brightness, with minimized glare.

Twelfth Avenue; Nashville, Tennessee

Applications

The RSL-200 luminaire is ideal for city streets, roadways, parking areas, park facilities and many other areas. Four unique borosilicate glass refractors provide illumination even in hard to light areas. ANSI/IES Type II, Type III, Type IV and Type II, 4-way distributions permit optimum lamp and energy utilization. High vertical distribution pushes light farther out, between parked cars, deep into foliage, and down narrow areas for increased security. For maintenance, operating an external latch release allows easy re-lamping.

The RSL-200 luminaire is also available with attractive aluminum decorative hoods along with photocontrol receptacles, shielding, and wall or post top mounting brackets.

Typical Applications

- Streets and Roadways
- Residential Areas
- Boulevards
- Walkways
- Parking Areas
- Industrial Sites

Ordering Information

How to Construct a Catalog Number

Example:

RS2L	100HP	12	S	A21	09077	08987
1	2	3	4	5	6	7
LUMINAIRE	WATTAGE	VOLTAGE	MOUNTING	OPTICS	OPTIONS	ACCESSORIES
RS2L	070HP 100HP 15AHP 175MH 250MH 175MV 250MV	08 12 20 24 27 34 40 48 MT VT	S T	A21 APC C24 D26	09077	F1 F2 Lamp 08987 0877 0871-CA BR-150 PS-55 RS2LSD RS2LDCS RS2LDCT

c UL us LISTED

Specifications

The luminaire shall be Holophane RSL-200 Catalog No. _____. The fixture shall be UL/CUL Listed for wet locations.

The ballast and lamp housings shall be die cast of low copper content aluminum alloy. The castings shall be subjected to a 7-stage pretreatment cleaning prior to being finished with an electrostatically applied and baked on polyester powder coat paint. All external hardware shall be stainless steel. Mounting provisions shall be side entry for 1-1/4" or 2" horizontal pipe or top entry for a 1-1/4" tapered pipe thread. A porcelain-enclosed socket with a nickel-plated grip screw shell provides lamp support. The fixture shall pass a vibration fatigue test simulating minimum 1-g peak acceleration.

The ballast shall be copper wound with a power factor over 90%. It shall have a published ballast factor of 1 to ensure full lamp output. All ballast components shall be completely removable as a unitized assembly. All ballasts shall provide starting temperatures to -40°F. A protected starter, if specified, shall sense an inoperative or missing HPS lamp and automatically shut down to prevent damage to the ballast windings.

The optical assembly shall consist of a prismatic borosilicate glass refractor. The refractor shall provide a Type III, Type IV or Type II-4 way distribution as specified. The lamp shall operate in the vertical position for maximum life and lumen maintenance. The refractor shall be mounted in a doorframe and secured by a positive action, spring-loaded latch for easy re-lamping.

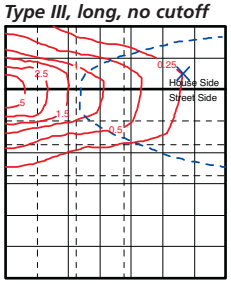
Warranty

The electrical assembly shall be fully warranted for a period of 6 years and the housing for a period of 2 years from the date of manufacture.

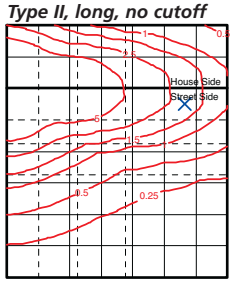
Distributions

Mounting heights are 15'

Type III, long, no cutoff



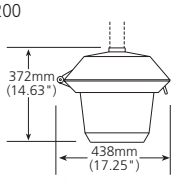
Type II, long, no cutoff



Catalog Number Information

STEP 1: LUMINAIRE

RS2L RSL-200



Maximum Weight: 16.8 kg. (37 lbs.)
Maximum EPA: 1.58

STEP 2: SOURCE AND WATTAGE

070HP	70W HPS
100HP	100W HPS
15AHP	150W/55V HPS
175MH	175W MH
250MH	250W MH
175MV	175W MV
250MV	250W MV

STEP 3: VOLTAGE

08 [1]	208V
12	120V
20	208V
24	240V
27	277V
34	347V
40 [1]	240V
48	480V
MT [2]	Multi-voltage
VT [3]	Vari-tap

1 Isolated Secondary C/UL
2 For 120, 208, 240 and 277V
3 For 120, 277 and 347V, not available with 200HP

STEP 4: MOUNTING

S	Side
T	Top

STEP 5: OPTICS

A21	Glass, Asymmetric
APC	Polycarbonate, Asymmetric
C24	4 Way, Glass
D26	Type IV, Glass, Asymmetric

STEP 6: OPTIONS

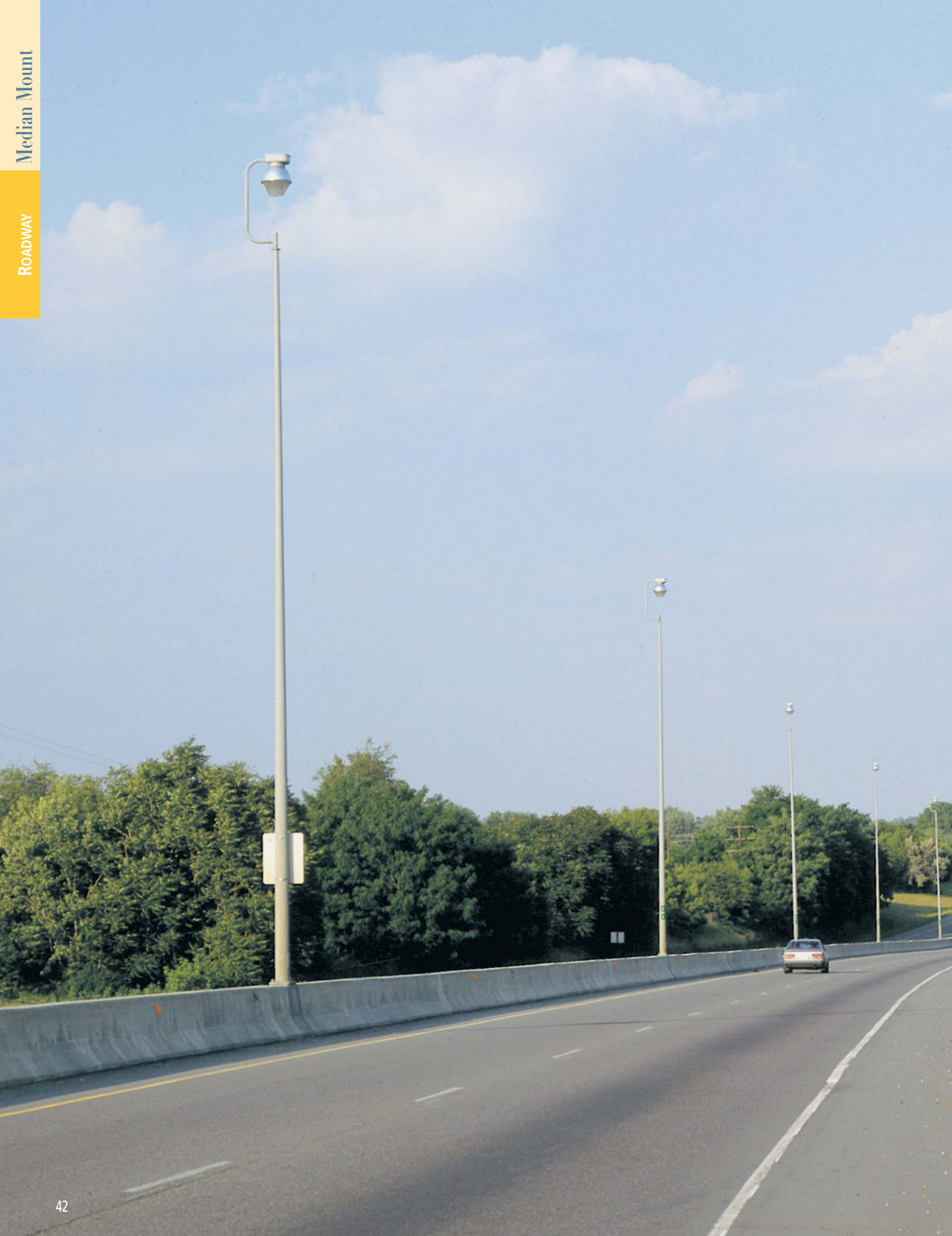
09077	Protected Starter for HPS

STEP 7: ACCESSORIES

(Ships separately)

08987 [1]	Photocontrol Receptacle
0877 [1]	Wall Bracket
0871-CA [1]	Outside Corner Adapter for 0877
BR-150 [1]	Bracket for 3" O.D. Pole Top Tenon Mount
F1	Single Fusing for 120, 240, 277 and 347V
F2	Double Fusing for 208, 240 and 480V
LAMP	Appropriate Lamp Supplied
PS-55	Replacement Protected Started 15AHP and below
RS2LSD	90° Shield
RS2LDCS [2]	Decorative Cover, Bronze Finish, without Photocontrol
RS2LDCT [2]	Decorative Cover, Bronze Finish

1 Side entry only
2 Decorative cover available with other finishes. Consult factory



State Route 16; Newark, Ohio

Median Mount Probeam®

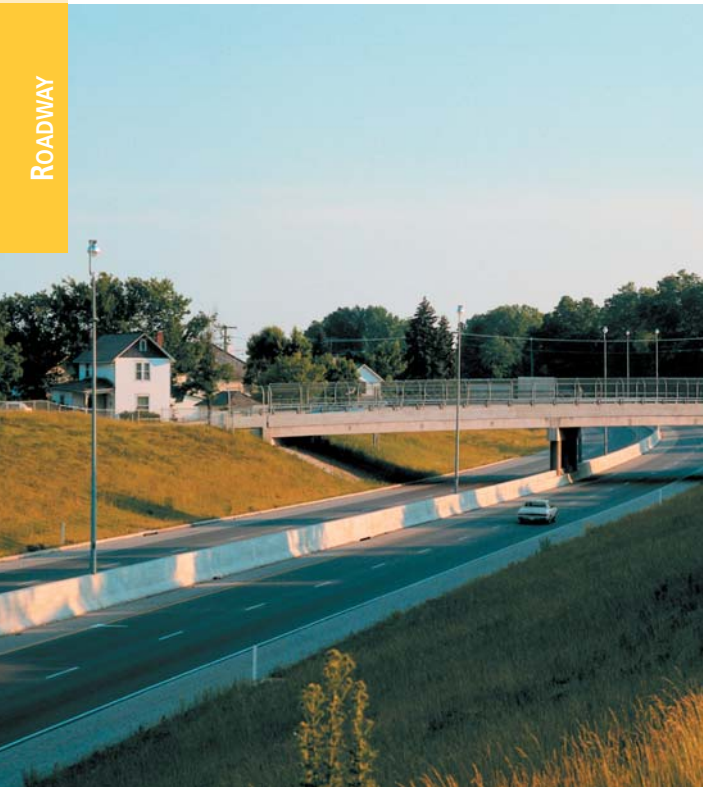
HMSP

HMSD

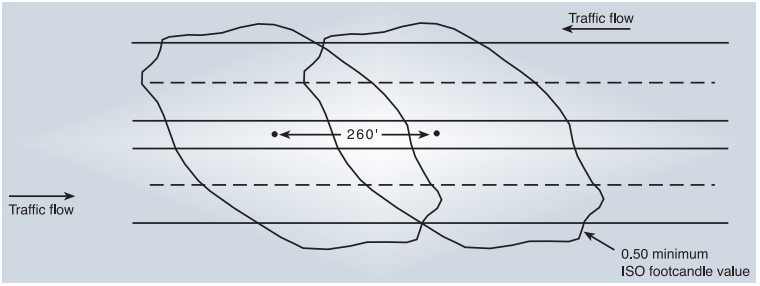
The Median Mount Probeam lighting system is a highly unique and effective method of illuminating roadways. By utilizing a unique arm, this system allows for mounting of high mast luminaires in a median application. By using IESNA Type I (long and narrow) optical systems, tremendous benefits are realized, because initial costs and operating costs are reduced with a single luminaire that replaces two traditional cobraheads on a roadway application. This results in 50% less maintenance and 50% less energy consumption.

Other benefits of the Median Mount Probeam lighting system include increased safety by minimizing fixture glare in the driver's eye, providing additional reaction time by making objects more visible at long distances, and improving lighting uniformity by as much as 300%.

Product Features

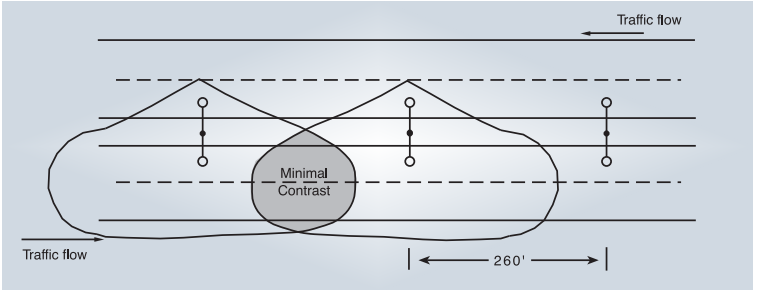


Probeam Median Mount

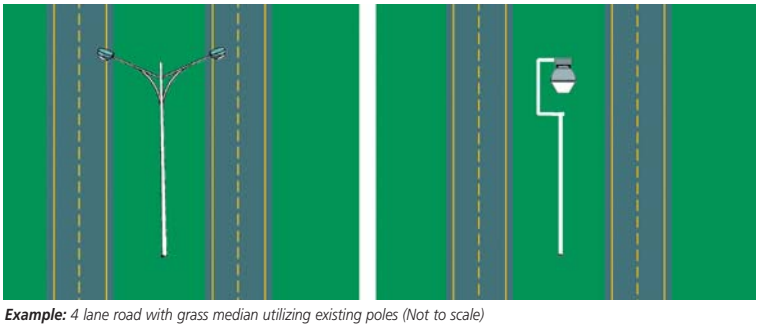


- Projects light in the direction of traffic flow -- *Works with headlights*
- Eliminates pavement hotspot under fixture -- *Four times more uniform*
- Reduces lane closure due to maintenance by 50% -- *Less traffic disruptions*
- Higher visibility -- *Increased reaction time to avoid hazards*

Conventional Highway Lighting



- Projects light into the driver's eyes
- Produces high pavement brightness below fixture (very non-uniform)
- Works with and against headlights
- Objects tend to disappear due to areas of very low contrast



Example: *4 lane road with grass median utilizing existing poles (Not to scale)*

Before - Cobraheads
Lamp: 2 - 400W HPS
Mounting: 1.83m (6') arms
13m (42') above pavement
79m (260') on center

After - Probeam
Lamp: 1 - 400W HPS
Mounting: Shepherd's Crook
13m (42') above pavement
79m (260') on center

Results	Cobraheads	Probeam (L9)	Savings
Avg. footcandles	2.3	1.0	
Min. footcandles	0.4	0.4	
Avg:min. uniformity	5.8:1	2.5:1	
Max.:min. uniformity	17.0:1	4.5:1	
Connected load per mile	19.5 KW	9.3 KW	**10.2 KW**

Ordering Information

How to Construct a Catalog Number

Example:

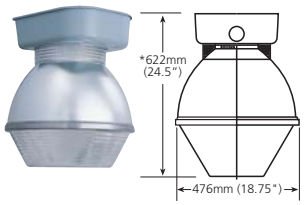
HMST	400HP	48	L	9	PS	LAMP
1	2	3	4	5	6	7
LUMINAIRE	WATTAGE	VOLTAGE	OPTICAL	SOCKET	OPTIONS	ACCESSORIES
HMSP HMST	400HP 40RHP 400MH 750HP C10HP CP1HP C10MH	08 12 20 24 27 34 40 48 MT	A D E F L S	0 1 7 8 9	FD1 FD2 R PS	F1 F2 PS-100 PS-1000 Lamp ARM-160 ARM-161-BZ ARM-170 HMSTCYLXX HMSTCYLLSXX HMSTSQRXX HMSTSQRLSXX HMSTCYLLSBK SD-79-90 SD-79-120 SD-79-180 SD115 SD-120-90 SD-120-120 SD-120-180 SD-313-90 SD-313-120 SD-313-180 SD-314-180 SD-337-120

c UL US LISTED

Catalog Number Information

STEP 1: LUMINAIRE

HMST High Mast Luminaire
HMSP High Mast Prismetal Luminaire

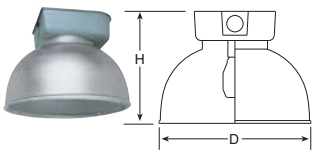


*** Height is 622mm (24.5") for all optical selections except for the systems listed below**

Dimensions Height (H)		
Lamp	All others	CP1HP (compact)
S	546mm (21.5")	
F		546mm (21.5")

Weight:	Electrical Assembly	Optical Assembly
400W	8.6 kg (19 lbs.)	18.4 kg (40 lbs.)
750W	11.8 kg (26 lbs.)	15.2 kg (33 lbs.)
C10W	145. kg (32 lbs.)	12.5 kg (27 lbs.)

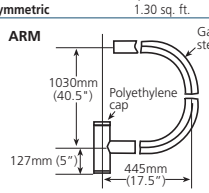
EPA: Refractor - 1.38 ft.[2]



Dimensions	H	D
Symmetric	441mm(17.38")	460mm (17.38")
Asymmetric	437mm(17.20")	588mm (23.15")

Weight:	Electrical Assembly	Optical Assembly Symmetric	Asymmetric
400W	8.6kg (19 lbs.)	12.7kg (28 lbs.)	18.1kg (40 lbs.)
750W	11.8kg (26 lbs.)	12.7kg (28 lbs.)	18.1kg (40 lbs.)
1000W	14.5kg (32 lbs.)	12.7kg (28 lbs.)	18.1kg (40 lbs.)

EPA	
Symmetric	1.13 sq. ft
Asymmetric	1.30 sq. ft.



ARM-160: Fits 60mm (2.38") dia. tenon
ARM-170: Fits 102mm (4") dia. tenon

STEP 2: SOURCE AND WATTAGE

400HP	400W HPS
40RHP	400W HPS, Mag Reg.
400MH	400W Metal Halide
750HP	750W HPS
C10HP	1000W HPS
CP1HP	1000W HPS, Compact Lamp
C10MH	1000W MH

STEP 3: VOLTAGE

08[1]	208V Isolated Secondary
12	120V
20	208V
24	240V
27	277V
34	347V
40[1]	240V, Isolated Secondary
48	480V
MT	Multi-volt (120, 208, 240 & 277 volt.) Not available with 750HP.

1 Available through TSG only.

STEP 4: OPTICAL

HMST

L	Long & Narrow
A	Asymmetric
S	Symmetric
D	Long & Narrow (compact lamp)
E	Asymmetric (compact lamp)
F	Symmetric (compact lamp)

HMSP

A	Wide Asymmetric
L	Type I, Long & Narrow
S	Type V, Square Distribution

STEP 5: SOCKET POSITION

HMST

7[5]	Low Beam
8[5]	Medium Beam
9[5]	High Beam
0	For use with CP1HP HPS Compact Lamp
1	For use with C10HP Lamp

HMSP

7	Low Beam
8	Medium Beam (Not available with C10HP or C10MH)
9	High Beam

STEP 6: OPTIONS

FD1[2,3]	Single Fuse Disconnect (Available with 12, 24, 27 & 34 only) C10HP, CP1HP, FD1, and FD2 available through TSG. Not UL Listed
FD2[1,2]	Double Fuse Disconnect (Available with 20, 24 & 48 volt only) C10HP, CP1HP, FD1, and FD2 available through TSG. Not UL Listed
R	Photocontrol Receptacle (Not available with MT)
PS	Protected Starter (Available with 400HP, 40RHP, C10HP, CP1HP only) Not available with 08 or 40 voltage

STEP 7: ACCESSORIES

(Ships separately)

Lamp	Appropriate Lamp Supplied
PS-100	Replacement Protected Starter for 400HP & 40RHP
PS-1000	Replacement Protected Starter for C10HP and CP1HP
F1[1]	Single Fusing (Available with voltage codes 12, 24, 27 & 34 only.) Not available with Option "FD1"
F2[1]	Double Fusing (Available with voltage codes 20, 24, 48 only.) Not available with Option "FD2". Not available for voltage codes 08 or 40

Sheppard's Crook Arm

ARM-160	60mm [2.38"] dia. Tenon, Galvanized
ARM-161-BZ	Fits 60mm [2.38"] dia. Tenon, Bronze
ARM-170	Fits 102mm [4"] dia. Tenon, Galvanize

1 MT available through TSG only. Customer specifies voltage to be wired.
2 C10HP & CP1HP available through TSG only
3 Not available on 750W HPS 347 volt.

STEP 7: ACCESSORIES (CONTINUED)

HMST

HMSTCYLXX[6]	Cylindrical Cover with Acrylic Skirt
HMSTCYLLSXX[6]	Cylindrical Cover without Acrylic Skirt
HMSTSQRXX[6]	Square Cover with Acrylic Skirt
HMSTSQRLSXX[6]	Square Cover without Acrylic Skirt

Shields

SD-79-90 [2]	90° Shield
SD-79-120 [2]	120° Shield
SD-79-180 [2]	180° Shield
SD115	Vertical cutoff Shield or Semi-cutoff Shield
SD-120-90 [3]	90° Shield
SD-120-120 [3]	120° Shield
SD-120-180 [3]	180° Shield

HMSP

HMSTCYLLSBK 4	Cylindrical Cover (Not available with "R" option)
SD-313-90 [4]	90° Shield
SD-313-120 [4]	120° Shield
SD-313-180 [4]	180° Shield
SD-314-180 [5]	180° Shield
SD-337-120 [5]	120° Shield

1 Available through TSG
2 Available with "S" and "F" optics only. Not available with C10HP
3 C10HP and A,D,E & L optics only
4 Available with S optics only
5 Available with A & L optics only
6 Substitute "XX" with "BK" for black or "BZ" for bronze.

For more information on High Mast luminaires see pages 10-15

Vector®

Vector lighting systems are more economical than conventional lighting systems for a number of important reasons: wider pole spacing means fewer luminaires, poles, lamps and foundations are needed; pole top mounting eliminates expensive arms and reduces the pole cost; set back from the roadway eliminates the need for expensive break-away bases or guard rails; energy, relamping and maintenance cost are also reduced.

Unlike conventional "cobra-head" street lighting, the Vector lighting system poles can be located outside the AASHTO defined "Clear Zone", eliminating the need for expensive break-away foundations and guard rails. Fewer poles with locations further off the roadway means fewer obstacles for a motorist to avoid.

Visibility is improved when contrast between an object and its background is increased. The unique photometric distribution produced by Vector luminaire helps increase the contrast. Direct glare from the luminaire is reduced since the unit is out of the driver's line-of-sight.

Ordering Information

How to Construct a Catalog Number

Example: HL2A 1 | 200HP 2 | 12 3 | B 4 | 1 5 | PS 6 | F1 7

1 Luminaire	2 Wattage	3 Voltage	4 Finish	5 Mounting	6 Options	7 Accessories
HL2A	070HP 100HP 15AHP 175MH 200HP 250HP 25RHP 250MH 400HP 40RHP 400MH	08 12 20 24 27 34 40 48 MT VT	B G	1 4 5	PS R	F1 F2 Lamp

c UL us LISTED

Specifications

The luminaire shall be Holophane Vector Catalog No. _____. The fixture shall be UL/CUL Listed for wet locations in 40°C ambient temperatures.

The housing and door shall be die cast of low copper content aluminum alloy. The castings shall be subjected to a 7-stage pretreatment cleaning prior to being finished with an electrostatically applied and baked on polyester powder coat paint. Mounting provisions shall include an adjustable knuckle fitter that slip fits a 2", 3" or 4" diameter vertical tenon as specified, or a galvanized steel yoke shall be provided pre-drilled for mounting hardware. A porcelain-enclosed socket with a nickel-plated grip screw shell provides lamp support. The fixture shall pass a vibration fatigue test simulating a minimum 1-g peak acceleration.

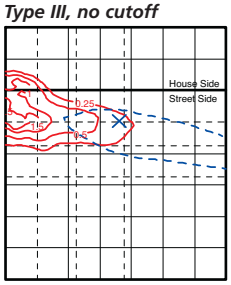
The ballast shall be copper wound with a power factor over 90%. It shall have a published ballast factor of 1 to ensure full lamp output. All ballast components shall be mounted on a unitized assembly for tool-less removal. A quick disconnect shall be provided for the ballast assembly. A terminal block shall be provided for line power. All ballasts shall provide starting temperatures to -40°F. A protected starter, if specified, shall sense an inoperative or missing HPS lamp and automatically shut down to prevent damage to the ballast windings.

The optical assembly shall consist of a prismatic borosilicate glass refractor with a smooth outer surface. The refractor shall provide a Type II, Type III or Type IV light distribution as specified. The socket shall be field adjustable to provide narrow, medium or wide lighting pattern (across roadway) as required. The refractor shall be mounted in the die cast door. The door shall hinge open for re-lamping and be secured by two stainless steel latches. All exposed hardware shall be stainless steel.

Warranty
The electrical assembly shall be fully warranted for a period of 6 years and the housing for a period of 2 years from the date of manufacture.

Distributions

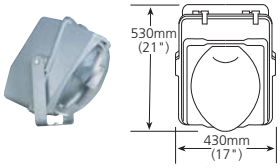
Mounting heights are 40'
Type III, no cutoff



Catalog Number Information

STEP 1: LUMINAIRE

HL2A Vector



Maximum Weight: 24 kg. (53 lbs.)
Maximum EPA: 2.87

STEP 2: SOURCE AND WATTAGE

070HP	70W HPS
100HP	100W HPS
15AHP	150W HPS, 55V
200HP	200W HPS
250HP	250W HPS
25RHP[1]	250W HPS
400HP	400W HPS
40RHP[1]	400W HPS
175MH	175W MH and MV
250MH	250W MH and MV
400MH	400W MH and MV

1 Mag Reg Ballast

STEP 3: VOLTAGE

08[1]	208V
12	120V
20	208V
24	240V
27	277V
34	347V
40[1]	240V
48	480V
MT[2]	Multi-voltage
VT[3]	Vari-tap

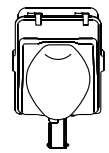
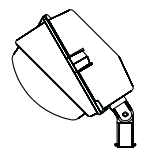
1 Isolated Secondary C/UL
2 120, 208, 240 or 277V; not available with 25RHP or 40RHP
3 120, 277 or 347V; available with 250HP, 400HP, 250HP and 400MH only

STEP 4: FINISH

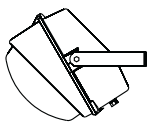
B	Dark Bronze
G	Gray

STEP 5: MOUNTING

1	2" Knuckle Fitter
4	Zinc Plated Yoke

1

4

STEP 6: OPTIONS

PS	Protected Starter for HPS
R	Twist-off Photocontrol Receptacle

STEP 7: ACCESSORIES

(ships separately)

F1	Single Fuse Kit for 120, 240, 277 and 347V
F2	Double Fuse Kit for 208, 240 and 480V
Lamp	Appropriate Lamp Supplied

Tunnel Lighting

McCarron Tunnel; Las Vegas, Nevada

The goal of any lighting system is to provide sufficient visibility for the task. A tunnel lighting system must be designed to provide proper visibility for motorists to enter and navigate through a tunnel at the designated speed. Each section of the tunnel, including the approach zone, threshold zone and transition zone, must be analyzed for proper lighting levels, visibility, veiling luminance and flicker effect to enable safe passage.

Holophane provides three series of luminaires for tunnel lighting. Tunnel Predator luminaires utilize optimized photometry for many different tunnel lighting designs. The Module 600 luminaire uses a unique prismatic glass refractor for precise control and minimum glare. The Wallpack Series offers an underpass refractor that redirects light from the driver's line of sight.

Maximum visibility and minimum glare is achieved with any tunnel lighting design from Holophane.

Probeam

Counterbeam

Module 600

Wallpack IV

Applications

Typical Applications

- Tunnels
- Underpasses

Features

- Superior optical performance
- Corrosion resistant
- Unitized electrical assembly
- Low loss ballast

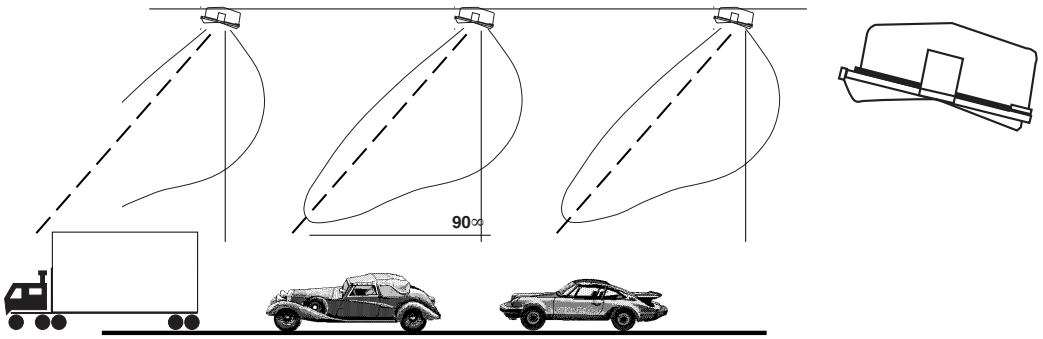
Lamp Types

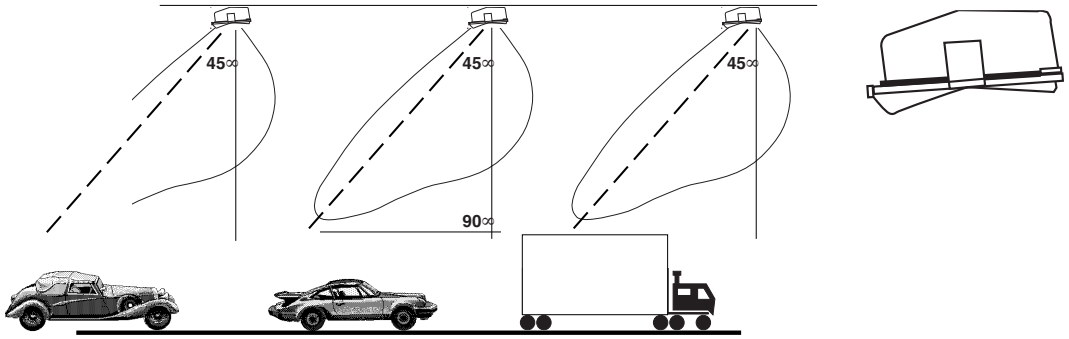
- 70-400 high pressure sodium

Approvals

- UL/CUL listed

Probeam





- **Nighttime luminance** During nighttime driving the eye is adapted to the low outdoor luminance levels. The main criterion is to provide enough luminance to ensure safe stopping to avoid an accident.
- **Flicker effect** An annoying sensation caused by the stroboscopic effect of passing closely spaced light sources whose images or reflected images are seen by vehicle occupants. It is recommended that luminaire spacing be avoided within the range of 5 to 10 cycles per second.
- **Light techniques** Two way tunnels: Luminaires are normally wall mounted with either symmetric or asymmetric photometric distributions. One way tunnels: Luminaires may be wall or ceiling mounted. Ceiling mounted units may utilize either Counterbeam (negative contrast) or Probeam (positive contrast) symmetric and asymmetric light distributions.
- **Probeam lighting** A ceiling mounted optical system that aims the main beam with the flow of traffic. It complements the automobile headlight system to maximize visibility through positive contrast. The luminaire is unseen by the driver eliminating glare and completely eliminating the flicker effect. The system provides slightly less pavement luminance than Counterbeam, but all vertical surfaces such as curbs, walls and other vehicles are brighter.

In 1995, the IES Progress Committee cited only one tunnel project. It was the McCarron Tunnel in Las Vegas, Nevada using the Probeam concept with Holophane Tunnel Predator luminaires.

- **Counterbeam lighting** A ceiling mounted optical system developed and used predominantly in Switzerland. It is designed to provide high pavement luminance by aiming the main beam at the roadway against the flow of traffic. Objects are seen in silhouette using negative contrast. Maximum candela is at a relatively low vertical angle (45°) with cutoff optical control at higher angles. Fixture spacing must be carefully analyzed to eliminate the flicker effect that can cause driver disorientation.
- **Maintenance considerations** Mechanical lighting equipment should be specified that is designed and gasketed to withstand washing by high pressure sprayers and mechanical brushes. If utilized, latches should be captive or shielded to prevent accidental opening during cleaning cycles. Materials used in luminaire manufacture should be corrosion resistant and treated to withstand chemical leaching in the harsh tunnel environment.
- **Electrical** Ballast and starters should be selected that provide the longest life possible. In general, electrical component life is extended 100% for each 10°C it operates under its UL or ETL design maximum.
- **Access** Ballast, starters, sockets and lamps should be easily removable to minimize lane closure time.

Product Features

1 **Low copper (360.1 alloy) die cast aluminum.** Door does not distort when fastened.

2 **Unique reflector design** eliminates bright streaks, provides uniform illumination, and low surface brightness.

3 **Optional stainless steel back plate.**

4 **Removable door with all electrical components** simplifies maintenance.

5 **Tempered glass lens.**

6 **Hollow core high temperature gasket** prevents water entry during hosedown.

Specifications

The fixture shall be UL 595 Marine outdoor and UL 1572 40°C listed, and passed IP65 for Dust-tight and water jet proof construction.

Mechanical Construction
The housing shall be die cast of alloy 360.1 low copper aluminum with a minimum thickness of 3mm. It shall be pre-treated with 100 MG per square inch of phosphate and over-coated with an electrostatically applied 2 to 4 mil coat polyester powder paint cured at 425°F. The finish shall withstand a 160 inch-pound impact measured with a standard Gardner Impact Tester. It shall have passed a 1000 hour salt spray test as specified by ASTM B-117. It shall exhibit no cracking or loss of adhesion from a 180° bend over a 1/8 inch mandrel diameter per ASTM D522. All external hinges, fasteners and screws shall be Type 316 stainless steel or better. Luminaire shall be designed and suitable for mechanized cleaners. A luminaire mounting plate, if specified, shall be 10 gauge Type 304 stainless steel.

Water-tight
No water shall enter the fixture when exposed to a solid stream of water from 3 GG40 brass spray nozzles each supplying 12 gallons per minute at 100 PSI. The nozzles shall be 30 inches apart, centered on and 24 inches from the fixture plane. Three tests shall be conducted for 15 minutes each with the vertical distance of the fixture at 6, 12 and 16 inches above the nozzles. The gasket shall be hollow core. Durometer 60 silicone with a 200°C continuous service temperature. It shall have demonstrated no visible deterioration after artificial aging for 96 hours in oxygen at a pressure of 300 pounds per square inch at a temperature of 156°F per paragraph 43.2 of UL-595.

Dust-tight
The luminaire shall have passed a dust chamber test in which talcum powder is maintained in suspension by an air current. The powder shall be sized between 1 and 75 micrometers with at least 50% by weight less than 5 micrometers. At stable temperature, the luminaire shall be operated for 1 minute and switched off and allowed to cool for three hours while the talcum powder stays in suspension. When the luminaire is opened there shall be no ingress of dust.

Quick Disconnect Electrical
The fixture door shall contain all ballast components and be designed for fast removal as a complete assembly. Access to the inside of the fixture housing shall not be required. Replacement shall take less than 60 seconds.

Optical and Socket Assembly
The reflector shall consist of high purity alloy # 3002 aluminum of minimum 0.08 thick sheet. Lens shall be 4.5 mm minimum thickness tempered glass. The luminaires shall provide symmetrical or asymmetrical photometric distribution as specified. In Counterbeam configuration, the fixture housing shall shield light at 85° above nadir from the oncoming drivers eye. In Probeam configuration, the fixture housing shall provide 15° tilt to shield the reflector completely from view. Lamp holders shall be porcelain with high temperature 16 ga. wiring. Sockets shall be pulse rated at 4k volts. The screw shell shall be nickel-plated brass with anti-vibration grips.

Ballast
Shall be copper wound, high power factor Lead or Low Loss Lead design as specified. Ballasts shall reliably start and operate the lamp in ambient temperatures to minus 40°F. The lamp extinguishing voltage shall be as low as 39% of nominal. Ballast shall provide 100% wattage to the lamp and have a published Ballast Factor per ANSI C82.2 of 1.0. The fixture shall be UL listed for 40°C. When operated at 25°C ambient temperature ballast and capacitor life shall be extended approximately 100%. The low loss ballast available for 250-400 watt lamps, if specified, shall have a core of grain oriented M-6 steel to reduce ballast losses 10 to 20 watts per fixture. A protected starter for High Pressure Sodium lamps, if specified, shall sense an inoperative lamp and automatically shut down to prevent continuous pulsing and thermal damage to itself and the ballast secondary windings.

Warranty
The electrical assembly shall be fully warranted for a period of 6 years and the housing for a period of 2 years from the date of manufacture.

Ordering Information

How to Construct a Catalog Number

Example:

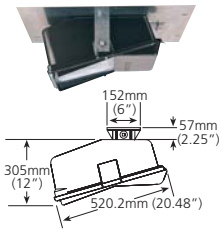
TPF	15DHP	12	K	P	2	G	PS
1	2	3	4	5	6	7	8
LUMINAIRE	WATTAGE	VOLTAGE	UL CATEGORY	OPTICS	MOUNTING	FINISH	OPTIONS
TPF	070HP 07DHP 100HP 10DHP 15AHP 15DHP 250HP 25LHP 400HP 40LHP	12 20 24 27 48 MT	K	P C CL CLR	2 3 6	G B	PS JB

Catalog information

c UL us LISTED

STEP 1: LUMINAIRE

TPF Tunnel Predator



STEP 2: SOURCE AND WATTAGE

Mogul Base

250HP	250W HPS
25LHP[1]	250W HPS
400HP	400W HPS
40LPH[1]	400W HPS

Counterbeam (Crossbeam) only
Mogul Base

070HP	70W HPS
100HP	100W HPS
15AHP	150W HPS

Probeam only
Medium Base

07DHP	70W HPS
10DHP	100W HPS
15DHP	150W/55V HPS

1 Energy saving

STEP 3: VOLTAGE

12	120V
20	208V
24	240V
27	277V
48	480V
MT[1]	Multi-voltage

1 120 – 277V

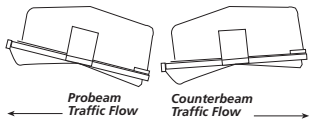
STEP 4: UL CATEGORY

K Wet Location

STEP 5: OPTICS

P	Probeam
C	Counterbeam
CL[1]	Crossbeam Luminaire Mounted on Left with Traffic Flow (70-150W)
CLR[1]	Crossbeam Luminaire Mounted on Right with Traffic Flow (70-150W)

1 Reflector orientation set at factory



STEP 6: MOUNTING

2	Box Mount ("P" optics only)
3	Stainless Steel Yoke
6	304 Stainless Steel Plate (24" x 30")

STEP 7: COLOR

G	Gray
B	Bronze

PS Protected Starter for HPS Lamps

STEP 8: OPTIONS

JB[1] NEMA 4X Non-metallic Junction Box

1 Available for mounting "6" only

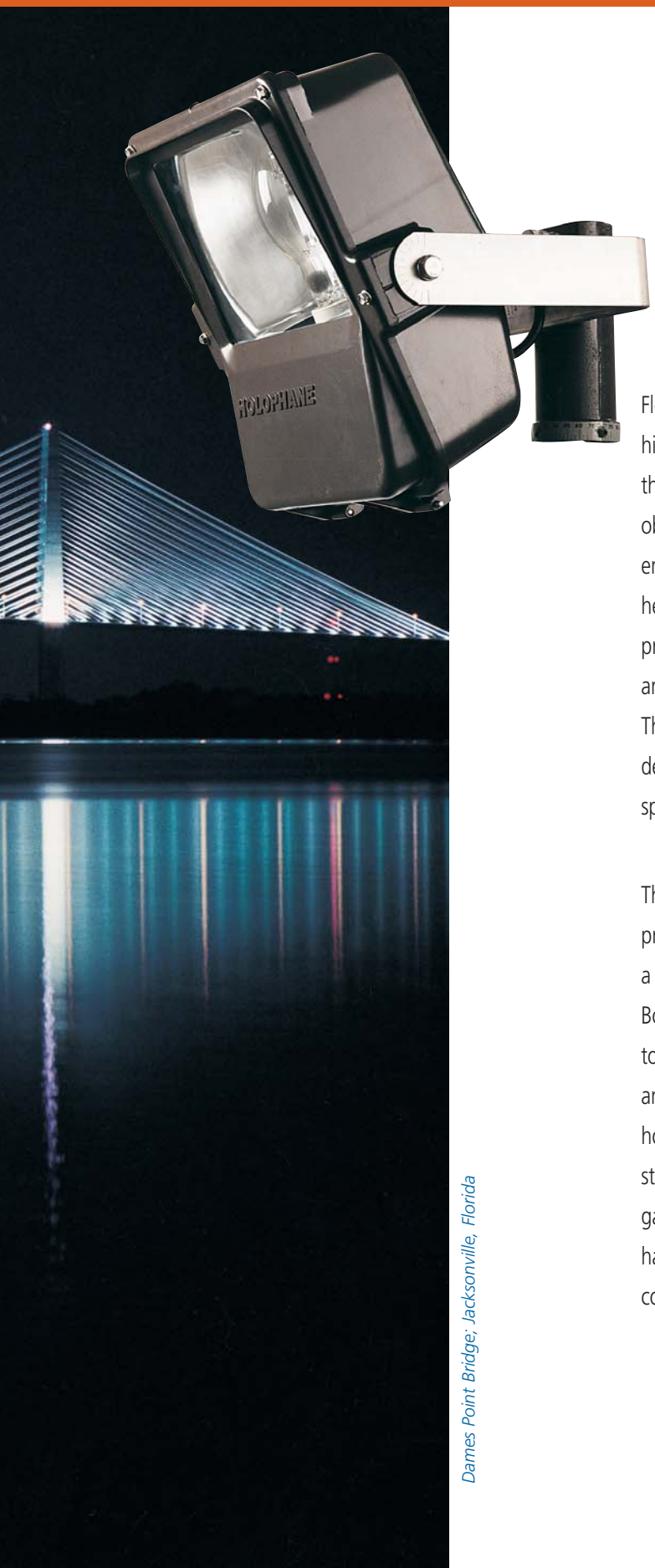
Module 600 and Wallpack IV Luminaires are also Available for Tunnel Lighting

Module 600

Wallpack IV

For more information on Module 600 see pages 76-77, and for more information on Wallpack IV see pages 80-81.

Floodlighting



Dames Point Bridge; Jacksonville, Florida

Floodlighting involves more than just a few high wattage fixtures on a pole and pointing them in the general direction of the area or object to be illuminated. Floodlighting should enhance a structure's aesthetic qualities and help define its character. In large area lighting projects, choosing the appropriate light level and location of luminaires is absolutely critical. There are many items to consider when designing sports floodlighting: speed of the sport, level of play, the age of the participants.

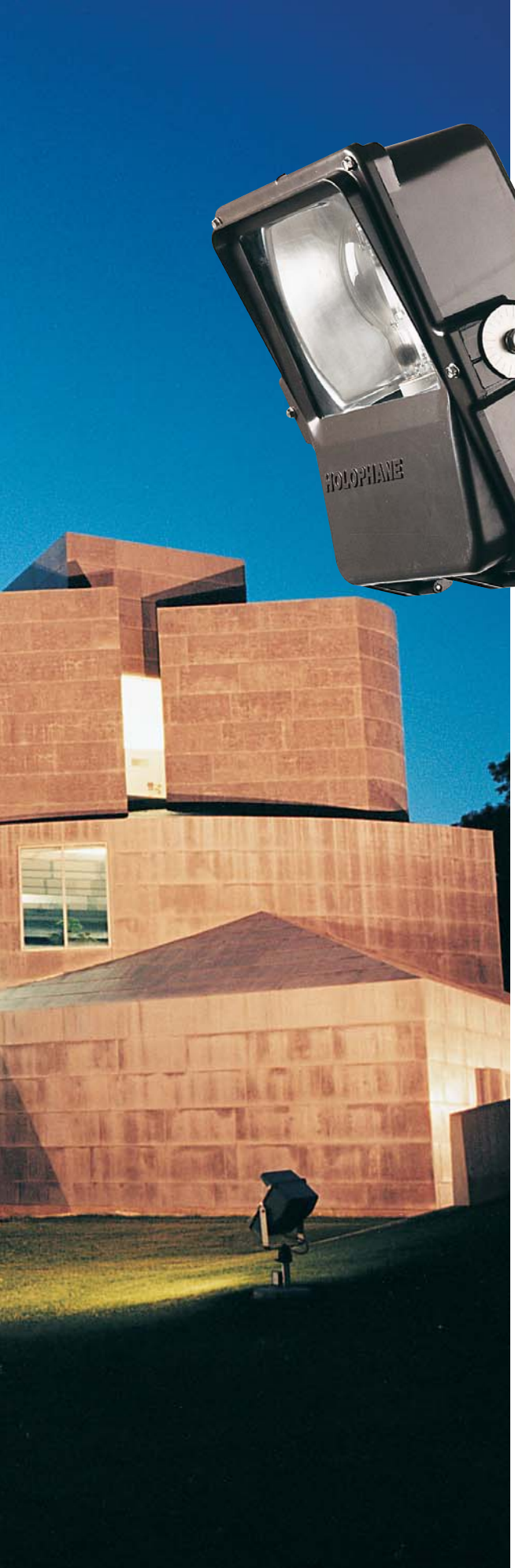
The Prismbeam II and Predator floodlights provide features that can satisfy the criteria for a wide array of floodlighting applications. Both products include features that combine to provide good lighting but also long service and ease of maintenance. Die cast aluminum housings with superior powder coat finishes, stainless steel hardware, hollow core silicone gasketing and a variety of normal and hazardous environmental listings allow complete floodlight design capability.

Luminaires

Predator
(Knuckle mount)

Predator
(Yoke mount)

Prismbeam II



Toledo Museum of Art; Toledo, Ohio

Predator®

The Predator floodlight offers versatility, efficiency, and performance, which provides a unique solution to a variety of lighting needs. With the Predator luminaire, Holophane continues its legacy of utilizing technology to develop creative and innovative lighting solutions.

Because the Predator luminaire is capable of generating wide, narrow, and spot distributions and is able to withstand harsh environmental extremes, it can be used in a range of diverse applications.

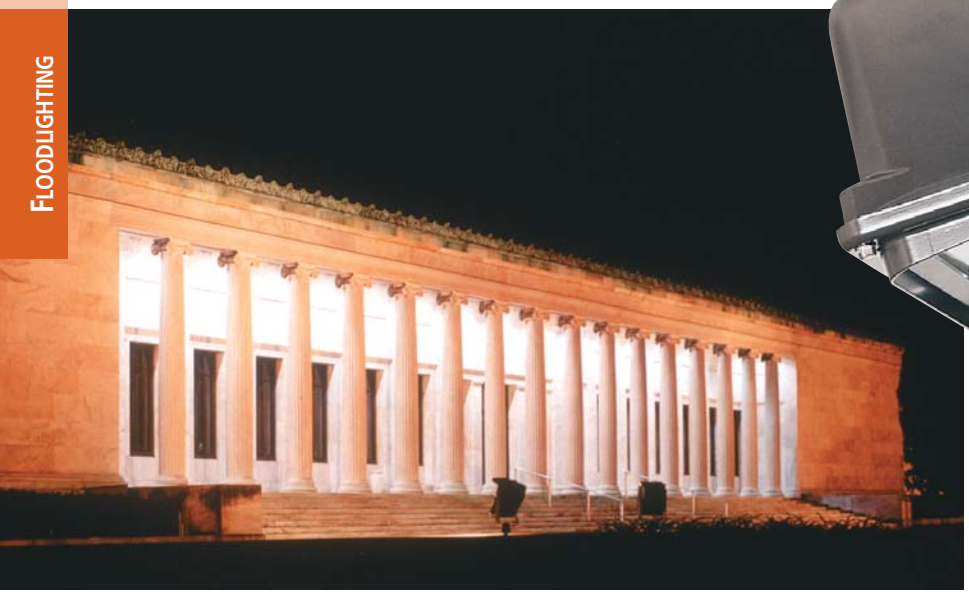
Flexibility in mounting positions is maximized with its 360° yoke. The quick disconnect removable door, which includes all electrical components, can be replaced in 60 seconds, resulting in decreased costs and downtime.

Yoke mount

Tenon mount

Knuckle mount

Applications



Typical Applications

- Bridges
- Paper Mills
- Power Plants
- Petrochemical Plants
- Wastewater Facilities
- Building Facades
- Parking Lots
- Outdoor Security

Features

- Variety of distributions
- Extended component life
- Variety of mounting methods
- UL and CUL listed for general and hazardous locations

Lamp Types

- 175-400 watt metal halide, also available in energy saving
- 50-400 watt high pressure sodium, also available in energy saving

Approvals

- UL/CUL 1598
- Class I, Marine Outside

  Class I, Div 2; Class II, Div I; Class III, Div I and Marine Outside
- Wet location
- Marine Outside

All temperature classifications are for 40°C ambient temperature.

The table below lists the UL tested maximum operating temperatures for lamp type and wattage based on operation in the specific ambient for which it is approved. Please refer to the Maximum Surface Temperature Code Table of the NEC (National Electrical Code).

In addition, the Predator Temperature Classification for Class I, Division 2, Hazardous Locations and Class II, III, Division 1 & 2, Hazardous Locations are also shown

Class I, Division 2				Class II, III, Divisions 1 & 2				
Lamp Type & Wattage	Maximum Temp. °C	Code	Mounting Restrictions	Lamp Type & Wattage	Maximum Temp. °C	Group	Code	Mounting Restrictions
50W HPS	163	T3B	1	50W HPS	163	E,F,G	T4A	2
70W HPS	178	T3A	1	70W HPS	178	E,F,G	T3C	2
100W HPS	221	T2C	1	100W HPS	221	E,F,G	T3C	2
150W HPS 55V	272	T2A	1	150W HPS 55V	272	E,F,G	T3C	3
150W HPS 100V	244	T2B	1	150W HPS 100V	244	E,F	T3A	3
250W HPS	323	325*	1	150W HPS 100V	244	E,F,G	T3B	4
400W HPS	388	T1	1	175W MH	306	E,F	T3	3
175W MH	306	325*	1	175W MH	306	E,F,G	T3C	4
250W MH	347	350*	1	100W MV	247	E,F,G	T3C	2
400W MH	347	350*	1	175W MV	313	E,F	T3	2
100W MV	247	T2B	1					
175W MV	313	325*	1					
250W MV	383	T1	1					
400W MV	383	T1	1					

Mounting Restrictions

1 Mounting restricted to lamp vertical, base down, +/- 90°.
2 Mounting restrictions are referenced to lamp vertical, base down, 25° back of vertical to 90° lens down.
3 Mounting restrictions are referenced to lamp vertical, base down, vertical to 90° lens down.
4 Mounting restrictions are referenced to lamp vertical, base down, 90° lens down only.

* UL Standards covering hazardous locations (UL 844) Paragraph 49.10 permits fixtures under Class I, Division 2, which are between 300°C and 450°C to be marked with 325, 350, 375, 400, 425, 450 to indicate actual maximum temperature. (e.g. Code 325 = 325°C)

Note: Maximum temperatures for lamp type and wattage vary between Class I and Class II & III. Class I is established based upon the maximum temperature inside or outside the luminaire. Class II and III maximum temperature is based upon external surface temperature.

Variety of mountings

Junction box

Knuckle fitter

Yoke with pole tenon adapter

Predator "CI" Fixtures

Class I, Division 2
Groups A, B, C, D
Hazardous Locations

The Predator luminaire has been designed and tested in accordance with UL Standard 844. Therefore, it complies with Article 501.9(B) (2) of the National Electrical Code, specifically, "tested in order to determine the marked operating temperature or temperature range."

Predator "CII" Fixtures

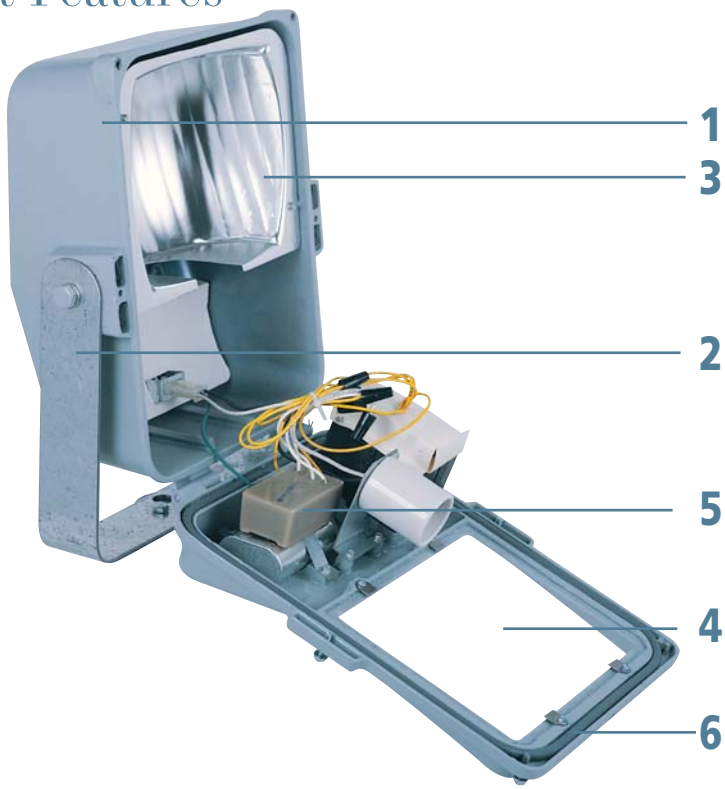
Class II, Division 1 & 2
Groups E, F, G
Class III, Division 1 & 2
Hazardous Locations

The Predator luminaire has been designed and tested in accordance with UL Standard 844 to be "dust-ignition-proof" as required for Class II applications.

The fixture will exclude dust from the inside of the enclosure and will function at full rating without developing surface temperatures high enough to cause excessive dehydration or gradual carbonization of any organic dust deposits that may build up. Maximum surface temperatures will not exceed 200°C (392°F) Group E and Group F or 165°C (329°F) Group G under normal conditions of use.

Class III fixtures will exclude fibers or flyings from the inside of the enclosure and will function at full rating without developing surface temperature high enough to cause excessive dehydration or gradual carbonization of accumulated fibers or flyings.

Product Features



1 Housing: Low copper (360.1 alloy) die cast aluminum with polyester powder paint.

2 Mounting: 360° swivel of mounting yoke around fixture provides top, bottom, or back mounting.

3 Reflector: Unique reflector design eliminates bright streaks, provides uniform illumination, and low surface brightness.

4 Tempered glass lens

5 Quick-disconnect removable door: Includes all electrical components, including the socket. Captive stainless steel screws. Door does not distort when fastened.

6 Gasket: Hollow core high temperature silicone gasket.

Specifications

Fixture shall be Holophane catalog number _____.

Mechanical Construction: The housing shall be die cast low copper (360.1 alloy) aluminum finished with a 7-stage pretreatment and an electrostatically applied 2 - 4 mil coat of polyester powder paint. The finish shall withstand a 160 inch-pound impact measured with a standard Gardner Impact Tester. It shall have passed a 1000 hour salt spray test as specified by ASTM B-117. It shall exhibit no cracking or loss of adhesion from a 180° bend over a 1/8 inch mandrel diameter per ASTM D522. All external screws shall be captive and be Type 316 stainless steel. The yoke shall be either AISI Type 316 stainless steel or zinc electro-plated and yellow chromate finished cold rolled steel. The yoke shall be capable of being rotated 360° about the fixture for top, bottom, or back mounting. The door shall be hinged to provide easy access during lamping and shall be secured to the fixture while open. The door assembly shall include mechanical stops to assure proper compression of the gasket. The yoke mounted fixture shall have a threaded entry to accommodate 1/2" NPT conduit or connector. When the junction box mount fixture is used, a 1" NPT entry shall be provided.

Water-tightness: No water shall enter the fixture when exposed to a solid stream of water from 3 GG40 brass spray nozzles - each supplying 12 gallons per minute at 100 PSI. The nozzles shall be 30 inches apart, centered on, and 24 inches from the fixture plane. Three tests shall be conducted for 15 minutes each with the vertical distance of the fixture at 6, 12, and 16 inches above the nozzles. The gasket shall be hollow core, Durometer 60 silicone, and have a 200°C continuous service temperature. It shall have demonstrated no visible deterioration after artificial aging for 96 hours in oxygen at a pressure of 300 pounds per square inch at a temperature of 156° F.

Dust-tightness: An enclosure of a fixture for Class II locations shall be exposed for at least six heating and cooling cycles and for at least 30 hours to a circulating dust-air atmosphere to determine that the fixture is dust-ignition-proof with regard to exclusion of dust. There shall be no entrance of the dust into the device as determined by visual examination following the chamber test described. The fixture is to be installed in a test chamber to permit free circulation of the dust-air mixture around the fixture. The test chamber is to be provided with a cover and with dust-air-inlet and -outlet connections. The fixture is to be exposed to the dust-air atmosphere that is to be produced by auxiliary apparatus and introduced into the test chamber. The tests are to be conducted at an ambient temperature of 10-40°C (50-104°F) and a relative humidity of 40-60 percent. Grain dust consisting of wheat or com dust, or both, that has passed through a U.S.A. Standard 150-micron (100-mesh) wire cloth is to be used for the dust-air atmosphere if the fixture is for Class II, Group F, Group G, or Groups F and G locations. Magnesium dust, all of which has passed through a U.S.A. Standard 250-micron (60 mesh) wire cloth, 66% of which has passed through a 150-micron (100-mesh) wire cloth, and 22 percent of which has passed through a 75-micron (200-mesh) wire cloth, is to be used for the dust-air atmosphere if the fixture is for Class II, Group E, Groups E and F, Groups E and G, or Groups E, F, and G locations.

Quick Disconnect Electrical: The fixture door shall contain all ballast components, including the socket, and be designed for fast removal as a complete assembly without disturbing aiming. The fixture shall be capable of being changed to a different wattage, voltage, or lamp source by simple change out of the unitized electrical assembly. Replacement shall take less than 60 seconds.

Optical and Socket Assembly: The reflector shall consist of high purity alloy #3002 aluminum of minimum 0.08 thick sheet. Lens shall be 4.5 mm minimum thickness tempered glass. The beam efficiency shall be no less than ___*___. The total efficiency shall be no less than ____*___. Lamp holders shall be porcelain with high temperature 16 ga. wiring. Sockets shall be pulse rated. The screw shell shall be nickel-plated brass with anti-vibration grips.

Ballast: Shall be copper wound, high power factor, Lead or Low Loss Lead as specified. Ballasts shall reliably start and operate the lamp in ambient temperatures to minus 40° F. The lamp extinguishing voltage shall be as low as 39% of nominal. Ballast shall provide 100% wattage to the lamp and have a published Ballast Factor of 1.0 per ANSI C82.2. The fixture shall be UL listed for 40° C. When operated at 10° C below rated ambient temperature, ballast insulation and capacitor life shall be extended 100%. The low loss ballast available for 250 – 400 watt lamps, if specified, shall have a core of grain oriented M-6 steel to reduce ballast losses 10 to 20 watts per fixture. A protected started for High Pressure Sodium lamps, if specified, shall sense an inoperative lamp and automatically shut down to prevent continuous pulsing and thermal damage to itself and ballast secondary windings.

Listing: The fixture shall be UL/CUL 1598 listed for 40° C ambient "Suitable for Wet Location." It shall be UL 844 listed for Class I, Division 2; Class II, Division 1 & 2; Class III, Division 1 & 2. It shall be UL 1598A listed for Marine Outside.

Warranty: The electrical assembly shall be fully warranted for a period of 6 years and the housing for a period of 2 years from the date of manufacture.

Ordering Information

How to Construct a Catalog Number

Example:

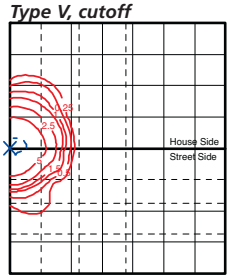
PD	100HP	12	J	N	2	G	A	F1
1	2	3	4	5	6	7	8	9
Luminaire	Wattage	Voltage	UL Listing	Optics	Mounting	Color	Options	Accessories
PD PF	050HP 070HP 100HP 15AHP 175MH 250HP 250LHP 250MH 25LMH 400HP 40LHP 400MH 40LMH 400MV	12 20 24 34 40[1] 48 MT VT	B H J K L	N W S	1 2 3 4 5	B G K W	A C D E F H J L PS TB	F1 F2 LAMP PDWG PFWG PDPR PDPR12 PDPR34 08657-XX

Distributions

Mounting heights are 15'

Type I, short, cutoff

Type V, cutoff

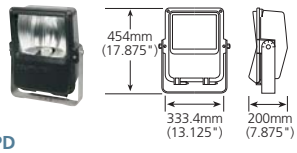


c UL us LISTED

Catalog Number Information

STEP 1: Luminaire

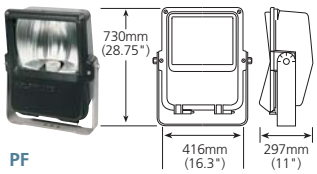
PD	Small Predator
PF	Medium Predator



PD

Effective Projected Area (In ft²)

Tilt above Nadir	EPA
15°	1.14
45°	1.66
90°	1.93
135°	1.70
180°	1.14



PF

Effective Projected Area (In ft²)

Tilt above Nadir	EPA
15°	1.86
45°	2.66
90°	2.87
135°	2.45
180°	1.61

STEP 2: Source and Wattage

PD

050HP[1]	50W HPS
070HP	70W HPS
100HP	100W HPS
15AHP	150W HPS, 55V
175MH	175W MH and MV

PF

250HP	250W HPS
25LHP[2]	250W HPS
400HP	400W HPS
40LHP[2]	400W HPS
250MH	250W MH
25LMH[2]	250W MH
40LMH[2]	400W MH
250MV[3]	250W MV
400MV[3]	400W MV

1 120V only
2 Energy saving ballast
3 Not available with "MT" or "VT"

STEP 3: Voltage

12	120V
20	208V
24	240V
27	277V
34	347V
48	480V
MT[1]	Multi-voltage
VT[2]	Vari-tap

1 120, 208, 240 or 277V
2 120, 277 or 347V for "PF"; only available with 250HP, 250MH and 40LMH

STEP 4: UL Listing

PD

H	Class I, Marine Outside
J	Class I, Div 2; Class II, Div I; Class III, Div I and Marine Outside
K	40°C Wet location
L	Marine Outside

PF

B	Class I and Marine Outside
K	Wet location
L	Marine Outside

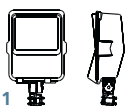
STEP 5: Optical

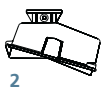
N	Narrow Vertical, Wide Horizontal Beam
W	Wide Vertical, Wide Horizontal Beam
S	Spot Distribution

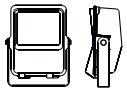
STEP 6: Mounting

1[1]	2" Knuckle Fitter
2[2]	Box Mount
3	Stainless Steel Yoke
4[1]	Zinc Plated Yoke

1 Available with UL "K" only
2 "K" and "L" only







STEP 7: Color

G	Gray
B	Bronze
K[1]	Black for "PF"
W[1]	White for "PF"

1 Available with UL "K" only

STEP 8: Options

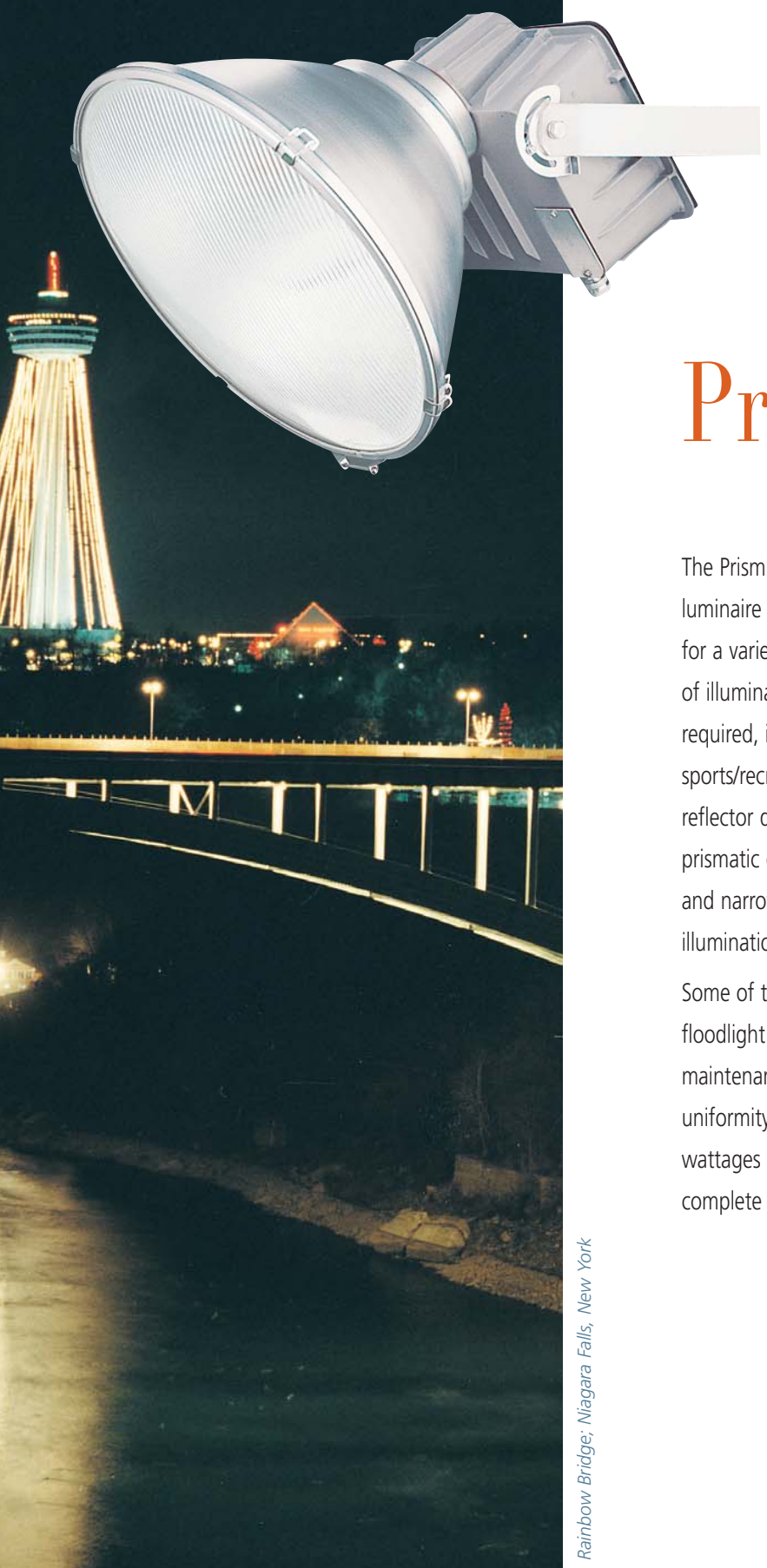
A	Gray Top Visor
C	Bronze Top Visor
D[1]	Gray Side Shields
E[1]	Bronze Side Shields
F	Black Top Visor
H	White Visor
J	White Side Shields
L	Black Side Shields
PS	Protected Starter for HPS
TB	Terminal Block

STEP 9: Accessories

(Ships separately)

F1[2]	Single Fuse Assembly for 120, 240, 277 or 347V, Available UL "K" only
F2[2]	Double Fuse Assembly for 208, 240 or 480V, Available UL "K" only
LAMP	Lamp
PDWG	Wire Guard for "PD" Unit
PFWG[3]	Wire Guard for "PF" Unit
PDPR	Photocontrol Kit for 208, 240, 277V
PDPR12	Photocontrol Kit for 120V
PDPR34	Photocontrol Kit for 347V
08657-XX	2" Tenon Pole Adapter for use with Yoke Mount

1 Available with UL "K" only
2 Contact TSG for "MT"
3 NA with visor options



Rainbow Bridge; Niagara Falls, New York

Prismbeam® II

The Prismbeam II floodlight is a versatile luminaire that provides exceptional lighting for a variety of applications where high levels of illumination and exceptional uniformity are required, including: ports, rail yards, and sports/recreational facilities. Combining precise reflector design and the unique properties of prismatic glass, the PrismBeam II offers wide and narrow NEMA patterns for specialized illumination in all types of floodlighting venues.

Some of the benefits of the Prismbeam II floodlight include long life, ease of maintenance, low-glare, and increased uniformity and illumination. Six different wattages and 33 distribution choices allow complete design flexibility.

Applications

Typical Applications

- Sea Ports
- Rail Yards
- Sports Complexes
- Industrial Facilities
- Intermodal Centers

Features

- Variety of lamps wattages
- Pole and cage packages
- Lowering device systems

Lamp Types

- 1000 - 1650 watt metal halide
- 400 -1000 watt high pressure sodium

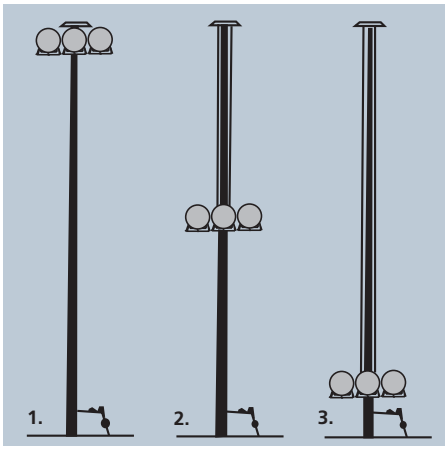
Approvals

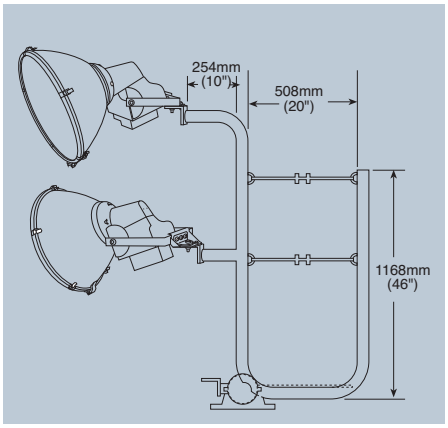
- UL/CUL, wet locations

When combined with the Holophane Lowering Device, the Prismbeam II floodlight offers high performance lighting with a lowering system that reduces maintenance and relamping time. Used extensively in port facilities to illuminate wharves, the Prismbeam II floodlight is often combined with Holophane Lowering Devices and High Mast Luminaires to provide a complete solution for port applications, and rail yards.

For sports lighting applications, designers must take into consideration the speed of the sport, the age of the participants, and the level of play. The Prismbeam II floodlight can satisfy the criteria for all of these floodlighting applications.

Heavy duty die cast aluminum housings are pre-treated with a seven-stage cleaning process and finished with a baked polyester powder coat finish. The prismatic lens option delivers lower glare, shielding the lamp image from view while also increasing uniformity and vertical illumination. If it is necessary to rotate the fixture during maintenance, the mounting yoke is provided with a memory-lock protractor that returns the unit to a pre-aimed position after service. The lens/door is hinged and is secured with four stainless steel latches. The door is provided with a hollow core silicone gasket that insures weatherproof seal and less dirt deprecation to the reflector.





Lowering Systems

Up to 16 Prismbeam II floodlights, aimed in one or multiple directions can be mounted on a Holophane lowering device. It allows a single person to quickly bring the fixtures to ground level for low cost maintenance and testing. The top latching system protects the entire assembly from damage in high winds and storms and ensures correct aiming.

Reliable Operation

The Holophane lowering device system has a 30 year record of proven performance in over 40,000 installations worldwide. Factory installation service and assistance is available.

Standard Poles

Pole packages and arms are available in aluminum to 39', and galvanized or painted steel and concrete to 150'. Special configurations can be designed as required.

Cages and pole steps

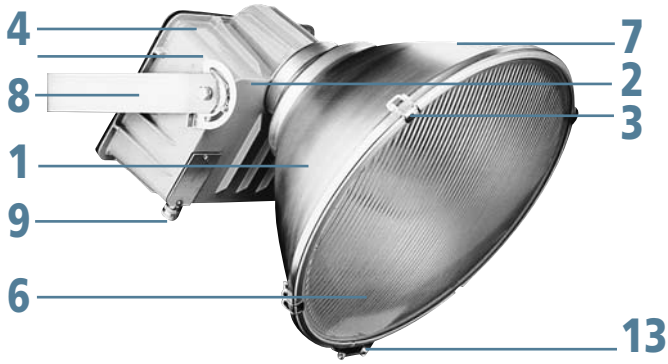
Cages, pole steps, and safety climbing devices are available for mounting single or multiple rows of fixtures to steel or concrete poles.

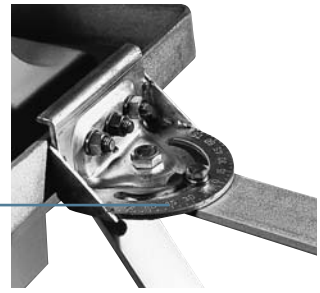
Design assistance

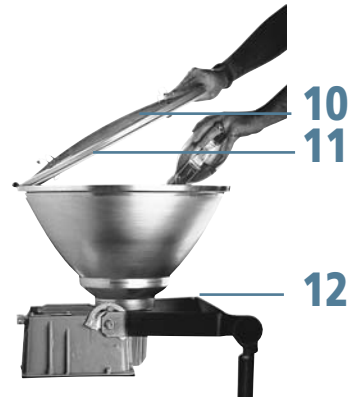
Contact your local Holophane Representative for pole and cage specifications based on number of luminaires and wind loading requirements.

Product Features

1 Spun aluminum reflector
2 Vertical aiming protractor
3 Stainless steel latches
4 Die cast aluminum ballast housing
5 Horizontal aiming protractor
6 Prismatic or tempered glass lens
7 Optional heavy duty cover
8 Memory lock handle
9 Splice chamber
10 Aluminum door frame
11 Hollow core high temperature silicone gasket
12 Reflector rotates back for ease of relamping
13 Heavy duty captive hinge

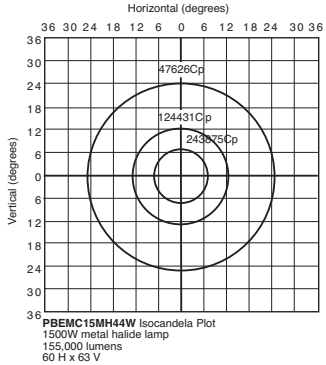






Isocandela charts show beam pattern when aimed straight down

Clear Lens

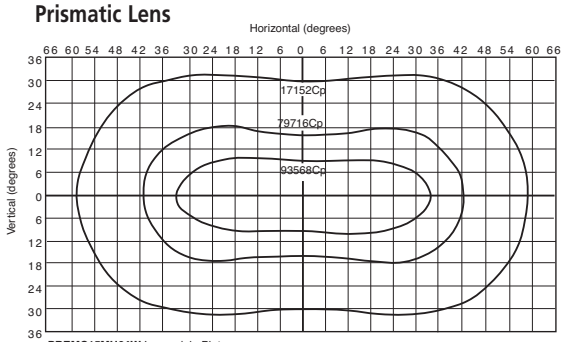


PBEMC15MH44W Isocandela Plot
1500W metal halide lamp
155,000 lumens
60 H x 63 V

Optical Control

Prismbeam II floodlights are designed using the most efficient parabolic reflector available with or without a prismatic lens. They provide unequaled visibility and viewer comfort for almost any application.

Prismatic Lens



PBEMC15MH64W Isocandela Plot
1500W metal halide lamp
155,000 lumens
104 H x 50 V

Specifications

The Prismbeam II floodlight shall be Holophane catalog number _____. It shall consist of a single piece, die cast, aluminum housing and spun 22" aluminum reflector. All external hardware shall be stainless steel or aluminum. The housing shall include a cast-in-place splice box with its own externally accessible, gasketed cover plate. The unit shall be supplied with a threaded, water tight cord connector suitable for 90°C rated conductors having an assembled diameter ranging from 3/8" to 1/2". The mounting yoke shall be secured to the unit at its center of gravity. To withstand long term vibration, the yoke shall be made of 2 1/2" x 1/4" hot rolled steel which has been stamped with horizontal aiming angle marks and then zinc electroplated and yellow chromate finished for corrosion resistance. The unit shall have a breather to eliminate a vacuum within the optical chamber. The unit shall be UL listed and CUL listed. The fixture shall be suitable for wet locations. Four stainless steel, hand activated latches shall secure the lens to the reflector. The lens frame shall be secured to the reflector with a high temperature, hollow core durometer 60, silicone gasket. To prevent infiltration of insects and water into the optical assembly, there shall be no holes or slots in the reflector which are not gasketed. The lens shall be prismatic borosilicate glass to produce an asymmetric pattern, or clear tempered flat glass. Lamp voltage rise shall be minimized by fluting the reflector to direct reflected energy away from the arc tube of the lamp.

To minimize bright spots and harsh shadows, the maximum center beam intensity shall not exceed _____ candelas. To minimize glare and spill light, the intensity at 40° above beam center shall not exceed _____ candelas.

An optional louver shall be secured to the lens frame by the manufacturer. The louver shall be external to the reflector and hinge open with the lens.

Warranty
The electrical assembly shall be fully warranted for a period of 6 years and the housing for a period of 2 years from the date of manufacture.

Ordering Information

How to Construct a Catalog Number

Example:

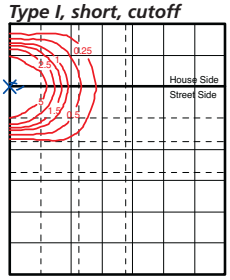
PB2	400HP	12	22W	H	08647
1	2	3	4	5	6
LUMINAIRE	WATTAGE	VOLTAGE	BEAM SPREAD	OPTIONS	ACCESSORIES
PB2	400HP 750HP C10HP C10MH C15MH C16MH	08 12 20 24 27 34 40 48 MT	22W 33N 33W 44N 44W 53W 55N 64N 64W 65N 65W 75N	P C CL CLR	F1 F2 PS100 PS1000 06387 08647 08657-GR 08663-120-GR 08664-120-GR 08664-240-GR 08664-277-GR 08775-GR 09128

c UL us LISTED

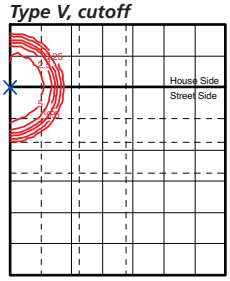
Distributions

Mounting heights are 20'

Type I, short, cutoff



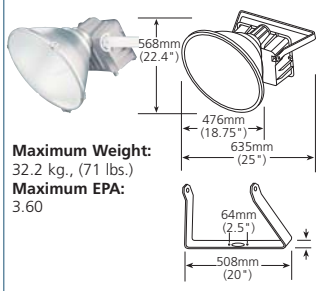
Type V, cutoff



Catalog Number Information

STEP 1: LUMINAIRE

PB2 Prismbeam II



Maximum Weight:
32.2 kg., (71 lbs.)
Maximum EPA:
3.60

STEP 2: SOURCE AND WATTAGE

400HP	400W HPS
750HP	750W HPS
C10HP	1000W HPS
C10MH[1]	1000W MH
C15MH[1]	1500W MH
C16MH[2]	1650W MH

1 Socket suitable for Sport 60 lamps
2 Venture Socket Sport 60 Lamp

STEP 3: VOLTAGE

08[1]	208V
12	120V
20	208V
24	240V
27	277V
34	347V
40[1]	240V
48	480V
MT	Multi-voltage

1 Isolated Secondary C/UL

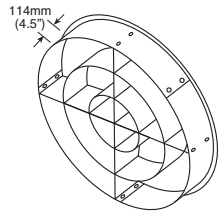
STEP 4: BEAM SPREAD

Select 3 character catalog number for desired lamp

Spread Lamp	Cat. No.	NEMA (H x V)
400W HPS	**22W**	2 x 2
	33N	3 x 3
	44N	4 x 4
	53W	5 x 3
	64N	6 x 4
	65W	6 x 5
750W HPS	**33N**	3 x 3
	44W	4 x 4
	64N	6 x 4
	65W	6 x 5
1000W HPS	**33W**	3 x 3
	44N	4 x 4
	55W	5 x 5
	65W	6 x 5
	75N	7 x 5
1000W MH	**33N**	3 x 3
	44N	4 x 4
	44W	4 x 4
	64N	6 x 4
	65N	6 x 5
	65W	6 x 5
1500MH	**33N**	3 x 3
	33W	3 x 3
	44W	4 x 4
	64N	6 x 4
	64W	6 x 4
	65W	6 x 5
1650MH	**33N**	3 x 3
	33W	3 x 3
	44W	4 x 4
	64N	6 x 4
	64W	6 x 4
	65W	6 x 5

STEP 5: OPTIONS

H	Heavy Duty Cover
L	Louver for "22W", "33W", 33N", "44N", and "55W" Beam Spreads only
PS	Protected Starter for "400HP" and "C10HP" only



L-Circular louver

STEP 6: ACCESSORIES

Lamp	Appropriate Lamp
F1	Single Fuse for 120, 240, 277 and 347 Volt Units
F2[3]	Double Fuse for 208, 240, and 480 Volt Units. Various Mounting Accessories are Available.
PS 100	Replacement Protected Starter (400HP only)
PS 1000	Replacement Protected Starter (1000HP only)
06387[1]	Single Wall Bracket
08647	Protractor

Mounting Adapters

08657-GR	For 2" Pipe
08663-120-GR[2]	For 2" Pipe
08664-208-GR[2]	For 2" Pipe
08664-240-GR[2]	For 2" Pipe
08664-277-GR[2]	For 2" Pipe
08775-GR[2]	For 2" Pipe
09128	For Vertical Yoke

1 Requires use of 08657-GR, 08663-120-GR, 08664-208-GR, 08664-240-GR or 08664-277-GR. Order as separate accessory.
2 Not available C16MH. Not available standard for cage mounting. Photocontrol voltage must match unit voltage.
3 See price schedule or Holophane publication HL-954, "Floodlight Mounting Accessories" for complete details and ordering data.

Sign Lighting

Signs have two purposes- to attract attention and to convey a message. And during nighttime hours, sign lighting must provide visibility and legibility to deliver the appropriate message. The lighting must create contrast between the sign's background and the sign face and legend.

The Panel-Vue® and Sign-Vue® II products are designed to illuminate highway signs, corporate logo signs and building facades utilizing a prismatic refractor that evenly distributes lighting on the sign face with maximum efficiency. This provides a high message visibility and readability - hot and dark spots are eliminated by the superior optical assembly that provides uniform illumination over the entire sign face. This uniform lighting creates the desired contrast to generate the visibility and legibility for enhanced message delivery.

Panel-Vue

Sign-Vue II

Applications

Typical Applications

- Highway Guide Signs
- Corporate Logo Signs
- Building Facades

Features

- Prismatic glass reflectors
- Uniform, maximum light over entire sign
- Ease of maintenance
- Weathertight design
- Integral ballast
- Mounting choice of top or bottom of sign

Lamp Types

- 175 - 400 watt metal halide
- 100 -400 watt high pressure sodium
- 100 -400 watt mercury

Approvals

- UL/CUL listed, wet locations

Prismatic glass refractor: Uniformly disperses the maximum amount of light over entire sign face with minimal energy consumption.

Integral ballast: Labor and installation cost is reduced since remote ballasts, electrical boxes, some wire and conduit and drilling on the back of the sign are eliminated.

Mounting: Three and four bolt patterns are available on 12" and 6 1/2" centers as well as direct arm mount onto 1 1/4" round conduit or 1 1/2" square tubing.

Low profile: The shallow profile provides a clean , clutter-free look that does not obstruct the message.

Weathertight design: The entire luminaire meets all UL- 1572 rain test requirements and is listed for "Wet Locations".

HID lamps: Long life, easy maintenance light sources such as mercury vapor, metal halide and high pressure sodium mean maintenance person "catwalk time" is minimized.

Reduced maintenance: Optional door latches and quick disconnect, in addition to long life Holophane ballast and HID lamps mean maintenance time is minimized and safety is improved.

Panel-Vue I 8' x 16' Sign

Performance Results (mounting 1' down 4' out)				
Test #	Avg.	Max./Min.	Avg./Min.	Max. Gradient
37173	31.75	3.33	2.12	1.88
37160	41.80	3.14	1.90	1.64
37155	45.64	3.55	2.07	1.78
37169	67.89	3.57	1.94	1.71
37163	22.94	5.13	2.86	1.60
37166	35.98	5.38	2.77	1.59

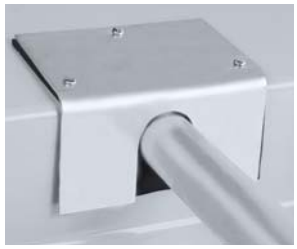
Sign-Vue II I 12' x 12' Sign

Performance Results						
Test #	Mounting	Avg.	Max. /Min.	Avg. /Min.	Max. Gradient
40901	1' down 4.5' out	35.23	4.63	2.52	2.33
40907	1' down 4.5' out	55.70	4.29	2.32	1.93
40895	1' down 5' out	38.07	4.20	2.54	1.91
40904	3' down 6' out	58.51	2.50	1.83	1.85
40896	1' down 4.5' out	23.99	7.14	3.43	1.53
40893	1' down 4.5' out	26.94	4.60	2.69	1.38

Variety of mountings and accessories

WG: Wire Guard

S: Side entry



T: Mounting shield for over sign mounting

Product Features

1 Refractor: Prismatic pressed borosilicate glass refractor evenly distributes lighting on the sign face with maximum efficiency for high message visibility and readability.

2 Door Assembly: Heavy duty die cast aluminum door and integral glare shield.

3 Hinge: Hinge components are die cast into the door and housing.

4 Housing: Rugged die cast aluminum housing contains reflector, integral ballast, ballast cover.

5 Weathertight Design: Weather resistant rubber blend gasket.

6 Mounting: 30mm (1.25") round pipe or 40mm (1.5") square tube.

7 Built-in Ballast: Copper wound pre-wired ballast integral to housing, eliminates remote ballast, boxes, wire, conduit and drilling on back of sign.

8 Reflector: Precisely engineered hydro-formed one piece aluminum reflector.

9 Lamp Socket: Porcelain enclosed, factory prewired.

Specifications

The Sign-Vue II and Panel-Vue high intensity discharge luminaire shall be engineered and manufactured for sign lighting environments. It shall be UL listed "Wet Locations" at 40°C ambient temperature when mounted with refractor pointed up or down. It shall be made of corrosion resistant materials which operate despite rain, snow, or sun light. The housing, reflector and electrical assembly comprise a unitized heavy duty luminaire only 270mm (10.75") high, 580mm (22.75") long and 520mm (20.5") wide, which shall conform to the following:

Housing: The die cast aluminum polyester painted housing with a seven stage pretreatment process, shall support and enclose the reflector, electrical assembly, conduit supports and interact with the hingeable door to provide a weathertight lamp environment. A weather-resistant gasket shall seal the door to the housing when the AISI Series 300 stainless steel, door latch bolts or stainless steel latches are secured. The integrally cast hinge shall allow the door assembly to stand open by itself, when it is opened away from the sign face thus providing full access to all electrical components. Lamps and sockets shall be accessible by opening the door assembly but other electrical components shall have shields to prevent accidental contact during relamping. Ballast components shall be heat sunk against the cast aluminum housing for long life expectancy. The housing and door shall be designed to not allow the reflector to be optically changed if they are touched by ladders.

The die cast clamp shall grip 30mm (1.25") round rigid steel pipe or 40mm (1.5") square steel tube (supplied by others) and prevent luminaire rotation after leveling and tightening. The housing shall be capable of bolting to the sign structure or plate by using the mounting bracket shown on the drawings. When the fixture is to be bolted in place, the housing shall be provided with a DN20NPT (.75") tapered pipe thread hole for electrical wiring. Integral housing supports shall enable the complete luminaire to be vibration tested to 2g in its operating position for 100,000 cycles. Condensation weep holes and a gasketed wire entrance shall be provided, for all standard, refractor up, units.

Door Frame: The die cast aluminum polyester painted door frame with integral glare shield shall have cast self supporting hinges, and AISI Series 300 stainless steel latch bolts or stainless steel latches. The door shall support the refractor when open and compress the refractor gasket and housing to prevent rain or snow from entering the lamp cavity when latch bolts are fully secured. Optional stainless steel suitcase latches may be used to securely close the door in lieu of the latch bolts.

Optical Performance: The optical train shall include a one piece hydro-formed aluminum reflector, precisely contoured to distribute light across the prismatic inner surface of the one piece pressed borosilicate glass thermal shock resistant refractor. The intricate array of prisms on the inner face of the refractor shall direct the light onto the sign face with maximum efficiency and uniformity.

The outer glass surface shall be kept clean by rain. The lighting system shall provide a minimum of _____ footcandles and a maximum of _____ footcandles vertical to the sign surface. The maximum to minimum uniformity ratio shall not exceed _____ for illuminance or luminance on the sign face. Each luminaire shall have a minimum efficiency on the sign face of _____%.

Illumination on the sign shall not exceed a gradient ratio of _____. Gradient ratio is defined as follows: The vertical illumination level in any one square foot area on the surface of a sign divided by the illuminance level of any adjacent one square foot area.

Electrical Components: All electrical components shall be factory prewired and tested after assembly. The nickel plated or stainless steel screw shell, lamp grip, or position oriented (for all metal halide fixtures), porcelain enclosed, pulse rated lamp socket shall grip the lamp in its proper reflector orientation and maintain positive electrical contact by preventing lamp back-out.

Ballast: The copper wound ballast shall operate the _____ watt lamp at _____ volts with the following operating characteristics: starting current less than operating current; primary lamp extinguishing voltage, _____ volts; operating line current, _____ amps; input wattage, _____ watts; secondary open circuit voltage, _____ volts; and have its power factor over 90%. It shall operate in a minimum ambient starting temperature of -____°F and shall provide lamp wattage regulation of ±____% for line voltages of ± ____%.

Warranty: The electrical assembly shall be fully warranted for a period of 6 years and the housing for a period of 2 years from the date of manufacture.

Ordering Information

How to Construct a Catalog Number

Example:

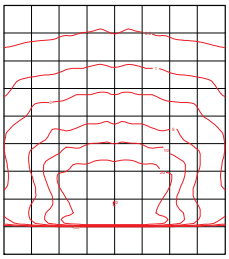
PANL	100HP	12	D	G	QL	3BOLT
1	2	3	4	5	6	7
LUMINAIRE	WATTAGE	VOLTAGE	MOUNTING	COLOR	OPTIONS	ACCESSORIES
PANL SNVW	85QL 100HP 100MV 15AHP 175MH 175MV 250HP 250MH 250MV 400HP 400MH 400MV	12 20 24 27 34 48 MT VT DT	D T S	G B	L QL QD SL SW	F1 F2 3BOLT 4BOLT BOLT6.5 WG-213 DOORPROP Lamp 0918

c UL us LISTED

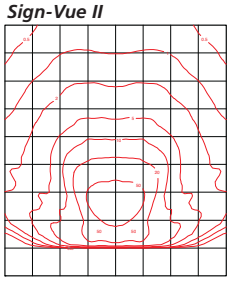
Distributions

Mounting heights are 4'

Panel-Vue



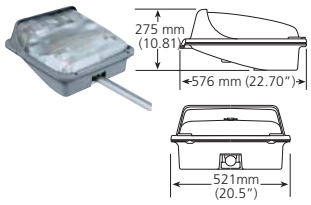
Sign-Vue II



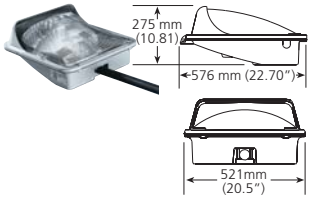
Catalog Number Information

STEP 1: LUMINAIRE

PANL Panel-Vue
SNVW Sign-Vue II



Maximum Weight: 27 kg., (60 lbs.)
Maximum EPA: 4.2



Maximum Weight: 27 kg., (60 lbs.)
Maximum EPA: 4.2

STEP 2: SOURCE AND WATTAGE

85QL[1]	85W Induction
175MH	175W MH
250MH	250W MH
400MH	400W MH
100MV	100W MV
175MV	175W MV
250MV[2]	250W MV
400MV[2]	400W MV
100HP	100W HPS
15AHP	150W HPS, 55V
250HP	250W HPS
400HP	400W HPS

1 Available in PANL only. Specify voltage of 120, 208, 240 or 277. Luminaire not UL listed.
2 Not available with "MT"

STEP 3: VOLTAGE

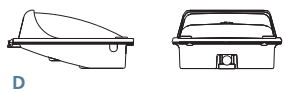
12	120V
20	208V
24	240V
27	277V
34	347V
48	480V
MT[1]	Multi-voltage
VT[2]	Vari-tap
DT[1, 3]	Dual-tap 120/240V

1 120, 208, 240 or 277V; not available with "SL" or "SW"
2 120, 277 or 347V; only available with 250HP, 400HP, 250MH and 400MH
3 Only available with 250 MH and 400 MH

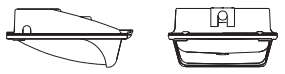
STEP 4: MOUNTING

D	Standard Mounting with Refractor Up
T	Top Mounting with Refractor Down
S[1]	Side Mounting with Refractor Up

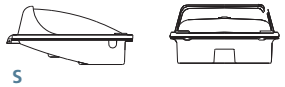
1 Mounting bracket is required. Pipe/ tube assembly not included



D



T



S

STEP 5: COLOR

G Gray
B Brown

STEP 6: OPTIONS

L	Latch Closure
QL[1]	Latch Closure with Quick Disconnect
QD[1]	Quick Disconnect
SL	On/Off Switch with Latch Assembly for use with 120 and 240V only
SW	On/Off Switch for use with 120, 240V and DT only

1 NA with "SW"

STEP 7: ACCESSORIES

(Ships separately)

F1	Single Fuse Assembly for 120, 240, 277 and 347V
F2	Double Fuse Assembly for 208, 240 and 480V
3BOLT	Bracket for 3 Bolt Mounting
4BOLT	Bracket for 4 Bolt Mounting
BOLT6.5	Bracket for 6.5" Mounting
WG-213	Wire Guard
DOORPROP[1]	Doorprop for Positive Door and Refractor Support
Lamp	Appropriate Lamp Shipped
0918[1]	"T" Mounting Accessory. Conversion Kit To Mount Refractor Down

1 When mounted in standard, refractor up position

Pole | Wall | Ceiling

Perimeter and security lighting requires excellent control and uniformity with minimal pockets of shadow. Light trespass and glare must be minimized. This light distribution control readily transfers to illuminating other areas such as uniflow garages and underpasses. Building entrances and perimeters, check stations, loading docks and other areas of high security are also areas of concern for proper lighting control.

Holophane offers an array of products to satisfy the lighting requirements for all of these areas. Superior optics, corrosion resistant housings and finishes, borosilicate glass, poly-carbonate and acrylic lenses all contribute to products that provide the best solutions.

Pole/Wall/Ceiling

Module 600

Parkpak

Wall

Wallpack IV

Module® 600

The Module 600 luminaire plays a dual role as a pole or surface mounted luminaire. Small parking lots can be illuminated from building walls, avoiding pole and trenching costs. Alternatively, pole mounting on the perimeter to light lots with no back spill light in mixed use neighborhoods is an option. Thru-wiring and modular design allow installation of large numbers of Module 600 fixtures in a small space for superior tunnel and underpass lighting as well. The borosilicate glass refractor provides precise light control through a main beam panel for near cutoff performance, minimizes glare and resists thermal shock from rain or snow. Die cast aluminum housings and a seven stage polyester powder finish provide exceptional corrosion resistance. UL listed "Suitable for Wet Location", CSA certified.

Module 600 luminaires provide an attractive appearance with a non-yellowing prismatic glass lens. The borosilicate glass lens also enables precise light control for various applications.

Ordering Information

How to Construct a Catalog Number

Example:

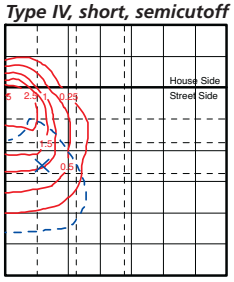
MW	100HP	12	G	F1	MWPA
1	2	3	4	5	6
LUMINAIRE	WATTAGE	VOLTAGE	COLOR	OPTIONS	ACCESSORIES
MW	100HP 100MV 15AHP 175MH 175MV 200HP 250HP 250MH 250MV 400HP 400MH 400MV	08 12 20 24 27 34 40 48 MT VT	G Z K W	F1 F2 PS AD QD PR	LAMP MWSD MWSB MWPA

c UL us LISTED

Distributions

Mounting heights are 15'

Type IV, short, semicutoff



Typical Applications

- Underpasses
- Building Perimeters
- Parking Areas
- Tunnels
- Loading Docks

Features

- Attractive appearance
- Prismatic glass optics
- Precise light control

Lamp Types

- 175 - 400 watt metal halide
- 100 - 400 watt high pressure sodium
- 250 - 400 watt mercury vapor

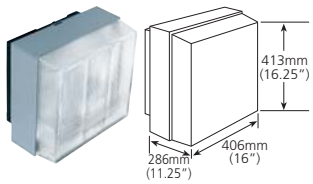
Approvals

- UL/CUL wet locations

Catalog Number Information

STEP 1: LUMINAIRE

MW Module 600



STEP 2: SOURCE AND WATTAGE

100HP	100W HPS
15AHP	150W HPS, 55V
200HP	200W HPS
250HP	250W HPS
400HP	400W HPS
175MH	175W MH
250MH	250W MH
400MH	400W MH
100MV	100W MV
175MV	175W MV
250MV[1]	250W MV
400MV[1]	400W MV

1 Not available with "MT"

STEP 3: VOLTAGE

08[1]	208V
12	120V
20	208V
24	240V
27	277V
34	347V
40[1]	240V
48	480V
MT[2]	Multi-voltage
VT[3]	Vari-tap

1 Isolated Secondary C/UL
2 120, 208, 240 or 277V
3 120, 277 or 347V; only available with 250HP, 400HP, 250MH and 400MH

STEP 4: COLOR

G	Gray
Z	Bronze
K	Black
W	White

STEP 5: OPTIONS

F1	Single Fuse Assembly for 120, 240, 277 and 347V
F2	Double Fuse Assembly for 208, 240 and 480V
PS	Protected Starter for HPS
AD[1]	Conduit Adapter
QD[2]	Quick Disconnect
PR[3]	Photocontrol for 120-347V

1 Not available with "QD"
2 Not available WITH "AD"
3 Not available with "MT" or "VT"

PR

STEP 6: ACCESSORIES

Lamp	Appropriate Lamp Shipped
MWSD	Internal Light Shield
MWSB	Suspension Bracket for Mounting Unit Vertically from a Horizontal Surface
MWPA	Polycarbonate Vandal Shield

MWPA

Specifications

The unit shall be Module 600 catalog number _____. The luminaire shall consist of a die cast aluminum housing which encloses the ballast, lamp socket and reflector; and a refractor door assembly. The housing assembly shall mount against the wall (or pole) and the refractor housing assembly shall fasten to it by means of concealed hinges and a single point, positive acting latch. There shall be two stainless steel retaining cables attached between the main housing and refractor frame. Overall dimensions shall be 16" square x 11 5/8" deep.

Units shall be prewired and equipped to be wall-mounted for surface wiring, or to a recessed outlet box, and shall require no tools for lamp replacement.

The optical train shall consist of the lamp, fluted specular aluminum reflector and molded prismatic borosilicate thermal shock-resistant glass refractor. The dimensions of the refractor shall be 16" square x 4" deep and shall have internal splitting prisms and external dispersing prisms. The refractor frame color shall be _____.

The integral ballast shall operate a _____ lamp and provide reliable starting at temperatures as low as -20°F. Starting line current shall be ____ amps and operating current ____ amps; power factor over 90% and lamp wattage regulation of ± ___% at ± ___% line voltage fluctuation.

Ballast shall be UL listed Class H; core, coil and capacitors shall be positioned for maximum heat dissipation. Supply wires to the unit are to be of proper temperature rating for the type of entry used. The housing shall be finished with a black polyester powder paint coating. The complete unit shall be CSA certified and UL listed as "Suitable for Wet Locations 40°C Ambient."

Parkpak®

Parkpak luminaires are designed to provide a focus on performance and long life. The square distribution luminaire provides high illuminance on drive areas and vertical surfaces-key to superior visibility-as well as very uniform light levels. An asymmetric patterns is also available.

Refractors are formed of UV stabilized polycarbonate for impact resistance and minimum maintenance. Luminaire housings are die cast aluminum for exceptional corrosion resistance. All castings receive thorough surface pre-treatment and a baked on polyester powder coat finish. This is especially important in facilities where salt and snow melt-off can percolate through the structure. Parkpak luminaires are available with a variety of mounting versions for maximum versatility and minimize installation labor costs.

Ordering Information

How to Construct a Catalog Number

Example:

PK	100HP	12	C	G	A	TP	PARKSD
1	2	3	4	5	6	7	8
LUMINAIRE	WATTAGE	VOLTAGE	MOUNTING	COLOR	DISTRIBUTION	OPTIONS	ACCESSORIES
PK	050HP 070HP 100HP 15AHP 70DMH 10DMH 15DMH 175MH 26QFL	08 12 20 24 27 34 40 48 MT	C H Q F P V	G Z K W	A S	EM PR TP F1 F2 PS	LAMP PARKSD TPD PARKWBXX PARKWSXX PARKBA4XX

c UL us LISTED

Typical Applications

- Parking Garages
- Parking Areas
- Canopies

Features

- Superior performance
- Square distribution
- Variety of mounting options

Lamp Types

- 70 - 175 watt metal halide
- 50 - 150 watt high pressure sodium
- 26 watt quad fluorescent

Approvals

- UL/CUL wet locations

Catalog Number Information

STEP 1: LUMINAIRE

PK Parkpak

Maximum Weight: 9 kg., (20 lbs.)
Maximum EPA: .95 sq. ft.

STEP 2: SOURCE AND WATTAGE

050HP[1]	50W HPS
070HP	70W HPS
100HP	100W HPS
15AHP	150W HPS, 55V
Medium Base	
70DMH	70W MH or MV
10DMH	100W MH or MV
15DMH[2]	150W MH or MV
175MH	175W MH or MV
26QFL[3]	26W (2) Quad Fluorescent

1 Not available with 347V
2 "MT" only
3 120, 240 and 347V only; available with "S" Optic only. Minimum starting temperature is 10°C (50°F)

STEP 3: VOLTAGE

08[1]	208V
12	120V
20	208V
24	240V
27	277V
34	347V
40[1]	240V
48	480V
MT[2]	Multi-voltage

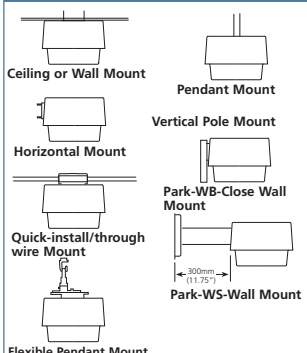
1 Isolated Secondary C/UL
2 120, 208, 240 or 277V

STEP 4: MOUNTINGS

C	Ceiling or Wall Mount to Outlet Box
H[1]	Horizontal Mount
Q	Quick install and Thru Wiring
F	Flexible Pendant
P	Pendant
V[2]	Vertical Pole Mount

1 Required for accessory mountings such as wall brackets
2 Not available with "MH" or "V"

STEP 4: MOUNTINGS



STEP 5: COLOR

G	Gray
Z	Bronze
K	Black
W	White

STEP 6: DISTRIBUTION

A	Asymmetric
S	Square

STEP 7: OPTIONS

EM[1]	Standby Light Fixture with 100W Maximum Tungsten Halogen Lamp.
PR	Photocontrol for 120, 208, 240, 277 and 347V
TP	Tamper Resistant Screws
F1[2]	Single Fusing for 120, 240, 277 and 347V
F2[2]	Double Fusing for 208 and 240V
PS	Protected Starter for HPS

STEP 8: ACCESSORIES

(Ships separately)

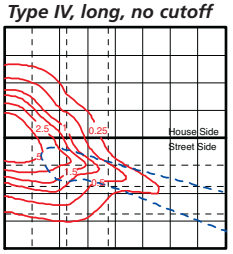
Lamp	Appropriate Lamp Shipped
PARKSD	External Shield
TPD[1]	Driver for Tamper Resistant Screws
PARKWBXX[3]	Wall Bracket for Horizontal Mount. (Not UL Listed)
PARKWSXX[3]	Wall Bracket with 300mm (11.75") Arm for Horizontal Mount
PARKBA4XX[4]	Bracket Arm for Mounting on 102mm (4") Square Pole for "H" Units only

1 Not available with 347V, 70DMH, 10DMH and 15DMH lamp
2 For "MT" Contact TSG
3 Insert color for "XX" in catalog number
4 Requires "H" mounting

Distributions

Mounting heights are 10'

Type IV, long, no cutoff



Specifications

The Parkpak catalog number shall be _____ . The luminaire shall consist of a die cast aluminum housing which encloses the ballast, lamp socket, reflector and a polycarbonate refractor retained by captive screws. The housing assembly shall mount to the (ceiling) (wall) (pole). Overall dimensions of the luminaire shall be 237mm (9.25") deep by 317mm (12.375") square.

The polycarbonate refractor shall be injection molded of UV resistant polycarbonate and provide a square or asymmetric distribution. All optical elements except shields shall be on the interior of the refractor.

The integral ballast shall operate a ____ lamp and provide reliable starting at temperatures as low as -29°C (-20°F). Maximum line current shall be _____ amps and lamp wattage regulation of _____% at _____% line voltage fluctuation. (See Holophane Ballast Handbook HL-301 for electrical values). Core, coil and capacitors shall be positioned for maximum heat dissipation. Supply wires to the unit are to be of proper temperature rating for the type of entry used.

All painted castings shall be finished with a seven stage pre-treatment process and electrostatically applied and baked on polyester powder paint.

Wallpack® IV

Perimeter and security lighting require excellent control and uniformity. Light trespass and glare must be minimized as should pockets of shadow. The Wallpack IV luminaire excels at this, requiring fewer units to achieve needed light levels. This control readily transfers to lighting other areas such as uniflow garages and underpasses for the most economical solutions. Wallpack IV features a borosilicate glass refractor for precise illumination - and it never yellows from heat or UV. Sockets are field adjustable for maximum control of light throw.

All housings are formed of die cast aluminum for corrosion resistance. This is complemented by a seven stage polyester powder paint finish in a wide variety of colors. Vandal resistant options are available.

Ordering Information

How to Construct a Catalog Number

Example:

W4	070HP	12	S	Z	G	PS-55
1	2	3	4	5	5	6
LUMINAIRE	WATTAGE	VOLTAGE	OPTICS	COLOR	OPTIONS	ACCESSORIES
W4	050HP 070HP 100HP 10DMH 15AHP 15DMH 175MH 250HP 250MH 30DIN 400HP 400MH 42CFL 70DMH	08 12 20 24 27 40 48 MA MB MC MD VT	C S U	G K W Z	B C D F1 F2 G P T	LAMP PS-55 PS-100 W4TPD

c UL us LISTED

Typical Applications

- Building Facades
- Office Complexes
- Parks
- Residential Areas
- Campuses
- Walkways

Features

- Classic styling
- Superior performance
- Ease of maintenance
- Reliability

Lamp Types

- 70 - 400 watt metal halide
- 50 - 400 watt high pressure sodium
- 300 watt incandescent
- 42 watt compact fluorescent

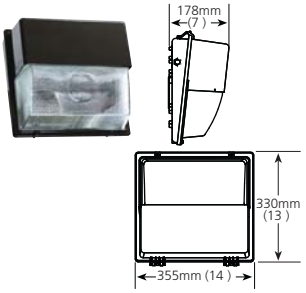
Approvals

- UL/CUL wet locations

Catalog Number Information

STEP 1: LUMINAIRE

W4 Wallpack IV



Maximum Weight: 15 kg., 34 lbs

STEP 2: SOURCE AND WATTAGE

HIGH PRESSURE SODIUM

Mogul Base

050HP	50W HPS
070HP	70W HPS
100HP	100W HPS
15AHP	150W HPS
250HP	250W HPS
400HP	400W HPS

METAL HALIDE

Medium Base

70DMH[1]	70W MH
10DMH[2]	100W MH
15DMH	150W MH
17DMH	175W MH

Mogul Base

175MH	175W MH
250MH	250W MH
400MH[3]	400W MH

INCANDESCENT

30DIN[4]	300W INC

COMPACT FLUORESCENT

42CFL[5]	42W CFL

1 Not available with 480V or VT
2 Not available with VT
3 Compact lamp must be used
4 Available with 120V only. Not available with "C"
5 Available with 120-277V only

STEP 3: VOLTAGE

08[1]	208V
12	120V
20	208V
24	240V
27	277V
40[1]	240V
48	480V

Multi-voltage

MA	Prewired for 120V
MB	Prewired for 208V
MC	Prewired for 240V
MD	Prewired for 277V
VT[2]	Vari-tap

1 Must be handled through TSG
2 Vari-tap 120, 277, and 347V

STEP 4: OPTICS

C[1]	Cutoff Optics
S	Standard Optics
W	Underpass Optics

1 Not available with HPS units

STEP 5: COLOR

G	Gray
K	Bronze
W	Black
Z	White

STEP 6: OPTIONS

Factory installed

B	Photocontrol
C	NEMA Decal
D[1]	Polycarbonate Shield
F1[2]	Single Fuse Assembly
F2[2, 3]	Double Fuse Assembly
G[4]	Wire Guard
P[3, 5]	Protected Starter
T	Tamper Resistant Screws

1 Not available with "08" or "40" voltage or "G" option
2 Not available with "30DIN" or "VT"
3 Not available with "08" or "40" voltage
4 Not available with "D" option
5 For HPS units only

STEP 7: ACCESSORIES

Lamp	Appropriate HID Lamp Supplied
PS-55[1]	Replacement Protected Starter for Wattage 150 or Less
PS-100[1]	Replacement Protected Starter for Wattage 250 or More
W4TPD	Driver for Tamper Resistant Screws

1 Not available with "08" or "40" voltage

Specifications

Wallpack IV is a wall mounted luminaire consisting of a precisely contoured anodized aluminum reflector, thermal shock resistant borosilicate glass refractor, integral HID Holophane ballast and die cast aluminum housing. Luminaire shall have a self hinged door secured by captive stainless steel fasteners. Ballast and lamp socket shall be completely factory pre-wired and tested. Luminaire shall be designed to mount directly on a wall for surface wiring or over a recessed outlet box. The integral ballast shall provide reliable starting temperatures to -30°C. HID ballast shall be positioned for maximum heat dissipation. Luminaire housings shall be finished with a thermal-setting polyester powder paint coating. Luminaire shall be UL/CUL listed for wet locations.

Warranty
The electrical assembly shall be fully warranted for a period of 6 years and the housing for a period of 2 years from the date of manufacture.

Outdoor Substation

High utilization of light output

The upward distribution of more than 60% of total lamp lumens provides effective illumination for overhead buss bars, disconnect switches, insulators and fuses. Vertical and horizontal light enables quick identification of open switches from ground level.

Excellent maintained illumination

Original light output can be restored by thorough cleaning, while the natural cleansing action of rain maintains continuing high operating output. Sealed gasket assemblies around the top and bottom of the refractor keep the interior of the unit dirt- and weather-tight for many years.

Choice of lamps

From 70W to 400W HPS, 175W to 400W metal halide or mercury. 300W or 500W incandescent lamps may also be used.

Absence of glare

Light is refracted upward and not toward the operator's/inspector's eyes.

Permanence

The one-piece prismatic light controlling element is molded Endural® glass which is manufactured to withstand the extreme temperature gradients encountered outdoors. Metal fixture parts are composed of stainless steel, cast and spun aluminum to withstand severe weather.

Light shields

Inner shields for 90°, 120° and 180° light cutoff are available for use on substations near residential areas. Shields can be ordered with new fixtures, or purchased separately and installed in existing ones. Shields may be rotated within fixtures to the most effective position.

Safety when relamping

Unit is mounted on bracket or post top below high voltage equipment to prevent contact with dangerous voltages when relamping.

On-site adjustment of light distribution

While lamp is on, the optical assembly can be rotated up or down to obtain maximum candlepower to reach disconnect switches and other overhead structures. After adjusting, a set screw locks the unit in place.

Ordering Information

How to Construct a Catalog Number

Example:

SUA	100HP	12	TL	PR	LAMP
1	2	3	4	5	6
LUMINAIRE	WATTAGE	VOLTAGE	OPTICS	OPTIONS	ACCESSORIES
SU1A SU2A SU2B	070HP 100HP 15AHP 15BHP 175MH 250HP 250MH 400HP 400MH	12 20 24 27 34 NB	TL	PR	LAMP F1 F2 SD-59 SD-60 SD-51 07233 0871-CA

c UL us LISTED

Typical Applications

- Substations

Features

- Canopy luminaire for high visibility
- Uplight and downlight component

Lamp Types

- 175 - 400 watt metal halide
- 70 - 400 watt high pressure sodium

Approvals

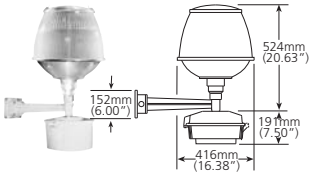
- UL/CUL wet locations

Catalog Number Information

STEP 1: LUMINAIRE

SU1A	Substation (70-175W)
SU2A	Substation (250-400W)
SU2B[1]	Substation (optic)

1 Optics only without bracket assembly. Non-ballasted for 300, 500INC and 400MH (MV)



SU1
Maximum Weight: 504 kg., (50 lbs.)
SU2
Maximum Weight: 604 kg., (60 lbs.)

STEP 2: SOURCE AND WATTAGE

070HP[1]	70W HPS
100HP[1]	100W HPS
15AHP[1]	150W/55V HPS
15BHP[1]	150W/55V HPS
175MH[1]	175W MH or MV
250HP[2]	250W HPS
400HP[2]	400W HPS
250MH[2]	250W MH or MV
400MH[2]	400W MH or MV

1 SU1A size
2 SU2A size

STEP 3: VOLTAGE

12	120V
20	208V
24	240V
27	277V
34	347V
48	480V
NB[1]	Non-ballasted

1 Optics and bracket assembly

STEP 4: OPTICS

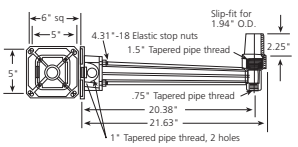
TL	Top lens

STEP 5: OPTIONS

PR	Photocontrol (Not Available with SU2B or 480V, Use as Suffix on Third Component of Catalog)

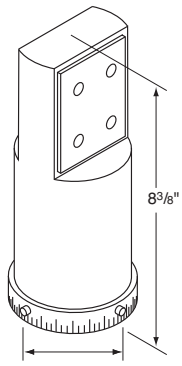
STEP 6: ACCESSORIES

LAMP	Appropriate Lamp Shipped
F1	Single Fusing Kit for 120-277V
F2	Double Fusing Kit for 208-480V
SD-59	90° Shield
SD-60	120° Shield
SD-51	180° Shield
07233	Bracket (included with all except SU2BNB)
0871-CA	Corner adapter Bracket

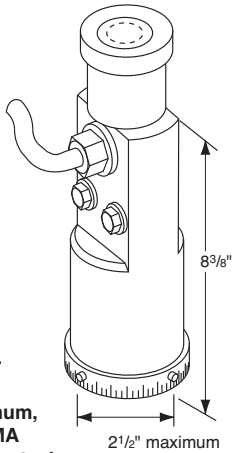


Mounting Hardware

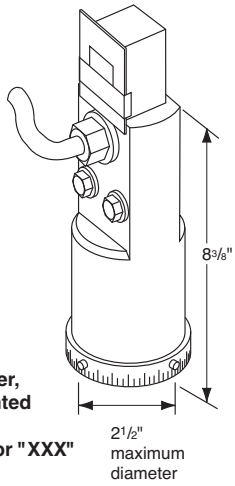
Mounting brackets for small/medium Predator®, Prismbeam® II, and Vector® luminaires.



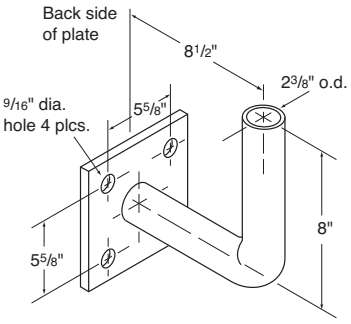
08657
mounting adapter
yoke to 2 3/8"
slip fitter
cast aluminum, painted



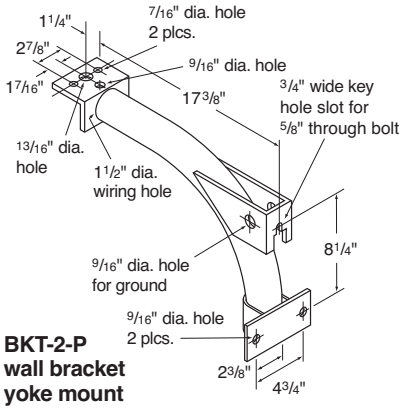
08775
mounting adapter
yoke to 2 3/8" slip fitter, cast aluminum, painted with NEMA photocontrol receptacle



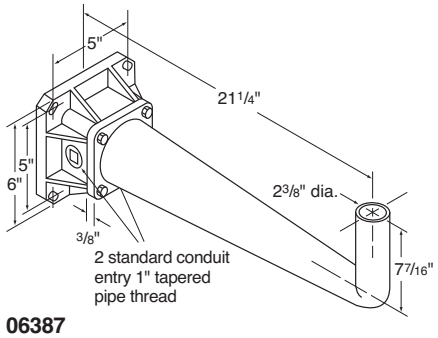
08664-XXX
mounting adapter
yoke to 2 3/8" slip fitter, cast aluminum, painted with photocontrol substitute voltage for "XXX"



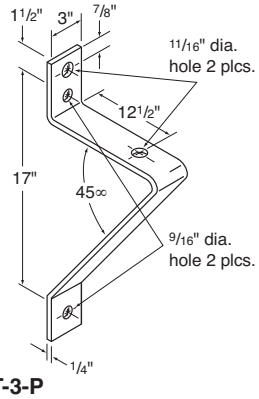
BKT-1-P
wall bracket
2" slip fitter



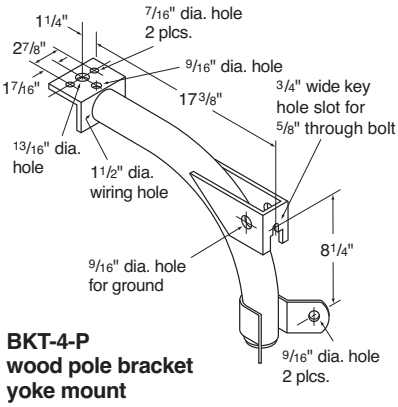
BKT-2-P
wall bracket
yoke mount



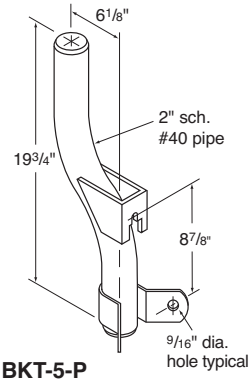
06387
wall bracket
2" slip fitter
cast aluminum
paint finish



BKT-3-P
wall or wood pole bracket
yoke mount



BKT-4-P
wood pole bracket
yoke mount



BKT-5-P
wood pole bracket
2" slip fitter

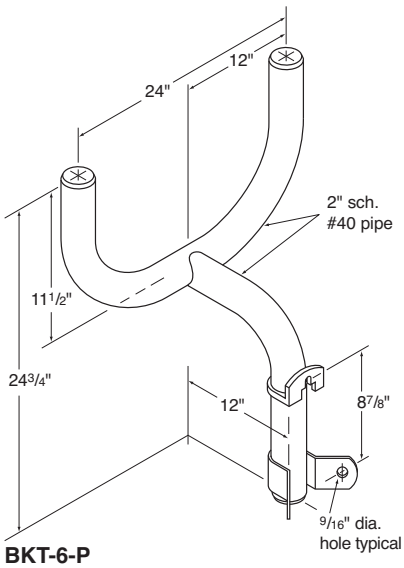
Notice:

It is the responsibility of the installing authority to properly attach these brackets and the appropriate fixture to the brackets. When properly applied and installed, the brackets will accommodate fixtures weighing up to 100 pounds and having an Effective Projected Area (EPA) up to 3 square feet each in winds up to 100 MPH.

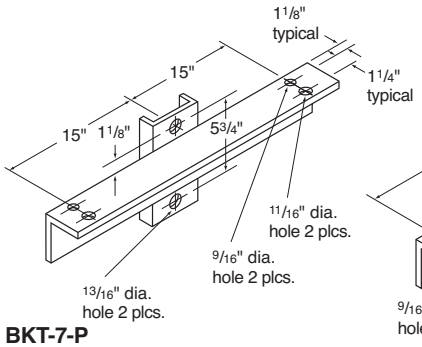
Some brackets will accommodate larger and heavier loads.

Contact your Holophane Sales Representative for more information.

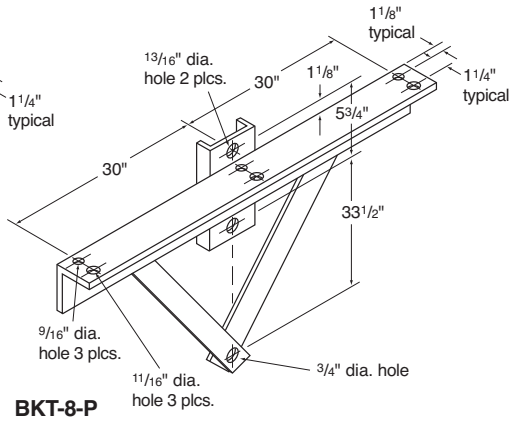
Note: For galvanized, substitute G for P (prime painted) in applicable part numbers.



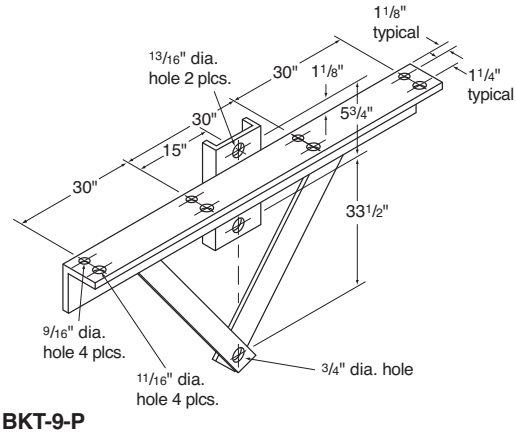
BKT-6-P
wood pole bracket
2" slip fitter



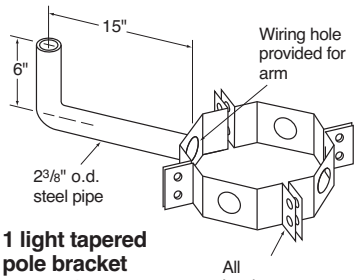
BKT-7-P
2 light cross-arm



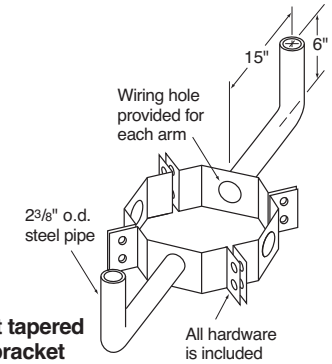
BKT-8-P
3 light cross-arm
08647 required for
middle fixture



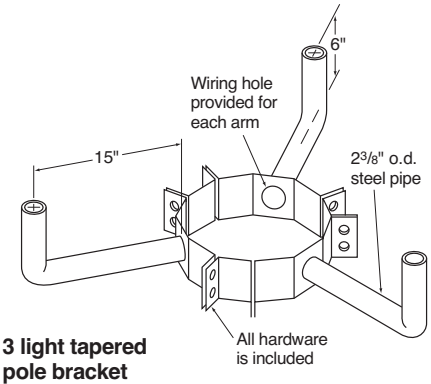
BKT-9-P
4 light cross-arm



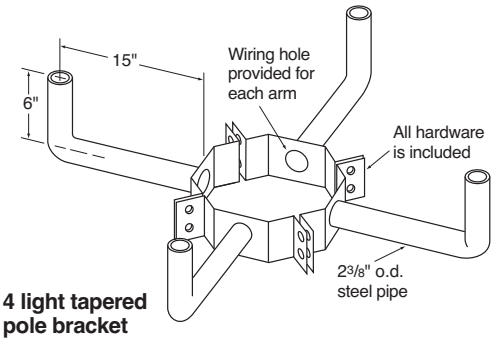
1 light tapered
pole bracket
2" slip fitter
BKT-10-P
7"-10" pole diameter
BKT-11-P
10"-13" pole diameter



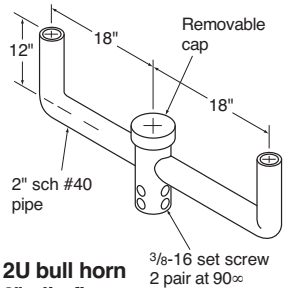
2 light tapered
pole bracket
2" slip fitter
BKT-12-P
7"-10" pole diameter
BKT-13-P
10"-13" pole diameter



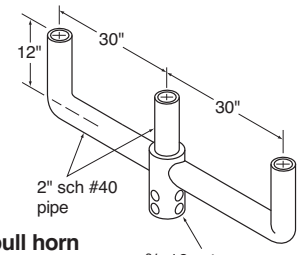
3 light tapered
pole bracket
2" slip fitter
BKT-14-P
7"-10" pole diameter
BKT-15-P
10"-13" pole diameter



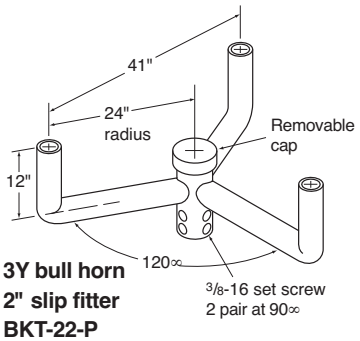
4 light tapered
pole bracket
2" slip fitter
BKT-16-P
7"-10" pole diameter
BKT-17-P
10"-13" pole diameter



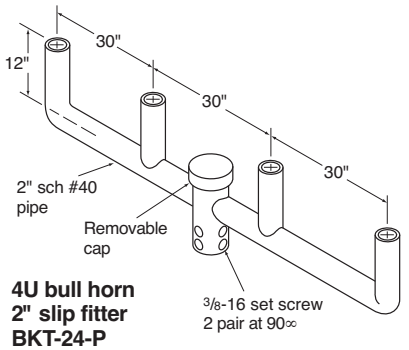
2U bull horn
2" slip fitter
BKT-18-P
2 3/8" tenon
BKT-19-P
4" tenon



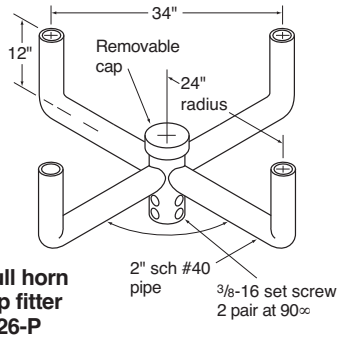
3U bull horn
2" slip fitter
BKT-20-P
2 3/8" tenon
BKT-21-P
4" tenon



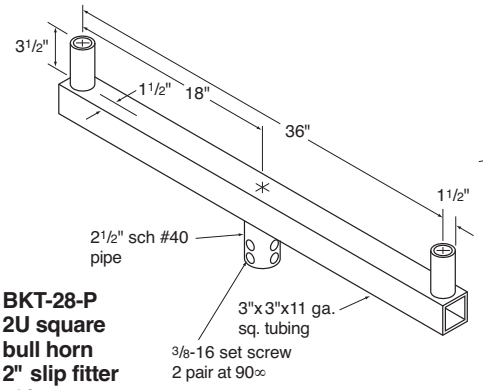
3Y bull horn
2" slip fitter
BKT-22-P
2 3/8" tenon
BKT-23-P
4" tenon



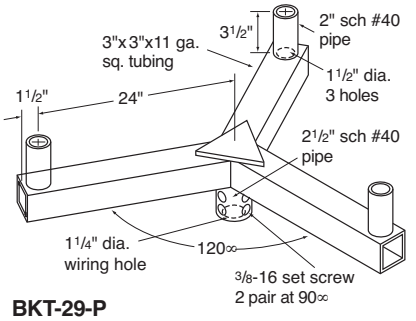
4U bull horn
2" slip fitter
BKT-24-P
2 3/8" tenon
BKT-25-P
4" tenon



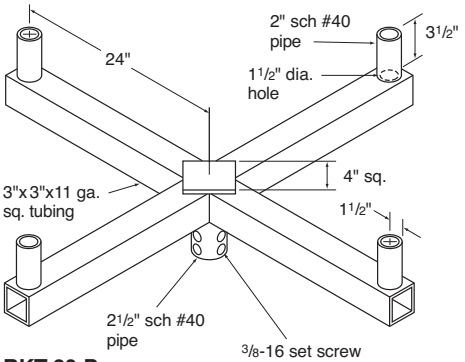
4X bull horn
2" slip fitter
BKT-26-P
2 3/8" tenon
BKT-27-P
4" tenon



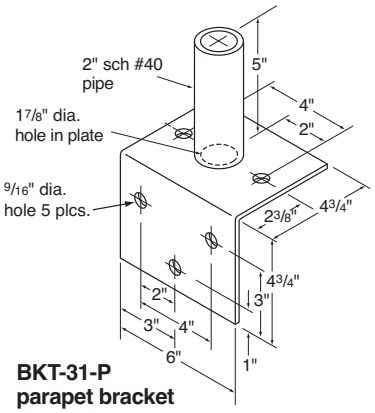
BKT-28-P
2U square
bull horn
2" slip fitter
2 3/8" tenon



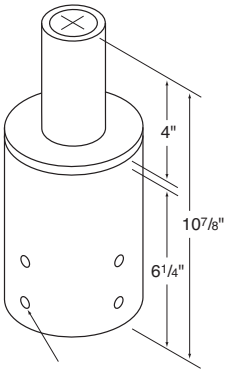
BKT-29-P
3Y square
bull horn
2" slip fitter
2 3/8" tenon



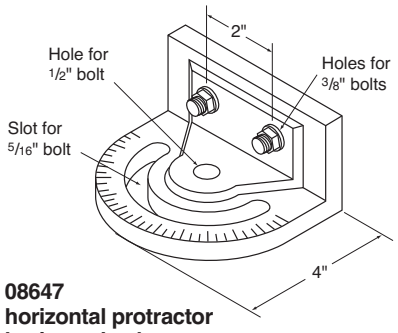
BKT-30-P
4X square
bull horn
2" slip fitter
2 3/8" tenon



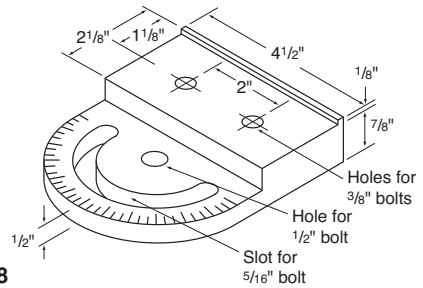
BKT-31-P
parapet bracket
2" slip fitter



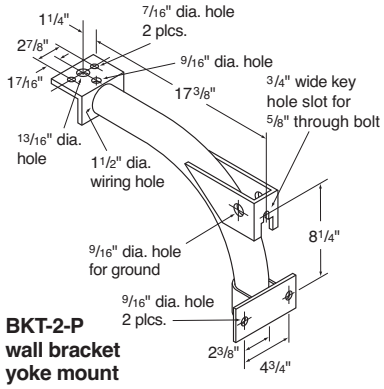
BKT-32-P
tenon reducer
4" to 2 3/8"



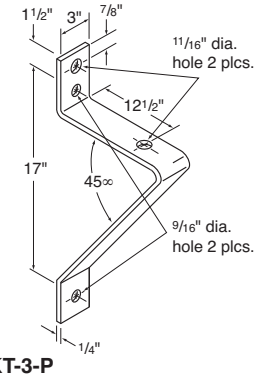
08647
horizontal protractor
horizontal yoke
galvanized



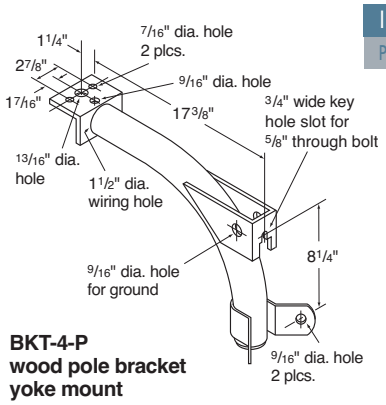
09128
horizontal protractor
vertical yoke
cast aluminum



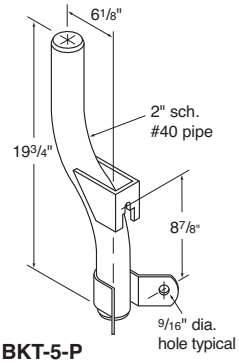
BKT-2-P
wall bracket
yoke mount



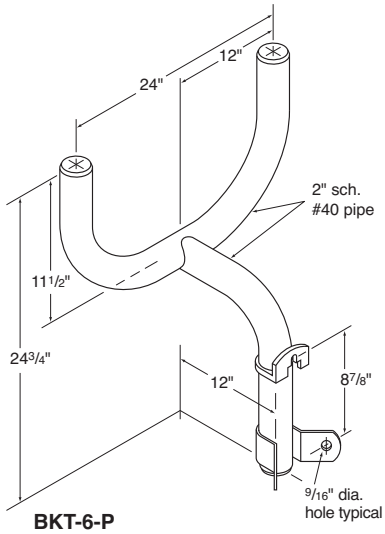
BKT-3-P
wall or wood pole bracket
yoke mount



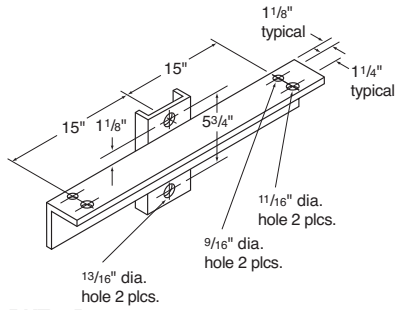
BKT-4-P
wood pole bracket
yoke mount



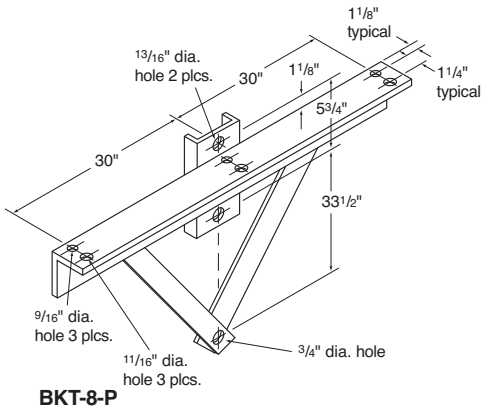
BKT-5-P
wood pole bracket
2" slip fitter



BKT-6-P
wood pole bracket
2" slip fitter



BKT-7-P
2 light cross-arm



BKT-8-P
3 light cross-arm
08647 required for
middle fixture

Pole Selection Guide

The purpose of the Pole Selection Guide is to allow one to choose the most economical pole solution for either Round Tapered Aluminum (RTA), Square Straight Aluminum (SSA), Round Tapered Steel (RTS), and Square Straight Steel (SSS) when combined with a Holophane Outdoor luminaire assembly.

FIRST: Determine the luminaire of choice. Go to the pole mounting selection guide for the luminaire selected. (Pages 98-107). Select the quantity mounting configuration required per pole. The chart will provide you with the Effective Projected Area, EPA (ft^2), and weight on the configuration chosen. Determine the pole top style (tenon) or pole top drill pattern (non-tenon) from the chart. Determine from the Pole Mounting Selection Guide if 0" vertical offset of EPA or 30" vertical offset of EPA is required for pole selection. (See footnote under luminaire chart)

SECOND: Select the material (steel or aluminum) and shape (round or square) of the pole along with design criteria required (Non-AASHTO or AASHTO). Refer to the "Technical Information" on the appropriate pole page. (Pages 90-97)

Find the desired nominal mounting height in the third column.

Verify that the fixture weight does not exceed the maximum weight listed for wind speed required.

Compare your total EPA (ft^2) loading with the maximum EPA (ft^2) value found in the wind speed column for your application. Check that the luminaire package EPA does not exceed maximum EPA allowed for the pole.

If both the weight and EPA values do not exceed for which the pole is rated, you have selected the correct pole. If, however, either one of those numbers exceeds the maximum rated values, compare the EPA and fixture weight loads to the next larger pole of the same mounting height.

THIRD: Select the anchor bolt and template required for the chosen pole by using the reference item number and referring to the Anchor Bolt/Bolt Circle Table from the Pole Specification Sheet. (Pages 90-97)

Ordering Information Sequence		
1.	Base Pole	(Pole Specification Sheet)
2.	Pole Top Style	(Pole Mounting Selection Guide)
3.	Pole Top Drill Pattern	(Pole Mounting Selection Guide)
4.	Finish	(Pole Specification Sheet)
5.	Options if Required	(Pole Specification sheet)
6.	Anchor Bolt	(Pole Specification Sheet)
7.	Template	(Pole Specification sheet)
8.	Luminaire Arm if Required	(Pole Mounting Selection Guide)
9.	Tenon adapter if Required	(Pole Mounting Selection Guide)
10.	Luminaire	(Luminaire section)

For Example:

Luminaire:	**G250HPMALNFVG**	(page 101)
Pole:	**25 foot RTA**	(page 90)
Wind Speed:	**100 MPH AASHTO required**	(page 108)
Mounting Configuration:	**2 luminaires mounted at 180°**	(page 101)

FIRST: A) Determine quantity of fixtures and mounting method
Pole mounting requires BR-899

B) Determine EPA, weight, and if 0" or 30" offset required
5.66 EPA, 121 pounds, 30" vertical offset

SECOND: Select poles that exceed the 5.66 EPA, 121 pounds, at 30 inch offset EPA RTA2580E and RTA2580G both qualify. Pick RTA2580E as the lowest cost alternate in this example.

THIRD: Select anchor bolts and template required by using the Ref. Item No. from the anchor bolt/bolt circle table.
RTA2580E- Ref item no = 4, which uses AB-27-4 and TMP-46

Ordering Information Sequence		
1.	Base Pole	**RTA2580E**
2.	Pole Top Style	**PL**
3.	Pole Top Drill Pattern	**ND**
4.	Finish	**GR**
5.	Options if Required	**(none required)**
6.	Anchor Bolt	**AB-27-4**
7.	Template	**TMP-46**
8.	Luminaire Arm if Required	**(none required)**
9.	Tenon adapter if Required	**BR-899-GR**
10.	Luminaire	**G250HPMALNFV6**

(RTA2580EPLNDGR-AB-27-4-TMP-46-BR-899-GR-(2)G250HPMALNFVG

Pole Selection Guide

Round Tapered Aluminum
RTA

Poles shall be fabricated to meet AASHTO 1994 requirements. Welds conform to applicable AWS structural welding code. Pole shaft is one piece, 6063 aluminum alloy, heat treated to a T6 temper. Pole base shall be 356 or A356 aluminum alloy, heat treated to a T6 temper after welding. Hand hole is 2" x 4" minimum, cover and fasteners are included. Nut covers shall be provided as standard. Finish shall match pole non-structural fasteners shall be stainless steel.

FEATURES:

- Anodized, painted, or satin brush finish. Painted poles shall be semi-gloss powder paint.
- Grounding provision shall be immediately accessible through hand hole, 3/8-16 threads.
- Steel anchor bolts shall be per AASHTO M314 or ASTM F 1554 - Grade 55, hot dip galvanized. Nuts and washers shall be per AASHTO M314-90 or ASTM F 1554 - hot dip galvanized.

Example: RTA2570E P2 ND BZ 1

How to Construct a Catalog Number:

RTA2570E	P2	ND	BZ	1
1	**2**	**3**	**4**	**5**

1 Base Pole

See Catalog Prefix Chart on page 87

2 Pole Top Style

P2	Tenon, 2.38 O.D. x 4" LG.
P3	Tenon, 3.50 O.D. x 6" LG.
P4	Tenon, 4.00 O.D. x 6" LG.
P5	Tenon, 2.88 O.D. x 4" LG.
P6	Tenon, 2.38 O.D. x 6" LG.
P7	Tenon, 3.00 O.D. x 3" LG.
PL	Plain Top, No Tenon

3 Drill Pattern

ND	No Drill Pattern

4 Finish

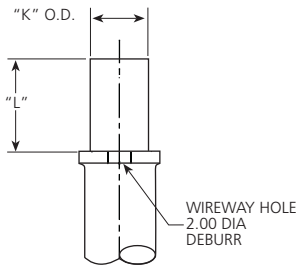
AK	Black Anodized
AZ	Bronze Anodized
BK	Black Paint
BZ	Bronze Paint
GN	Green Paint
GR	Grey Paint
SB	Satin Brush
WH	White Paint

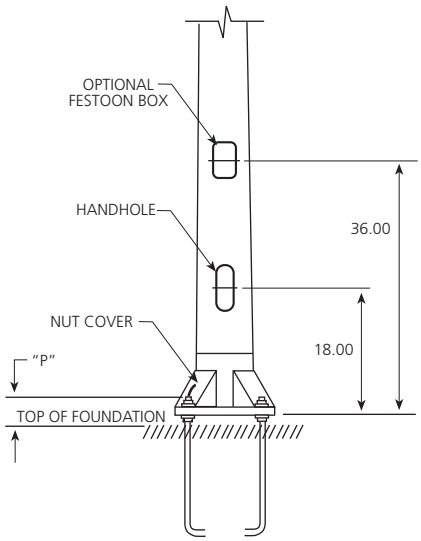
5 Options

1[1]	Festoon Box
2	Base Cover
3	Tamper Resistant Screws
4	Vibration Dampener

1 Festoon Box is located on the same side as the hand hole, 36" above pole base. Receptacle/Cover are not included.

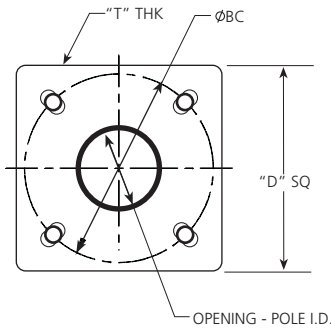
POLE TOP STYLE





POLE TOP STYLE	K	L
P2	2.38	4.00
P3	3.50	6.00
P4	4.00	6.00
P5	2.88	4.00
PL	PLAIN TOP, NO TENON	
P6	2.38	6.00
P7	3.00	3.00

BASE DETAIL



Anchor Bolt/Bolt Circle Table

Item No.	Bolt Circle Dia.	Min. Base Size "D"	Base Thk. "T"	Bolt Projection	Anchor Bolt Set	Bolt Circle Template
1	8.50	9.25	0.56	3.00 - 3.50	AB-26-4	TMP-40
2	9.50	10.25	0.75	3.25 - 3.75	AB-26-4	TMP-42
3	10.50	10.50	0.75	3.75 - 4.25	AB-27-4	TMP-44
4	11.50	11.50	0.88	3.88 - 4.38	AB-27-4	TMP-46
5	14.50	14.50	1.13	4.00 - 4.50	AB-27-4	TMP-51
6	14.50	14.50	1.13	4.50 - 5.00	AB-28-4	TMP-51

Base Pole Number (Catalog Prefix)	Nominal Shaft Size & Wall Thickness	EPA Vertical Offset from top of pole	AASHTO 1994 Rating						Bolt Circle Dia.	Anchor Bolt Size	Item No.
			80 MPH		90 MPH		100 MPH				
			Max. EPA	Max. Wt.	Max. EPA	Max. Wt.	Max. EPA	Max. Wt.			
20′ NOMINAL POLE HEIGHT											
RTA2050C	5.0 x 3.0 x .125 Wall	0″	3.9	97	2.7	68	1.8	46	8.50	.75 x 17 + 3	1
		30″	3.5	89	2.4	61	1.6	41			
RTA2050G	5.0 x 3.0 x .188 Wall	0″	6.8	170	5.1	129	3.9	97	8.50	.75 x 17 + 3	1
		30″	6.1	152	4.6	115	3.4	87			
RTA2060G	6.0 x 4.0 x .188 Wall	0″	11.0	227	8.7	219	7.1	177	9.50	.75 x 17 + 3	2
		30″	9.9	247	7.7	194	6.2	157			
RTA2070E	7.0 x 4.0 x .156 Wall	0″	13.3	334	10.6	265	8.6	215	10.50	1.00 x 36 + 4	3
		30″	11.8	298	9.4	235	7.6	190			
25′ NOMINAL POLE HEIGHT											
RTA2560E	6.0 x 4.0 x .156 Wall	0″	4.9	124	3.6	91	2.8	70	9.50	.75 x 17 + 3	2
		30″	4.5	113	3.3	83	2.5	64			
RTA2570E	7.0 x 4.0 x .156 Wall	0″	8.4	210	6.5	163	5.2	130	10.50	1.00 x 36 + 4	3
		30″	7.7	192	5.9	148	4.7	118			
RTA2580E	8.0 x 4.5 x .156 Wall	0″	12.3	309	9.8	245	7.9	199	11.50	1.00 x 36 + 4	4
		30″	11.2	282	8.9	223	7.2	180			
RTA2580G	8.0 x 4.5 x .188 Wall	0″	15.5	389	12.4	311	10.1	254	11.50	1.00 x 36 + 4	4
		30″	14.2	355	11.3	283	9.2	230			
30′ NOMINAL POLE HEIGHT											
RTA3070E	7.0 x 4.0 x .156 Wall	0″	5.0	125	3.7	92	2.8	70	10.50	1.00 x 36 + 4	3
		30″	4.6	116	3.4	86	2.6	65			
RTA3080E	8.0 x 4.5 x .156 Wall	0″	8.1	204	6.3	158	5.0	125	11.50	1.00 x 36 + 4	4
		30″	7.5	189	5.8	146	4.6	116			
RTA3080G	8.0 x 4.5 x .188 Wall	0″	10.6	266	8.4	209	6.7	168	11.50	1.00 x 36 + 4	4
		30″	9.9	247	7.7	194	6.2	156			
RTA3010G	10.0 x 6.0 x .188 Wall	0″	20.9	524	16.7	419	13.5	340	14.50	1.00 x 36 + 4	5
		30″	19.3	484	15.4	387	12.5	313			
35′ NOMINAL POLE HEIGHT											
RTA3580E	8.0 x 4.5 x .156 Wall	0″	5.0	126	3.7	93	2.8	71	11.50	1.00 x 36 + 4	4
		30″	4.8	120	3.5	88	2.6	66			
RTA3580G	8.0 x 4.5 x .188 Wall	0″	7.2	178	5.4	135	4.2	106	11.50	1.00 x 36 + 4	4
		30″	6.7	167	5.1	127	4.0	100			
RTA3580J	8.0 x 4.5 x .250 Wall	0″	10.8	272	8.6	214	6.9	172	11.50	1.00 x 36 + 4	4
		30″	10.2	255	8.0	201	6.4	161			
RTA3510G	10.0 x 6.0 x .188 Wall	0″	15.5	390	12.3	308	9.9	247	14.50	1.00 x 36 + 4	5
		30″	14.5	365	11.5	289	9.2	231			
39′ NOMINAL POLE HEIGHT											
RTA3980G	8.0 x 4.5 x .188 Wall	0″	4.8	121	3.5	89	2.6	66	11.50	1.00 x 36 + 4	4
		30″	4.6	116	3.4	84	2.5	62			
RTA3980J	8.0 x 4.5 x .250 Wall	0″	8.1	203	6.3	157	4.9	123	11.50	1.00 x 36 + 4	4
		30″	7.7	192	5.9	148	4.6	116			
RTA3910G	10.0 x 6.0 x .188 Wall	0″	12.2	306	9.5	239	7.5	187	14.50	1.00 x 36 + 4	5
		30″	11.5	289	9.0	225	7.0	176			
RTA3910J	10.0 x 6.0 x .250 Wall	0″	17.8	447	14.1	355	11.3	284	14.50	1.25 x 48 + 6	6
		30″	16.8	421	13.3	334	10.6	267			

** Item number per anchor bolt/bolt circle table*

Pole Selection Guide

Square Straight Aluminum
SSA

Welds conform to applicable AWS structural welding code. Pole shaft is one piece, 6005, 6061, or 6063 aluminum alloy, heat treated to a T6 temper. Pole base shall be 356 or A356 aluminum alloy, heat treated to a T6 temper after welding. Hand hole is 2" x 4" minimum, cover and fasteners are included. Nut covers shall be provided as standard. Finish shall match pole. Removable pole cap shall be provided with each drill pattern type pole. Non-structural fasteners shall be stainless steel.

FEATURES:

- Anodized, painted, or satin brush finish. Painted poles shall be semi-gloss powder paint.
- Grounding provision shall be immediately accessible through hand hole, 3/8-16 threads.
- Steel anchor bolts shall be per AASHTO M314 or ASTM F 1554 - Grade 55, hot dip galvanized. Nuts and washers shall be per AAHTO M314-90 or AST F 1554 - hot dip galvanized.

Example: SSA2555G D1 R3 BZ 1

How to Construct a Catalog Number:

SSA2555G	D1	R3	BZ	1
1	2	3	4	5

1 Base Pole

See Catalog Prefix Chart on page 89

2 Pole Top Style

D1	Drilling for 1 Unit
D2	Drilling for 2 Units @ 180°
D3	Drilling for 3 Units @ 90°
D4	Drilling for 4 Units @ 90°
D5	Drilling for 2 Units @ 90°
P2	Tenon, 2.38 O.D. x 4" LG.
P3	Tenon, 3.50 O.D. x 6" LG.
P4	Tenon, 4.00 O.D. x 6" LG.
P5	Tenon, 2.88 O.D. x 4" LG.

3 Drill Pattern

H1[1]	Parkpak®, Horz. No Arm
H3[1]	Parkpak®, Horz. With Arm
K8[1]	Mongoose®, Sq. Postop Arm
R2[1]	Module 600® only
R3[1]	Mongoose®, Arch Arm
W5[1]	Parkpak®, Vert. No Arm
ND[2]	No Drill Pattern

1 Available on drilled pole tops only
2 Only available on tenon pole tops

4 Finish

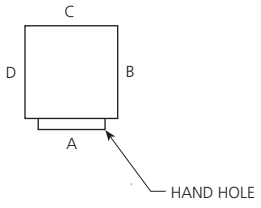
AK	Black Anodized
AZ	Bronze Anodized
BK	Black Paint
BZ	Bronze Paint
GN	Green Paint
GR	Grey Paint
SB	Satin Brush
WH	White Paint

5 Options

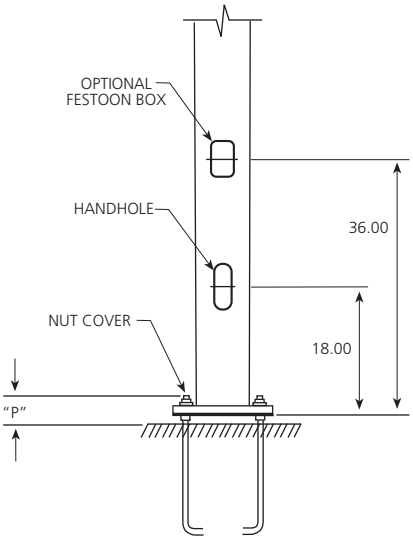
1[1]	Festoon Box
3	Tamper Resistant Screws
4	Vibration Dampener

1 Festoon Box is located on the same side as the hand hole, 36" above pole base. Receptacle/Cover are not included.

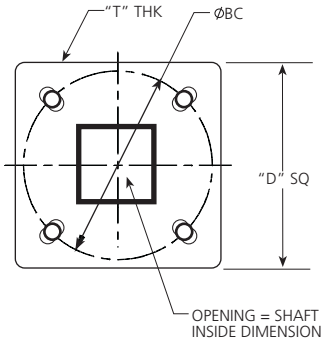
DRILL PATTERN ORIENTATION



POLE TOP STYLE		ORIENTATION
D1	1 UNIT	C
D2	2 UNITS @ 180°	B, D
D3	3 UNITS @ 90°	B, C, D
D4	4 UNITS @ 90°	A, B, C, D
D5	2 UNITS @ 90°	B, C



BASE DETAIL



Anchor Bolt/Bolt Circle Table

Item No.	Bolt Circle Dia.	Min. Base Size "D"	Base Thk. "T"	Bolt Projection	Anchor Bolt Set	Bolt Circle Template
1	9.0	9.88	0.43	2.88 - 3.38	AB-26-4	TMP-41
2	11.0	11.25	0.50	3.00 - 3.50	AB-26-4	TMP-45
3	12.50	12.25	0.63	3.50 - 4.00	AB-27-4	TMP-48

Base Pole Number (Catalog Prefix)	Nominal Shaft Size & Wall Thickness	EPA Vertical Offset from top of pole	NON-AASHTO Rating						Bolt Circle Dia.	Anchor Bolt Size	Item No.
			80 MPH		90 MPH		100 MPH				
			Max. EPA	Max. Wt.	Max. EPA	Max. Wt.	Max. EPA	Max. Wt.			
8′ NOMINAL POLE HEIGHT											
SSA0844C	4.0 Square x .125 Wall	0″	19.6	490	15.0	375	11.7	293	9.00	.75 x 17 + 3	1
		30″	14.6	365	11.4	285	8.8	220			
10′ NOMINAL POLE HEIGHT											
SSA1044C	4.0 Square x .125 Wall	0″	14.0	350	10.6	265	7.6	195	9.00	75 x 17 + 3	1
		30″	11.3	283	8.4	210	6.2	155			
12′ NOMINAL POLE HEIGHT											
SSA1244C	4.0 Square x .125 Wall	0″	17.6	440	13.6	340	10.5	263	9.00	75 x 17 + 3	1
		30″	11.5	288	8.7	218	6.7	168			
14′ NOMINAL POLE HEIGHT											
SSA1444C	4.0 Square x .125 Wall	0″	13.3	333	9.8	245	7.3	183	9.00	75 x 17 + 3	1
		30″	8.8	220	6.5	163	4.8	120			
15′ NOMINAL POLE HEIGHT											
SSA1544C	4.0 Square x .125 Wall	0″	9.2	230	6.5	163	4.6	115	9.00	75 x 17 + 3	1
		30″	7.6	190	5.4	135	3.8	95			
16′ NOMINAL POLE HEIGHT											
SSA1644C	4.0 Square x .125 Wall	0″	7.7	193	5.3	133	3.5	88	9.00	75 x 17 + 3	1
		30″	6.4	160	4.4	110	2.9	73			
SSA1644G	4.0 Square x .188 Wall	0″	12.8	320	9.5	238	6.8	170	9.00	75 x 17 + 3	1
		30″	10.8	270	7.9	198	5.8	145			
SSA1655G	5.0 Square x .188 Wall	0″	23.0	575	17.3	433	13.1	328	11.00	75 x 17 + 3	2
		30″	19.3	483	14.5	363	11.0	275			
18′ NOMINAL POLE HEIGHT											
SSA1844C	4.0 Square x .125 Wall	0″	5.2	130	3.1	78	1.5	38	9.00	75 x 17 + 3	1
		30″	4.4	110	2.6	65	1.3	33			
SSA1844G	4.0 Square x .188 Wall	0″	9.7	243	6.7	168	4.5	113	9.00	75 x 17 + 3	1
		30″	8.2	205	5.7	143	3.8	95			
SSA1855G	5.0 Square x .188 Wall	0″	18.0	450	13.1	328	9.5	238	11.00	75 x 17 + 3	2
		30″	15.4	385	11.2	280	8.1	203			
20′ NOMINAL POLE HEIGHT											
SSA2044C	4.0 Square x .125 Wall	0″	3.1	78	1.2	30	NA	NA	9.00	75 x 17 + 3	1
		30″	2.7	68	1.1	28	NA	NA			
SSA2044G	4.0 Square x .188 Wall	0″	7.0	175	4.4	110	2.4	60	9.00	75 x 17 + 3	1
		30″	6.1	153	3.8	95	2.1	53			
SSA2055G	5.0 Square x .188 Wall	0″	14.0	350	9.6	240	6.5	163	11.00	75 x 17 + 4	2
		30″	12.2	305	8.4	210	5.6	140			
SSA2066G	6.0 Square x .188 Wall	0″	22.1	553	15.4	385	10.8	270	12.50	1.00 x 36 + 4	3
		30″	19.3	483	13.6	340	9.4	235			
SSA2066J	6.0 Square x .250 Wall	0″	31.0	775	23.0	575	16.7	418	12.50	1.00 x 36 + 4	3
		30″	27.3	683	20.0	500	14.7	368			
25′ NOMINAL POLE HEIGHT											
SSA2555G	5.0 Square x .188 Wall	0″	6.4	160	3.0	75	NA	NA	11.00	75 x 17 + 4	2
		30″	5.6	140	2.7	68	NA	NA			
SSA2566G	6.0 Square x .188 Wall	0″	13.0	325	8.2	205	4.3	108	12.50	1.00 x 36 + 4	3
		30″	11.9	298	7.3	183	3.8	95			
SSA2566J	6.0 Square x .250 Wall	0″	18.1	453	11.7	293	7.0	175	12.50	1.00 x 36 + 4	3
		30″	16.2	405	10.5	263	6.3	158			
30′ NOMINAL POLE HEIGHT											
SSA3066G	6.0 Square x .188 Wall	0″	4.2	105	NA	NA	NA	NA	12.50	1.00 x 36 + 4	3
		30″	3.9	98	NA	NA	NA	NA			
SSA3066J	6.0 Square x .250 Wall	0″	11.1	278	6.0	150	2.2	55	12.50	1.00 x 36 + 4	3
		30″	10.0	250	5.4	135	2.0	50			
32′ NOMINAL POLE HEIGHT											
SSA3266J2	6.0 Square x .250 Wall	0″	7.7	193	3.0	75	NA	NA	12.50	1.00 x 36 + 4	3
		30″	7.0	175	2.7	68	NA	NA			
35′ NOMINAL POLE HEIGHT											
SSA3566J2	6.0 Square x .250 Wall	0″	4.9	123	NA	NA	NA	NA	12.50	1.00 x 36 + 4	3
		30″	4.4	110	NA	NA	NA	NA			

** Item number per anchor bolt/bolt circle table*

Pole Selection Guide

Round Tapered Steel

RTS

Example: RTS2570B P2 ND BZ 1

Welds conform to applicable AWS structural welding code. Pole shaft is one piece, low carbon alloy steel per ASTM A595, Grade A with 55,000-PSI minimum yield strength. Pole base shall be per ASTM A36 and shall telescope pole shaft and be circumferentially welded top and bottom. Hand hole is 2" x 4" minimum, cover and fasteners are included. Base covers shall be two piece, interlocking construction. Finish shall match pole. Removable pole cap shall be provided with each drill pattern type pole. Non-structural fasteners shall be stainless steel.

FEATURES:

- Galvanized poles will be finished per ASTM A123. Painted poles shall be semi-gloss powder paint.
- Grounding provision shall be immediately accessible through hand hole, 1/2-13 threads.
- Steel anchor bolts shall be per AASHTO M314 or ASTM F 1554 - Grade 55, hot dip galvanized. Nuts and washers shall be per AASHTO M314-90 or ASTM F 1554 - hot dip galvanized.

How to Construct a Catalog Number:

RTS2570B	P2	ND	BZ	1
1	2	3	4	5

1 Base Pole

See Catalog Prefix Chart on page 91

2 Pole Top Style

- **P2** Tenon, 2.38 O.D. x 4" LG.
- **P3** Tenon, 3.50 O.D. x 6" LG.
- **P4** Tenon, 4.00 O.D. x 6" LG.
- **P5** Tenon, 2.88 O.D. x 4" LG.
- **P6** Tenon, 2.38 O.D. x 6" LG.
- **P7** Tenon, 3.00 O.D. x 3" LG.
- **PL** Plain Top, No Tenon

3 Drill Pattern

- **ND** No Drill Pattern

4 Finish

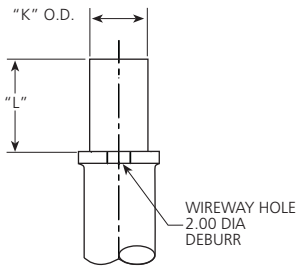
- **BK** Black Paint
- **BZ** Bronze Paint
- **GN** Green Paint
- **GR** Grey Paint
- **HG** Hot Dip Galvanize
- **PP** Prime Paint
- **WH** White Paint

5 Options

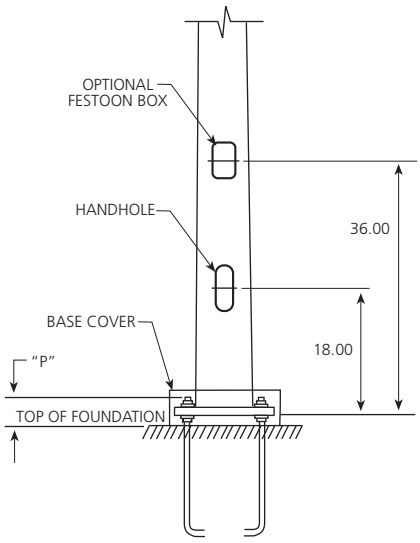
- **1**[1] Festoon Box
- **2** Nut Covers
- **3** Tamper Resistant Screws
- **4** Vibration Dampener

1 Festoon Box is located on the same side as the hand hole, 36" above pole base. Receptacle/Cover are not included.

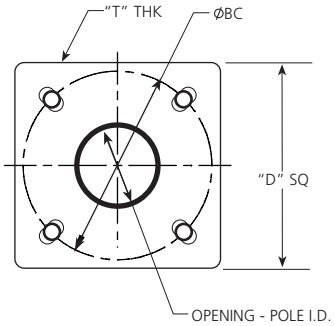
POLE TOP STYLE



POLE TOP STYLE	K	L
P2	2.38	4.00
P3	3.50	6.00
P4	4.00	6.00
P5	2.88	4.00
PL	PLAIN TOP, NO TENON	
P6	2.38	6.00
P7	3.00	3.00



BASE DETAIL



Anchor Bolt/Bolt Circle Table

Item No.	Bolt Circle Dia.	Min. Base Size "D"	Base Thk. "T"	Bolt Projection	Anchor Bolt Set	Bolt Circle Template
1	9.00	10.00	0.88	3.88 - 4.38	AB-27-4	TMP-41
2	9.50	10.50	0.88	3.88 - 4.38	AB-27-4	TMP-42
3	10.00	10.88	0.88	3.88 - 4.38	AB-27-4	TMP-43
4	10.00	10.88	1.00	4.00 - 4.50	AB-27-4	TMP-43
5	10.50	11.25	0.88	3.88 - 4.38	AB-27-4	TMP-44
6	11.00	11.50	0.88	3.88 - 4.38	AB-27-4	TMP-45
7	11.00	11.50	1.25	4.75 - 5.25	AB-28-4	TMP-45
8	11.50	12.00	1.00	4.00 - 4.50	AB-27-4	TMP-46
9	12.50	12.38	1.00	4.00 - 4.50	AB-27-4	TMP-48
10	12.50	12.38	1.25	4.75 - 5.25	AB-28-4	TMP-48
11	13.00	13.00	1.00	4.00 - 4.50	AB-27-4	TMP-49
12	13.50	14.00	1.00	4.00 - 4.50	AB-27-4	TMP-50
13	13.50	14.00	1.25	4.75 - 5.25	AB-28-4	TMP-50

Base Pole Number (Catalog Prefix)	Nominal Shaft Size & Wall Thickness	EPA Vertical Offset from top of pole	Non-AASHTO 80 MPH+1.3		AASHTO 1994 80 MPH		Non-AASHTO 90 MPH+1.3		AASHTO 1994 90 MPH		Non-AASHTO 100 MPH+1.3		AASHTO 1994 100 MPH		Bolt Circle Dia.	Anchor Bolt Size	Item No.
			Max. EPA	Max. Wt.	Max. EPA	Max. Wt.	Max. EPA	Max. Wt.	Max. EPA	Max. Wt.	Max. EPA	Max. Wt.	Max. EPA	Max. Wt.			
20′ NOMINAL POLE HEIGHT																	
RTS2059B	5.9 x 3.1 x 11 Gauge Wall	0″	23.0	575	18.1	453	18.1	453	14.1	352	14.6	365	11.2	280	9.00	1.00 x 36 + 4	1
		30″	19.3	482	15.5	388	15.1	377	12.1	303	12.2	305	9.5	237			
RTS2065B	6.5 x 3.7 x 11 Gauge Wall	0″	29.0	725	20.0	500	23.0	575	17.8	445	18.7	468	14.2	355	9.50	1.00 x 36 + 4	2
		30″	24.2	605	19.4	485	19.3	482	15.2	380	15.6	390	12.3	308			
25′ NOMINAL POLE HEIGHT																	
RTS2559B	5.9 x 2.4 x 11 Gauge Wall	0″	15.0	375	12.6	315	12.0	300	9.9	248	9.5	238	7.7	193	9.00	1.00 x 36 + 4	1
		30″	12.0	300	10.7	269	9.9	247	8.4	210	8.0	200	6.6	165			
RTS2570B	7.0 x 3.5 x 11 Gauge Wall	0″	23.8	595	19.5	488	18.8	470	15.0	375	15.2	380	12.0	300	10.00	1.00 x 36 + 4	3
		30″	20.3	507	17.1	428	16.2	405	13.3	333	13.1	327	10.6	265			
RTS2570F	7.0 x 3.5 x 7 Gauge Wall	0″	34.4	860	21.2	530	27.4	685	16.4	410	22.2	555	13.0	325	10.00	1.00 x 36 + 4	4
		30″	30.5	760	18.6	465	24.0	625	14.5	363	19.8	495	11.5	288			
30′ NOMINAL POLE HEIGHT																	
RTS3066B	6.6 x 2.4 x 11 Gauge Wall	0″	14.0	350	11.0	275	10.9	273	8.5	213	8.5	213	6.5	163	9.50	1.00 x 36 + 4	2
		30″	11.0	275	9.5	238	9.0	225	7.4	185	7.5	188	5.8	145			
RTS3080B	8.0 x 3.8 x 11 Gauge Wall	0″	20.8	520	16.0	400	16.5	413	12.4	310	13.3	333	9.8	245	11.00	1.00 x 36 + 4	6
		30″	18.9	473	14.3	358	14.9	373	11.0	275	12.0	300	8.8	220			
RTS3080F	8.0 x 3.8 x 7 Gauge Wall	0″	37.1	928	25.3	633	29.7	743	22.3	558	24.1	603	18.1	453	11.00	1.25 x 42 + 6	7
		30″	33.5	838	23.3	583	27.0	675	20.0	500	22.0	550	16.2	504			
35′ NOMINAL POLE HEIGHT																	
RTS3573B	7.3 x 2.4 x 11 Gauge Wall	0″	13.2	330	10.5	263	10.4	260	8.0	200	8.3	208	6.0	150	10.50	1.00 x 36 + 4	5
		30″	11.0	225	9.2	230	8.5	213	7.0	175	7.0	175	5.5	138			
RTS3585B	8.5 x 3.6 x 11 Gauge Wall	"0″	21.0	525	12.8	320	16.5	413	9.5	238	13.5	338	7.5	188	11.50	1.00 x 36 + 4	8
		30″	18.0	450	11.5	288	14.5	363	8.7	218	12.0	300	6.7	168			
RTS3595B	9.5 x 4.6 x 11 Gauge Wall	0″	25.2	630	15.3	383	19.8	495	12.0	300	15.8	395	9.4	235	13.00	1.00 x 36 + 4	11
		30″	23.2	580	14.0	350	18.2	455	10.8	270	14.5	363	8.5	213			
39′ NOMINAL POLE HEIGHT																	
RTS3978B	7.8 x 2.4 x 11 Gauge Wall	0″	12.2	305	9.3	233	9.2	230	6.7	168	7.2	180	4.9	123	11.00	1.00 x 36 + 4	6
		30″	10.7	267	8.4	210	8.5	212	6.1	153	6.6	165	4.4	110			
RTS3990B	9.0 x 3.6 x 11 Gauge Wall	0″	18.6	465	11.7	293	14.6	365	8.7	218	11.6	290	6.5	163	12.50	1.00 x 36 + 4	9
		30″	17.2	430	10.6	265	13.5	338	7.9	198	10.8	270	5.9	148			
RTS3990F	9.0 x 3.6 x 7 Gauge Wall	0″	31.6	790	22.3	558	25.3	633	17.3	433	20.3	508	13.7	343	12.50	1.25 x 42 + 6	10
		30″	28.5	715	20.2	505	23.0	575	15.8	395	19.0	475	12.4	310			
45′ NOMINAL POLE HEIGHT																	
RTS4510B	10.0 x 3.7 x 11 Gauge Wall	0″	18.7	468	9.1	228	14.6	365	6.6	165	11.4	285	4.8	120	13.50	1.00 x 36 + 4	12
		30″	17.4	435	8.4	210	13.5	338	6.0	150	10.6	265	4.3	108			
TS4510F	10.0 x 3.7 x 7 Gauge Wall	0″	31.3	783	19.0	475	25.4	635	14.6	365	20.6	515	11.4	285	13.50	1.25 x 42 + 6	13
		30″	28.5	715	17.4	435	23.0	575	13.4	335	19.0	475	10.4	260			
50′ NOMINAL POLE HEIGHT																	
RTS5010B	10.0 x 3.0 x 11 Gauge Wall	0″	14.8	370	6.0	150	11.4	285	3.9	98	8.8	220	2.5	63	13.50	1.00 x 36 + 4	12
		30″	12.5	313	5.4	135	10.0	250	3.5	88	8.3	208	2.2	55			
RTS5010F	10.0 x 3.0 x 7 Gauge Wall	0″	23.4	585	13.7	343	18.8	479	10.2	255	15.4	385	7.5	188	13.50	1.25 x 42 + 6	13
		30″	20.5	512	12.5	313	16.5	412	9.4	235	13.6	340	7.0	175			

** Item number per anchor bolt/bolt circle table*

Pole Selection Guide

Square Straight Steel
SSS

Welds conform to applicable AWS structural welding code. Pole shaft is one piece, low carbon alloy steel per ASTM A595, Grade A with 55,000-PSI minimum yield strength. Pole base shall be per ASTM A36 and shall telescope pole shaft and be circumferentially welded top and bottom. Hand hole is 2" x 4" minimum, cover and fasteners are included. Base covers shall be two piece, interlocking construction. Finish shall match pole. Removable pole cap shall be provided with each drill pattern type pole. Non-structural fasteners shall be stainless steel.

FEATURES:

- Galvanized poles will be finished per ASTM A123. Painted poles shall be semi-gloss powder paint.
- Grounding provision shall be immediately accessible through hand hole, 1/2-13 threads.
- Steel anchor bolts shall be per AASHTO M314 or ASTM F 1554 - Grade 55, hot dip galvanized. Nuts and washers shall be per AASHTO M314-90 or ASTM F 1554 - hot dip galvanized.

Example: SSS2555C D1 R3 BZ 1

How to Construct a Catalog Number:

SSS2555C	D1	R3	BZ	1
1	**2**	**3**	**4**	**5**

1 Base Pole

See Catalog Prefix Chart on page 93

2 Pole Top Style

D1	Drilling for 1 Unit
D2	Drilling for 2 Units @ 180°
D3	Drilling for 3 Units @ 90°
D4	Drilling for 4 Units @ 90°
D5	Drilling for 2 Units @ 90°
P2	Tenon, 2.38 O.D. x 4" LG.
P3	Tenon, 3.50 O.D. x 6" LG.
P4	Tenon, 4.00 O.D. x 6" LG.
P5	Tenon, 2.88 O.D. x 4" LG.

3 Drill Pattern

H1[1]	Parkpak®, Horz. No Arm
H3[1]	Parkpak®, Horz. With Arm
K8[1]	Mongoose®, Sq. Postop Arm
R2[1]	Module 600® only
R3[1]	Mongoose®, Arch Arm
W5[1]	Parkpak®, Vert. No Arm
ND[2]	No Drill Pattern

1 Available on drilled pole tops only
2 Only available on tenon pole tops

4 Finish

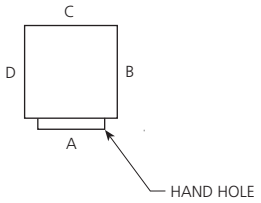
BK	Black Paint
BZ	Bronze Paint
GN	Green Paint
GR	Grey Paint
HG	Hot Dip Galvanize
PP	Prime Paint
WH	White Paint

5 Options

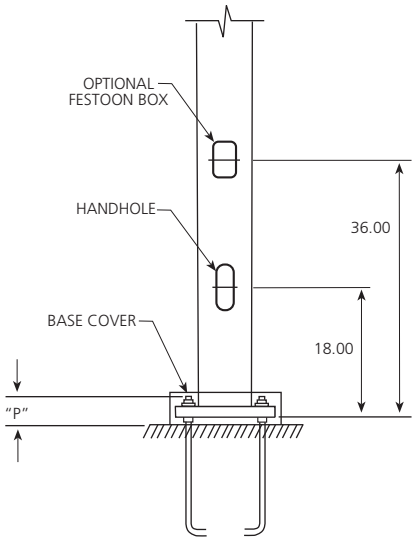
1[1]	Festoon Box
3	Tamper Resistant Screws
4	Vibration Dampener

1 Festoon Box is located on the same side as the hand hole, 36" above pole base. Receptacle/Cover are not included.

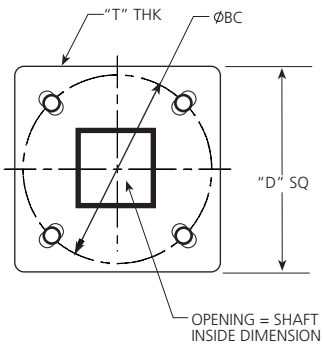
DRILL PATTERN ORIENTATION



POLE TOP STYLE		ORIENTATION
D1	1 UNIT	C
D2	2 UNITS @ 180°	B, D
D3	3 UNITS @ 90°	B, C, D
D4	4 UNITS @ 90°	A, B, C, D
D5	2 UNITS @ 90°	B, C



BASE DETAIL



Anchor Bolt/Bolt Circle Table

Item No.	Bolt Circle Dia.	Min. Base Size "D"	Base Thk. "T"	Bolt Projection	Anchor Bolt Set	Bolt Circle Template
1	8.50	8.00	0.75	3.25 - 3.75	AB-26-4	TMP-40
2	8.50	8.00	0.88	3.38 - 3.88	AB-26-4	TMP-40
3	11.00	11.00	1.00	3.50 - 4.00	AB-26-4	TMP-45
4	11.00	11.00	1.00	4.00 - 4.50	AB-27-4	TMP-45
5	12.00	12.50	1.00	4.00 - 4.50	AB-27-4	TMP-47
6	12.00	12.00	1.00	4.00 - 4.50	AB-27-4	TMP-47

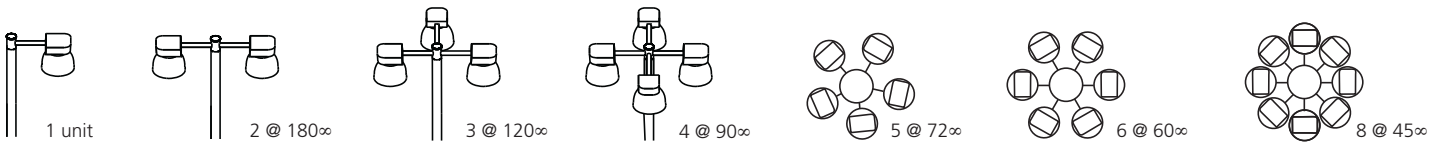
Base Pole Number (Catalog Prefix)	Nominal Shaft Size & Wall Thickness	EPA Vertical Offset from top of pole	NON-AASHTO Rating						Bolt Circle Dia.	Anchor Bolt Size	Item No.
			80 MPH		90 MPH		100 MPH				
			Max. EPA	Max. Wt.	Max. EPA	Max. Wt.	Max. EPA	Max. Wt.			
10′ NOMINAL POLE HEIGHT											
SSS1044C	4.0 Square x 11 Gauge Wall	0″	30.5	763	23.5	588	18.5	463	8.50	.75 x 17 + 3	1
		30″	23.0	575	18.0	450	14.2	355			
12′ NOMINAL POLE HEIGHT											
SSS1244C	4.0 Square x 11 Gauge Wall	0″	23.5	588	18.0	450	13.5	338	8.50	.75 x 17 + 3	1
		30″	19.1	478	14.5	363	11.0	275			
14′ NOMINAL POLE HEIGHT											
SSS1444C	4.0 Square x 11 Gauge Wall	0″	19.9	498	15.0	375	11.5	288	8.50	75 x 17 + 3	1
		30″	15.0	375	11.0	275	8.5	213			
16′ NOMINAL POLE HEIGHT											
SSS1644C	4.0 Square x 11 Gauge Wall	0″	14.0	350	9.5	238	8.9	223	8.50	75 x 17 + 3	1
		30″	11.5	288	8.0	200	7.1	178			
18′ NOMINAL POLE HEIGHT											
SSS1844C	4.0 Square x 11 Gauge Wall	0″	12.0	300	8.5	213	5.5	138	8.50	75 x 17 + 3	1
		30″	10.0	250	7.0	175	4.5	113			
20′ NOMINAL POLE HEIGHT											
SSS2044C	4.0 Square x 11 Gauge Wall	0″	9.6	240	6.7	167	4.5	150	8.50	75 x 17 + 3	1
		30″	8.1	203	5.6	140	3.7	93			
SSS2044G	4.0 Square x 7 Gauge Wall	0″	16.9	423	12.5	313	9.0	225	8.50	75 x 17 + 3	2
		30″	14.4	360	10.5	263	7.5	188			
SSS2055C	5.0 Square x 11 Gauge Wall	0″	17.7	443	12.7	343	9.4	235	11.00	75 x 17 + 3	3
		30″	14.0	373	10.9	273	8.0	200			
SSS2055G	5.0 Square x 7 Gauge Wall	0″	28.1	703	21.4	535	16.2	405	11.00	75 x 17 + 4	3
		30″	23.0	575	17.4	435	13.2	330			
25′ NOMINAL POLE HEIGHT											
SSS2544C	4.0 Square x 11 Gauge Wall	0″	4.8	150	2.6	100	1.0	50	8.50	75 x 17 + 4	1
		30″	4.3	108	2.4	60	na	na			
SSS2544G	4.0 Square x 7 Gauge Wall	0″	10.5	263	7.0	175	4.5	113	8.50	75 x 17 + 4	2
		30″	9.0	225	6.0	150	4.0	100			
SSS2555C	5.0 Square x 11 Gauge Wall	0″	9.8	245	6.3	157	3.7	150	11.00	75 x 17 + 4	3
		30″	8.8	220	5.6	140	3.4	85			
SSS2555G	5.0 Square x 7 Gauge Wall	0″	18.5	463	13.3	333	9.5	238	11.00	75 x 17 + 4	3
		30″	15.6	390	11.3	283	8.0	200			
30′ NOMINAL POLE HEIGHT											
SSS3044G	4.0 Square x 7 Gauge Wall	0″	6.0	150	3.5	88	1.5	38	8.50	75 x 17 + 3	2
		30″	5.5	138	3.0	75	1.0	25			
SSS3055C	5.0 Square x 11 Gauge Wall	0″	4.7	140	2.0	54	na	na	11.00	75 x 17 + 3	3
		30″	4.4	110	1.6	40	na	na			
SSS3055G	5.0 Square x 7 Gauge Wall	0″	10.7	267	6.7	167	3.9	100	11.00	1.00 x 36 + 4	4
		30″	9.9	248	6.4	160	3.6	90			
SSS3066G	6.0 Square x 7 Gauge Wall	0″	19.0	475	13.2	330	9.0	225	12.00	1.00 x 36 + 4	5
		30″	17.6	440	12.2	305	8.3	208			
35′ NOMINAL POLE HEIGHT											
SSS3555G	5.0 Square x 7 Gauge Wall	0″	5.9	150	2.5	100	na	na	11.00	1.00 x 36 + 4	4
		30″	5.6	140	2.4	60	na	na			
SSS3566G	6.0 Square x 7 Gauge Wall	0″	12.4	310	7.6	190	4.2	105	12.00	1.00 x 36 + 4	5
		30″	11.9	298	7.8	183	4.0	100			
39′ NOMINAL POLE HEIGHT											
SSS3966G	6.0 Square x 7 Gauge Wall	0″	8.0	200	3.8	95	na	na	12.00	1.00 x 36 + 4	6
		30″	7.6	190	3.5	90	na	na			

** Item number per anchor bolt/bolt circle table*

Pole Selection for Luminaires

Use the following information for each luminaire series to determine the proper pole for the application. The mounting configuration charts provide information on EPA, weight, pole top tenon size or drill pattern required and if a separate arm or adapter is required.

High Mast Luminaires



HMSC	Symmetric and Asymmetric											
10	9			8					2	3	1	
Style	Configuration		Pole Mounting Requirements						Pole Top		Pole Description	
			Qty.	Mounting Arm	Description		EPA[1,2]	Weight	Style	Pattern	Type	Rules
Aluminum Arm	Pole Tenon	1 unit	1	BR-951-XX	Aluminum Round	Tenon Mount Arm	2.28	66	PL	ND	RTA	PL available 4.5 O.D., RTA Pole Top Only
		2 units @ 180°		BR-952-XX			4.15	124	PL			
		3 units @ 120°		BR-953-XX			5.62	183	PL			
		4 units @ 90°		BR-954-XX			7.33	244	PL			PL available 6.0 O.D., RTA Pole Top Only
Steel Arm	Pole Tenon	1 unit	1	BR-292-XX	Steel Round	Tenon Mount Arm	2.34	79	P2	ND	RTS	
		2 units @ 180°		BR-293-XX			4.48	151	P2			
		3 units @ 120°		BR-294-XX			5.87	222	P2			
		4 units @ 90°		BR-295-XX			7.27	294	P2			
		5 units @ 72°		BR-296-XX			9.25	369	P4			
		6 units @ 60°		BR-297-XX			10.90	442	P4			
		8 units @ 45°		BR-298-XX			14.02	585	P4			

HMSD	Symmetric and Asymmetric											
10	9			8					2	3	1	
Style	Configuration		Pole Mounting Requirements						Pole Top		Pole Description	
			Qty.	Mounting Arm	Description		EPA[1,2]	Weight	Style	Pattern	Type	Rules
Aluminum Arm	Pole Tenon	1 unit	1	BR-951-XX	Aluminum Round	Tenon Mount Arm	2.38	85	PL	ND	RTA	PL available 4.5 O.D., RTA Pole Top Only
		2 units @ 180°		BR-952-XX			4.35	165				
		3 units @ 120°		BR-953-XX			5.92	246				
		4 units @ 90°		BR-954-XX			7.73	329				PL available 6.0 O.D., RTA Pole Top Only
Steel Arm	Pole Tenon	1 unit	1	BR-292-XX	Steel Round	Tenon Mount Arm	2.44	98	P2	ND	RTS	
		2 units @ 180°		BR-293-XX			4.68	192				
		3 units @ 120°		BR-294-XX			6.17	285				
		4 units @ 90°		BR-295-XX			7.67	379				
		5 units @ 72°		BR-296-XX			9.75	476	P4			
		6 units @ 60°		BR-297-XX			11.50	571				

Ordering Information Sequence		
1	Base Pole	(Pole Specification Sheet)
2	Pole Top Style	(Pole Mounting Selection Guide)
3	Pole Top Drill Pattern	(Pole Mounting Selection Guide)
4	Finish	(Pole Specification Sheet)
5	Options if Required	(Pole Specification Sheet)
6	Anchor Bolt	(Pole Specification Sheet)
7	Template	(Pole Specification Sheet)
8	Luminaire Arm if Required	(Pole Mounting Selection Guide)
9	Tenon adapter if Required	(Pole Specification Sheet)
10	Luminaire	(Luminaire section)

HMSP | Type A, S and L

10		9		8					2	3	1	
Style		Configuration		Pole Mounting Requirements					Pole Top		Pole Description	
				Qty.	Mounting Arm	Description		EPA[1,2]	Weight	Style	Pattern	Type	Rules
S	Aluminum Arm	Pole Tenon	1 unit	1	BR-951-XX	Aluminum Round	Tenon Mount Arm	1.85	66	PL	ND	RTA	PL available 4.5 O.D., RTA Pole Top Only
			2 units @ 180°		BR-952-XX			3.29	127				
			3 units @ 120°		BR-953-XX			4.33	189				
			4 units @ 90°		BR-954-XX			5.61	253				PL available 6.0 O.D., RTA Pole Top Only
	Steel Arm	Pole Tenon	1 unit	1	BR-292-XX	Steel Round	Tenon Mount Arm	1.91	79	P2	ND	RTS	
			2 units @ 180°		BR-293-XX			3.62	154				
			3 units @ 120°		BR-294-XX			4.58	228				
			4 units @ 90°		BR-295-XX			5.55	303				
			5 units @ 72°		BR-296-XX			7.10	381	P4			
			6 units @ 60°		BR-297-XX			8.90	457				
			8 units @ 45°		BR-298-XX			11.42	606				
A and L	Aluminum Arm	Pole Tenon	1 unit	1	BR-951-XX	Aluminum Round	Tenon Mount Arm	2.02	77	PL	ND	RTA	PL available 4.5 O.D., RTA Pole Top Only
			2 units @ 180°		BR-952-XX			3.63	149				
			3 units @ 120°		BR-953-XX			4.84	222				
			4 units @ 90°		BR-954-XX			6.29	297				PL available 6.0 O.D., RTA Pole Top Only
	Steel Arm	Pole Tenon	1 unit	1	BR-292-XX	Steel Round	Tenon Mount Arm	2.08	90	P2	ND	RTS	
			2 units @ 180°		BR-293-XX			3.96	176				
			3 units @ 120°		BR-294-XX			5.09	261				
			4 units @ 90°		BR-295-XX			6.23	347				
			5 units @ 72°		BR-296-XX			7.95	363	P4			
			6 units @ 60°		BR-297-XX			9.92	523				
			8 units @ 45°		BR-298-XX			12.78	694				

HMST®

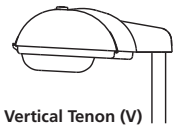
10	9		8					2	3	1	
Style	Configuration		Pole Mounting Requirements					Pole Top		Pole Description	
			Qty.	Mounting Arm	Description		EPA[1,2]	Weight	Style	Pattern	Type	Rules
Aluminum Arm	Pole Tenon	1 unit	1	BR-951-XX	Aluminum Round	Tenon Mount Arm	2.12	73	PL	ND	RTA	PL available 4.5 O.D., RTA Pole Top Only
		2 units @ 180°		BR-952-XX			3.83	141				
		3 units @ 120°		BR-953-XX			5.14	210				
		4 units @ 90°		BR-954-XX			6.69	281				PL available 6.0 O.D., RTA Pole Top Only
Steel Arm	Pole Tenon	1 unit	1	BR-292-XX	Steel Round	Tenon Mount Arm	2.18	86	P2	ND	RTS	
		2 units @ 180°		BR-293-XX			4.16	168				
		3 units @ 120°		BR-294-XX			5.39	249				
		4 units @ 90°		BR-295-XX			7.00	331				
		5 units @ 72°		BR-296-XX			8.45	416	P4			
		6 units @ 60°		BR-297-XX			9.94	499				
		8 units @ 45°		BR-298-XX			12.74	662				

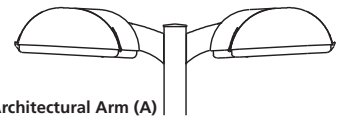
NOTES:
1. To Specify Aluminum Finish, "XX" = BK (Black), BZ (Bronze), GR (Gray), GN (Green), WH (White), UN (Natural)
2. To Specify Steel Finish, "XX" = BK (Black), BZ (Bronze), GR (Gray), GN (Green), HG (Hot Dip Galvanized), PP (Prime Paint)
3. Shield EPA and Weight must be added to each luminaire. Handled through TSG Only.
4. **When selecting pole, use 0" vertical offset of EPA.**

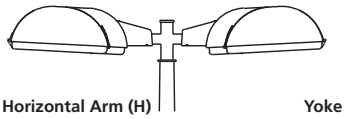
Ordering Information Sequence		
1	Base Pole	(Pole Specification Sheet)
2	Pole Top Style	(Pole Mounting Selection Guide)
3	Pole Top Drill Pattern	(Pole Mounting Selection Guide)
4	Finish	(Pole Specification Sheet)
5	Options if Required	(Pole Specification Sheet)
6	Anchor Bolt	(Pole Specification Sheet)
7	Template	(Pole Specification Sheet)
8	Luminaire Arm if Required	(Pole Mounting Selection Guide)
9	Tenon adapter if Required	(Pole Specification Sheet)
10	Luminaire	(Luminaire section)

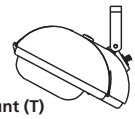
Mongoose®

G													
10	**9**		**8**							**2**	**3**	**1**	
Style	**Configuration**		**Pole Mounting Requirements**					**EPA[1,2]**	**Weight**	**Pole Top**		**Pole Description**	
			Mounting Arm	**Qty.**	**Other1**	**Description**				**Style**	**Pattern**	**Type**	**Rules**
A Architectural Arm	Drill Pattern	1 unit	Included w/ Luminaire		None			2.05	50	D1	R3	SSA/SSS	Available 5" and 6" Square Poles Only
		2 units @ 180°						4.10	100	D2			
		2 units @ 90°						3.84	100	D5			
		3 units @ 90°						5.89	150	D3			
		4 units @ 90°						7.68	200	D4			
	Pole Tenon	1 unit		1	09237-1-XX	Aluminum	Tenon adapter	2.54	59	P2	ND	RTA/RTS	
		2 units @ 180°			09237-2-XX			4.59	109				
		2 units @ 90°			09237-2L-XX			4.33	109				
		3 units @ 90°			09237-3-XX			6.38	159				
		4 units @ 90°			09237-4-XX			8.17	209				
H Horizontal Arm	Pole Tenon	1 unit	Included w/ Luminaire	1	BR-1055-XX	Steel Round	Tenon Mount Arm	2.40	57	P2	ND	RTS	
		2 units @ 180°			BR-1056-XX			4.58	109				
		3 units @ 120°			BR-1057-XX			6.58	162				
		4 units @ 90°			BR-1058-XX			8.16	214				
		1 unit			BR-1060-XX	Aluminum Round		2.71	57	PL		RTA	PL available 3.0 O.D., RTA Pole Top Only
		2 units @ 180			BR-1064-XX			4.88	109				
		3 units @ 120°			BR-1068-XX			6.88	162				
		4 units @ 90°			BR-1072-XX			8.46	214				
		1 unit			BR-1061-XX			2.71	57	PL or P4			PL available 4.0 O.D., RTA Pole Top Only
		2 units @ 180°			BR-1065-XX			4.88	109				
		3 units @ 120°			BR-1069-XX			6.88	56				
		4 units @ 90°			BR-1073-XX			8.46	214				
		1 unit			BR-1062-XX			2.71	57	PL			PL available 4.5 O.D., RTA Pole Top Only
		2 units @ 180°			BR-1066-XX			4.88	109				
		3 units @ 120°			BR-1070-XX			6.88	162				
		4 units @ 90°			BR-1074-XX			8.46	214				
		1 unit			BR-1063-XX			2.71	57				PL available 6.0 O.D., RTA Pole Top Only
		2 units @ 180°			BR-1067-XX			4.88	109				
		3 units @ 120°			BR-1071-XX			6.88	162				
		4 units @ 90°			BR-1075-XX			8.46	214				


Vertical Tenon (V)


Architectural Arm (A)


Horizontal Arm (H)


Yoke Mount (T)

G (Continued)

10	9		8						2	3	1	
Style	Configuration		Pole Mounting Requirements						Pole Top		Pole Description	
			Mounting Arm	Qty.	Other1	Description		EPA[1,2]	Weight	Style	Pattern	Type	Rules
V Vertical Arm	Pole Tenon	1 unit	Included w/ Luminaire	1	None			2.05	50	P2	ND	RTS/RTS/SSA/SSS	
		2 units @ 180°			BKT-18-XX	Steel Round	Tenon Mount Arm	5.31	120			RTS	
		3 units in Line			BKT-20-XX			8.03	181				
		4 units in Line			BKT-24-XX			10.94	244				
	Drill Pattern	2 units @ 180°			BR-1076-XX	Aluminum Square	Square Post Top Arm	6.31	121	D4	K8	SSA	Available 5" Square x .188 Wall Pole Only
		3 units in Line			BR-1079-XX			9.36	182				
		4 units in Line			BR-1082-XX			12.71	244				
		2 units @ 180°			BR-1077-XX			6.46	121				Available 6" Square x .188 Wall Pole Only
		3 units in Line			BR-1080-XX			9.48	182				
		4 units in Line			BR-1083-XX			12.82	244				
		2 units @ 180°			BR-1078-XX			6.46	121				Available 6" Square x .25 Wall Pole Only
		3 units in Line			BR-1081-XX			9.48	182				
		4 units in Line			BR-1084-XX			12.82	244				
	Pole Tenon	2 units @ 180°			BR-944	Aluminum Round	Tenon Mount Arm	5.66	121	PL	ND	RTA	PL available 3.0 O.D., RTA Pole Top Only
		3 units in Line			BR-1085			8.44	182				
		4 units in Line			BR-1086			11.37	244				
		2 units @ 180°			BR-898			5.66	121	PL or P4			PL available 4.0 O.D., RTA Pole Top Only
		3 units in Line			BR-904			8.44	182				
		4 units in Line			BR-945			11.37	244				
		2 units @ 180°			BR-899			5.66	121	PL			PL available 4.5 O.D., RTA Pole Top Only
		3 units in Line			BR-905			8.44	182				
		4 units in Line			BR-946			11.37	244				
		2 units @ 180°			BR-900			5.66	121				PL available 6.0 O.D., RTA Pole Top Only
		3 units in Line			BR-906			8.44	182				
		4 units in Line			BR-947			11.37	244				

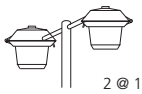
NOTES:

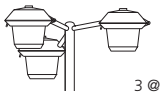
1. To Specify Aluminum Finish, "XX" = BK (Black), BZ (Bronze), GR (Gray), GN (Green), WH (White), UN (Natural)
2. To Specify Steel Finish, "XX" = BK (Black), BZ (Bronze), GR (Gray), GN (Green), HG (Hot Dip Galvanized), PP (Prime Paint)
3. Shield EPA and Weight must be added to each luminaire. Handled through TSG Only.
4. **When selecting pole, use 30" vertical offset of EPA; Mongoose on Architectural Arm with Drill Pattern use 0" vertical offset of EPA.**

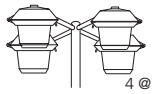
Ordering Information Sequence		
1	Base Pole	(Pole Specification Sheet)
2	Pole Top Style	(Pole Mounting Selection Guide)
3	Pole Top Drill Pattern	(Pole Mounting Selection Guide)
4	Finish	(Pole Specification Sheet)
5	Options if Required	(Pole Specification Sheet)
6	Anchor Bolt	(Pole Specification Sheet)
7	Template	(Pole Specification Sheet)
8	Luminaire Arm if Required	(Pole Mounting Selection Guide)
9	Tenon adapter if Required	(Pole Specification Sheet)
10	Luminaire	(Luminaire section)

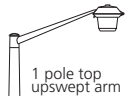
RSL-200®

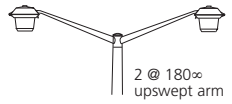

1 pole top - arm


2 @ 180∞ - arm


3 @ 120∞ - arm

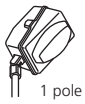

4 @ 90∞ - arm


1 pole top upswept arm


2 @ 180∞ upswept arm

RS2L														
10		**9**			**8**						**2**	**3**	**1**	
Style		**Configuration**		**Pole Mounting Requirements**							**Pole Top**		**Pole Description**	
				Qty.	**Mounting Arm1,2**	**Description**		**Other**	**EPA1,2**	**Weight**	**Style**	**Pattern**	**Type**	**Rules**
RS2L S Side Mount	Steel Arm	Pole Tenon	1 unit	1	ARM-150-XX	Steel Round	Tenon Mount Arm	None	1.46	37	P2	ND	RTS	
			2 units @ 180		ARM-151-XX				2.72	69				
			3 units @ 120		ARM-152-XX				3.54	102				
			4 units @ 90		ARM-153-XX				4.56	134				
	Aluminum Arm	Pole Tenon	1 unit	1	ARM-135-XX	Aluminum Round	Tenon Mount Arm	None	1.58	31	P3	ND	RTA	
			2 units @ 180		ARM-136-XX				2.85	61				
			3 units @ 120		ARM-137-XX				3.67	92				
			4 units @ 90		ARM-138-XX				4.69	122				
	Aluminum Upswept Arm	Pole Tenon	1 unit	1	BR-1209-1-XX	Aluminum Round, 45" Long	Tenon Mount Arm	None	2.72	49	PL	ND	RTA	4.50 O.D. At Top
					BR-1210-1-XX	Aluminum Round, 68" Long			3.22	51				
					BR-1211-1-XX	Aluminum Round, 90" Long			4.12	55				
					BR-1212-1-XX	Aluminum Round, 45" Long			2.72	50				6.00 O.D. At Top
					BR-1213-1-XX	Aluminum Round, 68" Long			3.22	52				
					BR-1214-1-XX	Aluminum Round, 90" Long			4.12	55				
			2 units @ 180		BR-1209-2-XX	Aluminum Round, 45" Long			5.44	96				4.50 O.D. At Top
					BR-1210-2-XX	Aluminum Round, 68" Long			6.34	99				
					BR-1211-2-XX	Aluminum Round, 90" Long			8.04	107				
					BR-1212-2-XX	Aluminum Round, 45" Long			5.44	97				6.00 O.D. At Top
					BR-1213-2-XX	Aluminum Round, 68" Long			6.34	100				
					BR-1214-2-XX	Aluminum Round, 90" Long			8.04	108				

Vector®


1 pole top


2 @ 180∞ pole top

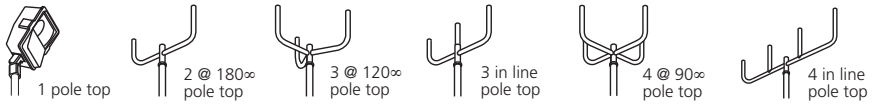
HL2A																
10	9		8									2	3	1		
Style	Configuration		Pole Mounting Requirements									Pole Top		Pole Description		
			Qty.	Mounting Arm[1,2]	Description		Qty.	Other[1]	Description		EPA[3,4]	Weight	Style	Pattern	Type	Rules
2" Knuckle	Pole Tenon	1 unit		None				None			2.87	53	P2	ND	RTA/RTS	
		2 units @ 180	1	BR-898-XX	Aluminum Round	Tenon Mount Arm					7.17	127	PL or P4		RTA	PL available 4.0 O.D., RTA Pole Top Only
				BR-899-XX									PL			PL available 4.5 O.D., RTA Pole Top Only
				ARM-88-XX	Steel Round						6.94		P2		RTS	
4" Knuckle	Pole Tenon	1 unit		None				None			2.87	53	P4	ND	RTA/RTS	
Yoke Mount	Pole Tenon	1 unit		None			1	08657-XX	Aluminum	Tenon adapter	2.71	53	P2	ND	RTA/RTS	
		2 units @ 180	1	BR-898-XX	Aluminum Round	Tenon Mount Arm	2				6.85	127	PL or P4		RTA	PL available 4.0 O.D., RTA Pole Top Only
				BR-899-XX									PL			PL available 4.5 O.D., RTA Pole Top Only
				ARM-88-XX	Steel Round						6.62		P2			

NOTES:

1. To Specify Aluminum Finish, "XX" = BK (Black), BZ (Bronze), GR (Gray), GN (Green), WH (White), UN (Natural)
2. To Specify Steel Finish, "XX" = BK (Black), BZ (Bronze), GR (Gray), GN (Green), HG (Hot Dip Galvanized), PP (Prime Paint)
3. Shield EPA and Weight must be added to each luminaire. Handled through TSG Only.
4. **When selecting pole, use 30" vertical offset of EPA.**

Ordering Information Sequence		
1	Base Pole	(Pole Specification Sheet)
2	Pole Top Style	(Pole Mounting Selection Guide)
3	Pole Top Drill Pattern	(Pole Mounting Selection Guide)
4	Finish	(Pole Specification Sheet)
5	Options if Required	(Pole Specification Sheet)
6	Anchor Bolt	(Pole Specification Sheet)
7	Template	(Pole Specification Sheet)
8	Luminaire Arm if Required	(Pole Mounting Selection Guide)
9	Tenon adapter if Required	(Pole Specification Sheet)
10	Luminaire	(Luminaire section)

Predator®



PD | Small

10	9			8									2	3	1	
Style	Configuration		Pole Mounting Requirements								EPA[1,2]	Weigh	Pole Top		Pole Description	
			Qty.	Mounting Arm[1,2]	Description		Qty.	Other[1]	Description				Style	Pattern	Type	Rules
2" Knuckle Mount	Pole Tenon	1 unit	1	None				None			1.93	25	P2	ND	RTA/RTS/SSA/SSS	
		2 units @ 180		BKT-28-XX	Steel Square	Tenon Mount Arm					5.59	70			SSA/SSS	
		3 units @ 120		BKT-29-XX							7.90	112				
		3 units in Line		BKT-33-XX							8.92	110				
		4 units @ 90		BKT-30-XX							10.03	150				
		4 units in Line		BKT-34-XX							12.24	151				
	Pole Tenon	2 units @ 180	1	ARM-88-XX	Steel Round	Tenon Mount Arm		None			5.06	71	P2	ND	RTS	
		3 units @ 120		ARM-91-XX							7.23	109				
		3 units in Line		ARM-89-XX							7.59	107				
		4 units @ 90		ARM-95-XX							9.29	144				
		4 units in Line		ARM-93-XX							10.36					
	Pole Tenon	2 units @ 180	1	BR-944-XX	Aluminum Round	Tenon Mount Arm		None			5.29	57	PL	ND	RTA	PL available 3.0 O.D., RTA Pole Top Only
		2 units @ 180		BR-898-XX									PL or P4			PL available 4.0 O.D., RTA Pole Top Only
				BR-899-XX									PL			PL available 4.5 O.D., RTA Pole Top Only
		3 units @ 120		BR-901-XX							7.58	88	PL or P4			PL available 4.0 O.D., RTA Pole Top Only
				BR-902-XX									PL			PL available 4.5 O.D., RTA Pole Top Only
		3 units in Line		BR-904-XX							7.97	85	PL or P4			PL available 4.0 O.D., RTA Pole Top Only
				BR-905-XX									PL			PL available 4.5 O.D., RTA Pole Top Only
		4 units @ 90		BR-907-XX							9.63	115	PL or P4			PL available 4.0 O.D., RTA Pole Top Only
				BR-908-XX									PL			PL available 4.5 O.D., RTA Pole Top Only
		4 units in Line		BR-945-XX							10.76	118	PL or P4			PL available 4.0 O.D., RTA Pole Top Only
				BR-946-XX									PL			PL available 4.5 O.D., RTA Pole Top Only
				BR-947-XX							10.89					PL available 6.0 O.D., RTA Pole Top Only
Yoke Mount	Pole Tenon	1 unit	1	None			1	08657-XX	Aluminum	Yoke to Tenon adapter	1.60	25	P2	ND	RTA/RTS/SSA/SSS	
		2 units @ 180		BKT-28-XX	Steel Square	Tenon Mount Arm	2				4.93	70			SSA/SSS	
		3 units @ 120		BKT-29-XX			3				6.91	112				
		3 units in Line		BKT-33-XX							7.93	110				
		4 units @ 90		BKT-30-XX			4				8.71	150				
		4 units in Line		BKT-34-XX							10.92	151				
	Pole Tenon	2 units @ 180	1	ARM-88-XX	Steel Round	Tenon Mount Arm	2	08657-XX	Aluminum	Yoke to Tenon adapter	4.40	71	P2	ND	RTS	
		3 units @ 120		ARM-91-XX			3				6.24	109				
		3 units in Line		ARM-89-XX							6.60	107				
		4 units @ 90		ARM-95-XX			4				7.97	144				
		4 units in Line		ARM-93-XX							9.04					
Yoke Mount	Pole Tenon	2 units @ 180	1	BR-944-XX	Aluminum Round	Tenon Mount Arm	2	08657-XX	Aluminum	Yoke to Tenon adapter	4.63	57	PL	ND	RTA	PL available 3.0 O.D., RTA Pole Top Only
		2 units @ 180		BR-898-XX									PL or P4			PL available 4.0 O.D., RTA Pole Top Only
		2 units @ 180		BR-899-XX									PL			PL available 4.5 O.D., RTA Pole Top Only
		3 units @ 120		BR-901-XX			3				6.59	88	PL or P4			PL available 4.0 O.D., RTA Pole Top Only
		3 units @ 120		BR-902-XX									PL			PL available 4.5 O.D., RTA Pole Top Only
		3 units in Line		BR-904-XX							6.98	85	PL or P4			PL available 4.0 O.D., RTA Pole Top Only
		3 units in Line		BR-905-XX									PL			PL available 4.5 O.D., RTA Pole Top Only
		4 units @ 90		BR-907-XX			4				8.31	115	PL or P4			PL available 4.0 O.D., RTA Pole Top Only
		4 units @ 90		BR-908-XX									PL			PL available 4.5 O.D., RTA Pole Top Only
		4 units in Line		BR-945-XX							9.44	118	PL or P4			PL available 4.0 O.D., RTA Pole Top Only
		4 units in Line		BR-946-XX									PL			PL available 4.5 O.D., RTA Pole Top Only
		4 units in Line		BR-947-XX							9.57					PL available 6.0 O.D., RTA Pole Top Only

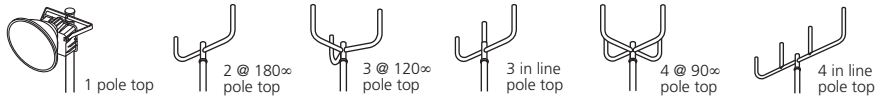
PF | Medium																
10	9			8									2	3	1	
Style	Configuration		Pole Mounting Requirements								EPA[3,4]	Weight	Pole Top		Pole Description	
			Qty.	Mounting Arm[1,2]	Description		Qty.	Other[1]	Description				Style	Pattern	Type	Rules
2" Knuckle Mount	Pole Tenon	1 unit	1	None							2.87	46	P2	ND	RTA/RTS/SSA/SSS	
		2 units @ 180		BKT-28-XX	Steel Square	Tenon Mount Arm		None			7.47	112			SSA/SSS	
		3 units @ 120		BKT-29-XX							10.72	175				
		3 units in Line		BKT-33-XX							11.74	173				
		4 units @ 90		BKT-30-XX							13.79	234				
		4 units in Line		BKT-34-XX							16.00	235				
	Pole Tenon	2 units @ 180	1	ARM-88-XX	Steel Round	Tenon Mount Arm		None			6.94	113	P2	ND	RTS	
		3 units @ 120		ARM-91-XX							10.05	172				
		3 units in Line		ARM-89-XX							10.41	170				
		4 units @ 90		ARM-95-XX							13.05	228				
		4 units in Line		ARM-93-XX							14.12					
	Pole Tenon	2 units @ 180	1	BR-944-XX	Aluminum Round	Tenon Mount Arm		None			7.17	99	PL	ND	RTA	PL available 3.0 O.D., RTA Pole Top Only
				BR-898-XX									PL or P4			PL available 4.0 O.D., RTA Pole Top Only
				BR-899-XX									PL			PL available 4.5 O.D., RTA Pole Top Only
		3 units @ 120		BR-901-XX							10.40	151	PL or P4			PL available 4.0 O.D., RTA Pole Top Only
				BR-902-XX									PL			PL available 4.5 O.D., RTA Pole Top Only
		3 units in Line		BR-904-XX							10.79	148	PL or P4			PL available 4.0 O.D., RTA Pole Top Only
				BR-905-XX									PL			PL available 4.50 O.D., RTA Pole Top Only
				BR-906-XX							10.90					PL available 6.0 O.D., RTA Pole Top Only
		4 units @ 90		BR-907-XX							13.39	199	PL or P4			PL available 4.0 O.D., RTA Pole Top Only
				BR-908-XX									PL			PL available 4.5 O.D., RTA Pole Top Only
				BR-909-XX							13.52					PL available 6.0 O.D., RTA Pole Top Only
		4 units in Line		BR-945-XX							14.65	202	PL or P4			PL available 4.0 O.D., RTA Pole Top Only
				BR-946-XX									PL			PL available 4.5 O.D., RTA Pole Top Only
				BR-947-XX												PL available 6.0 O.D., RTA Pole Top Only
Yoke Mount	Pole Tenon	1 unit	1	None			1	08657-XX	Aluminum	Yoke to Tenon adapter	2.57	46	P2	ND	RTA/RTS/SSA/SSS	
		2 units @ 180		BKT-28-XX	Steel Square	Tenon Mount Arm	2				6.87	112			SSA/SSS	
		3 units @ 120		BKT-29-XX			3				9.82	175				
		3 units in Line		BKT-33-XX							10.84	173				
		4 units @ 90		BKT-30-XX			4				12.59	234				
		4 units in Line		BKT-34-XX							14.80	235				
	Pole Tenon	2 units @ 180	1	ARM-88-XX	Steel Round	Tenon Mount Arm	2	08657-XX	Aluminum	Yoke to Tenon adapter	6.34	113	P2	ND	RTS	
		3 units @ 120		ARM-91-XX			3				9.15	172				
		3 units in Line		ARM-89-XX							9.51	170				
		4 units @ 90		ARM-95-XX			4				11.85	228				
		4 units in Line		ARM-93-XX							12.92					
	Pole Tenon	2 units @ 180	1	BR-944-XX	Aluminum Round	Tenon Mount Arm	2	08657-XX	Aluminum	Yoke to Tenon adapter	6.57	99	PL	ND	RTA	PL available 3.0 O.D., RTA Pole Top Only
				BR-898-XX									PL or P4			PL available 4.0 O.D., RTA Pole Top Only
				BR-899-XX									PL			PL available 4.5 O.D., RTA Pole Top Only
		3 units @ 120		BR-901-XX			3				9.50	151	PL or P4			PL available 4.0 O.D., RTA Pole Top Only
				BR-902-XX									PL			PL available 4.5 O.D., RTA Pole Top Only
		3 units in Line		BR-904-XX							9.89	148	PL or P4			PL available 4.0 O.D., RTA Pole Top Only
				BR-905-XX									PL			PL available 4.5 O.D., RTA Pole Top Only
				BR-906-XX							10.00					PL available 6.0 O.D., RTA Pole Top Only
		4 units @ 90		BR-907-XX			4				12.19	199	PL or P4			PL available 4.0 O.D., RTA Pole Top Only
				BR-908-XX									PL			PL available 4.5 O.D., RTA Pole Top Only
				BR-909-XX							12.32					PL available 6.0 O.D., RTA Pole Top Only
		4 units in Line		BR-945-XX							13.45	202	PL or P4			PL available 4.0 O.D., RTA Pole Top Only
				BR-946-XX									PL			PL available 4.5 O.D., RTA Pole Top Only
				BR-947-XX												PL available 6.0 O.D., RTA Pole Top Only

NOTES:

1. To Specify Aluminum Finish, "XX" = BK (Black), BZ (Bronze), GR (Gray), GN (Green), WH (White), UN (Natural)
2. To Specify Steel Finish, "XX" = BK (Black), BZ (Bronze), GR (Gray), GN (Green), HG (Hot Dip Galvanized), PP (Prime Paint)
3. Shield EPA and Weight must be added to each luminaire. Handled through TSG Only.
4. **When selecting pole, use 30" vertical offset of EPA.**

Ordering Information Sequence		
1	Base Pole	(Pole Specification Sheet)
2	Pole Top Style	(Pole Mounting Selection Guide)
3	Pole Top Drill Pattern	(Pole Mounting Selection Guide)
4	Finish	(Pole Specification Sheet)
5	Options if Required	(Pole Specification Sheet)
6	Anchor Bolt	(Pole Specification Sheet)
7	Template	(Pole Specification Sheet)
8	Luminaire Arm if Required	(Pole Mounting Selection Guide)
9	Tenon adapter if Required	(Pole Specification Sheet)
10	Luminaire	(Luminaire section)

Prismbeam® II



PB2																	
10	**9**			**8**									**2**	**3**	**1**		
Style	**Configuration**		**Pole Mounting Requirements**								**EPA[3,4]**	**Weight**	**Pole Top**		**Pole Description**		
			Qty.	**Mounting Arm[1,2]**	**Description**		**Qty.**	**Other[1,2]**	**Description**				**Style**	**Pattern**	**Type**	**Rules**	
Yoke Mount	Pole Tenon	1 unit	1	None	Aluminum Round	Tenon Mount Arm	1	08657-XX	Aluminum	Yoke to Tenon adapter	3.60	71	P2	ND	RTA/RTS SSA/SSS		
		2 units @ 180		BR-898-XX			2				8.63	148	P4		RTA		
				BR-899-XX									PL			PL available 4.5 O.D., RTA Pole Top Only	
		3 units @ 120		BR-901-XX			3				12.59	223	P4				
				BR-902-XX									PL			PL available 4.5 O.D., RTA Pole Top Only	
				BR-903-XX							12.72					PL available 6.0 O.D., RTA Pole Top Only	
		3 units in Line		BR-904-XX							12.98	221	P4				
				BR-905-XX									PL			PL available 4.5 O.D., RTA Pole Top Only	
				BR-906-XX							13.09					PL available 6.0 O.D., RTA Pole Top Only	
		4 units @ 90		BR-907-XX			4				16.31	295	P4				
				BR-908-XX									PL			PL available 4.5 O.D., RTA Pole Top Only	
				BR-909-XX							16.44					PL available 6.0 O.D., RTA Pole Top Only	
		4 units in Line		BR-912-XX							17.44	302				PL available 4.5 O.D., RTA Pole Top Only	
				BR-913-XX							17.57					PL available 6.0 O.D., RTA Pole Top Only	
	Pole Tenon	2 units @ 180	1	ARM-88-XX	Steel Round	Tenon Mount Arm	2	08657-XX	Aluminum	Yoke to Tenon adapter	8.40	163	PL or P4	ND	RTS		
		3 units @ 120		ARM-91-XX			3				12.24	247	PL				
		3 units in Line		ARM-89-XX							12.60	245	PL or P4				
		4 units @ 90		ARM-95-XX			4				15.97	328	PL				
				ARM-96-XX							16.19	332					
		4 units in Line		ARM-93-XX							17.04	328	PL or P4				
				ARM-94-XX							17.58	351	PL				

NOTES:

1. To Specify Aluminum Finish, "XX" = BK (Black), BZ (Bronze), GR (Gray), GN (Green), WH (White), UN (Natural)
2. To Specify Steel Finish, "XX" = BK (Black), BZ (Bronze), GR (Gray), GN (Green), HG (Hot Dip Galvanized), PP (Prime Paint)
3. Shield EPA and Weight must be added to each luminaire. Handled through TSG Only.
4. **When selecting pole, use 30" vertical offset of EPA; For 1 unit configuration, use 0" vertical offset of EPA.**

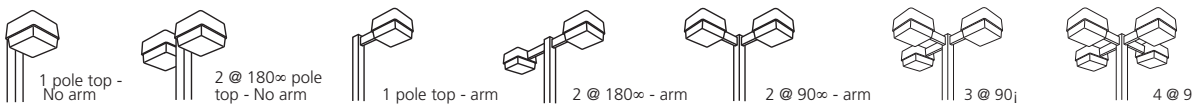
Module 600®

MW															
10	9		8										2	3	1
Style	Configuration		Pole Mounting Requirements								EPA[1,2]	Weight	Pole Top		Pole Description
			Qty.	Mounting Arm	Description		Qty.	Other	Description				Style	Pattern	Type
No Arm	Drill Pattern	1 unit		None			1	09098-XX	Aluminum	Mounting Plate	2.08	65	D1	R2	SSA/SSS
		2 units @ 180°					2				2.96	130	D2		
Arm	Drill Pattern	2 units @ 90°	2	09104-XX	Aluminum Extrusion	Bolt On Arm		None			3.97	134	D5	R2	SSA/SSS
		3 units @ 90°	3								5.86	201	D3		
		4 units @ 90°	4								5.04	268	D4		

NOTES:

1. To Specify Aluminum Finish, "XX" = BK (Black), BZ (Bronze), GR (Gray), GN (Green), WH (White), UN (Natural)
2. Shield EPA and Weight must be added to each luminaire. Handled through TSG Only.
3. **When selecting pole, use 0" vertical offset of EPA.**

Parkpak®



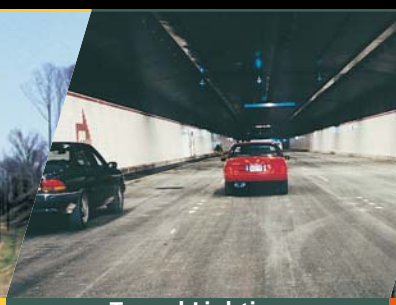
PK											
10	9		8						2	3	1
Style	Configuration		Pole Mounting Requirements						Pole Top		Pole Description
			Qty.	Mounting Arm	Description		Other	EPA[1,2]	Weight	Style	Pattern	Type
H Horizontal No Arm	Drill Pattern	1 unit		None			None	.95	20	D1	H1	SSA/SSS
		2 units @ 180°						1.90	40	D2		
H Horizontal with Arm	Drill Pattern	1 unit	1	PARKBA4XX	Aluminum Extrusion	Bolt On Arm	None	1.36	23	D1	H3	SSA/SSS
		2 units @ 180°	2					2.72	46	D2		
		2 units @ 90°	2					2.31	46	D5		
		3 units @ 90°	3					3.67	69	D3		
		4 units @ 90°	4					4.62	92	D4		

NOTES:

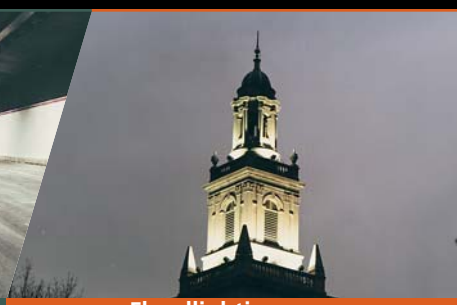
1. To Specify Aluminum Finish, "XX" = BK (Black), BZ (Bronze), GR (Gray), GN (Green), WH (White)
2. Shield EPA and Weight must be added to each luminaire. Handled through TSG Only.
3. **When selecting pole, use 0" vertical offset of EPA.**

High Mast Lighting

Roadway Lighting

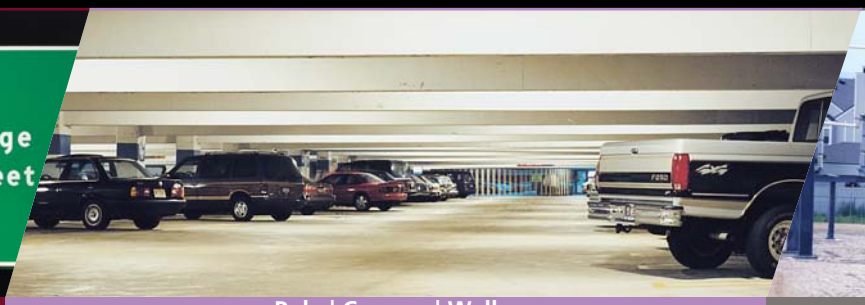


Tunnel Lighting



Floodlighting

Sign Lighting



Pole | Canopy | Wall

Specialty

Luminaires may utilize fluorescent or high intensity discharge sources that contain small amounts of mercury. New disposal labeling for these lamps includes the mercury identifier shown on the right to indicate that the lamp contains mercury and should be disposed of in accordance with local requirements.
Information sources regarding lamp recycling and disposal are included on the packaging of most mercury-containing lamps and also can be located at www.lamprecycle.org.

Hg

HOLOPHANE®
LEADER IN LIGHTING SOLUTIONS

An AcuityBrands Company

Acuity Lighting Group, Inc.

214 Oakwood Ave., Newark, OH 43055 / Holophane Canada, Inc. 9040 Leslie Street, Suite 208, Richmond Hill, ON L4B 3M4 / Holophane Europe Limited, Bond Ave., Milton Keynes MK1 1JG, England / Holophane, S.A. de C.V., Apartado Postal No. 986, Naucalpan de Juarez, 53000 Edo. de Mexico

Contact your local Holophane factory sales representative for application assistance, and computer-aided design and cost studies. For information on other Holophane products and systems, call the Inside Sales Service Department at 740-345-9631. In Canada call 905-707-5830 or fax 905-707-5695.

Limited Warranty and Limitation of Liability Refer to the Holophane limited material warranty and limitation of liability on this product, which are published in the "Terms and Conditions" section of the current Buyers Guide, and is available from your local Holophane sales representative.

Visit our web site at ww.holophane.com

HL- 2161 10/06

Printed in USA