


























Highlighting the beautiful flowers with P7-M7P36-E7AAG with AR111 lamps creates a powerful focal point in this entry foyer, while P5-M120-E5A19WWG wash the walls around each hutch to draw your eyes into the room.

*Lighting Design by Lighting Inc.  
Architecture by Cornerstone Group Architects  
Photo by Bardagjy Photography*

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




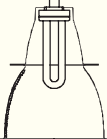
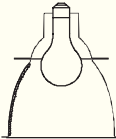
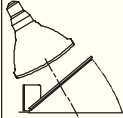


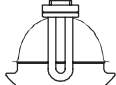


## DOWNLIGHT

## ADJUSTABLE ACCENT

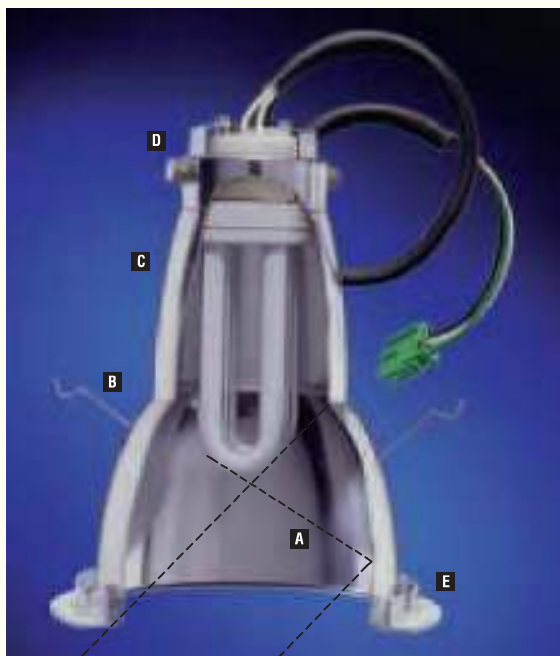
PLATFORM	COMPACT FLUORESCENT	A LAMP	R/PAR	QT4	MR16	MR16	SUPER ADJUSTABLE	PAR36/AR111	PAR
PAGE 11 12		14 67	14 68	12	14 69	14 71 72	14 73	12	14 75
3"		A19 	R20 PAR20 PAR16 		MR16 	MR16 	MR16 		R20 PAR20 PAR16 
PAGE 17	18 67	18 67	18 68	18 67 82	18 69	18 72		18 74	18 75
5"	TRIPLE CFL 	A19 	PAR30 	QT4 	MR16 	MR16 		PAR36 AR111 	PAR30 
PAGE 21	22 67	22 67	22 68	22 67 82				22 74	22 75
7"	TRIPLE CFL 	A21 	PAR38 	QT4 				PAR36 AR111 	PAR38 PAR38/3 

W A L L W A S H

S H O W E R / L E N S E D

COMPACT FLUORESCENT	A LAMP	LENSED	QT4	DROPPED	REGRESSED	ADJUSTABLE
		<p>15 78</p> <p>MR16</p>  <p>PAR16 PAR20</p> 		<p>15 81</p> <p>A19</p> 	<p>15 82</p> <p>MR16 PAR20</p> 	<p>15 83</p> <p>MR16 PAR20</p> 
<p>19 77</p> <p>TRIPLE CFL</p> 	<p>19 77</p> <p>A19</p> 	<p>19 78</p> <p>PAR30</p> 	<p>19 79</p> <p>QT4</p> 	<p>19 81</p> <p>A19</p>  <p>TRIPLE CFL</p> 	<p>19 82</p> <p>A19 QT4</p>  <p>TRIPLE CFL</p> 	
<p>23 77</p> <p>TRIPLE CFL</p> 	<p>23 77</p> <p>A21</p> 	<p>23 78</p> <p>PAR38 PAR38/3</p> 	<p>23 79</p> <p>QT4</p> 	<p>23 81</p> <p>A21</p>  <p>TRIPLE CFL</p> 	<p>23 82</p> <p>A21 QT4</p>  <p>TRIPLE CFL</p> 	

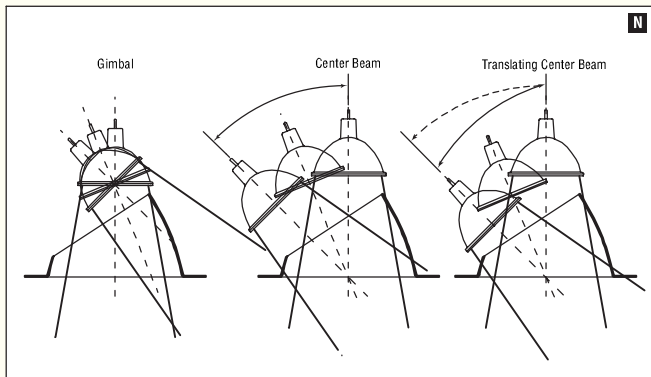
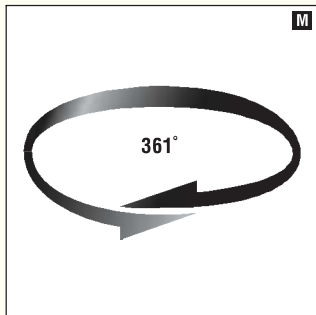
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- A. 50° maximum cutoff** to lamp and lamp image for glare-free lighting.
- B. Torsion springs** prevent sag, install without tools, and self-adjust elements for ceilings up to 1 1/2" thick. For thicker ceilings please consult our tech hotline.
- C. Full-cone optics** eliminate light leaks and views into the platform on general and wall wash elements.
- D. Fixed socket** attachment ensures optimal lamp position for consistent performance.
- E. Die-cast flange ring** with either matte white or matte clear finish can be removed for field painting. Paint should be rated for at least 90° C. Return lip accommodates ceiling imperfections. Ring is keyed to ensure proper installation of all elements.
- F. Coined reflector detail** creates a mechanical light trap, preventing light from hitting inside edge or leaking out behind flange ring.




- H. Backlight shroud** for MR16 lamps prevents illumination of platform interior.
- I. Soft-focus lens** is shipped standard with MR16 fixtures for smoother beam patterns. Pinhole elements also ship with a clear lens for use with spot lamps.  
  
Low-voltage sources accept one or two lens/louvers media or snoot for dramatic effects.
- J. Adjustable brackets lock** without tools and eliminate re-aiming when lamps are replaced.
- K. Stamped aiming marks and hot-aiming guides** mean easy and consistent adjustment.
- L. Slot-cut cones** for MR16 lamps minimize views into the platform.
- M. All elements rotate 361°** for real-world flexibility.
- N. Translating center beam optics** ensure glare-free performance at all adjustment angles. Translating the lamp forward allows maximum light out the aperture as the lamp is tilted.















A complete palette of sources and optical elements for each aperture ensures useful lumen output for various ceiling heights while maintaining aesthetic consistency throughout a project.

# ELEMENT FINISH & FLANGE OPTIONS

## STANDARD CONE & BAFFLE COLORS

Finish (cat. #)	Description				
<b>Clear (C)</b>	A clear specular Alzak finish which delivers full light output.		<b>Gold (G)</b>	A champagne gold specular Alzak finish which provides visual warmth.	
<b>Haze (H)</b>	A clear semi-specular Alzak finish to provide visual identity.		<b>Black (B)</b>	A specular Alzak finish providing maximum aperture darkness.	
<b>Warm Haze (WMH)</b>	A semi-specular Alzak to provide visual identity, with a hint of gold to add warmth.		<b>Gloss White (W)</b>	Painted white finish for a neutral daytime ceiling look.	
				<b>Black Baffle (BB)</b>	Traditional ridged black baffle cone. Not available with self flange.
				<b>White Baffle (WB)</b>	Traditional ridged white baffle cone. Not available with self flange.
				<b>Matte White (MW)</b>	Painted diffuse white finish for a neutral daytime ceiling look.

## SPECIAL CONE COLORS

Finish (cat. #)	Description		Finish (cat. #)	Description	
<b>Cognac (K)</b>	A warm copper color in a specular Alzak finish. A good choice for wood ceilings or anywhere that a rich look is desired. Similar to "Bronze" by other manufacturers.		<b>Graphite (GP)</b>	A gunmetal gray in a specular Alzak finish. If you like Black Alzak, but not the way that dust shows on it; then you'll appreciate Graphite.	
<b>Cognac Haze (KH)</b>	Same as Cognac, but with a semi-specular Alzak finish.		<b>Graphite Haze (GPH)</b>	Same as Graphite, but with a semi-specular Alzak finish.	
<b>Chocolate (CC)</b>	A warm deeply dark color similar to architectural bronze in a specular Alzak finish.		<b>Pine (PN)</b>	A rich green in a specular Alzak finish. Use in billiard rooms, old time bars, or in a country club.	
<b>Chocolate Haze (CCH)</b>	Same as Chocolate, but with a semi-specular Alzak finish.		<b>Pine (PNH)</b>	Same as Pine, but with a semi-specular Alzak finish.	
<b>Blush (BU)</b>	A light pink color in a specular Alzak finish. Use in powder rooms, a daughter's bedroom, or in a Victorian dining room.		<b>Sky (SK)</b>	A light blue in a specular Alzak finish. A great match for cooler color temperatures and to use in painted sky ceilings.	
<b>Blush Haze (BUH)</b>	Same as Blush, but with a semi-specular Alzak finish.		<b>Sky Haze (SKH)</b>	Same as Sky, but with a semi-specular Alzak finish.	

## FLANGES

All IRI's optical elements can be ordered with the flanges below, except baffles, which are available with Standard and Raw flanges only.



**Standard Flange (Blank)**  
Matte white painted die-cast ring, removable for field painting.



**Raw Flange (RAW)**  
Raw die-cast ring, removable for field painting.



**Self Flange (SF)**  
Alzak reflector cone continues outward to form flange and maintains color onto ceiling.

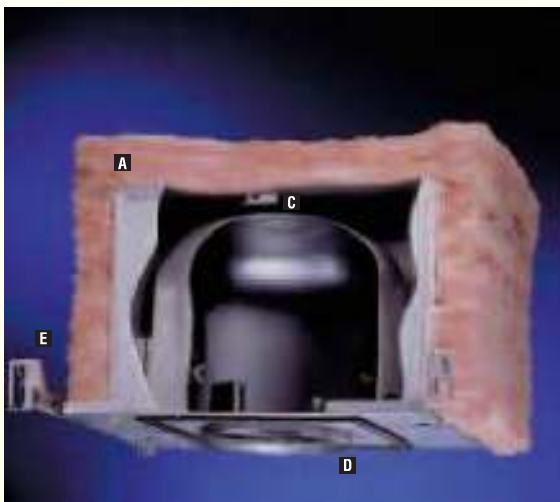


**Self Flange Painted White (SFWF)**  
Same as SF with flange painted matte white.



\*Please note that Alzak® cones above are shown with SF flange option, and colors are representations only and due to printing variables, may differ slightly from actual product. Please consult your local IRI's representative for actual color samples.

# PLATFORM & LAMP MODULE FEATURES



- A. Most Platforms are UL listed and CSA certified** for direct contact with insulation materials. Insulation must be kept 3" away from Non-IC Platforms.
- B. Optical matte black powder coat** inside platforms provides a visually dark interior.
- C. Integral thermal protector** prevents overlamping of fixture.
- D. 1/2" plaster lip with centerline notches** for precise drywall holes or for use with wet plaster.
- E. No-flex bar hangers** have a tab for consistent depth and set screws to lock the horizontal placement. Bars span 22.5" for 24" o.c. construction and are shipped with each platform.
- F. All new construction platforms are airtight** to prevent dust marks on ceilings, room drafts, and energy loss.
- G. Platforms are shipped with overspray protector installed** in aperture.
- H. Top access on 7" platform allows attic relamping** and maintenance in high ceilings.

## ADDITIONAL INFORMATION

- IC Fixtures meet Title XXIV, Washington state, and CABO Model Energy Code requirements.
- All fixtures are UL listed for damp location and below-ceiling accessibility to components for worry-free installations. All shower elements are wet-location listed.
- I.B.E.W. Union made.
- Each platform accepts all optical elements to allow fixtures to change from a downlight to an accent or a wall washer, if desired.
- 5" and 7" platforms accept all lamp modules, allowing lamp source to change from incandescent to low-voltage halogen to fluorescent, as needed.
- Platforms are sized to fit standard joist spacing and heights.
- Emergency options are available for fluorescent lamps to provide illumination during blackouts without altering fixture aesthetics.



Compact Fluorescent



Incandescent



Line Voltage Halogen QT4



Magnetic Low-Voltage Halogen

### Lamp modules consist of:

- Socket and quick-connect plug;
- Ballast or transformer (when required); and
- Adjustable accent snap-in bracket (when required).

### Magnetic Low-Voltage Halogen

- Dual Output Toroidal Transformer to maximize output with switch or dimmer control.
- Sockets are easily replaced in the field without tools.
- All lamp modules have a keyed quick-connect plug for toolless installation, even after drywall is installed.

### Compact Fluorescent

- 4-pin electronic ballast prevents flash, flicker, and humming.
- 120V Energy Star qualified ballast meets FCC title 47 CFR part 18 for consumer equipment (consult factory for 277V).
- Dimmable version available.

### Incandescent

- Nickel-plated porcelain socket prevents lamp freeze.

### Line-Voltage Halogen QT4

- Porcelain minicandelabra screw base socket for cool operation.

## FLUSH MOUNT RECESSED LIGHTING

An adjustable mudding ring attaches to 3" and 5" new work platforms allowing the optical element to sit flush with the finished ceiling providing a nearly seamless appearance. See page 24 for ordering and details.



## ADJUSTMENT MECHANISM FOR P3MR & PN3MR ALLOWS HOT AIMING



- Allows rapid and accurate lamp aiming from below the aperture without blocking the beam
- Allows the use of a screw driver to change rotation and tilt
- Die formed rotation disc allows smooth 361° rotation
- Precision drive screw allows accurate 0° to 45° tilt and maintains any adjustment angle during re-lamping
- Mechanism can be removed through the aperture allowing field replacement and easy access to junction box and transformer

## TRUVOLT™ PREMIUM GRADE TOROIDAL TRANSFORMER



- Standard on all IriS low voltage platforms and modules
- Dual output for switched and dimmer control – compensates for line losses inherent in all dimmers
- Operates lamp at rated voltage – crisper color and full rated lumen output allows use of lower wattage lamps without sacrificing performance
- Toroidal construction provides higher efficiency, better regulation, less heat, and extremely low noise as compared to traditional EI laminate transformers
- 5 year transformer warranty





A PN3MR-E3PIN on the flowers and two more in each art niche combined with a PN3MR-E3LWWB bring three-dimensional light to the ancient artifacts. Additional PN3MR-E3AAB draws attention to the bar top and other furniture.

*Lighting Design by Lighting Inc.*

*Architecture by Tony Tamborello*

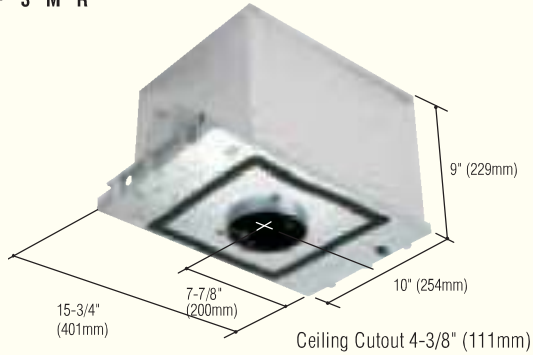
*Photo by Bardagjy Photography*

# 3" PLATFORMS

IRIS 3" Platforms utilize halogen MR16 or PAR lamps to deliver powerful beams of light from a diminutive 3.5" aperture. Each Platform accepts Optical Elements (see pages 14 & 15) for downlighting, accenting, wall washing and shower applications. Optical Elements can be changed after installation to adapt fixture as artwork, furniture or other features of a home is changed.

Remodel Platforms are also available as detailed on page 12.

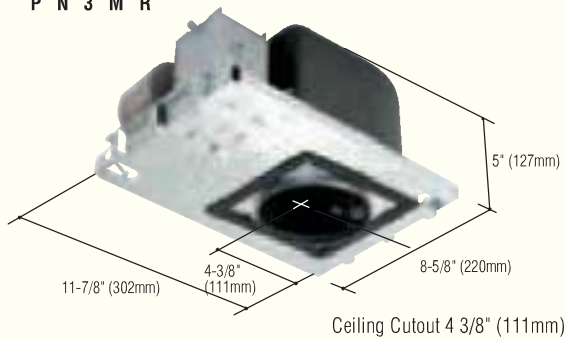
## P 3 M R



A specification-grade residential platform dedicated for low-voltage MR16 lamps, featuring a toroidal transformer with secondary outputs for either switch or dimmer controlled applications. Integral adjustment mechanism allows up to 45° tilt with accent elements. Platform is airtight and may be use in direct contact with insulation. A complete fixture requires an IRIS optical element.

P3MR REMOTE version available for use with remote mounted transformers.

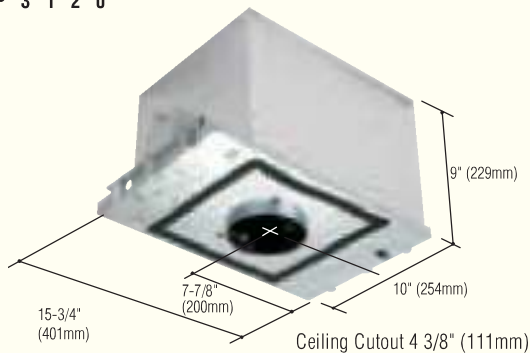
## P N 3 M R



A specification-grade residential platform for use in niche areas where minimum space is available. Platform is dedicated for low-voltage MR16 lamps, featuring a toroidal transformer with secondary outputs for either switch or dimmer controlled applications. Integral adjustment mechanism allows up to 45° tilt with accent elements. Platform is airtight, but **insulation must be kept 3" away from fixture**. A complete fixture requires an IRIS optical element.

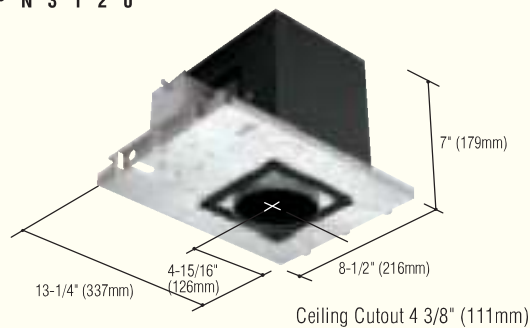
PN3MR REMOTE version available for use with remote mounted transformers.

## P 3 1 2 0



A specification-grade residential platform dedicated for line voltage PAR16 or PAR20. Platform is airtight and may be use in direct contact with insulation. Integral adjustment mechanism allows up to 35° tilt with accent elements. A complete fixture requires an IRIS optical element.

## P N 3 1 2 0

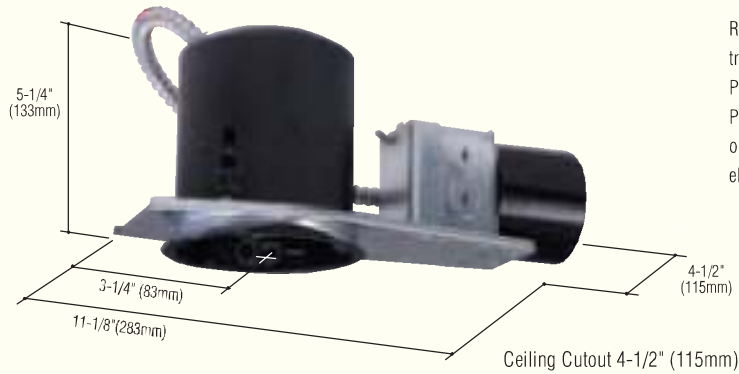


A specification-grade residential platform dedicated for line voltage PAR16 or PAR20. Integral adjustment mechanism allows up to 35° tilt with accent elements. Platform is airtight, but **insulation must be kept 3" away from fixture**. A complete fixture requires an IRIS optical element.

## 3" REMODEL PLATFORMS

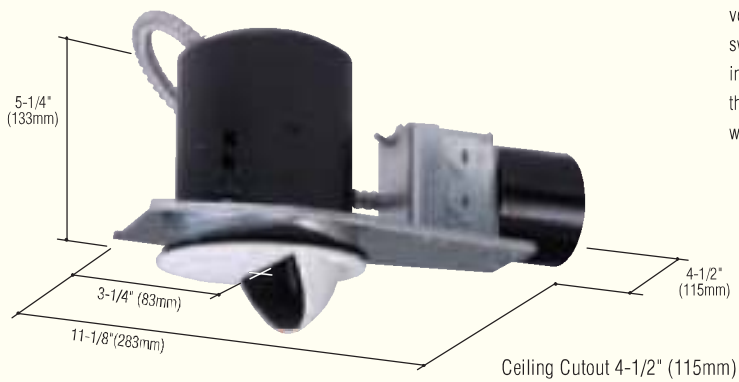
The IRiS Remodel Platforms are specification grade platforms designed for renovation of residential installations. They fit into tight 2x6 framed areas and are ideal when working within the constraints of older residential construction.

### R P N 3 M R



Remodel platform dedicated for low voltage MR16 lamps, featuring a toroidal transformer with primary inputs for either switch or dimmer controlled applications. Platforms are thermally protected, but insulation must be kept 3" away from fixture. Platform accommodates various ceiling thickness. A complete fixture requires an IRiS optical element. Integral adjustment mechanism allows up to 35° tilt with accent elements.

### R P N 3 M R S A (shown with E3SA element)



Remodel platform designed for use with the E3SA optical element is dedicated for low voltage MR16 lamps and features a toroidal transformer with primary inputs for either switch or dimmer controlled applications. Platforms are thermally protected, but insulation must be kept 3" away from fixture. Platform accommodates various ceiling thickness. A complete fixture requires the E3SA IRiS super adjustable optical element which allows beam to tilt from 15°-75° (see page 73).

## EASY INSTALLATION

- Platform is UL and CSA listed. Insulation must be kept 3 inches away from the remodeler. Platform listed for below ceiling accessibility for components and inspection. Platform is wet listed with specific elements.
- Integral thermal protector prevents over lamping of unit.

### CUT



A 4 1/2" hole saw provides a perfect sized hole for installation, or use the supplied hole cutting template.

### WIRE

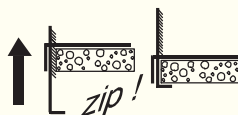


The Junction box includes pryouts, a ground wire and a contractor's third hand to simplify wiring by supporting the fixture while its being wired.

### SLIDE



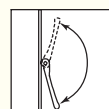
The "Easyslip" frame slides through the ceiling cutout and secures with Zip-clip.



### PUSH



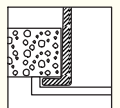
The housing inserts through hole and secures with cam lock easy-lock springs.



### TRIM



After the lamp is installed and aimed, the torsion springs pull element snug to ceiling. Elements with die-cast flanges have a return lip to accommodate the lip of the housing. **Self-flanged Elements are not recommended for use with Remodel Platform as they will not sit tightly against the ceiling.**





The IRIS Remodeler is the perfect choice for soffit lights. Its small size and installation features allow the electrician to rough-in the wire early, then install the fixture after the soffit is finished.

*Lighting Design by MJS Lighting Design  
Interior Design by Chandra Stone Interior Design  
Photo by Bardagjy Photography*

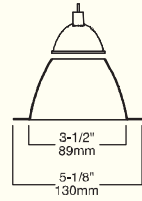
# 3" ELEMENTS

## ORDERING INFORMATION

IRIS optical elements are designed to be glare-free and visibly similar across all optical distributions for a consistent look throughout.

IRIS offers the widest selection of optical elements for each aperture size and the ability to change from downlights, to adjustables, to wall washers, or to shower elements after ceiling is installed.

Finished opening is 3-1/2", except for the 1-1/4" & 2" pinholes. O.D. of the flange is 5-1/8"; except for the Luna, which is 5-1/2", and self flanges which are 4-7/8". **Self flange elements are not recommended for use with RPN3MR.**



### DOWNLIGHT

ELEMENT	DESCRIPTION	PLATFORM	MAX LAMP
E3MR <sub>12</sub>	50° Cutoff Reflector <i>For MR16 lamps</i>	P3MR P3MR REMOTE PN3MR PN3MR REMOTE RPN3MR	50MR16 71MR16 71MR16 71MR16 50MR16
E3MRBB <sup>23</sup>	50° Cutoff Baffle <i>For MR16 lamps</i>	P3MR P3MR REMOTE PN3MR PN3MR REMOTE RPN3MR	50MR16 71MR16 71MR16 71MR16 50MR16
E3DNPIN <sup>2</sup>	1-1/4" Downlight Pinhole <i>For MR16 lamps</i>	P3MR P3MR REMOTE PN3MR PN3MR REMOTE RPN3MR	50MR16 50MR16 71MR16 71MR16 50MR16
E3A19 <sub>12</sub>	50° Cutoff Reflector <i>For A19 lamps</i>	P3120 PN3120	60A19, 60MB19, 60BT15, 50TB19 100A19, 100MB19, 100BT15, 90TB19
E3P20 <sub>12</sub>	50° Cutoff Reflector <i>For PAR20 lamps</i>	P3120 PN3120	50PAR20, 60PAR16, 50R20 50PAR20, 75PAR16
E3P20BB <sup>23</sup>	50° Cutoff Baffle <i>For PAR20 lamps</i>	P3120 PN3120	50PAR20, 60PAR16, 50R20 50PAR20, 60PAR16 50R20, 50BR19

#### Notes:

<sup>1</sup> For all Elements with "\_" please add cone color and flange option from top of next page.

<sup>2</sup> IRIS 3" Platforms made before Feb, 2001 need single torsion spring elements; add a "1" on the end of element number to order.

<sup>3</sup> Change "BB" to WB for white baffle.

<sup>4</sup> A clear lens is shipped with all pinhole elements which can replace the soft focus lens in the platform to allow maximum output.

### ADJUSTABLE ACCENT

ELEMENT	DESCRIPTION	PLATFORM	MAX LAMP
E3AA <sub>12</sub>	Angle-Cut Reflector & Shallow Angle-Cut Reflector	P3MR P3MR REMOTE P3120	50MR16 71MR16 50PAR20, 60PAR16, 50R20
E3AA20 <sub>12</sub>	<i>For MR16 lamps &amp; PAR20 lamps</i>  <i>Note: AA20 recommended for ceilings over 7/8" thick</i>	PN3MR PN3MR REMOTE PN3120 RPN3MR	71MR16 71MR16 50PAR20, 75PAR16, 50R20 50MR16
E3MRAABB <sup>23</sup>	Angle-Cut Baffle <i>For MR16 lamps</i>	P3MR P3MR REMOTE PN3MR PN3MR REMOTE RPN3MR	50MR16 71MR16 71MR16 71MR16 50MR16
E3P20AABB <sup>23</sup>	Angle-Cut Baffle <i>For PAR20 lamps</i>	P3120 PN3120	50PAR20, 60PAR16, 50R20 50PAR20, 75PAR16, 50R20
E3SLOT <sub>12</sub>	Slot Cut Reflector <i>For MR16 lamps</i>	P3MR P3MR REMOTE PN3MR PN3MR REMOTE RPN3MR	50MR16 71MR16 71MR16 71MR16 50MR16
E3PIN <sup>24</sup>	1-1/4" Adjustable Pinhole <i>For MR16 lamps</i>	P3MR P3MR REMOTE PN3MR PN3MR REMOTE RPN3MR	50MR16 50MR16 71MR16 71MR16 50MR16
E3PIN LARGE <sup>24</sup>	1-3/4" Adjustable Pinhole <i>for MR16 lamps</i>	P3MR P3MR REMOTE PN3MR	50MR16 71MR16 71MR16
E3PINRD <sup>24</sup>	1-3/4" Adjustable Pinhole with Radius Edges <i>for MR16 &amp; PAR20 lamps</i>	PN3MR REMOTE RPN3MR P3120 PN3120	71MR16 50MR16 50PAR20 75PAR16
E3OVAL <sup>24</sup>	2" Oval <i>For MR16 lamps</i>	P3MR P3MR REMOTE PN3MR PN3MR REMOTE RPN3MR	50MR16 50MR16 71MR16 71MR16 50MR16
E3SA <sup>2</sup>	Super Adjustable 15°-75° Tilt <i>For MR16 lamps</i> <i>Includes Hexcell Louver</i>	P3MR P3MR REMOTE PN3MR PN3MR REMOTE RPN3MR SA	50MR16 50MR16 71MR16 71MR16 50MR16

## ORDERING INFORMATION

A complete 3" fixture requires a platform and an optical element.

Please add cone color and flange choice to element number.

Example: **P3MR**    **E3AAC**  
                  Platform    Element

## ELEMENT OPTIONS

### Standard Alzak®

#### Cone Colors

C = Clear  
 H = Haze  
 G = Gold  
 B = Black  
 WMH = Warm Haze  
 W = Gloss White  
 MW = Matte White  
 BB = Black Baffle\*  
 WB = White Baffle\*

\*Baffle Elements are listed separately as they are not available on all elements.

### Special Cone Colors

K = Cognac  
 KH = Cognac Haze  
 CC = Chocolate  
 CCH = Chocolate Haze  
 BU = Blush  
 BUH = Blush Haze  
 GP = Graphite  
 GPH = Graphite Haze  
 PN = Pine  
 PNH = Pine Haze  
 SK = Sky  
 SKH = Sky Haze

See page 7 for photos.

### Flanges

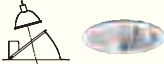
Blank = Matte white die-cast flange ring, removable for field painting  
 Raw = Raw cast flange  
 SF = Self Flange  
 SFWF = Self Flange painted matte white

### E3PIN Flanges


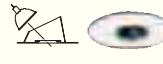


Blank = White with black occlus  
 W = White with white occlus  
 POL = Polished aluminum with black occlus  
 SAL = Satin aluminum with black occlus

See page 7 for photos.

## WALL WASH

ELEMENT	DESCRIPTION	PLATFORM	MAX LAMP
E3LWW <sup>1,2</sup>	Lensed Wall Wash	P3MR	50MR16
	For MR16 and PAR20 lamps	P3MR REMOTE	50MR16
		P3120	35PAR20, 45PAR16
		PN3MR	71MR16
		PN3MR REMOTE	71MR16
		PN3120	50PAR20, 75PAR16
		RPN3MR	50MR16

## SHOWER / LENSED

ELEMENT	DESCRIPTION	PLATFORM	MAX LAMP
E3AASR <sup>1,2</sup>	Wet Location Angle-Cut Reflector	P3MR	50MR16
	For MR16 lamps & PAR20 lamps	P3MR REMOTE	50MR16
		P3120	50PAR20, 50R20
		PN3MR	71MR16
		PN3MR REMOTE	71MR16
		PN3120	50PAR20, 75PAR16
		RPN3MR	50MR16
E3AASR PIN <sup>2</sup>	Wet Location 1-3/4" Adjustable Pinhole	P3MR	42MR16
	For MR16 lamps	P3MR REMOTE	50MR16
		PN3MR	71MR16
		PN3MR REMOTE	71MR16
		RPN3MR	50MR16
E3SR <sup>1,2</sup>	Wet Location 50° Cutoff Reflector	P3MR	50MR16
	For MR16 lamps & PAR20 lamps	P3MR REMOTE	75MR16
		P3120	50PAR20, 50R20
		PN3MR	71MR16
		PN3MR REMOTE	71MR16
		PN3120	50PAR20, 60PAR16, 50R20
E3A19LUNA <sup>2</sup>	Wet Location Blown Veined Glass	P3120	60A19, 60MB19, 60BT15, 50TB19
	FOR A19 lamps	PN3120	100A19, 100MB19, 100BT15, 90TB19



IRiS 5" fixtures offer more lamp choices and optical selections than any other fixture. P5-M5MR-E5MRCCH with MR16 lamps light the counters while a P5-M120-E5LUNA with an A19 lamp provides a soft cloud of light in the shower.

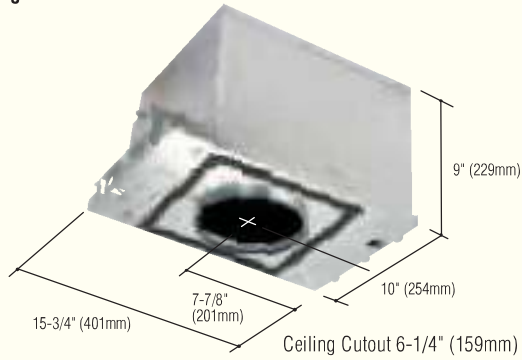
*Lighting Design by Robert Singer & Associates  
Architecture by Gibson Architects  
Photo by Bardagjy Photography*

# 5" PLATFORMS

IRiS 5" Platforms provide modular flexibility between various lamp sources and a complete range of optical distributions. This modular concept, while simple, provides the broadest selection of lamp and distribution choices in the industry with a consistent 5.25" aperture.

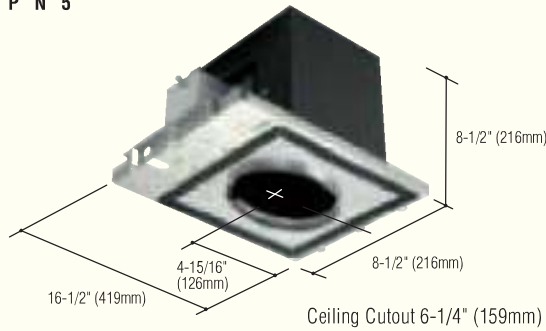
The P5 and PN5 Platforms accept various Lamp Modules for fluorescent, low-voltage halogen and line-voltage sources, as well as Optical Elements (see pages 18 & 19) for downlighting, accenting, wall washing and shower applications. Lamp Modules & Optical Elements can be changed after installation to adapt fixture as artwork, furniture or other features of a home is changed.

## P 5



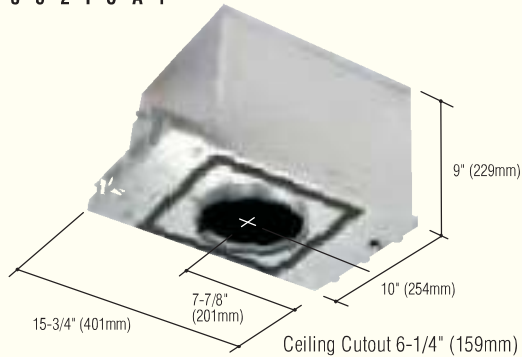
A specification-grade residential platform that accepts fluorescent, low-voltage halogen and line-voltage incandescent lamp modules. Platform is airtight and may be used in direct contact with insulation. A complete fixture requires an IRiS lamp module and optical element.

## P N 5



A specification-grade residential platform for use with narrow joist spacing that accepts fluorescent, low-voltage halogen and line-voltage incandescent lamp modules. Platform is airtight, but **insulation must be kept 3" away from fixture**. A complete fixture requires an IRiS lamp module and optical element.

## P 5 3 2 I C A T



A specification-grade **dedicated** compact fluorescent 26/32W Energy Star Qualified airtight platform for use in direct contact with insulation. Complete fixture requires an IRiS optical element.

IRiS Energy Star Qualified 5" platforms rated for direct contact with insulation are available with several element choices. The AIRTITE housing prevents airflow between attic and living areas. The electronic compact fluorescent ballast meets stringent Energy Star requirements including FCC Title 47 CFR part 18 for consumer equipment.



# 5" ELEMENTS & LAMP MODULES

## ORDERING INFORMATION

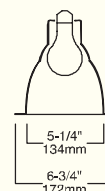
IRIS 5" fixtures are the most versatile specification grade fixtures available. With their broad range of optical and lamp choices, which can be changed after installation, these fixtures adapt to any ceiling height or lighting need.

IRIS optical elements are designed to be glare-free and visibly similar across all optical distributions for a consistent look throughout.

IRIS offers the widest selection of optical elements for each aperture size and the ability to change from downlights, to adjustables, to wall washers, or to shower elements after ceiling is installed.

Finished opening is 5-1/4", except for the 1-3/4" pinhole.

O.D. of the flange is 6-1/4"; except for the Luna, which is 7-1/4".



### DOWNLIGHT

ELEMENT	DESCRIPTION	PLATFORM	LAMP MODULE	MAX LAMP
E5T_1	50° Cutoff Reflector <i>For CFL lamps</i>	P5 P532ICAT PN5	M32T <sup>3</sup> -- M32T <sup>3</sup>	32W Triple CFL 32W Triple CFL 32W Triple CFL
E5A19_1	50° Cutoff Reflector <i>For A19 lamps</i>	P5 PN5	M120 M120	100A19, 100BT15, 100MB19, 90TB19 100A19, 90TB19
E5A19BB <sup>2</sup>	50° Cutoff Baffle <i>For A19 lamps</i>	P5 PN5	M120 M120	100A19, 100BT15, 100MB19 100A19, 100BT15, 100MB15,
E5P30BB <sup>2</sup>	50° Cutoff Reflector <i>For PAR30 lamps</i>	P5	M120	75PAR30, 75PAR30L, 85BR30, 100R30
E5P30_1	50° Cutoff Baffle <i>For PAR30 lamps</i>	P5 PN5 PN5	M120 M120 M120	75PAR30, 75PAR30L 75PAR30, 75PAR30L, 85BR30, 100R30
E5QT4_1	50° Cutoff Reflector <i>For Quartz lamps (Wet Listed)</i>	P5 PN5	MQT4 MQT4	Q100T4/MC Q100T4/MC
E5MR_1	50° Cutoff Reflector <i>For MR16 lamps</i>	P5 PN5	M5MR M5MR	50MR16 75MR16

#### Notes:

<sup>1</sup> For all Elements with "\_" please add cone color and flange option from top of next page.

<sup>2</sup> Change "BB" to WB for white baffle.

<sup>3</sup> A dimmable Lutron ballast or Emergency version is available for these units. See page 26.

### ADJUSTABLE ACCENT

ELEMENT	DESCRIPTION	PLATFORM	LAMP MODULE	MAX LAMP
E5AA_1	Angle-Cut Reflector & Shallow Angle-Cut Reflector	P5 P5	M5P36 M5P36 6V	50PAR36, 50AR111 50PAR36, 50AR111, 25PAR36/5.5, 35AR111/5.5
E5AA20_1	<i>Note: AA20 recommended for ceilings over 7/8" thick</i>	P5 PN5 PN5	M5P30 M5MR M5P36 6V	75PAR30/ Short Neck Only 50MR16 50PAR36, 75AR111 50PAR36, 50AR111, 25PAR36/5.5, 35AR111/5.5
E5AABB <sup>2</sup>	Angle-Cut Baffle	P5 P5 PN5 PN5 PN5 PN5 PN5 PN5 PN5 PN5	M5P36 M5P36 6V M5P30 M5MR M5P36 6V M5P30 M5MR M5P36 M5P30 M5MR M5MR	75PAR30/ Short Neck Only 75MR16 50PAR36, 50AR111 50PAR36, 50AR111, 25PAR36/5.5, 35AR111/5.5 75PAR30/ Short Neck Only 75MR16 50MR16 50PAR36, 75AR111 50PAR36, 50AR111, 25PAR36/5.5, 35AR111/5.5 75PAR30/ Short Neck Only 75MR16 50MR16 50MR16 75MR16
E5SLOT_1	Slot Cut Reflector	P5 PN5	M5MR M5MR	50MR16 75MR16
E5PIN	1-3/4" Adjustable Pinhole	P5 PN5	M5MR M5MR	50MR16 75MR16

## ORDERING INFORMATION

A complete 5" fixture requires a platform, a lamp module and an optical element.

Please add cone color and flange choice to element number.

Example: **P 5**      **M 1 2 0**      **E 5 P 3 0 C**  
                  Platform      Module      Element

Note: P532ICAT platform includes CFL lamp module.

## ELEMENT OPTIONS

### Standard Alzak®

#### Cone Colors

C = Clear  
 H = Haze  
 G = Gold  
 B = Black  
 WMH = Warm Haze  
 W = Gloss White  
 MW = Matte White  
 BB = Black Baffle\*  
 WB = White Baffle\*

\*Baffle Elements are listed separately as they are not available on all elements.

### Special Cone Colors

K = Cognac  
 KH = Cognac Haze  
 CC = Chocolate  
 CCH = Chocolate Haze  
 BU = Blush  
 BUH = Blush Haze  
 GP = Graphite  
 GPH = Graphite Haze  
 PN = Pine  
 PNH = Pine Haze  
 SK = Sky  
 SKH = Sky Haze

See page 7 for photos.

### Flanges





















Blank = Matte white die-cast flange ring, removable for field painting  
 Raw = Raw cast flange  
 SF = Self Flange  
 SFWF = Self Flange painted matte white

See page 7 for photos.









### E5PIN Finishes

Blank = Matte white painted die-cast trim ring with black oculus  
 W = Matte white painted die-cast trim ring with white oculus

## WALL WASH

ELEMENT	DESCRIPTION	PLATFORM	LAMP MODULE	MAX LAMP
E5T WW_1 	Single Open Wall Wash  <i>For CFL lamps</i>	P5	M32T <sup>3</sup>	32W Triple CFL
		P532ICAT	--	32W Triple CFL
		PN5	M32T <sup>3</sup>	32W Triple CFL
E5T DWW_1 	Double Open Wall Wash  <i>For CFL lamps</i>	P5	M32T <sup>3</sup>	32W Triple CFL
		P532ICAT	--	32W Triple CFL
		PN5	M32T <sup>3</sup>	32W Triple CFL
E5T CWW_1 	Corner Open Wall Wash  <i>For CFL lamps</i>	P5	M32T <sup>3</sup>	32W Triple CFL
		P532ICAT	--	32W Triple CFL
		PN5	M32T <sup>3</sup>	32W Triple CFL
E5T HWW_1 	Half Open Wall Wash  <i>For CFL lamps</i>	P5	M32T <sup>3</sup>	32W Triple CFL
		P532ICAT	--	32W Triple CFL
		PN5	M32T <sup>3</sup>	32W Triple CFL
E5A19 WW_1 	Single Open Wall Wash  <i>For A19 lamps</i>	P5	M120	100A19, 100BT15, 100MB19
		PN5	M120	100A19, 100BT15, 100MB19
E5A19 DWW_1 	Double Open Wall Wash  <i>For A19 lamps</i>	P5	M120	100A19, 100BT15, 100MB19
		PN5	M120	100A19, 100BT15, 100MB19
E5A19 CWW_1 	Corner Open Wall Wash  <i>For A19 lamps</i>	P5	M120	100A19, 100BT15, 100MB19
		PN5	M120	100A19, 100BT15, 100MB19
E5A19 HWW_1 	Half Open Wall Wash  <i>For A19 lamps</i>	P5	M120	100A19, 100BT15, 100MB19
		PN5	M120	100A19, 100BT15, 100MB19
E5 LWW_1 	Lensed Wall Wash  <i>For PAR30 lamps</i>	P5	M120	75PAR30/ Short Neck only
		PN5	M120	75PAR30/ Short Neck only
E5 QT4WW_1 	Wide Spread Lensed Wall Wash  <i>For Quartz lamps</i>	P5	MQT4	Q75T4/MC
		PN5	MQT4	Q100T4/MC

## SHOWER / LENSED

ELEMENT	DESCRIPTION	PLATFORM	LAMP MODULE	MAX LAMP
E5 LUNA 	Wet Location Blown Veined Glass  <i>For CFL or A19 lamps</i>	P5	M32T <sup>3</sup>	32W Triple CFL
		P5	M120	100A19, 75BT15
		P532ICAT	--	32W Triple CFL
E5SR_1 	Wet Location Regressed Lens  <i>For CFL or A19 lamps</i>	P5	M32T <sup>3</sup>	32W Triple CFL
		P5	M120	75A19, 75BT15, 60MB19
		P532ICAT	--	32W Triple CFL
E5QT4_1 	Wet Location 50° Cutoff Reflector  <i>For Quartz lamps</i>	P5	M32T <sup>3</sup>	32W Triple CFL
		P5	M120	100A19, 75BT15, 75MB19
		P5	MQT4	Q100T4/MC
E5QT4_1 	Wet Location 50° Cutoff Reflector  <i>For Quartz lamps</i>	P5	MQT4	Q100T4/MC
		PN5	MQT4	Q100T4/MC



IRiS 7" fixtures have top access for easy maintenance in tall ceilings. The three P7-M120-E7P38G with PAR38 lamps provide light across the walkway and P7-M7P36-E7AAG with AR111 lamps easily reach the floral centerpiece 20 feet below. Finally, the P7-M120-E7P38LWVG gently washes each painting.

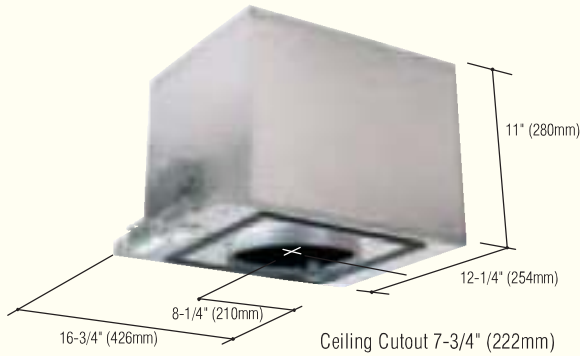
*Lighting Design by Lighting Inc.  
Architecture by Cornerstone Group Architects  
Photo by Bardagjy Photography*

# 7" P L A T F O R M S

IRIS 7" Platforms provide modular flexibility between various lamp sources and a complete range of optical distributions. This modular concept, while simple, provides a broad selection of lamp and distribution choices in the industry with a consistent 6.75" aperture. **Specifically designed for tall ceilings, the 7" Platforms have a removable top for re-lamping from the attic.**

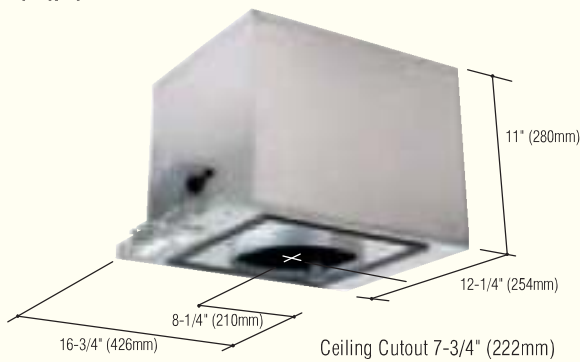
The P7 and PN7 Platforms accept various Lamp Modules for fluorescent, low-voltage halogen and line-voltage sources, as well as Optical Elements (see pages 22 & 23) for downlighting, accenting, wall washing and shower applications. Lamp Modules & Optical Elements can be changed after installation to adapt fixture as artwork, furniture or other features of a home is changed.

## P 7



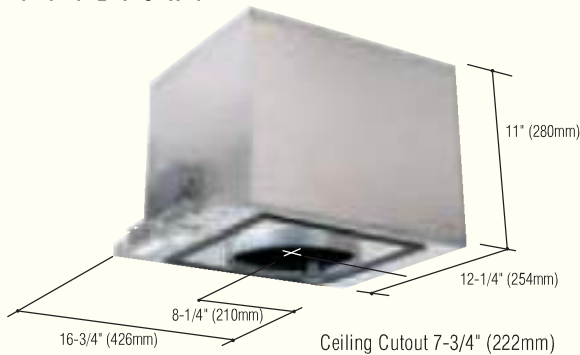
A specification-grade residential platform that accepts fluorescent, low-voltage halogen and line-voltage incandescent lamp modules; with a removable top to allow re-lamping from the attic. Platform is airtight and may be used in direct contact with insulation. A complete fixture requires an IRIS lamp module and optical element.

## P N 7



A specification-grade residential platform that accepts fluorescent, low-voltage halogen and line-voltage incandescent lamp modules; with a removable top to allow re-lamping from the attic. Platform is airtight, but **insulation must be kept 3" away from fixture**. A complete fixture requires an IRIS lamp module and optical element.

## P 7 4 2 I C A T



A specification-grade **dedicated** compact fluorescent 26/32/42W Energy Star Qualified airtight platform for use in direct contact with insulation. Complete fixture requires an IRIS optical element.

IRIS Energy Star Qualified 7" platforms rated for direct contact with insulation are available with several element choices. The AIRTITE housing prevents airflow between attic and living areas. The electronic compact fluorescent ballast meets stringent Energy Star requirements including FCC Title 47 CFR part 18 for consumer equipment.

# 7" ELEMENTS

## ORDERING INFORMATION

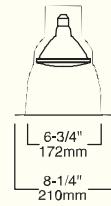
IRIS 7" fixtures are specifically designed for high ceilings. They feature a removable top – allowing re-lamping from the attic – and high wattage lamps for long throws of light.

IRIS optical elements are designed to be glare-free and visibly similar across all optical distributions for a consistent look throughout.







IRIS offers the widest selection of optical elements for each aperture size and the ability to change from downlights, to adjustables, to wall washers, or to shower elements after ceiling is installed.

Finished opening is 6-3/4".









O.D. of the flange is 8-1/4"; except for the Luna, which is 8-3/4".



### DOWNLIGHT

ELEMENT	DESCRIPTION	PLATFORM	LAMP MODULE	MAX LAMP
E7T <sup>1</sup> 	50° Cutoff Reflector <i>For CFL lamps</i>	P7	M42T <sup>3</sup>	42W Triple CFL
		PN7	M42T <sup>3</sup>	42W Triple CFL
		P742ICAT	--	42W Triple CFL
E7A21 <sup>1</sup> 	50° Cutoff Reflector <i>For A21 lamps</i>	P7	M120	150A21, 100BT15, 90TB19, 100MB19
		PN7	M120	150A21, 100BT15, 90TB19, 100MB19
E7A21BB <sup>2</sup> 	50° Cutoff Baffle <i>For A21 lamps</i>	P7	M120	150A21, 100BT15, 90TB19, 100MB19
		PN7	M120	150A21, 100BT15, 90TB19, 100MB19
E7P38 <sup>1</sup> 	50° Cutoff Reflector <i>For PAR38 lamps</i>	P7	M120	150PAR38, 100HIR38, 125BR40, 100PAR38/HEAT/R
		PN7	M120	250PAR38, 100HIR38, 125BR40, 175PAR38/HEAT/R
E7P38BB <sup>2</sup> 	50° Cutoff Baffle <i>For PAR38 lamps</i>	P7	M120	100PAR38, 100HIR38
		PN7	M120	150PAR38, 100HIR38
E7QT4 <sup>1</sup> 	50° Cutoff Reflector <i>For Quartz lamps</i> <i>(Wet listed)</i>	P7	MQT4	Q150T4/MC
		PN7	MQT4	Q150T4/MC

### ADJUSTABLE ACCENT

ELEMENT	DESCRIPTION	PLATFORM	LAMP MODULE	MAX LAMP
E7AA <sup>1</sup> 	Angle-Cut Reflector & Shallow Angle-Cut Reflector	P7	M7P36	50PAR36, 75AR111
		P7	M7P36 6V	25PAR36/5.5, 35AR111/5.5
E7AA20 <sup>1</sup> 	<i>Note: AA20 recommended for ceilings over 7/8" thick</i>	P7	M7P38	90PAR38, 80PAR38/HIR
		PN7	M7P383	90PAR38/3
E7AA20 <sup>1</sup> 		PN7	M7P36	50PAR36, 75AR111
		PN7	M7P36 6V	25PAR36/5.5, 35AR111/5.5
E7AABB <sup>2</sup> 	Angle-Cut Baffle	P7	M7P38	250PAR38, 100PAR38/HIR
		P7	M7P36 6V	50PAR36, 75AR111
E7AABB <sup>2</sup> 		P7	M7P38	90PAR38, 80PAR38/HIR
		P7	M7P383	90PAR38/3
E7AABB <sup>2</sup> 		PN7	M7P36	50PAR36, 75AR111
		PN7	M7P36 6V	25PAR36/5.5, 35AR111/5.5
E7AABB <sup>2</sup> 		PN7	M7P38	250PAR38, 100PAR38/HIR
		PN7	M7P383	150PAR38/3
E7AA45 <sup>1</sup> 	Angle-Cut Reflector 15°-45° Tilt for sloped ceilings	P7	M7P3845 <sup>4</sup>	90PAR38, 60PAR38/HIR
		PN7	M7P3845 <sup>4</sup>	150PAR38, 60PAR38HIR

#### Notes:

<sup>1</sup> For all Elements with "\_" please add cone color and flange option from top of next page.

<sup>2</sup> Change "BB" to WB for white baffle.

<sup>3</sup> A dimmable Lutron ballast or Emergency version is available for these units. See page 26.

<sup>4</sup> M7P3845 tilts from 15°-45°, and rotates ± 40°.

## ORDERING INFORMATION

A complete 7" fixture requires a platform, a lamp module and an optical element.

Please add cone color and flange choice to element number.

Example: **P 7**      **M 7 P 3 8**      **E 7 A A C**  
                  Platform      Module      Element

Note: P742ICAT platform includes CFL lamp module.

## ELEMENT OPTIONS

### Standard Alzak® Cone Colors

C = Clear  
 H = Haze  
 G = Gold  
 B = Black  
 WMH = Warm Haze  
 W = Gloss White  
 MW = Matte White  
 BB = Black Baffle\*  
 WB = White Baffle\*

\*Baffle Elements are listed separately as they are not available on all elements.

### Special Cone Colors

K = Cognac  
 KH = Cognac Haze  
 CC = Chocolate  
 CCH = Chocolate Haze  
 BU = Blush  
 BUH = Blush Haze  
 GP = Graphite  
 GPH = Graphite Haze  
 PN = Pine  
 PNH = Pine Haze  
 SK = Sky  
 SKH = Sky Haze























See page 7 for photos.

### Flanges









Blank = Matte white die-cast flange ring, removable for field painting  
 Raw = Raw cast flange  
 SF = Self Flange  
 SFWF = Self Flange painted matte white

See page 7 for photos.

## WALL WASH

ELEMENT	DESCRIPTION	PLATFORM	LAMP MODULE	MAX LAMP
E7T WW_1 	Single Open Wall Wash  <i>For CFL lamps</i>	P7	M42T <sup>3</sup>	42W Triple CFL
		P742ICAT	--	42W Triple CFL
		PN7	M42T <sup>3</sup>	42W Triple CFL
E7T DWW_1 	Double Open Wall Wash  <i>For CFL lamps</i>	P7	M42T <sup>3</sup>	42W Triple CFL
		P742ICAT	--	42W Triple CFL
		PN7	M42T <sup>3</sup>	42W Triple CFL
E7T CWW_1 	Corner Open Wall Wash  <i>For CFL lamps</i>	P7	M42T <sup>3</sup>	42W Triple CFL
		P742ICAT	--	42W Triple CFL
		PN7	M42T <sup>3</sup>	42W Triple CFL
E7T HWW_1 	Half Open Wall Wash  <i>For CFL lamps</i>	P7	M42T <sup>3</sup>	42W Triple CFL
		P742ICAT	--	42W Triple CFL
		PN7	M42T <sup>3</sup>	42W Triple CFL
E7A21 WW_1 	Single Open Wall Wash  <i>For A21 lamps</i>	P7	M120	150A21, 100BT15, 90TB19, 100MB19
		PN7	M120	150A21, 100BT15, 90TB19, 100MB19
		PN7	M120	150A21, 100BT15, 90TB19, 100MB19
E7A21 DWW_1 	Double Open Wall Wash  <i>For A21 lamps</i>	P7	M120	150A21, 100BT15, 90TB19, 100MB19
		PN7	M120	150A21, 100BT15, 90TB19, 100MB19
		PN7	M120	150A21, 100BT15, 90TB19, 100MB19
E7A21 CWW_1 	Corner Open Wall Wash  <i>For A21 lamps</i>	P7	M120	150A21, 100BT15, 90TB19, 100MB19
		PN7	M120	150A21, 100BT15, 90TB19, 100MB19
		PN7	M120	150A21, 100BT15, 90TB19, 100MB19
E7A21 HWW_1 	Half Open Wall Wash  <i>For A21 lamps</i>	P7	M120	150A21, 100BT15, 90TB19, 100MB19
		PN7	M120	150A21, 100BT15, 90TB19, 100MB19
		PN7	M120	150A21, 100BT15, 90TB19, 100MB19
E7 LWW_1 	Lensed Wall Wash  <i>For PAR38 lamps</i>	P7	M120	90PAR38, 60PAR38/HIR
		PN7	M120	150PAR38, 100PAR38/HIR
		PN7	---	150PAR38/3
E7 P383LWW_1 	Lensed Wall Wash  <i>For PAR38/3 lamps</i>	P7	---	90PAR38/3
		PN7	---	150PAR38/3
		PN7	---	150PAR38/3
E7 QT4WW_1 	Wide Spread Lensed Wall Wash  <i>for Quartz lamps</i>	P7	MQT4	Q100T4/MC
		PN7	MQT4	Q150T4/MC
		PN7	MQT4	Q150T4/MC

## SHOWER / LENSED

ELEMENT	DESCRIPTION	PLATFORM	LAMP MODULE	MAX LAMP
E7 LUNA 	Wet Location Blown Veined Glass  <i>For CFL lamps or A21 lamps</i>	P7	M42T <sup>3</sup>	42W Triple CFL
		P742ICAT	--	42W Triple CFL
		P7	M120	150A21, 100BT15, 100MB19
E7SR_ 	Wet Location Regressed Lens  <i>For CFL lamps or A21 lamps</i>	P7	M42T <sup>3</sup>	42W Triple CFL
		P742ICAT	--	42W Triple CFL
		P7	M120	100A21, 75BT15, 75MB19
E7SR_ 	Wet Location Regressed Lens  <i>For CFL lamps or A21 lamps</i>	PN7	M42T <sup>3</sup>	42W Triple CFL
		PN7	M120	100A21, 75BT15, 75MB19
		PN7	M120	100A21, 75BT15, 75MB19
E7QT4_ 	Wet Location 50° Cutoff Reflector  <i>For Quartz lamps</i>	P7	MQT <sup>3</sup>	Q150T4/MC
		PN7	MQT <sup>3</sup>	Q150T4/MC
		PN7	MQT <sup>3</sup>	Q150T4/MC



**B A R H A N G E R S**

No-flex mounting bars with unique interlocking shape provide sturdy installation in residential construction, and are included with all new construction platforms. A nailless tab and locator lip provide the consistent and proper platform installation height, and can be used for solid wood, engineered lumber, and metal stud construction. Mounting bars allow platforms to be positioned at any point between joists and will span up to 22.5" (joist spacing of 24" o.c.). For joist spacing of 12" or less, bars snap off to the required distance without needing to be removed from the platform.

**MB22**

Two piece bar hanger for 24" maximum joist spacing. Set of two. For replacement order one MB22 per fixture.



**P L A S T E R L I P E X T E N S I O N S**

Plaster lip extensions allow IRIS Platforms to be installed in ceilings up to 2" thick. Available in three aperture sizes, they are field installed onto the platform. For ceilings less than 2" thick, PLE's are easily field cut for optimal installation and are suitable for all Elements. Made from one-piece spun steel (22 gauge) for true round aperture. All surfaces are black polyester powder coated. Ideal for plaster or skim coat ceilings.

**PLE3**

Plaster lip extension fits P3120, PN3120, P3MR, and PN3MR platforms.

**PLE5**

Plaster lip extension fits P5, PN5, P532ICAT platforms.

**PLE7**

Plaster lip extension fits P7, PN7, P742ICAT platforms.



**M O U N T I N G B A R C L I P S**

Mounting bar clips to accommodate grid and T-bar ceiling systems. Clips push onto mounting bars and allow platforms to be installed in 24" O.C. grids.

**MBCLP**

Package contains 40 mounting bar clips – enough to mount 10 platforms.



**S N O O T**

For use with MR16 lamps. Reduces glare and spill light. Ideal for accent lighting.

**LSNOOT**

Snoot accessory for MR16 lamps. Matte black finish.

\* Patent Pending



**L E N S E S**

**L-Series Filter Media:** Lenses are available in either MR16 size or PAR36/AR111 size, for use with all IRiS products.

**Optical:** Optically clear lenses are used to modify the beam of light. For proper installation, the textured side is placed away from the lamp.

**LLNR:** Linear spread lenses fan the light out 55° in one axis, providing a very asymmetric beam. These lenses are most effective when used with spot-type lamp distributions.

**LSF:** Soft-focus lenses soften beam striations while maintaining the beam spread of the lamp. These lenses are useful with MR16 lamps, which have horizontally mounted filaments. Included with MR16 platforms and lamp modules.

**LSPD:** Spread lenses symmetrically widen the beam spread 55° along both axes. These lenses are most effective when used with spot-type lamp distributions.

**LUV:** Ultraviolet reducing lens.

**LHEX:** Matte black hex cell louver provides 45° cutoff to lamp.

**T H E A T R I C A L T I N T I N G C O L O R S**

**Warming tints**

**L27K:** 2700K dichroic filter warms an MR16 tungsten halogen 3000°K light source to a warmer incandescent color temperature without dimming.

**LLPINK:** Light pink

**LLSTRAW:** Light straw

**Cooling tints**

**LDAY:** Daylight filter

**LPLAV:** Pale lavender

**LSPINK:** Surprise pink

**L E N S , L O U V E R A N D F I L T E R P A R T N U M B E R S**

<b>MR16 (2" Dia.)</b>	<b>PAR36/AR111 (4-1/4" Dia.)</b>	<b>FOOTCANDLE MULTIPLIER</b>
LLNR	L4LNR	.30
LSF	L4SF	.60
LSPD	L4SPD	.20
LUV	L4UV	.99
LHEX	L4HEX	.85
L27K	N/A	.95
LLPINK	L4LPINK	.60
LLSTRAW	L4LSTRAW	.94
LDAY	L4DAY	.60
LPLAV	L4PLAV	.50
LSPINK	L4SPINK	.20



**F L U S H M O U N T C O L L A R**

A field installed Flush Mount Collar allows the element flange to sit flush with the finished ceiling rather than on top of it. Collar installs onto plaster lip when platform is mounted. After ceiling is installed finish contractor adjusts collar to proper height and applies skim coat up to edge of collar. Collar adjusts for any ceiling thickness between 5/8" to 1". Lensed Wall Wash and Shower elements should not be used with FMC as they will be difficult to remove for re-lamping.

**FMC3: Flushmount collar for 3" platforms**

Fits P3120, PN3120, P3MR, and PN3MR. Not for use with RPN3MR.

**FMC5: Flushmount collar for 5" platforms**

Fits P5, PN5, P532ICAT platforms.



**1) ATTACH**

The FMC collar attaches to the platform's plaster lip.



**2) MOUNT**

The platform is mounted and wired.



**3) LEVEL**

The FMC is adjusted to be level with bottom of ceiling (FMC will adjust for ceilings 5/8" to 1" thick).



**4) FLOAT**

Fiberglass mesh (included) is cut around aperture and "floated" with plaster to blend edges into ceiling.



**5) TRIM**

After sanding, the optical element can be painted to match ceiling for a clean finished look. Paint should be rated for at least 90° C.



# LUTRON® DIMMING BALLAST LAMP MODULE

The Lutron® option brings specification-grade compact fluorescent dimming into the home. Now aesthetic flexibility can be added to the benefits of compact fluorescent lighting—long life, great color and energy savings. The dimming option provides a full range of dimming of a 32W triple-tube lamp down to 5% light output. Compact fluorescent dimming is noise-free, making it ideal in areas where silent operation is desired. In addition, the color temperature of the fluorescent lamp remains constant as it is dimmed, keeping the color tone of the space constant.

The Lutron® ballast allows compact fluorescent lamps to be dimmed as easily as incandescent. The two-wire dimming ballast allows flexibility and the ability to change lamp sources by ordering other lamp modules. This allows the designer complete flexibility without any changes in the wiring of the home.

## NOTES

The Lutron® lamp module operates a single 32W triple-tube compact fluorescent 4-pin lamp and may be used with any fluorescent optical element (see pages 18-23).

For use with Lutron's HomeWorks™ System, Grafik Eye®, Nova® or Skylark® controls.

Lamps must be operated at full-light output for 100 hours to ensure optimum dimming range.

Consult with your IRIIS representative for additional dimming information and proper dimmer control selection.

## ORDERING

The **M32T LUTRON** lamp module installs in the P5, PN5, P7 or PN7 platforms and works with any fluorescent optical element. The platform is installed the same as it is with incandescent lamp modules.

## PERFORMANCE

- Operates one 32W triple-tube compact fluorescent lamp
- Flicker-free fluorescent dimming from 100% to 5%
- Lamps strike without flicker at any light level
- Meets EMI/RFI emissions set by FCC Part 18 for consumer limits
- Power factor > 0.95 at full; input current throughout dimming range does not exceed the level at full
- Ballast factor > 0.85
- Lamp crest factor ≤ 1.7
- Class A sound rating
- Minimum ballast starting temperature is 10° C (50° F)
- Light stability vs. line-voltage variation: 5% light variation over +/- 10% line-voltage variation
- UL listed, Class P thermally protected

Lutron, Grafik Eye, Nova and Skylark are registered trademarks and HomeWorks is a trademark of Lutron Electronic Co., Inc.



## EMERGENCY OPTION

### FLUORESCENT FIXTURES

The "EMER" equipped platforms consist of a platform, fluorescent lamp module, and a relay that switches to a remote mounted 12v battery (ordered separately) when AC power is lost. The fixture will operate for 90 minutes or more depending on the size battery use and the number of EMER fixtures it powers. The EMER fixtures appear and function identically to non-EMER fixtures until the power goes out. The separately ordered 12v battery is self-charging once AC power is restored.

## NOTES

- Only those fixtures ordered with the EMER option can be wired for emergency operation.
- A remote-mounted, self-charging battery is required and **must be ordered separately**. Select battery based upon total fixture load to be placed upon it.
- EMER platforms are dedicated for compact fluorescent lamps and accept any fluorescent optical elements (see pages 18-23).

## ORDERING

- The 5" or 7" IC rated emergency platforms with factory-installed lamp module and emergency ballast, may be ordered as follows: P532TEMER or P742TEMER. As no additional lamp module is necessary for this platform, simply order any fluorescent optical element from pages 18-23 to complete the fixture. Then order the proper sized battery (see chart) to power the fixture(s) in emergency mode.

### BATTERY OPTIONS

Rated watts at:

Model	DC Volts	90 min.	120 min.
HR 121170	12	117	87
HR 121700	12	170	128
HR 122100	12	210	157
HR 123600	12	360	270

All batteries are maintenance-free sealed lead calcium. Consult factory for nickel cadmium battery options.

### Determining fixture load for battery:

Total load = Total lamp wattage x 1.10

Ex: A quantity of four IRIIS P532TEMER-E5TC are to be on the same battery.

Total load = (4 x 32 watts) x 1.10 or 141 watts.

If HR 12170 battery is used, the fixture will operate for over 90 minutes.

If HR 12210 battery is used, the fixture will operate for over 120 minutes.



**STABLEVOLT™ ORDERING INFORMATION**

LV51012012 300VA remote power supply, 120V primary  
 LV51027712 300VA remote power supply, 277V primary

**R E M O T E L O W V O L T A G E P O W E R S U P P L Y**

The StableVolt™ low voltage power supply is the industry's first premium grade power supply specifically designed to provide optimum performance with low voltage tungsten halogen lamps. Sophisticated electronics compensate for all installation and operational variations allowing the power supply to be remote mounted from the lighting zone up to 285 feet (based on 50W load) eliminating transformer noise and heat unlocking the true potential of low voltage halogen lighting.

StableVolt™ can also be used to remotely power low voltage track, ribbon, rail, cable, or landscape lighting systems including Linea and Lumiere low voltage lighting systems.

StableVolt™ is available in 12 volt, 300 watt, 120VAC and 277VAC 60Hz versions. Lighting loads up to 150 watts through 8 individual outputs make it ideal for use with remote low voltage recessed fixtures such as the IRiS P3MRREMOTE and PN3MRREMOTE.

Unlike other remote magnetic power supplies, output is regulated over a wide range of input voltage and load variations. Stabilized output allows lamps to be driven at full rated voltage providing crisp bright light without the potential of overdriving the lamp. Stabilized output and soft start greatly extends lamp life.

StableVolt™ is provided with a 0 to 10 volt control interface and can be dimmed 0 to 100 percent using standard 0 to 10 volt wall box dimmers or 0 to 10 volt dimmer system interfaces. Contact your IRiS representative for specifications and a list of compatible dimming equipment.



StableVolt™ low voltage power supply compliments home theaters or any critical application including media centers, music conservatories and libraries by eliminating acoustic hum and dimmer buzz.



**B E F O R E**

The two pinholes in the cove are off while others in the room accent the coffee table, sofa and painting.

*Architecture by Tony Tamborello  
Photo by Bardagjy Photography*



## A F T E R

Turning on the two PN3MR-E3PIN with MR16 lamps and LDAY lenses, brings an icy brilliance out of the crystal chandelier and puts useful light onto the table.

*Lighting Design by Lighting Inc.  
Architecture by Tony Tamborello  
Photo by Bardagjy Photography*



**B E F O R E**

Traditional Eyeballs with R30 lamps draw too much attention to the ceiling and bring no focus to the interior.

*Photo by Bardagjy Photography*



**A F T E R**

IRiS P5-M5P36-E5AA20G with AR111 lamps brings focus and sparkle on the mantel and coffee table making the room warmer and more inviting.

*Lighting Design by Lighting Inc.*

*Architecture by Cornerstone Group Architects*

*Photo by Bardagjy Photography*









**B E F O R E**

An illustration of the "cave effect."  
Downlights place scallops, which cut off  
the top of the cabinets.

*Photo by Bardagjy Photography*



## A F T E R

IRIS P5-M120-E5A19WWG wall washers with A19 lamps placed 24" in front of the upper cabinets, make the room feel taller and brighter. Linea low voltage track with halogen lamps mounted over the back-splash graze the tumbled marble to bring out its texture.

*Photo by Bardagjy Photography*







A living room is brought to life with layers of light. Linea low voltage track with halogen lamps mounted in the beams shows the height of the ceiling and IRiS P5-M5P36-E5AAWB with AR111 lamps illuminate the furniture below. The P3MR-E3SA draws attention to the stone fireplace while the P3MR-E3AAWB accent the doors.

*Architecture by One Architects  
Photo by Bardagjy Photography*



This creative wine cellar uses IRiS P3MR-E3PIN to graze the carvings on each door and to turn the painting into a "window" out overlooking the vineyard.

*Lighting Design by JLD Lighting Design  
Photo by Bardagjy Photography*





This landing is a bright focal point using a P5-M120-E5LWWH lensed wall washer on the painting and P5-M120-E5P30H downlights over the stairs; both with PAR30 lamps.

*Lighting Design by JLD Lighting Design  
Photo by Bardagjy Photography*





Using color filters in PN3MR-E3PIN with MR16 spot lamps can add a dramatic effect to any room.

*Lighting Design by MJS Lighting Design  
Photo by Bardagjy Photography*



Placing three P3MR-E3AAG adjustables over a mantle allows the flexibility to light the painting and the vases, while the P3MR-E3LWWG add light onto the bookshelves and the four P5-M120-E5A19G evenly light the center of the room.

*Lighting Design by Crompton Lighting Design  
Architecture by Price Newman Payne Architects  
Photo by Charles Plant Creative Services*



The IRIS P5-M5P36-E5AAC with AR111 lamps softly highlight the artwork and vases on the mantle and put low-level light onto the coffee table and sofas.

*Lighting Design by Craig Roberts Associates  
Architecture by Michael Fuller Architects  
Photo by Marlow Photography*



While the custom chandelier softly glows, six IRIS P5-M5P36-E5AAC with AR111 lamps are used to light the pictures and the wall around them; and two additional P5-M5P36-E5AAC light the table center-piece.

*Lighting Design by Craig Roberts Associates  
Architecture by Michael Fuller Architects  
Photo by Marlow Photography*



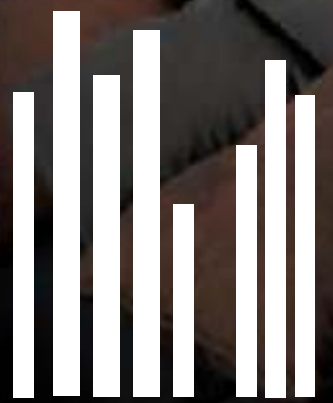
IRIS P3MR-E3AAB, with spot and narrow flood MR16 lamps, spotlight the far painting and table pieces and accent the wall surfaces without detracting from the architecture.

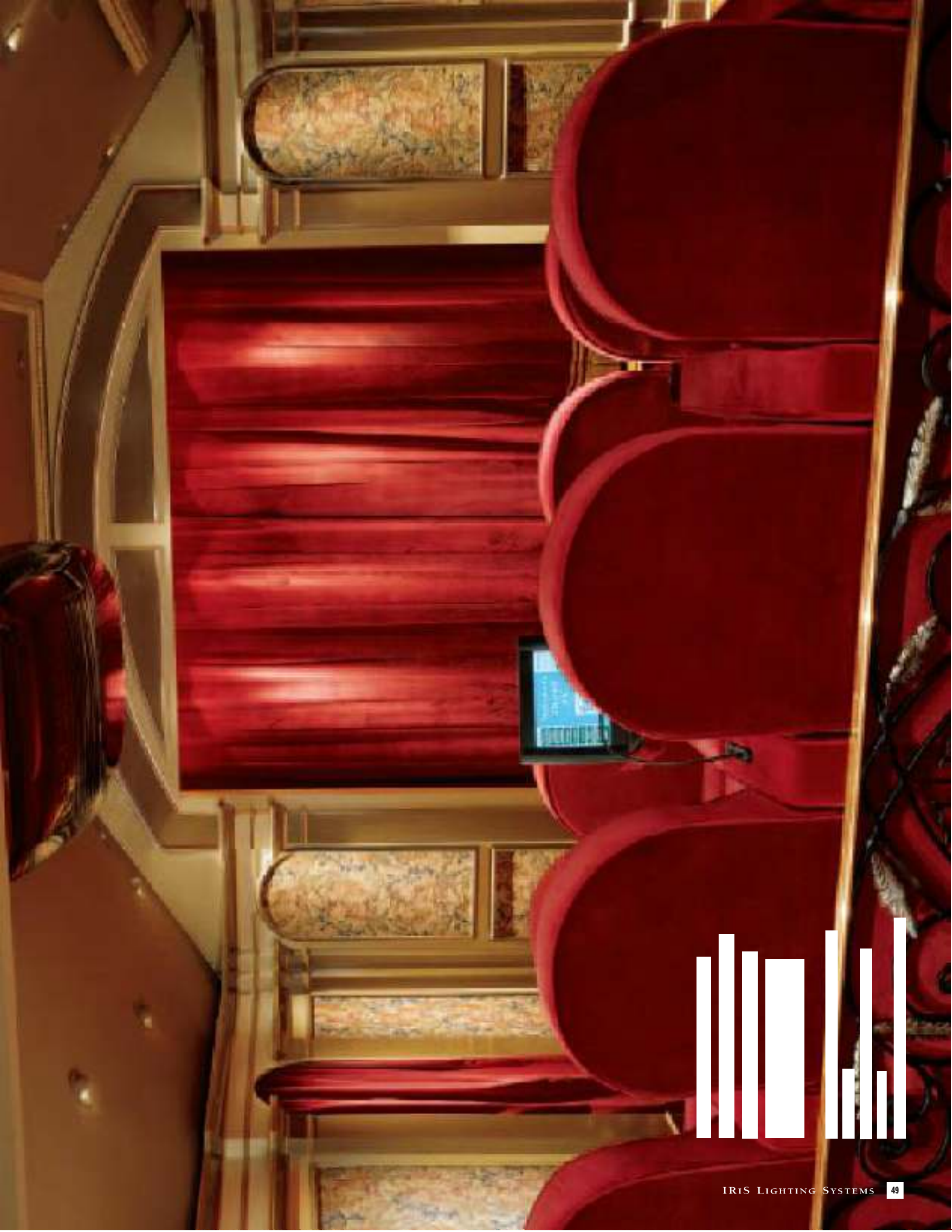
*Lighting Design by Robert Singer & Associates  
Architecture by Bill Poss & Associates  
Photo by Bardagjy Photography*



IRiS P3MR-E3MRC are used to put useful task lighting onto the counters and P3MR-E3AAC accent the cabinets and stonework. The halogen MR16 provides crisp color and the most beam spreads of any lamp.

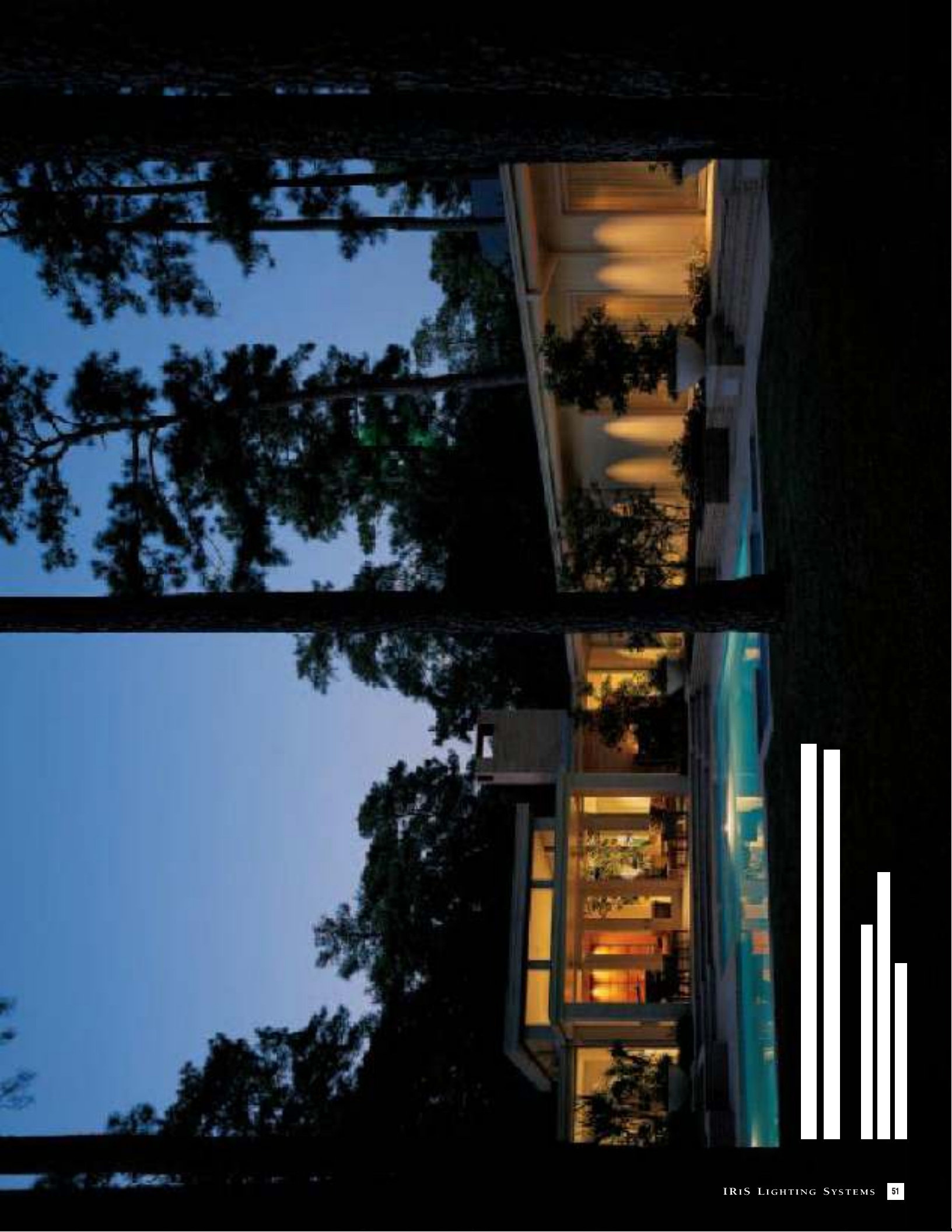
*Lighting Design by JLD Lighting Design  
Photo by Bardagjy Photography*



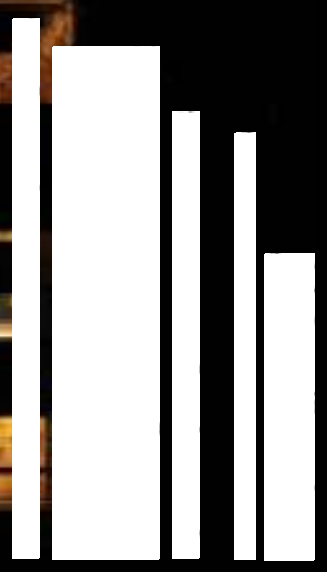


















An IRiS P3MR-E3MRG mounted over each sink uses a very narrow spot MR16 to add a basin glow to the bathroom.

*Photo by Charles Plant Creative Services*



A dramatically lit powder room uses IRIS P3MR-E3PIN with narrow spot MR16 lamps.

*Lighting Design by MJS Lighting Design  
Architecture by Ray Bailey Architects  
Photo by Bardagjy Photography*







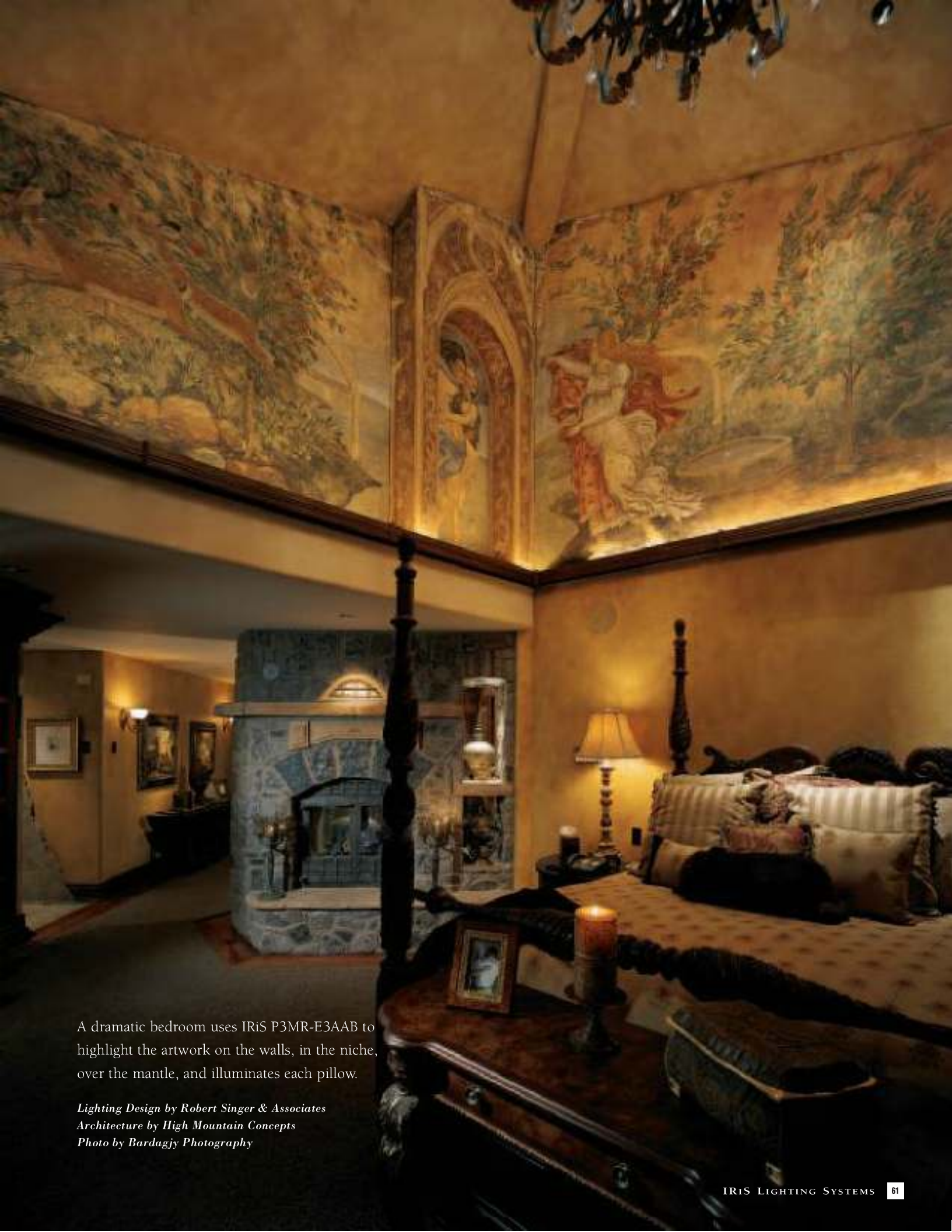
IRiS super adjustables, P3MR-E3SA, highlight this cabinet from the sloped ceiling to create a focal point at the end of the hallway.

*Architecture by One Architects  
Photo by Bardagjy Photography*



The combination of wall sconces and IRiS P3MR-E3MRH over the sink washes the face in light each morning and a P3MR-E3AASRH highlights the shower.

*Lighting Design by P B Q A  
Architecture by Cottle Graybeal Yaw  
Photo by Bardagjy Photography*



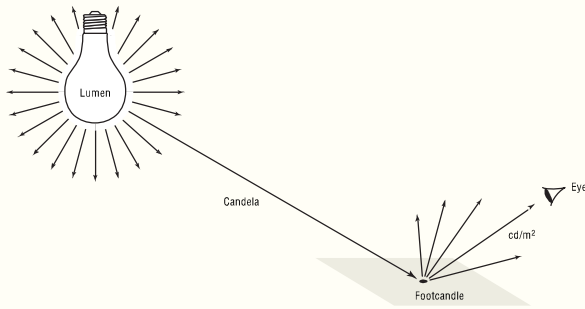
A dramatic bedroom uses IRiS P3MR-E3AAB to highlight the artwork on the walls, in the niche, over the mantle, and illuminates each pillow.

*Lighting Design by Robert Singer & Associates  
Architecture by High Mountain Concepts  
Photo by Bardagjy Photography*



An IRiS P3MR-E3AAB with a very narrow spot MR16 highlights the carving on the master bedroom door.

*Lighting Design by Robert Singer & Associates  
Architecture by High Mountain Concepts  
Photo by Bardagjy Photography*



**PHOTOMETRIC TERMS**

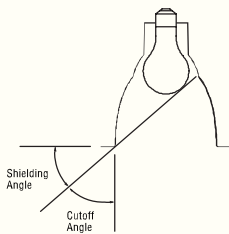
**Lumens:** Luminous flux, measured in lumens (lm), is the total amount of light produced by a source without regard to direction. The luminous flux is provided by lamp manufacturers and common lumen values are included in the lamp matrix.

**Candela:** Luminous intensity, measured in candela (cd), is the amount of light produced in a specific direction. Graphically, this information is compiled into polar formatted charts that indicate the intensity of light at each angle away from 0° lamp axis (nadir). The numeric information is also available in tabular form.

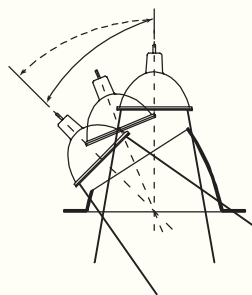
**Footcandles:** Illuminance, measured in footcandles (fc), is the measure of the quantity of light that arrives on a surface. Three factors that affect illuminance are the intensity of the luminaire in the direction of the surface, the distance from the luminaire to the surface, and the angle of incidence of the arriving light. Although illuminance cannot be detected by our eyes, it is a common criterion used in specifying designs.

**Candelas/meter²:** Luminance measured in candelas/meter² (cd/m²) is the quantity of light that leaves a surface. It is what the eye perceives. Luminance will reveal more about the quality and comfort of a design than illuminance alone.

**Cutoff:** The cutoff angle of a luminaire is the angle between the vertical axis (nadir) and the line of sight when the brightness of the source or its reflected image is no longer visible. This is the deciding factor for visual comfort in a lighting system. Deep cutoff optics provide low brightness luminaires, allowing the eye to see more effectively. The shielding angle is the complementary angle to the cutoff angle.



**Translating Center Beam Optics:** Adjustable accent fixtures historically have been inefficient luminaires. As lamps were aimed away from the vertical axis, light from the lamp was wasted—either trapped within the luminaires or re-reflected away from the intended target because the lamp aimed into the reflector cone or baffle. IRiS products solve this problem of well-shielded fixtures with its translating center beam optics design. As the lamp is tilted, its axis pivots about the center of the aperture at the ceiling plane. Light from the center beam does not aim into the reflector. In addition, the lamp translates towards the aperture to maximize more light to exit through the opening. Translating center beam optics increases the amount of light from an adjustable accent, allowing incandescent sources to be used with increased efficiency.



**PHOTOMETRIC INFORMATION**

Photometric information is provided with each fixture to assist in the lighting layout.

**Test Number:** The photometric test number identifies the specific lamp and luminaire combination tested.

**Lamp Information:** Identifies the lamp designation and initial lumen output.

**Beam Spread:** Lamp beam spread to 50% maximum candlepower.

**Center Beam Candle Power (CBCP):** Maximum candlepower of lamp at nadir.

**Cutoff:** Cutoff of lamp and lamp image angle as given from nadir.

**Spacing Criterion (SC):** Mathematically classifies the maximum spacing allowed in order to maintain reasonably even illumination.

$$\text{Luminaire Spacing} = \text{SC} \times \text{Height to Illuminated Plane}$$

**Efficiency:** Compares how much light is emitted from a luminaire; however, efficiency does not indicate the quality of light or visual comfort of a luminaire.

$$\text{Efficiency \%} = \frac{\text{Luminaire Lumens}}{\text{Lamp Lumens}}$$

**Unit LPW:** Indicates total system efficacy; however, unit LPW provides no indication of the light's direction or quality. Some luminaires with a lower LPW may produce a more desirable lighting effect than a luminaire with a higher LPW.

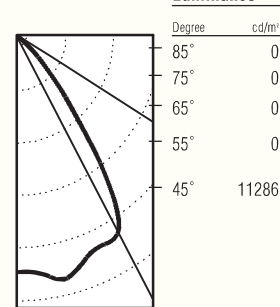
$$\text{LPW} = \frac{\text{Lamp Lumens} \times \text{Luminaire Efficiency}}{\text{Luminaire Watts}}$$

**Candelas:** Polar candela diagrams graphically illustrate the light intensity at specific directions from nadir. Intensity is on the vertical axis, and radial lines indicate elevation angles at 30°, 60° and 90° from nadir. For symmetrical downlights, only one half of a plane of data is shown; for wall washers, both wall and downlight data are shown. Consult specification sheets for full diagrams of non-rotationally symmetric units.

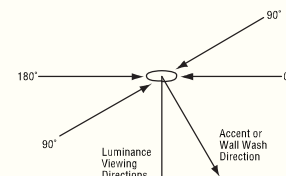
**Candelas**

Vertical Angle	cd
90°	0
85°	0
75°	0
65°	0
55°	0
45°	112
35°	413
25°	547
15°	583
5°	566
0°	562

**Luminance**



**Luminance:** Average luminance numerically indicates the brightness of the aperture. Luminance is provided for various viewing directions, the 0° direction being where the wall wash or accent light is aimed. To convert the preferred cd/m² measure to the older footlamberts, multiply by 3.462. Typically, luminance reveals more about the quality and comfort of a lighting system than illuminance alone.



**BARE LAMP VS REAL WORLD DATA**

Accent (a.k.a. projector) lamp photometrics, based upon published bare lamp data, vastly overstate the performance of recessed low voltage adjustable accent fixtures; and require lighting designers to estimate losses within the fixture. Additional losses, from actual operating voltage and actual vs. designed filament position within the reflector, will further reduce light output.

e.g. GE Q50MR16/C/NSP15 tilted 30° and aimed on a wall 2' from the fixture

	Voltage (v)	Footcandles (fc)
Published Bare Lamp Data:	12.0	361
Off the shelf Bare Lamp	12.0	320
Off the shelf lamp as tested in P3MR-E3AAC	12.0	252
Corrected for Truvolt™ xfr. on switch or dimmer	11.8	237
Corrected for laminated xfr. on switch	11.5	217
Corrected for laminated xfr. on dimmer	10.6	161

While the published bare lamp data produces 361 fc, the off the shelf lamp tested bare produces 320fc (11% less). Once this lamp is tested in the Iris fixture, the same off the shelf lamp produces 252 fc (21% less).

**Worse still is the additional loss from the industry standard laminated transformer on a dimmer, which produces a total loss of 55% from the published bare lamp data.**

Recognizing these tremendous losses, IRiS publishes "real world photometrics" for our low voltage fixtures using off the shelf lamps installed in fixtures using a clear lens and operated at 12.0 volts.

**CONE OF LIGHT**

Useful tools for rapid lighting comparisons and calculations, cones of light calculate initial footcandle levels for a single unit based upon point calculation techniques. Beam diameters are rounded to the nearest half-foot.

**Cone of Light**

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
4.5	27	5.0
5.5	18	6.5
6.5	13	7.5
8.0	8	9.5
10.0	5	11.5
12.0	4	14.0

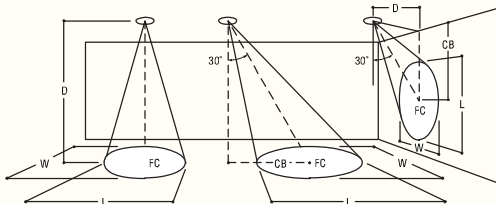
Beam diameter is to 50% of maximum footcandles.

**Downlight:** These cones of light provide single-unit performance with no inter-reflections from surfaces. Data listed is for mounting height, footcandle values at nadir, and resulting beam diameter. Please note:

1. Mounting heights are from the fixture plane to the illuminated work plane (task).
2. Footcandle values are at nadir (0°).
3. Beam diameter is defined as 50% maximum footcandle values. This allows rapid spacing of units for uniform illumination, allowing overlapping of 50% levels.
4. Maximum footcandle values may not always occur at nadir; batwing distributions produce maximum values surrounding nadir.
5. Proration factors are provided for other reflector finishes.

**Accent:** Patterns of light from adjustable accent luminaires are dependent upon the lamp type, wattage, lamp tilt and location of illuminated plane. Single-unit performance data is provided for horizontal and vertical planes, with the lamp tilted at either 0°, 30°, or 45° aiming. Please note:

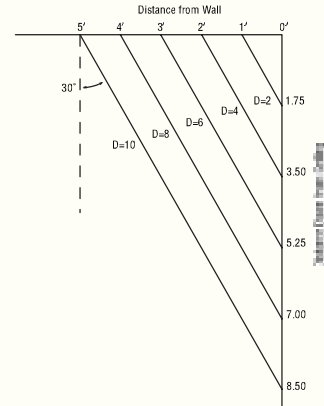
1. Aiming angle is measured from nadir.
2. D is distance from the floor or wall.
3. Footcandle values are maximum values.
4. Effective Visual Beam (EVB) is determined by 50% of the maximum footcandle level.
5. Beam length and width based upon the EVB.
6. CB is the distance at which center beam of the lamp occurs either from the ceiling or nadir.



**Beam Aiming:** Beam aiming diagrams allow a designer to easily select the proper distance from a wall to locate a luminaire and get the center beam of the lamp where desired.

For lighting art objects on a wall, the 30° aiming is preferred. At this angle, 1/3 of the beam's length will be above the CB point, and 2/3 will be below it. Thus, if a painting is three feet tall, plan for the CB to be aimed 1 foot below the top of the painting.

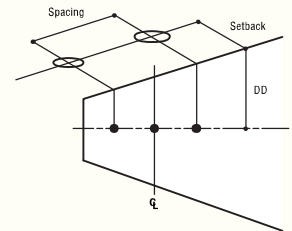
For increased modeling of three-dimensional objects, two lights are typically used, a key light and fill light. Both are aimed at least 30° elevation and are located 45° off axis.



**WALL WASH DATA**

Asymmetric wall wash distributions are provided with two types of performance charts. A single-unit performance chart plots the illuminance levels at one-foot increments along and down a wall.

Multiple-unit performance charts report the performance of the middle units computed from a four unit layout. Illuminance values are plotted centerline of unit and centered between units.



1. Illuminance values are cosine-corrected initial values.
2. No room surface inter-reflections contribute to illuminance values.
3. Changing unit spacing will affect the illumination level.

$$\text{New FC} = \frac{\text{Existing Spacing} \times \text{Average Table FC Level}}{\text{New Spacing}}$$

**LIGHT LOSS FACTORS**

Many variables affect the illumination level after installation. Two of the greatest factors are Lamp Lumen Depreciation (LLD) and Luminaire Dirt Depreciation (LDD). Additional light loss factors affect the illumination level over time. It is the designer's responsibility to understand and apply the appropriate factors.

Lamp lumen depreciation accounts for the reduction in lumen output that all lamps experience as they age. Typical factors are listed in the following chart.

Source	LLD
Standard Incandescent	0.87
Quartz Halogen Incandescent	0.95
Compact Fluorescent	0.95

Luminaire dirt depreciation accounts for the reduction in light output of a fixture due to accumulation of dirt on the surfaces of the fixture. The three factors that determine the luminaire dirt depreciation are the optical distribution, cleanliness of the environment and its cleaning cycle.

Environment	LDD Open Unit	LDD Lensed Unit
Very Clean	0.97	0.85
Clean	0.85	0.79

## EFFECTS OF LOWER OPERATING VOLTAGE ON LUMEN OUTPUT

Any incandescent (including halogen) lamp operating at less than its designed voltage will produce less lumens and a lower color temperature than stated. This effect can be of great magnitude with low voltage lamps.

The formulas below will create the multipliers to apply to photometric calculations and predictably plan the light levels of a given space. The table summarizes the more common voltages experienced.

Formula to correct output for lower secondary voltage  
 (Actual Xfr Output/Lamp Voltage)<sup>3.6</sup> = % of published output  
 e.g. (10.6 / 12.0)<sup>3.6</sup> = 64%  
 Note: If using Excel simply enter =POWER((10.6/12.0),3.6)

Formula to correct color temp for lower secondary voltage:  
 (Volts Running / Volts Rated)<sup>.42</sup> = % of rated color temp  
 e.g. (10.6 / 12.0)<sup>.42</sup> = .95%  
 Note: If using Excel simply enter =POWER((10.6/12.0),.42)

	Output %	Color Temp. %
IRiS with	100%	100%
Truvolt™ Xfr.	97%	100%
	94%	99%
Laminated Xfr.	86%	98%
Laminated Xfr.	68%	96%
on a dimmer	64%	95%

## CONE COLOR FINISH MULTIPLIERS

The finish of a reflector has a greater effect on non-directional lamps like the A-lamp as compared to a directional lamp like the MR16. IRiS has tested all of our finishes with both lamp types for better accuracy. These finish multipliers are listed below each finish and should be used to modify the published photometrics for our Clear Alzak reflectors to another finish.

Description	Cat #	Non-Directional Lamps	Directional Lamps
Clear	C	100%	100%
Black	B	24%	93%
Blush	BU	85%	99%
Blush Haze	BUH	74%	98%
Chocolate	CC	38%	94%
Chocolate Haze	CCH	31%	93%
Cognac	K	58%	95%
Cognac Haze	KH	44%	95%
Gold	G	99%	100%
Graphite	GP	46%	95%
Graphite Haze	GPH	44%	94%
Haze	H	96%	99%
Pine	PN	42%	94%
Pine Haze	PNH	38%	93%
Sky	SK	67%	99%
Sky Haze	SKH	63%	96%
Warm Haze	WMH	90%	98%
White	W	92%	99%

## LENS, LOUVER & COLOR FILTER MULTIPLIERS

Please see page 24 for the appropriate multiplier to apply with each type of media upon the photometric footcandle charts.

## PITCH TO DEGREE CONVERSION

2/12	3/12	4/12	5/12	6/12	7/12	8/12	9/12	10/12	11/12	12/12
10°	14°	18.5°	22.5°	26.5°	30°	33.5°	36.8°	39.8°	42.5°	45°

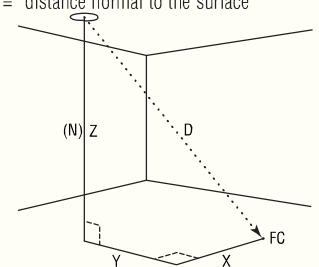
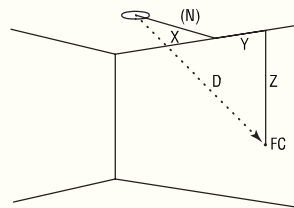
## POINT-TO-POINT CALCULATIONS

The calculation of footcandles at a point, no matter if it is on a horizontal, vertical or tilted surface, can be accomplished with the inverse square law. The law states that the illuminance is proportional to the candlepower of the source in the given direction and inversely proportional to the square of the distance from the source. In addition, as a surface is tilted away from the source, illuminance will decrease in a ratio equal to the cosine of the angle of incidence.

The inverse square law formula can be expressed in various ways; the two most useful follow. Version 1 is ideal for the complexities of three-dimensional space—no trigonometry (cosine) is needed, just the simple X, Y and Z coordinates of the layout. It is also very useful in calculating footcandles from the CBCP of accent lights. Version 2 is useful for calculations that can be laid out in two dimensions, and when it is easy to find the cosine of the aiming angle. Insert your data into either easy-to-use formula to calculate the initial footcandle level at a point.

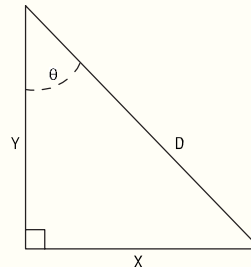
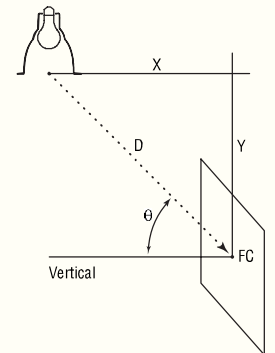
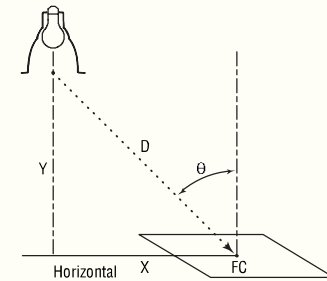
**Version 1:**  $FC = \frac{I \times N}{D^3}$

Where:  
 I = cd towards point  
 D = distance to point  
 (the square root of X<sup>2</sup> + Y<sup>2</sup> + Z<sup>2</sup>)  
 N = distance normal to the surface



**Version 2:**  $FC = \frac{I \times \cos \theta}{D^2}$

Where:  
 I = cd towards point  
 D = distance to point  
 (the square root of X<sup>2</sup> + Y<sup>2</sup>)  
 θ = angle between incident light ray and normal to the surface



θ	cos θ	TAN θ
0°	1.0	0.0
5°	.996	.087
10°	.985	.176
15°	.966	.268
20°	.940	.364
25°	.906	.466
30°	.866	.577
35°	.819	.700
40°	.766	.839
45°	.707	1.0

To find distance D:  $D = \sqrt{X^2 + Y^2}$  or  $D = \frac{Y}{\cos \theta}$

To find aiming angle θ:  $\tan \theta = \frac{X}{Y}$  or  $\cos \theta = \frac{Y}{D}$



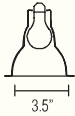
D O W N L I G H T



While low voltage halogen track lighting by Linea lights the ceiling, IRiS P3MR-E3MRB light the floors below. The gold leaf was applied to the trim flange to blend it into the ceiling.

*Lighting Design by Robert Singer & Associates  
Architecture by High Mountain Concepts  
Photo by Bardagjy Photography*

**Fixture: P3120-E3A19C**



**Lamp:**  
**60A19/IF**  
 Test No.: H21281  
 Lumens: 890  
 Cutoff: 50  
 Efficiency: 48.50%  
 SC: 0.8  
 Unit LPW: 7.2

Cone of Light		
Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
4'	25	3.4'
6'	11	5.1'
7'	8	5.9'
8'	6	6.7'
10'	4	8.4'

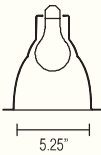
**Fixture: PN3120-E3A19C**



**Lamp:**  
**100A19/IF**  
 Test No.: H21280  
 Lumens: 1750  
 Cutoff: 50  
 Efficiency: 46.90%  
 SC: 0.7  
 Unit LPW: 8.2

Cone of Light		
Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
4'	52	2.5'
6'	23	4.0'
7'	17	4.5'
8'	13	5.3'
10'	8	6.5'

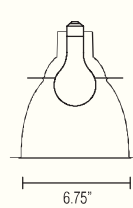
**Fixture: P5-M120-E5A19C**



**Lamp:**  
**100A19/IF**  
 Test No.: H36062  
 Lumens: 1,720  
 Cutoff: 50°  
 Spacing: 1.0  
 Efficiency: 71.1%  
 Unit LPW: 12.2

Cone of Light		
Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
4.5'	54	4.5'
5.5'	36	5.5'
6.5'	26	6.5'
8.0'	17	8.0'
10.0'	11	10.0'
12.0'	8	12.0'

**Fixture: P7-M120-E7A21C**



**Lamp:**  
**150A21/IF**  
 Test No.: H35053  
 Lumens: 2,850  
 Cutoff: 50°  
 Spacing: 1.2  
 Efficiency: 74.8%  
 Unit LPW: 14.2

Cone of Light		
Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
4.5'	63	6.5'
5.5'	42	7.5'
6.5'	30	9.0'
8.0'	20	11.0'
10.0'	13	14.0'
12.0'	9	16.5'

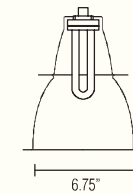
**Fixture: P5-M32T-E5TC**



**Lamp:**  
**PH 32WPLT 3000°K**  
 Test No.: H36087  
 Lumens: 2,400  
 Cutoff: 50°  
 Spacing: 1.1  
 Efficiency: 33.7%  
 Unit LPW: 23.1

Cone of Light		
Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
4.5'	29	5.0'
5.5'	19	6.5'
6.5'	14	7.5'
8.0'	9	9.5'
10.0'	6	11.5'
12.0'	4	14.0'

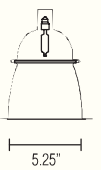
**Fixture: P7-M42T-E7TC**



**Lamp:**  
**PH 42WPLT 3000°K**  
 Test No.: H35061  
 Lumens: 3,200  
 Cutoff: 50°  
 SC: 1.0  
 Efficiency: 49.2%  
 Unit LPW: 34.2

Cone of Light		
Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
4.5'	72	4.5'
5.5'	48	5.5'
6.5'	35	6.5'
8.0'	23	8.0'
10.0'	15	10.0'
12.0'	10	12.0'

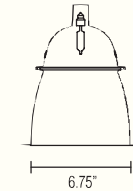
**Fixture: P5-MQT4-E5QT4C**



**Lamp:**  
**GE Q100T4/MC FROSTED**  
 Test No.: H36092  
 Lumens: 1800  
 Cutoff: 50°  
 Spacing: 0.7  
 Efficiency: 61.2%  
 Unit LPW: 11.0

Cone of Light		
Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
4.5'	60	3.0'
5.5'	40	3.6'
6.5'	29	4.0'
8.0'	19	5.0'
10.0'	12	6.5'
12.0'	8	7.5'

**Fixture: P7-MQT4-E7QT4C**

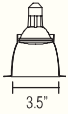


**Lamp:**  
**GE Q150T4/MC FROSTED**  
 Test No.: H35085  
 Lumens: 2,700  
 Cutoff: 50°  
 Spacing: 0.6  
 Efficiency: 60.1%  
 Unit LPW: 10.8

Cone of Light		
Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
4.5'	143	2.5'
5.5'	96	3.0'
6.5'	69	3.5'
8.0'	45	4.0'
10.0'	29	5.0'
12.0'	20	6.0'

Beam diameter is to 50% of maximum footcandles.  
 See page 63 and 64 for "How to Read Photometrics" and Finish Multipliers.

**Fixture: P3120-E3P20C**



**Lamp:**  
**GE 50PAR20/H/NFL**  
 Test No.: H21032  
 Lumens: 560  
 Cutoff: 50°  
 SC: 0.5  
 Efficiency: 95%  
 Unit LPW: 10.6

**Cone of Light**

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
4.5'	83	2.0'
5.5'	56	2.5'
6.5'	40	3.0'
8.0'	26	4.0'
10.0'	17	5.0'
12.0'	12	6.0'

**Fixture: P5-M120-E5P30C**



**Lamp:**  
**GE 75PAR30/FL**  
 Test No.: H36100  
 Lumens: 1,100  
 Cutoff: 50°  
 Spacing: 0.5  
 Efficiency: 94.1%  
 Unit LPW: 13.9

**Cone of Light**

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
4.5'	136	3.0'
5.5'	91	3.5'
6.5'	65	4.0'
8.0'	43	5.0'
10.0'	28	6.0'
12.0'	19	7.6'

**Fixture: P5-M120-E5P30C**

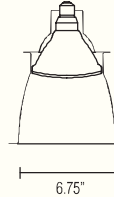


**Lamp:**  
**GE 65BR30/FL**  
 Test No.: H36103  
 Lumens: 770  
 Cutoff: 50°  
 Spacing: 0.8  
 Efficiency: 81.6%  
 Unit LPW: 9.7

**Cone of Light**

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
4.5'	38	4.0'
5.5'	25	5.0'
6.5'	18	5.5'
8.0'	12	7.0'
10.0'	8	9.0'
12.0'	5	10.5'

**Fixture: P7-M120-E7P38C**

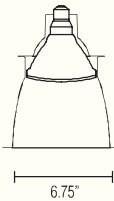


**Lamp:**  
**GE Q150PAR38/FL**  
 Test No.: H35055  
 Lumens: 1,725  
 Cutoff: 50°  
 SC: 0.6  
 Efficiency: 94.5%  
 Unit LPW: 10.9

**Cone of Light**

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
4.5'	208	2.5'
5.5'	140	3.5'
6.5'	100	4.0'
8.0'	66	5.0'
10.0'	42	6.0'
12.0'	29	7.0'

**Fixture: P7-M120-E7P38C**

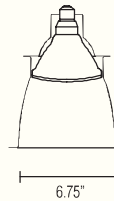


**Lamp:**  
**GE 100PAR38/FL/HIR**  
 Test No.: H35089  
 Lumens: 2,070  
 Cutoff: 50°  
 Spacing: 0.5  
 Efficiency: 84.4%  
 Unit LPW: 17.5

**Cone of Light**

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
4.5'	293	2.5'
5.5'	196	3.0'
6.5'	140	3.5'
8.0'	93	4.5'
10.0'	59	5.5'
12.0'	41	6.5'

**Fixture: P7-M120-E7P38C**

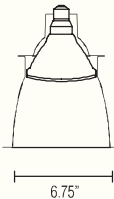


**Lamp:**  
**GE 100PAR38/SP/HIR**  
 Test No.: H35088  
 Lumens: 2,070  
 Cutoff: 50°  
 SC: 0.2  
 Efficiency: 97.5%  
 Unit LPW: 20.2

**Cone of Light**

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
8.0'	369	2.0'
10.0'	240	2.0'
12.0'	167	2.5'
15.0'	107	3.0'
20.0'	60	4.0'
25.0'	38	5.3'

**Fixture: PN7-M120-E7P38C**

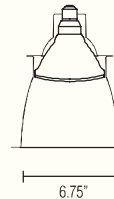


**Lamp:**  
**GE Q250PAR38/SP10**  
 Test No.: H23384  
 Lumens: 3600  
 Cutoff: 50°  
 Efficiency: 95.8%  
 SC: 0.2  
 Unit LPW: 13.8

**Cone of Light**

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
6'	1003	1.0'
8'	564	1.3'
10'	361	1.7'
13'	214	2.2'
15'	160	2.5'
18'	111	3.0'
20'	90	3.4'
25'	58	4.2'

**Fixture: PN7-M120-E7P38C**



**Lamp:**  
**GE Q250PAR38/FL30**  
 Test No.: H23383  
 Lumens: 3600  
 Cutoff: 50°  
 Efficiency: 94.50%  
 SC: 0.2  
 Unit LPW: 13.6

**Cone of Light**

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
6'	489	1.1'
8'	275	1.3'
10'	176	1.8'
12'	122	2.2'
13'	104	2.4'
15'	78	2.7'
18'	54	3.3'
20'	44	3.6'

Beam diameter is to 50% of maximum footcandles.  
 See page 63 and 64 for "How to Read Photometrics" and Finish Multipliers.

**Fixture: P3MR-E3MRC**



**Lamp:**  
**OS 37MR16R/40/FL**  
 Test No.: H21283  
 Lumens: 900  
 Cutoff: 50°  
 Efficiency: 72.1%  
 SC: 0.3  
 Unit LPW: 15.8

Cone of Light		
Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
4'	201	1.4'
6'	90	2.0'
7'	66	2.4'
8'	50	2.7'
10'	32	3.4'
12.5'	21	4.2'

**Fixture: P3MR-E3MRC**



**Lamp:**  
**GE 50MR16/C/NFL**  
 Lens: Soft Focus  
 Test No.: H21029  
 Lumens: 1,045  
 Cutoff: 50°  
 SC: 0.4  
 Efficiency: 72.5%  
 Unit LPW: 13.8

Cone of Light		
Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
4.5'	162	1.5'
5.5'	108	2.0'
6.5'	78	2.5'
8.0'	51	3.0'
10.0'	33	3.5'
12.0'	23	4.5'

**Fixture: P3MR-E3MRC**



**Lamp:**  
**GE 50MR16/C/FL**  
 Lens: Soft Focus  
 Test No.: H21030  
 Lumens: 1,080  
 Cutoff: 50°  
 SC: 0.4  
 Efficiency: 78.1%  
 Unit LPW: 15.3

Cone of Light		
Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
4.5'	123	2.0'
5.5'	82	2.0'
6.5'	59	2.5'
8.0'	39	3.0'
10.0'	25	4.0'
12.0'	17	5.0'

**Fixture: P5-M5MR-E5MRC**



**Lamp:**  
**GE 50MR16/C/FL**  
 Lens: Soft Focus  
 Test No.: H36076  
 Lumens: 1,080  
 Cutoff: 50°  
 SC: 0.5  
 Efficiency: 78.3%  
 Unit LPW: 15.4

Cone of Light		
Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
4.5'	122	2.5'
5.5'	82	3.0'
6.5'	58	3.5'
8.0'	39	4.0'
10.0'	25	5.0'
12.0'	17	6.0'

**Fixture: PN3MR-E3MRC**



**Lamp:**  
**OS 65MR16T/40/FL**  
 Test No.: H21282  
 Lumens: 1100  
 Cutoff: 50°  
 Efficiency: 75.00%  
 SC: 0.3  
 Unit LPW: 11.8

Cone of Light		
Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
4'	216	1.5'
6'	96	2.0'
7'	71	2.0'
8'	54	2.5'
10'	35	3.0'
12.5'	22	4.0'

**Fixture: PN3MR-E3MRC**



**Lamp:**  
**GE Q71MR16/C/FL**  
 Lens: Soft Focus  
 Test No.: H21037  
 Lumens: 1,200  
 Cutoff: 50°  
 SC: 0.4  
 Efficiency: 93.9%  
 Unit LPW: 14.8

Cone of Light		
Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
4.5'	185	2.0'
5.5'	124	2.5'
6.5'	89	3.0'
8.0'	59	3.5'
10.0'	38	4.5'
12.0'	26	5.0'

Beam diameter is to 50% of maximum footcandles.  
 See page 63 and 64 for "How to Read Photometrics" and Finish Multipliers.

A D J U S T A B L E   A C C E N T



IRIS PN3MR-E3PIN blend seamlessly into the ceiling and bring out the warm glow of the paintings and sitting window.

*Lighting Design by MJS Lighting Design  
Architecture by Ray Bailey Architects  
Photo by Bardagjy Photography*



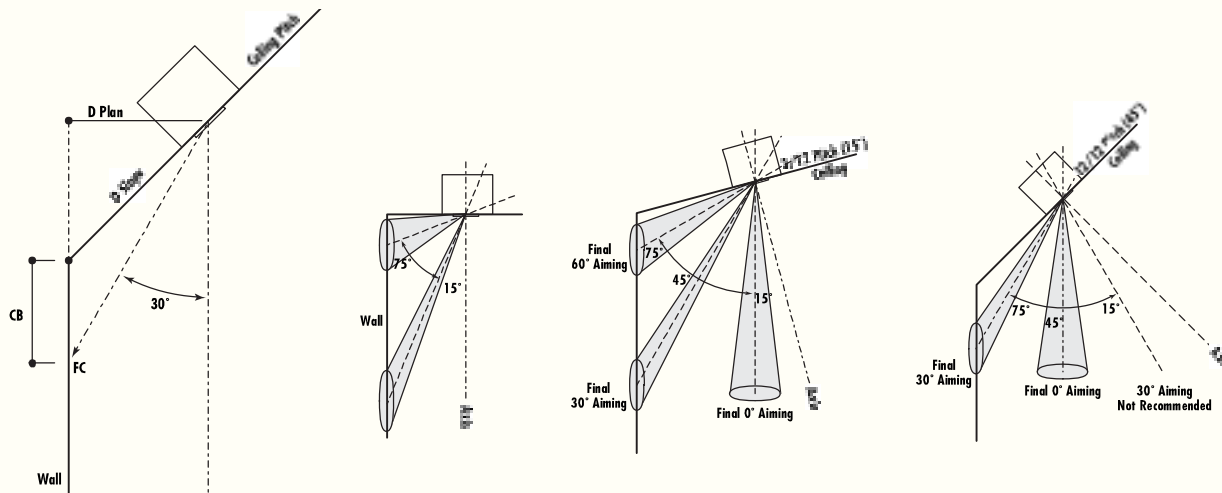


# ADJUSTABLE ACCENT ELEMENT: SUPER ADJUSTABLE

		12/12 P3MR-E3SA 75°				12/12 P3MR-E3SA 75°				12/12 P3MR-E3SA 75°				12/12 PN3MR-E3SA 75°			
<b>Pitch:</b>		12/12				12/12				12/12				12/12			
<b>Fixture:</b>		P3MR-E3SA				P3MR-E3SA				P3MR-E3SA				PN3MR-E3SA			
<b>Tilt of Element:</b>		75°				75°				75°				75°			
<b>Lamp:</b>		OS 37MR16/IR/SP10				GE Q42MR16/VNSP				OS 50MR16/IR/SP/10				OS 65MR16Q/10/NSP			
<b>Beam Spread:</b>		10° x 10°				9° x 9°				10° x 10°				10° x 10°			
<b>Published CBCP:</b>		13,100				12,500				15,700				14,000			
D Plan	D Slope	FC	L	W	CB	FC	L	W	CB	FC	L	W	CB	FC	L	W	CB
2'0"	2'9"	179	1'9"	1'0"	1'6"	129	1'3"	0'9"	1'6"	199	1'6"	9"	1'6"	196	1'6"	1'0"	1'6"
2'6"	3'6"	114	2'0"	1'3"	2'0"	83	1'6"	1'0"	2'0"	127	2'0"	1'3"	2'0"	126	2'0"	1'3"	2'0"
3'0"	4'3"	79	2'6"	1'6"	2'3"	57	1'9"	1'3"	2'3"	86	2'3"	1'6"	2'3"	87	2'3"	1'6"	2'3"
4'0"	5'6"	45	3'3"	1'9"	3'0"	32	2'6"	1'6"	3'0"	50	3'0"	1'9"	3'0"	49	2'9"	2'0"	3'0"

		9/12 P3MR-E3SA 37°				9/12 P3MR-E3SA 37°				9/12 P3MR-E3SA 37°				9/12 PN3MR-E3SA 37°			
<b>Pitch:</b>		9/12				9/12				9/12				9/12			
<b>Fixture:</b>		P3MR-E3SA				P3MR-E3SA				P3MR-E3SA				PN3MR-E3SA			
<b>Tilt of Element:</b>		37°				37°				37°				37°			
<b>Lamp:</b>		OS 37MR16/IR/SP10				GE Q42MR16/VNSP				OS 50MR16/IR/SP/10				OS 65MR16Q/10/NSP			
<b>Beam Spread:</b>		10° x 10°				9° x 9°				10° x 10°				10° x 10°			
<b>Published CBCP:</b>		13,100				12,500				15,700				14,000			
D Plan	D Slope	FC	L	W	CB	FC	L	W	CB	FC	L	W	CB	FC	L	W	CB
2'0"	2'6"	193	1'9"	1'0"	2'	152	1'3"	9"	2'	240	1'6"	1'0"	2'	263	1'3"	9"	2'0"
2'6"	3'0"	123	2'0"	1'3"	2'6"	97	1'6"	1'0"	2'6"	154	2'0"	1'3"	2'6"	168	1'9"	1'0"	2'6"
3'0"	3'9"	86	2'6"	1'6"	3'0"	68	2'0"	1'3"	3'0"	107	2'3"	1'6"	3'0"	117	2'0"	1'3"	3'0"
4'0"	5'0"	48	3'3"	1'9"	4'0"	38	2'6"	1'6"	4'0"	60	3'0"	2'0"	4'0"	65	2'9"	1'9"	4'0"

		6/12 P3MR-E3SA 27°				6/12 P3MR-E3SA 27°				6/12 P3MR-E3SA 27°				6/12 PN3MR-E3SA 27°			
<b>Pitch:</b>		6/12				6/12				6/12				6/12			
<b>Fixture:</b>		P3MR-E3SA				P3MR-E3SA				P3MR-E3SA				PN3MR-E3SA			
<b>Tilt of Element:</b>		27°				27°				27°				27°			
<b>Lamp:</b>		OS 37MR16/IR/SP10				GE Q42MR16/VNSP				OS 50MR16/IR/SP/10				OS 65MR16Q/10/NSP			
<b>Beam Spread:</b>		10° x 10°				9° x 9°				10° x 10°				10° x 10°			
<b>Published CBCP:</b>		13,100				12,500				15,700				14,000			
D Plan	D Slope	FC	L	W	CB	FC	L	W	CB	FC	L	W	CB	FC	L	W	CB
2'0"	2'3"	227	1'6"	9"	2'6"	147	1'3"	9"	2'6"	284	1'5"	1'0"	2'6"	312	1'3"	9"	2'6"
2'6"	2'9"	145	2'0"	1'0"	3'0"	94	1'6"	1'0"	3'0"	182	2'0"	1'3"	3'0"	200	1'9"	1'0"	3'0"
3'0"	3'4"	101	2'3"	1'3"	3'9"	66	2'0"	1'3"	3'9"	126	2'3"	1'6"	3'9"	139	2'0"	1'3"	3'9"
4'0"	4'5"	57	3'0"	1'9"	5'0"	37	2'6"	1'6"	5'0"	71	3'0"	2'0"	5'0"	78	2'9"	1'9"	5'0"



### Notes & Definitions:

The following diagrams represent the aiming of the unit for an effective 30° tilt angle from nadir in ceilings of different pitches; e.g. 75° - 12/12 pitch (or 45°) = 30°.

For optimal performance, it is recommended that fixture is used for illuminating vertical surfaces.

The E3SA "Super Adjustable" element is capable of tilting the lamp's center beam from 15° to 75°; 361° in rotation. The spread of the lamp's beam will fill higher than 75° at maximum tilt.

The E3SA includes an LHEX louver for maximum control of glare if used where mirror is in view.

D Plan = Distance in plan view from wall.

D Slope = Distance as actually measured along slope of ceiling from corner.

FC = Maximum footcandles on wall within effective visual beam. (EVB = 50% of max. FC)

L = Length of effective visual beam

W = Width of effective visual beam

CB = Distance down wall from corner to center of beam location.

IRIS believes that bare lamp data photometrics vastly overstate the performance of low voltage adjustable accent fixtures.

The "real world photometrics" shown here are from off the shell lamps in fixtures using a clear lens and operated at 12.0 volts. Please see page 63 & 64 for a further discussion and appropriate correction multipliers.







W A L L   W A S H

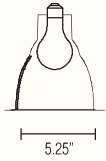


IRiS P5-M120-E5LWWH with PAR30 lamps  
softly highlight the artwork and the entire wall  
to convey a sense of height down this hallway.

*Lighting Design by P B Q A*  
*Architecture by Cottle Graybeal Yaw*  
*Photo by Bardagjy Photography*

See page 63 for "How to Read Photometrics."  
See appropriate tech sheet for additional photometric data.

**Fixture: P5-M120-E5A19WWC**



**Lamp:**  
**100A19/IF**  
Test No.: H36066  
Lumens: 1,720  
Cutoff: 50°  
Efficiency: 68.4%  
Unit LPW: 11.8

**Single Fixture 2' From Wall**

Distance From Fixture Along Wall	Distance From Fixture Along Wall			
	1'	2'	2'	3'
DD 1'	14	10	4	1
2'	21	14	5	2
3'	18	14	8	2
4'	12	10	7	4
5'	7	7	5	4
6'	5	5	4	3
7'	3	3	3	3
8'	2	2	2	2
9'	2	2	2	1
10'	1	1	1	1

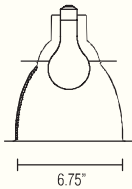
**2' Setback, Spaced 24" O.C.**

Distance From Fixture Along Wall	Distance From Fixture Along Wall		
	1'	2'	3'
DD 1'	23	21	23
2'	32	30	32
3'	34	32	34
4'	27	28	27
5'	20	22	20
6'	15	16	15
7'	11	11	11
8'	8	8	8
9'	6	6	6
10'	5	5	5

**2'6" Setback, Spaced 32" O.C.**

Distance From Fixture Along Wall	Distance From Fixture Along Wall		
	1'	2'	3'
DD 1'	11	10	11
2'	18	15	18
3'	20	19	20
4'	20	19	20
5'	17	17	17
6'	13	14	13
7'	10	11	10
8'	8	9	8
9'	7	7	7
10'	5	5	5

**Fixture: P7-M120-E7A21WWC**



**Lamp:**  
**150A21/IF**  
Test No.: H35054  
Lumens: 2,850  
Cutoff: 50°  
Efficiency: 74.6%  
Unit LPW: 14.2

**Single Fixture 2' From Wall**

Distance From Fixture Along Wall	Distance From Fixture Along Wall			
	1'	2'	2'	3'
DD 1'	25	16	6	1
2'	41	26	9	3
3'	35	29	15	4
4'	22	20	14	7
5'	13	13	11	8
6'	9	8	7	6
7'	6	6	5	5
8'	4	4	4	3
9'	3	3	3	3
10'	2	2	2	2

**2' Setback, Spaced 24" O.C.**

Distance From Fixture Along Wall	Distance From Fixture Along Wall		
	1'	2'	3'
DD 1'	38	36	38
2'	60	59	60
3'	66	65	66
4'	53	54	53
5'	39	41	39
6'	28	29	28
7'	20	21	20
8'	15	15	15
9'	11	11	11
10'	8	8	8

**2'6" Setback, Spaced 32" O.C.**

Distance From Fixture Along Wall	Distance From Fixture Along Wall		
	1'	2'	3'
DD 1'	18	17	18
2'	32	29	32
3'	39	39	39
4'	39	38	39
5'	32	33	32
6'	25	27	25
7'	20	21	20
8'	15	16	15
9'	12	12	12
10'	9	9	9

**Fixture: P5-M32T-E5TWCC**



**Lamp:**  
**PH 32WPLT 3000°K**  
Test No.: H36086  
Lumens: 2,400  
Cutoff: 50°  
Efficiency: 33.6%  
Unit LPW: 23.0

**Single Fixture 2' From Wall**

Distance From Fixture Along Wall	Distance From Fixture Along Wall			
	1'	2'	2'	3'
DD 1'	9	6	2	1
2'	15	9	3	1
3'	14	11	5	1
4'	9	8	5	3
5'	6	6	4	3
6'	4	4	3	2
7'	3	3	2	2
8'	2	2	2	1
9'	1	1	1	1
10'	1	1	1	1

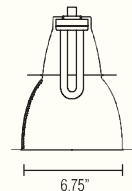
**2' Setback, Spaced 24" O.C.**

Distance From Fixture Along Wall	Distance From Fixture Along Wall		
	1'	2'	3'
DD 1'	14	14	14
2'	21	19	21
3'	24	24	24
4'	21	22	21
5'	16	16	16
6'	11	12	11
7'	8	9	8
8'	6	6	6
9'	5	5	5
10'	4	4	4

**2'6" Setback, Spaced 32" O.C.**

Distance From Fixture Along Wall	Distance From Fixture Along Wall		
	1'	2'	3'
DD 1'	7	7	7
2'	11	10	11
3'	14	14	14
4'	14	14	14
5'	12	13	12
6'	10	11	10
7'	8	8	8
8'	6	6	6
9'	5	5	5
10'	4	4	4

**Fixture: P7-M42T-E7TWCC**



**Lamp:**  
**PH 42WPLT 3000°K**  
Test No.: H35060  
Lumens: 3,200  
Cutoff: 50°  
Efficiency: 48.1  
Unit LPW: 33.5

**Single Fixture 2' From Wall**

Distance From Fixture Along Wall	Distance From Fixture Along Wall			
	1'	2'	2'	3'
DD 1'	16	11	4	1
2'	26	15	6	2
3'	27	20	9	2
4'	18	16	10	5
5'	12	12	8	5
6'	8	8	6	4
7'	6	6	5	3
8'	4	4	3	3
9'	3	3	3	2
10'	2	2	2	2

**2' Setback, Spaced 24" O.C.**

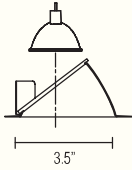
Distance From Fixture Along Wall	Distance From Fixture Along Wall		
	1'	2'	3'
DD 1'	24	23	24
2'	38	34	38
3'	44	45	44
4'	39	42	39
5'	31	33	31
6'	23	24	23
7'	18	18	18
8'	13	14	13
9'	10	10	10
10'	8	8	8

**2'6" Setback, Spaced 32" O.C.**

Distance From Fixture Along Wall	Distance From Fixture Along Wall		
	1'	2'	3'
DD 1'	12	11	12
2'	19	18	19
3'	26	25	26
4'	27	27	27
5'	24	25	24
6'	20	22	20
7'	16	17	16
8'	13	13	13
9'	10	11	10
10'	8	9	8

Notes: Footcandle values for multiple fixtures are based upon a four-unit array. Footcandle values are centerline of fixtures and centered between fixtures. When selecting colored cone option, only downlight cone is colored; the wall wash reflector is specular clear. This allows the color (CRI, K) of the light source to be unaffected and maximizes lumen output.

**Fixture: P3MR-E3LWWC**



**Lamp:**  
**GE Q50MR16/C/FL**  
 Test No. H21036  
 Lumens: 880  
 Cutoff: 50°  
 Efficiency: 29.8%  
 Unit LPW: 5.3

**Single Fixture 2' From Wall**

DD	Distance From Fixture Along Wall			
	1'	2'	3'	
1'	6	3	1	0
2'	15	8	2	1
3'	12	8	4	1
4'	7	6	3	2
5'	5	4	3	1
6'	3	3	2	1
7'	2	2	2	1
8'	2	2	1	1
9'	1	1	1	1
10'	1	1	1	1

**1'6" Setback, Spaced 18" O.C.**

DD	Distance From Fixture Along Wall		
	1'	2'	3'
1'	20	16	20
2'	35	34	35
3'	25	25	25
4'	16	16	16
5'	10	10	10
6'	7	7	7
7'	5	5	5
8'	3	3	3
9'	2	2	2
10'	2	2	2

**2' Setback, Spaced 24" O.C.**

DD	Distance From Fixture Along Wall		
	1'	2'	3'
1'	7	6	7
2'	19	18	19
3'	19	19	19
4'	14	14	14
5'	10	10	10
6'	7	7	7
7'	5	5	5
8'	4	4	4
9'	3	3	3
10'	2	2	2

**Fixture: P5-M120-E5LWWC**



**Lamp:**  
**GE 75PAR30/FL**  
 Test No. H36114  
 Lumens: 1,100  
 Cutoff: 50°  
 Efficiency: 51.7%  
 Unit LPW: 7.58

**Single Fixture 2' From Wall**

DD	Distance From Fixture Along Wall			
	1'	2'	3'	
1'	8	4	1	0
2'	18	11	3	1
3'	16	12	5	2
4'	11	9	5	2
5'	7	6	4	2
6'	5	4	3	2
7'	4	3	3	2
8'	3	3	2	2
9'	2	2	2	2
10'	2	2	2	1

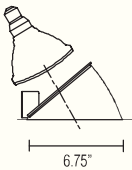
**2'0" Setback, Spaced 24" O.C.**

DD	Distance From Fixture Along Wall		
	1'	2'	3'
1'	11	9	11
2'	25	24	25
3'	26	26	26
4'	21	21	21
5'	15	15	15
6'	11	11	11
7'	8	8	8
8'	6	6	6
9'	5	5	5
10'	4	4	4

**2'6" Setback, Spaced 32" O.C.**

DD	Distance From Fixture Along Wall		
	1'	2'	3'
1'	5	4	5
2'	13	11	13
3'	17	16	17
4'	15	15	15
5'	12	13	12
6'	10	10	10
7'	8	8	8
8'	6	6	6
9'	5	5	5
10'	4	4	4

**Fixture: P7-M120-E7LWWC**



**Lamp:**  
**GE 90PAR38/H/FL**  
 Test No. H35105  
 Lumens: 1,250  
 Cutoff: 50°  
 Efficiency: 54.7%  
 Unit LPW: 7.6

**Single Fixture 3' From Wall**

DD	Distance From Fixture Along Wall			
	1'	2'	3'	
1'	6	4	2	1
2'	9	7	3	1
3'	10	7	4	2
4'	12	10	5	2
5'	13	10	6	2
6'	11	9	6	3
7'	8	7	5	3
8'	6	5	4	3
9'	4	4	3	2
10'	3	3	3	2

**2'6" Setback, Spaced 24" O.C.**

DD	Distance From Fixture Along Wall		
	1'	2'	3'
1'	14	14	14
2'	21	21	21
3'	25	25	25
4'	31	32	31
5'	29	29	29
6'	24	24	24
7'	18	19	18
8'	14	14	14
9'	10	10	10
10'	8	8	8
11'	4	5	4
12'	3	4	3
13'	3	3	3
14'	2	2	2
15'	2	2	2

**3' Setback, Spaced 32" O.C.**

DD	Distance From Fixture Along Wall		
	1'	2'	3'
1'	7	7	7
2'	13	12	13
3'	14	14	14
4'	18	18	18
5'	20	20	20
6'	19	18	19
7'	16	16	16
8'	13	13	13
9'	10	10	10
10'	8	8	8
11'	6	6	6
12'	5	5	5
13'	4	4	4
14'	3	3	3
15'	3	3	3

Notes: Footcandle values for multiple fixtures are based upon a four-unit array. Footcandle values are centerline of fixtures and centered between fixtures.

Fixture: P5-MQT4-E5QT4WWC



**Lamp:**  
**GE 75Q/CLT4**  
 Test No. H36118  
 Lumens: 1,400  
 Cutoff: 50°  
 Efficiency: 46.4%  
 Unit LPW: 8.7

Single Fixture 3' From Wall

		Distance From Fixture Along Wall			
		1'	2'	3'	
DD	1'	19	15	6	2
	2'	18	15	9	4
	3'	12	10	7	4
	4'	7	6	5	3
	5'	4	4	3	2
	6'	3	2	2	2
	7'	1	1	1	1
	8'	1	1	1	1
	9'	1	1	1	1
	10'	1	1	1	1

2' 6" Setback, Spaced 36" O.C.

		Distance From Fixture Along Wall		
DD	1'	31	31	31
	2'	29	29	29
	3'	20	20	20
	4'	12	13	13
	5'	8	8	8
	6'	5	5	5
	7'	4	4	4
	8'	3	3	3
	9'	2	2	2
	10'	1	1	1

3' Setback, Spaced 48" O.C.

		Distance From Fixture Along Wall		
DD	1'	20	14	20
	2'	21	19	21
	3'	16	15	16
	4'	11	11	11
	5'	7	8	7
	6'	5	5	5
	7'	4	4	4
	8'	3	3	3
	9'	2	2	2
	10'	2	2	2

Fixture: P7-MQT4-E7QT4WWC



**Lamp:**  
**GE 100QT4**  
 Test No. H35110  
 Lumens: 1,800  
 Cutoff: 50°  
 Efficiency: 48.0%  
 Unit LPW: 8.6

Single Fixture 3' From Wall

		Distance From Fixture Along Wall			
		1'	2'	3'	
DD	1'	20	15	7	3
	2'	19	16	10	5
	3'	14	12	8	5
	4'	9	8	6	4
	5'	5	5	4	3
	6'	4	3	3	2
	7'	2	2	2	2
	8'	2	2	2	1
	9'	1	1	1	1
	10'	1	1	1	1

3' Setback, Spaced 48" O.C.

		Distance From Fixture Along Wall		
DD	1'	21	16	21
	2'	24	22	24
	3'	20	19	20
	4'	15	14	15
	5'	11	11	11
	6'	8	8	8
	7'	6	6	6
	8'	4	4	4
	9'	3	3	3
	10'	3	3	3

4' Setback, Spaced 64" O.C.

		Distance From Fixture Along Wall		
DD	1'	5	3	5
	2'	14	10	14
	3'	14	12	14
	4'	12	11	12
	5'	10	10	10
	6'	8	8	8
	7'	6	6	6
	8'	5	5	5
	9'	4	4	4
	10'	3	3	3

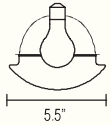
Notes: Footcandle values for multiple fixtures are based upon a four-unit array. Footcandle values are centerline of fixtures and centered between fixtures.



A stunning shower deserves the crisp light of IRIS P3MR-E3AASRB bringing out all of the colors in the tile without glare to impede the view of the window.

*Lighting Design by Robert Singer & Associates  
Architecture by High Mountain Concepts  
Photo by Bardagjy Photography*

**Fixture: P3120-E3A19LUNA**



**Lamp: 60A19/IF**  
 Test No.: H21089  
 Lumens: 860  
 SC: 1.3  
 Efficiency: 51.4%  
 Unit LPW: 7.4

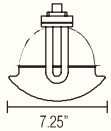
**Cone of Light**

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
4.5'	6	6.0'
5.5'	4	7.0'
6.5'	3	8.5'
8.0'	2	10.5'
10.0'	1	13.0'
12.0'	1	15.5'

**Single Fixture 2' From Wall**

DD	Distance From Fixture Along Wall				
	1'	2'	3'	4'	
1'	11	8	4	2	1
2'	9	7	4	2	1
3'	5	4	3	2	1
4'	3	3	2	2	1
5'	2	2	2	1	1
6'	1	1	1	1	1
7'	1	1	1	1	1
8'	1	1	1	1	1
9'	1	1	1	1	1
10'	1	1	1	1	1

**Fixture: P5-M32T-E5LUNA**



**Lamp: PH 32WPLT 3000°K**  
 Test No.: H36081  
 Lumens: 2,400  
 SC: 1.4  
 Efficiency: 35.9%  
 Unit LPW: 26.9

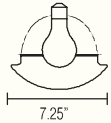
**Cone of Light**

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
4.5'	11	6.0'
5.5'	7	7.5'
6.5'	5	9.0'
8.8'	3	11.0'
10.0'	2	13.5'
12.0'	2	16.5'

**Single Fixture 2' From Wall**

DD	Distance From Fixture Along Wall				
	1'	2'	3'	4'	
1'	21	15	7	3	2
2'	15	12	7	4	2
3'	8	7	5	3	2
4'	5	4	3	2	2
5'	3	3	2	2	1
6'	2	2	1	1	1
7'	1	1	1	1	1
8'	1	1	1	1	1
9'	1	1	1	0	0
10'	0	0	0	0	0

**Fixture: P5-M120-E5LUNA**



**Lamp: 100A21/IF**  
 Test No.: H36074  
 Lumens: 1,690  
 SC: 1.3  
 Efficiency: 49.9%  
 Unit LPW: 8.4

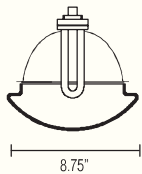
**Cone of Light**

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
4.5'	7	6.0'
5.5'	5	7.5'
6.5'	4	9.0'
8.0'	2	11.0'
10.0'	2	13.5'
12.0'	1	16.5'

**Single Fixture 2' From Wall**

DD	Distance From Fixture Along Wall				
	1'	2'	3'	4'	
1'	14	10	5	2	1
2'	10	8	5	2	1
3'	5	5	3	2	1
4'	3	3	2	1	1
5'	2	2	1	1	1
6'	1	1	1	1	1
7'	1	1	1	1	0
8'	1	0	0	0	0
9'	0	0	0	0	0
10'	0	0	0	0	0

**Fixture: P7-M42T-E7LUNA**



**Lamp: PH 42WPLT 3000°K**  
 Test No.: H35059  
 Lumens: 3,200  
 SC: 1.3  
 Efficiency: 25.0%  
 Unit LPW: 17.4

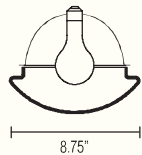
**Cone of Light**

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
4.5'	11	6.0'
5.5'	7	7.0'
6.5'	5	8.5'
8.0'	3	10.5'
10.0'	2	13.0'
12.0'	2	15.5'

**Single Fixture 2' From Wall**

DD	Distance From Fixture Along Wall				
	1'	2'	3'	4'	
1'	20	14	7	3	2
2'	13	11	6	3	2
3'	8	7	4	3	2
4'	4	4	3	2	1
5'	3	2	2	1	1
6'	2	2	1	1	1
7'	1	1	1	1	1
8'	1	1	1	1	0
9'	1	1	0	0	0
10'	0	0	0	0	0

**Fixture: P7-M120-E7LUNA**



**Lamp: 150A21/IF**  
 Test No.: H35083  
 Lumens: 2,850  
 SC: 1.4  
 Efficiency: 59.2%  
 Unit LPW: 11.3

**Cone of Light**

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
4.5'	20	6.0'
5.5'	13	7.5'
6.5'	9	9.0'
8.0'	6	11.0'
10.0'	4	14.0'
12.0'	3	16.5'

**Single Fixture 2' From Wall**

DD	Distance From Fixture Along Wall				
	1'	2'	3'	4'	
1'	46	34	17	9	5
2'	31	25	16	9	6
3'	17	15	11	8	5
4'	10	10	8	6	5
5'	7	7	6	5	4
6'	5	5	4	4	4
7'	4	4	4	3	3
8'	3	3	3	3	3
9'	3	3	2	2	2
10'	2	2	2	2	2

Beam diameter is to 50% of maximum footcandles. See page 63 and 64 for "How to Read Photometrics."



**Fixture: P3MR-E3SRC**



**Lamp:**  
**GE Q50MR16/C/FL40**  
 Test No.: H21085  
 Lumens: 880  
 Cutoff: 60°  
 SC: 0.5  
 Efficiency: 65.9%  
 Unit LPW: 10.5

**Cone of Light**

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
4.5'	84	2.0'
5.5'	56	2.5'
6.5'	40	3.0'
8.0'	27	4.0'
10.0'	17	5.0'
12.0'	12	6.0'

**Fixture: P5-M120-E5SRC**

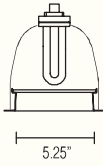


**Lamp:**  
**75A19/IF**  
 Test No.: H36089  
 Lumens: 1,180  
 Cutoff: 75°  
 SC: 0.3  
 Efficiency: 53.0%  
 Unit LPW: 8.3

**Cone of Light**

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
4.5'	69	2.5'
5.5'	46	3.5'
6.5'	33	4.0'
8.0'	22	5.0'
10.0'	14	6.0'
12.0'	10	7.0'

**Fixture: P5-M32T-E5SRC**

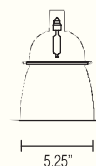


**Lamp:**  
**PH 26PLT 3000°K**  
 Test No.: H36117  
 Lumens: 1,800  
 Cutoff: 75°  
 SC: 1.1  
 Efficiency: 32.4%  
 Unit LPW: 22.4

**Cone of Light**

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
4.5'	15	5.0'
5.5'	10	6.5'
6.5'	7	7.5'
8.0'	5	9.5'
10.0'	3	11.5'
12.0'	2	14.0'

**Fixture: P5-MQT4-E5QT4C**

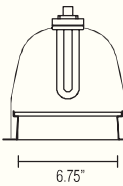


**Lamp:**  
**GE Q100T4/MC FROSTED**  
 Test No.: H36092  
 Lumens: 1,800  
 Cutoff: 50°  
 Spacing: 0.7  
 Efficiency: 61.2%  
 Unit LPW: 11.0

**Cone of Light**

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
4.5'	60	3.0'
5.5'	40	3.6'
6.5'	29	4.0'
8.0'	19	5.0'
10.0'	12	6.5'
12.0'	8	7.5'

**Fixture: P7-M32T-E7SRC**

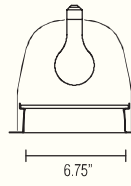


**Lamp:**  
**PH 42WPLT 3000°K**  
 Test No.: H35065  
 Lumens: 3,200  
 Cutoff: 75°  
 SC: 0.9  
 Efficiency: 37.3%  
 Unit LPW: 26.0

**Cone of Light**

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
4.5'	62	4.0'
5.5'	41	5.0'
6.5'	30	5.5'
8.0'	20	7.0'
10.0'	13	9.0'
12.0'	9	10.5'

**Fixture: P7-M120-E7SRC**



**Lamp:**  
**100A21/IF**  
 Test No.: H35115  
 Lumens: 1,690  
 Cutoff: 75°  
 SC: 1.0  
 Efficiency: 34.1%  
 Unit LPW: 5.7

**Cone of Light**

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
4.5'	17	4.5'
5.5'	12	5.5'
6.5'	8	6.5'
8.0'	6	8.0'
10.0'	4	10.0'
12.0'	2	12.0'

Beam diameter is to 50% of maximum footcandles.  
 See page 63 and 64 for "How to Read Photometrics" and Finish Multipliers.



# TECHNICAL INFORMATION

## TECHNICAL HOT LINE

Call toll-free 1-888-IRIS-LTG.

## MODIFIED CUSTOM UNITS

Residential projects with their individual requirements may require items not found within this catalog. IRiS can create a wide variety of custom optical elements, finishes, ballast options and distributions on a project basis. Please consult with your IRiS representative for a discussion of your specific project.

## SPECIFICATION SHEETS

Individual specification sheets are available from your IRiS representative in both paper and electronic format. Sheets contain detailed scaled line drawings, critical dimensions, construction features and full photometric information. Specifications written in CSI format are also available. For up-to-the-minute information, please call 1-888-IRIS-LTG or visit [www.cooperlighting.com](http://www.cooperlighting.com).

## CODES AND LABELS

All fixtures are thermally protected per the National Electric Code and are in compliance with or exceed UL requirements 1570, 1571 and 1598. In addition, fixtures are Canadian CSA-certified and carry the IP label for specific municipalities. Most units are IC-rated and approved for direct contact with insulation or combustible materials. Local codes often require IC-rated units to be used throughout residential installations.

Selected units are T-rated and must have the insulation kept three inches away from the final installed platform.

All units are airtight and exchange less than 2.0 CFM with the plenum at a pressure of 75 pascals. Units meet and exceed the performance requirements of the Council of American Building Officials 1995 Model Energy Code and the prescriptive method used in other municipalities and states. Reduced air leakage from conditional spaces saves energy, ensures the R value of insulation, and keeps optical elements and ceilings cleaner. Contact your IRiS representative for additional information on local installation codes.

## PHOTOMETRIC INFORMATION

All photometric information provided is based upon "initial" conditions. To use this data in real-life conditions, the appropriate light loss factors must be applied. It is the designer's responsibility to understand and apply the proper light loss factors for each application.

## PHOTOMETRIC REPORTS

For data within the catalog, its photometric test number is identified. All photometric reports are based upon IES formulas and recommended test practices. Testing temperature is 77° F (25° C ± 1°).

For additional compact fluorescent application data, please consult specification sheets. Information is also available for units buried in insulation. This provides application-specific information since the light output of a compact fluorescent lamp, even an amalgam lamp, is dependent upon its thermal environment.

## REFLECTOR FINISHES

IRiS provides matching finishes across all lamp sources. This creates a consistent reflector appearance, allowing you to mix a variety of sources and maintain a uniform cone appearance.

Reflector material is a minimum of .050± thick aluminum which is computer-spun to ensure consistent material flow and mechanically buffed to remove orange peel and surface imperfections. Reflectors are then processed to comply with the Aluminum Company of America's "Alzak" process consisting of electrochemical brightening, anodizing by the sulfuric acid process, color dyeing (if applicable), and a hot water sealing treatment. The dense, hard protective anodic oxide coating shall not be less than 3.0 mg per square inch minimum weight and not less than .0002± thick. The extra-thick coating provides maximum protection in exterior applications and provides a maintainable finish. Minimum total specular reflectivity is not less than 83% for specular reflectors and 75% for haze reflectors.

## INSTALLATION

Flanges of reflectors and baffle elements are 5/8" wide. This allows sufficient overlap to provide a clean cover of the ceiling cutout when the clearance hole is cut to the specified diameter.

Aperture Size	3-1/2"	5-1/4"	6-3/4"
	89 mm	134 mm	172 mm
Ceiling Cutout	4-3/8"	6-1/4"	7-3/4"
	112 mm	159 mm	197 mm

Overspray protectors are shipped in each platform to protect the matte black interior from paint and construction dust.

All optical elements and lamp modules install without tools and are keyed to prevent improper insertion. Wall wash elements are provided with orientation labels to aid installer.

## INSTRUCTION SHEETS

Instruction sheets are provided with each product for proper installation. For a copy of these sheets please visit [www.cooperlighting.com](http://www.cooperlighting.com).

## MOUNTING BARS

No-flex mounting bars are included with each platform. Nailless tab and locator lip provide consistent installation height on a wide variety of material—solid wood, engineered lumber, and metal joist construction—while a locking screw avoids accidental fixture movement. Mounting bars span up to 22.5" for 24" o.c. construction. An accessory clip, part number MBCLP, is available for use with T-bar or grid ceilings.

## TRANSFORMERS

Electromagnetic transformers are provided with all low-voltage units, except "REMOTE" Platforms, and maintain a Class A sound rating. Transformers are isolated from the aperture via a combination of inner housings, aluminum mounting brackets and acoustic dampeners to attenuate vibrations. When dimming low-voltage units, use dimmers rated for electromagnetic transformers to ensure quiet performance and trouble free operation. Use of dimmers not specifically rated for electromagnetic transformers can emit a DC current, which may damage the transformer and will void the warranty.

All low voltage Platforms and Lamp Modules feature a Truvolt™ low voltage toroidal transformer with separate secondary side outputs for fixtures controlled by a switch or by a dimmer. The dimmer output corrects for the inherent primary voltage loss from a dimmer, operating the lamp at or near its 12.0 volt design rather than the 10.6 volts produced with a EI laminated core and coil transformer operated on a dimmer.

The toroidal transformer features a rolled one-piece continuous core of M3 grade grain oriented silicon steel complete with an integral thermal protector to shut down the transformer in case of overheating. The toroidal design is superior to the EI laminated design for noise suppression, especially when dimmed, for efficiency, and for longevity. The Truvolt™ toroidal transformer carries a five-year warranty against failure due to material or manufacturing defects.

Toroidal transformer ratings are 120V, 60 Hz primary, with 11.7-12.0V 50VA or 75VA switch or dimmer secondary output to provide maximum light output. The RPN3MR Remodel Platform features includes a toroidal transformer with all the same features as new construction platforms using dual primaries for fixtures controlled by a switch or dimmer. All transformers lower through all aperture sizes for inspection without the use of tools.

**Note:** If a dimming system is operated for construction lighting in its "shunt" mode, i.e. bypassing the dimmer modules, for an extended period of time, fixtures with the dual output toroidal transformer should be operated on the "Switched Fixture" output until the dimmers are in use. Operating fixtures on the "Dimmed Fixture" output with a full 120v input for an extended period will overdrive the lamp and cause shortened lamp life.

### BALLASTS

High-frequency, high-power factor, Energy Star Qualified, 120V ballast modules are provided standard for compact fluorescent 4-pin lamps. Higher operating frequency allows for greater efficacy and no visible lamp flicker at ignition and during operation. Ballasts provide better than Class A sound rating and are designed for the higher ambient operation found when buried in insulation.

Fixtures meet FCC requirements for EMI/RFI consumer limits. These stricter standards limit the amount of electromagnetic interference conducted and radiated emissions to avoid interference with electronic devices in the home.

A current-controlled, rapid-start sequence supplied to the lamp cathodes helps to reduce end darkening and lumen depreciation that instant-start and normal rapid-start ballasts fail to do. Ballasts are matched to specific lamp operation characteristics to ensure proper lamp life. Sockets are keyed to prevent insertion of 2-pin lamps with integral starter, ensuring trouble-free operation. Compact fluorescent 2-pin lamps are not rated for high-frequency operation on electronic ballasts. Lamp manufacturers do not recommend operating 2-pin lamps at high frequency due to unexpected short lamp life and ballast failure. IRiS supplies socket spacers standard to eliminate the possibility of 2-pin lamp insertion.

### LOW-VOLTAGE SOCKETS

MR16 2-pin sockets, GU 5.3 base, are field replaceable via quick-connect plug. Contact your IRiS representative for proper ordering information (except RPN3MR).

### WARRANTY

IRiS provides a one-year warranty that all products, materials and workmanship are free of defects. All toroidal transformers carry a five-year warranty.

Many IRiS features are protected by U.S. and foreign patents, specifically U.S. patents 5951151, 6082878, 6505960 and other patents pending; and we will aggressively pursue any infringement. We reserve the right to change material, design or dimensions without notice.

### DIMMERS

Dimming increases an application's flexibility and drama. It creates specific light scenes and provides for a range of use within one space. In addition, today's solid-state dimmers save energy as the sources dim. Contact your IRiS representative for more dimming ideas.

#### Considerations:

Halogen can be dimmed like all incandescent sources. At some point in the dimming process, the bulb wall temperature may fall below the necessary temperature required to keep the halogen cycle operating. When blackening does occur, it can be cleaned up by operating the lamps at full voltage for one-half hour. Some halogen lamps may contain a diode that causes visible lamp flicker when dimmed. Please consult with your local lamp manufacturer for a listing of these lamps.

Low-voltage IRiS products require special control circuitry to eliminate possible interaction between the transformer and the dimmer, causing overheating and short life of either component. These controls also dim line-voltage incandescent and halogen lamps.

All incandescent lamps may produce an audible hum while dimmed. This is due to the dynamics of the tungsten filament vibrating while being dimmed. To reduce and eliminate lamp hum, alternate lamps will provide additional filament support, or additional chokes can be added to the control circuitry. **Consult with your dimmer manufacturer for more information.**

Fluorescent 4-pin lamps are capable of being dimmed. Dimming ranges from 100% full-light output to 5% without flicker. Lamps can be switched on to desired light level without flicker. Fluorescent lamps also maintain their color temperature while dimming. New lamps must be operated for at least 100 hours at full-light output to ensure optimum dimming range.

## DESIGNERS' CONTACT INFORMATION

Bardagjy Photography  
512.452.9636  
www.bardagjyphoto.com

Marlow Photography  
970.925.8882  
marlowphoto@attbi.com

Bill Poss & Associates Architects  
970.925.4755  
www.billposs.com

Mary Brooke Akers &  
Tony Wolf  
615.207.2571  
mwolf147@earthlink.net

Chandra Stone Interior Design  
713.513.2906  
cstonemoon@aol.com

Michael Fuller Architects  
970.728.0104  
www.mfullerarchitects.com

Cornerstone Group Architects  
512.329.0007  
www.cgaaustin.com

Mitchell N. Barnett & Associates  
615.385.3033  
www.nmbarchitects.com

Cottle Graybeal Yaw Architects  
970.927.4925  
www.cgyarchitects.com

MJS Lighting Consultants  
713.850.1488  
michael@mjslight.com

Craig Roberts Associates  
214.526.6470  
www.craigroberts.com

One Architects  
970.728.8877  
www.onearchitects.com

Crampton Lighting Design  
410.494.4477  
www.cramptonlundunlop.com

P B Q A  
310.533.6064  
www.pbqa.com

Gibson Architects  
970.920.3007  
www.gibson-architects.com

Charles Plant Creative Services  
770.463.0156  
cplant@numail.org

High Mountain Concepts  
970.349.5261

Price Newman Payne Architects  
336.378.1812  
www.price-newman-payne.com

JLD Lighting Design  
775.832.6606  
jlldesign@earthlink.net

Ray Bailey Architects  
713.524.2155  
www.raybailey.com

Lighting Design Alliance  
312.993.0075  
www.lightingdesignalliance.com

Robert Singer & Associates  
970.963.5692  
www.robertsingerlighting.com

Lighting Inc.  
713.623.6500  
www.lightinginc.com

Tony Tamborello AIA Architects  
713.522.9496  
tamarch@hal-pc.org

**IRiS recommends the use of a professional lighting designer. A lighting designer will integrate the lighting and lighting controls with the architecture and provide the technical and artistic skills required.**

**Beyond just putting a design on paper, a great lighting design involves an understanding of the client's desires, dealing with the unexpected during construction, and proper aiming and adjustment of the fixtures and controls following move-in.**

**In addition to the designers listed here, additional designers can be reached through the following professional organizations.**

International Association of Lighting Designers  
312.527.3677  
www.iald.org

Illuminating Engineering Society of North America  
212.248.5000  
www.iesna.org

American Institute of Architects  
800.242.3837  
www.aia.org

American Society of Interior Designers  
202.546.3480  
www.asid.org

*All information within this catalog is accurate at time of printing. Dimensions and specifications subject to change.*

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Back Cover: IRiS P3MR-E3AAG subtly light the arches of the hallway while another lights the statue at the end.

*Lighting Design by Lighting Inc.  
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