

DESCRIPTION

Recessed 3.5" aperture directional luminaire with slot cut shielding reflector utilizing a low voltage MR16 tungsten-halogen lamp. Suitable for 2x10 residential or commercial constructions, airtight and can be used in direct contact with insulation. Housing platform + optical element support various lamp beams providing desired optical distribution with excellent light control and low aperture brightness. Interchangeable optical elements provide design flexibility; luminaire can be changed from downlight, to accent to wall wash.

SPECIFICATION FEATURES

Frame

Galvanized steel plaster frame with integral bar hanger receivers. Setscrews provide positive horizontal locking. Integral gun sights facilitate the use of guide strings or laser lines for accurate positioning. Shipped with an overspray protector installed.

Housing

Double wall housing provides for effective thermal management. Internal housing is painted matte black for a visually dark interior.

Bar Hangers

Bar hangers adjust from 8-1/2" to 24" wide; pass thru feature allows shortening without removal. Captive nail penetrates standard and engineered lumber. Mounting flange levels platform with ceiling. Integral clip attached directly to tee-bar.

Gaskets

Closed cell gaskets achieve restrictive airflow requirements without additional caulking.

Adjustment Mechanism

Hot aiming rotates 365°, tilts 45° and locks in position. Angle markings assist in repeatable settings. Translating center beam optics aligns axis of primary reflector with aperture from nadir to 45°. Shipped set at nadir. Removable thru aperture for service.

Lamp Capsule

Retained in the adjustment mechanism with spring loaded ball catches, aim and focus is not disturbed during lamp replacement. Ceramic GX5.3 lamp holder mounts a die cast aluminum heat sink to dissipate heat and provide maximum lamp life. Connects to the transformer with electrical quick connect. Accepts 2 lenses, filters, or an optional lamp snoot.

Lower Reflector

Spun 0.04" thick aluminum slot cut parabolic contour provides 50° room side cutoff and is available in a wide range of specular and semi-specular Alzak® finishes. Available with self-flange or metal trim ring. Light trap eliminates spill light at edge of trim ring and reflector. Metal trim ring can be removed for painting and can be installed flush mount with optional flush mount collar accessory. Keyed to adjustment mechanism preventing directional trims being installed incorrectly.

Trim Retention

Retained with two torsion springs holding the flange tightly to the finished ceiling surface and accommodates ceiling thickness from 1/2" - 1" thick. Optional PLE3 plaster lip extender accommodates up to 2" thick ceilings.

Catalog #		Type
Project		
Comments		Date
Prepared By		

Junction Box

(6) 1/2" trade size pry outs positioned to allow straight conduit runs. 18 in3 internal volume supports up to (10) #12 or (14) #14 AWG 90° C conductors for pass thru or switch legs.

Transformer

Integral magnetic step down transformer, 120V 50/60Hz input, 12V, 50VA nominal output is greater than 90% efficient. Toroidal wound core is epoxy encapsulated providing extremely low noise and reliable operation.

Compliance

Type IC thermally protected, suitable for direct contact with insulation and cULus listed for damp locations. Restrictive airflow per ASTM-E283. Contains no mercury or lead and RoHS compliant.

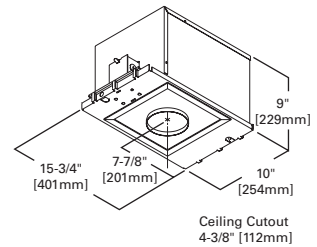


P3MR E3SLOT

Directional Slot Cut

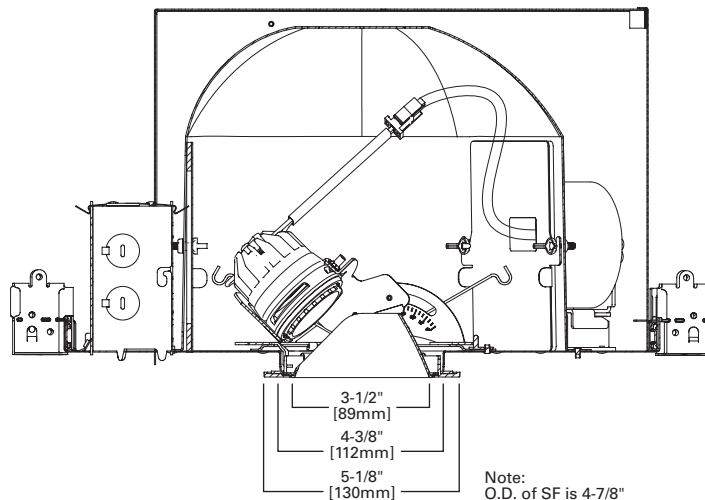
3.5" Aperture

50W MR16
Tungsten-Halogen



Energy Data

Lamp Wattage	Input Watts	Input Current
20	23	0.19
35	41	0.34
37	42	0.35
42	47	0.39
50	57	0.48

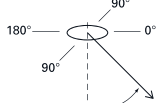
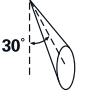
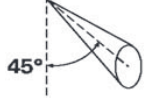


To learn more visit:
www.soraa.com/www/fixtures
for recommended lamp ratings.

ORDERING INFORMATION

Housing	Optical Element	Finishes	Options	Accessories
P3MR=3.5" aperture IC, AT low voltage 50W MR16 housing platform w/integral 120V transformer P3MRDR20=3.5" aperture IC, AT low voltage 20W MR16 housing platform w/integral 120V transformer P3MRDR35=3.5" aperture IC, AT low voltage 35W MR16 housing platform w/integral 120V transformer P3MRDR37=3.5" aperture IC, AT low voltage 37W MR16 housing platform w/integral 120V transformer P3MRREMOTE=3.5" aperture IC, AT low voltage MR16 housing platform for remote transformer	E3SLOT=3.5" aperture open 1.8" slotted reflector	Alzak Finishes C=Specular Clear H=Semi-Specular Clear G=Gold WMH=Warm Haze WH=Wheat WHH=Wheat Haze GP=Graphite GPH=Graphite Haze K=Cognac KH=Cognac Haze CC=Chocolate CCH=Chocolate Haze B=Black Painted Finishes MW=Matte white W=Gloss white	(Blank)=Metal trim ring, matte white SF=Self-flanged SFWF=Self-flanged, matte white flange	FMC3=Flush mount collar accessory PLE3=Plaster lip extender for up to 2" thick ceilings LSA16=Matte black lamp snoot accessory, for use with die cast lamp capsule LHEX=2-inch diameter matte black hex cell louver provides 45° cutoff LLNR=Skytek linear spread lens LSF=Solite lens LSPD=Crystal #73 prismatic spread lens LUV=Ultraviolet reducing lens L27K=2,700°K dichroic filter LLPINK=Light Pink LLSTRAW=Light Straw LDAY=Daylight Filter LPAV=Pale Lavender LSPINK=Surprise Pink

PHOTOMETRICS

						
Lamp	Luminaire cd/m ² @ Maximum Tilt	0° Aiming Angle Horizontal Footcandles	30° Aiming Angle Horizontal Footcandles	30° Aiming Angle Vertical Footcandles	45° Aiming Angle Vertical Footcandles	
GE Q20 MR16C/VNSP/7 Lumens: 200 Beam Spread: 7° CBCP: 7,400	Degree @ 180° @ 90°	D FC L W	D FC L W CB	D FC L W CB	D FC L W CB	
	85° 0 0	6' 145 0.7 0.6	6' 81 1.1 0.8 3.5	2' 174 0.8 0.5 3.5	2' 521 0.4 0.3 2	
	75° 0 0	8' 81 1 0.8	8' 46 1.5 1 4.6	3' 77 1.2 0.8 5.2	3' 231 0.6 0.5 3	
	65° 0 0	10' 52 1.2 1	10' 29 1.9 1.3 5.8	4' 43 1.7 1 6.9	4' 130 0.8 0.7 4	
	55° 0 0	12'6" 33 1.5 1.3	12'6" 19 2.3 1.6 7.2	5' 28 2.1 1.3 8.7	5' 83 0.9 0.8 5	
45° 922 922	Test # H21231		Test # H21235		Test # H21235	
Test # H21238						
OS Q37 MR16/IR/SP10 Lumens: 900 Beam Spread: 10° CBCP: 13,100	Degree @ 180° @ 90°	D FC L W	D FC L W CB	D FC L W CB	D FC L W CB	
	85° 0 0	6' 321 0.9 1.2	6' 181 1.5 1.1 3.5	2' 355 1.3 0.7 3.5	2' 986 0.6 0.5 2	
	75° 0 0	8' 180 1.3 1.6	8' 102 1.9 1.5 4.6	3' 158 1.9 1 5.2	3' 438 1 0.7 3	
	65° 0 0	10' 115 1.6 2	10' 65 2.4 1.9 5.8	4' 89 2.5 1.3 6.9	4' 247 1.3 1 4	
	55° 284 284	12'6" 74 2 2.5	12'6" 42 3 2.3 7.2	5' 57 3.1 1.7 8.7	5' 158 1.6 1.2 5	
45° 3225 2304	Test # H21252		Test # H21251		Test # H21251	
Test # H21250						
GE Q42MR16C/VNSP/9 Lumens: 575 Beam Spread: 9° CBCP: 12,500	Degree @ 180° @ 90°	D FC L W	D FC L W CB	D FC L W CB	D FC L W CB	
	85° 0 0	6' 263 0.7 1.2	6' 144 1.1 1.2 0	2' 287 1 0.7 3.5	2' 806 0.5 0.5 2	
	75° 0 0	8' 148 1 1.6	8' 81 1.5 1.6 0	3' 128 1.5 1 5.2	3' 358 0.8 0.8 3	
	65° 0 0	10' 95 1.2 2	10' 52 1.9 2 0	4' 72 2 1.4 6.9	4' 201 1 1.1 4	
	55° 0 284	12'6" 61 1.5 2.5	12'6" 33 2.4 2.5 0	5' 46 2.4 1.7 8.7	5' 129 1.3 1.3 5	
45° 922 1382	Test # H21215		Test # H21214		Test # H21214	
Test # H21213						
PH Q45 MRC16/IRC/SP8 Lumens: 1030 Beam Spread: 8° CBCP: 16,000	Degree @ 180° @ 90°	D FC L W	D FC L W CB	D FC L W CB	D FC L W CB	
	85° 0 0	6' 343 1 1.2	6' 152 1.5 1.6 3.5	2' 299 1.3 0.9 3.5	2' 859 0.7 0.6 2	
	75° 0 0	8' 193 1.3 1.6	8' 86 2 2.2 4.6	3' 133 2 1.3 5.2	3' 382 1 0.9 3	
	65° 0 0	10' 124 1.6 2	10' 55 2.6 2.7 5.8	4' 75 2.6 1.8 6.9	4' 215 1.3 1.2 4	
	55° 1136 284	12'6" 79 2 2.5	12'6" 35 3.2 3.4 7.2	5' 48 3.3 2.2 8.7	5' 137 1.7 1.5 5	
45° 3456 2304	Test # H21222		Test # H21129		Test # H21129	
Test # H21230						
GE Q50 MR16C/NSP15 Lumens: 750 Beam Spread: 15° CBCP: 12,500	Degree @ 180° @ 90°	D FC L W	D FC L W CB	D FC L W CB	D FC L W CB	
	85° 0 1869	6' 220 1.5 1.8	6' 143 1.7 1.7 3.5	2' 252 1.5 1 3.5	2' 690 0.8 0.7 2	
	75° 629 629	8' 124 2 2.4	8' 80 2.2 2.3 4.6	3' 112 2.3 1.5 5.2	3' 306 1.2 1.1 3	
	65° 385 385	10' 79 2.5 3	10' 51 2.8 2.9 5.8	4' 63 3 2 6.9	4' 172 1.6 1.5 4	
	55° 568 284	12'6" 51 3.1 3.8	12'6" 33 3.5 3.6 7.2	5' 40 3.8 2.5 8.7	5' 110 2 1.8 5	
45° 3686 1382	Test # H21241		Test # H21245		Test # H21245	
Test # H21246						
GE Q50 MR16C/NFL25 Lumens: 884 Beam Spread: 25° CBCP: 9,500	Degree @ 180° @ 90°	D FC L W	D FC L W CB	D FC L W CB	D FC L W CB	
	85° 0 1847	6' 86 2.4 3	6' 50 3 3.2 3.5	2' 115 2.2 1.7 3.5	2' 269 1.3 1.3 2	
	75° 0 622	8' 48 3.1 4	8' 28 4 4.3 4.6	3' 51 3.3 2.5 5.2	3' 119 1.9 1.9 3	
	65° 0 381	10' 31 3.9 5	10' 18 5 5.4 5.8	4' 29 4.5 3.4 6.9	4' 67 2.6 2.5 4	
	55° 281 281	12'6" 20 4.9 6.3	12'6" 12 6.2 6.7 7.2	5' 18 5.6 4.2 8.7	5' 43 3.2 3.2 5	
45° 7059 1366	Test # H21182		Test # H21194		Test # H21194	
Test # H21195						
GE Q50 MR16C/FL40 Lumens: 800 Beam Spread: 40° CBCP: 1,700	Degree @ 180° @ 90°	D FC L W	D FC L W CB	D FC L W CB	D FC L W CB	
	85° 0 1847	6' 57 2.9 4.2	6' 29 4.3 4.1 3.5	2' 102 1.8 1.7 3.5	2' 169 1.5 1.6 2	
	75° 622 622	8' 32 3.9 4.9	8' 16 5.7 5.5 4.6	3' 45 2.7 2.5 5.2	3' 75 2.3 2.4 3	
	65° 381 381	10' 21 4.9 7	10' 11 7.1 6.9 5.8	4' 26 3.6 3.3 6.9	4' 42 3 3.2 4	
	55° 842 281	12'6" 13 6.1 8.8	12'6" 7 8.9 8.6 7.2	5' 16 4.5 4.2 8.7	5' 27 3.8 3.9 5	
45° 14345 1822	Test # H21249		Test # H21199		Test # H21199	
Test # H21198						

Notes and Definitions:

Luminance: To convert cd/m^2 to footlamberts, multiply by 0.2919

- Beam spread is to 50% center beam candlepower (CBCP.)
- Data shown is based on bare lamp photometrics.

D=Distance to floor or wall.

FC=Footcandles on floor or wall at center beam aiming location.

L =Effective Visual Beam length in feet (50% of maximum footcandle level.)

W=Effective Visual Beam width in feet (50% of maximum footcandle level.)

CB=Distance across or down to center beam location.

The "real world photometrics" shown here are from off the shelf lamps in fixtures using a clear lens and operated at 12.0 volts. Please see page 64 & 65 of the IRIS catalog for a further discussion and appropriate correction multipliers.

