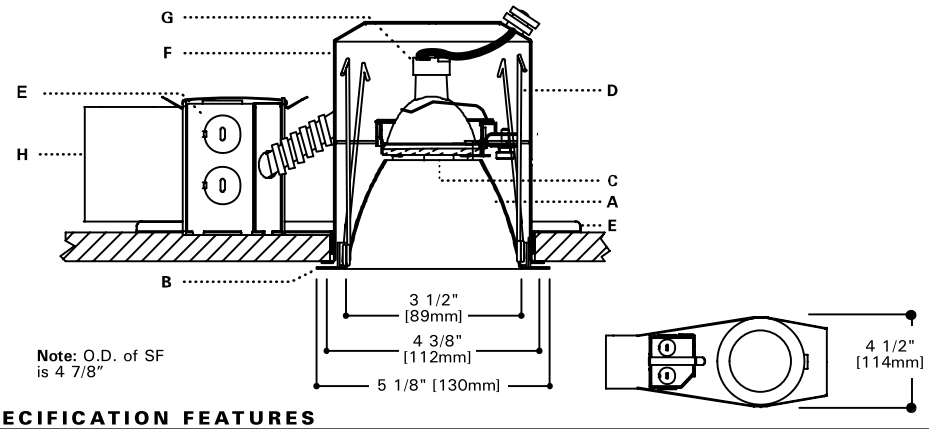
IRiS

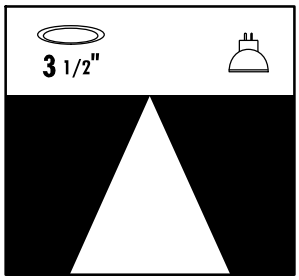
CATALOG#: TYPE:

DESCRIPTION

Specification grade 50 watt MR16 downlight fixture for installation through existing ceilings. Fixture fits into tight 2" x 6" joist construction areas and from 1/2" to 1 1/2" ceiling thicknesses. The 50° cutoff to lamp provides a glare free, smooth distribution of light. For use with all halogen MR16 lamps in either open or cover glass varieties. Optical element can be changed after installation to provide a variety of distributions. Insulation must be kept 3" away from sides and top of fixture.



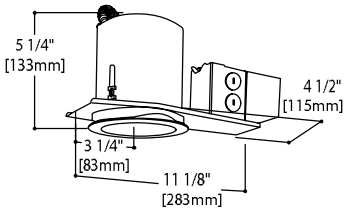
Note: O.D. of SF is 4 7/8"



RPN3MR
E3MR

50W MR16

3" DOWNLIGHT



SPECIFICATION FEATURES

A···Reflector
.040 thick aluminum spun parabolic reflector in Clear, Gold, Haze, Warm haze and Black Alzak® finish or painted gloss white. Special cone colors listed below.

B···Flange
Self flange reflector or die-cast flange with either matte white or clear coat finish. Die-cast flanges are easily removed for field painting. Elements are keyed for proper insertion.

C···Lens
Soft focus lens standard for smooth beam patterns. Up to two filter media can be used which are retained during relamping.

D···Attachment
Positive torsion springs pull flange tight to ceiling. Mechanical light trap eliminates spill light at edge of flange or reflector.

E···Frame
Hot-dipped galvanized 20-gauge steel frame with integral 1/2" plaster lip. Hole is sized for a 4-1/2" hole saw for precise, clean installations. Ceiling clip retains frame during insertion of housing.

F···Housing
One-piece steel housing allows for heat dissipation. Housing interior is matte black to provide a visually dark interior. Easy-Lock Cams quickly and easily lock to securely retain housing into the ceilings from 1/2" to 1 1/2" thick.

G···Socket
GX5.3 base for Bi-pin MR16 lamps.

H···Transformer
Truvolt toroidal transformer with dual-input taps for proper 12.0V operation and quiet operation when dimmed. Dimmer tap compensates for inherent voltage loss from dimmers, resulting in 30% more lumens than traditional laminated transformers. Toroidal design, with 90% or greater efficiency, features a rolled one-piece continuous core of M3 grade grain oriented silicon steel complete with an integral thermal to protect against overheating. For dimming, use dimmers rated for electromagnetic transformers. Transformer is warranted for 5 years and is serviceable from below ceiling.

I···Junction Box
Listed for 6#14 AWG 90° C conductors, has six 1/2" pryouts.

Codes
Thermally protected, IP labeled. Insulation must be kept 3" away from sides and top of platform. Unit is listed for below-ceiling accessibility for components and inspection.

Labels
U.L. and cUL listed, C.S.A.-certified, IBEW union made. Installation instructions included with every unit.

Energy Data

120V Input

Lamp Watts	Input Watts	Operating Current
20	23	.19
35	41	.34
37	42	.35
42	47	.39
50	57	.48

ORDERING INFORMATION

Complete unit consists of a platform and element

Aperture	Optical Element	Finish	Flange	Accessories
RPN3MR				

Aperture
- RPN3MR = 3" Remodel Non-IC Housing
- E3MR = 3"

Optical Element
- MR16 Downlight Reflector
- C = Clear

Finish
- H = Haze
- G = Gold
- B = Black
- WMH = Warm Haze
- W = Gloss White
- MW = Matte White

Custom
- 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 Lens
- SKH = Sky Haze

Flange
- Blank = White die-cast
- RAW = Natural Die-cast

Accessories
- LSPD = Spread Lens
- LLNR = Linear Spread Lens
- LUV = UV Reduction Lens
- LLPINK = Light Pink Lens
- LLSTRAW = Light Straw Lens
- L27K = 2700K dichroic filter
- LDAY = Daylight Lens
- LSPINK = Surprise Pink Lens
- LPLAV = Pale Lavender Lens
- LHEX = Hex Cell Louver

PHOTOMETRICS

RPN3MR-E3MRC
Test No. H21030

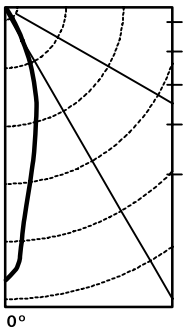
Lamp: Q50MR16/C/FL
Lumens: 880

Cutoff: 50°
Spacing: 0.4
Efficiency: 78.1%
Unit LPW: 15.77

Candelas

Vertical Angle	CD
90	0
85	0
75	0
65	0
55	0
45	5
35	43
25	406
15	1052
5	1922
0	2513

Distribution



Luminance

Degree	cd/m²
85°	0
75°	0
65°	0
55°	0
45°	1139

Cone of Light

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
4'6"	123	2'0"
5'6"	82	2'0"
6'6"	59	2'6"
8'0"	39	3'0"
10'0"	25	4'0"
12'0"	17	5'0"

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Luminaire
0-30	799	74.0	94.7
0-40	838	77.6	99.4
0-60	843	78.1	100.0
0-90	843	78.1	100.0
90-180	0	0.0	0.0
0-180	843	78.1	100.0

Coefficient of Utilization

Ceiling Reflectance	80%				70%		50%		30%		0%
Wall Reflectance	70	50	30	10	50	10	50	10	50	10	0
Room Cavity Ratio											
0	93	93	93	93	91	91	87	87	83	83	78
1	90	89	87	86	87	85	84	82	81	80	76
2	88	85	83	81	84	81	82	79	79	77	74
3	86	82	80	78	81	77	80	76	78	75	73
4	83	80	77	75	79	75	78	74	76	73	71
5	81	77	74	72	77	72	75	72	74	71	70
6	79	75	72	70	75	70	74	70	73	69	68
7	77	73	70	68	73	68	72	68	71	67	66
8	76	71	68	66	71	66	70	66	69	66	65
9	74	69	66	64	69	64	68	64	68	64	63
10	72	67	65	63	67	63	67	63	66	63	62

Notes and Formulas:

Luminance: To convert cd/m² to footlamberts, multiply by 0.2919

Cone of Light:
- Beam diameter is to 50% of maximum footcandles, rounded to the nearest half-foot.
- Footcandle values are initial. Apply appropriate light loss factors where necessary. See page 64-65 of catalog.

CU Notes/Formulas:
- maintained illuminance = $\frac{\text{lamp lumens x CU x light loss factors}}{\text{room area}}$
- total number of luminaires = $\frac{\text{total room area x maintained illuminance}}{\text{lamp lumens x CU x light loss factors}}$
- CU data based on 20% effective floor cavity reflectance.

Specifications and Dimensions subject to change without notice.