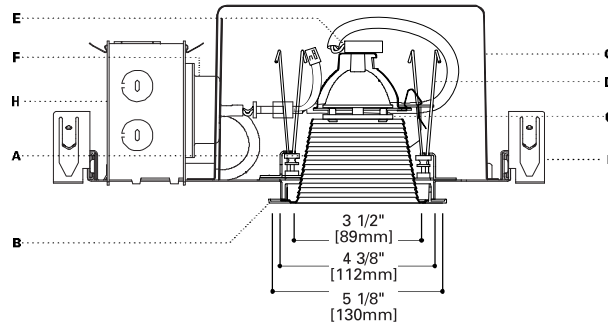


DESCRIPTION

Specification grade 75 watt MR16 fixture. 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. Units small size is ideal for tight construction areas. Insulation must be kept 3" away from sides and top of fixture. **Optical element can be changed after installation to provide a variety of distributions. e.g. into an Adjustable**



SPECIFICATION FEATURES

A...Baffle

.040 thick aluminum spun sawtooth baffle in matte black or white powdercoat finish.

B...Flange

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 baffle.

E...Socket

GX5.3 base for Bi-pin MR16 lamps. Fixed socket height ensures consistent lamp position and back light shield keeps interior of fixture dark.

F...Transformer

Truvolt™ toroidal transformer with dual-output 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.**

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-tap 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.

G...Frame/Housing

Hot dipped galvanized 20 gauge steel frame with built in 1/2 inch plaster lip. Gunsights allow for consistent alignment. Matte black housing interior.

H...Junction Box

18 cubic inches, listed for 4#12 AWG or 6#14 AWG 90 C additional feed through conductors, has three 1/2 inch pryouts.

I...Bar Hangers

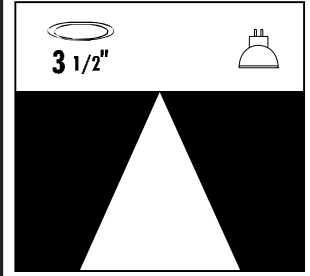
No Flex® bar hangers with positive locking, for use with wood, engineered wood and steel frame joists spaced up to 24" O.C. shipped with platform. For use in T-bar ceilings order accessory MBCLP clips. Nailless barb and locator lip provide consistent installation height.

Codes

Thermally protected, IP labeled. Unit is airtight and exchanges less than 2.0 CFM with the plenum at a pressure of 75 pascals. Insulation must be kept three inches away from fixture sides and none on top as to entrap heat.

Labels

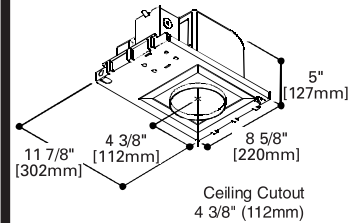
UL and cUL listed, standard damp label, IBEW union made.



PN3MR E3MRBB

71 W MR 16

3" DOWNLIGHT
BAFFLE



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
65	70	.58
71	77	.64
75	81	.68

ORDERING INFORMATION

Complete unit consists of a platform, and element

Platform	Optical Element	Finish	Flange	Accessories
PN3MR=3" Airtight Non-IC Low Voltage Housing P3MRREMOTE= 3" Airtight Non-IC Low Voltage Housing for Remote Transformer	E3MR= 3" MR16 Downlight Baffle	BB=Black Baffle WB=White Baffle	Blank=White Die-cast RAW=Natural Die-cast	MBCLP = 40 Push On T Bar Clips (for 10 Units) PLE3 = Plaster Lip Extension for Max 2" Thick Ceiling FMC3 = Flush Mount Collar 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

PN3MR-E3MRBB

Test No.	H21078
Lamp: 71MR16/C/FL40	
Lumens:	1200
Cutoff:	50°
Spacing:	0.7
Efficiency:	64.8%
Unit LPW:	10.95

Candelas	
Vertical Angle	CD
90	0
85	0
75	0
65	1
55	1
45	7
35	85
25	517
15	1228
5	1517
0	1538

Distribution

Luminance	
Degree	cd/m ²
85°	0
75°	0
65°	381
55°	281
45°	1594

Cone of Light

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
4'6"	76	3'0"
5'6"	51	4'0"
6'6"	36	4'6"
8'0"	24	6'0"
10'0"	15	7'0"
12'0"	11	8'6"

0°

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Luminaire
0-30	713	59.4	91.6
0-40	769	64.1	98.8
0-60	777	64.8	99.9
0-90	778	64.8	100.0
90-180	0	0.0	0.0
0-180	778	64.8	100.0

Coefficient of Utilization

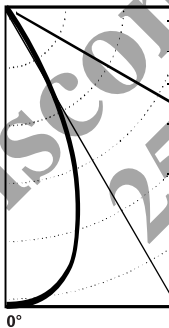
Ceiling Reflectance	80%					70%		50%		30%		0%
	70	50	30	10	50	10	50	10	50	10	0	
Wall Reflectance	70	50	30	10	50	10	50	10	50	10	0	
Room Cavity Ratio	0	77	77	77	77	75	75	72	72	69	69	65
1	75	74	72	71	72	70	70	68	67	66	63	
2	73	70	69	67	69	66	67	65	66	64	63	
3	71	68	66	64	67	64	65	63	64	62	60	
4	69	65	63	61	65	61	64	60	62	60	58	
5	67	63	61	59	63	59	62	58	61	58	56	
6	65	61	59	57	61	57	60	56	59	56	55	
7	63	59	57	55	59	55	58	54	57	54	53	
8	61	57	55	53	57	53	56	53	56	53	52	
9	60	55	53	51	55	51	55	51	54	51	50	
10	58	54	51	50	54	50	53	50	53	49	49	

PN3MR-E3MRWB

Test No.	H21079
Lamp: 71MR16/C/FL40	
Lumens:	1200
Cutoff:	50°
Spacing:	0.7
Efficiency:	72.5%
Unit LPW:	12.25

Candelas	
Vertical Angle	CD
90	0
85	2
75	7
65	12
55	19
45	25
35	103
25	543
15	1259
5	1601
0	1621

Distribution



Luminance	
Degree	cd/m ²
85°	3696
75°	4356
65°	4573
55°	5335
45°	5694

Cone of Light

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
4'6"	80	3'0"
5'6"	54	4'0"
6'6"	38	4'6"
8'0"	25	5'6"
10'0"	16	7'0"
12'0"	11	8'6"

0°

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Luminaire
0-30	742	61.8	85.3
0-40	810	67.5	93.1
0-60	849	70.8	97.5
0-90	871	72.5	100.0
90-180	0	0.0	0.0
0-180	871	72.5	100.0

Coefficient of Utilization

Ceiling Reflectance	80%					70%		50%		30%		0%
	70	50	30	10	50	10	50	10	50	10	0	
Wall Reflectance	70	50	30	10	50	10	50	10	50	10	0	
Room Cavity Ratio	0	86	86	86	86	84	84	80	80	77	77	72
1	83	81	80	79	80	77	77	75	74	73	69	
2	80	77	75	73	76	72	74	71	72	69	67	
3	78	74	71	69	73	69	71	68	70	67	65	
4	75	71	68	66	70	65	69	65	67	64	62	
5	73	68	65	63	67	62	66	62	65	61	60	
6	70	66	63	60	65	60	64	60	63	59	58	
7	68	63	60	58	63	58	62	57	61	57	56	
8	66	61	58	56	61	56	60	55	59	55	54	
9	64	59	56	54	59	54	58	53	57	53	52	
10	62	57	54	52	57	52	56	52	56	52	51	

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

Note: Specifications and Dimensions subject to change without notice.

Visit our web site at www.cooperlighting.com

