

id[®] 1" Square

HALOGEN MR16 PINHOLE, DRYWALL/GRID



hex louver



linear spread lens



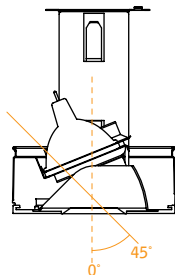
prismatic spread lens



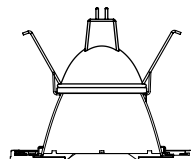
sand blasted lens

DIMENSIONAL DATA

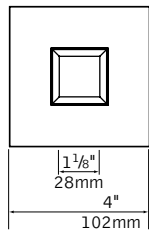
0-45° accent pinhole
trim with adjustment mechanism



downlight pinhole
trim with fixed lamp tray

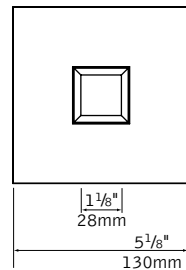


flush trim
(drywall only)



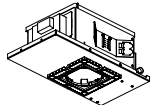
ceiling cutout dimensions: 6 3/16"

overlap trim

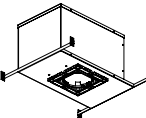


ceiling cutout dimensions:
T & IC Housings - 4 11/16"
RT Housing - 4 5/8"

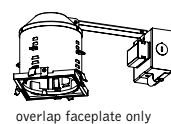
T
14" x 7.625" x 5" h



IC (air-tight)
16.5" x 10" x 9" h



RT
12.08" x 6.32" x 5.58" h



FEATURES

Trims available in Overlap flange or Flush mud-in.

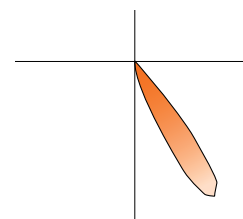
Gloves Off™ hot aiming made simple with 45° vertical and 363° horizontal adjustment.

Auto Memory remembers original lamp position after relamping.

Perfect Fit™ installation provides seamless integration in plaster, drywall and acoustical tiles, while maintaining optics in any ceiling thickness.

Smart Lock™ ring allows quick removal and re-assembly of trim components for field painting.

PERFORMANCE



Accent Pinhole with Black Bevel

Q71MR16/C/NSP15
3285 cd @ 30° (30° tilt)

PRODUCT OVERVIEW

Lumen Output: 121-748lm
Wattage: 20-71W
Lamping: MR16

For optimal performance, rotate lamp on axis to 0°, 90°, 180° or 270°.

Visit focalpointlights.com for complete photometric data.

fixture:

project:

HOUSING SPECIFICATIONS

Lamp

Halogen MR16 lamp provides numerous beam options from 10° to 40° (60° not recommended).

Construction

(T) Thermally protected housing for new construction applications without direct contact with insulation. Insulation to be kept 3" away from housing. Unit is enclosed in 20ga. black painted CRS housing, which eliminates stray light into the plenum, on a 20ga. CRS frame. Housing ships standard with butterfly brackets which mount to 1/2 emt or channel and vertically adjust 2". Bar hangers are an option and must be specified. Transformer is accessible from below ceiling. Unit may be relamped from above. Fixture will not exceed 7.5lbs.

(IC) Insulated ceiling housing for new construction applications with direct insulation contact. Unit is constructed of double wall 18ga. aluminum housing on a 20ga. CRS frame. Housing ships standard with locking bar hangers. Transformers and thermal protectors are accessible from below ceiling. Housing is gasketed and complies with ASTM E-283, air-tight energy codes. Fixture will not exceed 11lbs.

(RT) Thermally protected housing for remodel construction applications without direct contact with insulation. Insulation to be kept 3" away from housing. Unit is 20ga. black painted CRS with contoured top and hinging J-box arm. Housing locks into finished ceiling via 4 removable spring clips. J-box and transformers are accessible by removing housing from ceiling. Fixture will not exceed 4.5lbs.

Electrical

Porcelain bi-pin socket with quick connection. Acoustically isolated transformer, replaceable from below, mounted outside of housing to ensure cool operation and minimize hum. Transformers available in either electronic or magnetic 120V or 277V. For residential dimming applications, toroidal magnetic transformer is available. Large junction box with pryouts. UL & cUL listed for thru branch wiring, four #12 90°C conductors for T housing and two #14 90°C conductors for RT and IC housing.

Installation

Adjustable throat allows infinite adjustment within specified range and locks with supplied 9/64" hex driver. Housing ships with laser/string alignment guides and dust cover.

TRIM SPECIFICATIONS

Aesthetics

Diminutive black knife edge baffle minimizes brightness. Truncated Specular black reflector cone above ensures glare free optics. Reflector is .040" spun aluminum. Matte white finish may be used as a primer coat for field painting. Smart Lock™ ring allows disassembly for custom field painting.

Adjustment Mechanism

Mechanism is matte black finish and holds lamp and lenses independently. Tempered soft focus lens supplied as standard. Hot aiming with Phillips screwdriver allows for 45° vertical tilt, and 363° rotation and locks into position. Mechanism pulls down for quick and easy relamping. Vertical angle and horizontal rotation indicators display positioning (PIN, PL). Auto Memory returns lamp to preset aiming position (PIN, PL) or keeps lamp in a straight down aiming position (PINF). Lens tray can hold up to two (PINF) or three (PIN, PL) accessories, up to 3/8" thick. Lenses remain undisturbed during relamping.

Optics

50° cutoff to the lamp and lamp image. Tempered 2" diameter Solite lens held over aperture via radial spring (PL).

Construction

Trim stays captive to housing during relamping via torsion springs. Torsion springs pull trim tight to the ceiling and install in 90° increments. No visible fasteners within the trim. Mechanical light traps eliminate light leaks. Warp free die-cast aluminum faceplate, .040" thick flange on overlap versions.

Labels

UL & cUL listed, Damp label standard (PIN). Wet label standard (PL). No visible labels when trim is installed.

HOUSING ORDERING

Housing Series		FD4
Halogen Housing	FD4	
Lamp		MR
MR16 Lamp	MR	
Transformer Type		
Electronic Dimming 120V, 11.7V	E1	
Electronic Dimming 277V, 11.7V	E2	
Magnetic Dimming 120V, 11.7V <small>(T housings only)</small>	M1	
Magnetic Dimming 277V, 11.7V <small>(T housings only)</small>	M2	
Toroidal Dimming 120V <small>(IC & RT housings only)</small>	M1T	
Faceplate Type		
Square Flush <small>(T & IC housings only)</small>	SF	
Square Overlap	SO	
Housing Type <small>(T Rated: 71W max. IC Rated & Remodel: 50W max.)</small>		
New Construction T Rated, up to 1-5/8" ceilings	T	
New Construction T Rated, 1-1/2" to 2-1/2" ceilings	T2	
New Construction T Rated, 2-1/2" to 3-1/2" ceilings	T3	
New Construction IC Rated, up to 1-5/8" ceilings	IC	
New Construction IC Rated, 1-1/2" to 2-1/2" ceilings	IC2	
New Construction IC Rated, 2-1/2" to 3-1/2" ceilings	IC3	
Remodel T Rated <small>(Overlap faceplate only)</small>	RT	
Factory Options		
Bar Hangers <small>(T housings only)</small>	BH	
Wattage Restriction Label <small>(XX=wattage)</small>	WRXX	
Chicago Plenum <small>(T housings only)</small>	CP	

TRIM ORDERING

Trim Aperture		D1
1-1/8" Aperture	D1	
Faceplate Type		
Square Flush <small>(T & IC housings only) (Drywall only)</small>	SF	
Square Overlap	SO	
Optic		
Fixed Downlight Pinhole with Black Bevel	PINF	
Fixed Downlight Pinhole without Bevel	PINXF	
Accent Pinhole with Black Bevel	PIN	
Accent Pinhole without Bevel	PINX	
Accent Pinhole Lens with Black Bevel	PL	
Faceplate Finish		
White	WH	
Black	BK	
Titanium Silver	TS	
Aluminum Raw	AL	
Lens Accessories <small>(Soft focus lens supplied as standard)</small>		
Hex Louver	HL	
Linear Spread Lens	LSL	
Prismatic Spread Lens	PSL	
Sand Blasted Lens	SBL	
Clear Lens	CL	
UV Lens	UVL	

A complete unit consists of two line items, housing and trim
Example: FD4-MR-E1-SF-IC | D1-SF-PIN-WH

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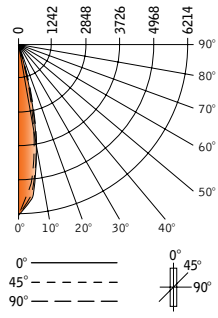
HALOGEN MR16 PINHOLE - 71W, NARROW SPOT

FD4-MR / D1-SO-PIN-WH

0° Filename: D1SXPINHA71NS15_0.ies
 0° Test #: 13561.0
 0° Efficiency: 54%

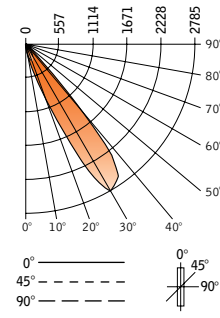
30° Filename: D1SXPINHA71NS15_30.ies
 30° Test #: 13562.0
 30° Efficiency: 35%

CANDLEPOWER DISTRIBUTION - 0° TILT



Vertical Angle	Horizontal Angle				
	0°	22.5°	45°	67.5°	90°
0°	4539	4539	4539	4539	4539
5°	3854	4035	4037	3932	4113
15°	644	722	909	924	838
25°	82	85	116	97	55
35°	11	12	13	10	7
45°	2	5	5	4	0
55°	0	0	0	0	0
65°	0	0	0	0	0
75°	0	0	0	0	0
85°	0	0	0	0	0
90°	0	0	0	0	0

CANDLEPOWER DISTRIBUTION - 30° TILT

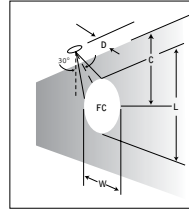
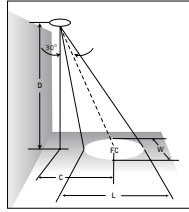


Vertical Angle	Horizontal Angle				
	0°	22.5°	45°	67.5°	90°
0°	24	24	24	24	24
5°	75	65	48	34	25
15°	651	559	230	63	16
25°	2711	1489	299	39	7
35°	2785	822	99	10	4
45°	468	178	13	1	0
55°	38	11	1	0	0
65°	0	0	0	0	0
75°	0	0	0	0	0
85°	0	0	0	0	0
90°	0	0	0	0	0

FOOTCANDLE VALUES

0° aiming angle - horizontal surface

D	C	FC	L	W
6'	0	127	1.6'	1.6'
8'	0	71	2.1'	2.1'
10'	0	46	2.6'	2.6'
12'	0	32	3.2'	3.2'
14'	0	23	3.7'	3.7'



FOOTCANDLE VALUES

30° aiming angle - horizontal surface

D	C	FC	L	W
6'	3.5'	58	2.1'	1.8'
8'	4.6'	33	2.8'	2.4'
10'	5.8'	21	3.5'	3.0'
12'	6.9'	15	4.2'	3.6'
14'	8.1'	11	4.9'	4.3'

FOOTCANDLE VALUES

30° aiming angle - vertical surface

D	C	FC	L	W
2'	3.5'	176	2.2'	1.1'
3'	5.2'	79	3.3'	1.6'
4'	6.9'	45	4.4'	2.1'
5'	8.7'	28	5.6'	2.6'
6'	10.4'	20	6.7'	3.2'

Footcandle results based on AGI32; off the shelf lamp in fixture, with microprismatic lens; Reflectances=0/0/0; LLF=1

Go to www.focalpointlights.com for additional photometric data.

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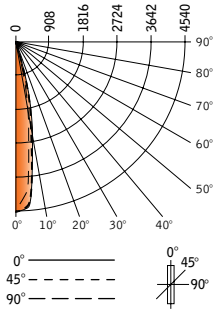
HALOGEN MR16 PINHOLE WITH LENS - 71W, NARROW SPOT

FD4-MR / D1-SO-PL-WH

Filename: D1SXPLHA71NS15_0.ies
 Test #: 13576.0

Lumens: 714lm
 Efficiency: 63%

CANDLEPOWER DISTRIBUTION



Vertical Angle	Horizontal Angle					Zonal Lumens
	0°	22.5°	45°	67.5°	90°	
0°	4540	4540	4540	4540	4540	
5°	3869	4163	4370	4365	4319	387
15°	879	986	1095	1242	1119	267
25°	96	110	142	137	147	45
35°	20	22	22	18	15	10
45°	13	13	13	8	4	5
55°	0	2	3	0	0	0
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0

LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixture
0-30°	699	61.3	97.9
0-40°	709	62.2	99.2
0-60°	714	62.6	100
0-90°	714	62.6	100
Total Luminaire 0-180°	714	62.6	100

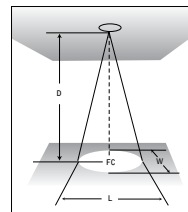
LUMINANCE DATA (CD/M²)

Vertical Angle	0°	45°	90°
45°	20172	20172	6207
55°	0	5739	0
65°	0	0	0
75°	0	0	0
85°	0	0	0

FOOTCANDLE VALUES

0° aiming angle - horizontal surface

D	FC	L	W
6'	127	1.6'	1.6'
8'	71	2.1'	2.1'
10'	46	2.6'	2.6'
12'	32	3.2'	3.2'
14'	23	3.7'	3.7'



Footcandle results based on AGI32; off the shelf lamp in fixture, with microprismatic lens; Reflectances=0/0/0; LLF=1

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