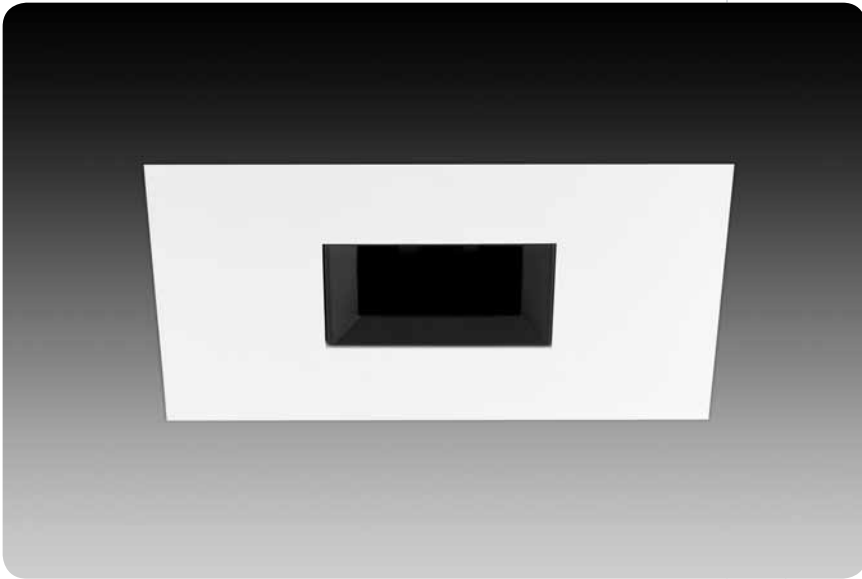


0-45° accent – pinhole
id®



Covered by US Patent: 7,748,868

features

Trims available in Overlap flange or Flush mud-in for a seamless appearance.

Gloves Off™ hot aiming made simple with gear drive for both 45° vertical and 363° horizontal adjustment; Self locking.

Auto Memory remembers original lamp position after relamping. Lenses are independent of lamp, and remain undisturbed during relamping.

Adjustment mechanism provides for:

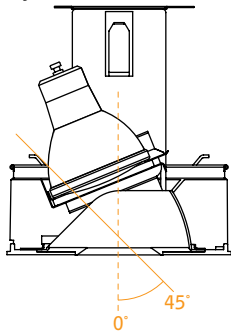
- easy relamping
- locking of both vertical and horizontal aiming
- lowers for easy lamp and lens access.

Perfect Fit™ installation process provides seamless integration in plaster, drywall and acoustical tiles, while maintaining optics in any ceiling thickness and allowing square trims to easily align with architecture and adjacent fixtures.

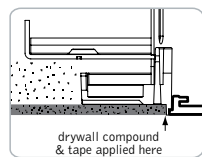
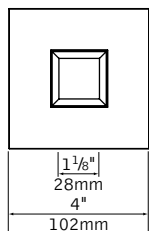
Smart Lock™ ring allows quick removal and re-assembly of trim components for field painting.

trim assembly

trim with adjustment mechanism

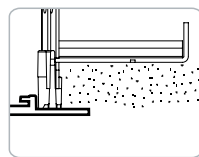
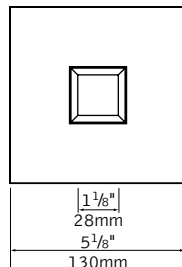


flush trim (drywall only)



ceiling cutout dimensions: 6 3/16"

overlap trim

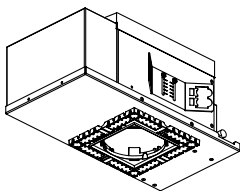


ceiling cutout dimensions: 4 11/16"

housing

T/IC

14" x 7.625" x 6"h



trim option



trim without black bevel

lens accessories



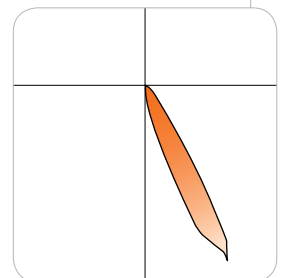
hex louver linear prismatic sand blasted

performance

Accent Pinhole with Black Bevel
CMH20MR16/830/SP12
3004 cd @ 30° (30° tilt)
For optimal performance, rotate lamp on axis to 0°, 90°, 180° or 270°.



Use 20W Ceramic Metal Halide in place of 50W Halogen.



Visit focalpointlights.com for complete photometric data.

fixture:

project:

housing specifications

lamp

Ceramic Metal Halide 20W MR16 Lamp provides a crisp white light source, 3000K and 80CRI, with UV stop. It is a protected lamp for use in open fixture designs.

construction

(IC) Thermally protected for Insulated Ceiling housing for new construction applications with direct insulation contact. Unit is enclosed in a 20ga black painted CRS housing, which eliminates stray light into the plenum, on a 20Ga CRS frame. IC housing ships standard with butterfly brackets which mount to ½ emt or channel, vertically adjusts 2 inches. Bar hangers are an option and must be specified when ordering thermally protected housing. Transformer is accessible from below ceiling. Unit may be relamped from above. Fixture will not exceed 7.5 lbs.

electrical

Ceramic Socket GX10 for Metal Halide lamp, with permanently joined socket wires. Lamp is held by twist and lock 5KVA socket, ensuring simple lamp insertion and removal.

Large junction box 2x4x5.5" with ½" and ¼" pryouts. UL listed for thru branch wiring, 4#12 90°C conductors.

Thermally isolated electronic ballast, replaceable from below, is mounted outside of the housing to ensure cool operation. Wiring compartment mounting provides additional thermal break from the lamp. 120 or 277V, M156 ANSI spec ballast consumes 26 watt and provides >90% PF, 20% THD and end of life shut down circuitry.

installation

Adjustable throat allows infinite adjustment for ½" to 1½" thick ceilings. Shipped in ½" ceiling position. For thicker ceilings consult factory.

Ceiling thickness adjustment sleeve locks with supplied ¼" hex driver. Sleeve allows fine tuning of the housing for a perfect fit. Square housing allows 45° rotation to square up the edges of the trim with the architecture and adjacent trims. Comes with laser/string alignment guides.

Housing ships with dust cover.

trim specifications

aesthetics

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

adjustment mechanism

Auto Memory for relamping, lamp returns to preset aiming position

Mechanism is matte black finish and holds lamp and lenses independently.

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

Tempered soft focus lens and spacer plate supplied as standard.

Lens tray can hold up to two accessories, up to ¼" thick. Lenses remain undisturbed during relamping.

optics

50° cutoff to the lamp and lamp image.

construction

Trim stays captive to housing during relamping via torsion springs.

Torsion springs pull trim tight to the ceiling.

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 listed, Damp label standard

No visible labels when trim is installed.

housing ordering

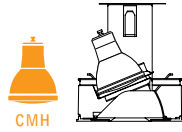
housing series		<u>FM4</u>
Metal Halide Housing	FM4	
lamp		<u>MR</u>
20W CMH MR16	MR	
ballast type		<u>M156U</u>
M156 20W Electronic (120V and 277V)	M156U	
faceplate type		_____
Square Flush	SF	
Square Overlap	SO	
housing type		_____
Combined T and IC Rated, up to 1½" ceilings	IC	
Combined T and IC Rated, 1½" to 2½" ceilings	IC2	
Combined T and IC Rated, 2½" to 3½" ceilings	IC3	
factory options		_____
Bar Hangers	BH	
Chicago Plenum	CP	
3000K Lamp 12" Spot	LSP	
3000K Lamp 25" Spot	LFL	
3000K Lamp 40" Wide Flood	LWF	

trim ordering

trim aperture		<u>D1</u>
1½" Aperture	D1	
faceplate type		_____
Square Flush (drywall only)	SF	
Square Overlap	SO	
optic		_____
Pinhole with Black Bevel	PIN	
Pinhole without Black Bevel	PINX	
faceplate finish		_____
White	WH	
Black	BK	
Titanium Silver	TS	
Aluminum Raw	AL	
lens accessories (soft focus lens supplied as standard)		_____
Hex Louver	HL	
Linear Spread Lens	LSL	
Prismatic Spread Lens	PSL	
Sand Blasted Lens	SBL	
Clear Lens	CL	
UV Lens	UVL	

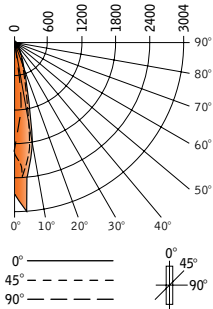
a complete unit consists of two line items, housing and trim
example: FM4-MR-M156U-SF-IC
D1-SF-PIN-WH

sqr accent – pinhole
id®



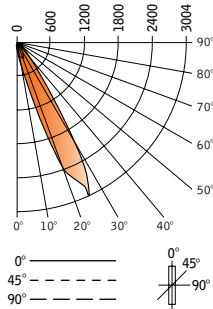
Luminaire: 20W CMH downlight, spot distribution with soft focus lens
 Filename: D1SXPINMH20SP12_0.ies and D1SXPINMH20SP12_30.ies
 Catalog #: D1-SX-PIN-WH
 Efficiency: 40% (0° tilt), and 34% (30° tilt)
 Photometric Report #: 13563.0 and 13564.0

CANDLEPOWER DISTRIBUTION - 0° TILT



Vertical Angle	Horizontal Angle				
	0°	22.5°	45°	67.5°	90°
0°	2132	2132	2132	2132	2132
5°	3328	3105	2626	2182	1660
15°	1079	1155	922	580	339
25°	208	196	167	104	60
35°	51	53	52	45	39
45°	1	4	16	2	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

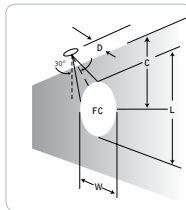
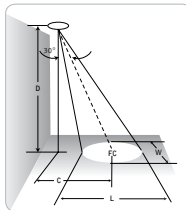


Vertical Angle	Horizontal Angle				
	0°	22.5°	45°	67.5°	90°
0°	103	103	103	103	103
5°	215	197	148	114	92
15°	1109	790	280	100	66
25°	3004	1184	198	55	47
35°	872	497	77	35	19
45°	127	85	39	9	0
55°	31	25	5	0	0
65°	0	0	0	0	0
75°	0	0	0	0	0
85°	0	0	0	0	0
90°	0	0	0	0	0

FOOTCANDLE VALUES

0° aiming angle - horizontal surface

D	C	FC	L	W
6'	0	60	1.3'	1.3'
8'	0	33	1.7'	1.7'
10'	0	21	2.1'	2.1'
12'	0	15	2.5'	2.5'
14'	0	11	2.9'	2.9'



FOOTCANDLE VALUES

30° aiming angle - horizontal surface

D	C	FC	L	W
6'	3.5'	31	1.7'	1.5'
8'	4.6'	18	2.3'	1.9'
10'	5.8'	11	2.8'	2.4'
12'	6.9'	8	3.2'	2.9'
14'	8.1'	6	3.9'	3.4'

FOOTCANDLE VALUES

30° aiming angle - vertical surface

D	C	FC	L	W
2'	3.5'	98	1.7'	0.8'
3'	5.2'	43	1.6'	1.3'
4'	6.9'	24	3.5'	1.7'
5'	8.7'	16	4.3'	2.1'
6'	10.4'	11	5.2'	2.5'

Footcandle results based on AG132; off the shelf lamp in fixture, with soft focus lens; Reflectances=0/0/0; LLF=1

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