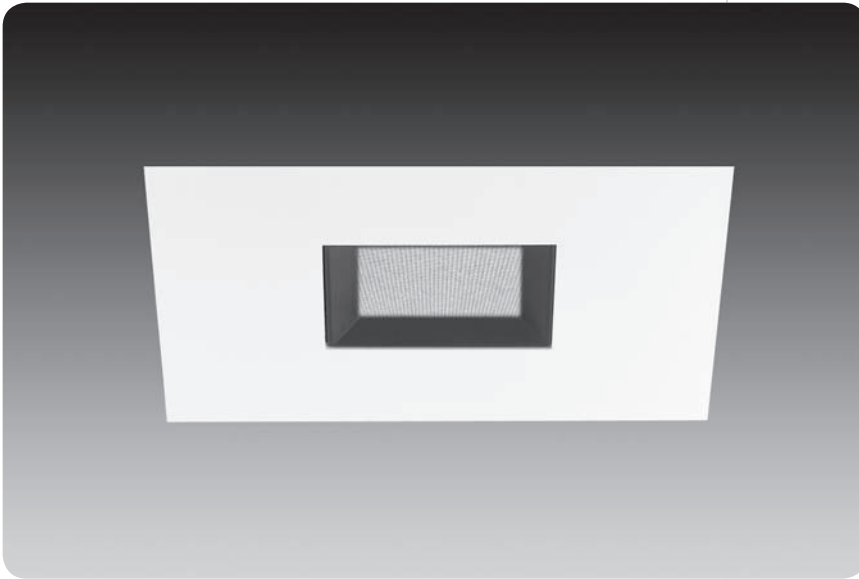


0-45° accent – pinhole with lens  
id®



Patent Pending

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.

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

Adjustment mechanism provides for:

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

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

Standard white finish is field paintable.

Interchangeable lamp and trim mechanisms allow for maximum flexibility, even after luminaire is installed.

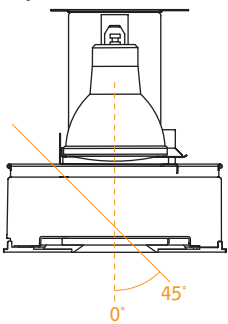
lens accessories



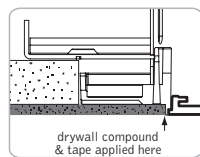
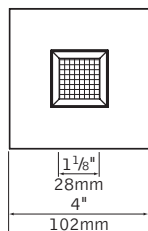
hex louver linear prismatic sand blasted

trim assembly

trim with adjustment mechanism

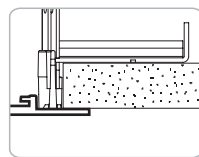
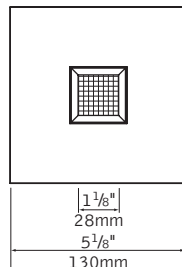


flush trim (drywall only)



ceiling cutout dimensions: 6 3/16"

overlap trim

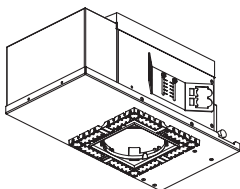


ceiling cutout dimensions: 4 11/16"

housing

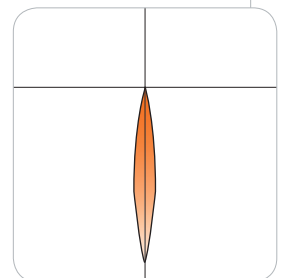
T/IC

14" x 7.625" x 6"h



performance

Accent Pinhole with Lens  
CMH20MR16/830/SP12  
3000 cd @ 0° (0° tilt)  
For optimal performance, rotate lamp on axis to 0°, 90°, 180° or 270°.



Visit focalpointlights.com for complete photometric data.

July 2009

fixture:

project:

## housing specifications

### lamp

Ceramic Metal Halide 20W-39W 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

(T) Thermally protected housing for new construction applications without direct contact with insulation. Unit is enclosed in a 20ga black painted CRS housing, which eliminates stray light into the plenum, on a 20Ga CRS frame. T 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.

(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 ¾" 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, M130 or M156 ANSI spec ballast consumes 26 or 39 watt and provides >90% PF, 20% THD and end of life shut down circuitry. 39W dimming ballast is available.

### installation

Adjustable throat allows infinite adjustment for ½" to 1⅞" thick ceilings. Shipped in ½" ceiling position. For thicker ceilings consult factory.

Ceiling thickness adjustment sleeve locks with supplied ⅝" 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 baffle minimizes brightness. Patterned glass above baffle provides smooth wash of light and does not show water spots. Glass is spring loaded for ease in pulling down trim for aiming and relamping.

Matte white finish may be used as a primer coat for field painting. Smart Lock™ ring allows disassembly for custom field painting.

### 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 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.

Tempered 2" diameter Solite lens held over aperture via radial spring.

### 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 listed, Wet label standard

No visible labels when trim is installed.

## housing ordering

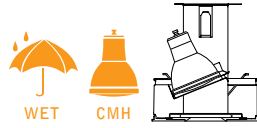
<b>housing series</b>	<b>FM4</b>
Metal Halide Housing	FM4
<b>lamp</b>	<b>MR</b>
20W or 39W CMH MR16	MR
<b>ballast type</b>	
M156 20W Electronic (120V and 277V)	M156U
M130 39W Electronic (120V)	M1301
M130 39W Electronic (277V)	M1302
M130 39W Electronic Dimming (120V)	M1301D
M130 39W Electronic Dimming (277V)	M1302D
<b>faceplate type</b>	
Square Flush	SF
Square Overlap	SO
<b>housing type</b>	
Thermally Protected, Non-IC (39W only)	T
Combined T and IC Rated (20W only)	IC
<b>factory options</b>	
Bar Hangers	BH
Chicago Plenum	CP
3000K Lamp 12° Spot	LSP
3000K Lamp 25° Spot	LFL
3000K Lamp 40K Wide Flood	LWF

## trim ordering

<b>trim aperture</b>	<b>D1</b>
1⅞" Aperture	D1
<b>faceplate type</b>	
Square Flush (drywall only)	SF
Square Overlap	SO
<b>optic</b>	<b>PL</b>
Pinhole Lens with Black Bevel	PL
<b>faceplate finish</b>	
White	WH
Black	BK
Titanium Silver	TS
Aluminum Raw	AL
<b>lens accessories</b>	
(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

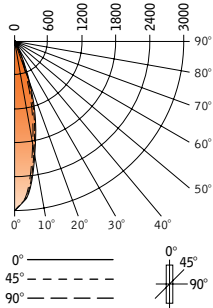
a complete unit consists of two line items, housing and trim  
example: FM4-MR-M156U-SF-IC  
D1-SF-PL-WH

sqr accent – pinhole with lens  
id®



Luminaire: 20W CMH lensed accent downlight, spot distribution with soft focus lens  
 Filename: D1SXPLMN20SP12\_0.ies  
 Catalog #: D1-SX-PL-WH  
 Efficiency: 37%  
 Photometric Report #: 13578.0

CANDLEPOWER DISTRIBUTION



Vertical Angle	Horizontal Angle				
	0°	22.5°	45°	67.5°	90°
0°	2684	2684	2684	2684	2684
5°	3000	2622	2238	2000	1749
15°	974	758	585	413	339
25°	148	123	103	78	63
35°	45	46	46	45	43
45°	14	20	30	18	8
55°	0	2	2	2	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
95°	0	0	0	0	0

LUMEN SUMMARY

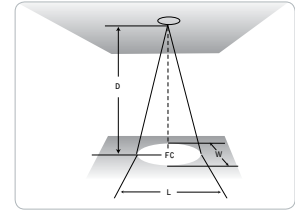
Zone	Lumens	% Lamp	% Fixt
0°-30°	332	33.2	90
0°-40°	369	36.9	97
0°-60°	369	36.9	100
0°-90°	369	36.9	100
Total Luminaire	369	36.9	100

LUMINANCE DATA (CD/M²)

Vertical Angle	0°	45°	90°
45°	21724	46551	12414
55°	0	3826	0
65°	0	0	0
75°	0	0	0
85°	0	0	0

FOOTCANDLE VALUES

D	FC	L	W
6'	75	1.3'	1.3'
8'	42	1.7'	1.7'
10'	27	2.1'	2.1'
12'	19	2.5'	2.5'
14'	14	2.9'	2.9'



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

Go to [www.focalpointlights.com](http://www.focalpointlights.com) for additional photometric data.