

downlight – reflector

id[®]



Patent Pending

features

Downlight offers a parabolic 50 degree cutoff reflector.

Gloves Off™ hot aiming made simple with gear drive for both 10° vertical and 363° horizontal adjustment; Self locking.

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.

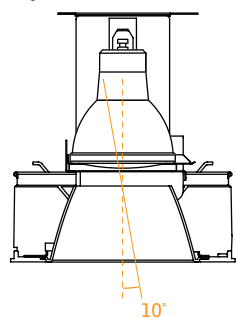
Smart Lock™ ring allows quick removal and re-assembly of trim components for field painting.

Standard white finish is field paintable.

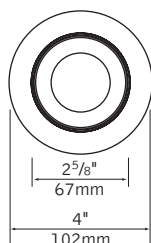
Interchangeable lamp and trim mechanisms allow for maximum flexibility, even after luminaire is installed.

trim assembly

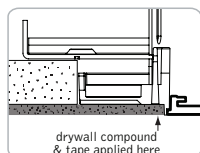
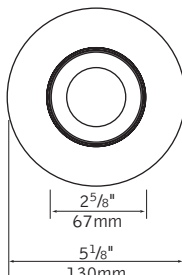
trim with adjustment mechanism



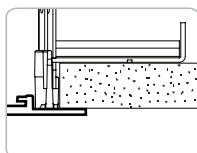
flush trim
(drywall only)



overlap trim



ceiling cutout dimensions:
6 3/16"

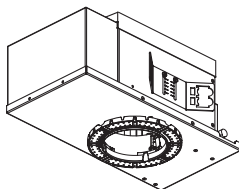


ceiling cutout dimensions:
4 11/16"

housing

T/IC

14" x 7.625" x 6"h



reflector options

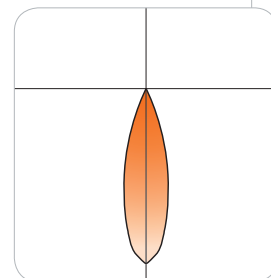


lens accessories



performance

Downlight Clear Specular Reflector
CMH20MR16/830/FL25
3319 cd @ 0° (0° tilt)



Visit focalpointlights.com for complete photometric data.

july 2009

fixture:

project:

housing specifications

lamp

Ceramic Metal Halide 20W or 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 45 watts 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 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. Comes with laser/string alignment guides.

Housing ships with dust cover.

trim specifications

aesthetics

Parabolic reflector cone ensures glare free optics. Reflector is .040 spun aluminum Optional slope-sided baffle, consists of ¼" steps. Black and white baffles are painted finishes. Optics sit flush with the front surface of the faceplate.

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 Phillips screwdriver allows for 10° 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.

Tempered soft focus lens supplied as standard.

Lens tray can hold up to three accessories, up to ¾" thick. Lenses remain undisturbed during relamping.

optics

50° cutoff to the lamp and lamp image.

construction

Torsion springs pull trim tight to the ceiling.

Trim stays captive to housing during relamping via torsion springs.

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 | | FM4 |
|-------------------------------------|--------|-----|
| Metal Halide Housing | FM4 | |
| lamp | | MR |
| 20W or 39W CMH MR16 | MR | |
| ballast type | | |
| 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 | |

faceplate type

Round Flush RF

Round Overlap RO

housing type

Thermally Protected, Non-IC (39W only) T

Combined T and IC Rated (20W only) IC

factory options

Bar Hangers BH

Chicago Plenum CP

3000K Lamp 12' Spot LSP

3000K Lamp 25' Spot LFL

3000K Lamp 40K Wide Flood LWF

trim ordering

trim aperture

2½" Aperture D2

faceplate type

Round Flush (drywall only) RF

Round Overlap RO

optic

Downlight DN

color

Clear Specular CS

Clear Diffuse CD

Black Specular BS

Warm Diffuse WD

Black Baffle BB

White Baffle WB

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

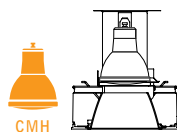
Clear Lens CL

UV Lens UVL

a complete unit consists of
two line items, housing and trim
example: FM4-MR-M156U-RF-IC
D2-RF-DN-CD-WH

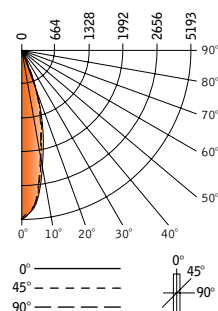
rnd downlight – reflector

id®



Luminaire: 20W CMH downlight, flood distribution with soft focus lens
 Filename: D2RXDNCSMH20FL25_0.ies
 Catalog #: D2-RX-DN-CS-WH
 Efficiency: 94%
 Photometric Report #: 13552.0

CANDLEPOWER DISTRIBUTION



Spacing: .5
 Criterion: .5

| Vertical Angle | 0° | 22.5° | 45° | 67.5° | 90° | Zonal Lumens |
|----------------|------|-------|------|-------|------|--------------|
| 0° | 3319 | 3319 | 3319 | 3319 | 3319 | |
| 5° | 3054 | 3038 | 3046 | 3072 | 3041 | 291 |
| 15° | 1504 | 1524 | 1537 | 1530 | 1467 | 431 |
| 25° | 332 | 334 | 369 | 351 | 348 | 161 |
| 35° | 67 | 71 | 76 | 75 | 75 | 46 |
| 45° | 7 | 10 | 9 | 9 | 6 | 7 |
| 55° | 0 | 0 | 0 | 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 |
| 95° | 0 | 0 | 0 | 0 | 0 | 0 |

LUMEN SUMMARY

| Zone | Lumens | % Lamp | % Fixt |
|-----------------|--------|--------|--------|
| 0°-30° | 883 | 88.3 | 94.4 |
| 0°-40° | 929 | 92.9 | 99.3 |
| 0°-60° | 936 | 93.6 | 100 |
| 0°-90° | 936 | 93.6 | 100 |
| Total Luminaire | 936 | 93.6 | 100 |

LUMINANCE DATA (CD/M²)

| Vertical Angle | 0° | 45° | 90° |
|----------------|-------|-------|-------|
| 45° | 13748 | 17676 | 11784 |
| 55° | 0 | 0 | 0 |
| 65° | 0 | 0 | 0 |
| 75° | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 |

CO-EFFICIENTS OF UTILIZATION

| Floor | 80 | 70 | 20 | 30 | 10 | 00 |
|---------|-----|-----|-----|-----|-----|-----|
| Ceiling | 70 | 50 | 10 | 50 | 10 | 00 |
| Wall | 70 | 50 | 10 | 50 | 10 | 00 |
| RCR 0 | 111 | 111 | 111 | 109 | 109 | 104 |
| 1 | 108 | 106 | 105 | 103 | 106 | 104 |
| 2 | 104 | 101 | 98 | 96 | 102 | 99 |
| 3 | 101 | 97 | 93 | 91 | 99 | 95 |
| 4 | 98 | 93 | 89 | 86 | 96 | 92 |
| 5 | 94 | 89 | 85 | 82 | 93 | 88 |
| 6 | 92 | 86 | 82 | 79 | 91 | 85 |
| 7 | 89 | 83 | 79 | 77 | 88 | 83 |
| 8 | 87 | 80 | 76 | 74 | 86 | 80 |
| 9 | 84 | 77 | 74 | 71 | 83 | 77 |
| 10 | 81 | 74 | 71 | 68 | 80 | 74 |

Numbers indicate percentage values of reflectivity.

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