IRIS®

DESCRIPTION

Recessed 3.5" aperture downlight luminaire utilizing a LED array. Housing is air tight and suitable for 2x8 residential or commercial constructions. Insulation must be kept 3" from top and sides on housing. Housing platform + primary reflector + optical element combination supports various distributions and reflector types providing design flexibility. Use where excellent light control and low aperture brightness are demanded.

Catalog #		**Type**
Project		
Comments		**Date**
Prepared By		

SPECIFICATION FEATURES

Frame
Galvanized steel plaster frame with integral bar hanger receivers. Setscrews provide positive horizontal locking. Integral gun sights facilitate the use of guide strings or laser lines. Shipped with overspray protector installed.

Housing
Steel housing painted matte black for visually dark interior. Removable access panels allow splice inspection and service of all electrical components including LED module and driver from below the ceiling thru the aperture. Removable hinged top allow top access. All fasteners are captive.

Bar Hangers
Captive preinstalled bar hangers adjust from 8-1/2" to 24" wide; pass thru feature allows shortening without removal. Captive nail penetrates standard and engineered lumber. Mounting flange levels platform with ceiling. Integral clip attached directly to tee-bar.

Universal Mounting Bracket
Accepts 1/2" EMT, C channel and bar hangers and adjusts 3" vertically from above the ceiling.

Gaskets
Closed cell gaskets achieve restrictive airflow requirements without additional caulking.

Adjustment Mechanism
Dynamic aiming rotates 365°, tilts 45° and locks in position. Angle markings assist in repeatable settings. Translating center beam optics aligns axis of primary reflector with aperture from nadir to 45°.

LED Module
Field replaceable module utilizes Cree® MT-G2 LED array and conforms to Zhaga standards for interchangeability. Proximity phosphors over chip on board LEDs provide a uniform source with high efficiency and no pixilation. Color accuracy within 2 SDCM and optional 90 CRI provides excellent color. Passive cooling achieves L70 at 40,000 hours.

Primary Optic
Borosilicate glass segmented optic with > 95% reflective multi-layer hard coating delivers a highly efficient and uniform beam. Various distributions are available and can be interchanged without tools. Elastomeric glare shield accepts theatrical color filters and diffusion films.

Media
Optional media holder accepts one or two 2 inch [50mm] diameter L series color filters or beam modifying lens. Order media holder, color filters and lens separately.

Lower Reflector
Spun 0.04" thick high purity aluminum parabolic contour provides 50° lamp and lamp image cutoff and is available in a wide range of specular and semi-specular Alzak® finishes. Light trap eliminates spill light at edge of flange and reflector. Metal trim ring can be removed for painting and can be installed flush mount with optional flush mount collar accessory.

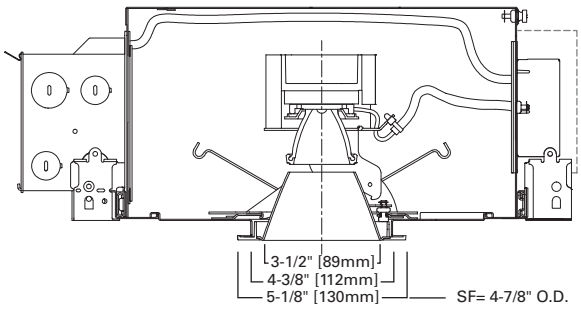
Trim Retention
Retained with two torsion springs holding the flange tightly to the finished ceiling surface and accommodates ceiling thickness from 1/2 - 1" thick. Use optional plaster lip extender for ceilings up to 2" thick.

Junction Box
(6) 1/2" and (2) 3/4" trade size pry outs positioned to allow straight conduit runs.

Driver
Integral constant current driver provides noise free operation. Continuous, flicker-free 1% dimming, available with 2 or 3 wire phase cut and EcoSystem/DALI digital control interfaces. The DALI option is Fifth Light compatible.

Compliance
Type Non-IC inherently protected and cULus listed for damp locations. Insulation must be kept 3" from top and sides on housing. Restrictive airflow per ASTM-E283. EMI/RFI emissions per FCC 47CFR Part 18 consumer limits. Contains no mercury or lead and RoHS compliant. Photometric testing in accordance with IES LM-79-08. Lumen maintenance projections in accordance with IES LM-80-08 and TM-21-11. Meets California Title 24 residential fixture program and listed on appliance database. Energy Star listed. Zhaga compliant. Meets EMI/RFI emission per FCC 47CFR Part 18 consumer limits at 120V input. Lighting Facts Labeled.

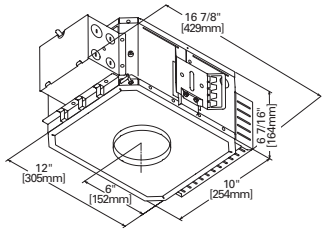
Warranty
5 year warranty.





PN3LED12 E3MR

LED Downlight
3.5" Aperture
1,200 Lumen Series



E Driver Option		
Input Voltage	120V	277V
Input Current (A)	0.16	0.08
Input Power (W)	19.5	20
Inrush Current (A)	0.24	0.5
THD: ≤ 20%		
PF: ≥ 0.90		
T Ambient: -20 to +40°C		
T Plenum: +65°C Max.		
Sound Rating: Class A		

E010 Driver Option		
Input Voltage	120V	277V
Input Current (A)	0.17	0.08
Input Power (W)	20	20.7
Inrush Current (A)	0.7	1.21
THD: ≤ 20%		
PF: ≥ 0.90		
T Ambient: -20 to +40°C		
T Plenum: +65°C Max.		
Sound Rating: Class A		

ENERGY STAR · Can be used for IECC International Energy Conservation Code High Efficacy Compliance · Can be used for T24 California Title 24 High Efficacy Compliance · Can be used for WSEC Washington State Energy Code High Efficacy Compliance

Zhaga

Cooper Lighting Solutions is a founding member of the Zhaga Consortium

powered by fifthlight technology

ORDERING INFORMATION

PN3LED E3MR

Complete luminaire consists of a housing platform and optical element. Housing platform can be ordered without primary optic. Order primary optics separately.

Example: PN3LED12830E RG50FL40 E3MRH

Platform	Lumens[1]	Distribution	Color	Driver
PN3LED				
PN3LED = 3.5" Aperture Non-IC, AT LED Housing Platform	**12** = 1,200 Lumens (Nominal)	**[Blank]** = Omit Primary Optic **NSP10** = 10° Beam **SP15** = 15° Beam **NFL25** = 25° Beam **FL40** = 40° Beam	**827** = 80 CRI Minimum, 2,700 K CCT **927** = 90 CRI Minimum, 2,700 K CCT **830** = 80 CRI Minimum, 3,000 K CCT **930** = 90 CRI Minimum, 3,000 K CCT **835** = 80 CRI Minimum, 3,500 K CCT **840** = 80 CRI Minimum, 4,000 K CCT	**E** = 120 – 277V 50/60Hz Leading or Trailing Edge Phase Cut 1% Dimming (phase cut dimming at 120V only) **E010** = 120 – 277V 50/60Hz 0 -10V 10% Dimming **ED010** = 120 – 277V 50/60Hz 0 -10V 1% Dimming **E5LT** = 120 – 277V 50/60Hz DALI 1% Dimming **EDMX** = 120 – 277V 50/60Hz DMX 1% Dimming **1ELTE** = 120V 60Hz Leading Edge 1% Dimming, Lutron A-Series **EL3D** = 120 – 277V 50/60Hz 3-wire and EcoSystem 1% Dimming, Lutron A-Series

Optical Element	Finishes		Options	Accessories
E3MR				
E3MR = 3.5" Aperture Open Downlight Reflector	**Alzak® Finishes** **C =** Specular Clear **H =** Semi-Specular Clear **G =** Gold **WMH =** Warm Haze **WH =** Wheat **WHH =** Wheat Haze **GP =** Graphite **GPH =** Graphite Haze **K =** Cognac **KH =** Cognac Haze **CC =** Chocolate **CCH =** Chocolate Haze **B =** Black	**Painted Finishes** **MW =** Matte white **W =** Gloss white **BB =** Black baffle **WB =** White baffle	**[Blank]** = Metal Trim Ring, Matte White **Not available with BB or WB** **SF** = Self-flanged **SFWF** = Self-flanged, Matte White Flange	**RG50NSP10** = 10° Beam Glass Reflector, 50mm **RG50SP15** = 15° Beam Glass Reflector, 50mm **RG50NFL25** = 25° Beam Glass Reflector, 50mm **RG50FL40** = 40° Beam Glass Reflector, 50mm **RG50MH** = Media Holder for two inch [50mm] diameter L series color filters or beam modifying lens. Attaches directly to RG50 series 50mm Reflectors **FMC3** = Flush Mount Collar Accessory **PLE3** = Plaster Lip Extender for Up to 2" Thick Ceilings **ZLM03** = Replacement LED module, see specification sheet for catalog number and performance data

ENERGY DATA

PN3LED E3MR

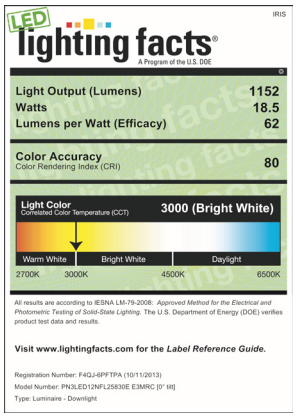
1ELTE Driver Option		
Input Voltage	120V	277V
Input Current (A)	0.17	
Input Power (W)	20.1	
Inrush Current (A)	1.9	
THD: ≤ 20%		
PF: ≥ 0.90		
T Ambient: -20 to +40°C		
T Plenum: +65°C Max.		
Sound Rating: Class A		

EL3D Driver Option		
Input Voltage	120V	277V
Input Current (A)	0.16	0.08
Input Power (W)	19.2	19.8
Inrush Current (A)	1.9	2
THD: ≤ 20%		
PF	≥0.90	≥0.85
T Ambient: -20 to +40°C		
T Plenum: +65°C Max.		
Sound Rating: Class A		

E5LT Driver Option		
Input Voltage	120V	277V
Input Current (A)	0.17	0.08
Input Power (W)	19.5	20.2
Inrush Current (A)	1.73	1.8
THD: ≤ 20%		
PF	≥0.90	≥0.85
T Ambient: -20 to +40°C		
T Plenum: +65°C Max.		
Sound Rating: Class A		

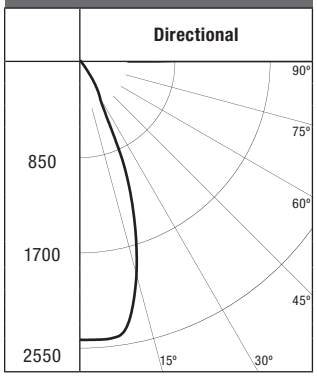
EDMX Driver Option		
Input Voltage	120V	277V
Input Current (A)	0.17	0.08
Input Power (W)	20	21.3
Inrush Current (A)	1.82	1.89
THD: ≤ 20%		
PF	≥0.90	≥0.70
T Ambient: -20 to +40°C		
T Plenum: +65°C Max.		
Sound Rating: Class A		

LIGHTING FACTS



Please see LightingFacts.com for a complete listing of products.

CANDLEPOWER DISTRIBUTION



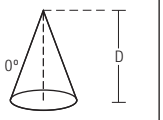
Test Number	P108684
Platform	PN3LED12830E
Element	E3MRC RG50FL40
Lumens	1136 Lm
Efficacy	61.1 Lm/W



ZONAL LUMEN SUMMARY

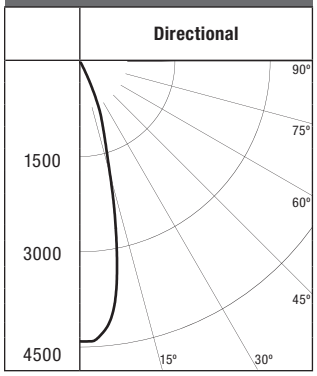
Zone	Lumens	%Fixture
0-30	1055	92.9
0-40	1134	99.8
0-60	1135	99.9
0-90	1136	100
90-180	0	0
0-180	1136	100

CONE OF LIGHT



MH	FC	L	W
5.5'	81.1	3.6	3.6
7'	50.1	4.6	4.6
8'	38.4	5.4	5.4
9'	30.3	6	6
10'	24.5	6.8	6.8
12'	17	8.2	8.2

CANDLEPOWER DISTRIBUTION



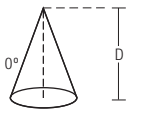
Test Number	P108702
Platform	PN3LED12830E
Element	E3MRC RG50NFL25
Lumens	1152 Lm
Efficacy	62.3 Lm/W



ZONAL LUMEN SUMMARY

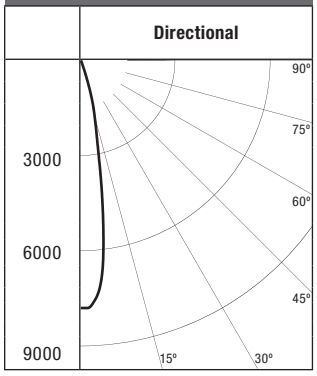
Zone	Lumens	%Fixture
0-30	1146	99.5
0-40	1151	99.9
0-60	1152	100
0-90	1152	100
90-180	0	0
0-180	1152	100

CONE OF LIGHT

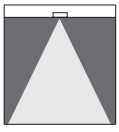


MH	FC	L	W
5.5'	144.8	2.6	2.6
7'	89.4	3.2	3.2
8'	68.4	3.8	3.8
9'	54.1	4.2	4.2
10'	43.8	4.6	4.6
12'	30.4	5.6	5.6

CANDLEPOWER DISTRIBUTION



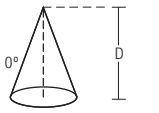
Test Number	P108708
Platform	PN3LED12830E
Element	E3MRC RG50SP15
Lumens	1340 Lm
Efficacy	72.4 Lm/W



ZONAL LUMEN SUMMARY

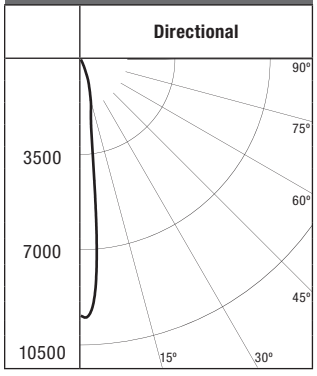
Zone	Lumens	%Fixture
0-30	1313	98
0-40	1321	98.5
0-60	1330	99.2
0-90	1340	100
90-180	0	0
0-180	1340	100

CONE OF LIGHT

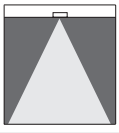


MH	FC	L	W
5.5'	265	1.8	1.8
7'	163.6	2.4	2.4
8'	125.3	2.6	2.6
9'	99	3	3
10'	80.2	3.4	3.4
12'	55.7	4	4

CANDLEPOWER DISTRIBUTION



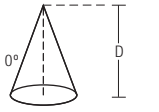
Test Number	P108714
Platform	PN3LED12830E
Element	E3MRC RG50NSP10
Lumens	1249 Lm
Efficacy	67.5 Lm/W



ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixture
0-30	1229	98.3
0-40	1235	98.8
0-60	1241	99.3
0-90	1251	100.1
90-180	-2	-0.1
0-180	1249	100

CONE OF LIGHT



MH	FC	L	W
5.5'	314.6	1.2	1.2
7'	194.2	1.6	1.6
8'	148.7	2	2
9'	117.5	2.2	2.2
10'	95.2	2.4	2.4
12'	66.1	3	3