

DESCRIPTION

Recessed 3.5" directional luminaire with angle cut shielding reflector, utilizing an LED array. Housing is suitable for 2x8 residential or commercial constructions, airtight and can be used in direct contact with insulation. Housing platform + primary reflector + optical element combination supports various distributions, providing design flexibility. Use where high efficiency, excellent light control and low aperture brightness are demanded.

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 a visually dark interior. Removable hinged top allows top access. All fasteners are captive.

Bar Hangers

Captive pre-installed 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

LED array is field replaceable and conforms to emerging industry standards. Proximity phosphors over chip on board LEDs provide a uniform source with high efficiency and no pixilation. Color rendering index 85 typical, accuracy within 3 SDCM provides excellent color. Proportional active cooling achieves L70B50 at 50,000 hours in IC and non IC applications.

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 3.0mm thick color filters or beam modifying lens. Order media holder, color filters and lens separately.

Lower Reflector

Spun 0.04" thick aluminum angle cut parabolic contour provides 50° room side 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

Catalog #		Type
Project		
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holding the flange tightly to the finished ceiling surface and accommodates ceiling thickness from 1/2 - 1" thick.

Junction Box

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

Driver

Integral 120 or 277V 60 Hz constant current driver provides noise free operation. Monitors LED array and reduces power if safe operating temperature of LED's is exceeded. Continuous, flicker-free dimming from 100% to 10%. Available with trailing edge phase cut, 0 -10V and DALI digital control interfaces.

Compliance

Type IC inherently protected, suitable for direct contact to insulation and cULus listed for wet locations. Restrictive airflow per ASTM E283. Optional City of Chicago environmental air (CCEA) marking for plenum applications. EMI/RFI emissions per FCC 47CFR Part 18 consumer limits. Contains no mercury or lead and RoHS compliant. Photometric testing is in accordance with IES LM79. LED life claims are in accordance with IES LM80 testing. Can be used for State of California Title 24 high efficacy luminaire compliance, reference the California Energy Commission Appliance Efficiency Database for current listings. Can also be used for international Energy Conservation Code (IECC) high efficiency luminaire compliance. Energy Star listed pending. Zhaga compliance pending.

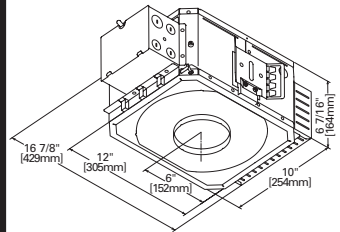
Warranty

5 year warranty.



P3LED E3AA E3AA20

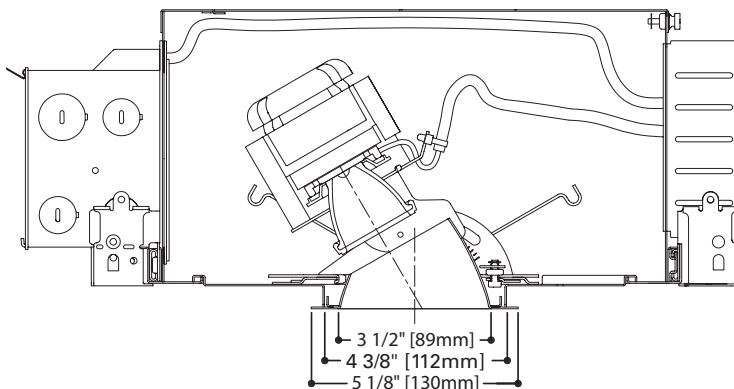
LED Directional Open Angle Cut
& Shallow Angle Cut
3.5" Aperture
900 Lumen Series



Lumens	900 Series	
Input Voltage (V)	120	277
Input Current (A)	0.18	0.09
Input Power (W)	20.4	22
THD: ≤ 20%		
PF: ≥ 0.90		
T Ambient -20 to +40°C		
Sound Rating: A		



Cooper Lighting is
a member of the
Zhaga Consortium



ORDERING INFORMATION

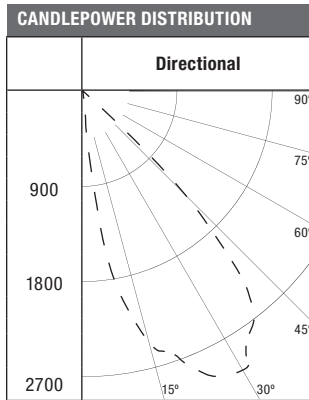
Complete luminaire consists of a housing platform and optical element. Housing platform can be ordered without primary optic. Order primary optics separately.

Example: P3LED9NFL258301E0-10V/TE 3.5" aperture LED housing platform, 900 lumens nominal, 25° narrow flood 3,000°K, 85 CRI, 120V 60Hz, 0 – 10V and trailing edge 10% dimming.
E3AAH = 3.5" aperture open angle cut reflector, Semi-specular clear, matte white metal trim ring

Platform	Lumens	Distribution	Color	Driver	Optical Element	Finish	Flange Style	Accessories
P3LED					E3AA			
<p>P3LED = 3.5" aperture LED housing platform</p> <p>P3LED = 3.5" aperture LED housing platform, CCEA listed for City of Chicago plenum requirements</p>	<p>9 = 900 lumens (nominal)</p>	<p>[blank] = omit primary optic</p> <p>NSP10 = 10° beam</p> <p>SP15 = 15° beam</p> <p>NFL25 = 25° beam</p> <p>FL40 = 40° beam</p>	<p>830 = 85 CRI typical, 3,000° K CCT</p>	<p>1E 0-10V/TE = 120V 60Hz 0 – 10V and trailing edge 10% dimming</p> <p>2E 0-10V = 277V 60Hz 0 – 10V – 10% dimming</p> <p>1E DALI = 120V 60Hz DALI – 10% dimming</p>	<p>E3AA = 3.5" aperture open angle cut reflector</p> <p>E3AA20 = 3.5" aperture shallow open angle cut reflector</p>	<p>Finishes Alzak® Finishes</p> <p>C = Specular Clear</p> <p>H = Semi-Specular Clear</p> <p>WMH = Warm Haze</p> <p>G = Gold</p> <p>WH = Wheat</p> <p>WHH = Wheat Haze</p> <p>GP = Graphite</p> <p>GPH = Graphite Haze</p> <p>K = Cognac</p> <p>KH = Cognac Haze</p> <p>CC = Chocolate</p> <p>CCH = Chocolate Haze</p> <p>B = Black</p> <p>Painted Finishes</p> <p>MW = Matte white</p> <p>W = Gloss white</p> <p>BB = Black baffle</p> <p>WB = White baffle</p>	<p>[Blank] = Metal trim ring, matte white</p> <p>SF = Self flanged (not available with BB or WB)</p> <p>SFWF = Self flanged, matte white flange (not available with BB or WB)</p>	<p>RG50NSP10 = 10° beam glass reflector, 50mm</p> <p>RG50SP15 = 15° beam glass reflector, 50mm</p> <p>RG50NFL25 = 25° beam glass reflector, 50mm</p> <p>RG50FL40 = 40° beam glass reflector, 50mm</p> <p>RG50MH = Media holder for 50mm reflector</p> <p>FMC3 = Flush mount collar accessory</p> <p>PLE3 = Plaster lip extender for up to 2" thick ceilings</p>

PHOTOMETRICS

P3LED E3AAC

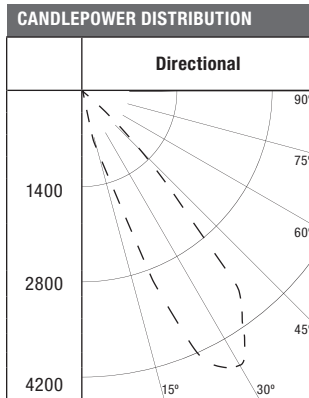


Test Number	P21941
Platform	P3LED
Element	E3AAC RG50FL40
Lumens	981
Efficacy	51.1 Lm/W

ZONAL LUMEN SUMMARY		
Zone	Lumens	%Fixture
0-30	553	56.4
0-40	857	87.4
0-60	978	99.7
0-90	981	100.0
90-180	0	0.0
0-180	981	100.0

30° HORIZONTAL PLANE						30° VERTICAL PLANE					
	D	FC	L	W	CB		D	FC	L	W	CB
	6'	70	4'	3.4'	3.5'		4'	38	3.8'	3.6'	6.9'
	7'	52	4.6'	4'	4'		6'	17	5.7'	5.4'	10.4'
	8'	39	5.3'	4.6'	4.6'		8'	10	7.5'	7.2'	13.9'
	10'	25	6.6'	5.7'	5.8'		10'	6	9.4'	9'	17.3'
	12'	18	8'	6.9'	6.9'		12'	4	11.3'	10.8'	20.8'

SINGLE UNIT FOOTCANDLES							
3' FROM WALL (Distance From Fixture Along Wall)							
DD	●	1'	2'	3'	4'	5'	6'
1'	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2'	0.4	0.4	0.0	0.0	0.0	0.0	0.0
3'	44.9	12.8	0.3	0.0	0.0	0.0	0.0
4'	62.3	45.8	9.8	0.1	0.1	0.0	0.0
5'	43.9	36.0	15.0	0.1	0.0	0.0	0.0
6'	29.1	24.9	14.1	2.2	0.1	0.0	0.0
7'	19.4	17.1	11.1	4.3	0.8	0.0	0.0
8'	12.9	12.6	8.5	4.3	1.6	0.3	0.0
9'	9.0	9.7	6.5	3.9	1.7	0.6	0.1
10'	6.6	7.6	5.2	3.2	1.6	0.7	0.2

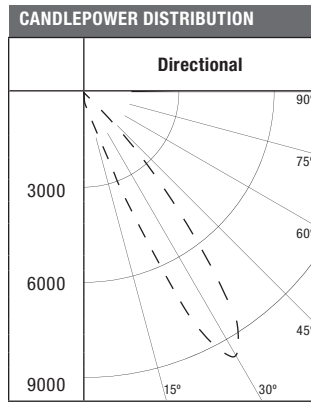


Test Number	P21948
Platform	P3LED
Element	E3AAC RG50NF25
Lumens	934
Efficacy	48.6 Lm/W

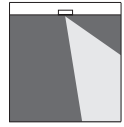
ZONAL LUMEN SUMMARY		
Zone	Lumens	%Fixture
0-30	511	54.7
0-40	842	90.1
0-60	930	99.7
0-90	934	100.0
90-180	0	0.0
0-180	934	100.0

30° HORIZONTAL PLANE						30° VERTICAL PLANE					
	D	FC	L	W	CB		D	FC	L	W	CB
	6'	90	2.9'	2.7'	3.5'		6'	52	3.6'	2.7'	6.9'
	7'	66	3.4'	3.1'	4'		7'	23	5.4'	4'	10.4'
	8'	50	3.9'	3.6'	4.6'		8'	13	7.2'	5.4'	13.9'
	10'	32	4.9'	4.5'	5.8'		10'	8	9'	6.7'	17.3'
	12'	22	5.9'	5.4'	6.9'		12'	6	10.8'	8.1'	20.8'

SINGLE UNIT FOOTCANDLES							
3' FROM WALL (Distance From Fixture Along Wall)							
DD	●	1'	2'	3'	4'	5'	6'
1'	0	0	0.1	0	0	0	0
2'	0.4	0.3	0	0	0	0	0
3'	32.8	9.6	0.2	0.1	0	0	0
4'	91.6	38.8	5.4	0.1	0	0	0
5'	68.1	45.2	9.9	0.8	0.1	0	0
6'	44.9	32.4	8.2	3.2	0.1	0	0
7'	28	20.6	6.4	3.3	0.3	0	0
8'	15.9	12.6	4.8	2.7	0.7	0	0
9'	8.7	7.2	3.8	2.2	0.9	0.1	0
10'	4.8	4	3.2	1.7	1	0.2	0



Test Number P21947
Platform P3LED
Element E3AAC RG50SP15
Lumens 1020
Efficacy 53.3 Lm/W



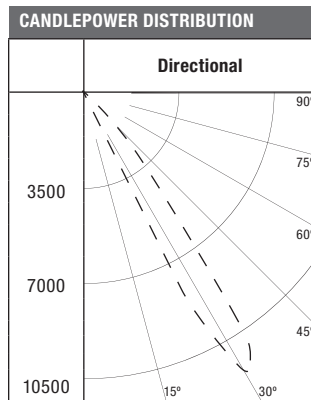
ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixture
0-30	503	49.1
0-40	924	90.2
0-60	1021	99.7
0-90	1024	100.0
90-180	0	0.0
0-180	1024	100.0

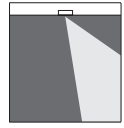
30° HORIZONTAL PLANE						30° VERTICAL PLANE					
	D	FC	L	W	CB		D	FC	L	W	CB
	6'	169	2.2'	1.9'	3.5'		4'	92	3.3'	1.9'	6.9'
	7'	124	2.6'	2.2'	4'		6'	41	5'	2.8'	10.4'
	8'	95	2.9'	2.5'	4.6'		8'	23	6.6'	3.7'	13.9'
	10'	61	3.7'	3.1'	5.8'		10'	15	8.3'	4.7'	17.3'
	12'	42	4.4'	3.7'	6.9'		12'	10	10'	5.6'	20.8'

SINGLE UNIT FOOTCANDLES

3' FROM WALL (Distance From Fixture Along Wall)								
DD	●	1'	2'	3'	4'	5'	6'	
1'	0	0	0	0	0	0	0	
2'	4.2	0.7	0	0	0	0	0	
3'	30.8	7.8	1.5	0	0	0	0	
4'	140.4	30.8	6.8	0.1	0	0	0	
5'	142.7	41	10.2	0.7	0.1	0	0	
6'	84.6	31.5	10.6	2.5	0.3	0	0	
7'	38.2	17.9	8.1	2.8	1	0.1	0	
8'	14.6	10.2	5.5	2.1	1.1	0.3	0	
9'	6.9	5.8	3.9	1.7	0.9	0.4	0.1	
10'	3.7	3.2	2.8	1.3	0.7	0.4	0.1	



Test Number P21942
Platform P3LED
Element E3AAC RG50NSP10
Lumens 1011
Efficacy 52.7 Lm/W



ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixture
0-30	500	49.4
0-40	899	89.0
0-60	1008	99.7
0-90	1011	100.0
90-180	0	0.0
0-180	1011	100.0

30° HORIZONTAL PLANE						30° VERTICAL PLANE					
	D	FC	L	W	CB		D	FC	L	W	CB
	6'	209	1.6'	1.5'	3.5'		4'	109	2.6'	1.4'	6.9'
	7'	154	1.9'	1.7'	4'		6'	48	4'	2.2'	10.4'
	8'	118	2.2'	1.9'	4.6'		8'	27	5.3'	2.9'	13.9'
	10'	75	2.7'	2.4'	5.8'		10'	17	6.6'	3.6'	17.3'
	12'	52	3.3'	2.9'	6.9'		12'	12	7.9'	4.3'	20.8'

SINGLE UNIT FOOTCANDLES

3' FROM WALL (Distance From Fixture Along Wall)								
DD	●	1'	2'	3'	4'	5'	6'	
1'	0	0	0	0	0	0	0	
2'	0.1	0.1	0	0	0	0	0	
3'	38.3	16.1	0.1	0	0	0	0	
4'	104.2	31.3	9	0.1	0	0	0	
5'	180.6	30.5	11.3	1.7	0	0	0	
6'	87.6	21.4	9.9	3.5	0.7	0	0	
7'	20.8	13.1	7.3	3.4	1.4	0.3	0	
8'	8.7	8.5	5.3	2.8	1.4	0.5	0.1	
9'	4.9	5.2	4	2.2	1.2	0.5	0.2	
10'	3	3.1	3.1	1.8	1	0.5	0.2	

