

General Illumination Clean Room Downlight

4"

Feature Set

- Wipe down flush or regressed lens
- NSF2 Splash/Non-food Zone
- Fully serviceable and upgradeable lensed LED light engine
- 70% lumen maintenance at 60,000 hours
- 2.5 MacAdam ellipse; 85 CRI typical, 90+ CRI optional
- IP66 rated room-side, Fixtures are wet location, covered ceiling
- ISO 5 Class 100
- Anti-microbial paint finish, optional
- UGR of zero for fixtures aimed at nadir with a cut-off equal to or less than 60deg per CIE 117-1995 Discomfort Glare in Interior Lighting. [UGR FAQ](#)

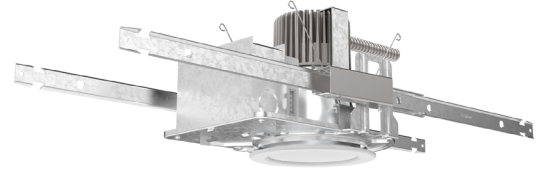
Distribution



Superior Performance: (Flush, Clear Lens)

Nominal Lumens	1000	1500	2000	2500
Delivered	843	1281	1684	2165
Wattage	8.8	13.7	19.5	25.7
Efficacy	95.8	93.5	86.4	84.2

*Lumen output for CRI80 - 3500K



Coordinated Apertures | Multiple Layers of Light



General Illumination Layer | EVO



High Center Beam Layer | Incito



EVO + Incito — Multiple Layers of Light

Core



Healthcare




Special Applications



OVERVIEW

COMPLEMENTARY PRODUCTS

ORDERING INFORMATION

 A+ Capable options indicated by this color background.

Luminaire Type:

Catalog Number:

EXAMPLE: EV04CR 35/20 DFFAMF SOL MVOLT EZ1

Series	Color Temperature	Nominal Lumen Values	Lens Setting	Lens	Voltage
EV04CR	27/ 2700 K	10 1000 lumens	DFR Regressed lensed white painted trim	SOL Textured Lens	MVOLT 120 277
	30/ 3000 K	15 1500 lumens	DFF Flush lensed white painted trim	SMO Smooth Clear Lens	
	35/ 3500 K	20 2000 lumens	DFRBR Regressed lensed black painted trim		
	40/ 4000 K	25 2500 lumens	DFFBR Flush lensed black painted trim		
	50/ 5000 K	30 3000 lumens	DFRAMF Regressed lensed trim with anti-microbial finish		
		35 3500 lumens			
		40 4000 lumens	DFFAMF Flush lensed trim with anti-microbial finish		
		45 4500 lumens			

Driver ¹	Control Interface	Emergency	Options
EZ1 eldoLED 0-10V ECOdrive. Linear dimming to 1% min.	NLT² nLight™ dimming pack controls	(blank) no emergency options	SF Single fuse. Specify 120V or 277V.
EZB eldoLED 0-10V SOLOdrive. Logarithmic dimming to <1%.	NLTER^{2,3} nLight™ dimming pack controls emergency circuit	ELR⁴ Emergency battery pack, 10W, with remote test switch.	90CRI High CRI (90+).
EDAB eldoLED SOLOdrive DALI. Logarithmic dimming to <1%.		E10WCPR⁴ Emergency battery pack, 10W Constant Power, CA Title 20 compliant with remote test switch	CP Chicago Plenum
		BGTD Bodine generator transfer device. Specify 120V or 277V.	

ACCESSORIES — order as separate catalog numbers (shipped separately)

SCA4	Sloped ceiling adapter. Degree of slope must be specified (5D, 10D, 15D, 20D, 25D, 30D). Ex: SCA4 10D. Refer to TECH-190 .
CTAEV04	4" Aperture ceiling thickness adapter (extends mounting frame to accommodate ceiling thickness up to 5").
CTA4-8 YK	4"-8" Aperture ceiling thickness adapter (extends mounting frame to accommodate ceiling thickness up to 5"). For use with CWW/DWW trims, EDXB, CP or nTune options.
ISD BC	0-10V wallbox dimmer. Refer to ISD-BC .
RK2 SDT 347/120 75VA U 347V	step-down transformer mounted in box installed by others up to 5000lm
RK2 SDT 347277120 395VA AD U 347V	step down transformer mounted in box installed by others 6000-12,000lm

ORDERING NOTES

1. Refer to [TECH-240](#) for compatible dimmers.
2. Specify Voltage.
3. For use with generator supply EM power. Will require an emergency hot feed and normal hot feed.
4. 11" of plenum depth or top access required for battery pack maintenance. Not available with CP option.

Optical Assembly

Fully serviceable and upgradeable lensed LED light engine, both the driver and light engine are suitable for field maintenance and are serviceable from above or below the ceiling.

Unitized optics shall have mechanical attachment of the light engine to the lower reflector for complete optical alignment.

Electrical

The luminaire shall operate from a 50 or 60 Hz ±3 Hz AC line over a voltage ranging from 120 VAC to 277 VAC. The fluctuations of line voltage shall have no visible effect on the luminous output.

The luminaire shall have a power factor of 90% or greater at all standard operating voltages and full luminaire output.

Sound Rated A+. Driver shall be >80% efficient at full load across all input voltages.

Input wires shall be 18AWG, 300V minimum, solid copper. All drivers are ROHS compliant.

Controls

Luminaire shall be equipped with interface for nLight wired network with integral power supply as per specification.

Dimming

The luminaire shall be capable of continuous dimming without perceivable stroboscopic flicker as measured by flicker index (ANSI/IES RP-16-10) over a range of 100 – 10%, 100 – 1.0% or 100 – 0.1% of rated lumen output with a smooth shut off function to step to 0%.

eldoLED LED drivers shall conform to IEEE P1789 standards. Alternatively, manufacturers must demonstrate conformance with product literature and testing which demonstrates this performance. Systems that do not meet IEEE P1789 will not be considered.

Driver is inaudible in 24dB environment, and stable when input voltage conditions fluctuate over what is typically experienced in a commercial environment.

Construction

Luminaire housing is constructed of 20-gauge galvanized steel and has pre-installed telescopic mounting bars with maximum 26" and minimum 15" extension and 4" vertical adjustment.

Luminaires are suitable for installation in ceilings up to 1½" thick. (specify ceiling thickness adapter to extend frame to accommodate ceiling thickness up to 5").

Tool-less adjustments shall be possible after installation.

The assembly and manufacturing process for the luminaire shall be designed to assure all internal components are adequately supported to withstand mechanical shock and vibration.

25°C ambient temperature standard (1/2" clearance on all sides from non-combustible materials in non-IC applications, unless marked spacing noted otherwise). For use in insulated ceilings, a 3" clearance on all sides from insulation is required (unless marked spacing noted otherwise).

Listings

Fixtures are CSA certified to meet US and Canadian standards: All fixtures manufactured in strict accordance with the appropriate and current requirements of the "Standards for Safety" to UL, wet location covered ceiling.

Buy American Act

This product is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT regulations. Please refer to <https://www.acuitybrands.com/resources/buy-american> for additional information.

Photometrics

LEDs tested to LM-80 standards. Measured by IESNA Standard LM-79-08 in an accredited lab. Lumen output shall not decrease by more than 30% over the minimum operational life of 60,000 hours.

Color appearance from luminaire to luminaire of the same type and in all configurations, shall be consistent both initially and at 6,000 hours and operate within a tolerance of <2.5 MacAdam ellipse as defined by a point at the intersection of the CCT line and the black body locus line in CIE chromaticity space.

Warranty

5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note:

Actual performance may differ as a result of end user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C.

A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is part of an A+ Certified solution for nLight® control networks when ordered with drivers marked by a shaded background*
- This luminaire is part of an A+ Certified solution for nLight® control networks, providing advanced control functionality at the luminaire level, when selection includes driver and control options marked by a shaded background*

To learn more about A+, visit www.acuitybrands.com/aplus.

*See ordering tree for details

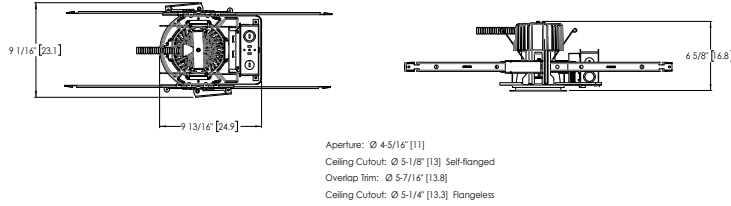
DIMENSIONAL DATA

*Dimensions in inches [centimeters]

Aperture: 4-5/16" (11)	Ceiling Opening: 5-1/8" (13) self-flanged
Overlap trim: 5-7/16" (13.8)	5-1/4" (13.3) flangeless

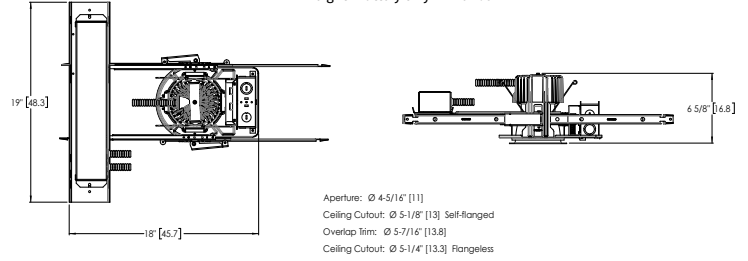
Standard

weight:
Housing = 12 lbs
Trim = 0.5 lbs



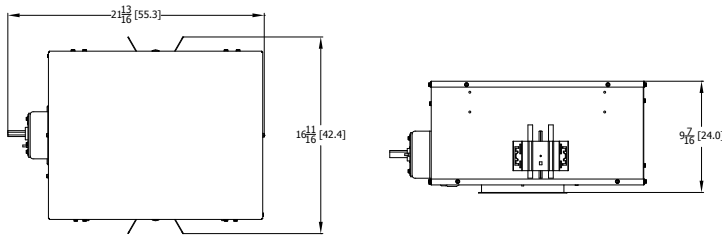
Battery Pack

Weight: Battery only = 2.5 lbs



CP Standard

Weight: CP housing only = 13 lbs



EVO - eldoLED Driver Default Dimming Curve			
Nomenclature	Min Dimming	Driver Dim Curve	Control Dim Curve
EZ1	1%	Linear	Linear/Logarithmic
EXA1	1%	Linear	Linear/Logarithmic
EZB	<1%	Logarithmic	Linear
EDAB	<1%	Logarithmic	Linear
EXAB	<1%	Logarithmic	Linear
EDXB	<1%	Logarithmic	Linear

Driver		Control Provided (note: 347V/UVOLT versions provided with 347 option selected)	
Nomenclature	Description	NLT	NLTER
GZ10	0-10V driver dims to 10%	nPP16 D EFP	nPP16 D ER EFP
GZ1	0-10V driver dims to 1%	nPP16 D EFP	nPP16 D ER EFP
EZ1	eldoLED 0-10V ECOdrive	nPS 80 EZ	nPS 80 EZ ER
EZB	eldoLED 0-10V SOLOdrive	nPS 80 EZ	nPS 80 EZ ER

How to Estimate Delivered Lumens in Emergency Mode

Delivered Lumens = 1.25 x P x LPW

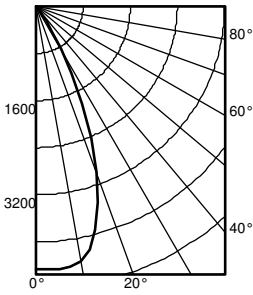
P = Output power of emergency driver. P = 10W for PS1055CP

LPW = Lumen per watt rating of the luminaire. This information is available on the ABL luminaire spec sheet.

Photometry

EV04CR 35_25 4DFFAMF SMO CR180

INPUT WATTS: 36.9, DELIVERED LUMENS: 2650, LPW=84.3 , 1.07 S/MH, TEST NO. PT06171314P



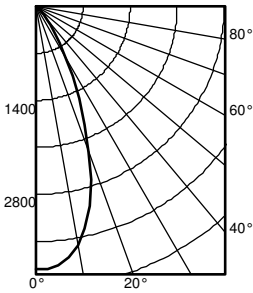
Ave	Lumens	Zone	Lumens	% Lamp
0	4472	0° - 30°	2318.5	87.5
5	4485	0° - 40°	2541.2	95.9
15	3917	0° - 60°	2626.8	99.1
25	1832	0° - 90°	2649.8	100.0
35	297	90° - 180°	0.0	0.0
45	86	0° - 180°	2649.8	*100.0
55	23			*Efficiency
65	13			
75	7			
85	3			
90	0			

Initial FC					
Mounting Center					
Height	Beam	Diameter	FC	Diameter	FC
8.0	147.8	4.2	73.9	6.6	14.8
10.0	79.5	5.8	39.7	9.0	7.9
12.0	49.6	7.3	24.8	11.4	5.0
14.0	33.8	8.9	16.9	13.8	3.4
16.0	24.5	10.4	12.3	16.2	2.5

50% beam - 42.1°
10% beam - 61.8°

EV04CR 35_25 4DFFAMF SOL CR180

INPUT WATTS: 36.9, DELIVERED LUMENS: 2516, LPW=84.3 , 1.07 S/MH, TEST NO. PT06171313P



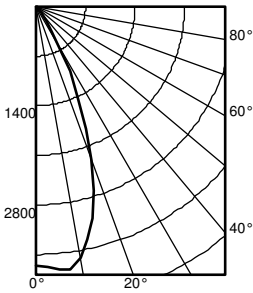
Ave	Lumens	Zone	Lumens	% Lamp
0	3917	0° - 30°	1892.4	75.2
5	3865	0° - 40°	2202.3	87.5
15	3076	0° - 60°	2412.1	95.9
25	1518	0° - 90°	2516.2	100.0
35	468	90° - 180°	0.0	0.0
45	166	0° - 180°	2516.2	*100.0
55	83			*Efficiency
65	57			
75	36			
85	9			
90	0			

Initial FC					
Mounting Center					
Height	Beam	Diameter	FC	Diameter	FC
8.0	129.5	4.0	64.7	7.0	13.0
10.0	69.6	5.4	34.8	9.5	7.0
12.0	43.4	6.8	21.7	12.0	4.3
14.0	29.6	8.3	14.8	14.6	3.0
16.0	21.5	9.7	10.7	17.1	2.1

50% beam - 39.5°
10% beam - 64.7°

EV04CR 35_25 4DFRAMF SMO CR180

INPUT WATTS: 36.9, DELIVERED LUMENS: 2101, LPW=84.3 , 1.07 S/MH, TEST NO. PT06171312P



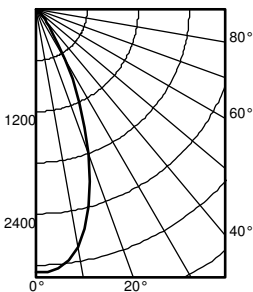
Ave	Lumens	Zone	Lumens	% Lamp
0	3649	0° - 30°	1837.9	87.5
5	3734	0° - 40°	2020.3	96.2
15	3086	0° - 60°	2086.5	99.3
25	1425	0° - 90°	2100.9	100.0
35	245	90° - 180°	0.0	0.0
45	70	0° - 180°	2100.9	*100.0
55	16			*Efficiency
65	9			
75	4			
85	0			
90	0			

Initial FC					
Mounting Center					
Height	Beam	Diameter	FC	Diameter	FC
8.0	120.6	4.1	60.3	6.6	12.1
10.0	64.9	5.6	32.4	9.0	6.5
12.0	40.4	7.1	20.2	11.4	4.0
14.0	27.6	8.6	13.8	13.8	2.8
16.0	20.0	10.1	10.0	16.2	2.0

50% beam - 40.9°
10% beam - 61.9°

EV04CR 35_25 4DFRAMF SOL CR180

INPUT WATTS: 36.9, DELIVERED LUMENS: 1919, LPW=84.3 , 1.07 S/MH, TEST NO. PT06171311P



Ave	Lumens	Zone	Lumens	% Lamp
0	3089	0° - 30°	1485.5	77.4
5	3047	0° - 40°	1721.3	89.7
15	2395	0° - 60°	1866.4	97.2
25	1204	0° - 90°	1919.2	100.0
35	354	90° - 180°	0.0	0.0
45	117	0° - 180°	1919.2	*100.0
55	55			*Efficiency
65	35			
75	15			
85	2			
90	0			

Initial FC					
Mounting Center					
Height	Beam	Diameter	FC	Diameter	FC
8.0	102.1	3.9	51.0	6.9	10.2
10.0	54.9	5.4	27.5	9.5	5.5
12.0	34.2	6.8	17.1	12.0	3.4
14.0	23.4	8.2	11.7	14.5	2.3
16.0	16.9	9.7	8.5	17.0	1.7

50% beam - 39.3°
10% beam - 64.5°

DFF SMO - Flush Clear				
Nominal Lumens	1000	1500	2000	2500
Delivered	843	1281	1684	2165
Wattage	8.8	13.7	19.5	25.7
Efficacy	95.8	93.5	86.4	84.2

*Lumen output for CRI80 - 3500K

DFF SOL - Flush Textured				
Nominal Lumens	1000	1500	2000	2500
Delivered	801	1218	1602	2059
Wattage	8.8	13.7	19.5	25.7
Efficacy	91.0	88.9	82.2	80.1

*Lumen output for CRI80 - 3500K

DFR SMO - Regressed Clear				
Nominal Lumens	1000	1500	2000	2500
Delivered	660	1003	1319	1695
Wattage	8.8	13.7	19.5	25.7
Efficacy	75.0	73.2	67.6	66.0

*Lumen output for CRI80 - 3500K

DFR SOL - Regressed Textured				
Nominal Lumens	1000	1500	2000	2500
Delivered	611	929	1222	1571
Wattage	8.8	13.7	19.5	25.7
Efficacy	69.4	67.8	62.7	61.1

*Lumen output for CRI80 - 3500K

CCT/CRI Multiplier Table		
CRI	CCT	Multiplier
80	2700K	0.96
	300K	1.00
	3500K	1.00
	4000K	1.01
90	5000K	1.07
	2700K	0.80
	300K	0.83
	3500K	0.85
	4000K	0.87
	5000K	0.91

nLIGHT

nLight® The nLight® solution is a digital networked lighting control system that provides both energy savings and increased user configurability by cost effectively integrating time-based, daylight-based, sensor-based and manual lighting control schemes.

nLight® Wired Control Accessories	
Order as separate catalog number. Visit nLight .	
Wall Switches	Model Number
On/Off single pole	nPODM (color)
On/Off two pole	nPODM 2P (color)
On/Off & raise/lower single pole	nPOD DX (color)
On/Off & raise/lower two pole	nPODM 2P DX (color)
Graphic touchscreen	nPOD GFX (color)
Photocell Controls	
Dimming	nCM ADCX

nLight® Wired Control Accessories (cont.)	
Occupancy Sensors (PIR/dual tech)	Model Number
Small motion 360°, ceiling	nCM 9 / nCM PDT 9
Large motion 360°, ceiling	nCM 10 / nCM PDT 10
Wide View	nWV 16 / nWV PDT 16
Wall switch with raise/lower	nWSX LV DX / nWSX PDT LV DX
Cat-5 Cables (plenum rated)	
10', CAT5	CAT5 10FT J1
15', CAT5	CAT5 15FT J1

Possibilities for nLight® wired

