

# ESA-C10-MD-42-D

Essentia® LED Downlight – Cylinder

## Product Description

Ten-inch cylinder downlight luminaire designed for 42 high output LEDs. Two-piece optical assembly provides a broad, even light distribution, combining low brightness, with maximum visual cutoff and efficiency. Four light distributions available – narrow spot, narrow, medium, and wide. Ten year limited warranty on fixture.

## Performance Summary

Utilizes BetaLED® Technology

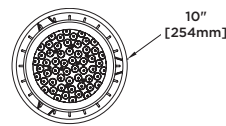
Patented NanoOptic® Product Technology

Made in the U.S.A. of U.S. and imported parts

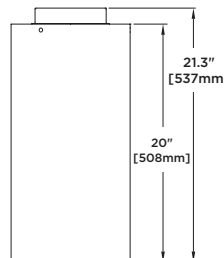
**CRI:** Refer to chart on page 2

**CCT:** 2700K, 3500K (standard), 4000K

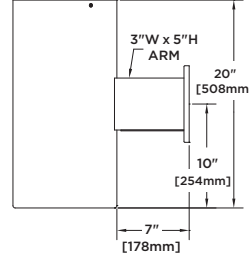
**Limited Warranty:** 10 years on luminaire



### SURFACE MOUNT



### WALL BRACKET



### MOUNTING



Surface (S)



Pendant (P)



Wall Bracket (SW)



Aircraft Cable (AC)



Hangstraight Pendant (HP)  
(Field Cutable)

## Ordering Information

Example: ESA-C10-MD-S-42-D-U-BK-SSGC-C-OPTIONS

ESA	C10	MD		42	D	U			C	
Family Name	Type	Optic	Mounting	LED Count	Series	Voltage	Color	Reflector/ Cone Finish <sup>3</sup>	Drive Current	Options <small>Please type additional options in manually on the lines provided below</small>
ESA	C10 10" Cylinder	MD Medium	S Surface P Pendant <sup>1</sup> SW Wall Bracket HP Hangstraight Pendant <sup>2</sup> AC1 5' Aircraft Cable AC2 10' Aircraft Cable AC3 15' Aircraft Cable	42	D	U Universal 120-277V	BK Black BZ Bronze CS Camaro Silver WH White	SSGC Clear SSGGR Graphite SSGBR Bronze SSGCG Champagne Gold SSGPE Pewter SSGWH Wheat SSGB Black W White	C 525mA	FS Fusing LM Shielding Media 27K 2700K <sup>4</sup> - 90+ Nominal CRI 30K 3000K <sup>4</sup> - 90+ CRI 40K 4000K <sup>4</sup> - 80+ CRI

<sup>1</sup> See [www.cree.com/lighting/products/warranty](http://www.cree.com/lighting/products/warranty) for warranty terms.

1. 24" standard, consult factory for other lengths

2. 24" standard; 45° max slope, field cutable (consult factory for other lengths)

3. SSG = Soft Satin Glow Anti-Iridescent

4. Color temperature per fixture; 3500K Standard



Rev. Date: 05/30/13



**Product Specifications**

**CONSTRUCTION & MATERIALS**

- Luminaire uses 42 high output LEDs, tolerance to be within a 2-step MacAdam Ellipse.
- Tilted Axial and/or Axial TIR NanoOptic® on each individual LED to maximize light delivered through aperture.
- Provides 45° visual cutoff to source.
- Low brightness parabolic spun Alzak aluminum cone, 0.06" (2mm) thick with polished radius and continuous self-flange.
- Soft Satin Glow Clear finish, standard.
- Precision nickel plated cone retainers assure that the lower cone is held in position.
- Custom extruded aluminum heatsink.
- Flow-Thru design to maximize cooling of LEDs.
- Heavy wall aluminum housing.
- Surface, pendant, wall, or cable mounting.
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Bronze, black, white and camaro silver\* powder topcoats are available. The finish is covered by our 10 year limited warranty. \*One year warranty

**ELECTRICAL SYSTEM**

- High efficiency constant current drivers 525mA drive current.
- **Input Voltage:** 120 or 277V
- 0-10V dimming, standard. 100%-10% full-range continuous dimming.
- **Power Factor:** > 0.9 at full load.
- **Total Harmonic Distortion:** < 20% at full load.

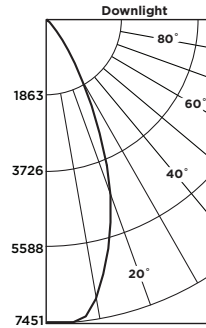
**REGULATORY & VOLUNTARY QUALIFICATIONS**

- UL/cUL listed damp location.
- RoHS compliant.
- Meets Buy American requirements within ARRA.

Color Tolerance			
Color	Target CCT	Tolerance	CRI
4000K	3899	+/- 75K	80
3500K	3388	+/- 63K	80
3000K	2993	+/- 50K	90
2700K	2755	+/- 42K	90

**Photometry**

All published luminaire photometric testing performed to IESNA LM-79-08 standards.



Configured ITL Test Report #: 71085  
 ESA-C10-MD-S-42-D-U-WH-D-SSG-C-35K  
 Initial Delivered Lumens: 4128  
 Efficacy: 59 Lm/W  
 S/M: 0.74

**Cone of Light**

Distance from Workplane	Footcandles	Beam Diameter
6'	192	4.4
8'	108	5.9
10'	69	7.4
12'	48	8.9
14'	35	10.4

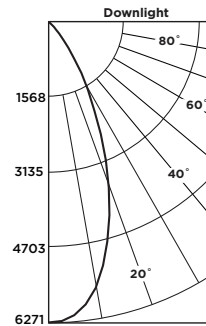
**Candlepower Summary**

Angle	Mean CP
0°	7416
5°	7359
15°	5832
25°	3047
35°	870
45°	78
55°	25
65°	13
75°	3
85°	0
90°	0

**Lumen Summary**

VerticleAngle	Average
45°	2552
55°	991
65°	702
75°	287
85°	0

**Lensed**



Configured ITL Test Report #: 71086  
 ESA-C10-MD-S-42-D-U-WH-D-SSG-C-35KLM  
 Initial Delivered Lumens: 3709  
 Efficacy: 52 Lm/W  
 S/M: 0.72

**Cone of Light**

Distance from Workplane	Footcandles	Beam Diameter
6'	166	4.3
8'	93	5.8
10'	60	7.2
12'	42	8.5
14'	31	9.8

**Candlepower Summary**

Angle	Mean CP
0°	6271
5°	6146
15°	4746
25°	2577
35°	935
45°	217
55°	50
65°	16
75°	2
85°	0
90°	0

**Lumen Summary**

VerticleAngle	Average
45°	7070
55°	2021
65°	857
75°	187
85°	0

**IES Files**

To obtain an IES file specific to your project consult:  
<http://www.cree.com/lighting/tools-and-support/interior-ies-configuration-tool>

**Lumen Output, Electrical, and Lumen Maintenance Data**

Medium Distribution													
LED Count	3500K/4000K		3000K		2700K		Sytem Watts 120-277	Total Current				L70 Hours* @ 25° C (77° F)	50K Hours Lumen Maintenance Factor* @ 25° C (77° F)
	Initial Delivered Lumens without Lens Media	Initial Delivered Lumens with Lens Media	Initial Delivered Lumens without Lens Media	Initial Delivered Lumens with Lens Media	Initial Delivered Lumens without Lens Media	Initial Delivered Lumens with Lens Media		@ 120V	@ 208V	@ 240V	@ 277V		
42	4,427	3,888	3,320	2,916	3,055	2,683	75	0.63	0.36	0.31	0.28	143,000	90%

\* Projected L70 (10K) Hours: > 60,000. For recommended lumen maintenance factor data see TD-14

