

# ESA Series

## ESA™ LED Lensed Wall Wash – Round 6" Aperture

Lensed wall wash/downlight luminaire with 6" (152mm) round aperture, designed for 14 high output LEDs. Optical system incorporates low brightness reflector/cone with a convex spread lens. LEDs are surrounded by a unique chimney reflector design that assures no light leaks and maximum light output, evenly distributed from ceiling to floor.

Patented NanoOptic® Product Technology

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

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

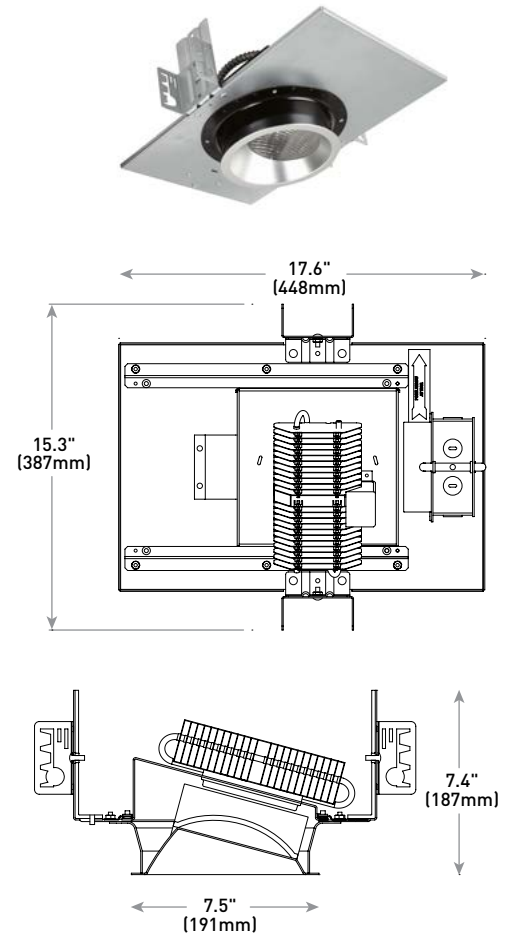
**CCT:** 2700K, 3000K, 3500K (standard) , 4000K

**Limited Warranty†:** 10 years on luminaire

† See <http://lighting.cree.com/warranty> for warranty terms

### Accessories

|   |   |
|---|---|
| <b>LED Downlight</b><br>ESA-ADR-WD-6-28-D-SSGCF | <b>LED Adjustable Wallwash</b><br>ESA-ADR-NDADJ-6-14-D-SGCF |
|---|---|



### Ordering Information

Example: ESA-ADR-LWW-6-14-D-120-SSGC-FF-C

| ESA         | ADR  | LWW                        | 6             |           | D      |   |  |   | C             |  |
|-------------|--|----------------------------|---------------|-----------|--------|---|--|---|---------------|--|
| Family Name | Type                                       | Optic                      | Aperture Size | LED Count | Series | Voltage                                   | Trim Finish <sup>1</sup>   | Flange Finish   | Drive Current | Options  |
| ESA         | ADR<br>Architectural<br>Downlight<br>Round | LWW<br>Lensed<br>Wall Wash | 6<br>6 inch   | 14        | D      | 120<br>120V<br>230<br>230V<br>277<br>277V | SSGC<br>Clear<br>SSGGR<br>Graphite<br>SSGBR<br>Bronze<br>SSGCG<br>Champagne Gold<br>SSGPE<br>Pewter<br>SSGWH<br>Wheat<br>SSGB<br>Black<br>W<br>White Paint | FF<br>Flat Flange<br>WF<br>White Flange<br>XF<br>Custom Color<br>Flange | C<br>525mA    | 27K 2700K <sup>2</sup><br>- 90+ CRI<br>30K 3000K <sup>2</sup><br>- 90+ CRI<br>40K 4000K <sup>2</sup><br>- 80+ CRI<br>DH Dimming <sup>3</sup><br>- Optional Lutron® Hi-Lume® driver<br>available<br>ES Flangeless<br>FS Fusing<br>LM Shielding Media<br>SCA Slope Ceiling Adapter<br>MC Mounting Channels |

1. SSG = Satin Glow Anti-Iridescent  
2. Color temperature per luminaire; 3500K Standard



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## Product Specifications

### CONSTRUCTION & MATERIALS

- Luminaire uses 14 high output LEDs, tolerance to be within a 2-step MacAdam Ellipse
- Tilted Axial and Axial TIR NanoOptic® on each individual LED to maximize light delivered through aperture
- Low brightness parabolic spun Alzak aluminum cone, 0.06" (2mm) thick with polished radius and continuous self-flange
- Soft Satin Glow Clear finish, standard
- Convex textured 70° spread lens
- Torsion springs for ease of installation and proper trim alignment
- 2" (51mm) aperture throat to accommodate all standard and extra-thick ceilings and provide flexibility in mounting within grid
- Custom heat pipe to optimize cooling of LEDs
- Aluminum light engine housing with patented Slideways™ feature for ease of maintenance from below the ceiling, also provides optical alignment. Interior surface is painted matte black to suppress stray light leaks
- Provided with quick mounting brackets for optional carrying channels
- Light engine, optics, and driver accessible from above or below ceiling

### ELECTRICAL SYSTEM

- High efficiency constant current drivers 525mA drive current
- **Input Voltage:** 120V (50-60Hz), 230V (50Hz), or 277V (50-60Hz)
- 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

- cULus Listed
- Suitable for damp locations
- Meets Buy American requirements within ARRA
- **CA RESIDENTS WARNING:** Cancer and Reproductive Harm – [www.p65warnings.ca.gov](http://www.p65warnings.ca.gov)

| Electrical Data*         |                   |      |
|--------------------------|-------------------|------|
| System Watts<br>120-277V | Total Current (A) |      |
|                          | 120V              | 277V |
| 0-10V Dimming, 525mA     |                   |      |
| 28                       | 0.23              | 0.10 |
| Lutron® Hi-Lume®, 525mA  |                   |      |
| 30                       | 0.23              | 0.11 |

\* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-277V +/- 10%

| ESA Series Lumen Maintenance Factors (LMF) <sup>1</sup> |             |                                   |                                   |                                    |                                     |
|---|-------------|-----------------------------------|-----------------------------------|------------------------------------|-------------------------------------|
| Ambient   | Initial LMF | 25K hr Projected <sup>2</sup> LMF | 50K hr Projected <sup>2</sup> LMF | 75K hr Calculated <sup>3</sup> LMF | 100K hr Calculated <sup>3</sup> LMF |
| 5°C (41°F)  | 1.04        | 1.01                              | 0.99                              | 0.98                               | 0.96                                |
| 10°C (50°F)   | 1.03        | 1.00                              | 0.98                              | 0.97                               | 0.95                                |
| 15°C (59°F)   | 1.02        | 0.99                              | 0.97                              | 0.96                               | 0.94                                |
| 20°C (68°F)   | 1.01        | 0.98                              | 0.96                              | 0.95                               | 0.93                                |
| 25°C (77°F)   | 1.00        | 0.97                              | 0.95                              | 0.94                               | 0.92                                |

<sup>1</sup> Lumen maintenance values at 25°C (77°F) are calculated per TM-21 based on LM-80 data and in-situ luminaire testing. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors

<sup>2</sup> In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing (DUT) i.e. the packaged LED chip

<sup>3</sup> In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing (DUT) i.e. the packaged LED chip

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

### Installation

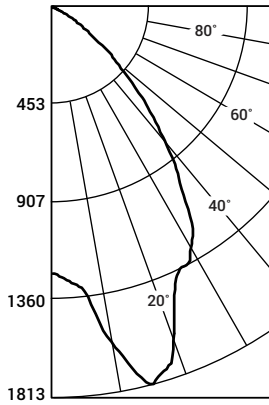
- Recommended ceiling cutout 7" (178mm)



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**Photometry**

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



Configured from Test Report #: LTL27424  
 ESA-ADR-LWW-6-14-C-120-SSGC-FF-C-35K  
 Initial Delivered Lumens: 1,269  
 Efficacy: 45 Lm/W  
 S/M: 1.38

| Candlepower Summary |         |
|---------------------|---------|
| Angle               | Mean CP |
| 0°                  | 1237    |
| 5°                  | 1296    |
| 15°                 | 1813    |
| 25°                 | 1364    |
| 35°                 | 1067    |
| 45°                 | 593     |
| 55°                 | 200     |
| 65°                 | 39      |
| 75°                 | 4       |
| 85°                 | 0       |
| 90°                 | 0       |

| Cone of Light         |              |       |          |       |              |       |
|-----------------------|--------------|-------|----------|-------|--------------|-------|
| Distance from Ceiling | 3' from Wall |       |          |       | 4' from Wall |       |
|                       | 3' Apart     |       | 4' part  |       | 4' part      |       |
|                       | Ctr Line     | Midpt | Ctr Line | Midpt | Ctr Line     | Midpt |
| 1'                    | 1            | 1     | 1        | 0     | 0            | 0     |
| 2'                    | 13           | 10    | 12       | 6     | 3            | 2     |
| 3'                    | 30           | 26    | 25       | 17    | 10           | 8     |
| 4'                    | 35           | 33    | 28       | 23    | 17           | 15    |
| 5'                    | 32           | 32    | 25       | 23    | 19           | 18    |
| 6'                    | 27           | 27    | 20       | 20    | 19           | 19    |
| 7'                    | 22           | 22    | 17       | 17    | 17           | 17    |
| 8'                    | 19           | 19    | 14       | 15    | 15           | 15    |
| 9'                    | 17           | 16    | 12       | 12    | 13           | 13    |
| 10'                   | 14           | 14    | 10       | 11    | 12           | 12    |