

DSE

Edge Lit Surface Mount LED Downlight

Product Description

The DSEv3 Selectable Surface Mount Downlight offers a slim profile in both round and square apertures with CCT selectability. The edge-lit technology uses a reflective light guide panel that disperses light through a diffused lens, making it a practical and economical solution with high performance. Available in a variety of diameters, the DSEv3 brings flexible option with a clean aesthetic and excellent performance to any area of the home.

Construction

- Aluminum backplate with integral mounting tabs
- Injection molded polymer trim
- CCT Selection switch on back of fixture
- Available in round or square configurations

Optical System

- Precision engineered optical stack creates uniform light distribution that maximizes lumen output
- Dual emitter array enables CCT selection of 2700, 3000, 3500, 4000, or 5000K
- Utilizes high performing LEDs with a greater than 90 CRI and an R9 greater than 50

Electrical

- Input voltage of 120VAC, 50/60Hz
- Dimmable to less than 5% with compatible TRIAC or ELV dimmers
- Operating temperature of -4°F to 104°F (-20°C to 40°C)

Finish

- Matte White
- Accessory color trims available in Black, Nickel and Oil-Rubbed Bronze

Mounting and Installation

- Driverless design minimizes installation height
- Surface mounts with to most 4" junction boxes using included mounting plate
- Mounting plate includes features to allow fixture alignment

Listings

- LM-79, LM-80 testing performed in accordance with IESNA standards
- cETLus 1598 Listed for wet locations
- ENERGYSTAR listed
- CA Title 24 (JA8) Compliant
- Compliant with NFPA® 70, NEC® Section 410.16 (A)(3) and 410.16 (C)(5) for closet use
- RoHS Compliant
- Meets FCC Part 15, Subpart B, Class B standards for conducted and radiated emissions per ANSI C63.4:2014
- LED lumen maintenance: L70(9k)>54,000 hrs

Warranty

- 5-year limited system warranty standard
- Warranty does not cover product failure due to an overvoltage event (power surge)
- For installations where power surge may be possible, NICOR recommends installing additional surge protection at the electrical distribution panel

Project

Catalog

Type

Date



Ordering

Round Trim

Example: DSE83120SRDWH

| Series | Size | Version | Voltage | CCT's | Trim Shape | Trim Color |
|--------|------------|---------|---------|-------------------------------|------------|------------|
| DSE | 5 (5 inch) | 3 | 120 | S (2700/3000/3500/4000/5000K) | RD (Round) | WH (White) |
| | 8 (8 inch) | | | | | |
| | 9 (9 inch) | | | | | |

Square Trim

Example: DSE63120SSQWH

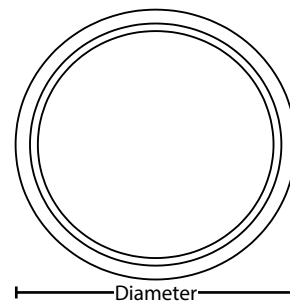
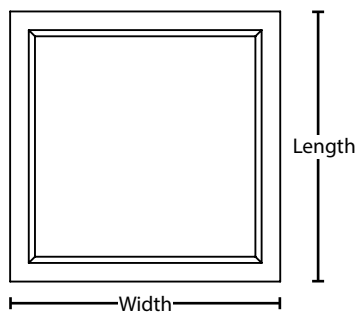
| Series | Size | Version | Voltage | CCT's | Trim Shape | Trim Color |
|--------|------------|---------|---------|-------------------------------|-------------|------------|
| DSE | 4 (4 inch) | 3 | 120 | S (2700/3000/3500/4000/5000K) | SQ (Square) | WH (White) |
| | 6 (6 inch) | | | | | |
| | 9 (9 inch) | | | | | |

Specifications and dimensions subject to change without notice

Accessories

| Round Fixtures | | Square Fixtures | |
|---------------------------------|-----------------|----------------------------------|-----------------|
| 5" Round Black Trim | DSE5-1-TR-RD-BK | 4" Square Black Trim | DSE4-1-TR-SQ-BK |
| 5" Round Oil Rubbed Bronze Trim | DSE5-1-TR-RD-OB | 4" Square Oil Rubbed Bronze Trim | DSE4-1-TR-SQ-OB |
| 5" Round Nickel Trim | DSE5-1-TR-RD-NK | 4" Square Nickel Trim | DSE4-1-TR-SQ-NK |
| 8" Round Black Trim | DSE8-1-TR-RD-BK | 6" Square Black Trim | DSE6-1-TR-SQ-BK |
| 8" Round Oil Rubbed Bronze Trim | DSE8-1-TR-RD-OB | 6" Square Oil Rubbed Bronze Trim | DSE6-1-TR-SQ-OB |
| 8" Round Nickel Trim | DSE8-1-TR-RD-NK | 6" Square Nickel Trim | DSE6-1-TR-SQ-NK |
| 9" Round Black Trim | DSE9-1-TR-RD-BK | 9" Square Black Trim | DSE9-1-TR-SQ-BK |
| 9" Round Oil Rubbed Bronze Trim | DSE9-1-TR-RD-OB | 9" Square Oil Rubbed Bronze Trim | DSE9-1-TR-SQ-OB |
| 9" Round Nickel Trim | DSE9-1-TR-RD-NK | 9" Square Nickel Trim | DSE9-1-TR-SQ-NK |

Dimensions

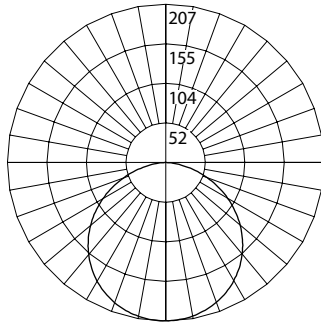


| Dimensions | | | | |
|------------|----------------|----------------|---------------|--------------------|
| Square | Diameter | Width/Length | Height | Height (w/ switch) |
| DSE4-SQ | - | 4.35in (110mm) | | |
| DSE6-SQ | - | 6.25in (159mm) | 0.67in (17mm) | 1.00in (25mm) |
| DSE9-SQ | - | 9.00in (229mm) | | |
| Round | | | | |
| DSE5-RD | 5.35in (136mm) | - | | |
| DSE8-RD | 7.50in (191mm) | - | 0.67in (17mm) | 1.00in (25mm) |
| DSE9-RD | 9.00in (229mm) | - | | |

Photometric Data

DSE5-RD (2700K Setting)

| | |
|-----------------------------|----------|
| Input Voltage (VAC) | 120V |
| System Level Power (W) | 10.4 |
| Delivered Lumens (Lm) | 615 |
| System Efficacy (Lm/W) | 59.1 |
| Correlated Color Temp (K) | 2697 |
| Color Rendering Index (CRI) | 94 R9=63 |
| Beam Angle | 116 |
| Spacing Criteria | 1.30 |



Intensity Summary (Candle Power)

| Angle | Mean CP |
|-------|---------|
| 0 | 207 |
| 5 | 206 |
| 15 | 201 |
| 25 | 189 |
| 35 | 170 |
| 45 | 145 |
| 55 | 113 |
| 65 | 78 |
| 75 | 41 |
| 85 | 9 |
| 90 | 0 |

Cone of Light Tabulation

| Mounted height (Feet) | Footcandles Beam Center | Diameter (Feet) |
|-----------------------|-------------------------|-----------------|
| 4 | 12.9 | 12.7 |
| 6 | 5.8 | 19.0 |
| 8 | 3.2 | 25.4 |
| 10 | 2.1 | 31.7 |

Zonal Lumen Summary

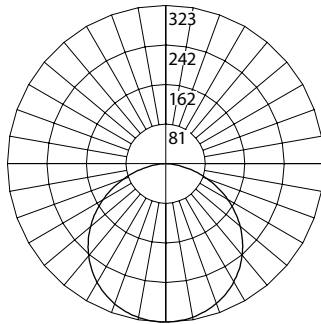
| Zone | Lumens | % of Luminaire |
|--------|--------|----------------|
| 0-30 | 163 | 26.5% |
| 0-40 | 269 | 43.8% |
| 0-60 | 481 | 78.3% |
| 0-90 | 615 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 615 | 100% |

CCT Data Multiplier

| | |
|-------|-------|
| 3000K | 1.019 |
| 3500K | 1.030 |
| 4000K | 1.051 |
| 5000K | 1.043 |

DSE8-RD (2700K Setting)

| | |
|-----------------------------|----------|
| Input Voltage (VAC) | 120 |
| System Level Power (W) | 15.6 |
| Delivered Lumens (Lm) | 948 |
| System Efficacy (Lm/W) | 60.8 |
| Correlated Color Temp (K) | 2781 |
| Color Rendering Index (CRI) | 92 R9=53 |
| Beam Angle | 115 |
| Spacing Criteria | 1.29 |



Intensity Summary (Candle Power)

| Angle | Mean CP |
|-------|---------|
| 0 | 323 |
| 5 | 322 |
| 15 | 312 |
| 25 | 292 |
| 35 | 261 |
| 45 | 221 |
| 55 | 173 |
| 65 | 118 |
| 75 | 62 |
| 85 | 14 |
| 90 | 0 |

Cone of Light Tabulation

| Mounted height (Feet) | Footcandles Beam Center | Diameter (Feet) |
|-----------------------|-------------------------|-----------------|
| 4 | 20.2 | 12.4 |
| 6 | 9.0 | 18.7 |
| 8 | 5.0 | 24.9 |
| 10 | 3.2 | 31.1 |

Zonal Lumen Summary

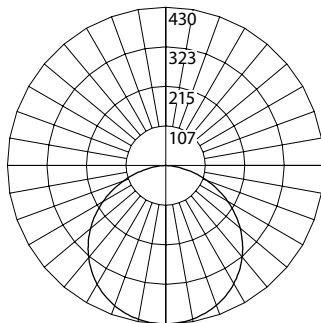
| Zone | Lumens | % of Luminaire |
|--------|--------|----------------|
| 0-30 | 254 | 26.7% |
| 0-40 | 418 | 44.1% |
| 0-60 | 744 | 78.5% |
| 0-90 | 948 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 948 | 100% |

CCT Data Multiplier

| | |
|-------|-------|
| 3000K | 1.019 |
| 3500K | 1.030 |
| 4000K | 1.051 |
| 5000K | 1.043 |

DSE9-RD (2700K Setting)

| | |
|-----------------------------|----------|
| Input Voltage (VAC) | 120 |
| System Level Power (W) | 18.1 |
| Delivered Lumens (Lm) | 1261 |
| System Efficacy (Lm/W) | 69.7 |
| Correlated Color Temp (K) | 2784 |
| Color Rendering Index (CRI) | 92 R9=54 |
| Beam Angle | 114 |
| Spacing Criteria | 1.28 |



Intensity Summary (Candle Power)

| Angle | Mean CP |
|-------|---------|
| 0 | 430 |
| 5 | 428 |
| 15 | 415 |
| 25 | 388 |
| 35 | 347 |
| 45 | 293 |
| 55 | 228 |
| 65 | 155 |
| 75 | 81 |
| 85 | 19 |
| 90 | 0 |

Cone of Light Tabulation

| Mounted height (Feet) | Footcandles Beam Center | Diameter (Feet) |
|-----------------------|-------------------------|-----------------|
| 4 | 26.9 | 12.4 |
| 6 | 12.0 | 18.6 |
| 8 | 6.7 | 24.8 |
| 10 | 4.3 | 31.0 |

Zonal Lumen Summary

| Zone | Lumens | % of Luminaire |
|--------|--------|----------------|
| 0-30 | 338 | 26.8% |
| 0-40 | 556 | 44.1% |
| 0-60 | 990 | 78.5% |
| 0-90 | 1261 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 1261 | 100% |

CCT Data Multiplier

| | |
|-------|-------|
| 3000K | 1.019 |
| 3500K | 1.030 |
| 4000K | 1.051 |
| 5000K | 1.043 |

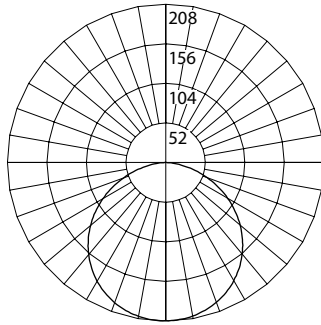
Fixture tested per LM-79-08. Photometric data is of the performance of a representative fixture. Results may vary in the field.



Photometric Data

DSE4-SQ (2700K Setting)

| | |
|-----------------------------|----------|
| Input Voltage (VAC) | 120 |
| System Level Power (W) | 10.7 |
| Delivered Lumens (Lm) | 617 |
| System Efficacy (Lm/W) | 57.7 |
| Correlated Color Temp (K) | 2787 |
| Color Rendering Index (CRI) | 92 R9=57 |
| Beam Angle | 116 |
| Spacing Criteria | 1.29 |



Intensity Summary (Candle Power)

| Angle | Mean CP |
|-------|---------|
| 0 | 208 |
| 5 | 207 |
| 15 | 201 |
| 25 | 188 |
| 35 | 169 |
| 45 | 143 |
| 55 | 112 |
| 65 | 77 |
| 75 | 40 |
| 85 | 9 |
| 90 | 0 |

Cone of Light Tabulation

| Mounted height (Feet) | Footcandles Beam Center | Diameter (Feet) |
|-----------------------|-------------------------|-----------------|
| 4 | 13.0 | 12.8 |
| 6 | 5.8 | 19.2 |
| 8 | 3.3 | 25.6 |
| 10 | 2.1 | 32.0 |

Zonal Lumen Summary

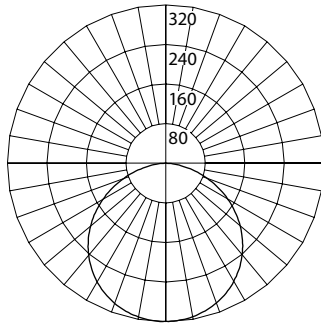
| Zone | Lumens | % of Luminaire |
|--------|--------|----------------|
| 0-30 | 164 | 26.6% |
| 0-40 | 270 | 43.8% |
| 0-60 | 483 | 78.4% |
| 0-90 | 617 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 617 | 100% |

CCT Data Multiplier

| | |
|-------|-------|
| 3000K | 1.019 |
| 3500K | 1.030 |
| 4000K | 1.051 |
| 5000K | 1.043 |

DSE6-SQ (2700K Setting)

| | |
|-----------------------------|----------|
| Input Voltage (VAC) | 120 |
| System Level Power (W) | 15.6 |
| Delivered Lumens (Lm) | 944 |
| System Efficacy (Lm/W) | 60.5 |
| Correlated Color Temp (K) | 2784 |
| Color Rendering Index (CRI) | 90 R9=57 |
| Beam Angle | 115 |
| Spacing Criteria | 1.30 |



Intensity Summary (Candle Power)

| Angle | Mean CP |
|-------|---------|
| 0 | 319 |
| 5 | 318 |
| 15 | 309 |
| 25 | 290 |
| 35 | 260 |
| 45 | 221 |
| 55 | 173 |
| 65 | 118 |
| 75 | 62 |
| 85 | 14 |
| 90 | 0 |

Cone of Light Tabulation

| Mounted height (Feet) | Footcandles Beam Center | Diameter (Feet) |
|-----------------------|-------------------------|-----------------|
| 4 | 20.0 | 12.6 |
| 6 | 8.9 | 18.9 |
| 8 | 5.0 | 25.2 |
| 10 | 3.2 | 31.5 |

Zonal Lumen Summary

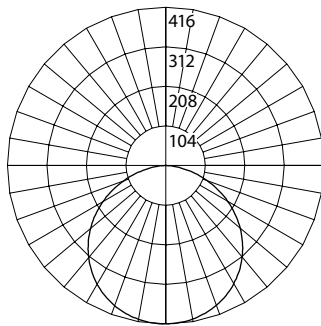
| Zone | Lumens | % of Luminaire |
|--------|--------|----------------|
| 0-30 | 251 | 26.6% |
| 0-40 | 414 | 43.9% |
| 0-60 | 741 | 78.4% |
| 0-90 | 944 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 944 | 100% |

CCT Data Multiplier

| | |
|-------|-------|
| 3000K | 1.019 |
| 3500K | 1.030 |
| 4000K | 1.051 |
| 5000K | 1.043 |

DSE9-SQ (2700K Setting)

| | |
|-----------------------------|----------|
| Input Voltage (VAC) | 120 |
| System Level Power (W) | 18.6 |
| Delivered Lumens (Lm) | 1219 |
| System Efficacy (Lm/W) | 65.5 |
| Correlated Color Temp (K) | 2768 |
| Color Rendering Index (CRI) | 92 R9=56 |
| Beam Angle | 114 |
| Spacing Criteria | 1.28 |



Intensity Summary (Candle Power)

| Angle | Mean CP |
|-------|---------|
| 0 | 415 |
| 5 | 413 |
| 15 | 401 |
| 25 | 375 |
| 35 | 336 |
| 45 | 284 |
| 55 | 221 |
| 65 | 150 |
| 75 | 78 |
| 85 | 18 |
| 90 | 0 |

Cone of Light Tabulation

| Mounted height (Feet) | Footcandles Beam Center | Diameter (Feet) |
|-----------------------|-------------------------|-----------------|
| 4 | 26.0 | 12.4 |
| 6 | 11.5 | 18.7 |
| 8 | 6.5 | 24.9 |
| 10 | 4.1 | 31.1 |

Zonal Lumen Summary

| Zone | Lumens | % of Luminaire |
|--------|--------|----------------|
| 0-30 | 326 | 26.8% |
| 0-40 | 537 | 44.1% |
| 0-60 | 957 | 78.5% |
| 0-90 | 1218 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 1219 | 100% |

CCT Data Multiplier

| | |
|-------|-------|
| 3000K | 1.019 |
| 3500K | 1.030 |
| 4000K | 1.051 |
| 5000K | 1.043 |

Fixture tested per LM-79-08. Photometric data is of the performance of a representative fixture. Results may vary in the field.



| Performance Data - Round | | | |
|--------------------------|--------|-------|-------------|
| Model Number | Lumens | Watts | Lumens/Watt |
| DSE53 (2700K) | 615 | | 59.1 |
| DSE53 (3000K) | 627 | | 60.3 |
| DSE53 (3500K) | 633 | 10.4 | 60.9 |
| DSE53 (4000K) | 646 | | 62.1 |
| DSE53 (5000K) | 641 | | 61.6 |
| DSE83 (2700K) | 948 | | 60.8 |
| DSE83 (3000K) | 966 | | 61.9 |
| DSE83 (3500K) | 976 | 15.6 | 62.6 |
| DSE83 (4000K) | 996 | | 63.8 |
| DSE83 (5000K) | 989 | | 63.4 |
| DSE93 (2700K) | 1261 | | 69.7 |
| DSE93 (3000K) | 1285 | | 71.0 |
| DSE93 (3500K) | 1298 | 18.1 | 71.7 |
| DSE93 (4000K) | 1325 | | 73.2 |
| DSE93 (5000K) | 1315 | | 72.7 |

| Performance Data - Square | | | |
|---------------------------|--------|-------|-------------|
| Model Number | Lumens | Watts | Lumens/Watt |
| DSE43 (2700K) | 617 | | 57.7 |
| DSE43 (3000K) | 629 | | 58.8 |
| DSE43 (3500K) | 635 | 10.7 | 59.3 |
| DSE43 (4000K) | 648 | | 60.6 |
| DSE43 (5000K) | 643 | | 60.1 |
| DSE63 (2700K) | 944 | | 60.5 |
| DSE63 (3000K) | 962 | | 61.7 |
| DSE63 (3500K) | 972 | 15.6 | 62.3 |
| DSE63 (4000K) | 992 | | 63.6 |
| DSE63 (5000K) | 984 | | 63.1 |
| DSE93 (2700K) | 1219 | | 65.5 |
| DSE93 (3000K) | 1243 | | 66.8 |
| DSE93 (3500K) | 1255 | 18.6 | 67.5 |
| DSE93 (4000K) | 1281 | | 68.9 |
| DSE93 (5000K) | 1271 | | 68.3 |

Recommended Dimmers*

- Lutron Skylark SCL-153P
- Lutron Diva DVCL-153P
- Lutron DIVA DVELV-300P
- Lutron Skylark SELV-300P
- Lutron Maestro MAELV-600

**Not a complete list.
Check compatibility before installation.*

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

