

DSE

Edge Lit Surface Mount LED Downlight

Product Description

The DSE Edge Lit LED Surface Mount Series offers a slimline profile downlight in both round and square apertures. 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. The driverless design allows the DSE to snap mount into most 4" junction boxes with no concern for plenum depth. Available in a variety of diameters, the DSE brings a clean aesthetic and excellent performance to any area of the home.

Construction

- Aluminum backplate with integral snap tabs
- Injection molded polymer trim
- Available in round or square configurations

Optical System

- Precision engineered optical stack creates uniform light distribution that maximizes lumen output
- CCT offered at 2700K, 3000K, 4000K, 5000K
- Utilizes high performing LEDs with a greater than 90 CRI and an R9 greater than 50

Electrical

- Driverless design minimizes installation height
- Input voltage of 120VAC, 50/60Hz
- Dimmable to less than 5% with compatible TRIAC dimmers
- Operating temperature of 0° to 120°F (-18°C to 49°C)
- TM-21 Reported L70(9K) hours >54,000
- Meets FCC Part 15B Class B requirements

Finish

- Matte White

Mounting and Installation

- Surface mounts with integral snap tabs to most 4" junction boxes
- Mounting plate included
- Mount plate includes features to keep fixtures aligned in an installation
- Suitable for wet locations

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

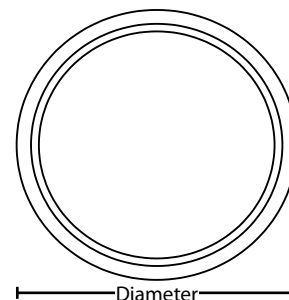
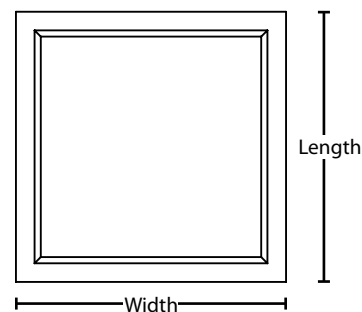
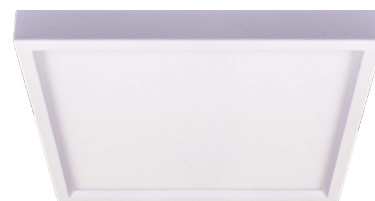
| Dimensions | | | |
|------------|----------------|----------------|---------------|
| Square | Diameter | Width/Length | Height |
| DSE4-SQ | - | 4.35in (110mm) | 0.67in (17mm) |
| DSE6-SQ | - | 6.25in (159mm) | 0.67in (17mm) |
| DSE9-SQ | - | 9.00in (229mm) | 0.67in (17mm) |
| Round | | | |
| DSE5-RD | 5.35in (136mm) | - | 0.67in (17mm) |
| DSE8-RD | 7.94in (202mm) | - | 0.67in (17mm) |
| DSE9-RD | 9.0in (229mm) | - | 0.67in (17mm) |

Project

Catalog

Type

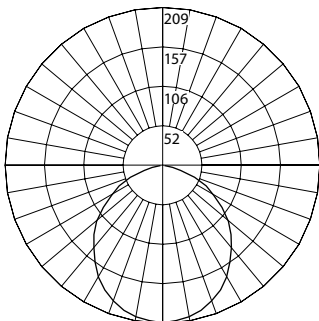
Date



Photometric Data

DSE4-SQ 2700K

| | |
|-----------------------------|------|
| Input Voltage (VAC) | 120V |
| System Level Power (W) | 10.0 |
| Delivered Lumens (Lm) | 613 |
| System Efficacy (Lm/W) | 61.3 |
| Correlated Color Temp (K) | 2733 |
| Color Rendering Index (CRI) | 92 |
| Beam Angle | 114° |
| Spacing Criteria | 1.29 |



Intensity Summary (Candle Power)

| Angle | Mean CP |
|-------|---------|
| 0 | 209 |
| 5 | 209 |
| 15 | 202 |
| 25 | 189 |
| 35 | 170 |
| 45 | 144 |
| 55 | 113 |
| 65 | 77 |
| 75 | 41 |
| 85 | 9 |
| 90 | 0 |

CCT Data Multiplier

| | |
|--------------|-------|
| DLE621203KRD | 1.029 |
| DLE621204KRD | 1.056 |
| DLE621205KRD | 1.078 |

Cone of Light Tabulation

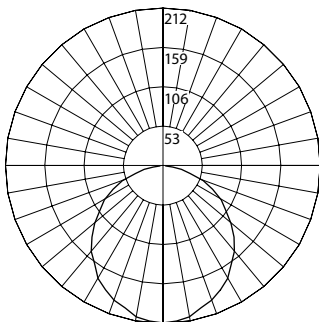
| Mounted height (Feet) | Footcandles Beam Center | Diameter (Feet) |
|-----------------------|-------------------------|-----------------|
| 4 | 13.1 | 12.4 |
| 6 | 5.8 | 18.6 |
| 8 | 3.3 | 24.8 |
| 10 | 2.1 | 31.0 |
| 12 | 1.5 | 37.2 |
| 14 | 1.1 | 43.4 |
| 16 | 0.8 | 49.7 |

Zonal Lumen Summary

| Zone | Lumens | % of Luminaire |
|--------|--------|----------------|
| 0-30 | 164 | 26.8% |
| 0-40 | 270 | 44.1% |
| 0-60 | 483 | 78.7% |
| 0-90 | 613 | 100.0% |
| 90-180 | 0 | 0.0% |
| 0-180 | 613 | 100.0% |

DSE5-RD 2700K

| | |
|-----------------------------|------|
| Input Voltage (VAC) | 120V |
| System Level Power (W) | 10.0 |
| Delivered Lumens (Lm) | 614 |
| System Efficacy (Lm/W) | 61.4 |
| Correlated Color Temp (K) | 2742 |
| Color Rendering Index (CRI) | 93 |
| Beam Angle | 114° |
| Spacing Criteria | 1.25 |



Intensity Summary (Candle Power)

| Angle | Mean CP |
|-------|---------|
| 0 | 212 |
| 5 | 211 |
| 15 | 204 |
| 25 | 191 |
| 35 | 170 |
| 45 | 144 |
| 55 | 112 |
| 65 | 77 |
| 75 | 41 |
| 85 | 9 |
| 90 | 1 |

CCT Data Multiplier

| | |
|--------------|-------|
| DLE621203KSQ | 1.029 |
| DLE621204KSQ | 1.056 |
| DLE621205KSQ | 1.078 |

Cone of Light Tabulation

| Mounted height (Feet) | Footcandles Beam Center | Diameter (Feet) |
|-----------------------|-------------------------|-----------------|
| 4 | 13.3 | 12.3 |
| 6 | 5.9 | 18.4 |
| 8 | 3.3 | 24.5 |
| 10 | 2.1 | 30.7 |
| 12 | 1.5 | 36.8 |
| 14 | 1.1 | 43.0 |
| 16 | 0.8 | 49.1 |

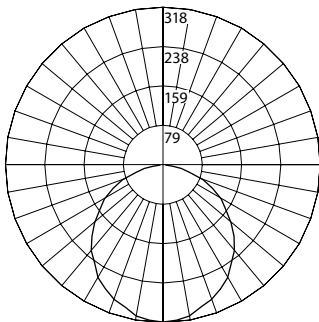
Zonal Lumen Summary

| Zone | Lumens | % of Luminaire |
|--------|--------|----------------|
| 0-30 | 166 | 27.0% |
| 0-40 | 272 | 44.3% |
| 0-60 | 484 | 78.7% |
| 0-90 | 614 | 100.0% |
| 90-180 | 0 | 0.0% |
| 0-180 | 614 | 100.0% |

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

DSE6-SQ 2700K

| | |
|-----------------------------|------|
| Input Voltage (VAC) | 120V |
| System Level Power (W) | 13.4 |
| Delivered Lumens (Lm) | 922 |
| System Efficacy (Lm/W) | 68.8 |
| Correlated Color Temp (K) | 2694 |
| Color Rendering Index (CRI) | 93 |
| Beam Angle | 114° |
| Spacing Criteria | 1.04 |



Intensity Summary (Candle Power)

| Angle | Mean CP |
|-------|---------|
| 0 | 318 |
| 5 | 315 |
| 15 | 305 |
| 25 | 284 |
| 35 | 254 |
| 45 | 215 |
| 55 | 169 |
| 65 | 116 |
| 75 | 62 |
| 85 | 15 |
| 90 | 0 |

CCT Data Multiplier

| | |
|--------------|-------|
| DLE621203KSQ | 1.029 |
| DLE621204KSQ | 1.056 |
| DLE621205KSQ | 1.078 |

Cone of Light Tabulation

| Mounted height (Feet) | Footcandles Beam Center | Diameter (Feet) |
|-----------------------|-------------------------|-----------------|
| 4 | 19.8 | 12.3 |
| 6 | 8.8 | 18.5 |
| 8 | 5.0 | 24.6 |
| 10 | 3.1 | 30.8 |
| 12 | 2.2 | 36.9 |
| 14 | 1.6 | 43.1 |
| 16 | 1.2 | 49.2 |

Zonal Lumen Summary

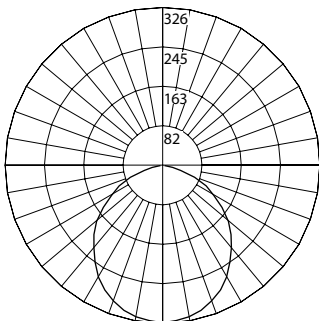
| Zone | Lumens | % of Luminaire |
|--------|--------|----------------|
| 0-30 | 248 | 26.9% |
| 0-40 | 407 | 44.2% |
| 0-60 | 725 | 78.6% |
| 0-90 | 922 | 100.0% |
| 90-180 | 0 | 0.0% |
| 0-180 | 922 | 100.0% |

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

Photometric Data

DSE8-RD 2700K

| | |
|-----------------------------|------|
| Input Voltage (VAC) | 120V |
| System Level Power (W) | 13.4 |
| Delivered Lumens (Lm) | 950 |
| System Efficacy (Lm/W) | 70.9 |
| Correlated Color Temp (K) | 2731 |
| Color Rendering Index (CRI) | 93 |
| Beam Angle | 114° |
| Spacing Criteria | 1.25 |



Intensity Summary (Candle Power)

| Angle | Mean CP |
|-------|---------|
| 0 | 326 |
| 5 | 325 |
| 15 | 314 |
| 25 | 294 |
| 35 | 263 |
| 45 | 222 |
| 55 | 174 |
| 65 | 119 |
| 75 | 64 |
| 85 | 15 |
| 90 | 1 |

CCT Data Multiplier

| | |
|--------------|-------|
| DLE621203KRD | 1.029 |
| DLE621204KRD | 1.056 |
| DLE621205KRD | 1.078 |

Cone of Light Tabulation

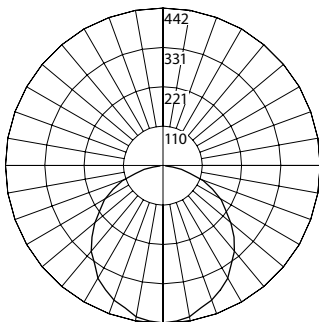
| Mounted height (Feet) | Footcandles Beam Center | Diameter (Feet) |
|-----------------------|-------------------------|-----------------|
| 4 | 20.4 | 12.4 |
| 6 | 9.1 | 18.5 |
| 8 | 5.1 | 24.7 |
| 10 | 3.3 | 30.9 |
| 12 | 2.3 | 37.1 |
| 14 | 1.7 | 43.3 |
| 16 | 1.3 | 49.5 |

Zonal Lumen Summary

| Zone | Lumens | % of Luminaire |
|--------|--------|----------------|
| 0-30 | 255 | 26.8% |
| 0-40 | 419 | 44.1% |
| 0-60 | 746 | 78.5% |
| 0-90 | 950 | 100.0% |
| 90-180 | 0 | 0.0% |
| 0-180 | 950 | 100.0% |

DSE9-RD 2700K

| | |
|-----------------------------|------|
| Input Voltage (VAC) | 120V |
| System Level Power (W) | 19.0 |
| Delivered Lumens (Lm) | 1278 |
| System Efficacy (Lm/W) | 67.3 |
| Correlated Color Temp (K) | 2783 |
| Color Rendering Index (CRI) | 93 |
| Beam Angle | 113° |
| Spacing Criteria | 1.29 |



Intensity Summary (Candle Power)

| Angle | Mean CP |
|-------|---------|
| 0 | 442 |
| 5 | 440 |
| 15 | 425 |
| 25 | 396 |
| 35 | 353 |
| 45 | 298 |
| 55 | 233 |
| 65 | 160 |
| 75 | 86 |
| 85 | 22 |
| 90 | 0 |

CCT Data Multiplier

| | |
|--------------|-------|
| DLE621203KSQ | 1.029 |
| DLE621204KSQ | 1.056 |
| DLE621205KSQ | 1.078 |

Cone of Light Tabulation

| Mounted height (Feet) | Footcandles Beam Center | Diameter (Feet) |
|-----------------------|-------------------------|-----------------|
| 4 | 27.6 | 12.2 |
| 6 | 12.3 | 18.3 |
| 8 | 6.9 | 24.4 |
| 10 | 4.4 | 30.4 |
| 12 | 3.1 | 36.5 |
| 14 | 8.3 | 42.5 |
| 16 | 6.3 | 48.6 |

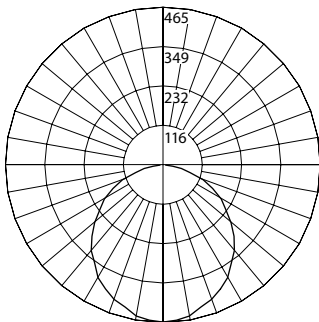
Zonal Lumen Summary

| Zone | Lumens | % of Luminaire |
|--------|--------|----------------|
| 0-30 | 344 | 27.0% |
| 0-40 | 565 | 44.3% |
| 0-60 | 1004 | 78.6% |
| 0-90 | 1278 | 100.0% |
| 90-180 | 0 | 0.0% |
| 0-180 | 1278 | 100.0% |

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

DSE9-SQ 2700K

| | |
|-----------------------------|------|
| Input Voltage (VAC) | 120V |
| System Level Power (W) | 18.9 |
| Delivered Lumens (Lm) | 1340 |
| System Efficacy (Lm/W) | 70.9 |
| Correlated Color Temp (K) | 2746 |
| Color Rendering Index (CRI) | 94 |
| Beam Angle | 113° |
| Spacing Criteria | 1.25 |



Intensity Summary (Candle Power)

| Angle | Mean CP |
|-------|---------|
| 0 | 465 |
| 5 | 463 |
| 15 | 447 |
| 25 | 416 |
| 35 | 370 |
| 45 | 311 |
| 55 | 242 |
| 65 | 167 |
| 75 | 91 |
| 85 | 24 |
| 90 | 1 |

CCT Data Multiplier

| | |
|--------------|-------|
| DLE621203KSQ | 1.029 |
| DLE621204KSQ | 1.056 |
| DLE621205KSQ | 1.078 |

Cone of Light Tabulation

| Mounted height (Feet) | Footcandles Beam Center | Diameter (Feet) |
|-----------------------|-------------------------|-----------------|
| 4 | 29.0 | 12.0 |
| 6 | 12.9 | 18.1 |
| 8 | 7.3 | 24.1 |
| 10 | 4.7 | 30.1 |
| 12 | 3.2 | 36.1 |
| 14 | 2.4 | 42.1 |
| 16 | 1.8 | 48.2 |

Zonal Lumen Summary

| Zone | Lumens | % of Luminaire |
|--------|--------|----------------|
| 0-30 | 362 | 27.0% |
| 0-40 | 594 | 44.3% |
| 0-60 | 1050 | 78.4% |
| 0-90 | 1340 | 100.0% |
| 90-180 | 0 | 0.0% |
| 0-180 | 1340 | 100.0% |

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

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| Performance Data - Round | | | |
|--------------------------|--------|-------|-------------|
| Model Number | Lumens | Watts | Lumens/Watt |
| DSE521202KRD | 614 | 10.0 | 61.4 |
| DSE521203KRD | 632 | 10.0 | 63.2 |
| DSE521204KRD | 648 | 10.0 | 64.8 |
| DSE521205KRD | 662 | 10.0 | 66.2 |
| DSE821202KRD | 950 | 13.4 | 70.9 |
| DSE821203KRD | 978 | 13.4 | 73.0 |
| DSE821204KRD | 1003 | 13.4 | 74.9 |
| DSE821205KRD | 1024 | 13.4 | 76.4 |
| DSE921202KRD | 1278 | 19.0 | 67.3 |
| DSE921203KRD | 1315 | 19.0 | 69.2 |
| DSE921204KRD | 1350 | 19.0 | 71.1 |
| DSE921205KRD | 1378 | 19.0 | 72.5 |

| Performance Data - Square | | | |
|---------------------------|--------|-------|-------------|
| Model Number | Lumens | Watts | Lumens/Watt |
| DSE421202KSQ | 613 | 10.0 | 61.3 |
| DSE421203KSQ | 631 | 10.0 | 63.1 |
| DSE421204KSQ | 647 | 10.0 | 64.7 |
| DSE421205KSQ | 661 | 10.0 | 66.1 |
| DSE621202KSQ | 922 | 13.4 | 68.8 |
| DSE621203KSQ | 951 | 13.4 | 71.0 |
| DSE621204KSQ | 974 | 13.4 | 72.7 |
| DSE621205KSQ | 994 | 13.4 | 74.2 |
| DSE921202KSQ | 1340 | 18.9 | 70.7 |
| DSE921203KSQ | 1379 | 18.9 | 73.0 |
| DSE921204KSQ | 1415 | 18.9 | 74.9 |
| DSE921205KSQ | 1445 | 18.9 | 76.5 |

Recommended Dimmers*

Lutron DIVA DVELV-303P
 Lutron Skylar SELV-300P
 Leviton C22-06672-1LW

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

| Ordering Information - Round Trim | | | | | | Example: DSE821203KRDWH |
|-----------------------------------|------------|---------------|---------|-------------|------------|-------------------------|
| Series | Size | Version | Voltage | CCT's | Trim Shape | Trim Color |
| DSE | 5 (5 inch) | 2 (Version 2) | 120 | 2K (2700 K) | RD (Round) | WH (White) |
| | 8 (8 inch) | | | 3K (3000 K) | | |
| | 9 (9 inch) | | | 4K (4000 K) | | |
| | | | | 5K (5000 K) | | |

| Ordering Information - Square Trim | | | | | | Example: DSE621203KSQWH |
|------------------------------------|------------|---------------|---------|-------------|-------------|-------------------------|
| Series | Size | Version | Voltage | CCT's | Trim Shape | Trim Color |
| DSE | 4 (4 inch) | 2 (Version 2) | 120 | 2K (2700 K) | SQ (Square) | WH (White) |
| | 6 (6 inch) | | | 3K (3000 K) | | |
| | 9 (9 inch) | | | 4K (4000 K) | | |
| | | | | 5K (5000 K) | | |

Specifications and dimensions subject to change without notice

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.