

LSE

LED Direct/Indirect Linear

Product Description

The LSE Architectural LED Direct/Indirect Linear is an edge lit luminaire designed for individual units or continuous runs in commercial indoor applications. The elegant fixture achieves a polished, modern appearance with its powder-coated, 20-gauge aluminum housing and fully-welded seams. White or custom powder coat options are also available. The LSE's acrylic light guide with laser etched patterns enables a variety of light distributions to suit your application. The fixture is easily suspended with integrated mount points.

Construction

- Housing formed 20ga aluminum
- Fully welded seams
- Available in 4' and 8' lengths
- Silver, White and custom powder coat color options available
- Designed for individual units or continuous runs

Optical System

- Edgelit LED design
- Acrylic light guide with laser etched patterns for a variety of distributions
- 100D, 90D/10U, 80D/20U, 50D/50U and 20D/80U distributions available
- 80 CRI and 90 CRI options

Electrical

- Input voltage of 120-277VAC
- Power factor > 0.9
- THD < 10%
- Optional emergency battery backup
- For installations where higher power surge may be possible, NICOR recommends installing additional surge protection at the electrical distribution panels
- Operating Temperature of 32° to 122°F (0°C to 50°C)

Controls

- Available in 0-10 or DALI dimming configurations
- DALI configurations require use of DALI certified controls unit (NICOR IMS or other)
- Optional PIR, Microwave, DALI and N-light sensor options

Mounting

- Integral feature for varying mounting styles
- Strut mount kit included (threaded rod supplied by others)
- Cable suspension kit available
- Pendant mount kit available
- Wall mount kit available
- Continuous run installation kit available

Listings

- cULus1598 Listed for damp locations
- cULus 8750 Listed LEDs
- RoHS Compliant
- Meets FCC Part 15, Subpart B, Class A standards for conducted and radiated emissions
- TM-21 Reported L70(12k) life >72,000 hours, L90(12k) life =38,000 hours
- LM-79, LM-80 testing performed in accordance with IESNA standards

Sustainability

USGBC LEED v4/v4.1

- Meets v4 Indoor Environmental Quality (IEQ) Option 1 : Lighting Control requirements
- Meets v4.1 IEQ Option 2 : CRI =>90 CRI requirement
- Meets v4/v4.1 Material Requirements (MR) Environmental Product Declaration (EPD) Product Specific Type III requirements

EPD (Environmental Product Declaration)

- UL Environmental Product Declaration Certified per ISO 14025:2006 and ISO 21930:2017

Warranty

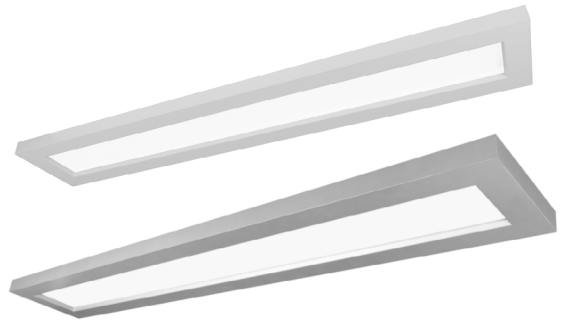
- 5 year limited system warranty standard
- Warranty does not cover product failure due to an overvoltage event (power surge)

Project

Catalog

Type

Date



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Ordering Information											Example: LSE1450DU409WIP
Series	Ver.	Len. (ft)	Lumen Output	Distribution	Input VAC	CCT	CRI	Finish Color	Driver Config.	Sensor	Emergency
LSE	1	4 8	4FT Fixtures 30 (3000Lm) 40 (4000Lm) 50 (5000Lm) 65 (6500Lm) 8FT Fixtures 60 (6000Lm) 75 (7500Lm) 80 (8000Lm) 90 (9000Lm) 100 (10000Lm)	1 (10 ^{UP} /90 ^{DOWN}) 2 (20 ^{UP} /80 ^{DOWN}) 5 (50 ^{UP} /50 ^{DOWN}) 8 (80 ^{UP} /20 ^{DOWN}) D (100 ^{DOWN})	U (120-277VAC)	35 (3500K) 40 (4000K) 50 (5000K)	8 (80 CRI) 9 (90 CRI)	S (Silver) W (White) C (Custom) ¹	I (Integral) D (DALI Control)	___ (None) D (DALI2 PIR) ² M (Microwave) N (N-light) P (PIR)	___ (None) E (8W)

Specifications and dimensions subject to change without notice.

1) Custom Colors available with 100pc MOQ. Contact NICOR for more information.

2) DALI2 PIR Sensor requires use of DALI Control Driver.

Accessories

- LSA, LSE, LSQ PENDANT MOUNT, NON POWER FEED, 48" LENGTH
- LSA, LSE, LSQ PENDANT MOUNT, POWER FEED, 48" LENGTH
- LSE WALL MOUNT BRACKET (available on 4ft fixture only)
- LSE, LSQ WALL MOUNT KIT POWER FEED
- LSE AIRCRAFT CABLE KIT, NON POWER FEED, 150" LENGTH
- LSE AIRCRAFT CABLE KIT, POWER FEED, 150" LENGTH
- LSE CONTINUOUS RUN BRACKET
- LSE STRUT MOUNT KIT REPLACEMENT (threaded rod supplied by others)

Accessories sold separately

- LSALSLSQ1PENDANT
- LSALSLSQ1PENDANTPF
- LSE-1-WALL
- LSELSQ-1-WALL-PF
- LSE-1-CABLE
- LSE-1-CABLE-PF
- LSE-1-CR-BRACKET
- LSE-1-STRUT

Recommended Dimmers*

- Lutron NTSTV
- Lutron DVSTV
- Cooper SF10P
- Legrand RH4FBL3PW

*Not a complete list. Check compatibility before installation.

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Performance Data - 20 Up / 80 Down Distribution at 4000K

4 Foot, 90 CRI

Lumen Output	Lumens	Watts	Lumens/Watt
30	3018	23.2	130.1
40	4322	32.8	131.2
45	4551	34.5	131.9
50	5285	40.4	130.8
65	6434	49.3	130.5

4 Foot, 80 CRI

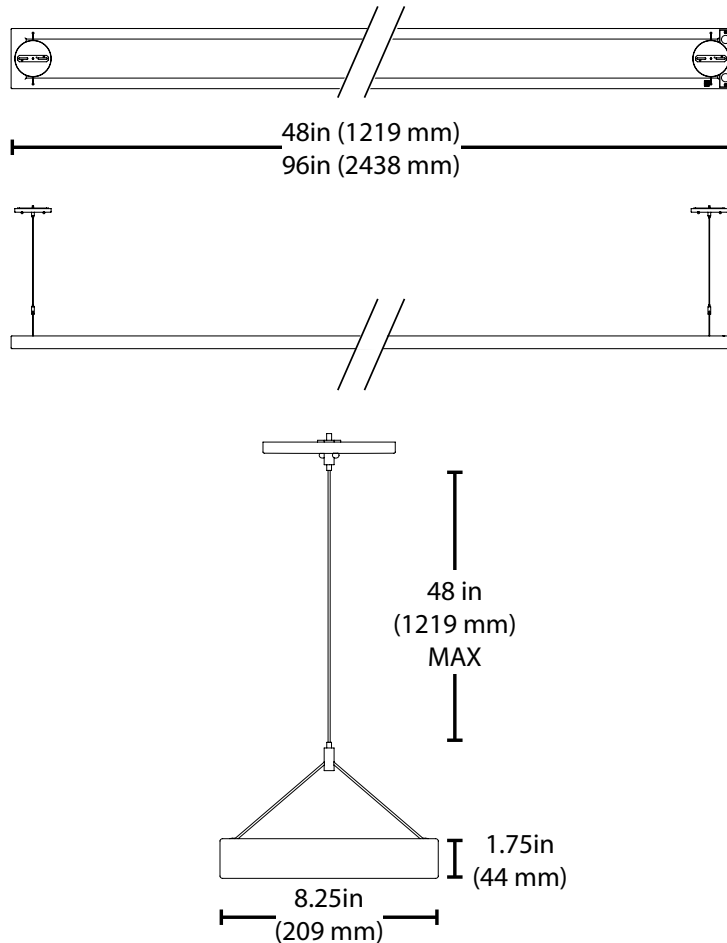
Lumen Output	Lumens	Watts	Lumens/Watt
30	3214	23.2	138.5
40	4603	32.8	140.3
45	4847	34.5	140.5
50	5629	40.4	139.3
65	6852	49.3	139.0

8 Foot, 90 CRI

Lumen Output	Lumens	Watts	Lumens/Watt
60	6042	46.0	131.3
75	7557	57.6	131.2
80	8118	62.2	130.5
90	9101	68.8	132.3
100	10247	80.0	128.1

8 Foot, 80 CRI

Lumen Output	Lumens	Watts	Lumens/Watt
60	6435	46	139.9
75	8048	57.6	139.7
80	8646	62.2	139.0
90	9693	68.8	140.9
100	10913	80	136.4



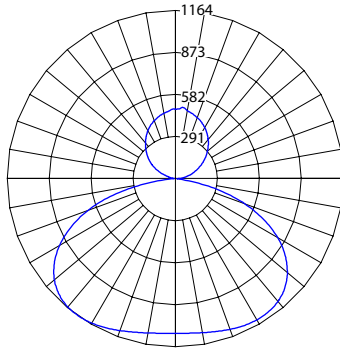
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Photometric Data

LSE4502U409 20U/80D

Input Voltage (VAC)	120-277
System Level Power (W)	40.4
Delivered Lumens (Lm)	5285
System Efficacy (Lm/W)	130.8
Correlated Color Temp (K)	4095
Color Rendering Index (CRI)	90
Beam Angle 0-180°	141.1
Beam Angle 90-270°	117.4
Spacing Criteria 0°	1.42
Spacing Criteria 90°	1.74



Intensity Summary (Candle Power)

Angle	Mean CP
0	1009
15	999
30	956
45	845
60	593
75	300
90	12
105	97
120	193
135	285
150	351
165	389
180	403

Cone of Light Tabulation

Mounted height (Feet)	Footcandles Beam Center	Beam Width
4	63.0	22.7
6	28.0	34.0
8	15.7	45.3
10	10.1	56.6
12	7.0	68.0
14	5.1	79.3
16	3.9	90.6

Zonal Lumen Summary

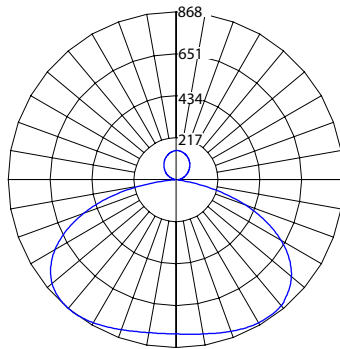
Zone	Lumens	% of Luminaire
0-30	864	16.3%
0-40	1510	28.6%
0-60	3036	57.4%
0-90	4151	78.5%
90-180	1134	21.5%
0-180	5285	100%

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

CCT Data Multiplier		CRI Data Multiplier		Wattage Multiplier	
3500K	0.980	80	1.065	30	0.571
4000K	1.000	90	1.000	40	0.715
5000K	1.021			45	0.861
				50	1.000
				65	1.218

LSE4501U409 10U/90D

Input Voltage (VAC)	120-277
System Level Power (W)	40.4
Delivered Lumens (Lm)	5315
System Efficacy (Lm/W)	131.6
Correlated Color Temp (K)	4095
Color Rendering Index (CRI)	92
Beam Angle 0-180°	140.9
Beam Angle 90-270°	121.3
Spacing Criteria 0°	1.40
Spacing Criteria 90°	1.66



Intensity Summary (Candle Power)

Angle	Mean CP
0	798
5	795
15	790
25	761
35	725
45	667
55	558
65	760
75	789
85	795
90	797

Cone of Light Tabulation

Mounted height (Feet)	Footcandles Beam Center	Beam Width
4	49.8	22.5
6	22.1	33.8
8	12.5	45.1
10	8.0	56.3
12	5.5	67.6
14	4.1	78.9
16	3.1	90.1

Zonal Lumen Summary

Zone	Lumens	% of Luminaire
0-30	676	18.8%
0-40	1172	32.5%
0-60	2333	64.8%
0-90	3184	88.4%
90-180	418	11.6%
0-180	3602	100%

CCT Data Multiplier		CRI Data Multiplier		Wattage Multiplier	
3500K	0.980	80	1.065	30	0.571
4000K	1.000	90	1.000	40	0.715
5000K	1.021			45	0.861
				50	1.000
				65	1.218

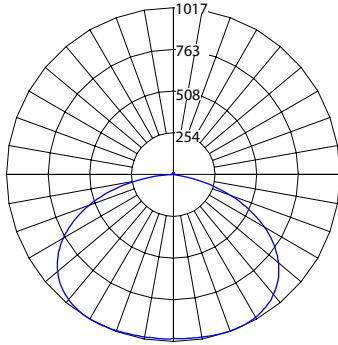
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LED Direct/Indirect Linear

Photometric Data

LSE450DU409 100D

Input Voltage (VAC)	120-277
System Level Power (W)	40.4
Delivered Lumens (Lm)	5150
System Efficacy (Lm/W)	127.5
Correlated Color Temp (K)	4095
Color Rendering Index (CRI)	92
Beam Angle 0-180°	136.3
Beam Angle 90-270°	117.8
Spacing Criteria 0°	1.36
Spacing Criteria 90°	1.50



Intensity Summary (Candle Power)

Angle	Mean CP
0	998
5	990
15	972
25	936
35	872
45	757
55	600
65	385
75	146
85	7
90	6

Cone of Light Tabulation

Mounted height (Feet)	Footcandles Beam Center	BeamWidth
4	62.2	20.0
6	27.6	29.9
8	15.5	39.9
10	9.9	49.9
12	6.9	59.9
14	5.0	69.8
16	3.9	79.8

Zonal Lumen Summary

Zone	Lumens	% of Luminaire
0-30	822	23.9%
0-40	1402	40.7%
0-60	2659	77.2%
0-90	3443	100%
90-180	56	0%
0-180	3443	100%

CCT Data Multiplier

3500K	0.980
4000K	1.000
5000K	1.021

CRI Data Multiplier

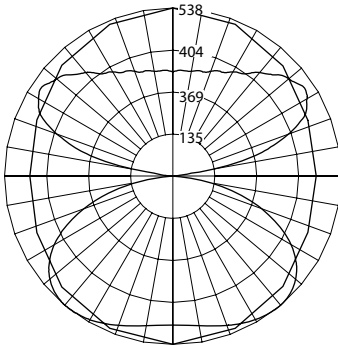
80	1.065
90	1.000

Wattage Multiplier

30	0.571
40	0.715
45	0.861
50	1.000
65	1.218

LSE4505U409 50U/50D

Input Voltage (VAC)	120-277
System Level Power (W)	40.4
Delivered Lumens (Lm)	5280
System Efficacy (Lm/W)	130.7
Correlated Color Temp (K)	4095
Color Rendering Index (CRI)	92
Beam Angle 0-180°	139.5
Beam Angle 90-270°	148.2
Spacing Criteria 0°	1.50
Spacing Criteria 90°	1.70



Intensity Summary (Candle Power)

Angle	Mean CP
0	475
15	496
30	530
45	531
60	438
75	217
90	3
105	296
120	497
135	459
150	386
165	348
180	332

Cone of Light Tabulation

Mounted height (Feet)	Footcandles Beam Center	BeamWidth
4	33.3	6.4
6	14.8	9.6
8	8.3	12.8
10	5.3	16.0
12	3.7	19.2
14	2.7	22.4
16	2.1	25.6

Zonal Lumen Summary

Zone	Lumens	% of Luminaire
0-30	396	10.5%
0-40	697	18.5%
0-60	1424	37.7%
0-90	1974	52.3%
90-180	1801	47.7%
0-180	3941	100.0%

CCT Data Multiplier

3500K	0.980
4000K	1.000
5000K	1.021

CRI Data Multiplier

80	1.065
90	1.000

Wattage Multiplier

30	0.571
40	0.715
45	0.861
50	1.000
65	1.218