prescolite

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

LTR-3SQD

LITEISTRY 3" SQUARE DOWNLIGHT

LITEISTRY

FEATURES

- 3" architectural LED downlight delivering 600–2000 lm
- Five beam distributions from 0.4 to 1.2 Spacing Criteria
- Quiet reflector appearance with 50° optical cutoff
- 2700K–5000K, 80+ and 90+ CRI options
- Available for New Construction (non-IC), IC and Chicago Plenum applications
- Variety of dimming protocol options including 0–10V, DALI, DMX, and Lutron EcoSystem
- NX Lighting Controls wired and wireless controls capability available

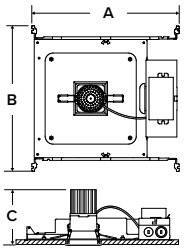
WET LOCATION · C SA US · ENERGY STAR · BAA (-BAA Option) · TAA (-TAA Option)

SERVICE PROGRAMS

STOCK

CONTROLS TECHNOLOGY

NX WIRELESS · NX WIRED



Typical Dimensions and Weights				
Lumen Package	"A" Length Inches (mm)	"B" Width Inches (mm)	"C" Height Inches (mm)	Weight lbs (kg)
06L - 20L	14.56 (370)	14.39 (366)	5 (127)	7 (3.2)

See DIMENSIONS section for complete details

SPECIFICATIONS

CONSTRUCTION

- Standard Non-IC. Chicago Plenum and IC options
- Painted black durable steel platform with pre-installed bar hangers
- Pre-wired junction box with snap-on covers for easy access
- Snap-in connection from driver compartment allows easy installation
- Light Engine connections use plenum rated (CMP) cable

OPTICS

- Visually pleasing 50° cutoff to source and source image
- The light distribution is free of distracting bright spots or pixelation and the perimeter has a smooth transition
- Optical grade silicone lens integral to light engine
- High purity four-panel aluminum reflector, self-flanged
- Flush mount flange option with mud-in ring available
- Large selection of anodized finishes and colors
- Painted cones and flange options available

ELECTRICAL

- Chip-on-board (COB) LED with 2 SDCM
- Multiple CCTs, 80+ or 90+ CRI
- Long LED life: L90 at >55,000 hours (TM-21)

ELECTRICAL (CONTINUED)

- Universal voltage 120V–277V driver, 347V optional
- UL Class 2, inherent short circuit and overload protection
- Flicker free 0–10V dimming with 1% or < 1% performance
- DALI, DMX, and Lutron EcoSystem options
- NX Lighting Controls provides options for standalone and networked functionality with wired or wireless connectivity for NX system deployments
- Lutron Athena control options also available
- Emergency battery pack option available with remote test switch and indicator light
- Refer to additional spec sheets for information on SpectraSync™ Tunable White or Dim-to-Warm solutions

INSTALLATION

- Accommodates ceiling thickensses up to 1.25"
- Universal adjustable mounting brackets also accept ½" EMT conduit or 1½" or ¾" lathing channel (by others) or Prescolite accessory bar hangers (B24 or B6)
- Driver and EMR battery pack are serviceable above ceiling only

CERTIFICATIONS

- cCSAus certified to UL 1598
- Suitable for wet locations, covered ceiling. EMR: Suitable for damp locations

CERTIFICATIONS (CONTINUED)

- EMR: Certified under UL 924 standard for emergency lighting and power equipment
- EMR: Emergency battery packs are California Energy Commission (CEC) Title 20 Compliant
- Approved for 8 (4 in/4 out) No. 12AWG conductors rated for 90°C through wiring
- ENERGY STAR® certified models available (For list and additional information, visit www.energystar.gov)
- For -BAA Option: This product meets federal procurement law requirements under the Buy American Act (FAR 52.225-9) See Buy America(n) Solutions
- For -TAA Option: Product configurations meet federal procurement law requirements under the Trade Agreements Act (FAR 52.225-11) See Buy America(n) Solutions

WARRANTY

- 5 year warranty

KEY DATA	
Lumen Range	600-2000
Wattage Range	8-25
Efficacy Range (LPW)	76–82*
Reported Life (Hours)	L90 / >55,000
Input Current (mA)	67-208 (120V)

*Based on Specular, 35K, 80 CRI

© 2023 HLI Solutions, Inc. All rights reserved. Information and specifications subject to change without notice. All values are design or typical values when measured under laboratory conditions.

prescolite

LTR-3SQD

LITEISTRY 3" SQUARE DOWNLIGHT

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

Gray Shading = Service Program STOCK

ORDERING GUIDE

Example: LTR–3SQD–H–SL10L–DM1–LTR–3SQD–T–SL35K8MD–SS

CATALOG #

HOUSING

LTR-3SQD-H –

Aperture/Shape/Function		Lumen Package		Lumen Output		Driver Options		Control Options		Voltage		Housing Options	
LTR-3SQD-H	3" Square Downlight New Construction Housing	**SL**	Standard Lumen	**06L**	600	**DM1**	0-10V Dimming to 1%	<u>NX Lighting Controls</u>		*Standard 120-277V*		**CP**	Chicago Plenum [7,9]
				10L	1000	**DM01**	0-10V Dimming to < 1%	<u>Networked Wireless</u>		**34**	347V [6]	**IC**	IC rated [8,9]
				15L	1500	**DMX**	DMX with RDM dimming to < 0.1%	**NXW**	NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor [3]			**EMR**	7W Emergency Battery Pack (CEC Title 20 Compliant) with remote test switch and indicator light [9]
		ML	Medium Lumen	**20L**	2000	**DALI**	DALI Dimming to 1%	<u>Networked Wired</u>				**GTD**	Generator Transfer Device [9]
						EDM	Lutron Hi-Lume EcoSystem Dimming to 1% [2]	**NXE**	NX Wired Dual RJ45 SmartPORTS, without Sensor [3]			**DTS**	Device Transfer Switch with Dimming Bypass [9,10]
						DM00	Lutron Athena compatible driver [12]	<u>Other Lighting Controls</u>				**F**	Fuse [9]
								<u>Networked Wireless</u>				**BAA**	Buy American Act (FAR 52.225-9) Compliant
								AWNR	Lutron Athena Enabled [12]			**TAA**	Trade Agreements Act (FAR 52.225-11) Compliant

TRIM

LTR-3SQD-T –

Aperture/Shape/Function		Lumen Package		CCT		CRI		Distribution		Reflector Finish	
LTR-3SQD-T	3" Square Downlight Light Enginte/Tritm Assembly	**SL**	Standard Lumen	**27K**	2700K	**8**	80+CRI	**VNR**	Very Narrow (0.4 SC/24°) [11]	*Finish not applicable with painted reflectors (WC or BC)*	
		ML	Medium Lumen	**30K**	3000K	**9**	90+CRI	**NR**	Narrow (0.6 SC/38°)		
				35K	3500K			**MD**	Medium (0.8 SC/48°)	**S**	Specular
				40K	4000K			**WD**	Wide (1.0 SC/62°)	**SS**	Semi-Specular
				50K	5000K [1]			**XW**	Extra Wide (1.2 SC/74°)	**VS**	Softglow®

TRIM CONTINUED

–

Reflector Color		Flange Color Options		Reflector Options	
Standard Clear		*Standard matches reflector color*		**AM**	Antimicrobial Coating [5]
CG	Champagne Gold	**WT**	White Flange [4]	**BAA**	Buy American Act (FAR 52.225-9) Compliant
BL	Black	**BT**	Black Flange [4]	**TAA**	Trade Agreements Act (FAR 52.225-11) Compliant
LW	Light Wheat				
PW	Pewter				
WC	Painted White Cone and Flange				
BC	Painted Black Cone and Flange				

Accessories	
☐ **B24**	Set of two (2) 24" bar hangers for T-bar ceilings
☐ **B6**	Set of two bar hangers for ceiling joist up to 24" centers
☐ **FMR3-SQ**	Flush Mount Flange Mud-In Ring, 3" Square
☐ **LiteGear**	LiteGear® Inverter, 125VA-250VA
☐ **LPS Series**	LightPower Micro-Inverter, 20VA-55VA
☐ **MOR3-SQ-WH**	Metal Oversized Ring, 3" Square, White (6.75" outer dimension)
☐ **MOR3-SQ-BL**	Metal Oversized Ring, 3" Square, Black (6.75" outer dimension)

Notes:

1 5000K available in 80+ CRI only.
2 EDM available in 10L-20L.
3 NX requires DM1 driver option.
4 WT not needed for WC; BT not needed for BC.
5 AM available with WC or Specular Clear (S or SWT). Consult factory for other colors.
6 347V requires DM1 driver; not available with Controls, EMR, DTS, GTD or F.
7 Not available with DMX, Controls, or EMR options.
8 IC available up to 15L; not available with Controls options.
9 Housing options (except Fuse, BAA/TAA) not available in combination.
10 DTS available with DM1, DM01, DALI, or DM00.
11 VNR available up to 15L.
12 DM00 must be selected with AWNR Lutron Athena controls option.

© 2023 HLI Solutions, Inc. All rights reserved. Information and specifications subject to change without notice. All values are design or typical values when measured under laboratory conditions.

prescolite

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

LTR-3SQD

LITEISTRY 3" SQUARE DOWNLIGHT

NX LIGHTING CONTROLS

	Control Option Ordering Logic & Description		Control Option Functionality								Control Option Components	
			Networkable	Grouping	Scheduling	Occupancy/ Motion	Daylight Harvesting	0-10V Dimming	On/Off Control	Bluetooth App Programming		
NX Wireless	NXW	NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor	✓	✓	✓	–	–	✓	✓	✓		NXRM2-H
NX Wired	NXE	NX Wired Dual RJ45 SmartPORTS, without Sensor	✓	✓	✓	–	–	✓	✓	✓[1]		NXDSP

1 Requires NXBTC, order separately.

NX LIGHTING CONTROLS APP

The NX Lighting Controls App is a free to use mobile application for programming both an NX Lighting Controls System or Standalone Bluetooth Sensors. The mobile app allows you to configure devices, discover and setup wireless enabled luminaires and program your NX system settings.

Android

Apple iOS

OTHER LIGHTING CONTROLS

	Control Option Ordering Logic & Description		Control Option Functionality								Control Option Components	
			Networkable	Grouping	Scheduling	Occupancy/ Motion	Daylight Harvesting	0-10V Dimming	On/Off Control	Bluetooth App Programming		
Other	AWNR	The Athena wireless node is a radio frequency (RF) device that enables simple, digital control of individual light fixtures in an Athena control system.[1]	✓	✓	–	–	–	✓	✓	–		A-WN-D01-RF-WH

1 Lutron Athena Hub required to enable Networking, Grouping and Scheduling.

© 2023 HLI Solutions, Inc. All rights reserved. Information and specifications subject to change without notice. All values are design or typical values when measured under laboratory conditions.

LTR-3SQD

LITEISTRY 3" SQUARE DOWNLIGHT

PERFORMANCE DATA TABLE

Performance data provided below is for 3500K, 80 CRI with Specular Clear reflector finish/color

Lumen Package	Nominal Lumens	Distribution	Delivered Lumens	Watts	LPW
06L	600	Very Narrow	635	7.9	81
		Narrow	714	7.8	92
		Medium	685	7.8	88
		Wide	656	7.8	84
		Extra Wide	614	7.8	79
10L	1000	Very Narrow	998	12.4	81
		Narrow	1149	11.9	97
		Medium	1103	11.9	93
		Wide	1056	11.9	89
		Extra Wide	988	11.9	83
15L	1500	Very Narrow	1348	18.2	74
		Narrow	1662	18.6	89
		Medium	1596	18.6	86
		Wide	1528	18.6	82
		Extra Wide	1429	18.6	77
20L	2000	Narrow	2060	25.0	82
		Medium	2018	25.0	81
		Wide	1975	25.0	79
		Extra Wide	1910	25.0	76

© 2023 HLI Solutions, Inc. All rights reserved. Information and specifications subject to change without notice. All values are design or typical values when measured under laboratory conditions.

prescolite

DATE: LOCATION:

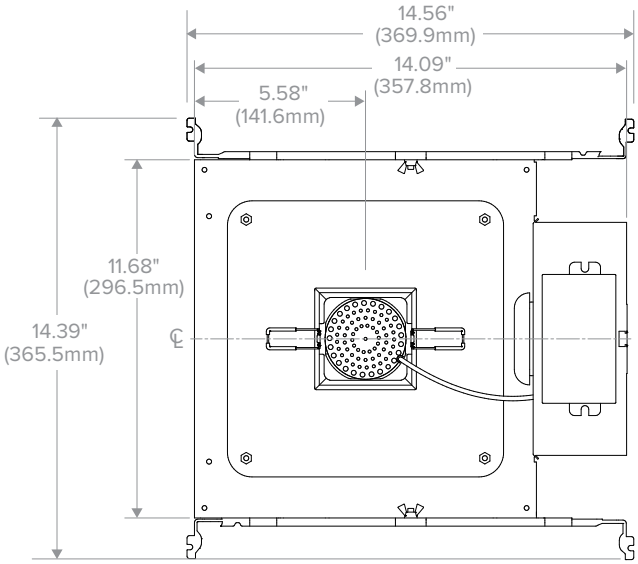
TYPE: PROJECT:

CATALOG #:

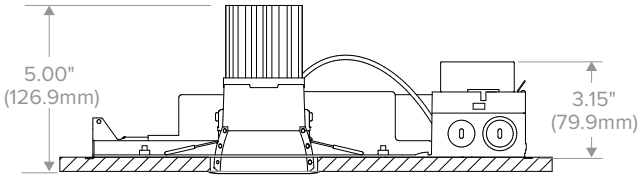
LTR-3SQD

LITEISTRY 3" SQUARE DOWNLIGHT

DIMENSIONS

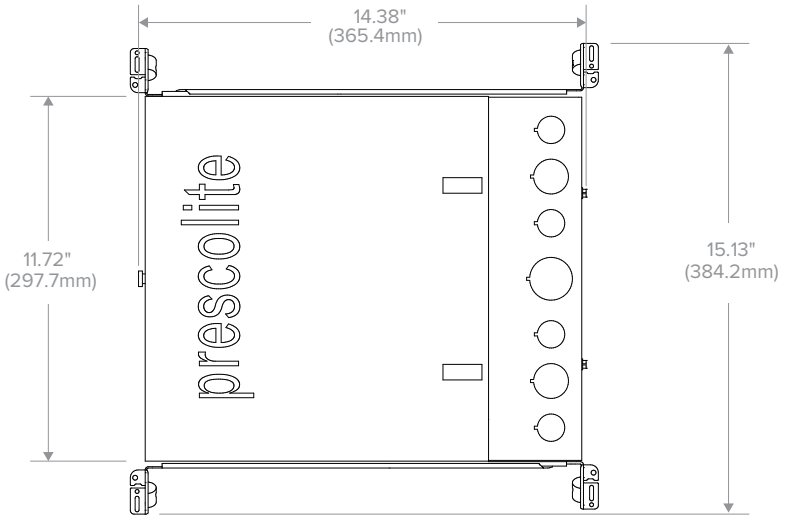


Top View

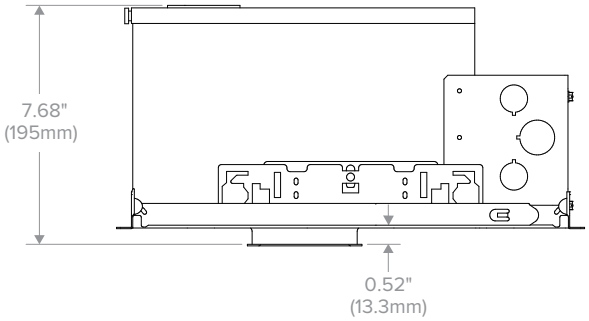


Dimensional Data		
Aperture		2.88" SQ. (73.2mm)
Flange	Standard	3.62" SQ. (91.9mm)
	Flush Mount	3.62" SQ. (91.9mm)
Ceiling Cutout	Standard	3.31" SQ. (84.1mm)
	Flush Mount	3.94" SQ (100.1mm)
Ceiling Thickness		0.50" to 1.25" (12.7mm to 31.8mm)

LTR-3SQD-H New Construction



Top View



Dimensional Data		
Aperture		2.88" SQ. (73.2mm)
Flange	Standard	3.62" SQ. (91.9mm)
	Flush Mount	3.62" SQ. (91.9mm)
Ceiling Cutout	Standard	3.31" SQ. (84.1mm)
	Flush Mount	3.94" SQ (100.1mm)
Ceiling Thickness		0.50" to 1.25" (12.7mm to 31.8mm)

LTR-3SQD-H IC/CP

© 2023 HLI Solutions, Inc. All rights reserved. Information and specifications subject to change without notice. All values are design or typical values when measured under laboratory conditions.

LTR-3SQD

LITEISTRY 3" SQUARE DOWNLIGHT

PHOTOMETRY

LTR-3SQD-H-SL15L-DM1 / LTR-3SQD-T-ML35K8VNR-S

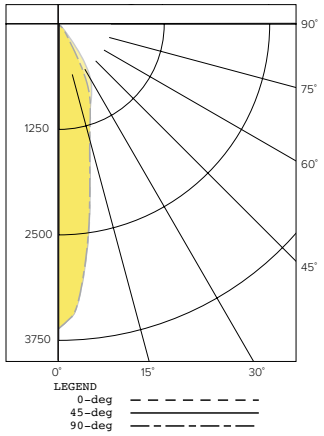
LUMINAIRE DATA

Test No.	**20.01196**
Description	**1500 lm, Very Narrow, 3500K, 80 CRI**
Delivered Lumens	**1348**
Watts	**18.2W**
Efficacy	**74**
Mounting	**Recessed**
Spacing Criterion	**0.4**
Beam Angle (FWHM)	**24**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1243	92.2
0-60	1339	99.3
0-90	1348	100.0
0-180	1348	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela - 0	Candela - 45	Candela - 90
0	3611	3611	3611
5	3120	3115	3105
15	1431	1399	1415
25	809	915	818
35	191	492	188
45	78	97	78
55	26	28	27
65	5	6	6
75	2	2	2
85	1	1	1
90	0	0	0

LTR-3SQD-H-ML20L-DM1 / LTR-3SQD-T-ML35K8NR-S

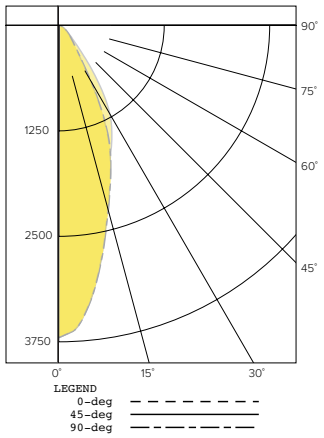
LUMINAIRE DATA

Test No.	**P19.00953**
Description	**2000 lm, Narrow, 3500K, 80 CRI**
Delivered Lumens	**2060**
Watts	**25.0W**
Efficacy	**82.4**
Mounting	**Recessed**
Spacing Criterion	**0.6**
Beam Angle (FWHM)	**38**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1861	90.4
0-60	2045	99.3
0-90	2060	100.0
0-180	2060	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela - 0	Candela - 45	Candela - 90
0	3722	3722	3722
5	3454	3456	3462
15	2243	2200	2258
25	1270	1475	1294
35	338	738	350
45	151	180	157
55	53	57	60
65	7	9	7
75	3	4	3
85	1	1	1
90	0	0	0

LTR-3SQD-H-ML20L-DM1 / LTR-3SQD-T-ML35K8MD-S

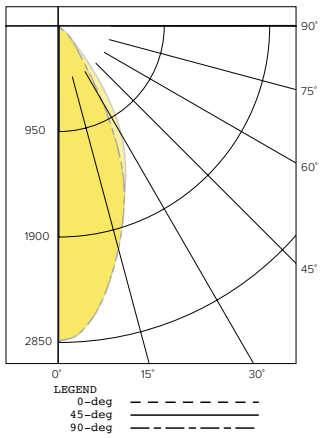
LUMINAIRE DATA

Test No.	**P19.00954**
Description	**2000 lm, Medium, 3500K, 80 CRI**
Delivered Lumens	**2018**
Watts	**25.0W**
Efficacy	**80.7**
Mounting	**Recessed**
Spacing Criterion	**0.7**
Beam Angle (FWHM)	**48**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1799	89.2
0-60	2003	99.3
0-90	2018	100.0
0-180	2018	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela - 0	Candela - 45	Candela - 90
0	2842	2842	2842
5	2728	2727	2728
15	2080	2062	2083
25	1310	1432	1324
35	410	772	422
45	165	202	171
55	58	63	65
65	7	10	8
75	3	4	4
85	1	1	1
90	0	0	0

© 2023 HLI Solutions, Inc. All rights reserved. Information and specifications subject to change without notice. All values are design or typical values when measured under laboratory conditions.

LTR-3SQD

LITEISTRY 3" SQUARE DOWNLIGHT

PHOTOMETRY CONTINUED

LTR-3SQD-H-ML20L-DM1 / LTR-3SQD-T-ML35K8WD-S

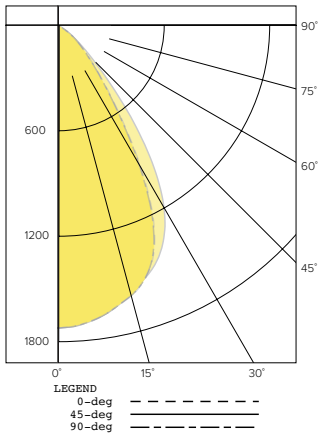
LUMINAIRE DATA

Test No.	**P19.01044**
Description	**2000 lm, Wide, 3500K, 80 CRI**
Delivered Lumens	**1975**
Watts	**25.0W**
Efficacy	**78.9**
Mounting	**Recessed**
Spacing Criterion	**1.0**
Beam Angle (FWHM)	**62**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1671	96.3
0-60	1956	99.8
0-90	1975	100.0
0-180	1975	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela - 0	Candela - 45	Candela - 90
0	1730	1730	1730
5	1713	1711	1711
15	1605	1594	1602
25	1305	1403	1292
35	600	914	580
45	236	304	224
55	87	84	75
65	10	12	9
75	4	5	4
85	1	1	1
90	0	0	0

LTR-3SQD-H-ML20L-DM1 / LTR-3SQD-T-ML35K8XW-S

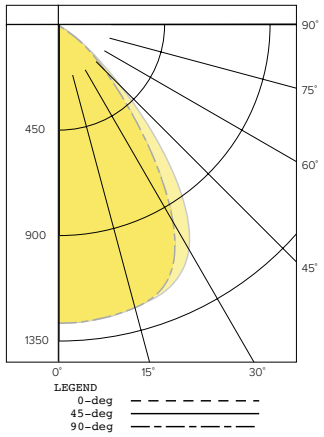
LUMINAIRE DATA

Test No.	**P19.00956**
Description	**2000 lm, Extra Wide, 3500K, 80 CRI**
Delivered Lumens	**1910**
Watts	**25.0W**
Efficacy	**76.3**
Mounting	**Recessed**
Spacing Criterion	**1.2**
Beam Angle (FWHM)	**74**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1519	79.5
0-60	1889	98.9
0-90	1910	100.0
0-180	1910	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela - 0	Candela - 45	Candela - 90
0	1275	1275	1275
5	1273	1273	1273
15	1252	1253	1253
25	1149	1199	1150
35	740	944	735
45	307	412	301
55	102	108	92
65	11	14	10
75	5	5	5
85	1	1	1
90	0	0	0

LUMEN MULTIPLIER

Option	27K8	30K8	35K8	40K8	50K8	27K9	30K9	35K9	40K9
Multiplier	0.94	0.98	1.00	1.01	1.02	0.81	0.84	0.85	0.85

Photometrics are published below at a nominal 3500 Kelvin, 80+ CRI. This table may be used to approximate the lumen values at different Kelvin temperatures. Power consumption would stay the same.

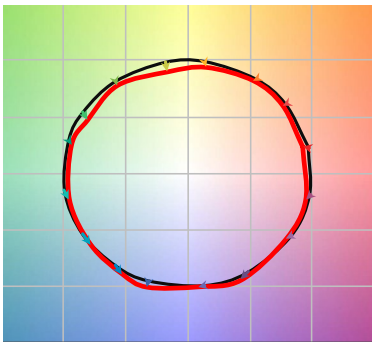
© 2023 HLI Solutions, Inc. All rights reserved. Information and specifications subject to change without notice. All values are design or typical values when measured under laboratory conditions.

LTR-3SQD

LITEISTRY 3" SQUARE DOWNLIGHT

TM-30 DATA

COLOR VECTOR GRAPHIC 3500K, 90 CRI

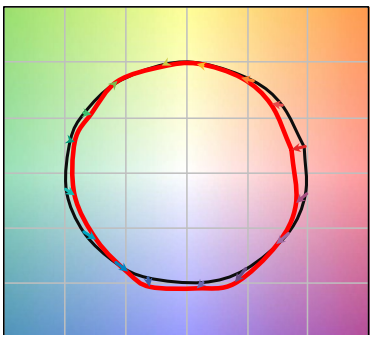


Reference Illuminant — Test Source

COLOR DISTORTION GRAPHIC 3500K, 90 CRI

TEST RESULTS - 3500K		
Value	80+ CRI	90+ CRI
R_f	84	88
R_g	95	95
CCT (K)	3411	3419
D_{UV}	0.0015	0.0042
x	0.4120	0.4147
y	0.3974	0.4052
CIE R_a	84	93
CIE R_g	11	62

COLOR VECTOR GRAPHIC 3500K, 80 CRI



Reference Illuminant — Test Source

COLOR DISTORTION GRAPHIC 3500K, 80 CRI

© 2023 HLI Solutions, Inc. All rights reserved. Information and specifications subject to change without notice. All values are design or typical values when measured under laboratory conditions.

LTR-3SQD

LITEISTRY 3" SQUARE DOWNLIGHT

ELECTRICAL DATA

DRIVER DATA		
Input Voltage	120-277 V	347 V
Input Frequency	50/60 Hz	50/60 Hz
Power Factor	≥0.90	≥0.90
THD	<20%	<20%
EMI Filtering (FCC 47 CFR Part 15)	Class A	Class A

* Values for DM1 option shown, values for other dimming options may vary.

ADDITIONAL INFORMATION

Dimming Compatibility

For more details and recommended dimmer list, see Dimming Compatibility Information on currentlighting.com/prescolite.

DMX

See instruction sheet on currentlighting.com/prescolite for connection & installation information.

Central Inverters

For full fixture output in back-up mode, we recommend you visit currentlightingcom/dual-lite for your Central Lighting Inverter options. Please contact your local Current representative for any assistance with proper sizing and loading of your inverter selection. Central lighting inverters must be ordered separately.

Lumen Output in Emergency Mode

To determine the lumen output in emergency mode multiply the battery pack wattage by the fixture lumens per watt (LPW).
For example, 7W x 120 LPW = 840 lumens in emergency mode.

© 2023 HLI Solutions, Inc. All rights reserved. Information and specifications subject to change without notice. All values are design or typical values when measured under laboratory conditions.