prescolite

LFCR-6RD-N

LITEFRAME COMMERCIAL 6" ROUND
NEW CONSTRUCTION DOWNLIGHT

DATE: | LOCATION:

TYPE: | PROJECT:

CATALOG #:

LITEFRAME Commercial



FEATURES

- 6" LED downlight delivering 500–5000 lumens
- Narrow, Medium or Wide Beam Distribution
- 2700K–5000K, 90+ CRI (2 SDCM)
- Dimming protocols include 0–10V, Phase, DMX, DALI
- NX Lighting Controls wired and wireless controls capability available
- TriGain® technology is standard and delivers 90 CRI (50+ R9) color rendition without efficacy compromise

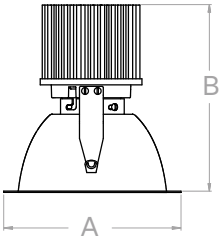
C US WET LOCATION TriGain® technology

SERVICE PROGRAMS

tradeSELECT QS10

CONTROLS TECHNOLOGY

NX WIRELESS NX WIRED



Typical Dimensions and Weights				
Lumen Package	Aperture Inches (mm)	"A" Diameter Inches (mm)	"B" Height Inches (mm)	Weight Lbs (kg)
05L–15L	6.0 (152.4)	7.0 (177.8)	4.4 (111.8)	3.85 (1.7)
20L–30L			5.8 (147.3)	4.08 (1.8)
35L–50L			7.4 (188.0)	4.33 (2.0)

See DIMENSIONS section for complete details

SPECIFICATIONS

CONSTRUCTION

- Standard fixture module designed for Non-IC, with new construction housing
- All housing options come standard with pre-installed bar hangers
- Die cast aluminum fixture module with torsion springs for secure mounting to fixture housing
- Snap-in driver junction box allows for both installation and service from below ceiling
- Light engine connections use plenum rated (CMP) cable
- Quick disconnects standard for ease of installation

OPTICS

- High purity spun aluminum reflector, self-flanged
- 55° visual cutoff to source image and 55° cutoff to source
- Specular, semi-specular, or Softglow (diffuse) anodized finishes. White and black painted cone reflector colors also available
- Painted flange options in white or black

ELECTRICAL

- Chip-on-board LED with 2 SDCM
- TriGain® is a patented narrow-band potassium fluorosilicate (PFS) phosphor technology which provides improved color rendition without compromise to LED efficacy

ELECTRICAL (CONTINUED)

- 2700K, 3000K, 3500K, 4000K, 5000K CCTs, 90+ CRI
- Long LED life: L80 / >66,000 hours (TM-21)
- Universal voltage 120–277V driver, 347V optional
- UL Class 2, inherent short circuit and overload protection
- Flicker-free dimming options in a wide range of protocols from 1% to <0.1% performance
- 0–10V, phase (forward/reverse) DMX, DALI, and Lutron options
- NX Lighting Controls provides options for standalone and networked functionality with wired or wireless connectivity for NX system deployments
- Integral and remote emergency battery options available

INSTALLATION

- Accommodates ceiling thickness from 0.00" to 1.25". Thick Ceiling Adapter available to order as accessory to accommodate up to 3.00"
- Fixture module including driver fully accessible from above or below the ceiling

CERTIFICATIONS

- cCSAus certified to UL 1598
- For 45L–50L: Marked spacing required (24" fixture center to center; 24" fixture center to building member; 0.5" above fixture)
- Downlight suitable for wet locations, covered ceiling. Wall wash suitable for damp locations
- Shower trim is IP65 rated (room side) when properly installed per installation instructions
- EM/EMR: Certified under UL 924 standard for emergency lighting and power equipment
- EM/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
- Suitable for -20°C to 25°C standard, High Ambient (HA) option available, up to 40°C

WARRANTY

- 5 year warranty

KEY DATA	
Lumen Range	500–5000
Wattage Range	5.9–52.1
Efficacy Range (LPW)	97–132
Reported Life (Hours)	L80 / >66,000

*Based on Specular, 35K, 90 CRI

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Gray Shading = Service Program

tradeSELECT QS10 Limit of 150 Luminaries

ORDERING GUIDE

Example: LFCR-6RD-H / LFCR-6D-MN-10L35K9-WD-DM1 / LFCR-6RD-T-WD-S

CATALOG # _____

HOUSING (Ships separately)

Aperture/Shape/Function		
☐	**LFCR-6RD-H**	6" Housing Frame, New Construction, Non-IC
☐	**LFCR-6RD-H-IC**	6" Housing Enclosure, New Construction, IC Rated [1]
☐	**LFCR-6RD-H-CP**	6" Housing Enclosure, New Construction, Chicago Plenum [2]

FIXTURE MODULE (Ships separately)

LFCR-6D-MN – ____ 9 – ____ – ____ – ____ – ____

Ap/Shp/Funct	Lumen Output	CCT	CRI	Distribution	Driver Options	Control Options	Module Options [4]
LFCR-6D-MN 6" Downlight Fixture Module, New Construction	**05L** 500	**27K** 2700K	**9** 90+	**NR** Narrow (35°/ 0.5 SC)[19]	**120–277V Options**	**NX Lighting Controls**	**EM** 10W Emergency Battery Pack with Integral Test Switch
	10L 1000	**30K** 3000K		**MD** Medium (50°/ 0.7 SC)[19]	**DM1** 0–10V Dimming to 1%	Networked Wireless	**EMR** 10W Emergency Battery Pack with Remote Test Switch
	15L 1500	**35K** 3500K		**WD** Wide (65°/1.0 SC)	**DM01** 0–10V Dimming to < 1% [5]	**NXW** NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor [9]	**DTS** Device Transfer Switch with Dimming Bypass [11, 12]
	20L 2000	**40K** 4000K			**PDM** Phase (Forward/Reverse) Dimming to 1% [6]	Networked Wired	**F** Fuse
	25L 2500	**50K** 5000K			**DALI** DALI Dimming to 1% [5]	**NXE** NX Wired Dual RJ45 SmartPORTS, without Sensor [9]	**HA** High Ambient Option (40°C) [13, 14]
	30L 3000				**DM00** Lutron Athena Compatible Driver for static white CCT	**Other Lighting Controls**	
	35L 3500				**DMX1** DMX with RDM dimming to 1%	Networked Wireless	
	40L 4000				**347V Option**	**AWNR** Lutron Athena Enabled [10]	
	45L 4500 [3]				**DM34** 0–10V Dimming to 1% (347V input) [7, 8]		
	50L 5000 [3]						

TRIM (Ships separately)

LFCR-6RD-T – ____ – ____

Aperture/Shape/Function	Style [18]	Trim Type	Reflector Finish	Flange Color Options [17]	Trim Options
LFCR-6RD-T 6" Round Downlight Trim Assembly	*Do not specify trim style for standard trim*	**WD** Standard Downlight Reflector (used with NR, MD, and WD distributions from fixture module)	*Do not specify reflector finish for SH Trim Style*	*Standard matches reflector color*	**EM** Pre-punched reflector for EM integral test switch and indicator
	SH Non-Conductive Shower Trim with Acrylic, Micro-prism Lens	**WW** Wall Wash	**S** Specular	**WT** White Flange	**AM** Antimicrobial Coating [15, 16]
			SS Semi-Specular	**BT** Black Flange	
			VS Softglow		
			WC Painted White Cone		
			BC Painted Black Cone		

Accessories		
☐	**MOR6-R-WH**	Metal Oversized Ring, 6" Round, White (10.12" outside diameter)
☐	**MOR6-R-BL**	Metal Oversized Ring, 6" Round, Black (10.12" outside diameter)
☐	**LFCR-TCA**	Thick Ceiling Adapter (1.25"–3.00")
☐	**LFR-SCA6-__**	Sloped Ceiling Adapter, 6" White

Specify slope angle 5°–35° in 5° increments. Not available with EM options

Notes:

1. IC Housing available 05L–20L, not available with controls or EMR
2. CP housing available 05–30L. CP Housing is IC Rated 05L–20L, non-IC rated 25L–30L, not available with controls options or EMR
3. Lumen outputs 45L–50L require marked spacing with dims (24"x24"x½" above fixture)
4. Module options EM/EMR/DTS not available in combination
5. DM01 & DALI available 05L–45L
6. PDM available 10L–45L
7. DM34 available 05L–35L
8. DM34 not available with EM, EMR, DTS, or F fixture module options
9. NXW/NXE control options require DM1 or DM34 driver option
10. AWNR control option requires DM00 driver option (DM00 only available in combination with AWNR)
11. Consult factory for DTS with control options
12. DTS requires driver options DM1, DM01 or DALI
13. HA option available 05L–25L
14. HA not available with IC or CP Options
15. AM available with WC or Specular Clear (S or SWT), also available with WT for SH trim
16. AM not available with WW or EM
17. WT not available for WC, BT not available for BC
18. SH not available with WW or EM, requires WT or BT- reflector finish not applicable, available with lumen output 05L–30L
19. NR and MD available 05L–35L

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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]		NXFSP

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.

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NEW CONSTRUCTION DOWNLIGHT

PERFORMANCE DATA TABLE

Performance Data shown is 3500K 90+ CRI with Specular reflector.

Lumen Package	Nominal Lumens	Distribution	Delivered Lumens	Watts	LPW
05L	500	Narrow	686	5.9	116
		Medium	643	5.9	109
		Wide	576	5.9	98
		Wall Wash	574	5.9	97
10L	1000	Narrow	1320	11.2	118
		Medium	1237	11.2	110
		Wide	1108	11.2	99
		Wall Wash	1104	11.2	99
15L	1500	Narrow	1905	15.2	125
		Medium	1786	15.2	118
		Wide	1599	15.2	105
		Wall Wash	1593	15.2	105
20L	2000	Narrow	2528	21.9	116
		Medium	2370	21.9	108
		Wide	2122	21.8	97
		Wall Wash	2114	21.8	97
25L	2500	Narrow	3174	24.1	132
		Medium	2975	24.1	123
		Wide	2664	24.1	111
		Wall Wash	2654	24.1	110
30L	3000	Narrow	3805	29.8	128
		Medium	3567	29.8	120
		Wide	3194	29.8	107
		Wall Wash	3182	29.8	107
35L	3500	Wide	3753	36.8	102
		Wall Wash	3738	36.8	102
40L	4000	Wide	4228	41.6	102
		Wall Wash	4212	41.6	101
45L	4500	Wide	4764	45.3	105
		Wall Wash	4746	45.3	105
50L	5000	Wide	5284	52.1	101
		Wall Wash	5264	52.1	101

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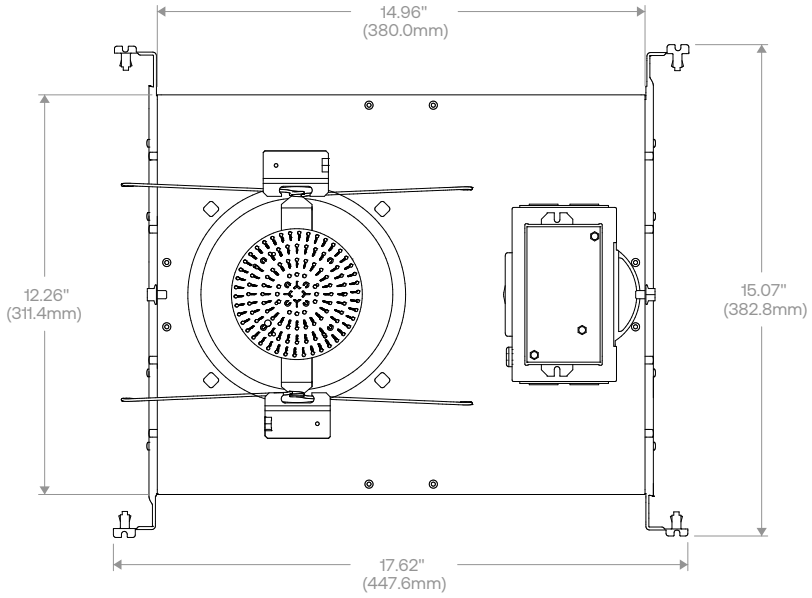
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LFCR-6RD-N

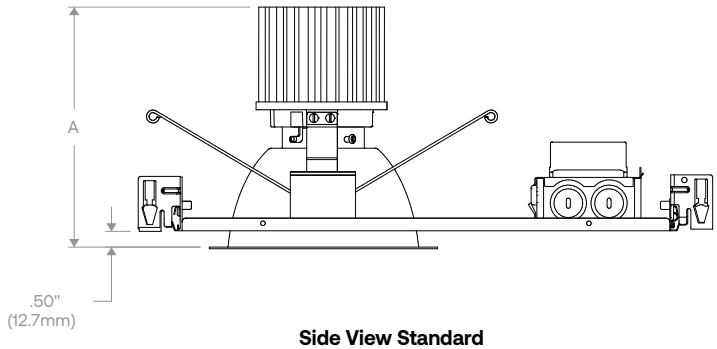
LITEFRAME COMMERCIAL 6" ROUND
NEW CONSTRUCTION DOWNLIGHT

DIMENSIONS

Standard New Construction Housing, Fixture Module, and Trim assembly



Top View Standard



Side View Standard

DIMENSIONAL DATA		
Aperture		Ø5.75" (146.1mm)
Flange	Standard	Ø7.00" (177.8mm)
Ceiling Cutout		Ø6.38" to 6.63" (161.9mm to 168.3mm)
Ceiling Thickness	Standard	0.00"" to 1.25" (0.0mm to 31.8mm)
	With TCA Accessory	1.25"" to 3" (31.8mm to 76.2mm)

Lumen Package	"A"
05L–15L	4.4" (111.8mm)
20L–30L	5.8" (147.3mm)
35L–50L	7.4" (188.0mm)

Note: When using SCA Sloped Ceiling Adapter accessory, see LFR-SCA specification sheet and installation instructions for dimensional data, max. ceiling thickness and other details.

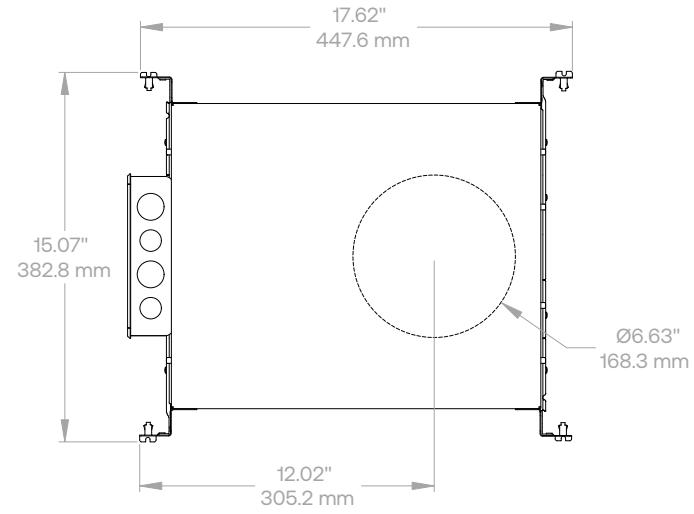
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LFCR-6RD-N

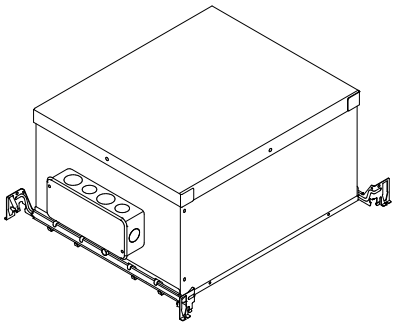
LITEFRAME COMMERCIAL 6" ROUND
NEW CONSTRUCTION DOWNLIGHT

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

DIMENSIONS (CONTINUED)



LFCR-6RD-H-IC/CP



OPTIONAL IC/CP HOUSING

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PHOTOMETRY

LFCR-6RD-H / LFCR-6D-MN-20L35K9-NR-DM1 / LFCR-6RD-T-WD-S

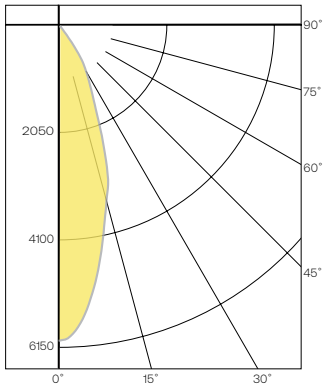
LUMINAIRE DATA

Test No.	**P26.00760**
Description	**2000 lm, Narrow, 3500K, 90 CRI**
Delivered Lumens	**2528**
Watts	**21.9W**
Efficacy	**116**
Mounting	**Recessed**
Spacing Criterion	**0.6**
Beam Angle (FWHM)	**36**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0–40	2497	98.7
0–60	2528	100.0
0–90	2528	100.0
0–180	2528	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	6004
5	5524
15	3454
25	1516
35	511
45	32
55	1
65	0
75	0
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	2701
55°	104
65°	0
75°	0
85°	0

*Candela/Square Meter

LFCR-6RD-H / LFCR-6D-MN-20L35K9-MD-DM1 / LFCR-6RD-T-WD-S

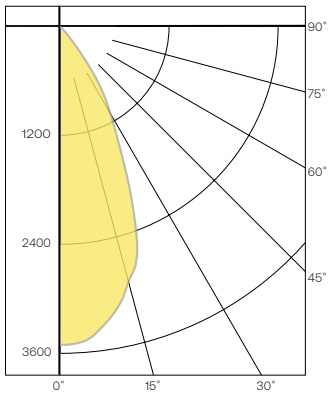
LUMINAIRE DATA

Test No.	**P26.00763**
Description	**2000 lm, Medium, 3500K, 90 CRI**
Delivered Lumens	**2370**
Watts	**21.9W**
Efficacy	**108**
Mounting	**Recessed**
Spacing Criterion	**0.8**
Beam Angle (FWHM)	**49**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0–40	2301	97.1
0–60	2369	100.0
0–90	2370	100.0
0–180	2370	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	3495
5	3450
15	2898
25	1649
35	668
45	67
55	1
65	1
75	0
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	5656
55°	104
65°	141
75°	0
85°	0

*Candela/Square Meter

LFCR-6RD-H / LFCR-6D-MN-20L35K9-WD-DM1 / LFCR-6RD-T-WD-S

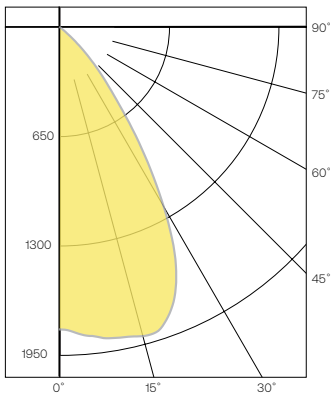
LUMINAIRE DATA

Test No.	**P26.00014**
Description	**2000 lm, Wide, 3500K, 90 CRI**
Delivered Lumens	**2122**
Watts	**21.8W**
Efficacy	**95**
Mounting	**Recessed**
Spacing Criterion	**1.0**
Beam Angle (FWHM)	**66**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0–40	1445	91.4
0–60	12121	99.9
0–90	2122	100.0
0–180	2122	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	1796
5	1840
15	1900
25	1637
35	785
45	214
55	2
65	1
75	0
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	16591
55°	191
65°	130
75°	0
85°	0

*Candela/Square Meter

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PHOTOMETRY (CONTINUED)

LFCR-6RD-H / LFCR-6D-MN-20L35K9-WD-DM1 / LFCR-6RD-T-WW-S

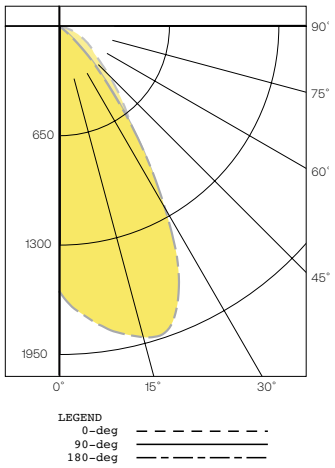
LUMINAIRE DATA

Test No.	**P26.00056**
Description	**2000 lm, Wall Wash, 3500K, 90 CRI**
Delivered Lumens	**2114**
Watts	**21.8W**
Efficacy	**96.8**
Mounting	**Recessed**
Spacing Criterion	**N/A**
Beam Angle (FWHM)	**N/A**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0–40	1764	83.4
0–60	2051	97.0
0–90	2114	100.0
0–180	2114	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	1576
5	1444
15	1324
25	1078
35	755
45	420
55	234
65	134
75	51
85	6
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	32562
55°	22365
65°	17382
75°	10802
85°	3774

*Candela/Square Meter

LUMEN MULTIPLIER

Option	27K9	30K9	35K9	40K9	50K9
Multiplier	0.95	0.99	1.00	1.00	1.00

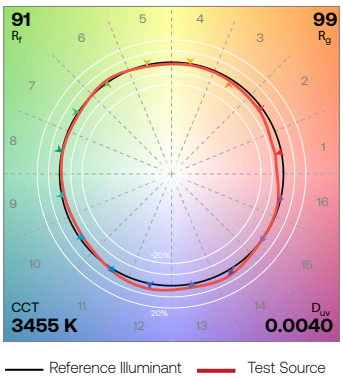
Photometrics are published below at a nominal 3500 Kelvin, 90+ CRI. This table may be used to approximate the lumen values at different Kelvin temperatures. Power consumption would stay the same.

REFLECTOR FINISH & COLOR MULTIPLIER

Option	Specular (S)	Semi-Specular (SS)	Softglow (VS)	White Cone (WC)	Black Cone (BC)
Multiplier	1.00	1.00	0.89	0.98	0.44

TM-30 DATA

COLOR VECTOR GRAPHIC
3500K, 90 CRI



TEST RESULTS - 3500K	
Value	90+ CRI
R_f	91
R_g	99
CCT (K)	3455
D_{UV}	0.0040
x	0.4122
y	0.4034
CIE R_a	92
CIE R_9	59

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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 currentlighting.com/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, 10W x 120 LPW = 1200 lumens in emergency mode.

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