lifeshield
Lighting for Complex Spaces

DATE: | LOCATION:

TYPE: | PROJECT:

CATALOG #:

LTR-6RD (SUR)

6" ROUND COMPLEX ENVIRONMENT DOWNLIGHT

SURGICAL SUITE

FEATURES

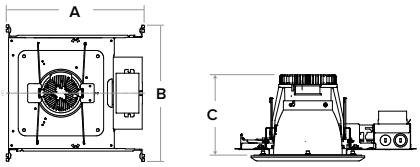
- 6" round architectural LED downlight delivering 600–3000 lumens
- Five beam distributions and wall wash allow for controlled illumination of medical suites
- 50° cutoff to source and source image provides a low glare, distraction free environment with enhanced visual acuity for intricate tasks
- Options for color temperature range from 2700K–5000K in 80+ or 90+ CRI providing quality illumination for a variety of surgical applications
- Aluminum anodized reflectors available in a wide array of colors and finishes
- Closed cell silicone gasket protects against dust and water ingress. Supports the fixture's ISO 3 cleanroom rating
- Suitable for wet location under covered ceiling and rated IP66 / IP69K (room side), making the product ideal for intense cleaning and sanitation
- Durable, marine grade, die cast aluminum bezel trim (low-copper alloy) and flush polycarbonate lens are available with optional antimicrobial paint finish and rated for NSF2 certification
- Standard for MIL 461G and IEC/EN 60601-1-2:2020, complies with safety and performance for EMI and medical electrical equipment and systems

C SP US | WET LOCATION | MIL STD 461 | IEC | NSF2 | IP66 | IP69K

IK10 | ISO 3 | UL924 | IC | CCEA | BAA | TAA

(-BAA Option) (-TAA Option)





Typical Dimensions and Weights				
Lumen Package	"A" Length Inches (mm)	"B" Width Inches (mm)	"C" Height Inches (mm)	Weight lbs (kg)
06L – 15L	14.56 (370)	14.36 (365)	5.9 (150)	7.8 (3.5)
20L – 30L	14.56 (370)	14.36 (365)	6.68 (170)	8.2 (3.7)

See DIMENSIONS section for complete details

SPECIFICATIONS

CONSTRUCTION

- Corrosion resistant, marine grade (low copper alloy), die cast aluminum bezel trim
- Flush, impact resistant .250" thick, clear polycarbonate lens for ease of wipe down.
- Closed cell silicone gasket prevents dust and water ingress for IP66, IP69K, ISO3 certification
- Non-IC standard, Chicago Plenum and IC options
- Pre-wired junction box with snap-on covers for easy access
- Steel platform with black finish and pre-installed bar hangers simplify installation
- Snap-in quick connectors simplify electrical connections to the driver compartment
- 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 is integral to the light engine to ensure precise beam control
- High purity aluminum reflector enables reliable and consistent finish and color
- Large selection of anodized inner reflector finishes and colors as well as painted cone options
- White painted bezel trim finish, antimicrobial white paint as option

ELECTRICAL

- Chip-on-board LED with 2 SDCM
- Multiple CCTs, 80+ or 90+ CRI
- Long LED life: L90 at >55,000 hours (TM–21)
- Universal voltage driver:
  120V–277V (06L–20L)
  120V–250V (25L/30L)
- UL Class 2, inherent short circuit and overload protection
- Flicker free 0–10V dimming 1%
- Battery pack with remote test switch and indicator available

INSTALLATION

- Accommodates ceiling thickness up to 2" (See DIMENSIONS section for details)
- Universal adjustable mounting brackets also accept 0.5" EMT conduit or 1.5" or 0.75" lathing channel (by others) or Prescolite accessory bar hangers (B24 or B6)
- Light Engine/Driver fully serviceable from above or below the ceiling

CERTIFICATIONS

- CSA certified, UL1598
- Suitable for wet location (under covered ceiling), IP66 and IP69K rated.
- ISO3 certified per ISO 14644–1:2015 ISO class 3 standards
- NSF2 Non-Food Zone certified
- Complies with MIL-STD-461G for electromagnetic compatibility

CERTIFICATIONS (CONTINUED)

- Complies with IEC/EN 6061–1–2:2020 for basic safety and performance for electromagnetic compatibility with medical electrical equipment and systems
- EMR: Certified under UL 924 standard for emergency lighting and power equipment
- EMR: Emergency battery packs are California Energy Commission (CEC) Title 20 Compliant
- Meets IK10 per IEC 60068–2–75 impact testing
- Approved for 8 (4 in/4 out) No. 12AWG conductors rated for 90°C through wiring
- 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	600–3000
Wattage Range	8–35
Efficacy Range (LPW)	62–89*
Reported Life (Hours)	L90 / >55,000
Input Current (mA)	66–286 (120V)

*Based on 35K, 80 CRI

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LTR-6RD (SUR)

6" ROUND COMPLEX ENVIRONMENT DOWNLIGHT

SURGICAL SUITE

ORDERING GUIDE

Example: LTR-6RD-H-SUR-SL10L-DM1 / LTR-6RD-T-SUR-SL35K8MD-SS / LTR-6RD-CE-WTAM

CATALOG #

HOUSING

LTR-6RD-H – SUR – [ ] [ ] – DM1 [ ] [ ]

Aperture/Shape/Function		Housing Type		Lumen Package		Lumen Output		Driver Options		Voltage	Housing Options	
LTR-6RD-H	6" Round Downlight New Construction Housing	SUR	Surgical Suite	SL	Standard Lumen	06L	600	DM1	0–10V Dimming to 1%	*Standard 120V–277V (06L–20L)*	CP	Chicago Plenum [2]
						10L	1000				IC	IC rated [1,2]
						15L	1500				EMR	Emergency Battery Pack (CEC Title 20 Compliant) with remote test switch and indicator light, self-diagnostic feature [2]
				ML	Medium Lumen	20L	2000			*120V–250V (25L/30L)*		
						25L	2500				F	Fuse [2]
						30L	3000				BAA	Buy American Act (FAR 52.225–9) Compliant
											TAA	Trade Agreements Act (FAR 52.225–11) Compliant

TRIM

LTR-6RD-T – SUR – [ ] [ ] [ ] [ ] –

Aperture/Shape/Function		Trim Type		Lumen Package		CCT		CRI		Distribution	
LTR-6RD-T	6" Round Downlight Light Engine/ Trim Assembly	SUR	Surgical Suite	SL	Standard Lumen	27K	2700K	8	80+CRI	VNR	Very Narrow (0.3 SC/20°)
LTR-6RW-T	6" Round Wall Light Engine/ Trim Assembly [3]			ML	Medium Lumen	30K	3000K	9	90+CRI	NR	Narrow (0.5 SC/30°)
						35K	3500K			MD	Medium (0.7 SC/40°)
						40K	4000K			WD	Wide (0.9 SC/59°)
						50K	5000K [4]			XW	Extra Wide (1.1 SC/74°)
										WW	Single Wall Wash [3]

TRIM CONTINUED

[ ] [ ] [ ] –

Reflector Finish		Reflector Color		Reflector Options	
Finish not applicable with painted reflectors (WC or BC)		*Standard Clear*		BAA	Buy American Act (FAR 52.225–9) Compliant
S	Specular	CG	Champagne Gold	TAA	Trade Agreements Act (FAR 52.225–11) Compliant
SS	Semi-Specular	BL	Black		
MFC	American Matte™	LW	Light Wheat		
VS	Softglow®	PW	Pewter		
VSS	SoftSheen™	WC	Painted Matte White Cone and Flange		
		BC	Painted Matte Black Cone and Flange		

Notes:
1 IC available up to 20L.
2 Housing options (except Fuse, BAA/TAA_) not available in combination.
3 Wall wash trim requires WW distribution option.
4 5000K available in 80+ CRI only.

BEZEL

[ ] – [ ] – [ ]

Bezel Type		Bezel Trim Color		Options	
LTR-6RD-CE	6" Round Bezel Trim Assembly with Clear Polycarbonate Lens, Painted Stainless Steel Philips Head Screws (included)	WT	Matte White	BAA	Buy American Act (FAR 52.225–9) Compliant
LTR-6RD-CEVR	6" Round Bezel Trim Assembly with Clear Polycarbonate Lens, Painted Stainless steel tamper resistant Torx® center pin reject (included)	WTAM	Matte White Antimicrobial	TAA	Trade Agreements Act (FAR 52.225–11) Compliant

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
☐ LiteGear	LiteGear® Inverter, 25VA–250VA
☐ LPS Series	LightPower Micro-Inverter, 20VA–55VA

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LTR-6RD (SUR)

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SURGICAL SUITE

PERFORMANCE DATA TABLE (3500K, 80CRI)

Lumen Package	Nominal Lumens	Distribution	Delivered Lumens	Watts	LPW
06L	600	Very Narrow	625	7.8	80
		Narrow	605	7.8	78
		Medium	624	7.8	80
		Wide	545	7.8	70
		Extra Wide	590	7.8	76
		Wall Wash	508	7.8	65
10L	1000	Very Narrow	999	12.0	83
		Narrow	967	12.0	81
		Medium	997	12.0	83
		Wide	871	12.0	73
		Extra Wide	942	12.0	79
		Wall Wash	812	12.0	68
15L	1500	Very Narrow	1435	18.7	77
		Narrow	1390	18.7	74
		Medium	1432	18.7	77
		Wide	1251	18.7	67
		Extra Wide	1354	18.7	72
		Wall Wash	1166	18.7	62
20L	2000	Very Narrow	1973	22.2	89
		Narrow	1910	22.2	86
		Medium	1969	22.2	89
		Wide	1720	22.2	77
		Extra Wide	1861	22.2	84
		Wall Wash	1603	22.2	72
25L	2500	Very Narrow	2398	27.7	87
		Narrow	2322	27.7	84
		Medium	2394	27.7	86
		Wide	2091	27.7	75
		Extra Wide	2262	27.7	82
		Wall Wash	1949	27.7	70
30L	3000	Very Narrow	2858	34.3	83
		Narrow	2767	34.3	81
		Medium	2852	34.3	83
		Wide	2492	34.3	73
		Extra Wide	2696	34.3	79
		Wall Wash	2322	34.3	68

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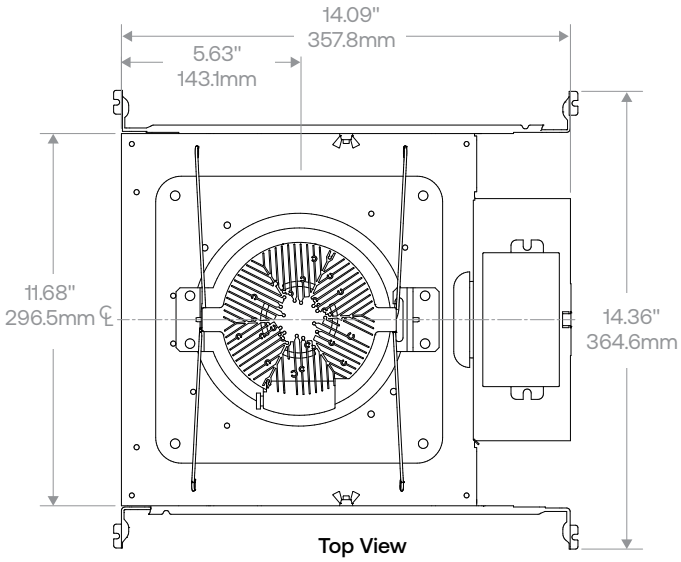
lifeshield
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SURGICAL SUITE

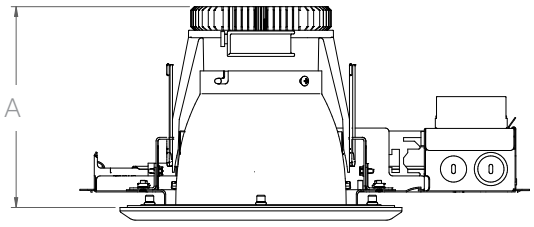
DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

DIMENSIONS



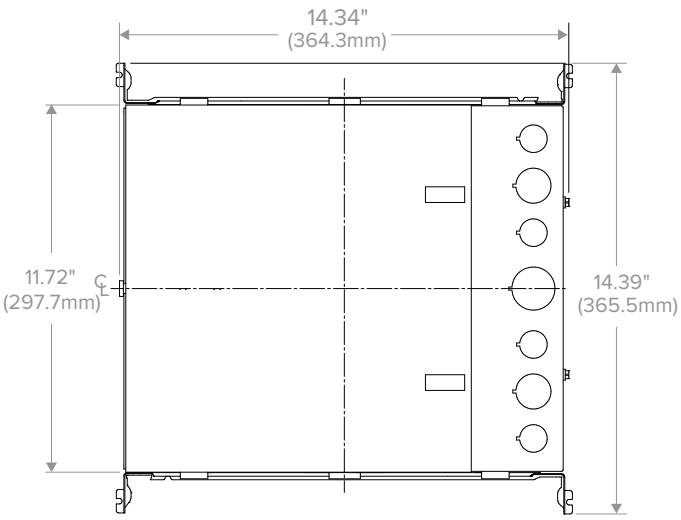
Top View

LTR-6RD-H-SUR New Construction

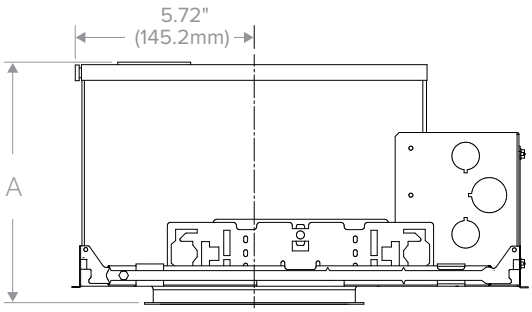


Dimensional Data	
Aperture Opening	Ø 5.75" (146.1 mm)
Overall Flange	Ø 9.42" (293.3 mm)
Bezel (below ceiling)	0.42" (10.7 mm)
Ceiling Cutout	Ø 8.25" (209.6 mm)
Ceiling Thickness	0.50" to 2.00" (12.7 mm to 50.8 mm)

Lumen Package	"A"
06L–15L	5.90" (149.9mm)
20L–30L	6.68" (169.7mm)



LTR-6RD-H-SUR-IC / LTR-6RD-H-SUR-CP



Dimensional Data	
Aperture Opening	Ø 5.75" (146.1 mm)
Overall Flange	Ø 9.42" (293.3 mm)
Bezel (below ceiling)	0.42" (10.7 mm)
Ceiling Cutout	Ø 8.25" (209.6 mm)
Ceiling Thickness	0.50" to 2.00" (12.7 mm to 50.8 mm)

Lumen Package	"A"
Standard	7.68" (195.0mm)

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SURGICAL SUITE

PHOTOMETRY

LTR-6RD-H-SUR-ML20L-DM1 / LTR-6RD-T-SUR-ML35K8VNR-SS / LTR-6RD-CE-WT

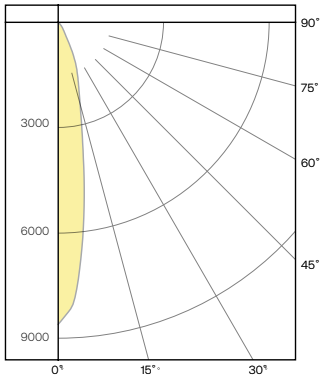
LUMINAIRE DATA

Test No.	**22.01620**
Description	**2000 lm, Very Narrow, 3500K, 80 CRI**
Delivered Lumens	**1973**
Watts	**22.2W**
Efficacy	**89**
Mounting	**Recessed**
Spacing Criterion	**0.3**
Beam Angle (FWHM)	**20**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1889	95.7
0-60	1962	99.5
0-90	1973	100.0
0-180	1973	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	8590
5	7037
15	2416
25	994
35	257
45	73
55	13
65	6
75	3
85	1
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	6162
55°	1353
65°	847
75°	692
85°	685

*Candela/Square Meter

LTR-6RD-H-SUR-ML20L-DM1 / LTR-6RD-T-SUR-ML35K8NR-SS / LTR-6RD-CE-WT

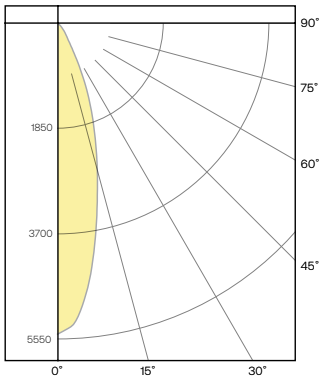
LUMINAIRE DATA

Test No.	**23.00008**
Description	**2000 lm, Narrow, 3500K, 80 CRI**
Delivered Lumens	**1910**
Watts	**22.2W**
Efficacy	**86**
Mounting	**Recessed**
Spacing Criterion	**0.5**
Beam Angle (FWHM)	**30**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1839	96.3
0-60	1900	99.5
0-90	1910	100.0
0-180	1910	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	5460
5	4978
15	2690
25	1057
35	261
45	61
55	8
65	5
75	3
85	1
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	5149
55°	833
65°	706
75°	692
85°	685

*Candela/Square Meter

LTR-6RD-H-SUR-ML20L-DM1 / LTR-6RD-T-SUR-ML35K8MD-SS / LTR-6RD-CE-WT

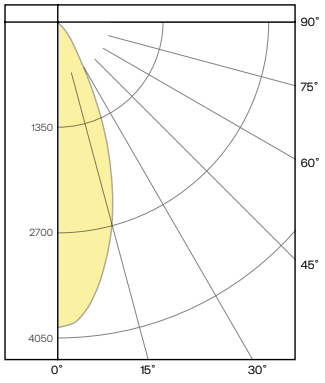
LUMINAIRE DATA

Test No.	**23.00009**
Description	**2000 lm, Medium, 3500K, 80 CRI**
Delivered Lumens	**1969**
Watts	**22.2W**
Efficacy	**89**
Mounting	**Recessed**
Spacing Criterion	**0.7**
Beam Angle (FWHM)	**40**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1878	95.4
0-60	1958	99.4
0-90	1969	100.0
0-180	1969	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	3906
5	3743
15	2675
25	1252
35	354
45	81
55	10
65	6
75	3
85	1
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	6838
55°	1041
65°	847
75°	692
85°	685

*Candela/Square Meter

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SURGICAL SUITE

PHOTOMETRY CONTINUED

LTR-6RD-H-SUR-ML20L-DM1 / LTR-6RD-T-SUR-ML35K8WD-SS / LTR-6RD-CE-WT

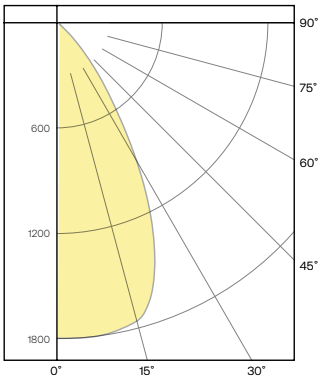
LUMINAIRE DATA

Test No.	**23.00010**
Description	**2000 lm, Wide, 3500K, 80 CRI**
Delivered Lumens	**1720**
Watts	**22.2W**
Efficacy	**78**
Mounting	**Recessed**
Spacing Criterion	**0.9**
Beam Angle (FWHM)	**59**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1572	91.4
0-60	1705	99.1
0-90	1720	100.0
0-180	1720	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	1791
5	1795
15	1751
25	1269
35	535
45	135
55	20
65	9
75	4
85	1
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	11396
55°	2081
65°	1271
75°	923
85°	685

*Candela/Square Meter

LTR-6RD-H-SUR-ML20L-DM1 / LTR-6RD-T-SUR-ML35K8XW-SS / LTR-6RD-CE-WT

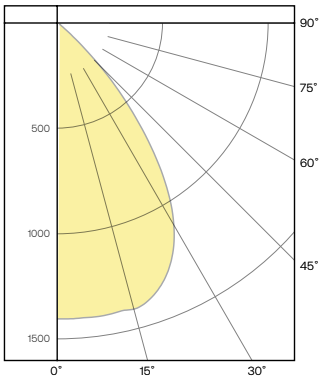
LUMINAIRE DATA

Test No.	**23.00011**
Description	**2000 lm, Extra Wide, 3500K, 80 CRI**
Delivered Lumens	**1861**
Watts	**22.3W**
Efficacy	**94.4**
Mounting	**Recessed**
Spacing Criterion	**1.1**
Beam Angle (FWHM)	**74**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1625	87.3
0-60	1850	99.4
0-90	1861	100.0
0-180	1861	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	1402
5	1402
15	1403
25	1261
35	853
45	254
55	15
65	7
75	3
85	1
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	21442
55°	1561
65°	989
75°	692
85°	685

*Candela/Square Meter

LTR-6RD-H-SUR-ML20L-DM1 / LTR-6RW-T-SUR-ML35K8WW-SS / LTR-6RD-CE-WT

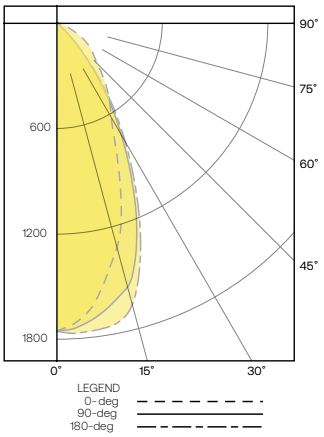
LUMINAIRE DATA

Test No.	**22.01618**
Description	**2000 lm, Single Wall Wash, 3500K, 80 CRI**
Delivered Lumens	**1603**
Watts	**22.8W**
Efficacy	**72**
Mounting	**Recessed**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1343	83.8
0-60	1547	96.5
0-90	1603	100.0
0-180	1603	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	1753
5	1682
15	1324
25	802
35	517
45	326
55	222
65	100
75	33
85	3
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	27519
55°	23103
65°	14124
75°	7611
85°	2055

*Candela/Square Meter

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LTR-6RD (SUR)

6" ROUND COMPLEX ENVIRONMENT DOWNLIGHT

SURGICAL SUITE

PHOTOMETRY CONTINUED

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.

REFLECTOR FINISH MULTIPLIER (Based on Clear (Standard) Color)

Option	Specular (S)	Semi-Specular (SS)	American Matte (MFC)	Softglow (VS)	Softsheen (VSS)
Multiplier	1	1	0.984	0.888	0.938

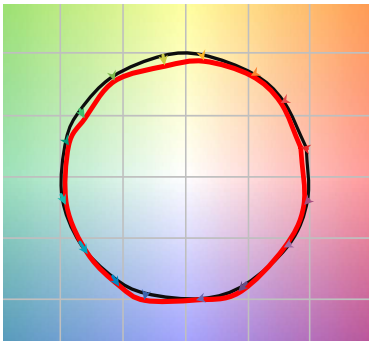
REFLECTOR COLOR MULTIPLIER (Based on Semi-Specular (SS) Finish)

Option	Clear (Standard)	Champagne Gold (CG)	Black (BL)	Light Wheat (LW)	Pewter (PW)	White Cone (WC)	Black Cone (BC)
Multiplier	1	0.974	0.444	0.861	0.915	0.984	0.442

Multiply FINISH x COLOR to calculate other reflector finish and color combinations. Example: SoftGlow Pewter (VSPW) = 0.888 (VS) x 0.915 (PW) = 0.813

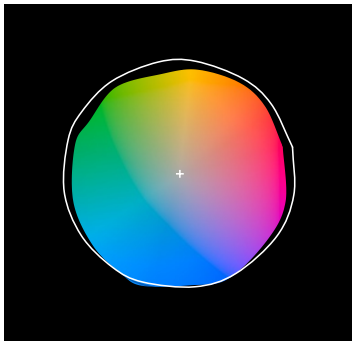
TM-30 DATA

COLOR VECTOR GRAPHIC 3500K, 90 CRI



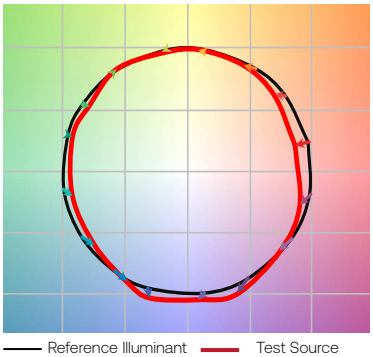
Reference Illuminant — Test Source

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_9	11	62

COLOR VECTOR GRAPHIC 3500K, 80 CRI



Reference Illuminant — Test Source

COLOR DISTORTION GRAPHIC 3500K, 80 CRI



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DATE: | LOCATION:

TYPE: | PROJECT:

CATALOG #:

LTR-6RD (SUR)

6" ROUND COMPLEX ENVIRONMENT DOWNLIGHT

SURGICAL SUITE

ELECTRICAL DATA

DRIVER DATA	
Input Voltage	120V–277V (06L–20L) 120V–250V (25L/30L)
Input Frequency	50/60 Hz
Power Factor	≥0.90
THD	<20%
EMI Filtering (FCC 47 CFR Part 15)	Class A

ADDITIONAL INFORMATION

Dimming Compatibility

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

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.

Bezel Trim

See installation instructions on currentlighting.com/lifeshield for complete details.

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.

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