

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: CORELITE

Report Number: P572166

Luminaire Tested: 24ID-50-L830-DBR

Issue Date: 10/5/2021

Test Information

Test Method: LM-79-2019
Report Number: P572166
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2109-397-7)
Test Lab: INNOVATION CENTER
Issue Date: 10/5/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: 24ID-50-L830-DBR
Description: 5000 LUMEN, 2X4 INDEPTH TROFFER WITH 2IN REGRESSED DOUBLE BARRELL LENS AND 3000K, 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

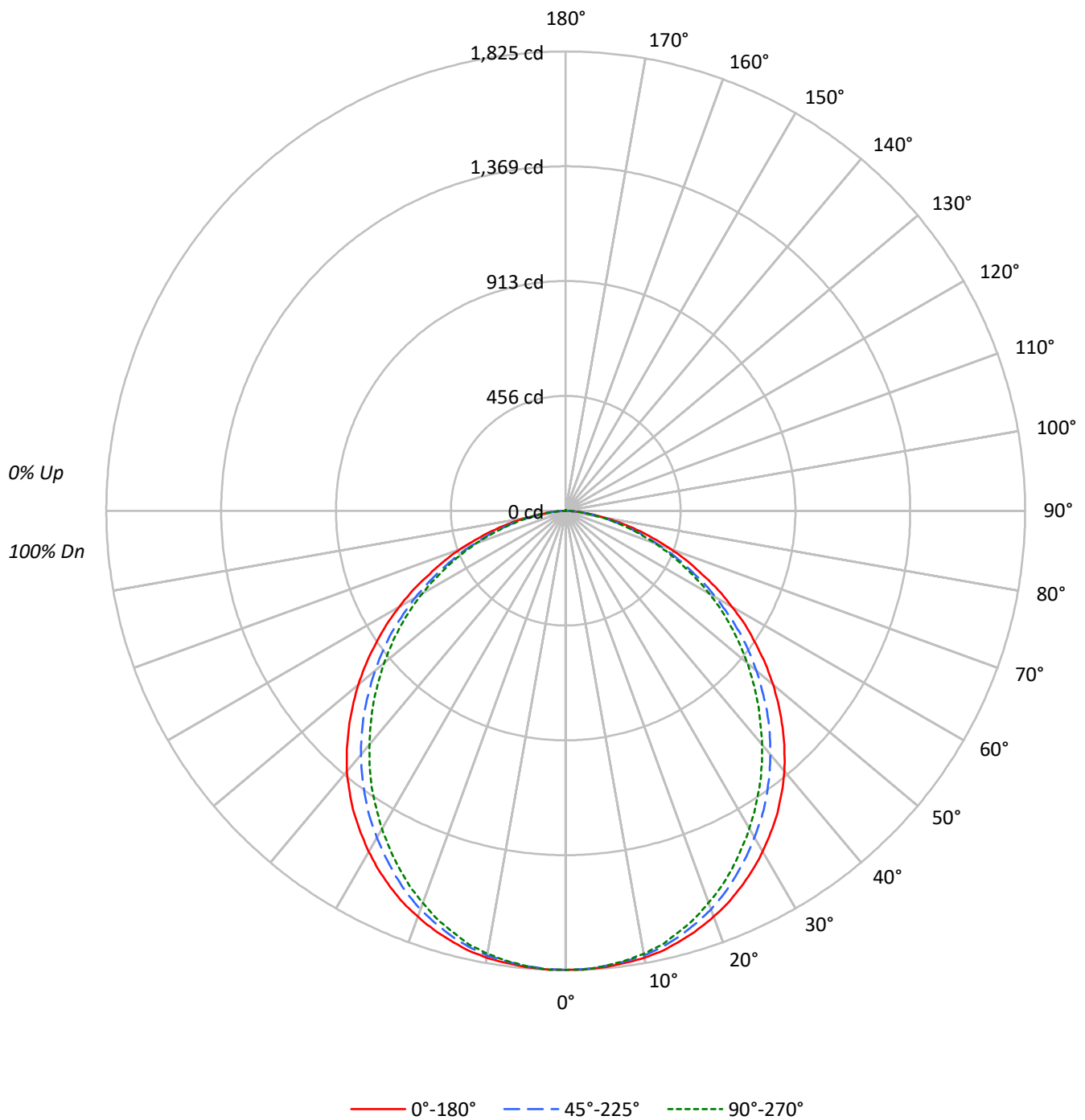
Lumens per Lamp: N/A
Luminaire Lumens: 4796.0 lumens
Efficiency: N/A
Efficacy: 108.8 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.19 / 1.33
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 44.1
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P572166

CATALOG NUMBER: 24ID-50-L830-DBR

Luminous Intensity Polar Plot



TEST NUMBER: P572166

CATALOG NUMBER: 24ID-50-L830-DBR

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	109	105	101	97	107	103	99	95	98	95	92		94	92	90		91
2	100	92	85	80	97	90	84	79	86	81	77		83	79	75		80
3	91	81	73	67	89	79	72	66	76	70	65		74	68	64		71
4	84	72	63	57	81	71	63	56	68	61	56		66	60	55		64
5	77	64	56	49	75	63	55	49	61	54	48		59	53	48		57
6	71	58	49	43	69	57	49	43	55	48	42		54	47	42		52
7	66	53	44	38	64	52	44	38	50	43	38		49	42	37		48
8	61	48	40	34	60	47	39	34	46	39	34		45	38	33		44
9	57	44	36	31	56	44	36	31	42	35	30		41	35	30		40
10	54	41	33	28	53	40	33	28	39	32	28		38	32	27		37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2455	2455	2455
5°	2458	2452	2452
10°	2464	2452	2442
15°	2464	2438	2415
20°	2459	2415	2375
25°	2448	2375	2327
30°	2431	2329	2267
35°	2409	2282	2205
40°	2374	2222	2131
45°	2318	2153	2055
50°	2251	2069	1971
55°	2160	1978	1879
60°	2049	1853	1771
65°	1902	1700	1633
70°	1742	1530	1484
75°	1510	1315	1279
80°	1216	1034	1034
85°	614	651	614

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 2318 cd/sqm

TEST NUMBER: P572166

CATALOG NUMBER: 24ID-50-L830-DBR

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.6	3.6
10°-20°	493.5	10.3
20°-30°	738.9	15.4
30°-40°	873.4	18.2
40°-50°	879.1	18.3
50°-60°	760.7	15.9
60°-70°	541.8	11.3
70°-80°	278.2	5.8
80°-90°	57.6	1.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.2	0.0
170°-180°	0.0	0.0
0°-30°	1405.1	29.3
0°-40°	2278.5	47.5
0°-60°	3918.3	81.7
0°-90°	4795.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4796.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1825	1825	1825	1825	1825	
5°	1820	1818	1816	1813	1816	173
15°	1769	1762	1750	1736	1734	499
25°	1649	1635	1600	1574	1567	760
35°	1466	1443	1389	1354	1342	916
45°	1218	1192	1132	1092	1080	939
55°	921	895	843	808	801	824
65°	597	576	534	515	513	595
75°	290	276	253	244	246	310
85°	40	40	42	42	40	60
90°	0	0	0	0	0	2
95°	0	0	0	0	0	0
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	2	0
180°	0	0	0	0	0	

TEST NUMBER: P572166

CATALOG NUMBER: 24ID-50-L830-DBR

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1824.9	1824.9	1824.9	1824.9	1824.9
2.5°	1824.9	1822.5	1822.5	1820.2	1824.9
5°	1820.2	1817.8	1815.5	1813.1	1815.5
7.5°	1813.1	1808.5	1806.1	1801.4	1803.8
10°	1803.8	1799.1	1794.4	1787.4	1787.4
12.5°	1789.7	1785.0	1775.7	1766.3	1766.3
15°	1768.6	1761.6	1749.9	1735.8	1733.5
17.5°	1745.2	1735.8	1719.4	1703.0	1700.7
20°	1717.1	1707.7	1686.6	1665.6	1658.5
22.5°	1686.6	1674.9	1646.8	1623.4	1616.4
25°	1649.2	1635.1	1600.0	1574.2	1567.2
27.5°	1609.3	1590.6	1550.8	1522.7	1513.3
30°	1564.8	1546.1	1499.2	1471.1	1459.4
32.5°	1515.6	1494.6	1447.7	1412.6	1400.9
35°	1466.4	1443.0	1389.1	1354.0	1342.3
37.5°	1410.2	1384.5	1328.2	1290.8	1279.0
40°	1351.7	1325.9	1265.0	1227.5	1213.4
42.5°	1286.1	1260.3	1199.4	1159.6	1145.5
45°	1218.1	1192.4	1131.5	1091.6	1079.9
47.5°	1147.9	1117.4	1058.8	1021.4	1009.6
50°	1075.2	1044.8	988.6	951.1	941.7
52.5°	1000.3	969.8	915.9	878.5	871.4
55°	920.6	894.9	843.3	808.2	801.2
57.5°	845.7	817.6	763.7	737.9	730.9
60°	761.3	737.9	688.7	665.3	658.3
62.5°	684.0	660.6	611.4	585.6	583.3
65°	597.4	576.3	534.1	515.4	513.0
67.5°	522.4	499.0	463.8	445.1	445.1
70°	442.7	421.7	388.9	377.2	377.2
72.5°	363.1	349.0	320.9	309.2	311.6
75°	290.5	276.4	253.0	243.6	246.0
77.5°	222.5	206.1	192.1	185.1	187.4
80°	157.0	145.2	133.5	131.2	133.5
82.5°	93.7	86.7	84.3	84.3	84.3
85°	39.8	39.8	42.2	42.2	39.8
87.5°	16.4	14.1	14.1	16.4	16.4
90°	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P572166

CATALOG NUMBER: 24ID-50-L830-DBR

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	2.3	0.0	2.3	2.3	2.3
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	2.3	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	2.3
177.5°	0.0	0.0	2.3	2.3	2.3
180°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P572166

CATALOG NUMBER: 24ID-50-L830-DBR

CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	14.85	16.45	15.22	16.77	17.08	14.08	15.68	14.45	16.00	16.31
	3H	16.47	17.92	16.85	18.24	18.61	15.64	17.08	16.01	17.41	17.77
	4H	17.03	18.38	17.42	18.73	19.11	16.16	17.51	16.55	17.86	18.24
	6H	17.38	18.63	17.79	19.00	19.39	16.49	17.74	16.90	18.11	18.50
	8H	17.46	18.65	17.88	19.04	19.44	16.57	17.77	16.99	18.16	18.56
	12H	17.48	18.63	17.91	19.01	19.44	16.60	17.75	17.03	18.13	18.56
4H	2H	15.31	16.67	15.71	17.02	17.39	14.69	16.05	15.09	16.39	16.77
	3H	17.15	18.28	17.56	18.68	19.08	16.44	17.57	16.85	17.97	18.37
	4H	17.81	18.83	18.25	19.25	19.69	17.06	18.08	17.49	18.50	18.93
	6H	18.27	19.16	18.73	19.60	20.06	17.49	18.38	17.94	18.82	19.28
	8H	18.38	19.21	18.84	19.65	20.12	17.60	18.43	18.06	18.87	19.34
	12H	18.42	19.17	18.90	19.64	20.11	17.65	18.40	18.13	18.88	19.35
8H	4H	18.00	18.83	18.46	19.28	19.74	17.32	18.15	17.78	18.59	19.06
	6H	18.54	19.22	19.03	19.71	20.19	17.83	18.52	18.32	19.01	19.48
	8H	18.68	19.30	19.19	19.81	20.29	17.98	18.60	18.50	19.11	19.60
	12H	18.76	19.30	19.27	19.80	20.36	18.08	18.62	18.59	19.11	19.68
12H	4H	18.01	18.75	18.49	19.23	19.70	17.34	18.08	17.82	18.56	19.03
	6H	18.55	19.16	19.06	19.67	20.16	17.86	18.47	18.37	18.98	19.47
	8H	18.73	19.28	19.24	19.77	20.33	18.05	18.60	18.56	19.09	19.65

END OF REPORT