

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: P572171

Luminaire Tested: 24ID-50-L850-DBD

Issue Date: 10/5/2021

Test Information

Test Method: LM-79-2019
Report Number: P572171
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2109-397-8)
Test Lab: INNOVATION CENTER
Issue Date: 10/5/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: 24ID-50-L850-DBD
Description: 5000 LUMEN, 2X4 INDEPTH TROFFER WITH 2IN DROPPED DOUBLE BARRELL LENS AND 5000K, 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

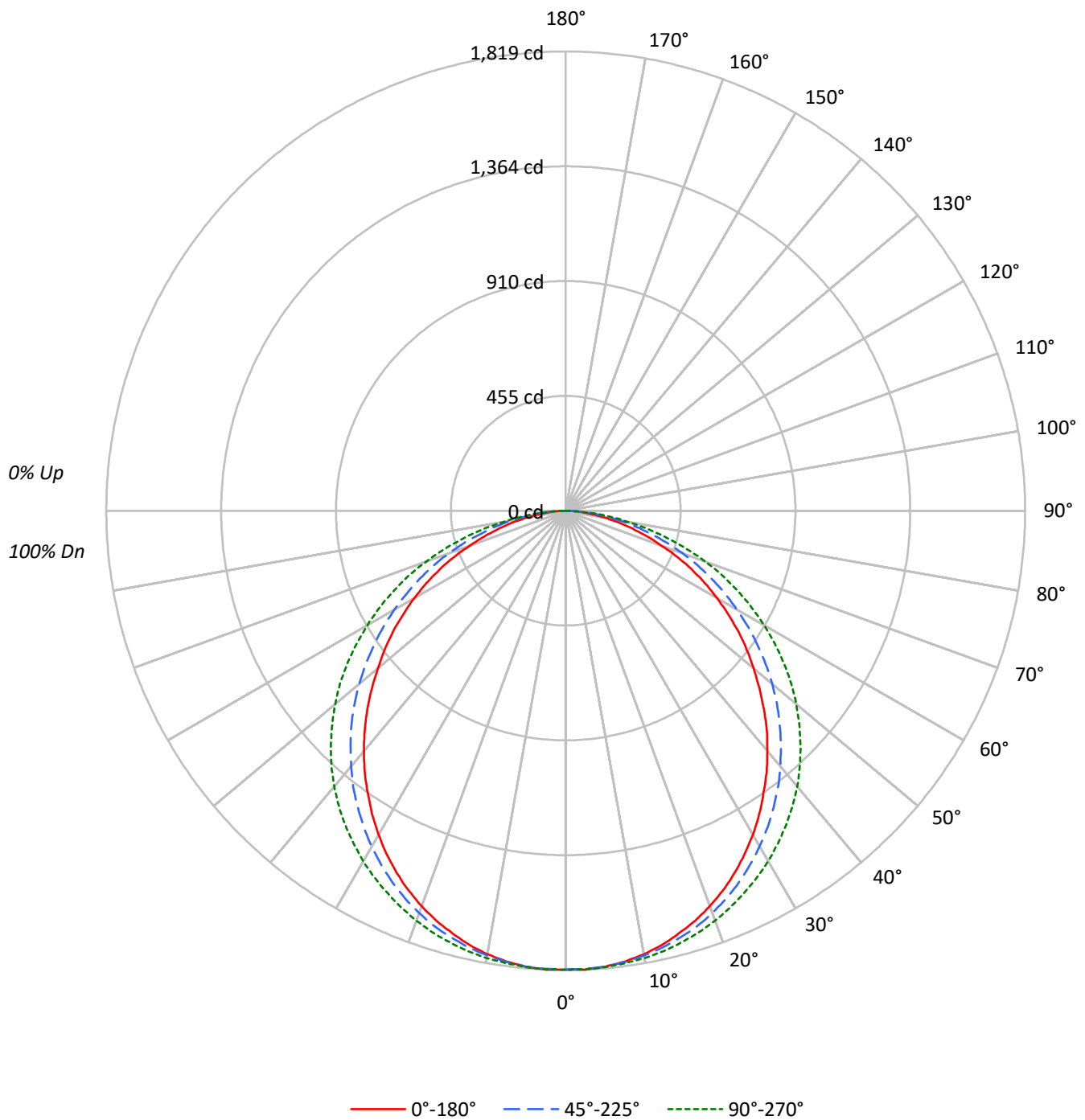
Lumens per Lamp: N/A
Luminaire Lumens: 5185.0 lumens
Efficiency: N/A
Efficacy: 117.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 4' x H: 0.17')
CIE Type: Direct

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: P572171

CATALOG NUMBER: 24ID-50-L850-DBD

Luminous Intensity Polar Plot



TEST NUMBER: P572171

CATALOG NUMBER: 24ID-50-L850-DBD

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	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61
4	82	70	61	55	80	69	61	54	66	59	54	64	58	53	62	57	52
5	76	63	54	47	74	62	53	47	59	52	46	58	51	46	56	50	45
6	70	56	47	41	68	56	47	41	54	46	40	52	45	40	50	44	40
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2445	2445	2445
5°	2439	2429	2432
10°	2419	2406	2422
15°	2387	2381	2412
20°	2352	2353	2402
25°	2305	2315	2387
30°	2248	2270	2377
35°	2179	2219	2360
40°	2109	2161	2341
45°	2026	2096	2310
50°	1933	2021	2269
55°	1848	1928	2212
60°	1735	1826	2133
65°	1606	1706	2026
70°	1422	1553	1873
75°	1229	1338	1644
80°	972	1087	1286
85°	670	673	773

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 2310 cd/sqm

TEST NUMBER: P572171

CATALOG NUMBER: 24ID-50-L850-DBD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.3	3.3
10°-20°	494.4	9.5
20°-30°	749.4	14.5
30°-40°	901.4	17.4
40°-50°	930.6	17.9
50°-60°	836.2	16.1
60°-70°	636.7	12.3
70°-80°	365.5	7.1
80°-90°	98.6	1.9
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°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1416.0	27.3
0°-40°	2317.4	44.7
0°-60°	4084.2	78.8
0°-90°	5185.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5185.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1817	1817	1817	1817	1817	
5°	1812	1814	1812	1811	1814	172
15°	1733	1742	1750	1762	1770	489
25°	1583	1598	1624	1657	1671	729
35°	1366	1389	1435	1497	1521	855
45°	1109	1135	1199	1281	1315	856
55°	834	856	926	1015	1055	745
65°	550	575	637	712	750	544
75°	273	298	342	391	415	290
85°	64	74	88	93	98	75
90°	0	0	0	0	0	

TEST NUMBER: P572171

CATALOG NUMBER: 24ID-50-L850-DBD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1817.4	1817.4	1817.4	1817.4	1817.4
2.5°	1819.1	1819.1	1815.7	1814.0	1817.4
5°	1812.4	1814.0	1812.4	1810.7	1814.0
7.5°	1800.6	1802.2	1802.2	1803.9	1807.3
10°	1783.7	1787.1	1788.8	1793.8	1798.9
12.5°	1761.8	1765.2	1771.9	1780.3	1787.1
15°	1733.1	1741.6	1750.0	1761.8	1770.2
17.5°	1702.8	1712.9	1726.4	1741.6	1751.7
20°	1667.4	1679.2	1696.0	1716.3	1728.1
22.5°	1626.9	1642.1	1662.3	1687.6	1701.1
25°	1583.1	1598.3	1623.5	1657.3	1670.7
27.5°	1534.2	1551.0	1581.4	1620.2	1638.7
30°	1481.9	1500.5	1535.9	1583.1	1603.3
32.5°	1426.3	1446.5	1487.0	1540.9	1562.8
35°	1365.6	1389.2	1434.7	1497.1	1520.7
37.5°	1306.6	1330.2	1380.8	1448.2	1475.2
40°	1242.5	1267.8	1321.8	1395.9	1426.3
42.5°	1178.5	1200.4	1261.1	1340.3	1372.3
45°	1109.3	1134.6	1198.7	1281.3	1315.0
47.5°	1040.2	1067.2	1134.6	1218.9	1254.3
50°	969.4	998.1	1067.2	1153.2	1191.9
52.5°	903.7	927.3	998.1	1085.7	1126.2
55°	834.5	856.4	925.6	1014.9	1055.4
57.5°	762.0	787.3	856.4	940.7	981.2
60°	691.2	716.5	782.3	866.6	907.0
62.5°	622.1	645.7	709.8	790.7	831.2
65°	549.6	574.9	637.3	711.5	750.2
67.5°	478.8	505.8	564.8	632.2	672.7
70°	402.9	433.3	490.6	553.0	585.0
72.5°	335.5	364.2	416.4	472.1	502.4
75°	273.1	298.4	342.2	391.1	414.7
77.5°	210.7	237.7	276.5	313.6	332.1
80°	155.1	180.4	210.7	236.0	244.5
82.5°	106.2	124.8	146.7	160.2	172.0
85°	64.1	74.2	87.7	92.7	97.8
87.5°	27.0	30.3	35.4	33.7	35.4
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P572171

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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	13.71	15.35	14.08	15.67	15.98	15.18	16.82	15.54	17.14	17.45
	3H	15.28	16.76	15.66	17.09	17.45	17.08	18.56	17.46	18.89	19.25
	4H	15.80	17.20	16.20	17.55	17.92	17.78	19.18	18.18	19.53	19.90
	6H	16.13	17.43	16.54	17.79	18.18	18.27	19.57	18.69	19.94	20.33
	8H	16.21	17.45	16.63	17.84	18.24	18.42	19.66	18.84	20.05	20.45
	12H	16.25	17.44	16.68	17.82	18.25	18.50	19.69	18.93	20.07	20.50
4H	2H	14.46	15.87	14.86	16.21	16.59	15.63	17.03	16.03	17.38	17.76
	3H	16.23	17.41	16.64	17.80	18.20	17.75	18.92	18.16	19.32	19.72
	4H	16.86	17.92	17.29	18.33	18.77	18.58	19.65	19.01	20.06	20.49
	6H	17.29	18.22	17.74	18.66	19.12	19.21	20.14	19.66	20.58	21.03
	8H	17.40	18.28	17.86	18.72	19.18	19.39	20.27	19.85	20.71	21.17
	12H	17.47	18.26	17.95	18.73	19.20	19.51	20.29	19.99	20.77	21.24
8H	4H	17.24	18.11	17.70	18.55	19.02	18.78	19.65	19.24	20.09	20.55
	6H	17.78	18.50	18.27	18.99	19.46	19.50	20.23	19.99	20.71	21.19
	8H	17.94	18.59	18.45	19.10	19.59	19.75	20.40	20.26	20.90	21.39
	12H	18.06	18.63	18.56	19.12	19.68	19.92	20.49	20.43	20.98	21.54
12H	4H	17.29	18.07	17.77	18.55	19.01	18.79	19.57	19.27	20.04	20.51
	6H	17.85	18.50	18.36	19.01	19.49	19.52	20.17	20.03	20.67	21.16
	8H	18.07	18.64	18.57	19.13	19.69	19.81	20.38	20.32	20.87	21.43

END OF REPORT