

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: P572228

Luminaire Tested: 24ID-85-L850-DBR

Issue Date: 10/5/2021

Test Information

Test Method: LM-79-2019
Report Number: P572228
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-85-L850-DBR
Description: 8500 LUMEN, 2X4 INDEPTH TROFFER WITH 2IN REGRESSED DOUBLE BARRELL LENS AND 5000K, 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

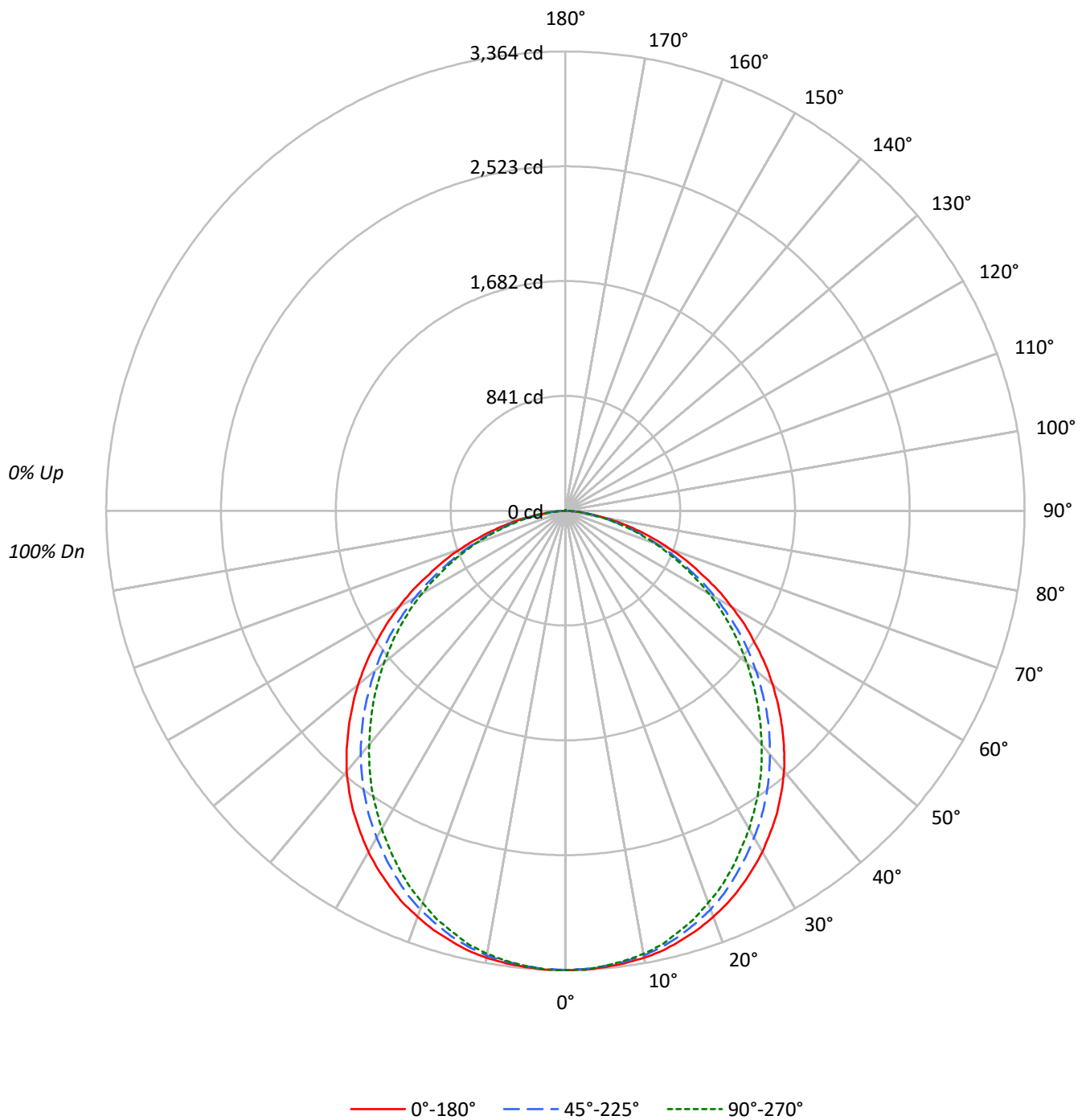
Lumens per Lamp: N/A
Luminaire Lumens: 8842.0 lumens
Efficiency: N/A
Efficacy: 107.8 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.19 / 1.33
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 82
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: P572228

CATALOG NUMBER: 24ID-85-L850-DBR

Luminous Intensity Polar Plot



TEST NUMBER: P572228

CATALOG NUMBER: 24ID-85-L850-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°	4527	4527	4527
5°	4532	4521	4521
10°	4543	4520	4502
15°	4542	4494	4452
20°	4533	4452	4378
25°	4514	4379	4289
30°	4482	4294	4180
35°	4441	4207	4065
40°	4377	4096	3929
45°	4273	3969	3788
50°	4149	3815	3634
55°	3982	3647	3465
60°	3777	3417	3266
65°	3506	3135	3011
70°	3211	2820	2735
75°	2784	2425	2358
80°	2242	1908	1908
85°	1133	1200	1133

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 4273 cd/sqm

TEST NUMBER: P572228

CATALOG NUMBER: 24ID-85-L850-DBR

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	318.3	3.6
10°-20°	909.9	10.3
20°-30°	1362.3	15.4
30°-40°	1610.1	18.2
40°-50°	1620.7	18.3
50°-60°	1402.5	15.9
60°-70°	998.8	11.3
70°-80°	512.9	5.8
80°-90°	106.1	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°	0.3	0.0
170°-180°	0.0	0.0
0°-30°	2590.5	29.3
0°-40°	4200.6	47.5
0°-60°	7223.8	81.7
0°-90°	8841.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8842.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3364	3364	3364	3364	3364	
5°	3356	3351	3347	3343	3347	319
15°	3261	3248	3226	3200	3196	921
25°	3040	3014	2950	2902	2889	1401
35°	2704	2660	2561	2496	2475	1689
45°	2246	2198	2086	2013	1991	1731
55°	1697	1650	1555	1490	1477	1519
65°	1101	1062	985	950	946	1097
75°	536	510	466	449	454	571
85°	73	73	78	78	73	110
90°	0	0	0	0	0	4
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	4	0
180°	0	0	0	0	0	

TEST NUMBER: P572228

CATALOG NUMBER: 24ID-85-L850-DBR

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3364.3	3364.3	3364.3	3364.3	3364.3
2.5°	3364.3	3360.0	3360.0	3355.7	3364.3
5°	3355.7	3351.4	3347.1	3342.8	3347.1
7.5°	3342.8	3334.1	3329.8	3321.2	3325.5
10°	3325.5	3316.8	3308.2	3295.2	3295.2
12.5°	3299.6	3290.9	3273.7	3256.4	3256.4
15°	3260.7	3247.7	3226.1	3200.2	3195.9
17.5°	3217.5	3200.2	3170.0	3139.8	3135.4
20°	3165.7	3148.4	3109.5	3070.7	3057.7
22.5°	3109.5	3087.9	3036.1	2992.9	2980.0
25°	3040.4	3014.5	2949.7	2902.2	2889.3
27.5°	2967.0	2932.5	2859.0	2807.2	2789.9
30°	2885.0	2850.4	2764.0	2712.2	2690.6
32.5°	2794.3	2755.4	2669.0	2604.2	2582.6
35°	2703.6	2660.4	2561.0	2496.3	2474.7
37.5°	2599.9	2552.4	2448.8	2379.7	2358.1
40°	2491.9	2444.4	2332.2	2263.1	2237.1
42.5°	2371.0	2323.5	2211.2	2137.8	2111.9
45°	2245.8	2198.3	2086.0	2012.6	1991.0
47.5°	2116.2	2060.1	1952.1	1883.0	1861.4
50°	1982.3	1926.2	1822.5	1753.4	1736.2
52.5°	1844.1	1788.0	1688.7	1619.5	1606.6
55°	1697.3	1649.8	1554.8	1490.0	1477.0
57.5°	1559.1	1507.3	1407.9	1360.4	1347.5
60°	1403.6	1360.4	1269.7	1226.5	1213.6
62.5°	1261.1	1217.9	1127.2	1079.7	1075.4
65°	1101.3	1062.4	984.7	950.1	945.8
67.5°	963.1	919.9	855.1	820.6	820.6
70°	816.3	777.4	716.9	695.3	695.3
72.5°	669.4	643.5	591.7	570.1	574.4
75°	535.5	509.6	466.4	449.2	453.5
77.5°	410.3	380.1	354.1	341.2	345.5
80°	289.4	267.8	246.2	241.9	246.2
82.5°	172.8	159.8	155.5	155.5	155.5
85°	73.4	73.4	77.7	77.7	73.4
87.5°	30.2	25.9	25.9	30.2	30.2
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: P572228

CATALOG NUMBER: 24ID-85-L850-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°	4.3	0.0	4.3	4.3	4.3
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	4.3	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	4.3
177.5°	0.0	0.0	4.3	4.3	4.3
180°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P572228
CATALOG NUMBER: 24ID-85-L850-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	16.98	18.58	17.34	18.89	19.21	16.21	17.81	16.57	18.12	18.44
	3H	18.60	20.04	18.98	20.37	20.73	17.76	19.20	18.14	19.53	19.89
	4H	19.15	20.51	19.55	20.86	21.23	18.28	19.64	18.68	19.99	20.36
	6H	19.50	20.76	19.91	21.12	21.52	18.61	19.87	19.02	20.23	20.63
	8H	19.58	20.78	20.01	21.17	21.57	18.69	19.89	19.12	20.28	20.68
	12H	19.60	20.75	20.03	21.13	21.56	18.72	19.87	19.15	20.25	20.68
4H	2H	17.44	18.80	17.84	19.14	19.52	16.82	18.17	17.21	18.52	18.90
	3H	19.27	20.40	19.68	20.80	21.20	18.56	19.70	18.97	20.09	20.50
	4H	19.94	20.96	20.37	21.37	21.81	19.19	20.21	19.62	20.62	21.06
	6H	20.40	21.29	20.85	21.73	22.18	19.61	20.50	20.07	20.95	21.40
	8H	20.50	21.34	20.97	21.78	22.24	19.73	20.56	20.19	21.00	21.47
	12H	20.55	21.29	21.03	21.77	22.24	19.78	20.52	20.26	21.00	21.47
8H	4H	20.13	20.96	20.59	21.40	21.87	19.45	20.28	19.91	20.72	21.19
	6H	20.66	21.35	21.16	21.84	22.32	19.96	20.64	20.45	21.13	21.61
	8H	20.81	21.43	21.32	21.93	22.42	20.11	20.73	20.62	21.23	21.72
	12H	20.89	21.43	21.39	21.92	22.48	20.20	20.75	20.71	21.24	21.80
12H	4H	20.13	20.88	20.61	21.35	21.82	19.46	20.21	19.94	20.68	21.15
	6H	20.67	21.29	21.18	21.80	22.28	19.98	20.60	20.49	21.11	21.59
	8H	20.86	21.40	21.36	21.89	22.45	20.18	20.72	20.69	21.21	21.78