

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: P572162

Luminaire Tested: 24ID-45-L840-DBR

Issue Date: 10/5/2021

Test Information

Test Method: LM-79-2019
Report Number: P572162
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-45-L840-DBR
Description: 4500 LUMEN, 2X4 INDEPTH TROFFER WITH 2IN REGRESSED DOUBLE BARRELL LENS AND 4000K, 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

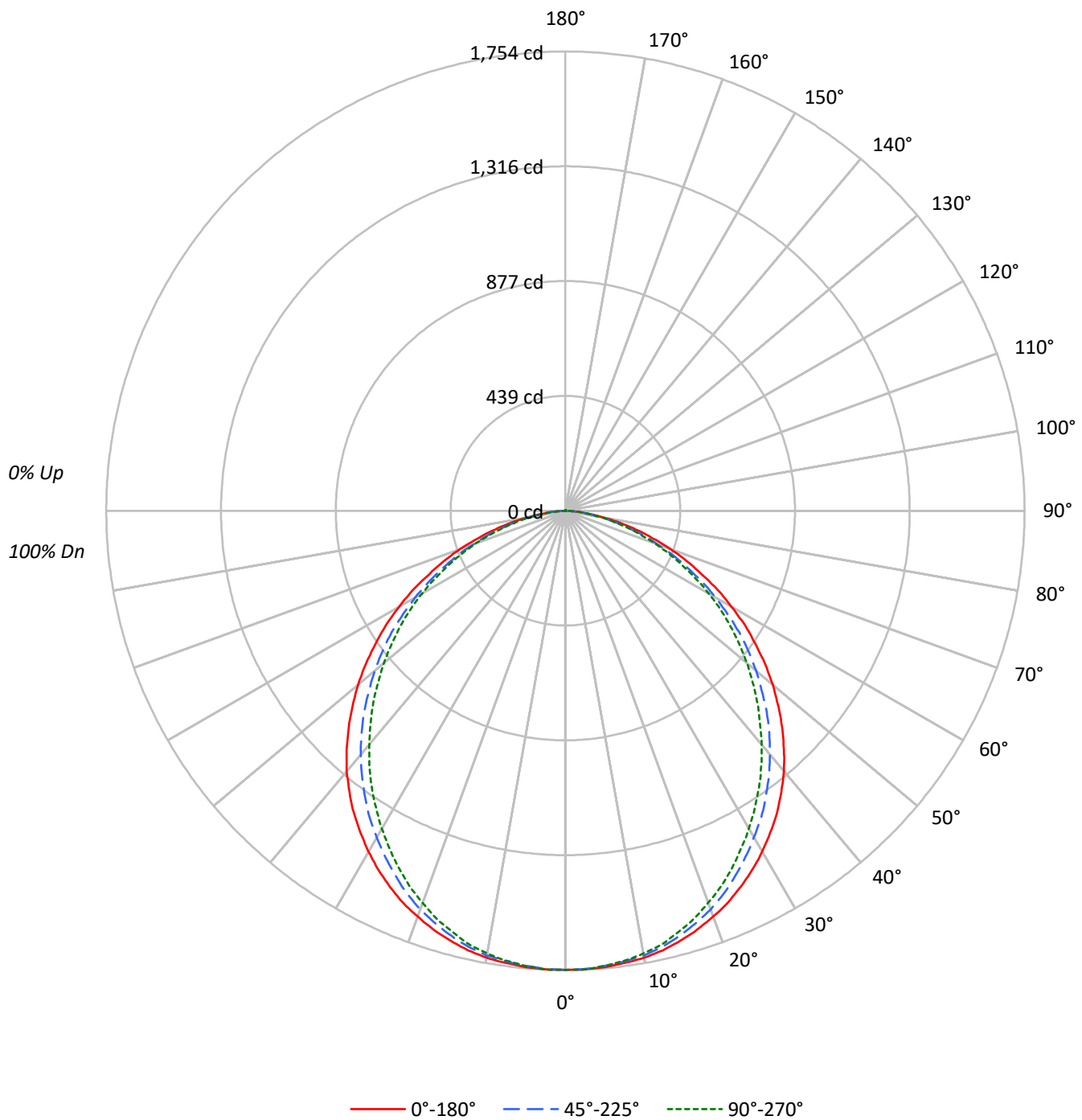
Lumens per Lamp: N/A
Luminaire Lumens: 4609.0 lumens
Efficiency: N/A
Efficacy: 115.2 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.19 / 1.33
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 40
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

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Luminous Intensity Polar Plot



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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°	2360	2360	2360
5°	2363	2356	2356
10°	2368	2356	2347
15°	2368	2343	2321
20°	2363	2321	2282
25°	2353	2283	2236
30°	2336	2238	2179
35°	2315	2193	2119
40°	2282	2135	2048
45°	2227	2069	1975
50°	2163	1989	1894
55°	2075	1901	1806
60°	1969	1781	1702
65°	1828	1634	1570
70°	1674	1470	1426
75°	1451	1264	1229
80°	1168	994	994
85°	591	625	591

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2227 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	165.9	3.6
10°-20°	474.3	10.3
20°-30°	710.1	15.4
30°-40°	839.3	18.2
40°-50°	844.8	18.3
50°-60°	731.1	15.9
60°-70°	520.6	11.3
70°-80°	267.3	5.8
80°-90°	55.3	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°	1350.3	29.3
0°-40°	2189.6	47.5
0°-60°	3765.5	81.7
0°-90°	4608.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4609.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1754	1754	1754	1754	1754	
5°	1749	1747	1745	1742	1745	166
15°	1700	1693	1682	1668	1666	480
25°	1585	1571	1538	1513	1506	730
35°	1409	1387	1335	1301	1290	881
45°	1171	1146	1087	1049	1038	902
55°	885	860	810	777	770	792
65°	574	554	513	495	493	572
75°	279	266	243	234	236	298
85°	38	38	40	40	38	58
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	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1753.7	1753.7	1753.7	1753.7	1753.7
2.5°	1753.7	1751.5	1751.5	1749.2	1753.7
5°	1749.2	1747.0	1744.7	1742.4	1744.7
7.5°	1742.4	1737.9	1735.7	1731.2	1733.4
10°	1733.4	1728.9	1724.4	1717.7	1717.7
12.5°	1719.9	1715.4	1706.4	1697.4	1697.4
15°	1699.7	1692.9	1681.7	1668.2	1665.9
17.5°	1677.2	1668.2	1652.4	1636.6	1634.4
20°	1650.1	1641.1	1620.9	1600.6	1593.9
22.5°	1620.9	1609.6	1582.6	1560.1	1553.3
25°	1584.9	1571.4	1537.6	1512.8	1506.1
27.5°	1546.6	1528.6	1490.3	1463.3	1454.3
30°	1503.8	1485.8	1440.8	1413.8	1402.5
32.5°	1456.5	1436.3	1391.3	1357.5	1346.2
35°	1409.3	1386.8	1335.0	1301.2	1290.0
37.5°	1355.2	1330.5	1276.4	1240.4	1229.2
40°	1299.0	1274.2	1215.7	1179.6	1166.1
42.5°	1235.9	1211.2	1152.6	1114.4	1100.9
45°	1170.6	1145.9	1087.3	1049.1	1037.8
47.5°	1103.1	1073.8	1017.6	981.5	970.3
50°	1033.3	1004.0	950.0	914.0	905.0
52.5°	961.3	932.0	880.2	844.2	837.5
55°	884.7	860.0	810.4	776.7	769.9
57.5°	812.7	785.7	733.9	709.1	702.4
60°	731.6	709.1	661.9	639.3	632.6
62.5°	657.4	634.8	587.6	562.8	560.6
65°	574.1	553.8	513.3	495.3	493.0
67.5°	502.0	479.5	445.7	427.7	427.7
70°	425.5	405.2	373.7	362.4	362.4
72.5°	348.9	335.4	308.4	297.2	299.4
75°	279.2	265.6	243.1	234.1	236.4
77.5°	213.9	198.1	184.6	177.8	180.1
80°	150.8	139.6	128.3	126.1	128.3
82.5°	90.0	83.3	81.0	81.0	81.0
85°	38.3	38.3	40.5	40.5	38.3
87.5°	15.8	13.5	13.5	15.8	15.8
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

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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

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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	14.71	16.31	15.08	16.63	16.94	13.94	15.55	14.31	15.86	16.17
	3H	16.34	17.78	16.71	18.11	18.47	15.50	16.94	15.87	17.27	17.63
	4H	16.89	18.24	17.29	18.59	18.97	16.02	17.37	16.42	17.72	18.10
	6H	17.24	18.50	17.65	18.86	19.25	16.35	17.61	16.76	17.97	18.36
	8H	17.32	18.52	17.74	18.91	19.30	16.43	17.63	16.85	18.02	18.42
	12H	17.34	18.49	17.77	18.87	19.30	16.46	17.61	16.89	17.99	18.42
4H	2H	15.17	16.53	15.57	16.88	17.26	14.55	15.91	14.95	16.26	16.63
	3H	17.01	18.14	17.42	18.54	18.94	16.30	17.43	16.71	17.83	18.23
	4H	17.68	18.70	18.11	19.11	19.55	16.92	17.94	17.35	18.36	18.79
	6H	18.13	19.02	18.59	19.46	19.92	17.35	18.24	17.81	18.68	19.14
	8H	18.24	19.07	18.70	19.51	19.98	17.46	18.29	17.92	18.74	19.20
	12H	18.28	19.03	18.77	19.51	19.98	17.52	18.26	18.00	18.74	19.21
8H	4H	17.86	18.69	18.32	19.14	19.60	17.18	18.01	17.64	18.46	18.92
	6H	18.40	19.09	18.89	19.58	20.05	17.69	18.38	18.19	18.87	19.34
	8H	18.55	19.16	19.06	19.67	20.16	17.85	18.46	18.36	18.97	19.46
	12H	18.62	19.17	19.13	19.66	20.22	17.94	18.48	18.45	18.97	19.54
12H	4H	17.87	18.61	18.35	19.09	19.56	17.20	17.94	17.68	18.42	18.89
	6H	18.41	19.03	18.92	19.53	20.02	17.72	18.34	18.23	18.84	19.33
	8H	18.59	19.14	19.10	19.63	20.19	17.91	18.46	18.42	18.95	19.51

END OF REPORT