

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: P572160

Luminaire Tested: 24ID-45-L835-DBR

Issue Date: 10/5/2021

Test Information

Test Method: LM-79-2019
Report Number: P572160
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-L835-DBR
Description: 4500 LUMEN, 2X4 INDEPTH TROFFER WITH 2IN REGRESSED DOUBLE BARRELL LENS AND 3500K, 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

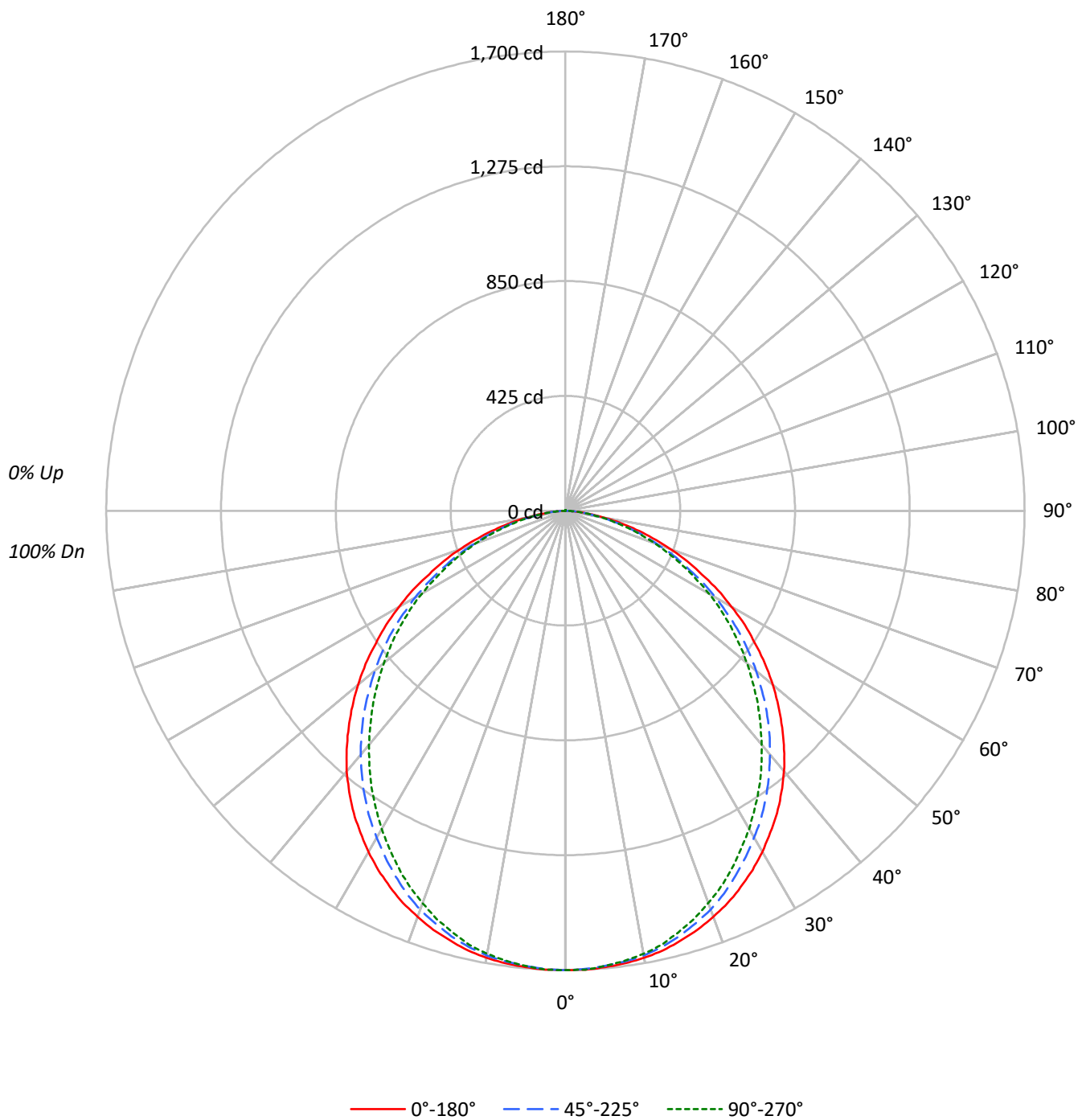
Lumens per Lamp: N/A
Luminaire Lumens: 4469.0 lumens
Efficiency: N/A
Efficacy: 111.7 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.19 / 1.33
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	2288	2288	2288
5°	2291	2285	2285
10°	2296	2284	2275
15°	2296	2271	2250
20°	2291	2250	2213
25°	2281	2213	2168
30°	2265	2170	2113
35°	2245	2126	2054
40°	2212	2070	1986
45°	2160	2006	1915
50°	2097	1928	1837
55°	2012	1843	1751
60°	1909	1727	1651
65°	1772	1585	1522
70°	1623	1426	1382
75°	1407	1225	1192
80°	1134	964	964
85°	573	607	573

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2160 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.9	3.6
10°-20°	459.9	10.3
20°-30°	688.5	15.4
30°-40°	813.8	18.2
40°-50°	819.2	18.3
50°-60°	708.8	15.9
60°-70°	504.8	11.3
70°-80°	259.2	5.8
80°-90°	53.6	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°	1309.3	29.3
0°-40°	2123.1	47.5
0°-60°	3651.1	81.7
0°-90°	4468.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4469.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1700	1700	1700	1700	1700	
5°	1696	1694	1692	1690	1692	161
15°	1648	1642	1631	1618	1615	465
25°	1537	1524	1491	1467	1460	708
35°	1366	1345	1294	1262	1251	854
45°	1135	1111	1054	1017	1006	875
55°	858	834	786	753	746	768
65°	557	537	498	480	478	554
75°	271	258	236	227	229	289
85°	37	37	39	39	37	56
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°	1700.4	1700.4	1700.4	1700.4	1700.4
2.5°	1700.4	1698.3	1698.3	1696.1	1700.4
5°	1696.1	1693.9	1691.7	1689.5	1691.7
7.5°	1689.5	1685.2	1683.0	1678.6	1680.8
10°	1680.8	1676.4	1672.1	1665.5	1665.5
12.5°	1667.7	1663.3	1654.6	1645.9	1645.9
15°	1648.0	1641.5	1630.6	1617.5	1615.3
17.5°	1626.2	1617.5	1602.2	1586.9	1584.7
20°	1600.0	1591.3	1571.6	1552.0	1545.5
22.5°	1571.6	1560.7	1534.5	1512.7	1506.2
25°	1536.7	1523.6	1490.9	1466.9	1460.3
27.5°	1499.6	1482.2	1445.0	1418.8	1410.1
30°	1458.1	1440.7	1397.0	1370.8	1359.9
32.5°	1412.3	1392.7	1349.0	1316.3	1305.3
35°	1366.5	1344.6	1294.4	1261.7	1250.8
37.5°	1314.1	1290.1	1237.7	1202.7	1191.8
40°	1259.5	1235.5	1178.7	1143.8	1130.7
42.5°	1198.4	1174.4	1117.6	1080.5	1067.4
45°	1135.1	1111.1	1054.3	1017.2	1006.3
47.5°	1069.6	1041.2	986.6	951.7	940.8
50°	1001.9	973.5	921.2	886.2	877.5
52.5°	932.1	903.7	853.5	818.6	812.0
55°	857.9	833.8	785.8	753.1	746.5
57.5°	788.0	761.8	711.6	687.6	681.0
60°	709.4	687.6	641.8	619.9	613.4
62.5°	637.4	615.6	569.7	545.7	543.5
65°	556.6	537.0	497.7	480.2	478.0
67.5°	486.8	464.9	432.2	414.7	414.7
70°	412.6	392.9	362.4	351.4	351.4
72.5°	338.3	325.2	299.0	288.1	290.3
75°	270.7	257.6	235.7	227.0	229.2
77.5°	207.4	192.1	179.0	172.4	174.6
80°	146.3	135.3	124.4	122.2	124.4
82.5°	87.3	80.8	78.6	78.6	78.6
85°	37.1	37.1	39.3	39.3	37.1
87.5°	15.3	13.1	13.1	15.3	15.3
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°	2.2	0.0	2.2	2.2	2.2
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	2.2	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	2.2
177.5°	0.0	0.0	2.2	2.2	2.2
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	14.60	16.21	14.97	16.52	16.84	13.84	15.44	14.20	15.75	16.07
	3H	16.23	17.67	16.61	18.00	18.36	15.39	16.83	15.77	17.16	17.52
	4H	16.78	18.14	17.18	18.49	18.86	15.91	17.27	16.31	17.62	17.99
	6H	17.13	18.39	17.54	18.75	19.15	16.24	17.50	16.65	17.86	18.25
	8H	17.21	18.41	17.64	18.80	19.20	16.32	17.52	16.75	17.91	18.31
	12H	17.23	18.38	17.66	18.76	19.19	16.35	17.50	16.78	17.88	18.31
4H	2H	15.07	16.42	15.47	16.77	17.15	14.44	15.80	14.84	16.15	16.53
	3H	16.90	18.03	17.31	18.43	18.83	16.19	17.33	16.60	17.72	18.12
	4H	17.57	18.59	18.00	19.00	19.44	16.81	17.84	17.25	18.25	18.69
	6H	18.03	18.92	18.48	19.36	19.81	17.24	18.13	17.70	18.57	19.03
	8H	18.13	18.96	18.59	19.41	19.87	17.35	18.19	17.82	18.63	19.09
	12H	18.18	18.92	18.66	19.40	19.87	17.41	18.15	17.89	18.63	19.10
8H	4H	17.76	18.59	18.22	19.03	19.50	17.07	17.91	17.54	18.35	18.81
	6H	18.29	18.98	18.79	19.47	19.94	17.58	18.27	18.08	18.76	19.24
	8H	18.44	19.05	18.95	19.56	20.05	17.74	18.36	18.25	18.86	19.35
	12H	18.51	19.06	19.02	19.55	20.11	17.83	18.38	18.34	18.87	19.43
12H	4H	17.76	18.51	18.24	18.98	19.45	17.09	17.84	17.57	18.31	18.78
	6H	18.30	18.92	18.81	19.43	19.91	17.61	18.23	18.12	18.74	19.22
	8H	18.49	19.03	18.99	19.52	20.08	17.81	18.35	18.31	18.84	19.40