

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: P572161

Luminaire Tested: 24ID-45-L840-DBD

Issue Date: 10/5/2021

Test Information

Test Method: LM-79-2019
Report Number: P572161
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-45-L840-DBD
Description: 4500 LUMEN, 2X4 INDEPTH TROFFER WITH 2IN DROPPED DOUBLE BARRELL LENS AND 4000K, 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

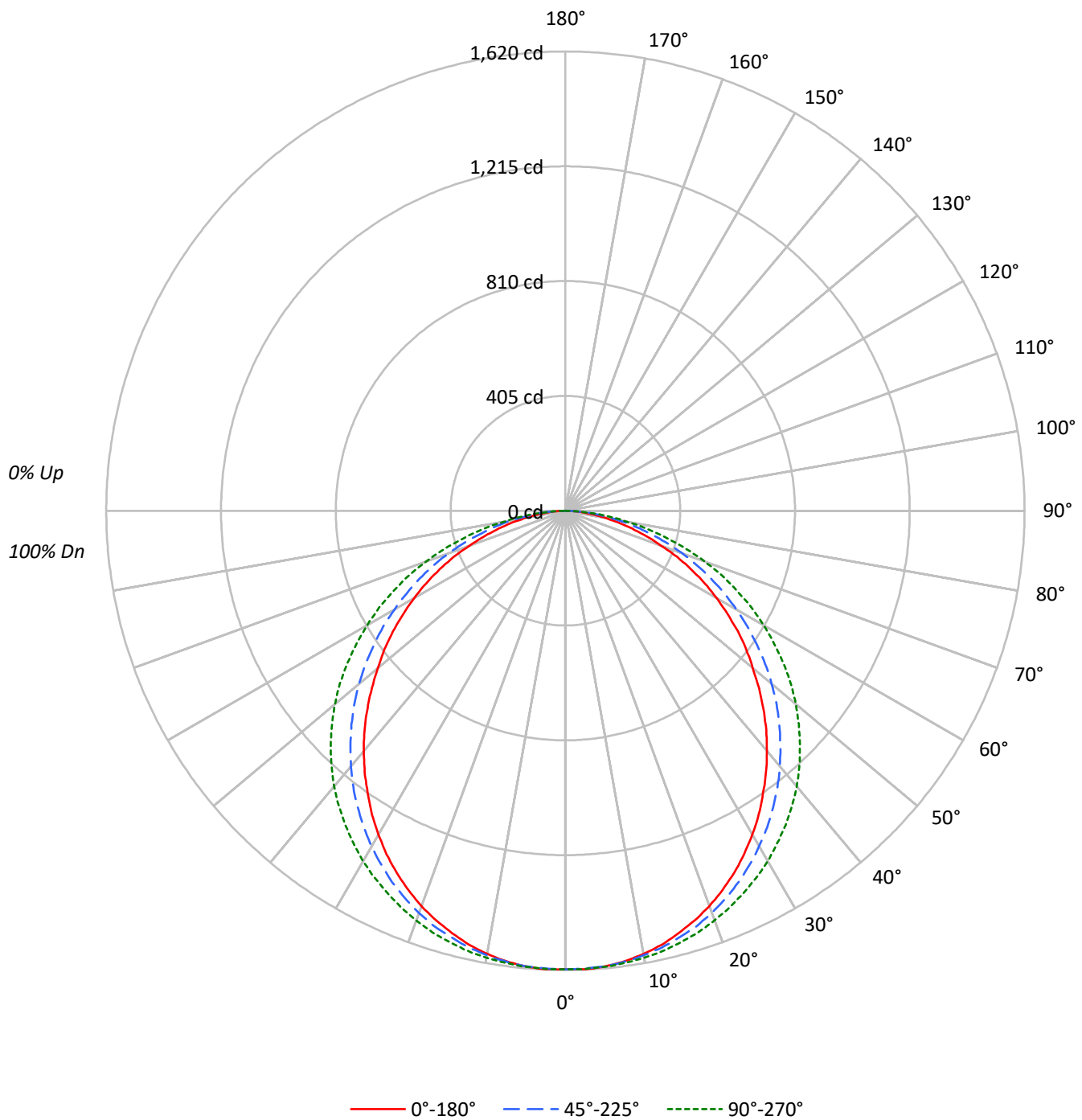
Lumens per Lamp: N/A
Luminaire Lumens: 4616.0 lumens
Efficiency: N/A
Efficacy: 115.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 4' x H: 0.17')
CIE Type: Direct

Input Watts (W): 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	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°	2177	2177	2177
5°	2171	2163	2165
10°	2154	2142	2156
15°	2125	2120	2147
20°	2094	2095	2138
25°	2052	2061	2126
30°	2002	2021	2116
35°	1940	1976	2101
40°	1877	1924	2085
45°	1804	1866	2056
50°	1721	1799	2020
55°	1645	1716	1970
60°	1545	1625	1899
65°	1430	1518	1804
70°	1266	1383	1667
75°	1094	1191	1464
80°	865	968	1145
85°	596	599	689

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 2056 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.4	3.3
10°-20°	440.1	9.5
20°-30°	667.1	14.5
30°-40°	802.5	17.4
40°-50°	828.5	17.9
50°-60°	744.4	16.1
60°-70°	566.8	12.3
70°-80°	325.4	7.1
80°-90°	87.8	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°	1260.6	27.3
0°-40°	2063.1	44.7
0°-60°	3636.0	78.8
0°-90°	4616.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4616.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1618	1618	1618	1618	1618	
5°	1614	1615	1614	1612	1615	153
15°	1543	1550	1558	1568	1576	435
25°	1409	1423	1445	1475	1487	649
35°	1216	1237	1277	1333	1354	761
45°	988	1010	1067	1141	1171	762
55°	743	762	824	904	940	663
65°	489	512	567	633	668	484
75°	243	266	305	348	369	258
85°	57	66	78	82	87	67
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1618.0	1618.0	1618.0	1618.0	1618.0
2.5°	1619.5	1619.5	1616.5	1615.0	1618.0
5°	1613.5	1615.0	1613.5	1612.0	1615.0
7.5°	1603.0	1604.5	1604.5	1606.0	1609.0
10°	1588.0	1591.0	1592.5	1597.0	1601.5
12.5°	1568.4	1571.4	1577.5	1585.0	1591.0
15°	1542.9	1550.4	1557.9	1568.4	1576.0
17.5°	1515.9	1524.9	1536.9	1550.4	1559.4
20°	1484.4	1494.9	1509.9	1527.9	1538.4
22.5°	1448.4	1461.9	1479.9	1502.4	1514.4
25°	1409.4	1422.9	1445.4	1475.4	1487.4
27.5°	1365.8	1380.8	1407.9	1442.4	1458.9
30°	1319.3	1335.8	1367.3	1409.4	1427.4
32.5°	1269.8	1287.8	1323.8	1371.8	1391.3
35°	1215.7	1236.7	1277.3	1332.8	1353.8
37.5°	1163.2	1184.2	1229.2	1289.3	1313.3
40°	1106.2	1128.7	1176.7	1242.8	1269.8
42.5°	1049.1	1068.6	1122.7	1193.2	1221.7
45°	987.6	1010.1	1067.1	1140.7	1170.7
47.5°	926.1	950.1	1010.1	1085.2	1116.7
50°	863.0	888.5	950.1	1026.6	1061.1
52.5°	804.5	825.5	888.5	966.6	1002.6
55°	742.9	762.5	824.0	903.5	939.6
57.5°	678.4	700.9	762.5	837.5	873.5
60°	615.4	637.9	696.4	771.5	807.5
62.5°	553.8	574.8	631.9	703.9	739.9
65°	489.3	511.8	567.3	633.4	667.9
67.5°	426.3	450.3	502.8	562.8	598.9
70°	358.7	385.7	436.8	492.3	520.8
72.5°	298.7	324.2	370.7	420.3	447.3
75°	243.1	265.7	304.7	348.2	369.2
77.5°	187.6	211.6	246.1	279.2	295.7
80°	138.1	160.6	187.6	210.1	217.6
82.5°	94.6	111.1	130.6	142.6	153.1
85°	57.0	66.0	78.0	82.5	87.1
87.5°	24.0	27.0	31.5	30.0	31.5
90°	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	13.31	14.95	13.67	15.26	15.58	14.78	16.42	15.14	16.73	17.05
	3H	14.87	16.36	15.25	16.69	17.05	16.67	18.16	17.05	18.49	18.85
	4H	15.39	16.79	15.79	17.14	17.52	17.38	18.78	17.77	19.12	19.50
	6H	15.72	17.02	16.13	17.39	17.78	17.87	19.17	18.28	19.53	19.92
	8H	15.81	17.05	16.23	17.44	17.83	18.01	19.25	18.44	19.64	20.04
	12H	15.85	17.04	16.28	17.42	17.85	18.09	19.28	18.52	19.66	20.09
4H	2H	14.06	15.46	14.46	15.81	16.18	15.23	16.63	15.63	16.98	17.35
	3H	15.83	17.00	16.24	17.40	17.80	17.34	18.52	17.75	18.92	19.32
	4H	16.45	17.52	16.88	17.93	18.36	18.18	19.24	18.61	19.66	20.09
	6H	16.89	17.82	17.34	18.26	18.71	18.80	19.73	19.26	20.17	20.63
	8H	17.00	17.87	17.46	18.31	18.78	18.99	19.86	19.45	20.30	20.77
	12H	17.07	17.85	17.55	18.33	18.80	19.11	19.89	19.59	20.37	20.83
8H	4H	16.83	17.70	17.29	18.15	18.61	18.37	19.24	18.83	19.69	20.15
	6H	17.37	18.10	17.87	18.58	19.06	19.10	19.82	19.59	20.31	20.78
	8H	17.54	18.19	18.05	18.70	19.18	19.34	19.99	19.85	20.50	20.99
	12H	17.65	18.23	18.16	18.72	19.28	19.52	20.09	20.02	20.58	21.14
12H	4H	16.88	17.67	17.36	18.14	18.61	18.38	19.16	18.86	19.64	20.11
	6H	17.45	18.10	17.95	18.60	19.09	19.11	19.77	19.62	20.27	20.76
	8H	17.66	18.24	18.17	18.73	19.29	19.41	19.98	19.91	20.47	21.03