

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: P938301

Luminaire Tested: SQ4-FB-150U-050D-B40-1D-UNV-W2A-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938301
REPORT IS A COMBINATION OF REPORTS P933621 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-050D-B40-1D-UNV-W2A-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

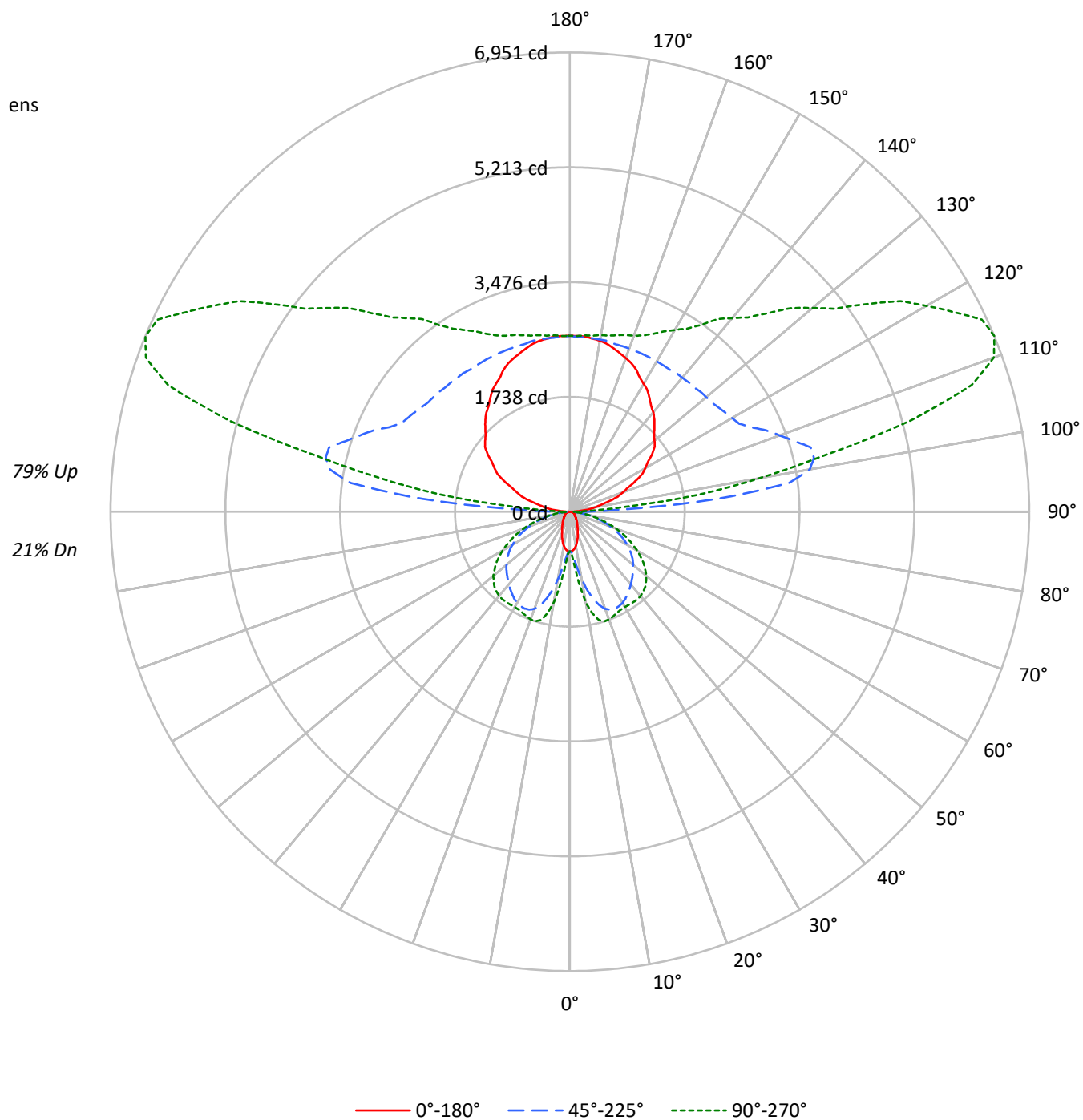
Lumens per Lamp: N/A
Luminaire Lumens: 21893.4 lumens
Efficiency: N/A
Efficacy: 131.3 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 166.8
Input Voltage (V): NR
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	100	100	100	100	89	89	89	89	67	67	67	48	48	48	30	30	30
1	91	87	83	80	80	77	74	71	58	56	54	41	40	39	26	25	24
2	83	75	70	65	73	67	62	58	51	48	45	36	34	32	22	21	20
3	75	66	59	53	66	59	53	48	45	40	37	32	29	27	20	18	17
4	69	58	50	45	60	52	45	40	39	35	31	28	25	23	17	16	14
5	63	51	44	38	55	46	39	34	35	30	27	25	22	19	15	14	12
6	57	46	38	32	51	41	34	29	31	26	23	22	19	17	14	12	11
7	53	41	33	28	47	37	30	25	28	23	20	20	17	14	12	11	9
8	49	37	30	24	43	33	27	22	25	21	17	18	15	13	11	9	8
9	45	34	26	21	40	30	24	19	23	18	15	16	13	11	10	9	7
10	42	31	24	19	37	27	21	17	21	17	14	15	12	10	10	8	6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1848	1848	1848
5°	1807	2137	2485
10°	1639	3116	4119
15°	1394	4072	4974
20°	1135	4720	5069
25°	947	4940	4966
30°	799	4973	4957
35°	707	4891	5085
40°	617	4786	5217
45°	558	4708	5238
50°	513	4639	5151
55°	492	4537	4923
60°	504	4340	4562
65°	526	4039	4067
70°	561	3525	3436
75°	624	2876	2681
80°	687	1997	1807
85°	622	1062	924

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 90°

Luminance: 6644 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.3	0.4
10°-20°	342.6	1.6
20°-30°	599.3	2.7
30°-40°	771.5	3.5
40°-50°	861.7	3.9
50°-60°	825.3	3.8
60°-70°	654.1	3.0
70°-80°	384.6	1.8
80°-90°	117.0	0.5
90°-100°	1297.8	5.9
100°-110°	3412.1	15.6
110°-120°	3538.0	16.2
120°-130°	2837.9	13.0
130°-140°	2226.7	10.2
140°-150°	1709.1	7.8
150°-160°	1230.8	5.6
160°-170°	753.1	3.4
170°-180°	254.4	1.2
0°-30°	1019.2	4.7
0°-40°	1790.7	8.2
0°-60°	3477.7	15.9
0°-90°	4633.3	21.2
90°-120°	8247.9	37.7
90°-150°	15021.7	68.6
90°-180°	17260.0	78.8
0°-180°	21893.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	598	598	598	598	598	
5°	582	624	703	796	824	54
15°	436	805	1357	1645	1697	121
25°	279	913	1616	1687	1689	128
35°	188	872	1522	1608	1672	118
45°	129	696	1345	1541	1610	100
55°	92	442	1141	1326	1362	84
65°	73	234	848	953	967	72
75°	54	144	465	511	513	56
85°	19	44	115	127	129	20
90°	18	50	136	68	68	16
95°	172	672	2236	1153	784	190
105°	615	931	3772	5727	5343	652
115°	1092	1326	3022	6027	6880	1078
125°	1519	1703	2748	4644	5479	1348
135°	1810	1992	2662	3749	4251	1401
145°	2100	2234	2628	3199	3449	1315
155°	2373	2439	2628	2886	2970	1090
165°	2561	2595	2628	2732	2766	723
175°	2662	2662	2646	2680	2680	253
180°	2662	2662	2662	2662	2662	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	597.6	597.6	597.6	597.6	597.6	597.6	597.6	597.6	597.6	597.6	597.6
2.5°	597.6	597.6	601.5	603.4	607.2	609.1	613.0	616.8	628.4	630.3	634.1
5°	582.3	589.9	614.9	624.5	651.4	687.9	703.3	728.3	780.1	795.5	805.2
7.5°	559.2	576.4	637.9	653.3	720.6	816.7	857.0	910.9	993.5	1033.8	1066.4
10°	522.7	559.2	668.7	705.3	814.7	960.8	1035.7	1110.7	1235.6	1291.4	1312.5
12.5°	482.3	541.9	701.4	751.3	908.9	1122.2	1212.6	1295.2	1437.4	1512.3	1523.8
15°	436.2	516.9	732.1	805.2	1008.9	1256.7	1356.7	1458.5	1591.1	1644.9	1658.4
17.5°	395.8	497.7	760.9	837.8	1085.7	1377.8	1479.6	1564.2	1671.8	1708.3	1717.9
20°	345.9	467.0	780.1	880.1	1166.4	1466.2	1564.2	1629.5	1702.6	1725.6	1729.4
22.5°	309.4	434.2	791.7	895.5	1220.2	1520.0	1602.6	1654.5	1704.5	1712.1	1714.0
25°	278.7	397.8	789.8	912.8	1266.3	1552.6	1616.1	1654.5	1683.3	1687.2	1687.2
27.5°	249.8	357.5	782.0	916.6	1300.9	1560.4	1610.3	1637.2	1650.6	1658.4	1658.4
30°	224.8	319.0	762.9	908.9	1316.3	1552.6	1593.0	1606.5	1619.9	1631.4	1637.2
32.5°	205.6	282.5	734.0	893.5	1318.2	1533.4	1562.3	1569.9	1589.1	1616.1	1625.7
35°	188.3	246.0	701.4	872.4	1306.7	1502.7	1521.9	1529.6	1568.0	1608.4	1621.8
37.5°	171.0	219.1	659.1	835.9	1289.3	1466.2	1479.6	1493.0	1552.6	1600.7	1616.1
40°	153.8	196.0	609.1	795.5	1262.5	1422.0	1433.6	1454.7	1533.4	1589.1	1604.5
42.5°	140.3	176.8	555.3	753.3	1227.9	1372.0	1389.3	1420.1	1510.3	1569.9	1587.2
45°	128.7	157.6	497.7	695.6	1183.7	1320.1	1345.1	1387.4	1483.5	1541.1	1556.5
47.5°	117.2	144.1	438.2	636.0	1135.7	1268.2	1300.9	1348.9	1446.9	1502.7	1516.2
50°	107.6	130.6	378.6	572.6	1083.7	1212.6	1251.0	1300.9	1400.9	1452.7	1470.0
52.5°	99.9	119.2	322.8	509.2	1024.2	1154.9	1199.1	1251.0	1345.1	1395.1	1406.6
55°	92.3	109.5	274.8	442.0	962.7	1093.4	1141.4	1191.4	1283.6	1325.9	1333.6
57.5°	88.4	101.8	234.5	378.6	897.4	1024.2	1078.0	1124.1	1210.6	1243.3	1251.0
60°	82.6	96.1	203.7	324.8	826.3	958.9	1005.0	1051.1	1124.1	1151.1	1156.8
62.5°	76.9	92.3	180.6	272.8	753.3	882.0	928.2	970.4	1031.9	1051.1	1058.8
65°	73.1	88.4	163.3	234.5	678.3	801.3	847.5	883.9	933.9	953.1	956.9
67.5°	69.1	84.5	149.8	201.8	603.4	720.6	755.2	789.8	828.2	847.5	849.4
70°	63.4	80.7	138.4	178.7	526.5	628.4	657.2	693.7	724.5	734.0	739.8
72.5°	59.6	75.0	130.6	161.4	447.7	540.0	566.9	588.0	614.9	624.5	624.5
75°	53.8	67.2	123.0	144.1	367.0	442.0	465.0	486.2	507.3	511.1	505.4
77.5°	48.0	59.6	105.7	121.1	286.3	349.7	368.9	380.5	397.8	401.6	403.5
80°	40.4	51.9	82.6	94.2	207.5	257.5	270.9	280.6	296.0	296.0	299.8
82.5°	30.8	40.4	59.6	67.2	140.3	176.8	188.3	194.1	203.7	203.7	203.7
85°	19.2	25.0	38.4	44.2	84.5	107.6	115.3	117.2	124.9	126.8	126.8
87.5°	9.6	13.5	25.0	26.9	44.2	55.8	55.8	59.6	59.6	57.7	55.8
90°	17.9	32.2	46.5	50.0	78.6	116.7	135.8	120.7	90.5	67.9	67.9
92.5°	71.4	192.9	314.5	344.9	484.9	671.5	764.8	670.2	481.2	339.5	326.0
95°	171.5	393.8	616.3	671.8	1193.1	1888.0	2235.5	1994.8	1513.6	1152.6	1111.7
97.5°	296.6	492.8	688.9	738.0	1607.1	2765.8	3345.1	3193.0	2888.9	2660.7	2582.9
100°	393.1	571.0	748.9	793.4	1757.8	3043.5	3686.4	3697.5	3719.7	3736.4	3643.7
102.5°	475.3	641.3	807.3	848.8	1826.8	3130.9	3782.9	3976.7	4364.3	4655.0	4575.5
105°	614.7	755.3	895.9	931.0	1878.1	3140.8	3772.2	4206.6	5075.4	5727.0	5684.4
107.5°	757.7	888.7	1019.7	1052.5	1887.6	3001.0	3557.8	4163.7	5375.6	6284.6	6294.9
110°	854.2	972.5	1090.8	1120.4	1873.3	2877.1	3379.1	4056.6	5411.4	6427.5	6472.0

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	948.9	1061.7	1174.5	1202.6	1873.9	2768.9	3216.4	3909.8	5296.4	6336.4	6404.7
115°	1091.9	1195.9	1299.9	1325.9	1891.2	2644.9	3021.7	3689.6	5025.4	6027.3	6122.0
117.5°	1233.0	1327.4	1422.0	1445.6	1926.2	2567.1	2887.6	3490.4	4696.0	5600.2	5705.3
120°	1315.1	1404.1	1493.0	1515.3	1954.9	2541.0	2834.1	3384.8	4486.3	5312.5	5414.6
122.5°	1395.5	1485.3	1575.1	1597.5	1996.0	2527.3	2793.0	3288.9	4280.9	5024.8	5125.5
125°	1518.9	1600.7	1682.5	1703.0	2051.4	2516.0	2748.3	3169.6	4012.2	4644.2	4736.9
127.5°	1618.9	1701.5	1784.1	1804.8	2106.7	2509.5	2710.8	3072.5	3796.0	4338.7	4416.9
130°	1672.6	1761.5	1850.4	1872.7	2147.2	2513.4	2696.4	3018.5	3662.6	4145.7	4217.9
132.5°	1728.0	1816.9	1905.8	1928.0	2180.0	2515.9	2683.9	2972.2	3548.9	3981.3	4046.0
135°	1810.1	1891.1	1972.2	1992.4	2215.8	2513.7	2662.5	2904.0	3386.8	3748.9	3804.7
137.5°	1894.1	1974.4	2054.6	2074.6	2269.4	2529.0	2658.9	2863.0	3271.3	3577.4	3623.1
140°	1963.9	2037.7	2111.6	2130.0	2302.1	2531.6	2646.4	2822.7	3175.4	3439.8	3482.5
142.5°	2017.4	2085.7	2154.0	2171.1	2329.5	2540.8	2646.4	2801.3	3111.0	3343.4	3380.1
145°	2099.7	2159.3	2218.8	2233.6	2365.2	2540.8	2628.5	2755.2	3008.5	3198.6	3226.4
147.5°	2181.8	2239.8	2297.7	2312.2	2417.7	2558.3	2628.5	2728.2	2927.6	3077.1	3100.1
150°	2235.5	2287.9	2340.3	2353.4	2445.1	2567.4	2628.5	2712.8	2881.1	3007.4	3026.0
152.5°	2290.9	2330.6	2370.2	2380.1	2462.9	2573.3	2628.5	2700.5	2844.2	2952.0	2966.1
155°	2373.1	2402.5	2431.8	2439.2	2502.3	2586.4	2628.5	2685.7	2800.2	2885.9	2895.3
157.5°	2433.8	2462.4	2490.9	2498.1	2541.5	2599.5	2628.5	2673.0	2762.0	2828.7	2835.3
160°	2474.9	2497.1	2519.4	2524.9	2559.5	2605.5	2628.5	2666.6	2742.9	2800.1	2803.9
162.5°	2515.9	2532.7	2549.3	2553.5	2578.5	2611.8	2628.5	2660.7	2725.1	2773.3	2776.9
165°	2560.6	2575.7	2590.8	2594.6	2605.9	2621.0	2628.5	2651.6	2697.6	2732.2	2736.0
167.5°	2601.8	2609.0	2616.0	2617.8	2627.4	2640.1	2646.4	2661.5	2691.7	2714.3	2715.9
170°	2628.5	2635.7	2642.9	2644.7	2645.3	2646.0	2646.4	2661.5	2691.7	2714.3	2714.3
172.5°	2642.9	2644.4	2646.0	2646.4	2646.4	2646.4	2646.4	2658.3	2682.2	2700.1	2698.6
175°	2662.5	2662.5	2662.5	2662.5	2657.2	2650.0	2646.4	2653.9	2669.0	2680.4	2680.4
177.5°	2662.5	2662.5	2662.5	2662.5	2658.3	2652.8	2650.0	2656.0	2667.9	2676.8	2675.1
180°	2662.5	2662.5	2662.5	2662.5	2662.5	2662.5	2662.5	2662.5	2662.5	2662.5	2662.5

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	597.6	597.6
2.5°	637.9	634.1
5°	820.5	824.4
7.5°	1104.9	1103.0
10°	1374.0	1391.2
12.5°	1569.9	1573.7
15°	1689.1	1696.7
17.5°	1735.2	1737.1
20°	1737.1	1733.3
22.5°	1715.9	1712.1
25°	1691.0	1689.1
27.5°	1667.9	1669.9
30°	1658.4	1664.1
32.5°	1658.4	1667.9
35°	1662.2	1671.8
37.5°	1660.3	1671.8
40°	1652.5	1666.0
42.5°	1631.4	1641.1
45°	1598.8	1610.3
47.5°	1556.5	1564.2
50°	1502.7	1510.3
52.5°	1435.5	1437.4
55°	1354.8	1362.4
57.5°	1268.2	1270.1
60°	1172.2	1177.9
62.5°	1070.4	1070.4
65°	962.7	966.6
67.5°	851.3	860.8
70°	737.9	739.8
72.5°	626.5	626.5
75°	511.1	513.0
77.5°	401.6	401.6
80°	297.9	299.8
82.5°	205.6	209.4
85°	128.7	128.7
87.5°	59.6	53.8
90°	67.9	67.9
92.5°	272.0	218.0
95°	948.0	784.4
97.5°	2271.6	1960.2
100°	3272.9	2902.0
102.5°	4257.9	3940.1
105°	5513.7	5342.9
107.5°	6336.2	6377.5
110°	6650.0	6827.9

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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	6677.9	6951.2
115°	6500.8	6879.6
117.5°	6125.4	6545.5
120°	5822.7	6231.0
122.5°	5528.2	5930.8
125°	5107.8	5478.7
127.5°	4729.8	5042.7
130°	4507.0	4796.1
132.5°	4304.9	4563.8
135°	4027.9	4251.1
137.5°	3805.8	3988.4
140°	3653.3	3824.0
142.5°	3527.0	3673.9
145°	3337.6	3448.8
147.5°	3192.3	3284.3
150°	3100.7	3175.4
152.5°	3022.5	3078.8
155°	2932.5	2969.9
157.5°	2861.5	2887.6
160°	2819.0	2834.1
162.5°	2791.2	2805.5
165°	2751.1	2766.2
167.5°	2722.2	2728.6
170°	2714.3	2714.3
172.5°	2693.1	2687.6
175°	2680.4	2680.4
177.5°	2668.8	2662.5
180°	2662.5	2662.5

(END OF REPORT)