

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: P936905

Luminaire Tested: SQ4-FB-050U-100D-B50-1D-UNV-W2A-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936905
REPORT IS A COMBINATION OF REPORTS P933463 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-100D-B50-1D-UNV-W2A-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

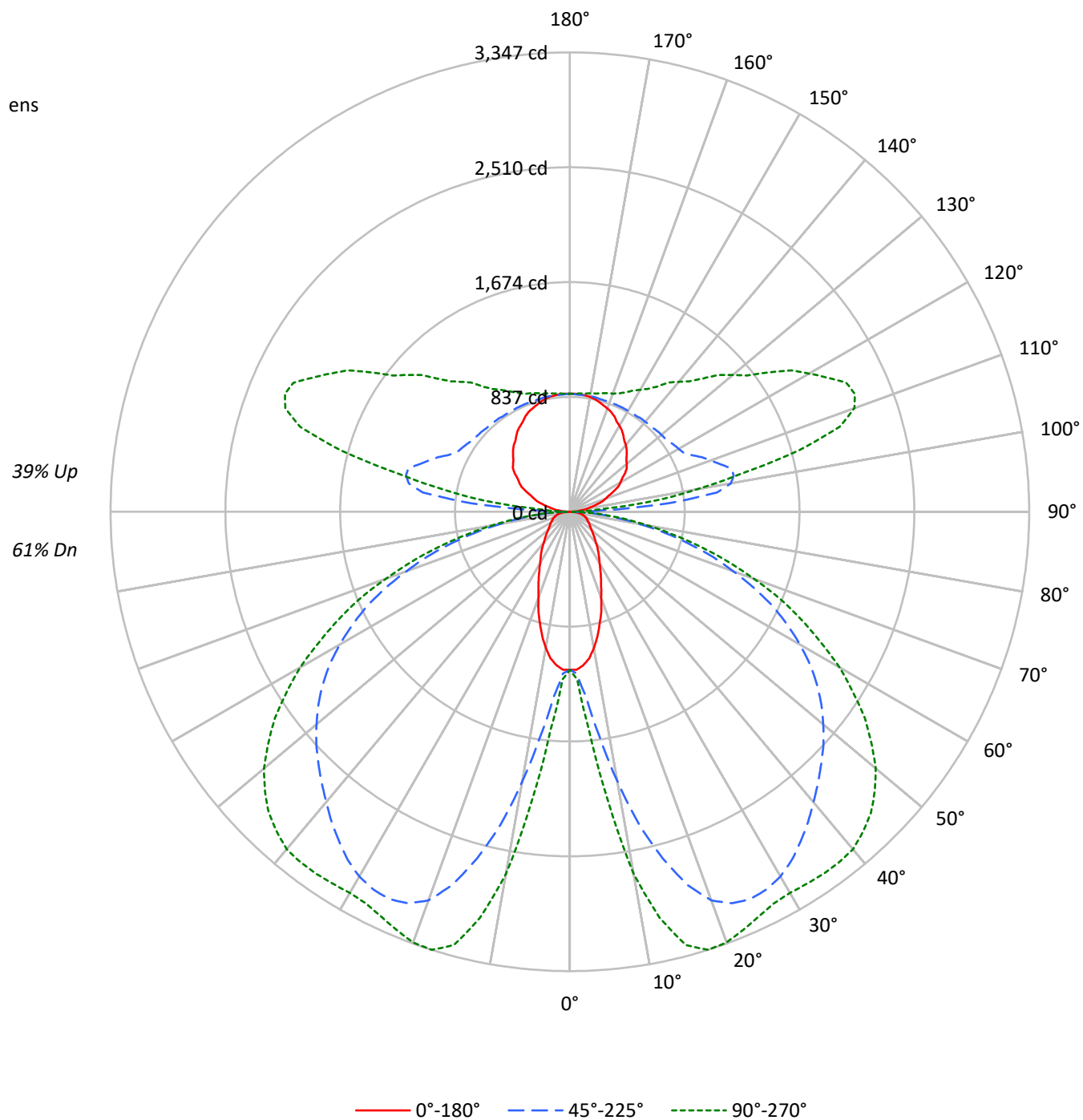
Lumens per Lamp: N/A
Luminaire Lumens: 14488.2 lumens
Efficiency: N/A
Efficacy: 106.8 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 135.6
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	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67
1	100	95	91	87	93	89	85	82	78	75	72	67	65	63	58	56	55
2	90	82	75	70	84	77	71	66	67	63	59	58	55	52	50	48	45
3	82	72	64	57	76	67	60	54	59	53	49	51	47	43	44	40	38
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32
5	68	56	47	41	63	52	44	39	46	40	35	40	35	31	34	30	27
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	23
7	58	45	36	30	54	42	34	29	37	31	26	32	27	23	28	24	21
8	53	40	32	26	50	38	30	25	34	27	23	29	24	20	25	21	18
9	50	37	29	23	46	35	27	22	31	24	20	27	22	18	23	19	16
10	46	33	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3561	3561	3561
5°	3480	4117	4787
10°	3158	6003	7935
15°	2685	7844	9582
20°	2187	9093	9766
25°	1825	9517	9567
30°	1539	9580	9549
35°	1362	9423	9796
40°	1188	9219	10051
45°	1076	9070	10091
50°	988	8937	9924
55°	947	8741	9484
60°	971	8361	8789
65°	1012	7781	7835
70°	1080	6791	6619
75°	1202	5542	5166
80°	1322	3848	3480
85°	1199	2045	1782

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 10091 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.9	1.0
10°-20°	660.1	4.6
20°-30°	1154.5	8.0
30°-40°	1486.2	10.3
40°-50°	1660.1	11.5
50°-60°	1590.0	11.0
60°-70°	1260.1	8.7
70°-80°	740.9	5.1
80°-90°	209.1	1.4
90°-100°	419.4	2.9
100°-110°	1102.8	7.6
110°-120°	1143.4	7.9
120°-130°	917.2	6.3
130°-140°	719.7	5.0
140°-150°	552.4	3.8
150°-160°	397.8	2.7
160°-170°	243.4	1.7
170°-180°	82.2	0.6
0°-30°	1963.5	13.6
0°-40°	3449.8	23.8
0°-60°	6699.8	46.2
0°-90°	8909.9	61.5
90°-120°	2665.6	18.4
90°-150°	4854.8	33.5
90°-180°	5578.0	38.5
0°-180°	14488.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1151	1151	1151	1151	1151	
5°	1122	1203	1355	1533	1588	104
15°	840	1551	2614	3169	3269	234
25°	537	1758	3113	3250	3254	247
35°	363	1681	2932	3098	3221	227
45°	248	1340	2591	2969	3102	192
55°	178	851	2199	2554	2625	162
65°	141	452	1632	1836	1862	139
75°	104	278	896	985	988	109
85°	37	85	222	244	248	39
90°	6	16	44	22	22	7
95°	56	217	722	372	254	62
105°	199	301	1219	1851	1727	211
115°	353	428	977	1948	2224	348
125°	491	550	888	1501	1771	436
135°	585	644	860	1212	1374	453
145°	679	722	850	1034	1115	425
155°	767	788	850	933	960	352
165°	828	838	850	883	894	234
175°	860	860	855	866	866	82
180°	860	860	860	860	860	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1151.3	1151.3	1151.3	1151.3	1151.3	1151.3	1151.3	1151.3	1151.3	1151.3	1151.3
2.5°	1151.3	1151.3	1158.7	1162.5	1169.8	1173.6	1180.9	1188.3	1210.6	1214.3	1221.7
5°	1121.7	1136.5	1184.7	1203.2	1255.0	1325.3	1355.0	1403.1	1503.0	1532.6	1551.1
7.5°	1077.3	1110.6	1229.1	1258.7	1388.2	1573.3	1651.1	1754.7	1914.0	1991.7	2054.6
10°	1006.9	1077.3	1288.3	1358.6	1569.7	1851.0	1995.4	2139.8	2380.4	2487.7	2528.4
12.5°	929.2	1043.9	1351.2	1447.5	1751.1	2161.9	2335.9	2495.2	2769.1	2913.5	2935.7
15°	840.3	995.8	1410.4	1551.1	1943.6	2421.1	2613.6	2809.8	3065.3	3168.9	3194.8
17.5°	762.6	958.8	1466.0	1614.0	2091.6	2654.3	2850.6	3013.5	3220.7	3291.0	3309.6
20°	666.3	899.6	1503.0	1695.5	2247.1	2824.6	3013.5	3139.3	3279.9	3324.4	3331.8
22.5°	596.0	836.7	1525.2	1725.1	2350.8	2928.3	3087.4	3187.5	3283.7	3298.5	3302.2
25°	536.8	766.3	1521.5	1758.4	2439.6	2991.2	3113.4	3187.5	3242.9	3250.3	3250.3
27.5°	481.3	688.5	1506.7	1765.8	2506.3	3006.0	3102.3	3154.1	3180.0	3194.8	3194.8
30°	433.1	614.6	1469.6	1751.1	2535.9	2991.2	3068.9	3094.9	3120.8	3143.0	3154.1
32.5°	396.1	544.1	1414.2	1721.5	2539.5	2954.2	3009.7	3024.6	3061.6	3113.4	3131.9
35°	362.8	473.8	1351.2	1680.7	2517.3	2894.9	2932.0	2946.8	3020.8	3098.5	3124.5
37.5°	329.5	422.1	1269.8	1610.4	2484.1	2824.6	2850.6	2876.4	2991.2	3083.8	3113.4
40°	296.2	377.6	1173.6	1532.6	2432.2	2739.5	2761.7	2802.4	2954.2	3061.6	3091.2
42.5°	270.2	340.6	1069.9	1451.2	2365.5	2643.2	2676.6	2735.8	2909.8	3024.6	3057.8
45°	248.1	303.6	958.8	1340.1	2280.5	2543.3	2591.4	2672.8	2857.9	2969.0	2998.6
47.5°	225.8	277.7	844.1	1225.4	2187.9	2443.3	2506.3	2598.8	2787.6	2894.9	2920.9
50°	207.3	251.7	729.3	1103.2	2088.0	2335.9	2410.0	2506.3	2698.8	2798.7	2832.1
52.5°	192.5	229.5	622.0	981.1	1973.2	2224.9	2310.1	2410.0	2591.4	2687.7	2709.9
55°	177.7	211.0	529.4	851.4	1854.7	2106.5	2199.0	2295.2	2473.0	2554.4	2569.2
57.5°	170.3	196.2	451.7	729.3	1728.8	1973.2	2076.8	2165.7	2332.3	2395.1	2410.0
60°	159.2	185.1	392.4	625.6	1591.8	1847.3	1936.2	2025.0	2165.7	2217.5	2228.6
62.5°	148.0	177.7	348.0	525.7	1451.2	1699.2	1788.0	1869.5	1988.0	2025.0	2039.8
65°	140.7	170.3	314.7	451.7	1306.9	1543.7	1632.5	1703.0	1799.2	1836.2	1843.6
67.5°	133.3	162.9	288.8	388.7	1162.5	1388.2	1454.9	1521.5	1595.6	1632.5	1636.3
70°	122.2	155.5	266.6	344.3	1014.3	1210.6	1266.1	1336.5	1395.7	1414.2	1425.3
72.5°	114.8	144.4	251.7	310.9	862.5	1040.3	1092.1	1132.8	1184.7	1203.2	1203.2
75°	103.7	129.5	237.0	277.7	707.0	851.4	895.9	936.6	977.3	984.7	973.6
77.5°	92.6	114.8	203.6	233.2	551.6	673.8	710.8	733.0	766.3	773.7	777.5
80°	77.7	99.9	159.2	181.4	399.8	496.0	522.0	540.5	570.1	570.1	577.5
82.5°	59.2	77.7	114.8	129.5	270.2	340.6	362.8	373.9	392.4	392.4	392.4
85°	37.0	48.1	74.1	85.2	162.9	207.3	222.1	225.8	240.6	244.3	244.3
87.5°	18.5	25.9	48.1	51.8	85.2	107.3	107.3	114.8	114.8	111.1	107.3
90°	5.8	10.4	15.0	16.2	25.4	37.7	43.9	39.0	29.2	21.9	21.9
92.5°	23.1	62.3	101.6	111.4	156.6	217.0	247.1	216.6	155.5	109.7	105.4
95°	55.5	127.3	199.2	217.2	385.6	610.2	722.4	644.6	489.1	372.5	359.2
97.5°	95.8	159.2	222.7	238.5	519.4	893.8	1081.1	1032.0	933.6	859.9	834.8
100°	127.0	184.6	242.0	256.4	568.1	983.6	1191.4	1195.0	1202.2	1207.6	1177.6
102.5°	153.6	207.3	260.9	274.3	590.4	1011.9	1222.6	1285.2	1410.4	1504.4	1478.7
105°	198.7	244.1	289.4	300.8	606.9	1015.1	1219.2	1359.5	1640.3	1850.9	1837.1
107.5°	244.9	287.2	329.6	340.2	610.1	970.0	1149.8	1345.7	1737.4	2031.2	2034.5
110°	276.1	314.3	352.6	362.1	605.4	929.9	1092.1	1311.1	1748.9	2077.3	2091.7

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	306.6	343.1	379.5	388.6	605.6	894.9	1039.5	1263.6	1711.7	2047.9	2069.9
115°	352.9	386.5	420.1	428.5	611.2	854.8	976.6	1192.4	1624.1	1948.0	1978.6
117.5°	398.4	429.0	459.5	467.2	622.5	829.7	933.3	1128.1	1517.7	1809.9	1843.8
120°	425.1	453.8	482.5	489.7	631.8	821.3	916.0	1094.0	1449.9	1717.0	1749.9
122.5°	451.0	480.1	509.0	516.3	645.1	816.8	902.6	1062.9	1383.5	1623.9	1656.4
125°	490.9	517.3	543.8	550.4	663.0	813.1	888.2	1024.4	1296.7	1500.9	1530.9
127.5°	523.2	549.9	576.7	583.3	680.9	811.0	876.1	993.0	1226.8	1402.2	1427.5
130°	540.6	569.4	598.0	605.2	694.0	812.3	871.5	975.6	1183.8	1339.8	1363.2
132.5°	558.4	587.2	616.0	623.2	704.6	813.1	867.4	960.6	1147.0	1286.7	1307.6
135°	585.1	611.2	637.4	643.9	716.1	812.4	860.5	938.6	1094.6	1211.7	1229.7
137.5°	612.1	638.1	664.1	670.5	733.5	817.4	859.4	925.3	1057.3	1156.2	1171.0
140°	634.7	658.6	682.4	688.4	744.0	818.2	855.3	912.2	1026.3	1111.7	1125.6
142.5°	652.0	674.1	696.2	701.7	752.9	821.2	855.3	905.3	1005.5	1080.5	1092.4
145°	678.6	697.8	717.0	721.9	764.5	821.2	849.6	890.5	972.4	1033.8	1042.7
147.5°	705.2	723.8	742.6	747.3	781.4	826.9	849.6	881.8	946.2	994.5	1002.0
150°	722.4	739.4	756.4	760.6	790.3	829.8	849.6	876.7	931.1	971.9	978.0
152.5°	740.4	753.2	766.1	769.2	796.0	831.7	849.6	872.8	919.2	954.1	958.7
155°	766.9	776.4	786.0	788.3	808.8	835.9	849.6	868.1	905.0	932.7	935.7
157.5°	786.6	795.9	805.0	807.3	821.5	840.2	849.6	864.0	892.6	914.2	916.3
160°	799.9	807.1	814.3	816.0	827.2	842.1	849.6	861.9	886.5	905.0	906.2
162.5°	813.1	818.6	824.0	825.3	833.4	844.1	849.6	859.9	880.7	896.3	897.4
165°	827.6	832.5	837.3	838.5	842.2	847.1	849.6	857.0	871.9	883.0	884.2
167.5°	840.9	843.1	845.5	846.0	849.1	853.2	855.3	860.1	869.9	877.2	877.8
170°	849.6	851.8	854.1	854.7	854.9	855.2	855.3	860.1	869.9	877.2	877.2
172.5°	854.1	854.6	855.2	855.3	855.3	855.3	855.3	859.1	866.8	872.6	872.2
175°	860.5	860.5	860.5	860.5	858.7	856.4	855.3	857.7	862.6	866.3	866.3
177.5°	860.5	860.5	860.5	860.5	859.2	857.4	856.5	858.4	862.3	865.2	864.6
180°	860.5	860.5	860.5	860.5	860.5	860.5	860.5	860.5	860.5	860.5	860.5

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1151.3	1151.3
2.5°	1229.1	1221.7
5°	1580.8	1588.2
7.5°	2128.7	2124.9
10°	2647.0	2680.2
12.5°	3024.6	3032.0
15°	3254.1	3268.9
17.5°	3342.9	3346.6
20°	3346.6	3339.2
22.5°	3305.9	3298.5
25°	3257.8	3254.1
27.5°	3213.3	3217.1
30°	3194.8	3206.0
32.5°	3194.8	3213.3
35°	3202.2	3220.7
37.5°	3198.5	3220.7
40°	3183.7	3209.6
42.5°	3143.0	3161.5
45°	3080.1	3102.3
47.5°	2998.6	3013.5
50°	2894.9	2909.8
52.5°	2765.4	2769.1
55°	2609.9	2624.7
57.5°	2443.3	2447.0
60°	2258.2	2269.3
62.5°	2062.0	2062.0
65°	1854.7	1862.1
67.5°	1640.0	1658.5
70°	1421.5	1425.3
72.5°	1206.8	1206.8
75°	984.7	988.5
77.5°	773.7	773.7
80°	573.8	577.5
82.5°	396.1	403.5
85°	248.1	248.1
87.5°	114.8	103.7
90°	21.9	21.9
92.5°	87.9	70.4
95°	306.4	253.5
97.5°	734.1	633.5
100°	1057.8	937.9
102.5°	1376.1	1273.4
105°	1782.0	1726.8
107.5°	2047.8	2061.2
110°	2149.1	2206.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2158.3	2246.6
115°	2101.0	2223.5
117.5°	1979.6	2115.4
120°	1881.9	2013.8
122.5°	1786.6	1916.8
125°	1650.8	1770.7
127.5°	1528.6	1629.7
130°	1456.7	1550.1
132.5°	1391.3	1475.0
135°	1301.8	1373.9
137.5°	1230.0	1289.0
140°	1180.7	1235.9
142.5°	1139.9	1187.4
145°	1078.7	1114.6
147.5°	1031.7	1061.5
150°	1002.1	1026.3
152.5°	976.9	995.1
155°	947.8	959.9
157.5°	924.8	933.3
160°	911.1	916.0
162.5°	902.1	906.7
165°	889.2	894.0
167.5°	879.8	881.9
170°	877.2	877.2
172.5°	870.4	868.6
175°	866.3	866.3
177.5°	862.5	860.5
180°	860.5	860.5

(END OF REPORT)