

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: P936901

Luminaire Tested: SQ4-FB-050U-100D-B40-1D-UNV-W2A-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936901
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-B40-1D-UNV-W2A-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

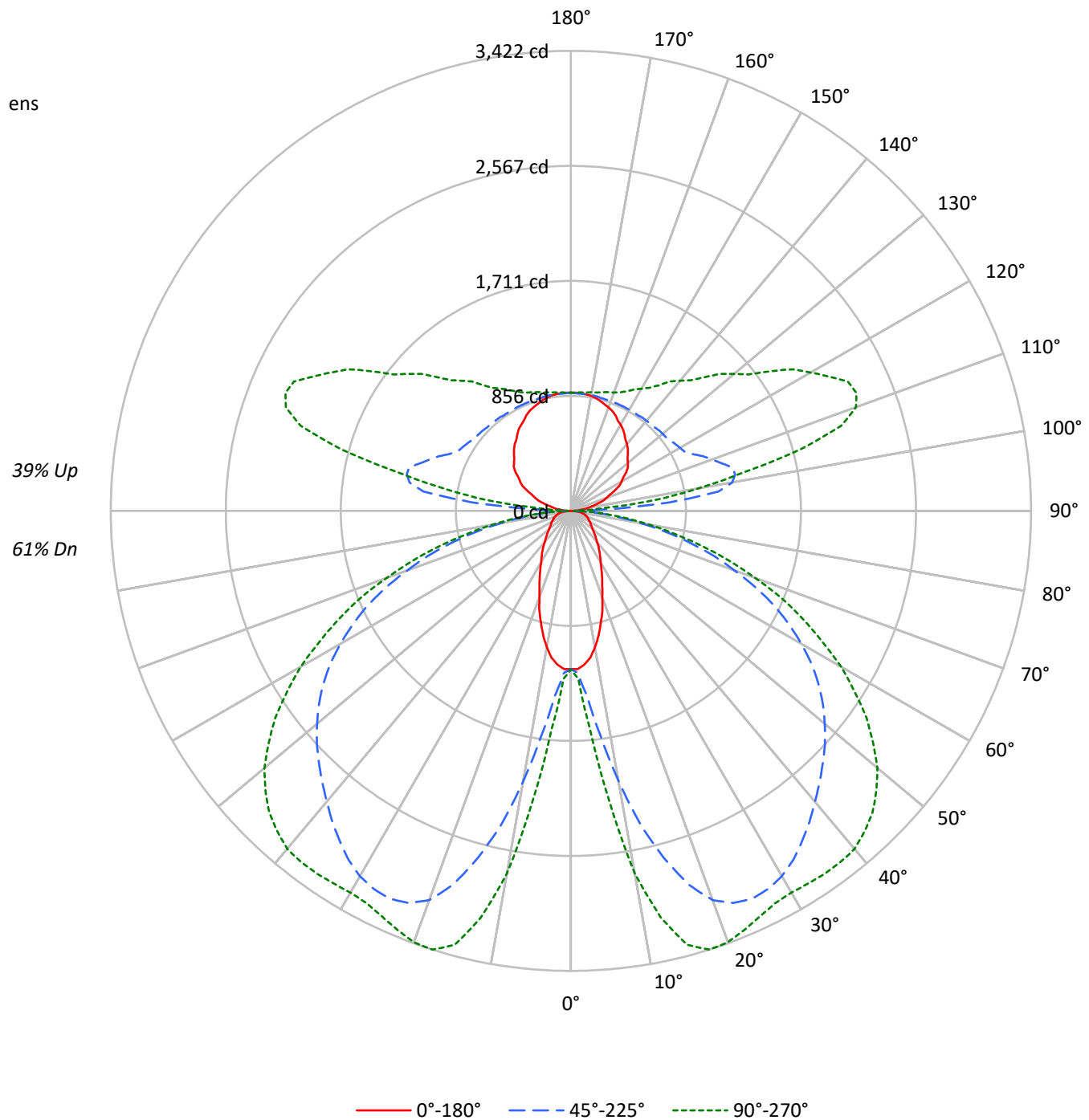
Lumens per Lamp: N/A
Luminaire Lumens: 14813.9 lumens
Efficiency: N/A
Efficacy: 109.2 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: Semi-Direct

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	0
RCR																		
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	61
1	100	95	91	87	93	89	85	82	78	75	72	67	65	63	58	56	55	50
2	90	82	75	70	84	77	71	66	67	63	59	58	55	52	50	48	45	41
3	82	72	64	57	76	67	60	54	59	53	49	51	47	43	44	40	38	34
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32	28
5	68	56	47	41	63	52	44	39	46	40	35	40	35	31	34	30	27	24
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	23	21
7	58	45	36	30	54	42	34	29	37	31	26	32	27	23	28	24	21	18
8	53	40	32	26	50	38	30	25	34	27	23	29	24	20	25	21	18	16
9	50	37	29	23	46	35	27	22	31	24	20	27	22	18	23	19	16	14
10	46	33	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3641	3641	3641
5°	3559	4210	4894
10°	3229	6138	8114
15°	2745	8021	9798
20°	2236	9297	9985
25°	1866	9731	9782
30°	1574	9795	9764
35°	1392	9635	10016
40°	1214	9426	10277
45°	1100	9274	10317
50°	1010	9138	10147
55°	968	8938	9697
60°	992	8549	8987
65°	1034	7956	8011
70°	1104	6944	6768
75°	1229	5666	5282
80°	1352	3934	3559
85°	1225	2091	1821

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 10317 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.3	1.0
10°-20°	674.9	4.6
20°-30°	1180.5	8.0
30°-40°	1519.6	10.3
40°-50°	1697.4	11.5
50°-60°	1625.7	11.0
60°-70°	1288.4	8.7
70°-80°	757.6	5.1
80°-90°	213.8	1.4
90°-100°	428.9	2.9
100°-110°	1127.5	7.6
110°-120°	1169.1	7.9
120°-130°	937.8	6.3
130°-140°	735.9	5.0
140°-150°	564.8	3.8
150°-160°	406.7	2.7
160°-170°	248.9	1.7
170°-180°	84.1	0.6
0°-30°	2007.7	13.6
0°-40°	3527.3	23.8
0°-60°	6850.4	46.2
0°-90°	9110.2	61.5
90°-120°	2725.5	18.4
90°-150°	4964.0	33.5
90°-180°	5704.0	38.5
0°-180°	14813.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1177	1177	1177	1177	1177	
5°	1147	1230	1385	1567	1624	106
15°	859	1586	2672	3240	3342	239
25°	549	1798	3183	3323	3327	253
35°	371	1718	2998	3168	3293	232
45°	254	1370	2650	3036	3172	196
55°	182	871	2248	2612	2684	166
65°	144	462	1669	1877	1904	143
75°	106	284	916	1007	1011	111
85°	38	87	227	250	254	40
90°	6	16	45	22	22	7
95°	57	222	739	381	259	63
105°	203	308	1247	1892	1766	215
115°	361	438	998	1992	2274	356
125°	502	563	908	1535	1810	446
135°	598	658	880	1239	1405	463
145°	694	738	869	1057	1140	435
155°	784	806	869	954	982	360
165°	846	857	869	903	914	239
175°	880	880	874	886	886	84
180°	880	880	880	880	880	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1177.2	1177.2	1177.2	1177.2	1177.2	1177.2	1177.2	1177.2	1177.2	1177.2	1177.2
2.5°	1177.2	1177.2	1184.8	1188.6	1196.1	1200.0	1207.5	1215.0	1237.8	1241.6	1249.1
5°	1147.0	1162.0	1211.3	1230.2	1283.2	1355.1	1385.4	1434.6	1536.8	1567.1	1586.0
7.5°	1101.5	1135.6	1256.7	1287.0	1419.4	1608.7	1688.2	1794.2	1957.0	2036.4	2100.8
10°	1029.6	1101.5	1317.2	1389.1	1605.0	1892.6	2040.3	2187.9	2433.9	2543.6	2585.3
12.5°	950.1	1067.4	1381.6	1480.1	1790.4	2210.5	2388.5	2551.3	2831.4	2979.0	3001.7
15°	859.2	1018.2	1442.1	1586.0	1987.3	2475.6	2672.4	2873.0	3134.2	3240.1	3266.7
17.5°	779.8	980.4	1499.0	1650.3	2138.6	2714.0	2914.7	3081.2	3293.1	3365.0	3384.0
20°	681.3	919.9	1536.8	1733.6	2297.6	2888.1	3081.2	3209.9	3353.7	3399.1	3406.7
22.5°	609.4	855.5	1559.5	1763.9	2403.6	2994.1	3156.8	3259.1	3357.5	3372.7	3376.4
25°	548.8	783.6	1555.7	1798.0	2494.5	3058.5	3183.4	3259.1	3315.9	3323.4	3323.4
27.5°	492.1	704.0	1540.6	1805.5	2562.6	3073.6	3172.0	3225.0	3251.5	3266.7	3266.7
30°	442.8	628.4	1502.7	1790.4	2592.9	3058.5	3137.9	3164.5	3190.9	3213.7	3225.0
32.5°	405.0	556.4	1446.0	1760.2	2596.6	3020.7	3077.4	3092.6	3130.4	3183.4	3202.3
35°	370.9	484.5	1381.6	1718.5	2573.9	2960.0	2997.9	3013.0	3088.8	3168.2	3194.8
37.5°	336.9	431.6	1298.3	1646.6	2539.9	2888.1	2914.7	2941.1	3058.5	3153.1	3183.4
40°	302.8	386.1	1200.0	1567.1	2486.9	2801.1	2823.7	2865.4	3020.7	3130.4	3160.7
42.5°	276.3	348.3	1094.0	1483.8	2418.7	2702.6	2736.7	2797.3	2975.2	3092.6	3126.6
45°	253.6	310.4	980.4	1370.2	2331.7	2600.5	2649.6	2732.9	2922.2	3035.8	3066.0
47.5°	230.9	283.9	863.0	1253.0	2237.1	2498.3	2562.6	2657.2	2850.3	2960.0	2986.6
50°	212.0	257.4	745.7	1128.0	2134.9	2388.5	2464.2	2562.6	2759.5	2861.7	2895.8
52.5°	196.8	234.6	635.9	1003.1	2017.5	2274.9	2362.0	2464.2	2649.6	2748.1	2770.8
55°	181.7	215.7	541.3	870.6	1896.4	2153.8	2248.5	2346.8	2528.6	2611.8	2626.9
57.5°	174.1	200.6	461.8	745.7	1767.7	2017.5	2123.5	2214.4	2384.7	2449.0	2464.2
60°	162.7	189.3	401.2	639.7	1627.6	1888.8	1979.7	2070.5	2214.4	2267.4	2278.7
62.5°	151.4	181.7	355.8	537.5	1483.8	1737.4	1828.3	1911.5	2032.7	2070.5	2085.6
65°	143.8	174.1	321.7	461.8	1336.2	1578.4	1669.2	1741.3	1839.6	1877.4	1885.1
67.5°	136.3	166.6	295.3	397.5	1188.6	1419.4	1487.6	1555.7	1631.4	1669.2	1673.1
70°	124.9	159.0	272.6	352.0	1037.1	1237.8	1294.6	1366.5	1427.1	1446.0	1457.3
72.5°	117.4	147.6	257.4	317.9	881.9	1063.7	1116.7	1158.3	1211.3	1230.2	1230.2
75°	106.0	132.5	242.3	283.9	722.9	870.6	916.0	957.7	999.3	1006.9	995.5
77.5°	94.6	117.4	208.2	238.5	564.0	688.9	726.8	749.5	783.6	791.1	794.9
80°	79.5	102.2	162.7	185.5	408.8	507.2	533.7	552.7	582.9	582.9	590.5
82.5°	60.5	79.5	117.4	132.5	276.3	348.3	370.9	382.3	401.2	401.2	401.2
85°	37.8	49.2	75.7	87.1	166.6	212.0	227.1	230.9	246.0	249.8	249.8
87.5°	18.9	26.5	49.2	53.0	87.1	109.7	109.7	117.4	117.4	113.5	109.7
90°	5.9	10.6	15.4	16.5	26.0	38.6	44.9	39.9	29.9	22.4	22.4
92.5°	23.6	63.7	103.9	113.9	160.2	221.8	252.7	221.5	159.0	112.2	107.7
95°	56.7	130.2	203.7	222.0	394.2	623.9	738.7	659.1	500.1	380.9	367.3
97.5°	98.0	162.8	227.7	243.9	531.1	913.9	1105.4	1055.2	954.6	879.3	853.6
100°	129.9	188.7	247.4	262.1	580.8	1005.7	1218.2	1221.8	1229.2	1234.7	1204.1
102.5°	157.1	211.9	266.7	280.5	603.7	1034.6	1250.1	1314.1	1442.1	1538.2	1512.0
105°	203.1	249.5	296.0	307.6	620.6	1037.9	1246.6	1390.1	1677.2	1892.5	1878.4
107.5°	250.4	293.7	337.0	347.8	623.8	991.8	1175.7	1376.0	1776.5	2076.8	2080.3
110°	282.3	321.4	360.5	370.3	619.0	950.8	1116.7	1340.5	1788.2	2124.0	2138.7

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	313.5	350.8	388.0	397.4	619.2	915.0	1062.9	1292.0	1750.2	2093.9	2116.5
115°	360.8	395.2	429.6	438.2	625.0	874.0	998.5	1219.2	1660.6	1991.7	2023.1
117.5°	407.4	438.6	469.9	477.7	636.5	848.3	954.2	1153.4	1551.8	1850.6	1885.3
120°	434.6	464.0	493.4	500.7	646.0	839.7	936.6	1118.6	1482.5	1755.6	1789.3
122.5°	461.2	490.9	520.5	527.9	659.6	835.1	922.9	1086.8	1414.6	1660.5	1693.7
125°	501.9	529.0	556.0	562.8	678.0	831.4	908.2	1047.4	1325.8	1534.7	1565.3
127.5°	535.0	562.3	589.6	596.4	696.2	829.2	895.8	1015.4	1254.4	1433.7	1459.6
130°	552.8	582.2	611.5	618.8	709.6	830.6	891.1	997.5	1210.4	1369.9	1393.8
132.5°	571.0	600.4	629.8	637.2	720.5	831.4	886.9	982.2	1172.7	1315.6	1337.0
135°	598.2	625.0	651.7	658.4	732.2	830.7	879.8	959.7	1119.3	1238.9	1257.4
137.5°	625.9	652.5	679.0	685.6	750.0	835.8	878.7	946.1	1081.1	1182.2	1197.3
140°	648.9	673.4	697.7	703.8	760.8	836.6	874.5	932.7	1049.4	1136.7	1150.9
142.5°	666.7	689.2	711.9	717.5	769.8	839.6	874.5	925.7	1028.1	1104.8	1117.0
145°	693.8	713.5	733.2	738.1	781.7	839.6	868.7	910.5	994.3	1057.0	1066.2
147.5°	721.0	740.1	759.3	764.1	799.0	845.5	868.7	901.6	967.5	1016.9	1024.5
150°	738.7	756.0	773.4	777.7	808.0	848.4	868.7	896.5	952.0	993.8	1000.0
152.5°	757.0	770.1	783.3	786.5	813.9	850.4	868.7	892.4	939.9	975.5	980.2
155°	784.2	793.9	803.6	806.0	826.9	854.7	868.7	887.6	925.3	953.7	956.7
157.5°	804.3	813.8	823.1	825.5	839.9	859.1	868.7	883.4	912.7	934.8	937.0
160°	817.9	825.2	832.6	834.4	845.8	861.0	868.7	881.3	906.4	925.3	926.5
162.5°	831.4	837.0	842.5	843.8	852.1	863.1	868.7	879.3	900.5	916.4	917.6
165°	846.2	851.2	856.2	857.4	861.1	866.2	868.7	876.3	891.5	902.9	904.1
167.5°	859.8	862.1	864.5	865.0	868.2	872.4	874.5	879.5	889.5	896.9	897.5
170°	868.7	871.0	873.3	873.9	874.1	874.4	874.5	879.5	889.5	896.9	896.9
172.5°	873.3	873.8	874.4	874.5	874.5	874.5	874.5	878.4	886.3	892.3	891.8
175°	879.8	879.8	879.8	879.8	878.0	875.6	874.5	877.0	882.0	885.8	885.8
177.5°	879.8	879.8	879.8	879.8	878.5	876.7	875.7	877.7	881.7	884.6	884.0
180°	879.8	879.8	879.8	879.8	879.8	879.8	879.8	879.8	879.8	879.8	879.8

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1177.2	1177.2
2.5°	1256.7	1249.1
5°	1616.3	1623.9
7.5°	2176.5	2172.7
10°	2706.5	2740.5
12.5°	3092.6	3100.1
15°	3327.2	3342.4
17.5°	3418.0	3421.9
20°	3421.9	3414.3
22.5°	3380.2	3372.7
25°	3331.0	3327.2
27.5°	3285.6	3289.4
30°	3266.7	3278.0
32.5°	3266.7	3285.6
35°	3274.2	3293.1
37.5°	3270.4	3293.1
40°	3255.3	3281.8
42.5°	3213.7	3232.6
45°	3149.3	3172.0
47.5°	3066.0	3081.2
50°	2960.0	2975.2
52.5°	2827.6	2831.4
55°	2668.6	2683.7
57.5°	2498.3	2502.0
60°	2309.0	2320.4
62.5°	2108.4	2108.4
65°	1896.4	1904.0
67.5°	1676.9	1695.8
70°	1453.5	1457.3
72.5°	1234.0	1234.0
75°	1006.9	1010.7
77.5°	791.1	791.1
80°	586.8	590.5
82.5°	405.0	412.6
85°	253.6	253.6
87.5°	117.4	106.0
90°	22.4	22.4
92.5°	89.9	72.0
95°	313.2	259.2
97.5°	750.6	647.8
100°	1081.5	959.0
102.5°	1407.0	1302.0
105°	1822.0	1765.6
107.5°	2093.8	2107.5
110°	2197.5	2256.3

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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2206.8	2297.1
115°	2148.3	2273.5
117.5°	2024.1	2163.0
120°	1924.2	2059.1
122.5°	1826.8	1959.9
125°	1687.9	1810.5
127.5°	1563.0	1666.4
130°	1489.4	1584.9
132.5°	1422.6	1508.1
135°	1331.1	1404.8
137.5°	1257.6	1318.0
140°	1207.2	1263.7
142.5°	1165.6	1214.1
145°	1102.9	1139.7
147.5°	1054.9	1085.4
150°	1024.6	1049.4
152.5°	998.8	1017.5
155°	969.1	981.5
157.5°	945.5	954.2
160°	931.6	936.6
162.5°	922.3	927.1
165°	909.2	914.1
167.5°	899.6	901.7
170°	896.9	896.9
172.5°	890.0	888.2
175°	885.8	885.8
177.5°	881.9	879.8
180°	879.8	879.8

(END OF REPORT)