

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: P936904

Luminaire Tested: SQ4-FB-050U-100D-B40-1D-UNV-W2A-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936904
REPORT IS A COMBINATION OF REPORTS P933487 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-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

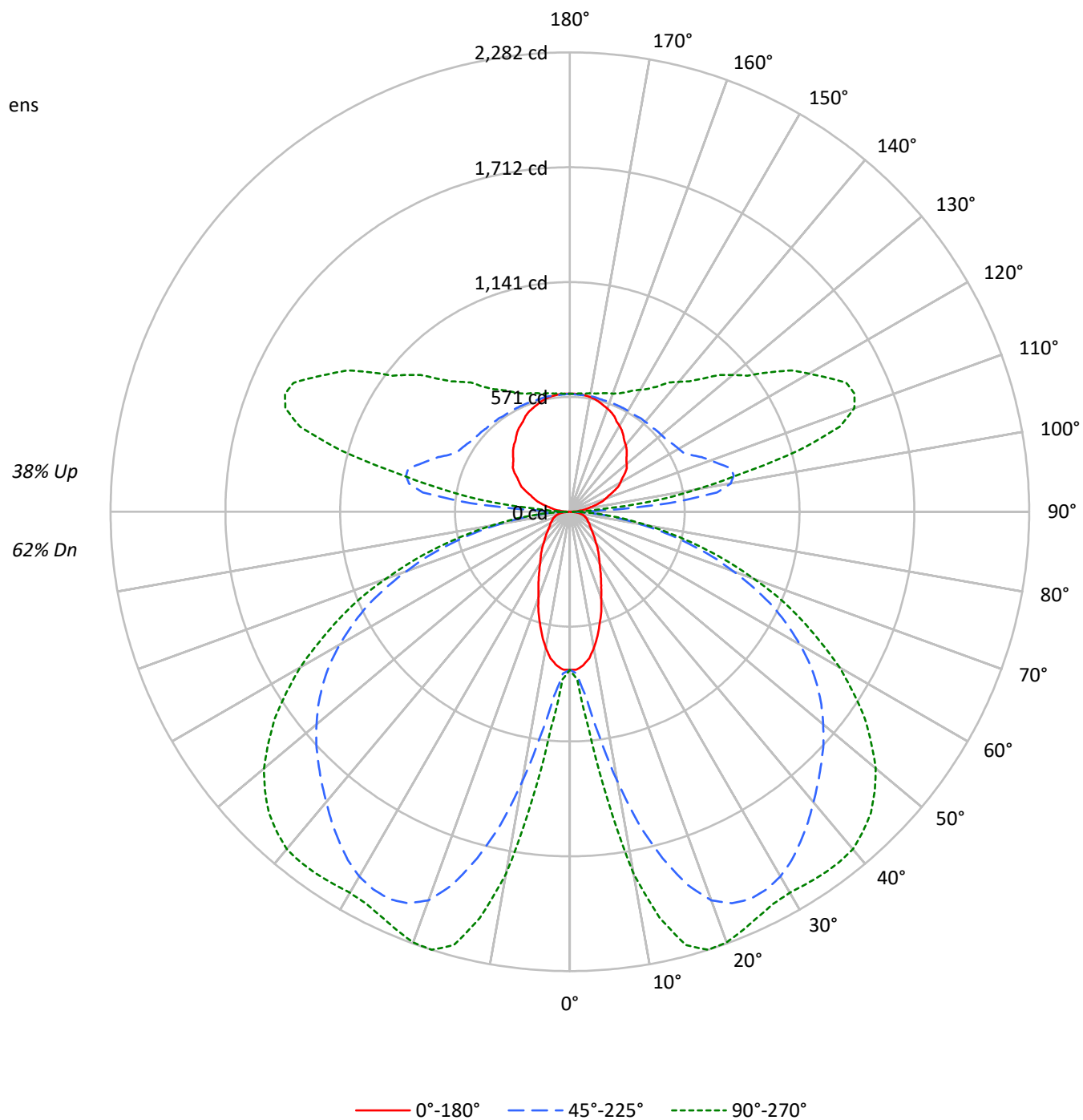
Lumens per Lamp: N/A
Luminaire Lumens: 9876.6 lumens
Efficiency: N/A
Efficacy: 109.3 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 90.4
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°	3642	3642	3642
5°	3558	4209	4895
10°	3227	6135	8115
15°	2743	8015	9799
20°	2233	9289	9986
25°	1863	9720	9783
30°	1571	9782	9765
35°	1389	9619	10017
40°	1210	9408	10278
45°	1096	9254	10319
50°	1005	9115	10147
55°	962	8911	9698
60°	985	8519	8988
65°	1025	7925	8012
70°	1092	6911	6768
75°	1211	5634	5282
80°	1322	3907	3559
85°	1174	2074	1822

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 10319 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.5	1.0
10°-20°	450.0	4.6
20°-30°	787.1	8.0
30°-40°	1013.2	10.3
40°-50°	1131.7	11.5
50°-60°	1083.9	11.0
60°-70°	859.0	8.7
70°-80°	505.1	5.1
80°-90°	142.6	1.4
90°-100°	285.9	2.9
100°-110°	751.7	7.6
110°-120°	779.4	7.9
120°-130°	625.2	6.3
130°-140°	490.6	5.0
140°-150°	376.5	3.8
150°-160°	271.2	2.7
160°-170°	165.9	1.7
170°-180°	56.1	0.6
0°-30°	1338.6	13.6
0°-40°	2351.8	23.8
0°-60°	4567.4	46.2
0°-90°	6074.1	61.5
90°-120°	1817.1	18.4
90°-150°	3309.4	33.5
90°-180°	3802.0	38.5
0°-180°	9876.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	785	785	785	785	785	
5°	765	820	924	1045	1083	71
15°	573	1058	1782	2160	2228	159
25°	366	1199	2122	2216	2218	169
35°	247	1146	1999	2112	2196	154
45°	169	914	1767	2024	2115	131
55°	121	580	1499	1741	1789	110
65°	96	308	1113	1252	1270	95
75°	71	189	611	671	674	74
85°	25	58	152	167	169	27
90°	4	11	30	15	15	5
95°	38	148	492	254	173	42
105°	135	205	831	1262	1177	144
115°	241	292	666	1328	1516	238
125°	335	375	606	1023	1207	297
135°	399	439	587	826	937	309
145°	463	492	579	705	760	290
155°	523	537	579	636	654	240
165°	564	572	579	602	609	159
175°	587	587	583	590	590	56
180°	587	587	587	587	587	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	784.9	784.9	784.9	784.9	784.9	784.9	784.9	784.9	784.9	784.9	784.9
2.5°	784.9	784.9	790.0	792.5	797.5	800.0	805.1	810.1	825.3	827.8	832.9
5°	764.7	774.8	807.6	820.2	855.6	903.5	923.7	956.5	1024.6	1044.9	1057.5
7.5°	734.4	757.1	837.9	858.1	946.4	1072.6	1125.6	1196.2	1304.8	1357.8	1400.7
10°	686.5	734.4	878.3	926.3	1070.1	1261.8	1360.3	1458.8	1622.7	1696.0	1723.7
12.5°	633.5	711.7	921.2	986.8	1193.8	1473.9	1592.5	1701.0	1887.7	1986.2	2001.3
15°	572.9	678.9	961.6	1057.5	1325.0	1650.5	1781.7	1915.5	2089.6	2160.3	2178.0
17.5°	519.9	653.7	999.4	1100.4	1425.9	1809.5	1943.3	2054.3	2195.6	2243.6	2256.3
20°	454.3	613.3	1024.6	1155.8	1531.9	1925.7	2054.3	2140.2	2236.0	2266.3	2271.4
22.5°	406.4	570.3	1039.8	1176.1	1602.6	1996.3	2104.8	2172.9	2238.6	2248.6	2251.2
25°	366.0	522.4	1037.2	1198.8	1663.1	2039.2	2122.5	2172.9	2210.8	2215.9	2215.9
27.5°	328.0	469.4	1027.2	1203.9	1708.6	2049.3	2114.9	2150.3	2167.9	2178.0	2178.0
30°	295.3	419.0	1001.9	1193.8	1728.7	2039.2	2092.2	2109.9	2127.5	2142.6	2150.3
32.5°	270.1	371.0	964.1	1173.5	1731.3	2014.0	2051.8	2061.9	2087.2	2122.5	2135.1
35°	247.3	323.1	921.2	1145.8	1716.1	1973.6	1998.8	2008.9	2059.4	2112.4	2130.0
37.5°	224.6	287.7	865.6	1097.9	1693.4	1925.7	1943.3	1961.0	2039.2	2102.2	2122.5
40°	201.9	257.5	800.0	1044.9	1658.1	1867.6	1882.7	1910.5	2014.0	2087.2	2107.3
42.5°	184.2	232.2	729.3	989.3	1612.7	1802.0	1824.7	1865.0	1983.6	2061.9	2084.7
45°	169.1	206.9	653.7	913.6	1554.6	1733.8	1766.7	1822.1	1948.3	2024.0	2044.3
47.5°	153.9	189.3	575.4	835.3	1491.5	1665.7	1708.6	1771.7	1900.4	1973.6	1991.3
50°	141.3	171.6	497.2	752.1	1423.4	1592.5	1643.0	1708.6	1839.8	1908.0	1930.6
52.5°	131.2	156.4	424.0	668.8	1345.1	1516.7	1574.8	1643.0	1766.7	1832.3	1847.4
55°	121.1	143.8	360.9	580.4	1264.4	1436.0	1499.1	1564.8	1685.9	1741.3	1751.5
57.5°	116.1	133.8	307.9	497.2	1178.6	1345.1	1415.8	1476.4	1590.0	1632.9	1643.0
60°	108.5	126.2	267.5	426.5	1085.3	1259.4	1319.9	1380.5	1476.4	1511.8	1519.3
62.5°	100.9	121.1	237.2	358.4	989.3	1158.4	1219.0	1274.5	1355.2	1380.5	1390.6
65°	95.9	116.1	214.5	307.9	890.9	1052.4	1113.0	1160.9	1226.5	1251.8	1256.9
67.5°	90.8	111.1	196.8	265.0	792.5	946.4	991.9	1037.2	1087.7	1113.0	1115.5
70°	83.3	106.0	181.7	234.7	691.5	825.3	863.1	911.1	951.5	964.1	971.6
72.5°	78.2	98.5	171.6	212.0	588.0	709.2	744.5	772.3	807.6	820.2	820.2
75°	70.7	88.3	161.5	189.3	482.1	580.4	610.7	638.5	666.3	671.4	663.7
77.5°	63.1	78.2	138.8	159.0	376.1	459.4	484.6	499.7	522.4	527.4	530.0
80°	53.0	68.2	108.5	123.7	272.6	338.2	355.8	368.4	388.7	388.7	393.7
82.5°	40.4	53.0	78.2	88.3	184.2	232.2	247.3	254.9	267.5	267.5	267.5
85°	25.2	32.9	50.5	58.1	111.1	141.3	151.5	153.9	164.1	166.6	166.6
87.5°	12.6	17.7	32.9	35.3	58.1	73.2	73.2	78.2	78.2	75.7	73.2
90°	3.9	7.1	10.2	11.0	17.3	25.7	29.9	26.5	20.0	15.0	15.0
92.5°	15.8	42.5	69.3	76.0	106.9	147.9	168.5	147.6	106.0	74.8	71.8
95°	37.8	86.8	135.8	148.0	262.8	415.9	492.5	439.5	333.5	253.9	245.0
97.5°	65.3	108.5	151.7	162.5	354.0	609.3	737.0	703.5	636.4	586.2	569.0
100°	86.6	125.8	164.9	174.8	387.3	670.5	812.1	814.6	819.5	823.1	802.7
102.5°	104.8	141.3	177.8	187.0	402.4	689.8	833.4	876.1	961.5	1025.5	1008.0
105°	135.4	166.4	197.4	205.1	413.8	692.0	831.0	926.7	1118.2	1261.7	1252.3
107.5°	166.9	195.8	224.6	231.9	415.8	661.1	783.8	917.3	1184.3	1384.6	1386.9
110°	188.1	214.2	240.4	246.9	412.8	633.8	744.4	893.7	1192.1	1416.0	1425.8

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	209.0	233.9	258.7	264.9	412.8	610.1	708.6	861.3	1166.8	1395.9	1411.0
115°	240.6	263.5	286.4	292.1	416.7	582.7	665.7	812.9	1107.1	1327.8	1348.7
117.5°	271.6	292.4	313.2	318.5	424.4	565.6	636.1	769.0	1034.6	1233.8	1256.9
120°	289.7	309.3	329.0	333.9	430.7	559.8	624.4	745.7	988.3	1170.4	1192.8
122.5°	307.4	327.2	347.0	351.9	439.7	556.8	615.3	724.6	943.2	1107.0	1129.2
125°	334.6	352.6	370.6	375.1	451.9	554.3	605.5	698.3	883.9	1023.2	1043.6
127.5°	356.7	374.8	393.0	397.6	464.1	552.8	597.2	676.9	836.3	955.9	973.0
130°	368.4	388.0	407.7	412.6	473.0	553.7	594.0	665.0	806.9	913.3	929.2
132.5°	380.7	400.2	419.9	424.8	480.3	554.3	591.3	654.8	781.9	877.1	891.3
135°	398.8	416.7	434.4	438.9	488.1	553.7	586.6	639.8	746.1	825.9	838.2
137.5°	417.3	435.0	452.7	457.1	499.9	557.1	585.8	630.8	720.7	788.2	798.2
140°	432.6	448.9	465.2	469.3	507.2	557.7	583.0	621.9	699.5	757.8	767.2
142.5°	444.5	459.5	474.5	478.3	513.2	559.7	583.0	617.1	685.4	736.6	744.7
145°	462.6	475.7	488.9	492.1	521.1	559.8	579.1	607.0	662.9	704.7	710.8
147.5°	480.7	493.4	506.2	509.4	532.6	563.6	579.1	601.1	644.9	677.9	682.9
150°	492.5	504.0	515.6	518.5	538.7	565.6	579.1	597.6	634.8	662.6	666.7
152.5°	504.7	513.5	522.2	524.4	542.6	567.0	579.1	595.0	626.6	650.4	653.5
155°	522.8	529.3	535.8	537.4	551.3	569.8	579.1	591.7	616.8	635.7	637.8
157.5°	536.1	542.4	548.7	550.4	559.9	572.7	579.1	588.9	608.4	623.1	624.6
160°	545.2	550.2	555.0	556.3	563.9	574.1	579.1	587.5	604.2	616.8	617.7
162.5°	554.3	558.0	561.6	562.6	568.1	575.5	579.1	586.2	600.4	611.0	611.8
165°	564.1	567.5	570.7	571.6	574.1	577.4	579.1	584.2	594.3	601.9	602.8
167.5°	573.2	574.7	576.3	576.7	578.8	581.6	583.0	586.4	593.1	598.0	598.4
170°	579.1	580.6	582.3	582.6	582.7	582.9	583.0	586.4	593.1	598.0	598.0
172.5°	582.3	582.6	582.9	583.0	583.0	583.0	583.0	585.7	591.0	594.9	594.6
175°	586.6	586.6	586.6	586.6	585.4	583.8	583.0	584.7	588.0	590.5	590.5
177.5°	586.6	586.6	586.6	586.6	585.6	584.4	583.8	585.1	587.7	589.7	589.3
180°	586.6	586.6	586.6	586.6	586.6	586.6	586.6	586.6	586.6	586.6	586.6

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	784.9	784.9
2.5°	837.9	832.9
5°	1077.6	1082.7
7.5°	1451.1	1448.6
10°	1804.5	1827.2
12.5°	2061.9	2067.0
15°	2218.4	2228.5
17.5°	2278.9	2281.5
20°	2281.5	2276.4
22.5°	2253.7	2248.6
25°	2220.9	2218.4
27.5°	2190.6	2193.2
30°	2178.0	2185.6
32.5°	2178.0	2190.6
35°	2183.0	2195.6
37.5°	2180.6	2195.6
40°	2170.4	2188.1
42.5°	2142.6	2155.2
45°	2099.8	2114.9
47.5°	2044.3	2054.3
50°	1973.6	1983.6
52.5°	1885.3	1887.7
55°	1779.3	1789.4
57.5°	1665.7	1668.2
60°	1539.5	1547.1
62.5°	1405.8	1405.8
65°	1264.4	1269.5
67.5°	1118.0	1130.6
70°	969.1	971.6
72.5°	822.7	822.7
75°	671.4	673.8
77.5°	527.4	527.4
80°	391.2	393.7
82.5°	270.1	275.1
85°	169.1	169.1
87.5°	78.2	70.7
90°	15.0	15.0
92.5°	59.9	48.0
95°	208.9	172.9
97.5°	500.4	431.9
100°	721.0	639.3
102.5°	938.0	868.0
105°	1214.7	1177.0
107.5°	1395.9	1405.0
110°	1465.0	1504.2

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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1471.2	1531.3
115°	1432.1	1515.6
117.5°	1349.5	1442.0
120°	1282.8	1372.7
122.5°	1217.9	1306.6
125°	1125.3	1207.0
127.5°	1042.0	1111.0
130°	992.9	1056.6
132.5°	948.4	1005.4
135°	887.4	936.6
137.5°	838.5	878.7
140°	804.8	842.4
142.5°	777.0	809.4
145°	735.4	759.8
147.5°	703.3	723.6
150°	683.1	699.5
152.5°	665.9	678.3
155°	646.1	654.3
157.5°	630.4	636.1
160°	621.0	624.4
162.5°	614.9	618.1
165°	606.0	609.4
167.5°	599.7	601.2
170°	598.0	598.0
172.5°	593.3	592.1
175°	590.5	590.5
177.5°	588.0	586.6
180°	586.6	586.6

(END OF REPORT)