

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: P936908

Luminaire Tested: SQ4-FB-050U-100D-B50-1D-UNV-W2A-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936908
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-B50-1D-UNV-W2A-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

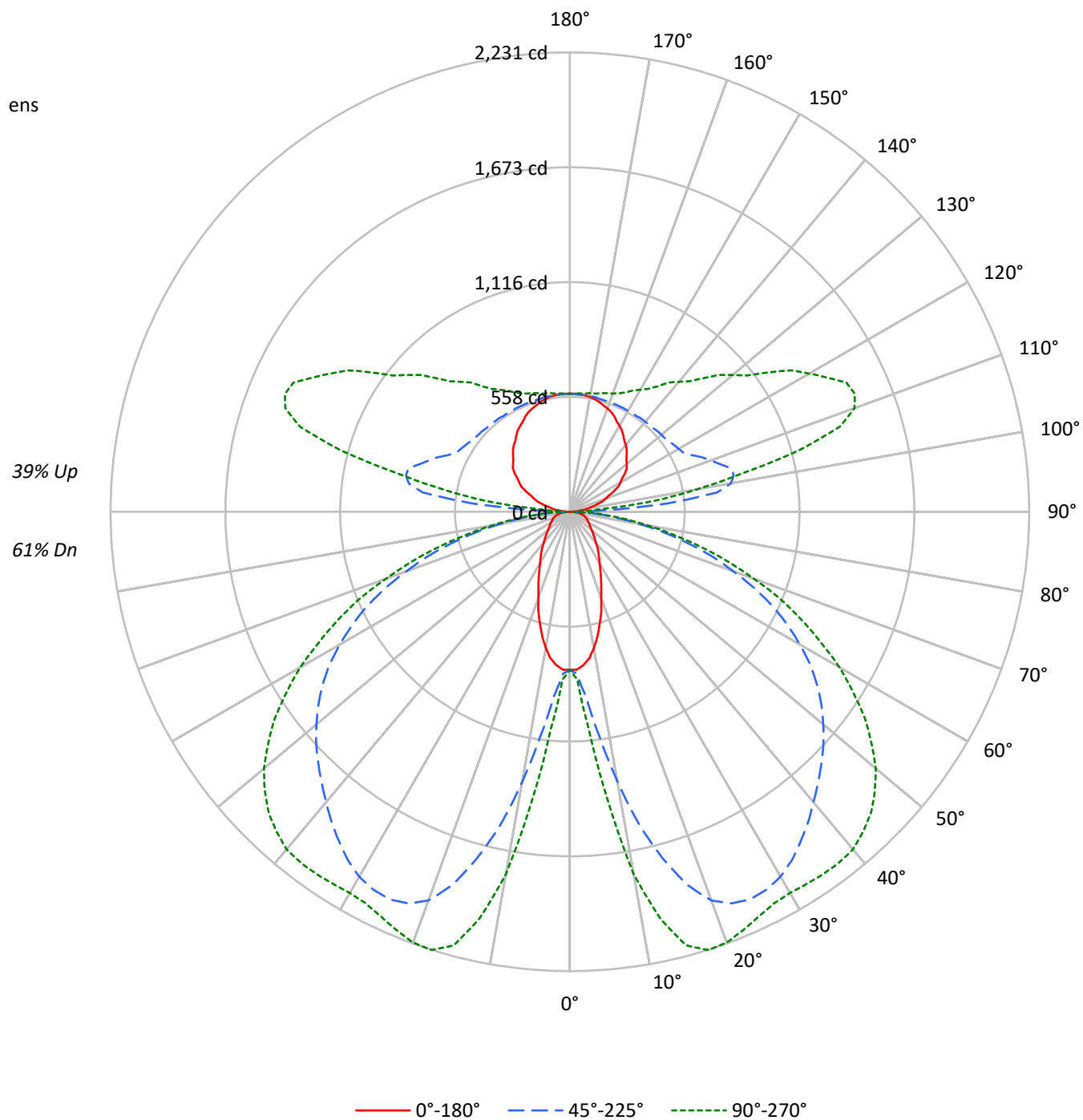
Lumens per Lamp: N/A
Luminaire Lumens: 9659.5 lumens
Efficiency: N/A
Efficacy: 106.9 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Direct

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

TEST NUMBER: P936908

CATALOG NUMBER: SQ4-FB-050U-100D-B50-1D-UNV-W2A-W-8

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°	3562	3562	3562
5°	3479	4116	4787
10°	3156	6000	7936
15°	2682	7839	9583
20°	2184	9084	9767
25°	1822	9506	9568
30°	1536	9567	9551
35°	1358	9408	9797
40°	1183	9201	10052
45°	1072	9050	10092
50°	983	8914	9924
55°	941	8715	9485
60°	964	8332	8790
65°	1003	7750	7836
70°	1068	6759	6620
75°	1183	5511	5166
80°	1292	3822	3481
85°	1150	2028	1782

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 10092 cd/sqm

TEST NUMBER: P936908

CATALOG NUMBER: SQ4-FB-050U-100D-B50-1D-UNV-W2A-W-8

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.3	1.0
10°-20°	440.1	4.6
20°-30°	769.8	8.0
30°-40°	990.9	10.3
40°-50°	1106.8	11.5
50°-60°	1060.1	11.0
60°-70°	840.1	8.7
70°-80°	494.0	5.1
80°-90°	139.4	1.4
90°-100°	279.6	2.9
100°-110°	735.2	7.6
110°-120°	762.3	7.9
120°-130°	611.4	6.3
130°-140°	479.8	5.0
140°-150°	368.3	3.8
150°-160°	265.2	2.7
160°-170°	162.3	1.7
170°-180°	54.8	0.6
0°-30°	1309.2	13.6
0°-40°	2300.1	23.8
0°-60°	4467.0	46.2
0°-90°	5940.6	61.5
90°-120°	1777.1	18.4
90°-150°	3236.6	33.5
90°-180°	3719.0	38.5
0°-180°	9659.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	768	768	768	768	768	
5°	748	802	903	1022	1059	69
15°	560	1034	1743	2113	2180	156
25°	358	1172	2076	2167	2170	165
35°	242	1121	1955	2066	2147	151
45°	165	894	1728	1980	2068	128
55°	118	568	1466	1703	1750	108
65°	94	301	1088	1224	1242	93
75°	69	185	597	657	659	72
85°	25	57	148	163	165	26
90°	4	11	29	15	15	5
95°	37	145	482	248	169	41
105°	132	201	813	1234	1151	140
115°	235	286	651	1299	1482	232
125°	327	367	592	1001	1180	291
135°	390	429	574	808	916	302
145°	452	481	566	689	743	283
155°	511	526	566	622	640	235
165°	552	559	566	589	596	156
175°	574	574	570	578	578	54
180°	574	574	574	574	574	

TEST NUMBER: P936908

CATALOG NUMBER: SQ4-FB-050U-100D-B50-1D-UNV-W2A-W-8

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	767.7	767.7	767.7	767.7	767.7	767.7	767.7	767.7	767.7	767.7	767.7
2.5°	767.7	767.7	772.6	775.0	780.0	782.4	787.4	792.3	807.2	809.6	814.5
5°	747.9	757.8	789.9	802.2	836.8	883.7	903.4	935.5	1002.1	1021.9	1034.2
7.5°	718.2	740.5	819.5	839.2	925.6	1049.0	1100.8	1169.9	1276.1	1328.0	1369.9
10°	671.4	718.2	859.0	905.9	1046.5	1234.1	1330.4	1426.7	1587.1	1658.7	1685.8
12.5°	619.5	696.0	900.9	965.1	1167.5	1441.4	1557.4	1663.6	1846.2	1942.5	1957.3
15°	560.3	664.0	940.4	1034.2	1295.8	1614.2	1742.6	1873.4	2043.7	2112.8	2130.1
17.5°	508.5	639.3	977.4	1076.2	1394.6	1769.7	1900.6	2009.1	2147.4	2194.2	2206.7
20°	444.3	599.8	1002.1	1130.4	1498.2	1883.3	2009.1	2093.1	2186.9	2216.5	2221.4
22.5°	397.4	557.8	1016.9	1150.2	1567.3	1952.4	2058.5	2125.1	2189.4	2199.2	2201.7
25°	357.9	510.9	1014.4	1172.5	1626.6	1994.4	2075.8	2125.1	2162.2	2167.2	2167.2
27.5°	320.8	459.1	1004.6	1177.4	1671.0	2004.3	2068.4	2103.0	2120.3	2130.1	2130.1
30°	288.8	409.7	979.9	1167.5	1690.7	1994.4	2046.2	2063.5	2080.8	2095.5	2103.0
32.5°	264.1	362.9	942.9	1147.7	1693.2	1969.7	2006.7	2016.6	2041.3	2075.8	2088.1
35°	241.9	316.0	900.9	1120.6	1678.4	1930.2	1954.9	1964.8	2014.1	2065.9	2083.2
37.5°	219.7	281.4	846.6	1073.7	1656.2	1883.3	1900.6	1917.9	1994.4	2056.0	2075.8
40°	197.4	251.8	782.4	1021.9	1621.6	1826.5	1841.3	1868.5	1969.7	2041.3	2061.0
42.5°	180.2	227.1	713.3	967.5	1577.2	1762.4	1784.6	1824.0	1940.0	2016.6	2038.8
45°	165.4	202.4	639.3	893.5	1520.5	1695.7	1727.8	1782.1	1905.5	1979.5	1999.3
47.5°	150.6	185.1	562.7	817.0	1458.7	1629.1	1671.0	1732.8	1858.6	1930.2	1947.5
50°	138.2	167.8	486.2	735.5	1392.1	1557.4	1606.9	1671.0	1799.4	1866.0	1888.2
52.5°	128.3	153.0	414.7	654.1	1315.5	1483.4	1540.2	1606.9	1727.8	1792.0	1806.7
55°	118.4	140.7	353.0	567.7	1236.6	1404.5	1466.1	1530.4	1648.8	1703.1	1713.0
57.5°	113.6	130.9	301.1	486.2	1152.6	1315.5	1384.7	1444.0	1555.0	1597.0	1606.9
60°	106.1	123.4	261.6	417.1	1061.4	1231.7	1290.9	1350.1	1444.0	1478.5	1485.9
62.5°	98.7	118.4	232.0	350.5	967.5	1132.9	1192.2	1246.5	1325.4	1350.1	1360.0
65°	93.8	113.6	209.8	301.1	871.3	1029.3	1088.5	1135.4	1199.5	1224.3	1229.2
67.5°	88.8	108.6	192.5	259.2	775.0	925.6	970.1	1014.4	1063.8	1088.5	1091.0
70°	81.4	103.7	177.7	229.6	676.3	807.2	844.1	891.0	930.5	942.9	950.3
72.5°	76.5	96.3	167.8	207.3	575.1	693.6	728.1	755.3	789.9	802.2	802.2
75°	69.1	86.4	157.9	185.1	471.5	567.7	597.3	624.5	651.7	656.6	649.1
77.5°	61.7	76.5	135.7	155.5	367.8	449.3	473.9	488.7	510.9	515.8	518.4
80°	51.8	66.7	106.1	121.0	266.6	330.7	348.0	360.3	380.1	380.1	385.1
82.5°	39.5	51.8	76.5	86.4	180.2	227.1	241.9	249.3	261.6	261.6	261.6
85°	24.7	32.1	49.4	56.8	108.6	138.2	148.1	150.6	160.5	162.9	162.9
87.5°	12.3	17.3	32.1	34.6	56.8	71.5	71.5	76.5	76.5	74.1	71.5
90°	3.8	6.9	10.0	10.7	16.9	25.1	29.2	26.0	19.5	14.7	14.7
92.5°	15.4	41.6	67.8	74.3	104.5	144.7	164.8	144.4	103.7	73.1	70.2
95°	37.0	84.9	132.8	144.8	257.0	406.8	481.7	429.8	326.2	248.4	239.6
97.5°	63.9	106.1	148.4	159.0	346.2	595.9	720.8	688.0	622.4	573.3	556.5
100°	84.7	123.0	161.3	170.9	378.7	655.8	794.3	796.7	801.5	805.0	785.0
102.5°	102.5	138.2	173.9	182.9	393.6	674.6	815.1	856.9	940.4	1002.9	985.8
105°	132.4	162.7	193.1	200.6	404.7	676.8	812.8	906.4	1093.6	1234.0	1224.8
107.5°	163.3	191.5	219.7	226.8	406.7	646.6	766.5	897.1	1158.3	1354.1	1356.4
110°	184.0	209.5	235.1	241.4	403.7	619.9	728.1	874.0	1165.9	1384.8	1394.5

TEST NUMBER: P936908

CATALOG NUMBER: SQ4-FB-050U-100D-B50-1D-UNV-W2A-W-8

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	204.5	228.7	253.0	259.1	403.8	596.6	693.0	842.4	1141.2	1365.2	1380.0
115°	235.3	257.7	280.1	285.7	407.5	569.9	651.1	795.0	1082.8	1298.6	1319.0
117.5°	265.6	286.0	306.4	311.5	415.1	553.1	622.1	752.1	1011.8	1206.6	1229.2
120°	283.4	302.5	321.8	326.5	421.2	547.5	610.6	729.3	966.6	1144.6	1166.6
122.5°	300.7	320.0	339.3	344.2	430.0	544.5	601.8	708.6	922.4	1082.7	1104.4
125°	327.3	344.8	362.5	366.9	442.0	542.1	592.2	682.9	864.5	1000.7	1020.7
127.5°	348.8	366.6	384.3	388.8	453.9	540.7	584.0	662.0	817.9	934.8	951.7
130°	360.3	379.5	398.7	403.5	462.6	541.5	580.9	650.3	789.1	893.2	908.8
132.5°	372.3	391.4	410.7	415.4	469.7	542.1	578.3	640.4	764.7	857.8	871.7
135°	390.0	407.5	424.9	429.3	477.4	541.5	573.7	625.7	729.7	807.7	819.8
137.5°	408.2	425.4	442.7	447.0	488.9	544.9	572.9	616.9	704.9	770.8	780.6
140°	423.1	439.1	455.0	459.0	496.0	545.5	570.2	608.2	684.2	741.1	750.3
142.5°	434.7	449.3	464.1	467.7	501.9	547.4	570.2	603.6	670.3	720.4	728.3
145°	452.4	465.2	478.1	481.3	509.7	547.5	566.4	593.7	648.3	689.2	695.2
147.5°	470.1	482.6	495.1	498.2	520.9	551.2	566.4	587.9	630.7	663.0	667.9
150°	481.7	493.0	504.3	507.1	526.9	553.2	566.4	584.5	620.8	648.0	652.0
152.5°	493.6	502.2	510.7	512.9	530.7	554.5	566.4	581.9	612.8	636.1	639.1
155°	511.3	517.6	524.0	525.6	539.2	557.3	566.4	578.7	603.3	621.8	623.8
157.5°	524.3	530.5	536.7	538.3	547.6	560.1	566.4	575.9	595.1	609.4	610.8
160°	533.2	538.1	542.8	544.1	551.5	561.4	566.4	574.6	590.9	603.3	604.1
162.5°	542.1	545.7	549.3	550.2	555.6	562.8	566.4	573.3	587.2	597.6	598.3
165°	551.7	555.0	558.2	559.0	561.4	564.7	566.4	571.3	581.2	588.7	589.5
167.5°	560.6	562.1	563.7	564.0	566.1	568.8	570.2	573.5	580.0	584.9	585.2
170°	566.4	567.9	569.5	569.8	569.9	570.1	570.2	573.5	580.0	584.9	584.9
172.5°	569.5	569.8	570.1	570.2	570.2	570.2	570.2	572.8	578.0	581.8	581.5
175°	573.7	573.7	573.7	573.7	572.5	571.0	570.2	571.8	575.1	577.5	577.5
177.5°	573.7	573.7	573.7	573.7	572.7	571.5	571.0	572.3	574.8	576.7	576.4
180°	573.7	573.7	573.7	573.7	573.7	573.7	573.7	573.7	573.7	573.7	573.7

TEST NUMBER: P936908

CATALOG NUMBER: SQ4-FB-050U-100D-B50-1D-UNV-W2A-W-8

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	767.7	767.7
2.5°	819.5	814.5
5°	1053.9	1058.9
7.5°	1419.2	1416.8
10°	1764.8	1787.0
12.5°	2016.6	2021.5
15°	2169.6	2179.5
17.5°	2228.8	2231.3
20°	2231.3	2226.4
22.5°	2204.1	2199.2
25°	2172.1	2169.6
27.5°	2142.4	2144.9
30°	2130.1	2137.6
32.5°	2130.1	2142.4
35°	2135.0	2147.4
37.5°	2132.6	2147.4
40°	2122.7	2140.0
42.5°	2095.5	2107.9
45°	2053.6	2068.4
47.5°	1999.3	2009.1
50°	1930.2	1940.0
52.5°	1843.8	1846.2
55°	1740.1	1750.0
57.5°	1629.1	1631.5
60°	1505.6	1513.1
62.5°	1374.8	1374.8
65°	1236.6	1241.6
67.5°	1093.4	1105.8
70°	947.8	950.3
72.5°	804.6	804.6
75°	656.6	659.0
77.5°	515.8	515.8
80°	382.6	385.1
82.5°	264.1	269.1
85°	165.4	165.4
87.5°	76.5	69.1
90°	14.7	14.7
92.5°	58.6	47.0
95°	204.3	169.1
97.5°	489.4	422.4
100°	705.2	625.2
102.5°	917.4	848.9
105°	1188.0	1151.2
107.5°	1365.2	1374.1
110°	1432.8	1471.1

TEST NUMBER: P936908

CATALOG NUMBER: SQ4-FB-050U-100D-B50-1D-UNV-W2A-W-8

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1438.8	1497.7
115°	1400.6	1482.3
117.5°	1319.8	1410.3
120°	1254.5	1342.5
122.5°	1191.1	1277.9
125°	1100.5	1180.5
127.5°	1019.1	1086.5
130°	971.1	1033.4
132.5°	927.6	983.3
135°	867.9	916.0
137.5°	820.1	859.4
140°	787.1	823.9
142.5°	759.9	791.6
145°	719.2	743.1
147.5°	687.8	707.7
150°	668.1	684.2
152.5°	651.3	663.4
155°	631.9	639.9
157.5°	616.5	622.1
160°	607.4	610.6
162.5°	601.4	604.5
165°	592.7	596.0
167.5°	586.6	588.0
170°	584.9	584.9
172.5°	580.3	579.1
175°	577.5	577.5
177.5°	575.1	573.7
180°	573.7	573.7

(END OF REPORT)