

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: P937505

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

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937505
REPORT IS A COMBINATION OF REPORTS P933557 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-050D-B50-1D-UNV-W2A-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

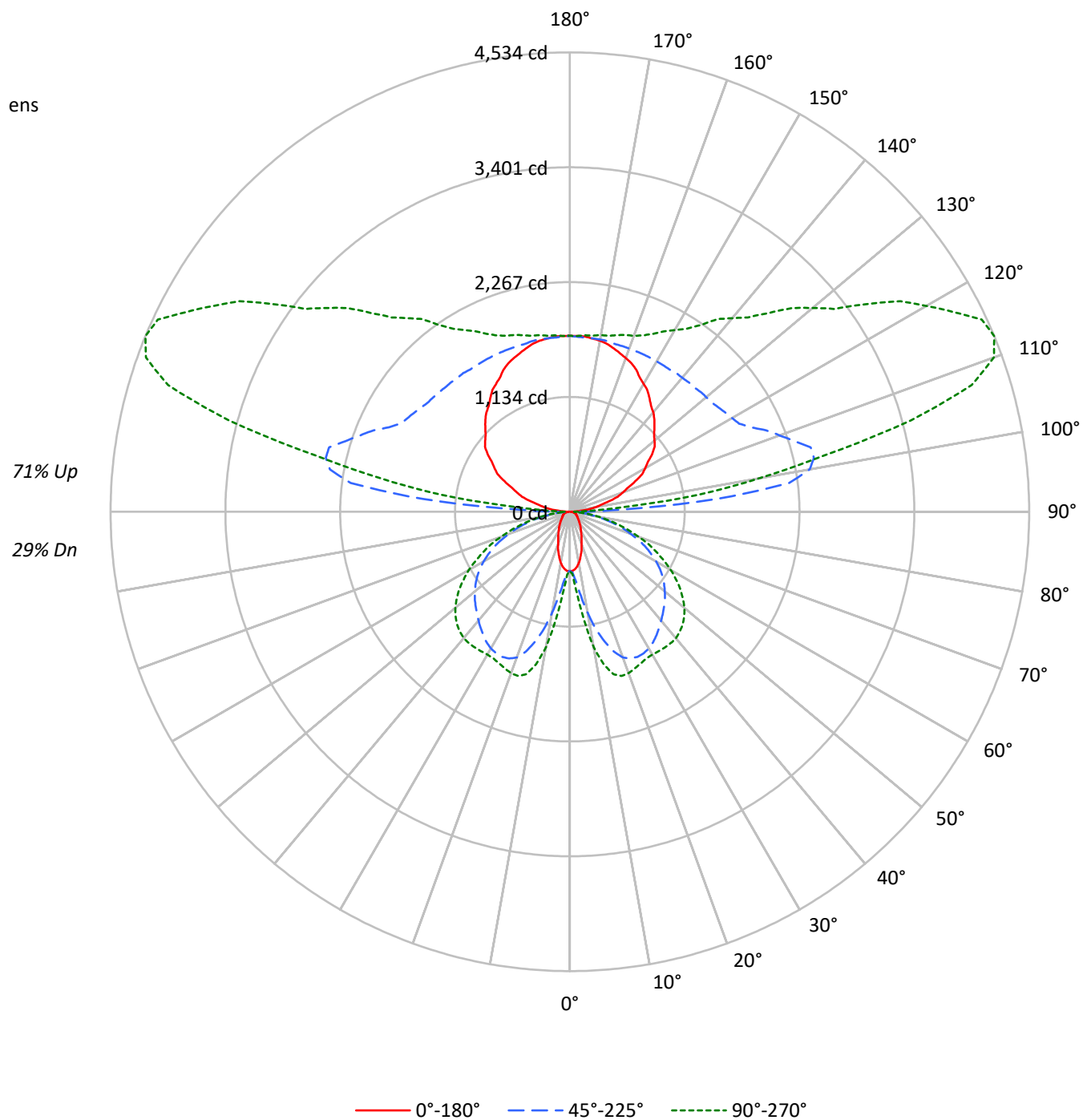
Lumens per Lamp: N/A
Luminaire Lumens: 15785.6 lumens
Efficiency: N/A
Efficacy: 127.7 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 123.6
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	102	102	102	102	91	91	91	91	71	71	71	53	53	53	37	37	37
1	93	88	84	81	83	79	76	73	62	60	58	46	45	44	32	31	30
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	28	26	25
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	18
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	11	9
10	43	31	24	19	38	28	22	18	22	18	14	17	14	11	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1808	1808	1808
5°	1767	2090	2430
10°	1603	3047	4029
15°	1363	3982	4864
20°	1110	4616	4958
25°	926	4831	4857
30°	782	4863	4848
35°	691	4784	4973
40°	603	4680	5103
45°	546	4605	5123
50°	502	4537	5038
55°	481	4437	4814
60°	493	4244	4462
65°	514	3950	3977
70°	548	3448	3360
75°	610	2813	2622
80°	672	1954	1767
85°	609	1038	904

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 5123 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.6	0.5
10°-20°	335.1	2.1
20°-30°	586.1	3.7
30°-40°	754.5	4.8
40°-50°	842.7	5.3
50°-60°	807.2	5.1
60°-70°	639.7	4.1
70°-80°	376.1	2.4
80°-90°	111.1	0.7
90°-100°	846.5	5.4
100°-110°	2225.5	14.1
110°-120°	2307.6	14.6
120°-130°	1851.0	11.7
130°-140°	1452.3	9.2
140°-150°	1114.7	7.1
150°-160°	802.8	5.1
160°-170°	491.2	3.1
170°-180°	165.9	1.1
0°-30°	996.8	6.3
0°-40°	1751.3	11.1
0°-60°	3401.2	21.5
0°-90°	4528.1	28.7
90°-120°	5379.5	34.1
90°-150°	9797.5	62.1
90°-180°	11257.0	71.3
0°-180°	15785.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	584	584	584	584	584	
5°	570	611	688	778	806	53
15°	427	788	1327	1609	1659	119
25°	272	893	1580	1650	1652	126
35°	184	853	1488	1573	1635	115
45°	126	680	1316	1507	1575	97
55°	90	432	1116	1297	1332	82
65°	72	229	829	932	945	71
75°	53	141	455	500	502	55
85°	19	43	113	124	126	20
90°	12	33	88	44	44	11
95°	112	438	1458	752	512	124
105°	401	607	2460	3735	3485	425
115°	712	865	1971	3931	4487	703
125°	991	1111	1792	3029	3573	880
135°	1181	1300	1737	2445	2773	913
145°	1369	1457	1714	2086	2249	858
155°	1548	1591	1714	1882	1937	711
165°	1670	1692	1714	1782	1804	471
175°	1737	1737	1726	1748	1748	165
180°	1737	1737	1737	1737	1737	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	584.5	584.5	584.5	584.5	584.5	584.5	584.5	584.5	584.5	584.5	584.5
2.5°	584.5	584.5	588.2	590.1	593.8	595.7	599.5	603.3	614.6	616.4	620.2
5°	569.5	576.9	601.4	610.7	637.1	672.8	687.8	712.3	763.0	778.0	787.5
7.5°	546.9	563.8	623.9	638.9	704.8	798.8	838.2	890.8	971.6	1011.1	1043.0
10°	511.2	546.9	654.0	689.8	796.8	939.7	1012.9	1086.2	1208.4	1263.0	1283.6
12.5°	471.7	530.0	685.9	734.8	888.9	1097.5	1185.9	1266.7	1405.8	1479.1	1490.3
15°	426.7	505.6	716.0	787.5	986.7	1229.1	1326.8	1426.4	1556.1	1608.7	1621.9
17.5°	387.1	486.7	744.2	819.4	1061.9	1347.5	1447.0	1529.8	1635.1	1670.7	1680.2
20°	338.3	456.7	763.0	860.8	1140.8	1434.0	1529.8	1593.7	1665.1	1687.6	1691.4
22.5°	302.6	424.7	774.3	875.8	1193.4	1486.6	1567.3	1618.2	1667.0	1674.5	1676.3
25°	272.5	389.0	772.4	892.7	1238.5	1518.5	1580.5	1618.2	1646.3	1650.1	1650.1
27.5°	244.3	349.6	764.9	896.5	1272.3	1526.1	1574.9	1601.2	1614.3	1621.9	1621.9
30°	219.9	312.0	746.1	888.9	1287.3	1518.5	1558.0	1571.2	1584.3	1595.6	1601.2
32.5°	201.1	276.3	717.9	873.9	1289.2	1499.7	1527.9	1535.4	1554.2	1580.5	1589.9
35°	184.2	240.6	685.9	853.2	1278.0	1469.6	1488.4	1496.0	1533.5	1573.0	1586.1
37.5°	167.3	214.3	644.6	817.5	1261.0	1434.0	1447.0	1460.2	1518.5	1565.5	1580.5
40°	150.4	191.7	595.7	778.0	1234.7	1390.7	1402.0	1422.7	1499.7	1554.2	1569.2
42.5°	137.2	172.9	543.1	736.7	1200.9	1341.9	1358.8	1388.9	1477.1	1535.4	1552.3
45°	125.9	154.1	486.7	680.3	1157.7	1291.1	1315.5	1356.9	1450.9	1507.2	1522.2
47.5°	114.6	140.9	428.5	622.0	1110.7	1240.4	1272.3	1319.3	1415.1	1469.6	1482.8
50°	105.3	127.8	370.2	560.0	1059.9	1185.9	1223.4	1272.3	1370.1	1420.8	1437.7
52.5°	97.7	116.6	315.7	498.0	1001.7	1129.5	1172.7	1223.4	1315.5	1364.4	1375.7
55°	90.2	107.1	268.7	432.3	941.6	1069.3	1116.3	1165.2	1255.4	1296.8	1304.2
57.5°	86.5	99.6	229.3	370.2	877.7	1001.7	1054.3	1099.4	1183.9	1216.0	1223.4
60°	80.8	94.0	199.2	317.7	808.1	937.8	982.9	1028.0	1099.4	1125.8	1131.4
62.5°	75.2	90.2	176.6	266.8	736.7	862.6	907.8	949.0	1009.2	1028.0	1035.5
65°	71.5	86.5	159.7	229.3	663.4	783.7	828.8	864.5	913.4	932.1	935.9
67.5°	67.6	82.7	146.5	197.4	590.1	704.8	738.6	772.4	810.0	828.8	830.7
70°	62.0	78.9	135.3	174.8	514.9	614.6	642.8	678.5	708.5	717.9	723.6
72.5°	58.3	73.3	127.8	157.8	437.9	528.1	554.4	575.1	601.4	610.7	610.7
75°	52.6	65.8	120.3	140.9	358.9	432.3	454.8	475.5	496.1	499.9	494.3
77.5°	47.0	58.3	103.4	118.4	280.0	342.0	360.8	372.1	389.0	392.7	394.6
80°	39.5	50.7	80.8	92.1	203.0	251.8	265.0	274.4	289.4	289.4	293.2
82.5°	30.1	39.5	58.3	65.8	137.2	172.9	184.2	189.8	199.2	199.2	199.2
85°	18.8	24.5	37.5	43.2	82.7	105.3	112.7	114.6	122.2	124.0	124.0
87.5°	9.4	13.2	24.5	26.3	43.2	54.5	54.5	58.3	58.3	56.4	54.5
90°	11.7	21.0	30.3	32.6	51.3	76.1	88.5	78.7	59.0	44.3	44.3
92.5°	46.6	125.8	205.1	224.9	316.3	438.0	498.8	437.2	313.9	221.5	212.7
95°	111.9	256.9	402.0	438.2	778.1	1231.4	1458.0	1301.1	987.1	751.7	725.0
97.5°	193.4	321.4	449.3	481.4	1048.1	1803.8	2181.7	2082.5	1884.2	1735.4	1684.7
100°	256.4	372.4	488.4	517.4	1146.4	1985.0	2404.4	2411.7	2426.2	2437.0	2376.6
102.5°	310.0	418.2	526.5	553.6	1191.5	2042.1	2467.3	2593.7	2846.5	3036.1	2984.2
105°	401.0	492.6	584.3	607.2	1224.9	2048.5	2460.3	2743.7	3310.4	3735.3	3707.5
107.5°	494.2	579.6	665.1	686.5	1231.1	1957.3	2320.4	2715.7	3506.1	4099.0	4105.7
110°	557.1	634.3	711.4	730.8	1221.8	1876.5	2203.9	2645.7	3529.4	4192.2	4221.2

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	618.9	692.5	766.0	784.4	1222.2	1806.0	2097.9	2550.1	3454.5	4132.8	4177.3
115°	712.1	780.0	847.8	864.8	1233.4	1725.0	1970.8	2406.5	3277.7	3931.1	3992.8
117.5°	804.2	865.8	927.5	942.9	1256.4	1674.4	1883.4	2276.5	3062.9	3652.6	3721.1
120°	857.8	915.8	973.9	988.4	1275.1	1657.4	1848.5	2207.7	2926.1	3465.0	3531.5
122.5°	910.3	968.8	1027.3	1042.0	1301.9	1648.4	1821.7	2145.1	2792.1	3277.3	3343.0
125°	990.7	1044.0	1097.4	1110.7	1338.0	1641.0	1792.5	2067.3	2616.9	3029.1	3089.5
127.5°	1055.9	1109.8	1163.7	1177.1	1374.1	1636.7	1768.1	2004.0	2475.8	2829.7	2880.7
130°	1090.9	1148.9	1206.9	1221.4	1400.5	1639.4	1758.7	1968.8	2388.9	2703.9	2751.1
132.5°	1127.1	1185.1	1243.1	1257.5	1421.8	1640.9	1750.5	1938.5	2314.6	2596.7	2638.9
135°	1180.7	1233.4	1286.3	1299.5	1445.2	1639.5	1736.6	1894.1	2208.9	2445.1	2481.5
137.5°	1235.4	1287.7	1340.0	1353.1	1480.1	1649.5	1734.3	1867.3	2133.6	2333.3	2363.1
140°	1280.9	1329.1	1377.2	1389.2	1501.5	1651.2	1726.0	1841.0	2071.1	2243.6	2271.4
142.5°	1315.8	1360.4	1404.9	1416.0	1519.3	1657.1	1726.0	1827.1	2029.1	2180.6	2204.5
145°	1369.4	1408.3	1447.1	1456.9	1542.7	1657.2	1714.5	1797.0	1962.2	2086.2	2104.3
147.5°	1423.0	1460.9	1498.7	1508.1	1576.9	1668.6	1714.5	1779.5	1909.5	2007.0	2022.0
150°	1458.0	1492.2	1526.3	1534.9	1594.8	1674.6	1714.5	1769.4	1879.1	1961.5	1973.6
152.5°	1494.1	1520.0	1546.0	1552.4	1606.4	1678.4	1714.5	1761.3	1855.0	1925.3	1934.5
155°	1547.7	1566.9	1586.1	1590.9	1632.1	1687.0	1714.5	1751.7	1826.3	1882.2	1888.3
157.5°	1587.3	1606.0	1624.7	1629.4	1657.8	1695.6	1714.5	1743.4	1801.4	1844.9	1849.2
160°	1614.1	1628.7	1643.2	1646.8	1669.3	1699.4	1714.5	1739.3	1789.0	1826.3	1828.7
162.5°	1640.9	1651.8	1662.7	1665.4	1681.8	1703.5	1714.5	1735.4	1777.3	1808.8	1811.1
165°	1670.1	1679.9	1689.8	1692.2	1699.6	1709.5	1714.5	1729.5	1759.5	1782.0	1784.4
167.5°	1696.9	1701.6	1706.2	1707.4	1713.6	1721.9	1726.0	1735.9	1755.6	1770.4	1771.4
170°	1714.5	1719.1	1723.8	1724.9	1725.3	1725.8	1726.0	1735.9	1755.6	1770.4	1770.4
172.5°	1723.7	1724.7	1725.8	1726.0	1726.0	1726.0	1726.0	1733.8	1749.4	1761.1	1760.1
175°	1736.6	1736.6	1736.6	1736.6	1733.0	1728.4	1726.0	1731.0	1740.8	1748.2	1748.2
177.5°	1736.6	1736.6	1736.6	1736.6	1733.9	1730.2	1728.4	1732.3	1740.0	1745.8	1744.8
180°	1736.6	1736.6	1736.6	1736.6	1736.6	1736.6	1736.6	1736.6	1736.6	1736.6	1736.6

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	584.5	584.5
2.5°	623.9	620.2
5°	802.5	806.2
7.5°	1080.6	1078.8
10°	1343.7	1360.7
12.5°	1535.4	1539.1
15°	1652.0	1659.4
17.5°	1697.1	1698.9
20°	1698.9	1695.2
22.5°	1678.2	1674.5
25°	1653.8	1652.0
27.5°	1631.2	1633.2
30°	1621.9	1627.5
32.5°	1621.9	1631.2
35°	1625.6	1635.1
37.5°	1623.8	1635.1
40°	1616.2	1629.4
42.5°	1595.6	1605.0
45°	1563.6	1574.9
47.5°	1522.2	1529.8
50°	1469.6	1477.1
52.5°	1403.9	1405.8
55°	1325.0	1332.4
57.5°	1240.4	1242.2
60°	1146.4	1152.0
62.5°	1046.8	1046.8
65°	941.6	945.3
67.5°	832.6	841.9
70°	721.7	723.6
72.5°	612.7	612.7
75°	499.9	501.7
77.5°	392.7	392.7
80°	291.3	293.2
82.5°	201.1	204.8
85°	125.9	125.9
87.5°	58.3	52.6
90°	44.3	44.3
92.5°	177.4	142.2
95°	618.3	511.6
97.5°	1481.6	1278.6
100°	2134.7	1892.8
102.5°	2777.1	2569.9
105°	3596.1	3484.8
107.5°	4132.7	4159.6
110°	4337.2	4453.3

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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4355.5	4533.7
115°	4240.0	4487.0
117.5°	3995.1	4269.1
120°	3797.7	4064.0
122.5°	3605.5	3868.2
125°	3331.4	3573.3
127.5°	3084.9	3289.0
130°	2939.6	3128.2
132.5°	2807.8	2976.7
135°	2627.1	2772.7
137.5°	2482.2	2601.4
140°	2382.8	2494.2
142.5°	2300.3	2396.2
145°	2176.9	2249.4
147.5°	2082.1	2142.1
150°	2022.4	2071.1
152.5°	1971.3	2008.1
155°	1912.6	1937.0
157.5°	1866.3	1883.4
160°	1838.6	1848.5
162.5°	1820.5	1829.8
165°	1794.3	1804.1
167.5°	1775.5	1779.6
170°	1770.4	1770.4
172.5°	1756.5	1752.8
175°	1748.2	1748.2
177.5°	1740.7	1736.6
180°	1736.6	1736.6

(END OF REPORT)