

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: P937608

Luminaire Tested: SQ4-FB-100U-075D-B50-1D-UNV-W2A-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937608
REPORT IS A COMBINATION OF REPORTS P933582 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-075D-B50-1D-UNV-W2A-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

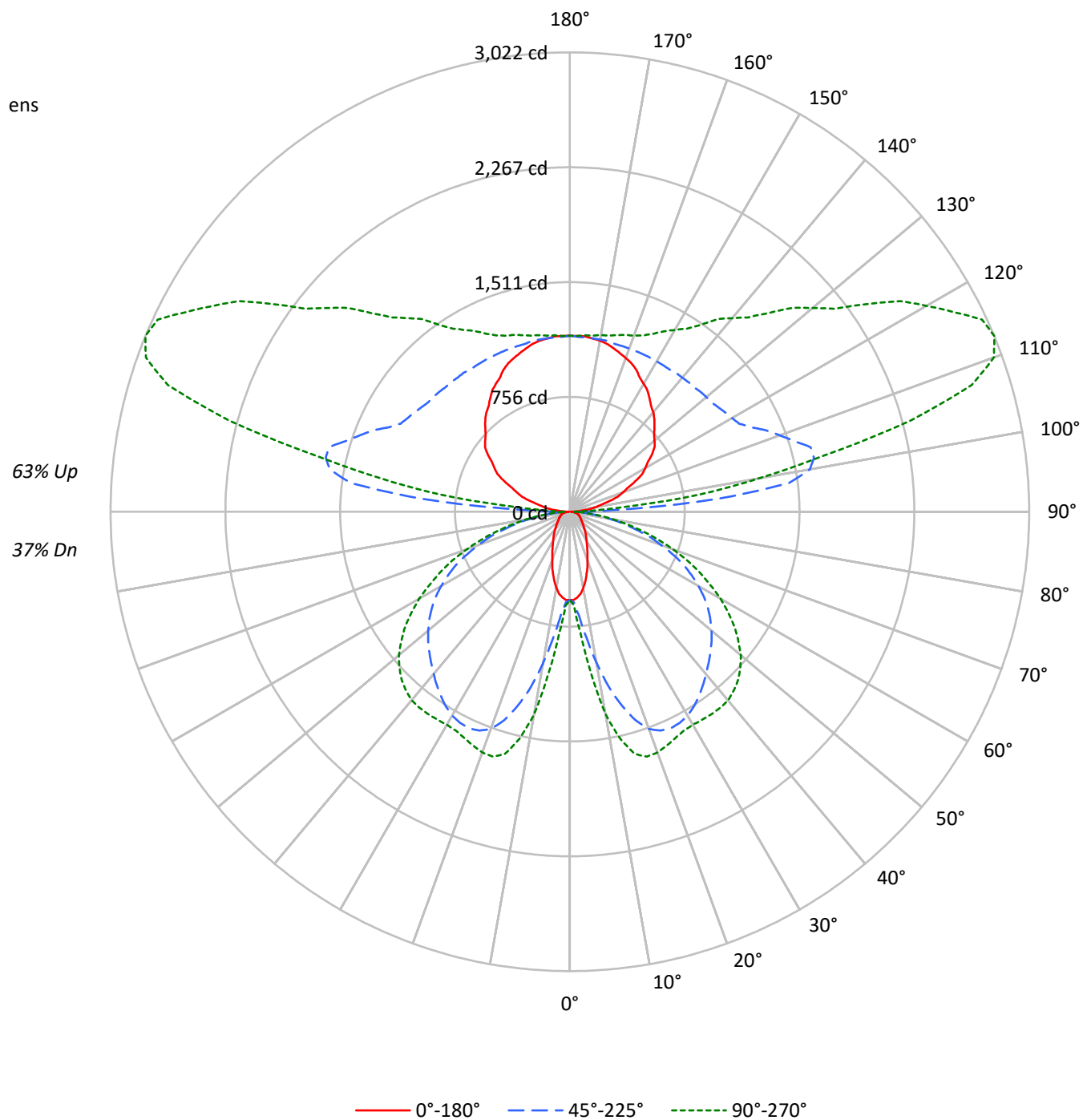
Lumens per Lamp: N/A
Luminaire Lumens: 12003.8 lumens
Efficiency: N/A
Efficacy: 122.0 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 98.4
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: P937608

CATALOG NUMBER: SQ4-FB-100U-075D-B50-1D-UNV-W2A-W-8

Luminous Intensity Polar Plot



TEST NUMBER: P937608

CATALOG NUMBER: SQ4-FB-100U-075D-B50-1D-UNV-W2A-W-8

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	104	104	104	104	94	94	94	94	76	76	76	60	60	60	45	45	45
1	95	90	86	83	86	82	78	75	66	64	62	52	50	49	39	38	37
2	86	78	72	67	77	71	66	61	58	54	50	45	42	40	34	32	30
3	78	68	61	55	70	62	56	50	50	46	42	39	36	33	29	27	25
4	71	60	52	46	64	55	48	42	44	39	35	35	31	28	26	23	21
5	65	53	45	39	58	48	41	36	39	34	30	31	27	24	23	20	18
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16
7	55	42	34	29	49	39	32	27	32	26	22	25	21	18	19	16	14
8	51	38	31	25	46	35	28	23	29	23	20	23	19	16	17	14	12
9	47	35	27	22	42	32	25	21	26	21	17	21	17	14	16	13	11
10	44	32	24	20	40	29	23	18	24	19	15	19	15	12	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2695	2695	2695
5°	2633	3115	3623
10°	2388	4541	6007
15°	2030	5933	7253
20°	1652	6875	7392
25°	1379	7195	7242
30°	1163	7241	7228
35°	1028	7120	7415
40°	895	6964	7608
45°	811	6850	7638
50°	744	6747	7511
55°	713	6596	7179
60°	729	6306	6653
65°	759	5866	5930
70°	808	5116	5010
75°	896	4171	3910
80°	978	2893	2634
85°	871	1535	1349

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 7638 cd/sqm

TEST NUMBER: P937608

CATALOG NUMBER: SQ4-FB-100U-075D-B50-1D-UNV-W2A-W-8

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.1	0.6
10°-20°	333.1	2.8
20°-30°	582.6	4.9
30°-40°	750.0	6.2
40°-50°	837.7	7.0
50°-60°	802.3	6.7
60°-70°	635.8	5.3
70°-80°	373.9	3.1
80°-90°	108.3	0.9
90°-100°	564.3	4.7
100°-110°	1483.6	12.4
110°-120°	1538.4	12.8
120°-130°	1234.0	10.3
130°-140°	968.2	8.1
140°-150°	743.1	6.2
150°-160°	535.2	4.5
160°-170°	327.5	2.7
170°-180°	110.6	0.9
0°-30°	990.8	8.3
0°-40°	1740.8	14.5
0°-60°	3380.8	28.2
0°-90°	4498.8	37.5
90°-120°	3586.3	29.9
90°-150°	6531.7	54.4
90°-180°	7505.0	62.5
0°-180°	12003.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	581	581	581	581	581	
5°	566	607	684	773	801	52
15°	424	783	1319	1599	1650	118
25°	271	887	1571	1640	1642	125
35°	183	848	1480	1564	1625	114
45°	125	676	1308	1498	1566	97
55°	90	430	1110	1289	1324	82
65°	71	228	824	926	940	70
75°	52	140	452	497	499	55
85°	19	43	112	123	125	20
90°	8	22	59	30	30	8
95°	75	292	972	501	341	83
105°	267	405	1640	2490	2323	283
115°	475	577	1314	2621	2991	469
125°	660	740	1195	2019	2382	586
135°	787	866	1158	1630	1848	609
145°	913	971	1143	1391	1500	572
155°	1032	1061	1143	1255	1291	474
165°	1113	1128	1143	1188	1203	314
175°	1158	1158	1151	1165	1165	110
180°	1158	1158	1158	1158	1158	

TEST NUMBER: P937608

CATALOG NUMBER: SQ4-FB-100U-075D-B50-1D-UNV-W2A-W-8

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	580.9	580.9	580.9	580.9	580.9	580.9	580.9	580.9	580.9	580.9	580.9
2.5°	580.9	580.9	584.7	586.6	590.3	592.2	595.9	599.6	610.8	612.7	616.4
5°	566.0	573.5	597.8	607.1	633.3	668.7	683.7	708.0	758.4	773.4	782.7
7.5°	543.6	560.4	620.2	635.1	700.5	793.9	833.1	885.4	965.8	1005.0	1036.7
10°	508.1	543.6	650.1	685.6	792.0	934.0	1006.9	1079.8	1201.2	1255.4	1275.9
12.5°	468.9	526.8	681.8	730.4	883.6	1091.0	1178.8	1259.1	1397.4	1470.2	1481.4
15°	424.0	502.5	711.7	782.7	980.7	1221.8	1318.9	1417.9	1546.8	1599.1	1612.2
17.5°	384.8	483.8	739.7	814.4	1055.4	1339.4	1438.5	1520.6	1625.3	1660.7	1670.1
20°	336.2	453.9	758.4	855.5	1134.0	1425.4	1520.6	1584.2	1655.1	1677.6	1681.3
22.5°	300.7	422.2	769.6	870.5	1186.3	1477.7	1558.0	1608.4	1657.0	1664.5	1666.3
25°	270.9	386.7	767.7	887.3	1231.1	1509.4	1571.1	1608.4	1636.5	1640.2	1640.2
27.5°	242.8	347.4	760.3	891.0	1264.7	1516.9	1565.5	1591.6	1604.7	1612.2	1612.2
30°	218.6	310.1	741.6	883.6	1279.7	1509.4	1548.7	1561.7	1574.8	1586.0	1591.6
32.5°	199.9	274.6	713.6	868.6	1281.5	1490.8	1518.8	1526.2	1544.9	1571.1	1580.4
35°	183.1	239.1	681.8	848.1	1270.3	1460.9	1479.5	1487.0	1524.4	1563.6	1576.7
37.5°	166.3	213.0	640.7	812.6	1253.5	1425.4	1438.5	1451.5	1509.4	1556.1	1571.1
40°	149.4	190.5	592.2	773.4	1227.4	1382.4	1393.6	1414.2	1490.8	1544.9	1559.9
42.5°	136.4	171.9	539.9	732.3	1193.7	1333.8	1350.7	1380.5	1468.3	1526.2	1543.1
45°	125.2	153.2	483.8	676.2	1150.8	1283.4	1307.7	1348.8	1442.2	1498.2	1513.2
47.5°	113.9	140.1	425.9	618.3	1104.1	1233.0	1264.7	1311.4	1406.7	1460.9	1473.9
50°	104.6	127.0	368.0	556.7	1053.6	1178.8	1216.2	1264.7	1361.9	1412.3	1429.1
52.5°	97.1	115.8	313.8	495.0	995.6	1122.8	1165.7	1216.2	1307.7	1356.3	1367.5
55°	89.7	106.5	267.1	429.6	935.9	1063.0	1109.7	1158.3	1247.9	1289.0	1296.5
57.5°	85.9	99.0	227.9	368.0	872.4	995.6	1047.9	1092.9	1176.9	1208.7	1216.2
60°	80.3	93.4	198.0	315.7	803.2	932.1	977.0	1021.8	1092.9	1119.0	1124.6
62.5°	74.7	89.7	175.6	265.3	732.3	857.4	902.2	943.3	1003.1	1021.8	1029.3
65°	71.0	85.9	158.8	227.9	659.4	779.0	823.8	859.3	907.8	926.5	930.3
67.5°	67.2	82.2	145.7	196.1	586.6	700.5	734.1	767.7	805.1	823.8	825.7
70°	61.6	78.5	134.5	173.7	511.8	610.8	638.9	674.3	704.2	713.6	719.2
72.5°	57.9	72.9	127.0	156.9	435.2	524.9	551.1	571.6	597.8	607.1	607.1
75°	52.3	65.4	119.6	140.1	356.8	429.6	452.1	472.6	493.2	496.9	491.3
77.5°	46.7	57.9	102.7	117.7	278.3	340.0	358.7	369.9	386.7	390.4	392.3
80°	39.2	50.4	80.3	91.5	201.7	250.3	263.4	272.7	287.7	287.7	291.4
82.5°	29.9	39.2	57.9	65.4	136.4	171.9	183.1	188.7	198.0	198.0	198.0
85°	18.7	24.3	37.4	43.0	82.2	104.6	112.1	113.9	121.4	123.3	123.3
87.5°	9.3	13.1	24.3	26.2	43.0	54.2	54.2	57.9	57.9	56.0	54.2
90°	7.8	14.0	20.2	21.8	34.2	50.7	59.0	52.5	39.3	29.5	29.5
92.5°	31.1	84.0	136.8	150.0	210.8	292.0	332.5	291.4	209.3	147.7	141.8
95°	74.6	171.3	268.0	292.2	518.7	820.9	972.0	867.4	658.1	501.2	483.4
97.5°	129.0	214.3	299.6	320.9	698.8	1202.6	1454.5	1388.4	1256.1	1156.9	1123.1
100°	170.9	248.3	325.7	345.0	764.3	1323.4	1602.9	1607.8	1617.4	1624.7	1584.3
102.5°	206.7	278.8	351.0	369.0	794.3	1361.3	1644.9	1729.1	1897.7	2024.1	1989.5
105°	267.3	328.4	389.5	404.8	816.6	1365.7	1640.2	1829.1	2206.9	2490.2	2471.6
107.5°	329.4	386.4	443.4	457.7	820.8	1304.9	1547.0	1810.5	2337.4	2732.6	2737.1
110°	371.4	422.8	474.3	487.2	814.5	1251.0	1469.3	1763.9	2352.9	2794.8	2814.1

TEST NUMBER: P937608

CATALOG NUMBER: SQ4-FB-100U-075D-B50-1D-UNV-W2A-W-8

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	412.5	461.6	510.7	522.9	814.8	1204.0	1398.6	1700.1	2303.0	2755.2	2784.9
115°	474.8	520.0	565.3	576.6	822.3	1150.0	1313.9	1604.3	2185.2	2620.8	2662.0
117.5°	536.1	577.2	618.3	628.6	837.6	1116.2	1255.6	1517.7	2041.9	2435.0	2480.7
120°	571.9	610.6	649.2	658.8	850.0	1104.9	1232.3	1471.8	1950.8	2310.0	2354.3
122.5°	606.8	645.9	684.9	694.6	867.9	1098.9	1214.4	1430.0	1861.4	2184.9	2228.7
125°	660.4	696.0	731.6	740.5	892.0	1094.0	1195.0	1378.2	1744.6	2019.4	2059.8
127.5°	704.0	739.8	775.8	784.7	916.1	1091.2	1178.7	1336.0	1650.6	1886.5	1920.5
130°	727.2	765.9	804.5	814.3	933.6	1092.9	1172.5	1312.5	1592.6	1802.6	1834.0
132.5°	751.3	790.0	828.6	838.4	947.9	1094.0	1167.0	1292.4	1543.1	1731.1	1759.2
135°	787.1	822.3	857.6	866.4	963.5	1093.0	1157.7	1262.7	1472.6	1630.1	1654.4
137.5°	823.6	858.4	893.4	902.1	986.8	1099.7	1156.1	1244.8	1422.4	1555.5	1575.4
140°	853.9	886.0	918.1	926.2	1001.0	1100.8	1150.7	1227.4	1380.7	1495.7	1514.3
142.5°	877.2	906.9	936.6	944.0	1012.9	1104.7	1150.7	1218.0	1352.7	1453.8	1469.7
145°	913.0	938.9	964.8	971.3	1028.5	1104.8	1142.9	1198.0	1308.2	1390.8	1402.9
147.5°	948.7	973.9	999.1	1005.5	1051.3	1112.4	1142.9	1186.3	1272.9	1338.0	1347.9
150°	972.0	994.8	1017.6	1023.3	1063.2	1116.3	1142.9	1179.5	1252.8	1307.7	1315.8
152.5°	996.1	1013.4	1030.7	1035.0	1070.9	1118.9	1142.9	1174.2	1236.7	1283.6	1289.8
155°	1031.8	1044.6	1057.4	1060.6	1088.0	1124.6	1142.9	1167.8	1217.6	1254.8	1258.8
157.5°	1058.2	1070.6	1083.2	1086.2	1105.1	1130.3	1142.9	1162.3	1200.9	1230.0	1232.8
160°	1076.2	1085.9	1095.5	1097.9	1113.0	1132.9	1142.9	1159.6	1192.7	1217.6	1219.2
162.5°	1094.0	1101.3	1108.6	1110.3	1121.2	1135.7	1142.9	1156.9	1184.9	1205.9	1207.5
165°	1113.4	1120.0	1126.5	1128.2	1133.1	1139.7	1142.9	1152.9	1173.0	1188.0	1189.7
167.5°	1131.3	1134.3	1137.5	1138.3	1142.4	1147.9	1150.7	1157.2	1170.4	1180.2	1180.9
170°	1142.9	1146.0	1149.2	1149.9	1150.2	1150.5	1150.7	1157.2	1170.4	1180.2	1180.2
172.5°	1149.2	1149.8	1150.5	1150.7	1150.7	1150.7	1150.7	1155.9	1166.3	1174.0	1173.5
175°	1157.7	1157.7	1157.7	1157.7	1155.4	1152.3	1150.7	1154.0	1160.5	1165.4	1165.4
177.5°	1157.7	1157.7	1157.7	1157.7	1155.9	1153.5	1152.3	1154.9	1160.0	1164.0	1163.3
180°	1157.7	1157.7	1157.7	1157.7	1157.7	1157.7	1157.7	1157.7	1157.7	1157.7	1157.7

TEST NUMBER: P937608

CATALOG NUMBER: SQ4-FB-100U-075D-B50-1D-UNV-W2A-W-8

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	580.9	580.9
2.5°	620.2	616.4
5°	797.6	801.4
7.5°	1074.2	1072.3
10°	1335.7	1352.5
12.5°	1526.2	1530.0
15°	1642.1	1649.5
17.5°	1686.9	1688.8
20°	1688.8	1685.0
22.5°	1668.2	1664.5
25°	1643.9	1642.1
27.5°	1621.5	1623.4
30°	1612.2	1617.8
32.5°	1612.2	1621.5
35°	1615.9	1625.3
37.5°	1614.0	1625.3
40°	1606.6	1619.6
42.5°	1586.0	1595.4
45°	1554.3	1565.5
47.5°	1513.2	1520.6
50°	1460.9	1468.3
52.5°	1395.5	1397.4
55°	1317.0	1324.5
57.5°	1233.0	1234.8
60°	1139.6	1145.2
62.5°	1040.5	1040.5
65°	935.9	939.6
67.5°	827.5	836.9
70°	717.3	719.2
72.5°	609.0	609.0
75°	496.9	498.8
77.5°	390.4	390.4
80°	289.5	291.4
82.5°	199.9	203.6
85°	125.2	125.2
87.5°	57.9	52.3
90°	29.5	29.5
92.5°	118.3	94.8
95°	412.3	341.1
97.5°	987.7	852.4
100°	1423.1	1261.8
102.5°	1851.4	1713.2
105°	2397.4	2323.1
107.5°	2755.1	2773.0
110°	2891.5	2968.8

TEST NUMBER: P937608

CATALOG NUMBER: SQ4-FB-100U-075D-B50-1D-UNV-W2A-W-8

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2903.6	3022.4
115°	2826.7	2991.4
117.5°	2663.4	2846.1
120°	2531.9	2709.3
122.5°	2403.7	2578.8
125°	2221.0	2382.3
127.5°	2056.6	2192.7
130°	1959.7	2085.4
132.5°	1871.8	1984.4
135°	1751.4	1848.5
137.5°	1654.8	1734.3
140°	1588.5	1662.7
142.5°	1533.6	1597.5
145°	1451.2	1499.5
147.5°	1388.0	1428.1
150°	1348.2	1380.7
152.5°	1314.2	1338.7
155°	1275.1	1291.3
157.5°	1244.2	1255.6
160°	1225.8	1232.3
162.5°	1213.6	1219.9
165°	1196.3	1202.8
167.5°	1183.7	1186.5
170°	1180.2	1180.2
172.5°	1171.0	1168.6
175°	1165.4	1165.4
177.5°	1160.5	1157.7
180°	1157.7	1157.7

(END OF REPORT)