

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: P937504

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

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937504
REPORT IS A COMBINATION OF REPORTS P933581 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-050D-B40-1D-UNV-W2A-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

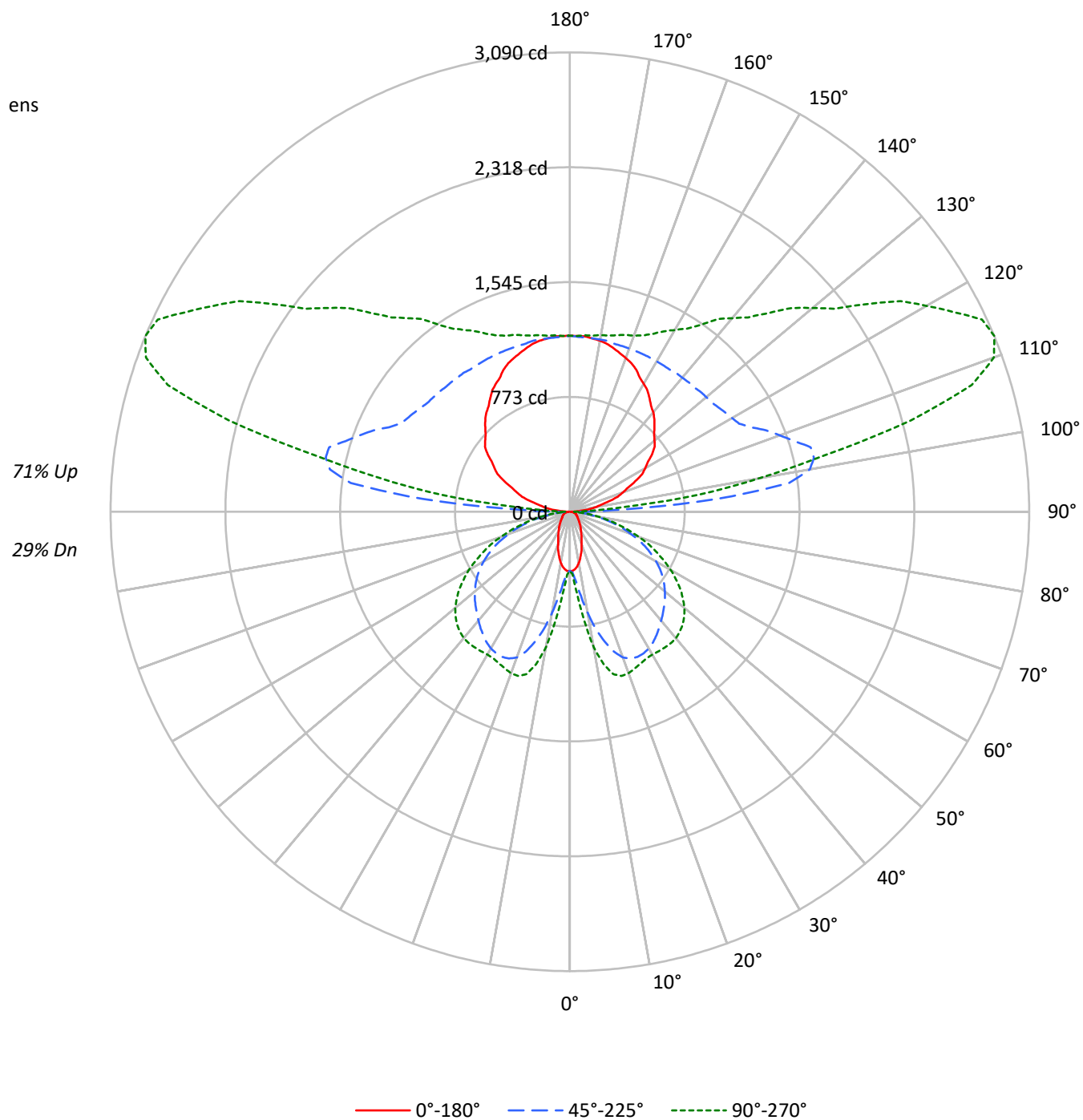
Lumens per Lamp: N/A
Luminaire Lumens: 10760.0 lumens
Efficiency: N/A
Efficacy: 130.6 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 82.4
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					0
RW	70	50	30	10	70	50	30	10	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	37	37	29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	44	32	31	30	30	30	23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	28	26	25	25	25	19
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21	21	21	16
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	18	18	18	13
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15	15	15	11
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13	13	13	10
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11	11	11	8
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10	10	10	7
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	11	9	9	9	7
10	43	31	24	19	38	28	22	18	22	18	14	17	14	11	12	10	8	8	8	6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1848	1848	1848
5°	1806	2136	2484
10°	1638	3114	4119
15°	1392	4069	4973
20°	1133	4715	5069
25°	945	4933	4965
30°	797	4965	4956
35°	705	4882	5084
40°	614	4775	5217
45°	557	4696	5237
50°	510	4626	5151
55°	489	4522	4922
60°	500	4324	4562
65°	521	4022	4066
70°	555	3508	3436
75°	615	2860	2681
80°	671	1983	1806
85°	596	1053	925

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 5237 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.5	0.5
10°-20°	228.4	2.1
20°-30°	399.5	3.7
30°-40°	514.2	4.8
40°-50°	574.4	5.3
50°-60°	550.2	5.1
60°-70°	436.0	4.1
70°-80°	256.4	2.4
80°-90°	75.7	0.7
90°-100°	577.0	5.4
100°-110°	1517.0	14.1
110°-120°	1573.0	14.6
120°-130°	1261.7	11.7
130°-140°	990.0	9.2
140°-150°	759.9	7.1
150°-160°	547.2	5.1
160°-170°	334.8	3.1
170°-180°	113.1	1.1
0°-30°	679.4	6.3
0°-40°	1193.6	11.1
0°-60°	2318.2	21.5
0°-90°	3086.3	28.7
90°-120°	3667.0	34.1
90°-150°	6678.5	62.1
90°-180°	7674.0	71.3
0°-180°	10760.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	398	398	398	398	398	
5°	388	416	469	530	550	36
15°	291	537	904	1096	1131	81
25°	186	608	1077	1125	1126	86
35°	126	582	1014	1072	1114	78
45°	86	464	897	1027	1073	66
55°	62	295	761	884	908	56
65°	49	156	565	635	644	48
75°	36	96	310	341	342	38
85°	13	29	77	84	86	14
90°	8	22	60	30	30	7
95°	76	299	994	512	349	85
105°	273	414	1677	2546	2375	290
115°	485	590	1343	2680	3059	479
125°	675	757	1222	2065	2436	600
135°	805	886	1184	1667	1890	623
145°	934	993	1169	1422	1533	585
155°	1055	1084	1169	1283	1320	485
165°	1138	1154	1169	1215	1230	321
175°	1184	1184	1177	1192	1192	112
180°	1184	1184	1184	1184	1184	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	398.3	398.3	398.3	398.3	398.3	398.3	398.3	398.3	398.3	398.3	398.3
2.5°	398.3	398.3	400.9	402.2	404.7	406.1	408.6	411.2	418.9	420.1	422.7
5°	388.1	393.3	409.9	416.3	434.2	458.6	468.8	485.4	520.1	530.3	536.7
7.5°	372.7	384.3	425.3	435.5	480.4	544.4	571.3	607.2	662.2	689.1	710.9
10°	348.4	372.7	445.8	470.1	543.1	640.4	690.5	740.4	823.6	860.7	874.9
12.5°	321.5	361.2	467.6	500.8	605.9	748.1	808.3	863.3	958.2	1008.1	1015.7
15°	290.8	344.6	488.0	536.7	672.5	837.7	904.4	972.2	1060.6	1096.4	1105.4
17.5°	263.9	331.8	507.3	558.5	723.7	918.4	986.3	1042.7	1114.4	1138.7	1145.1
20°	230.5	311.2	520.1	586.7	777.6	977.3	1042.7	1086.2	1134.9	1150.3	1152.9
22.5°	206.2	289.5	527.7	596.9	813.4	1013.3	1068.3	1102.9	1136.2	1141.3	1142.6
25°	185.7	265.1	526.5	608.4	844.1	1035.0	1077.2	1102.9	1122.1	1124.7	1124.7
27.5°	166.6	238.3	521.3	611.0	867.2	1040.1	1073.4	1091.4	1100.4	1105.4	1105.4
30°	149.8	212.7	508.5	605.9	877.5	1035.0	1061.9	1070.8	1079.8	1087.6	1091.4
32.5°	137.0	188.3	489.3	595.6	878.7	1022.1	1041.4	1046.5	1059.3	1077.2	1083.6
35°	125.5	164.0	467.6	581.5	871.1	1001.7	1014.5	1019.7	1045.2	1072.2	1081.1
37.5°	114.0	146.0	439.4	557.2	859.5	977.3	986.3	995.3	1035.0	1067.0	1077.2
40°	102.5	130.6	406.1	530.3	841.5	947.9	955.6	969.7	1022.1	1059.3	1069.6
42.5°	93.5	117.8	370.2	502.1	818.5	914.6	926.2	946.6	1006.9	1046.5	1058.0
45°	85.9	105.0	331.8	463.7	789.0	880.0	896.6	924.8	988.9	1027.3	1037.5
47.5°	78.1	96.1	292.0	424.0	757.0	845.5	867.2	899.2	964.6	1001.7	1010.7
50°	71.7	87.1	252.3	381.7	722.5	808.3	833.9	867.2	933.8	968.4	979.9
52.5°	66.6	79.5	215.2	339.4	682.7	769.8	799.3	833.9	896.6	930.0	937.6
55°	61.5	73.1	183.2	294.6	641.8	728.9	760.8	794.2	855.7	883.9	889.0
57.5°	58.9	67.9	156.2	252.3	598.2	682.7	718.6	749.4	807.0	828.7	833.9
60°	55.1	64.1	135.8	216.5	550.8	639.2	669.9	700.7	749.4	767.2	771.2
62.5°	51.3	61.5	120.4	181.9	502.1	588.0	618.6	646.9	687.9	700.7	705.8
65°	48.7	58.9	108.9	156.2	452.2	534.1	564.9	589.2	622.6	635.4	637.9
67.5°	46.1	56.3	99.9	134.5	402.2	480.4	503.4	526.5	552.1	564.9	566.1
70°	42.3	53.8	92.3	119.1	351.0	418.9	438.1	462.4	482.9	489.3	493.2
72.5°	39.7	49.9	87.1	107.6	298.4	359.9	377.9	391.9	409.9	416.3	416.3
75°	35.9	44.8	81.9	96.1	244.7	294.6	310.0	324.0	338.2	340.7	336.9
77.5°	32.0	39.7	70.5	80.7	190.9	233.1	245.9	253.6	265.1	267.7	269.0
80°	26.9	34.6	55.1	62.7	138.4	171.6	180.6	187.0	197.3	197.3	199.8
82.5°	20.5	26.9	39.7	44.8	93.5	117.8	125.5	129.4	135.8	135.8	135.8
85°	12.8	16.6	25.6	29.4	56.3	71.7	76.9	78.1	83.3	84.5	84.5
87.5°	6.4	9.0	16.6	18.0	29.4	37.1	37.1	39.7	39.7	38.4	37.1
90°	7.9	14.3	20.6	22.3	35.0	51.9	60.4	53.7	40.2	30.2	30.2
92.5°	31.8	85.9	139.9	153.4	215.5	298.5	340.0	298.0	214.0	151.0	145.0
95°	76.3	175.1	274.0	298.7	530.4	839.3	993.9	886.9	672.9	512.5	494.3
97.5°	131.9	219.1	306.4	328.1	714.5	1229.7	1487.2	1419.6	1284.4	1183.0	1148.4
100°	174.8	253.8	333.0	352.8	781.5	1353.1	1639.0	1643.9	1653.8	1661.2	1620.0
102.5°	211.3	285.1	358.9	377.3	812.1	1391.9	1681.9	1768.0	1940.4	2069.6	2034.2
105°	273.3	335.8	398.2	413.9	835.0	1396.4	1677.1	1870.2	2256.5	2546.2	2527.2
107.5°	336.8	395.1	453.3	468.0	839.3	1334.2	1581.8	1851.2	2390.0	2794.0	2798.6
110°	379.7	432.3	484.9	498.1	832.9	1279.1	1502.3	1803.5	2405.8	2857.6	2877.4

TEST NUMBER: P937504

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	421.8	472.0	522.2	534.7	833.1	1231.1	1430.0	1738.3	2354.7	2817.2	2847.5
115°	485.4	531.6	578.0	589.5	840.8	1175.9	1343.4	1640.4	2234.3	2679.7	2721.8
117.5°	548.2	590.2	632.2	642.7	856.4	1141.3	1283.8	1551.8	2087.8	2489.8	2536.5
120°	584.7	624.3	663.8	673.7	869.1	1129.8	1260.0	1504.9	1994.6	2361.9	2407.3
122.5°	620.5	660.4	700.3	710.2	887.4	1123.6	1241.7	1462.2	1903.2	2234.0	2278.8
125°	675.3	711.7	748.1	757.1	912.0	1118.6	1221.8	1409.2	1783.8	2064.8	2106.1
127.5°	719.8	756.5	793.2	802.4	936.7	1115.7	1205.2	1366.0	1687.7	1928.9	1963.7
130°	743.6	783.1	822.6	832.6	954.6	1117.4	1198.8	1342.0	1628.4	1843.2	1875.2
132.5°	768.2	807.7	847.3	857.2	969.2	1118.6	1193.3	1321.4	1577.8	1770.0	1798.7
135°	804.8	840.8	876.9	885.9	985.2	1117.5	1183.7	1291.1	1505.7	1666.8	1691.6
137.5°	842.1	877.7	913.5	922.3	1009.0	1124.4	1182.1	1272.8	1454.4	1590.5	1610.8
140°	873.1	905.9	938.8	947.0	1023.5	1125.6	1176.6	1255.0	1411.8	1529.3	1548.3
142.5°	896.9	927.3	957.7	965.2	1035.7	1129.6	1176.6	1245.4	1383.1	1486.5	1502.8
145°	933.5	960.0	986.5	993.1	1051.6	1129.7	1168.6	1225.0	1337.6	1422.1	1434.4
147.5°	970.0	995.8	1021.6	1028.1	1074.9	1137.4	1168.6	1212.9	1301.6	1368.0	1378.3
150°	993.9	1017.2	1040.5	1046.3	1087.1	1141.4	1168.6	1206.1	1280.9	1337.1	1345.4
152.5°	1018.5	1036.2	1053.8	1058.2	1095.0	1144.1	1168.6	1200.6	1264.5	1312.5	1318.8
155°	1055.0	1068.1	1081.2	1084.4	1112.5	1149.9	1168.6	1194.0	1244.9	1283.0	1287.1
157.5°	1082.0	1094.7	1107.5	1110.7	1130.0	1155.7	1168.6	1188.4	1227.9	1257.6	1260.5
160°	1100.4	1110.3	1120.1	1122.6	1138.0	1158.4	1168.6	1185.6	1219.5	1244.9	1246.7
162.5°	1118.6	1126.0	1133.5	1135.3	1146.4	1161.2	1168.6	1183.0	1211.5	1233.0	1234.6
165°	1138.5	1145.1	1151.8	1153.5	1158.6	1165.3	1168.6	1178.9	1199.4	1214.8	1216.5
167.5°	1156.7	1159.8	1163.1	1163.9	1168.1	1173.7	1176.6	1183.2	1196.7	1206.7	1207.4
170°	1168.6	1171.8	1175.0	1175.8	1176.1	1176.4	1176.6	1183.2	1196.7	1206.7	1206.7
172.5°	1175.0	1175.7	1176.4	1176.6	1176.6	1176.6	1176.6	1181.9	1192.5	1200.4	1199.9
175°	1183.7	1183.7	1183.7	1183.7	1181.3	1178.2	1176.6	1179.9	1186.6	1191.6	1191.6
177.5°	1183.7	1183.7	1183.7	1183.7	1181.9	1179.4	1178.2	1180.9	1186.1	1190.1	1189.5
180°	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	398.3	398.3
2.5°	425.3	422.7
5°	546.9	549.5
7.5°	736.5	735.3
10°	915.8	927.4
12.5°	1046.5	1049.1
15°	1125.9	1131.1
17.5°	1156.7	1157.9
20°	1157.9	1155.4
22.5°	1143.9	1141.3
25°	1127.2	1125.9
27.5°	1111.8	1113.1
30°	1105.4	1109.3
32.5°	1105.4	1111.8
35°	1108.0	1114.4
37.5°	1106.7	1114.4
40°	1101.6	1110.6
42.5°	1087.6	1094.0
45°	1065.8	1073.4
47.5°	1037.5	1042.7
50°	1001.7	1006.9
52.5°	956.8	958.2
55°	903.0	908.2
57.5°	845.5	846.7
60°	781.4	785.2
62.5°	713.5	713.5
65°	641.8	644.3
67.5°	567.5	573.9
70°	491.9	493.2
72.5°	417.6	417.6
75°	340.7	342.0
77.5°	267.7	267.7
80°	198.5	199.8
82.5°	137.0	139.6
85°	85.9	85.9
87.5°	39.7	35.9
90°	30.2	30.2
92.5°	121.0	96.9
95°	421.5	348.8
97.5°	1009.9	871.5
100°	1455.1	1290.2
102.5°	1893.0	1751.8
105°	2451.3	2375.4
107.5°	2817.1	2835.4
110°	2956.5	3035.6

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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2968.9	3090.4
115°	2890.2	3058.7
117.5°	2723.3	2910.1
120°	2588.8	2770.3
122.5°	2457.8	2636.8
125°	2270.9	2435.8
127.5°	2102.8	2242.0
130°	2003.8	2132.3
132.5°	1913.9	2029.0
135°	1790.8	1890.0
137.5°	1692.0	1773.2
140°	1624.2	1700.1
142.5°	1568.1	1633.4
145°	1483.9	1533.3
147.5°	1419.2	1460.2
150°	1378.5	1411.8
152.5°	1343.8	1368.8
155°	1303.8	1320.4
157.5°	1272.2	1283.8
160°	1253.3	1260.0
162.5°	1240.9	1247.3
165°	1223.2	1229.8
167.5°	1210.3	1213.1
170°	1206.7	1206.7
172.5°	1197.4	1194.9
175°	1191.6	1191.6
177.5°	1186.6	1183.7
180°	1183.7	1183.7

(END OF REPORT)