

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

(formerly Eaton)

Brand: CORELITE

Report Number: P520174

Luminaire Tested: **SQ4-F-100U-050D-830-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P520174
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-23, G3-1910-536-17)
Test Lab: INNOVATION CENTER
Issue Date: 4/29/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: SQ4-F-100U-050D-830-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11379.5 lumens
Efficiency: N/A
Efficacy: 132.8 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: Semi-Indirect

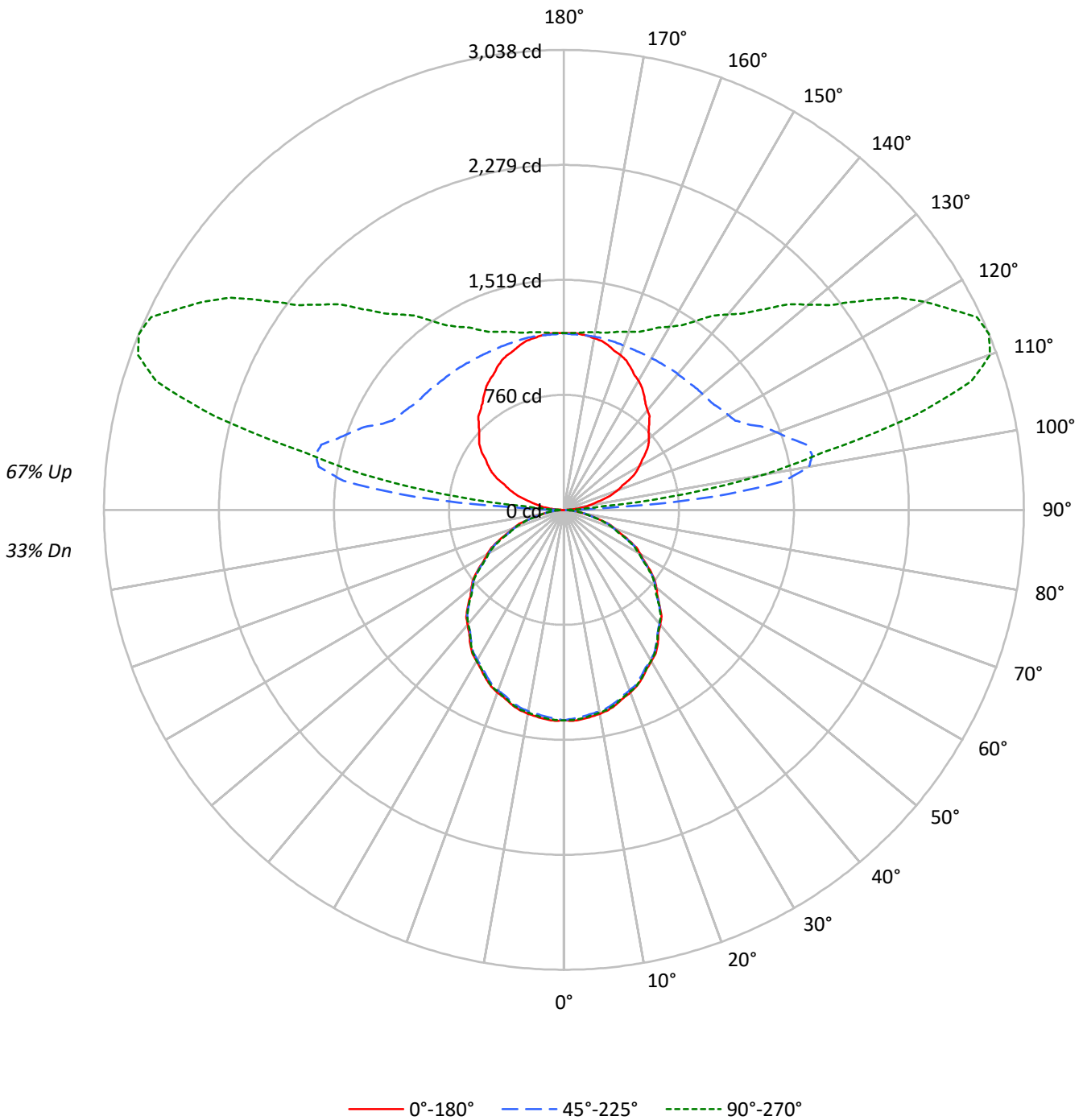
Input Watts (W): 85.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	33
1	94	90	86	83	85	81	78	75	65	63	61	50	48	47	36	35	34	28
2	86	78	72	67	77	71	66	61	57	53	50	44	41	39	32	30	29	23
3	78	69	62	56	70	62	56	51	50	46	42	39	36	33	28	26	25	20
4	71	61	53	47	64	55	48	43	44	39	36	34	31	28	25	23	21	17
5	65	54	46	40	59	49	42	37	39	34	31	31	27	24	22	20	18	15
6	60	48	40	35	54	44	37	32	35	30	27	28	24	21	20	18	16	13
7	55	43	36	30	50	39	33	28	32	27	23	25	21	19	18	16	14	11
8	51	39	32	27	46	36	29	25	29	24	20	23	19	17	17	14	13	10
9	48	36	28	23	43	33	26	22	27	22	18	21	17	15	16	13	11	9
10	44	33	26	21	40	30	24	19	24	20	16	19	16	13	14	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6415	6415	6415
5°	6431	6353	6404
10°	6409	6330	6374
15°	6366	6285	6338
20°	6305	6232	6278
25°	6235	6159	6215
30°	6148	6098	6137
35°	6080	6007	6038
40°	5964	5908	5918
45°	5841	5793	5793
50°	5718	5664	5637
55°	5584	5509	5479
60°	5376	5289	5255
65°	5120	5019	4958
70°	4771	4669	4570
75°	4279	4148	4048
80°	3462	3414	3313
85°	2064	2366	2461



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.2	1.2
10°-20°	373.6	3.3
20°-30°	561.2	4.9
30°-40°	669.8	5.9
40°-50°	686.4	6.0
50°-60°	612.2	5.4
60°-70°	455.9	4.0
70°-80°	247.5	2.2
80°-90°	59.7	0.5
90°-100°	546.5	4.8
100°-110°	1508.6	13.3
110°-120°	1555.9	13.7
120°-130°	1250.3	11.0
130°-140°	982.6	8.6
140°-150°	753.6	6.6
150°-160°	541.6	4.8
160°-170°	331.2	2.9
170°-180°	111.7	1.0
0°-30°	1066.0	9.4
0°-40°	1735.8	15.3
0°-60°	3034.4	26.7
0°-90°	3797.5	33.4
90°-120°	3611.0	31.7
90°-150°	6597.4	58.0
90°-180°	7582.0	66.6
0°-180°	11379.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1390	1390	1390	1390	1390	
5°	1389	1387	1372	1385	1383	132
15°	1333	1329	1316	1327	1327	376
25°	1225	1221	1210	1218	1221	564
35°	1080	1076	1067	1067	1072	674
45°	895	897	888	886	888	691
55°	694	694	685	680	681	618
65°	469	467	460	454	454	465
75°	240	238	233	229	227	254
85°	39	43	45	46	46	55
90°	4	7	15	17	19	7
95°	80	296	991	408	265	86
105°	269	415	1660	2534	2386	286
115°	482	582	1337	2646	3010	473
125°	661	752	1212	2051	2407	588
135°	795	881	1178	1661	1873	615
145°	922	986	1163	1414	1522	578
155°	1040	1075	1154	1269	1309	479
165°	1126	1140	1160	1204	1214	317
175°	1167	1169	1161	1178	1174	111
180°	1167	1167	1167	1167	1167	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1390.5	1390.5	1390.5	1390.5	1390.5
2.5°	1395.0	1392.1	1380.1	1390.4	1389.1
5°	1388.7	1386.8	1371.9	1384.9	1383.0
7.5°	1378.6	1375.0	1360.4	1373.0	1371.1
10°	1368.2	1364.5	1351.4	1362.5	1360.8
12.5°	1354.7	1352.6	1338.0	1349.2	1348.8
15°	1332.9	1329.2	1316.1	1327.2	1327.2
17.5°	1303.8	1301.6	1288.9	1299.6	1298.1
20°	1284.4	1280.8	1269.5	1278.8	1278.8
22.5°	1260.6	1258.4	1247.2	1255.1	1256.5
25°	1224.9	1221.2	1210.0	1217.5	1221.1
27.5°	1185.3	1182.5	1173.1	1177.9	1180.5
30°	1154.1	1154.1	1144.8	1146.8	1152.2
32.5°	1125.8	1125.8	1115.0	1116.9	1119.5
35°	1079.6	1076.0	1066.6	1066.7	1072.2
37.5°	1026.0	1024.2	1018.2	1017.1	1018.6
40°	990.3	988.5	981.0	982.8	982.8
42.5°	954.6	952.7	945.2	942.7	945.6
45°	895.3	897.2	887.9	886.1	887.9
47.5°	836.9	836.9	829.5	824.3	827.2
50°	796.7	796.7	789.2	785.5	785.5
52.5°	755.0	756.5	747.5	742.4	743.9
55°	694.3	694.3	685.0	679.5	681.3
57.5°	627.3	627.3	618.0	612.5	615.8
60°	582.7	582.7	573.3	567.8	569.6
62.5°	538.0	538.0	528.6	523.1	523.4
65°	469.1	467.3	459.8	454.2	454.2
67.5°	402.8	398.1	392.4	385.0	385.0
70°	353.7	351.8	346.2	338.8	338.8
72.5°	309.0	305.7	300.1	294.1	294.1
75°	240.1	238.3	232.7	229.0	227.1
77.5°	172.0	170.6	170.1	165.0	166.4
80°	130.3	130.3	128.5	124.7	124.7
82.5°	93.1	94.6	91.2	90.4	88.9
85°	39.0	42.7	44.7	46.5	46.5
87.5°	8.2	13.3	13.4	15.3	15.7
90°	3.8	7.4	14.9	16.8	18.7
92.5°	33.6	139.5	249.5	91.0	70.9
95°	80.3	295.7	991.4	407.6	265.1
97.5°	133.0	331.2	1468.6	1130.7	818.9
100°	171.7	352.5	1644.9	1656.4	1346.1
102.5°	209.1	376.7	1679.2	2046.7	1752.4
105°	268.9	414.9	1659.8	2534.0	2386.1
107.5°	332.4	462.4	1567.2	2768.9	2822.9
110°	377.2	494.0	1495.5	2819.5	2994.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	417.5	529.9	1428.3	2779.6	3038.1
115°	481.7	582.1	1336.8	2646.4	3009.7
117.5°	537.7	637.7	1276.7	2459.0	2872.3
120°	575.0	673.7	1252.7	2332.1	2748.3
122.5°	610.9	705.1	1233.4	2213.6	2607.9
125°	660.9	752.2	1211.7	2050.6	2406.7
127.5°	703.5	794.7	1199.0	1912.9	2219.9
130°	731.9	823.1	1193.0	1828.6	2107.9
132.5°	758.7	845.7	1187.1	1757.7	2010.8
135°	795.3	881.2	1178.1	1660.9	1872.7
137.5°	836.5	914.5	1173.6	1579.5	1760.2
140°	858.8	935.5	1170.6	1525.3	1684.0
142.5°	884.3	955.1	1167.7	1477.0	1616.9
145°	922.3	986.3	1163.1	1413.9	1521.6
147.5°	958.9	1014.7	1159.1	1360.8	1444.4
150°	985.8	1031.5	1157.6	1329.0	1396.6
152.5°	1006.7	1049.5	1156.1	1301.8	1357.7
155°	1040.0	1074.6	1153.8	1268.7	1308.8
157.5°	1070.5	1097.2	1154.2	1244.4	1271.8
160°	1088.5	1112.2	1155.7	1230.9	1251.0
162.5°	1103.5	1124.2	1157.2	1218.8	1234.4
165°	1125.8	1140.5	1159.5	1204.5	1213.6
167.5°	1143.0	1151.7	1161.3	1195.8	1198.6
170°	1151.9	1159.3	1161.3	1191.2	1191.2
172.5°	1159.5	1163.8	1161.3	1185.2	1183.7
175°	1166.9	1168.8	1161.3	1178.1	1174.4
177.5°	1169.8	1168.5	1160.9	1171.3	1168.4
180°	1166.9	1166.9	1166.9	1166.9	1166.9

(END OF REPORT)