

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: P519886

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

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P519886
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-21, 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-050U-050D-830-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

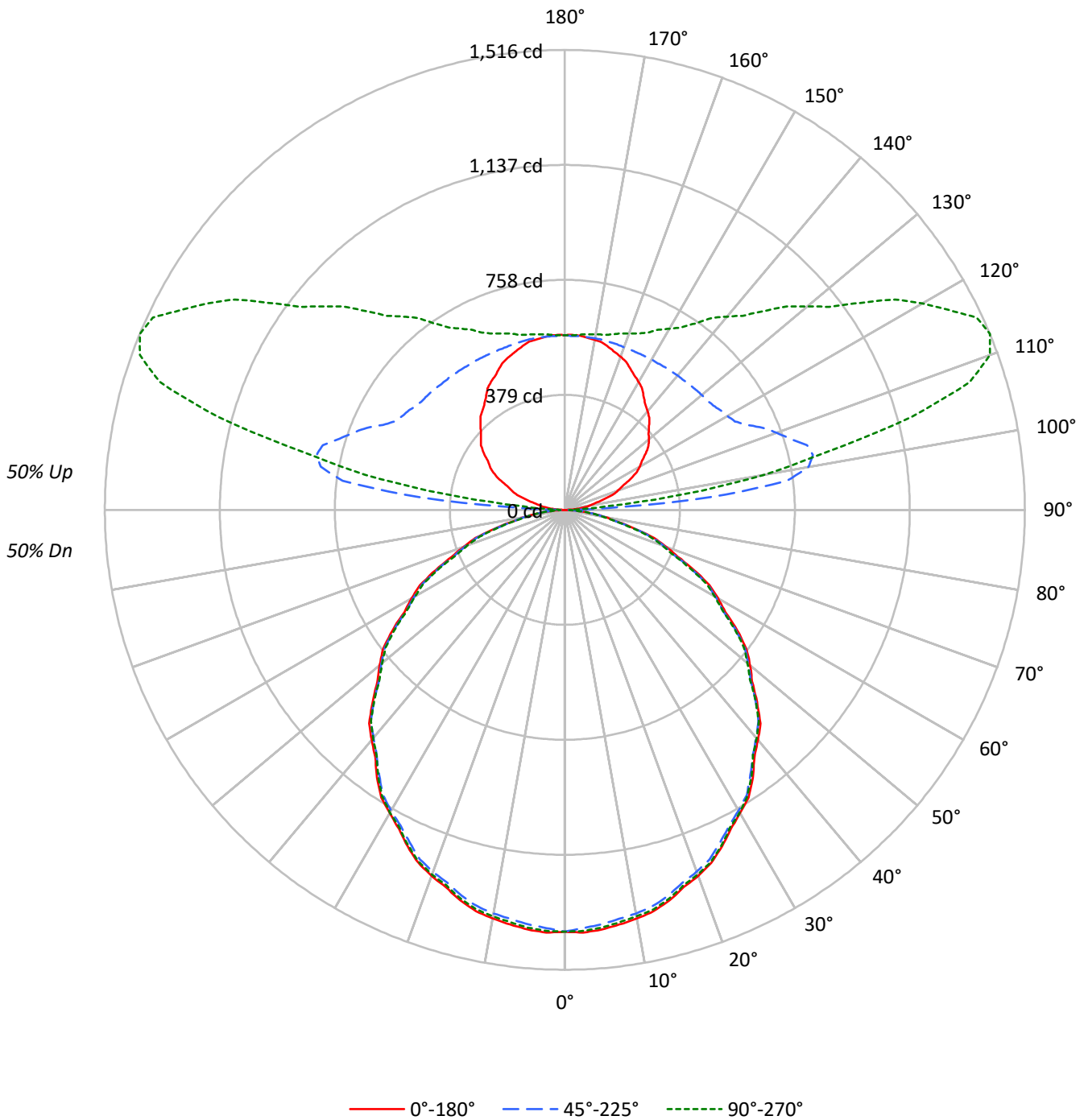
Lumens per Lamp: N/A
Luminaire Lumens: 7557.6 lumens
Efficiency: N/A
Efficacy: 129.2 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 58.5
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



TEST NUMBER: P519886
CATALOG NUMBER: SQ4-F-050U-050D-830-1D-UNV-STD-W-8

Luminous Intensity Polar Plot





TEST NUMBER: P519886

CATALOG NUMBER: SQ4-F-050U-050D-830-1D-UNV-STD-W-8

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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50
1	98	93	90	86	90	86	83	80	73	71	69	61	59	58	50	49	48	42
2	89	82	75	70	82	75	70	66	64	60	57	53	51	48	44	42	40	35
3	81	72	64	58	75	66	60	55	56	51	47	47	44	41	39	36	34	30
4	74	63	55	49	68	59	52	46	50	45	40	42	38	35	34	32	29	25
5	68	56	48	42	62	52	45	40	45	39	35	38	33	30	31	28	25	22
6	63	50	42	36	58	47	40	34	40	34	30	34	30	26	28	25	22	19
7	58	46	38	32	53	42	35	30	36	31	27	31	26	23	26	22	20	17
8	54	41	33	28	49	38	31	27	33	28	24	28	24	21	23	20	18	15
9	50	38	30	25	46	35	28	24	30	25	21	26	22	18	22	18	16	14
10	47	35	27	22	43	32	26	21	28	23	19	24	20	17	20	17	14	12

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



TEST NUMBER: P519886

CATALOG NUMBER: SQ4-F-050U-050D-830-1D-UNV-STD-W-8

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.2	1.7
10°-20°	373.6	4.9
20°-30°	561.2	7.4
30°-40°	669.8	8.9
40°-50°	686.4	9.1
50°-60°	612.2	8.1
60°-70°	455.9	6.0
70°-80°	247.5	3.3
80°-90°	59.5	0.8
90°-100°	276.5	3.7
100°-110°	751.0	9.9
110°-120°	772.2	10.2
120°-130°	617.4	8.2
130°-140°	485.1	6.4
140°-150°	372.0	4.9
150°-160°	267.5	3.5
160°-170°	163.6	2.2
170°-180°	55.1	0.7
0°-30°	1066.0	14.1
0°-40°	1735.8	23.0
0°-60°	3034.4	40.2
0°-90°	3797.3	50.2
90°-120°	1799.6	23.8
90°-150°	3274.1	43.3
90°-180°	3760.0	49.8
0°-180°	7557.6	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°	2	7	13	17	17	4
95°	41	151	482	210	141	43
105°	133	208	826	1258	1183	142
115°	237	288	661	1315	1498	234
125°	326	371	598	1008	1189	291
135°	393	436	582	821	926	304
145°	454	486	574	698	750	285
155°	513	531	570	626	644	237
165°	556	563	572	596	598	157
175°	576	578	574	581	580	55
180°	576	576	576	576	576	

TEST NUMBER: P519886

CATALOG NUMBER: SQ4-F-050U-050D-830-1D-UNV-STD-W-8

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°	7.8	13.3	13.0	15.3	15.3
90°	1.9	7.3	13.0	16.7	16.7
92.5°	16.7	75.7	131.5	56.4	47.8
95°	40.7	151.2	481.5	209.5	140.7
97.5°	67.4	167.0	738.1	574.2	403.3
100°	85.2	177.5	816.6	827.8	668.6
102.5°	102.9	188.0	837.4	1023.8	883.4
105°	133.4	207.5	825.9	1257.5	1183.3
107.5°	164.9	230.4	778.2	1378.2	1398.8
110°	187.0	246.8	742.5	1402.0	1490.7



TEST NUMBER: P519886

CATALOG NUMBER: SQ4-F-050U-050D-830-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	206.3	263.2	707.0	1382.2	1515.9
115°	237.1	287.7	661.1	1315.2	1498.1
117.5°	265.9	314.4	631.8	1220.2	1426.3
120°	285.2	332.3	618.5	1156.4	1361.0
122.5°	301.5	348.6	609.6	1092.6	1290.0
125°	325.9	371.2	598.1	1007.8	1188.8
127.5°	347.8	392.7	591.8	943.5	1098.8
130°	361.1	404.6	588.9	903.2	1042.6
132.5°	374.5	417.9	585.9	868.7	992.2
135°	392.6	436.1	581.5	820.8	925.9
137.5°	412.2	451.7	579.3	778.7	867.1
140°	424.1	462.1	577.8	751.8	831.4
142.5°	435.9	471.0	576.3	730.8	797.4
145°	453.6	486.3	574.1	697.5	750.0
147.5°	473.7	501.5	572.2	671.3	712.6
150°	487.0	510.6	572.2	656.3	688.9
152.5°	497.4	518.0	570.7	642.8	669.6
155°	512.9	531.1	570.3	626.4	644.4
157.5°	528.1	542.3	570.3	615.1	628.9
160°	537.1	549.7	570.3	607.6	618.5
162.5°	545.9	555.7	571.8	601.6	609.6
165°	555.5	562.8	572.2	596.3	598.1
167.5°	565.5	569.1	574.1	590.0	591.4
170°	568.5	572.1	574.1	587.0	587.0
172.5°	571.5	573.7	574.1	584.1	584.1
175°	575.9	577.7	574.1	581.4	579.6
177.5°	577.4	577.4	573.0	578.9	575.9
180°	575.9	575.9	575.9	575.9	575.9

(END OF REPORT)