

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: P520178

Luminaire Tested: **SQ4-F-100U-050D-835-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P520178
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-835-1D-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

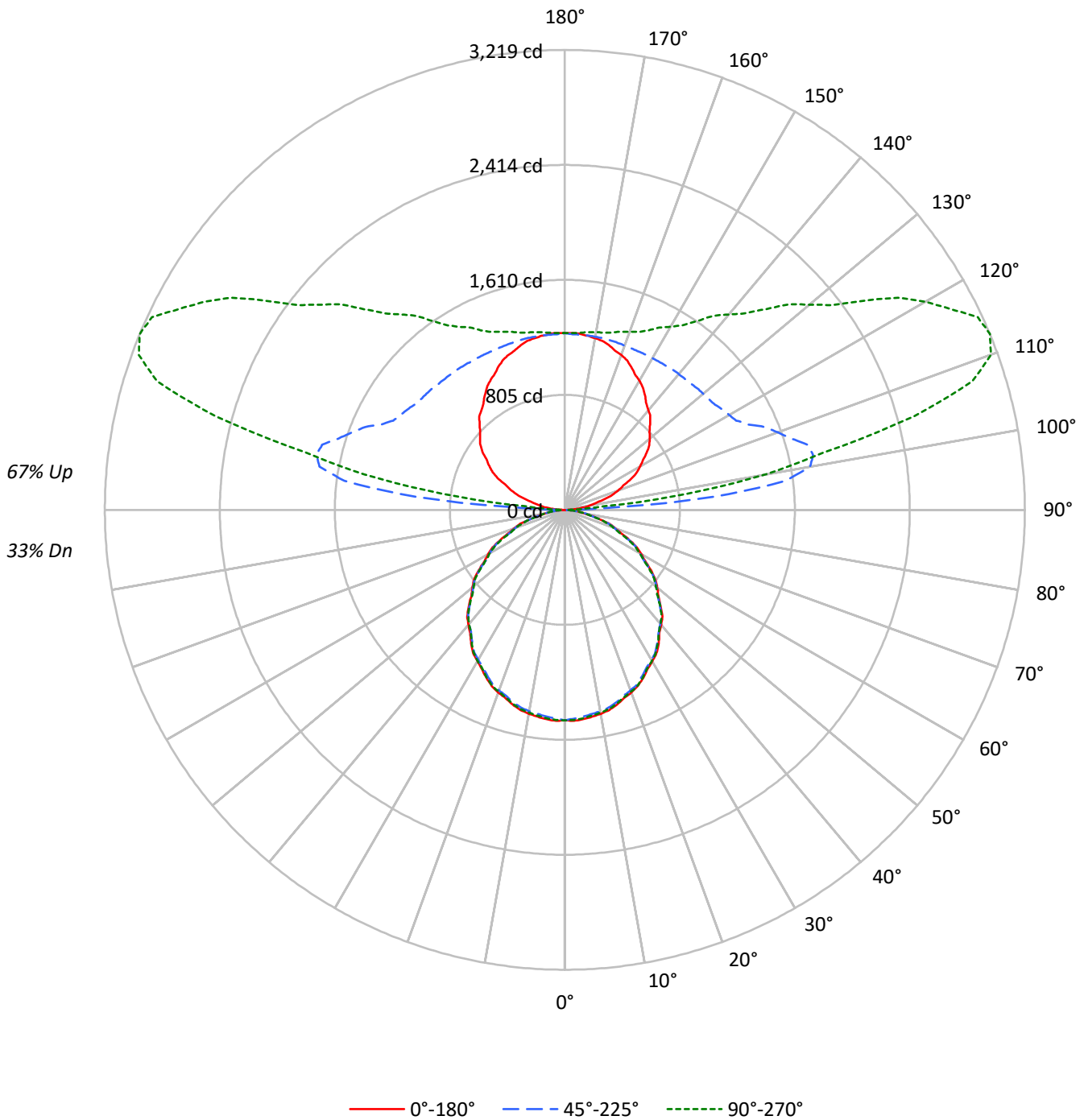
Lumens per Lamp: N/A
Luminaire Lumens: 12055.8 lumens
Efficiency: N/A
Efficacy: 140.7 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: Semi-Indirect

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°	6796	6796	6796
5°	6813	6730	6785
10°	6790	6707	6753
15°	6743	6659	6715
20°	6680	6603	6651
25°	6605	6525	6585
30°	6513	6460	6502
35°	6441	6364	6397
40°	6318	6259	6271
45°	6189	6137	6137
50°	6058	6001	5972
55°	5916	5837	5805
60°	5695	5604	5568
65°	5425	5317	5253
70°	5054	4947	4841
75°	4534	4394	4288
80°	3666	3616	3509
85°	2191	2504	2609



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.0	1.2
10°-20°	395.8	3.3
20°-30°	594.5	4.9
30°-40°	709.7	5.9
40°-50°	727.2	6.0
50°-60°	648.6	5.4
60°-70°	483.0	4.0
70°-80°	262.2	2.2
80°-90°	63.3	0.5
90°-100°	578.9	4.8
100°-110°	1598.3	13.3
110°-120°	1648.4	13.7
120°-130°	1324.6	11.0
130°-140°	1041.0	8.6
140°-150°	798.4	6.6
150°-160°	573.8	4.8
160°-170°	350.9	2.9
170°-180°	118.3	1.0
0°-30°	1129.3	9.4
0°-40°	1839.0	15.3
0°-60°	3214.8	26.7
0°-90°	4023.3	33.4
90°-120°	3825.6	31.7
90°-150°	6989.6	58.0
90°-180°	8033.0	66.6
0°-180°	12055.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1473	1473	1473	1473	1473	
5°	1471	1469	1453	1467	1465	140
15°	1412	1408	1394	1406	1406	398
25°	1298	1294	1282	1290	1294	598
35°	1144	1140	1130	1130	1136	714
45°	949	951	941	939	941	732
55°	736	736	726	720	722	655
65°	497	495	487	481	481	492
75°	254	252	246	243	241	269
85°	41	45	47	49	49	58
90°	4	8	16	18	20	7
95°	85	313	1050	432	281	91
105°	285	440	1758	2684	2528	303
115°	510	617	1416	2804	3188	501
125°	700	797	1284	2172	2550	623
135°	843	934	1248	1760	1984	652
145°	977	1045	1232	1498	1612	612
155°	1102	1138	1222	1344	1387	508
165°	1193	1208	1228	1276	1286	336
175°	1236	1238	1230	1248	1244	117
180°	1236	1236	1236	1236	1236	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1473.2	1473.2	1473.2	1473.2	1473.2
2.5°	1477.9	1474.8	1462.1	1473.2	1471.6
5°	1471.2	1469.2	1453.4	1467.3	1465.3
7.5°	1460.5	1456.7	1441.2	1454.6	1452.7
10°	1449.5	1445.7	1431.8	1443.6	1441.6
12.5°	1435.3	1433.0	1417.6	1429.4	1429.0
15°	1412.0	1408.2	1394.3	1406.1	1406.1
17.5°	1381.3	1379.0	1365.5	1376.9	1375.4
20°	1360.8	1356.9	1345.0	1354.8	1354.8
22.5°	1335.5	1333.2	1321.3	1329.6	1331.2
25°	1297.7	1293.8	1281.9	1289.9	1293.7
27.5°	1255.8	1252.8	1242.8	1248.1	1250.7
30°	1222.7	1222.7	1212.8	1214.9	1220.7
32.5°	1192.7	1192.7	1181.3	1183.4	1186.0
35°	1143.8	1140.0	1130.0	1130.1	1135.9
37.5°	1087.0	1085.1	1078.7	1077.6	1079.1
40°	1049.2	1047.2	1039.3	1041.3	1041.3
42.5°	1011.3	1009.3	1001.4	998.8	1001.8
45°	948.6	950.6	940.7	938.7	940.7
47.5°	886.7	886.7	878.8	873.4	876.4
50°	844.1	844.1	836.2	832.2	832.2
52.5°	799.9	801.5	792.0	786.5	788.1
55°	735.6	735.6	725.7	719.8	721.8
57.5°	664.6	664.6	654.7	648.9	652.4
60°	617.3	617.3	607.4	601.5	603.5
62.5°	569.9	569.9	560.1	554.2	554.6
65°	497.0	495.0	487.1	481.2	481.2
67.5°	426.8	421.7	415.7	407.8	407.8
70°	374.7	372.7	366.8	358.9	358.9
72.5°	327.4	323.9	317.9	311.6	311.6
75°	254.4	252.4	246.5	242.6	240.6
77.5°	182.2	180.6	180.3	174.7	176.3
80°	138.0	138.0	136.1	132.1	132.1
82.5°	98.6	100.2	96.6	95.8	94.3
85°	41.4	45.3	47.3	49.3	49.3
87.5°	8.7	14.1	14.2	16.2	16.6
90°	4.0	7.8	15.8	17.8	19.8
92.5°	35.6	147.8	264.2	96.4	75.2
95°	85.1	313.3	1050.4	431.7	280.8
97.5°	140.9	350.9	1555.9	1197.9	867.5
100°	182.0	373.4	1742.6	1755.0	1426.2
102.5°	221.6	399.1	1779.0	2168.4	1856.6
105°	284.8	439.6	1758.4	2684.5	2527.9
107.5°	352.1	489.8	1660.4	2933.5	2990.8
110°	399.5	523.3	1584.4	2987.0	3172.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	442.3	561.4	1513.2	2944.8	3218.6
115°	510.3	616.7	1416.3	2803.7	3188.5
117.5°	569.7	675.6	1352.6	2605.1	3043.0
120°	609.3	713.7	1327.2	2470.7	2911.7
122.5°	647.2	747.1	1306.7	2345.1	2762.9
125°	700.3	796.9	1283.7	2172.5	2549.7
127.5°	745.3	842.0	1270.3	2026.6	2351.9
130°	775.3	872.1	1263.9	1937.3	2233.2
132.5°	803.8	895.9	1257.6	1862.3	2130.4
135°	842.6	933.5	1248.1	1759.6	1984.0
137.5°	886.1	968.9	1243.3	1673.5	1864.9
140°	909.9	991.1	1240.2	1615.9	1784.2
142.5°	936.8	1011.9	1237.0	1564.8	1712.9
145°	977.1	1044.8	1232.3	1498.0	1612.1
147.5°	1015.9	1075.1	1227.9	1441.6	1530.2
150°	1044.4	1092.8	1226.3	1408.1	1479.6
152.5°	1066.6	1111.8	1224.8	1379.3	1438.4
155°	1101.8	1138.5	1222.4	1344.1	1386.6
157.5°	1134.2	1162.4	1222.8	1318.4	1347.4
160°	1153.2	1178.4	1224.4	1304.0	1325.3
162.5°	1169.1	1191.0	1225.9	1291.2	1307.8
165°	1192.8	1208.2	1228.3	1276.1	1285.7
167.5°	1210.9	1220.2	1230.3	1266.8	1269.9
170°	1220.4	1228.2	1230.3	1261.9	1261.9
172.5°	1228.3	1233.0	1230.3	1255.6	1254.0
175°	1236.2	1238.2	1230.3	1248.1	1244.1
177.5°	1239.4	1237.9	1229.9	1241.0	1237.8
180°	1236.2	1236.2	1236.2	1236.2	1236.2

(END OF REPORT)