

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: P520220

Luminaire Tested: **SQ4-F-100U-100D-830-1D-UNV-STD-W-4**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P520220  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-23, G3-1910-536-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/29/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: CORELITE  
Catalog Number: SQ4-F-100U-100D-830-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

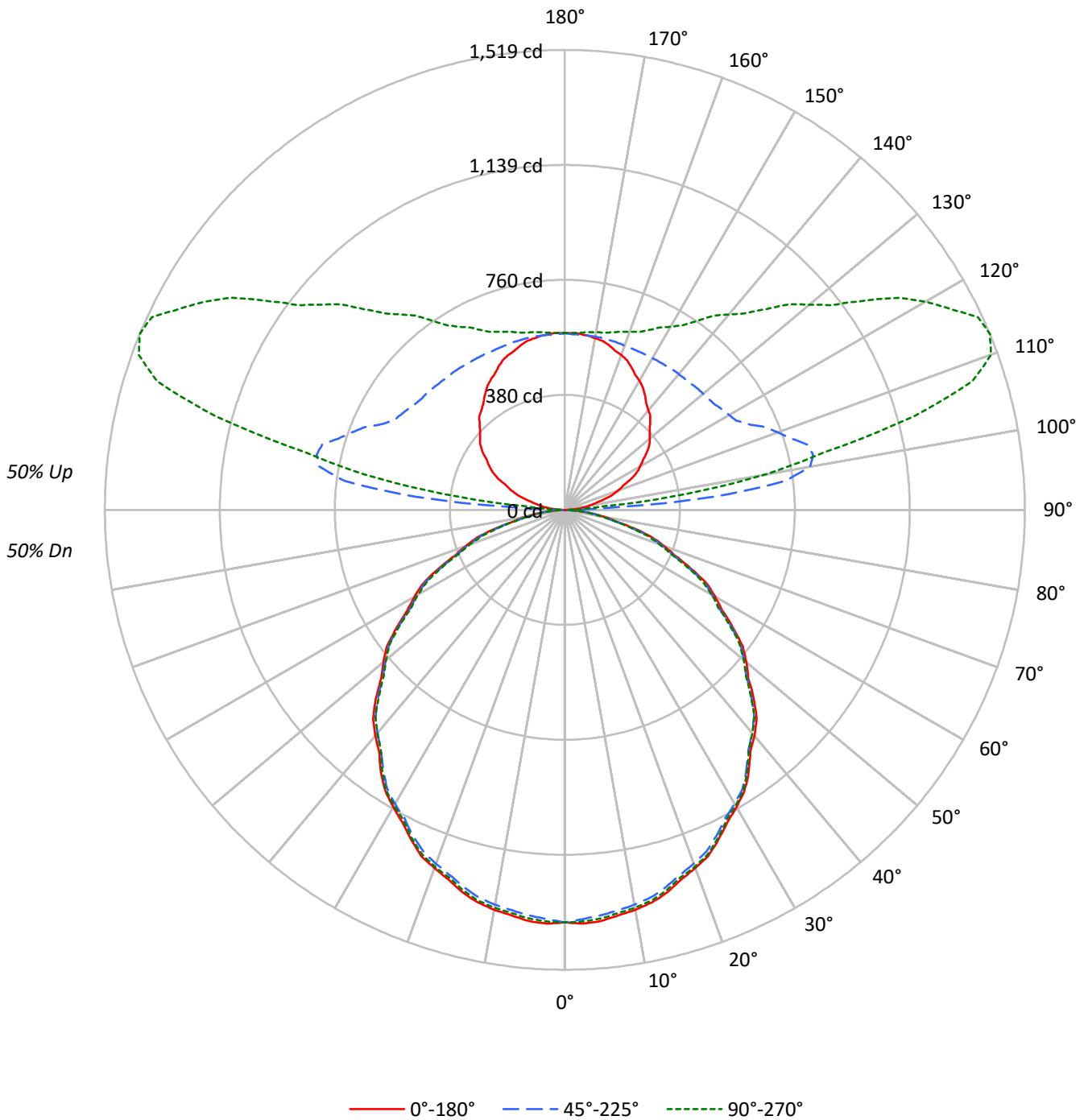
Lumens per Lamp: N/A  
Luminaire Lumens: 7508.7 lumens  
Efficiency: N/A  
Efficacy: 129.7 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: General Diffuse

Input Watts (W): 57.9  
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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50
1	98	93	89	86	90	86	83	80	73	70	68	61	59	57	49	48	47	42
2	89	81	75	70	82	75	70	65	64	60	56	53	50	48	43	41	39	35
3	81	71	64	58	74	66	60	55	56	51	47	47	43	40	38	36	33	29
4	74	63	55	49	68	59	52	46	50	44	40	42	38	34	34	31	29	25
5	68	56	48	42	62	52	45	40	44	39	35	37	33	30	31	27	25	22
6	63	50	42	36	57	47	40	34	40	34	30	34	29	26	28	24	22	19
7	58	45	37	32	53	42	35	30	36	31	26	31	26	23	25	22	19	17
8	54	41	33	28	49	38	31	27	33	27	23	28	24	20	23	20	17	15
9	50	38	30	25	46	35	28	24	30	25	21	26	21	18	21	18	16	14
10	47	34	27	22	43	32	26	21	28	23	19	24	19	17	20	17	14	12

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	12573	12573	12573
5°	12629	12455	12550
10°	12564	12407	12502
15°	12489	12319	12417
20°	12359	12213	12314
25°	12225	12082	12176
30°	12076	11946	12006
35°	11924	11777	11840
40°	11726	11591	11602
45°	11519	11361	11324
50°	11223	11088	11062
55°	10891	10771	10695
60°	10562	10372	10337
65°	10044	9820	9739
70°	9334	9107	8929
75°	8334	8067	7899
80°	6859	6604	6312
85°	4054	4457	4552



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	128.6	1.7
10°-20°	366.2	4.9
20°-30°	550.0	7.3
30°-40°	656.4	8.7
40°-50°	672.8	9.0
50°-60°	599.1	8.0
60°-70°	446.6	5.9
70°-80°	241.8	3.2
80°-90°	56.2	0.7
90°-100°	273.2	3.6
100°-110°	754.3	10.0
110°-120°	777.9	10.4
120°-130°	625.1	8.3
130°-140°	491.3	6.5
140°-150°	376.8	5.0
150°-160°	270.8	3.6
160°-170°	165.6	2.2
170°-180°	55.8	0.7
0°-30°	1044.8	13.9
0°-40°	1701.2	22.7
0°-60°	2973.1	39.6
0°-90°	3717.7	49.5
90°-120°	1805.5	24.0
90°-150°	3298.7	43.9
90°-180°	3791.0	50.5
0°-180°	7508.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1363	1363	1363	1363	1363	
5°	1364	1361	1345	1357	1355	129
15°	1308	1303	1290	1300	1300	368
25°	1201	1198	1187	1193	1196	553
35°	1059	1054	1046	1048	1051	661
45°	883	878	871	866	868	679
55°	677	678	670	663	665	606
65°	460	458	450	445	446	455
75°	234	231	226	222	222	249
85°	38	42	42	43	43	54
90°	2	4	7	8	9	4
95°	40	148	496	204	133	43
105°	134	207	830	1267	1193	143
115°	241	291	668	1323	1505	237
125°	330	376	606	1025	1203	294
135°	398	441	589	830	936	308
145°	461	493	582	707	761	289
155°	520	537	577	634	654	240
165°	563	570	580	602	607	159
175°	583	584	581	589	587	55
180°	583	583	583	583	583	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1362.7	1362.7	1362.7	1362.7	1362.7
2.5°	1367.8	1365.0	1352.9	1362.6	1361.1
5°	1363.6	1360.8	1344.8	1356.9	1355.1
7.5°	1350.9	1348.1	1334.0	1345.2	1343.6
10°	1341.1	1338.4	1324.3	1335.5	1334.5
12.5°	1328.4	1325.6	1311.6	1322.7	1321.9
15°	1307.5	1302.8	1289.7	1300.0	1300.0
17.5°	1279.7	1276.3	1264.1	1272.7	1272.8
20°	1258.8	1256.1	1243.9	1253.2	1254.2
22.5°	1237.8	1235.2	1221.4	1230.0	1231.7
25°	1200.9	1198.1	1186.8	1193.4	1196.1
27.5°	1162.6	1158.7	1147.6	1153.4	1155.4
30°	1133.5	1131.7	1121.3	1124.2	1127.0
32.5°	1102.8	1101.0	1092.2	1093.6	1098.5
35°	1058.7	1054.1	1045.6	1047.5	1051.2
37.5°	1006.5	1004.3	996.0	995.0	998.5
40°	973.6	969.9	962.4	960.5	963.3
42.5°	937.6	934.0	924.9	923.1	926.6
45°	882.8	878.3	870.7	866.1	867.9
47.5°	821.5	821.5	813.7	808.3	811.0
50°	781.9	781.9	772.5	767.9	770.7
52.5°	740.7	741.4	731.3	728.8	728.0
55°	677.1	678.0	669.6	663.2	664.9
57.5°	615.8	613.7	604.0	599.6	600.6
60°	572.4	569.6	562.1	555.7	560.2
62.5°	528.2	526.9	519.4	512.2	511.6
65°	460.1	458.3	449.8	445.2	446.1
67.5°	392.5	390.2	382.6	375.8	378.2
70°	346.0	346.0	337.6	333.8	331.0
72.5°	303.4	299.7	293.5	288.2	286.1
75°	233.8	231.1	226.3	221.6	221.6
77.5°	170.2	167.8	164.8	161.6	160.7
80°	129.1	128.1	124.3	123.4	118.8
82.5°	90.9	90.8	88.5	86.0	85.8
85°	38.3	42.0	42.1	43.0	43.0
87.5°	7.1	11.9	12.0	10.7	10.8
90°	1.9	3.7	7.4	8.4	9.3
92.5°	16.8	69.7	124.7	45.5	35.5
95°	40.2	147.9	495.7	203.8	132.6
97.5°	66.5	165.6	734.3	565.3	409.4
100°	85.9	176.3	822.4	828.3	673.1
102.5°	104.6	188.3	839.6	1023.3	876.2
105°	134.4	207.4	829.9	1267.0	1193.0
107.5°	166.2	231.2	783.6	1384.5	1411.5
110°	188.5	247.0	747.8	1409.7	1497.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	208.7	265.0	714.1	1389.8	1519.0
115°	240.9	291.0	668.4	1323.2	1504.8
117.5°	268.9	318.9	638.3	1229.5	1436.1
120°	287.6	336.8	626.4	1166.0	1374.1
122.5°	305.5	352.6	616.7	1106.7	1304.0
125°	330.5	376.1	605.9	1025.3	1203.3
127.5°	351.8	397.4	599.5	956.5	1110.0
130°	365.9	411.6	596.5	914.3	1053.9
132.5°	379.4	422.8	593.5	878.9	1005.4
135°	397.7	440.6	589.1	830.4	936.3
137.5°	418.2	457.3	586.8	789.8	880.1
140°	429.4	467.8	585.3	762.6	842.0
142.5°	442.1	477.5	583.8	738.6	808.4
145°	461.2	493.1	581.6	707.0	760.8
147.5°	479.5	507.4	579.5	680.4	722.1
150°	492.9	515.7	578.8	664.5	698.3
152.5°	503.3	524.7	578.0	650.9	678.9
155°	519.9	537.3	576.9	634.3	654.4
157.5°	535.3	548.6	577.1	622.2	635.9
160°	544.3	556.1	577.8	615.4	625.5
162.5°	551.7	562.1	578.6	609.4	617.3
165°	563.0	570.2	579.7	602.2	606.8
167.5°	571.5	575.9	580.7	597.9	599.4
170°	576.0	579.7	580.7	595.6	595.6
172.5°	579.7	582.0	580.7	592.5	591.8
175°	583.4	584.3	580.7	589.0	587.2
177.5°	584.9	584.2	580.5	585.6	584.2
180°	583.4	583.4	583.4	583.4	583.4

(END OF REPORT)