

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: P520412

Luminaire Tested: **SQ4-F-150U-100D-830-1D-UNV-STD-W-4**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P520412  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-25, 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-150U-100D-830-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

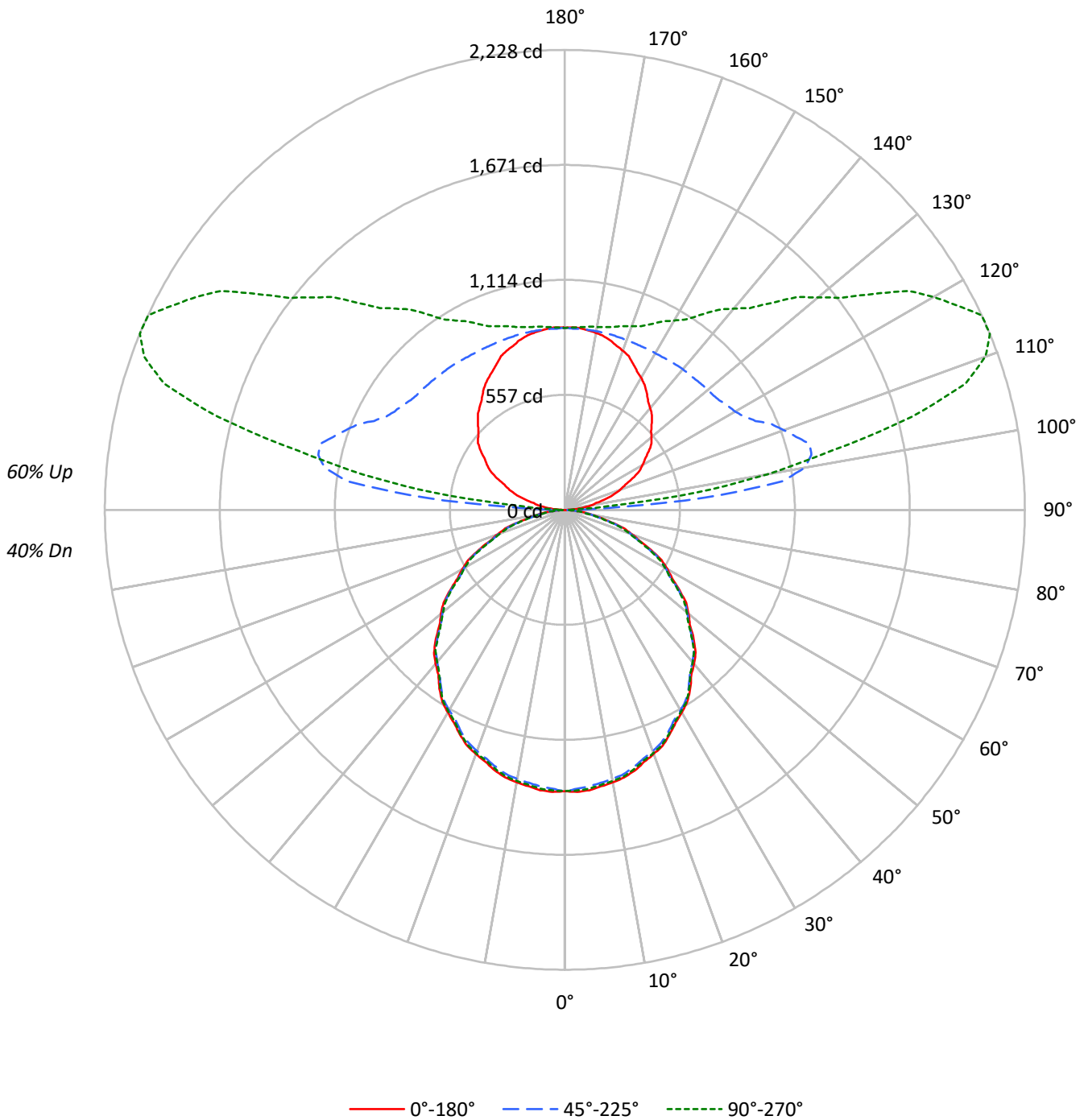
Lumens per Lamp: N/A  
Luminaire Lumens: 9404.3 lumens  
Efficiency: N/A  
Efficacy: 130.1 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 72.3  
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	105	105	105	105	95	95	95	95	78	78	78	61	61	61	47	47	47	40
1	95	91	87	84	87	83	80	77	68	66	64	54	52	51	41	40	39	33
2	87	80	73	68	79	73	67	63	59	56	52	47	45	42	36	34	33	28
3	79	70	63	57	72	64	57	52	52	48	44	42	39	36	32	30	28	23
4	72	62	54	48	65	56	50	44	46	41	37	37	33	31	28	26	24	20
5	66	55	47	41	60	50	43	38	41	36	32	33	29	26	26	23	21	17
6	61	49	41	35	55	45	38	33	37	32	28	30	26	23	23	20	18	15
7	56	44	36	31	51	41	34	29	34	28	24	27	23	20	21	18	16	13
8	52	40	32	27	47	37	30	25	31	25	22	25	21	18	19	17	14	12
9	48	36	29	24	44	34	27	22	28	23	19	23	19	16	18	15	13	11
10	45	33	26	21	41	31	24	20	26	21	17	21	17	15	16	14	12	10

**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	1.4
10°-20°	366.2	3.9
20°-30°	550.0	5.8
30°-40°	656.4	7.0
40°-50°	672.8	7.2
50°-60°	599.1	6.4
60°-70°	446.6	4.7
70°-80°	241.8	2.6
80°-90°	56.9	0.6
90°-100°	409.8	4.4
100°-110°	1108.2	11.8
110°-120°	1165.1	12.4
120°-130°	946.4	10.1
130°-140°	742.3	7.9
140°-150°	569.7	6.1
150°-160°	409.7	4.4
160°-170°	250.3	2.7
170°-180°	84.4	0.9
0°-30°	1044.8	11.1
0°-40°	1701.2	18.1
0°-60°	2973.1	31.6
0°-90°	3718.3	39.5
90°-120°	2683.1	28.5
90°-150°	4941.5	52.5
90°-180°	5686.0	60.5
0°-180°	9404.3	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	6	12	13	12	5
95°	64	223	682	353	210	67
105°	206	318	1229	1813	1739	217
115°	363	443	1020	1974	2228	358
125°	496	569	919	1551	1822	443
135°	595	666	894	1252	1417	460
145°	692	744	882	1072	1153	433
155°	781	812	874	961	993	360
165°	851	859	878	912	917	240
175°	883	882	879	890	889	84
180°	882	882	882	882	882	

TEST NUMBER: P520412

CATALOG NUMBER: SQ4-F-150U-100D-830-1D-UNV-STD-W-4

**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	12.2	12.9	11.6	11.4
90°	1.9	5.6	12.4	13.3	12.4
92.5°	27.0	98.3	193.9	84.1	61.0
95°	63.6	223.2	681.6	352.7	209.7
97.5°	102.1	256.0	1062.4	879.2	645.7
100°	131.0	269.3	1180.9	1231.6	995.8
102.5°	157.5	287.7	1222.7	1498.7	1322.4
105°	206.0	318.3	1229.3	1813.4	1739.1
107.5°	250.8	353.3	1175.6	2009.7	2034.4
110°	285.7	378.6	1127.8	2062.4	2167.3



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CATALOG NUMBER: SQ4-F-150U-100D-830-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	316.9	403.8	1083.7	2051.8	2228.1
115°	362.7	443.4	1019.6	1973.6	2228.1
117.5°	407.4	483.2	977.2	1854.2	2142.5
120°	434.8	509.0	952.2	1768.6	2062.9
122.5°	460.6	533.4	937.0	1676.8	1973.2
125°	496.5	568.9	919.0	1550.7	1821.7
127.5°	529.6	600.6	908.3	1447.8	1686.1
130°	547.8	621.1	903.8	1384.2	1599.6
132.5°	566.8	639.3	899.2	1326.9	1525.2
135°	595.2	665.8	894.2	1252.1	1417.3
137.5°	623.9	690.5	890.1	1191.4	1326.0
140°	643.6	705.8	888.6	1152.4	1272.1
142.5°	662.6	721.1	885.5	1117.0	1222.0
145°	692.0	744.0	881.9	1071.7	1153.4
147.5°	718.8	764.9	877.7	1030.6	1093.4
150°	738.6	779.4	876.2	1008.4	1058.5
152.5°	756.8	792.4	875.4	987.7	1028.8
155°	781.2	811.9	874.3	961.4	993.0
157.5°	806.7	828.0	874.5	943.1	963.9
160°	821.2	838.8	875.3	931.6	946.4
162.5°	832.6	847.2	876.0	922.4	933.6
165°	850.6	858.9	878.1	912.4	917.1
167.5°	862.9	868.7	878.3	903.8	906.0
170°	870.5	873.3	879.0	900.0	900.0
172.5°	876.6	877.1	879.0	895.3	894.6
175°	882.9	881.9	879.0	890.4	888.6
177.5°	885.0	882.8	878.8	886.4	884.2
180°	881.9	881.9	881.9	881.9	881.9

(END OF REPORT)