

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: P520182

Luminaire Tested: **SQ4-F-100U-050D-840-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P520182  
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-840-1D-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**

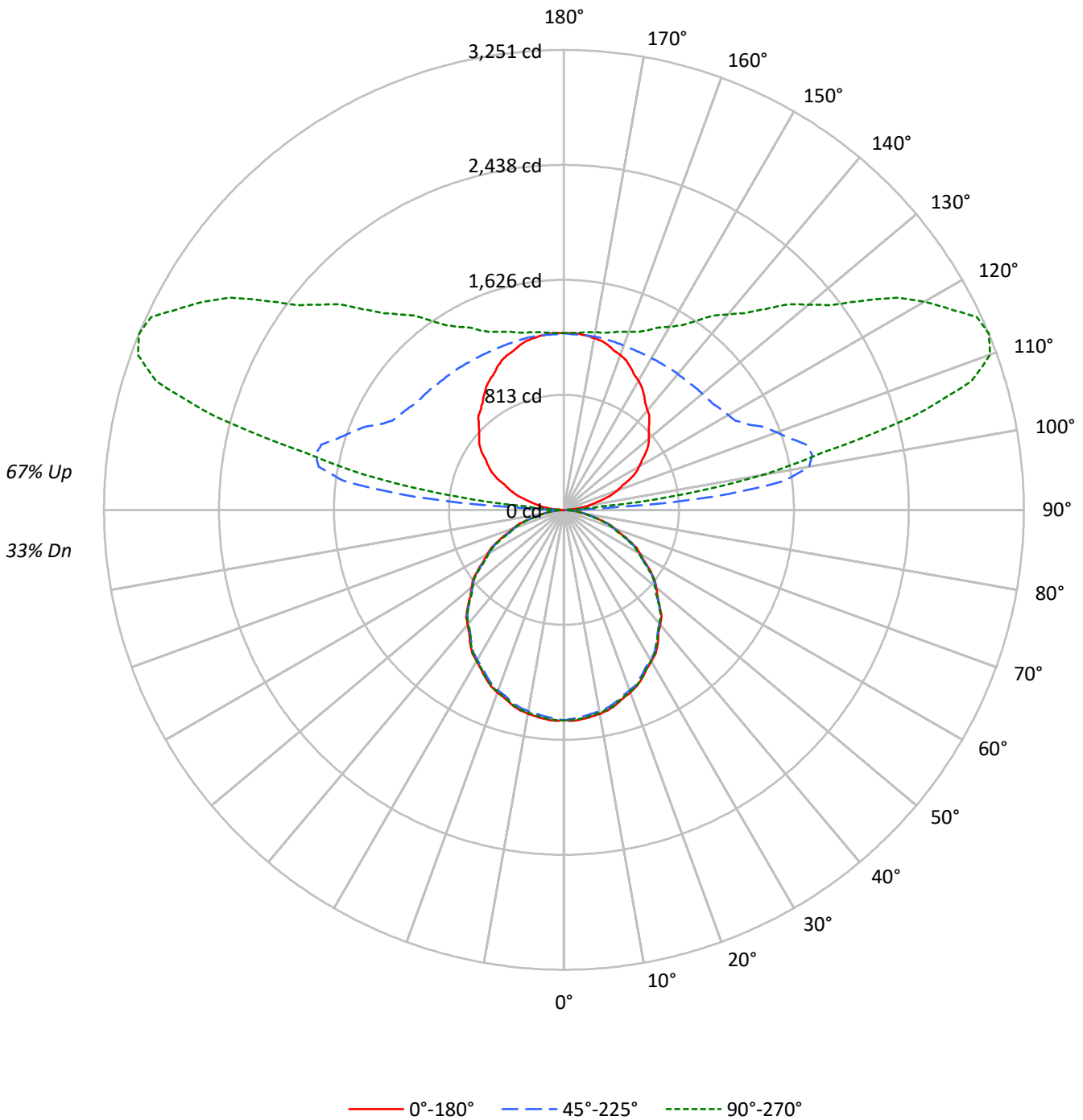
Lumens per Lamp: N/A  
Luminaire Lumens: 12177.2 lumens  
Efficiency: N/A  
Efficacy: 142.1 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35  
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')  
CIE Type: Semi-Indirect

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°	6864	6864	6864
5°	6881	6798	6854
10°	6858	6774	6821
15°	6811	6726	6783
20°	6748	6669	6718
25°	6671	6591	6651
30°	6579	6526	6568
35°	6507	6428	6462
40°	6381	6322	6333
45°	6251	6199	6199
50°	6118	6061	6033
55°	5976	5895	5864
60°	5753	5660	5624
65°	5480	5370	5305
70°	5104	4997	4891
75°	4581	4438	4333
80°	3703	3653	3544
85°	2212	2530	2636



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	140.4	1.2
10°-20°	399.8	3.3
20°-30°	600.5	4.9
30°-40°	716.8	5.9
40°-50°	734.5	6.0
50°-60°	655.1	5.4
60°-70°	487.9	4.0
70°-80°	264.8	2.2
80°-90°	63.9	0.5
90°-100°	584.8	4.8
100°-110°	1614.4	13.3
110°-120°	1664.9	13.7
120°-130°	1337.9	11.0
130°-140°	1051.5	8.6
140°-150°	806.4	6.6
150°-160°	579.6	4.8
160°-170°	354.4	2.9
170°-180°	119.5	1.0
0°-30°	1140.7	9.4
0°-40°	1857.5	15.3
0°-60°	3247.1	26.7
0°-90°	4063.8	33.4
90°-120°	3864.1	31.7
90°-150°	7059.9	58.0
90°-180°	8113.0	66.6
0°-180°	12177.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1488	1488	1488	1488	1488	
5°	1486	1484	1468	1482	1480	141
15°	1426	1422	1408	1420	1420	402
25°	1311	1307	1295	1303	1307	604
35°	1155	1151	1141	1142	1147	721
45°	958	960	950	948	950	739
55°	743	743	733	727	729	662
65°	502	500	492	486	486	497
75°	257	255	249	245	243	272
85°	42	46	48	50	50	59
90°	4	8	16	18	20	7
95°	86	316	1061	436	284	92
105°	288	444	1776	2712	2553	306
115°	516	623	1430	2832	3221	507
125°	707	805	1297	2194	2575	629
135°	851	943	1261	1777	2004	659
145°	987	1055	1245	1513	1628	618
155°	1113	1150	1235	1358	1400	513
165°	1205	1220	1241	1289	1299	340
175°	1249	1251	1243	1261	1257	119
180°	1249	1249	1249	1249	1249	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1488.0	1488.0	1488.0	1488.0	1488.0
2.5°	1492.8	1489.6	1476.8	1488.0	1486.4
5°	1486.0	1484.0	1468.0	1481.9	1480.1
7.5°	1475.2	1471.4	1455.7	1469.2	1467.3
10°	1464.1	1460.2	1446.2	1458.1	1456.1
12.5°	1449.7	1447.4	1431.9	1443.8	1443.4
15°	1426.2	1422.4	1408.3	1420.2	1420.2
17.5°	1395.2	1392.8	1379.2	1390.7	1389.2
20°	1374.5	1370.5	1358.5	1368.4	1368.4
22.5°	1348.9	1346.7	1334.6	1343.0	1344.6
25°	1310.7	1306.8	1294.8	1302.8	1306.7
27.5°	1268.5	1265.4	1255.3	1260.6	1263.3
30°	1235.0	1235.0	1225.1	1227.1	1233.1
32.5°	1204.8	1204.8	1193.2	1195.2	1198.0
35°	1155.4	1151.4	1141.4	1141.6	1147.4
37.5°	1098.0	1096.0	1089.6	1088.4	1090.0
40°	1059.7	1057.7	1049.8	1051.7	1051.7
42.5°	1021.5	1019.5	1011.5	1008.8	1011.9
45°	958.2	960.1	950.2	948.2	950.2
47.5°	895.5	895.5	887.6	882.1	885.2
50°	852.5	852.5	844.6	840.6	840.6
52.5°	808.0	809.5	800.0	794.5	795.9
55°	743.0	743.0	733.0	727.1	729.1
57.5°	671.3	671.3	661.3	655.4	659.0
60°	623.5	623.5	613.5	607.6	609.6
62.5°	575.7	575.7	565.7	559.8	560.2
65°	502.0	500.0	492.0	486.0	486.0
67.5°	431.1	426.0	419.9	412.0	412.0
70°	378.4	376.5	370.5	362.6	362.6
72.5°	330.6	327.2	321.1	314.7	314.7
75°	257.0	255.0	249.0	244.9	243.1
77.5°	184.1	182.5	182.0	176.5	178.1
80°	139.4	139.4	137.5	133.4	133.4
82.5°	99.6	101.2	97.6	96.7	95.3
85°	41.8	45.8	47.8	49.8	49.8
87.5°	8.8	14.2	14.3	16.4	16.8
90°	4.0	7.9	16.0	18.0	20.0
92.5°	36.0	149.3	266.9	97.4	75.9
95°	85.9	316.5	1060.9	436.0	283.7
97.5°	142.2	354.4	1571.6	1209.9	876.2
100°	183.8	377.2	1760.2	1772.6	1440.5
102.5°	223.8	403.1	1796.9	2190.1	1875.3
105°	287.7	444.0	1776.1	2711.6	2553.4
107.5°	355.6	494.7	1677.0	2963.0	3020.9
110°	403.6	528.6	1600.4	3017.1	3204.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	446.7	567.1	1528.4	2974.4	3251.1
115°	515.5	622.9	1430.5	2831.9	3220.7
117.5°	575.4	682.5	1366.2	2631.3	3073.6
120°	615.4	720.8	1340.6	2495.6	2940.9
122.5°	653.7	754.6	1319.8	2368.8	2790.7
125°	707.3	804.9	1296.7	2194.4	2575.3
127.5°	752.8	850.5	1283.1	2047.0	2375.5
130°	783.2	880.9	1276.7	1956.8	2255.7
132.5°	812.0	904.9	1270.3	1881.0	2151.7
135°	851.1	942.9	1260.7	1777.3	2004.0
137.5°	895.0	978.7	1255.9	1690.3	1883.7
140°	919.1	1001.1	1252.7	1632.2	1802.2
142.5°	946.2	1022.1	1249.5	1580.6	1730.2
145°	986.9	1055.4	1244.7	1513.1	1628.4
147.5°	1026.1	1086.0	1240.3	1456.1	1545.6
150°	1054.9	1103.8	1238.7	1422.2	1494.4
152.5°	1077.3	1123.0	1237.1	1393.1	1452.9
155°	1112.9	1150.0	1234.7	1357.6	1400.5
157.5°	1145.6	1174.1	1235.1	1331.7	1361.0
160°	1164.8	1190.2	1236.7	1317.1	1338.6
162.5°	1180.7	1203.1	1238.3	1304.2	1321.0
165°	1204.8	1220.4	1240.7	1288.9	1298.6
167.5°	1223.2	1232.5	1242.8	1279.6	1282.7
170°	1232.8	1240.6	1242.8	1274.7	1274.7
172.5°	1240.7	1245.4	1242.8	1268.3	1266.7
175°	1248.7	1250.7	1242.8	1260.6	1256.7
177.5°	1252.0	1250.4	1242.4	1253.4	1250.3
180°	1248.7	1248.7	1248.7	1248.7	1248.7

(END OF REPORT)