

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: P520230

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

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P520230  
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-840-1D-UNV-STD-W-8  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

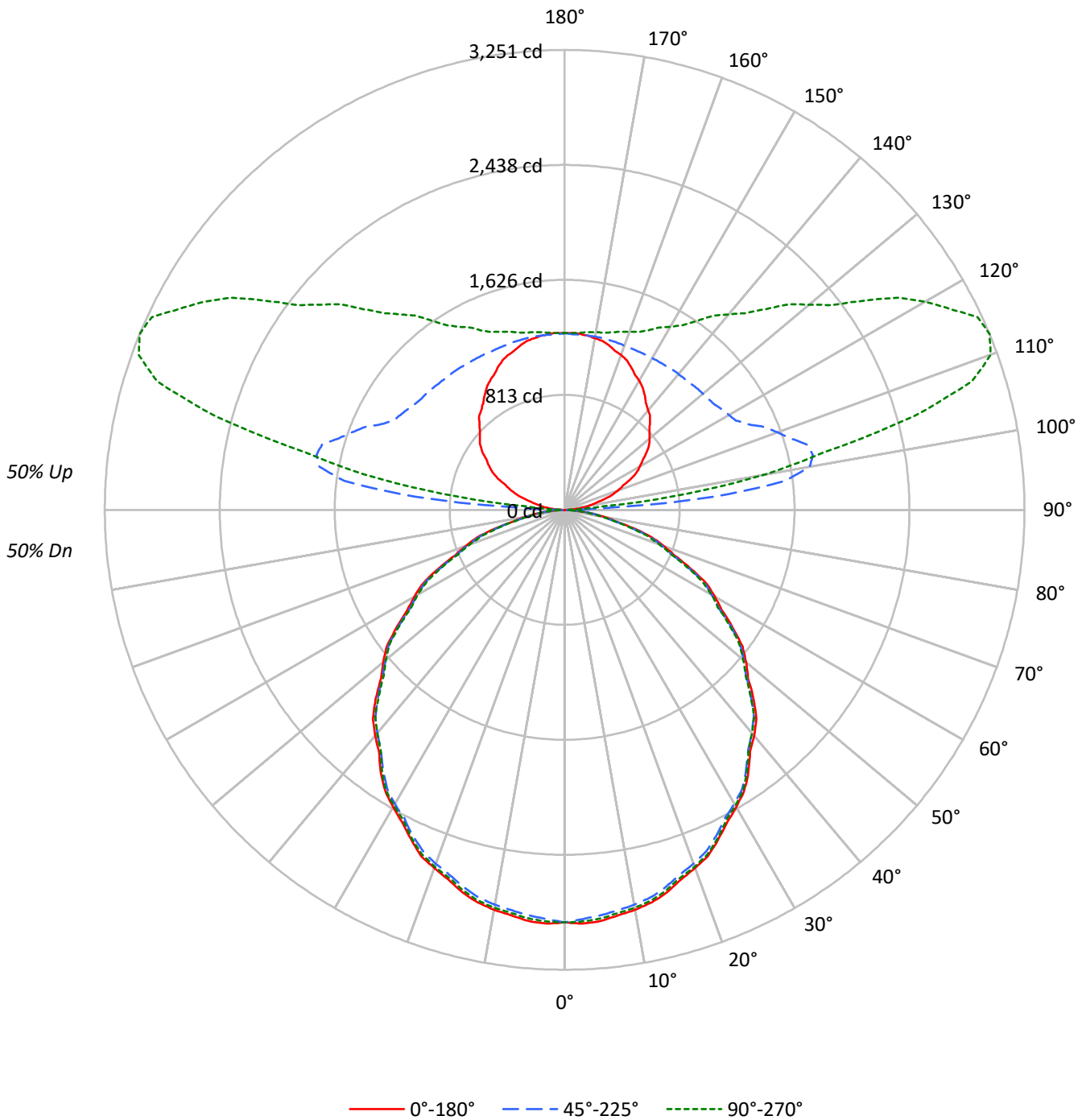
Lumens per Lamp: N/A  
Luminaire Lumens: 16070.1 lumens  
Efficiency: N/A  
Efficacy: 134.1 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35  
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')  
CIE Type: General Diffuse

Input Watts (W): 119.8  
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°	13453	13453	13453
5°	13514	13328	13430
10°	13445	13276	13379
15°	13364	13182	13287
20°	13226	13069	13177
25°	13081	12929	13030
30°	12922	12784	12848
35°	12760	12602	12670
40°	12548	12403	12415
45°	12327	12157	12118
50°	12009	11865	11837
55°	11655	11526	11446
60°	11302	11099	11062
65°	10750	10509	10422
70°	9988	9746	9556
75°	8919	8634	8456
80°	7337	7072	6753
85°	4340	4769	4870



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	275.2	1.7
10°-20°	783.8	4.9
20°-30°	1177.1	7.3
30°-40°	1404.7	8.7
40°-50°	1439.9	9.0
50°-60°	1282.2	8.0
60°-70°	955.8	5.9
70°-80°	517.5	3.2
80°-90°	120.4	0.7
90°-100°	584.8	3.6
100°-110°	1614.4	10.0
110°-120°	1664.9	10.4
120°-130°	1337.9	8.3
130°-140°	1051.5	6.5
140°-150°	806.4	5.0
150°-160°	579.6	3.6
160°-170°	354.4	2.2
170°-180°	119.5	0.7
0°-30°	2236.2	13.9
0°-40°	3640.9	22.7
0°-60°	6363.0	39.6
0°-90°	7956.6	49.5
90°-120°	3864.1	24.0
90°-150°	7059.9	43.9
90°-180°	8113.0	50.5
0°-180°	16070.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2916	2916	2916	2916	2916	
5°	2918	2912	2878	2904	2900	277
15°	2798	2788	2760	2782	2782	788
25°	2570	2564	2540	2554	2560	1184
35°	2266	2256	2238	2242	2250	1414
45°	1890	1880	1863	1854	1858	1454
55°	1449	1451	1433	1419	1423	1297
65°	985	981	963	953	955	974
75°	500	494	484	474	474	533
85°	82	90	90	92	92	115
90°	4	8	16	18	20	8
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°	2916.3	2916.3	2916.3	2916.3	2916.3
2.5°	2927.5	2921.2	2895.5	2916.3	2913.1
5°	2918.3	2912.4	2878.2	2904.2	2900.3
7.5°	2891.1	2885.2	2855.1	2879.0	2875.5
10°	2870.3	2864.4	2834.2	2858.2	2856.2
12.5°	2843.1	2837.2	2807.0	2831.0	2829.0
15°	2798.2	2788.5	2760.2	2782.2	2782.2
17.5°	2738.9	2731.5	2705.3	2723.8	2724.2
20°	2694.1	2688.3	2662.1	2682.2	2684.1
22.5°	2649.3	2643.4	2614.1	2632.6	2636.1
25°	2570.0	2564.1	2540.0	2554.1	2560.0
27.5°	2488.4	2479.7	2456.0	2468.4	2472.8
30°	2425.9	2422.0	2399.9	2406.0	2412.0
32.5°	2360.2	2356.4	2337.4	2340.5	2351.0
35°	2265.8	2256.0	2237.8	2241.9	2249.8
37.5°	2154.1	2149.4	2131.7	2129.5	2136.9
40°	2083.7	2075.9	2059.6	2055.8	2061.6
42.5°	2006.8	1999.0	1979.6	1975.7	1983.1
45°	1889.5	1879.7	1863.4	1853.5	1857.5
47.5°	1758.2	1758.2	1741.4	1729.9	1735.8
50°	1673.3	1673.3	1653.3	1643.5	1649.3
52.5°	1585.2	1586.8	1565.2	1560.0	1558.1
55°	1449.2	1451.1	1433.1	1419.3	1423.1
57.5°	1317.9	1313.5	1292.6	1283.4	1285.4
60°	1225.0	1219.1	1203.0	1189.2	1199.0
62.5°	1130.5	1127.8	1111.7	1096.0	1094.9
65°	984.8	980.9	962.8	952.8	954.8
67.5°	839.8	835.2	818.6	804.3	809.4
70°	740.5	740.5	722.6	714.5	708.5
72.5°	649.3	641.5	628.1	616.8	612.5
75°	500.4	494.5	484.4	474.4	474.4
77.5°	364.3	359.2	352.6	345.8	343.9
80°	276.2	274.3	266.2	264.0	254.2
82.5°	194.6	194.2	189.3	184.1	183.7
85°	82.0	89.9	90.1	92.0	92.0
87.5°	15.3	25.4	25.7	22.8	23.2
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)