

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: P519934

Luminaire Tested: **SQ4-F-050U-100D-830-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P519934
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-21, 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-050U-100D-830-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

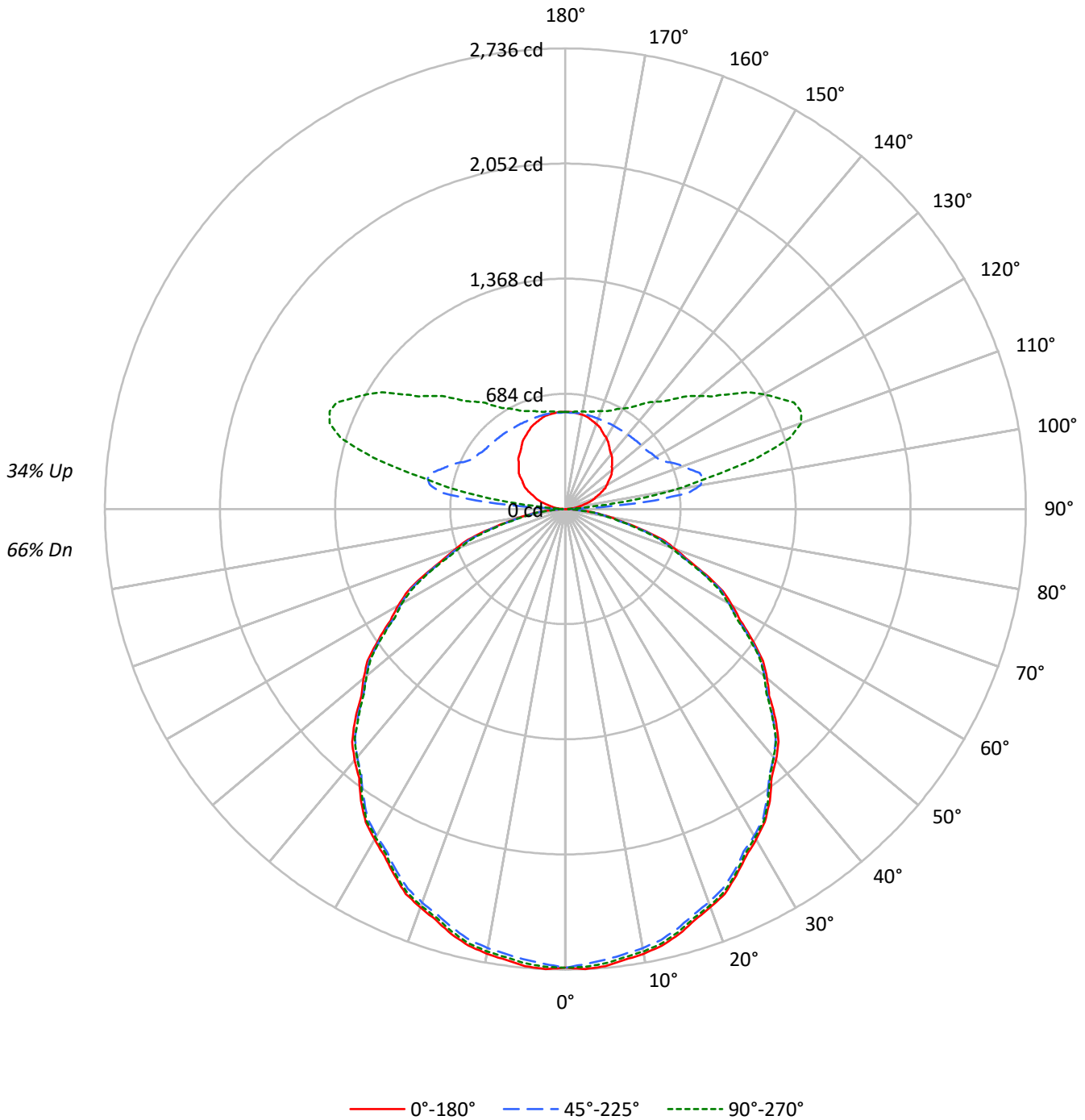
Lumens per Lamp: N/A
Luminaire Lumens: 11195.5 lumens
Efficiency: N/A
Efficacy: 120.9 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 92.6
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	111	111	111	111	105	105	105	105	92	92	92	81	81	81	71	71	71	66
1	101	97	93	89	95	91	88	85	81	79	76	72	70	68	63	61	60	56
2	92	85	78	73	87	80	74	69	71	67	63	63	59	57	55	53	51	47
3	84	74	67	61	79	70	63	58	63	57	53	55	51	48	49	46	43	39
4	77	66	58	51	72	62	55	49	56	50	45	49	45	41	44	40	37	34
5	71	59	50	44	66	56	48	42	50	44	39	44	39	35	39	35	32	29
6	65	53	44	38	61	50	42	37	45	39	34	40	35	31	36	31	28	26
7	60	48	39	34	57	45	38	32	41	34	30	36	31	27	32	28	25	23
8	56	43	35	30	53	41	34	29	37	31	27	33	28	24	30	26	22	20
9	52	40	32	27	49	38	31	26	34	28	24	31	26	22	27	23	20	18
10	49	36	29	24	46	35	28	23	31	26	21	28	23	20	25	21	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12572	12572	12572
5°	12628	12455	12551
10°	12565	12407	12503
15°	12488	12319	12417
20°	12360	12213	12314
25°	12225	12082	12177
30°	12076	11946	12006
35°	11924	11776	11840
40°	11726	11590	11602
45°	11519	11361	11324
50°	11222	11088	11061
55°	10892	10772	10696
60°	10561	10372	10337
65°	10046	9821	9739
70°	9335	9107	8932
75°	8334	8067	7901
80°	6857	6610	6309
85°	4060	4457	4552



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	257.2	2.3
10°-20°	732.5	6.5
20°-30°	1100.0	9.8
30°-40°	1312.7	11.7
40°-50°	1345.5	12.0
50°-60°	1198.2	10.7
60°-70°	893.2	8.0
70°-80°	483.6	4.3
80°-90°	112.3	1.0
90°-100°	276.5	2.5
100°-110°	751.0	6.7
110°-120°	772.2	6.9
120°-130°	617.4	5.5
130°-140°	485.1	4.3
140°-150°	372.0	3.3
150°-160°	267.5	2.4
160°-170°	163.6	1.5
170°-180°	55.1	0.5
0°-30°	2089.7	18.7
0°-40°	3402.4	30.4
0°-60°	5946.1	53.1
0°-90°	7435.2	66.4
90°-120°	1799.6	16.1
90°-150°	3274.1	29.2
90°-180°	3760.0	33.6
0°-180°	11195.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2725	2725	2725	2725	2725	
5°	2727	2722	2690	2714	2710	259
15°	2615	2606	2579	2600	2600	737
25°	2402	2396	2374	2387	2392	1107
35°	2117	2108	2091	2095	2102	1322
45°	1766	1756	1741	1732	1736	1359
55°	1354	1356	1339	1326	1330	1212
65°	920	917	900	890	892	910
75°	468	462	453	443	443	498
85°	77	84	84	86	86	107
90°	2	7	13	17	17	5
95°	41	151	482	210	141	43
105°	133	208	826	1258	1183	142
115°	237	288	661	1315	1498	234
125°	326	371	598	1008	1189	291
135°	393	436	582	821	926	304
145°	454	486	574	698	750	285
155°	513	531	570	626	644	237
165°	556	563	572	596	598	157
175°	576	578	574	581	580	55
180°	576	576	576	576	576	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2725.3	2725.3	2725.3	2725.3	2725.3
2.5°	2735.8	2729.9	2705.8	2725.2	2722.3
5°	2727.1	2721.7	2689.7	2714.0	2710.3
7.5°	2701.7	2696.2	2668.0	2690.4	2687.1
10°	2682.3	2676.7	2648.6	2671.0	2669.2
12.5°	2656.8	2651.3	2623.1	2645.5	2643.7
15°	2614.9	2605.8	2579.4	2599.9	2599.9
17.5°	2559.5	2552.6	2528.1	2545.3	2545.7
20°	2517.7	2512.1	2487.8	2506.5	2508.3
22.5°	2475.8	2470.2	2442.8	2460.1	2463.4
25°	2401.7	2396.2	2373.6	2386.8	2392.3
27.5°	2325.4	2317.3	2295.0	2306.7	2310.8
30°	2267.0	2263.3	2242.7	2248.4	2253.9
32.5°	2205.7	2202.0	2184.4	2187.1	2197.0
35°	2117.4	2108.2	2091.1	2095.1	2102.4
37.5°	2013.0	2008.6	1992.0	1990.0	1996.9
40°	1947.2	1939.8	1924.7	1921.1	1926.6
42.5°	1875.3	1868.0	1849.9	1846.3	1853.2
45°	1765.7	1756.5	1741.4	1732.2	1735.8
47.5°	1643.0	1643.0	1627.3	1616.6	1622.1
50°	1563.7	1563.7	1545.0	1535.8	1541.2
52.5°	1481.4	1482.9	1462.7	1457.8	1456.0
55°	1354.3	1356.0	1339.3	1326.2	1329.9
57.5°	1231.5	1227.5	1207.9	1199.4	1201.2
60°	1144.7	1139.2	1124.2	1111.3	1120.4
62.5°	1056.4	1053.8	1038.9	1024.2	1023.1
65°	920.3	916.6	899.7	890.4	892.2
67.5°	784.8	780.5	765.0	751.6	756.4
70°	692.1	692.1	675.2	667.6	662.2
72.5°	606.8	599.4	587.0	576.4	572.4
75°	467.6	462.1	452.6	443.3	443.3
77.5°	340.4	335.7	329.5	323.2	321.3
80°	258.1	256.3	248.8	246.7	237.5
82.5°	181.8	181.4	177.0	172.1	171.7
85°	76.7	84.0	84.2	86.0	86.0
87.5°	13.9	23.7	23.6	21.3	21.3
90°	1.9	7.3	13.0	16.7	16.7
92.5°	16.7	75.7	131.5	56.4	47.8
95°	40.7	151.2	481.5	209.5	140.7
97.5°	67.4	167.0	738.1	574.2	403.3
100°	85.2	177.5	816.6	827.8	668.6
102.5°	102.9	188.0	837.4	1023.8	883.4
105°	133.4	207.5	825.9	1257.5	1183.3
107.5°	164.9	230.4	778.2	1378.2	1398.8
110°	187.0	246.8	742.5	1402.0	1490.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	206.3	263.2	707.0	1382.2	1515.9
115°	237.1	287.7	661.1	1315.2	1498.1
117.5°	265.9	314.4	631.8	1220.2	1426.3
120°	285.2	332.3	618.5	1156.4	1361.0
122.5°	301.5	348.6	609.6	1092.6	1290.0
125°	325.9	371.2	598.1	1007.8	1188.8
127.5°	347.8	392.7	591.8	943.5	1098.8
130°	361.1	404.6	588.9	903.2	1042.6
132.5°	374.5	417.9	585.9	868.7	992.2
135°	392.6	436.1	581.5	820.8	925.9
137.5°	412.2	451.7	579.3	778.7	867.1
140°	424.1	462.1	577.8	751.8	831.4
142.5°	435.9	471.0	576.3	730.8	797.4
145°	453.6	486.3	574.1	697.5	750.0
147.5°	473.7	501.5	572.2	671.3	712.6
150°	487.0	510.6	572.2	656.3	688.9
152.5°	497.4	518.0	570.7	642.8	669.6
155°	512.9	531.1	570.3	626.4	644.4
157.5°	528.1	542.3	570.3	615.1	628.9
160°	537.1	549.7	570.3	607.6	618.5
162.5°	545.9	555.7	571.8	601.6	609.6
165°	555.5	562.8	572.2	596.3	598.1
167.5°	565.5	569.1	574.1	590.0	591.4
170°	568.5	572.1	574.1	587.0	587.0
172.5°	571.5	573.7	574.1	584.1	584.1
175°	575.9	577.7	574.1	581.4	579.6
177.5°	577.4	577.4	573.0	578.9	575.9
180°	575.9	575.9	575.9	575.9	575.9

(END OF REPORT)