

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: CORELITE

Report Number: P845287

Luminaire Tested: **SQ4P-PW1-100U-125D-B50-1D-UNV**

Issue Date: 8/14/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P845287  
REPORT IS A COMBINATION OF REPORTS P700098 AND P700246  
Test Lab: INNOVATION CENTER  
Issue Date: 8/14/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: CORELITE  
Catalog Number: SQ4P-PW1-100U-125D-B50-1D-UNV  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH, 1000 LUMENS PER FOOT UPLIGHT, 1250 LUMENS PER FOOT DOWNLIGHT  
  
Light Source: -  
Ballast/Driver: -

**Summary**

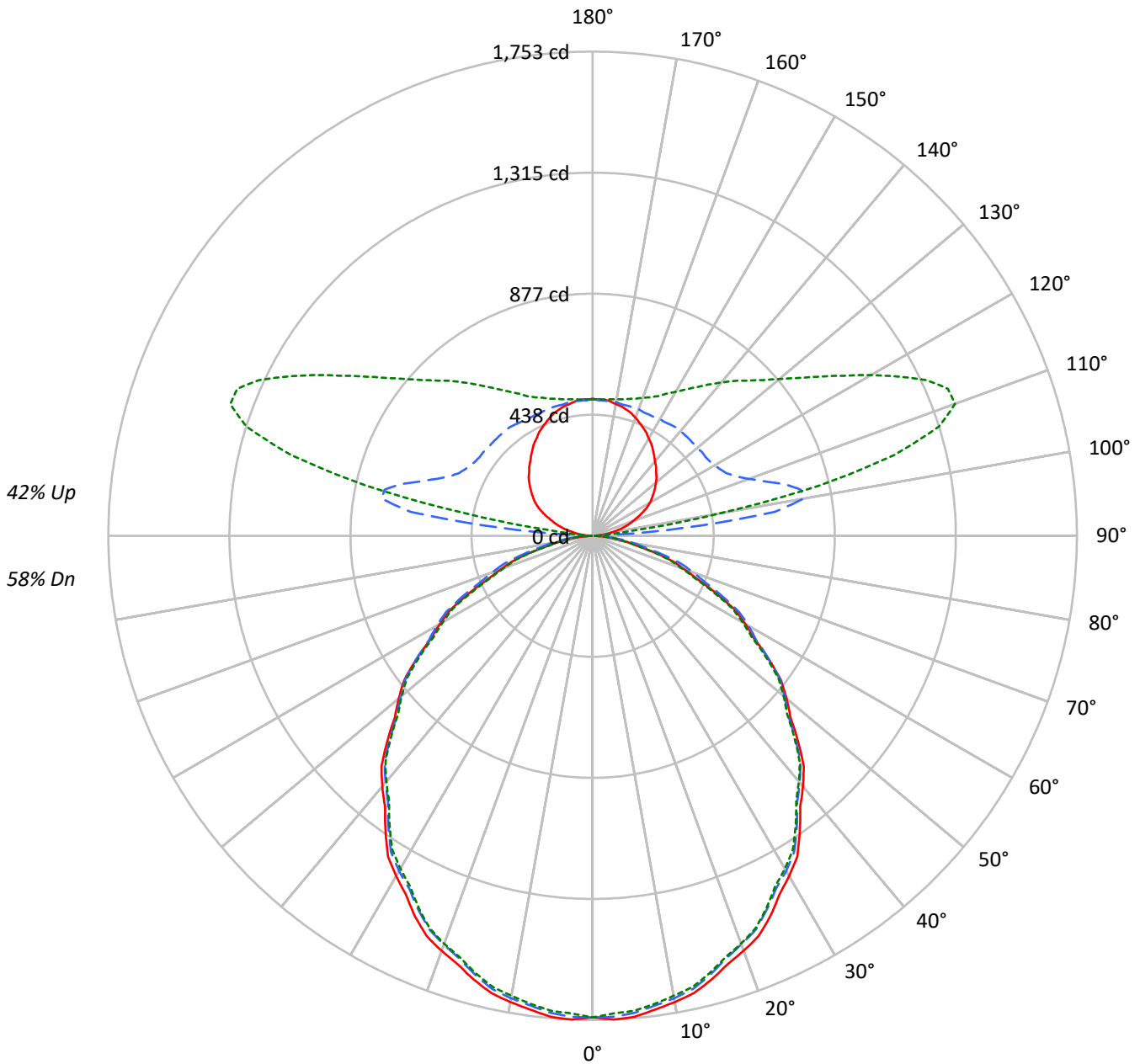
Lumens per Lamp: N/A  
Luminaire Lumens: 7648.0 lumens  
Efficiency: N/A  
Efficacy: 106.5 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.19 / 1.31  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: General Diffuse

Input Watts (W): 71.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: 25 FT

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	109	109	109	109	102	102	102	102	88	88	88	75	75	75	63	63	63	58																			
1	100	95	91	88	93	89	86	83	77	75	72	66	65	63	56	55	54	49																			
2	91	83	77	72	84	78	73	68	68	64	60	58	55	53	50	47	46	41																			
3	83	73	66	60	77	69	62	57	60	55	51	52	48	45	44	41	39	35																			
4	76	65	57	51	71	61	54	48	53	48	43	46	42	38	39	36	33	30																			
5	70	58	50	44	65	54	47	42	48	42	37	41	37	33	36	32	29	26																			
6	64	52	44	38	60	49	42	36	43	37	33	37	33	29	32	29	26	23																			
7	59	47	39	33	55	44	37	32	39	33	29	34	29	26	29	26	23	20																			
8	55	43	35	30	51	40	33	28	36	30	26	31	27	23	27	23	21	18																			
9	51	39	32	26	48	37	30	25	33	27	23	29	24	21	25	21	19	16																			
10	48	36	29	24	45	34	27	23	30	25	21	27	22	19	23	20	17	15																			

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

	0°	45°	90°
0°	16084	16084	16084
5°	16189	16061	15990
10°	16059	15929	15843
15°	15889	15712	15654
20°	15699	15457	15429
25°	15480	15199	15150
30°	15152	14924	14825
35°	14722	14514	14427
40°	14264	14041	13987
45°	13708	13529	13467
50°	13142	13031	12941
55°	12526	12526	12329
60°	11765	11990	11564
65°	10763	11300	10496
70°	9485	10399	9242
75°	8106	9304	7882
80°	6285	7837	6376
85°	4065	6023	5356



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	164.2	2.1
10°-20°	463.5	6.1
20°-30°	687.5	9.0
30°-40°	804.4	10.5
40°-50°	800.9	10.5
50°-60°	691.6	9.0
60°-70°	497.8	6.5
70°-80°	261.0	3.4
80°-90°	65.9	0.9
90°-100°	196.9	2.6
100°-110°	685.2	9.0
110°-120°	663.7	8.7
120°-130°	520.7	6.8
130°-140°	412.1	5.4
140°-150°	318.0	4.2
150°-160°	228.0	3.0
160°-170°	139.4	1.8
170°-180°	47.2	0.6
0°-30°	1315.1	17.2
0°-40°	2119.5	27.7
0°-60°	3611.9	47.2
0°-90°	4436.7	58.0
90°-120°	1545.9	20.2
90°-150°	2796.7	36.6
90°-180°	3211.0	42.0
0°-180°	7648.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1743	1743	1743	1743	1743	
5°	1748	1728	1734	1729	1726	166
15°	1664	1642	1645	1642	1639	469
25°	1521	1495	1493	1484	1488	699
35°	1307	1289	1289	1276	1281	817
45°	1051	1042	1037	1034	1032	811
55°	779	777	779	768	766	695
65°	493	508	518	497	481	489
75°	227	248	261	244	221	244
85°	38	50	57	54	51	51
90°	7	11	11	7	4	6
95°	33	114	332	85	52	35
105°	114	162	720	1215	1130	120
115°	199	240	535	1130	1333	197
125°	270	332	498	842	1004	241
135°	325	366	495	702	794	252
145°	380	406	491	606	657	238
155°	432	447	484	539	558	199
165°	473	476	487	510	513	133
175°	495	495	491	498	495	47
180°	495	495	495	495	495	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1743.3	1743.3	1743.3	1743.3	1743.3
2.5°	1753.2	1738.7	1743.3	1739.5	1731.1
5°	1748.0	1728.4	1734.2	1729.4	1726.5
7.5°	1730.2	1712.2	1716.2	1711.5	1709.6
10°	1714.1	1696.0	1700.3	1694.2	1691.1
12.5°	1695.8	1676.5	1680.7	1674.3	1672.8
15°	1663.5	1642.3	1645.0	1641.8	1638.9
17.5°	1626.0	1604.7	1605.0	1600.3	1599.4
20°	1598.9	1576.4	1574.3	1568.2	1571.4
22.5°	1569.5	1545.7	1543.6	1535.1	1539.3
25°	1520.6	1495.2	1493.0	1483.7	1488.2
27.5°	1464.1	1439.0	1439.0	1426.0	1430.8
30°	1422.3	1398.2	1400.9	1385.5	1391.6
32.5°	1378.1	1356.3	1357.7	1342.6	1348.7
35°	1307.1	1289.1	1288.6	1276.5	1280.9
37.5°	1234.6	1218.7	1216.0	1209.2	1210.2
40°	1184.3	1170.8	1165.8	1161.3	1161.3
42.5°	1131.3	1119.2	1114.2	1110.7	1109.6
45°	1050.6	1041.6	1036.9	1033.6	1032.1
47.5°	970.6	962.4	958.2	956.0	954.5
50°	915.6	909.5	907.9	903.1	901.6
52.5°	860.2	856.5	854.9	849.1	847.5
55°	778.7	777.3	778.7	768.1	766.5
57.5°	693.9	696.3	701.4	686.8	683.1
60°	637.6	643.4	649.8	632.8	626.7
62.5°	579.6	589.4	598.1	578.5	570.1
65°	493.0	508.1	517.6	497.2	480.8
67.5°	409.6	428.1	439.5	417.8	399.0
70°	351.6	372.8	385.5	363.5	342.6
72.5°	301.3	324.8	335.2	314.3	293.3
75°	227.4	248.4	261.0	243.6	221.1
77.5°	161.3	181.1	191.6	176.6	157.8
80°	118.3	139.3	147.5	134.8	120.0
82.5°	84.0	101.4	107.0	99.3	88.9
85°	38.4	50.3	56.9	53.8	50.6
87.5°	9.8	18.3	23.3	23.3	24.7
90°	7.4	11.0	11.0	7.4	3.7
92.5°	18.5	55.4	51.7	22.2	18.5
95°	33.2	114.4	332.4	84.9	51.7
97.5°	51.7	129.3	664.7	302.8	162.5
100°	70.2	136.6	775.4	727.4	469.0
102.5°	92.3	147.7	771.7	1022.9	841.9
105°	114.4	162.5	720.0	1214.9	1130.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	177.3	217.8	561.3	1222.2	1392.1
115°	199.4	240.0	535.4	1130.0	1333.0
117.5°	221.5	265.9	520.7	1045.0	1248.1
120°	240.0	288.0	509.6	963.7	1163.2
122.5°	254.8	310.2	502.2	897.3	1078.3
125°	269.5	332.4	498.5	841.9	1004.4
127.5°	284.4	347.1	498.5	801.3	937.9
130°	299.1	354.5	494.8	760.7	882.5
132.5°	313.9	358.2	494.8	731.2	834.5
135°	324.9	365.6	494.8	701.6	793.9
137.5°	339.7	372.9	494.8	675.7	760.7
140°	350.8	384.0	494.8	649.9	723.7
142.5°	365.6	395.1	494.8	624.1	690.5
145°	380.3	406.2	491.1	605.6	657.3
147.5°	395.1	417.3	487.4	587.1	627.8
150°	406.2	428.3	487.4	568.6	601.9
152.5°	421.0	439.5	483.7	550.2	579.8
155°	432.0	446.8	483.7	539.1	557.6
157.5°	443.1	457.9	483.7	528.1	542.8
160°	454.2	465.3	487.4	520.7	531.7
162.5°	465.3	472.7	487.4	513.2	520.7
165°	472.7	476.4	487.4	509.6	513.2
167.5°	480.0	483.7	487.4	505.9	505.9
170°	483.7	487.4	491.1	502.2	502.2
172.5°	491.1	491.1	491.1	498.5	498.5
175°	494.8	494.8	491.1	498.5	494.8
177.5°	494.8	494.8	491.1	498.5	494.8
180°	494.8	494.8	494.8	494.8	494.8



Report Generated By 670246072 / DESKTOP-50001EG







— 0°-180°    - - 45°-225°    - - - - 90°-270°







107.5°	136.6	181.0	653.6	1299.8	1314.6
110°	155.1	199.4	601.9	1288.8	1395.8



(END OF REPORT)