

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: P845361

Luminaire Tested: **SQ4P-WB-100U-050D-B40-1D-UNV**

Issue Date: 8/14/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P845361  
REPORT IS A COMBINATION OF REPORTS P700099 AND P700246  
Test Lab: INNOVATION CENTER  
Issue Date: 8/14/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: CORELITE  
Catalog Number: SQ4P-WB-100U-050D-B40-1D-UNV  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH, 1000 LUMENS PER FOOT UPLIGHT, 500 LUMENS PER FOOT DOWNLIGHT  
  
Light Source: -  
Ballast/Driver: -

**Summary**

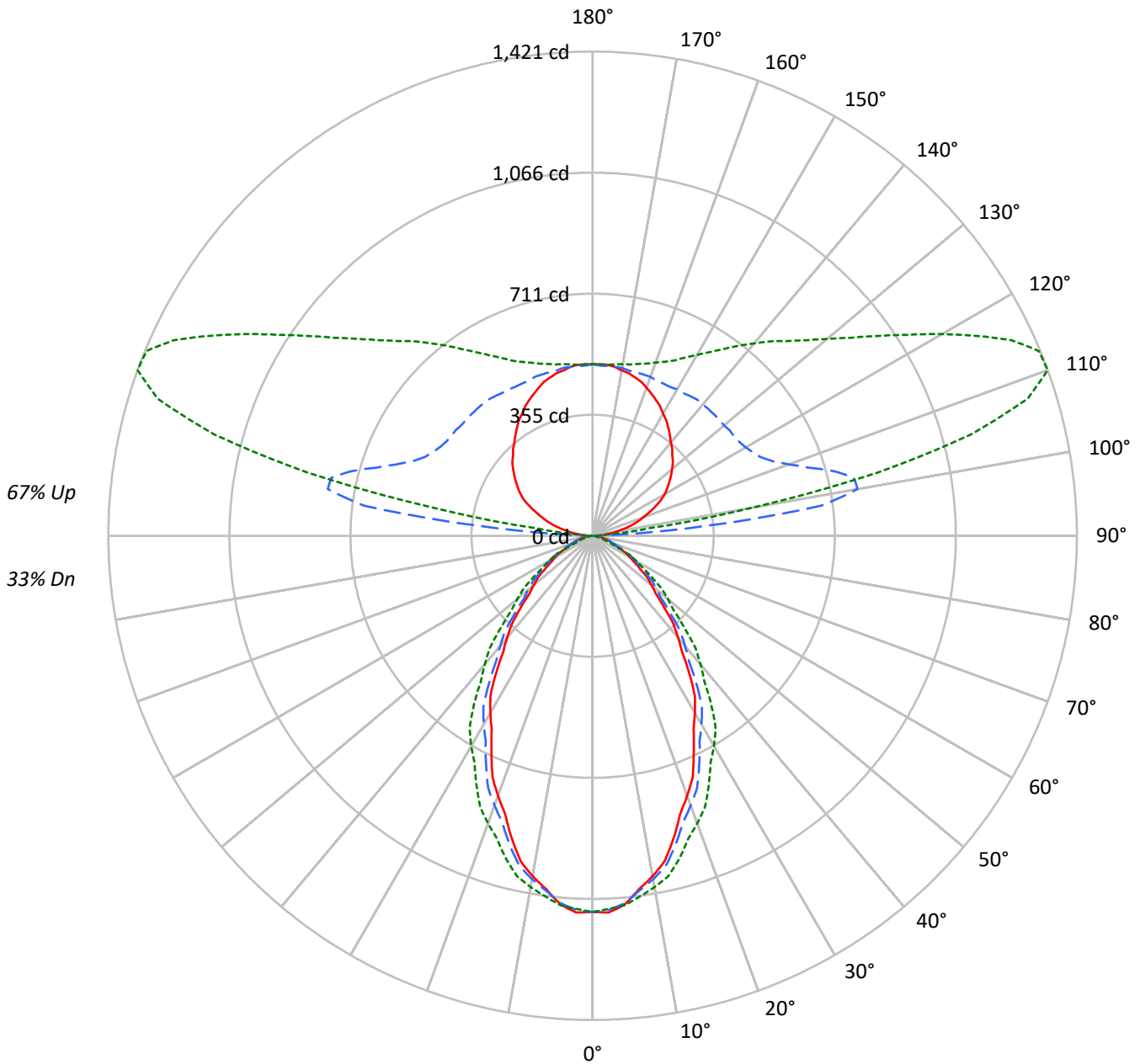
Lumens per Lamp: N/A  
Luminaire Lumens: 4878.6 lumens  
Efficiency: N/A  
Efficacy: 114.0 lumens/watt  
Spacing Criteria (0/90/45): 0.89 / 1 / 1.02  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 42.8  
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

TEST NUMBER: P845361

CATALOG NUMBER: SQ4P-WB-100U-050D-B40-1D-UNV

### Luminous Intensity Polar Plot





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CATALOG NUMBER: SQ4P-WB-100U-050D-B40-1D-UNV

**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	103	103	103	103	93	93	93	93	74	74	74	56	56	56	41	41	41	33																			
1	95	91	87	84	85	82	79	77	66	64	62	51	50	48	37	36	36	29																			
2	87	80	75	70	78	73	68	64	59	55	53	45	43	42	33	32	31	26																			
3	80	71	64	59	72	65	59	54	52	48	45	41	38	36	30	29	27	23																			
4	73	63	56	51	66	58	52	47	47	43	39	37	34	32	28	26	24	20																			
5	68	57	49	44	61	52	45	41	42	38	34	34	30	28	25	23	22	18																			
6	62	51	44	38	56	47	40	36	38	34	30	31	27	25	23	21	20	16																			
7	58	46	39	34	52	43	36	32	35	30	27	28	25	22	22	19	18	15																			
8	54	42	35	30	49	39	32	28	32	27	24	26	23	20	20	18	16	14																			
9	50	39	32	27	45	36	29	25	30	25	22	24	21	18	19	16	15	13																			
10	47	36	29	24	42	33	27	23	27	23	20	22	19	17	17	15	14	12																			

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

	0°	45°	90°
0°	10186	10186	10186
5°	10058	10023	10081
10°	9503	9589	9812
15°	8772	8977	9379
20°	7967	8265	8812
25°	7145	7535	8211
30°	6390	6807	7585
35°	5587	5990	6848
40°	4701	5075	5928
45°	3880	4216	4949
50°	3240	3531	4122
55°	2749	3030	3404
60°	2351	2629	2718
65°	1873	2209	1753
70°	1659	1726	1071
75°	1536	1397	656
80°	1413	1286	569
85°	1270	1175	466



TEST NUMBER: P845361

CATALOG NUMBER: SQ4P-WB-100U-050D-B40-1D-UNV

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.3	2.1
10°-20°	263.4	5.4
20°-30°	341.1	7.0
30°-40°	334.1	6.8
40°-50°	255.7	5.2
50°-60°	170.4	3.5
60°-70°	93.0	1.9
70°-80°	38.7	0.8
80°-90°	12.2	0.2
90°-100°	200.5	4.1
100°-110°	697.4	14.3
110°-120°	675.6	13.8
120°-130°	530.0	10.9
130°-140°	419.5	8.6
140°-150°	323.7	6.6
150°-160°	232.1	4.8
160°-170°	141.9	2.9
170°-180°	48.0	1.0
0°-30°	705.8	14.5
0°-40°	1039.8	21.3
0°-60°	1465.9	30.0
0°-90°	1609.8	33.0
90°-120°	1573.5	32.3
90°-150°	2846.7	58.4
90°-180°	3269.0	67.0
0°-180°	4878.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1104	1104	1104	1104	1104	
5°	1086	1075	1082	1085	1088	101
15°	918	915	940	965	982	256
25°	702	704	740	772	807	323
35°	496	498	532	568	608	308
45°	297	303	323	348	379	232
55°	171	178	188	196	212	155
65°	86	93	101	88	80	89
75°	43	43	39	27	18	46
85°	12	12	11	7	4	13
90°	8	11	11	8	4	5
95°	34	116	338	86	53	36
105°	116	165	733	1237	1150	122
115°	203	244	545	1150	1357	200
125°	274	338	507	857	1022	246
135°	331	372	504	714	808	256
145°	387	414	500	616	669	242
155°	440	455	492	549	568	203
165°	481	485	496	519	522	136
175°	504	504	500	507	504	48
180°	504	504	504	504	504	



TEST NUMBER: P845361

CATALOG NUMBER: SQ4P-WB-100U-050D-B40-1D-UNV

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1104.0	1104.0	1104.0	1104.0	<i>1104.0</i>
2.5°	1106.7	1096.8	1099.3	1099.2	<i>1096.1</i>
5°	1086.0	1075.1	1082.2	1084.7	<i>1088.5</i>
7.5°	1045.7	1037.5	1050.3	1059.8	<i>1067.4</i>
10°	1014.3	1007.2	1023.5	1037.4	<i>1047.3</i>
12.5°	978.0	971.9	992.2	1010.6	<i>1023.6</i>
15°	918.4	915.1	939.8	965.3	<i>981.9</i>
17.5°	854.8	853.2	881.5	911.3	<i>932.4</i>
20°	811.4	810.9	841.8	873.0	<i>897.5</i>
22.5°	767.6	768.6	801.1	833.5	<i>861.6</i>
25°	701.9	703.8	740.2	772.4	<i>806.6</i>
27.5°	641.1	642.0	679.5	713.6	<i>750.1</i>
30°	599.8	602.0	638.9	674.2	<i>712.0</i>
32.5°	558.3	561.0	597.1	633.5	<i>672.1</i>
35°	496.0	498.4	531.8	567.7	<i>608.0</i>
37.5°	431.8	435.1	464.9	498.6	<i>538.3</i>
40°	390.3	395.2	421.4	453.3	<i>492.2</i>
42.5°	350.5	356.4	380.7	411.0	<i>446.0</i>
45°	297.4	303.1	323.1	347.5	<i>379.3</i>
47.5°	251.7	258.3	273.6	294.7	<i>321.7</i>
50°	225.7	231.9	246.0	261.6	<i>287.2</i>
52.5°	202.8	209.0	221.6	233.6	<i>255.5</i>
55°	170.9	178.1	188.4	195.7	<i>211.6</i>
57.5°	144.9	151.7	159.9	163.1	<i>172.8</i>
60°	127.4	135.0	142.5	142.0	<i>147.3</i>
62.5°	111.5	118.0	125.3	120.2	<i>120.6</i>
65°	85.8	92.8	101.2	88.5	<i>80.3</i>
67.5°	69.3	70.7	79.4	61.7	<i>52.1</i>
70°	61.5	61.5	64.0	47.8	<i>39.7</i>
72.5°	54.2	54.2	51.9	38.9	<i>30.3</i>
75°	43.1	43.1	39.2	26.9	<i>18.4</i>
77.5°	33.2	32.9	30.0	20.1	<i>13.4</i>
80°	26.6	26.6	24.2	15.9	<i>10.7</i>
82.5°	20.8	20.8	18.8	12.4	<i>7.8</i>
85°	12.0	12.0	11.1	7.3	<i>4.4</i>
87.5°	4.3	4.3	3.9	2.3	<i>1.9</i>
90°	7.6	11.2	11.2	7.6	<i>3.8</i>
92.5°	18.8	56.4	52.6	22.6	<i>18.8</i>
95°	33.8	116.5	338.3	86.4	<i>52.6</i>
97.5°	52.6	131.6	676.6	308.3	<i>165.4</i>
100°	71.4	139.1	789.3	740.5	<i>477.4</i>
102.5°	94.0	150.3	785.5	1041.2	<i>856.9</i>
105°	116.5	165.4	732.9	1236.6	<i>1150.2</i>



TEST NUMBER: P845361

CATALOG NUMBER: SQ4P-WB-100U-050D-B40-1D-UNV

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	180.4	221.7	571.4	1244.1	1417.1
115°	202.9	244.3	545.0	1150.2	1356.9
117.5°	225.5	270.7	530.0	1063.7	1270.4
120°	244.3	293.1	518.7	981.0	1184.0
122.5°	259.3	315.7	511.2	913.3	1097.6
125°	274.3	338.3	507.4	856.9	1022.4
127.5°	289.5	353.3	507.4	815.7	954.7
130°	304.5	360.9	503.6	774.3	898.3
132.5°	319.5	364.6	503.6	744.2	849.5
135°	330.7	372.1	503.6	714.2	808.1
137.5°	345.8	379.6	503.6	687.8	774.3
140°	357.1	390.9	503.6	661.5	736.7
142.5°	372.1	402.2	503.6	635.2	702.9
145°	387.1	413.5	499.9	616.4	669.0
147.5°	402.2	424.7	496.2	597.6	639.0
150°	413.5	436.0	496.2	578.8	612.6
152.5°	428.5	447.3	492.4	560.0	590.2
155°	439.8	454.8	492.4	548.8	567.6
157.5°	451.0	466.1	492.4	537.5	552.6
160°	462.3	473.6	496.2	530.0	541.2
162.5°	473.6	481.1	496.2	522.4	530.0
165°	481.1	484.9	496.2	518.7	522.4
167.5°	488.6	492.4	496.2	515.0	515.0
170°	492.4	496.2	499.9	511.2	511.2
172.5°	499.9	499.9	499.9	507.4	507.4
175°	503.6	503.6	499.9	507.4	503.6
177.5°	503.6	503.6	499.9	507.4	503.6
180°	503.6	503.6	503.6	503.6	503.6



Report Generated By 670246072 / DESKTOP-50001EG







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







107.5°	139.1	184.2	665.3	1323.1	1338.1
110°	157.9	202.9	612.6	1311.8	1420.7



(END OF REPORT)