

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

Brand: CORELITE

Report Number: P853495

Luminaire Tested: SQ2-BBM-025U-100D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853495  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G3-2104-222-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-BBM-025U-100D-935-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

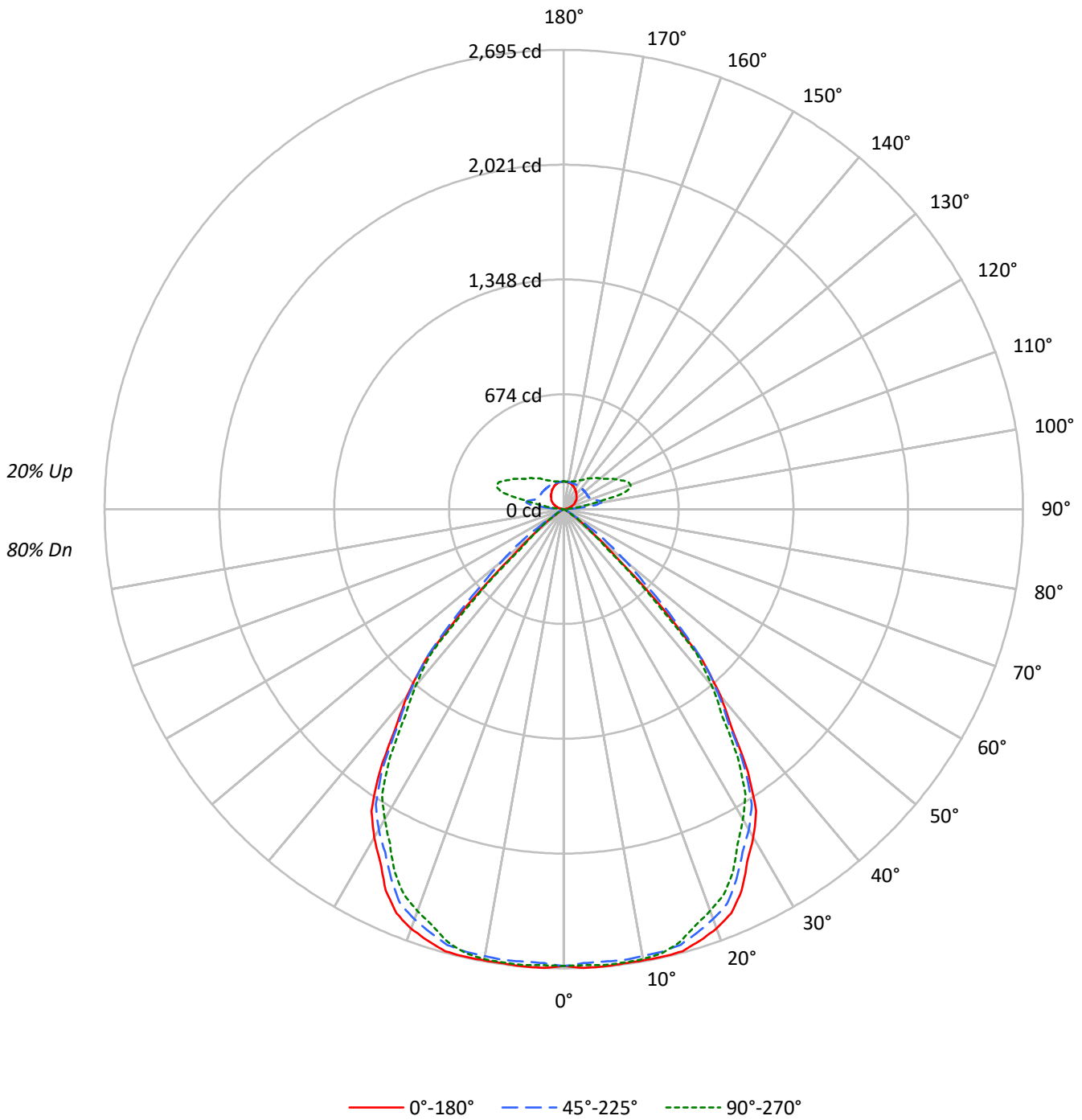
Lumens per Lamp: N/A  
Luminaire Lumens: 5014.2 lumens  
Efficiency: N/A  
Efficacy: 110.0 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 45.6  
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

TEST NUMBER: P853495

CATALOG NUMBER: SQ2-BBM-025U-100D-935-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P853495

CATALOG NUMBER: SQ2-BBM-025U-100D-935-UNV-STD-W-4

**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	114	114	114	114	109	109	109	109	100	100	100	91	91	91	84	84	84	80
1	108	104	101	99	103	100	98	95	92	91	89	85	84	83	79	78	77	74
2	101	95	90	86	97	92	87	84	85	82	79	79	77	74	74	72	70	67
3	94	87	81	76	91	84	79	74	78	74	71	73	70	67	68	66	64	61
4	88	79	73	68	85	77	71	67	72	67	64	68	64	61	64	60	58	56
5	82	73	66	61	79	71	64	60	66	61	57	63	58	55	59	56	53	51
6	77	67	60	55	74	65	59	54	61	56	52	58	54	50	55	51	48	46
7	72	62	55	50	70	60	54	49	57	51	47	54	49	46	51	47	44	42
8	68	57	50	46	66	56	49	45	53	47	43	50	46	42	48	44	41	39
9	64	53	46	42	62	52	45	41	49	44	40	47	42	39	45	41	38	36
10	60	49	43	38	58	48	42	38	46	40	37	44	39	36	42	38	35	33

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

	0°	45°	90°
0°	43285	43285	43285
5°	43663	43190	43548
10°	44086	43689	43970
15°	44896	44242	43973
20°	45010	44010	43113
25°	44003	42697	41854
30°	41480	40488	39194
35°	37162	36508	35043
40°	30148	29640	28475
45°	18349	20801	16468
50°	5853	11758	5348
55°	2035	4270	2092
60°	161	1234	32
65°	0	76	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 20801 cd/sqm



TEST NUMBER: P853495

CATALOG NUMBER: SQ2-BBM-025U-100D-935-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	256.2	5.1
10°-20°	749.2	14.9
20°-30°	1104.3	22.0
30°-40°	1130.9	22.6
40°-50°	651.7	13.0
50°-60°	114.1	2.3
60°-70°	4.4	0.1
70°-80°	0.0	0.0
80°-90°	0.5	0.0
90°-100°	65.4	1.3
100°-110°	203.4	4.1
110°-120°	199.0	4.0
120°-130°	162.5	3.2
130°-140°	132.9	2.7
140°-150°	103.7	2.1
150°-160°	74.9	1.5
160°-170°	45.8	0.9
170°-180°	15.4	0.3
0°-30°	2109.8	42.1
0°-40°	3240.6	64.6
0°-60°	4006.4	79.9
0°-90°	4011.3	80.0
90°-120°	467.8	9.3
90°-150°	867.0	17.3
90°-180°	1003.0	20.0
0°-180°	5014.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2681	2681	2681	2681	2681	
5°	2694	2688	2665	2697	2687	257
15°	2686	2708	2647	2646	2631	756
25°	2470	2489	2397	2375	2349	1127
35°	1885	1875	1852	1807	1778	1157
45°	804	899	911	866	721	615
55°	72	87	152	82	74	81
65°	0	1	2	1	0	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	1	3	3	3	0
95°	9	26	120	44	29	10
105°	36	50	200	382	365	38
115°	64	75	163	335	393	63
125°	88	98	161	264	309	78
135°	106	118	160	228	256	82
145°	124	134	160	197	214	78
155°	142	147	161	177	182	65
165°	156	157	162	167	168	44
175°	162	162	162	163	162	15
180°	162	162	162	162	162	

TEST NUMBER: P853495

CATALOG NUMBER: SQ2-BBM-025U-100D-935-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2680.9	2680.9	2680.9	2680.9	2680.9
2.5°	2694.6	2687.5	2666.5	2687.9	2678.5
5°	2694.0	2688.1	2664.8	2696.8	2686.9
7.5°	2689.0	2687.6	2669.7	2694.7	2683.5
10°	2689.0	2693.9	2664.8	2690.8	2681.9
12.5°	2690.6	2701.8	2660.0	2680.2	2667.5
15°	2685.9	2707.5	2646.8	2646.4	2630.7
17.5°	2655.8	2681.3	2604.8	2584.0	2563.0
20°	2619.6	2649.1	2561.4	2531.7	2509.2
22.5°	2567.4	2596.1	2506.7	2473.1	2450.5
25°	2470.0	2488.6	2396.7	2375.0	2349.4
27.5°	2331.8	2342.8	2271.3	2233.8	2210.8
30°	2224.9	2232.7	2171.7	2130.8	2102.3
32.5°	2101.1	2098.0	2053.5	2011.9	1985.0
35°	1885.4	1874.6	1852.2	1807.4	1777.9
37.5°	1620.0	1618.0	1595.9	1557.0	1526.2
40°	1430.4	1428.4	1406.3	1371.6	1351.0
42.5°	1200.5	1237.9	1211.8	1169.3	1156.5
45°	803.6	898.8	911.0	865.6	721.2
47.5°	414.6	541.9	634.4	494.2	342.3
50°	233.0	327.3	468.1	265.0	212.9
52.5°	151.9	197.4	326.7	169.2	143.0
55°	72.3	87.1	151.7	82.2	74.3
57.5°	25.9	40.1	66.3	40.6	25.1
60°	5.0	16.8	38.2	11.8	1.0
62.5°	1.8	5.0	22.1	3.2	1.0
65°	0.0	1.0	2.0	1.0	0.0
67.5°	0.0	0.8	0.8	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.2	0.6	0.6	0.6
90°	0.0	1.0	3.0	3.0	3.0
92.5°	3.2	11.1	37.9	12.4	10.1
95°	8.9	26.4	120.0	44.3	28.8
97.5°	16.3	34.3	198.7	123.7	77.9
100°	21.8	38.3	224.1	209.6	139.8
102.5°	27.4	43.1	219.3	299.3	235.0
105°	35.7	50.2	200.3	382.3	364.9
107.5°	44.0	57.6	182.0	388.7	407.9
110°	49.6	63.1	172.5	379.6	417.4



TEST NUMBER: P853495

CATALOG NUMBER: SQ2-BBM-025U-100D-935-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	55.1	67.9	167.8	363.2	411.1
115°	63.5	75.1	162.6	335.4	392.6
117.5°	71.6	82.2	160.4	308.9	367.4
120°	76.3	87.0	159.6	293.8	350.0
122.5°	81.1	91.8	160.4	281.0	332.5
125°	88.2	97.9	160.6	263.8	309.3
127.5°	94.0	103.9	160.6	250.9	289.7
130°	97.2	107.8	160.6	243.7	278.6
132.5°	101.1	111.8	159.8	237.3	269.9
135°	106.1	117.7	159.6	227.7	255.8
137.5°	111.8	122.5	159.6	218.1	243.7
140°	115.0	125.7	159.6	211.7	235.0
142.5°	119.0	128.9	159.6	205.3	226.2
145°	123.9	133.6	159.6	196.7	214.2
147.5°	129.9	138.2	160.6	188.7	202.5
150°	133.8	140.6	160.6	184.7	195.3
152.5°	137.0	143.0	160.6	180.7	189.8
155°	141.8	146.6	160.6	176.6	182.4
157.5°	146.5	150.2	160.6	173.0	176.7
160°	149.7	152.6	160.6	170.6	173.5
162.5°	152.1	154.2	160.6	169.0	171.1
165°	155.7	156.6	161.6	166.6	168.5
167.5°	157.8	158.0	160.6	165.2	166.2
170°	158.6	159.6	160.6	163.6	164.6
172.5°	160.2	160.4	161.4	162.8	163.0
175°	161.6	161.6	161.6	162.6	161.6
177.5°	161.6	161.6	161.6	161.6	161.6
180°	161.6	161.6	161.6	161.6	161.6



TEST NUMBER: P853495

CATALOG NUMBER: SQ2-BBM-025U-100D-935-UNV-STD-W-4

**CIE UGR TABLE:**

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	3.53	4.43	4.22	5.10	5.88	3.00	3.90	3.68	4.57	5.35
	3H	3.35	4.14	4.05	4.82	5.64	2.82	3.61	3.52	4.29	5.11
	4H	3.25	3.99	3.97	4.68	5.51	2.72	3.46	3.44	4.15	4.98
	6H	3.15	3.82	3.88	4.53	5.37	2.62	3.29	3.34	4.00	4.84
	8H	3.09	3.73	3.83	4.45	5.29	2.56	3.19	3.30	3.92	4.76
	12H	3.03	3.64	3.78	4.35	5.22	2.50	3.11	3.24	3.82	4.69
4H	2H	3.26	4.00	3.98	4.69	5.52	2.73	3.47	3.45	4.16	4.99
	3H	3.07	3.67	3.80	4.40	5.25	2.54	3.14	3.27	3.87	4.72
	4H	2.96	3.50	3.70	4.23	5.11	2.43	2.97	3.17	3.70	4.58
	6H	2.86	3.31	3.62	4.07	4.96	2.32	2.78	3.09	3.54	4.43
	8H	2.79	3.22	3.56	3.97	4.87	2.26	2.69	3.03	3.44	4.34
	12H	2.72	3.10	3.51	3.88	4.78	2.19	2.57	2.98	3.35	4.25
8H	4H	2.79	3.22	3.56	3.97	4.87	2.26	2.69	3.03	3.44	4.34
	6H	2.67	3.02	3.46	3.82	4.72	2.14	2.49	2.93	3.29	4.19
	8H	2.60	2.91	3.41	3.72	4.63	2.07	2.38	2.88	3.18	4.10
	12H	2.54	2.81	3.34	3.60	4.58	2.01	2.28	2.81	3.07	4.05
12H	4H	2.72	3.10	3.51	3.88	4.78	2.19	2.57	2.98	3.35	4.25
	6H	2.60	2.91	3.41	3.72	4.63	2.07	2.38	2.88	3.18	4.10
	8H	2.54	2.81	3.34	3.60	4.58	2.01	2.28	2.81	3.07	4.05