

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: P853494

Luminaire Tested: SQ2-BBM-025U-100D-930-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853494  
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-930-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

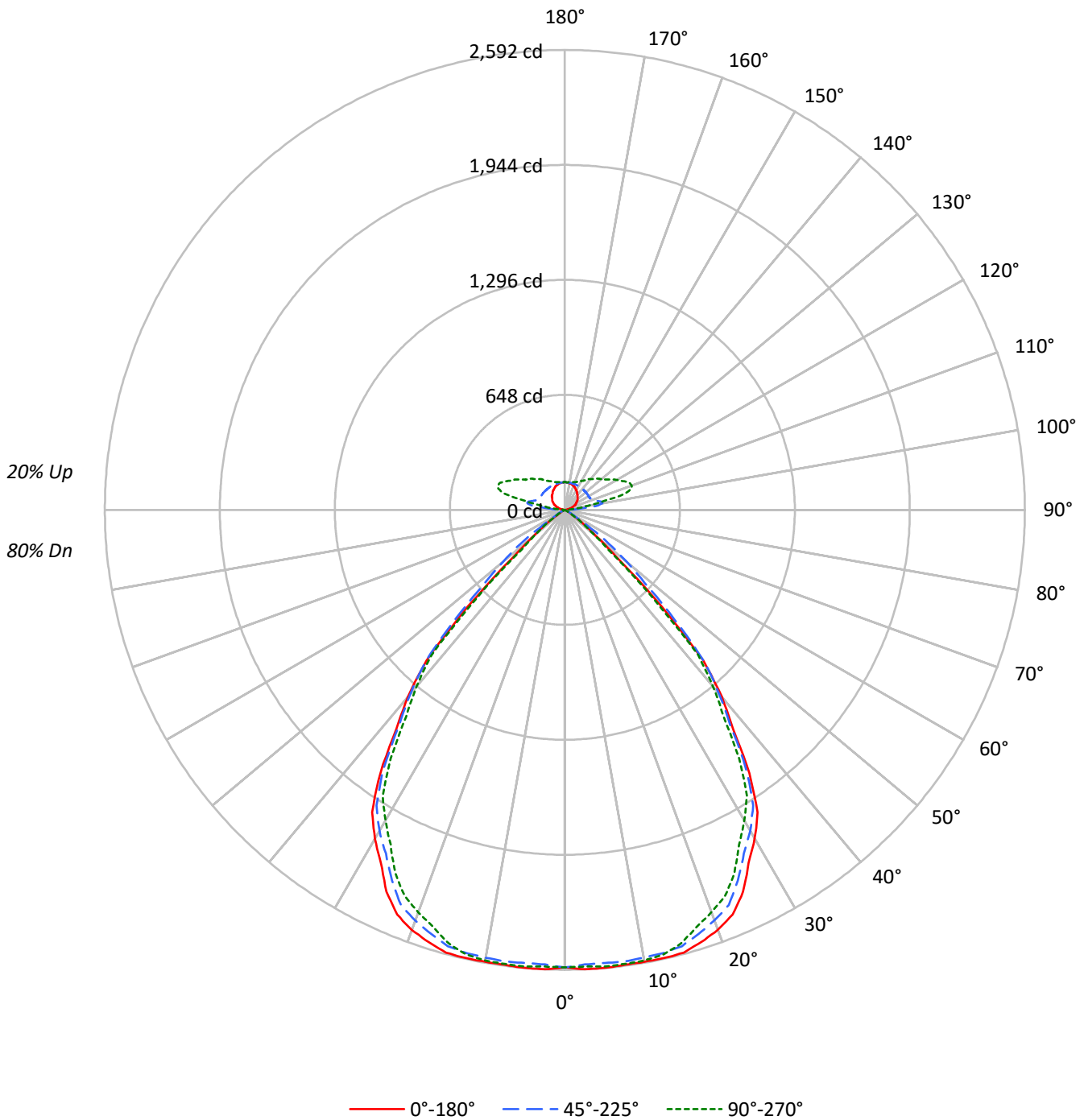
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4822.7 lumens  
Efficiency: N/A  
Efficacy: 105.8 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: P853494

CATALOG NUMBER: SQ2-BBM-025U-100D-930-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P853494

CATALOG NUMBER: SQ2-BBM-025U-100D-930-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°	41632	41632	41632
5°	41995	41540	41885
10°	42401	42020	42291
15°	43181	42552	42293
20°	43292	42328	41465
25°	42321	41065	40256
30°	39895	38941	37697
35°	35743	35114	33705
40°	28995	28507	27387
45°	17648	20007	15840
50°	5629	11308	5144
55°	1959	4107	2013
60°	155	1185	32
65°	0	73	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: 20007 cd/sqm



TEST NUMBER: P853494

CATALOG NUMBER: SQ2-BBM-025U-100D-930-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	246.4	5.1
10°-20°	720.6	14.9
20°-30°	1062.1	22.0
30°-40°	1087.7	22.6
40°-50°	626.8	13.0
50°-60°	109.8	2.3
60°-70°	4.2	0.1
70°-80°	0.0	0.0
80°-90°	0.5	0.0
90°-100°	62.9	1.3
100°-110°	195.6	4.1
110°-120°	191.4	4.0
120°-130°	156.3	3.2
130°-140°	127.8	2.7
140°-150°	99.8	2.1
150°-160°	72.0	1.5
160°-170°	44.0	0.9
170°-180°	14.8	0.3
0°-30°	2029.2	42.1
0°-40°	3116.8	64.6
0°-60°	3853.4	79.9
0°-90°	3858.1	80.0
90°-120°	450.0	9.3
90°-150°	833.8	17.3
90°-180°	965.0	20.0
0°-180°	4822.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2578	2578	2578	2578	2578	
5°	2591	2585	2563	2594	2584	247
15°	2583	2604	2546	2545	2530	727
25°	2376	2394	2305	2284	2260	1084
35°	1813	1803	1782	1738	1710	1113
45°	773	864	876	832	694	592
55°	70	84	146	79	72	78
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	25	115	43	28	10
105°	34	48	193	368	351	36
115°	61	72	156	323	378	60
125°	85	94	154	254	298	75
135°	102	113	154	219	246	79
145°	119	128	154	189	206	75
155°	136	141	154	170	176	63
165°	150	151	155	160	162	42
175°	155	155	155	156	155	15
180°	155	155	155	155	155	



TEST NUMBER: P853494

CATALOG NUMBER: SQ2-BBM-025U-100D-930-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2578.5	2578.5	2578.5	2578.5	2578.5
2.5°	2591.6	2584.8	2564.6	2585.2	2576.2
5°	2591.1	2585.4	2563.0	2593.7	2584.3
7.5°	2586.2	2584.9	2567.7	2591.8	2581.0
10°	2586.2	2591.0	2563.0	2588.0	2579.5
12.5°	2587.8	2598.5	2558.4	2577.8	2565.6
15°	2583.3	2604.1	2545.7	2545.3	2530.2
17.5°	2554.3	2578.9	2505.3	2485.3	2465.1
20°	2519.6	2547.9	2463.5	2435.0	2413.3
22.5°	2469.3	2496.9	2411.0	2378.6	2356.9
25°	2375.6	2393.6	2305.1	2284.2	2259.7
27.5°	2242.7	2253.3	2184.5	2148.5	2126.4
30°	2139.9	2147.4	2088.7	2049.4	2022.0
32.5°	2020.9	2017.8	1975.1	1935.1	1909.2
35°	1813.4	1803.0	1781.5	1738.3	1710.0
37.5°	1558.1	1556.2	1534.9	1497.5	1467.9
40°	1375.7	1373.8	1352.5	1319.2	1299.4
42.5°	1154.7	1190.6	1165.5	1124.6	1112.4
45°	772.9	864.5	876.2	832.5	693.7
47.5°	398.8	521.2	610.2	475.3	329.2
50°	224.1	314.8	450.2	254.9	204.8
52.5°	146.1	189.9	314.2	162.7	137.6
55°	69.6	83.7	145.9	79.0	71.5
57.5°	24.9	38.5	63.8	39.1	24.2
60°	4.8	16.2	36.7	11.4	1.0
62.5°	1.7	4.8	21.3	3.0	1.0
65°	0.0	0.9	1.9	0.9	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	0.9	2.9	2.9	2.9
92.5°	3.1	10.7	36.4	12.0	9.7
95°	8.6	25.4	115.4	42.6	27.7
97.5°	15.6	33.0	191.1	119.0	75.0
100°	21.0	36.8	215.5	201.6	134.5
102.5°	26.3	41.4	210.9	287.9	226.0
105°	34.3	48.3	192.6	367.7	350.9
107.5°	42.3	55.4	175.1	373.8	392.3
110°	47.7	60.7	165.9	365.1	401.5



TEST NUMBER: P853494

CATALOG NUMBER: SQ2-BBM-025U-100D-930-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	53.0	65.3	161.3	349.3	395.4
115°	61.0	72.2	156.4	322.6	377.6
117.5°	68.8	79.1	154.3	297.1	353.4
120°	73.4	83.7	153.5	282.5	336.6
122.5°	78.0	88.3	154.3	270.2	319.8
125°	84.9	94.2	154.5	253.7	297.5
127.5°	90.4	99.9	154.5	241.3	278.6
130°	93.5	103.7	154.5	234.4	268.0
132.5°	97.3	107.5	153.7	228.2	259.6
135°	102.0	113.2	153.5	219.0	246.0
137.5°	107.6	117.8	153.5	209.8	234.4
140°	110.6	120.9	153.5	203.6	226.0
142.5°	114.4	123.9	153.5	197.5	217.6
145°	119.2	128.5	153.5	189.2	206.0
147.5°	124.9	132.9	154.5	181.5	194.7
150°	128.7	135.3	154.5	177.6	187.9
152.5°	131.8	137.6	154.5	173.8	182.5
155°	136.4	141.0	154.5	169.9	175.5
157.5°	140.9	144.5	154.5	166.4	169.9
160°	144.0	146.8	154.5	164.1	166.9
162.5°	146.3	148.3	154.5	162.5	164.6
165°	149.7	150.6	155.4	160.2	162.1
167.5°	151.8	152.0	154.5	158.9	159.8
170°	152.6	153.5	154.5	157.4	158.3
172.5°	154.1	154.3	155.2	156.6	156.8
175°	155.4	155.4	155.4	156.4	155.4
177.5°	155.4	155.4	155.4	155.4	155.4
180°	155.4	155.4	155.4	155.4	155.4

-----

TEST NUMBER: P853494

CATALOG NUMBER: SQ2-BBM-025U-100D-930-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	3.40	4.29	4.08	4.97	5.74	2.86	3.76	3.55	4.43	5.21
	3H	3.21	4.00	3.91	4.69	5.50	2.68	3.47	3.38	4.16	4.97
	4H	3.12	3.85	3.83	4.55	5.38	2.59	3.32	3.30	4.02	4.85
	6H	3.01	3.69	3.74	4.39	5.23	2.48	3.15	3.21	3.86	4.70
	8H	2.96	3.59	3.70	4.31	5.16	2.43	3.06	3.17	3.78	4.63
	12H	2.90	3.50	3.64	4.22	5.09	2.37	2.97	3.11	3.69	4.55
4H	2H	3.13	3.86	3.85	4.56	5.39	2.60	3.33	3.32	4.03	4.86
	3H	2.94	3.53	3.67	4.27	5.11	2.41	3.00	3.14	3.74	4.58
	4H	2.83	3.36	3.57	4.10	4.98	2.30	2.83	3.04	3.57	4.45
	6H	2.72	3.18	3.48	3.94	4.83	2.19	2.65	2.95	3.41	4.30
	8H	2.65	3.08	3.42	3.84	4.73	2.12	2.55	2.89	3.31	4.20
	12H	2.59	2.96	3.37	3.75	4.64	2.06	2.44	2.84	3.22	4.12
8H	4H	2.65	3.08	3.42	3.84	4.73	2.12	2.55	2.89	3.31	4.20
	6H	2.53	2.88	3.33	3.68	4.58	2.00	2.35	2.80	3.15	4.05
	8H	2.47	2.78	3.28	3.58	4.49	1.94	2.25	2.75	3.05	3.96
	12H	2.40	2.68	3.21	3.46	4.44	1.87	2.15	2.68	2.94	3.91
12H	4H	2.59	2.96	3.37	3.75	4.64	2.06	2.44	2.84	3.22	4.12
	6H	2.47	2.78	3.28	3.58	4.49	1.94	2.25	2.75	3.05	3.96
	8H	2.40	2.68	3.21	3.46	4.44	1.87	2.15	2.68	2.94	3.91