

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: P853491

Luminaire Tested: SQ2-BBM-025U-075D-930-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853491  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G3-2104-222-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-BBM-025U-075D-930-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

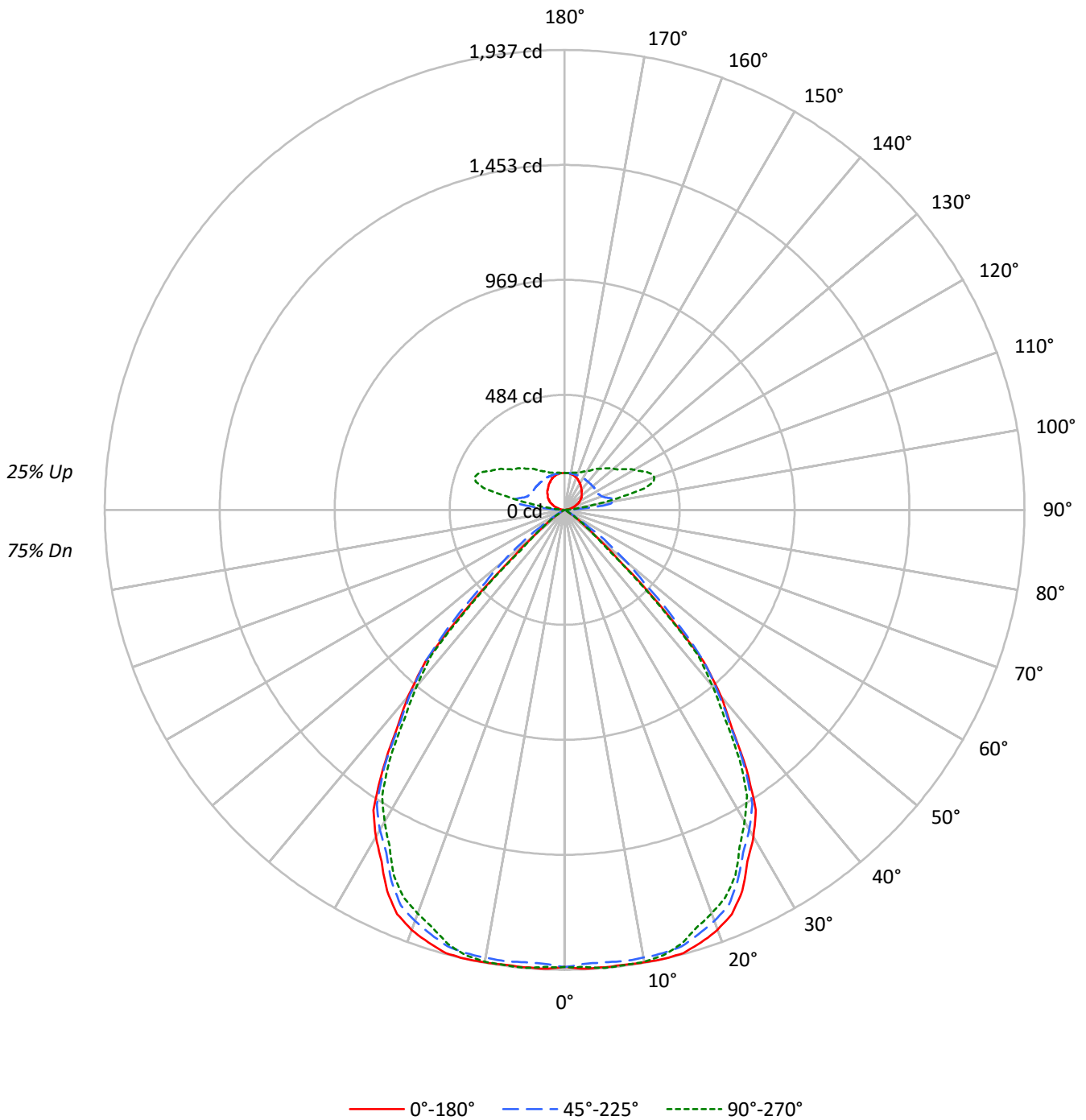
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3846.3 lumens  
Efficiency: N/A  
Efficacy: 109.9 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): 35  
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: P853491

CATALOG NUMBER: SQ2-BBM-025U-075D-930-UNV-STD-W-4

### 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	113	113	113	113	108	108	108	108	97	97	97	88	88	88	79	79	79	75
1	106	103	100	97	101	98	96	93	90	88	86	82	80	79	74	73	72	69
2	99	94	89	85	95	90	86	82	82	79	76	76	73	71	69	68	66	63
3	93	85	79	75	89	82	77	73	76	72	68	70	67	64	64	62	60	57
4	87	78	71	66	83	75	69	65	70	65	61	65	61	58	60	57	55	52
5	81	71	64	59	77	69	63	58	64	59	55	60	56	52	56	52	50	47
6	76	65	59	54	73	63	57	52	59	54	50	55	51	48	52	48	46	43
7	71	60	53	48	68	58	52	48	55	49	46	51	47	44	48	44	42	40
8	67	56	49	44	64	54	48	43	51	45	42	48	43	40	45	41	38	36
9	63	52	45	40	60	50	44	40	47	42	38	45	40	37	42	38	35	34
10	59	48	41	37	57	47	41	36	44	39	35	42	37	34	39	35	33	31

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

	0°	45°	90°
0°	31095	31095	31095
5°	31339	30995	31386
10°	31732	31401	31685
15°	32304	31821	31661
20°	32345	31667	31087
25°	31547	30740	30310
30°	29655	29008	28271
35°	26319	26110	25332
40°	21585	21220	20428
45°	12869	15134	12077
50°	4016	8397	3800
55°	1520	2984	1520
60°	94	840	32
65°	0	38	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: 15134 cd/sqm



TEST NUMBER: P853491

CATALOG NUMBER: SQ2-BBM-025U-075D-930-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	184.1	4.8
10°-20°	539.4	14.0
20°-30°	793.5	20.6
30°-40°	811.1	21.1
40°-50°	467.3	12.1
50°-60°	80.5	2.1
60°-70°	2.9	0.1
70°-80°	0.0	0.0
80°-90°	0.5	0.0
90°-100°	63.1	1.6
100°-110°	196.1	5.1
110°-120°	191.9	5.0
120°-130°	156.6	4.1
130°-140°	128.2	3.3
140°-150°	100.0	2.6
150°-160°	72.2	1.9
160°-170°	44.1	1.1
170°-180°	14.9	0.4
0°-30°	1517.0	39.4
0°-40°	2328.1	60.5
0°-60°	2875.9	74.8
0°-90°	2879.3	74.9
90°-120°	451.1	11.7
90°-150°	835.9	21.7
90°-180°	967.0	25.1
0°-180°	3846.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1926	1926	1926	1926	1926	
5°	1934	1929	1912	1938	1936	185
15°	1933	1949	1904	1906	1894	544
25°	1771	1787	1726	1708	1701	808
35°	1335	1346	1325	1299	1285	825
45°	564	647	663	626	529	436
55°	54	62	106	60	54	57
65°	0	0	1	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	1	3	3	3	0
95°	9	25	116	43	28	10
105°	34	48	193	369	352	36
115°	61	72	157	323	379	60
125°	85	94	155	254	298	76
135°	102	114	154	220	247	79
145°	120	129	154	190	206	75
155°	137	141	155	170	176	63
165°	150	151	156	161	162	42
175°	156	156	156	157	156	15
180°	156	156	156	156	156	



TEST NUMBER: P853491

CATALOG NUMBER: SQ2-BBM-025U-075D-930-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1925.9	1925.9	1925.9	1925.9	1925.9
2.5°	1934.3	1929.1	1913.5	1931.2	1927.4
5°	1933.6	1928.9	1912.4	1938.3	1936.5
7.5°	1932.4	1929.2	1917.6	1938.9	1934.2
10°	1935.5	1934.6	1915.3	1937.3	1932.6
12.5°	1937.0	1942.9	1913.0	1930.3	1921.8
15°	1932.6	1948.6	1903.7	1906.3	1894.1
17.5°	1911.0	1933.6	1873.8	1862.9	1845.5
20°	1882.5	1908.9	1843.0	1824.4	1809.3
22.5°	1842.4	1866.6	1803.7	1780.5	1768.4
25°	1770.8	1786.8	1725.5	1708.0	1701.4
27.5°	1669.2	1673.7	1627.6	1605.8	1597.3
30°	1590.6	1590.6	1555.9	1532.4	1516.4
32.5°	1498.9	1496.6	1471.9	1446.1	1430.1
35°	1335.3	1345.7	1324.7	1299.3	1285.2
37.5°	1158.2	1162.2	1146.3	1119.0	1107.2
40°	1024.1	1025.1	1006.8	987.1	969.2
42.5°	867.7	886.7	869.6	838.6	831.2
45°	563.6	647.4	662.8	625.9	528.9
47.5°	283.2	387.6	453.0	351.8	249.1
50°	159.9	222.1	334.3	186.1	151.3
52.5°	106.7	134.3	231.8	121.7	101.9
55°	54.0	61.5	106.0	59.6	54.0
57.5°	18.3	28.5	46.1	29.5	20.2
60°	2.9	12.3	26.0	9.4	1.0
62.5°	0.6	3.2	16.0	2.6	0.2
65°	0.0	0.0	1.0	0.0	0.0
67.5°	0.0	0.0	0.0	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	36.5	12.0	9.8
95°	8.6	25.4	115.7	42.7	27.7
97.5°	15.7	33.1	191.6	119.3	75.1
100°	21.0	36.9	216.0	202.1	134.8
102.5°	26.4	41.5	211.5	288.6	226.6
105°	34.4	48.4	193.1	368.6	351.8
107.5°	42.4	55.5	175.5	374.8	393.3
110°	47.8	60.9	166.3	366.0	402.5



TEST NUMBER: P853491

CATALOG NUMBER: SQ2-BBM-025U-075D-930-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	53.2	65.5	161.7	350.2	396.3
115°	61.2	72.4	156.8	323.4	378.6
117.5°	69.0	79.3	154.7	297.8	354.3
120°	73.6	83.9	153.9	283.2	337.5
122.5°	78.2	88.5	154.7	270.9	320.6
125°	85.1	94.4	154.9	254.3	298.3
127.5°	90.6	100.2	154.9	241.9	279.3
130°	93.7	104.0	154.9	235.0	268.6
132.5°	97.5	107.8	154.1	228.8	260.2
135°	102.3	113.5	153.9	219.5	246.6
137.5°	107.8	118.1	153.9	210.3	235.0
140°	110.9	121.2	153.9	204.1	226.6
142.5°	114.7	124.3	153.9	198.0	218.2
145°	119.5	128.8	153.9	189.7	206.5
147.5°	125.2	133.3	154.9	181.9	195.2
150°	129.1	135.6	154.9	178.0	188.3
152.5°	132.1	137.9	154.9	174.2	183.0
155°	136.7	141.4	154.9	170.3	175.9
157.5°	141.3	144.8	154.9	166.8	170.4
160°	144.4	147.2	154.9	164.5	167.3
162.5°	146.6	148.7	154.9	162.9	165.0
165°	150.1	151.0	155.8	160.6	162.5
167.5°	152.2	152.4	154.9	159.3	160.2
170°	153.0	153.9	154.9	157.8	158.7
172.5°	154.5	154.7	155.6	157.0	157.2
175°	155.8	155.8	155.8	156.8	155.8
177.5°	155.8	155.8	155.8	155.8	155.8
180°	155.8	155.8	155.8	155.8	155.8

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**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	1.91	2.77	2.66	3.51	4.39	1.53	2.38	2.28	3.12	4.00
	3H	1.73	2.48	2.49	3.23	4.15	1.34	2.10	2.11	2.85	3.76
	4H	1.63	2.33	2.41	3.09	4.02	1.24	1.95	2.02	2.71	3.63
	6H	1.52	2.17	2.32	2.94	3.87	1.14	1.78	1.93	2.55	3.49
	8H	1.47	2.08	2.27	2.86	3.80	1.08	1.69	1.88	2.47	3.41
	12H	1.41	1.99	2.21	2.77	3.73	1.02	1.60	1.83	2.38	3.34
4H	2H	1.64	2.34	2.42	3.10	4.03	1.25	1.96	2.04	2.71	3.64
	3H	1.44	2.02	2.24	2.81	3.75	1.06	1.63	1.85	2.43	3.37
	4H	1.33	1.85	2.14	2.64	3.62	0.95	1.46	1.75	2.26	3.23
	6H	1.23	1.67	2.05	2.49	3.47	0.84	1.28	1.66	2.10	3.08
	8H	1.16	1.57	1.99	2.39	3.37	0.78	1.19	1.60	2.00	2.99
	12H	1.09	1.46	1.93	2.29	3.28	0.71	1.07	1.55	1.91	2.90
8H	4H	1.16	1.57	1.99	2.39	3.37	0.78	1.19	1.60	2.00	2.99
	6H	1.04	1.37	1.89	2.23	3.22	0.66	0.99	1.51	1.85	2.84
	8H	0.98	1.27	1.84	2.13	3.13	0.59	0.89	1.46	1.74	2.75
	12H	0.91	1.17	1.77	2.02	3.08	0.53	0.79	1.39	1.63	2.70
12H	4H	1.09	1.46	1.93	2.29	3.28	0.71	1.07	1.55	1.91	2.90
	6H	0.98	1.27	1.84	2.13	3.13	0.59	0.89	1.46	1.74	2.75
	8H	0.91	1.17	1.77	2.02	3.08	0.53	0.79	1.39	1.63	2.70