

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: P854208

Luminaire Tested: SQ2-PR1-100U-050D-930-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854208  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PR1-100U-050D-930-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

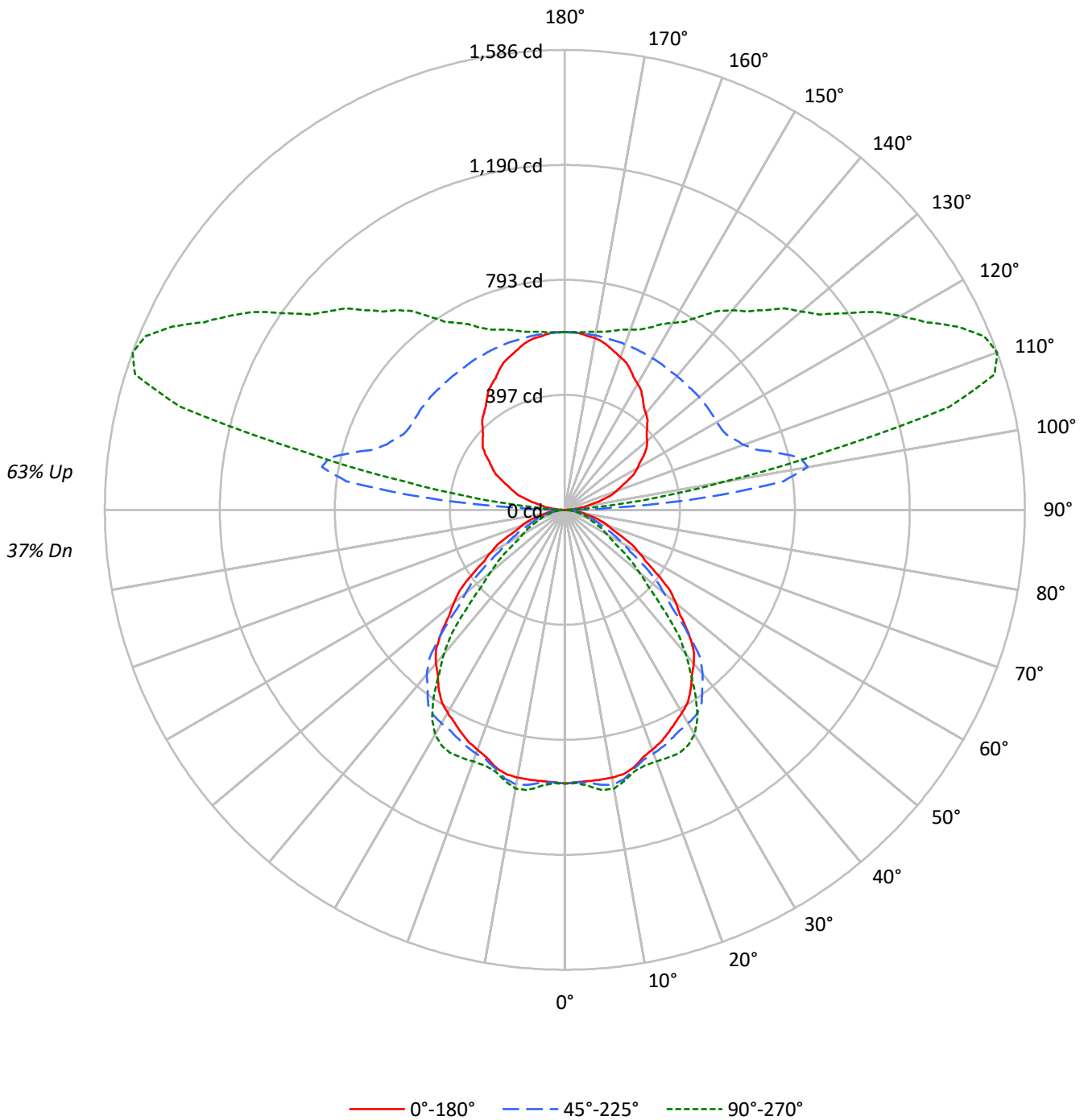
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6082.9 lumens  
Efficiency: N/A  
Efficacy: 120.7 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Indirect  
  
Input Watts (W): 50.4  
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: P854208

CATALOG NUMBER: SQ2-PR1-100U-050D-930-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P854208

CATALOG NUMBER: SQ2-PR1-100U-050D-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	50	30	10	0	
RCR																						
0	104	104	104	104	94	94	94	94	76	76	76	60	60	60	44	44	44	37				
1	95	91	88	84	86	83	80	77	67	65	63	53	52	51	40	39	38	32				
2	87	80	75	70	79	73	68	64	60	56	53	47	45	43	36	34	33	28				
3	80	71	64	58	72	65	59	54	53	49	45	42	39	37	32	30	29	24				
4	73	63	55	50	66	58	51	46	47	43	39	38	34	32	29	27	25	21				
5	67	56	48	43	61	51	45	40	42	37	34	34	30	28	26	24	22	18				
6	62	50	43	37	56	46	39	35	38	33	29	31	27	24	24	21	19	16				
7	57	46	38	33	52	42	35	30	35	30	26	28	24	22	22	19	17	15				
8	53	41	34	29	48	38	31	27	32	27	23	26	22	19	20	18	16	13				
9	49	38	30	26	45	35	28	24	29	24	21	24	20	17	19	16	14	12				
10	46	34	28	23	42	32	26	21	27	22	19	22	18	16	17	15	13	11				

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

	0°	45°	90°
0°	15234	15234	15234
5°	15214	15308	15494
10°	15375	15769	16005
15°	15370	15450	15579
20°	15122	15352	15864
25°	15079	15506	16518
30°	15062	15851	16677
35°	14919	16190	15526
40°	14575	15588	13664
45°	13792	13682	10805
50°	12539	11185	8382
55°	11020	9205	6525
60°	9536	7359	5373
65°	8229	6101	4703
70°	7402	5405	4178
75°	6781	4679	3843
80°	5904	3756	3756
85°	4279	3390	1778

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 14908 cd/sqm



TEST NUMBER: P854208

CATALOG NUMBER: SQ2-PR1-100U-050D-930-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.1	1.5
10°-20°	263.8	4.3
20°-30°	407.7	6.7
30°-40°	490.4	8.1
40°-50°	440.3	7.2
50°-60°	295.0	4.8
60°-70°	171.6	2.8
70°-80°	88.1	1.4
80°-90°	22.8	0.4
90°-100°	255.8	4.2
100°-110°	773.7	12.7
110°-120°	755.2	12.4
120°-130°	617.2	10.1
130°-140°	503.8	8.3
140°-150°	392.2	6.4
150°-160°	282.7	4.6
160°-170°	173.1	2.8
170°-180°	58.4	1.0
0°-30°	762.6	12.5
0°-40°	1253.0	20.6
0°-60°	1988.3	32.7
0°-90°	2270.9	37.3
90°-120°	1784.7	29.3
90°-150°	3297.8	54.2
90°-180°	3812.0	62.7
0°-180°	6082.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	944	944	944	944	944	
5°	939	955	944	947	956	90
15°	920	957	924	927	932	258
25°	846	880	870	903	927	390
35°	757	764	821	806	788	472
45°	604	653	599	505	473	462
55°	392	406	327	252	232	352
65°	215	220	160	130	123	218
75°	109	106	75	63	62	115
85°	23	18	18	12	10	29
90°	0	2	12	7	6	2
95°	32	100	483	178	112	38
105°	135	189	760	1443	1371	141
115°	239	286	614	1271	1493	237
125°	335	371	606	1004	1182	297
135°	401	443	602	866	974	310
145°	468	503	602	745	814	293
155°	534	552	606	668	693	246
165°	584	590	609	632	639	164
175°	611	611	612	616	614	58
180°	612	612	612	612	612	



TEST NUMBER: P854208

CATALOG NUMBER: SQ2-PR1-100U-050D-930-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	943.5	943.5	943.5	943.5	943.5
2.5°	939.7	951.0	940.5	941.3	943.5
5°	938.7	954.7	944.5	946.6	956.0
7.5°	938.5	961.3	956.4	962.3	974.7
10°	937.8	965.0	961.8	963.1	976.2
12.5°	933.1	964.9	950.3	949.1	956.2
15°	919.5	957.1	924.3	927.3	932.0
17.5°	895.4	934.8	903.5	914.1	923.3
20°	880.1	918.6	893.5	907.3	923.3
22.5°	866.2	904.8	884.3	903.6	925.6
25°	846.4	880.2	870.4	902.7	927.2
27.5°	825.6	845.6	857.2	900.4	917.6
30°	807.9	821.1	850.2	887.9	894.5
32.5°	788.7	796.6	841.0	860.6	852.2
35°	756.9	763.5	821.4	805.6	787.7
37.5°	719.2	732.8	777.3	731.9	711.4
40°	691.5	714.1	739.6	671.8	648.3
42.5°	657.7	693.8	689.6	603.2	574.4
45°	604.0	652.9	599.2	505.2	473.2
47.5°	540.7	590.9	503.0	419.1	389.1
50°	499.2	539.6	445.3	366.7	333.7
52.5°	456.9	486.0	396.1	317.5	287.6
55°	391.5	406.5	327.0	252.5	231.8
57.5°	331.4	341.0	267.2	203.9	188.7
60°	295.3	301.9	227.9	178.6	166.4
62.5°	262.2	267.3	196.4	157.1	147.9
65°	215.4	220.1	159.7	129.7	123.1
67.5°	178.3	180.8	131.4	107.8	101.6
70°	156.8	157.7	114.5	93.2	88.5
72.5°	137.5	136.2	98.3	80.9	77.7
75°	108.7	105.9	75.0	63.4	61.6
77.5°	81.2	78.2	52.7	48.9	48.9
80°	63.5	59.7	40.4	40.4	40.4
82.5°	47.3	42.1	31.2	31.1	30.4
85°	23.1	18.4	18.3	12.4	9.6
87.5°	6.2	6.5	4.6	3.7	3.5
90°	0.0	1.9	11.5	6.7	5.8
92.5°	10.8	43.5	156.2	51.8	37.3
95°	31.7	100.4	482.7	178.3	112.5
97.5°	61.3	127.7	760.8	503.4	306.5
100°	79.8	144.7	850.0	821.8	551.9
102.5°	100.6	163.2	831.5	1152.6	918.8
105°	134.6	189.1	759.6	1442.6	1371.2
107.5°	166.9	219.0	690.4	1471.3	1554.0
110°	188.5	238.3	655.8	1435.2	1585.6



TEST NUMBER: P854208

CATALOG NUMBER: SQ2-PR1-100U-050D-930-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	209.2	257.6	635.0	1374.5	1564.8
115°	239.4	285.5	614.4	1271.4	1493.3
117.5°	269.4	313.0	607.1	1174.8	1401.9
120°	289.4	330.8	604.8	1118.4	1336.5
122.5°	307.9	347.0	604.8	1068.8	1270.4
125°	334.6	371.3	605.8	1004.0	1181.7
127.5°	356.3	394.3	604.8	955.2	1106.7
130°	370.2	409.7	604.8	927.2	1064.4
132.5°	382.5	422.7	604.0	901.5	1028.3
135°	401.0	443.3	601.9	865.9	974.0
137.5°	421.5	461.8	601.9	827.9	928.1
140°	434.6	474.1	601.9	803.1	898.1
142.5°	447.7	485.7	601.2	780.5	863.5
145°	468.3	503.1	601.9	744.9	814.4
147.5°	488.8	518.4	603.1	715.4	768.8
150°	501.9	529.2	603.8	699.1	744.2
152.5°	514.2	538.5	604.6	685.1	721.9
155°	533.7	551.5	605.8	667.9	693.3
157.5°	550.6	565.1	606.9	655.2	672.9
160°	560.6	572.8	607.7	647.4	660.6
162.5°	570.6	579.8	608.5	640.4	651.3
165°	583.7	590.2	608.7	631.9	639.4
167.5°	594.8	598.2	609.8	625.3	628.5
170°	601.0	602.8	610.6	622.1	623.1
172.5°	604.8	605.9	610.6	619.0	619.2
175°	610.6	610.6	611.5	616.3	614.4
177.5°	613.3	612.5	611.7	614.0	612.5
180°	612.5	612.5	612.5	612.5	612.5

-----



TEST NUMBER: P854208

CATALOG NUMBER: SQ2-PR1-100U-050D-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	14.93	15.66	16.00	16.72	18.17	11.65	12.38	12.72	13.45	14.89
	3H	16.15	16.80	17.23	17.88	19.34	12.71	13.36	13.79	14.43	15.90
	4H	16.60	17.22	17.68	18.29	19.76	13.10	13.72	14.19	14.79	16.26
	6H	16.91	17.48	18.00	18.55	20.03	13.43	14.00	14.52	15.07	16.55
	8H	16.99	17.53	18.09	18.62	20.09	13.51	14.05	14.61	15.14	16.62
	12H	17.01	17.52	18.12	18.61	20.11	13.51	14.03	14.62	15.11	16.61
4H	2H	14.99	15.61	16.08	16.68	18.15	12.21	12.82	13.30	13.90	15.37
	3H	16.45	16.96	17.55	18.06	19.55	13.46	13.97	14.56	15.07	16.56
	4H	17.04	17.51	18.14	18.60	20.10	13.96	14.43	15.07	15.52	17.03
	6H	17.49	17.89	18.60	19.00	20.50	14.39	14.79	15.50	15.91	17.40
	8H	17.62	17.99	18.73	19.10	20.61	14.51	14.89	15.62	15.99	17.50
	12H	17.66	18.00	18.79	19.12	20.64	14.53	14.87	15.65	15.98	17.50
8H	4H	17.06	17.43	18.17	18.54	20.05	14.26	14.63	15.37	15.74	17.25
	6H	17.60	17.91	18.74	19.06	20.57	14.79	15.10	15.92	16.25	17.76
	8H	17.80	18.07	18.94	19.20	20.73	14.97	15.24	16.11	16.37	17.90
	12H	17.90	18.14	19.04	19.26	20.83	15.03	15.27	16.17	16.40	17.96
12H	4H	17.01	17.35	18.14	18.47	19.98	14.27	14.61	15.40	15.73	17.24
	6H	17.59	17.86	18.73	18.99	20.52	14.85	15.12	15.99	16.25	17.78
	8H	17.80	18.03	18.94	19.16	20.72	15.05	15.29	16.19	16.41	17.98