

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: P854053

Luminaire Tested: SQ2-PH1-125U-050D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

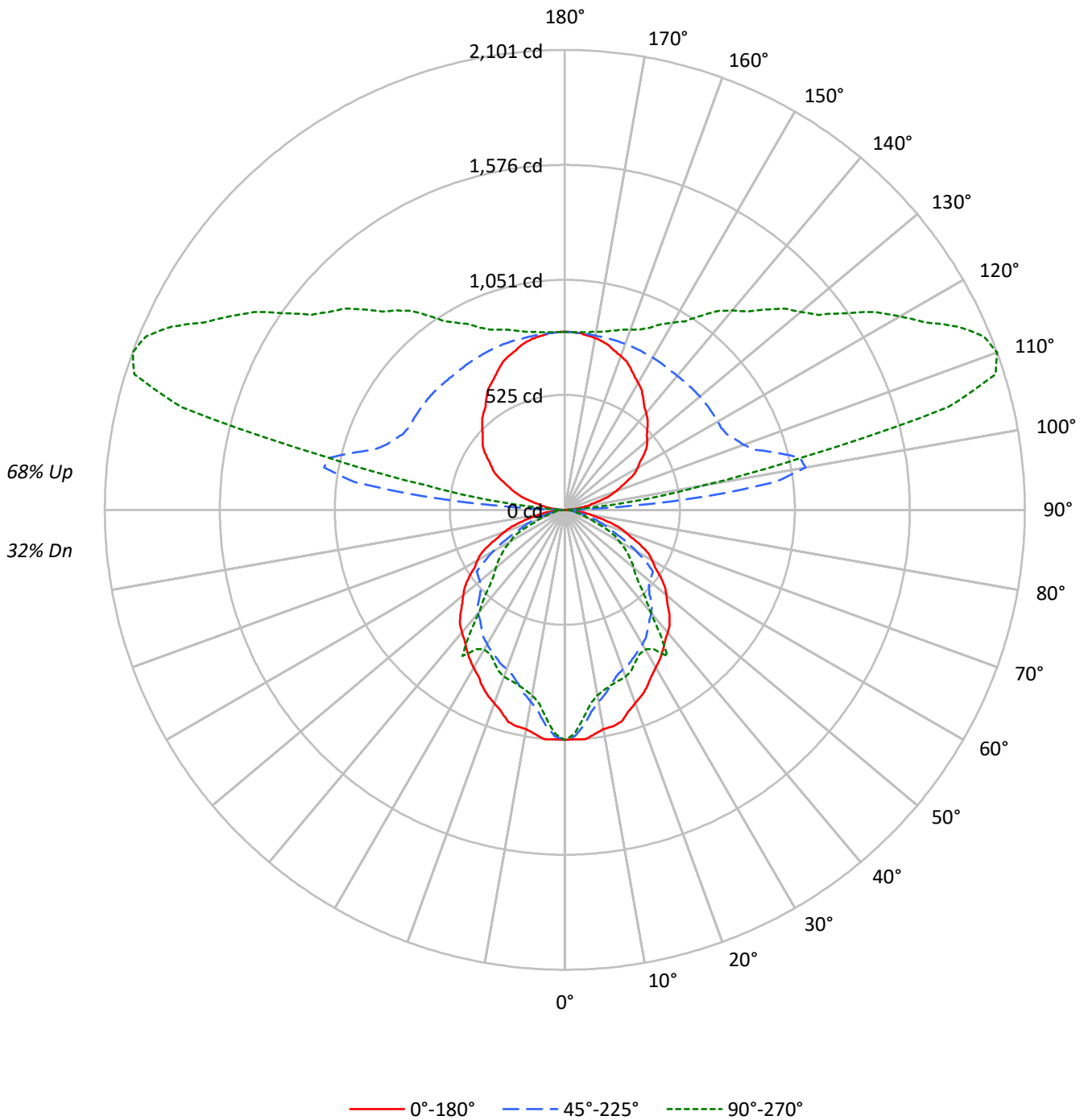
Test Method: LM-79-2019  
Report Number: P854053  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PH1-125U-050D-935-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 1250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7341.1 lumens  
Efficiency: N/A  
Efficacy: 119.0 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Indirect  
  
Input Watts (W): 61.7  
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: P854053  
CATALOG NUMBER: SQ2-PH1-125U-050D-935-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P854053

CATALOG NUMBER: SQ2-PH1-125U-050D-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	103	103	103	103	92	92	92	92	73	73	73	56	56	56	39	39	39	32
1	94	90	86	83	84	81	78	75	64	62	60	49	48	46	35	34	33	27
2	85	78	73	68	77	71	66	62	56	53	50	43	41	39	31	29	28	23
3	78	69	62	56	70	62	56	51	50	45	42	38	35	33	27	26	24	19
4	71	61	53	48	64	55	49	44	44	39	36	34	31	28	24	22	21	17
5	65	54	46	41	59	49	42	37	39	34	31	30	27	24	22	20	18	14
6	60	48	41	35	54	44	37	32	35	30	27	27	24	21	20	18	16	13
7	55	44	36	31	50	40	33	28	32	27	23	25	21	19	18	16	14	11
8	51	39	32	27	46	36	29	25	29	24	21	23	19	17	17	14	13	10
9	48	36	29	24	43	33	26	22	27	22	18	21	17	15	15	13	11	9
10	45	33	26	21	40	30	24	20	24	20	17	19	16	13	14	12	10	8

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

	0°	45°	90°
0°	16969	16969	16969
5°	17067	16045	15511
10°	16674	14608	14100
15°	16749	13740	13824
20°	16151	13316	13935
25°	15855	13254	13611
30°	15511	13218	13722
35°	15394	13068	16084
40°	15407	12983	12752
45°	15413	12490	10983
50°	15197	12735	10299
55°	15004	13821	9880
60°	14854	12109	9268
65°	14594	9819	8061
70°	13785	8356	5759
75°	12289	6301	4367
80°	10042	4091	4091
85°	6299	3705	2779

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 15413 cd/sqm



TEST NUMBER: P854053

CATALOG NUMBER: SQ2-PH1-125U-050D-935-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	92.5	1.3
10°-20°	243.3	3.3
20°-30°	356.7	4.9
30°-40°	431.9	5.9
40°-50°	424.8	5.8
50°-60°	369.8	5.0
60°-70°	257.1	3.5
70°-80°	121.9	1.7
80°-90°	27.8	0.4
90°-100°	311.0	4.2
100°-110°	1012.4	13.8
110°-120°	1001.4	13.6
120°-130°	818.4	11.1
130°-140°	668.9	9.1
140°-150°	521.0	7.1
150°-160°	375.5	5.1
160°-170°	229.5	3.1
170°-180°	77.4	1.1
0°-30°	692.4	9.4
0°-40°	1124.4	15.3
0°-60°	1918.9	26.1
0°-90°	2325.6	31.7
90°-120°	2324.8	31.7
90°-150°	4333.0	59.0
90°-180°	5015.0	68.3
0°-180°	7341.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1051	1051	1051	1051	1051	
5°	1053	1052	990	959	957	99
15°	1002	892	822	816	827	279
25°	890	757	744	767	764	409
35°	781	631	663	720	816	489
45°	675	500	547	566	481	519
55°	533	389	491	354	351	476
65°	382	268	257	211	211	375
75°	197	136	101	72	70	209
85°	34	22	20	16	15	46
90°	0	3	7	6	6	3
95°	42	128	570	203	125	49
105°	172	248	1003	1916	1814	183
115°	318	380	817	1684	1981	315
125°	442	493	806	1329	1567	393
135°	534	590	802	1147	1294	412
145°	624	670	800	988	1082	391
155°	712	735	805	885	918	328
165°	777	784	807	837	847	219
175°	810	810	810	816	814	77
180°	813	813	813	813	813	



TEST NUMBER: P854053

CATALOG NUMBER: SQ2-PH1-125U-050D-935-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1051.0	1051.0	1051.0	1051.0	1051.0
2.5°	1048.6	1059.6	1035.0	1025.4	1023.8
5°	1053.0	1052.0	990.0	959.0	957.0
7.5°	1033.8	1003.5	929.4	895.2	893.6
10°	1017.0	971.1	891.0	860.0	860.0
12.5°	1013.0	940.5	859.8	836.9	841.6
15°	1002.0	892.5	822.0	816.3	827.0
17.5°	965.6	847.7	792.6	805.7	818.2
20°	940.0	823.7	775.0	799.3	811.0
22.5°	918.4	800.5	762.2	788.7	795.0
25°	890.0	757.0	744.0	766.9	764.0
27.5°	856.0	717.2	725.8	739.8	741.6
30°	832.0	693.2	709.0	723.3	736.0
32.5°	808.8	665.3	690.6	724.5	753.6
35°	781.0	631.4	663.0	720.2	816.0
37.5°	751.8	591.4	635.2	683.3	713.8
40°	731.0	562.8	616.0	675.4	605.0
42.5°	708.6	540.4	587.2	663.9	545.0
45°	675.0	500.0	547.0	566.1	481.0
47.5°	635.4	468.6	519.8	472.0	438.8
50°	605.0	447.6	507.0	431.5	410.0
52.5°	575.4	425.8	498.2	398.1	383.6
55°	533.0	389.3	491.0	353.9	351.0
57.5°	488.0	352.1	434.2	315.5	320.6
60°	460.0	328.0	375.0	292.9	287.0
62.5°	430.4	304.7	319.8	264.1	258.2
65°	382.0	267.6	257.0	211.0	211.0
67.5°	328.8	229.1	208.2	172.7	149.2
70°	292.0	204.0	177.0	137.6	122.0
72.5°	252.8	177.3	145.0	112.8	94.8
75°	197.0	136.4	101.0	72.0	70.0
77.5°	142.4	98.2	68.0	53.4	53.6
80°	108.0	74.8	44.0	43.0	44.0
82.5°	76.0	51.4	32.8	34.2	34.4
85°	34.0	22.3	20.0	16.0	15.0
87.5°	7.2	7.0	5.4	5.2	5.2
90°	0.0	2.9	7.0	6.0	6.0
92.5°	14.4	51.7	165.4	54.5	42.0
95°	42.0	128.0	569.9	203.2	125.0
97.5°	79.0	166.6	967.3	589.1	359.6
100°	103.0	189.0	1116.9	995.9	645.9
102.5°	130.2	213.1	1098.5	1473.4	1120.3
105°	172.0	248.2	1002.9	1915.5	1813.8
107.5°	217.2	288.9	912.1	1953.8	2061.6
110°	250.0	315.5	868.9	1906.2	2100.8



TEST NUMBER: P854053

CATALOG NUMBER: SQ2-PH1-125U-050D-935-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	277.2	341.9	841.7	1820.3	2071.2
115°	318.0	379.6	816.9	1683.6	1980.8
117.5°	360.0	415.5	807.3	1558.3	1854.2
120°	384.0	438.7	804.9	1481.3	1767.8
122.5°	407.2	461.1	805.7	1414.5	1681.4
125°	441.9	492.8	805.9	1329.2	1566.8
127.5°	471.7	523.8	805.7	1265.4	1463.4
130°	490.9	543.7	804.9	1228.9	1405.8
132.5°	507.7	562.9	804.1	1195.0	1361.0
135°	533.9	589.7	801.9	1147.2	1293.9
137.5°	559.5	615.7	799.7	1098.6	1228.9
140°	577.9	631.7	798.9	1065.7	1188.9
142.5°	595.5	647.0	798.9	1034.2	1144.1
145°	623.9	669.9	799.9	988.0	1081.9
147.5°	651.5	691.4	801.3	948.7	1021.3
150°	669.9	705.1	802.9	925.3	986.9
152.5°	688.3	717.3	803.7	907.4	956.5
155°	711.9	735.4	804.9	884.7	917.9
157.5°	734.3	751.1	806.1	867.8	891.1
160°	747.9	761.6	806.9	857.3	875.9
162.5°	759.9	770.5	806.9	848.4	862.3
165°	776.9	783.8	806.9	837.1	846.9
167.5°	788.9	793.2	807.1	828.6	833.7
170°	796.9	798.9	807.9	823.0	824.9
172.5°	802.5	803.7	809.5	819.7	819.3
175°	809.9	809.9	809.9	815.9	813.9
177.5°	812.9	812.1	811.3	815.2	812.1
180°	812.9	812.9	812.9	812.9	812.9



TEST NUMBER: P854053

CATALOG NUMBER: SQ2-PH1-125U-050D-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	15.17	15.89	16.28	16.98	18.50	13.85	14.56	14.95	15.66	17.17
	3H	17.19	17.83	18.30	18.93	20.46	14.87	15.51	15.98	16.61	18.14
	4H	17.91	18.52	19.03	19.62	21.16	15.08	15.68	16.20	16.79	18.32
	6H	18.39	18.95	19.52	20.06	21.60	15.21	15.77	16.34	16.88	18.42
	8H	18.51	19.04	19.64	20.16	21.70	15.24	15.77	16.37	16.89	18.43
	12H	18.55	19.05	19.69	20.17	21.73	15.23	15.74	16.37	16.85	18.42
4H	2H	15.53	16.14	16.66	17.24	18.78	14.47	15.07	15.60	16.18	17.72
	3H	17.62	18.13	18.76	19.26	20.81	15.63	16.14	16.77	17.27	18.82
	4H	18.43	18.89	19.57	20.02	21.58	15.90	16.37	17.04	17.49	19.06
	6H	19.01	19.40	20.15	20.55	22.11	16.10	16.50	17.25	17.64	19.20
	8H	19.17	19.54	20.32	20.68	22.25	16.16	16.53	17.30	17.66	19.24
	12H	19.23	19.57	20.39	20.72	22.30	16.16	16.49	17.32	17.64	19.22
8H	4H	18.44	18.81	19.58	19.94	21.52	16.11	16.48	17.25	17.61	19.19
	6H	19.08	19.39	20.25	20.57	22.14	16.37	16.68	17.54	17.86	19.43
	8H	19.31	19.57	20.48	20.73	22.32	16.48	16.74	17.64	17.90	19.49
	12H	19.41	19.65	20.59	20.80	22.43	16.51	16.75	17.69	17.90	19.53
12H	4H	18.38	18.72	19.54	19.87	21.44	16.10	16.43	17.26	17.58	19.16
	6H	19.06	19.32	20.22	20.48	22.07	16.40	16.67	17.57	17.83	19.42
	8H	19.28	19.51	20.45	20.67	22.30	16.51	16.75	17.68	17.90	19.53