

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: P854161

Luminaire Tested: SQ2-PR1-025U-050D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854161  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PR1-025U-050D-935-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

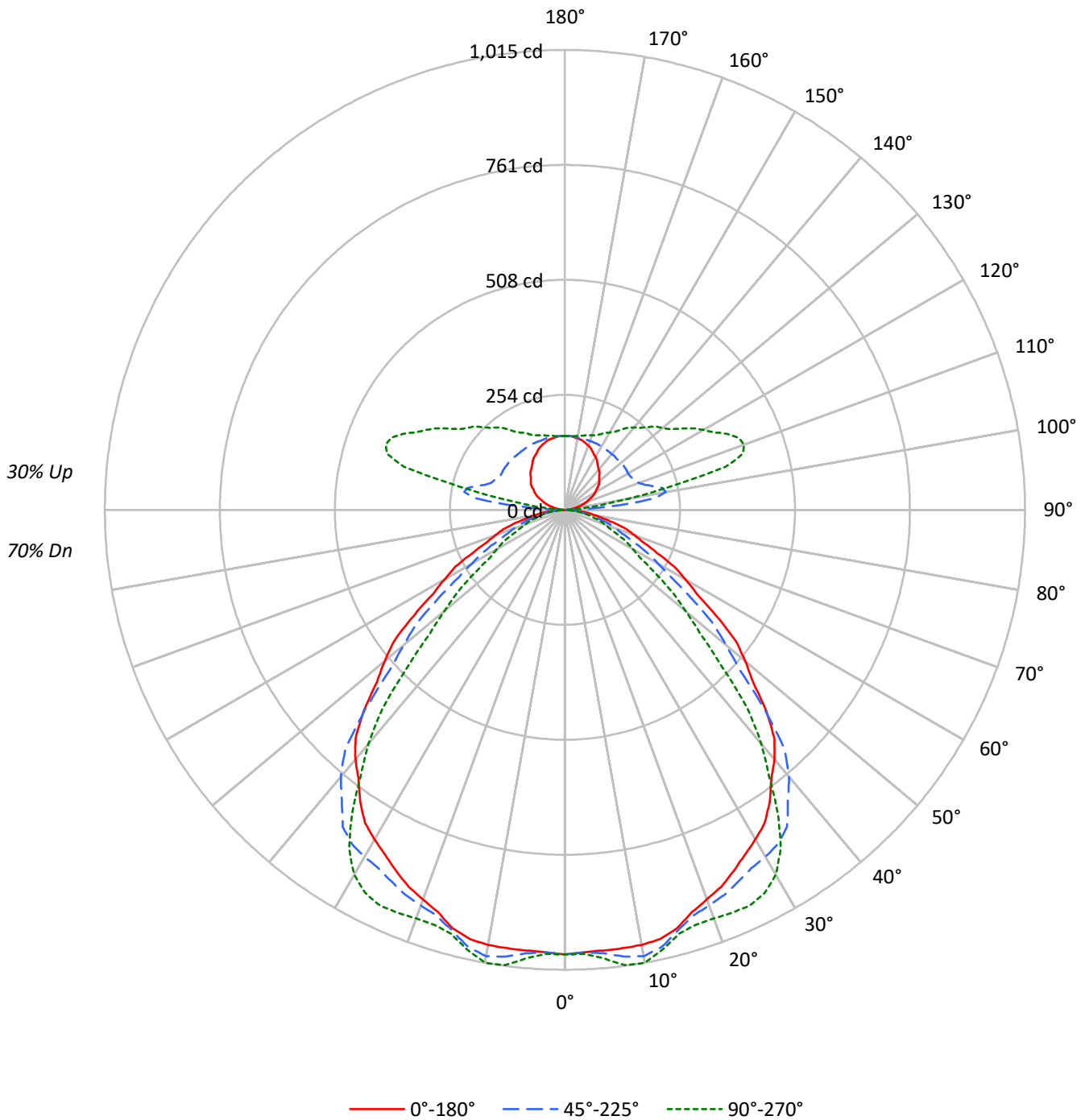
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3371.6 lumens  
Efficiency: N/A  
Efficacy: 133.8 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-Direct  
  
Input Watts (W): 25.2  
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: P854161

CATALOG NUMBER: SQ2-PR1-025U-050D-935-UNV-STD-W-4

### Luminous Intensity Polar Plot





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CATALOG NUMBER: SQ2-PR1-025U-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	112	112	112	112	106	106	106	106	94	94	94	84	84	84	74	74	74	70
1	103	99	95	92	97	94	91	88	84	82	80	75	74	72	67	66	65	61
2	95	88	82	77	89	83	78	73	75	71	67	67	64	61	60	58	56	52
3	87	78	71	65	82	74	68	62	67	62	58	60	56	53	54	51	48	45
4	80	69	62	56	75	66	59	54	60	54	50	54	50	46	49	45	42	39
5	74	62	54	48	70	59	52	47	54	48	44	49	44	40	44	40	37	35
6	68	56	48	42	64	54	46	41	49	43	38	45	40	36	40	36	33	31
7	63	51	43	38	60	49	42	36	45	39	34	41	36	32	37	33	30	27
8	59	47	39	33	56	45	37	32	41	35	31	37	32	29	34	30	27	25
9	55	43	35	30	52	41	34	29	38	32	28	35	30	26	32	27	24	22
10	51	39	32	27	49	38	31	26	35	29	25	32	27	24	29	25	22	20

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

	0°	45°	90°
0°	15839	15839	15839
5°	15819	15916	16110
10°	15985	16395	16641
15°	15980	16064	16197
20°	15722	15962	16495
25°	15677	16123	17174
30°	15661	16481	17339
35°	15512	16833	16143
40°	15154	16208	14206
45°	14340	14225	11234
50°	13036	11630	8716
55°	11457	9571	6784
60°	9914	7653	5586
65°	8558	6342	4890
70°	7695	5618	4343
75°	7049	4866	3992
80°	6137	3905	3905
85°	4446	3520	1853

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 15502 cd/sqm



TEST NUMBER: P854161

CATALOG NUMBER: SQ2-PR1-025U-050D-935-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	94.7	2.8
10°-20°	274.2	8.1
20°-30°	423.9	12.6
30°-40°	509.9	15.1
40°-50°	457.8	13.6
50°-60°	306.7	9.1
60°-70°	178.4	5.3
70°-80°	91.6	2.7
80°-90°	23.0	0.7
90°-100°	65.9	2.0
100°-110°	205.1	6.1
110°-120°	200.7	6.0
120°-130°	163.8	4.9
130°-140°	134.0	4.0
140°-150°	104.6	3.1
150°-160°	75.5	2.2
160°-170°	46.1	1.4
170°-180°	15.6	0.5
0°-30°	792.9	23.5
0°-40°	1302.8	38.6
0°-60°	2067.3	61.3
0°-90°	2360.3	70.0
90°-120°	471.7	14.0
90°-150°	874.1	25.9
90°-180°	1011.0	30.0
0°-180°	3371.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	981	981	981	981	981	
5°	976	993	982	984	994	93
15°	956	995	961	964	969	268
25°	880	915	905	939	964	406
35°	787	794	854	838	819	491
45°	628	679	623	525	492	480
55°	407	423	340	262	241	366
65°	224	229	166	135	128	227
75°	113	110	78	66	64	120
85°	24	19	19	13	10	30
90°	0	1	3	3	3	1
95°	9	27	121	45	29	10
105°	36	51	202	386	368	38
115°	64	76	164	338	396	63
125°	89	99	162	266	312	79
135°	107	119	161	230	258	83
145°	125	135	161	198	216	79
155°	143	148	162	178	184	66
165°	157	158	163	168	170	44
175°	163	163	163	164	163	15
180°	163	163	163	163	163	



TEST NUMBER: P854161

CATALOG NUMBER: SQ2-PR1-025U-050D-935-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	981.0	981.0	981.0	981.0	981.0
2.5°	977.0	988.7	977.8	978.7	981.0
5°	976.0	992.6	982.0	984.2	994.0
7.5°	975.8	999.5	994.4	1000.5	1013.4
10°	975.0	1003.4	1000.0	1001.3	1015.0
12.5°	970.2	1003.3	988.0	986.8	994.2
15°	956.0	995.1	961.0	964.1	969.0
17.5°	931.0	971.9	939.4	950.4	960.0
20°	915.0	955.1	929.0	943.4	960.0
22.5°	900.6	940.7	919.4	939.5	962.4
25°	880.0	915.2	905.0	938.6	964.0
27.5°	858.4	879.1	891.2	936.2	954.0
30°	840.0	853.7	884.0	923.2	930.0
32.5°	820.0	828.2	874.4	894.8	886.0
35°	787.0	793.9	854.0	837.6	819.0
37.5°	747.8	761.9	808.2	760.9	739.6
40°	719.0	742.5	769.0	698.5	674.0
42.5°	683.8	721.4	717.0	627.1	597.2
45°	628.0	678.9	623.0	525.2	492.0
47.5°	562.2	614.4	523.0	435.7	404.6
50°	519.0	561.0	463.0	381.2	347.0
52.5°	475.0	505.3	411.8	330.1	299.0
55°	407.0	422.6	340.0	262.5	241.0
57.5°	344.6	354.6	277.8	212.0	196.2
60°	307.0	313.8	237.0	185.7	173.0
62.5°	272.6	277.9	204.2	163.4	153.8
65°	224.0	228.9	166.0	134.8	128.0
67.5°	185.4	187.9	136.6	112.1	105.6
70°	163.0	164.0	119.0	96.9	92.0
72.5°	143.0	141.6	102.2	84.1	80.8
75°	113.0	110.1	78.0	66.0	64.0
77.5°	84.4	81.3	54.8	50.8	50.8
80°	66.0	62.1	42.0	42.0	42.0
82.5°	49.2	43.7	32.4	32.4	31.6
85°	24.0	19.1	19.0	12.9	10.0
87.5°	6.4	6.6	3.0	3.0	3.0
90°	0.0	1.0	3.0	3.0	3.0
92.5°	3.2	11.2	38.2	12.5	10.2
95°	9.0	26.6	121.0	44.6	29.0
97.5°	16.4	34.6	200.3	124.7	78.6
100°	22.0	38.6	225.9	211.3	141.0
102.5°	27.6	43.4	221.1	301.8	236.9
105°	36.0	50.7	201.9	385.5	367.9
107.5°	44.4	58.1	183.5	391.9	411.3
110°	50.0	63.7	173.9	382.7	420.9



TEST NUMBER: P854161

CATALOG NUMBER: SQ2-PR1-025U-050D-935-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	55.6	68.5	169.1	366.2	414.5
115°	64.0	75.7	163.9	338.2	395.9
117.5°	72.2	82.9	161.7	311.4	370.5
120°	77.0	87.7	160.9	296.2	352.9
122.5°	81.8	92.5	161.7	283.3	335.3
125°	89.0	98.7	161.9	266.0	311.9
127.5°	94.8	104.7	161.9	253.0	292.1
130°	98.0	108.7	161.9	245.7	280.9
132.5°	102.0	112.7	161.1	239.3	272.1
135°	107.0	118.7	160.9	229.6	257.9
137.5°	112.8	123.5	160.9	219.9	245.7
140°	116.0	126.7	160.9	213.5	236.9
142.5°	120.0	129.9	160.9	207.0	228.1
145°	125.0	134.7	160.9	198.3	215.9
147.5°	131.0	139.4	161.9	190.3	204.1
150°	135.0	141.8	161.9	186.2	196.9
152.5°	138.2	144.2	161.9	182.1	191.3
155°	143.0	147.8	161.9	178.1	183.9
157.5°	147.8	151.5	161.9	174.4	178.1
160°	151.0	153.9	161.9	172.0	174.9
162.5°	153.3	155.5	161.9	170.4	172.5
165°	156.9	157.9	162.9	168.0	169.9
167.5°	159.1	159.3	161.9	166.6	167.5
170°	159.9	160.9	161.9	165.0	165.9
172.5°	161.5	161.7	162.7	164.2	164.3
175°	162.9	162.9	162.9	163.9	162.9
177.5°	162.9	162.9	162.9	162.9	162.9
180°	162.9	162.9	162.9	162.9	162.9

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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	18.08	19.09	18.85	19.88	20.83	14.80	15.81	15.57	16.60	17.56
	3H	19.32	20.22	20.11	21.02	22.01	15.88	16.78	16.67	17.58	18.57
	4H	19.78	20.63	20.59	21.44	22.44	16.29	17.14	17.09	17.94	18.94
	6H	20.11	20.89	20.92	21.70	22.72	16.63	17.41	17.44	18.22	19.23
	8H	20.19	20.94	21.02	21.77	22.78	16.72	17.46	17.54	18.29	19.31
	12H	20.23	20.93	21.06	21.76	22.80	16.73	17.44	17.56	18.26	19.30
4H	2H	18.17	19.02	18.98	19.83	20.83	15.39	16.24	16.20	17.05	18.05
	3H	19.66	20.36	20.48	21.20	22.22	16.67	17.37	17.49	18.21	19.23
	4H	20.26	20.90	21.09	21.74	22.78	17.18	17.82	18.02	18.66	19.70
	6H	20.72	21.27	21.57	22.13	23.18	17.63	18.17	18.48	19.04	20.09
	8H	20.86	21.37	21.71	22.23	23.29	17.75	18.26	18.60	19.12	20.18
	12H	20.92	21.38	21.79	22.26	23.32	17.78	18.24	18.65	19.12	20.18
8H	4H	20.30	20.81	21.15	21.67	22.73	17.50	18.01	18.35	18.87	19.93
	6H	20.85	21.27	21.73	22.18	23.24	18.04	18.46	18.92	19.36	20.42
	8H	21.05	21.43	21.94	22.32	23.40	18.22	18.60	19.12	19.50	20.57
	12H	21.16	21.49	22.05	22.38	23.51	18.29	18.62	19.19	19.51	20.64
12H	4H	20.26	20.72	21.13	21.60	22.67	17.52	17.98	18.39	18.86	19.93
	6H	20.84	21.21	21.73	22.11	23.19	18.10	18.47	18.99	19.37	20.45
	8H	21.06	21.39	21.95	22.27	23.41	18.31	18.64	19.21	19.53	20.66