

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: P854168

Luminaire Tested: SQ2-PR1-025U-100D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854168  
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-100D-940-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**

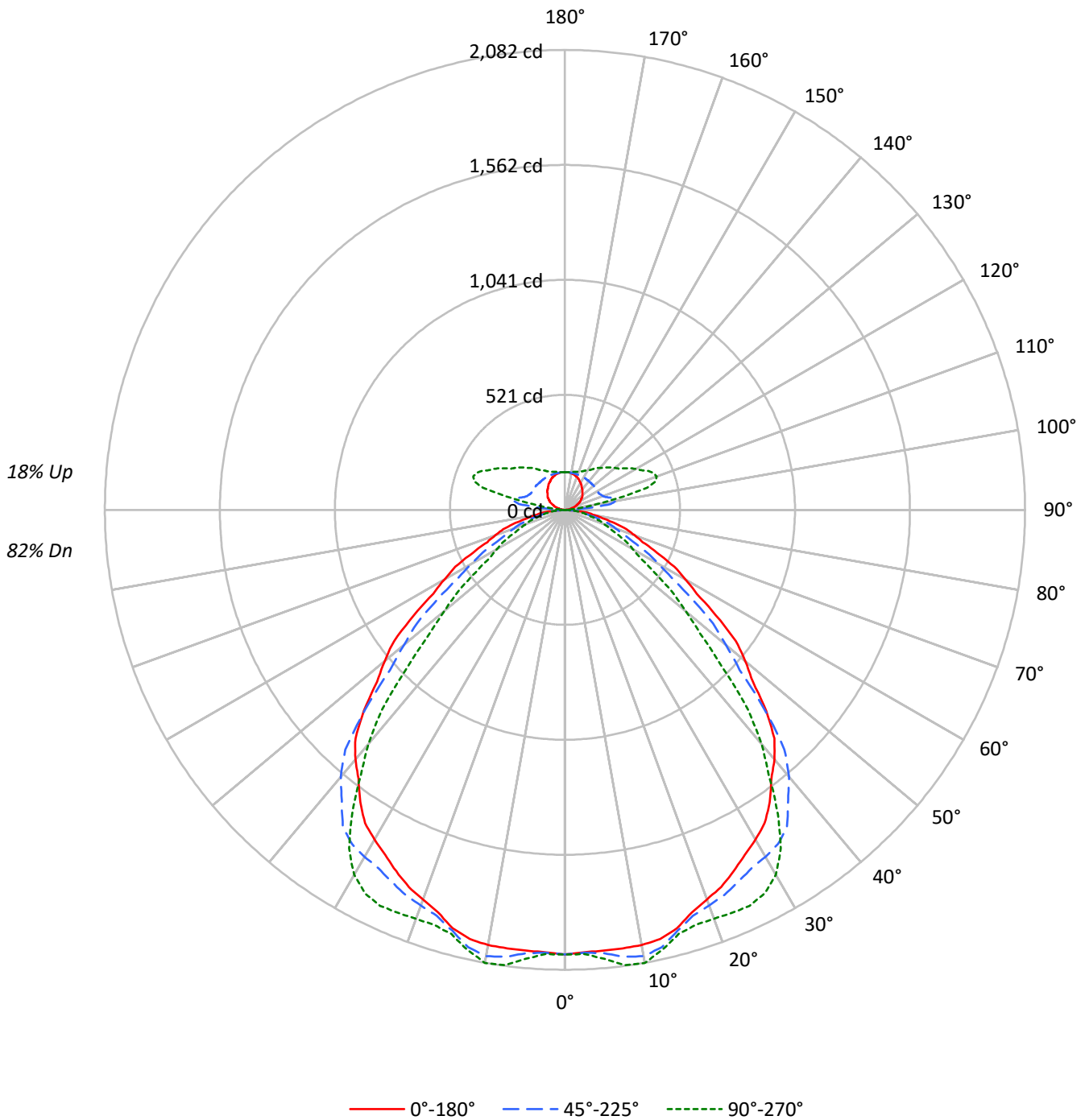
Lumens per Lamp: N/A  
Luminaire Lumens: 5902.9 lumens  
Efficiency: N/A  
Efficacy: 131.2 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 45  
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: P854168

CATALOG NUMBER: SQ2-PR1-025U-100D-940-UNV-STD-W-4

### Luminous Intensity Polar Plot



TEST NUMBER: P854168

CATALOG NUMBER: SQ2-PR1-025U-100D-940-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	115	115	115	115	110	110	110	110	101	101	101	93	93	93	86	86	86	82				
1	106	102	98	95	102	98	95	92	90	88	86	84	82	80	77	76	74	71				
2	97	90	84	79	93	87	81	77	80	76	72	75	71	68	69	67	64	61				
3	90	80	73	67	86	77	71	66	72	67	62	67	63	59	62	59	56	53				
4	82	72	64	58	79	69	62	57	65	59	54	60	55	51	56	52	49	46				
5	76	64	56	50	73	62	55	49	58	52	47	55	49	45	51	47	43	41				
6	70	58	50	44	67	56	49	43	53	46	42	50	44	40	47	42	38	36				
7	65	53	45	39	63	51	44	39	48	42	37	45	40	36	43	38	34	32				
8	61	48	41	35	58	47	40	35	44	38	33	42	36	32	39	35	31	29				
9	57	45	37	32	55	43	36	31	41	35	30	39	33	29	36	32	28	26				
10	53	41	34	29	51	40	33	28	38	32	27	36	30	26	34	29	26	24				

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

	0°	45°	90°
0°	32495	32495	32495
5°	32454	32653	33052
10°	32795	33636	34141
15°	32784	32956	33230
20°	32254	32747	33840
25°	32163	33077	35234
30°	32130	33812	35572
35°	31824	34535	33119
40°	31091	33253	29145
45°	29419	29186	23048
50°	26746	23860	17882
55°	23505	19634	13917
60°	20337	15700	11460
65°	17559	13012	10032
70°	15786	11523	8908
75°	14460	9981	8191
80°	12590	8015	8015
85°	9114	7225	3798

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 31800 cd/sqm



TEST NUMBER: P854168

CATALOG NUMBER: SQ2-PR1-025U-100D-940-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	194.4	3.3
10°-20°	562.6	9.5
20°-30°	869.7	14.7
30°-40°	1046.1	17.7
40°-50°	939.3	15.9
50°-60°	629.2	10.7
60°-70°	366.0	6.2
70°-80°	188.0	3.2
80°-90°	46.8	0.8
90°-100°	69.2	1.2
100°-110°	215.2	3.6
110°-120°	210.5	3.6
120°-130°	171.8	2.9
130°-140°	140.6	2.4
140°-150°	109.7	1.9
150°-160°	79.2	1.3
160°-170°	48.4	0.8
170°-180°	16.3	0.3
0°-30°	1626.7	27.6
0°-40°	2672.8	45.3
0°-60°	4241.3	71.9
0°-90°	4842.0	82.0
90°-120°	494.8	8.4
90°-150°	917.0	15.5
90°-180°	1061.0	18.0
0°-180°	5902.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2013	2013	2013	2013	2013	
5°	2002	2036	2015	2019	2039	191
15°	1961	2042	1972	1978	1988	551
25°	1805	1878	1857	1926	1978	833
35°	1615	1629	1752	1718	1680	1007
45°	1288	1393	1278	1078	1009	986
55°	835	867	698	539	494	750
65°	460	470	341	277	263	465
75°	232	226	160	135	131	246
85°	49	39	39	26	20	61
90°	0	1	3	3	3	2
95°	9	28	127	47	30	11
105°	38	53	212	404	386	40
115°	67	79	172	355	415	66
125°	93	104	170	279	327	83
135°	112	124	169	241	271	87
145°	131	141	169	208	226	82
155°	150	155	170	187	193	69
165°	165	166	171	176	178	46
175°	171	171	171	172	171	16
180°	171	171	171	171	171	

TEST NUMBER: P854168

CATALOG NUMBER: SQ2-PR1-025U-100D-940-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2012.6	2012.6	2012.6	2012.6	2012.6
2.5°	2004.4	2028.5	2006.1	2007.8	2012.6
5°	2002.4	2036.5	2014.7	2019.2	2039.3
7.5°	2002.0	2050.5	2040.1	2052.6	2079.1
10°	2000.3	2058.5	2051.6	2054.3	2082.4
12.5°	1990.5	2058.3	2027.0	2024.5	2039.7
15°	1961.3	2041.6	1971.6	1978.0	1988.0
17.5°	1910.0	1993.9	1927.3	1949.9	1969.5
20°	1877.2	1959.5	1905.9	1935.4	1969.5
22.5°	1847.7	1929.9	1886.2	1927.5	1974.5
25°	1805.4	1877.6	1856.7	1925.6	1977.8
27.5°	1761.1	1803.6	1828.4	1920.7	1957.2
30°	1723.4	1751.4	1813.6	1894.0	1908.0
32.5°	1682.3	1699.2	1793.9	1835.8	1817.7
35°	1614.6	1628.7	1752.1	1718.4	1680.3
37.5°	1534.2	1563.1	1658.1	1561.1	1517.4
40°	1475.1	1523.3	1577.7	1432.9	1382.8
42.5°	1402.9	1479.9	1471.0	1286.6	1225.2
45°	1288.4	1392.7	1278.2	1077.6	1009.4
47.5°	1153.4	1260.5	1073.0	893.9	830.1
50°	1064.8	1151.0	949.9	782.1	711.9
52.5°	974.5	1036.7	844.9	677.2	613.4
55°	835.0	867.1	697.5	538.6	494.4
57.5°	707.0	727.4	569.9	435.0	402.5
60°	629.8	643.9	486.2	381.0	354.9
62.5°	559.3	570.1	418.9	335.2	315.5
65°	459.6	469.6	340.6	276.6	262.6
67.5°	380.4	385.6	280.2	229.9	216.6
70°	334.4	336.4	244.1	198.8	188.7
72.5°	293.4	290.6	209.7	172.6	165.8
75°	231.8	225.8	160.0	135.3	131.3
77.5°	173.2	166.7	112.4	104.2	104.2
80°	135.4	127.4	86.2	86.2	86.2
82.5°	100.9	89.7	66.5	66.4	64.8
85°	49.2	39.2	39.0	26.5	20.5
87.5°	13.1	13.3	5.6	5.6	5.6
90°	0.0	1.0	3.1	3.1	3.1
92.5°	3.4	11.8	40.1	13.2	10.7
95°	9.4	27.9	126.9	46.8	30.4
97.5°	17.2	36.3	210.2	130.8	82.4
100°	23.1	40.5	237.0	221.7	147.9
102.5°	28.9	45.6	232.0	316.6	248.5
105°	37.8	53.1	211.8	404.4	385.9
107.5°	46.6	60.9	192.5	411.1	431.4
110°	52.4	66.8	182.5	401.5	441.5



TEST NUMBER: P854168

CATALOG NUMBER: SQ2-PR1-025U-100D-940-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	58.3	71.8	177.4	384.1	434.8
115°	67.1	79.4	172.0	354.8	415.3
117.5°	75.7	87.0	169.7	326.7	388.7
120°	80.8	92.0	168.8	310.7	370.2
122.5°	85.8	97.1	169.7	297.2	351.7
125°	93.3	103.6	169.9	279.0	327.2
127.5°	99.4	109.9	169.9	265.4	306.4
130°	102.8	114.1	169.9	257.8	294.7
132.5°	107.0	118.2	169.1	251.0	285.5
135°	112.2	124.5	168.8	240.8	270.6
137.5°	118.3	129.6	168.8	230.7	257.8
140°	121.7	132.9	168.8	223.9	248.5
142.5°	125.8	136.3	168.8	217.2	239.3
145°	131.1	141.3	168.8	208.1	226.5
147.5°	137.4	146.2	169.9	199.6	214.1
150°	141.6	148.8	169.9	195.3	206.6
152.5°	144.9	151.3	169.9	191.1	200.7
155°	150.0	155.1	169.9	186.8	193.0
157.5°	155.0	158.9	169.9	183.0	186.9
160°	158.4	161.4	169.9	180.5	183.5
162.5°	160.9	163.1	169.9	178.8	181.0
165°	164.7	165.7	170.9	176.2	178.3
167.5°	167.0	167.2	169.9	174.7	175.8
170°	167.8	168.8	169.9	173.1	174.1
172.5°	169.5	169.7	170.7	172.2	172.4
175°	170.9	170.9	170.9	172.0	170.9
177.5°	170.9	170.9	170.9	170.9	170.9
180°	170.9	170.9	170.9	170.9	170.9

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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	21.49	22.65	22.12	23.29	24.02	18.21	19.38	18.84	20.01	20.74
	3H	22.74	23.78	23.39	24.43	25.20	19.30	20.34	19.95	20.99	21.76
	4H	23.21	24.19	23.88	24.85	25.63	19.71	20.69	20.38	21.35	22.13
	6H	23.54	24.44	24.22	25.11	25.91	20.06	20.96	20.74	21.63	22.43
	8H	23.63	24.49	24.32	25.18	25.98	20.15	21.01	20.84	21.70	22.50
	12H	23.67	24.49	24.37	25.17	25.99	20.17	20.99	20.87	21.67	22.50
4H	2H	21.60	22.58	22.27	23.24	24.02	18.82	19.80	19.49	20.46	21.23
	3H	23.10	23.91	23.78	24.61	25.41	20.11	20.92	20.79	21.62	22.42
	4H	23.71	24.44	24.41	25.14	25.97	20.63	21.36	21.33	22.06	22.89
	6H	24.18	24.81	24.89	25.54	26.37	21.08	21.71	21.80	22.44	23.28
	8H	24.31	24.90	25.04	25.63	26.48	21.21	21.80	21.93	22.52	23.37
	12H	24.38	24.91	25.12	25.66	26.51	21.24	21.77	21.98	22.52	23.38
8H	4H	23.75	24.34	24.48	25.07	25.92	20.96	21.55	21.68	22.27	23.12
	6H	24.31	24.80	25.07	25.57	26.42	21.50	21.99	22.25	22.76	23.61
	8H	24.51	24.95	25.28	25.72	26.58	21.69	22.12	22.45	22.89	23.76
	12H	24.63	25.01	25.39	25.77	26.70	21.76	22.15	22.53	22.90	23.83
12H	4H	23.73	24.25	24.47	25.00	25.86	20.99	21.51	21.73	22.26	23.12
	6H	24.30	24.73	25.06	25.51	26.37	21.56	22.00	22.33	22.77	23.63
	8H	24.52	24.91	25.29	25.67	26.60	21.78	22.17	22.55	22.92	23.85