

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: P854251

Luminaire Tested: SQ2-PW1-025U-100D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854251  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PW1-025U-100D-935-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**

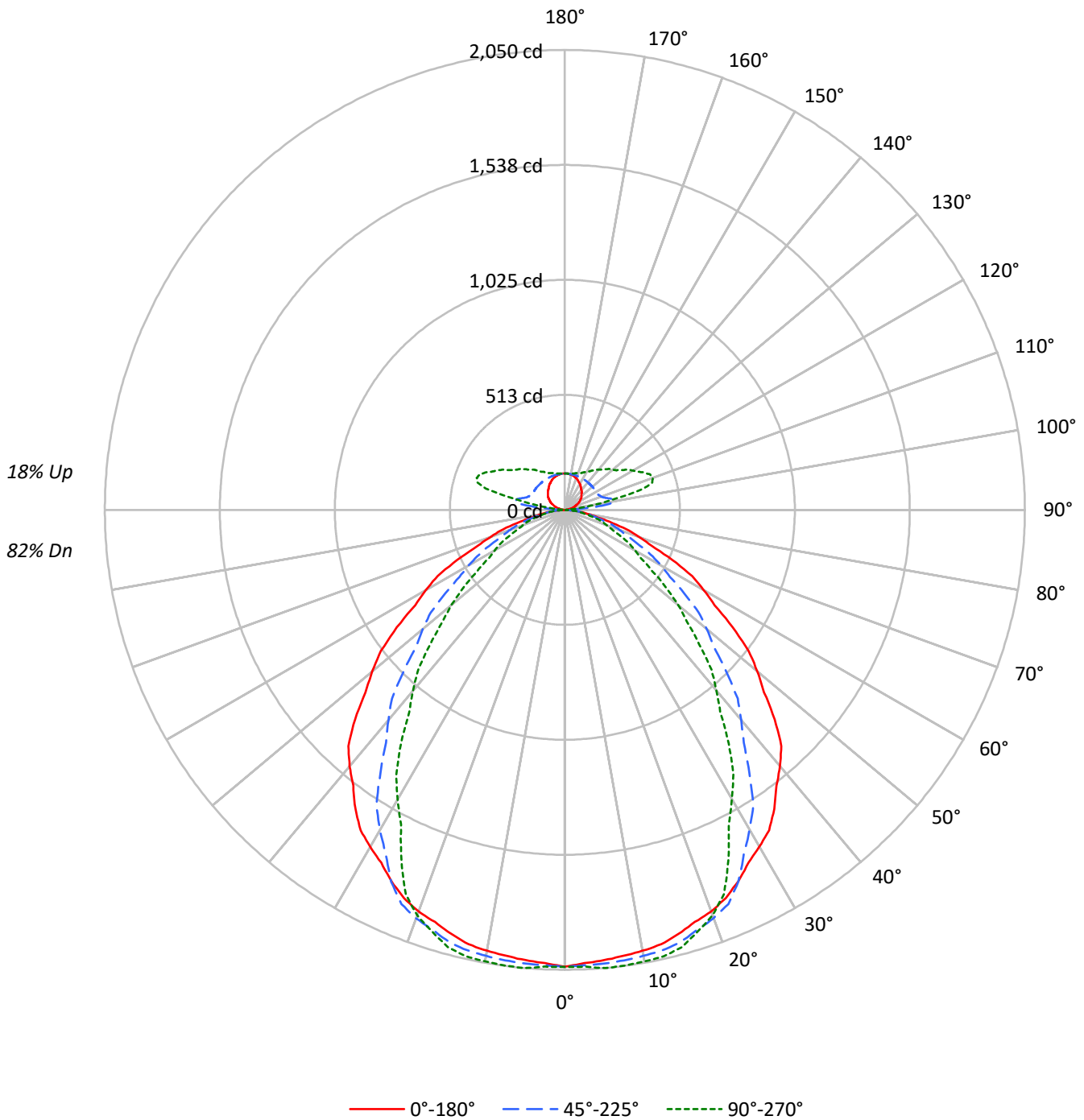
Lumens per Lamp: N/A  
Luminaire Lumens: 5522.2 lumens  
Efficiency: N/A  
Efficacy: 122.7 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Direct

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

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### 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	115	115	115	115	110	110	110	110	101	101	101	93	93	93	85	85	85	82
1	106	102	98	95	101	98	94	91	90	88	85	83	81	80	77	75	74	71
2	97	90	84	79	93	87	81	77	80	76	72	74	71	68	69	66	64	61
3	89	80	73	67	85	77	71	65	72	66	62	67	62	59	62	58	55	53
4	82	72	64	58	79	69	62	56	64	58	54	60	55	51	56	52	49	46
5	76	64	56	50	73	62	55	49	58	52	47	54	49	45	51	46	43	40
6	70	58	50	44	67	56	49	43	53	46	42	50	44	40	46	42	38	36
7	65	53	45	39	63	51	44	39	48	42	37	45	40	36	43	38	34	32
8	61	49	41	35	59	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	37	32	28	26
10	54	41	34	29	51	40	33	29	38	32	28	36	31	27	34	29	26	24

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

	0°	45°	90°
0°	32881	32881	32881
5°	32661	32913	33227
10°	32721	33103	33516
15°	32712	33329	33718
20°	32727	33292	33060
25°	32550	32584	30718
30°	32328	30700	27772
35°	32075	28251	25080
40°	31436	25754	22156
45°	30204	23162	19354
50°	28110	20705	16566
55°	25714	18291	13430
60°	23050	15910	11586
65°	20157	13708	10300
70°	16480	12179	9338
75°	12826	10524	8590
80°	9558	9019	7578
85°	6465	6836	4316

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 30204 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	193.9	3.5
10°-20°	561.9	10.2
20°-30°	826.9	15.0
30°-40°	904.0	16.4
40°-50°	811.0	14.7
50°-60°	605.0	11.0
60°-70°	382.3	6.9
70°-80°	189.4	3.4
80°-90°	44.7	0.8
90°-100°	65.4	1.2
100°-110°	203.4	3.7
110°-120°	199.0	3.6
120°-130°	162.5	2.9
130°-140°	132.9	2.4
140°-150°	103.7	1.9
150°-160°	74.9	1.4
160°-170°	45.8	0.8
170°-180°	15.4	0.3
0°-30°	1582.7	28.7
0°-40°	2486.7	45.0
0°-60°	3902.7	70.7
0°-90°	4519.2	81.8
90°-120°	467.8	8.5
90°-150°	867.0	15.7
90°-180°	1003.0	18.2
0°-180°	5522.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2036	2036	2036	2036	2036	
5°	2015	2048	2031	2033	2050	192
15°	1957	1995	1994	2008	2017	553
25°	1827	1867	1829	1753	1724	841
35°	1627	1610	1433	1308	1272	1015
45°	1323	1217	1014	887	848	1014
55°	914	826	650	509	477	816
65°	528	484	359	289	270	523
75°	206	221	169	142	138	226
85°	35	44	37	25	23	44
90°	0	1	3	3	3	2
95°	9	26	120	44	29	10
105°	36	50	200	382	365	38
115°	64	75	163	335	393	63
125°	88	98	161	264	309	78
135°	106	118	160	228	256	82
145°	124	134	160	197	214	78
155°	142	147	161	177	182	65
165°	156	157	162	167	168	44
175°	162	162	162	163	162	15
180°	162	162	162	162	162	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2036.5	2036.5	2036.5	2036.5	2036.5
2.5°	2022.6	2048.4	2031.9	2033.6	2038.1
5°	2015.2	2047.5	2030.7	2033.1	2050.1
7.5°	2005.1	2037.7	2025.3	2032.3	2049.0
10°	1995.8	2030.0	2019.1	2029.1	2044.3
12.5°	1983.4	2019.1	2011.3	2022.9	2038.1
15°	1957.0	1995.0	1993.9	2007.7	2017.2
17.5°	1926.4	1964.3	1962.5	1966.1	1970.6
20°	1904.7	1942.6	1937.6	1924.1	1924.1
22.5°	1873.6	1914.6	1901.9	1864.8	1852.7
25°	1827.1	1866.9	1829.0	1752.7	1724.3
27.5°	1772.8	1805.0	1728.9	1620.6	1581.1
30°	1734.0	1758.6	1646.7	1527.5	1489.6
32.5°	1693.6	1703.1	1562.9	1439.0	1398.0
35°	1627.3	1610.2	1433.3	1308.4	1272.4
37.5°	1548.9	1498.1	1308.8	1178.0	1138.1
40°	1491.5	1419.5	1221.9	1091.1	1051.2
42.5°	1427.9	1337.6	1139.7	1008.8	967.5
45°	1322.8	1216.6	1014.4	887.4	847.6
47.5°	1204.5	1099.0	897.2	774.3	740.1
50°	1119.1	1016.7	824.3	701.2	659.5
52.5°	1032.2	940.5	752.9	626.4	569.5
55°	913.5	826.3	649.8	509.4	477.1
57.5°	791.3	715.9	556.3	428.8	402.3
60°	713.8	647.4	492.7	385.4	358.8
62.5°	639.3	580.5	430.6	345.1	323.1
65°	527.6	483.9	358.8	288.6	269.6
67.5°	418.9	394.7	298.3	236.7	224.2
70°	349.1	341.5	258.0	207.3	197.8
72.5°	288.6	291.6	219.2	179.5	173.0
75°	205.6	220.8	168.7	141.5	137.7
77.5°	140.0	162.8	124.9	104.7	101.6
80°	102.8	125.6	97.0	81.5	81.5
82.5°	71.8	90.0	69.0	61.3	61.3
85°	34.9	44.4	36.9	25.2	23.3
87.5°	9.3	14.1	6.8	5.2	5.2
90°	0.0	1.0	3.0	3.0	3.0
92.5°	3.2	11.1	37.9	12.4	10.1
95°	8.9	26.4	120.0	44.3	28.8
97.5°	16.3	34.3	198.7	123.7	77.9
100°	21.8	38.3	224.1	209.6	139.8
102.5°	27.4	43.1	219.3	299.3	235.0
105°	35.7	50.2	200.3	382.3	364.9
107.5°	44.0	57.6	182.0	388.7	407.9
110°	49.6	63.1	172.5	379.6	417.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	55.1	67.9	167.8	363.2	411.1
115°	63.5	75.1	162.6	335.4	392.6
117.5°	71.6	82.2	160.4	308.9	367.4
120°	76.3	87.0	159.6	293.8	350.0
122.5°	81.1	91.8	160.4	281.0	332.5
125°	88.2	97.9	160.6	263.8	309.3
127.5°	94.0	103.9	160.6	250.9	289.7
130°	97.2	107.8	160.6	243.7	278.6
132.5°	101.1	111.8	159.8	237.3	269.9
135°	106.1	117.7	159.6	227.7	255.8
137.5°	111.8	122.5	159.6	218.1	243.7
140°	115.0	125.7	159.6	211.7	235.0
142.5°	119.0	128.9	159.6	205.3	226.2
145°	123.9	133.6	159.6	196.7	214.2
147.5°	129.9	138.2	160.6	188.7	202.5
150°	133.8	140.6	160.6	184.7	195.3
152.5°	137.0	143.0	160.6	180.7	189.8
155°	141.8	146.6	160.6	176.6	182.4
157.5°	146.5	150.2	160.6	173.0	176.7
160°	149.7	152.6	160.6	170.6	173.5
162.5°	152.1	154.2	160.6	169.0	171.1
165°	155.7	156.6	161.6	166.6	168.5
167.5°	157.8	158.0	160.6	165.2	166.2
170°	158.6	159.6	160.6	163.6	164.6
172.5°	160.2	160.4	161.4	162.8	163.0
175°	161.6	161.6	161.6	162.6	161.6
177.5°	161.6	161.6	161.6	161.6	161.6
180°	161.6	161.6	161.6	161.6	161.6

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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	21.78	22.95	22.42	23.59	24.32	18.27	19.44	18.90	20.08	20.81
	3H	23.13	24.17	23.78	24.82	25.59	19.50	20.54	20.15	21.19	21.96
	4H	23.52	24.50	24.18	25.16	25.94	19.96	20.94	20.63	21.60	22.39
	6H	23.74	24.64	24.42	25.31	26.11	20.29	21.20	20.97	21.87	22.67
	8H	23.78	24.64	24.47	25.33	26.13	20.38	21.24	21.07	21.93	22.73
	12H	23.78	24.60	24.48	25.29	26.12	20.40	21.22	21.09	21.90	22.73
4H	2H	21.92	22.91	22.59	23.57	24.35	18.99	19.97	19.66	20.63	21.42
	3H	23.50	24.31	24.18	25.01	25.81	20.41	21.22	21.09	21.92	22.72
	4H	24.02	24.75	24.72	25.46	26.29	20.96	21.70	21.66	22.40	23.24
	6H	24.36	25.00	25.08	25.73	26.57	21.38	22.02	22.10	22.75	23.59
	8H	24.45	25.04	25.17	25.77	26.62	21.49	22.09	22.22	22.82	23.67
	12H	24.48	25.01	25.22	25.76	26.62	21.53	22.06	22.27	22.81	23.67
8H	4H	24.08	24.67	24.80	25.40	26.25	21.31	21.90	22.04	22.63	23.48
	6H	24.52	25.01	25.28	25.78	26.64	21.83	22.32	22.58	23.09	23.94
	8H	24.67	25.11	25.44	25.88	26.75	21.99	22.43	22.76	23.20	24.07
	12H	24.75	25.13	25.52	25.90	26.83	22.07	22.45	22.83	23.21	24.14
12H	4H	24.05	24.58	24.79	25.33	26.19	21.34	21.87	22.08	22.62	23.48
	6H	24.52	24.95	25.28	25.73	26.60	21.89	22.33	22.66	23.10	23.97
	8H	24.69	25.08	25.46	25.84	26.77	22.09	22.48	22.86	23.24	24.17