

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: P854315

Luminaire Tested: SQ2-PW1-125U-125D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

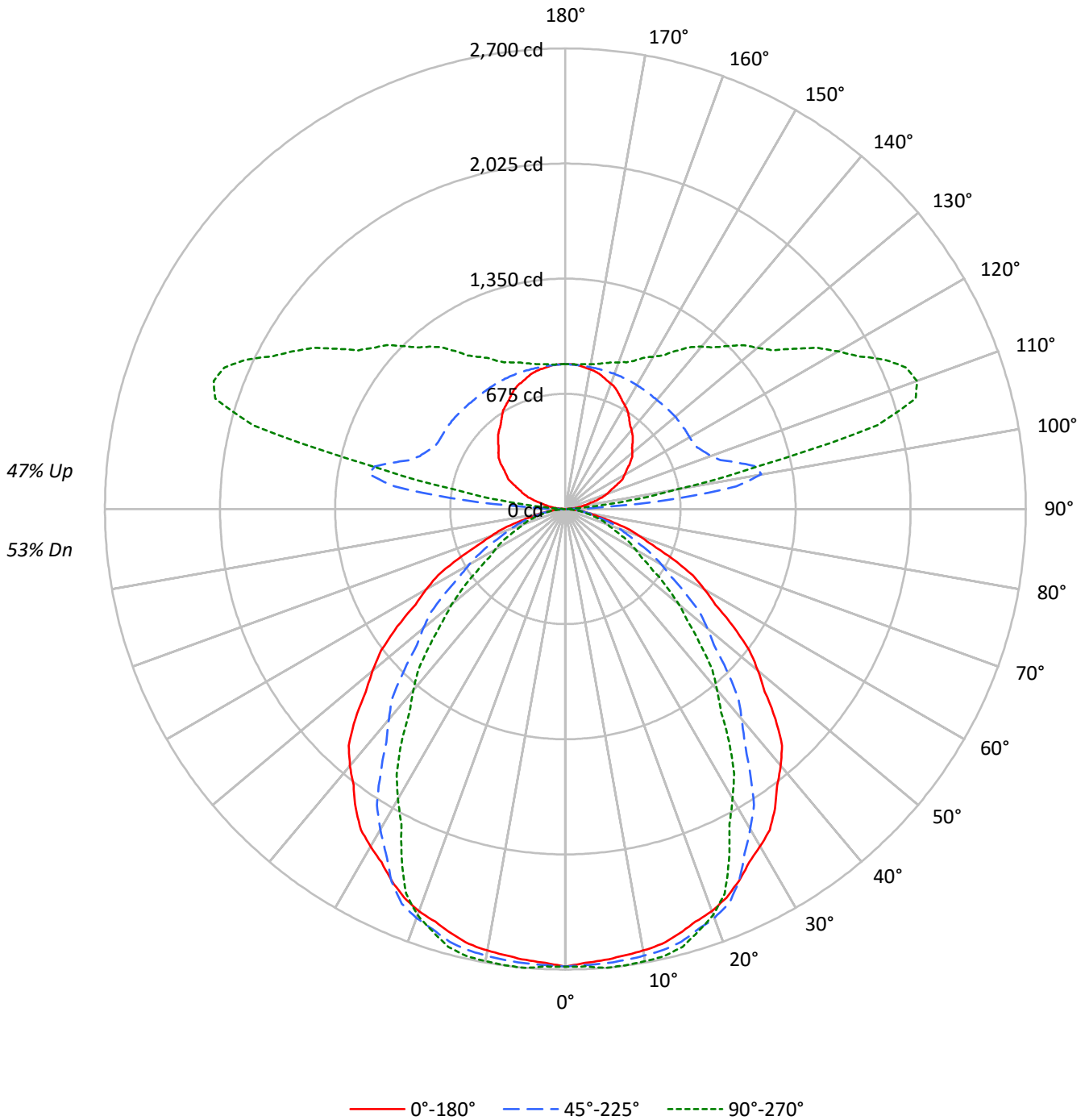
Test Method: LM-79-2019  
Report Number: P854315  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PW1-125U-125D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 1250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11191.6 lumens  
Efficiency: N/A  
Efficacy: 120.2 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: General Diffuse  
  
Input Watts (W): 93.1  
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	50	30	10	0	
RCR																						
0	108	108	108	108	100	100	100	100	85	85	85	72	72	72	59	59	59	53	53	53	53	
1	99	95	91	88	92	88	85	82	76	73	71	64	62	61	53	52	51	46	46	46	46	
2	91	84	78	73	84	78	73	68	67	63	60	57	54	52	48	46	44	40	40	40	40	
3	83	74	67	61	77	69	63	58	60	55	51	51	47	44	43	40	38	34	34	34	34	
4	76	66	58	53	71	62	55	50	53	48	44	46	42	39	38	36	33	30	30	30	30	
5	70	59	51	45	65	55	48	43	48	43	38	41	37	34	35	32	29	26	26	26	26	
6	65	53	45	40	60	50	43	38	43	38	34	37	33	30	32	29	26	23	23	23	23	
7	60	48	40	35	56	45	38	33	40	34	30	34	30	27	29	26	23	21	21	21	21	
8	56	44	36	31	52	41	34	30	36	31	27	31	27	24	27	24	21	19	19	19	19	
9	52	40	33	28	48	38	31	27	33	28	24	29	25	22	25	22	19	17	17	17	17	
10	49	37	30	25	45	35	28	24	31	25	22	27	23	20	23	20	18	16	16	16	16	

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

	0°	45°	90°
0°	43308	43308	43308
5°	43018	43349	43764
10°	43097	43599	44143
15°	43086	43896	44409
20°	43103	43849	43541
25°	42870	42916	40458
30°	42578	40434	36577
35°	42245	37209	33031
40°	41406	33921	29183
45°	39781	30506	25489
50°	37025	27271	21818
55°	33869	24090	17689
60°	30357	20954	15261
65°	26544	18055	13566
70°	21706	16041	12302
75°	16893	13861	11316
80°	12590	11874	9977
85°	8522	8985	5687

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 39781 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	255.4	2.3
10°-20°	740.0	6.6
20°-30°	1089.1	9.7
30°-40°	1190.7	10.6
40°-50°	1068.2	9.5
50°-60°	796.8	7.1
60°-70°	503.6	4.5
70°-80°	249.5	2.2
80°-90°	59.3	0.5
90°-100°	324.8	2.9
100°-110°	1057.5	9.4
110°-120°	1046.1	9.3
120°-130°	854.9	7.6
130°-140°	698.7	6.2
140°-150°	544.2	4.9
150°-160°	392.3	3.5
160°-170°	239.8	2.1
170°-180°	80.9	0.7
0°-30°	2084.5	18.6
0°-40°	3275.2	29.3
0°-60°	5140.2	45.9
0°-90°	5952.5	53.2
90°-120°	2428.4	21.7
90°-150°	4526.1	40.4
90°-180°	5239.0	46.8
0°-180°	11191.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2682	2682	2682	2682	2682	
5°	2654	2697	2675	2678	2700	253
15°	2578	2628	2626	2644	2657	728
25°	2406	2459	2409	2308	2271	1108
35°	2143	2121	1888	1723	1676	1337
45°	1742	1602	1336	1169	1116	1336
55°	1203	1088	856	671	628	1074
65°	695	637	473	380	355	689
75°	271	291	222	186	181	298
85°	46	58	48	33	31	58
90°	0	3	7	6	6	4
95°	44	134	595	212	131	51
105°	180	259	1048	2001	1895	192
115°	332	396	853	1759	2069	329
125°	462	515	842	1388	1637	411
135°	558	616	838	1198	1352	431
145°	652	700	836	1032	1130	408
155°	744	768	841	924	959	343
165°	812	819	843	874	885	229
175°	846	846	846	852	850	80
180°	849	849	849	849	849	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2682.3	2682.3	2682.3	2682.3	2682.3
2.5°	2663.9	2697.9	2676.2	2678.4	2684.3
5°	2654.2	2696.7	2674.6	2677.7	2700.2
7.5°	2640.9	2683.9	2667.5	2676.7	2698.7
10°	2628.7	2673.6	2659.3	2672.5	2692.5
12.5°	2612.3	2659.3	2649.1	2664.4	2684.3
15°	2577.6	2627.5	2626.1	2644.3	2656.8
17.5°	2537.2	2587.2	2584.7	2589.5	2595.4
20°	2508.6	2558.5	2552.0	2534.1	2534.1
22.5°	2467.7	2521.7	2505.0	2456.1	2440.1
25°	2406.4	2458.9	2409.0	2308.5	2271.0
27.5°	2334.9	2377.3	2277.1	2134.4	2082.5
30°	2283.8	2316.3	2168.8	2011.9	1961.9
32.5°	2230.7	2243.1	2058.5	1895.3	1841.3
35°	2143.3	2120.8	1887.8	1723.3	1675.8
37.5°	2040.1	1973.1	1723.8	1551.5	1499.0
40°	1964.5	1869.6	1609.4	1437.0	1384.6
42.5°	1880.7	1761.8	1501.1	1328.7	1274.2
45°	1742.2	1602.3	1336.0	1168.8	1116.3
47.5°	1586.4	1447.5	1181.7	1019.8	974.8
50°	1474.0	1339.1	1085.7	923.5	868.6
52.5°	1359.5	1238.7	991.7	825.0	750.0
55°	1203.2	1088.3	855.8	670.9	628.4
57.5°	1042.3	942.9	732.7	564.8	529.8
60°	940.1	852.7	648.9	507.6	472.6
62.5°	842.0	764.6	567.1	454.6	425.6
65°	694.8	637.4	472.6	380.1	355.1
67.5°	551.8	519.8	392.9	311.8	295.3
70°	459.8	449.8	339.8	273.1	260.6
72.5°	380.1	384.1	288.7	236.4	227.9
75°	270.8	290.8	222.2	186.4	181.4
77.5°	184.4	214.4	164.5	137.9	133.9
80°	135.4	165.4	127.7	107.3	107.3
82.5°	94.5	118.5	90.9	80.7	80.7
85°	46.0	58.5	48.5	33.2	30.7
87.5°	12.3	18.9	9.6	7.4	7.4
90°	0.0	3.1	7.3	6.3	6.3
92.5°	15.0	54.1	172.8	56.9	43.9
95°	43.9	133.7	595.3	212.3	130.6
97.5°	82.5	174.0	1010.4	615.4	375.6
100°	107.6	197.4	1166.7	1040.3	674.7
102.5°	136.0	222.6	1147.4	1539.1	1170.2
105°	179.6	259.3	1047.6	2000.8	1894.6
107.5°	226.9	301.8	952.7	2040.9	2153.4
110°	261.1	329.5	907.6	1991.2	2194.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	289.5	357.1	879.2	1901.4	2163.5
115°	332.1	396.5	853.3	1758.6	2069.1
117.5°	376.0	434.0	843.3	1627.8	1936.8
120°	401.1	458.3	840.8	1547.4	1846.6
122.5°	425.3	481.7	841.6	1477.5	1756.3
125°	461.6	514.8	841.8	1388.5	1636.7
127.5°	492.8	547.1	841.6	1321.8	1528.7
130°	512.8	568.0	840.8	1283.7	1468.5
132.5°	530.4	588.0	839.9	1248.3	1421.7
135°	557.7	615.9	837.6	1198.3	1351.5
137.5°	584.5	643.1	835.4	1147.6	1283.6
140°	603.7	659.9	834.5	1113.2	1241.9
142.5°	622.1	675.8	834.5	1080.3	1195.1
145°	651.7	699.7	835.6	1032.1	1130.1
147.5°	680.6	722.2	837.0	991.0	1066.8
150°	699.8	736.5	838.7	966.5	1030.9
152.5°	719.0	749.2	839.5	947.9	999.1
155°	743.6	768.2	840.8	924.1	958.8
157.5°	767.0	784.6	842.0	906.5	930.8
160°	781.2	795.5	842.9	895.5	914.9
162.5°	793.8	804.8	842.9	886.2	900.7
165°	811.5	818.7	842.9	874.4	884.6
167.5°	824.1	828.6	843.1	865.6	870.9
170°	832.4	834.5	843.9	859.6	861.7
172.5°	838.3	839.5	845.6	856.2	855.8
175°	846.0	846.0	846.0	852.2	850.2
177.5°	849.1	848.3	847.5	851.6	848.3
180°	849.1	849.1	849.1	849.1	849.1



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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	20.44	21.29	21.38	22.24	23.47	16.93	17.78	17.86	18.73	19.95
	3H	21.76	22.52	22.71	23.48	24.73	18.13	18.89	19.08	19.85	21.10
	4H	22.14	22.85	23.10	23.82	25.08	18.58	19.30	19.54	20.26	21.52
	6H	22.34	23.00	23.31	23.97	25.24	18.90	19.55	19.87	20.52	21.80
	8H	22.37	23.00	23.35	23.98	25.25	18.97	19.60	19.95	20.58	21.85
	12H	22.37	22.96	23.35	23.94	25.24	18.98	19.58	19.97	20.56	21.85
4H	2H	20.54	21.26	21.51	22.22	23.48	17.61	18.33	18.58	19.29	20.55
	3H	22.09	22.68	23.07	23.67	24.95	19.00	19.59	19.97	20.58	21.86
	4H	22.59	23.14	23.58	24.12	25.42	19.54	20.08	20.53	21.07	22.37
	6H	22.93	23.39	23.93	24.40	25.70	19.95	20.41	20.94	21.42	22.72
	8H	23.00	23.44	24.01	24.44	25.75	20.05	20.49	21.05	21.49	22.80
	12H	23.02	23.41	24.04	24.43	25.75	20.07	20.46	21.09	21.48	22.80
8H	4H	22.63	23.07	23.63	24.07	25.38	19.87	20.30	20.87	21.31	22.62
	6H	23.07	23.43	24.09	24.47	25.78	20.37	20.73	21.40	21.78	23.09
	8H	23.21	23.53	24.25	24.56	25.89	20.54	20.85	21.57	21.88	23.21
	12H	23.28	23.56	24.32	24.58	25.96	20.60	20.87	21.63	21.90	23.27
12H	4H	22.59	22.98	23.61	24.00	25.32	19.88	20.27	20.90	21.29	22.61
	6H	23.06	23.38	24.09	24.41	25.74	20.44	20.75	21.47	21.79	23.11
	8H	23.22	23.50	24.26	24.52	25.90	20.62	20.90	21.66	21.93	23.30