

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: P854860

Luminaire Tested: SQ2-PW1-125U-125D-830-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854860  
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-830-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 1250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

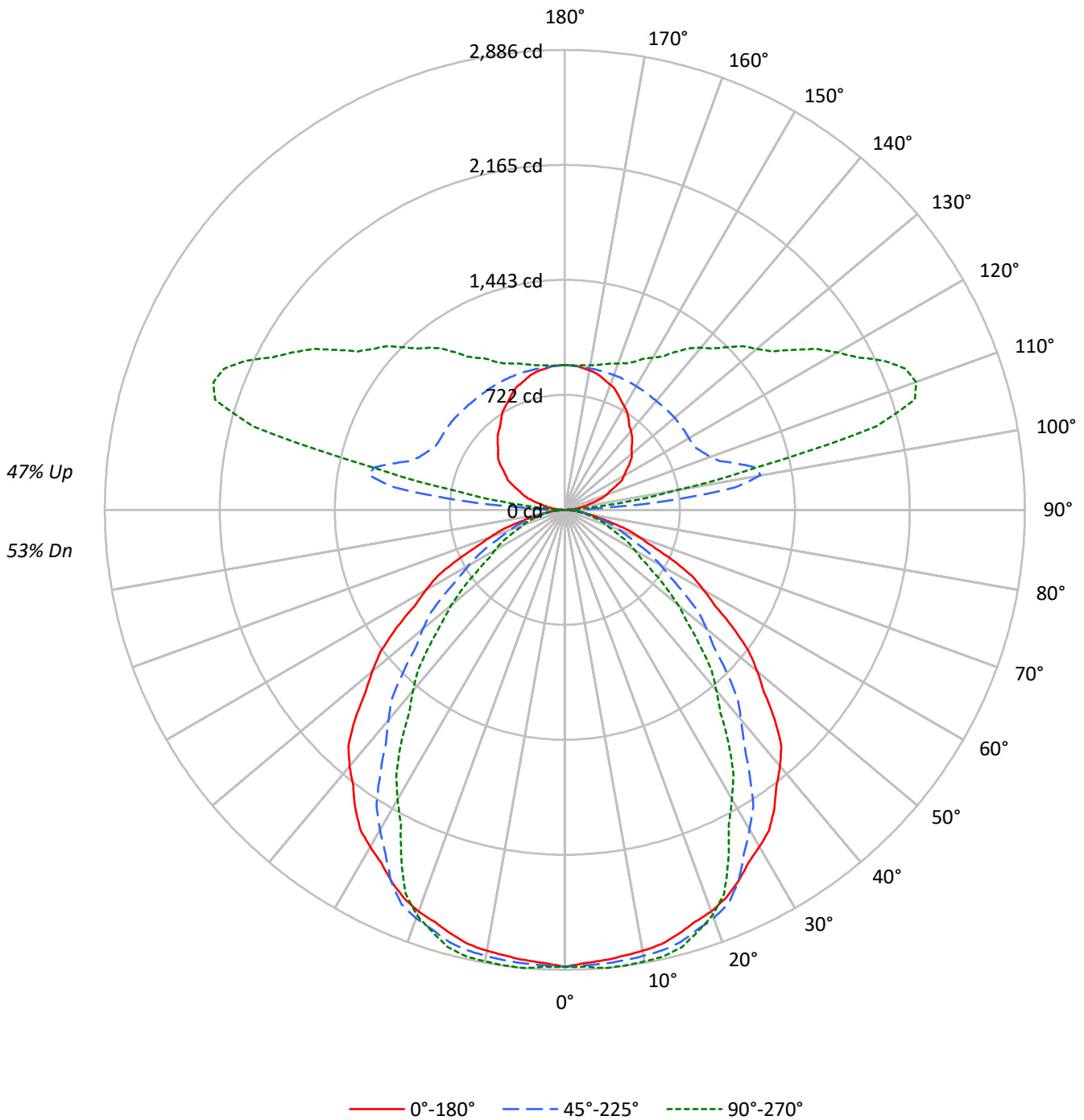
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11962.6 lumens  
Efficiency: N/A  
Efficacy: 128.5 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	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	53	53	53	53	53	53	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	46	46	46	46	46	46	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	40	40	40	40	40	40	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	34	34	34	34	34	34	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	30	30	30	30	30	30	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	26	26	26	26	26	26	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	23	23	23	23	23	23	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	21	21	21	21	21	21	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	19	19	19	19	19	19	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	17	17	17	17	17	17	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	16	16	16	16	16	16	16	16	16	16			

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

	0°	45°	90°
0°	46292	46292	46292
5°	45982	46336	46778
10°	46066	46603	47186
15°	46054	46920	47468
20°	46072	46869	46541
25°	45824	45872	43246
30°	45513	43221	39098
35°	45155	39774	35307
40°	44257	36259	31194
45°	42523	32609	27247
50°	39577	29150	23320
55°	36203	25748	18908
60°	32447	22394	16314
65°	28374	19301	14502
70°	23202	17146	13147
75°	18054	14816	12096
80°	13454	12701	10656
85°	9114	9615	6076

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 42523 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	273.0	2.3
10°-20°	791.0	6.6
20°-30°	1164.1	9.7
30°-40°	1272.7	10.6
40°-50°	1141.8	9.5
50°-60°	851.7	7.1
60°-70°	538.2	4.5
70°-80°	266.6	2.2
80°-90°	63.4	0.5
90°-100°	347.2	2.9
100°-110°	1130.4	9.4
110°-120°	1118.1	9.3
120°-130°	913.8	7.6
130°-140°	746.8	6.2
140°-150°	581.7	4.9
150°-160°	419.3	3.5
160°-170°	256.3	2.1
170°-180°	86.5	0.7
0°-30°	2228.1	18.6
0°-40°	3500.9	29.3
0°-60°	5494.3	45.9
0°-90°	6362.6	53.2
90°-120°	2595.7	21.7
90°-150°	4838.0	40.4
90°-180°	5600.0	46.8
0°-180°	11962.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2867	2867	2867	2867	2867	
5°	2837	2882	2859	2862	2886	270
15°	2755	2808	2807	2826	2840	778
25°	2572	2628	2575	2468	2428	1185
35°	2291	2267	2018	1842	1791	1429
45°	1862	1713	1428	1249	1193	1428
55°	1286	1163	915	717	672	1148
65°	743	681	505	406	380	736
75°	289	311	238	199	194	319
85°	49	62	52	35	33	62
90°	0	3	8	7	7	4
95°	47	143	636	227	140	55
105°	192	277	1120	2139	2025	205
115°	355	424	912	1880	2212	351
125°	493	550	900	1484	1749	439
135°	596	658	895	1281	1445	461
145°	697	748	893	1103	1208	436
155°	795	821	899	988	1025	366
165°	867	875	901	935	946	244
175°	904	904	904	911	909	86
180°	908	908	908	908	908	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2867.1	2867.1	2867.1	2867.1	2867.1
2.5°	2847.4	2883.7	2860.5	2862.9	2869.2
5°	2837.1	2882.5	2858.9	2862.2	2886.2
7.5°	2822.9	2868.8	2851.3	2861.1	2884.6
10°	2809.8	2857.8	2842.5	2856.7	2878.1
12.5°	2792.2	2842.4	2831.6	2848.0	2869.2
15°	2755.2	2808.5	2807.0	2826.5	2839.8
17.5°	2712.0	2765.4	2762.8	2767.8	2774.3
20°	2681.4	2734.8	2727.8	2708.7	2708.7
22.5°	2637.8	2695.5	2677.6	2625.4	2608.3
25°	2572.2	2628.3	2574.9	2467.5	2427.5
27.5°	2495.8	2541.1	2434.0	2281.5	2226.0
30°	2441.2	2475.9	2318.3	2150.5	2097.1
32.5°	2384.3	2397.6	2200.3	2025.9	1968.2
35°	2290.9	2266.9	2017.9	1841.9	1791.3
37.5°	2180.7	2109.1	1842.6	1658.3	1602.3
40°	2099.8	1998.4	1720.3	1536.1	1480.0
42.5°	2010.3	1883.2	1604.5	1420.2	1362.0
45°	1862.3	1712.7	1428.1	1249.4	1193.3
47.5°	1695.7	1547.3	1263.2	1090.1	1042.0
50°	1575.6	1431.4	1160.5	987.2	928.4
52.5°	1453.2	1324.0	1060.0	881.8	801.7
55°	1286.1	1163.3	914.7	717.1	671.7
57.5°	1114.0	1007.9	783.1	603.7	566.3
60°	1004.8	911.4	693.5	542.5	505.2
62.5°	900.0	817.2	606.1	485.8	454.9
65°	742.7	681.3	505.2	406.2	379.6
67.5°	589.9	555.6	419.9	333.3	315.7
70°	491.5	480.9	363.2	291.8	278.5
72.5°	406.4	410.5	308.6	252.7	243.5
75°	289.4	310.8	237.5	199.2	193.9
77.5°	197.2	229.2	175.8	147.3	143.0
80°	144.7	176.7	136.6	114.6	114.6
82.5°	101.1	126.6	97.2	86.3	86.3
85°	49.2	62.5	51.9	35.4	32.8
87.5°	13.1	20.1	10.3	7.9	7.9
90°	0.0	3.3	7.8	6.7	6.7
92.5°	16.1	57.8	184.6	60.8	46.9
95°	46.9	142.9	636.3	226.9	139.5
97.5°	88.2	186.0	1080.0	657.8	401.5
100°	115.0	211.1	1247.0	1112.0	721.2
102.5°	145.4	237.9	1226.5	1645.1	1250.8
105°	192.0	277.1	1119.8	2138.7	2025.2
107.5°	242.5	322.6	1018.4	2181.5	2301.8
110°	279.2	352.2	970.2	2128.3	2345.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	309.5	381.7	939.8	2032.4	2312.5
115°	355.0	423.8	912.1	1879.8	2211.7
117.5°	401.9	463.9	901.3	1739.9	2070.3
120°	428.7	489.8	898.7	1654.0	1973.8
122.5°	454.6	514.9	899.7	1579.4	1877.3
125°	493.4	550.2	899.9	1484.2	1749.4
127.5°	526.8	584.8	899.7	1412.9	1634.0
130°	548.1	607.2	898.7	1372.0	1569.7
132.5°	566.9	628.5	897.8	1334.3	1519.7
135°	596.2	658.4	895.4	1280.9	1444.6
137.5°	624.8	687.4	892.9	1226.6	1372.0
140°	645.3	705.3	892.0	1189.9	1327.4
142.5°	664.9	722.4	892.0	1154.7	1277.4
145°	696.6	747.9	893.1	1103.2	1208.0
147.5°	727.5	772.0	894.7	1059.3	1140.3
150°	748.0	787.3	896.5	1033.1	1101.9
152.5°	768.5	800.8	897.4	1013.2	1068.0
155°	794.8	821.1	898.7	987.7	1024.8
157.5°	819.9	838.7	900.1	969.0	995.0
160°	835.1	850.4	900.9	957.2	978.0
162.5°	848.4	860.3	900.9	947.3	962.7
165°	867.4	875.1	900.9	934.7	945.6
167.5°	880.9	885.6	901.1	925.2	930.9
170°	889.8	892.0	902.0	918.9	921.0
172.5°	896.0	897.4	903.8	915.3	914.8
175°	904.3	904.3	904.3	911.0	908.8
177.5°	907.7	906.8	905.9	910.3	906.8
180°	907.7	907.7	907.7	907.7	907.7



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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	20.67	21.52	21.61	22.47	23.70	17.16	18.01	18.10	18.96	20.19
	3H	21.99	22.75	22.94	23.71	24.96	18.36	19.12	19.31	20.08	21.33
	4H	22.37	23.08	23.33	24.05	25.31	18.81	19.53	19.77	20.49	21.75
	6H	22.57	23.23	23.54	24.20	25.47	19.13	19.79	20.10	20.75	22.03
	8H	22.60	23.23	23.58	24.21	25.48	19.20	19.83	20.18	20.81	22.08
	12H	22.60	23.20	23.58	24.17	25.47	19.21	19.81	20.20	20.79	22.08
4H	2H	20.77	21.49	21.74	22.45	23.71	17.84	18.56	18.81	19.52	20.78
	3H	22.32	22.91	23.30	23.91	25.18	19.23	19.82	20.21	20.81	22.09
	4H	22.83	23.37	23.81	24.35	25.65	19.77	20.32	20.76	21.30	22.60
	6H	23.16	23.62	24.16	24.63	25.93	20.18	20.64	21.18	21.65	22.95
	8H	23.24	23.67	24.24	24.67	25.98	20.28	20.72	21.28	21.72	23.03
	12H	23.25	23.64	24.27	24.66	25.98	20.30	20.69	21.32	21.71	23.03
8H	4H	22.86	23.30	23.87	24.30	25.61	20.10	20.53	21.10	21.54	22.85
	6H	23.30	23.66	24.33	24.70	26.01	20.60	20.96	21.63	22.01	23.32
	8H	23.44	23.76	24.48	24.79	26.12	20.77	21.08	21.80	22.11	23.44
	12H	23.51	23.79	24.55	24.81	26.19	20.83	21.10	21.86	22.13	23.50
12H	4H	22.82	23.21	23.84	24.23	25.55	20.11	20.51	21.13	21.52	22.84
	6H	23.29	23.61	24.32	24.64	25.97	20.67	20.99	21.70	22.02	23.34
	8H	23.45	23.73	24.49	24.76	26.13	20.85	21.13	21.89	22.16	23.53