

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: P855278

Luminaire Tested: SQ2-PW1-100U-125D-840-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855278  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PW1-100U-125D-840-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

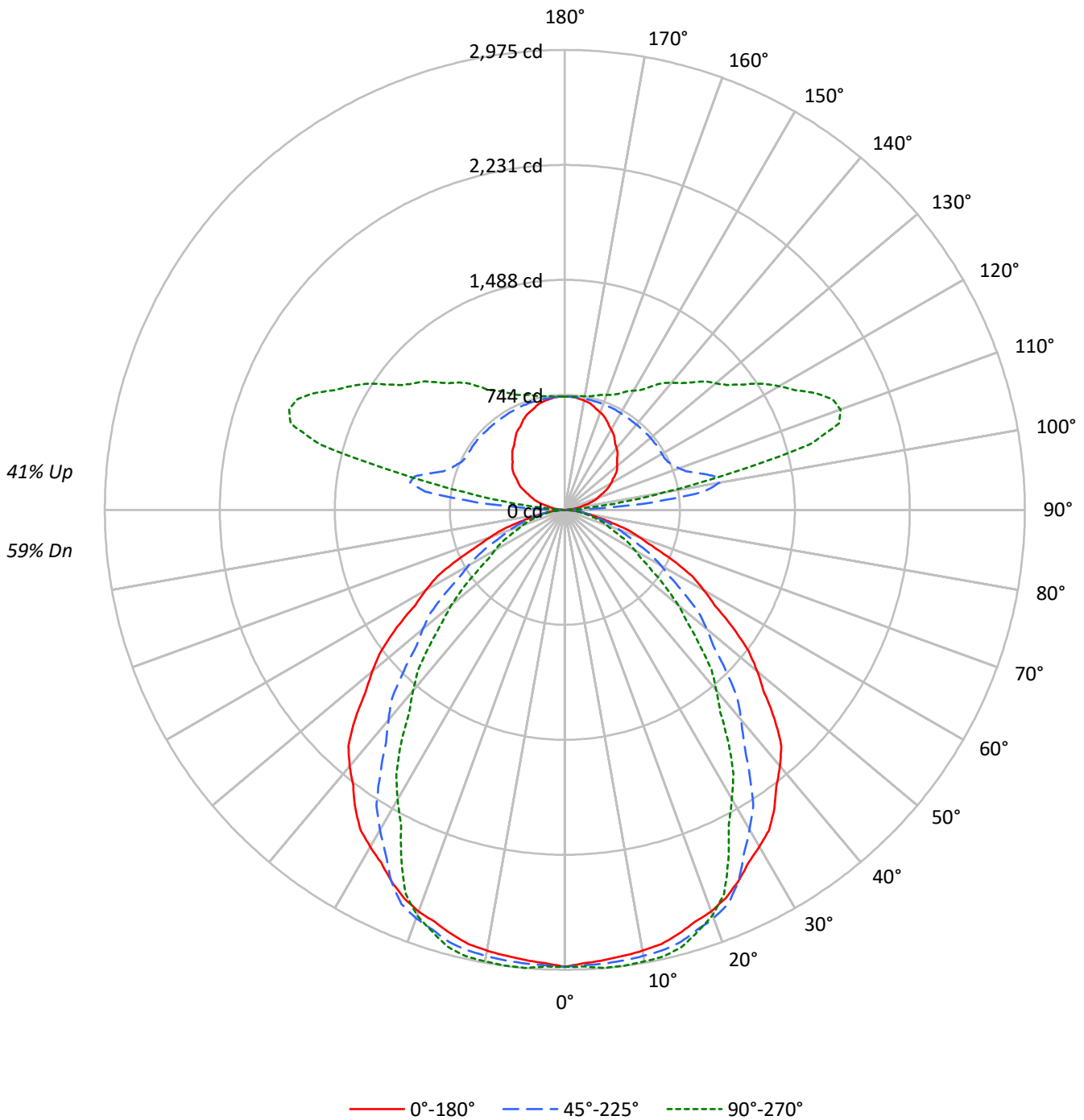
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11119.8 lumens  
Efficiency: N/A  
Efficacy: 135.9 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): 81.8  
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				
RC	80					70					50					30				
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																				
0	109	109	109	109	102	102	102	102	88	88	88	76	76	76	64	64	64	59		
1	100	96	93	89	94	90	87	84	79	76	74	68	66	65	58	57	56	51		
2	92	85	79	74	86	80	74	70	70	66	62	60	58	55	52	50	48	44		
3	84	75	68	63	79	71	64	59	62	57	53	54	50	47	47	44	42	38		
4	78	67	59	54	72	63	56	51	56	50	46	49	44	41	42	39	36	33		
5	71	60	52	46	67	57	50	44	50	44	40	44	40	36	38	35	32	29		
6	66	54	46	41	62	51	44	39	45	40	35	40	35	32	35	31	29	26		
7	61	49	41	36	57	46	39	34	41	36	31	37	32	29	32	28	26	23		
8	57	45	37	32	53	42	36	31	38	32	28	34	29	26	29	26	23	21		
9	53	41	34	29	50	39	32	28	35	29	25	31	26	23	27	24	21	19		
10	50	38	31	26	47	36	29	25	32	27	23	29	24	21	25	22	19	17		

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

	0°	45°	90°
0°	47714	47714	47714
5°	47396	47760	48216
10°	47481	48035	48636
15°	47468	48363	48928
20°	47489	48309	47972
25°	47233	47283	44575
30°	46911	44549	40300
35°	46542	40996	36391
40°	45619	37374	32153
45°	43829	33611	28085
50°	40792	30047	24036
55°	37315	26539	19491
60°	33444	23085	16814
65°	29249	19893	14946
70°	23915	17670	13548
75°	18609	15278	12470
80°	13873	13092	10990
85°	9392	9911	6262

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 43829 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	281.4	2.5
10°-20°	815.3	7.3
20°-30°	1199.9	10.8
30°-40°	1311.9	11.8
40°-50°	1176.9	10.6
50°-60°	877.9	7.9
60°-70°	554.8	5.0
70°-80°	274.8	2.5
80°-90°	65.6	0.6
90°-100°	306.1	2.8
100°-110°	925.7	8.3
110°-120°	903.7	8.1
120°-130°	738.5	6.6
130°-140°	602.8	5.4
140°-150°	469.2	4.2
150°-160°	338.3	3.0
160°-170°	207.1	1.9
170°-180°	69.9	0.6
0°-30°	2296.6	20.7
0°-40°	3608.5	32.5
0°-60°	5663.2	50.9
0°-90°	6558.5	59.0
90°-120°	2135.5	19.2
90°-150°	3946.0	35.5
90°-180°	4561.0	41.0
0°-180°	11119.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2955	2955	2955	2955	2955	
5°	2924	2971	2947	2950	2975	278
15°	2840	2895	2893	2913	2927	802
25°	2651	2709	2654	2543	2502	1221
35°	2361	2337	2080	1899	1846	1473
45°	1920	1765	1472	1288	1230	1472
55°	1326	1199	943	739	692	1184
65°	766	702	521	419	391	759
75°	298	320	245	205	200	329
85°	51	64	54	36	34	64
90°	0	2	14	8	7	4
95°	38	120	578	213	135	45
105°	161	226	909	1726	1641	169
115°	286	342	735	1521	1787	283
125°	400	444	725	1201	1414	356
135°	480	530	720	1036	1166	372
145°	560	602	720	891	974	351
155°	638	660	725	799	830	294
165°	698	706	728	756	765	197
175°	731	731	732	738	735	69
180°	733	733	733	733	733	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2955.2	2955.2	2955.2	2955.2	2955.2
2.5°	2934.9	2972.4	2948.5	2950.9	2957.4
5°	2924.3	2971.1	2946.8	2950.2	2974.9
7.5°	2909.7	2957.0	2938.9	2949.0	2973.3
10°	2896.1	2945.7	2929.9	2944.5	2966.5
12.5°	2878.1	2929.8	2918.6	2935.5	2957.4
15°	2839.8	2894.9	2893.3	2913.4	2927.1
17.5°	2795.3	2850.5	2847.8	2852.9	2859.5
20°	2763.9	2818.9	2811.6	2792.0	2792.0
22.5°	2718.9	2778.3	2759.9	2706.1	2688.5
25°	2651.3	2709.1	2654.1	2543.4	2502.1
27.5°	2572.5	2619.2	2508.9	2351.7	2294.4
30°	2516.2	2552.0	2389.5	2216.6	2161.6
32.5°	2457.6	2471.3	2268.0	2088.2	2028.7
35°	2361.3	2336.6	2079.9	1898.6	1846.3
37.5°	2247.7	2173.9	1899.3	1709.3	1651.6
40°	2164.4	2059.8	1773.2	1583.3	1525.5
42.5°	2072.1	1941.1	1653.8	1463.9	1403.8
45°	1919.5	1765.3	1472.0	1287.8	1230.0
47.5°	1747.9	1594.9	1302.0	1123.6	1074.0
50°	1624.0	1475.4	1196.2	1017.5	956.9
52.5°	1497.9	1364.7	1092.6	908.9	826.4
55°	1325.6	1199.1	942.8	739.1	692.4
57.5°	1148.3	1038.8	807.2	622.2	583.7
60°	1035.7	939.4	714.9	559.2	520.7
62.5°	927.7	842.4	624.8	500.8	468.8
65°	765.6	702.3	520.7	418.7	391.2
67.5°	608.0	572.7	432.8	343.6	325.4
70°	506.6	495.6	374.3	300.8	287.0
72.5°	418.8	423.2	318.0	260.5	251.0
75°	298.3	320.4	244.9	205.3	199.9
77.5°	203.2	236.2	181.2	151.9	147.4
80°	149.2	182.2	140.8	118.2	118.2
82.5°	104.2	130.5	100.2	88.9	88.9
85°	50.7	64.4	53.5	36.5	33.8
87.5°	13.5	20.5	11.8	8.4	8.2
90°	0.0	2.2	13.8	8.0	6.9
92.5°	12.9	52.1	186.8	62.0	44.6
95°	38.0	120.0	577.6	213.4	134.6
97.5°	73.4	152.8	910.3	602.4	366.8
100°	95.4	173.1	1017.0	983.2	660.4
102.5°	120.4	195.3	995.0	1379.1	1099.4
105°	161.1	226.3	908.9	1726.2	1640.7
107.5°	199.7	262.1	826.2	1760.6	1859.5
110°	225.5	285.2	784.7	1717.2	1897.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	250.3	308.1	759.8	1644.7	1872.5
115°	286.5	341.6	735.3	1521.3	1786.8
117.5°	322.3	374.6	726.5	1405.7	1677.5
120°	346.4	395.8	723.7	1338.2	1599.3
122.5°	368.4	415.2	723.7	1278.9	1520.1
125°	400.4	444.3	724.9	1201.4	1414.0
127.5°	426.4	471.9	723.7	1142.9	1324.2
130°	443.0	490.2	723.7	1109.5	1273.7
132.5°	457.7	505.8	722.8	1078.8	1230.4
135°	479.8	530.4	720.2	1036.2	1165.5
137.5°	504.4	552.5	720.2	990.6	1110.5
140°	520.0	567.3	720.2	961.0	1074.6
142.5°	535.7	581.2	719.3	934.0	1033.2
145°	560.3	601.9	720.2	891.3	974.5
147.5°	584.9	620.2	721.6	856.1	920.0
150°	600.6	633.2	722.5	836.5	890.5
152.5°	615.3	644.4	723.5	819.7	863.8
155°	638.5	660.0	724.9	799.2	829.5
157.5°	658.8	676.2	726.3	784.0	805.2
160°	670.8	685.4	727.1	774.6	790.4
162.5°	682.7	693.8	728.0	766.4	779.4
165°	698.4	706.2	728.3	756.1	765.1
167.5°	711.7	715.8	729.7	748.2	752.0
170°	719.1	721.4	730.6	744.5	745.5
172.5°	723.7	725.0	730.6	740.7	741.0
175°	730.6	730.6	731.8	737.5	735.3
177.5°	733.9	732.9	732.0	734.7	732.9
180°	732.9	732.9	732.9	732.9	732.9

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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	21.28	22.19	22.17	23.08	24.22	17.77	18.67	18.66	19.57	20.71
	3H	22.61	23.41	23.51	24.32	25.49	18.98	19.78	19.88	20.69	21.86
	4H	22.99	23.75	23.90	24.66	25.84	19.43	20.19	20.34	21.10	22.28
	6H	23.19	23.89	24.12	24.81	26.00	19.75	20.45	20.67	21.37	22.56
	8H	23.23	23.89	24.16	24.83	26.01	19.82	20.49	20.76	21.43	22.61
	12H	23.22	23.86	24.16	24.79	26.00	19.84	20.47	20.77	21.40	22.61
4H	2H	21.39	22.15	22.31	23.07	24.24	18.46	19.22	19.38	20.13	21.31
	3H	22.94	23.57	23.87	24.52	25.71	19.85	20.48	20.78	21.43	22.62
	4H	23.45	24.03	24.39	24.97	26.18	20.40	20.97	21.34	21.91	23.13
	6H	23.79	24.28	24.74	25.24	26.46	20.80	21.30	21.76	22.26	23.48
	8H	23.86	24.33	24.82	25.28	26.51	20.91	21.37	21.86	22.33	23.56
	12H	23.88	24.30	24.85	25.27	26.51	20.93	21.35	21.91	22.32	23.56
8H	4H	23.49	23.95	24.45	24.91	26.14	20.73	21.19	21.68	22.15	23.38
	6H	23.93	24.31	24.91	25.31	26.54	21.23	21.61	22.21	22.61	23.84
	8H	24.08	24.41	25.06	25.40	26.65	21.40	21.73	22.39	22.72	23.97
	12H	24.14	24.44	25.14	25.42	26.72	21.46	21.76	22.45	22.74	24.03
12H	4H	23.45	23.87	24.43	24.84	26.08	20.74	21.16	21.72	22.13	23.37
	6H	23.92	24.26	24.91	25.25	26.49	21.30	21.64	22.29	22.63	23.87
	8H	24.09	24.38	25.08	25.36	26.66	21.49	21.78	22.48	22.76	24.06