

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: P855290

Luminaire Tested: SQ2-PW1-050U-125D-840-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855290  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PW1-050U-125D-840-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

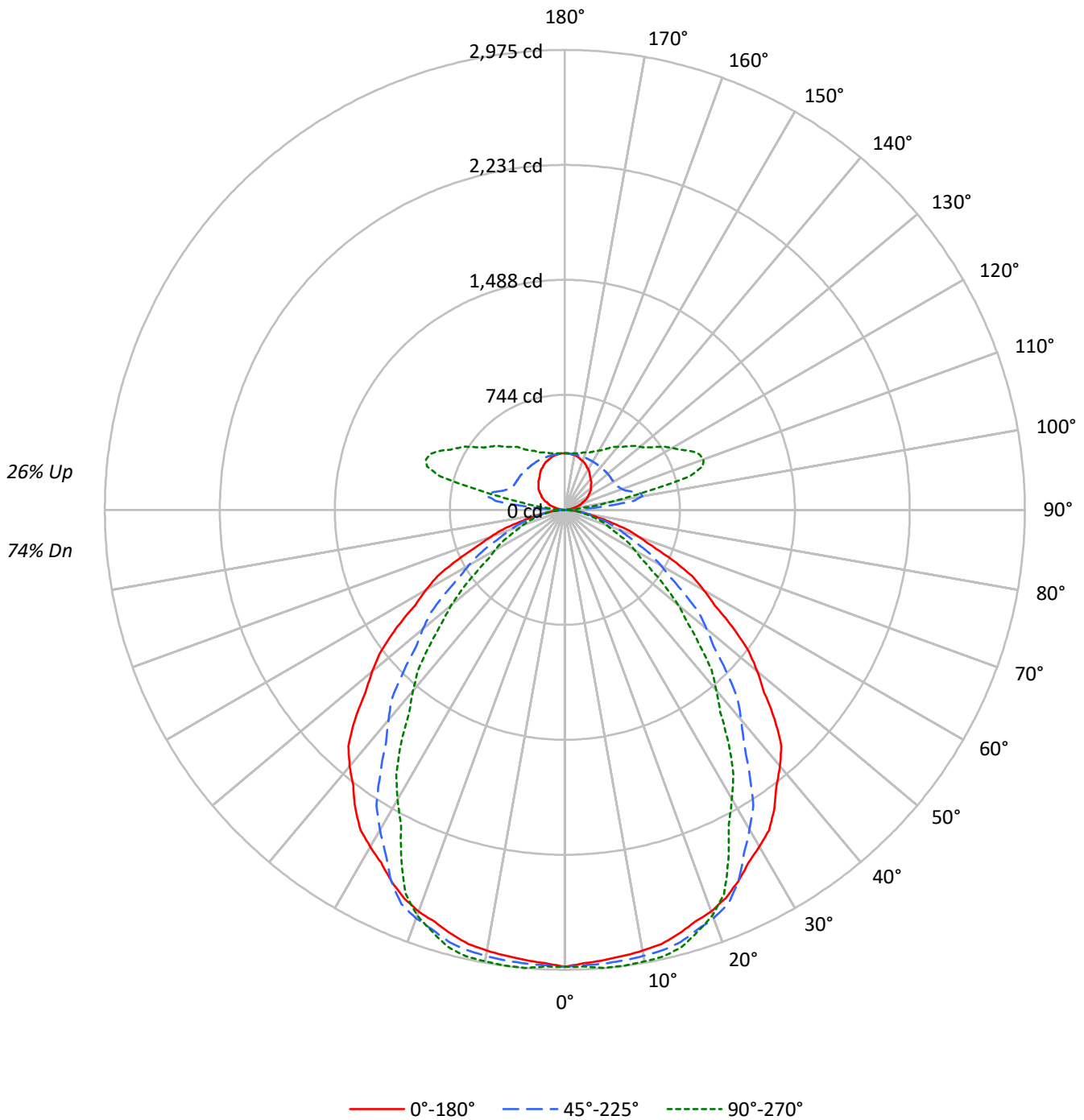
Lumens per Lamp: N/A  
Luminaire Lumens: 8830.1 lumens  
Efficiency: N/A  
Efficacy: 138.0 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 64  
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	113	113	113	113	107	107	107	107	97	97	97	87	87	87	78	78	78	74
1	104	100	96	93	99	95	92	89	86	84	82	78	76	75	71	69	68	64
2	96	88	82	77	91	84	79	74	77	73	69	70	66	64	63	61	59	55
3	88	78	71	66	83	75	69	63	68	63	59	62	58	55	57	54	51	48
4	81	70	62	56	77	67	60	55	61	56	51	56	52	48	51	48	44	42
5	75	63	55	49	71	60	53	48	55	49	45	51	46	42	47	43	39	37
6	69	57	49	43	66	55	47	42	50	44	40	46	41	37	43	38	35	33
7	64	52	44	38	61	50	42	37	46	40	35	42	37	33	39	35	31	29
8	60	47	40	34	57	46	38	33	42	36	32	39	34	30	36	32	28	26
9	56	44	36	31	53	42	35	30	39	33	29	36	31	27	33	29	26	24
10	52	40	33	28	50	39	32	27	36	30	26	34	28	25	31	27	24	22

**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	3.2
10°-20°	815.3	9.2
20°-30°	1199.9	13.6
30°-40°	1311.9	14.9
40°-50°	1176.9	13.3
50°-60°	877.9	9.9
60°-70°	554.8	6.3
70°-80°	274.8	3.1
80°-90°	64.8	0.7
90°-100°	145.8	1.7
100°-110°	462.3	5.2
110°-120°	453.3	5.1
120°-130°	368.9	4.2
130°-140°	300.8	3.4
140°-150°	234.5	2.7
150°-160°	169.0	1.9
160°-170°	103.2	1.2
170°-180°	34.8	0.4
0°-30°	2296.6	26.0
0°-40°	3608.5	40.9
0°-60°	5663.2	64.1
0°-90°	6557.6	74.3
90°-120°	1061.4	12.0
90°-150°	1965.5	22.3
90°-180°	2272.0	25.7
0°-180°	8830.1	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	1	4	4	4	3
95°	20	59	265	98	63	23
105°	80	113	456	868	832	85
115°	144	171	368	765	900	142
125°	199	223	362	600	707	177
135°	240	264	360	516	581	186
145°	281	302	360	445	484	176
155°	320	331	361	397	413	148
165°	349	352	362	376	380	98
175°	365	364	365	367	366	35
180°	366	366	366	366	366	



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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	20.4	9.7	7.5	7.5
90°	0.0	1.2	3.5	3.5	3.5
92.5°	6.4	25.5	81.7	27.2	19.1
95°	19.6	59.0	264.7	98.1	63.3
97.5°	36.4	76.5	448.3	280.2	171.9
100°	48.4	86.6	510.9	465.8	302.7
102.5°	61.2	97.7	499.8	684.1	523.6
105°	80.5	113.2	455.7	868.0	832.0
107.5°	99.9	130.1	413.6	887.2	935.8
110°	112.8	142.1	392.4	865.1	955.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	125.6	153.1	380.4	827.0	941.3
115°	143.8	170.8	368.3	764.9	899.9
117.5°	161.5	187.2	363.4	705.1	841.2
120°	172.6	197.4	362.4	668.1	799.8
122.5°	183.7	207.6	362.4	638.4	761.1
125°	199.1	222.7	362.4	599.7	706.6
127.5°	212.7	235.4	362.4	569.6	660.8
130°	221.0	244.6	362.4	551.9	634.1
132.5°	229.2	252.9	361.6	537.9	612.0
135°	240.5	264.1	360.2	515.9	581.2
137.5°	251.6	276.3	360.0	494.7	553.1
140°	259.0	283.7	359.1	479.9	532.8
142.5°	268.2	291.9	360.0	465.1	514.4
145°	280.7	302.2	360.2	445.1	484.5
147.5°	293.4	311.6	360.5	427.5	459.6
150°	302.7	317.2	361.4	417.2	443.1
152.5°	310.0	322.8	361.4	408.8	430.1
155°	319.9	331.2	361.4	397.4	413.1
157.5°	330.5	338.2	362.4	390.4	401.1
160°	336.0	342.7	362.4	385.7	394.7
162.5°	341.6	346.5	362.4	382.0	388.3
165°	348.7	352.1	362.4	376.4	379.8
167.5°	355.3	356.3	363.6	372.5	375.4
170°	359.1	359.1	363.6	370.6	371.6
172.5°	360.9	361.7	363.6	368.7	369.0
175°	364.8	363.7	364.8	367.1	365.9
177.5°	365.9	365.0	365.0	366.9	365.0
180°	365.9	365.9	365.9	365.9	365.9

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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	22.51	23.58	23.23	24.31	25.19	19.00	20.06	19.72	20.80	21.68
	3H	23.85	24.80	24.59	25.55	26.46	20.22	21.17	20.96	21.92	22.83
	4H	24.23	25.13	24.99	25.89	26.81	20.67	21.57	21.43	22.33	23.25
	6H	24.44	25.27	25.21	26.04	26.98	21.00	21.83	21.77	22.59	23.53
	8H	24.48	25.27	25.26	26.06	27.00	21.08	21.87	21.86	22.65	23.59
	12H	24.49	25.23	25.27	26.01	26.98	21.10	21.85	21.88	22.63	23.59
4H	2H	22.64	23.53	23.40	24.29	25.22	19.70	20.60	20.46	21.36	22.28
	3H	24.20	24.94	24.97	25.74	26.68	21.11	21.85	21.88	22.65	23.59
	4H	24.72	25.39	25.51	26.19	27.16	21.66	22.34	22.45	23.13	24.10
	6H	25.06	25.64	25.87	26.46	27.44	22.08	22.66	22.88	23.48	24.46
	8H	25.14	25.68	25.95	26.50	27.49	22.19	22.73	23.00	23.55	24.53
	12H	25.17	25.65	26.00	26.49	27.48	22.22	22.71	23.05	23.54	24.54
8H	4H	24.77	25.31	25.58	26.13	27.12	22.01	22.55	22.81	23.36	24.35
	6H	25.21	25.66	26.05	26.52	27.51	22.52	22.97	23.36	23.82	24.81
	8H	25.36	25.76	26.21	26.61	27.62	22.68	23.08	23.53	23.93	24.94
	12H	25.44	25.79	26.29	26.63	27.69	22.75	23.10	23.60	23.95	25.01
12H	4H	24.74	25.23	25.57	26.06	27.06	22.03	22.52	22.86	23.35	24.35
	6H	25.21	25.60	26.06	26.46	27.46	22.58	22.98	23.43	23.84	24.84
	8H	25.38	25.73	26.23	26.57	27.64	22.78	23.13	23.63	23.97	25.04