

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: P854876

Luminaire Tested: SQ2-PW1-050U-125D-830-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854876  
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-830-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

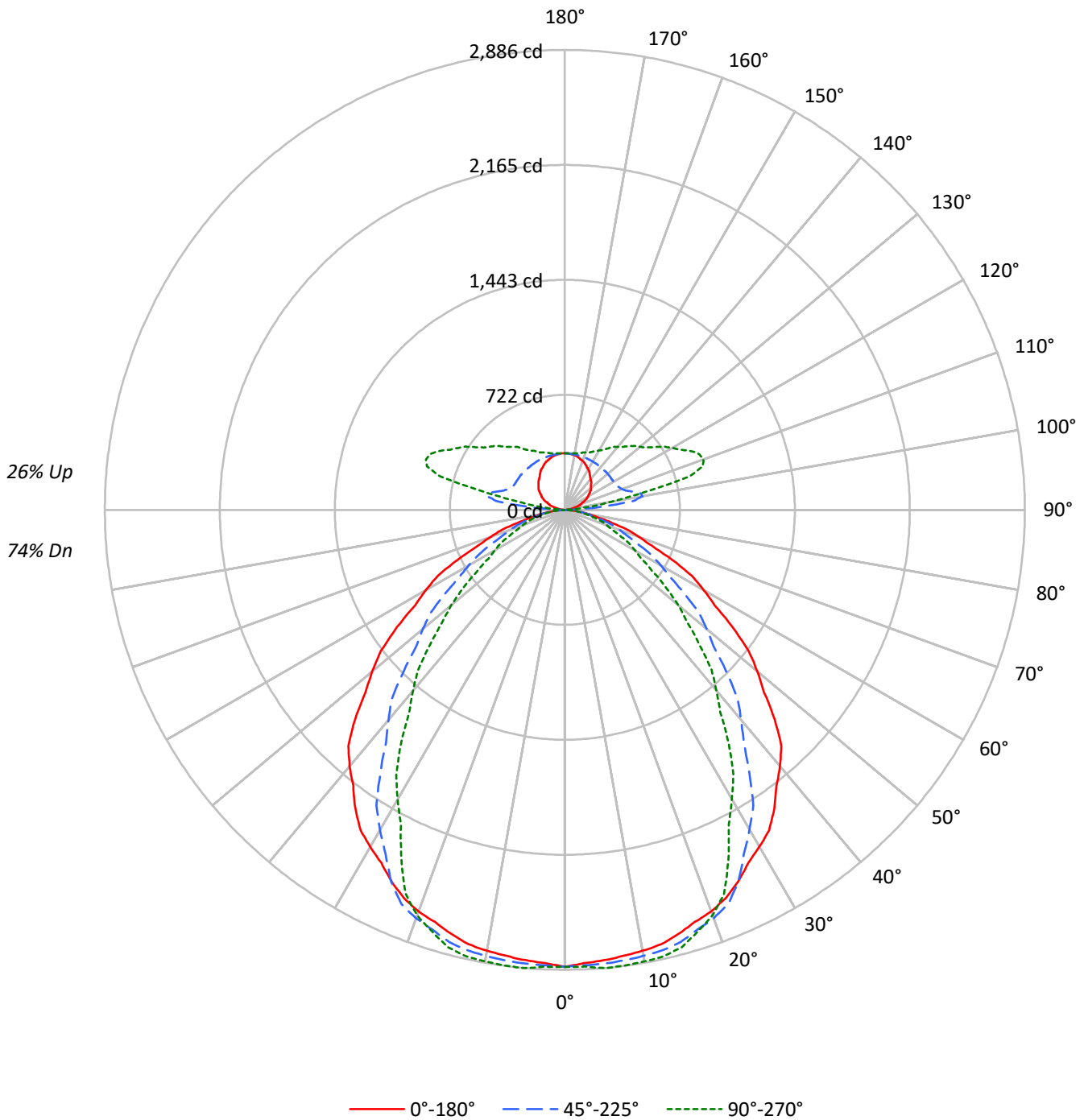
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8566.7 lumens  
Efficiency: N/A  
Efficacy: 133.9 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: 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°	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	3.2
10°-20°	791.0	9.2
20°-30°	1164.1	13.6
30°-40°	1272.7	14.9
40°-50°	1141.8	13.3
50°-60°	851.7	9.9
60°-70°	538.2	6.3
70°-80°	266.6	3.1
80°-90°	62.9	0.7
90°-100°	141.4	1.7
100°-110°	448.5	5.2
110°-120°	439.8	5.1
120°-130°	357.9	4.2
130°-140°	291.8	3.4
140°-150°	227.5	2.7
150°-160°	163.9	1.9
160°-170°	100.1	1.2
170°-180°	33.8	0.4
0°-30°	2228.1	26.0
0°-40°	3500.9	40.9
0°-60°	5494.3	64.1
0°-90°	6362.0	74.3
90°-120°	1029.7	12.0
90°-150°	1906.8	22.3
90°-180°	2205.0	25.7
0°-180°	8566.7	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	1	3	3	3	3
95°	19	57	257	95	61	22
105°	78	110	442	842	807	82
115°	140	166	357	742	873	138
125°	193	216	352	582	686	172
135°	233	256	350	500	564	180
145°	272	293	350	432	470	171
155°	310	321	351	386	401	143
165°	338	342	352	365	368	95
175°	354	353	354	356	355	34
180°	355	355	355	355	355	



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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	19.8	9.4	7.2	7.2
90°	0.0	1.1	3.4	3.4	3.4
92.5°	6.2	24.8	79.3	26.3	18.5
95°	19.0	57.2	256.8	95.2	61.4
97.5°	35.3	74.2	435.0	271.8	166.8
100°	46.9	84.0	495.7	451.9	293.6
102.5°	59.4	94.7	484.9	663.7	508.0
105°	78.1	109.8	442.1	842.1	807.2
107.5°	96.9	126.2	401.3	860.8	907.9
110°	109.4	137.8	380.7	839.3	926.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	121.9	148.6	369.0	802.3	913.2
115°	139.5	165.8	357.3	742.0	873.1
117.5°	156.7	181.6	352.5	684.0	816.1
120°	167.4	191.5	351.6	648.2	776.0
122.5°	178.2	201.4	351.6	619.4	738.4
125°	193.1	216.1	351.6	581.8	685.5
127.5°	206.3	228.4	351.6	552.7	641.1
130°	214.4	237.3	351.6	535.5	615.2
132.5°	222.4	245.3	350.8	521.9	593.7
135°	233.4	256.2	349.5	500.5	563.9
137.5°	244.1	268.1	349.3	480.0	536.6
140°	251.2	275.2	348.4	465.6	516.9
142.5°	260.2	283.2	349.3	451.2	499.1
145°	272.4	293.2	349.5	431.8	470.0
147.5°	284.7	302.3	349.7	414.7	445.9
150°	293.6	307.8	350.6	404.8	429.9
152.5°	300.8	313.2	350.6	396.6	417.3
155°	310.4	321.3	350.6	385.5	400.8
157.5°	320.7	328.1	351.6	378.8	389.2
160°	326.0	332.5	351.6	374.2	382.9
162.5°	331.4	336.1	351.6	370.6	376.7
165°	338.3	341.6	351.6	365.2	368.5
167.5°	344.7	345.6	352.8	361.4	364.2
170°	348.4	348.4	352.8	359.5	360.6
172.5°	350.2	351.0	352.8	357.7	358.0
175°	353.9	352.9	353.9	356.2	355.0
177.5°	355.0	354.1	354.1	355.9	354.1
180°	355.0	355.0	355.0	355.0	355.0



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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	22.40	23.47	23.13	24.21	25.09	18.89	19.96	19.62	20.70	21.57
	3H	23.74	24.69	24.48	25.44	26.36	20.11	21.06	20.85	21.81	22.73
	4H	24.13	25.02	24.88	25.78	26.71	20.57	21.46	21.33	22.22	23.15
	6H	24.34	25.16	25.11	25.93	26.87	20.89	21.72	21.66	22.49	23.43
	8H	24.38	25.16	25.16	25.95	26.89	20.98	21.76	21.76	22.55	23.49
	12H	24.38	25.13	25.17	25.91	26.88	20.99	21.74	21.78	22.52	23.49
4H	2H	22.53	23.43	23.29	24.19	25.11	19.60	20.49	20.36	21.25	22.18
	3H	24.10	24.84	24.87	25.63	26.58	21.00	21.75	21.78	22.54	23.48
	4H	24.61	25.29	25.40	26.08	27.05	21.56	22.23	22.35	23.03	24.00
	6H	24.96	25.54	25.76	26.36	27.33	21.97	22.55	22.78	23.37	24.35
	8H	25.04	25.58	25.85	26.39	27.38	22.08	22.62	22.89	23.44	24.43
	12H	25.06	25.55	25.89	26.39	27.38	22.11	22.60	22.94	23.44	24.43
8H	4H	24.67	25.21	25.48	26.02	27.01	21.90	22.44	22.71	23.26	24.25
	6H	25.11	25.56	25.95	26.41	27.40	22.41	22.86	23.25	23.72	24.71
	8H	25.25	25.65	26.10	26.51	27.51	22.58	22.97	23.43	23.83	24.83
	12H	25.33	25.68	26.18	26.52	27.59	22.65	23.00	23.50	23.84	24.90
12H	4H	24.63	25.12	25.46	25.96	26.95	21.92	22.41	22.75	23.25	24.24
	6H	25.10	25.50	25.95	26.35	27.36	22.48	22.88	23.33	23.73	24.74
	8H	25.27	25.62	26.12	26.47	27.53	22.67	23.02	23.52	23.87	24.93