

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: P854904

Luminaire Tested: SQ2-PR1-050U-125D-830-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854904  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PR1-050U-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: -

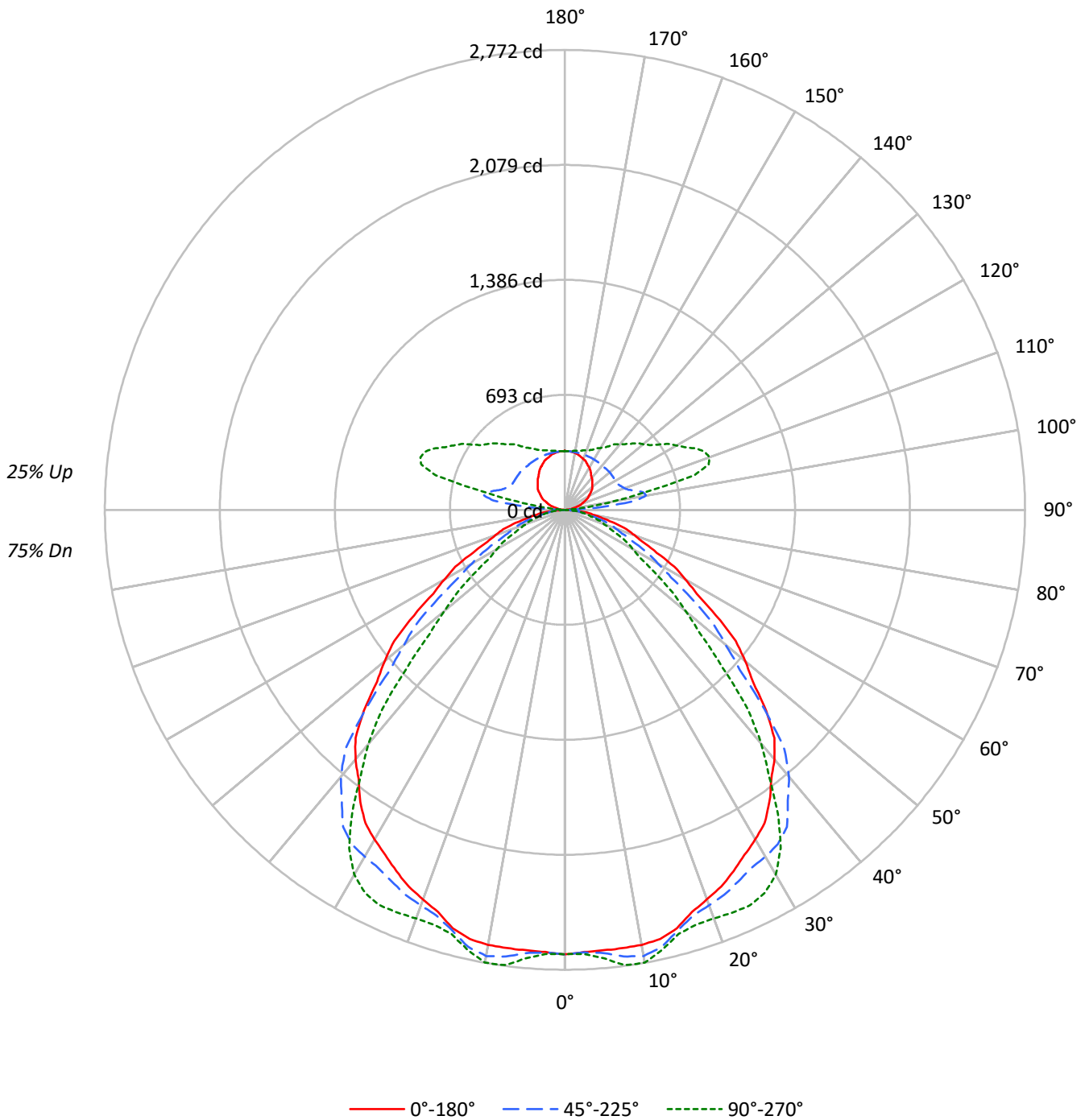
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8649.0 lumens  
Efficiency: N/A  
Efficacy: 135.1 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36  
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	79	79	79	75
1	104	100	96	93	99	95	92	89	87	84	82	78	77	75	71	70	68	65
2	96	89	83	78	91	85	79	75	77	73	69	70	67	64	64	61	59	56
3	88	79	71	66	83	75	69	64	69	64	59	63	59	55	57	54	51	48
4	81	70	62	56	77	67	60	55	62	56	51	56	52	48	52	48	45	42
5	75	63	55	49	71	61	53	48	56	50	45	51	46	42	47	43	40	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	39	34	57	46	38	33	42	36	32	39	34	30	36	32	28	26
9	56	43	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	33	28	25	31	27	23	22

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

	0°	45°	90°
0°	43250	43250	43250
5°	43193	43459	43990
10°	43648	44768	45439
15°	43634	43863	44227
20°	42929	43586	45041
25°	42806	44023	46893
30°	42761	45002	47344
35°	42356	45965	44078
40°	41378	44257	38788
45°	39155	38845	30675
50°	35595	31757	23800
55°	31282	26134	18522
60°	27070	20899	15255
65°	23370	17318	13352
70°	21012	15338	11858
75°	19251	13288	10905
80°	16755	10656	10656
85°	12153	9615	5076

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 42324 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	258.7	3.0
10°-20°	748.8	8.7
20°-30°	1157.5	13.4
30°-40°	1392.3	16.1
40°-50°	1250.1	14.5
50°-60°	837.5	9.7
60°-70°	487.1	5.6
70°-80°	250.2	2.9
80°-90°	62.2	0.7
90°-100°	141.4	1.6
100°-110°	448.5	5.2
110°-120°	439.8	5.1
120°-130°	357.9	4.1
130°-140°	291.8	3.4
140°-150°	227.5	2.6
150°-160°	163.9	1.9
160°-170°	100.1	1.2
170°-180°	33.8	0.4
0°-30°	2165.0	25.0
0°-40°	3557.3	41.1
0°-60°	5644.9	65.3
0°-90°	6444.3	74.5
90°-120°	1029.7	11.9
90°-150°	1906.8	22.0
90°-180°	2205.0	25.5
0°-180°	8649.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2679	2679	2679	2679	2679	
5°	2665	2710	2681	2688	2714	254
15°	2610	2717	2624	2633	2646	733
25°	2403	2499	2471	2563	2632	1108
35°	2149	2168	2332	2287	2236	1340
45°	1715	1854	1701	1434	1343	1312
55°	1111	1154	928	717	658	999
65°	612	625	453	368	350	619
75°	309	300	213	180	175	327
85°	66	52	52	35	27	81
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°	2678.7	2678.7	2678.7	2678.7	2678.7
2.5°	2667.8	2699.7	2669.9	2672.3	2678.7
5°	2665.0	2710.4	2681.4	2687.5	2714.2
7.5°	2664.5	2729.1	2715.2	2731.9	2767.1
10°	2662.3	2739.8	2730.6	2734.1	2771.5
12.5°	2649.2	2739.4	2697.8	2694.4	2714.7
15°	2610.4	2717.2	2624.1	2632.6	2645.9
17.5°	2542.1	2653.7	2565.1	2595.2	2621.4
20°	2498.5	2607.9	2536.7	2575.9	2621.4
22.5°	2459.1	2568.6	2510.5	2565.4	2628.0
25°	2402.8	2499.1	2471.1	2562.8	2632.2
27.5°	2343.9	2400.5	2433.5	2556.4	2605.0
30°	2293.6	2331.0	2413.8	2520.8	2539.4
32.5°	2239.0	2261.5	2387.6	2443.3	2419.2
35°	2148.9	2167.7	2332.0	2287.1	2236.3
37.5°	2041.9	2080.4	2206.8	2077.8	2019.6
40°	1963.2	2027.4	2099.8	1907.2	1840.3
42.5°	1867.1	1969.7	1957.8	1712.4	1630.7
45°	1714.8	1853.6	1701.2	1434.2	1343.4
47.5°	1535.1	1677.6	1428.1	1189.7	1104.8
50°	1417.1	1532.0	1264.3	1041.0	947.5
52.5°	1297.1	1379.8	1124.4	901.3	816.4
55°	1111.3	1154.0	928.4	716.8	658.0
57.5°	940.9	968.2	758.5	579.0	535.7
60°	838.3	857.0	647.2	507.1	472.4
62.5°	744.3	758.8	557.6	446.2	419.9
65°	611.7	625.0	453.3	368.3	349.5
67.5°	506.3	513.2	373.0	306.0	288.3
70°	445.1	447.7	324.9	264.6	251.2
72.5°	390.5	386.7	279.0	229.7	220.6
75°	308.6	300.5	213.0	180.1	174.8
77.5°	230.4	221.9	149.6	138.7	138.7
80°	180.2	169.5	114.6	114.6	114.6
82.5°	134.3	119.4	88.4	88.4	86.3
85°	65.6	52.2	51.9	35.3	27.4
87.5°	17.5	17.6	7.2	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	21.92	22.98	22.64	23.72	24.59	18.64	19.70	19.36	20.44	21.32
	3H	23.16	24.11	23.90	24.86	25.77	19.72	20.67	20.46	21.42	22.33
	4H	23.63	24.52	24.38	25.28	26.20	20.13	21.02	20.89	21.78	22.70
	6H	23.95	24.78	24.72	25.54	26.48	20.47	21.30	21.24	22.06	22.99
	8H	24.04	24.82	24.82	25.61	26.54	20.56	21.35	21.34	22.13	23.07
	12H	24.08	24.82	24.86	25.60	26.56	20.58	21.32	21.36	22.10	23.06
4H	2H	22.02	22.91	22.78	23.67	24.59	19.23	20.13	19.99	20.88	21.80
	3H	23.51	24.25	24.28	25.04	25.98	20.52	21.26	21.29	22.05	22.99
	4H	24.11	24.78	24.90	25.57	26.54	21.03	21.70	21.82	22.50	23.46
	6H	24.58	25.15	25.38	25.97	26.94	21.48	22.06	22.28	22.87	23.85
	8H	24.71	25.25	25.52	26.06	27.05	21.61	22.14	22.41	22.96	23.94
	12H	24.77	25.26	25.60	26.09	27.08	21.64	22.12	22.46	22.95	23.94
8H	4H	24.15	24.69	24.96	25.50	26.49	21.35	21.89	22.16	22.71	23.69
	6H	24.71	25.15	25.54	26.01	26.99	21.89	22.34	22.73	23.20	24.18
	8H	24.91	25.30	25.75	26.15	27.16	22.08	22.48	22.93	23.33	24.33
	12H	25.02	25.37	25.87	26.21	27.27	22.15	22.50	23.00	23.34	24.40
12H	4H	24.12	24.60	24.95	25.44	26.43	21.38	21.86	22.21	22.70	23.69
	6H	24.69	25.09	25.54	25.94	26.94	21.95	22.35	22.80	23.20	24.21
	8H	24.91	25.26	25.76	26.11	27.17	22.17	22.52	23.02	23.36	24.42