

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: P854932

Luminaire Tested: SQ2-PP3-050U-125D-830-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854932  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PP3-050U-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: -

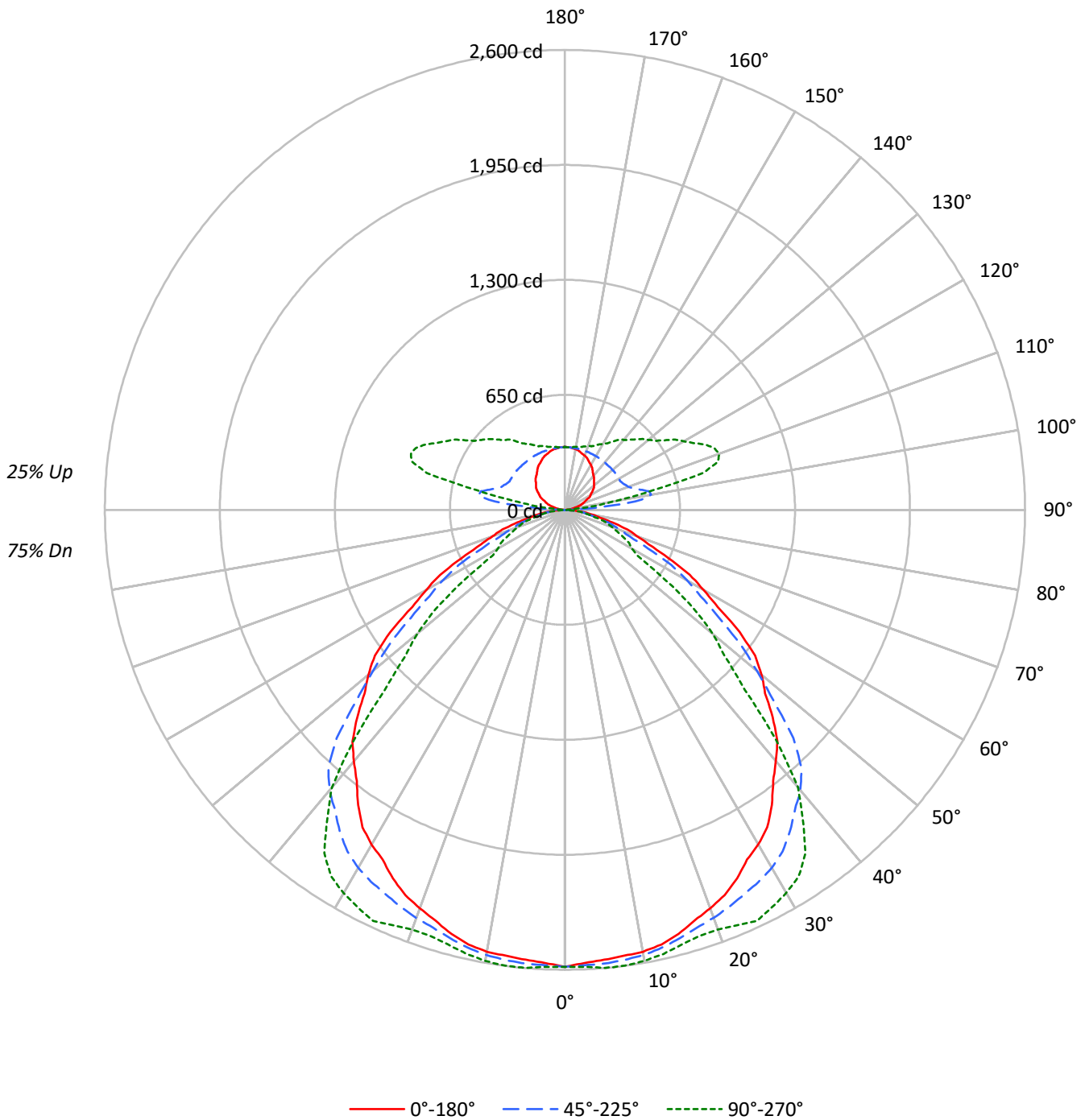
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8710.5 lumens  
Efficiency: N/A  
Efficacy: 136.1 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.41 / 1.4  
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

TEST NUMBER: P854932

CATALOG NUMBER: SQ2-PP3-050U-125D-830-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P854932

CATALOG NUMBER: SQ2-PP3-050U-125D-830-UNV-STD-W-4

**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	113	113	113	113	107	107	107	107	97	97	97	88	88	88	79	79	79	75																
1	104	100	96	93	99	95	92	89	87	84	82	78	77	75	71	70	68	65																
2	95	88	82	77	91	84	79	74	77	73	69	70	67	64	63	61	59	55																
3	88	78	71	65	83	75	68	63	68	63	59	62	58	55	57	53	51	48																
4	80	70	62	56	76	67	60	54	61	55	51	56	51	47	51	47	44	41																
5	74	62	54	48	70	60	52	47	55	49	44	51	45	41	46	42	39	36																
6	69	56	48	42	65	54	47	41	50	44	39	46	41	37	42	38	34	32																
7	64	51	43	37	60	49	42	36	45	39	34	42	37	33	39	34	31	28																
8	59	47	39	33	56	45	38	32	42	35	31	38	33	29	35	31	28	25																
9	55	43	35	30	53	41	34	29	38	32	28	35	30	26	33	28	25	23																
10	52	39	32	27	49	38	31	26	35	29	25	33	28	24	30	26	23	21																

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

	0°	45°	90°
0°	41706	41706	41706
5°	41379	41733	42131
10°	41589	41902	42440
15°	41489	41899	42539
20°	41192	42177	43397
25°	40960	42710	45678
30°	40725	43578	46631
35°	40150	43702	46718
40°	39077	43625	43163
45°	37908	41651	32858
50°	36419	35528	27367
55°	33895	29900	19679
60°	29185	25659	14108
65°	24623	19824	13876
70°	20497	15597	13279
75°	17374	13456	12433
80°	14728	11678	11176
85°	11634	9615	6076

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 41651 cd/sqm



TEST NUMBER: P854932

CATALOG NUMBER: SQ2-PP3-050U-125D-830-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	246.0	2.8
10°-20°	711.8	8.2
20°-30°	1115.2	12.8
30°-40°	1375.7	15.8
40°-50°	1295.3	14.9
50°-60°	917.1	10.5
60°-70°	522.6	6.0
70°-80°	258.5	3.0
80°-90°	63.6	0.7
90°-100°	141.4	1.6
100°-110°	448.5	5.1
110°-120°	439.8	5.0
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	1.1
170°-180°	33.8	0.4
0°-30°	2073.0	23.8
0°-40°	3448.7	39.6
0°-60°	5661.0	65.0
0°-90°	6505.8	74.7
90°-120°	1029.7	11.8
90°-150°	1906.8	21.9
90°-180°	2205.0	25.3
0°-180°	8710.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2583	2583	2583	2583	2583	
5°	2553	2598	2575	2581	2600	243
15°	2482	2517	2507	2532	2545	699
25°	2299	2358	2397	2494	2564	1059
35°	2037	2093	2217	2344	2370	1270
45°	1660	1786	1824	1546	1439	1278
55°	1204	1276	1062	800	699	1062
65°	644	679	519	366	363	647
75°	278	308	216	202	199	302
85°	63	57	52	41	33	74
90°	0	1	3	3	3	4
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	



TEST NUMBER: P854932

CATALOG NUMBER: SQ2-PP3-050U-125D-830-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2583.1	2583.1	2583.1	2583.1	2583.1
2.5°	2563.5	2599.8	2576.5	2581.0	2585.3
5°	2553.1	2598.4	2574.9	2580.8	2599.5
7.5°	2543.3	2589.7	2566.8	2576.5	2599.5
10°	2536.7	2576.7	2555.8	2569.8	2588.6
12.5°	2517.0	2554.9	2536.1	2554.6	2571.1
15°	2482.1	2516.8	2506.6	2531.5	2544.9
17.5°	2434.6	2476.8	2476.7	2511.8	2525.7
20°	2397.4	2448.2	2454.7	2499.1	2525.7
22.5°	2358.1	2417.4	2428.5	2495.1	2541.1
25°	2299.2	2357.8	2397.4	2494.5	2564.0
27.5°	2230.3	2288.5	2370.2	2478.9	2534.0
30°	2184.4	2240.5	2337.4	2450.4	2501.2
32.5°	2127.6	2185.9	2289.3	2411.1	2457.5
35°	2037.0	2093.0	2217.2	2343.5	2370.2
37.5°	1932.7	1996.3	2135.3	2205.8	2207.4
40°	1854.0	1936.8	2069.8	2082.6	2047.9
42.5°	1777.6	1883.9	1978.1	1920.4	1766.2
45°	1660.2	1785.6	1824.1	1545.8	1439.0
47.5°	1535.1	1659.0	1597.9	1296.4	1222.8
50°	1449.9	1567.4	1414.4	1158.9	1089.5
52.5°	1353.8	1458.5	1250.6	1027.1	921.2
55°	1204.1	1276.3	1062.2	800.5	699.1
57.5°	1023.9	1074.7	908.1	600.8	487.1
60°	903.8	943.9	794.6	493.0	436.9
62.5°	794.6	830.3	676.7	428.3	408.5
65°	644.5	679.2	518.9	365.9	363.2
67.5°	512.7	550.7	398.1	319.4	316.2
70°	434.2	474.2	330.4	286.6	281.3
72.5°	368.6	406.6	280.2	251.7	248.5
75°	278.5	307.9	215.7	202.0	199.3
77.5°	202.0	220.7	160.6	153.4	150.7
80°	158.4	166.4	125.6	122.8	120.2
82.5°	119.1	116.3	95.0	92.1	87.4
85°	62.8	57.4	51.9	40.8	32.8
87.5°	19.7	19.9	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



TEST NUMBER: P854932

CATALOG NUMBER: SQ2-PP3-050U-125D-830-UNV-STD-W-4

**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

-----



TEST NUMBER: P854932

CATALOG NUMBER: SQ2-PP3-050U-125D-830-UNV-STD-W-4

**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	22.56	23.64	23.27	24.37	25.24	18.95	20.04	19.67	20.77	21.64
	3H	23.67	24.64	24.40	25.38	26.28	20.07	21.04	20.81	21.79	22.69
	4H	24.02	24.93	24.77	25.68	26.60	20.55	21.46	21.30	22.21	23.13
	6H	24.25	25.09	25.01	25.85	26.78	20.90	21.74	21.67	22.51	23.44
	8H	24.30	25.10	25.08	25.88	26.81	21.00	21.79	21.77	22.58	23.51
	12H	24.32	25.08	25.10	25.86	26.82	21.02	21.78	21.80	22.55	23.51
4H	2H	22.69	23.60	23.45	24.36	25.27	19.69	20.60	20.45	21.36	22.27
	3H	24.02	24.77	24.79	25.56	26.50	20.97	21.72	21.73	22.51	23.44
	4H	24.50	25.19	25.29	25.98	26.94	21.53	22.21	22.31	23.00	23.96
	6H	24.85	25.44	25.65	26.26	27.23	21.98	22.57	22.78	23.38	24.35
	8H	24.95	25.50	25.76	26.31	27.29	22.11	22.66	22.91	23.47	24.45
	12H	25.00	25.49	25.82	26.32	27.31	22.14	22.64	22.97	23.47	24.46
8H	4H	24.54	25.09	25.34	25.90	26.88	21.82	22.37	22.62	23.18	24.16
	6H	24.98	25.43	25.81	26.28	27.27	22.37	22.82	23.20	23.68	24.66
	8H	25.13	25.54	25.98	26.39	27.39	22.56	22.96	23.40	23.81	24.81
	12H	25.23	25.59	26.08	26.43	27.48	22.64	23.00	23.49	23.84	24.89
12H	4H	24.51	25.00	25.33	25.83	26.82	21.84	22.33	22.66	23.16	24.15
	6H	24.97	25.37	25.81	26.22	27.22	22.42	22.83	23.27	23.68	24.68
	8H	25.15	25.50	25.99	26.34	27.40	22.64	23.00	23.49	23.84	24.89