

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: P855346

Luminaire Tested: SQ2-PP3-050U-125D-840-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855346  
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-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: -

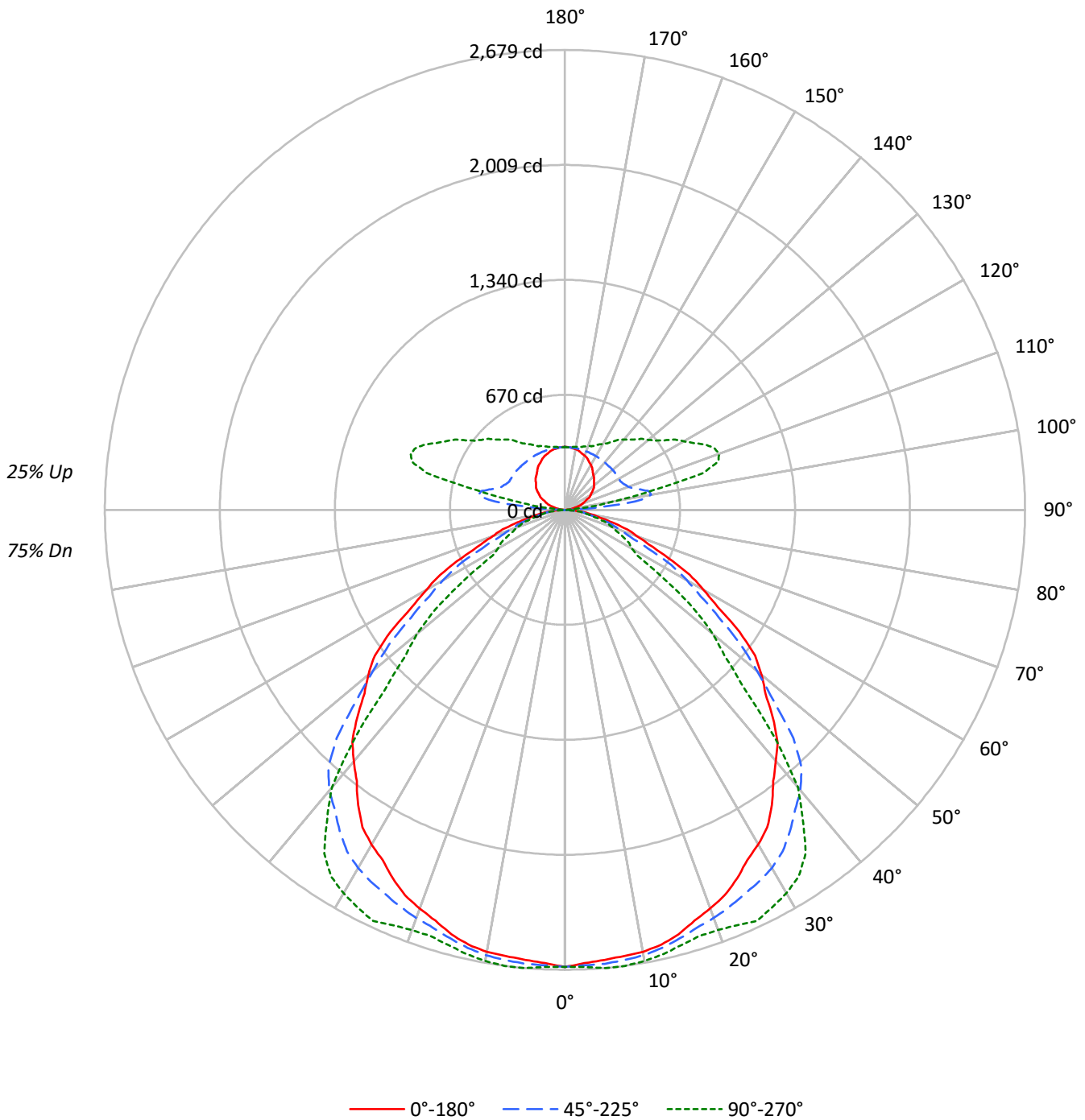
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8978.3 lumens  
Efficiency: N/A  
Efficacy: 140.3 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

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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	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°	42988	42988	42988
5°	42652	43016	43426
10°	42868	43191	43745
15°	42765	43188	43846
20°	42459	43474	44732
25°	42218	44023	47081
30°	41978	44916	48065
35°	41384	45046	48153
40°	40278	44965	44491
45°	39075	42930	33867
50°	37540	36620	28208
55°	34939	30821	20284
60°	30083	26447	14541
65°	25379	20432	14300
70°	21125	16074	13690
75°	17904	13874	12820
80°	15184	12041	11520
85°	11986	9911	6262

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 42930 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	253.5	2.8
10°-20°	733.7	8.2
20°-30°	1149.5	12.8
30°-40°	1418.0	15.8
40°-50°	1335.1	14.9
50°-60°	945.3	10.5
60°-70°	538.6	6.0
70°-80°	266.5	3.0
80°-90°	65.6	0.7
90°-100°	145.8	1.6
100°-110°	462.3	5.1
110°-120°	453.3	5.0
120°-130°	368.9	4.1
130°-140°	300.8	3.3
140°-150°	234.5	2.6
150°-160°	169.0	1.9
160°-170°	103.2	1.1
170°-180°	34.8	0.4
0°-30°	2136.7	23.8
0°-40°	3554.7	39.6
0°-60°	5835.1	65.0
0°-90°	6705.8	74.7
90°-120°	1061.4	11.8
90°-150°	1965.5	21.9
90°-180°	2272.0	25.3
0°-180°	8978.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2662	2662	2662	2662	2662	
5°	2632	2678	2654	2660	2679	251
15°	2558	2594	2584	2609	2623	721
25°	2370	2430	2471	2571	2643	1092
35°	2100	2157	2285	2416	2443	1309
45°	1711	1840	1880	1593	1483	1317
55°	1241	1316	1095	825	721	1095
65°	664	700	535	377	374	667
75°	287	317	222	208	206	311
85°	65	59	54	42	34	76
90°	0	1	4	4	4	4
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°	2662.5	2662.5	2662.5	2662.5	2662.5
2.5°	2642.3	2679.7	2655.7	2660.4	2664.8
5°	2631.6	2678.3	2654.1	2660.1	2679.4
7.5°	2621.5	2669.4	2645.7	2655.7	2679.4
10°	2614.7	2655.9	2634.4	2648.8	2668.2
12.5°	2594.4	2633.5	2614.1	2633.1	2650.1
15°	2558.4	2594.2	2583.7	2609.3	2623.1
17.5°	2509.5	2552.9	2552.8	2589.1	2603.4
20°	2471.1	2523.4	2530.2	2575.9	2603.4
22.5°	2430.6	2491.7	2503.2	2571.8	2619.2
25°	2369.8	2430.3	2471.1	2571.2	2642.8
27.5°	2298.9	2358.9	2443.0	2555.1	2611.9
30°	2251.6	2309.4	2409.2	2525.8	2578.1
32.5°	2193.1	2253.1	2359.7	2485.2	2533.0
35°	2099.6	2157.4	2285.4	2415.5	2443.0
37.5°	1992.1	2057.6	2201.0	2273.6	2275.2
40°	1911.0	1996.3	2133.4	2146.7	2110.9
42.5°	1832.2	1941.8	2038.9	1979.4	1820.5
45°	1711.3	1840.5	1880.1	1593.3	1483.2
47.5°	1582.3	1710.0	1647.1	1336.2	1260.4
50°	1494.5	1615.6	1457.9	1194.5	1123.0
52.5°	1395.5	1503.4	1289.1	1058.7	949.6
55°	1241.2	1315.5	1094.9	825.1	720.6
57.5°	1055.4	1107.7	936.1	619.3	502.1
60°	931.6	972.9	819.0	508.1	450.3
62.5°	819.0	855.9	697.5	441.5	421.1
65°	664.3	700.1	534.8	377.1	374.3
67.5°	528.5	567.7	410.3	329.2	326.0
70°	447.5	488.8	340.5	295.4	290.0
72.5°	379.9	419.1	288.8	259.4	256.2
75°	287.0	317.3	222.4	208.3	205.5
77.5°	208.3	227.5	165.5	158.1	155.3
80°	163.3	171.5	129.5	126.6	123.9
82.5°	122.7	119.9	97.9	95.0	90.1
85°	64.7	59.2	53.5	42.1	33.8
87.5°	20.3	20.5	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	22.66	23.74	23.38	24.48	25.35	19.06	20.14	19.78	20.87	21.74
	3H	23.77	24.74	24.51	25.48	26.39	20.18	21.15	20.91	21.89	22.79
	4H	24.13	25.04	24.88	25.79	26.71	20.65	21.56	21.40	22.32	23.23
	6H	24.35	25.19	25.12	25.95	26.88	21.01	21.85	21.77	22.61	23.54
	8H	24.41	25.20	25.18	25.99	26.92	21.10	21.90	21.88	22.68	23.61
	12H	24.43	25.19	25.21	25.96	26.92	21.12	21.88	21.90	22.66	23.62
4H	2H	22.80	23.71	23.55	24.46	25.38	19.80	20.71	20.55	21.46	22.38
	3H	24.13	24.88	24.90	25.67	26.60	21.07	21.82	21.84	22.61	23.55
	4H	24.61	25.29	25.39	26.08	27.04	21.63	22.32	22.42	23.11	24.07
	6H	24.96	25.55	25.76	26.36	27.33	22.09	22.67	22.89	23.49	24.46
	8H	25.06	25.61	25.86	26.42	27.40	22.21	22.76	23.02	23.57	24.55
	12H	25.10	25.60	25.93	26.43	27.41	22.25	22.74	23.07	23.58	24.56
8H	4H	24.64	25.19	25.45	26.00	26.98	21.92	22.47	22.73	23.28	24.26
	6H	25.08	25.54	25.92	26.39	27.37	22.48	22.93	23.31	23.78	24.77
	8H	25.24	25.64	26.08	26.49	27.49	22.66	23.07	23.51	23.92	24.92
	12H	25.34	25.69	26.18	26.53	27.59	22.75	23.10	23.59	23.94	25.00
12H	4H	24.61	25.10	25.44	25.94	26.92	21.94	22.43	22.76	23.27	24.25
	6H	25.07	25.48	25.92	26.33	27.32	22.53	22.93	23.37	23.78	24.78
	8H	25.25	25.61	26.10	26.45	27.50	22.75	23.10	23.59	23.94	25.00