

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: P855503

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

Issue Date: 7/12/2024

**Test Information**

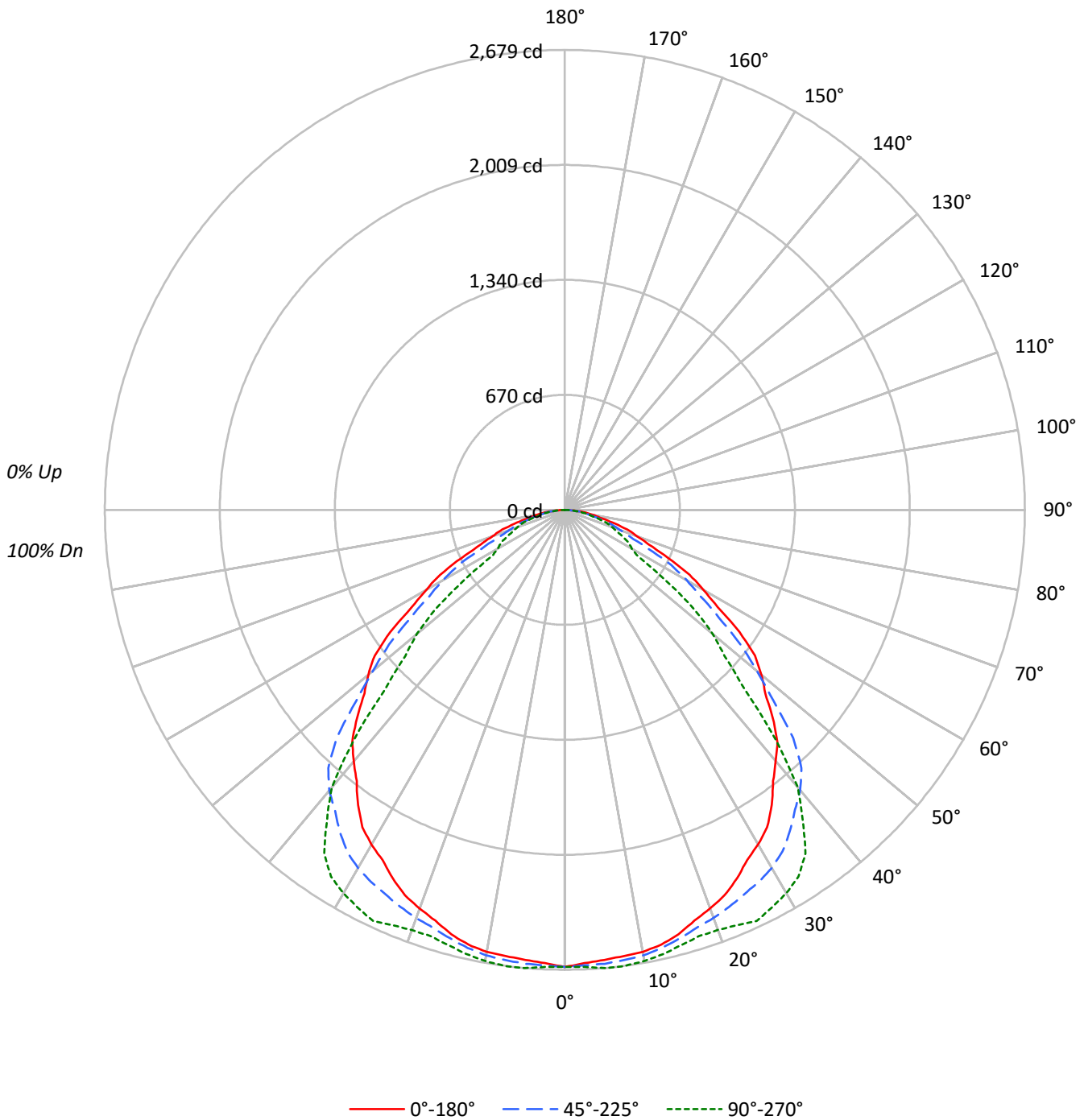
Test Method: LM-79-2019  
Report Number: P855503  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PP3-125D-840-UNV-STD-W-4  
Description: CORELITE SQ2 SURFACE LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
DIRECT ONLY  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6705.3 lumens  
Efficiency: N/A  
Efficacy: 136.3 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: Direct  
  
Input Watts (W): 49.2  
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	89	87
2	101	94	88	82	99	92	86	81	88	84	80	85	81	78	82	79	76	74
3	93	83	76	70	91	82	75	69	79	73	68	76	71	67	74	69	66	64
4	86	74	66	60	83	73	66	60	71	64	59	68	63	58	66	61	57	55
5	79	67	59	52	77	66	58	52	64	57	52	62	56	51	60	55	50	48
6	73	61	52	46	71	60	52	46	58	51	46	56	50	45	55	49	45	43
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40	38
8	63	50	42	37	62	50	42	37	48	41	36	47	41	36	46	40	36	34
9	59	46	38	33	58	46	38	33	45	38	33	44	37	33	43	37	33	31
10	56	43	35	30	54	42	35	30	41	35	30	40	34	30	40	34	30	28

**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	3.8
10°-20°	733.7	10.9
20°-30°	1149.5	17.1
30°-40°	1418.0	21.1
40°-50°	1335.1	19.9
50°-60°	945.3	14.1
60°-70°	538.6	8.0
70°-80°	266.5	4.0
80°-90°	65.1	1.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2136.7	31.9
0°-40°	3554.7	53.0
0°-60°	5835.1	87.0
0°-90°	6705.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6705.3	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	79
90°	0	0	0	0	0	



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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	20.3	9.0	6.8	6.8
90°	0.0	0.0	0.0	0.0	0.0

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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	24.51	26.03	24.87	26.34	26.66	20.90	22.43	21.27	22.74	23.06
	3H	25.65	27.02	26.03	27.34	27.71	22.06	23.42	22.44	23.75	24.11
	4H	26.03	27.30	26.43	27.65	28.03	22.55	23.83	22.95	24.18	24.56
	6H	26.27	27.45	26.69	27.82	28.21	22.93	24.11	23.34	24.47	24.87
	8H	26.34	27.46	26.77	27.85	28.25	23.03	24.15	23.46	24.54	24.95
	12H	26.37	27.45	26.80	27.83	28.26	23.07	24.14	23.50	24.52	24.95
4H	2H	24.70	25.97	25.10	26.32	26.70	21.70	22.97	22.10	23.32	23.70
	3H	26.07	27.12	26.48	27.52	27.92	23.01	24.06	23.42	24.46	24.86
	4H	26.56	27.51	27.00	27.93	28.37	23.59	24.54	24.02	24.95	25.39
	6H	26.94	27.76	27.39	28.20	28.66	24.06	24.89	24.52	25.33	25.79
	8H	27.04	27.81	27.50	28.25	28.72	24.20	24.96	24.66	25.41	25.88
	12H	27.11	27.79	27.59	28.27	28.74	24.25	24.94	24.74	25.42	25.89
8H	4H	26.63	27.40	27.09	27.84	28.31	23.91	24.68	24.37	25.12	25.59
	6H	27.08	27.72	27.58	28.21	28.69	24.47	25.11	24.97	25.60	26.08
	8H	27.24	27.81	27.75	28.32	28.81	24.66	25.23	25.18	25.74	26.23
	12H	27.35	27.86	27.86	28.35	28.92	24.76	25.27	25.27	25.76	26.33
12H	4H	26.62	27.30	27.10	27.78	28.25	23.94	24.63	24.43	25.11	25.58
	6H	27.07	27.64	27.58	28.15	28.64	24.53	25.10	25.04	25.61	26.10
	8H	27.27	27.77	27.78	28.27	28.83	24.76	25.27	25.27	25.76	26.33