

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: P854205

Luminaire Tested: SQ2-PR1-125D-930-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

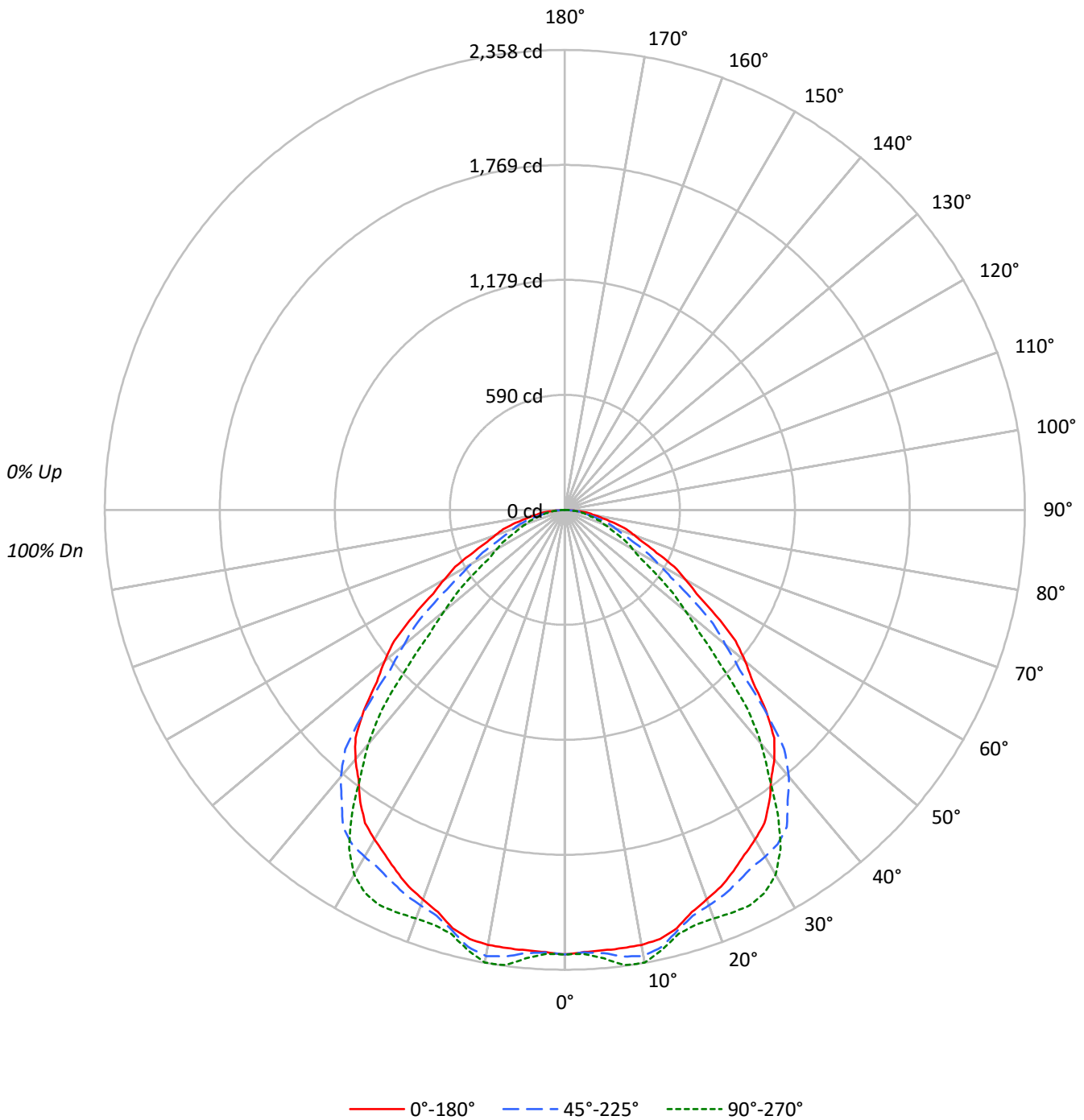
Test Method: LM-79-2019  
Report Number: P854205  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PR1-125D-930-UNV-STD-W-4  
Description: CORELITE SQ2 SURFACE LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
DIRECT ONLY  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5481.6 lumens  
Efficiency: N/A  
Efficacy: 111.4 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: 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	108	104	101	97	100	97	94	96	94	92	92	90	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56
5	80	68	60	53	78	67	59	53	65	58	53	63	57	52	61	56	52	50
6	74	62	53	47	72	61	53	47	59	52	47	57	51	46	56	50	46	44
7	69	56	48	42	67	55	47	42	54	47	42	52	46	41	51	45	41	39
8	64	51	43	38	63	51	43	38	49	42	37	48	42	37	47	41	37	35
9	60	47	39	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	40	35	31	29

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

	0°	45°	90°
0°	36792	36792	36792
5°	36742	36969	37422
10°	37130	38082	38653
15°	37118	37312	37623
20°	36519	37077	38314
25°	36416	37449	39891
30°	36376	38283	40274
35°	36031	39100	37497
40°	35201	37648	32998
45°	33307	33043	26094
50°	30280	27015	20245
55°	26612	22232	15758
60°	23027	17777	12975
65°	19878	14732	11358
70°	17873	13048	10088
75°	16375	11304	9276
80°	14254	9075	9075
85°	10319	8170	4298

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 36004 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	220.1	4.0
10°-20°	637.0	11.6
20°-30°	984.7	18.0
30°-40°	1184.3	21.6
40°-50°	1063.4	19.4
50°-60°	712.4	13.0
60°-70°	414.4	7.6
70°-80°	212.8	3.9
80°-90°	52.5	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°	1841.7	33.6
0°-40°	3026.0	55.2
0°-60°	4801.9	87.6
0°-90°	5481.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5481.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2279	2279	2279	2279	2279	
5°	2267	2306	2281	2286	2309	216
15°	2221	2311	2232	2239	2251	624
25°	2044	2126	2102	2180	2239	943
35°	1828	1844	1984	1946	1902	1140
45°	1459	1577	1447	1220	1143	1116
55°	945	982	790	610	560	850
65°	520	532	386	313	297	526
75°	262	256	181	153	149	279
85°	56	44	44	30	23	71
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2278.7	2278.7	2278.7	2278.7	2278.7
2.5°	2269.4	2296.6	2271.2	2273.2	2278.7
5°	2267.0	2305.7	2281.0	2286.1	2308.9
7.5°	2266.6	2321.5	2309.8	2323.9	2353.9
10°	2264.7	2330.6	2322.8	2325.8	2357.6
12.5°	2253.6	2330.3	2294.9	2292.1	2309.3
15°	2220.6	2311.4	2232.2	2239.4	2250.8
17.5°	2162.5	2257.5	2182.0	2207.6	2229.9
20°	2125.4	2218.5	2157.9	2191.3	2229.9
22.5°	2091.9	2185.0	2135.6	2182.3	2235.5
25°	2044.1	2125.8	2102.1	2180.1	2239.2
27.5°	1993.9	2042.0	2070.1	2174.6	2215.9
30°	1951.1	1982.9	2053.4	2144.3	2160.2
32.5°	1904.7	1923.8	2031.1	2078.4	2058.0
35°	1828.0	1843.9	1983.7	1945.5	1902.4
37.5°	1737.0	1769.7	1877.3	1767.5	1717.9
40°	1670.1	1724.6	1786.2	1622.3	1565.6
42.5°	1588.3	1675.5	1665.4	1456.7	1387.2
45°	1458.7	1576.8	1447.1	1220.0	1142.8
47.5°	1305.9	1427.2	1214.8	1012.0	939.8
50°	1205.5	1303.2	1075.5	885.5	806.0
52.5°	1103.3	1173.7	956.5	766.7	694.5
55°	945.4	981.7	789.8	609.8	559.8
57.5°	800.4	823.6	645.3	492.5	455.7
60°	713.1	729.0	550.5	431.4	401.8
62.5°	633.2	645.5	474.3	379.5	357.2
65°	520.3	531.7	385.6	313.2	297.3
67.5°	430.6	436.6	317.3	260.3	245.3
70°	378.6	380.9	276.4	225.1	213.7
72.5°	332.2	329.0	237.4	195.4	187.7
75°	262.5	255.7	181.2	153.2	148.7
77.5°	196.0	188.8	127.3	118.0	118.0
80°	153.3	144.2	97.6	97.6	97.6
82.5°	114.3	101.6	75.3	75.2	73.4
85°	55.7	44.4	44.1	30.0	23.2
87.5°	14.9	14.9	5.6	5.6	5.6
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	23.23	24.73	23.59	25.04	25.35	19.95	21.45	20.32	21.76	22.08
	3H	24.51	25.85	24.89	26.17	26.54	21.07	22.40	21.44	22.73	23.09
	4H	24.99	26.24	25.39	26.59	26.97	21.50	22.75	21.90	23.10	23.48
	6H	25.34	26.49	25.75	26.86	27.25	21.86	23.01	22.27	23.38	23.77
	8H	25.44	26.53	25.86	26.92	27.33	21.96	23.06	22.39	23.45	23.85
	12H	25.48	26.54	25.91	26.92	27.35	21.99	23.04	22.42	23.42	23.85
4H	2H	23.38	24.63	23.78	24.98	25.36	20.60	21.85	21.00	22.20	22.58
	3H	24.91	25.94	25.32	26.34	26.75	21.92	22.95	22.33	23.35	23.76
	4H	25.53	26.46	25.96	26.87	27.31	22.45	23.38	22.88	23.79	24.23
	6H	26.01	26.82	26.47	27.26	27.72	22.92	23.72	23.38	24.17	24.63
	8H	26.16	26.91	26.62	27.35	27.82	23.05	23.80	23.52	24.25	24.72
	12H	26.24	26.91	26.72	27.39	27.86	23.10	23.77	23.58	24.25	24.72
8H	4H	25.60	26.35	26.06	26.79	27.26	22.80	23.55	23.26	24.00	24.46
	6H	26.17	26.79	26.66	27.28	27.76	23.35	23.98	23.85	24.47	24.95
	8H	26.36	26.92	26.88	27.43	27.92	23.54	24.10	24.05	24.61	25.10
	12H	26.49	26.99	27.00	27.48	28.05	23.63	24.12	24.14	24.62	25.18
12H	4H	25.58	26.25	26.07	26.73	27.20	22.84	23.51	23.32	23.99	24.46
	6H	26.15	26.71	26.67	27.22	27.71	23.41	23.97	23.93	24.48	24.97
	8H	26.39	26.89	26.90	27.38	27.94	23.65	24.14	24.16	24.64	25.20