

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: P853701

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

Issue Date: 7/12/2024

**Test Information**

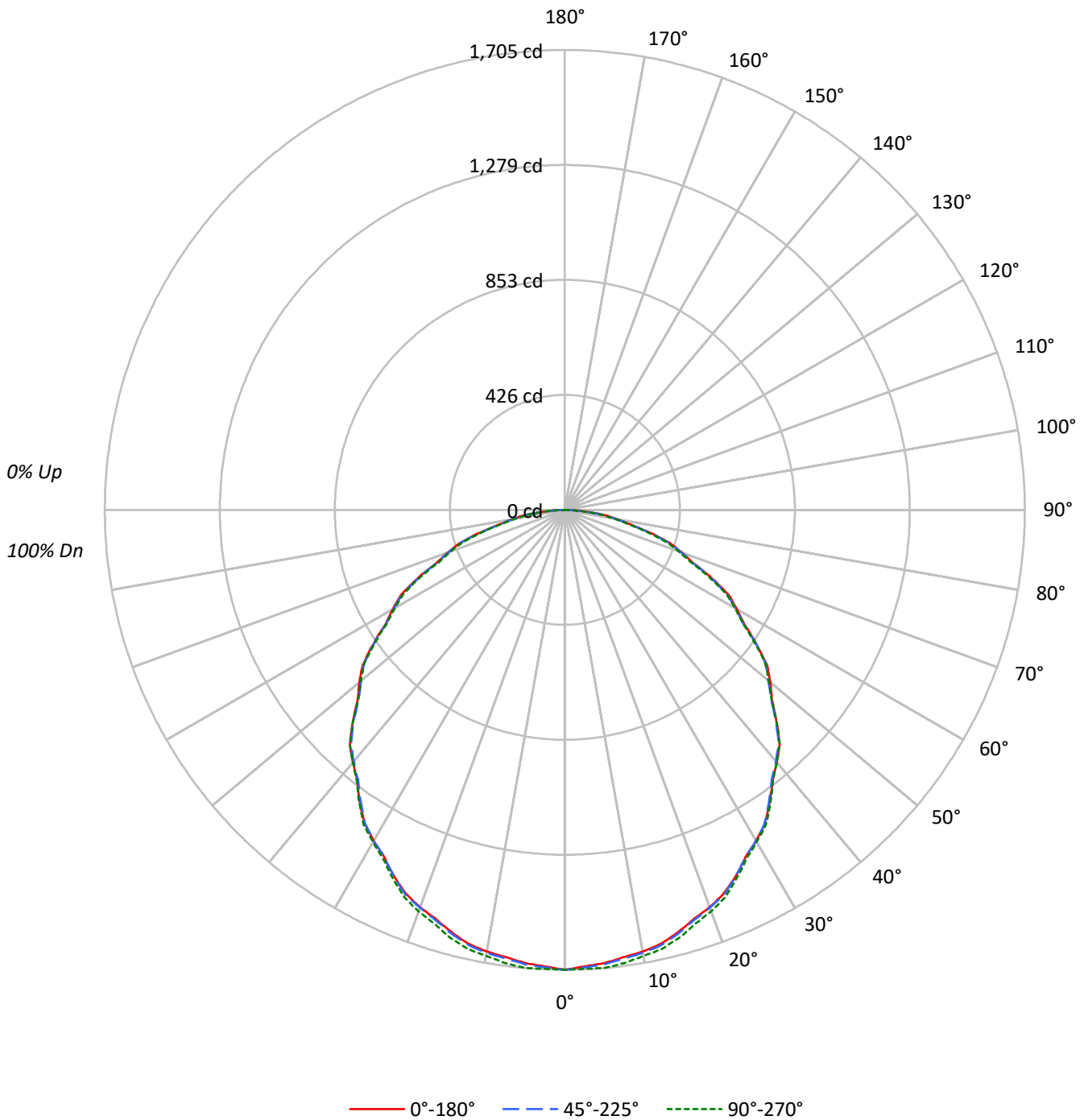
Test Method: LM-79-2019  
Report Number: P853701  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-F-125D-930-UNV-STD-W-4  
Description: CORELITE SQ2 SURFACE LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
DIRECT ONLY  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4786.0 lumens  
Efficiency: N/A  
Efficacy: 97.3 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.25 / 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	50	30	10	
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84	84	84	
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70	70	70	
3	90	79	71	65	88	78	70	64	75	68	63	72	66	62	69	65	61	59	59	59	
4	82	70	61	55	80	69	61	54	66	59	54	64	58	53	62	57	52	50	50	50	
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43	43	43	
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	50	44	40	38	38	38	
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33	33	33	
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30	30	30	
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27	27	27	
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24	24	24	

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

	0°	45°	90°
0°	27527	27527	27527
5°	27331	27407	27632
10°	27266	27343	27534
15°	27101	27178	27450
20°	26940	26979	27218
25°	26690	26690	26856
30°	26416	26416	26502
35°	26097	26004	26187
40°	25752	25653	25752
45°	25352	25245	25352
50°	24970	24739	24797
55°	24389	24324	24192
60°	23776	23628	23476
65°	23072	22808	22541
70°	21711	21602	21163
75°	20430	19994	19420
80°	18140	17713	17062
85°	14635	13338	12486

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 25507 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	161.2	3.4
10°-20°	460.5	9.6
20°-30°	692.8	14.5
30°-40°	829.0	17.3
40°-50°	855.3	17.9
50°-60°	771.6	16.1
60°-70°	588.8	12.3
70°-80°	338.5	7.1
80°-90°	88.3	1.8
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°	1314.5	27.5
0°-40°	2143.5	44.8
0°-60°	3770.4	78.8
0°-90°	4786.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4786.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1705	1705	1705	1705	1705	
5°	1686	1709	1691	1694	1705	160
15°	1621	1642	1626	1633	1642	457
25°	1498	1514	1498	1501	1508	690
35°	1324	1333	1319	1324	1329	828
45°	1110	1117	1106	1108	1110	857
55°	866	871	864	859	859	775
65°	604	602	597	592	590	594
75°	328	325	320	314	311	345
85°	79	74	72	65	67	95
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1704.9	1704.9	1704.9	1704.9	1704.9
2.5°	1693.8	1713.8	1697.5	1701.2	1703.1
5°	1686.3	1709.0	1691.0	1693.6	1704.9
7.5°	1672.4	1696.9	1677.0	1681.5	1694.2
10°	1663.1	1685.8	1667.8	1670.3	1679.4
12.5°	1648.2	1671.0	1652.9	1657.3	1666.4
15°	1621.3	1641.7	1625.9	1633.1	1642.2
17.5°	1590.2	1612.0	1594.4	1600.6	1608.3
20°	1567.9	1586.0	1570.2	1572.8	1584.1
22.5°	1540.0	1558.2	1544.2	1544.9	1554.4
25°	1498.2	1514.1	1498.2	1500.7	1507.5
27.5°	1450.3	1464.0	1450.3	1452.8	1458.7
30°	1416.9	1430.5	1416.9	1419.3	1421.5
32.5°	1379.7	1391.5	1377.9	1380.3	1386.2
35°	1324.0	1333.1	1319.3	1324.1	1328.6
37.5°	1264.5	1271.3	1259.9	1262.3	1266.4
40°	1221.8	1228.6	1217.1	1219.5	1221.8
42.5°	1179.0	1184.0	1172.5	1175.0	1179.0
45°	1110.3	1117.1	1105.6	1108.0	1110.3
47.5°	1040.6	1044.7	1035.0	1033.3	1037.4
50°	994.1	996.4	984.9	984.9	987.2
52.5°	944.0	946.2	938.4	934.7	937.0
55°	866.4	870.9	864.1	859.4	859.4
57.5°	788.4	792.4	783.7	781.4	780.9
60°	736.3	738.6	731.7	729.3	727.0
62.5°	684.3	684.7	677.8	675.4	673.1
65°	603.9	601.7	597.0	592.3	590.0
67.5°	513.8	516.1	511.5	504.0	504.0
70°	459.9	462.2	457.6	448.3	448.3
72.5°	407.9	406.5	403.7	396.2	392.5
75°	327.5	325.2	320.5	313.5	311.3
77.5°	247.1	244.9	242.5	233.7	235.5
80°	195.1	192.8	190.5	183.5	183.5
82.5°	148.7	144.6	142.2	135.2	135.2
85°	79.0	74.4	72.0	65.1	67.4
87.5°	22.3	20.5	18.6	14.9	14.9
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	23.28	24.92	23.65	25.24	25.55	23.20	24.85	23.57	25.16	25.47
	3H	25.12	26.60	25.49	26.93	27.29	25.00	26.48	25.37	26.81	27.17
	4H	25.81	27.21	26.21	27.55	27.93	25.66	27.06	26.05	27.40	27.78
	6H	26.31	27.61	26.73	27.98	28.37	26.13	27.43	26.54	27.79	28.18
	8H	26.47	27.71	26.90	28.10	28.50	26.27	27.51	26.70	27.90	28.30
	12H	26.57	27.76	27.00	28.14	28.57	26.35	27.54	26.78	27.92	28.35
4H	2H	23.92	25.32	24.32	25.67	26.04	23.86	25.26	24.26	25.60	25.98
	3H	25.97	27.15	26.38	27.54	27.94	25.87	27.04	26.27	27.44	27.84
	4H	26.79	27.86	27.23	28.27	28.71	26.65	27.71	27.08	28.13	28.56
	6H	27.43	28.36	27.88	28.80	29.25	27.25	28.18	27.70	28.62	29.07
	8H	27.63	28.50	28.09	28.94	29.41	27.43	28.30	27.89	28.74	29.21
	12H	27.77	28.55	28.25	29.03	29.50	27.55	28.33	28.02	28.80	29.27
8H	4H	27.10	27.97	27.56	28.41	28.88	26.98	27.85	27.44	28.29	28.75
	6H	27.85	28.58	28.35	29.06	29.54	27.69	28.41	28.18	28.90	29.37
	8H	28.13	28.78	28.64	29.28	29.77	27.94	28.59	28.45	29.09	29.58
	12H	28.33	28.91	28.84	29.40	29.96	28.11	28.68	28.61	29.17	29.73
12H	4H	27.13	27.92	27.61	28.39	28.86	27.01	27.80	27.49	28.27	28.74
	6H	27.90	28.55	28.41	29.06	29.55	27.75	28.40	28.25	28.90	29.39
	8H	28.24	28.81	28.74	29.30	29.86	28.05	28.62	28.56	29.11	29.67