

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: P853692

Luminaire Tested: SQ2-F-050D-930-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

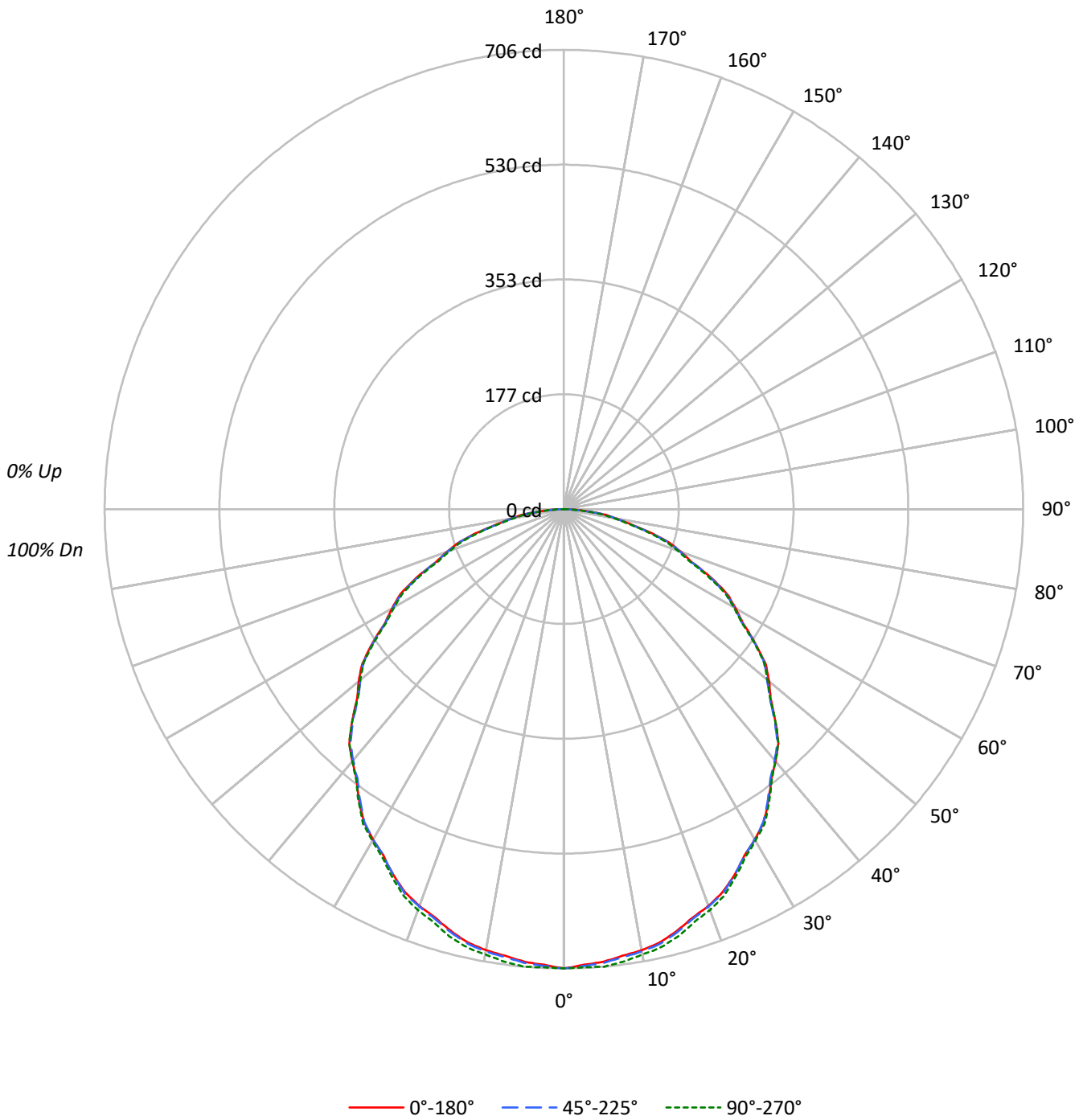
Test Method: LM-79-2019  
Report Number: P853692  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-F-050D-930-UNV-STD-W-4  
Description: CORELITE SQ2 SURFACE LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
DIRECT ONLY  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1981.8 lumens  
Efficiency: N/A  
Efficacy: 111.3 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): 17.8  
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: P853692  
CATALOG NUMBER: SQ2-F-050D-930-UNV-STD-W-4

### Luminous Intensity Polar Plot



TEST NUMBER: P853692

CATALOG NUMBER: SQ2-F-050D-930-UNV-STD-W-4

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

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

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

	0°	45°	90°
0°	11399	11399	11399
5°	11318	11349	11443
10°	11290	11322	11401
15°	11221	11254	11366
20°	11155	11172	11270
25°	11052	11052	11120
30°	10938	10938	10974
35°	10805	10768	10843
40°	10663	10623	10663
45°	10497	10453	10497
50°	10339	10243	10268
55°	10100	10072	10018
60°	9846	9784	9720
65°	9555	9444	9333
70°	8988	8946	8762
75°	8459	8278	8041
80°	7513	7336	7066
85°	6058	5521	5169

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 10563 cd/sqm

TEST NUMBER: P853692

CATALOG NUMBER: SQ2-F-050D-930-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.7	3.4
10°-20°	190.7	9.6
20°-30°	286.9	14.5
30°-40°	343.3	17.3
40°-50°	354.2	17.9
50°-60°	319.5	16.1
60°-70°	243.8	12.3
70°-80°	140.2	7.1
80°-90°	36.6	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°	544.3	27.5
0°-40°	887.5	44.8
0°-60°	1561.2	78.8
0°-90°	1981.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1981.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	706	706	706	706	706	
5°	698	708	700	701	706	66
15°	671	680	673	676	680	189
25°	620	627	620	621	624	286
35°	548	552	546	548	550	343
45°	460	463	458	459	460	355
55°	359	361	358	356	356	321
65°	250	249	247	245	244	246
75°	136	135	133	130	129	143
85°	33	31	30	27	28	39
90°	0	0	0	0	0	



TEST NUMBER: P853692

CATALOG NUMBER: SQ2-F-050D-930-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	706.0	706.0	706.0	706.0	706.0
2.5°	701.3	709.6	702.9	704.4	705.2
5°	698.3	707.7	700.2	701.3	706.0
7.5°	692.5	702.7	694.4	696.3	701.5
10°	688.6	698.1	690.6	691.6	695.4
12.5°	682.5	691.9	684.4	686.2	690.0
15°	671.3	679.8	673.3	676.2	680.0
17.5°	658.4	667.5	660.2	662.8	665.9
20°	649.2	656.7	650.2	651.2	655.9
22.5°	637.7	645.2	639.4	639.7	643.6
25°	620.4	626.9	620.4	621.4	624.2
27.5°	600.5	606.2	600.5	601.6	604.0
30°	586.7	592.3	586.7	587.7	588.6
32.5°	571.3	576.2	570.5	571.6	574.0
35°	548.2	552.0	546.3	548.3	550.1
37.5°	523.6	526.4	521.7	522.7	524.4
40°	505.9	508.7	504.0	505.0	505.9
42.5°	488.2	490.3	485.5	486.5	488.2
45°	459.7	462.6	457.8	458.8	459.7
47.5°	430.9	432.6	428.6	427.8	429.5
50°	411.6	412.6	407.8	407.8	408.8
52.5°	390.9	391.8	388.6	387.0	388.0
55°	358.8	360.6	357.8	355.9	355.9
57.5°	326.4	328.1	324.5	323.5	323.4
60°	304.9	305.8	303.0	302.0	301.0
62.5°	283.3	283.5	280.7	279.7	278.7
65°	250.1	249.1	247.2	245.2	244.3
67.5°	212.7	213.7	211.8	208.7	208.7
70°	190.4	191.4	189.5	185.6	185.6
72.5°	168.9	168.3	167.2	164.0	162.5
75°	135.6	134.7	132.7	129.8	128.9
77.5°	102.3	101.4	100.4	96.8	97.5
80°	80.8	79.9	78.9	76.0	76.0
82.5°	61.6	59.9	58.9	56.0	56.0
85°	32.7	30.8	29.8	27.0	27.9
87.5°	9.2	8.5	7.7	6.2	6.2
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P853692

CATALOG NUMBER: SQ2-F-050D-930-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	20.22	21.86	20.58	22.18	22.49	20.14	21.78	20.51	22.10	22.41
	3H	22.05	23.54	22.43	23.86	24.22	21.93	23.42	22.31	23.74	24.10
	4H	22.74	24.14	23.14	24.49	24.87	22.59	23.99	22.99	24.34	24.71
	6H	23.25	24.55	23.66	24.91	25.30	23.07	24.36	23.48	24.73	25.12
	8H	23.41	24.65	23.84	25.04	25.44	23.21	24.45	23.63	24.84	25.24
	12H	23.51	24.70	23.94	25.08	25.51	23.29	24.48	23.72	24.86	25.29
4H	2H	20.86	22.26	21.25	22.60	22.98	20.79	22.19	21.19	22.54	22.92
	3H	22.91	24.08	23.32	24.48	24.88	22.80	23.98	23.21	24.37	24.77
	4H	23.73	24.79	24.16	25.21	25.64	23.59	24.65	24.02	25.06	25.50
	6H	24.36	25.29	24.82	25.73	26.19	24.18	25.11	24.64	25.55	26.01
	8H	24.57	25.44	25.03	25.88	26.35	24.37	25.24	24.83	25.68	26.14
	12H	24.71	25.49	25.19	25.97	26.44	24.48	25.26	24.96	25.74	26.21
8H	4H	24.04	24.91	24.50	25.35	25.82	23.91	24.78	24.37	25.22	25.69
	6H	24.79	25.51	25.28	26.00	26.48	24.62	25.35	25.12	25.84	26.31
	8H	25.07	25.72	25.58	26.22	26.71	24.87	25.52	25.38	26.03	26.51
	12H	25.27	25.85	25.78	26.34	26.90	25.04	25.62	25.55	26.11	26.67
12H	4H	24.07	24.85	24.55	25.33	25.80	23.95	24.73	24.43	25.21	25.68
	6H	24.84	25.49	25.35	26.00	26.48	24.68	25.33	25.19	25.84	26.32
	8H	25.17	25.75	25.68	26.24	26.80	24.99	25.56	25.49	26.05	26.61