

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: P854028

Luminaire Tested: SQ2-PH1-050D-930-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

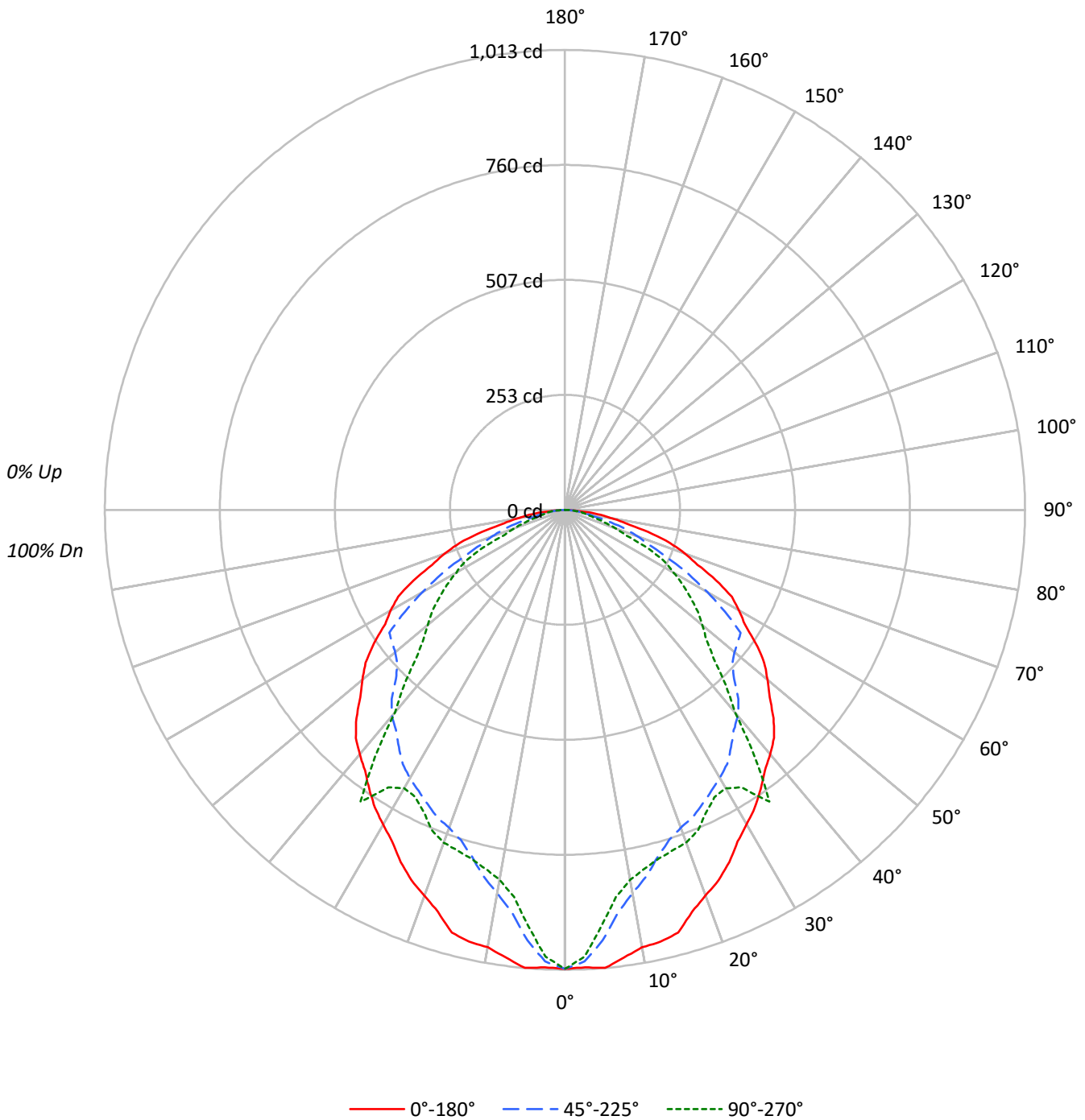
Test Method: LM-79-2019  
Report Number: P854028  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PH1-050D-930-UNV-STD-W-4  
Description: CORELITE SQ2 SURFACE LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
DIRECT ONLY  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2235.9 lumens  
Efficiency: N/A  
Efficacy: 125.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23  
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: P854028  
CATALOG NUMBER: SQ2-PH1-050D-930-UNV-STD-W-4

### Luminous Intensity Polar Plot



TEST NUMBER: P854028

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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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85		
2	100	92	86	80	97	90	84	79	87	82	77	84	79	76	81	77	74	72		
3	91	81	73	67	89	80	72	67	77	71	65	74	69	64	72	67	63	61		
4	84	72	64	57	82	71	63	57	69	62	56	66	60	55	64	59	55	53		
5	77	65	56	50	75	64	55	49	62	54	49	60	53	48	58	52	48	46		
6	72	59	50	44	70	58	49	43	56	48	43	54	48	43	53	47	42	40		
7	66	53	45	39	65	52	44	38	51	43	38	49	43	38	48	42	38	36		
8	62	49	40	35	60	48	40	34	47	39	34	45	39	34	44	38	34	32		
9	58	45	37	31	56	44	36	31	43	36	31	42	35	31	41	35	31	29		
10	54	41	34	28	53	41	33	28	40	33	28	39	32	28	38	32	28	26		

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

	0°	45°	90°
0°	16322	16322	16322
5°	16415	15433	14917
10°	16038	14050	13562
15°	16109	13215	13295
20°	15534	12807	13402
25°	15250	12748	13090
30°	14919	12713	13198
35°	14806	12569	15469
40°	14819	12488	12265
45°	14824	12013	10563
50°	14616	12248	9904
55°	14429	13292	9503
60°	14286	11648	8913
65°	14036	9444	7752
70°	13256	8035	5537
75°	11822	6057	4198
80°	9661	3933	3933
85°	6058	3557	2668

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 14824 cd/sqm



TEST NUMBER: P854028

CATALOG NUMBER: SQ2-PH1-050D-930-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	88.9	4.0
10°-20°	234.0	10.5
20°-30°	343.1	15.3
30°-40°	415.5	18.6
40°-50°	408.5	18.3
50°-60°	355.6	15.9
60°-70°	247.2	11.1
70°-80°	117.2	5.2
80°-90°	25.8	1.2
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°	666.0	29.8
0°-40°	1081.4	48.4
0°-60°	1845.6	82.5
0°-90°	2235.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2235.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1011	1011	1011	1011	1011	
5°	1013	1012	952	922	920	95
15°	964	858	791	785	795	269
25°	856	728	716	738	735	394
35°	751	607	638	693	785	471
45°	649	481	526	544	463	499
55°	513	374	472	340	338	458
65°	367	257	247	203	203	361
75°	190	131	97	69	67	201
85°	33	21	19	15	14	45
90°	0	0	0	0	0	



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CATALOG NUMBER: SQ2-PH1-050D-930-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1010.9	1010.9	1010.9	1010.9	1010.9
2.5°	1008.5	1019.1	995.5	986.2	984.7
5°	1012.8	1011.8	952.2	922.3	920.4
7.5°	994.3	965.2	893.9	861.0	859.5
10°	978.2	934.0	857.0	827.2	827.2
12.5°	974.3	904.5	827.0	804.9	809.5
15°	963.7	858.4	790.6	785.1	795.4
17.5°	928.7	815.3	762.3	774.9	786.9
20°	904.1	792.2	745.4	768.7	780.0
22.5°	883.3	769.9	733.1	758.6	764.6
25°	856.0	728.1	715.6	737.6	734.8
27.5°	823.3	689.8	698.1	711.6	713.3
30°	800.2	666.7	681.9	695.7	707.9
32.5°	777.9	639.9	664.2	696.8	724.8
35°	751.2	607.3	637.7	692.7	784.8
37.5°	723.1	568.9	610.9	657.2	686.5
40°	703.1	541.3	592.5	649.6	581.9
42.5°	681.5	519.8	564.8	638.5	524.2
45°	649.2	480.9	526.1	544.4	462.6
47.5°	611.1	450.7	499.9	454.0	422.0
50°	581.9	430.5	487.6	415.0	394.3
52.5°	553.4	409.5	479.2	382.9	368.9
55°	512.6	374.4	472.2	340.4	337.6
57.5°	469.4	338.6	417.6	303.5	308.4
60°	442.4	315.5	360.7	281.7	276.0
62.5°	414.0	293.0	307.6	254.0	248.3
65°	367.4	257.4	247.2	202.9	202.9
67.5°	316.2	220.3	200.2	166.1	143.5
70°	280.8	196.2	170.2	132.4	117.3
72.5°	243.1	170.5	139.5	108.5	91.2
75°	189.5	131.2	97.1	69.2	67.3
77.5°	137.0	94.5	65.4	51.4	51.6
80°	103.9	71.9	42.3	41.4	42.3
82.5°	73.1	49.4	31.5	32.9	33.1
85°	32.7	21.4	19.2	15.4	14.4
87.5°	6.9	6.2	3.8	3.8	3.8
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P854028

CATALOG NUMBER: SQ2-PH1-050D-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	20.87	22.46	21.24	22.78	23.09	19.54	21.13	19.91	21.45	21.76
	3H	22.95	24.38	23.33	24.71	25.07	20.63	22.06	21.01	22.39	22.75
	4H	23.71	25.06	24.11	25.40	25.78	20.88	22.22	21.27	22.57	22.95
	6H	24.23	25.48	24.64	25.84	26.23	21.06	22.30	21.47	22.66	23.06
	8H	24.38	25.56	24.80	25.95	26.35	21.11	22.29	21.53	22.68	23.08
	12H	24.45	25.58	24.88	25.96	26.39	21.13	22.26	21.56	22.65	23.08
4H	2H	21.33	22.68	21.73	23.02	23.40	20.27	21.61	20.67	21.96	22.34
	3H	23.50	24.62	23.91	25.02	25.42	21.51	22.63	21.92	23.03	23.43
	4H	24.35	25.35	24.78	25.77	26.21	21.82	22.83	22.25	23.24	23.68
	6H	24.97	25.85	25.43	26.29	26.75	22.07	22.94	22.52	23.39	23.84
	8H	25.16	25.98	25.62	26.42	26.89	22.14	22.96	22.60	23.40	23.87
	12H	25.26	25.99	25.74	26.47	26.94	22.18	22.92	22.66	23.39	23.86
8H	4H	24.42	25.24	24.88	25.68	26.15	22.09	22.91	22.55	23.35	23.82
	6H	25.10	25.78	25.60	26.27	26.74	22.39	23.07	22.89	23.56	24.04
	8H	25.33	25.94	25.84	26.45	26.93	22.50	23.11	23.01	23.62	24.10
	12H	25.48	26.02	25.99	26.51	27.07	22.58	23.11	23.08	23.60	24.17
12H	4H	24.41	25.14	24.89	25.62	26.09	22.12	22.86	22.60	23.33	23.80
	6H	25.08	25.69	25.59	26.20	26.68	22.43	23.04	22.94	23.54	24.03
	8H	25.35	25.88	25.85	26.37	26.94	22.58	23.11	23.08	23.60	24.17