

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: P845522

Luminaire Tested: SQ2R-FB-050D-940-UNV-STD-W-4

Issue Date: 6/14/2024

**Test Information**

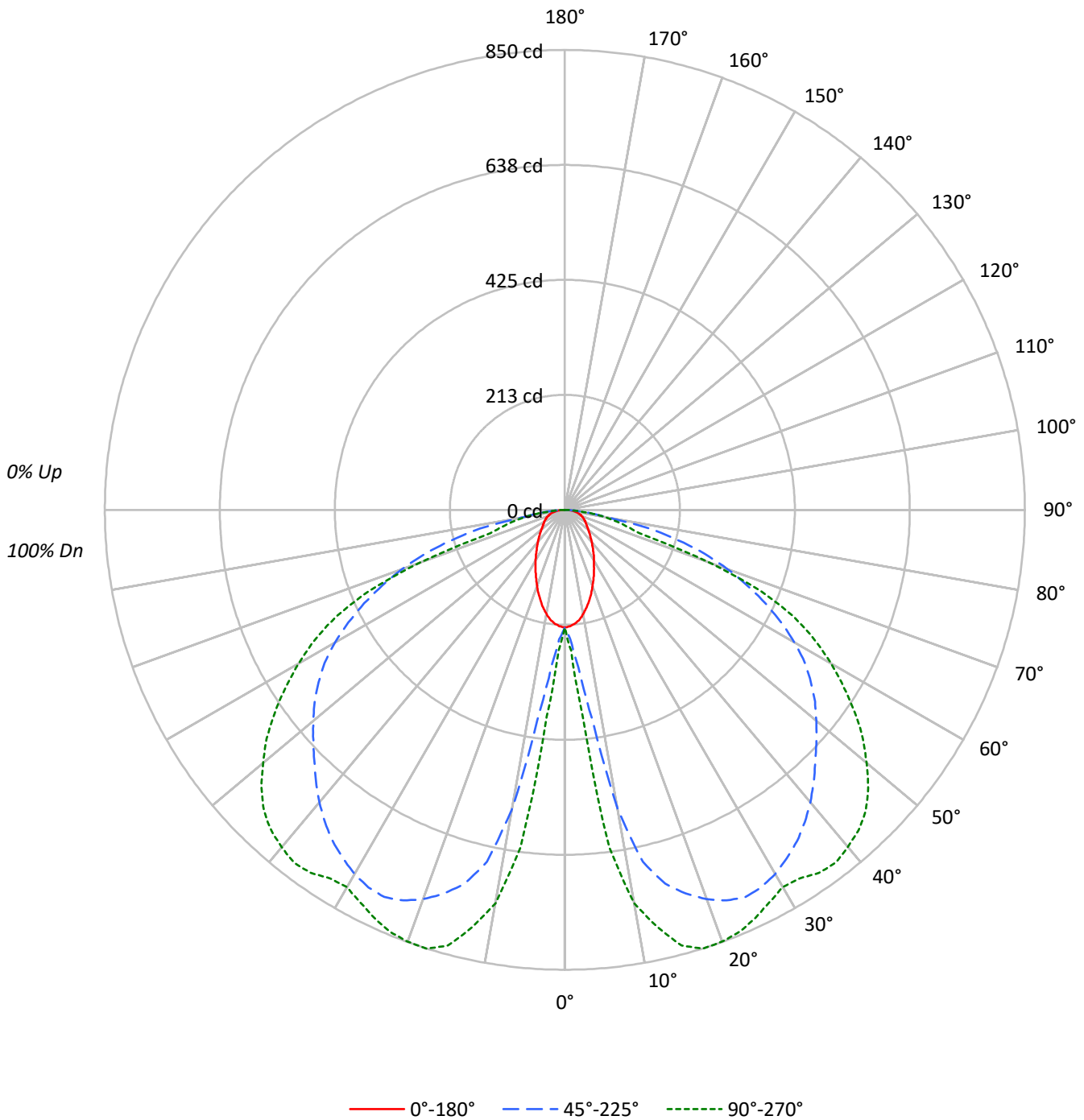
Test Method: LM-79-2019  
Report Number: P845522  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/14/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2R-FB-050D-940-UNV-STD-W-4  
Description: CONTINUA SQ2 RECESSED, BATWING LENS  
500 LUMENS PER FOOT  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2154.1 lumens  
Efficiency: N/A  
Efficacy: 121.0 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 2.99 / 2.56  
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: 0.9973  
Total Harmonic Distortion (THDi): 0.0531  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: 3 HR  
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	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	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69				
3	89	78	70	63	87	77	69	63	74	67	62	71	65	60	68	64	59	57				
4	81	69	60	53	79	67	59	52	65	58	52	63	56	51	60	55	50	48				
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41				
6	68	54	45	39	66	53	45	38	52	44	38	50	43	38	48	42	37	35				
7	63	49	40	34	61	48	40	33	47	39	33	45	38	33	44	37	33	31				
8	58	44	36	30	57	44	35	29	42	35	29	41	34	29	40	34	29	27				
9	54	40	32	26	53	40	32	26	39	31	26	38	31	26	37	30	26	24				
10	51	37	29	23	49	37	29	23	36	28	23	35	28	23	34	28	23	21				

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

	0°	45°	90°
0°	3512	3512	3512
5°	3425	4746	6220
10°	3207	9191	12106
15°	2902	11958	13932
20°	2570	13155	14591
25°	2273	14067	14831
30°	2008	14488	15014
35°	1794	14739	16141
40°	1631	14878	17150
45°	1505	14949	17959
50°	1419	15237	18284
55°	1385	15631	18429
60°	1418	15839	18338
65°	1479	15622	17818
70°	1530	15106	13478
75°	1697	13568	7436
80°	1748	7001	6908
85°	1741	4835	2908

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 55°  
 Luminance: 18429 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	35.8	1.7
10°-20°	167.0	7.8
20°-30°	293.9	13.6
30°-40°	380.2	17.6
40°-50°	419.3	19.5
50°-60°	391.1	18.2
60°-70°	302.7	14.1
70°-80°	138.3	6.4
80°-90°	25.9	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°	496.7	23.1
0°-40°	876.9	40.7
0°-60°	1687.3	78.3
0°-90°	2154.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2154.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	218	218	218	218	218	
5°	211	243	293	357	384	20
15°	174	346	715	800	834	48
25°	128	468	790	824	832	59
35°	91	452	748	773	819	57
45°	66	346	655	751	786	51
55°	49	206	555	638	655	44
65°	39	116	409	458	466	38
75°	27	71	218	117	119	28
85°	9	21	26	18	16	10
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	217.5	217.5	217.5	217.5	217.5
2.5°	215.4	226.9	239.5	254.1	260.4
5°	211.3	242.6	292.8	356.6	383.8
7.5°	205.0	262.5	392.2	568.9	629.6
10°	195.6	284.5	560.6	709.1	738.4
12.5°	185.1	313.8	666.2	759.3	789.6
15°	173.6	346.2	715.4	800.1	833.5
17.5°	162.1	381.7	743.6	830.4	850.3
20°	149.6	419.4	765.6	837.7	849.2
22.5°	138.1	447.6	781.2	831.4	844.0
25°	127.6	467.5	789.6	824.1	832.5
27.5°	117.1	474.8	786.5	810.5	817.9
30°	107.7	472.7	777.1	793.8	805.3
32.5°	99.4	466.4	763.5	779.2	807.4
35°	91.0	451.8	747.8	772.9	818.9
37.5°	83.7	430.9	727.9	776.0	822.0
40°	77.4	406.8	705.9	776.0	813.7
42.5°	71.1	378.6	680.8	765.6	803.2
45°	65.9	346.2	654.7	750.9	786.5
47.5°	60.7	310.6	630.6	733.1	760.3
50°	56.5	274.0	606.6	707.0	727.9
52.5°	52.3	238.5	582.5	675.6	694.4
55°	49.2	206.0	555.3	638.0	654.7
57.5°	46.0	176.7	526.1	598.2	611.8
60°	43.9	153.7	490.5	554.3	567.9
62.5°	40.8	132.8	450.8	508.3	520.8
65°	38.7	116.1	408.9	458.1	466.4
67.5°	35.6	102.5	365.0	400.6	392.2
70°	32.4	93.1	320.0	330.5	285.5
72.5°	30.3	82.6	270.9	239.5	144.3
75°	27.2	71.1	217.5	117.1	119.2
77.5°	23.0	57.5	160.0	94.1	96.2
80°	18.8	45.0	75.3	73.2	74.3
82.5°	14.6	32.4	46.0	49.2	47.1
85°	9.4	20.9	26.1	17.8	15.7
87.5°	4.2	9.4	5.2	5.2	5.2
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	15.26	16.94	15.62	17.26	17.57	23.91	25.60	24.28	25.91	26.23
	3H	16.05	17.57	16.42	17.90	18.26	25.60	27.12	25.98	27.45	27.81
	4H	16.38	17.82	16.78	18.17	18.54	25.82	27.25	26.21	27.60	27.97
	6H	16.64	17.97	17.05	18.33	18.72	25.94	27.27	26.35	27.64	28.03
	8H	16.72	17.99	17.14	18.38	18.78	25.97	27.24	26.40	27.63	28.03
	12H	16.77	17.99	17.20	18.37	18.80	25.97	27.19	26.40	27.57	28.00
4H	2H	19.70	21.13	20.09	21.48	21.85	24.45	25.89	24.85	26.24	26.61
	3H	20.71	21.91	21.12	22.31	22.71	26.36	27.56	26.77	27.96	28.36
	4H	21.03	22.12	21.46	22.53	22.96	26.63	27.72	27.06	28.13	28.56
	6H	21.21	22.16	21.67	22.60	23.05	26.83	27.77	27.28	28.21	28.67
	8H	21.26	22.14	21.72	22.58	23.05	26.87	27.76	27.33	28.20	28.66
	12H	21.29	22.08	21.77	22.56	23.03	26.89	27.68	27.37	28.15	28.62
8H	4H	22.27	23.15	22.73	23.59	24.06	26.82	27.70	27.28	28.15	28.61
	6H	22.55	23.28	23.04	23.77	24.24	27.06	27.80	27.56	28.28	28.76
	8H	22.63	23.28	23.14	23.79	24.28	27.14	27.79	27.64	28.30	28.78
	12H	22.70	23.27	23.20	23.76	24.32	27.17	27.75	27.67	28.24	28.80
12H	4H	22.33	23.12	22.81	23.59	24.06	26.81	27.61	27.29	28.08	28.55
	6H	22.65	23.31	23.16	23.81	24.30	27.06	27.71	27.56	28.22	28.70
	8H	22.80	23.37	23.30	23.86	24.42	27.16	27.74	27.67	28.23	28.79