

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: P845473

Luminaire Tested: SQ2R-F-050D-935-UNV-STD-W-4

Issue Date: 6/14/2024

**Test Information**

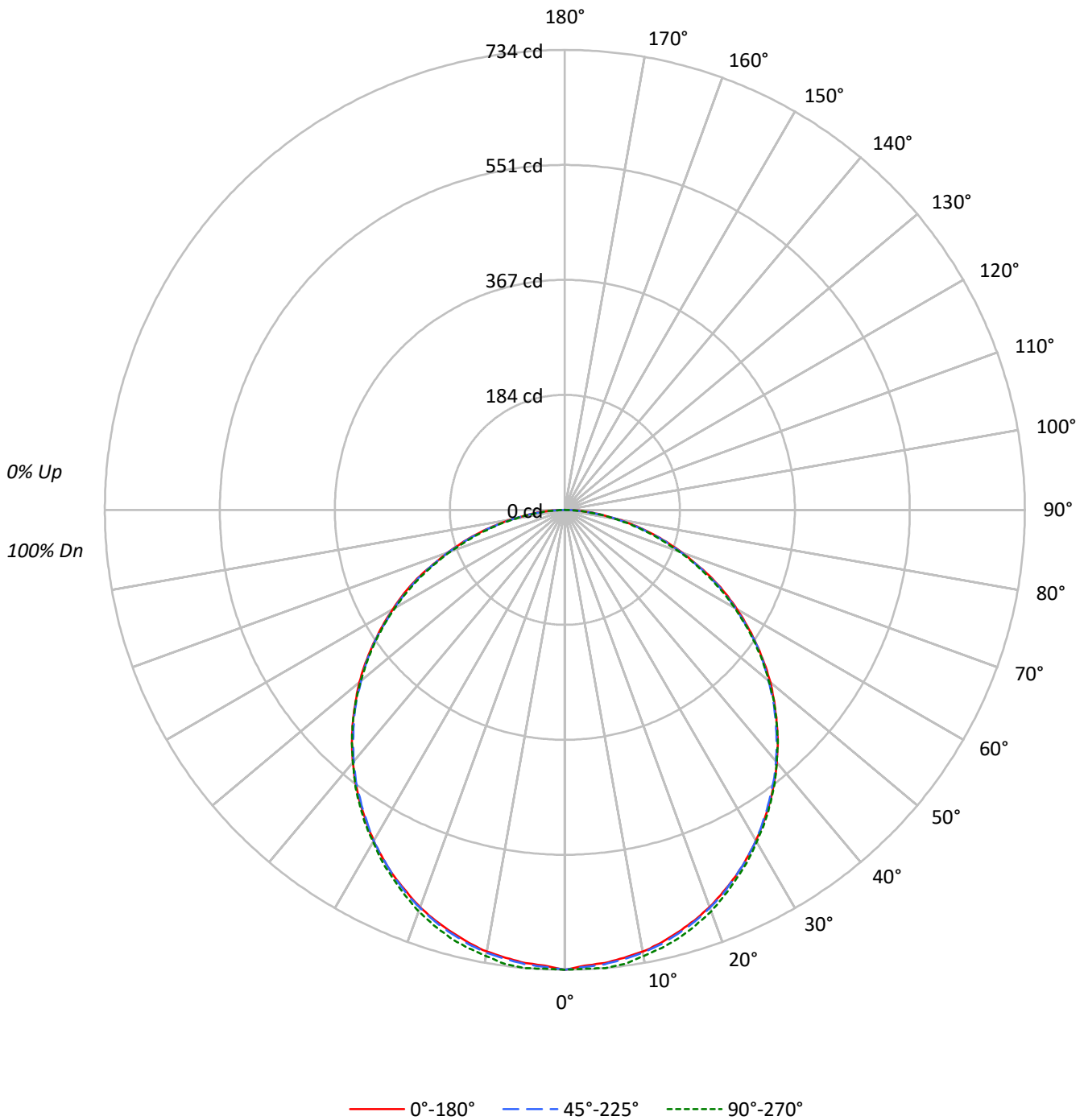
Test Method: LM-79-2019  
Report Number: P845473  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/14/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2R-F-050D-935-UNV-STD-W-4  
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH FROSTED LENS  
500 LUMENS PER FOOT  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2060.5 lumens  
Efficiency: N/A  
Efficacy: 115.8 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.24 / 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: 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	99	91	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	51	45	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	44	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°	11851	11851	11851
5°	11767	11799	11896
10°	11739	11772	11854
15°	11667	11701	11818
20°	11598	11615	11718
25°	11491	11491	11562
30°	11373	11373	11410
35°	11235	11196	11274
40°	11086	11044	11086
45°	10914	10869	10914
50°	10751	10650	10675
55°	10500	10472	10415
60°	10236	10172	10107
65°	9933	9819	9704
70°	9347	9300	9111
75°	8796	8609	8359
80°	7810	7624	7345
85°	6299	5743	5372

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 10983 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.4	3.4
10°-20°	198.4	9.6
20°-30°	298.4	14.5
30°-40°	357.1	17.3
40°-50°	368.4	17.9
50°-60°	332.4	16.1
60°-70°	253.6	12.3
70°-80°	145.7	7.1
80°-90°	37.1	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°	566.2	27.5
0°-40°	923.3	44.8
0°-60°	1624.1	78.8
0°-90°	2060.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2060.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	734	734	734	734	734	
5°	726	736	728	729	734	69
15°	698	707	700	702	707	197
25°	645	652	645	646	649	297
35°	570	574	568	570	572	357
45°	478	481	476	477	478	369
55°	373	375	372	370	370	334
65°	260	259	257	255	254	256
75°	141	140	138	135	134	149
85°	34	32	31	28	29	40
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	734	734	734	734	734
2.5°	728	739	730	732	733
5°	726	736	728	729	734
7.5°	721	732	723	725	731
10°	716	726	718	719	723
12.5°	708	718	710	712	716
15°	698	707	700	702	707
17.5°	687	697	689	692	695
20°	675	683	676	677	682
22.5°	660	668	662	662	666
25°	645	652	645	646	649
27.5°	628	634	628	629	632
30°	610	616	610	611	612
32.5°	590	595	589	590	593
35°	570	574	568	570	572
37.5°	549	552	547	548	550
40°	526	529	524	525	526
42.5°	503	505	500	501	503
45°	478	481	476	477	478
47.5°	453	455	451	450	452
50°	428	429	424	424	425
52.5°	401	402	399	397	398
55°	373	375	372	370	370
57.5°	345	347	343	342	342
60°	317	318	315	314	313
62.5°	289	289	286	285	284
65°	260	259	257	255	254
67.5°	227	228	226	223	223
70°	198	199	197	193	193
72.5°	170	169	168	165	163
75°	141	140	138	135	134
77.5°	112	111	110	106	107
80°	84	83	82	79	79
82.5°	59	57	56	53	53
85°	34	32	31	28	29
87.5°	12	11	10	8	8
90°	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	20.36	22.00	20.72	22.31	22.63	20.28	21.92	20.64	22.23	22.55
	3H	22.19	23.67	22.57	24.00	24.36	22.07	23.55	22.45	23.88	24.24
	4H	22.88	24.28	23.28	24.63	25.00	22.73	24.13	23.13	24.47	24.85
	6H	23.39	24.68	23.80	25.05	25.44	23.20	24.50	23.61	24.86	25.25
	8H	23.55	24.79	23.97	25.18	25.57	23.35	24.58	23.77	24.97	25.37
	12H	23.65	24.83	24.08	25.22	25.64	23.42	24.61	23.85	24.99	25.42
4H	2H	20.99	22.39	21.39	22.74	23.11	20.93	22.33	21.33	22.68	23.05
	3H	23.05	24.22	23.46	24.62	25.02	22.94	24.11	23.35	24.51	24.91
	4H	23.87	24.93	24.30	25.34	25.78	23.72	24.79	24.15	25.20	25.63
	6H	24.50	25.43	24.95	25.87	26.32	24.32	25.25	24.77	25.69	26.14
	8H	24.71	25.57	25.17	26.02	26.48	24.50	25.37	24.96	25.82	26.28
	12H	24.85	25.63	25.33	26.10	26.57	24.62	25.40	25.10	25.87	26.34
8H	4H	24.18	25.04	24.64	25.49	25.95	24.05	24.92	24.51	25.36	25.83
	6H	24.93	25.65	25.42	26.14	26.61	24.76	25.48	25.25	25.97	26.45
	8H	25.20	25.85	25.71	26.36	26.84	25.01	25.66	25.52	26.16	26.65
	12H	25.41	25.98	25.91	26.47	27.03	25.18	25.75	25.69	26.24	26.80
12H	4H	24.21	24.99	24.69	25.46	25.93	24.09	24.87	24.57	25.34	25.81
	6H	24.98	25.63	25.49	26.13	26.62	24.82	25.47	25.33	25.97	26.46
	8H	25.31	25.88	25.81	26.37	26.93	25.12	25.69	25.63	26.19	26.75