

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: P845472

Luminaire Tested: SQ2R-F-050D-930-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845472
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-930-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH FROSTED LENS
500 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

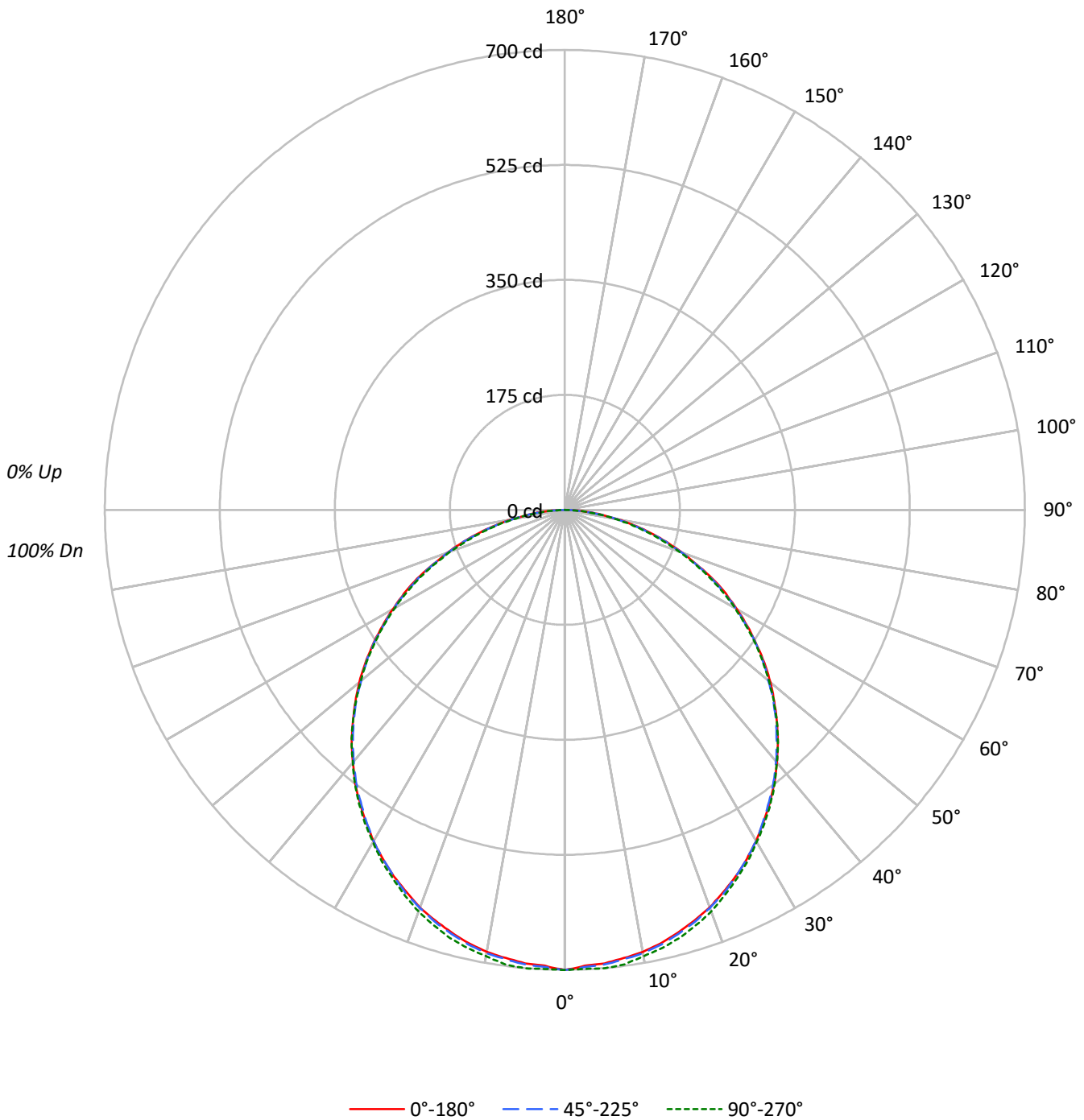
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1966.2 lumens
Efficiency: N/A
Efficacy: 110.5 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°	11309	11309	11309
5°	11229	11259	11352
10°	11201	11232	11311
15°	11132	11164	11276
20°	11067	11082	11182
25°	10965	10965	11033
30°	10852	10852	10888
35°	10721	10683	10758
40°	10578	10538	10578
45°	10414	10371	10414
50°	10258	10163	10186
55°	10018	9993	9940
60°	9768	9707	9646
65°	9478	9368	9261
70°	8917	8875	8696
75°	8390	8216	7979
80°	7457	7271	7011
85°	6002	5483	5132

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 10481 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.2	3.4
10°-20°	189.3	9.6
20°-30°	284.8	14.5
30°-40°	340.7	17.3
40°-50°	351.6	17.9
50°-60°	317.1	16.1
60°-70°	242.0	12.3
70°-80°	139.0	7.1
80°-90°	35.4	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°	540.3	27.5
0°-40°	881.0	44.8
0°-60°	1549.7	78.8
0°-90°	1966.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1966.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	700	700	700	700	700	
5°	693	702	695	696	700	66
15°	666	675	668	670	675	188
25°	616	622	616	616	619	284
35°	544	548	542	544	546	340
45°	456	459	454	455	456	352
55°	356	358	355	353	353	318
65°	248	247	245	243	242	244
75°	134	134	132	129	128	142
85°	32	30	30	27	28	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	700.4	700.4	700.4	700.4	700.4
2.5°	694.7	705.2	696.6	698.5	699.4
5°	692.8	702.3	694.7	695.6	700.4
7.5°	688.0	698.5	689.9	691.8	697.5
10°	683.2	692.8	685.1	686.1	689.9
12.5°	675.6	685.1	677.5	679.4	683.2
15°	666.0	674.6	667.9	669.9	674.6
17.5°	655.5	665.1	657.4	660.3	663.2
20°	644.1	651.7	645.0	646.0	650.8
22.5°	629.8	637.4	631.7	631.7	635.5
25°	615.5	622.1	615.5	616.4	619.3
27.5°	599.2	605.0	599.2	600.2	603.1
30°	582.1	587.8	582.1	583.0	584.0
32.5°	563.0	567.8	562.0	563.0	565.8
35°	543.9	547.7	542.0	543.9	545.8
37.5°	523.9	526.7	522.0	522.9	524.8
40°	501.9	504.8	500.0	501.0	501.9
42.5°	480.0	481.9	477.1	478.1	480.0
45°	456.1	459.0	454.2	455.2	456.1
47.5°	432.3	434.2	430.3	429.4	431.3
50°	408.4	409.4	404.6	404.6	405.5
52.5°	382.6	383.6	380.7	378.8	379.8
55°	355.9	357.8	355.0	353.1	353.1
57.5°	329.2	331.1	327.3	326.3	326.3
60°	302.5	303.4	300.6	299.6	298.7
62.5°	275.8	275.8	272.9	271.9	271.0
65°	248.1	247.1	245.2	243.3	242.4
67.5°	216.6	217.6	215.7	212.8	212.8
70°	188.9	189.9	188.0	184.2	184.2
72.5°	162.2	161.3	160.3	157.4	155.5
75°	134.5	133.6	131.7	128.8	127.9
77.5°	106.9	105.9	105.0	101.1	102.1
80°	80.2	79.2	78.2	75.4	75.4
82.5°	56.3	54.4	53.4	50.6	50.6
85°	32.4	30.5	29.6	26.7	27.7
87.5°	11.5	10.5	9.5	7.6	7.6
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	20.19	21.83	20.56	22.15	22.46	20.11	21.76	20.48	22.07	22.38
	3H	22.03	23.51	22.40	23.84	24.20	21.91	23.39	22.28	23.72	24.08
	4H	22.72	24.12	23.12	24.46	24.84	22.57	23.96	22.96	24.31	24.69
	6H	23.22	24.52	23.64	24.89	25.28	23.04	24.34	23.45	24.70	25.09
	8H	23.38	24.62	23.81	25.01	25.41	23.18	24.42	23.61	24.81	25.21
	12H	23.48	24.67	23.91	25.05	25.48	23.26	24.45	23.69	24.83	25.26
4H	2H	20.83	22.23	21.23	22.58	22.95	20.77	22.17	21.17	22.51	22.89
	3H	22.88	24.06	23.29	24.45	24.85	22.78	23.95	23.18	24.35	24.75
	4H	23.70	24.77	24.13	25.18	25.61	23.56	24.62	23.99	25.04	25.47
	6H	24.34	25.27	24.79	25.71	26.16	24.16	25.09	24.61	25.53	25.98
	8H	24.54	25.41	25.00	25.85	26.32	24.34	25.21	24.80	25.65	26.12
	12H	24.68	25.46	25.16	25.94	26.41	24.46	25.24	24.94	25.71	26.18
8H	4H	24.01	24.88	24.47	25.32	25.79	23.89	24.76	24.35	25.20	25.66
	6H	24.76	25.49	25.26	25.97	26.45	24.60	25.32	25.09	25.81	26.28
	8H	25.04	25.69	25.55	26.19	26.68	24.85	25.50	25.36	26.00	26.49
	12H	25.24	25.82	25.75	26.31	26.87	25.02	25.59	25.52	26.08	26.64
12H	4H	24.04	24.82	24.52	25.30	25.77	23.92	24.70	24.40	25.18	25.65
	6H	24.81	25.46	25.32	25.97	26.45	24.66	25.31	25.16	25.81	26.30
	8H	25.15	25.72	25.65	26.21	26.77	24.96	25.53	25.47	26.02	26.58