

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: P845485

Luminaire Tested: SQ2R-F-100D-935-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845485
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-100D-935-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH FROSTED LENS
1000 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

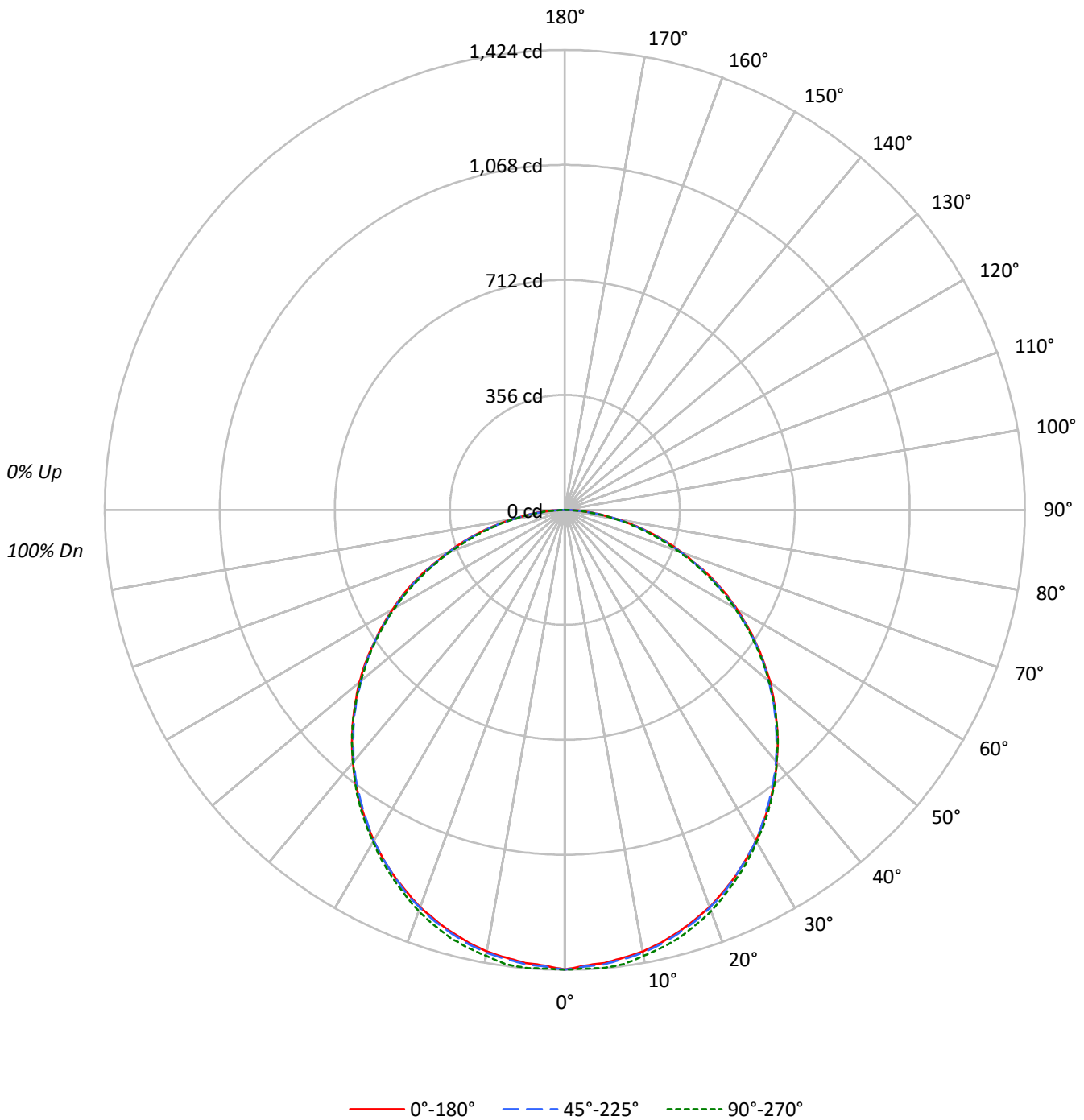
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3996.4 lumens
Efficiency: N/A
Efficacy: 106.3 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): 37.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9969
Total Harmonic Distortion (THDi): 0.066
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	
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84	84	84	
2	99	91	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70	70	70	
3	90	79	71	65	88	78	70	64	75	68	63	72	66	62	69	65	61	59	59	59	
4	82	70	61	55	80	69	61	54	66	59	54	64	58	53	62	57	52	50	50	50	
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43	43	43	
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	51	45	40	38	38	38	
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33	33	33	
8	60	47	38	32	59	46	38	32	45	37	32	44	37	32	42	36	32	30	30	30	
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27	27	27	
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24	24	24	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	22985	22985	22985
5°	22822	22885	23073
10°	22768	22832	22991
15°	22629	22695	22922
20°	22495	22527	22728
25°	22287	22287	22425
30°	22057	22057	22130
35°	21792	21715	21867
40°	21503	21420	21503
45°	21169	21080	21169
50°	20851	20657	20705
55°	20366	20310	20200
60°	19853	19730	19604
65°	19266	19045	18819
70°	18128	18038	17670
75°	17062	16700	16213
80°	15146	14784	14245
85°	12208	11134	10411

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 21302 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.7	3.4
10°-20°	384.8	9.6
20°-30°	578.8	14.5
30°-40°	692.6	17.3
40°-50°	714.6	17.9
50°-60°	644.6	16.1
60°-70°	491.8	12.3
70°-80°	282.6	7.1
80°-90°	72.0	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°	1098.2	27.5
0°-40°	1790.8	44.8
0°-60°	3150.0	78.8
0°-90°	3996.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3996.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1424	1424	1424	1424	1424	
5°	1408	1428	1412	1414	1424	134
15°	1354	1371	1358	1362	1371	382
25°	1251	1265	1251	1253	1259	576
35°	1106	1113	1102	1106	1109	692
45°	927	933	923	925	927	716
55°	724	727	722	718	718	647
65°	504	502	498	495	493	496
75°	274	272	268	262	260	288
85°	66	62	60	54	56	78
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1423.6	1423.6	1423.6	1423.6	1423.6
2.5°	1412.0	1433.3	1415.9	1419.8	1421.7
5°	1408.1	1427.5	1412.0	1413.9	1423.6
7.5°	1398.4	1419.8	1402.3	1406.2	1417.8
10°	1388.7	1408.1	1392.6	1394.5	1402.3
12.5°	1373.2	1392.6	1377.1	1381.0	1388.7
15°	1353.8	1371.3	1357.7	1361.6	1371.3
17.5°	1332.5	1351.9	1336.4	1342.2	1348.0
20°	1309.2	1324.7	1311.1	1313.1	1322.8
22.5°	1280.1	1295.6	1284.0	1284.0	1291.8
25°	1251.0	1264.6	1251.0	1253.0	1258.8
27.5°	1218.0	1229.7	1218.0	1220.0	1225.8
30°	1183.1	1194.8	1183.1	1185.1	1187.0
32.5°	1144.3	1154.0	1142.4	1144.3	1150.2
35°	1105.6	1113.3	1101.7	1105.6	1109.4
37.5°	1064.8	1070.6	1060.9	1062.9	1066.8
40°	1020.2	1026.0	1016.3	1018.3	1020.2
42.5°	975.6	979.5	969.8	971.7	975.6
45°	927.1	932.9	923.2	925.2	927.1
47.5°	878.6	882.5	874.7	872.8	876.7
50°	830.1	832.1	822.4	822.4	824.3
52.5°	777.8	779.7	773.9	770.0	771.9
55°	723.5	727.3	721.5	717.6	717.6
57.5°	669.2	673.0	665.3	663.3	663.3
60°	614.8	616.8	611.0	609.0	607.1
62.5°	560.5	560.5	554.7	552.8	550.8
65°	504.3	502.3	498.5	494.6	492.6
67.5°	440.3	442.2	438.3	432.5	432.5
70°	384.0	386.0	382.1	374.3	374.3
72.5°	329.7	327.8	325.8	320.0	316.1
75°	273.5	271.5	267.7	261.8	259.9
77.5°	217.2	215.3	213.4	205.6	207.5
80°	162.9	161.0	159.0	153.2	153.2
82.5°	114.4	110.6	108.6	102.8	102.8
85°	65.9	62.1	60.1	54.3	56.2
87.5°	23.3	21.3	19.4	15.5	15.5
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	22.66	24.30	23.02	24.61	24.93	22.58	24.22	22.94	24.53	24.85
	3H	24.49	25.98	24.87	26.30	26.66	24.37	25.85	24.75	26.18	26.54
	4H	25.18	26.58	25.58	26.93	27.30	25.03	26.43	25.43	26.78	27.15
	6H	25.69	26.99	26.10	27.35	27.74	25.50	26.80	25.91	27.17	27.56
	8H	25.85	27.09	26.27	27.48	27.88	25.65	26.89	26.07	27.27	27.67
	12H	25.95	27.14	26.38	27.52	27.95	25.72	26.91	26.15	27.29	27.72
4H	2H	23.29	24.69	23.69	25.04	25.42	23.23	24.63	23.63	24.98	25.35
	3H	25.35	26.52	25.76	26.92	27.32	25.24	26.41	25.65	26.81	27.21
	4H	26.17	27.23	26.60	27.64	28.08	26.03	27.09	26.46	27.50	27.94
	6H	26.80	27.73	27.25	28.17	28.63	26.62	27.55	27.07	27.99	28.44
	8H	27.01	27.88	27.47	28.32	28.78	26.81	27.67	27.27	28.12	28.58
	12H	27.15	27.93	27.63	28.40	28.87	26.92	27.70	27.40	28.18	28.64
8H	4H	26.48	27.35	26.94	27.79	28.25	26.35	27.22	26.81	27.66	28.13
	6H	27.23	27.95	27.72	28.44	28.91	27.06	27.78	27.56	28.27	28.75
	8H	27.50	28.15	28.01	28.66	29.14	27.31	27.96	27.82	28.47	28.95
	12H	27.71	28.28	28.21	28.77	29.33	27.48	28.05	27.99	28.54	29.10
12H	4H	26.51	27.29	26.99	27.76	28.23	26.39	27.17	26.87	27.64	28.11
	6H	27.28	27.93	27.79	28.43	28.92	27.12	27.77	27.63	28.28	28.76
	8H	27.61	28.18	28.12	28.67	29.23	27.42	28.00	27.93	28.49	29.05