

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: P845484

Luminaire Tested: SQ2R-F-100D-930-UNV-STD-W-4

Issue Date: 6/14/2024

**Test Information**

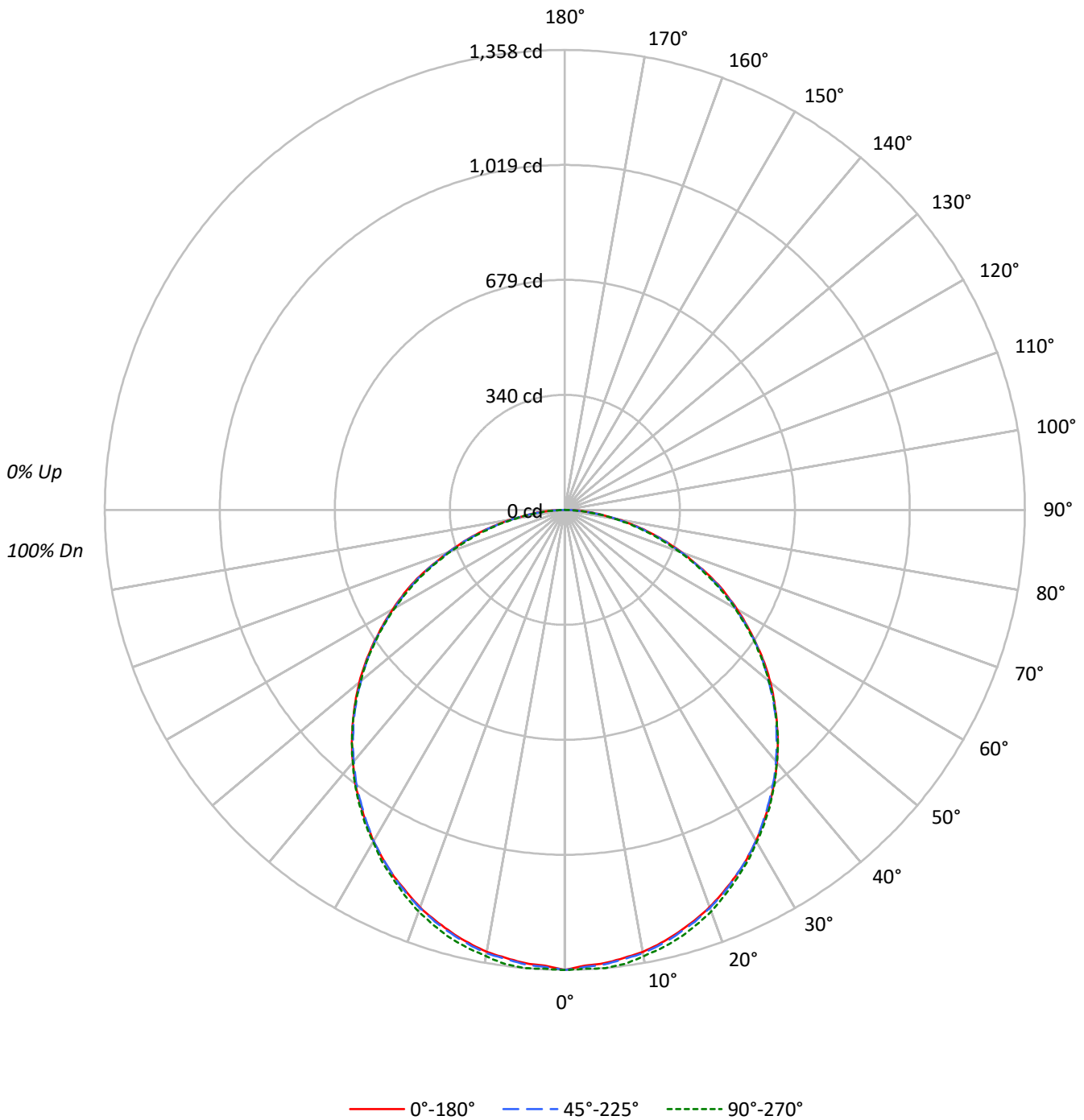
Test Method: LM-79-2019  
Report Number: P845484  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/14/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2R-F-100D-930-UNV-STD-W-4  
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH FROSTED LENS  
1000 LUMENS PER FOOT  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3813.5 lumens  
Efficiency: N/A  
Efficacy: 101.4 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	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°	21934	21934	21934
5°	21776	21836	22018
10°	21725	21786	21938
15°	21593	21655	21872
20°	21466	21496	21687
25°	21266	21266	21398
30°	21049	21049	21118
35°	20793	20720	20865
40°	20518	20440	20518
45°	20201	20116	20201
50°	19896	19710	19758
55°	19432	19381	19277
60°	18946	18826	18707
65°	18384	18170	17960
70°	17297	17212	16862
75°	16282	15933	15471
80°	14458	14114	13594
85°	11652	10634	9948

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 20327 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	128.5	3.4
10°-20°	367.1	9.6
20°-30°	552.3	14.5
30°-40°	660.8	17.3
40°-50°	681.8	17.9
50°-60°	615.1	16.1
60°-70°	469.3	12.3
70°-80°	269.7	7.1
80°-90°	68.7	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°	1048.0	27.5
0°-40°	1708.8	44.8
0°-60°	3005.7	78.8
0°-90°	3813.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3813.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1358	1358	1358	1358	1358	
5°	1344	1362	1347	1349	1358	128
15°	1292	1308	1296	1299	1308	365
25°	1194	1207	1194	1196	1201	550
35°	1055	1062	1051	1055	1059	660
45°	885	890	881	883	885	683
55°	690	694	688	685	685	617
65°	481	479	476	472	470	473
75°	261	259	255	250	248	275
85°	63	59	57	52	54	74
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1358.5	1358.5	1358.5	1358.5	1358.5
2.5°	1347.3	1367.7	1351.0	1354.7	1356.6
5°	1343.6	1362.2	1347.3	1349.2	1358.5
7.5°	1334.4	1354.7	1338.1	1341.8	1352.9
10°	1325.1	1343.6	1328.8	1330.7	1338.1
12.5°	1310.3	1328.8	1314.0	1317.7	1325.1
15°	1291.8	1308.5	1295.5	1299.2	1308.5
17.5°	1271.5	1290.0	1275.2	1280.7	1286.3
20°	1249.3	1264.1	1251.1	1253.0	1262.2
22.5°	1221.5	1236.3	1225.2	1225.2	1232.6
25°	1193.7	1206.7	1193.7	1195.6	1201.1
27.5°	1162.3	1173.4	1162.3	1164.1	1169.7
30°	1129.0	1140.1	1129.0	1130.8	1132.7
32.5°	1091.9	1101.2	1090.1	1091.9	1097.5
35°	1054.9	1062.3	1051.2	1054.9	1058.6
37.5°	1016.1	1021.6	1012.4	1014.2	1017.9
40°	973.5	979.0	969.8	971.6	973.5
42.5°	930.9	934.6	925.4	927.2	930.9
45°	884.7	890.2	881.0	882.8	884.7
47.5°	838.4	842.1	834.7	832.8	836.5
50°	792.1	794.0	784.7	784.7	786.6
52.5°	742.2	744.0	738.4	734.7	736.6
55°	690.3	694.0	688.5	684.8	684.8
57.5°	638.5	642.2	634.8	633.0	633.0
60°	586.7	588.5	583.0	581.1	579.3
62.5°	534.9	534.9	529.3	527.5	525.6
65°	481.2	479.3	475.6	471.9	470.1
67.5°	420.1	422.0	418.3	412.7	412.7
70°	366.4	368.3	364.6	357.2	357.2
72.5°	314.6	312.8	310.9	305.4	301.7
75°	261.0	259.1	255.4	249.9	248.0
77.5°	207.3	205.4	203.6	196.2	198.0
80°	155.5	153.6	151.8	146.2	146.2
82.5°	109.2	105.5	103.6	98.1	98.1
85°	62.9	59.2	57.4	51.8	53.7
87.5°	22.2	20.4	18.5	14.8	14.8
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	22.49	24.14	22.86	24.45	24.76	22.42	24.06	22.78	24.37	24.69
	3H	24.33	25.81	24.70	26.14	26.50	24.21	25.69	24.58	26.02	26.38
	4H	25.02	26.42	25.42	26.77	27.14	24.87	26.27	25.27	26.61	26.99
	6H	25.53	26.82	25.94	27.19	27.58	25.34	26.64	25.75	27.00	27.39
	8H	25.69	26.93	26.11	27.31	27.71	25.48	26.72	25.91	27.11	27.51
	12H	25.79	26.97	26.21	27.35	27.78	25.56	26.75	25.99	27.13	27.56
4H	2H	23.13	24.53	23.53	24.88	25.25	23.07	24.47	23.47	24.82	25.19
	3H	25.18	26.36	25.59	26.76	27.16	25.08	26.25	25.49	26.65	27.05
	4H	26.01	27.07	26.44	27.48	27.92	25.86	26.92	26.29	27.34	27.77
	6H	26.64	27.57	27.09	28.01	28.46	26.46	27.39	26.91	27.83	28.28
	8H	26.84	27.71	27.30	28.16	28.62	26.64	27.51	27.10	27.95	28.42
	12H	26.98	27.77	27.46	28.24	28.71	26.76	27.54	27.24	28.01	28.48
8H	4H	26.31	27.18	26.77	27.63	28.09	26.19	27.06	26.65	27.50	27.96
	6H	27.07	27.79	27.56	28.28	28.75	26.90	27.62	27.39	28.11	28.58
	8H	27.34	27.99	27.85	28.50	28.98	27.15	27.80	27.66	28.30	28.79
	12H	27.55	28.12	28.05	28.61	29.17	27.32	27.89	27.82	28.38	28.94
12H	4H	26.35	27.13	26.83	27.60	28.07	26.23	27.01	26.70	27.48	27.95
	6H	27.12	27.77	27.62	28.27	28.76	26.96	27.61	27.47	28.11	28.60
	8H	27.45	28.02	27.95	28.51	29.07	27.26	27.83	27.77	28.32	28.88