

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: P845510

Luminaire Tested: SQ2R-FA-100D-940-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845510
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-11)
Test Lab: INNOVATION CENTER
Issue Date: 6/14/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2R-FA-100D-940-UNV-STD-W-4
Description: CONTINUA SQ2 RECESSED, ASYMMETRIC LENS
1000 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

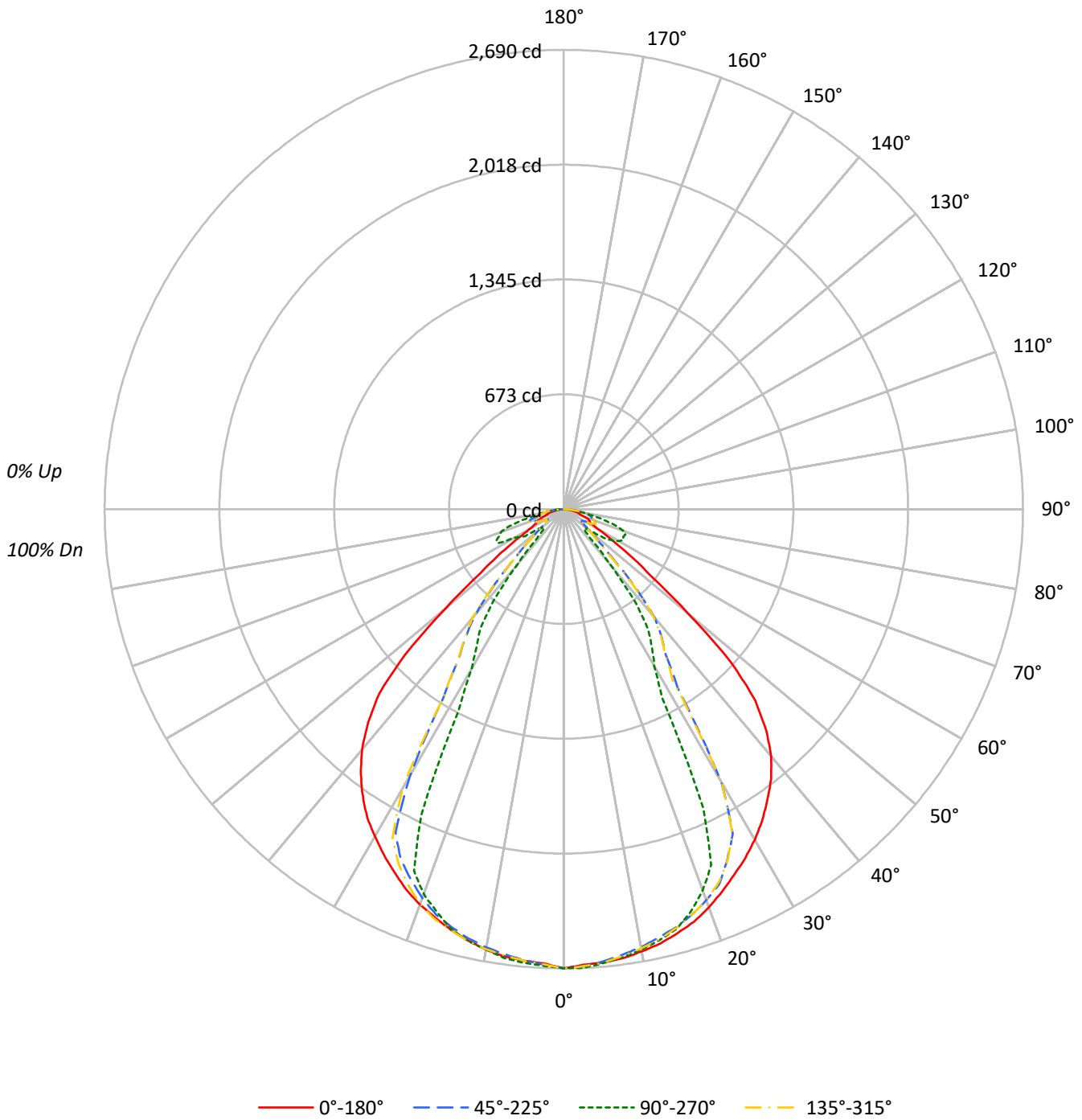
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3924.2 lumens
Efficiency: N/A
Efficacy: 104.4 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 0.95 / 0.93
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

TEST NUMBER: P845510
CATALOG NUMBER: SQ2R-FA-100D-940-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P845510

CATALOG NUMBER: SQ2R-FA-100D-940-UNV-STD-W-4

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				100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	88				88
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	86	83	80	78				78
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70				70
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63				63
5	84	74	66	61	82	73	66	61	71	65	60	69	64	59	67	63	59	57				57
6	79	68	61	55	77	67	60	55	65	59	55	64	58	54	62	58	54	52				52
7	74	63	56	50	73	62	55	50	61	55	50	60	54	50	58	53	49	48				48
8	70	59	51	46	69	58	51	46	57	50	46	56	50	46	55	49	46	44				44
9	66	55	48	43	65	54	47	43	53	47	43	52	46	42	51	46	42	41				41
10	63	51	44	40	61	51	44	40	50	44	40	49	43	39	48	43	39	38				38

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	43429	43429	43429	43429
5°	43200	43266	43036	43234
10°	43135	42968	42968	42968
15°	42994	42554	42654	42554
20°	42661	40849	42347	41232
25°	42100	34476	41812	35199
30°	41713	19779	41260	20044
35°	40982	16992	40462	16752
40°	39848	8937	38735	8850
45°	36221	3845	34924	3845
50°	23898	4637	22674	4330
55°	13363	8566	12676	7766
60°	7204	12051	7075	10808
65°	6353	14648	6667	16661
70°	5939	17523	5651	18482
75°	5571	15059	5696	15564
80°	4714	10749	4714	11316
85°	4131	6021	3761	7132

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 36221 cd/sqm



TEST NUMBER: P845510

CATALOG NUMBER: SQ2R-FA-100D-940-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	253.3	6.5
10°-20°	718.8	18.3
20°-30°	983.3	25.1
30°-40°	823.5	21.0
40°-50°	461.6	11.8
50°-60°	244.8	6.2
60°-70°	228.2	5.8
70°-80°	167.8	4.3
80°-90°	42.9	1.1
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°	1955.4	49.8
0°-40°	2778.8	70.8
0°-60°	3485.2	88.8
0°-90°	3924.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3924.2	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2690	2690	2690	2690	2690	
5°	2665	2670	2655	2668	2665	253
15°	2572	2546	2552	2546	2572	726
25°	2363	1935	2347	1976	2363	1090
35°	2079	862	2053	850	2079	1299
45°	1586	168	1530	168	1586	1170
55°	475	304	450	276	475	448
65°	166	383	174	436	166	166
75°	89	241	91	250	89	92
85°	22	32	20	38	22	26
90°	0	0	0	0	0	



TEST NUMBER: P845510

CATALOG NUMBER: SQ2R-FA-100D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	2689.8	2689.8	2689.8	2689.8	2689.8	2689.8	2689.8	2689.8	2689.8	2689.8	2689.8
2.5°	2671.5	2722.2	2677.6	2671.5	2689.8	2685.7	2679.6	2704.0	2663.4	2704.0	2671.5
5°	2665.4	2712.1	2659.4	2645.2	2669.5	2653.3	2667.5	2695.9	2655.3	2691.8	2651.2
7.5°	2653.3	2695.9	2633.0	2622.8	2647.2	2633.0	2639.1	2677.6	2643.1	2667.5	2631.0
10°	2631.0	2667.5	2604.6	2598.5	2620.8	2606.6	2612.7	2653.3	2620.8	2643.1	2606.6
12.5°	2606.6	2633.0	2570.1	2568.1	2586.3	2578.2	2580.2	2612.7	2588.4	2610.7	2576.2
15°	2572.1	2598.5	2535.6	2525.5	2545.8	2537.6	2541.7	2572.1	2551.8	2566.0	2535.6
17.5°	2533.6	2553.9	2493.0	2470.7	2472.7	2482.9	2493.0	2529.5	2509.2	2527.5	2489.0
20°	2482.9	2507.2	2438.2	2381.4	2377.4	2387.5	2438.2	2474.8	2464.6	2484.9	2424.0
22.5°	2424.0	2438.2	2377.4	2271.9	2255.7	2265.8	2369.3	2413.9	2411.9	2424.0	2344.9
25°	2363.2	2379.4	2265.8	2131.9	1935.2	2119.8	2269.9	2347.0	2347.0	2359.1	2259.7
27.5°	2302.3	2306.4	2144.1	1436.2	1241.4	1377.3	2140.1	2265.8	2282.1	2280.0	2134.0
30°	2237.4	2223.2	1848.0	1105.5	1060.9	1089.3	1850.0	2180.6	2213.1	2190.8	1801.3
32.5°	2162.4	2115.7	1243.5	994.0	959.5	983.8	1186.7	2079.2	2142.1	2087.3	1320.5
35°	2079.2	1973.7	1040.6	898.6	862.1	894.6	1032.5	1939.2	2052.8	1923.0	1075.1
37.5°	1994.0	1647.1	939.2	764.7	691.7	752.6	935.1	1641.0	1953.4	1572.1	943.2
40°	1890.6	1219.1	823.6	525.4	424.0	495.0	817.5	1162.3	1837.8	1253.6	803.3
42.5°	1752.6	1030.5	620.7	286.0	219.1	257.6	588.3	1014.2	1695.8	1040.6	598.4
45°	1586.3	916.9	391.5	182.6	168.4	176.5	361.1	900.6	1529.5	880.4	399.6
47.5°	1332.7	736.3	265.7	154.2	166.3	154.2	257.6	714.0	1257.7	699.8	265.7
50°	951.4	545.7	194.7	156.2	184.6	156.2	188.6	527.4	902.7	578.1	192.7
52.5°	643.0	436.1	150.1	174.5	231.2	178.5	146.1	426.0	610.6	440.2	140.0
55°	474.7	361.1	127.8	225.2	304.3	231.2	127.8	350.9	450.3	346.9	123.7
57.5°	320.5	284.0	125.8	286.0	340.8	292.1	127.8	273.8	306.3	275.9	111.6
60°	223.1	213.0	144.0	308.3	373.2	312.4	146.1	204.9	219.1	202.8	121.7
62.5°	174.5	156.2	180.5	340.8	391.5	328.6	184.6	148.1	184.6	140.0	137.9
65°	166.3	107.5	204.9	338.8	383.4	338.8	206.9	101.4	174.5	109.5	182.6
67.5°	156.2	81.1	200.8	334.7	389.5	338.8	194.7	77.1	150.1	75.1	178.5
70°	125.8	71.0	186.6	342.8	371.2	330.6	186.6	69.0	119.7	66.9	219.1
72.5°	99.4	66.9	170.4	310.4	318.5	298.2	172.4	66.9	101.4	58.8	202.8
75°	89.3	66.9	166.3	253.6	241.4	241.4	162.3	64.9	91.3	60.9	160.3
77.5°	71.0	60.9	144.0	176.5	166.3	166.3	142.0	58.8	66.9	54.8	135.9
80°	50.7	54.8	113.6	121.7	115.6	115.6	109.5	52.7	50.7	50.7	107.5
82.5°	36.5	44.6	81.1	81.1	77.1	75.1	79.1	44.6	36.5	40.6	77.1
85°	22.3	32.5	46.7	38.5	32.5	30.4	44.6	30.4	20.3	30.4	44.6
87.5°	10.1	18.3	8.1	8.1	8.1	8.1	8.1	18.3	10.1	16.2	10.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P845510

CATALOG NUMBER: SQ2R-FA-100D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2689.8	2689.8	2689.8	2689.8	2689.8	2689.8
2.5°	2663.4	2677.6	2677.6	2669.5	2710.1	2671.5
5°	2641.1	2667.5	2655.3	2655.3	2695.9	2665.4
7.5°	2626.9	2653.3	2641.1	2637.0	2677.6	2653.3
10°	2602.6	2620.8	2612.7	2618.8	2655.3	2631.0
12.5°	2568.1	2590.4	2582.3	2592.4	2624.9	2606.6
15°	2527.5	2545.8	2549.8	2553.9	2592.4	2572.1
17.5°	2464.6	2472.7	2495.0	2517.4	2555.9	2533.6
20°	2387.5	2399.7	2411.9	2460.6	2507.2	2482.9
22.5°	2300.3	2292.2	2324.7	2383.5	2444.3	2424.0
25°	2131.9	1975.8	2148.2	2292.2	2369.3	2363.2
27.5°	1566.0	1338.8	1537.6	2172.5	2294.2	2302.3
30°	1168.4	1075.1	1166.4	1888.5	2209.0	2237.4
32.5°	1004.1	947.3	994.0	1324.6	2101.5	2162.4
35°	894.6	849.9	894.6	1075.1	1953.4	2079.2
37.5°	762.7	677.5	764.7	953.4	1653.2	1994.0
40°	535.5	419.9	519.3	831.7	1249.6	1890.6
42.5°	312.4	233.3	292.1	610.6	1034.5	1752.6
45°	192.7	168.4	184.6	395.6	876.3	1586.3
47.5°	152.1	156.2	152.1	263.7	697.8	1332.7
50°	144.0	172.4	144.0	192.7	555.8	951.4
52.5°	160.3	190.7	158.2	142.0	430.0	643.0
55°	176.5	275.9	178.5	123.7	334.7	474.7
57.5°	251.5	304.3	255.6	115.6	273.8	320.5
60°	259.6	334.7	257.6	123.7	200.8	223.1
62.5°	318.5	434.1	318.5	146.1	135.9	174.5
65°	395.6	436.1	399.6	180.5	105.5	166.3
67.5°	377.3	407.7	373.2	186.6	73.0	156.2
70°	369.2	391.5	365.1	221.1	66.9	125.8
72.5°	338.8	336.7	330.6	200.8	58.8	99.4
75°	267.8	249.5	257.6	176.5	60.9	89.3
77.5°	176.5	168.4	170.4	140.0	54.8	71.0
80°	125.8	121.7	119.7	113.6	50.7	50.7
82.5°	85.2	81.1	79.1	81.1	40.6	36.5
85°	42.6	38.5	36.5	50.7	30.4	22.3
87.5°	10.1	10.1	8.1	10.1	14.2	10.1
90°	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P845510

CATALOG NUMBER: SQ2R-FA-100D-940-UNV-STD-W-4

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	17.09	18.39	17.45	18.71	19.02	15.93	17.24	16.29	17.55	17.86
	3H	17.81	18.98	18.18	19.31	19.67	22.13	23.30	22.51	23.63	24.00
	4H	18.23	19.33	18.64	19.68	20.06	23.43	24.52	23.83	24.87	25.26
	6H	18.61	19.62	19.02	19.99	20.38	24.05	25.06	24.47	25.43	25.83
	8H	18.74	19.70	19.17	20.09	20.49	24.19	25.15	24.62	25.54	25.94
	12H	18.82	19.74	19.26	20.12	20.55	24.24	25.16	24.67	25.54	25.97
4H	2H	17.52	18.62	17.93	18.97	19.35	16.51	17.60	16.91	17.96	18.34
	3H	18.54	19.45	18.96	19.86	20.26	22.88	23.79	23.29	24.20	24.60
	4H	19.12	19.93	19.55	20.35	20.80	24.35	25.17	24.78	25.59	26.03
	6H	19.61	20.32	20.08	20.77	21.24	25.10	25.82	25.57	26.26	26.73
	8H	19.79	20.45	20.26	20.90	21.37	25.28	25.94	25.75	26.39	26.86
	12H	19.93	20.52	20.41	21.00	21.47	25.36	25.95	25.84	26.43	26.90
8H	4H	20.25	20.91	20.71	21.36	21.83	24.50	25.16	24.96	25.61	26.08
	6H	20.87	21.41	21.37	21.91	22.39	25.39	25.93	25.89	26.43	26.91
	8H	21.10	21.59	21.63	22.10	22.60	25.64	26.12	26.16	26.64	27.13
	12H	21.30	21.72	21.81	22.22	22.79	25.78	26.20	26.29	26.70	27.27
12H	4H	20.41	21.00	20.90	21.48	21.96	24.48	25.06	24.96	25.55	26.02
	6H	21.14	21.63	21.66	22.14	22.64	25.39	25.88	25.91	26.39	26.89
	8H	21.47	21.89	21.98	22.39	22.96	25.70	26.12	26.21	26.62	27.19