

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: P845507

Luminaire Tested: SQ2R-FA-100D-840-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845507
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-840-UNV-STD-W-4
Description: CONTINUA SQ2 RECESSED, ASYMMETRIC LENS
1000 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

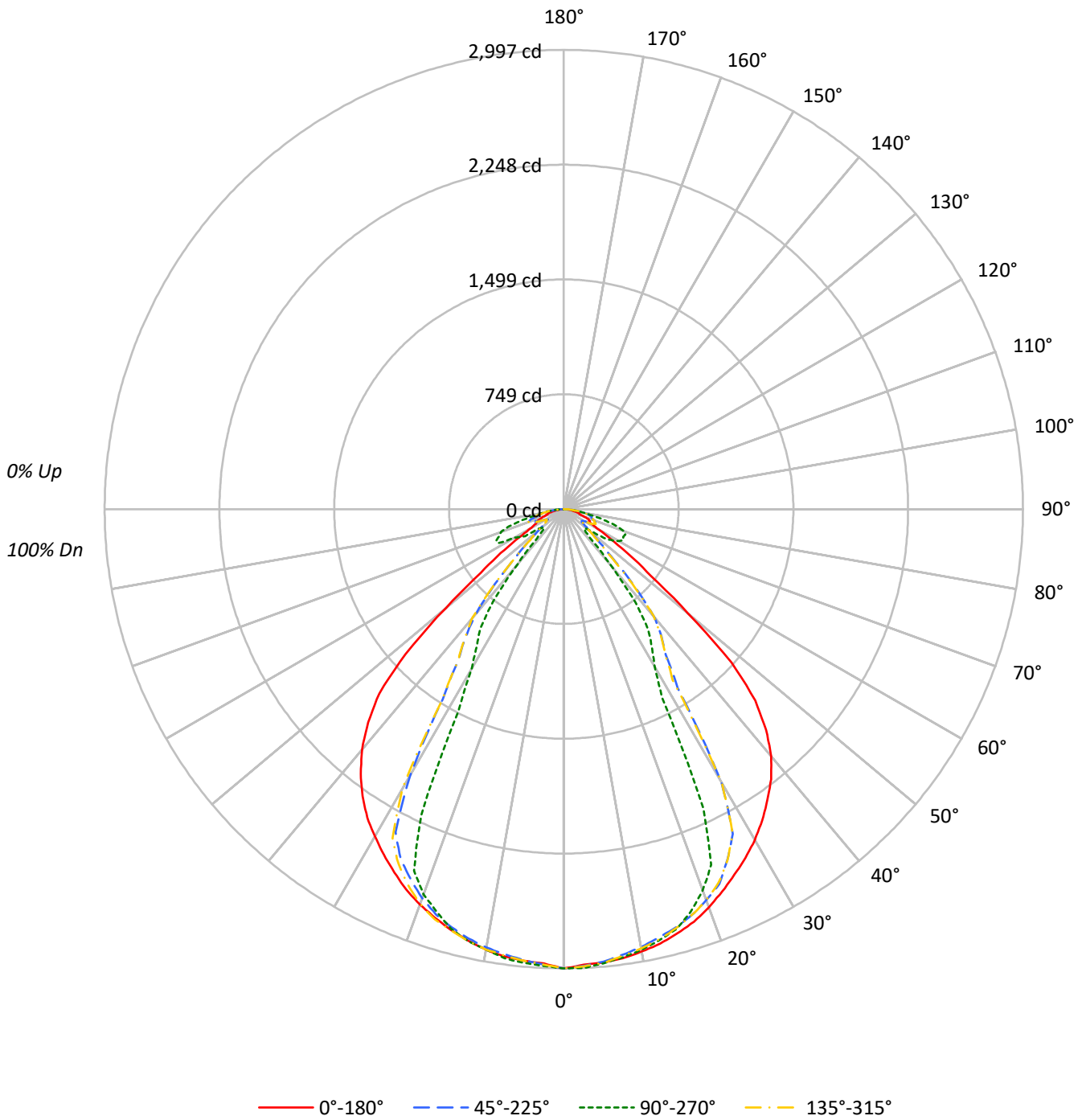
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4372.8 lumens
Efficiency: N/A
Efficacy: 116.3 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

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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				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°	48392	48392	48392	48392
5°	48138	48211	47955	48175
10°	48065	47880	47880	47880
15°	47908	47418	47530	47418
20°	47538	45519	47187	45945
25°	46912	38416	46590	39221
30°	46482	22040	45977	22335
35°	45667	18936	45088	18668
40°	44403	9957	43163	9862
45°	40361	4284	38915	4284
50°	26628	5167	25267	4825
55°	14888	9545	14125	8653
60°	8028	13430	7882	12045
65°	7083	16321	7427	18567
70°	6614	19525	6297	20597
75°	6207	16781	6344	17342
80°	5253	11976	5253	12608
85°	4613	6706	4187	7947

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 40361 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	282.3	6.5
10°-20°	801.0	18.3
20°-30°	1095.7	25.1
30°-40°	917.6	21.0
40°-50°	514.3	11.8
50°-60°	272.7	6.2
60°-70°	254.3	5.8
70°-80°	187.0	4.3
80°-90°	47.8	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°	2178.9	49.8
0°-40°	3096.5	70.8
0°-60°	3883.6	88.8
0°-90°	4372.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4372.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2997	2997	2997	2997	2997	
5°	2970	2975	2959	2972	2970	282
15°	2866	2837	2844	2837	2866	809
25°	2633	2156	2615	2202	2633	1215
35°	2317	961	2288	947	2317	1448
45°	1768	188	1704	188	1768	1304
55°	529	339	502	307	529	500
65°	185	427	194	486	185	185
75°	100	269	102	278	100	102
85°	25	36	23	43	25	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	2997.2	2997.2	2997.2	2997.2	2997.2	2997.2	2997.2	2997.2	2997.2	2997.2	2997.2
2.5°	2976.9	3033.4	2983.7	2976.9	2997.2	2992.7	2985.9	3013.1	2967.9	3013.1	2976.9
5°	2970.1	3022.1	2963.3	2947.5	2974.6	2956.6	2972.4	3004.0	2958.8	2999.5	2954.3
7.5°	2956.6	3004.0	2934.0	2922.7	2949.8	2934.0	2940.7	2983.7	2945.3	2972.4	2931.7
10°	2931.7	2972.4	2902.3	2895.5	2920.4	2904.6	2911.4	2956.6	2920.4	2945.3	2904.6
12.5°	2904.6	2934.0	2863.9	2861.6	2882.0	2872.9	2875.2	2911.4	2884.2	2909.1	2870.7
15°	2866.1	2895.5	2825.5	2814.2	2836.8	2827.7	2832.2	2866.1	2843.5	2859.4	2825.5
17.5°	2823.2	2845.8	2778.0	2753.1	2755.4	2766.7	2778.0	2818.7	2796.1	2816.4	2773.5
20°	2766.7	2793.8	2717.0	2653.7	2649.2	2660.5	2717.0	2757.7	2746.3	2769.0	2701.1
22.5°	2701.1	2717.0	2649.2	2531.6	2513.5	2524.8	2640.1	2689.8	2687.6	2701.1	2613.0
25°	2633.3	2651.4	2524.8	2375.6	2156.4	2362.1	2529.4	2615.2	2615.2	2628.8	2518.1
27.5°	2565.5	2570.0	2389.2	1600.3	1383.3	1534.8	2384.7	2524.8	2542.9	2540.7	2377.9
30°	2493.2	2477.4	2059.2	1231.9	1182.2	1213.8	2061.5	2429.9	2466.1	2441.2	2007.2
32.5°	2409.6	2357.6	1385.6	1107.6	1069.2	1096.3	1322.3	2316.9	2387.0	2325.9	1471.5
35°	2316.9	2199.3	1159.6	1001.3	960.7	996.8	1150.5	2160.9	2287.5	2142.8	1198.0
37.5°	2221.9	1835.4	1046.6	852.2	770.8	838.6	1042.0	1828.6	2176.7	1751.8	1051.1
40°	2106.7	1358.5	917.7	585.4	472.4	551.5	910.9	1295.2	2047.9	1396.9	895.1
42.5°	1953.0	1148.3	691.7	318.7	244.1	287.1	655.5	1130.2	1889.7	1159.6	666.8
45°	1767.6	1021.7	436.3	203.4	187.6	196.7	402.3	1003.6	1704.3	981.0	445.3
47.5°	1485.1	820.5	296.1	171.8	185.4	171.8	287.1	795.7	1401.4	779.8	296.1
50°	1060.1	608.0	217.0	174.0	205.7	174.0	210.2	587.7	1005.9	644.2	214.7
52.5°	716.5	486.0	167.3	194.4	257.7	198.9	162.7	474.7	680.4	490.5	156.0
55°	528.9	402.3	142.4	250.9	339.1	257.7	142.4	391.0	501.8	386.5	137.9
57.5°	357.1	316.5	140.1	318.7	379.7	325.5	142.4	305.1	341.3	307.4	124.3
60°	248.6	237.3	160.5	343.6	415.9	348.1	162.7	228.3	244.1	226.0	135.6
62.5°	194.4	174.0	201.2	379.7	436.3	366.2	205.7	165.0	205.7	156.0	153.7
65°	185.4	119.8	228.3	377.5	427.2	377.5	230.6	113.0	194.4	122.1	203.4
67.5°	174.0	90.4	223.8	373.0	434.0	377.5	217.0	85.9	167.3	83.6	198.9
70°	140.1	79.1	208.0	382.0	413.6	368.4	208.0	76.9	133.4	74.6	244.1
72.5°	110.8	74.6	189.9	345.8	354.9	332.3	192.1	74.6	113.0	65.6	226.0
75°	99.5	74.6	185.4	282.5	269.0	269.0	180.8	72.3	101.7	67.8	178.6
77.5°	79.1	67.8	160.5	196.7	185.4	185.4	158.2	65.6	74.6	61.0	151.4
80°	56.5	61.0	126.6	135.6	128.8	128.8	122.1	58.8	56.5	56.5	119.8
82.5°	40.7	49.7	90.4	90.4	85.9	83.6	88.2	49.7	40.7	45.2	85.9
85°	24.9	36.2	52.0	42.9	36.2	33.9	49.7	33.9	22.6	33.9	49.7
87.5°	11.3	20.3	9.0	9.0	9.0	9.0	9.0	20.3	11.3	18.1	11.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2997.2	2997.2	2997.2	2997.2	2997.2	2997.2
2.5°	2967.9	2983.7	2983.7	2974.6	3019.9	2976.9
5°	2943.0	2972.4	2958.8	2958.8	3004.0	2970.1
7.5°	2927.2	2956.6	2943.0	2938.5	2983.7	2956.6
10°	2900.1	2920.4	2911.4	2918.1	2958.8	2931.7
12.5°	2861.6	2886.5	2877.5	2888.8	2924.9	2904.6
15°	2816.4	2836.8	2841.3	2845.8	2888.8	2866.1
17.5°	2746.3	2755.4	2780.3	2805.1	2848.1	2823.2
20°	2660.5	2674.0	2687.6	2741.8	2793.8	2766.7
22.5°	2563.3	2554.2	2590.4	2655.9	2723.7	2701.1
25°	2375.6	2201.6	2393.7	2554.2	2640.1	2633.3
27.5°	1745.0	1491.8	1713.4	2420.9	2556.5	2565.5
30°	1302.0	1198.0	1299.7	2104.4	2461.5	2493.2
32.5°	1118.9	1055.6	1107.6	1476.0	2341.7	2409.6
35°	996.8	947.1	996.8	1198.0	2176.7	2316.9
37.5°	849.9	755.0	852.2	1062.4	1842.2	2221.9
40°	596.7	467.9	578.7	926.8	1392.4	2106.7
42.5°	348.1	259.9	325.5	680.4	1152.8	1953.0
45°	214.7	187.6	205.7	440.8	976.5	1767.6
47.5°	169.5	174.0	169.5	293.8	777.6	1485.1
50°	160.5	192.1	160.5	214.7	619.3	1060.1
52.5°	178.6	212.5	176.3	158.2	479.2	716.5
55°	196.7	307.4	198.9	137.9	373.0	528.9
57.5°	280.3	339.1	284.8	128.8	305.1	357.1
60°	289.3	373.0	287.1	137.9	223.8	248.6
62.5°	354.9	483.7	354.9	162.7	151.4	194.4
65°	440.8	486.0	445.3	201.2	117.5	185.4
67.5°	420.4	454.3	415.9	208.0	81.4	174.0
70°	411.4	436.3	406.9	246.4	74.6	140.1
72.5°	377.5	375.2	368.4	223.8	65.6	110.8
75°	298.4	278.0	287.1	196.7	67.8	99.5
77.5°	196.7	187.6	189.9	156.0	61.0	79.1
80°	140.1	135.6	133.4	126.6	56.5	56.5
82.5°	94.9	90.4	88.2	90.4	45.2	40.7
85°	47.5	42.9	40.7	56.5	33.9	24.9
87.5°	11.3	11.3	9.0	11.3	15.8	11.3
90°	0.0	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	17.46	18.77	17.83	19.08	19.40	16.31	17.61	16.67	17.93	18.24
	3H	18.18	19.35	18.56	19.68	20.05	22.51	23.68	22.89	24.01	24.37
	4H	18.61	19.70	19.01	20.05	20.44	23.80	24.90	24.21	25.25	25.63
	6H	18.98	19.99	19.40	20.36	20.76	24.43	25.44	24.84	25.81	26.20
	8H	19.11	20.07	19.54	20.46	20.87	24.57	25.52	25.00	25.91	26.32
	12H	19.20	20.12	19.63	20.50	20.93	24.62	25.53	25.05	25.92	26.35
4H	2H	17.90	19.00	18.30	19.35	19.73	16.89	17.98	17.29	18.33	18.72
	3H	18.92	19.83	19.33	20.23	20.64	23.26	24.17	23.67	24.57	24.98
	4H	19.49	20.31	19.93	20.73	21.17	24.72	25.54	25.16	25.96	26.40
	6H	19.99	20.70	20.45	21.15	21.61	25.48	26.19	25.94	26.64	27.10
	8H	20.17	20.83	20.64	21.28	21.75	25.65	26.32	26.12	26.76	27.23
	12H	20.30	20.89	20.79	21.37	21.85	25.73	26.32	26.22	26.80	27.28
8H	4H	20.62	21.29	21.09	21.73	22.20	24.87	25.54	25.34	25.98	26.45
	6H	21.25	21.79	21.75	22.28	22.77	25.76	26.31	26.27	26.80	27.28
	8H	21.48	21.97	22.00	22.48	22.97	26.01	26.50	26.53	27.01	27.50
	12H	21.68	22.10	22.19	22.60	23.17	26.15	26.58	26.67	27.07	27.64
12H	4H	20.79	21.38	21.27	21.86	22.33	24.85	25.44	25.34	25.92	26.40
	6H	21.52	22.01	22.04	22.52	23.01	25.77	26.26	26.29	26.77	27.26
	8H	21.84	22.27	22.36	22.76	23.33	26.07	26.50	26.59	26.99	27.56