

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: P845505

Luminaire Tested: SQ2R-FA-100D-830-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845505
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-830-UNV-STD-W-4
Description: CONTINUA SQ2 RECESSED, ASYMMETRIC LENS
1000 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

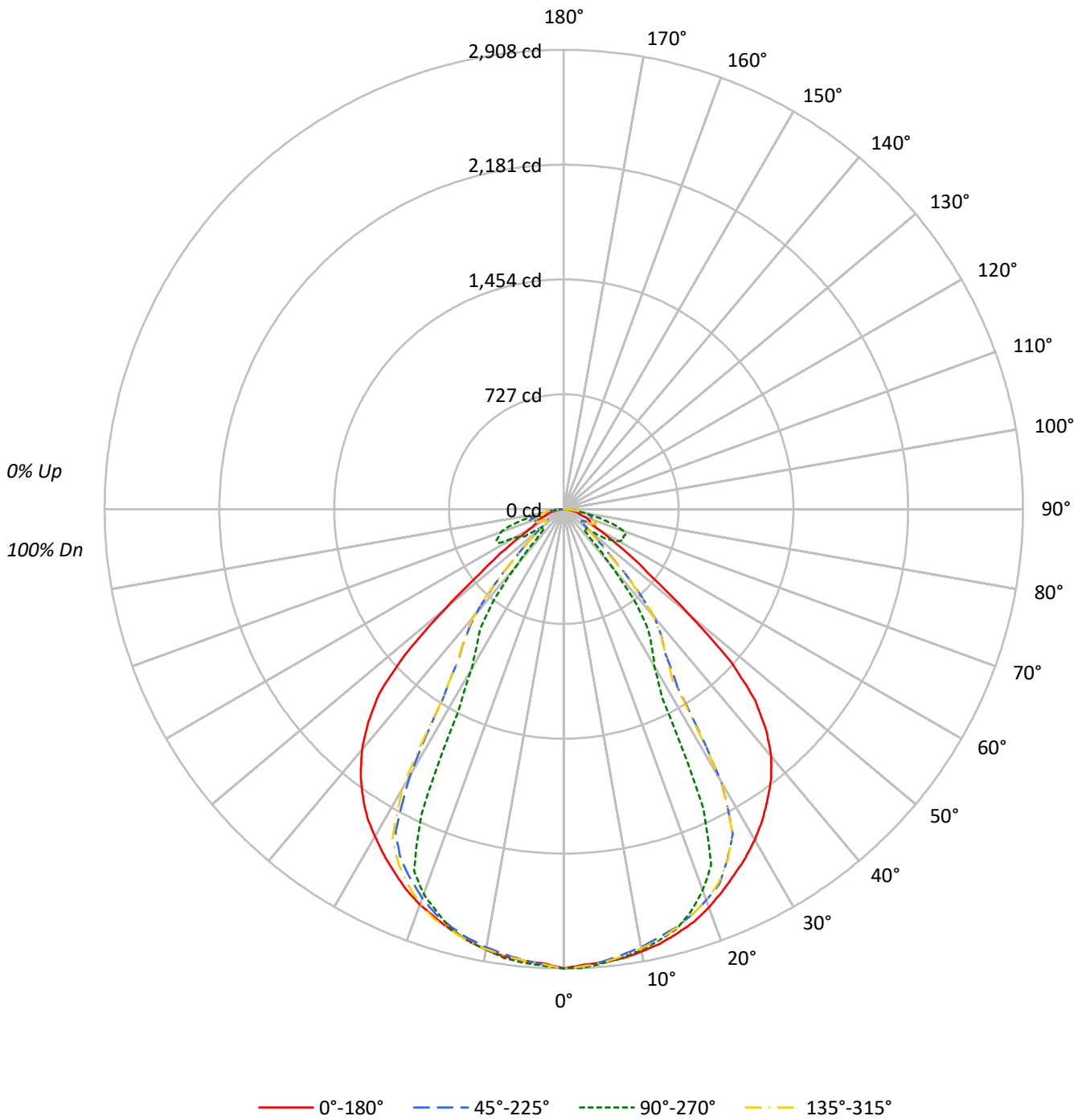
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4242.4 lumens
Efficiency: N/A
Efficacy: 112.8 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: P845505
CATALOG NUMBER: SQ2R-FA-100D-830-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P845505

CATALOG NUMBER: SQ2R-FA-100D-830-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				
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	88				
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	86	83	80	78				
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70				
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63				
5	84	74	66	61	82	73	66	61	71	65	60	69	64	59	67	63	59	57				
6	79	68	61	55	77	67	60	55	65	59	55	64	58	54	62	58	54	52				
7	74	63	56	50	73	62	55	50	61	55	50	60	54	50	58	53	49	48				
8	70	59	51	46	69	58	51	46	57	50	46	56	50	46	55	49	46	44				
9	66	55	48	43	65	54	47	43	53	47	43	52	46	42	51	46	42	41				
10	63	51	44	40	61	51	44	40	50	44	40	49	43	39	48	43	39	38				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	46950	46950	46950	46950
5°	46702	46773	46525	46738
10°	46632	46452	46452	46452
15°	46481	46004	46113	46004
20°	46120	44160	45780	44575
25°	45514	37271	45200	38051
30°	45095	21382	44605	21669
35°	44305	18370	43743	18110
40°	43077	9660	41876	9567
45°	39157	4156	37755	4156
50°	25834	5014	24513	4682
55°	14446	9258	13703	8394
60°	7789	13030	7647	11683
65°	6869	15836	7205	18013
70°	6420	18944	6109	19978
75°	6020	16282	6157	16825
80°	5095	11623	5095	12236
85°	4465	6502	4057	7725

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 39157 cd/sqm



TEST NUMBER: P845505

CATALOG NUMBER: SQ2R-FA-100D-830-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	273.8	6.5
10°-20°	777.1	18.3
20°-30°	1063.0	25.1
30°-40°	890.2	21.0
40°-50°	499.0	11.8
50°-60°	264.6	6.2
60°-70°	246.7	5.8
70°-80°	181.4	4.3
80°-90°	46.4	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°	2113.9	49.8
0°-40°	3004.1	70.8
0°-60°	3767.7	88.8
0°-90°	4242.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4242.4	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2908	2908	2908	2908	2908	
5°	2882	2886	2871	2884	2882	274
15°	2781	2752	2759	2752	2781	784
25°	2555	2092	2537	2136	2555	1179
35°	2248	932	2219	919	2248	1405
45°	1715	182	1654	182	1715	1265
55°	513	329	487	298	513	485
65°	180	414	189	472	180	180
75°	96	261	99	270	96	99
85°	24	35	22	42	24	28
90°	0	0	0	0	0	



TEST NUMBER: P845505

CATALOG NUMBER: SQ2R-FA-100D-830-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	2907.9	2907.9	2907.9	2907.9	2907.9	2907.9	2907.9	2907.9	2907.9	2907.9	2907.9
2.5°	2888.1	2942.9	2894.7	2888.1	2907.9	2903.5	2896.9	2923.2	2879.3	2923.2	2888.1
5°	2881.5	2932.0	2875.0	2859.6	2885.9	2868.4	2883.7	2914.4	2870.6	2910.0	2866.2
7.5°	2868.4	2914.4	2846.5	2835.5	2861.8	2846.5	2853.0	2894.7	2857.4	2883.7	2844.3
10°	2844.3	2883.7	2815.8	2809.2	2833.3	2817.9	2824.5	2868.4	2833.3	2857.4	2817.9
12.5°	2817.9	2846.5	2778.5	2776.3	2796.0	2787.2	2789.4	2824.5	2798.2	2822.3	2785.1
15°	2780.7	2809.2	2741.2	2730.2	2752.2	2743.4	2747.8	2780.7	2758.7	2774.1	2741.2
17.5°	2739.0	2760.9	2695.1	2671.0	2673.2	2684.2	2695.1	2734.6	2712.7	2732.4	2690.8
20°	2684.2	2710.5	2635.9	2574.5	2570.1	2581.1	2635.9	2675.4	2664.4	2686.4	2620.6
22.5°	2620.6	2635.9	2570.1	2456.1	2438.6	2449.5	2561.4	2609.6	2607.4	2620.6	2535.1
25°	2554.8	2572.3	2449.5	2304.8	2092.1	2291.6	2453.9	2537.2	2537.2	2550.4	2443.0
27.5°	2489.0	2493.4	2318.0	1552.6	1342.1	1489.0	2313.6	2449.5	2467.1	2464.9	2307.0
30°	2418.8	2403.5	1997.8	1195.2	1146.9	1177.6	2000.0	2357.4	2392.5	2368.4	1947.3
32.5°	2337.7	2287.3	1344.3	1074.5	1037.3	1063.6	1282.9	2247.8	2315.8	2256.5	1427.6
35°	2247.8	2133.7	1125.0	971.5	932.0	967.1	1116.2	2096.5	2219.3	2078.9	1162.3
37.5°	2155.7	1780.7	1015.3	826.7	747.8	813.6	1011.0	1774.1	2111.8	1699.5	1019.7
40°	2043.8	1318.0	890.3	568.0	458.3	535.1	883.8	1256.6	1986.8	1355.2	868.4
42.5°	1894.7	1114.0	671.0	309.2	236.8	278.5	636.0	1096.5	1833.3	1125.0	646.9
45°	1714.9	991.2	423.2	197.4	182.0	190.8	390.3	973.7	1653.5	951.7	432.0
47.5°	1440.8	796.0	287.3	166.7	179.8	166.7	278.5	771.9	1359.6	756.6	287.3
50°	1028.5	589.9	210.5	168.9	199.6	168.9	203.9	570.2	975.9	625.0	208.3
52.5°	695.2	471.5	162.3	188.6	250.0	193.0	157.9	460.5	660.1	475.9	151.3
55°	513.2	390.3	138.2	243.4	328.9	250.0	138.2	379.4	486.8	375.0	133.8
57.5°	346.5	307.0	136.0	309.2	368.4	315.8	138.2	296.0	331.1	298.2	120.6
60°	241.2	230.3	155.7	333.3	403.5	337.7	157.9	221.5	236.8	219.3	131.6
62.5°	188.6	168.9	195.2	368.4	423.2	355.3	199.6	160.1	199.6	151.3	149.1
65°	179.8	116.2	221.5	366.2	414.5	366.2	223.7	109.6	188.6	118.4	197.4
67.5°	168.9	87.7	217.1	361.8	421.0	366.2	210.5	83.3	162.3	81.1	193.0
70°	136.0	76.8	201.8	370.6	401.3	357.5	201.8	74.6	129.4	72.4	236.8
72.5°	107.5	72.4	184.2	335.5	344.3	322.4	186.4	72.4	109.6	63.6	219.3
75°	96.5	72.4	179.8	274.1	261.0	261.0	175.4	70.2	98.7	65.8	173.2
77.5°	76.8	65.8	155.7	190.8	179.8	179.8	153.5	63.6	72.4	59.2	146.9
80°	54.8	59.2	122.8	131.6	125.0	125.0	118.4	57.0	54.8	54.8	116.2
82.5°	39.5	48.2	87.7	87.7	83.3	81.1	85.5	48.2	39.5	43.9	83.3
85°	24.1	35.1	50.4	41.7	35.1	32.9	48.2	32.9	21.9	32.9	48.2
87.5°	11.0	19.7	8.8	8.8	8.8	8.8	8.8	19.7	11.0	17.5	11.0
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: P845505

CATALOG NUMBER: SQ2R-FA-100D-830-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2907.9	2907.9	2907.9	2907.9	2907.9	2907.9
2.5°	2879.3	2894.7	2894.7	2885.9	2929.8	2888.1
5°	2855.2	2883.7	2870.6	2870.6	2914.4	2881.5
7.5°	2839.9	2868.4	2855.2	2850.8	2894.7	2868.4
10°	2813.6	2833.3	2824.5	2831.1	2870.6	2844.3
12.5°	2776.3	2800.4	2791.6	2802.6	2837.7	2817.9
15°	2732.4	2752.2	2756.5	2760.9	2802.6	2780.7
17.5°	2664.4	2673.2	2697.3	2721.5	2763.1	2739.0
20°	2581.1	2594.3	2607.4	2660.1	2710.5	2684.2
22.5°	2486.8	2478.0	2513.1	2576.7	2642.5	2620.6
25°	2304.8	2135.9	2322.3	2478.0	2561.4	2554.8
27.5°	1693.0	1447.3	1662.3	2348.7	2480.2	2489.0
30°	1263.1	1162.3	1260.9	2041.6	2388.1	2418.8
32.5°	1085.5	1024.1	1074.5	1432.0	2271.9	2337.7
35°	967.1	918.8	967.1	1162.3	2111.8	2247.8
37.5°	824.6	732.4	826.7	1030.7	1787.3	2155.7
40°	578.9	453.9	561.4	899.1	1350.9	2043.8
42.5°	337.7	252.2	315.8	660.1	1118.4	1894.7
45°	208.3	182.0	199.6	427.6	947.4	1714.9
47.5°	164.5	168.9	164.5	285.1	754.4	1440.8
50°	155.7	186.4	155.7	208.3	600.9	1028.5
52.5°	173.2	206.1	171.1	153.5	464.9	695.2
55°	190.8	298.2	193.0	133.8	361.8	513.2
57.5°	271.9	328.9	276.3	125.0	296.0	346.5
60°	280.7	361.8	278.5	133.8	217.1	241.2
62.5°	344.3	469.3	344.3	157.9	146.9	188.6
65°	427.6	471.5	432.0	195.2	114.0	179.8
67.5°	407.9	440.8	403.5	201.8	78.9	168.9
70°	399.1	423.2	394.7	239.0	72.4	136.0
72.5°	366.2	364.0	357.5	217.1	63.6	107.5
75°	289.5	269.7	278.5	190.8	65.8	96.5
77.5°	190.8	182.0	184.2	151.3	59.2	76.8
80°	136.0	131.6	129.4	122.8	54.8	54.8
82.5°	92.1	87.7	85.5	87.7	43.9	39.5
85°	46.1	41.7	39.5	54.8	32.9	24.1
87.5°	11.0	11.0	8.8	11.0	15.4	11.0
90°	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P845505

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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	17.36	18.66	17.72	18.98	19.29	16.20	17.51	16.56	17.82	18.14
	3H	18.08	19.25	18.46	19.58	19.94	22.40	23.57	22.78	23.90	24.27
	4H	18.50	19.60	18.91	19.95	20.33	23.70	24.79	24.10	25.14	25.53
	6H	18.88	19.89	19.29	20.26	20.65	24.32	25.33	24.74	25.70	26.10
	8H	19.01	19.97	19.44	20.36	20.76	24.46	25.42	24.89	25.81	26.21
	12H	19.09	20.01	19.53	20.39	20.82	24.51	25.43	24.95	25.81	26.24
4H	2H	17.80	18.89	18.20	19.24	19.62	16.78	17.88	17.18	18.23	18.61
	3H	18.81	19.72	19.23	20.13	20.53	23.15	24.06	23.57	24.47	24.87
	4H	19.39	20.21	19.82	20.62	21.07	24.62	25.44	25.05	25.86	26.30
	6H	19.88	20.60	20.35	21.04	21.51	25.38	26.09	25.84	26.53	27.00
	8H	20.06	20.73	20.53	21.17	21.64	25.55	26.21	26.02	26.66	27.13
	12H	20.20	20.79	20.68	21.27	21.74	25.63	26.22	26.11	26.70	27.17
8H	4H	20.52	21.18	20.99	21.63	22.10	24.77	25.43	25.23	25.88	26.35
	6H	21.14	21.68	21.64	22.18	22.66	25.66	26.20	26.16	26.70	27.18
	8H	21.38	21.86	21.90	22.38	22.87	25.91	26.39	26.43	26.91	27.40
	12H	21.57	22.00	22.08	22.49	23.06	26.05	26.47	26.56	26.97	27.54
12H	4H	20.68	21.27	21.17	21.75	22.23	24.75	25.33	25.23	25.82	26.29
	6H	21.41	21.90	21.93	22.41	22.91	25.66	26.15	26.19	26.67	27.16
	8H	21.74	22.16	22.25	22.66	23.23	25.97	26.39	26.48	26.89	27.46