

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: P845511

Luminaire Tested: SQ2R-FA-125D-830-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845511
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-125D-830-UNV-STD-W-4
Description: CONTINUA SQ2 RECESSED, ASYMMETRIC LENS
1250 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

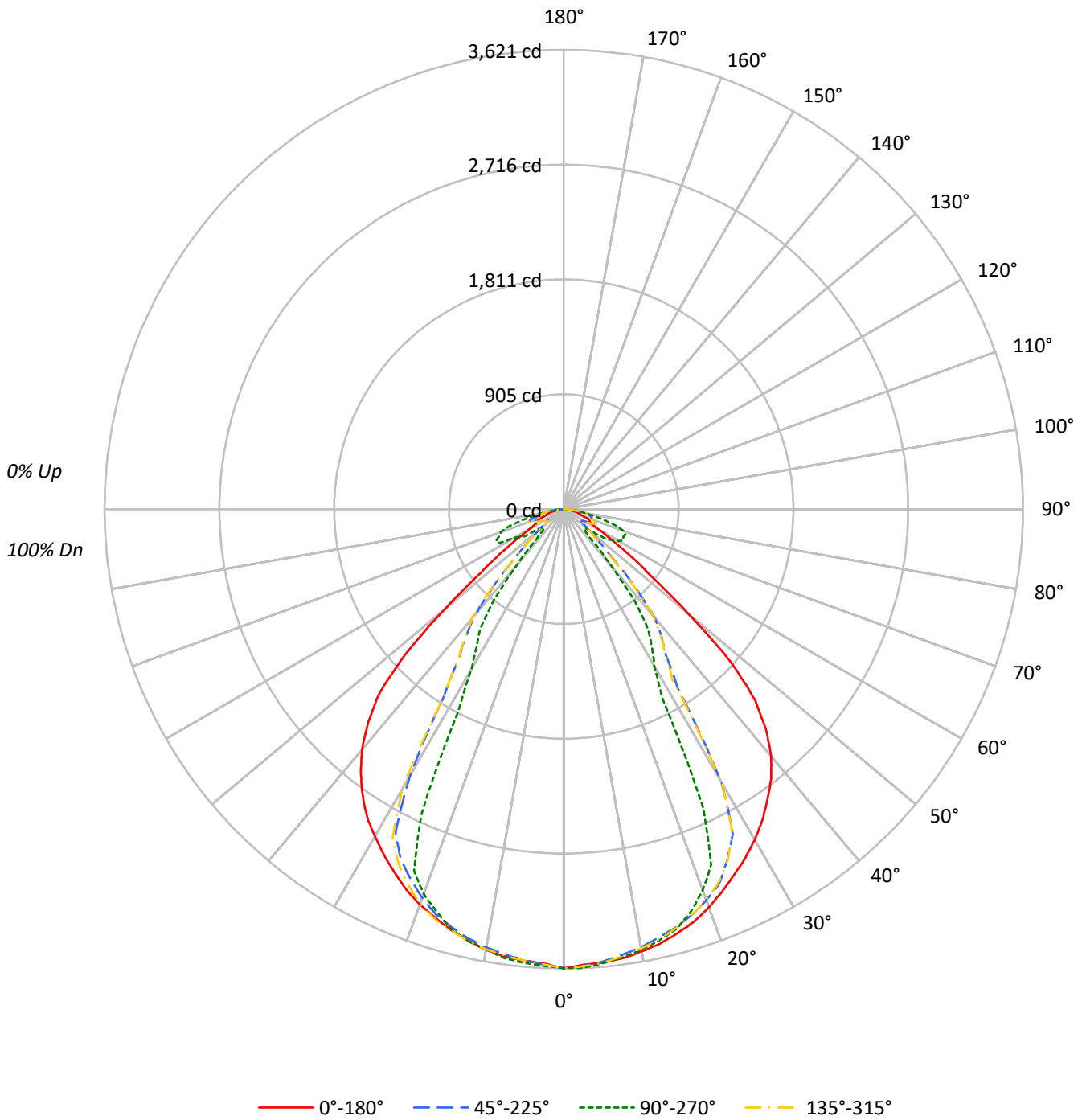
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5282.4 lumens
Efficiency: N/A
Efficacy: 107.4 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): 49.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9979
Total Harmonic Distortion (THDi): 0.0523
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: 3 HR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P845511
CATALOG NUMBER: SQ2R-FA-125D-830-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P845511

CATALOG NUMBER: SQ2R-FA-125D-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				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°	58459	58459	58459	58459
5°	58153	58240	57931	58196
10°	58063	57840	57840	57840
15°	57875	57282	57417	57282
20°	57426	54986	57003	55503
25°	56671	46408	56283	47381
30°	56151	26625	55539	26981
35°	55166	22874	54466	22551
40°	53639	12029	52142	11913
45°	48757	5174	47010	5174
50°	32167	6242	30521	5830
55°	17987	11530	17064	10455
60°	9700	16223	9523	14547
65°	8554	19717	8970	22430
70°	7992	23589	7605	24878
75°	7492	20268	7667	20954
80°	6351	14468	6351	15230
85°	5558	8096	5057	9615

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 48757 cd/sqm

TEST NUMBER: P845511

CATALOG NUMBER: SQ2R-FA-125D-830-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	341.0	6.5
10°-20°	967.6	18.3
20°-30°	1323.6	25.1
30°-40°	1108.5	21.0
40°-50°	621.3	11.8
50°-60°	329.5	6.2
60°-70°	307.2	5.8
70°-80°	225.9	4.3
80°-90°	57.8	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°	2632.2	49.8
0°-40°	3740.6	70.8
0°-60°	4691.4	88.8
0°-90°	5282.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5282.4	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3621	3621	3621	3621	3621	
5°	3588	3593	3574	3591	3588	341
15°	3462	3427	3435	3427	3462	977
25°	3181	2605	3159	2660	3181	1467
35°	2799	1160	2763	1144	2799	1749
45°	2135	227	2059	227	2135	1575
55°	639	410	606	371	639	603
65°	224	516	235	587	224	224
75°	120	325	123	336	120	124
85°	30	44	27	52	30	35
90°	0	0	0	0	0	



TEST NUMBER: P845511

CATALOG NUMBER: SQ2R-FA-125D-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°	3620.7	3620.7	3620.7	3620.7	3620.7	3620.7	3620.7	3620.7	3620.7	3620.7	3620.7
2.5°	3596.2	3664.4	3604.3	3596.2	3620.7	3615.3	3607.1	3639.8	3585.2	3639.8	3596.2
5°	3588.0	3650.8	3579.8	3560.7	3593.4	3571.6	3590.7	3628.9	3574.3	3623.5	3568.8
7.5°	3571.6	3628.9	3544.3	3530.6	3563.4	3544.3	3552.5	3604.3	3557.9	3590.7	3541.5
10°	3541.5	3590.7	3506.0	3497.9	3527.9	3508.8	3517.0	3571.6	3527.9	3557.9	3508.8
12.5°	3508.8	3544.3	3459.6	3456.9	3481.5	3470.5	3473.3	3517.0	3484.2	3514.2	3467.8
15°	3462.4	3497.9	3413.2	3399.6	3426.9	3415.9	3421.4	3462.4	3435.0	3454.2	3413.2
17.5°	3410.5	3437.8	3355.9	3325.8	3328.6	3342.2	3355.9	3405.0	3377.7	3402.3	3350.4
20°	3342.2	3375.0	3282.1	3205.7	3200.2	3213.9	3282.1	3331.3	3317.6	3344.9	3263.0
22.5°	3263.0	3282.1	3200.2	3058.2	3036.4	3050.0	3189.3	3249.4	3246.6	3263.0	3156.5
25°	3181.1	3203.0	3050.0	2869.8	2605.0	2853.4	3055.5	3159.3	3159.3	3175.6	3041.8
27.5°	3099.2	3104.7	2886.2	1933.2	1671.1	1854.1	2880.7	3050.0	3071.9	3069.2	2872.6
30°	3011.8	2992.7	2487.5	1488.2	1428.1	1466.3	2490.3	2935.4	2979.0	2949.0	2424.7
32.5°	2910.8	2848.0	1673.8	1338.0	1291.6	1324.3	1597.4	2798.8	2883.5	2809.7	1777.6
35°	2798.8	2656.8	1400.8	1209.6	1160.5	1204.2	1389.9	2610.4	2763.3	2588.6	1447.2
37.5°	2684.1	2217.2	1264.3	1029.4	931.1	1013.0	1258.8	2209.0	2629.5	2116.2	1269.7
40°	2544.9	1641.1	1108.6	707.2	570.7	666.3	1100.4	1564.6	2473.9	1687.5	1081.3
42.5°	2359.2	1387.1	835.6	385.0	294.9	346.8	791.9	1365.3	2282.8	1400.8	805.5
45°	2135.3	1234.2	527.0	245.8	226.6	237.6	486.0	1212.4	2058.8	1185.1	537.9
47.5°	1794.0	991.2	357.7	207.5	223.9	207.5	346.8	961.2	1692.9	942.0	357.7
50°	1280.6	734.5	262.1	210.3	248.5	210.3	253.9	709.9	1215.1	778.2	259.4
52.5°	865.6	587.1	202.1	234.8	311.3	240.3	196.6	573.4	821.9	592.5	188.4
55°	639.0	486.0	172.0	303.1	409.6	311.3	172.0	472.4	606.2	466.9	166.6
57.5°	431.4	382.3	169.3	385.0	458.7	393.2	172.0	368.6	412.3	371.4	150.2
60°	300.4	286.7	193.9	415.0	502.4	420.5	196.6	275.8	294.9	273.1	163.8
62.5°	234.8	210.3	243.0	458.7	527.0	442.4	248.5	199.3	248.5	188.4	185.7
65°	223.9	144.7	275.8	456.0	516.1	456.0	278.5	136.5	234.8	147.5	245.8
67.5°	210.3	109.2	270.3	450.5	524.3	456.0	262.1	103.8	202.1	101.0	240.3
70°	169.3	95.6	251.2	461.5	499.7	445.1	251.2	92.8	161.1	90.1	294.9
72.5°	133.8	90.1	229.4	417.8	428.7	401.4	232.1	90.1	136.5	79.2	273.1
75°	120.1	90.1	223.9	341.3	324.9	324.9	218.4	87.4	122.9	81.9	215.7
77.5°	95.6	81.9	193.9	237.6	223.9	223.9	191.1	79.2	90.1	73.7	182.9
80°	68.3	73.7	152.9	163.8	155.6	155.6	147.5	71.0	68.3	68.3	144.7
82.5°	49.2	60.1	109.2	109.2	103.8	101.0	106.5	60.1	49.2	54.6	103.8
85°	30.0	43.7	62.8	51.9	43.7	41.0	60.1	41.0	27.3	41.0	60.1
87.5°	13.7	24.6	10.9	10.9	10.9	10.9	10.9	24.6	13.7	21.8	13.7
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: P845511

CATALOG NUMBER: SQ2R-FA-125D-830-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	3620.7	3620.7	3620.7	3620.7	3620.7	3620.7
2.5°	3585.2	3604.3	3604.3	3593.4	3648.0	3596.2
5°	3555.2	3590.7	3574.3	3574.3	3628.9	3588.0
7.5°	3536.1	3571.6	3555.2	3549.7	3604.3	3571.6
10°	3503.3	3527.9	3517.0	3525.2	3574.3	3541.5
12.5°	3456.9	3486.9	3476.0	3489.7	3533.3	3508.8
15°	3402.3	3426.9	3432.3	3437.8	3489.7	3462.4
17.5°	3317.6	3328.6	3358.6	3388.6	3440.5	3410.5
20°	3213.9	3230.3	3246.6	3312.2	3375.0	3342.2
22.5°	3096.5	3085.5	3129.2	3208.4	3290.3	3263.0
25°	2869.8	2659.6	2891.7	3085.5	3189.3	3181.1
27.5°	2108.0	1802.2	2069.8	2924.4	3088.3	3099.2
30°	1572.8	1447.2	1570.1	2542.2	2973.6	3011.8
32.5°	1351.6	1275.2	1338.0	1783.1	2828.9	2910.8
35°	1204.2	1144.1	1204.2	1447.2	2629.5	2798.8
37.5°	1026.7	912.0	1029.4	1283.4	2225.4	2684.1
40°	720.9	565.2	699.0	1119.5	1682.0	2544.9
42.5°	420.5	314.0	393.2	821.9	1392.6	2359.2
45°	259.4	226.6	248.5	532.5	1179.6	2135.3
47.5°	204.8	210.3	204.8	355.0	939.3	1794.0
50°	193.9	232.1	193.9	259.4	748.2	1280.6
52.5°	215.7	256.7	213.0	191.1	578.9	865.6
55°	237.6	371.4	240.3	166.6	450.5	639.0
57.5°	338.6	409.6	344.1	155.6	368.6	431.4
60°	349.5	450.5	346.8	166.6	270.3	300.4
62.5°	428.7	584.3	428.7	196.6	182.9	234.8
65°	532.5	587.1	537.9	243.0	142.0	223.9
67.5°	507.9	548.8	502.4	251.2	98.3	210.3
70°	497.0	527.0	491.5	297.6	90.1	169.3
72.5°	456.0	453.3	445.1	270.3	79.2	133.8
75°	360.4	335.9	346.8	237.6	81.9	120.1
77.5°	237.6	226.6	229.4	188.4	73.7	95.6
80°	169.3	163.8	161.1	152.9	68.3	68.3
82.5°	114.7	109.2	106.5	109.2	54.6	49.2
85°	57.3	51.9	49.2	68.3	41.0	30.0
87.5°	13.7	13.7	10.9	13.7	19.1	13.7
90°	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P845511

CATALOG NUMBER: SQ2R-FA-125D-830-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	18.12	19.43	18.48	19.74	20.05	16.96	18.27	17.33	18.58	18.90
	3H	18.84	20.01	19.22	20.34	20.70	23.16	24.33	23.54	24.66	25.03
	4H	19.27	20.36	19.67	20.71	21.09	24.46	25.56	24.86	25.91	26.29
	6H	19.64	20.65	20.06	21.02	21.41	25.09	26.10	25.50	26.47	26.86
	8H	19.77	20.73	20.20	21.12	21.52	25.22	26.18	25.65	26.57	26.98
	12H	19.86	20.77	20.29	21.15	21.58	25.27	26.19	25.71	26.57	27.00
4H	2H	18.56	19.65	18.96	20.00	20.39	17.54	18.64	17.95	18.99	19.37
	3H	19.58	20.49	19.99	20.89	21.29	23.92	24.83	24.33	25.23	25.63
	4H	20.15	20.97	20.58	21.39	21.83	25.38	26.20	25.81	26.62	27.06
	6H	20.65	21.36	21.11	21.80	22.27	26.14	26.85	26.60	27.29	27.76
	8H	20.82	21.49	21.29	21.93	22.40	26.31	26.97	26.78	27.42	27.89
	12H	20.96	21.55	21.45	22.03	22.50	26.39	26.98	26.88	27.46	27.93
8H	4H	21.28	21.94	21.75	22.39	22.86	25.53	26.19	26.00	26.64	27.11
	6H	21.90	22.44	22.40	22.94	23.42	26.42	26.96	26.92	27.46	27.94
	8H	22.14	22.62	22.66	23.14	23.63	26.67	27.15	27.19	27.67	28.16
	12H	22.33	22.76	22.85	23.25	23.82	26.81	27.24	27.33	27.73	28.30
12H	4H	21.45	22.03	21.93	22.52	22.99	25.51	26.10	25.99	26.58	27.05
	6H	22.18	22.66	22.70	23.18	23.67	26.43	26.91	26.95	27.43	27.92
	8H	22.50	22.92	23.01	23.42	23.99	26.73	27.15	27.24	27.65	28.22