

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: P845508

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

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845508
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-930-UNV-STD-W-4
Description: CONTINUA SQ2 RECESSED, ASYMMETRIC LENS
1000 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

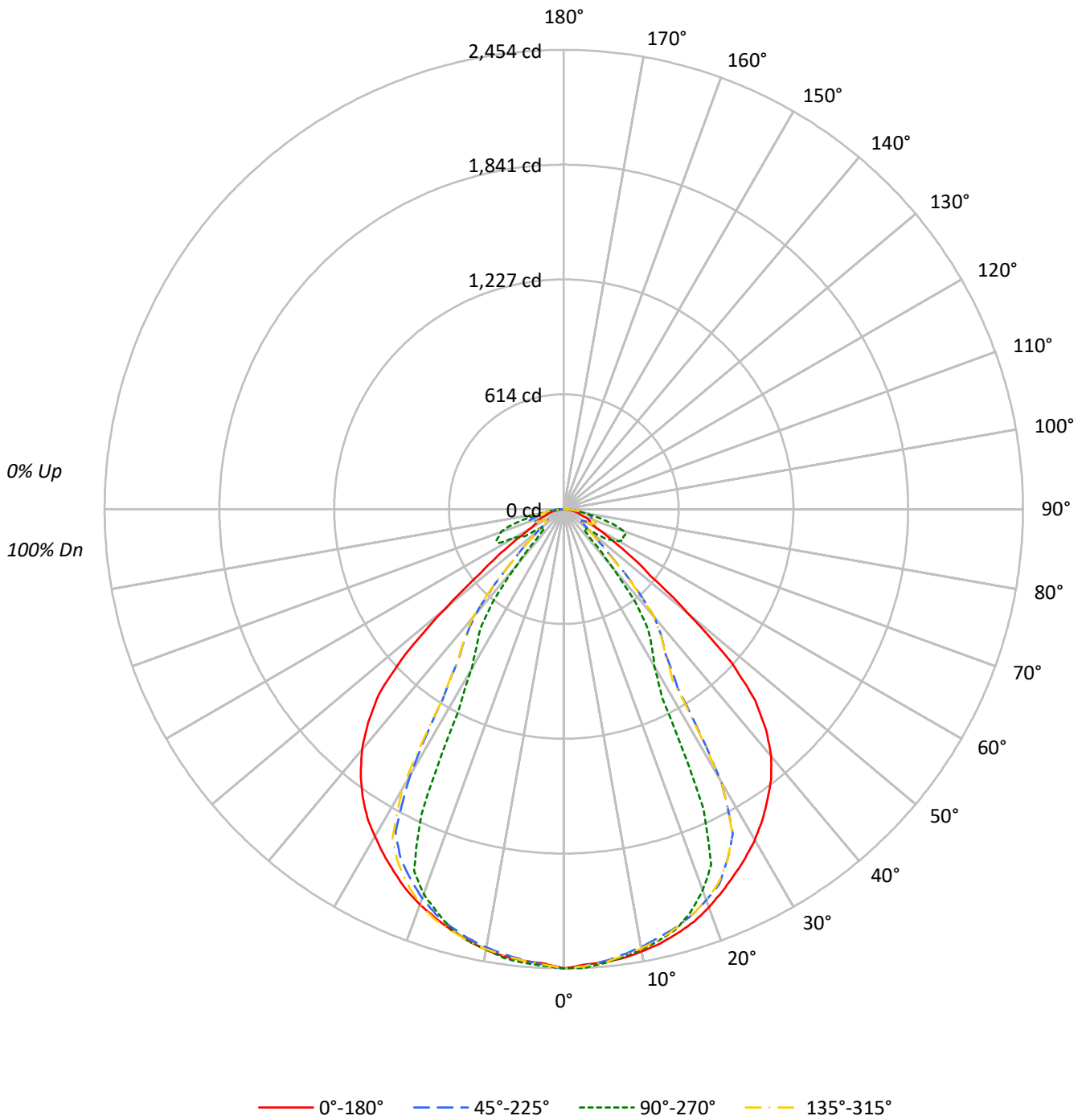
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3580.4 lumens
Efficiency: N/A
Efficacy: 95.2 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°	39624	39624	39624	39624
5°	39415	39475	39264	39444
10°	39354	39204	39204	39204
15°	39226	38825	38917	38825
20°	38922	37270	38637	37618
25°	38411	31454	38147	32113
30°	38059	18045	37645	18288
35°	37391	15504	36918	15285
40°	36356	8153	35342	8075
45°	33047	3507	31864	3507
50°	21803	4230	20688	3951
55°	12192	7814	11567	7085
60°	6575	10995	6455	9862
65°	5799	13364	6082	15201
70°	5415	15989	5155	16862
75°	5078	13737	5196	14198
80°	4305	9809	4305	10321
85°	3779	5483	3427	6521

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 33047 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	231.1	6.5
10°-20°	655.8	18.3
20°-30°	897.1	25.1
30°-40°	751.3	21.0
40°-50°	421.1	11.8
50°-60°	223.3	6.2
60°-70°	208.2	5.8
70°-80°	153.1	4.3
80°-90°	39.2	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°	1784.1	49.8
0°-40°	2535.4	70.8
0°-60°	3179.8	88.8
0°-90°	3580.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3580.4	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2454	2454	2454	2454	2454	
5°	2432	2436	2423	2434	2432	231
15°	2347	2323	2328	2323	2347	662
25°	2156	1766	2141	1803	2156	995
35°	1897	787	1873	776	1897	1185
45°	1447	154	1396	154	1447	1068
55°	433	278	411	252	433	409
65°	152	350	159	398	152	152
75°	81	220	83	228	81	84
85°	20	30	18	35	20	23
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°	2454.1	2454.1	2454.1	2454.1	2454.1	2454.1	2454.1	2454.1	2454.1	2454.1	2454.1
2.5°	2437.4	2483.7	2443.0	2437.4	2454.1	2450.4	2444.8	2467.0	2430.0	2467.0	2437.4
5°	2431.9	2474.4	2426.3	2413.4	2435.6	2420.8	2433.7	2459.6	2422.6	2455.9	2418.9
7.5°	2420.8	2459.6	2402.3	2393.0	2415.2	2402.3	2407.8	2443.0	2411.5	2433.7	2400.4
10°	2400.4	2433.7	2376.4	2370.8	2391.2	2378.2	2383.8	2420.8	2391.2	2411.5	2378.2
12.5°	2378.2	2402.3	2344.9	2343.0	2359.7	2352.3	2354.2	2383.8	2361.6	2381.9	2350.4
15°	2346.7	2370.8	2313.4	2304.2	2322.7	2315.3	2319.0	2346.7	2328.2	2341.2	2313.4
17.5°	2311.6	2330.1	2274.6	2254.2	2256.1	2265.3	2274.6	2307.9	2289.4	2306.0	2270.9
20°	2265.3	2287.5	2224.6	2172.8	2169.1	2178.3	2224.6	2257.9	2248.7	2267.2	2211.6
22.5°	2211.6	2224.6	2169.1	2072.8	2058.0	2067.3	2161.7	2202.4	2200.5	2211.6	2139.5
25°	2156.1	2170.9	2067.3	1945.1	1765.6	1934.0	2071.0	2141.3	2141.3	2152.4	2061.7
27.5°	2100.6	2104.3	1956.2	1310.3	1132.7	1256.7	1952.5	2067.3	2082.1	2080.2	1947.0
30°	2041.4	2028.4	1686.0	1008.7	967.9	993.9	1687.9	1989.6	2019.2	1998.8	1643.5
32.5°	1972.9	1930.3	1134.5	906.9	875.4	897.6	1082.7	1897.0	1954.4	1904.4	1204.8
35°	1897.0	1800.8	949.4	819.9	786.6	816.2	942.0	1769.3	1873.0	1754.5	980.9
37.5°	1819.3	1502.8	856.9	697.7	631.1	686.6	853.2	1497.3	1782.3	1434.3	860.6
40°	1724.9	1112.3	751.4	479.3	386.8	451.6	745.9	1060.5	1676.8	1143.8	732.9
42.5°	1599.0	940.2	566.3	261.0	199.9	235.0	536.7	925.4	1547.2	949.4	546.0
45°	1447.3	836.5	357.2	166.6	153.6	161.0	329.4	821.7	1395.5	803.2	364.6
47.5°	1215.9	671.8	242.4	140.7	151.8	140.7	235.0	651.5	1147.5	638.5	242.4
50°	868.0	497.9	177.7	142.5	168.4	142.5	172.1	481.2	823.6	527.5	175.8
52.5°	586.7	397.9	137.0	159.2	211.0	162.9	133.3	388.7	557.1	401.6	127.7
55°	433.1	329.4	116.6	205.4	277.6	211.0	116.6	320.2	410.9	316.5	112.9
57.5°	292.4	259.1	114.7	261.0	310.9	266.5	116.6	249.9	279.5	251.7	101.8
60°	203.6	194.3	131.4	281.3	340.5	285.0	133.3	186.9	199.9	185.1	111.0
62.5°	159.2	142.5	164.7	310.9	357.2	299.8	168.4	135.1	168.4	127.7	125.9
65°	151.8	98.1	186.9	309.1	349.8	309.1	188.8	92.5	159.2	99.9	166.6
67.5°	142.5	74.0	183.2	305.4	355.3	309.1	177.7	70.3	137.0	68.5	162.9
70°	114.7	64.8	170.3	312.8	338.7	301.7	170.3	62.9	109.2	61.1	199.9
72.5°	90.7	61.1	155.5	283.2	290.6	272.1	157.3	61.1	92.5	53.7	185.1
75°	81.4	61.1	151.8	231.3	220.2	220.2	148.1	59.2	83.3	55.5	146.2
77.5°	64.8	55.5	131.4	161.0	151.8	151.8	129.6	53.7	61.1	50.0	124.0
80°	46.3	50.0	103.6	111.0	105.5	105.5	99.9	48.1	46.3	46.3	98.1
82.5°	33.3	40.7	74.0	74.0	70.3	68.5	72.2	40.7	33.3	37.0	70.3
85°	20.4	29.6	42.6	35.2	29.6	27.8	40.7	27.8	18.5	27.8	40.7
87.5°	9.3	16.7	7.4	7.4	7.4	7.4	7.4	16.7	9.3	14.8	9.3
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°	2454.1	2454.1	2454.1	2454.1	2454.1	2454.1
2.5°	2430.0	2443.0	2443.0	2435.6	2472.6	2437.4
5°	2409.7	2433.7	2422.6	2422.6	2459.6	2431.9
7.5°	2396.7	2420.8	2409.7	2406.0	2443.0	2420.8
10°	2374.5	2391.2	2383.8	2389.3	2422.6	2400.4
12.5°	2343.0	2363.4	2356.0	2365.3	2394.9	2378.2
15°	2306.0	2322.7	2326.4	2330.1	2365.3	2346.7
17.5°	2248.7	2256.1	2276.4	2296.8	2331.9	2311.6
20°	2178.3	2189.4	2200.5	2245.0	2287.5	2265.3
22.5°	2098.7	2091.3	2121.0	2174.6	2230.2	2211.6
25°	1945.1	1802.6	1959.9	2091.3	2161.7	2156.1
27.5°	1428.8	1221.5	1402.9	1982.2	2093.2	2100.6
30°	1066.0	980.9	1064.2	1723.0	2015.5	2041.4
32.5°	916.1	864.3	906.9	1208.5	1917.4	1972.9
35°	816.2	775.5	816.2	980.9	1782.3	1897.0
37.5°	695.9	618.1	697.7	869.9	1508.4	1819.3
40°	488.6	383.1	473.8	758.8	1140.1	1724.9
42.5°	285.0	212.8	266.5	557.1	943.9	1599.0
45°	175.8	153.6	168.4	360.9	799.5	1447.3
47.5°	138.8	142.5	138.8	240.6	636.7	1215.9
50°	131.4	157.3	131.4	175.8	507.1	868.0
52.5°	146.2	174.0	144.4	129.6	392.4	586.7
55°	161.0	251.7	162.9	112.9	305.4	433.1
57.5°	229.5	277.6	233.2	105.5	249.9	292.4
60°	236.9	305.4	235.0	112.9	183.2	203.6
62.5°	290.6	396.1	290.6	133.3	124.0	159.2
65°	360.9	397.9	364.6	164.7	96.2	151.8
67.5°	344.2	372.0	340.5	170.3	66.6	142.5
70°	336.8	357.2	333.1	201.7	61.1	114.7
72.5°	309.1	307.2	301.7	183.2	53.7	90.7
75°	244.3	227.6	235.0	161.0	55.5	81.4
77.5°	161.0	153.6	155.5	127.7	50.0	64.8
80°	114.7	111.0	109.2	103.6	46.3	46.3
82.5°	77.7	74.0	72.2	74.0	37.0	33.3
85°	38.9	35.2	33.3	46.3	27.8	20.4
87.5°	9.3	9.3	7.4	9.3	13.0	9.3
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	16.77	18.07	17.13	18.39	18.70	15.61	16.92	15.98	17.23	17.55
	3H	17.49	18.66	17.87	18.99	19.35	21.81	22.98	22.19	23.31	23.68
	4H	17.91	19.01	18.32	19.36	19.74	23.11	24.20	23.51	24.55	24.94
	6H	18.29	19.30	18.70	19.67	20.06	23.73	24.74	24.15	25.11	25.51
	8H	18.42	19.38	18.85	19.77	20.17	23.87	24.83	24.30	25.22	25.62
	12H	18.51	19.42	18.94	19.80	20.23	23.92	24.84	24.35	25.22	25.65
4H	2H	17.21	18.30	17.61	18.65	19.03	16.19	17.29	16.59	17.64	18.02
	3H	18.22	19.13	18.64	19.54	19.94	22.56	23.47	22.98	23.88	24.28
	4H	18.80	19.62	19.23	20.03	20.48	24.03	24.85	24.46	25.27	25.71
	6H	19.29	20.01	19.76	20.45	20.92	24.79	25.50	25.25	25.94	26.41
	8H	19.47	20.14	19.94	20.58	21.05	24.96	25.62	25.43	26.07	26.54
	12H	19.61	20.20	20.10	20.68	21.15	25.04	25.63	25.52	26.11	26.58
8H	4H	19.93	20.59	20.40	21.04	21.51	24.18	24.84	24.64	25.29	25.76
	6H	20.55	21.09	21.05	21.59	22.07	25.07	25.61	25.57	26.11	26.59
	8H	20.79	21.27	21.31	21.79	22.28	25.32	25.80	25.84	26.32	26.81
	12H	20.98	21.41	21.50	21.90	22.47	25.46	25.88	25.97	26.38	26.95
12H	4H	20.09	20.68	20.58	21.16	21.64	24.16	24.74	24.64	25.23	25.70
	6H	20.82	21.31	21.35	21.83	22.32	25.07	25.56	25.60	26.08	26.57
	8H	21.15	21.57	21.66	22.07	22.64	25.38	25.80	25.89	26.30	26.87