

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: P853783

Luminaire Tested: SQ2-FA-100D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853783
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-11)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FA-100D-935-UNV-STD-W-4
Description: CORELITE SQ2 SURFACE LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
DIRECT ONLY
Light Source: -
Ballast/Driver: -

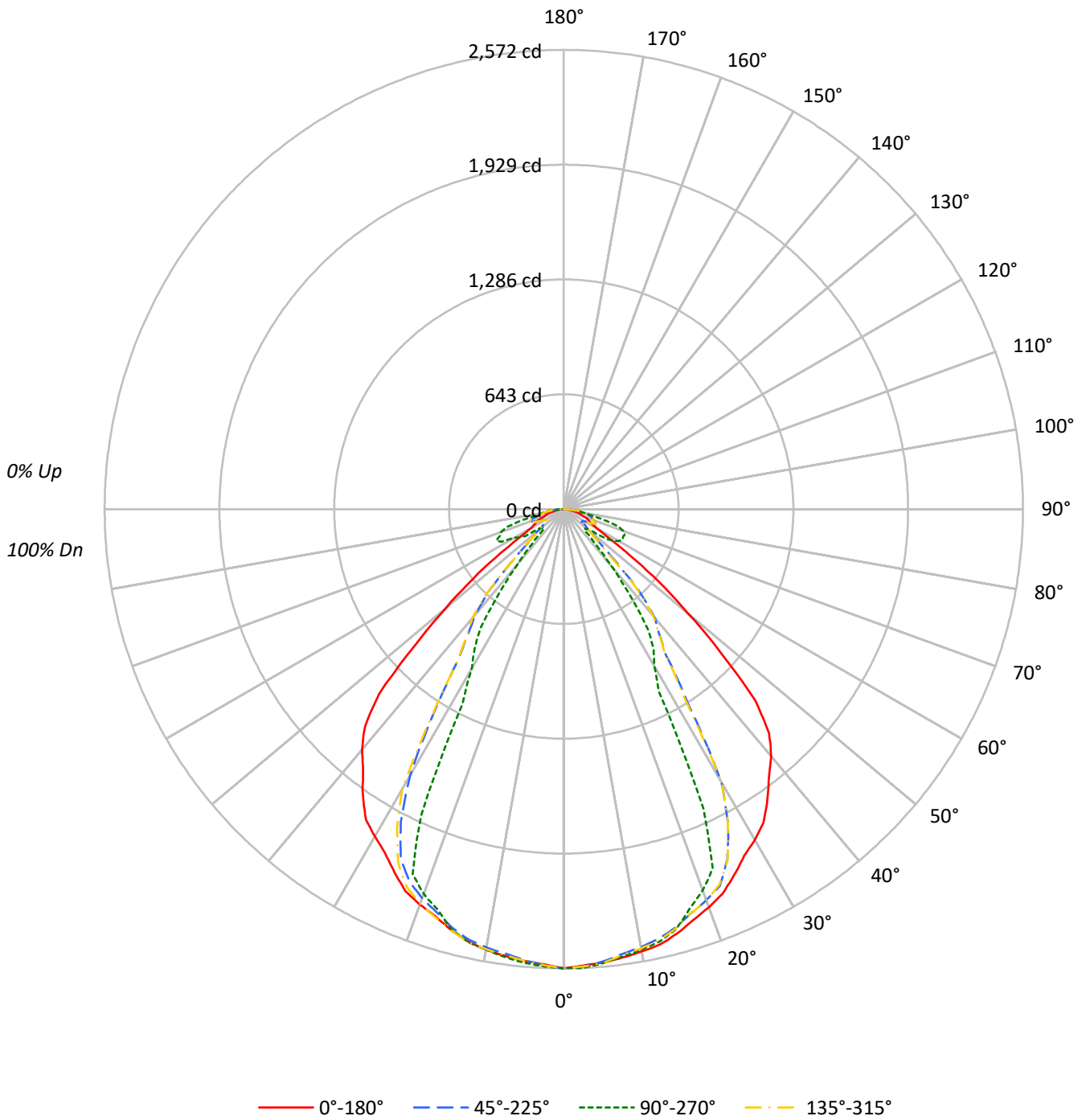
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3756.0 lumens
Efficiency: N/A
Efficacy: 99.9 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 0.95 / 0.95
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: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
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	93	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	74	70	65	72	68	65	63				63
5	84	74	66	61	82	73	66	60	71	65	60	69	64	59	67	62	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	59	54	50	58	53	49	48				48
8	70	59	51	46	69	58	51	46	57	50	46	56	50	46	54	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	39	49	43	39	48	43	39	38				38

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	41525	41525	41525	41525
5°	41306	41370	41149	41337
10°	41243	41084	41084	41084
15°	41110	40689	40786	40689
20°	40790	39058	40491	39424
25°	40255	32963	39979	33654
30°	39884	18912	39452	19166
35°	39186	16247	38688	16019
40°	38101	8545	37036	8462
45°	34632	3676	33392	3676
50°	22850	4433	21680	4142
55°	12777	8189	12121	7426
60°	6891	11525	6765	10333
65°	6074	14006	6372	15931
70°	5679	16754	5401	17670
75°	5321	14398	5446	14885
80°	4510	10284	4510	10823
85°	3946	5743	3594	6836

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 34632 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	242.0	6.4
10°-20°	686.6	18.3
20°-30°	936.2	24.9
30°-40°	786.7	20.9
40°-50°	446.8	11.9
50°-60°	237.1	6.3
60°-70°	218.3	5.8
70°-80°	160.3	4.3
80°-90°	41.9	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°	1864.9	49.7
0°-40°	2651.6	70.6
0°-60°	3335.6	88.8
0°-90°	3756.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3756.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2572	2572	2572	2572	2572	
5°	2549	2552	2539	2550	2549	242
15°	2459	2434	2440	2434	2459	693
25°	2260	1850	2244	1889	2260	1042
35°	1988	824	1963	813	1988	1241
45°	1517	161	1462	161	1517	1109
55°	454	291	431	264	454	437
65°	159	367	167	417	159	160
75°	85	231	87	239	85	88
85°	21	31	19	37	21	25
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°	2571.9	2571.9	2571.9	2571.9	2571.9	2571.9	2571.9	2571.9	2571.9	2571.9	2571.9
2.5°	2557.9	2595.8	2562.6	2558.2	2571.9	2568.8	2564.1	2582.0	2551.7	2582.0	2557.9
5°	2548.6	2592.2	2542.8	2529.7	2552.5	2537.3	2550.5	2576.8	2538.9	2573.0	2535.0
7.5°	2532.7	2571.4	2512.1	2503.7	2526.1	2512.8	2518.3	2554.8	2523.0	2545.4	2511.0
10°	2515.6	2549.7	2490.4	2485.1	2505.9	2492.6	2498.2	2536.3	2505.9	2526.8	2492.3
12.5°	2497.0	2523.5	2464.0	2461.7	2479.5	2470.8	2473.3	2505.4	2481.1	2502.0	2469.1
15°	2459.4	2484.0	2424.5	2415.2	2434.2	2426.6	2430.3	2458.9	2440.0	2453.2	2424.5
17.5°	2412.8	2432.5	2373.2	2345.3	2346.1	2355.6	2373.2	2407.8	2390.7	2408.2	2367.4
20°	2374.0	2396.8	2331.4	2277.0	2273.2	2282.7	2331.4	2366.1	2356.6	2375.5	2317.8
22.5°	2329.0	2344.2	2284.8	2193.0	2180.1	2189.6	2278.6	2319.6	2316.2	2329.1	2257.3
25°	2259.6	2274.8	2166.5	2034.3	1850.3	2022.9	2170.4	2244.1	2244.1	2255.5	2160.7
27.5°	2189.0	2189.4	1993.5	1306.5	1152.5	1259.4	1990.8	2150.6	2168.8	2163.1	1976.8
30°	2139.3	2126.1	1766.9	1056.1	1014.4	1040.9	1768.9	2085.7	2116.1	2095.2	1722.3
32.5°	2081.9	2044.4	1304.6	970.9	936.8	960.3	1261.5	2008.7	2061.8	2016.6	1354.6
35°	1988.1	1889.4	995.0	858.5	824.3	854.7	987.2	1856.6	1962.8	1841.5	1028.0
37.5°	1886.8	1501.8	875.9	683.8	610.2	669.0	871.6	1485.7	1845.7	1451.2	875.1
40°	1807.7	1179.9	787.5	500.2	405.4	471.7	781.6	1125.7	1757.2	1211.1	768.1
42.5°	1702.2	1036.5	632.3	317.7	248.7	290.8	606.3	1012.6	1648.6	1049.3	611.4
45°	1516.7	890.9	374.3	174.3	161.0	168.6	345.2	874.5	1462.4	855.6	382.1
47.5°	1201.4	679.5	240.5	148.1	162.5	148.1	233.1	657.9	1134.6	656.7	240.1
50°	909.7	530.4	186.2	149.9	176.5	149.9	180.4	512.3	863.1	559.7	184.3
52.5°	673.8	443.2	152.1	164.4	212.2	167.4	147.8	431.4	639.7	451.5	143.9
55°	453.9	347.7	122.2	217.0	290.9	222.7	122.2	337.7	430.6	333.9	118.3
57.5°	287.8	258.6	123.7	279.0	332.1	284.3	125.7	249.3	276.2	250.4	108.6
60°	213.4	203.9	137.7	296.2	356.9	300.0	139.6	196.2	209.5	194.3	116.4
62.5°	176.1	160.6	165.6	320.8	370.8	312.4	169.1	153.1	183.1	146.7	128.8
65°	159.0	104.0	195.9	324.9	366.6	324.9	197.8	98.5	166.8	106.1	174.6
67.5°	143.5	77.2	189.3	322.6	368.9	323.4	184.6	73.6	137.7	71.7	178.4
70°	120.3	69.0	178.4	328.4	354.9	317.0	178.4	67.0	114.4	65.1	209.5
72.5°	100.1	65.6	166.0	303.2	314.6	291.8	167.6	65.2	100.5	58.7	197.1
75°	85.3	64.5	159.0	242.2	230.8	230.8	155.2	62.6	87.3	58.8	153.2
77.5°	64.0	57.2	131.9	158.1	149.3	149.3	129.6	55.2	60.9	51.8	124.5
80°	48.5	52.3	108.6	116.2	110.6	110.6	104.7	50.4	48.5	48.5	102.8
82.5°	37.6	44.5	83.8	85.2	81.1	79.6	81.5	44.1	37.6	40.7	79.5
85°	21.3	30.8	44.6	36.7	31.0	29.1	42.7	28.9	19.4	28.9	42.7
87.5°	7.8	13.8	6.2	6.2	6.2	6.2	6.2	13.8	7.8	12.3	7.8
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°	2571.9	2571.9	2571.9	2571.9	2571.9	2571.9
2.5°	2551.9	2562.6	2562.6	2556.3	2586.7	2557.9
5°	2525.9	2550.5	2539.1	2538.9	2577.0	2548.6
7.5°	2507.6	2530.7	2520.1	2517.9	2555.4	2532.7
10°	2488.8	2505.9	2498.3	2504.0	2538.4	2515.6
12.5°	2462.5	2482.6	2475.1	2483.8	2515.2	2497.0
15°	2417.1	2434.2	2437.9	2441.9	2478.3	2459.4
17.5°	2342.0	2350.4	2369.3	2396.1	2434.1	2412.8
20°	2283.1	2294.5	2305.9	2352.7	2396.8	2374.0
22.5°	2216.1	2212.3	2238.8	2293.7	2348.8	2329.0
25°	2035.2	1889.1	2050.3	2191.7	2265.3	2259.6
27.5°	1417.1	1229.7	1395.4	2023.0	2177.6	2189.0
30°	1115.2	1028.0	1113.3	1805.7	2112.8	2139.3
32.5°	990.1	930.2	982.2	1374.4	2031.1	2081.9
35°	854.4	812.7	854.4	1028.0	1870.5	1988.1
37.5°	683.9	598.5	682.4	888.3	1512.1	1886.8
40°	509.6	401.5	494.4	795.2	1208.4	1807.7
42.5°	339.5	258.7	321.3	626.1	1045.2	1702.2
45°	183.7	161.0	176.2	378.2	853.0	1516.7
47.5°	144.1	152.4	144.1	238.6	652.5	1201.4
50°	138.3	164.9	138.3	184.3	539.8	909.7
52.5°	150.8	178.8	149.2	145.5	440.5	673.8
55°	170.9	263.8	172.8	118.3	323.0	453.9
57.5°	243.3	296.8	245.9	112.1	248.8	287.8
60°	249.9	320.0	248.0	118.3	192.5	213.4
62.5°	295.5	396.1	295.2	135.4	143.1	176.1
65°	379.1	417.0	382.9	172.6	102.2	159.0
67.5°	359.8	386.7	356.0	185.0	70.3	143.5
70°	353.5	374.3	349.7	211.4	65.3	120.3
72.5°	329.8	332.4	323.0	195.9	58.7	100.1
75°	255.6	238.6	246.2	168.7	58.8	85.3
77.5°	158.9	152.1	153.2	128.8	51.9	64.0
80°	120.2	116.4	114.5	108.6	48.5	48.5
82.5°	89.1	85.3	83.4	83.8	40.7	37.6
85°	40.6	36.9	35.0	48.5	28.9	21.3
87.5°	7.8	7.8	6.2	7.8	10.8	7.8
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	16.95	18.26	17.31	18.57	18.89	15.80	17.12	16.17	17.43	17.74
	3H	17.67	18.85	18.05	19.17	19.54	21.98	23.15	22.36	23.48	23.85
	4H	18.10	19.20	18.50	19.55	19.93	23.27	24.37	23.68	24.72	25.10
	6H	18.47	19.48	18.89	19.85	20.25	23.90	24.91	24.31	25.28	25.67
	8H	18.60	19.56	19.03	19.95	20.36	24.03	24.99	24.46	25.38	25.79
	12H	18.68	19.60	19.12	19.98	20.42	24.09	25.00	24.52	25.39	25.82
4H	2H	17.38	18.48	17.79	18.83	19.21	16.38	17.48	16.78	17.83	18.21
	3H	18.41	19.32	18.82	19.72	20.13	22.73	23.64	23.14	24.05	24.45
	4H	18.98	19.80	19.41	20.22	20.66	24.19	25.01	24.63	25.43	25.87
	6H	19.48	20.19	19.94	20.63	21.10	24.95	25.66	25.41	26.11	26.57
	8H	19.65	20.32	20.12	20.76	21.23	25.12	25.79	25.59	26.23	26.70
	12H	19.79	20.37	20.27	20.86	21.33	25.20	25.79	25.69	26.27	26.75
8H	4H	20.10	20.77	20.57	21.22	21.69	24.34	25.00	24.81	25.45	25.92
	6H	20.72	21.27	21.23	21.76	22.24	25.23	25.77	25.73	26.27	26.75
	8H	20.96	21.44	21.48	21.96	22.45	25.48	25.96	26.00	26.48	26.97
	12H	21.15	21.58	21.66	22.07	22.64	25.62	26.05	26.13	26.54	27.11
12H	4H	20.27	20.86	20.75	21.34	21.81	24.32	24.91	24.81	25.39	25.86
	6H	21.00	21.48	21.52	22.00	22.49	25.24	25.72	25.76	26.24	26.73
	8H	21.32	21.74	21.83	22.24	22.81	25.54	25.97	26.05	26.46	27.03