

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: P854346

Luminaire Tested: SQ2-WBM-050U-100D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854346
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G3-2104-222-7)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBM-050U-100D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

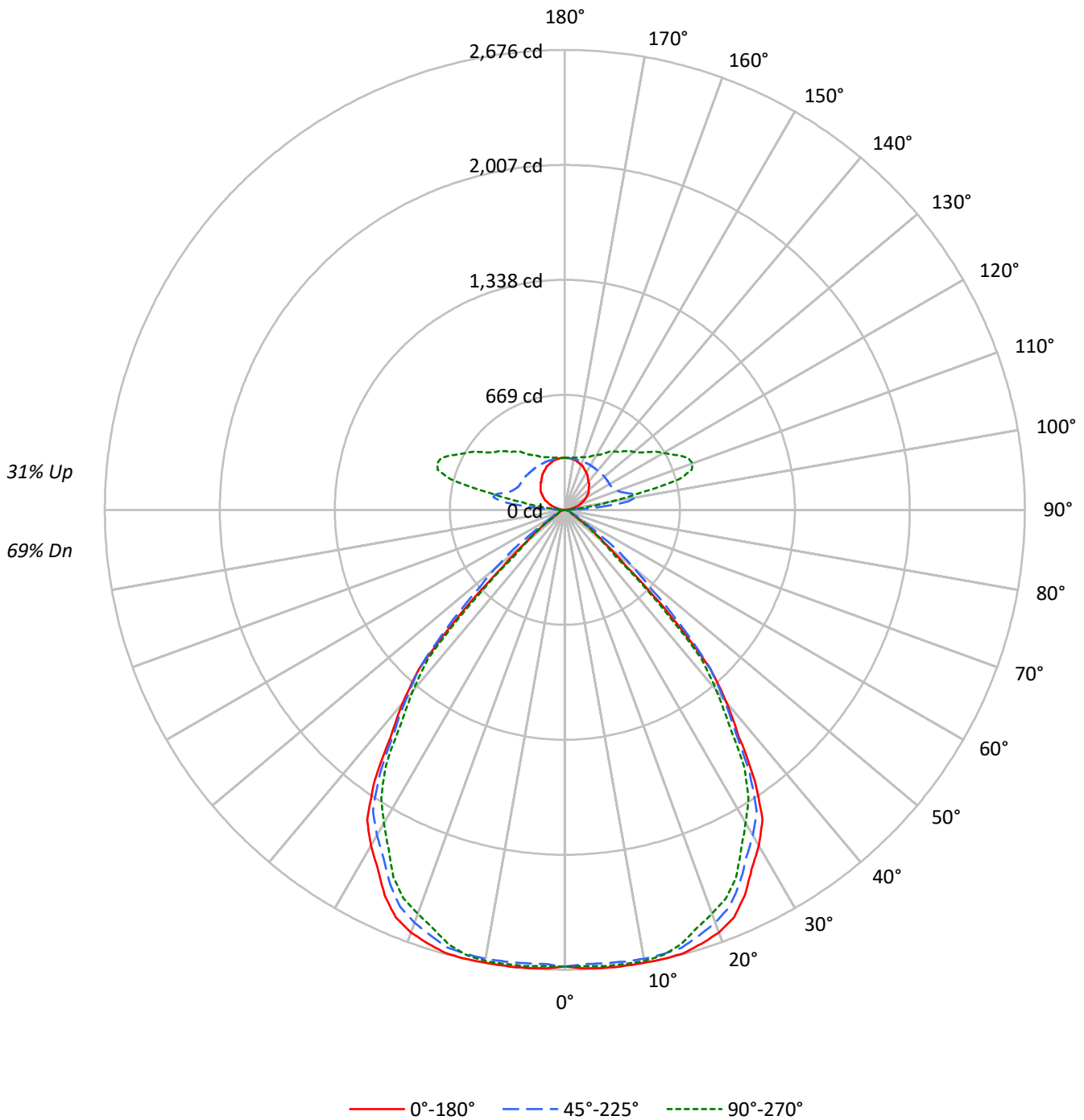
Lumens per Lamp: N/A
Luminaire Lumens: 6075.4 lumens
Efficiency: N/A
Efficacy: 114.8 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.18 / 1.17
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 52.9
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

TEST NUMBER: P854346

CATALOG NUMBER: SQ2-WBM-050U-100D-930-UNV-STD-W-4

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									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	50	30	10	50	30	10	50	30	10	0																
RCR																																														
0	112	112	112	112	105	105	105	105	94	94	94	83	83	83	74	74	74	69	69	69	63	63	63	57	57	57	52	52	52	47	47	47														
1	104	101	98	95	99	96	93	91	86	84	82	77	76	74	69	68	67	63	63	63	57	57	57	52	52	52	47	47	47	43	43	43														
2	97	91	86	82	92	87	83	79	79	75	72	71	68	66	64	62	61	57	57	57	52	52	52	47	47	47	43	43	43	39	39	39														
3	91	83	77	72	86	79	74	69	72	68	64	65	62	59	59	57	55	52	52	52	47	47	47	43	43	43	39	39	39	35	35	35														
4	84	75	69	63	80	72	66	61	66	61	57	60	56	53	55	52	50	47	47	47	43	43	43	39	39	39	35	35	35	31	31	31														
5	79	69	62	56	75	66	59	55	60	55	51	55	51	48	51	48	45	43	43	43	39	39	39	35	35	35	31	31	31	28	28	28														
6	73	63	56	51	70	60	54	49	56	50	46	51	47	44	47	44	41	39	39	39	35	35	35	31	31	31	28	28	28	24	24	24														
7	69	58	51	46	65	55	49	44	51	46	42	47	43	40	44	40	38	35	35	35	31	31	31	28	28	28	24	24	24	20	20	20														
8	64	53	46	41	61	51	45	40	47	42	38	44	40	36	41	37	34	32	32	32	28	28	28	24	24	24	20	20	20	16	16	16														
9	60	49	42	38	57	47	41	37	44	39	35	41	37	33	38	34	32	30	30	30	26	26	26	22	22	22	18	18	18	14	14	14														
10	57	46	39	34	54	44	38	34	41	36	32	38	34	31	36	32	29	28	28	24	24	24	20	20	20	16	16	16	12	12	12															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	42899	42899	42899
5°	43358	42908	43188
10°	43860	43466	43702
15°	44637	44058	43721
20°	44974	43934	42959
25°	44113	42829	42006
30°	42041	40768	39209
35°	38041	36941	35784
40°	30888	30260	28922
45°	19783	21980	17785
50°	7754	13019	6980
55°	3654	5956	3654
60°	1741	2887	1582
65°	1578	1654	1471
70°	1496	1544	1407
75°	1497	1497	1379
80°	1432	1432	1339
85°	1241	1241	1241

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 22124 cd/sqm



TEST NUMBER: P854346

CATALOG NUMBER: SQ2-WBM-050U-100D-930-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	254.5	4.2
10°-20°	745.9	12.3
20°-30°	1107.0	18.2
30°-40°	1149.8	18.9
40°-50°	691.9	11.4
50°-60°	165.9	2.7
60°-70°	45.0	0.7
70°-80°	25.2	0.4
80°-90°	8.3	0.1
90°-100°	120.7	2.0
100°-110°	382.8	6.3
110°-120°	375.4	6.2
120°-130°	305.5	5.0
130°-140°	249.1	4.1
140°-150°	194.2	3.2
150°-160°	139.9	2.3
160°-170°	85.5	1.4
170°-180°	28.9	0.5
0°-30°	2107.3	34.7
0°-40°	3257.1	53.6
0°-60°	4114.9	67.7
0°-90°	4193.4	69.0
90°-120°	879.0	14.5
90°-150°	1627.7	26.8
90°-180°	1882.0	31.0
0°-180°	6075.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2657	2657	2657	2657	2657	
5°	2675	2669	2647	2675	2665	255
15°	2670	2689	2636	2634	2616	753
25°	2476	2493	2404	2372	2358	1133
35°	1930	1912	1874	1836	1816	1182
45°	866	969	963	916	779	662
55°	130	147	212	141	130	134
65°	41	42	43	41	38	41
75°	24	25	24	23	22	25
85°	7	8	7	7	7	8
90°	0	1	3	3	3	1
95°	16	49	219	81	52	19
105°	67	94	377	719	689	70
115°	119	142	305	633	745	118
125°	165	184	300	497	585	147
135°	199	219	298	427	481	154
145°	232	250	298	369	401	146
155°	265	274	299	329	342	122
165°	289	292	300	312	314	81
175°	302	301	302	304	303	29
180°	303	303	303	303	303	

TEST NUMBER: P854346

CATALOG NUMBER: SQ2-WBM-050U-100D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2657.0	2657.0	2657.0	2657.0	2657.0
2.5°	2670.1	2664.0	2644.7	2666.0	2657.0
5°	2675.2	2668.7	2647.4	2675.0	2664.7
7.5°	2676.0	2676.4	2651.2	2675.6	2664.1
10°	2675.2	2680.9	2651.2	2674.1	2665.6
12.5°	2676.0	2685.4	2648.1	2664.8	2651.8
15°	2670.4	2689.2	2635.8	2634.4	2615.6
17.5°	2646.0	2669.3	2597.0	2574.7	2552.5
20°	2617.5	2640.1	2557.0	2524.7	2500.2
22.5°	2568.3	2591.6	2500.0	2465.6	2447.9
25°	2476.2	2493.1	2404.1	2372.0	2357.9
27.5°	2355.0	2360.5	2282.9	2245.6	2221.5
30°	2255.0	2259.7	2186.7	2144.4	2103.1
32.5°	2140.4	2132.3	2076.7	2030.6	1987.7
35°	1930.0	1912.1	1874.2	1836.2	1815.5
37.5°	1663.2	1658.7	1631.1	1585.5	1560.7
40°	1465.5	1480.6	1435.7	1402.3	1372.2
42.5°	1254.0	1290.8	1251.8	1204.7	1179.1
45°	866.4	968.9	962.6	916.2	778.9
47.5°	481.8	610.8	688.3	539.9	399.5
50°	308.7	397.1	518.3	325.9	277.9
52.5°	216.4	264.9	382.9	231.0	204.8
55°	129.8	146.7	211.6	141.1	129.8
57.5°	78.5	94.8	120.2	94.6	76.7
60°	53.9	68.0	89.4	63.1	49.0
62.5°	46.9	52.0	69.4	49.5	44.4
65°	41.3	42.3	43.3	41.3	38.5
67.5°	35.6	37.5	36.5	35.7	33.7
70°	31.7	33.6	32.7	32.6	29.8
72.5°	28.7	30.5	29.6	28.8	26.7
75°	24.0	25.0	24.0	23.1	22.1
77.5°	18.5	19.4	19.2	18.4	17.5
80°	15.4	16.3	15.4	15.4	14.4
82.5°	12.3	12.5	12.3	11.5	11.3
85°	6.7	7.7	6.7	6.7	6.7
87.5°	2.3	2.5	2.9	2.9	2.9
90°	0.0	0.9	2.9	2.9	2.9
92.5°	5.3	21.2	67.7	22.5	15.8
95°	16.2	48.8	219.2	81.3	52.4
97.5°	30.1	63.3	371.3	232.0	142.4
100°	40.0	71.7	423.1	385.8	250.6
102.5°	50.7	80.9	414.0	566.5	433.6
105°	66.7	93.7	377.4	718.8	689.0
107.5°	82.7	107.7	342.5	734.7	775.0
110°	93.4	117.6	325.0	716.5	791.0



TEST NUMBER: P854346

CATALOG NUMBER: SQ2-WBM-050U-100D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	104.1	126.8	315.1	684.9	779.6
115°	119.1	141.5	305.0	633.4	745.3
117.5°	133.8	155.0	301.0	583.9	696.7
120°	143.0	163.5	300.2	553.3	662.3
122.5°	152.1	171.9	300.2	528.8	630.3
125°	164.9	184.4	300.2	496.6	585.2
127.5°	176.1	194.9	300.2	471.7	547.2
130°	183.0	202.5	300.2	457.1	525.1
132.5°	189.8	209.4	299.4	445.5	506.8
135°	199.2	218.7	298.3	427.2	481.3
137.5°	208.3	228.8	298.1	409.8	458.0
140°	214.4	234.9	297.3	397.4	441.2
142.5°	222.1	241.8	298.1	385.2	426.0
145°	232.5	250.2	298.3	368.6	401.2
147.5°	243.0	258.1	298.5	354.0	380.6
150°	250.6	262.8	299.2	345.5	366.9
152.5°	256.7	267.4	299.2	338.5	356.2
155°	264.9	274.3	299.2	329.1	342.1
157.5°	273.7	280.0	300.2	323.3	332.2
160°	278.3	283.9	300.2	319.4	326.9
162.5°	282.9	287.0	300.2	316.3	321.5
165°	288.8	291.6	300.2	311.7	314.5
167.5°	294.3	295.0	301.2	308.5	310.9
170°	297.3	297.3	301.2	306.9	307.8
172.5°	298.9	299.6	301.2	305.4	305.5
175°	302.1	301.2	302.1	304.0	303.1
177.5°	303.1	302.3	302.3	303.8	302.3
180°	303.1	303.1	303.1	303.1	303.1



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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	7.64	8.48	8.45	9.28	10.26	7.35	8.19	8.16	9.00	9.98
	3H	8.15	8.89	8.98	9.71	10.72	7.86	8.60	8.69	9.42	10.43
	4H	8.42	9.12	9.26	9.94	10.97	8.11	8.80	8.95	9.63	10.65
	6H	8.66	9.29	9.51	10.12	11.16	8.33	8.96	9.18	9.79	10.83
	8H	8.73	9.33	9.59	10.18	11.22	8.40	9.00	9.26	9.85	10.89
	12H	8.77	9.34	9.63	10.18	11.24	8.44	9.01	9.30	9.85	10.91
4H	2H	7.66	8.35	8.50	9.17	10.20	7.40	8.09	8.24	8.91	9.94
	3H	8.38	8.95	9.24	9.81	10.85	8.12	8.69	8.98	9.55	10.59
	4H	8.79	9.31	9.66	10.16	11.23	8.50	9.01	9.37	9.87	10.94
	6H	9.17	9.61	10.05	10.49	11.57	8.86	9.30	9.74	10.18	11.25
	8H	9.31	9.71	10.19	10.59	11.67	8.98	9.39	9.87	10.27	11.35
	12H	9.38	9.75	10.28	10.64	11.73	9.06	9.43	9.96	10.32	11.41
8H	4H	8.88	9.29	9.76	10.16	11.25	8.61	9.02	9.49	9.89	10.97
	6H	9.38	9.72	10.29	10.64	11.72	9.09	9.42	10.00	10.34	11.43
	8H	9.60	9.89	10.52	10.81	11.91	9.30	9.59	10.21	10.50	11.60
	12H	9.76	10.02	10.67	10.92	12.07	9.44	9.71	10.36	10.61	11.76
12H	4H	8.85	9.22	9.75	10.11	11.20	8.59	8.95	9.49	9.85	10.94
	6H	9.40	9.70	10.32	10.61	11.71	9.12	9.41	10.03	10.32	11.42
	8H	9.65	9.91	10.56	10.81	11.96	9.35	9.61	10.27	10.51	11.67