

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: P854347

Luminaire Tested: SQ2-WBM-050U-100D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854347
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-935-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

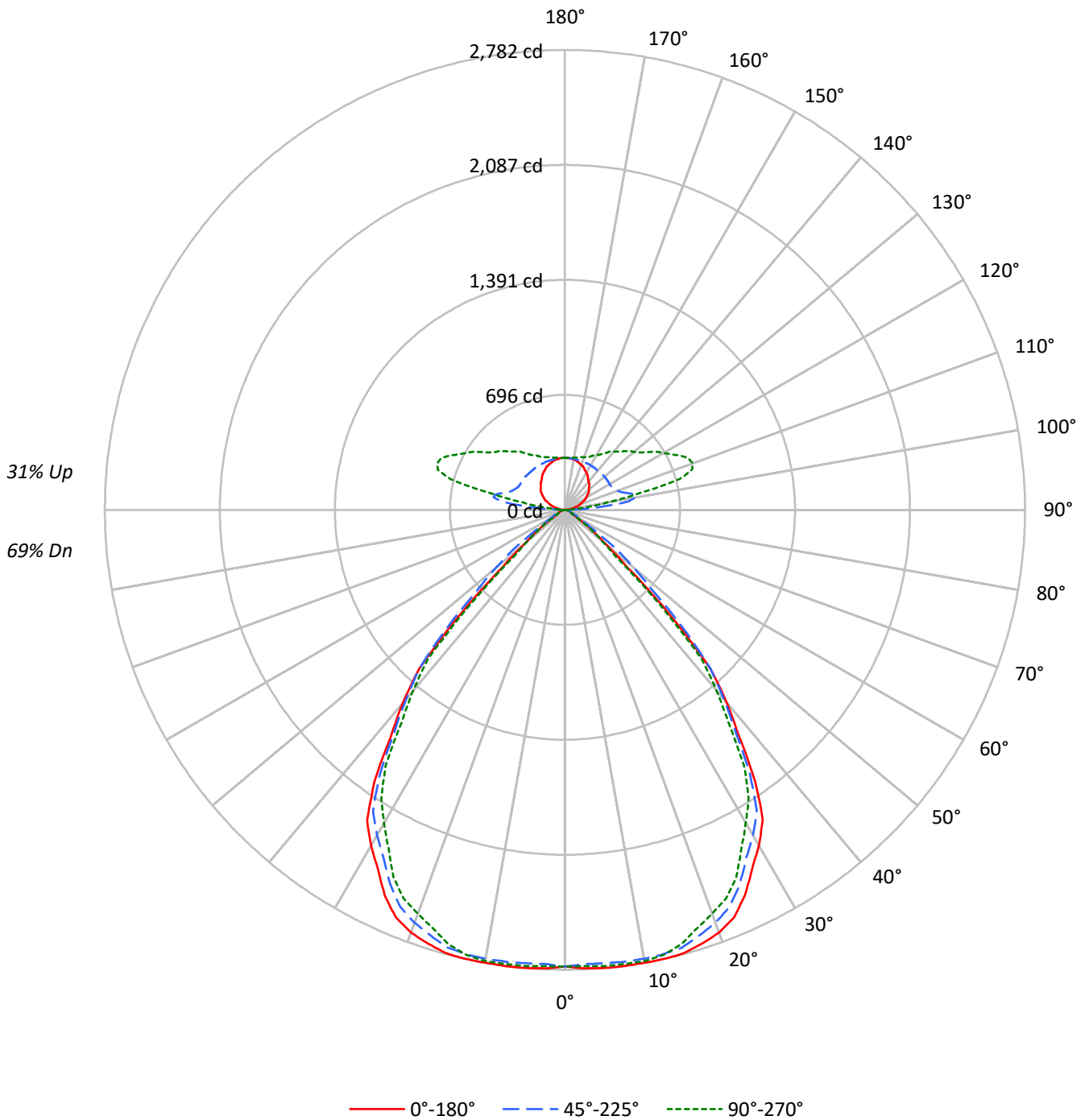
Lumens per Lamp: N/A
Luminaire Lumens: 6316.8 lumens
Efficiency: N/A
Efficacy: 119.4 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.18 / 1.17
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	44603	44603	44603
5°	45081	44611	44903
10°	45602	45193	45439
15°	46410	45809	45458
20°	46761	45678	44665
25°	45865	44530	43675
30°	43712	42388	40766
35°	39551	38410	37207
40°	32115	31461	30070
45°	20569	22852	18493
50°	8061	13536	7257
55°	3800	6193	3800
60°	1808	3003	1647
65°	1643	1719	1528
70°	1558	1605	1463
75°	1560	1560	1435
80°	1488	1488	1395
85°	1297	1297	1297

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 23003 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	264.6	4.2
10°-20°	775.5	12.3
20°-30°	1150.9	18.2
30°-40°	1195.5	18.9
40°-50°	719.4	11.4
50°-60°	172.5	2.7
60°-70°	46.8	0.7
70°-80°	26.2	0.4
80°-90°	8.6	0.1
90°-100°	125.5	2.0
100°-110°	398.1	6.3
110°-120°	390.3	6.2
120°-130°	317.6	5.0
130°-140°	259.0	4.1
140°-150°	201.9	3.2
150°-160°	145.5	2.3
160°-170°	88.9	1.4
170°-180°	30.0	0.5
0°-30°	2191.0	34.7
0°-40°	3386.5	53.6
0°-60°	4278.4	67.7
0°-90°	4360.0	69.0
90°-120°	913.9	14.5
90°-150°	1692.4	26.8
90°-180°	1957.0	31.0
0°-180°	6316.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2762	2762	2762	2762	2762	
5°	2782	2775	2752	2781	2770	265
15°	2776	2796	2740	2739	2720	783
25°	2574	2592	2500	2466	2452	1178
35°	2007	1988	1949	1909	1888	1229
45°	901	1007	1001	953	810	688
55°	135	153	220	147	135	139
65°	43	44	45	43	40	43
75°	25	26	25	24	23	26
85°	7	8	7	7	7	8
90°	0	1	3	3	3	1
95°	17	51	228	84	54	19
105°	69	98	392	747	716	73
115°	124	147	317	659	775	122
125°	171	192	312	516	608	153
135°	207	227	310	444	500	160
145°	242	260	310	383	417	151
155°	276	285	311	342	356	127
165°	300	303	312	324	327	85
175°	314	313	314	316	315	30
180°	315	315	315	315	315	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2762.5	2762.5	2762.5	2762.5	2762.5
2.5°	2776.1	2769.8	2749.7	2771.9	2762.5
5°	2781.5	2774.7	2752.5	2781.3	2770.5
7.5°	2782.3	2782.7	2756.5	2781.8	2769.9
10°	2781.5	2787.4	2756.5	2780.3	2771.5
12.5°	2782.3	2792.1	2753.3	2770.6	2757.1
15°	2776.5	2796.1	2740.5	2739.1	2719.5
17.5°	2751.1	2775.4	2700.1	2677.0	2653.9
20°	2721.5	2745.0	2658.5	2625.0	2599.5
22.5°	2670.3	2694.6	2599.3	2563.5	2545.1
25°	2574.5	2592.1	2499.6	2466.2	2451.6
27.5°	2448.6	2454.2	2373.6	2334.8	2309.8
30°	2344.6	2349.5	2273.6	2229.6	2186.6
32.5°	2225.4	2217.0	2159.2	2111.2	2066.6
35°	2006.6	1988.1	1948.7	1909.2	1887.7
37.5°	1729.3	1724.6	1695.9	1648.5	1622.7
40°	1523.7	1539.4	1492.7	1458.0	1426.7
42.5°	1303.8	1342.1	1301.6	1252.6	1226.0
45°	900.8	1007.4	1000.8	952.6	809.9
47.5°	500.9	635.0	715.7	561.4	415.3
50°	320.9	412.8	538.9	338.8	288.9
52.5°	225.0	275.4	398.1	240.1	213.0
55°	135.0	152.6	220.0	146.7	135.0
57.5°	81.6	98.6	125.0	98.4	79.8
60°	56.0	70.7	93.0	65.7	51.0
62.5°	48.8	54.1	72.2	51.5	46.2
65°	43.0	44.0	45.0	42.9	40.0
67.5°	37.0	38.9	38.0	37.1	35.0
70°	33.0	34.9	34.0	33.9	31.0
72.5°	29.8	31.7	30.8	29.9	27.8
75°	25.0	26.0	25.0	24.0	23.0
77.5°	19.2	20.2	20.0	19.2	18.2
80°	16.0	17.0	16.0	16.0	15.0
82.5°	12.8	13.0	12.8	12.0	11.8
85°	7.0	8.0	7.0	7.0	7.0
87.5°	2.4	2.6	3.0	3.0	3.0
90°	0.0	1.0	3.0	3.0	3.0
92.5°	5.5	22.0	70.4	23.4	16.4
95°	16.8	50.8	227.9	84.5	54.5
97.5°	31.3	65.8	386.0	241.2	148.0
100°	41.6	74.6	439.9	401.1	260.6
102.5°	52.7	84.1	430.4	589.0	450.8
105°	69.4	97.5	392.4	747.4	716.4
107.5°	86.0	112.0	356.1	763.9	805.8
110°	97.1	122.3	337.9	744.9	822.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	108.2	131.8	327.6	712.1	810.5
115°	123.9	147.1	317.1	658.6	774.9
117.5°	139.1	161.2	312.9	607.1	724.3
120°	148.6	169.9	312.1	575.3	688.7
122.5°	158.1	178.7	312.1	549.8	655.4
125°	171.4	191.8	312.1	516.4	608.4
127.5°	183.1	202.7	312.1	490.5	569.0
130°	190.2	210.6	312.1	475.2	546.0
132.5°	197.4	217.7	311.3	463.2	526.9
135°	207.1	227.4	310.1	444.2	500.4
137.5°	216.6	237.9	309.9	426.0	476.2
140°	222.9	244.3	309.2	413.2	458.8
142.5°	230.9	251.4	309.9	400.5	442.9
145°	241.8	260.2	310.1	383.2	417.2
147.5°	252.7	268.4	310.3	368.0	395.8
150°	260.6	273.2	311.1	359.2	381.5
152.5°	266.9	278.0	311.1	352.0	370.4
155°	275.5	285.2	311.1	342.2	355.7
157.5°	284.6	291.2	312.1	336.1	345.4
160°	289.3	295.1	312.1	332.1	339.9
162.5°	294.1	298.4	312.1	328.9	334.3
165°	300.2	303.1	312.1	324.1	327.0
167.5°	306.0	306.8	313.1	320.7	323.2
170°	309.2	309.2	313.1	319.1	320.1
172.5°	310.7	311.5	313.1	317.5	317.7
175°	314.1	313.1	314.1	316.1	315.1
177.5°	315.1	314.3	314.3	315.9	314.3
180°	315.1	315.1	315.1	315.1	315.1

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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	7.78	8.61	8.59	9.42	10.40	7.49	8.33	8.30	9.13	10.12
	3H	8.29	9.03	9.11	9.84	10.86	8.00	8.74	8.82	9.55	10.57
	4H	8.56	9.25	9.40	10.08	11.10	8.25	8.94	9.09	9.76	10.79
	6H	8.80	9.43	9.65	10.26	11.30	8.47	9.10	9.32	9.93	10.97
	8H	8.87	9.47	9.73	10.32	11.36	8.54	9.14	9.40	9.99	11.02
	12H	8.91	9.48	9.77	10.32	11.38	8.58	9.15	9.44	9.99	11.05
4H	2H	7.79	8.49	8.64	9.31	10.34	7.53	8.23	8.38	9.05	10.08
	3H	8.52	9.09	9.37	9.95	10.99	8.26	8.83	9.11	9.69	10.72
	4H	8.93	9.44	9.80	10.30	11.37	8.64	9.15	9.50	10.01	11.08
	6H	9.31	9.75	10.19	10.63	11.70	9.00	9.43	9.88	10.31	11.39
	8H	9.44	9.85	10.33	10.73	11.81	9.12	9.53	10.00	10.40	11.49
	12H	9.52	9.88	10.42	10.78	11.87	9.20	9.56	10.10	10.46	11.55
8H	4H	9.02	9.43	9.90	10.30	11.38	8.75	9.16	9.63	10.03	11.11
	6H	9.52	9.86	10.43	10.77	11.86	9.23	9.56	10.14	10.48	11.56
	8H	9.74	10.03	10.66	10.95	12.05	9.43	9.73	10.35	10.64	11.74
	12H	9.90	10.16	10.81	11.06	12.21	9.58	9.85	10.50	10.75	11.90
12H	4H	8.99	9.36	9.89	10.25	11.34	8.73	9.09	9.63	9.99	11.07
	6H	9.54	9.83	10.46	10.75	11.85	9.25	9.55	10.17	10.46	11.56
	8H	9.79	10.05	10.70	10.95	12.10	9.49	9.75	10.41	10.65	11.81