

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: P854348

Luminaire Tested: SQ2-WBM-050U-100D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854348
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-940-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

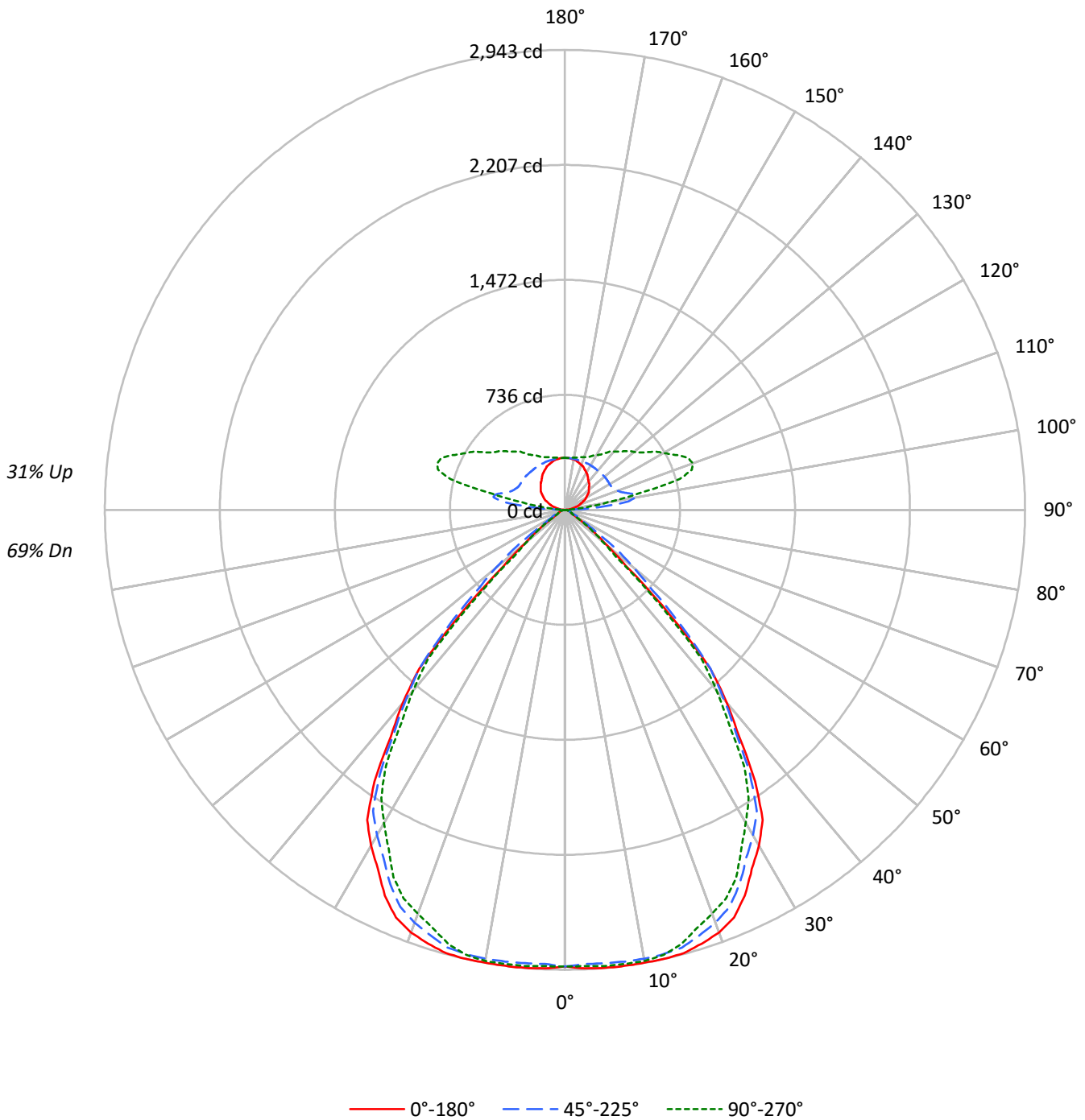
Lumens per Lamp: N/A
Luminaire Lumens: 6681.7 lumens
Efficiency: N/A
Efficacy: 126.3 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.18 / 1.17
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	47180	47180	47180
5°	47686	47188	47496
10°	48237	47803	48063
15°	49091	48455	48084
20°	49462	48318	47245
25°	48515	47101	46198
30°	46236	44836	43121
35°	41837	40627	39356
40°	33970	33280	31809
45°	21758	24172	19559
50°	8528	14318	7676
55°	4020	6550	4020
60°	1912	3178	1741
65°	1738	1819	1616
70°	1648	1699	1548
75°	1647	1647	1516
80°	1571	1571	1478
85°	1371	1371	1371

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 24332 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	279.9	4.2
10°-20°	820.3	12.3
20°-30°	1217.4	18.2
30°-40°	1264.5	18.9
40°-50°	761.0	11.4
50°-60°	182.4	2.7
60°-70°	49.5	0.7
70°-80°	27.8	0.4
80°-90°	9.1	0.1
90°-100°	132.7	2.0
100°-110°	421.1	6.3
110°-120°	412.9	6.2
120°-130°	336.0	5.0
130°-140°	273.9	4.1
140°-150°	213.6	3.2
150°-160°	153.9	2.3
160°-170°	94.0	1.4
170°-180°	31.7	0.5
0°-30°	2317.6	34.7
0°-40°	3582.1	53.6
0°-60°	4525.6	67.7
0°-90°	4611.9	69.0
90°-120°	966.7	14.5
90°-150°	1790.2	26.8
90°-180°	2070.0	31.0
0°-180°	6681.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2922	2922	2922	2922	2922	
5°	2942	2935	2912	2942	2930	281
15°	2937	2958	2899	2897	2877	828
25°	2723	2742	2644	2609	2593	1246
35°	2123	2103	2061	2020	1997	1300
45°	953	1066	1059	1008	857	728
55°	143	161	233	155	143	147
65°	46	46	48	45	42	45
75°	26	28	26	25	24	27
85°	7	8	7	7	7	8
90°	0	1	3	3	3	1
95°	18	54	241	89	58	21
105°	73	103	415	791	758	77
115°	131	156	335	697	820	129
125°	181	203	330	546	644	161
135°	219	241	328	470	529	169
145°	256	275	328	405	441	160
155°	291	302	329	362	376	134
165°	318	321	330	343	346	90
175°	332	331	332	334	333	31
180°	333	333	333	333	333	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2922.1	2922.1	2922.1	2922.1	2922.1
2.5°	2936.5	2929.9	2908.6	2932.0	2922.1
5°	2942.2	2934.9	2911.5	2941.9	2930.5
7.5°	2943.0	2943.4	2915.7	2942.5	2929.9
10°	2942.2	2948.4	2915.7	2940.9	2931.6
12.5°	2943.0	2953.4	2912.4	2930.6	2916.4
15°	2936.9	2957.6	2898.8	2897.3	2876.6
17.5°	2910.0	2935.7	2856.1	2831.6	2807.2
20°	2878.7	2903.5	2812.1	2776.6	2749.7
22.5°	2824.6	2850.2	2749.5	2711.6	2692.2
25°	2723.3	2741.9	2643.9	2608.7	2593.2
27.5°	2590.0	2596.0	2510.7	2469.7	2443.2
30°	2480.0	2485.2	2404.9	2358.4	2312.9
32.5°	2354.0	2345.1	2283.9	2233.2	2186.0
35°	2122.6	2102.9	2061.2	2019.5	1996.7
37.5°	1829.2	1824.2	1793.9	1743.7	1716.4
40°	1611.7	1628.3	1579.0	1542.3	1509.2
42.5°	1379.1	1419.6	1376.8	1324.9	1296.8
45°	952.9	1065.6	1058.6	1007.6	856.6
47.5°	529.8	671.7	757.0	593.8	439.3
50°	339.5	436.7	570.0	358.4	305.6
52.5°	238.0	291.3	421.1	254.0	225.3
55°	142.8	161.4	232.7	155.2	142.8
57.5°	86.3	104.3	132.2	104.0	84.4
60°	59.2	74.7	98.4	69.4	53.9
62.5°	51.6	57.2	76.4	54.4	48.9
65°	45.5	46.5	47.6	45.4	42.3
67.5°	39.1	41.2	40.2	39.3	37.0
70°	34.9	37.0	36.0	35.9	32.8
72.5°	31.5	33.6	32.6	31.7	29.4
75°	26.4	27.5	26.4	25.4	24.3
77.5°	20.3	21.3	21.2	20.3	19.2
80°	16.9	18.0	16.9	16.9	15.9
82.5°	13.5	13.7	13.5	12.7	12.5
85°	7.4	8.4	7.4	7.4	7.4
87.5°	2.5	2.7	3.2	3.2	3.2
90°	0.0	1.0	3.1	3.1	3.1
92.5°	5.9	23.3	74.4	24.8	17.4
95°	17.8	53.7	241.1	89.4	57.6
97.5°	33.1	69.6	408.3	255.2	156.6
100°	44.0	78.9	465.4	424.3	275.7
102.5°	55.8	89.0	455.3	623.0	476.9
105°	73.4	103.1	415.1	790.6	757.8
107.5°	91.0	118.4	376.7	808.0	852.3
110°	102.7	129.4	357.4	787.9	869.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	114.5	139.5	346.5	753.2	857.4
115°	131.0	155.6	335.4	696.6	819.6
117.5°	147.2	170.5	331.0	642.2	766.2
120°	157.2	179.8	330.2	608.5	728.4
122.5°	167.3	189.0	330.2	581.5	693.2
125°	181.3	202.8	330.2	546.2	643.5
127.5°	193.7	214.4	330.2	518.8	601.8
130°	201.2	222.8	330.2	502.7	577.5
132.5°	208.8	230.3	329.3	490.0	557.4
135°	219.1	240.6	328.1	469.9	529.3
137.5°	229.1	251.7	327.8	450.6	503.7
140°	235.8	258.4	327.0	437.1	485.3
142.5°	244.2	265.9	327.8	423.6	468.5
145°	255.7	275.2	328.1	405.4	441.3
147.5°	267.3	283.9	328.3	389.3	418.6
150°	275.7	289.0	329.1	380.0	403.5
152.5°	282.4	294.0	329.1	372.3	391.8
155°	291.4	301.6	329.1	361.9	376.3
157.5°	301.0	308.0	330.2	355.5	365.4
160°	306.0	312.2	330.2	351.3	359.5
162.5°	311.1	315.6	330.2	347.9	353.6
165°	317.6	320.7	330.2	342.8	345.9
167.5°	323.7	324.5	331.2	339.2	341.9
170°	327.0	327.0	331.2	337.5	338.5
172.5°	328.7	329.5	331.2	335.8	336.0
175°	332.3	331.2	332.3	334.3	333.3
177.5°	333.3	332.5	332.5	334.1	332.5
180°	333.3	333.3	333.3	333.3	333.3



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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	7.97	8.81	8.78	9.61	10.59	7.68	8.52	8.50	9.33	10.31
	3H	8.48	9.22	9.31	10.04	11.05	8.19	8.93	9.02	9.75	10.76
	4H	8.75	9.45	9.60	10.27	11.30	8.44	9.13	9.28	9.96	10.99
	6H	8.99	9.62	9.84	10.46	11.49	8.66	9.30	9.51	10.13	11.16
	8H	9.06	9.66	9.92	10.51	11.55	8.73	9.33	9.59	10.18	11.22
	12H	9.10	9.67	9.96	10.51	11.57	8.77	9.34	9.64	10.18	11.24
4H	2H	7.99	8.68	8.83	9.50	10.53	7.73	8.42	8.57	9.24	10.27
	3H	8.72	9.28	9.57	10.14	11.18	8.46	9.02	9.31	9.88	10.92
	4H	9.13	9.64	9.99	10.49	11.56	8.83	9.35	9.70	10.20	11.27
	6H	9.51	9.94	10.39	10.82	11.90	9.19	9.63	10.07	10.51	11.58
	8H	9.64	10.05	10.52	10.92	12.00	9.32	9.73	10.20	10.60	11.68
	12H	9.71	10.08	10.61	10.97	12.06	9.40	9.76	10.29	10.65	11.74
8H	4H	9.21	9.62	10.09	10.49	11.58	8.94	9.35	9.82	10.22	11.31
	6H	9.72	10.05	10.62	10.97	12.05	9.42	9.76	10.33	10.67	11.76
	8H	9.93	10.23	10.85	11.14	12.24	9.63	9.92	10.55	10.83	11.94
	12H	10.09	10.35	11.00	11.25	12.40	9.78	10.04	10.69	10.94	12.10
12H	4H	9.19	9.55	10.08	10.44	11.53	8.92	9.29	9.82	10.18	11.27
	6H	9.73	10.03	10.65	10.94	12.04	9.45	9.74	10.37	10.66	11.76
	8H	9.98	10.24	10.90	11.14	12.30	9.68	9.95	10.60	10.85	12.00