

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: P854349

Luminaire Tested: SQ2-WBM-050U-125D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854349
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G3-2104-222-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBM-050U-125D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

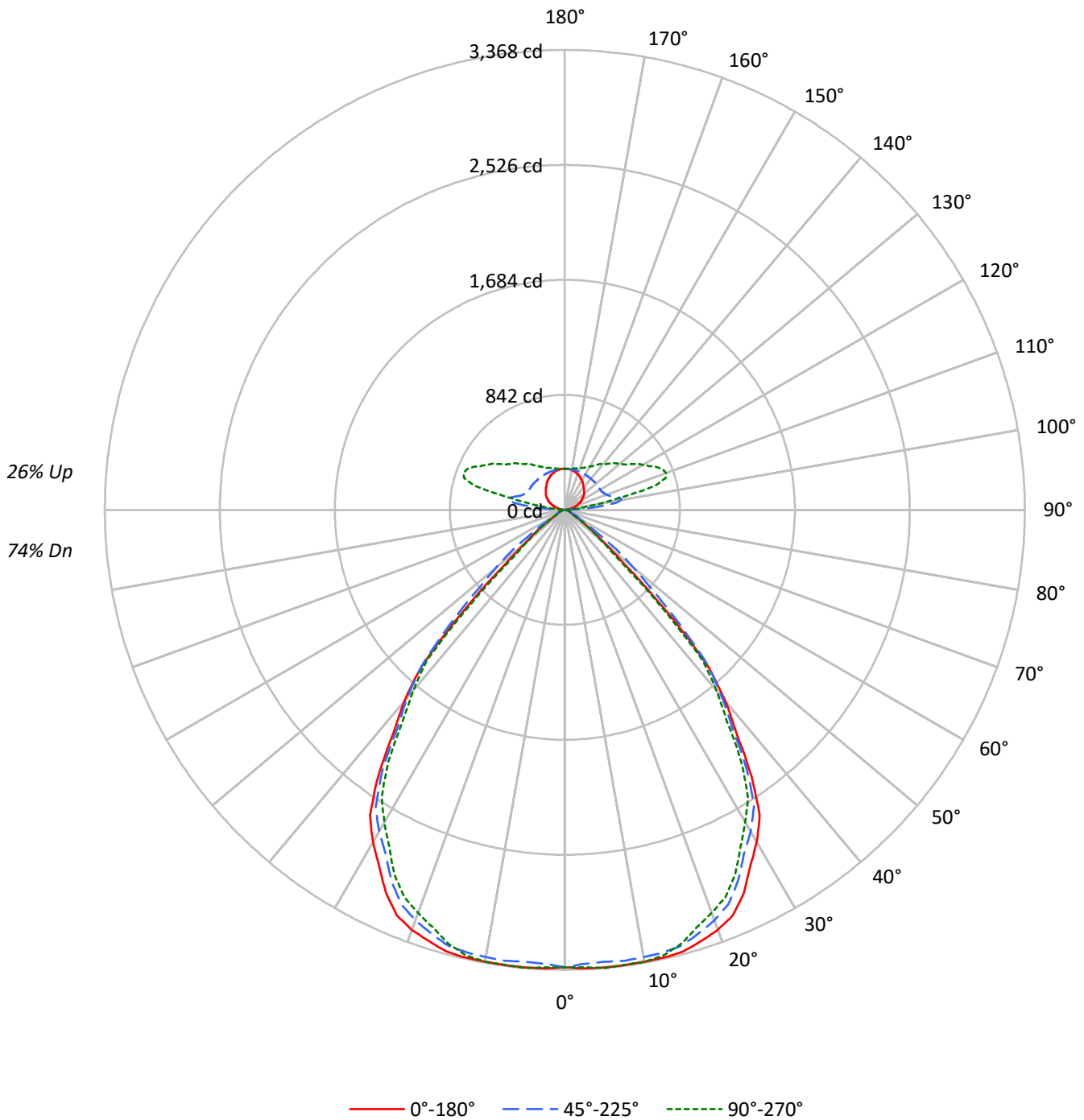
Lumens per Lamp: N/A
Luminaire Lumens: 7107.1 lumens
Efficiency: N/A
Efficacy: 110.2 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.18 / 1.17
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 64.5
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	0
RCR																		
0	113	113	113	113	107	107	107	107	96	96	96	87	87	87	78	78	78	74
1	106	102	99	96	100	97	95	92	89	87	85	80	79	78	73	72	71	67
2	99	93	88	83	94	89	84	81	81	78	75	74	72	69	68	66	64	61
3	92	84	78	73	88	81	75	71	74	70	66	68	65	62	63	60	58	55
4	86	77	70	65	82	74	68	63	68	63	59	63	59	56	58	55	53	50
5	80	70	63	58	76	67	61	56	62	57	53	58	54	51	54	50	48	45
6	75	64	57	52	71	62	55	51	58	52	48	54	49	46	50	46	44	41
7	70	59	52	47	67	57	50	46	53	48	44	50	45	42	46	43	40	38
8	65	54	47	43	63	53	46	42	49	44	40	46	42	38	43	39	37	35
9	61	50	43	39	59	49	42	38	46	40	37	43	38	35	40	36	34	32
10	58	47	40	36	55	45	39	35	43	37	34	40	36	32	38	34	31	29

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	54077	54077	54077
5°	54501	53848	54579
10°	55085	54502	55100
15°	55968	55231	55005
20°	56244	54974	53983
25°	55184	53440	52533
30°	52361	50696	49264
35°	46952	45835	44415
40°	38545	37696	36320
45°	24103	27371	21866
50°	9530	16189	8518
55°	4622	7355	4569
60°	2170	3597	1986
65°	1945	2090	1872
70°	1902	1950	1770
75°	1859	1859	1678
80°	1785	1785	1609
85°	1593	1593	1593

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 27371 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	320.0	4.5
10°-20°	935.4	13.2
20°-30°	1382.8	19.5
30°-40°	1428.9	20.1
40°-50°	859.8	12.1
50°-60°	206.6	2.9
60°-70°	56.4	0.8
70°-80°	31.4	0.4
80°-90°	10.2	0.1
90°-100°	120.3	1.7
100°-110°	381.5	5.4
110°-120°	374.1	5.3
120°-130°	304.4	4.3
130°-140°	248.2	3.5
140°-150°	193.5	2.7
150°-160°	139.4	2.0
160°-170°	85.2	1.2
170°-180°	28.8	0.4
0°-30°	2638.2	37.1
0°-40°	4067.2	57.2
0°-60°	5133.6	72.2
0°-90°	5231.7	73.6
90°-120°	875.9	12.3
90°-150°	1622.1	22.8
90°-180°	1875.0	26.4
0°-180°	7107.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3349	3349	3349	3349	3349	
5°	3363	3352	3322	3369	3368	321
15°	3348	3374	3304	3305	3291	944
25°	3098	3121	3000	2957	2949	1416
35°	2382	2376	2325	2281	2253	1466
45°	1056	1198	1199	1133	958	818
55°	164	185	261	176	162	167
65°	51	54	55	51	49	52
75°	30	32	30	29	27	31
85°	9	10	9	9	9	10
90°	0	1	3	3	3	1
95°	16	49	218	81	52	19
105°	66	93	376	716	687	70
115°	119	141	304	631	743	117
125°	164	184	299	495	583	146
135°	198	218	297	426	480	153
145°	232	249	297	367	400	145
155°	264	273	298	328	341	122
165°	288	290	299	311	313	81
175°	301	300	301	303	302	29
180°	302	302	302	302	302	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3349.3	3349.3	3349.3	3349.3	3349.3
2.5°	3361.6	3353.3	3327.0	3357.6	3352.4
5°	3362.7	3352.4	3322.4	3369.4	3367.5
7.5°	3362.2	3356.7	3331.2	3367.4	3360.1
10°	3359.9	3362.7	3324.3	3363.6	3360.8
12.5°	3358.3	3370.9	3320.5	3348.2	3340.8
15°	3348.3	3373.7	3304.2	3304.8	3290.7
17.5°	3311.8	3342.6	3252.5	3225.8	3207.9
20°	3273.4	3303.5	3199.5	3159.7	3141.8
22.5°	3213.5	3241.3	3125.7	3085.2	3070.4
25°	3097.6	3121.1	2999.7	2957.2	2948.8
27.5°	2941.5	2951.4	2839.8	2798.2	2783.8
30°	2808.5	2809.5	2719.2	2669.6	2642.4
32.5°	2654.1	2647.5	2577.8	2528.1	2494.1
35°	2382.1	2376.4	2325.4	2280.6	2253.4
37.5°	2062.4	2061.5	2012.8	1974.2	1946.8
40°	1828.8	1835.4	1788.5	1740.1	1723.2
42.5°	1549.1	1597.8	1557.9	1505.1	1494.2
45°	1055.6	1198.4	1198.7	1133.3	957.6
47.5°	603.8	757.8	862.7	667.9	495.8
50°	379.4	495.9	644.5	406.7	339.1
52.5°	269.5	326.6	477.0	286.1	253.0
55°	164.2	184.9	261.3	176.4	162.3
57.5°	99.5	118.9	151.4	118.3	99.9
60°	67.2	85.1	111.4	78.4	61.5
62.5°	59.6	66.1	87.6	61.7	55.3
65°	50.9	53.7	54.7	50.9	49.0
67.5°	45.0	46.8	45.9	44.9	42.1
70°	40.3	42.2	41.3	40.3	37.5
72.5°	35.7	37.6	36.7	35.7	33.6
75°	29.8	31.7	29.8	28.8	26.9
77.5°	23.1	24.7	23.8	23.0	21.1
80°	19.2	20.1	19.2	19.2	17.3
82.5°	15.4	15.6	14.6	14.6	13.4
85°	8.6	9.6	8.6	8.6	8.6
87.5°	3.1	3.3	3.6	3.6	2.9
90°	0.0	0.9	2.8	2.8	2.8
92.5°	5.3	21.1	67.4	22.5	15.8
95°	16.1	48.6	218.4	81.0	52.2
97.5°	30.0	63.1	370.0	231.2	141.9
100°	39.9	71.5	421.7	384.4	249.8
102.5°	50.5	80.6	412.6	564.5	432.1
105°	66.5	93.4	376.1	716.4	686.6
107.5°	82.4	107.3	341.3	732.2	772.3
110°	93.1	117.2	323.9	714.0	788.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	103.7	126.4	314.0	682.5	776.9
115°	118.7	141.0	303.9	631.2	742.7
117.5°	133.3	154.5	299.9	581.9	694.2
120°	142.5	162.9	299.2	551.4	660.0
122.5°	151.6	171.3	299.2	526.9	628.1
125°	164.3	183.8	299.2	494.9	583.1
127.5°	175.5	194.3	299.2	470.1	545.3
130°	182.3	201.8	299.2	455.5	523.3
132.5°	189.2	208.7	298.4	444.0	505.1
135°	198.5	218.0	297.3	425.7	479.6
137.5°	207.6	228.0	297.1	408.3	456.4
140°	213.7	234.1	296.3	396.1	439.7
142.5°	221.3	241.0	297.1	383.8	424.5
145°	231.7	249.4	297.3	367.3	399.8
147.5°	242.2	257.2	297.4	352.8	379.3
150°	249.8	261.8	298.2	344.3	365.6
152.5°	255.9	266.4	298.2	337.4	355.0
155°	264.0	273.3	298.2	327.9	340.9
157.5°	272.8	279.1	299.2	322.2	331.1
160°	277.3	282.9	299.2	318.3	325.8
162.5°	281.9	286.0	299.2	315.2	320.4
165°	287.8	290.5	299.2	310.6	313.4
167.5°	293.3	294.0	300.1	307.4	309.8
170°	296.3	296.3	300.1	305.8	306.8
172.5°	297.8	298.6	300.1	304.3	304.5
175°	301.1	300.1	301.1	302.9	302.0
177.5°	302.0	301.3	301.2	302.7	301.2
180°	302.0	302.0	302.0	302.0	302.0



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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	8.83	9.70	9.59	10.46	11.36	8.50	9.37	9.26	10.13	11.03
	3H	9.35	10.12	10.12	10.89	11.82	9.01	9.78	9.79	10.55	11.48
	4H	9.62	10.34	10.41	11.12	12.06	9.25	9.97	10.04	10.75	11.69
	6H	9.85	10.51	10.65	11.29	12.25	9.46	10.12	10.26	10.90	11.86
	8H	9.93	10.55	10.74	11.35	12.31	9.53	10.15	10.34	10.95	11.91
	12H	9.97	10.56	10.78	11.35	12.33	9.57	10.16	10.38	10.96	11.94
4H	2H	8.85	9.58	9.65	10.35	11.30	8.55	9.27	9.35	10.05	10.99
	3H	9.59	10.18	10.39	10.99	11.95	9.28	9.87	10.08	10.68	11.64
	4H	10.00	10.53	10.81	11.34	12.33	9.65	10.18	10.47	10.99	11.98
	6H	10.37	10.83	11.20	11.66	12.66	10.00	10.45	10.83	11.28	12.28
	8H	10.50	10.92	11.34	11.75	12.76	10.12	10.54	10.95	11.37	12.38
	12H	10.58	10.96	11.43	11.81	12.82	10.20	10.58	11.05	11.43	12.44
8H	4H	10.08	10.51	10.92	11.33	12.34	9.76	10.19	10.60	11.01	12.02
	6H	10.58	10.92	11.44	11.79	12.80	10.23	10.58	11.09	11.45	12.46
	8H	10.79	11.09	11.66	11.96	12.99	10.43	10.74	11.31	11.61	12.63
	12H	10.95	11.22	11.82	12.07	13.16	10.59	10.86	11.46	11.72	12.80
12H	4H	10.06	10.43	10.91	11.28	12.29	9.74	10.12	10.60	10.97	11.98
	6H	10.59	10.90	11.46	11.77	12.79	10.25	10.56	11.13	11.43	12.46
	8H	10.83	11.11	11.71	11.96	13.04	10.49	10.76	11.36	11.62	12.70