

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: P853593

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853593
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G3-2308-130-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBN-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

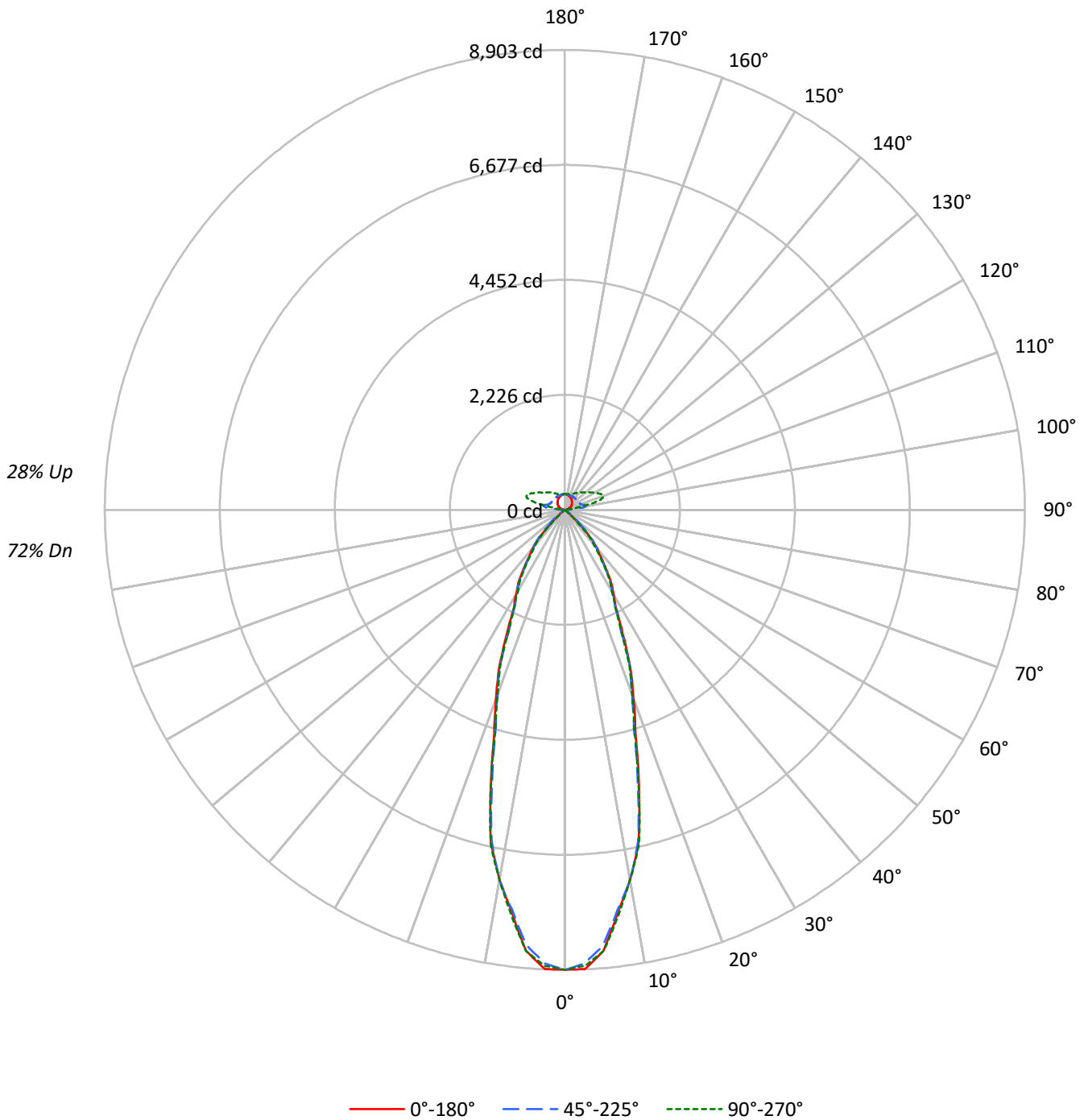
Lumens per Lamp: N/A
Luminaire Lumens: 6688.2 lumens
Efficiency: N/A
Efficacy: 103.5 lumens/watt
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.62
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 64.6
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	112	112	112	112	106	106	106	106	96	96	96	86	86	86	76	76	76	76	76	76	72	
1	106	103	100	98	101	98	96	94	89	87	86	81	79	78	73	72	71	71	71	71	68	
2	100	95	91	87	95	91	87	84	83	80	78	76	74	72	69	68	67	67	67	67	63	
3	94	88	82	78	90	84	80	76	78	74	71	71	69	67	66	64	62	62	62	62	59	
4	89	81	75	71	85	78	73	69	73	69	65	67	64	62	62	60	58	58	58	58	56	
5	84	76	70	65	81	73	68	64	68	64	60	63	60	57	59	57	54	54	54	54	52	
6	80	71	64	60	76	68	63	59	64	60	56	60	56	54	56	53	51	51	51	51	49	
7	76	66	60	56	73	64	59	55	60	56	52	57	53	50	53	50	48	48	48	48	46	
8	72	62	56	52	69	60	55	51	57	52	49	54	50	47	51	48	46	46	46	46	44	
9	68	59	53	49	66	57	52	48	54	49	46	51	47	45	48	45	43	43	43	43	42	
10	65	55	50	46	63	54	49	45	51	47	44	49	45	42	46	43	41	41	41	41	39	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	143742	143742	143742
5°	138934	137218	139012
10°	119235	119314	119235
15°	92548	91074	92334
20°	66793	65415	65360
25°	47361	45474	45560
30°	35236	34338	34010
35°	27417	26721	26152
40°	20289	19783	18531
45°	10366	12712	8353
50°	2256	7013	1653
55°	633	2846	495
60°	103	568	52
65°	0	61	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 12712 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	769.8	11.5
10°-20°	1517.7	22.7
20°-30°	1224.3	18.3
30°-40°	850.5	12.7
40°-50°	392.9	5.9
50°-60°	55.2	0.8
60°-70°	1.9	0.0
70°-80°	0.0	0.0
80°-90°	0.5	0.0
90°-100°	120.3	1.8
100°-110°	381.5	5.7
110°-120°	374.1	5.6
120°-130°	304.4	4.6
130°-140°	248.2	3.7
140°-150°	193.5	2.9
150°-160°	139.4	2.1
160°-170°	85.2	1.3
170°-180°	28.8	0.4
0°-30°	3511.9	52.5
0°-40°	4362.4	65.2
0°-60°	4810.5	71.9
0°-90°	4812.9	72.0
90°-120°	875.9	13.1
90°-150°	1622.1	24.3
90°-180°	1875.0	28.0
0°-180°	6688.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8903	8903	8903	8903	8903	
5°	8572	8527	8466	8571	8577	770
15°	5537	5607	5448	5526	5524	1524
25°	2658	2599	2553	2590	2557	1245
35°	1391	1391	1356	1332	1327	870
45°	454	542	557	505	366	367
55°	22	35	101	29	18	28
65°	0	0	2	0	0	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
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°	8902.7	8902.7	8902.7	8902.7	8902.7
2.5°	8897.6	8865.0	8787.2	8857.3	8836.0
5°	8572.2	8526.7	8466.3	8570.8	8577.0
7.5°	7854.1	7868.9	7812.7	7928.0	7915.7
10°	7272.7	7283.7	7277.5	7315.0	7272.7
12.5°	6598.8	6642.5	6560.0	6618.2	6636.1
15°	5536.7	5607.3	5448.5	5525.5	5523.9
17.5°	4540.7	4533.5	4451.5	4465.9	4461.2
20°	3887.4	3876.4	3807.2	3796.2	3804.0
22.5°	3327.8	3309.3	3284.8	3257.1	3267.5
25°	2658.5	2598.9	2552.6	2590.3	2557.4
27.5°	2133.8	2132.9	2094.7	2099.0	2105.3
30°	1890.0	1879.0	1841.8	1843.0	1824.2
32.5°	1673.1	1680.9	1635.2	1626.1	1607.3
35°	1391.0	1391.0	1355.7	1331.5	1326.8
37.5°	1129.5	1126.7	1101.6	1067.3	1055.0
40°	962.6	954.8	938.6	896.5	879.2
42.5°	772.7	793.7	778.1	735.8	709.8
45°	454.0	541.9	556.7	505.4	365.8
47.5°	195.1	291.7	371.6	242.2	126.1
50°	89.8	165.1	279.2	119.1	65.8
52.5°	52.6	90.3	207.3	69.6	41.4
55°	22.5	35.0	101.1	28.6	17.6
57.5°	8.3	15.2	38.2	12.4	6.7
60°	3.2	6.3	17.6	4.7	1.6
62.5°	0.6	2.5	8.7	2.2	0.3
65°	0.0	0.0	1.6	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.2	0.6	0.6	0.6
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4H	2H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8H	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12H	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00