

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: P853595

Luminaire Tested: SQ2-BBN-050U-125D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853595
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-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

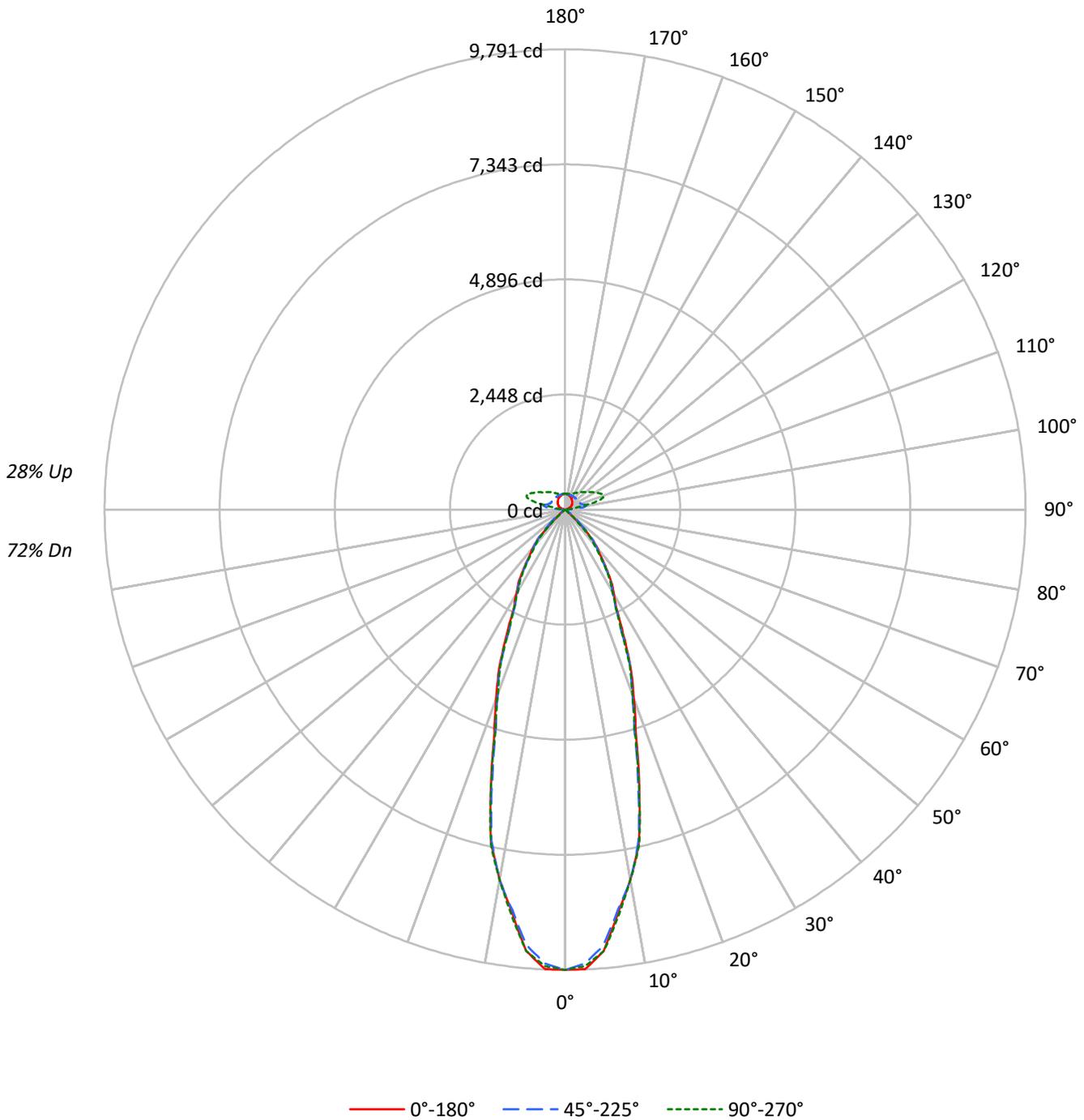
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7355.6 lumens
Efficiency: N/A
Efficacy: 113.9 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	0
RCR																		
0	112	112	112	112	106	106	106	106	96	96	96	86	86	86	76	76	76	72
1	106	103	100	98	101	98	96	94	89	87	86	81	79	78	73	72	71	68
2	100	95	91	87	95	91	87	84	83	80	78	76	74	72	69	68	67	63
3	94	88	82	78	90	84	80	76	78	74	71	71	69	67	66	64	62	59
4	89	81	75	71	85	78	73	69	73	69	65	67	64	62	62	60	58	56
5	84	76	70	65	81	73	68	64	68	64	60	63	60	57	59	57	54	52
6	80	71	64	60	76	68	63	59	64	60	56	60	56	54	56	53	51	49
7	76	66	60	56	73	64	59	55	60	56	52	57	53	50	53	50	48	46
8	72	62	56	52	69	60	55	51	57	52	49	54	50	47	51	48	46	44
9	68	59	53	49	66	57	52	48	54	49	46	51	47	45	48	45	43	42
10	65	55	50	46	63	54	49	45	51	47	44	49	45	42	46	43	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	158086	158086	158086
5°	152798	150910	152884
10°	131133	131218	131133
15°	101783	100162	101548
20°	73458	71943	71883
25°	52086	50012	50106
30°	38751	37764	37403
35°	30153	29388	28761
40°	22314	21756	20379
45°	11401	13981	9186
50°	2482	7711	1816
55°	695	3130	546
60°	113	626	58
65°	0	69	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: 13981 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	846.6	11.5
10°-20°	1669.2	22.7
20°-30°	1346.5	18.3
30°-40°	935.4	12.7
40°-50°	432.1	5.9
50°-60°	60.7	0.8
60°-70°	2.1	0.0
70°-80°	0.0	0.0
80°-90°	0.5	0.0
90°-100°	132.3	1.8
100°-110°	419.6	5.7
110°-120°	411.4	5.6
120°-130°	334.8	4.6
130°-140°	273.0	3.7
140°-150°	212.8	2.9
150°-160°	153.3	2.1
160°-170°	93.7	1.3
170°-180°	31.6	0.4
0°-30°	3862.3	52.5
0°-40°	4797.7	65.2
0°-60°	5290.5	71.9
0°-90°	5293.1	72.0
90°-120°	963.3	13.1
90°-150°	1783.9	24.3
90°-180°	2063.0	28.0
0°-180°	7355.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9791	9791	9791	9791	9791	
5°	9428	9378	9311	9426	9433	847
15°	6089	6167	5992	6077	6075	1676
25°	2924	2858	2807	2849	2813	1369
35°	1530	1530	1491	1464	1459	957
45°	499	596	612	556	402	403
55°	25	38	111	32	19	31
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°	18	54	240	89	57	21
105°	73	103	414	788	755	77
115°	131	155	334	694	817	129
125°	181	202	329	544	641	161
135°	218	240	327	468	528	169
145°	255	274	327	404	440	160
155°	290	301	328	361	375	134
165°	316	320	329	342	345	89
175°	331	330	331	333	332	31
180°	332	332	332	332	332	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9791.1	9791.1	9791.1	9791.1	9791.1
2.5°	9785.4	9749.5	9664.0	9741.1	9717.7
5°	9427.6	9377.5	9311.1	9426.0	9432.9
7.5°	8637.8	8654.0	8592.3	8719.0	8705.6
10°	7998.4	8010.4	8003.6	8044.9	7998.4
12.5°	7257.3	7305.2	7214.6	7278.5	7298.2
15°	6089.2	6166.8	5992.2	6076.8	6075.1
17.5°	4993.8	4985.9	4895.7	4911.5	4906.3
20°	4275.3	4263.2	4187.1	4174.9	4183.6
22.5°	3659.9	3639.5	3612.6	3582.1	3593.5
25°	2923.7	2858.2	2807.3	2848.8	2812.6
27.5°	2346.7	2345.7	2303.7	2308.4	2315.3
30°	2078.5	2066.5	2025.6	2026.9	2006.2
32.5°	1840.0	1848.6	1798.4	1788.4	1767.6
35°	1529.8	1529.8	1491.0	1464.4	1459.2
37.5°	1242.2	1239.1	1211.5	1173.8	1160.3
40°	1058.7	1050.1	1032.2	985.9	966.9
42.5°	849.8	872.9	855.8	809.2	780.6
45°	499.3	596.0	612.3	555.8	402.3
47.5°	214.6	320.8	408.7	266.4	138.7
50°	98.8	181.6	307.0	131.0	72.3
52.5°	57.9	99.3	228.0	76.6	45.5
55°	24.7	38.5	111.2	31.5	19.4
57.5°	9.2	16.8	42.0	13.6	7.4
60°	3.5	7.0	19.4	5.2	1.8
62.5°	0.7	2.8	9.5	2.4	0.4
65°	0.0	0.0	1.8	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	1.0	3.1	3.1	3.1
92.5°	5.8	23.2	74.2	24.7	17.3
95°	17.8	53.5	240.2	89.1	57.4
97.5°	33.0	69.4	406.9	254.3	156.0
100°	43.9	78.6	463.7	422.8	274.7
102.5°	55.6	88.7	453.7	620.9	475.2
105°	73.1	102.7	413.6	787.8	755.2
107.5°	90.7	118.0	375.4	805.2	849.4
110°	102.4	128.9	356.2	785.2	866.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	114.1	139.0	345.3	750.6	854.4
115°	130.6	155.1	334.2	694.2	816.8
117.5°	146.6	169.9	329.8	639.9	763.5
120°	156.7	179.1	329.0	606.4	725.9
122.5°	166.7	188.3	329.0	579.5	690.8
125°	180.7	202.1	329.0	544.3	641.3
127.5°	193.0	213.6	329.0	517.0	599.7
130°	200.5	222.0	329.0	501.0	575.5
132.5°	208.1	229.5	328.2	488.3	555.5
135°	218.3	239.7	326.9	468.2	527.5
137.5°	228.3	250.8	326.7	449.1	502.0
140°	235.0	257.5	325.9	435.6	483.6
142.5°	243.4	265.0	326.7	422.1	466.9
145°	254.9	274.3	326.9	404.0	439.7
147.5°	266.3	282.9	327.1	388.0	417.2
150°	274.7	288.0	328.0	378.6	402.1
152.5°	281.4	293.0	328.0	371.0	390.4
155°	290.4	300.6	328.0	360.7	375.0
157.5°	300.0	306.9	329.0	354.3	364.1
160°	305.0	311.1	329.0	350.1	358.3
162.5°	310.0	314.5	329.0	346.7	352.4
165°	316.5	319.5	329.0	341.6	344.7
167.5°	322.5	323.4	330.1	338.1	340.7
170°	325.9	325.9	330.1	336.3	337.4
172.5°	327.5	328.4	330.1	334.7	334.9
175°	331.1	330.1	331.1	333.2	332.1
177.5°	332.1	331.3	331.3	332.9	331.3
180°	332.1	332.1	332.1	332.1	332.1



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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	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