

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: P853629

Luminaire Tested: SQ2-BBN-100U-125D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853629
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G3-2308-130-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBN-100U-125D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

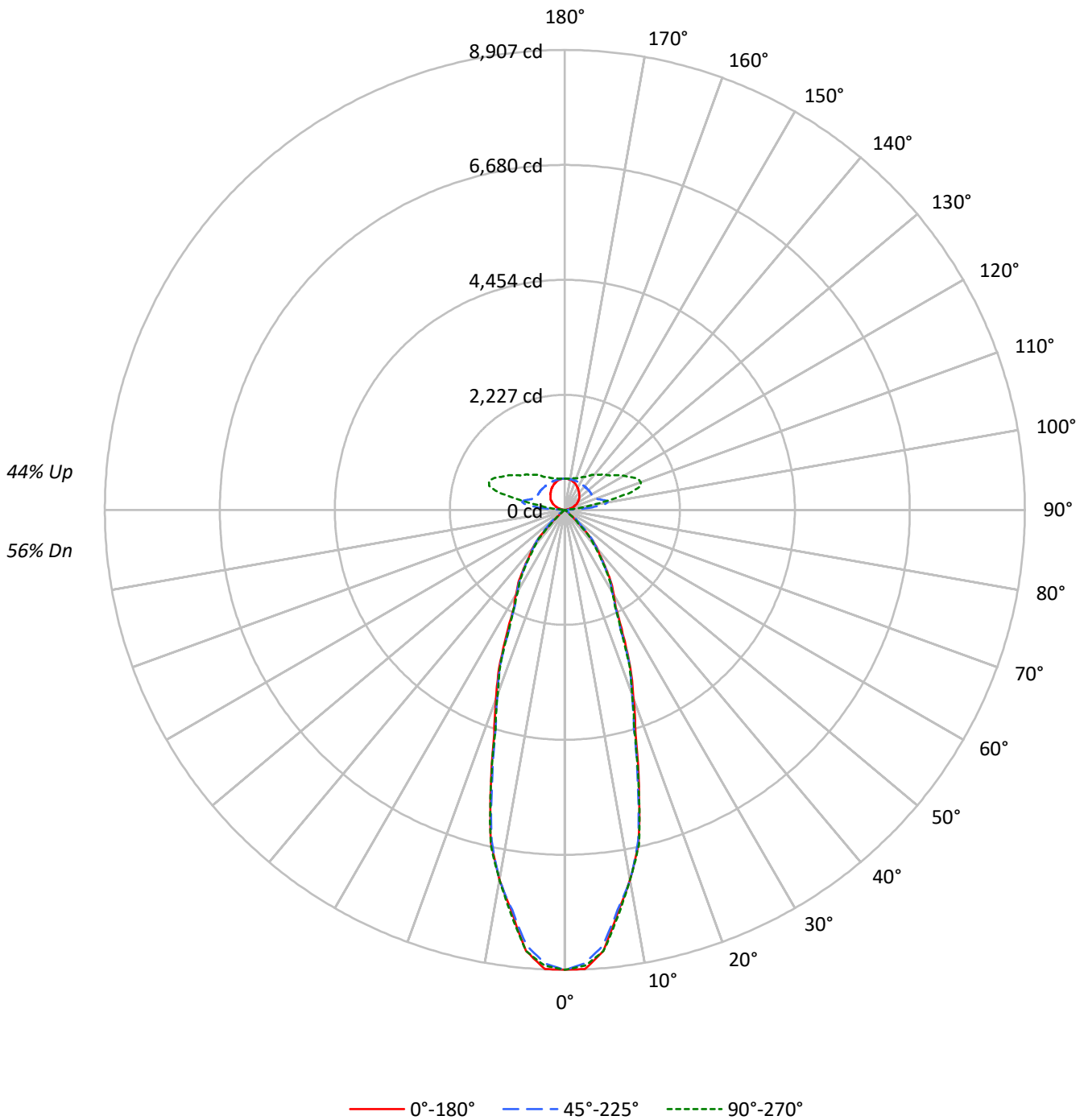
Lumens per Lamp: N/A
Luminaire Lumens: 8580.0 lumens
Efficiency: N/A
Efficacy: 104.1 lumens/watt
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.62
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 82.4
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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	56				
1	102	99	96	93	95	92	90	88	80	78	77	69	68	67	59	58	58	53				
2	95	90	85	81	89	84	80	77	74	71	69	65	63	61	56	55	53	49				
3	89	82	77	72	84	78	73	69	69	65	62	60	58	56	53	51	50	46				
4	84	76	70	65	79	72	66	62	64	60	57	57	54	52	50	48	46	43				
5	79	70	63	59	74	66	61	57	59	55	52	53	50	48	47	45	43	41				
6	74	65	58	54	70	62	56	52	56	51	48	50	47	44	45	43	41	38				
7	70	60	54	49	66	57	52	48	52	48	45	47	44	41	43	40	38	36				
8	66	56	50	46	63	54	48	44	49	45	42	45	41	39	41	38	36	34				
9	63	53	47	42	59	51	45	41	46	42	39	42	39	37	39	36	34	32				
10	60	50	44	40	56	48	42	39	44	39	37	40	37	34	37	34	32	31				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	143805	143805	143805
5°	138994	137278	139072
10°	119286	119365	119286
15°	92588	91112	92374
20°	66823	65443	65388
25°	47381	45494	45580
30°	35251	34353	34025
35°	27429	26733	26164
40°	20297	19791	18539
45°	10371	12718	8357
50°	2258	7016	1653
55°	633	2846	498
60°	103	572	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: 12718 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	770.2	9.0
10°-20°	1518.4	17.7
20°-30°	1224.9	14.3
30°-40°	850.9	9.9
40°-50°	393.1	4.6
50°-60°	55.2	0.6
60°-70°	1.9	0.0
70°-80°	0.0	0.0
80°-90°	1.4	0.0
90°-100°	252.6	2.9
100°-110°	764.0	8.9
110°-120°	745.8	8.7
120°-130°	609.5	7.1
130°-140°	497.5	5.8
140°-150°	387.3	4.5
150°-160°	279.2	3.3
160°-170°	170.9	2.0
170°-180°	57.7	0.7
0°-30°	3513.4	40.9
0°-40°	4364.3	50.9
0°-60°	4812.6	56.1
0°-90°	4815.8	56.1
90°-120°	1762.4	20.5
90°-150°	3256.6	38.0
90°-180°	3764.0	43.9
0°-180°	8580.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8907	8907	8907	8907	8907	
5°	8576	8530	8470	8574	8581	771
15°	5539	5610	5451	5528	5526	1525
25°	2660	2600	2554	2592	2558	1245
35°	1392	1392	1356	1332	1327	871
45°	454	542	557	506	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	2	11	7	6	1
95°	31	99	477	176	111	37
105°	133	187	750	1425	1354	140
115°	236	282	607	1256	1475	234
125°	330	367	598	992	1167	294
135°	396	438	594	855	962	307
145°	462	497	594	736	804	290
155°	527	545	598	660	685	243
165°	576	583	601	624	631	162
175°	603	603	604	609	607	57
180°	605	605	605	605	605	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8906.6	8906.6	8906.6	8906.6	8906.6
2.5°	8901.4	8868.8	8791.0	8861.1	8839.8
5°	8575.9	8530.4	8470.0	8574.5	8580.7
7.5°	7857.5	7872.2	7816.1	7931.4	7919.1
10°	7275.8	7286.8	7280.6	7318.2	7275.8
12.5°	6601.7	6645.3	6562.8	6621.0	6638.9
15°	5539.1	5609.7	5450.8	5527.8	5526.3
17.5°	4542.7	4535.5	4453.4	4467.8	4463.1
20°	3889.1	3878.1	3808.8	3797.8	3805.6
22.5°	3329.3	3310.7	3286.2	3258.5	3268.9
25°	2659.6	2600.0	2553.7	2591.5	2558.5
27.5°	2134.8	2133.8	2095.6	2099.9	2106.2
30°	1890.8	1879.8	1842.6	1843.8	1825.0
32.5°	1673.8	1681.6	1635.9	1626.8	1608.0
35°	1391.6	1391.6	1356.3	1332.1	1327.4
37.5°	1130.0	1127.1	1102.0	1067.7	1055.5
40°	963.0	955.2	939.0	896.8	879.6
42.5°	773.0	794.0	778.5	736.1	710.1
45°	454.2	542.1	557.0	505.6	366.0
47.5°	195.2	291.9	371.7	242.3	126.2
50°	89.9	165.2	279.3	119.2	65.8
52.5°	52.6	90.3	207.4	69.7	41.4
55°	22.5	35.0	101.1	28.6	17.7
57.5°	8.3	15.3	38.2	12.4	6.7
60°	3.2	6.3	17.7	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	0.4	2.3	1.3	1.1
90°	0.0	1.9	11.4	6.6	5.7
92.5°	10.6	42.9	154.2	51.1	36.8
95°	31.3	99.1	476.7	176.1	111.1
97.5°	60.6	126.1	751.3	497.1	302.7
100°	78.8	142.9	839.4	811.5	545.0
102.5°	99.3	161.2	821.2	1138.2	907.4
105°	132.9	186.8	750.1	1424.6	1354.1
107.5°	164.8	216.3	681.8	1453.0	1534.7
110°	186.1	235.3	647.6	1417.2	1565.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	206.6	254.3	627.1	1357.4	1545.3
115°	236.4	281.9	606.8	1255.5	1474.6
117.5°	266.1	309.1	599.5	1160.1	1384.4
120°	285.8	326.7	597.3	1104.5	1319.9
122.5°	304.0	342.7	597.3	1055.5	1254.5
125°	330.4	366.7	598.2	991.5	1167.0
127.5°	351.9	389.4	597.3	943.3	1092.9
130°	365.6	404.6	597.3	915.6	1051.1
132.5°	377.7	417.5	596.5	890.3	1015.4
135°	396.0	437.7	594.4	855.1	961.9
137.5°	416.3	456.0	594.4	817.5	916.5
140°	429.2	468.2	594.4	793.1	886.9
142.5°	442.1	479.6	593.7	770.8	852.7
145°	462.4	496.8	594.4	735.6	804.3
147.5°	482.7	511.9	595.6	706.5	759.3
150°	495.7	522.6	596.3	690.4	734.9
152.5°	507.8	531.8	597.1	676.5	712.9
155°	527.0	544.6	598.2	659.6	684.6
157.5°	543.7	558.0	599.4	647.0	664.5
160°	553.6	565.7	600.1	639.3	652.3
162.5°	563.5	572.6	600.9	632.5	643.2
165°	576.4	582.9	601.1	624.0	631.4
167.5°	587.4	590.7	602.2	617.5	620.6
170°	593.5	595.3	603.0	614.4	615.3
172.5°	597.3	598.4	603.0	611.3	611.5
175°	603.0	603.0	603.9	608.6	606.8
177.5°	605.6	604.9	604.1	606.3	604.9
180°	604.9	604.9	604.9	604.9	604.9



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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