

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: P853631

Luminaire Tested: SQ2-BBN-100U-125D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853631
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-940-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

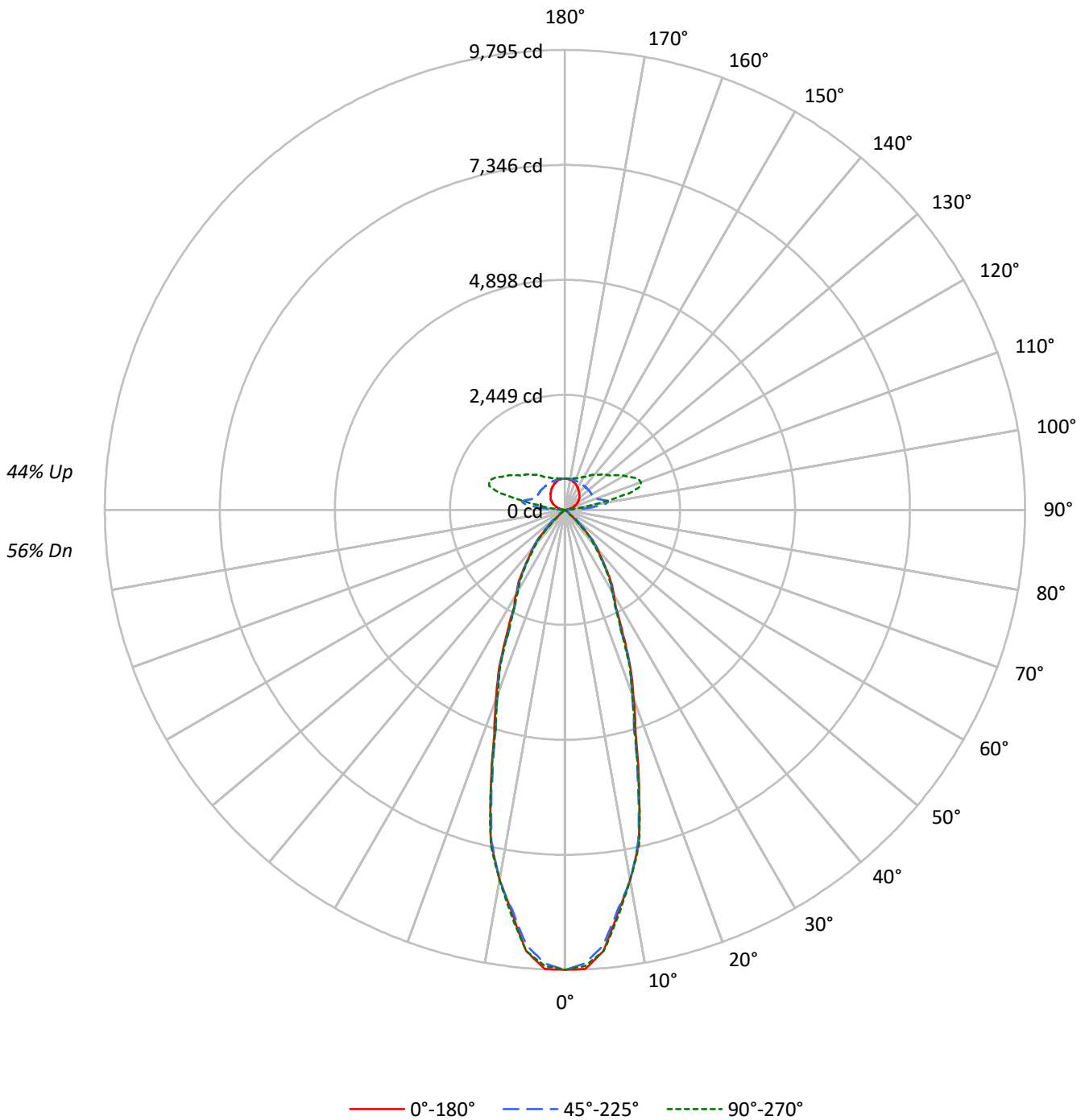
Lumens per Lamp: N/A
Luminaire Lumens: 9436.1 lumens
Efficiency: N/A
Efficacy: 114.5 lumens/watt
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.62
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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	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°	158153	158153	158153
5°	152863	150975	152949
10°	131189	131276	131189
15°	101827	100204	101591
20°	73491	71974	71914
25°	52109	50033	50128
30°	38768	37781	37420
35°	30167	29400	28773
40°	22323	21766	20388
45°	11408	13986	9191
50°	2484	7716	1819
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: 13986 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	847.0	9.0
10°-20°	1669.9	17.7
20°-30°	1347.1	14.3
30°-40°	935.8	9.9
40°-50°	432.3	4.6
50°-60°	60.7	0.6
60°-70°	2.1	0.0
70°-80°	0.0	0.0
80°-90°	1.5	0.0
90°-100°	277.8	2.9
100°-110°	840.2	8.9
110°-120°	820.3	8.7
120°-130°	670.3	7.1
130°-140°	547.1	5.8
140°-150°	425.9	4.5
150°-160°	307.0	3.3
160°-170°	187.9	2.0
170°-180°	63.5	0.7
0°-30°	3864.0	40.9
0°-40°	4799.8	50.9
0°-60°	5292.8	56.1
0°-90°	5296.4	56.1
90°-120°	1938.3	20.5
90°-150°	3581.6	38.0
90°-180°	4140.0	43.9
0°-180°	9436.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9795	9795	9795	9795	9795	
5°	9432	9382	9315	9430	9437	848
15°	6092	6170	5995	6079	6078	1677
25°	2925	2859	2808	2850	2814	1369
35°	1530	1530	1492	1465	1460	958
45°	500	596	612	556	402	404
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	2	12	7	6	2
95°	34	109	524	194	122	41
105°	146	205	825	1567	1489	154
115°	260	310	667	1381	1622	257
125°	363	403	658	1090	1283	323
135°	436	481	654	940	1058	337
145°	509	546	654	809	884	319
155°	580	599	658	725	753	267
165°	634	641	661	686	694	179
175°	663	663	664	669	667	63
180°	665	665	665	665	665	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9795.3	9795.3	9795.3	9795.3	9795.3
2.5°	9789.6	9753.7	9668.2	9745.3	9721.8
5°	9431.6	9381.6	9315.1	9430.0	9436.9
7.5°	8641.5	8657.7	8596.0	8722.8	8709.3
10°	8001.8	8013.9	8007.1	8048.4	8001.8
12.5°	7260.4	7308.4	7217.7	7281.7	7301.4
15°	6091.8	6169.5	5994.7	6079.4	6077.7
17.5°	4996.0	4988.0	4897.8	4913.6	4908.4
20°	4277.2	4265.1	4188.9	4176.7	4185.4
22.5°	3661.4	3641.1	3614.1	3583.7	3595.1
25°	2925.0	2859.4	2808.5	2850.0	2813.8
27.5°	2347.8	2346.7	2304.7	2309.4	2316.3
30°	2079.4	2067.4	2026.5	2027.8	2007.1
32.5°	1840.8	1849.4	1799.1	1789.1	1768.4
35°	1530.5	1530.5	1491.6	1465.0	1459.8
37.5°	1242.7	1239.6	1212.0	1174.3	1160.8
40°	1059.1	1050.5	1032.7	986.3	967.3
42.5°	850.1	873.3	856.1	809.6	780.9
45°	499.6	596.2	612.5	556.1	402.5
47.5°	214.7	321.0	408.8	266.5	138.7
50°	98.9	181.7	307.2	131.1	72.4
52.5°	57.9	99.3	228.1	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	0.4	2.5	1.5	1.3
90°	0.0	2.0	12.5	7.3	6.3
92.5°	11.7	47.2	169.6	56.2	40.5
95°	34.5	109.0	524.2	193.7	122.2
97.5°	66.6	138.7	826.2	546.7	332.9
100°	86.7	157.1	923.2	892.5	599.4
102.5°	109.2	177.2	903.1	1251.8	997.9
105°	146.2	205.4	825.0	1566.8	1489.2
107.5°	181.3	237.9	749.8	1597.9	1687.8
110°	204.7	258.8	712.2	1558.7	1722.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	227.2	279.7	689.7	1492.8	1699.5
115°	260.0	310.1	667.3	1380.8	1621.8
117.5°	292.6	340.0	659.4	1275.9	1522.6
120°	314.3	359.3	656.9	1214.7	1451.6
122.5°	334.4	376.9	656.9	1160.8	1379.7
125°	363.4	403.2	657.9	1090.4	1283.4
127.5°	387.0	428.3	656.9	1037.4	1202.0
130°	402.1	444.9	656.9	1007.0	1156.0
132.5°	415.4	459.1	656.0	979.1	1116.8
135°	435.5	481.4	653.7	940.4	1057.9
137.5°	457.8	501.5	653.7	899.1	1008.0
140°	472.0	514.9	653.7	872.2	975.4
142.5°	486.2	527.5	652.9	847.7	937.8
145°	508.6	546.4	653.7	809.0	884.5
147.5°	530.9	563.0	655.0	777.0	835.0
150°	545.1	574.7	655.8	759.3	808.3
152.5°	558.5	584.8	656.7	744.0	784.1
155°	579.6	599.0	657.9	725.4	752.9
157.5°	598.0	613.7	659.2	711.6	730.8
160°	608.8	622.1	660.0	703.1	717.4
162.5°	619.7	629.7	660.8	695.6	707.4
165°	633.9	641.0	661.0	686.3	694.5
167.5°	646.0	649.7	662.3	679.1	682.5
170°	652.7	654.7	663.1	675.7	676.7
172.5°	656.9	658.1	663.1	672.3	672.5
175°	663.1	663.1	664.2	669.3	667.3
177.5°	666.0	665.2	664.4	666.8	665.2
180°	665.2	665.2	665.2	665.2	665.2

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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