

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: P853630

Luminaire Tested: SQ2-BBN-100U-125D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853630
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-935-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

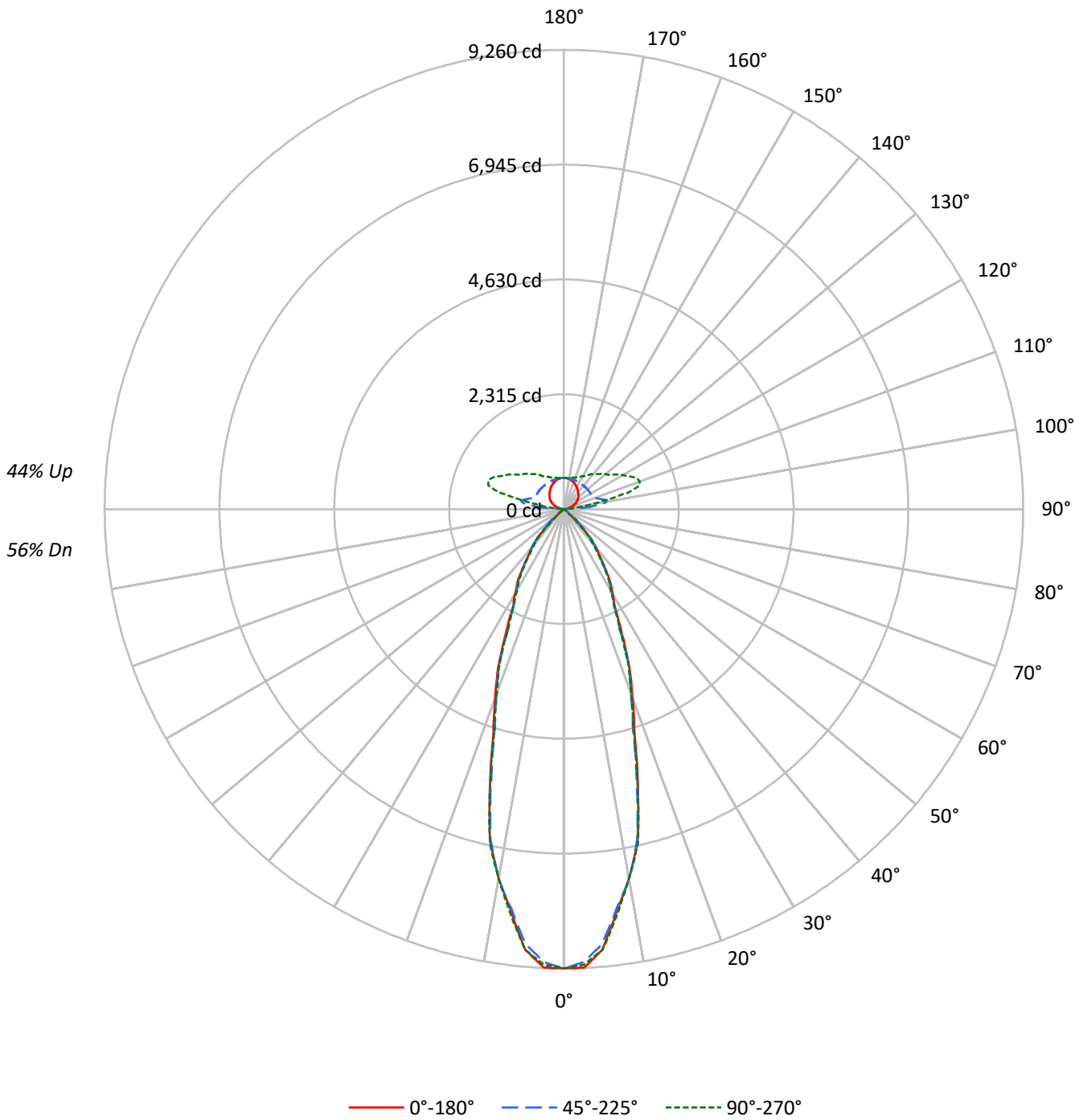
Lumens per Lamp: N/A
Luminaire Lumens: 8920.7 lumens
Efficiency: N/A
Efficacy: 108.3 lumens/watt
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.62
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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°	149515	149515	149515
5°	144516	142730	144597
10°	124024	124106	124024
15°	96266	94731	96043
20°	69477	68043	67986
25°	49264	47301	47390
30°	36651	35717	35376
35°	28519	27796	27202
40°	21104	20577	19275
45°	10784	13223	8688
50°	2349	7294	1718
55°	659	2959	518
60°	107	594	55
65°	0	65	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: 13223 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	800.7	9.0
10°-20°	1578.7	17.7
20°-30°	1273.5	14.3
30°-40°	884.7	9.9
40°-50°	408.7	4.6
50°-60°	57.4	0.6
60°-70°	2.0	0.0
70°-80°	0.0	0.0
80°-90°	1.5	0.0
90°-100°	262.6	2.9
100°-110°	794.4	8.9
110°-120°	775.4	8.7
120°-130°	633.7	7.1
130°-140°	517.2	5.8
140°-150°	402.6	4.5
150°-160°	290.3	3.3
160°-170°	177.7	2.0
170°-180°	60.0	0.7
0°-30°	3652.9	40.9
0°-40°	4537.6	50.9
0°-60°	5003.7	56.1
0°-90°	5007.1	56.1
90°-120°	1832.4	20.5
90°-150°	3386.0	38.0
90°-180°	3914.0	43.9
0°-180°	8920.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9260	9260	9260	9260	9260	
5°	8917	8869	8806	8915	8922	801
15°	5759	5833	5667	5747	5746	1585
25°	2765	2703	2655	2694	2660	1295
35°	1447	1447	1410	1385	1380	905
45°	472	564	579	526	380	381
55°	23	36	105	30	18	30
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°	33	103	496	183	116	39
105°	138	194	780	1481	1408	145
115°	246	293	631	1305	1533	243
125°	344	381	622	1031	1213	305
135°	412	455	618	889	1000	319
145°	481	516	618	765	836	301
155°	548	566	622	686	712	252
165°	599	606	625	649	656	169
175°	627	627	628	633	631	59
180°	629	629	629	629	629	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9260.3	9260.3	9260.3	9260.3	9260.3
2.5°	9255.0	9221.1	9140.2	9213.1	9190.9
5°	8916.6	8869.2	8806.4	8915.0	8921.6
7.5°	8169.6	8184.9	8126.5	8246.4	8233.7
10°	7564.8	7576.2	7569.8	7608.9	7564.8
12.5°	6863.9	6909.3	6823.5	6884.0	6902.6
15°	5759.1	5832.6	5667.3	5747.4	5745.8
17.5°	4723.1	4715.6	4630.3	4645.2	4640.3
20°	4043.6	4032.2	3960.1	3948.6	3956.8
22.5°	3461.5	3442.2	3416.8	3388.0	3398.7
25°	2765.3	2703.2	2655.1	2694.4	2660.1
27.5°	2219.5	2218.6	2178.8	2183.3	2189.8
30°	1965.9	1954.5	1915.8	1917.0	1897.5
32.5°	1740.3	1748.4	1700.9	1691.4	1671.8
35°	1446.9	1446.9	1410.2	1385.0	1380.1
37.5°	1174.9	1171.9	1145.8	1110.2	1097.4
40°	1001.3	993.1	976.3	932.5	914.5
42.5°	803.7	825.6	809.4	765.4	738.3
45°	472.3	563.7	579.1	525.7	380.5
47.5°	202.9	303.4	386.5	251.9	131.2
50°	93.5	171.8	290.4	123.9	68.4
52.5°	54.7	93.9	215.6	72.4	43.1
55°	23.4	36.4	105.1	29.8	18.4
57.5°	8.7	15.9	39.7	12.9	7.0
60°	3.3	6.6	18.4	4.9	1.7
62.5°	0.7	2.6	9.0	2.3	0.3
65°	0.0	0.0	1.7	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	2.4	1.4	1.2
90°	0.0	1.9	11.8	6.9	5.9
92.5°	11.1	44.7	160.3	53.2	38.3
95°	32.6	103.0	495.6	183.1	115.5
97.5°	63.0	131.1	781.1	516.9	314.7
100°	81.9	148.5	872.7	843.7	566.7
102.5°	103.3	167.6	853.8	1183.4	943.4
105°	138.2	194.2	779.9	1481.2	1407.8
107.5°	171.4	224.9	708.9	1510.7	1595.6
110°	193.5	244.7	673.3	1473.5	1628.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	214.8	264.4	652.0	1411.3	1606.7
115°	245.8	293.1	630.9	1305.4	1533.2
117.5°	276.6	321.4	623.4	1206.2	1439.4
120°	297.2	339.6	621.0	1148.3	1372.3
122.5°	316.1	356.3	621.0	1097.4	1304.4
125°	343.6	381.2	622.0	1030.9	1213.3
127.5°	365.9	404.9	621.0	980.7	1136.3
130°	380.1	420.6	621.0	952.0	1092.9
132.5°	392.7	434.0	620.2	925.7	1055.8
135°	411.7	455.1	618.0	889.1	1000.1
137.5°	432.8	474.1	618.0	850.0	952.9
140°	446.2	486.8	618.0	824.6	922.1
142.5°	459.7	498.7	617.2	801.4	886.6
145°	480.8	516.5	618.0	764.8	836.2
147.5°	501.9	532.2	619.2	734.6	789.4
150°	515.4	543.3	620.0	717.8	764.1
152.5°	528.0	552.9	620.8	703.4	741.2
155°	547.9	566.3	622.0	685.8	711.8
157.5°	565.3	580.2	623.2	672.7	690.9
160°	575.6	588.1	623.9	664.7	678.2
162.5°	585.8	595.3	624.7	657.6	668.8
165°	599.3	606.0	624.9	648.8	656.5
167.5°	610.7	614.2	626.1	642.0	645.3
170°	617.0	619.0	626.9	638.8	639.7
172.5°	621.0	622.1	626.9	635.6	635.8
175°	626.9	626.9	627.9	632.8	630.9
177.5°	629.7	628.9	628.1	630.4	628.9
180°	628.9	628.9	628.9	628.9	628.9



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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