

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: P853628

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

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853628  
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-100D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

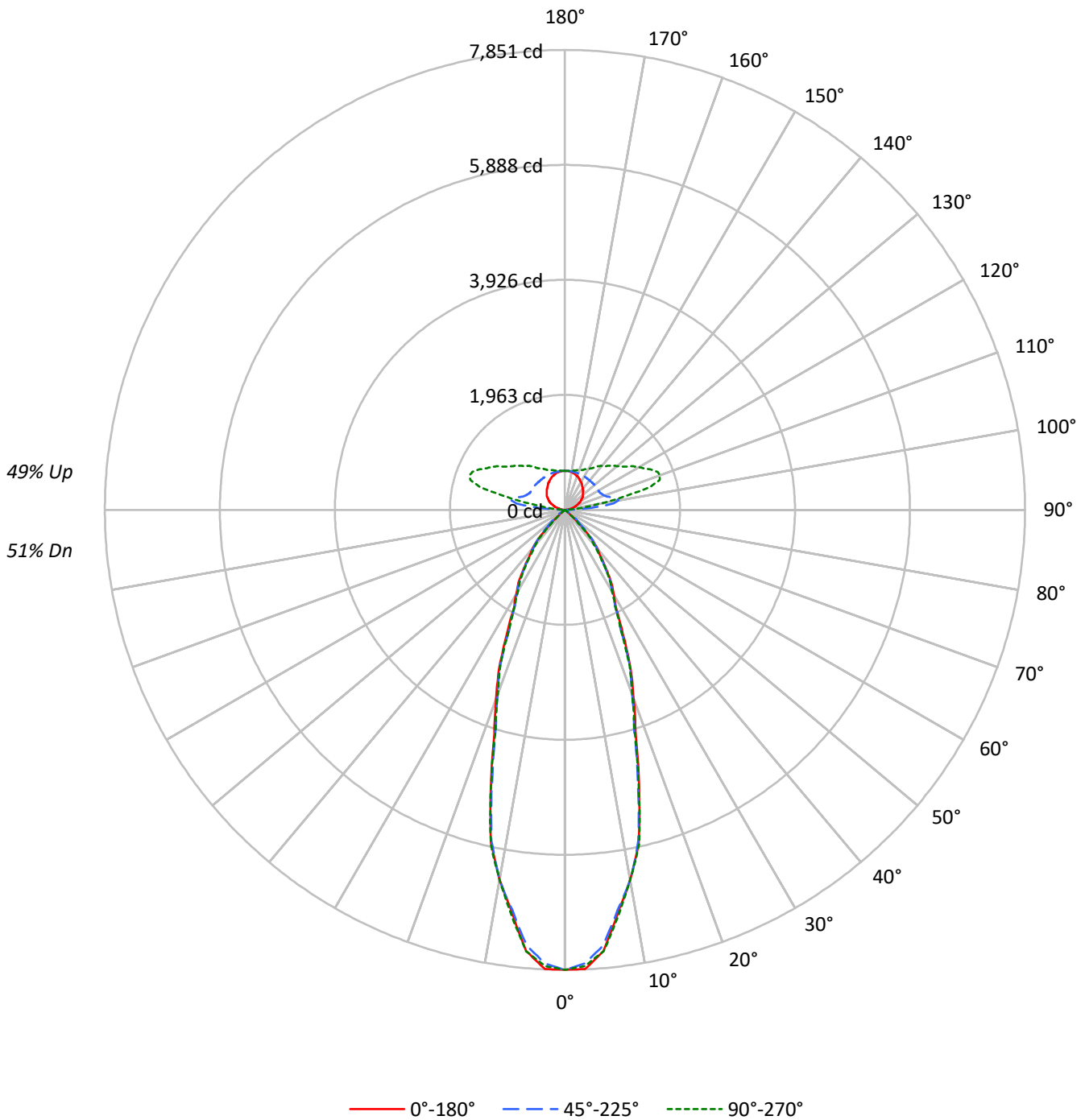
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8399.7 lumens  
Efficiency: N/A  
Efficacy: 118.8 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): 70.7  
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	107	107	107	107	99	99	99	99	84	84	84	70	70	70	57	57	57	51
1	100	97	94	91	93	90	88	85	77	75	74	65	64	63	54	53	53	48
2	94	88	83	79	87	82	78	75	71	68	66	61	59	57	51	50	49	45
3	88	80	75	70	81	75	70	66	66	62	59	57	54	52	48	47	45	42
4	82	74	67	63	76	69	64	60	61	57	54	53	50	48	46	44	42	39
5	77	68	61	57	72	64	58	54	56	52	49	50	47	44	43	41	40	37
6	72	63	56	51	68	59	53	49	53	48	45	47	43	41	41	39	37	35
7	68	58	52	47	64	55	49	45	49	45	42	44	41	38	39	37	35	33
8	64	54	48	43	60	51	46	42	46	42	39	41	38	36	37	35	33	31
9	61	51	44	40	57	48	43	39	44	39	36	39	36	34	35	33	31	29
10	58	48	41	37	54	45	40	36	41	37	34	37	34	32	33	31	29	28

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	126767	126767	126767
5°	122527	121013	122595
10°	105154	105224	105154
15°	81620	80319	81431
20°	58905	57690	57642
25°	41767	40103	40180
30°	31075	30283	29994
35°	24179	23566	23063
40°	17894	17445	16343
45°	9143	11211	7366
50°	1989	6184	1457
55°	557	2508	439
60°	90	504	45
65°	0	53	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: 11211 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	678.9	8.1
10°-20°	1338.5	15.9
20°-30°	1079.7	12.9
30°-40°	750.1	8.9
40°-50°	346.5	4.1
50°-60°	48.6	0.6
60°-70°	1.7	0.0
70°-80°	0.0	0.0
80°-90°	1.5	0.0
90°-100°	278.8	3.3
100°-110°	843.2	10.0
110°-120°	823.1	9.8
120°-130°	672.6	8.0
130°-140°	549.0	6.5
140°-150°	427.4	5.1
150°-160°	308.1	3.7
160°-170°	188.6	2.2
170°-180°	63.7	0.8
0°-30°	3097.1	36.9
0°-40°	3847.2	45.8
0°-60°	4242.4	50.5
0°-90°	4245.6	50.5
90°-120°	1945.0	23.2
90°-150°	3594.0	42.8
90°-180°	4154.0	49.5
0°-180°	8399.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	7851	7851	7851	7851	7851	
5°	7560	7520	7466	7559	7564	679
15°	4883	4945	4805	4873	4872	1344
25°	2344	2292	2251	2284	2255	1098
35°	1227	1227	1196	1174	1170	768
45°	400	478	491	446	323	323
55°	20	31	89	25	16	25
65°	0	0	1	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	2	13	7	6	2
95°	35	109	526	194	123	41
105°	147	206	828	1572	1494	154
115°	261	311	670	1386	1627	258
125°	365	405	660	1094	1288	324
135°	437	483	656	944	1062	338
145°	510	548	656	812	888	320
155°	582	601	660	728	756	268
165°	636	643	663	689	697	179
175°	665	665	666	672	670	63
180°	668	668	668	668	668	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	7851.4	7851.4	7851.4	7851.4	7851.4
2.5°	7846.9	7818.1	7749.5	7811.3	7792.5
5°	7559.9	7519.8	7466.5	7558.6	7564.1
7.5°	6926.6	6939.6	6890.1	6991.7	6980.9
10°	6413.8	6423.5	6418.1	6451.2	6413.8
12.5°	5819.6	5858.0	5785.3	5836.6	5852.4
15°	4882.9	4945.1	4805.1	4872.9	4871.6
17.5°	4004.5	3998.1	3925.8	3938.5	3934.3
20°	3428.3	3418.7	3357.6	3347.9	3354.8
22.5°	2934.8	2918.5	2896.9	2872.5	2881.6
25°	2344.5	2291.9	2251.1	2284.4	2255.4
27.5°	1881.8	1881.0	1847.3	1851.1	1856.7
30°	1666.8	1657.1	1624.3	1625.4	1608.8
32.5°	1475.5	1482.4	1442.1	1434.1	1417.5
35°	1226.7	1226.7	1195.6	1174.3	1170.1
37.5°	996.1	993.6	971.5	941.2	930.4
40°	849.0	842.0	827.7	790.6	775.4
42.5°	681.4	700.0	686.2	648.9	626.0
45°	400.4	477.9	491.0	445.7	322.6
47.5°	172.1	257.3	327.7	213.6	111.2
50°	79.2	145.6	246.2	105.0	58.0
52.5°	46.4	79.6	182.8	61.4	36.5
55°	19.8	30.9	89.1	25.2	15.6
57.5°	7.4	13.4	33.7	10.9	5.9
60°	2.8	5.6	15.6	4.2	1.4
62.5°	0.6	2.2	7.6	1.9	0.3
65°	0.0	0.0	1.4	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	12.6	7.3	6.3
92.5°	11.7	47.4	170.2	56.4	40.7
95°	34.6	109.4	526.1	194.3	122.6
97.5°	66.9	139.2	829.1	548.6	334.1
100°	87.0	157.7	926.4	895.6	601.5
102.5°	109.6	177.9	906.2	1256.1	1001.4
105°	146.7	206.1	827.9	1572.2	1494.3
107.5°	181.9	238.7	752.4	1603.5	1693.7
110°	205.4	259.7	714.7	1564.1	1728.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	228.0	280.7	692.1	1498.0	1705.4
115°	260.9	311.1	669.6	1385.6	1627.4
117.5°	293.6	341.2	661.7	1280.3	1527.9
120°	315.4	360.5	659.1	1218.9	1456.6
122.5°	335.5	378.2	659.1	1164.8	1384.5
125°	364.7	404.6	660.2	1094.2	1287.9
127.5°	388.4	429.8	659.1	1041.0	1206.2
130°	403.5	446.5	659.1	1010.5	1160.1
132.5°	416.9	460.7	658.3	982.5	1120.7
135°	437.0	483.1	656.0	943.7	1061.5
137.5°	459.4	503.3	656.0	902.2	1011.5
140°	473.7	516.7	656.0	875.3	978.8
142.5°	487.9	529.3	655.2	850.7	941.0
145°	510.3	548.3	656.0	811.8	887.6
147.5°	532.8	564.9	657.3	779.7	837.9
150°	547.0	576.7	658.1	761.9	811.1
152.5°	560.4	586.9	658.9	746.6	786.8
155°	581.6	601.1	660.2	727.9	755.6
157.5°	600.0	615.8	661.5	714.1	733.3
160°	610.9	624.3	662.3	705.6	719.9
162.5°	621.8	631.9	663.1	698.0	709.9
165°	636.1	643.3	663.3	688.7	696.9
167.5°	648.2	651.9	664.6	681.4	684.9
170°	655.0	657.0	665.4	678.0	679.1
172.5°	659.1	660.4	665.4	674.7	674.9
175°	665.4	665.4	666.5	671.7	669.6
177.5°	668.4	667.5	666.7	669.2	667.5
180°	667.5	667.5	667.5	667.5	667.5

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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