

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: P853604

Luminaire Tested: SQ2-BBN-075U-100D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853604  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G3-2308-130-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-BBN-075U-100D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 750 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

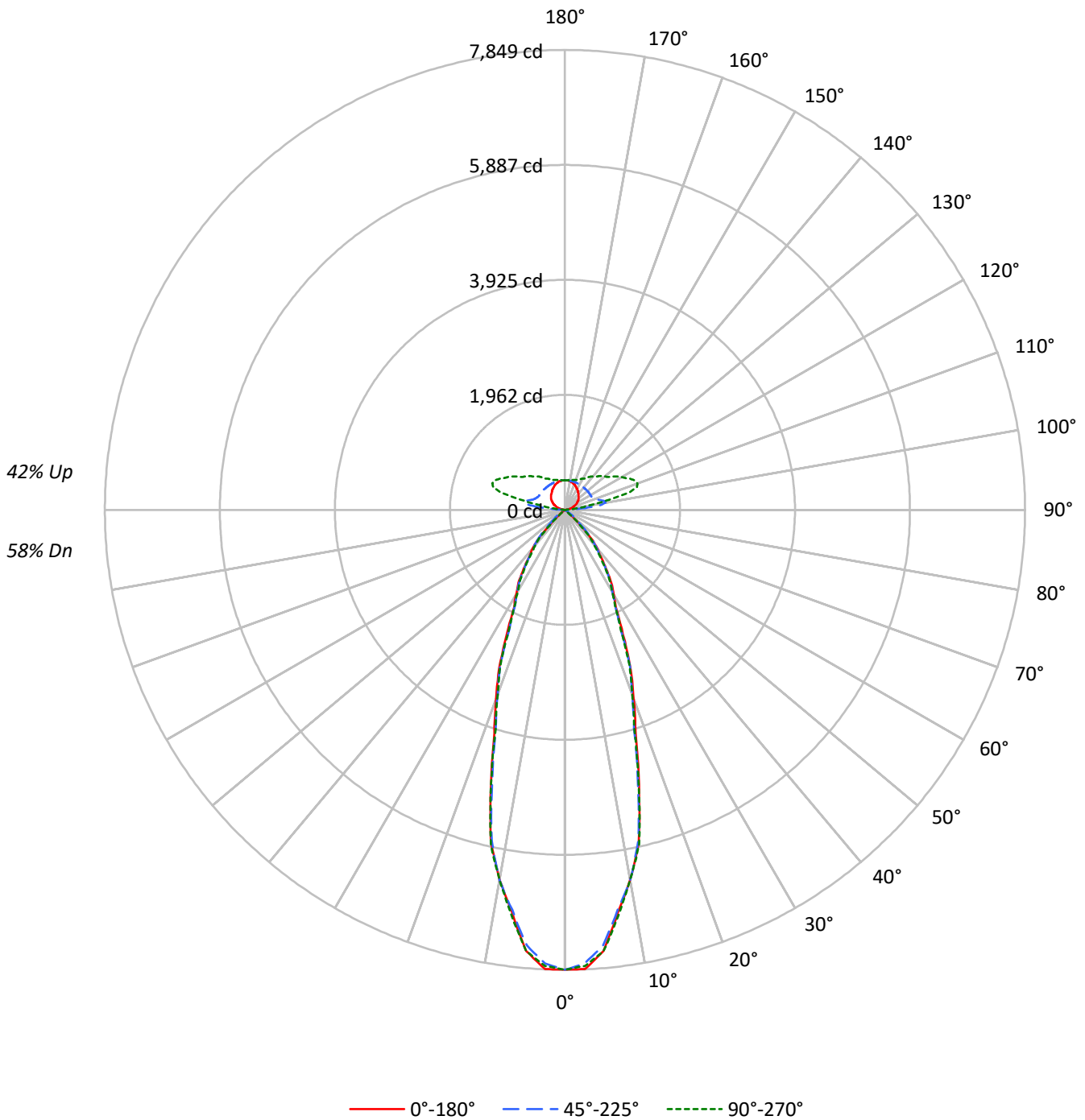
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7377.3 lumens  
Efficiency: N/A  
Efficacy: 120.2 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): 61.4  
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	88	88	88	75	75	75	63	63	63	58
1	102	99	96	94	95	93	90	88	81	79	78	70	69	68	60	59	59	54
2	96	90	86	82	90	85	81	78	75	72	70	66	64	62	57	56	55	51
3	90	83	77	73	84	78	73	69	69	66	63	61	59	57	54	52	51	47
4	84	76	70	65	79	72	67	63	65	61	58	58	55	52	51	49	47	44
5	79	70	64	59	75	67	61	57	60	56	53	54	51	49	48	46	44	42
6	75	65	59	54	70	62	57	52	56	52	49	51	48	45	46	44	42	39
7	71	61	54	50	67	58	52	48	53	48	45	48	45	42	44	41	39	37
8	67	57	51	46	63	54	49	45	50	45	42	45	42	40	41	39	37	35
9	63	53	47	43	60	51	46	42	47	43	40	43	40	37	39	37	35	33
10	60	50	44	40	57	48	43	39	44	40	37	41	38	35	38	35	33	32

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

	0°	45°	90°
0°	126724	126724	126724
5°	122487	120973	122555
10°	105119	105188	105119
15°	81591	80291	81402
20°	58886	57672	57622
25°	41753	40091	40166
30°	31064	30273	29983
35°	24171	23558	23055
40°	17888	17439	16337
45°	9140	11207	7364
50°	1989	6182	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: 11207 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	678.7	9.2
10°-20°	1338.0	18.1
20°-30°	1079.4	14.6
30°-40°	749.8	10.2
40°-50°	346.4	4.7
50°-60°	48.6	0.7
60°-70°	1.7	0.0
70°-80°	0.0	0.0
80°-90°	0.6	0.0
90°-100°	191.4	2.6
100°-110°	634.6	8.6
110°-120°	629.9	8.5
120°-130°	513.0	7.0
130°-140°	417.0	5.7
140°-150°	323.8	4.4
150°-160°	233.3	3.2
160°-170°	142.9	1.9
170°-180°	48.3	0.7
0°-30°	3096.1	42.0
0°-40°	3845.9	52.1
0°-60°	4241.0	57.5
0°-90°	4243.2	57.5
90°-120°	1456.0	19.7
90°-150°	2709.8	36.7
90°-180°	3134.0	42.5
0°-180°	7377.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	7849	7849	7849	7849	7849	
5°	7557	7517	7464	7556	7562	679
15°	4881	4944	4803	4871	4870	1344
25°	2344	2291	2250	2284	2255	1097
35°	1226	1226	1195	1174	1170	767
45°	400	478	491	446	322	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	1	3	4	4	1
95°	27	80	347	124	83	31
105°	111	158	635	1198	1120	117
115°	198	237	512	1065	1245	196
125°	277	307	502	837	986	246
135°	331	365	498	718	810	256
145°	385	413	497	618	676	241
155°	439	454	500	552	572	202
165°	482	487	502	522	527	136
175°	504	504	505	508	507	48
180°	506	506	506	506	506	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	7848.7	7848.7	7848.7	7848.7	7848.7
2.5°	7844.2	7815.4	7746.9	7808.7	7789.9
5°	7557.4	7517.2	7464.0	7556.1	7561.6
7.5°	6924.2	6937.2	6887.8	6989.4	6978.6
10°	6411.7	6421.3	6415.9	6449.0	6411.7
12.5°	5817.6	5856.0	5783.4	5834.6	5850.4
15°	4881.2	4943.5	4803.4	4871.3	4869.9
17.5°	4003.1	3996.8	3924.5	3937.1	3933.0
20°	3427.2	3417.5	3356.5	3346.7	3353.6
22.5°	2933.8	2917.5	2895.9	2871.5	2880.6
25°	2343.7	2291.2	2250.4	2283.7	2254.6
27.5°	1881.2	1880.4	1846.7	1850.5	1856.0
30°	1666.2	1656.5	1623.8	1624.8	1608.2
32.5°	1475.0	1481.9	1441.6	1433.6	1417.0
35°	1226.3	1226.3	1195.2	1173.9	1169.7
37.5°	995.8	993.3	971.2	940.9	930.1
40°	848.7	841.7	827.4	790.3	775.1
42.5°	681.2	699.7	686.0	648.7	625.7
45°	400.3	477.7	490.8	445.6	322.5
47.5°	172.0	257.2	327.6	213.5	111.2
50°	79.2	145.6	246.1	105.0	58.0
52.5°	46.4	79.6	182.7	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	0.2	0.6	0.8	0.8
90°	0.0	1.0	3.1	4.2	4.2
92.5°	8.4	32.4	95.4	30.9	26.0
95°	27.2	80.5	346.9	123.8	82.8
97.5°	50.1	105.8	605.6	353.2	223.2
100°	66.0	119.3	701.2	602.2	399.3
102.5°	83.6	135.3	695.3	920.3	695.3
105°	111.1	158.2	635.1	1198.3	1120.4
107.5°	139.2	181.2	577.5	1226.5	1285.8
110°	155.1	197.1	548.1	1198.6	1318.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	171.9	213.1	530.5	1149.0	1301.7
115°	198.1	237.0	511.5	1064.8	1245.1
117.5°	224.1	258.7	504.5	984.2	1173.4
120°	240.0	273.8	502.0	933.8	1117.2
122.5°	254.3	287.3	502.0	892.4	1061.9
125°	276.7	307.4	502.0	836.6	986.2
127.5°	295.1	325.3	500.8	794.4	922.3
130°	306.0	337.8	499.9	769.8	884.6
132.5°	316.1	348.7	499.1	749.4	852.7
135°	331.2	365.0	497.8	717.9	810.2
137.5°	347.5	380.1	496.6	687.5	768.9
140°	358.4	390.2	495.7	667.2	742.0
142.5°	368.5	399.5	496.6	646.9	713.5
145°	384.6	413.3	496.8	617.6	676.0
147.5°	402.0	426.0	497.0	592.7	636.2
150°	412.9	434.5	497.8	578.3	615.2
152.5°	423.0	443.7	498.7	566.4	595.9
155°	439.1	454.5	499.9	551.8	572.2
157.5°	454.9	466.8	501.2	541.3	555.9
160°	463.2	473.5	502.0	533.7	545.0
162.5°	471.6	479.4	502.0	528.6	537.5
165°	482.1	487.2	502.0	522.1	527.2
167.5°	491.8	494.4	503.1	516.1	518.8
170°	496.8	497.8	503.1	513.6	514.6
172.5°	500.1	501.2	503.9	511.0	511.3
175°	504.1	504.1	505.2	508.3	507.3
177.5°	506.2	506.2	505.4	507.0	505.4
180°	506.2	506.2	506.2	506.2	506.2



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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