

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: P853619

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

Issue Date: 7/12/2024

**Test Information**

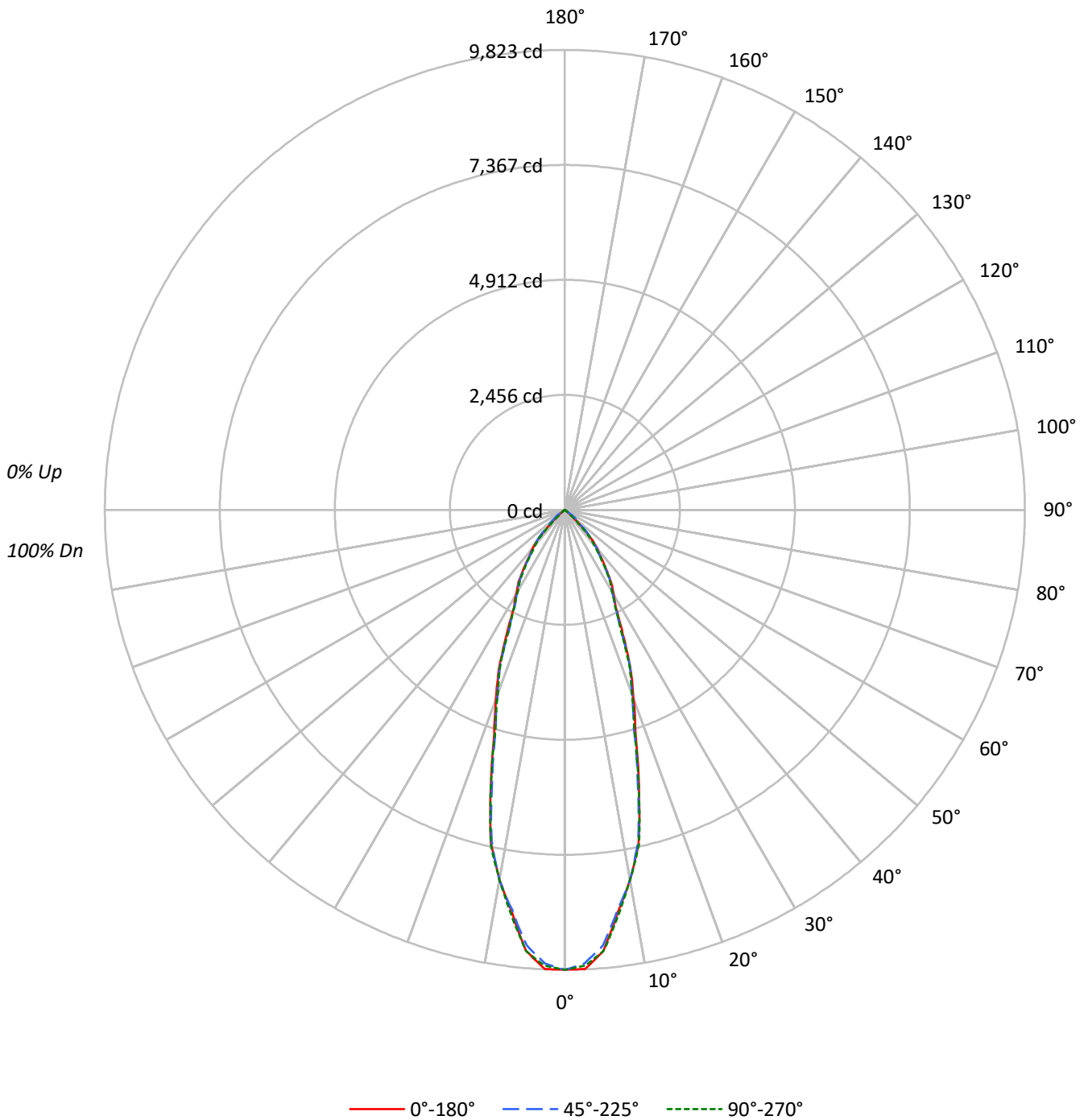
Test Method: LM-79-2019  
Report Number: P853619  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2308-130-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-BBN-125D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SURFACE LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
DIRECT ONLY  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5309.6 lumens  
Efficiency: N/A  
Efficacy: 106.6 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: Direct  
  
Input Watts (W): 49.8  
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	114	111	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96	94
2	108	104	100	97	106	102	99	96	99	96	94	96	94	92	93	91	90	88
3	103	97	93	89	101	96	92	88	93	90	87	91	88	85	89	86	84	82
4	98	91	86	82	97	90	85	82	88	84	81	86	83	80	84	81	79	77
5	94	86	80	76	92	85	80	76	83	79	75	82	78	75	80	77	74	73
6	90	81	75	71	88	80	75	71	79	74	71	77	73	70	76	73	70	68
7	85	77	71	67	84	76	71	67	75	70	66	74	69	66	72	69	66	64
8	82	73	67	63	80	72	67	63	71	66	63	70	66	62	69	65	62	61
9	78	69	63	60	77	69	63	60	68	63	59	67	62	59	66	62	59	58
10	75	66	60	57	74	65	60	57	64	60	56	64	59	56	63	59	56	55

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

	0°	45°	90°
0°	158594	158594	158594
5°	153291	151396	153377
10°	131554	131643	131554
15°	102111	100485	101875
20°	73696	72175	72115
25°	52255	50172	50267
30°	38878	37886	37524
35°	30250	29483	28854
40°	22386	21825	20445
45°	11440	14024	9216
50°	2489	7736	1824
55°	698	3139	549
60°	113	630	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: 14024 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	849.4	16.0
10°-20°	1674.6	31.5
20°-30°	1350.8	25.4
30°-40°	938.4	17.7
40°-50°	433.5	8.2
50°-60°	60.9	1.1
60°-70°	2.1	0.0
70°-80°	0.0	0.0
80°-90°	0.0	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	3874.7	73.0
0°-40°	4813.2	90.6
0°-60°	5307.5	100.0
0°-90°	5309.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5309.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	9823	9823	9823	9823	9823	
5°	9458	9408	9341	9456	9463	850
15°	6109	6187	6012	6096	6095	1682
25°	2933	2867	2816	2858	2822	1373
35°	1535	1535	1496	1469	1464	960
45°	501	598	614	558	404	405
55°	25	39	112	32	20	31
65°	0	0	2	0	0	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	9822.6	9822.6	9822.6	9822.6	9822.6
2.5°	9817.0	9781.0	9695.2	9772.5	9749.0
5°	9458.0	9407.8	9341.1	9456.4	9463.3
7.5°	8665.6	8681.9	8620.0	8747.1	8733.6
10°	8024.1	8036.3	8029.5	8070.9	8024.1
12.5°	7280.7	7328.8	7237.8	7302.0	7321.7
15°	6108.8	6186.7	6011.5	6096.4	6094.7
17.5°	5009.9	5001.9	4911.5	4927.3	4922.1
20°	4289.1	4277.0	4200.6	4188.4	4197.1
22.5°	3671.7	3651.2	3624.2	3593.7	3605.1
25°	2933.2	2867.4	2816.3	2858.0	2821.6
27.5°	2354.3	2353.3	2311.1	2315.9	2322.8
30°	2085.3	2073.1	2032.1	2033.4	2012.7
32.5°	1845.9	1854.6	1804.1	1794.1	1773.3
35°	1534.7	1534.7	1495.8	1469.1	1463.9
37.5°	1246.2	1243.1	1215.4	1177.6	1164.1
40°	1062.1	1053.4	1035.5	989.1	970.0
42.5°	852.5	875.7	858.5	811.9	783.1
45°	501.0	597.9	614.2	557.6	403.6
47.5°	215.3	321.9	410.0	267.2	139.1
50°	99.1	182.2	308.0	131.4	72.6
52.5°	58.1	99.6	228.7	76.8	45.7
55°	24.8	38.6	111.5	31.6	19.5
57.5°	9.2	16.8	42.1	13.7	7.4
60°	3.5	7.0	19.5	5.2	1.8
62.5°	0.7	2.8	9.6	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	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

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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	0.26	0.58	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.00	0.33	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.06	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	0.23	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