

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: P853532

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853532
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-3)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBM-100D-940-UNV-STD-W-4
Description: CORELITE SQ2 SURFACE LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
DIRECT ONLY
Light Source: -
Ballast/Driver: -

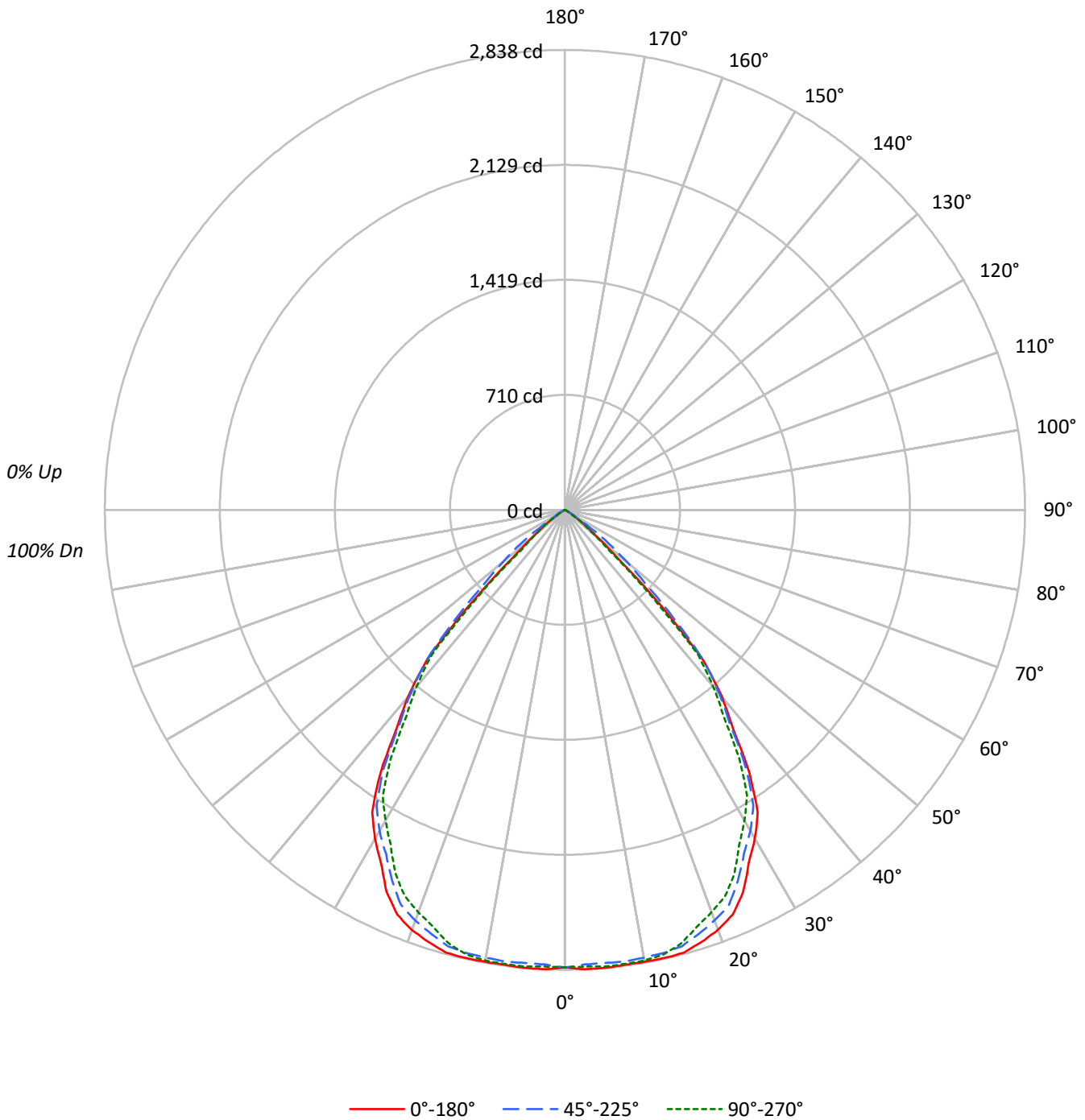
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4223.6 lumens
Efficiency: N/A
Efficacy: 110.9 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 38.1
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94	92				92
2	106	101	96	93	104	99	95	92	96	92	89	93	90	88	90	88	86	84				84
3	100	93	87	83	98	91	86	82	89	84	81	86	82	79	84	81	78	76				76
4	94	85	79	74	92	84	78	74	82	77	73	80	76	72	78	74	71	70				70
5	88	79	72	67	86	78	71	67	76	70	66	74	69	66	72	68	65	63				63
6	83	73	66	61	81	72	65	61	70	65	60	69	64	60	67	63	59	58				58
7	78	67	61	56	76	67	60	56	65	59	55	64	59	55	63	58	55	53				53
8	73	63	56	51	72	62	55	51	61	55	51	60	54	50	59	54	50	49				49
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45				45
10	65	54	48	43	64	54	48	43	53	47	43	52	47	43	51	46	43	41				41

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	45583	45583	45583
5°	45979	45483	45859
10°	46424	46009	46303
15°	47280	46589	46307
20°	47400	46345	45400
25°	46337	44961	44076
30°	43682	42636	41275
35°	39133	38445	36902
40°	31748	31213	29986
45°	19322	21907	17342
50°	6164	12381	5632
55°	2145	4495	2204
60°	171	1298	36
65°	0	80	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: 21907 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	269.8	6.4
10°-20°	789.0	18.7
20°-30°	1162.9	27.5
30°-40°	1190.9	28.2
40°-50°	686.2	16.2
50°-60°	120.2	2.8
60°-70°	4.6	0.1
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°	2221.7	52.6
0°-40°	3412.6	80.8
0°-60°	4219.0	99.9
0°-90°	4223.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4223.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2823	2823	2823	2823	2823	
5°	2837	2831	2806	2840	2830	270
15°	2828	2851	2787	2787	2770	796
25°	2601	2621	2524	2501	2474	1187
35°	1985	1974	1950	1903	1872	1218
45°	846	946	959	912	760	648
55°	76	92	160	86	78	85
65°	0	1	2	1	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°	2823.2	2823.2	2823.2	2823.2	2823.2
2.5°	2837.6	2830.1	2807.9	2830.6	2820.6
5°	2836.9	2830.7	2806.3	2839.9	2829.5
7.5°	2831.6	2830.2	2811.3	2837.7	2825.9
10°	2831.6	2836.8	2806.3	2833.5	2824.2
12.5°	2833.3	2845.1	2801.2	2822.5	2809.0
15°	2828.5	2851.2	2787.2	2786.8	2770.3
17.5°	2796.7	2823.6	2743.0	2721.1	2699.0
20°	2758.7	2789.7	2697.3	2666.1	2642.3
22.5°	2703.7	2733.9	2639.8	2604.3	2580.5
25°	2601.0	2620.7	2523.8	2501.0	2474.1
27.5°	2455.5	2467.1	2391.8	2352.3	2328.1
30°	2343.0	2351.2	2286.9	2243.9	2213.9
32.5°	2212.6	2209.3	2162.5	2118.7	2090.4
35°	1985.4	1974.1	1950.5	1903.3	1872.2
37.5°	1706.0	1703.9	1680.6	1639.6	1607.2
40°	1506.3	1504.2	1480.9	1444.4	1422.7
42.5°	1264.2	1303.5	1276.1	1231.4	1217.9
45°	846.2	946.5	959.4	911.5	759.5
47.5°	436.6	570.7	668.1	520.4	360.5
50°	245.4	344.7	492.9	279.1	224.2
52.5°	159.9	207.9	344.0	178.1	150.6
55°	76.2	91.7	159.7	86.5	78.3
57.5°	27.3	42.2	69.8	42.8	26.4
60°	5.3	17.7	40.2	12.4	1.1
62.5°	1.9	5.2	23.3	3.3	1.1
65°	0.0	1.0	2.1	1.0	0.0
67.5°	0.0	0.8	0.8	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	5.34	6.47	5.70	6.78	7.10	4.80	5.94	5.17	6.25	6.56
	3H	5.17	6.16	5.55	6.49	6.86	4.64	5.63	5.02	5.96	6.33
	4H	5.08	6.00	5.49	6.35	6.74	4.55	5.46	4.95	5.81	6.20
	6H	4.99	5.82	5.40	6.20	6.59	4.45	5.29	4.87	5.66	6.06
	8H	4.93	5.72	5.37	6.11	6.52	4.40	5.19	4.83	5.58	5.99
	12H	4.88	5.63	5.32	6.02	6.45	4.35	5.10	4.78	5.48	5.91
4H	2H	5.09	6.01	5.50	6.36	6.75	4.56	5.47	4.96	5.83	6.21
	3H	4.92	5.65	5.33	6.06	6.47	4.38	5.12	4.80	5.53	5.93
	4H	4.81	5.46	5.25	5.88	6.33	4.27	4.93	4.71	5.35	5.80
	6H	4.71	5.27	5.18	5.72	6.19	4.17	4.73	4.64	5.18	5.65
	8H	4.64	5.16	5.11	5.61	6.08	4.11	4.63	4.58	5.08	5.55
	12H	4.58	5.03	5.07	5.52	6.00	4.05	4.50	4.54	4.99	5.46
8H	4H	4.64	5.16	5.11	5.61	6.08	4.11	4.63	4.58	5.08	5.55
	6H	4.52	4.94	5.03	5.44	5.92	3.98	4.40	4.49	4.91	5.39
	8H	4.44	4.82	4.97	5.34	5.84	3.91	4.29	4.44	4.81	5.30
	12H	4.39	4.72	4.91	5.22	5.80	3.85	4.19	4.37	4.69	5.26
12H	4H	4.58	5.03	5.07	5.52	6.00	4.05	4.50	4.54	4.99	5.46
	6H	4.44	4.82	4.97	5.34	5.84	3.91	4.29	4.44	4.81	5.30
	8H	4.39	4.72	4.91	5.22	5.80	3.85	4.19	4.37	4.69	5.26