

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: P845453

Luminaire Tested: SQ2R-BBM-100D-940-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845453
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P559649)
Test Lab: INNOVATION CENTER
Issue Date: 6/14/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2R-BBM-100D-940-UNV-STD-W-4
Description: CONTINUA SQ2 RECESSED, DISCREET OPTICS - BLACK BAFFLE, WIDE 80-DEGREE OPTIC
1000 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

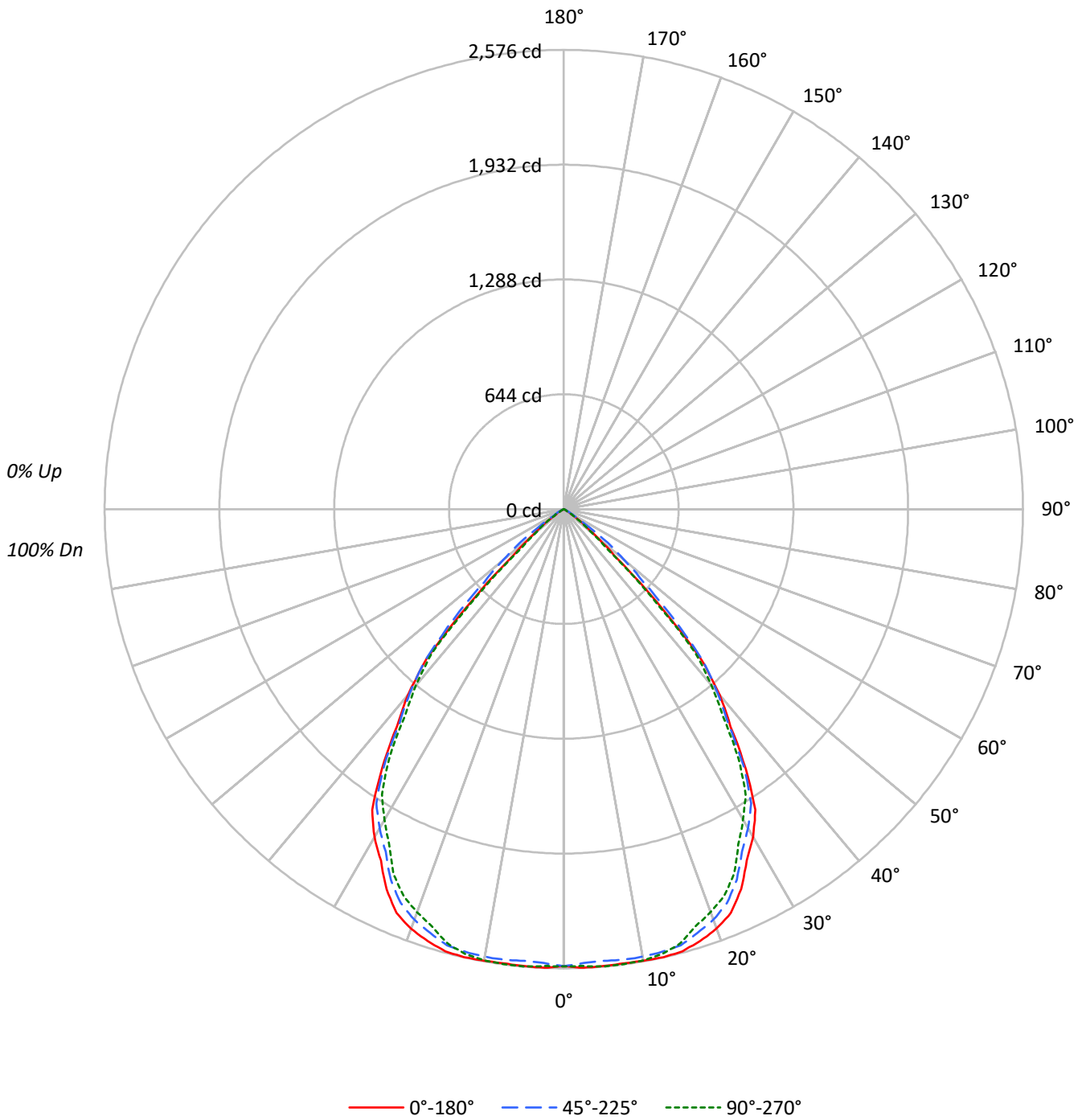
Lumens per Lamp: N/A
Luminaire Lumens: 3828.0 lumens
Efficiency: N/A
Efficacy: 109.7 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 34.9
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	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94	92
2	106	101	96	93	104	99	95	92	96	92	90	93	90	88	90	88	86	84
3	100	93	87	83	98	91	86	82	89	84	81	86	82	79	84	81	78	76
4	94	85	79	74	92	84	78	74	82	77	73	80	76	72	78	74	71	70
5	88	79	72	67	86	78	72	67	76	70	66	74	69	66	72	68	65	63
6	83	73	66	61	81	72	65	61	70	65	60	69	64	60	67	63	60	58
7	78	67	61	56	76	67	60	56	65	59	55	64	59	55	63	58	55	53
8	73	63	56	51	72	62	55	51	61	55	51	60	54	51	59	54	50	49
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45
10	65	54	48	43	64	54	48	43	53	47	43	52	47	43	51	47	43	42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	41400	41400	41400
5°	41681	41217	41744
10°	42163	41789	42132
15°	42923	42350	42160
20°	43041	42123	41338
25°	41910	40891	40246
30°	39593	38527	37498
35°	35096	34682	33705
40°	28650	28247	27122
45°	16890	19936	15714
50°	5699	11110	5076
55°	1931	3972	2038
60°	184	1169	61
65°	0	73	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: 19936 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	245.0	6.4
10°-20°	717.2	18.7
20°-30°	1055.4	27.6
30°-40°	1078.3	28.2
40°-50°	619.9	16.2
50°-60°	108.4	2.8
60°-70°	3.9	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°	2017.5	52.7
0°-40°	3095.8	80.9
0°-60°	3824.1	99.9
0°-90°	3828.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3828.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2564	2564	2564	2564	2564	
5°	2572	2566	2543	2579	2576	245
15°	2568	2590	2534	2535	2522	723
25°	2352	2373	2295	2270	2259	1075
35°	1781	1790	1760	1731	1710	1099
45°	740	861	873	828	688	578
55°	69	82	141	80	72	78
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°	2564.1	2564.1	2564.1	2564.1	2564.1
2.5°	2574.8	2568.9	2548.9	2571.5	2565.6
5°	2571.7	2566.2	2543.1	2579.4	2575.6
7.5°	2570.2	2565.8	2550.4	2581.8	2574.4
10°	2571.7	2571.7	2548.9	2577.3	2569.8
12.5°	2574.8	2582.2	2544.3	2566.6	2556.1
15°	2567.9	2590.2	2533.6	2535.1	2522.2
17.5°	2540.1	2570.2	2492.8	2474.5	2454.7
20°	2505.0	2536.7	2451.6	2422.7	2405.9
22.5°	2451.6	2481.8	2392.2	2367.8	2349.5
25°	2352.5	2373.1	2295.3	2270.3	2259.1
27.5°	2222.9	2233.4	2165.7	2139.7	2121.1
30°	2123.7	2123.7	2066.5	2037.4	2011.3
32.5°	2000.2	1994.3	1956.7	1923.0	1898.4
35°	1780.6	1789.9	1759.6	1730.6	1710.0
37.5°	1537.7	1546.7	1515.6	1482.4	1468.3
40°	1359.3	1366.7	1340.2	1305.5	1286.8
42.5°	1139.6	1179.9	1155.7	1117.7	1093.1
45°	739.7	860.9	873.1	828.0	688.2
47.5°	385.5	512.3	605.5	462.5	324.1
50°	226.9	308.8	442.3	252.4	202.1
52.5°	146.0	181.9	311.1	161.5	136.5
55°	68.6	81.6	141.1	79.9	72.4
57.5°	25.5	38.1	63.7	38.7	27.8
60°	5.7	17.0	36.2	11.2	1.9
62.5°	1.1	5.0	21.0	2.3	0.4
65°	0.0	0.0	1.9	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	4.97	6.10	5.34	6.41	6.73	4.56	5.69	4.92	6.00	6.32
	3H	4.80	5.79	5.18	6.12	6.49	4.39	5.38	4.77	5.71	6.08
	4H	4.71	5.63	5.12	5.98	6.37	4.30	5.22	4.71	5.57	5.96
	6H	4.62	5.45	5.03	5.83	6.22	4.21	5.04	4.62	5.41	5.81
	8H	4.57	5.35	5.00	5.74	6.15	4.15	4.94	4.59	5.33	5.74
	12H	4.51	5.26	4.95	5.65	6.08	4.10	4.85	4.54	5.24	5.67
4H	2H	4.72	5.64	5.13	5.99	6.38	4.31	5.23	4.72	5.58	5.97
	3H	4.55	5.28	4.96	5.69	6.10	4.14	4.87	4.55	5.28	5.69
	4H	4.44	5.09	4.88	5.51	5.96	4.03	4.68	4.47	5.10	5.55
	6H	4.34	4.90	4.81	5.35	5.82	3.93	4.49	4.40	4.94	5.41
	8H	4.27	4.79	4.74	5.24	5.71	3.86	4.38	4.33	4.83	5.30
	12H	4.21	4.66	4.70	5.15	5.63	3.80	4.25	4.29	4.74	5.22
8H	4H	4.27	4.79	4.74	5.24	5.71	3.86	4.38	4.33	4.83	5.30
	6H	4.15	4.57	4.66	5.07	5.55	3.74	4.16	4.25	4.66	5.14
	8H	4.07	4.45	4.60	4.97	5.47	3.66	4.04	4.19	4.56	5.06
	12H	4.02	4.35	4.54	4.85	5.43	3.61	3.94	4.13	4.44	5.02
12H	4H	4.21	4.66	4.70	5.15	5.63	3.80	4.25	4.29	4.74	5.22
	6H	4.07	4.45	4.60	4.97	5.47	3.66	4.04	4.19	4.56	5.06
	8H	4.02	4.35	4.54	4.85	5.43	3.61	3.94	4.13	4.44	5.02