

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: P845531

Luminaire Tested: SQ2R-FB-100D-840-UNV-STD-W-4

Issue Date: 6/14/2024

**Test Information**

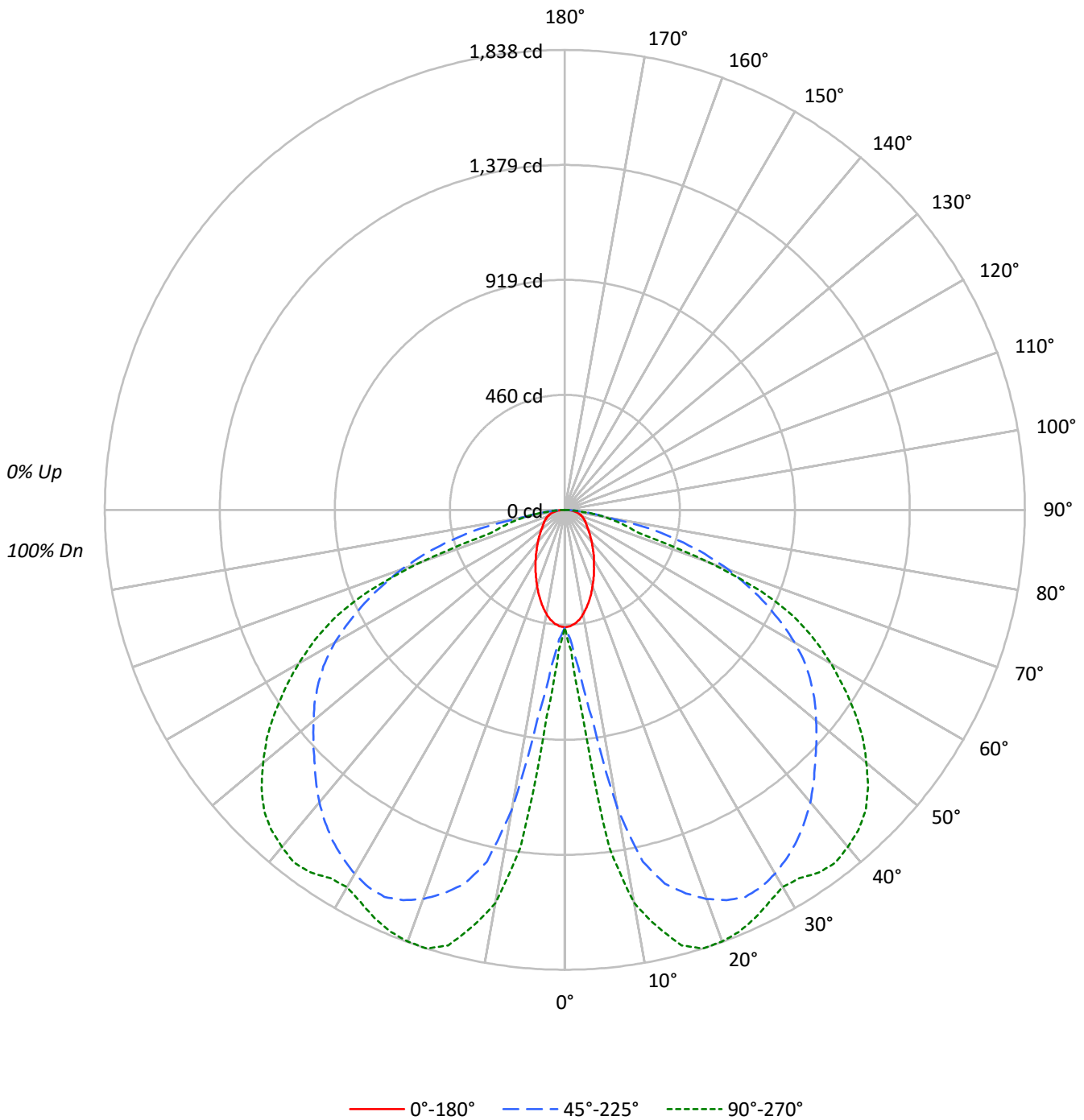
Test Method: LM-79-2019  
Report Number: P845531  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/14/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2R-FB-100D-840-UNV-STD-W-4  
Description: CONTINUA SQ2 RECESSED, BATWING LENS  
1000 LUMENS PER FOOT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4655.8 lumens  
Efficiency: N/A  
Efficacy: 123.8 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 2.99 / 2.56  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 37.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: 0.9969  
Total Harmonic Distortion (THDi): 0.066  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: 3 HR  
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	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84				84
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69				69
3	89	78	70	63	87	77	69	63	74	67	62	71	65	60	68	64	59	57				57
4	81	69	60	53	79	67	59	52	65	58	52	63	56	51	60	55	50	48				48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41				41
6	68	54	45	39	66	53	45	38	52	44	38	50	43	38	48	42	37	35				35
7	63	49	40	34	61	48	40	33	47	39	33	45	38	33	44	37	33	31				31
8	58	44	36	30	57	44	35	29	42	35	29	41	34	29	40	34	29	27				27
9	54	40	32	26	53	40	32	26	39	31	26	38	31	26	37	30	26	24				24
10	51	37	29	23	49	37	29	23	36	28	23	35	28	23	34	28	23	21				21

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

	0°	45°	90°
0°	7592	7592	7592
5°	7400	10258	13446
10°	6930	19864	26163
15°	6272	25844	30113
20°	5553	28429	31536
25°	4913	30403	32054
30°	4340	31312	32449
35°	3877	31856	34885
40°	3526	32159	37066
45°	3252	32310	38813
50°	3067	32930	39516
55°	2989	33788	39831
60°	3064	34232	39635
65°	3194	33765	38514
70°	3309	32653	29132
75°	3668	29332	16076
80°	3784	15128	14923
85°	3761	10467	6280

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 55°  
 Luminance: 39831 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.4	1.7
10°-20°	360.9	7.8
20°-30°	635.3	13.6
30°-40°	821.6	17.6
40°-50°	906.2	19.5
50°-60°	845.3	18.2
60°-70°	654.1	14.1
70°-80°	299.0	6.4
80°-90°	55.9	1.2
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°	1073.6	23.1
0°-40°	1895.2	40.7
0°-60°	3646.8	78.3
0°-90°	4655.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4655.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	470	470	470	470	470	
5°	457	524	633	771	830	43
15°	375	748	1546	1729	1802	105
25°	276	1010	1707	1781	1799	127
35°	197	976	1616	1670	1770	124
45°	142	748	1415	1623	1700	110
55°	106	445	1200	1379	1415	96
65°	84	251	884	990	1008	82
75°	59	154	470	253	258	61
85°	20	45	56	38	34	22
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	470.2	470.2	470.2	470.2	470.2
2.5°	465.6	490.5	517.6	549.3	562.8
5°	456.6	524.4	632.9	770.8	829.6
7.5°	443.0	567.4	847.6	1229.6	1360.7
10°	422.7	614.8	1211.6	1532.5	1595.8
12.5°	400.1	678.1	1439.9	1641.0	1706.6
15°	375.2	748.2	1546.1	1729.2	1801.5
17.5°	350.4	825.0	1607.1	1794.7	1837.7
20°	323.2	906.4	1654.6	1810.6	1835.4
22.5°	298.4	967.4	1688.5	1797.0	1824.1
25°	275.8	1010.4	1706.6	1781.2	1799.3
27.5°	253.2	1026.2	1699.8	1751.8	1767.6
30°	232.8	1021.7	1679.5	1715.6	1740.5
32.5°	214.7	1008.1	1650.1	1684.0	1745.0
35°	196.7	976.5	1616.2	1670.4	1769.9
37.5°	180.8	931.3	1573.2	1677.2	1776.7
40°	167.3	879.3	1525.8	1677.2	1758.6
42.5°	153.7	818.3	1471.5	1654.6	1736.0
45°	142.4	748.2	1415.0	1622.9	1699.8
47.5°	131.1	671.3	1363.0	1584.5	1643.3
50°	122.1	592.2	1311.0	1528.0	1573.2
52.5°	113.0	515.4	1259.0	1460.2	1500.9
55°	106.2	445.3	1200.3	1378.8	1415.0
57.5°	99.5	382.0	1137.0	1292.9	1322.3
60°	94.9	332.3	1060.1	1198.0	1227.4
62.5°	88.2	287.1	974.2	1098.5	1125.7
65°	83.6	250.9	883.8	990.0	1008.1
67.5°	76.9	221.5	788.9	865.7	847.6
70°	70.1	201.2	691.7	714.3	617.1
72.5°	65.6	178.6	585.4	517.6	311.9
75°	58.8	153.7	470.2	253.2	257.7
77.5°	49.7	124.3	345.8	203.4	208.0
80°	40.7	97.2	162.7	158.2	160.5
82.5°	31.6	70.1	99.5	106.2	101.7
85°	20.3	45.2	56.5	38.4	33.9
87.5°	9.0	20.3	11.3	11.3	11.3
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	17.94	19.62	18.30	19.94	20.25	26.59	28.28	26.96	28.59	28.91
	3H	18.73	20.25	19.10	20.58	20.94	28.28	29.80	28.65	30.13	30.49
	4H	19.06	20.50	19.46	20.84	21.22	28.50	29.93	28.89	30.28	30.65
	6H	19.32	20.65	19.73	21.01	21.40	28.62	29.95	29.03	30.32	30.71
	8H	19.40	20.67	19.82	21.06	21.45	28.65	29.92	29.07	30.31	30.71
	12H	19.45	20.67	19.88	21.05	21.48	28.65	29.87	29.08	30.25	30.68
4H	2H	22.37	23.81	22.77	24.16	24.53	27.13	28.57	27.53	28.91	29.29
	3H	23.39	24.59	23.80	24.99	25.38	29.04	30.24	29.45	30.63	31.03
	4H	23.71	24.79	24.14	25.21	25.64	29.31	30.39	29.74	30.81	31.24
	6H	23.89	24.84	24.34	25.28	25.73	29.50	30.45	29.96	30.89	31.34
	8H	23.93	24.82	24.39	25.26	25.72	29.55	30.43	30.01	30.88	31.34
	12H	23.97	24.76	24.45	25.23	25.70	29.56	30.36	30.04	30.83	31.30
8H	4H	24.95	25.83	25.41	26.27	26.74	29.50	30.38	29.96	30.82	31.29
	6H	25.23	25.96	25.72	26.44	26.92	29.74	30.47	30.23	30.96	31.44
	8H	25.31	25.96	25.82	26.47	26.95	29.81	30.47	30.32	30.97	31.46
	12H	25.37	25.95	25.88	26.44	27.00	29.85	30.42	30.35	30.91	31.47
12H	4H	25.00	25.80	25.48	26.27	26.74	29.49	30.28	29.97	30.76	31.23
	6H	25.33	25.98	25.84	26.49	26.97	29.73	30.39	30.24	30.90	31.38
	8H	25.47	26.05	25.98	26.54	27.10	29.84	30.42	30.35	30.91	31.47