

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: P845534

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

Issue Date: 6/14/2024

**Test Information**

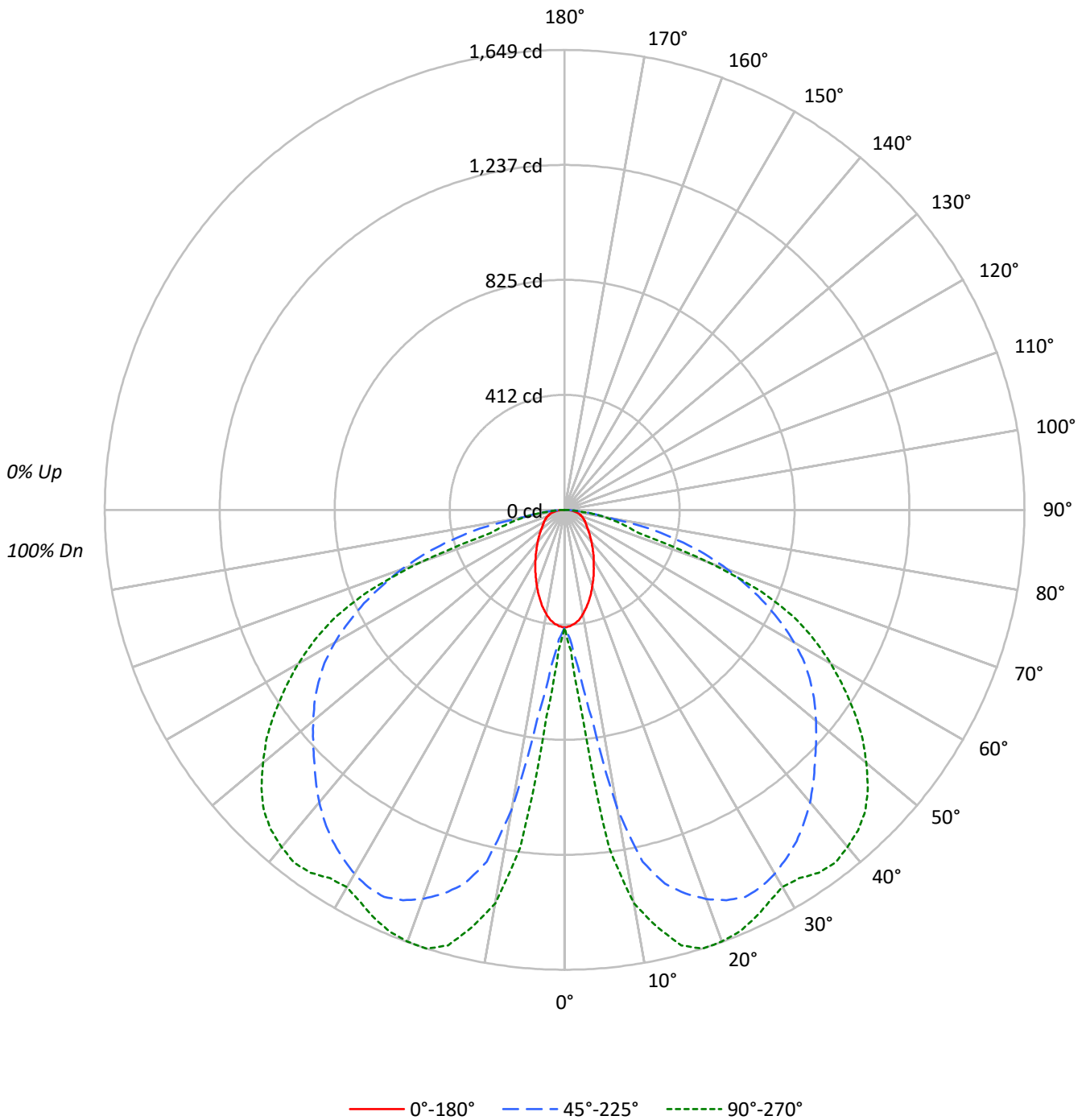
Test Method: LM-79-2019  
Report Number: P845534  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/14/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2R-FB-100D-940-UNV-STD-W-4  
Description: CONTINUA SQ2 RECESSED, BATWING LENS  
1000 LUMENS PER FOOT  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4178.2 lumens  
Efficiency: N/A  
Efficacy: 111.1 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°	6812	6812	6812
5°	6642	9206	12066
10°	6219	17826	23479
15°	5628	23193	27024
20°	4985	25514	28301
25°	4409	27284	28766
30°	3895	28100	29119
35°	3479	28588	31306
40°	3164	28858	33264
45°	2918	28994	34830
50°	2750	29552	35462
55°	2683	30320	35744
60°	2751	30722	35569
65°	2869	30300	34563
70°	2969	29302	26143
75°	3288	26319	14423
80°	3394	13584	13389
85°	3390	9392	5632

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 55°  
 Luminance: 35744 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.5	1.7
10°-20°	323.9	7.8
20°-30°	570.1	13.6
30°-40°	737.3	17.6
40°-50°	813.3	19.5
50°-60°	758.6	18.2
60°-70°	587.0	14.1
70°-80°	268.3	6.4
80°-90°	50.2	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°	963.5	23.1
0°-40°	1700.8	40.7
0°-60°	3272.6	78.3
0°-90°	4178.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4178.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	422	422	422	422	422	
5°	410	471	568	692	744	38
15°	337	671	1388	1552	1617	94
25°	248	907	1532	1598	1615	114
35°	176	876	1450	1499	1588	111
45°	128	671	1270	1456	1525	99
55°	95	400	1077	1237	1270	86
65°	75	225	793	888	905	74
75°	53	138	422	227	231	54
85°	18	41	51	34	30	20
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	421.9	421.9	421.9	421.9	421.9
2.5°	417.9	440.2	464.5	492.9	505.1
5°	409.8	470.6	568.0	691.7	744.5
7.5°	397.6	509.2	760.7	1103.5	1221.2
10°	379.3	551.7	1087.3	1375.3	1432.1
12.5°	359.0	608.5	1292.1	1472.7	1531.5
15°	336.7	671.4	1387.5	1551.8	1616.7
17.5°	314.4	740.4	1442.3	1610.6	1649.2
20°	290.1	813.4	1484.9	1624.8	1647.1
22.5°	267.8	868.2	1515.3	1612.7	1637.0
25°	247.5	906.7	1531.5	1598.5	1614.7
27.5°	227.2	920.9	1525.4	1572.1	1586.3
30°	208.9	916.9	1507.2	1539.6	1561.9
32.5°	192.7	904.7	1480.8	1511.2	1566.0
35°	176.5	876.3	1450.4	1499.1	1588.3
37.5°	162.3	835.7	1411.8	1505.1	1594.4
40°	150.1	789.1	1369.2	1505.1	1578.2
42.5°	137.9	734.3	1320.5	1484.9	1557.9
45°	127.8	671.4	1269.8	1456.5	1525.4
47.5°	117.7	602.5	1223.2	1422.0	1474.7
50°	109.5	531.5	1176.5	1371.3	1411.8
52.5°	101.4	462.5	1129.9	1310.4	1346.9
55°	95.3	399.6	1077.1	1237.4	1269.8
57.5°	89.3	342.8	1020.3	1160.3	1186.7
60°	85.2	298.2	951.4	1075.1	1101.5
62.5°	79.1	257.6	874.3	985.8	1010.2
65°	75.1	225.2	793.1	888.5	904.7
67.5°	69.0	198.8	707.9	776.9	760.7
70°	62.9	180.5	620.7	641.0	553.8
72.5°	58.8	160.3	525.4	464.5	279.9
75°	52.7	137.9	421.9	227.2	231.2
77.5°	44.6	111.6	310.4	182.6	186.6
80°	36.5	87.2	146.1	142.0	144.0
82.5°	28.4	62.9	89.3	95.3	91.3
85°	18.3	40.6	50.7	34.5	30.4
87.5°	8.1	18.3	10.1	10.1	10.1
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	17.56	19.25	17.93	19.56	19.88	26.22	27.90	26.58	28.22	28.53
	3H	18.35	19.87	18.73	20.20	20.56	27.90	29.42	28.28	29.75	30.11
	4H	18.69	20.12	19.08	20.47	20.84	28.12	29.55	28.52	29.90	30.28
	6H	18.94	20.27	19.35	20.63	21.02	28.25	29.58	28.66	29.94	30.33
	8H	19.02	20.29	19.44	20.68	21.08	28.27	29.54	28.70	29.93	30.33
	12H	19.08	20.29	19.50	20.67	21.10	28.27	29.49	28.70	29.87	30.30
4H	2H	22.00	23.43	22.40	23.78	24.15	26.76	28.19	27.15	28.54	28.91
	3H	23.01	24.21	23.42	24.61	25.01	28.66	29.86	29.07	30.26	30.66
	4H	23.33	24.42	23.76	24.83	25.26	28.93	30.02	29.37	30.43	30.87
	6H	23.52	24.46	23.97	24.90	25.35	29.13	30.07	29.58	30.51	30.97
	8H	23.56	24.44	24.02	24.88	25.35	29.17	30.06	29.63	30.50	30.96
	12H	23.59	24.38	24.07	24.86	25.33	29.19	29.98	29.67	30.46	30.92
8H	4H	24.57	25.45	25.03	25.90	26.36	29.12	30.01	29.58	30.45	30.91
	6H	24.85	25.58	25.34	26.07	26.54	29.37	30.10	29.86	30.58	31.06
	8H	24.93	25.59	25.44	26.09	26.58	29.44	30.09	29.95	30.60	31.08
	12H	25.00	25.58	25.50	26.07	26.63	29.47	30.05	29.98	30.54	31.10
12H	4H	24.63	25.42	25.11	25.90	26.36	29.11	29.91	29.59	30.38	30.85
	6H	24.95	25.61	25.46	26.11	26.60	29.36	30.01	29.87	30.52	31.00
	8H	25.10	25.67	25.60	26.16	26.72	29.47	30.04	29.97	30.53	31.09