

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: P855565

Luminaire Tested: SQ2-F-100D-835-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

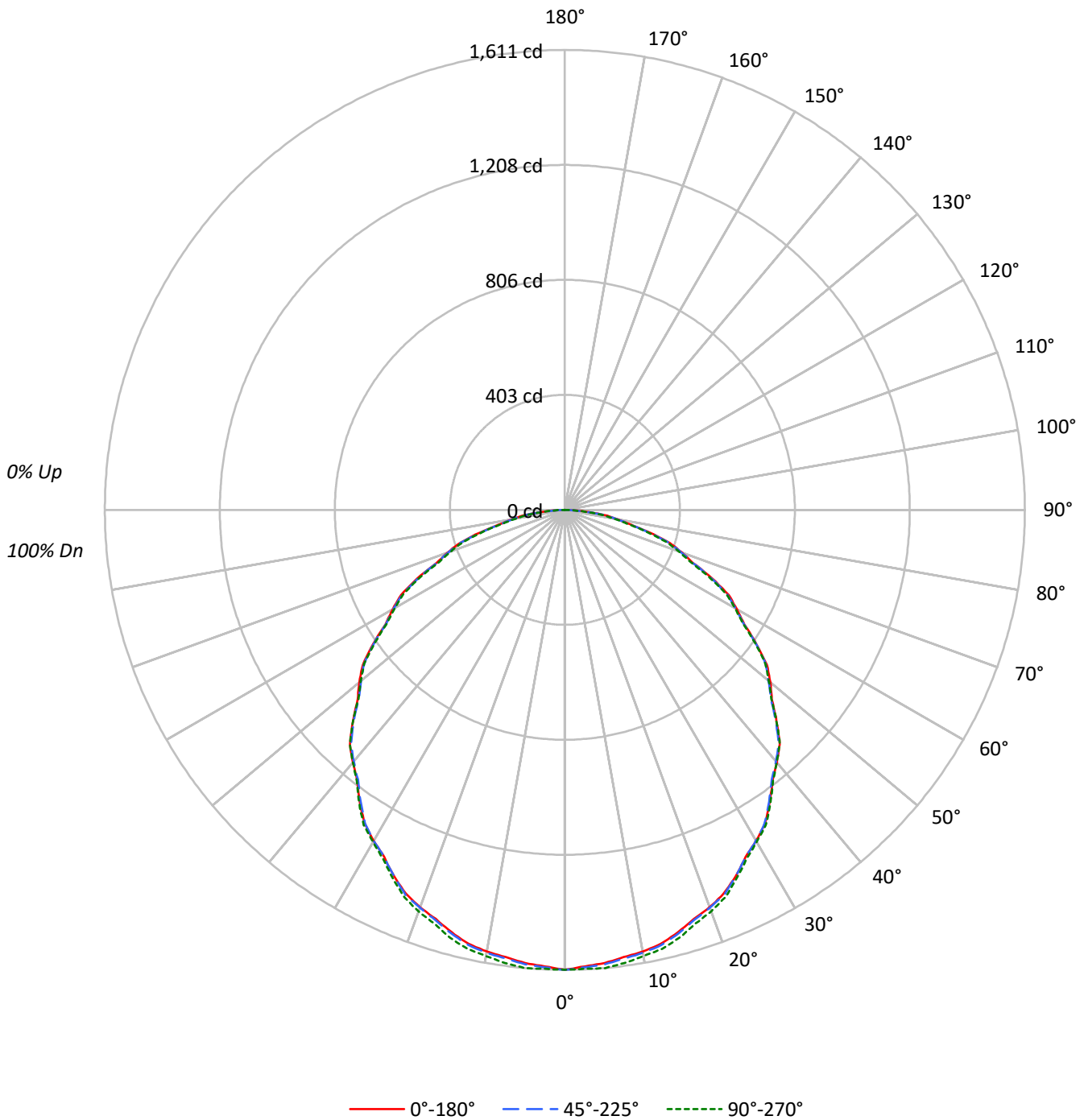
Test Method: LM-79-2019  
Report Number: P855565  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-F-100D-835-UNV-STD-W-4  
Description: CORELITE SQ2 SURFACE LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
DIRECT ONLY  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4522.6 lumens  
Efficiency: N/A  
Efficacy: 120.3 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.36  
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: 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	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84				84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70				70
3	90	79	71	65	88	78	70	64	75	68	63	72	66	62	69	65	61	59				59
4	82	70	61	55	80	69	61	54	66	59	54	64	58	53	62	57	52	50				50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43				43
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	50	44	40	38				38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33				33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30				30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27				27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24				24

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

	0°	45°	90°
0°	26011	26011	26011
5°	25827	25898	26110
10°	25765	25838	26017
15°	25608	25683	25941
20°	25457	25493	25722
25°	25221	25221	25377
30°	24962	24962	25044
35°	24660	24575	24746
40°	24333	24241	24333
45°	23957	23857	23957
50°	23596	23378	23431
55°	23049	22984	22860
60°	22465	22326	22184
65°	21803	21551	21299
70°	20516	20412	19997
75°	19307	18896	18347
80°	17136	16727	16123
85°	13820	12597	11782

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 24103 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	152.3	3.4
10°-20°	435.1	9.6
20°-30°	654.7	14.5
30°-40°	783.4	17.3
40°-50°	808.2	17.9
50°-60°	729.1	16.1
60°-70°	556.4	12.3
70°-80°	319.9	7.1
80°-90°	83.4	1.8
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°	1242.1	27.5
0°-40°	2025.5	44.8
0°-60°	3562.9	78.8
0°-90°	4522.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4522.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1611	1611	1611	1611	1611	
5°	1594	1615	1598	1600	1611	151
15°	1532	1551	1536	1543	1552	432
25°	1416	1431	1416	1418	1424	652
35°	1251	1260	1247	1251	1256	782
45°	1049	1056	1045	1047	1049	809
55°	819	823	816	812	812	732
65°	571	568	564	560	558	561
75°	310	307	303	296	294	326
85°	75	70	68	62	64	89
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1611.0	1611.0	1611.0	1611.0	1611.0
2.5°	1600.5	1619.4	1604.0	1607.6	1609.3
5°	1593.5	1615.0	1597.9	1600.3	1611.0
7.5°	1580.4	1603.6	1584.8	1589.0	1601.0
10°	1571.5	1593.0	1576.0	1578.3	1586.9
12.5°	1557.5	1579.0	1561.9	1566.0	1574.6
15°	1532.0	1551.4	1536.5	1543.2	1551.9
17.5°	1502.6	1523.2	1506.6	1512.5	1519.7
20°	1481.6	1498.8	1483.7	1486.2	1497.0
22.5°	1455.2	1472.4	1459.2	1459.8	1468.8
25°	1415.7	1430.8	1415.7	1418.1	1424.5
27.5°	1370.6	1383.3	1370.6	1372.8	1378.4
30°	1338.9	1351.8	1338.9	1341.1	1343.3
32.5°	1303.8	1315.0	1302.0	1304.4	1309.9
35°	1251.1	1259.7	1246.8	1251.2	1255.5
37.5°	1194.9	1201.4	1190.5	1192.8	1196.6
40°	1154.5	1161.0	1150.1	1152.4	1154.5
42.5°	1114.1	1118.9	1108.0	1110.3	1114.1
45°	1049.2	1055.6	1044.8	1047.0	1049.2
47.5°	983.3	987.2	978.1	976.4	980.2
50°	939.4	941.5	930.7	930.7	932.8
52.5°	892.0	894.1	886.8	883.3	885.4
55°	818.8	822.9	816.5	812.1	812.1
57.5°	745.0	748.8	740.6	738.4	738.0
60°	695.7	697.9	691.4	689.2	687.0
62.5°	646.6	647.1	640.5	638.3	636.1
65°	570.7	568.5	564.1	559.6	557.5
67.5°	485.5	487.6	483.3	476.3	476.3
70°	434.6	436.7	432.4	423.6	423.6
72.5°	385.4	384.1	381.5	374.4	371.0
75°	309.5	307.4	302.9	296.3	294.1
77.5°	233.6	231.4	229.2	220.9	222.6
80°	184.3	182.2	179.9	173.4	173.4
82.5°	140.4	136.6	134.3	127.8	127.8
85°	74.6	70.4	68.0	61.6	63.6
87.5°	21.0	19.4	17.5	14.0	14.0
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	23.09	24.73	23.45	25.04	25.36	23.01	24.65	23.37	24.96	25.28
	3H	24.92	26.40	25.30	26.73	27.09	24.80	26.28	25.18	26.61	26.97
	4H	25.61	27.01	26.01	27.36	27.73	25.46	26.86	25.86	27.21	27.58
	6H	26.12	27.42	26.53	27.78	28.17	25.93	27.23	26.34	27.60	27.99
	8H	26.28	27.52	26.70	27.91	28.30	26.08	27.32	26.50	27.70	28.10
	12H	26.38	27.56	26.81	27.95	28.37	26.15	27.34	26.58	27.72	28.15
4H	2H	23.72	25.12	24.12	25.47	25.84	23.66	25.06	24.06	25.41	25.78
	3H	25.78	26.95	26.19	27.35	27.75	25.67	26.84	26.08	27.24	27.64
	4H	26.60	27.66	27.03	28.07	28.51	26.45	27.52	26.89	27.93	28.37
	6H	27.23	28.16	27.68	28.60	29.05	27.05	27.98	27.50	28.42	28.87
	8H	27.44	28.31	27.90	28.75	29.21	27.23	28.10	27.69	28.55	29.01
	12H	27.58	28.36	28.06	28.83	29.30	27.35	28.13	27.83	28.61	29.07
8H	4H	26.91	27.78	27.37	28.22	28.68	26.78	27.65	27.24	28.09	28.56
	6H	27.66	28.38	28.15	28.87	29.34	27.49	28.21	27.98	28.70	29.18
	8H	27.93	28.58	28.44	29.09	29.57	27.74	28.39	28.25	28.90	29.38
	12H	28.14	28.71	28.64	29.20	29.76	27.91	28.48	28.42	28.97	29.53
12H	4H	26.94	27.72	27.42	28.19	28.66	26.82	27.60	27.30	28.07	28.54
	6H	27.71	28.36	28.22	28.86	29.35	27.55	28.20	28.06	28.70	29.19
	8H	28.04	28.61	28.54	29.10	29.66	27.85	28.43	28.36	28.92	29.48