

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: P855543

Luminaire Tested: SQ2-FB-100D-830-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

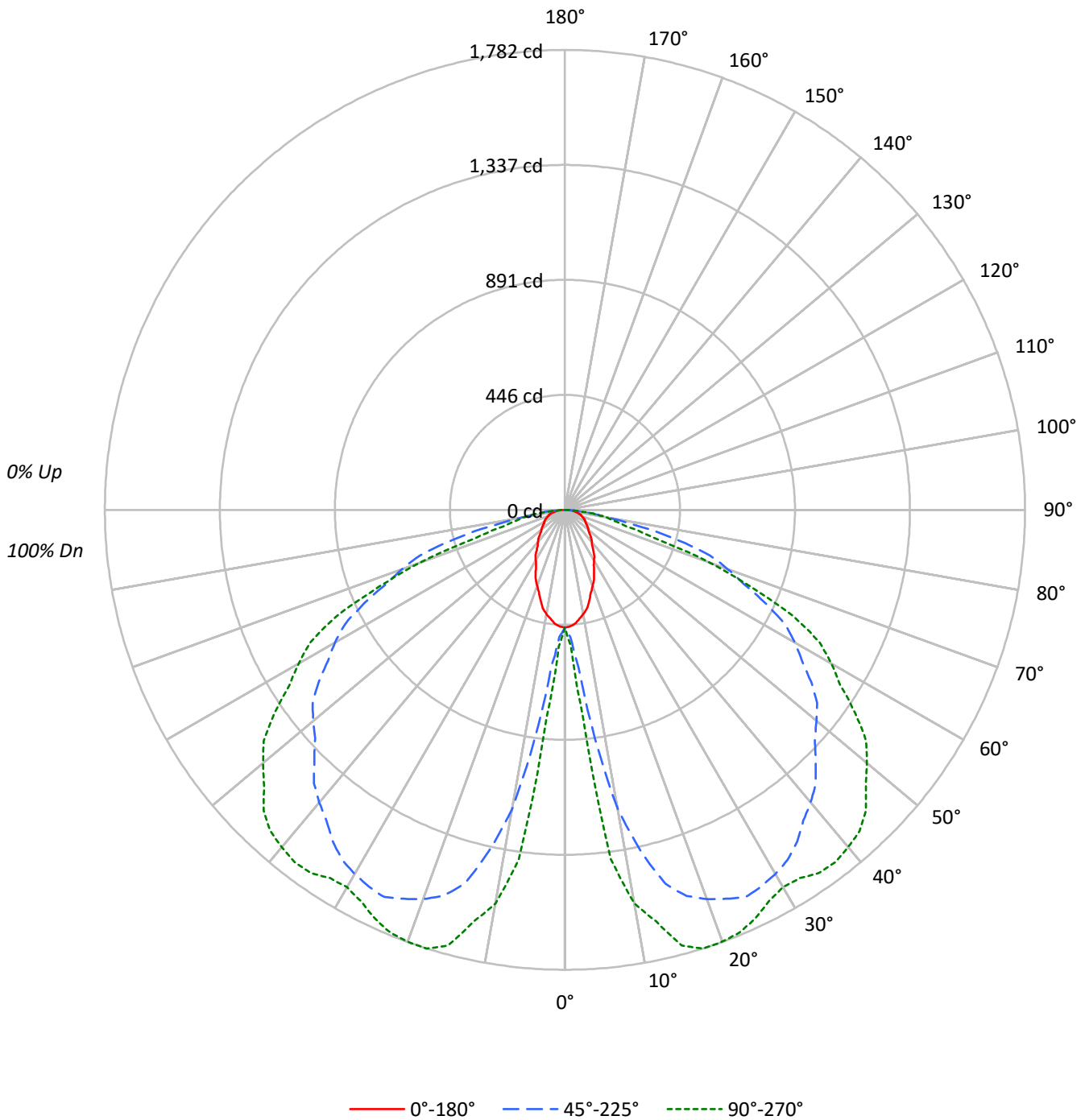
Test Method: LM-79-2019  
Report Number: P855543  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-FB-100D-830-UNV-STD-W-4  
Description: CORELITE SQ2 SURFACE LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
DIRECT ONLY  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4507.3 lumens  
Efficiency: N/A  
Efficacy: 119.9 lumens/watt  
Spacing Criteria (0/90/45): 0.84 / 2.98 / 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: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

TEST NUMBER: P855543  
CATALOG NUMBER: SQ2-FB-100D-830-UNV-STD-W-4

### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20																	
RC	80									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	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	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84																											
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69																											
3	89	78	70	63	87	77	69	63	74	67	61	71	65	60	68	63	59	57																											
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50	48																											
5	74	61	52	45	72	60	51	45	58	50	44	56	49	43	54	48	43	41																											
6	68	54	45	39	66	53	45	38	52	44	38	50	43	38	48	42	37	35																											
7	63	49	40	34	61	48	40	33	47	39	33	45	38	33	44	37	33	31																											
8	58	44	36	30	57	44	35	29	42	35	29	41	34	29	40	34	29	27																											
9	54	40	32	26	53	40	32	26	39	31	26	38	31	26	37	30	26	24																											
10	51	37	29	23	49	37	29	23	36	28	23	35	28	23	34	28	23	21																											

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

	0°	45°	90°
0°	7364	7364	7364
5°	7180	9953	13044
10°	6724	19271	25383
15°	6086	25073	29214
20°	5388	27582	30594
25°	4766	29496	31098
30°	4212	30378	31482
35°	3759	30906	33845
40°	3419	31198	35959
45°	3156	31346	37657
50°	2974	31948	38338
55°	2902	32777	38644
60°	2974	33212	38453
65°	3102	32760	37364
70°	3210	31676	28263
75°	3556	28453	15596
80°	3673	14672	14477
85°	3668	10152	6095

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 52.5°  
 Luminance: 38993 cd/sqm



TEST NUMBER: P855543

CATALOG NUMBER: SQ2-FB-100D-830-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.4	1.7
10°-20°	348.8	7.7
20°-30°	613.7	13.6
30°-40°	794.4	17.6
40°-50°	876.2	19.4
50°-60°	818.1	18.2
60°-70°	632.3	14.0
70°-80°	291.6	6.5
80°-90°	55.7	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°	1039.0	23.1
0°-40°	1833.4	40.7
0°-60°	3527.7	78.3
0°-90°	4507.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4507.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	456	456	456	456	456	
5°	443	507	614	749	805	41
15°	364	718	1500	1679	1748	101
25°	268	964	1656	1728	1746	123
35°	191	930	1568	1623	1717	120
45°	138	713	1373	1576	1649	107
55°	103	425	1164	1338	1373	93
65°	81	240	858	961	978	80
75°	57	147	456	246	250	59
85°	20	43	55	37	33	21
90°	0	0	0	0	0	



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CATALOG NUMBER: SQ2-FB-100D-830-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	456.1	456.1	456.1	456.1	456.1
2.5°	452.6	471.5	493.0	517.7	528.0
5°	443.0	507.3	614.1	749.1	804.8
7.5°	425.9	556.6	893.0	1254.2	1365.8
10°	410.1	592.3	1175.4	1488.2	1548.2
12.5°	392.6	639.9	1352.6	1572.4	1634.2
15°	364.1	717.8	1500.0	1679.1	1747.7
17.5°	334.7	805.5	1568.4	1745.1	1782.5
20°	313.6	866.8	1605.3	1757.1	1780.6
22.5°	294.3	912.7	1631.5	1746.6	1771.9
25°	267.5	964.4	1655.7	1728.4	1745.6
27.5°	241.6	978.0	1645.2	1692.9	1709.6
30°	225.9	974.2	1629.4	1665.0	1688.6
32.5°	211.9	963.6	1606.5	1641.0	1692.1
35°	190.7	930.5	1568.0	1622.7	1717.1
37.5°	172.8	877.4	1517.1	1629.3	1720.2
40°	162.2	837.7	1480.2	1628.9	1706.1
42.5°	151.7	791.1	1438.2	1611.4	1688.6
45°	138.2	712.8	1372.8	1576.2	1649.2
47.5°	125.4	624.6	1312.2	1527.5	1580.6
50°	118.4	564.4	1271.9	1483.4	1526.3
52.5°	111.4	506.0	1231.6	1430.7	1470.2
55°	103.1	424.7	1164.4	1338.5	1372.8
57.5°	95.7	355.0	1088.1	1236.6	1264.5
60°	92.1	317.3	1028.5	1162.9	1190.8
62.5°	86.8	282.8	961.8	1085.6	1111.9
65°	81.2	239.8	857.5	960.9	978.0
67.5°	73.3	207.9	746.5	809.8	777.7
70°	68.0	192.3	671.0	690.8	598.7
72.5°	64.4	175.1	588.6	536.4	361.8
75°	57.0	147.1	456.1	245.7	250.0
77.5°	46.5	113.9	300.0	188.7	192.5
80°	39.5	93.1	157.8	153.5	155.7
82.5°	32.4	72.4	108.8	113.1	110.1
85°	19.8	43.3	54.8	37.2	32.9
87.5°	7.0	15.6	8.8	8.8	8.8
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	17.76	19.45	18.12	19.76	20.07	26.50	28.18	26.86	28.50	28.81
	3H	18.55	20.07	18.93	20.40	20.76	28.18	29.70	28.55	30.03	30.39
	4H	18.89	20.32	19.28	20.67	21.04	28.40	29.83	28.79	30.18	30.55
	6H	19.14	20.48	19.56	20.84	21.23	28.52	29.85	28.93	30.22	30.61
	8H	19.23	20.50	19.65	20.89	21.28	28.55	29.82	28.97	30.21	30.61
	12H	19.28	20.50	19.71	20.88	21.31	28.55	29.77	28.98	30.15	30.58
4H	2H	22.25	23.69	22.65	24.04	24.41	27.04	28.47	27.43	28.82	29.19
	3H	23.26	24.46	23.67	24.86	25.26	28.94	30.14	29.34	30.53	30.93
	4H	23.58	24.67	24.01	25.08	25.51	29.21	30.29	29.64	30.71	31.14
	6H	23.76	24.71	24.21	25.15	25.60	29.40	30.35	29.86	30.79	31.24
	8H	23.80	24.69	24.26	25.13	25.59	29.45	30.33	29.91	30.78	31.24
	12H	23.84	24.63	24.32	25.11	25.57	29.46	30.26	29.94	30.73	31.20
8H	4H	24.83	25.71	25.29	26.15	26.62	29.40	30.28	29.86	30.72	31.19
	6H	25.10	25.83	25.59	26.32	26.80	29.64	30.37	30.13	30.86	31.33
	8H	25.18	25.84	25.69	26.34	26.83	29.71	30.37	30.22	30.87	31.36
	12H	25.25	25.83	25.76	26.32	26.88	29.74	30.32	30.25	30.81	31.37
12H	4H	24.88	25.68	25.36	26.15	26.62	29.39	30.18	29.87	30.66	31.13
	6H	25.20	25.86	25.71	26.37	26.85	29.63	30.29	30.14	30.80	31.28
	8H	25.35	25.93	25.86	26.42	26.98	29.74	30.32	30.25	30.81	31.37