

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: P854203

Luminaire Tested: SQ2-PR1-100D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

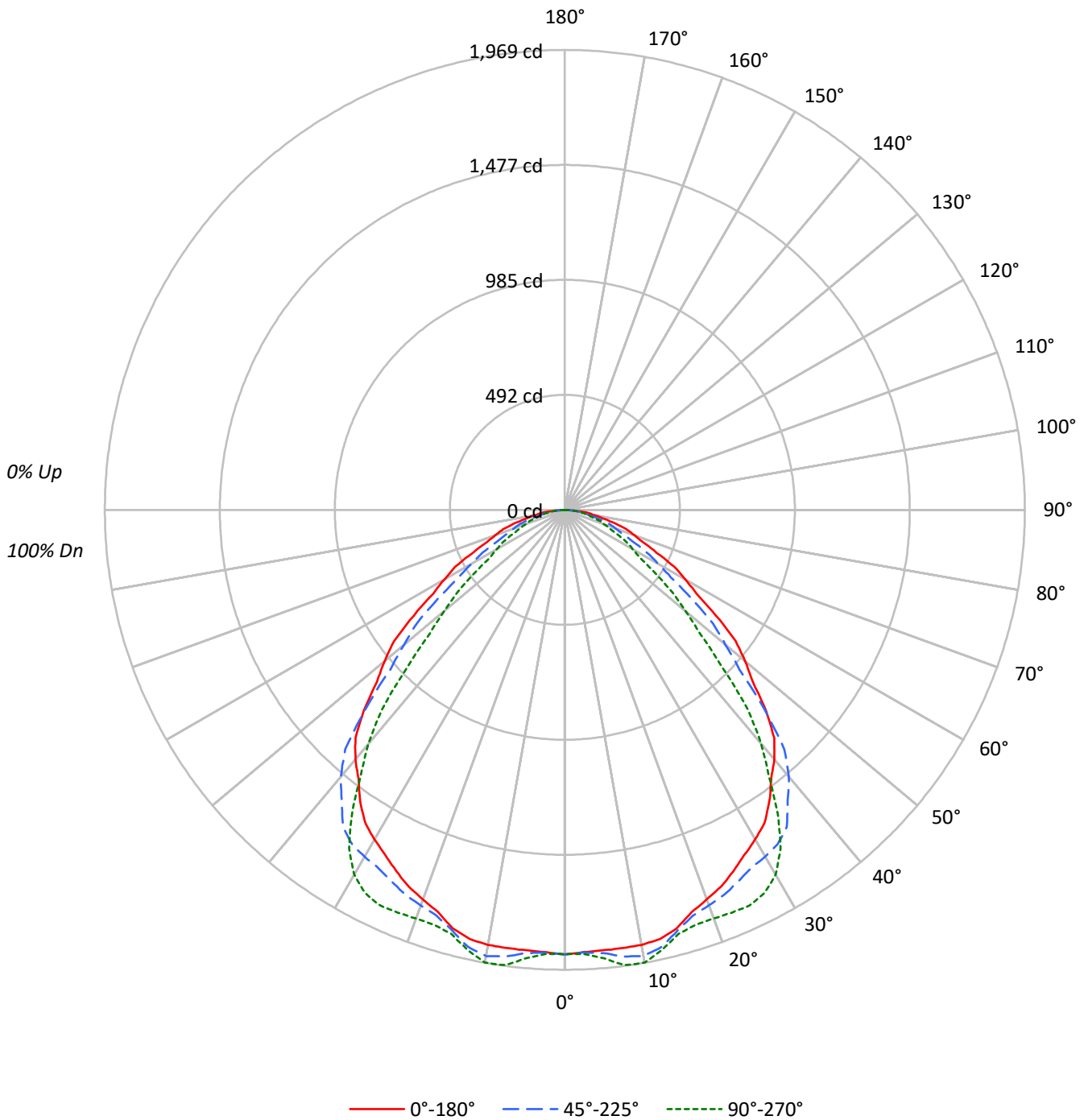
Test Method: LM-79-2019  
Report Number: P854203  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PR1-100D-935-UNV-STD-W-4  
Description: CORELITE SQ2 SURFACE LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
DIRECT ONLY  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4577.2 lumens  
Efficiency: N/A  
Efficacy: 121.7 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.34 / 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	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	90	89	87				87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75				75
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65				65
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56				56
5	80	68	60	53	78	67	59	53	65	58	53	63	57	52	61	56	52	50				50
6	74	62	53	47	72	61	53	47	59	52	47	57	51	46	56	50	46	44				44
7	69	56	48	42	67	55	47	42	54	47	42	52	46	41	51	45	41	39				39
8	64	51	43	38	63	51	43	38	49	42	37	48	42	37	47	41	37	35				35
9	60	47	39	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32				32
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	40	35	31	29				29

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

	0°	45°	90°
0°	30721	30721	30721
5°	30681	30870	31246
10°	31004	31800	32277
15°	30994	31156	31415
20°	30493	30960	31993
25°	30407	31271	33309
30°	30374	31966	33629
35°	30086	32648	31310
40°	29392	31436	27554
45°	27811	27590	21790
50°	25284	22556	16905
55°	22221	18565	13157
60°	19226	14844	10834
65°	16600	12302	9486
70°	14922	10895	8422
75°	13674	9439	7742
80°	11901	7578	7578
85°	8614	6836	3594

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 30065 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	183.7	4.0
10°-20°	531.9	11.6
20°-30°	822.2	18.0
30°-40°	988.9	21.6
40°-50°	888.0	19.4
50°-60°	594.9	13.0
60°-70°	346.0	7.6
70°-80°	177.7	3.9
80°-90°	43.9	1.0
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°	1537.8	33.6
0°-40°	2526.8	55.2
0°-60°	4009.6	87.6
0°-90°	4577.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4577.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1903	1903	1903	1903	1903	
5°	1893	1925	1905	1909	1928	181
15°	1854	1930	1864	1870	1879	521
25°	1707	1775	1755	1820	1870	787
35°	1526	1540	1656	1624	1588	952
45°	1218	1317	1208	1019	954	932
55°	789	820	660	509	467	709
65°	434	444	322	262	248	439
75°	219	214	151	128	124	233
85°	46	37	37	25	19	59
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1902.7	1902.7	1902.7	1902.7	1902.7
2.5°	1895.0	1917.7	1896.5	1898.2	1902.7
5°	1893.0	1925.3	1904.7	1909.0	1927.9
7.5°	1892.6	1938.5	1928.7	1940.5	1965.6
10°	1891.1	1946.1	1939.6	1942.1	1968.7
12.5°	1881.8	1945.9	1916.3	1913.9	1928.3
15°	1854.2	1930.1	1863.9	1870.0	1879.4
17.5°	1805.7	1885.0	1822.0	1843.4	1862.0
20°	1774.7	1852.5	1801.9	1829.7	1862.0
22.5°	1746.8	1824.5	1783.2	1822.3	1866.6
25°	1706.8	1775.1	1755.3	1820.4	1869.7
27.5°	1664.9	1705.1	1728.5	1815.8	1850.3
30°	1629.2	1655.8	1714.6	1790.5	1803.8
32.5°	1590.4	1606.4	1696.0	1735.5	1718.5
35°	1526.4	1539.7	1656.4	1624.5	1588.5
37.5°	1450.4	1477.7	1567.6	1475.8	1434.5
40°	1394.5	1440.1	1491.5	1354.7	1307.3
42.5°	1326.3	1399.1	1390.7	1216.3	1158.3
45°	1218.0	1316.7	1208.3	1018.7	954.3
47.5°	1090.4	1191.7	1014.4	845.1	784.7
50°	1006.6	1088.2	898.0	739.4	673.0
52.5°	921.3	980.1	798.7	640.2	579.9
55°	789.4	819.7	659.5	509.2	467.4
57.5°	668.4	687.7	538.8	411.3	380.5
60°	595.4	608.7	459.7	360.2	335.5
62.5°	528.7	539.0	396.1	316.9	298.3
65°	434.5	443.9	322.0	261.5	248.3
67.5°	359.6	364.5	264.9	217.3	204.8
70°	316.1	318.0	230.8	187.9	178.4
72.5°	277.4	274.7	198.2	163.2	156.7
75°	219.2	213.5	151.3	127.9	124.1
77.5°	163.7	157.6	106.3	98.5	98.5
80°	128.0	120.4	81.5	81.5	81.5
82.5°	95.4	84.8	62.8	62.8	61.3
85°	46.5	37.1	36.9	25.1	19.4
87.5°	12.4	12.4	4.7	4.7	4.7
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	22.60	24.10	22.97	24.41	24.73	19.33	20.82	19.69	21.14	21.45
	3H	23.88	25.22	24.26	25.55	25.91	20.44	21.78	20.82	22.11	22.47
	4H	24.36	25.62	24.76	25.96	26.34	20.87	22.12	21.27	22.47	22.85
	6H	24.71	25.86	25.12	26.23	26.62	21.23	22.38	21.64	22.75	23.14
	8H	24.81	25.91	25.24	26.30	26.70	21.33	22.43	21.76	22.82	23.22
	12H	24.86	25.91	25.29	26.29	26.72	21.36	22.41	21.79	22.79	23.22
4H	2H	22.76	24.01	23.16	24.36	24.74	19.97	21.22	20.37	21.57	21.95
	3H	24.28	25.32	24.69	25.72	26.12	21.29	22.33	21.70	22.73	23.13
	4H	24.90	25.83	25.33	26.25	26.69	21.82	22.75	22.26	23.17	23.61
	6H	25.39	26.19	25.84	26.63	27.10	22.29	23.10	22.75	23.54	24.00
	8H	25.53	26.28	25.99	26.73	27.19	22.42	23.18	22.89	23.62	24.09
	12H	25.61	26.28	26.09	26.76	27.23	22.47	23.14	22.96	23.62	24.10
8H	4H	24.97	25.72	25.43	26.17	26.64	22.17	22.92	22.64	23.37	23.84
	6H	25.54	26.16	26.04	26.65	27.13	22.73	23.35	23.22	23.84	24.32
	8H	25.74	26.30	26.25	26.81	27.30	22.91	23.47	23.43	23.98	24.47
	12H	25.87	26.36	26.38	26.86	27.42	23.00	23.50	23.51	23.99	24.55
12H	4H	24.96	25.63	25.44	26.11	26.58	22.21	22.89	22.70	23.37	23.84
	6H	25.52	26.08	26.04	26.60	27.08	22.79	23.35	23.30	23.86	24.35
	8H	25.76	26.26	26.27	26.75	27.32	23.02	23.52	23.53	24.01	24.57