

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: P845629

Luminaire Tested: SQ2R-PR1-100D-935-UNV-STD-W-4

Issue Date: 6/14/2024

**Test Information**

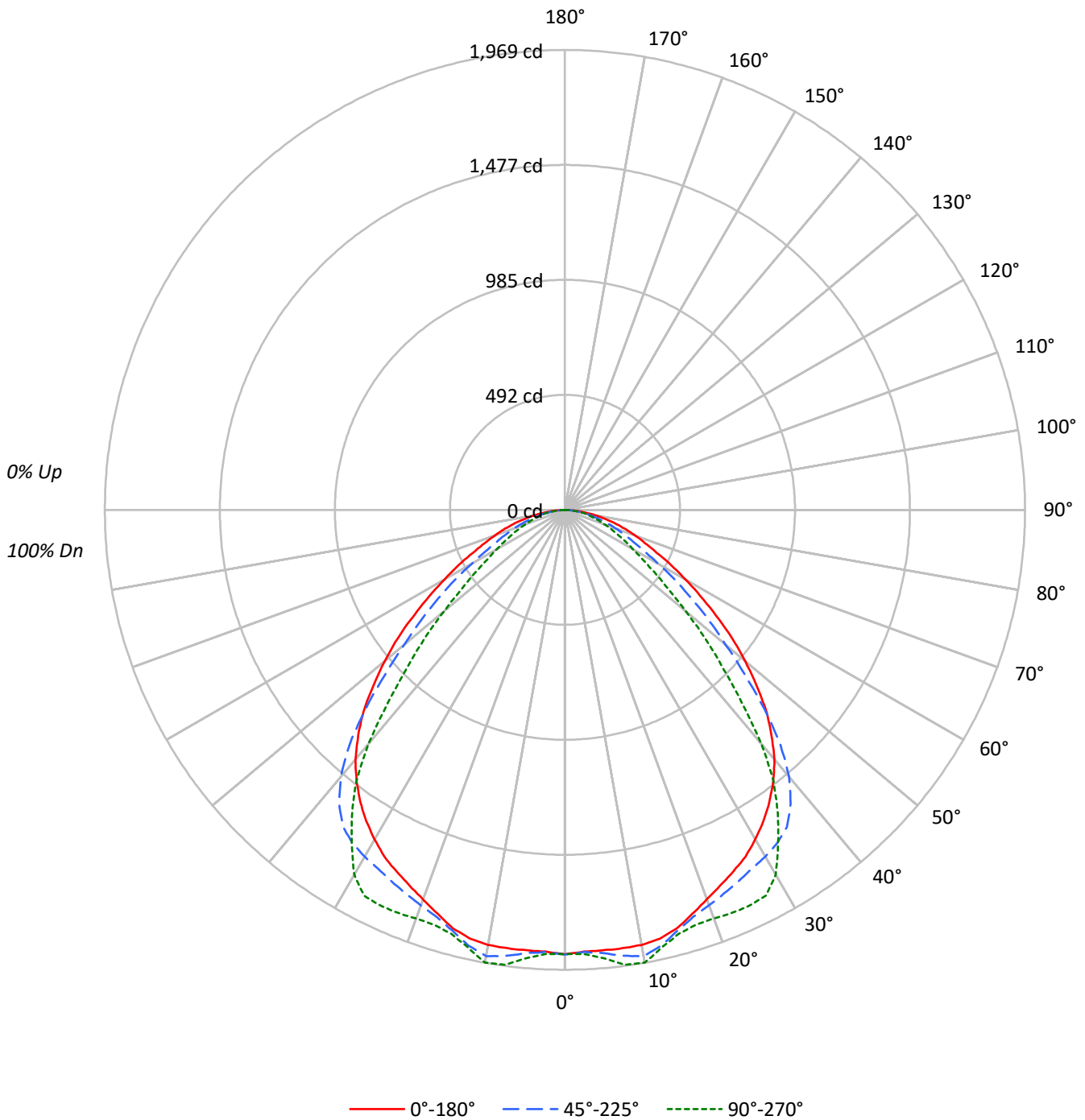
Test Method: LM-79-2019  
Report Number: P845629  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/14/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2R-PR1-100D-935-UNV-STD-W-4  
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE RIPPLE CONTINUOUS LENS  
1000 LUMENS PER FOOT  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4577.7 lumens  
Efficiency: N/A  
Efficacy: 121.7 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.33 / 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: 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

TEST NUMBER: P845629  
CATALOG NUMBER: SQ2R-PR1-100D-935-UNV-STD-W-4

### 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	91	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	67	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	48	42	54	47	42	52	46	41	51	45	41	39				39
8	64	51	43	38	63	51	43	38	49	42	38	48	42	37	47	41	37	35				35
9	60	47	40	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: 30115 cd/sqm



TEST NUMBER: P845629

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	183.7	4.0
10°-20°	532.1	11.6
20°-30°	822.9	18.0
30°-40°	990.8	21.6
40°-50°	889.5	19.4
50°-60°	593.8	13.0
60°-70°	345.0	7.5
70°-80°	177.3	3.9
80°-90°	42.6	0.9
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°	1538.7	33.6
0°-40°	2529.5	55.3
0°-60°	4012.8	87.7
0°-90°	4577.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4577.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1903	1903	1903	1903	1903	
5°	1893	1926	1905	1908	1928	181
15°	1854	1932	1864	1870	1879	521
25°	1707	1777	1755	1819	1870	788
35°	1526	1540	1656	1625	1588	953
45°	1218	1319	1208	1020	954	933
55°	789	820	660	510	467	709
65°	434	444	322	262	248	438
75°	219	213	151	128	124	232
85°	46	37	37	25	19	58
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°	1893.0	1922.1	1895.0	1896.9	1902.7
5°	1893.0	1926.0	1904.7	1908.5	1927.9
7.5°	1893.0	1937.6	1926.0	1939.6	1964.8
10°	1891.1	1947.3	1939.6	1941.5	1968.7
12.5°	1879.4	1947.3	1910.5	1906.6	1918.2
15°	1854.2	1931.8	1863.9	1869.7	1879.4
17.5°	1813.5	1895.0	1827.1	1846.5	1862.0
20°	1774.7	1854.2	1801.9	1829.0	1862.0
22.5°	1739.8	1819.3	1778.6	1819.3	1867.8
25°	1706.8	1776.6	1755.3	1819.3	1869.7
27.5°	1673.8	1718.5	1732.0	1821.3	1862.0
30°	1629.2	1656.4	1714.6	1790.2	1803.8
32.5°	1580.7	1594.3	1691.3	1722.3	1697.1
35°	1526.4	1540.0	1656.4	1625.4	1588.5
37.5°	1464.4	1487.6	1586.6	1507.0	1466.3
40°	1394.5	1441.1	1491.5	1355.8	1307.3
42.5°	1309.2	1390.7	1365.5	1183.1	1121.1
45°	1218.0	1318.9	1208.3	1020.2	954.3
47.5°	1111.4	1220.0	1043.5	872.8	812.7
50°	1006.6	1090.0	898.0	740.9	673.0
52.5°	900.0	954.3	773.9	616.8	556.7
55°	789.4	820.4	659.5	510.1	467.4
57.5°	686.6	707.9	558.6	424.8	391.8
60°	595.4	609.0	459.7	360.8	335.5
62.5°	512.0	521.7	380.2	306.5	289.0
65°	434.5	444.2	322.0	261.8	248.3
67.5°	370.5	376.3	273.5	225.0	211.4
70°	316.1	318.1	230.8	188.1	178.4
72.5°	267.7	263.8	190.1	157.1	151.3
75°	219.2	213.4	151.3	128.0	124.1
77.5°	172.6	166.8	112.5	102.8	102.8
80°	128.0	120.3	81.5	81.5	81.5
82.5°	87.3	75.6	58.2	58.2	56.2
85°	46.5	36.9	36.9	25.2	19.4
87.5°	15.5	15.5	5.8	5.8	5.8
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P845629

CATALOG NUMBER: SQ2R-PR1-100D-935-UNV-STD-W-4

**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	22.61	24.10	22.97	24.42	24.73	19.34	20.83	19.70	21.14	21.46
	3H	23.89	25.22	24.26	25.55	25.91	20.45	21.78	20.83	22.11	22.47
	4H	24.37	25.62	24.77	25.97	26.35	20.87	22.13	21.27	22.47	22.85
	6H	24.71	25.87	25.12	26.23	26.63	21.24	22.39	21.65	22.76	23.15
	8H	24.81	25.91	25.24	26.30	26.70	21.34	22.44	21.76	22.83	23.23
	12H	24.86	25.91	25.29	26.29	26.72	21.37	22.42	21.80	22.80	23.23
4H	2H	22.76	24.01	23.16	24.36	24.74	19.98	21.23	20.38	21.58	21.96
	3H	24.29	25.32	24.70	25.72	26.12	21.30	22.33	21.71	22.73	23.13
	4H	24.90	25.83	25.34	26.25	26.69	21.83	22.76	22.26	23.17	23.61
	6H	25.39	26.19	25.85	26.64	27.10	22.30	23.10	22.75	23.54	24.00
	8H	25.53	26.28	25.99	26.73	27.20	22.43	23.18	22.89	23.63	24.09
	12H	25.61	26.28	26.09	26.76	27.23	22.48	23.15	22.96	23.63	24.10
8H	4H	24.97	25.72	25.44	26.17	26.64	22.18	22.93	22.64	23.37	23.84
	6H	25.54	26.16	26.04	26.65	27.13	22.73	23.35	23.23	23.84	24.32
	8H	25.74	26.30	26.25	26.81	27.30	22.92	23.47	23.43	23.99	24.47
	12H	25.87	26.36	26.38	26.85	27.42	23.00	23.50	23.51	23.99	24.56
12H	4H	24.96	25.63	25.44	26.11	26.58	22.22	22.89	22.70	23.37	23.84
	6H	25.53	26.09	26.04	26.60	27.08	22.79	23.35	23.31	23.86	24.35
	8H	25.76	26.26	26.27	26.75	27.32	23.02	23.52	23.53	24.01	24.58