

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: P845628

Luminaire Tested: SQ2R-PR1-100D-930-UNV-STD-W-4

Issue Date: 6/14/2024

**Test Information**

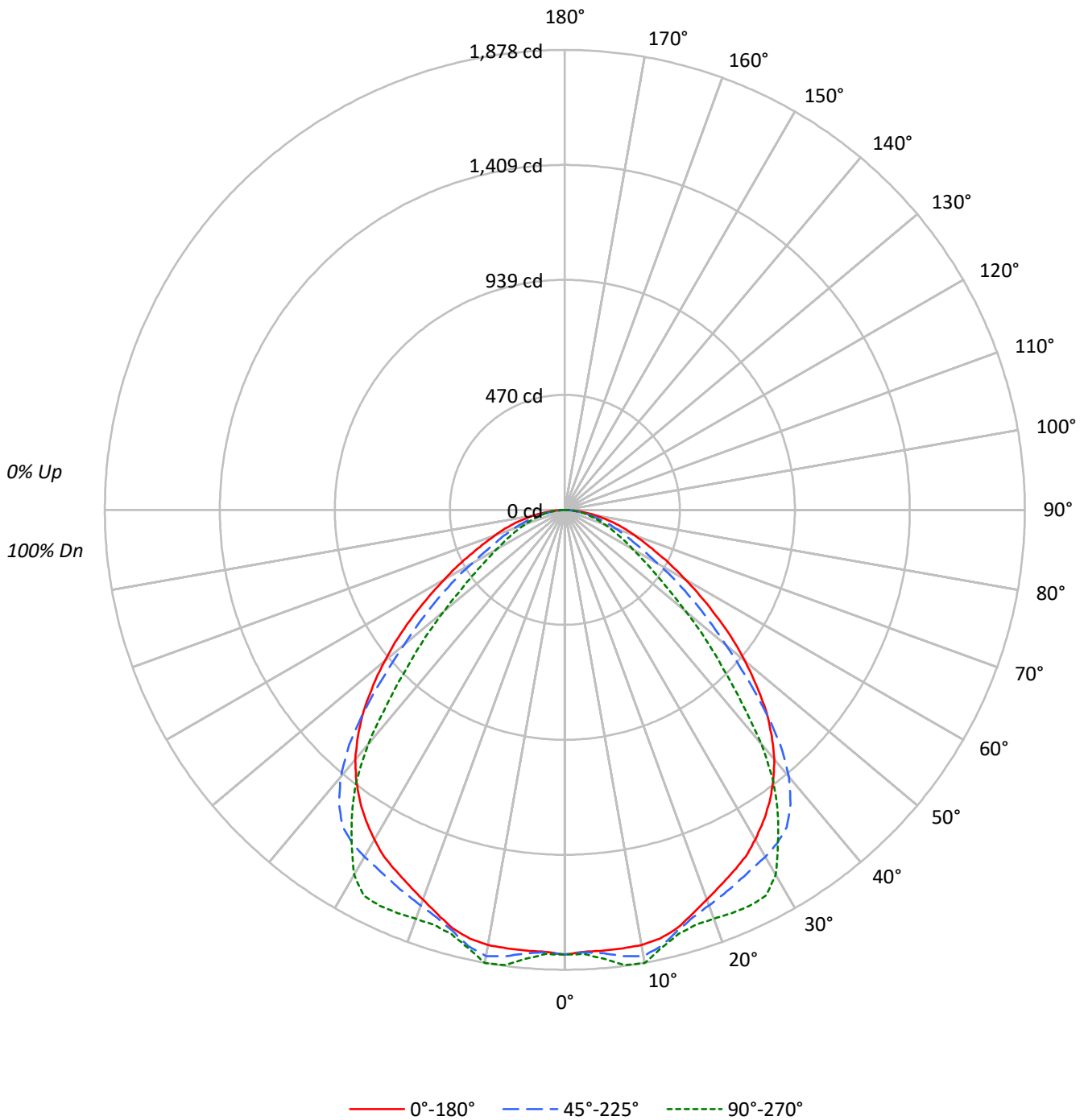
Test Method: LM-79-2019  
Report Number: P845628  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/14/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2R-PR1-100D-930-UNV-STD-W-4  
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE RIPPLE CONTINUOUS LENS  
1000 LUMENS PER FOOT  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4368.1 lumens  
Efficiency: N/A  
Efficacy: 116.2 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: P845628  
CATALOG NUMBER: SQ2R-PR1-100D-930-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°	29314	29314	29314
5°	29276	29456	29815
10°	29585	30342	30798
15°	29575	29730	29977
20°	29096	29541	30527
25°	29015	29838	31784
30°	28983	30503	32089
35°	28708	31152	29877
40°	28047	29997	26291
45°	26540	26327	20792
50°	24126	21524	16131
55°	21205	17714	12555
60°	18348	14163	10340
65°	15840	11736	9051
70°	14242	10395	8039
75°	13044	9008	7386
80°	11353	7225	7225
85°	8225	6521	3427

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 28736 cd/sqm

TEST NUMBER: P845628

CATALOG NUMBER: SQ2R-PR1-100D-930-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	175.3	4.0
10°-20°	507.8	11.6
20°-30°	785.2	18.0
30°-40°	945.5	21.6
40°-50°	848.7	19.4
50°-60°	566.6	13.0
60°-70°	329.2	7.5
70°-80°	169.2	3.9
80°-90°	40.7	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°	1468.2	33.6
0°-40°	2413.7	55.3
0°-60°	3829.0	87.7
0°-90°	4368.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4368.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1816	1816	1816	1816	1816	
5°	1806	1838	1817	1821	1840	172
15°	1769	1843	1779	1784	1793	497
25°	1629	1695	1675	1736	1784	752
35°	1456	1470	1580	1551	1516	909
45°	1162	1258	1153	974	911	890
55°	753	783	629	487	446	677
65°	415	424	307	250	237	418
75°	209	204	144	122	118	222
85°	44	35	35	24	18	55
90°	0	0	0	0	0	



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CATALOG NUMBER: SQ2R-PR1-100D-930-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1815.6	1815.6	1815.6	1815.6	1815.6
2.5°	1806.3	1834.1	1808.2	1810.0	1815.6
5°	1806.3	1837.8	1817.4	1821.1	1839.6
7.5°	1806.3	1848.9	1837.8	1850.7	1874.8
10°	1804.5	1858.2	1850.7	1852.6	1878.5
12.5°	1793.4	1858.2	1823.0	1819.3	1830.4
15°	1769.3	1843.3	1778.6	1784.1	1793.4
17.5°	1730.5	1808.2	1743.4	1761.9	1776.7
20°	1693.4	1769.3	1719.3	1745.3	1776.7
22.5°	1660.1	1736.0	1697.1	1736.0	1782.3
25°	1628.7	1695.3	1674.9	1736.0	1784.1
27.5°	1597.2	1639.8	1652.7	1737.9	1776.7
30°	1554.6	1580.5	1636.1	1708.2	1721.2
32.5°	1508.4	1521.3	1613.9	1643.5	1619.4
35°	1456.5	1469.5	1580.5	1550.9	1515.8
37.5°	1397.3	1419.5	1513.9	1438.0	1399.2
40°	1330.7	1375.1	1423.2	1293.7	1247.4
42.5°	1249.3	1327.0	1302.9	1129.0	1069.7
45°	1162.3	1258.5	1153.0	973.5	910.6
47.5°	1060.5	1164.1	995.7	832.8	775.5
50°	960.5	1040.1	856.9	707.0	642.2
52.5°	858.7	910.6	738.4	588.5	531.2
55°	753.3	782.9	629.3	486.7	446.0
57.5°	655.2	675.5	533.0	405.3	373.9
60°	568.2	581.1	438.6	344.2	320.2
62.5°	488.6	497.9	362.7	292.4	275.8
65°	414.6	423.8	307.2	249.9	236.9
67.5°	353.5	359.0	261.0	214.7	201.7
70°	301.7	303.5	220.2	179.5	170.3
72.5°	255.4	251.7	181.4	149.9	144.4
75°	209.1	203.6	144.4	122.1	118.4
77.5°	164.7	159.2	107.3	98.1	98.1
80°	122.1	114.7	77.7	77.7	77.7
82.5°	83.3	72.2	55.5	55.5	53.7
85°	44.4	35.2	35.2	24.1	18.5
87.5°	14.8	14.8	5.6	5.6	5.6
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P845628

CATALOG NUMBER: SQ2R-PR1-100D-930-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	22.44	23.94	22.81	24.25	24.57	19.17	20.67	19.54	20.98	21.30
	3H	23.72	25.06	24.10	25.39	25.75	20.28	21.62	20.66	21.95	22.31
	4H	24.20	25.45	24.60	25.80	26.18	20.71	21.96	21.11	22.31	22.69
	6H	24.55	25.70	24.96	26.07	26.46	21.07	22.23	21.48	22.59	22.99
	8H	24.65	25.75	25.08	26.14	26.54	21.17	22.27	21.60	22.66	23.06
	12H	24.70	25.75	25.13	26.13	26.56	21.20	22.25	21.63	22.63	23.06
4H	2H	22.60	23.85	23.00	24.20	24.58	19.81	21.07	20.21	21.41	21.79
	3H	24.12	25.16	24.53	25.56	25.96	21.14	22.17	21.55	22.57	22.97
	4H	24.74	25.67	25.17	26.08	26.52	21.67	22.59	22.10	23.01	23.45
	6H	25.22	26.03	25.68	26.47	26.93	22.13	22.94	22.59	23.38	23.84
	8H	25.37	26.12	25.83	26.56	27.03	22.26	23.02	22.73	23.46	23.93
	12H	25.45	26.12	25.93	26.60	27.07	22.31	22.98	22.80	23.46	23.94
8H	4H	24.81	25.56	25.27	26.01	26.47	22.01	22.77	22.48	23.21	23.68
	6H	25.38	26.00	25.87	26.49	26.97	22.57	23.19	23.06	23.68	24.16
	8H	25.57	26.13	26.09	26.64	27.13	22.75	23.31	23.27	23.82	24.31
	12H	25.70	26.20	26.21	26.69	27.26	22.84	23.34	23.35	23.83	24.39
12H	4H	24.79	25.47	25.28	25.94	26.42	22.06	22.73	22.54	23.21	23.68
	6H	25.36	25.92	25.88	26.43	26.92	22.63	23.19	23.14	23.70	24.18
	8H	25.60	26.09	26.11	26.59	27.15	22.86	23.35	23.37	23.85	24.41