

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: P845650

Luminaire Tested: SQ2R-PW1-100D-835-UNV-STD-W-4

Issue Date: 6/14/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P845650  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/14/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2R-PW1-100D-835-UNV-STD-W-4  
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE WAVES CONTINUOUS LENS  
1000 LUMENS PER FOOT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

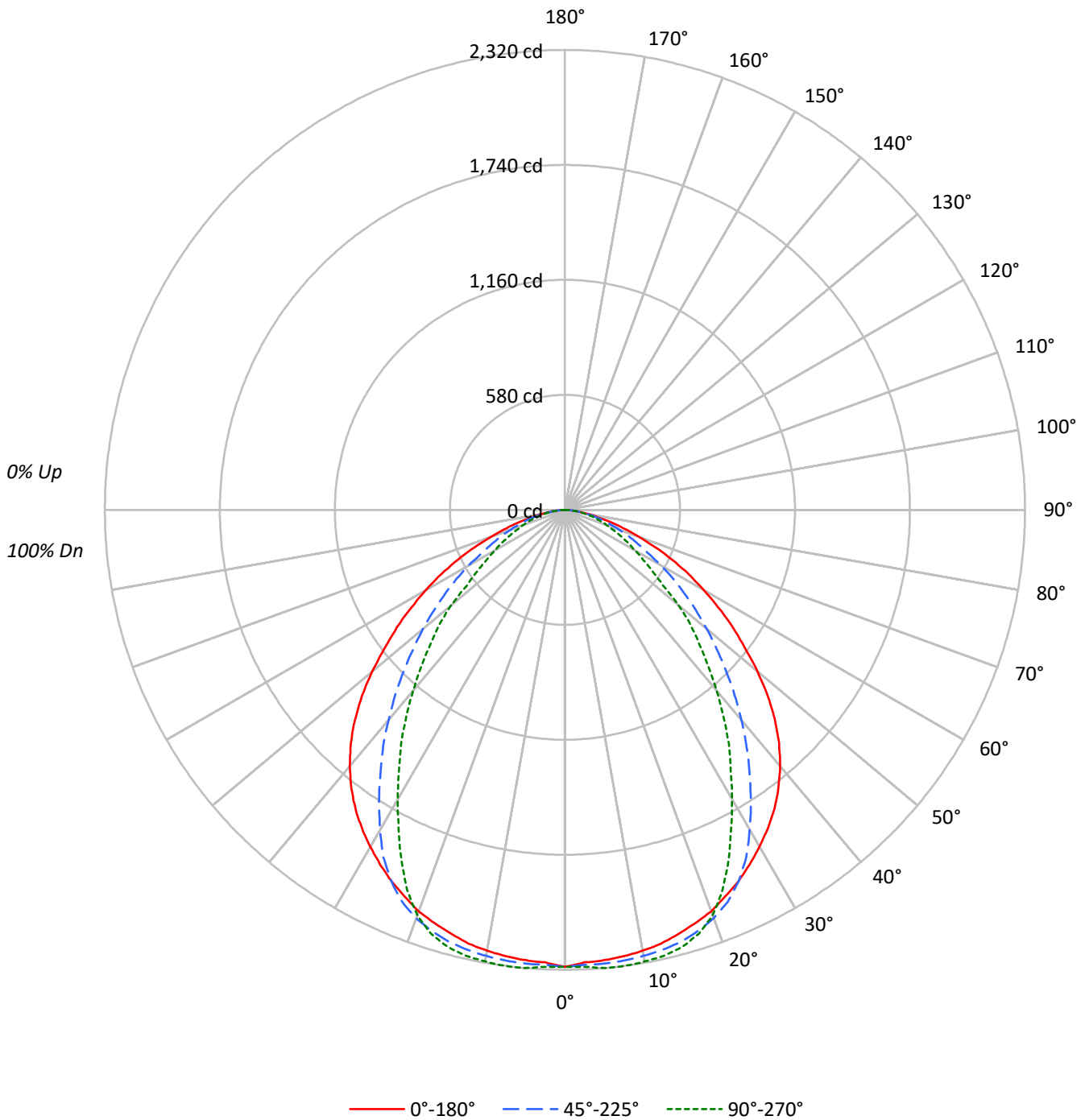
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5112.5 lumens  
Efficiency: N/A  
Efficacy: 136.0 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.12 / 1.22  
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

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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	100	97	100	97	94	96	93	91	92	90	89	87			87	
2	101	94	88	83	99	92	87	82	89	84	80	85	82	78	83	79	76	74			74	
3	93	84	76	71	91	82	75	70	79	73	69	77	72	68	74	70	66	64			64	
4	86	75	67	61	84	74	66	61	71	65	60	69	64	59	67	62	58	56			56	
5	80	68	59	53	78	67	59	53	65	58	53	63	57	52	61	56	51	49			49	
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	53	46	42	51	46	41	39			39	
8	64	52	44	38	63	51	43	38	50	43	38	48	42	38	47	42	37	35			35	
9	60	48	40	35	59	47	40	34	46	39	34	45	39	34	44	38	34	32			32	
10	57	44	37	32	55	44	36	31	43	36	31	42	36	31	41	35	31	29			29	

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

	0°	45°	90°
0°	37211	37211	37211
5°	36961	37246	37603
10°	37030	37461	37930
15°	37020	37717	38156
20°	37034	37675	37412
25°	36834	36873	34762
30°	36584	34742	31428
35°	36299	31972	28381
40°	35576	29145	25075
45°	34182	26213	21902
50°	31813	23433	18746
55°	29101	20698	15201
60°	26082	18003	13114
65°	22808	15515	11656
70°	18652	13780	10570
75°	14516	11915	9719
80°	10814	10200	8573
85°	7317	7725	4872

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 34182 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	219.5	4.3
10°-20°	636.5	12.4
20°-30°	937.2	18.3
30°-40°	1023.9	20.0
40°-50°	917.8	18.0
50°-60°	683.4	13.4
60°-70°	431.7	8.4
70°-80°	213.7	4.2
80°-90°	48.8	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°	1793.2	35.1
0°-40°	2817.1	55.1
0°-60°	4418.3	86.4
0°-90°	5112.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5112.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2305	2305	2305	2305	2305	
5°	2280	2318	2298	2300	2320	217
15°	2215	2259	2256	2272	2283	626
25°	2068	2114	2070	1984	1951	953
35°	1842	1822	1622	1482	1440	1150
45°	1497	1374	1148	1005	959	1149
55°	1034	933	735	577	540	923
65°	597	546	406	327	305	592
75°	233	250	191	160	156	255
85°	40	50	42	28	26	50
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2304.7	2304.7	2304.7	2304.7	2304.7
2.5°	2284.9	2322.2	2298.1	2300.3	2306.9
5°	2280.5	2317.9	2298.1	2300.3	2320.1
7.5°	2271.8	2309.1	2293.7	2300.3	2320.1
10°	2258.6	2298.1	2284.9	2295.9	2313.5
12.5°	2241.0	2282.7	2274.0	2287.1	2304.7
15°	2214.7	2258.6	2256.4	2271.8	2282.7
17.5°	2186.2	2230.1	2227.9	2236.6	2243.2
20°	2155.4	2199.3	2192.7	2177.4	2177.4
22.5°	2111.5	2159.8	2142.3	2094.0	2076.4
25°	2067.6	2113.7	2069.8	1984.2	1951.3
27.5°	2017.2	2056.7	1979.8	1861.3	1815.2
30°	1962.3	1990.8	1863.5	1729.6	1685.7
32.5°	1905.2	1911.8	1745.0	1604.5	1556.2
35°	1841.6	1821.8	1622.1	1481.6	1439.9
37.5°	1769.1	1716.4	1505.7	1358.7	1312.6
40°	1687.9	1604.5	1382.8	1235.8	1189.7
42.5°	1597.9	1488.2	1266.5	1119.4	1071.1
45°	1497.0	1374.0	1148.0	1005.3	959.2
47.5°	1387.2	1264.3	1036.0	897.7	860.4
50°	1266.5	1148.0	932.9	794.6	746.3
52.5°	1143.6	1040.4	831.9	689.2	619.0
55°	1033.8	932.9	735.3	577.3	540.0
57.5°	917.5	827.5	647.5	498.3	467.5
60°	807.7	730.9	557.5	436.8	406.1
62.5°	702.4	636.5	469.7	379.7	355.6
65°	597.0	546.5	406.1	327.0	305.1
67.5°	493.9	460.9	349.0	276.6	261.2
70°	395.1	386.3	291.9	234.9	223.9
72.5°	309.5	316.1	237.1	195.3	188.8
75°	232.7	250.2	191.0	160.2	155.8
77.5°	169.0	195.3	149.3	125.1	120.7
80°	116.3	142.7	109.7	92.2	92.2
82.5°	72.4	92.2	70.2	63.7	63.7
85°	39.5	50.5	41.7	28.5	26.3
87.5°	13.2	19.8	8.8	6.6	6.6
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	23.53	25.03	23.89	25.34	25.66	20.03	21.53	20.40	21.85	22.16
	3H	24.90	26.24	25.28	26.57	26.93	21.28	22.63	21.66	22.96	23.32
	4H	25.30	26.56	25.70	26.91	27.29	21.76	23.02	22.16	23.37	23.74
	6H	25.54	26.70	25.95	27.07	27.46	22.10	23.27	22.52	23.63	24.03
	8H	25.59	26.69	26.01	27.08	27.48	22.20	23.30	22.62	23.69	24.09
	12H	25.60	26.66	26.03	27.04	27.47	22.23	23.29	22.66	23.67	24.10
4H	2H	23.71	24.97	24.11	25.32	25.69	20.79	22.05	21.19	22.40	22.78
	3H	25.31	26.35	25.72	26.75	27.15	22.23	23.27	22.64	23.67	24.07
	4H	25.84	26.78	26.28	27.20	27.64	22.80	23.74	23.23	24.15	24.59
	6H	26.21	27.02	26.67	27.47	27.93	23.23	24.05	23.69	24.49	24.95
	8H	26.30	27.06	26.76	27.50	27.97	23.35	24.11	23.82	24.56	25.02
	12H	26.34	27.02	26.83	27.50	27.97	23.40	24.08	23.88	24.56	25.03
8H	4H	25.93	26.69	26.39	27.13	27.60	23.17	23.93	23.63	24.37	24.84
	6H	26.39	27.01	26.88	27.51	27.98	23.70	24.32	24.19	24.81	25.29
	8H	26.53	27.10	27.05	27.61	28.10	23.86	24.42	24.38	24.93	25.42
	12H	26.63	27.13	27.14	27.62	28.18	23.95	24.45	24.46	24.94	25.50
12H	4H	25.91	26.59	26.40	27.07	27.54	23.21	23.89	23.70	24.37	24.84
	6H	26.38	26.94	26.89	27.45	27.94	23.76	24.33	24.28	24.84	25.32
	8H	26.57	27.07	27.08	27.56	28.12	23.98	24.47	24.49	24.97	25.53