

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: P845640

Luminaire Tested: SQ2R-PW1-050D-930-UNV-STD-W-4

Issue Date: 6/14/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P845640  
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-PW1-050D-930-UNV-STD-W-4  
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE WAVES CONTINUOUS LENS  
500 LUMENS PER FOOT  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

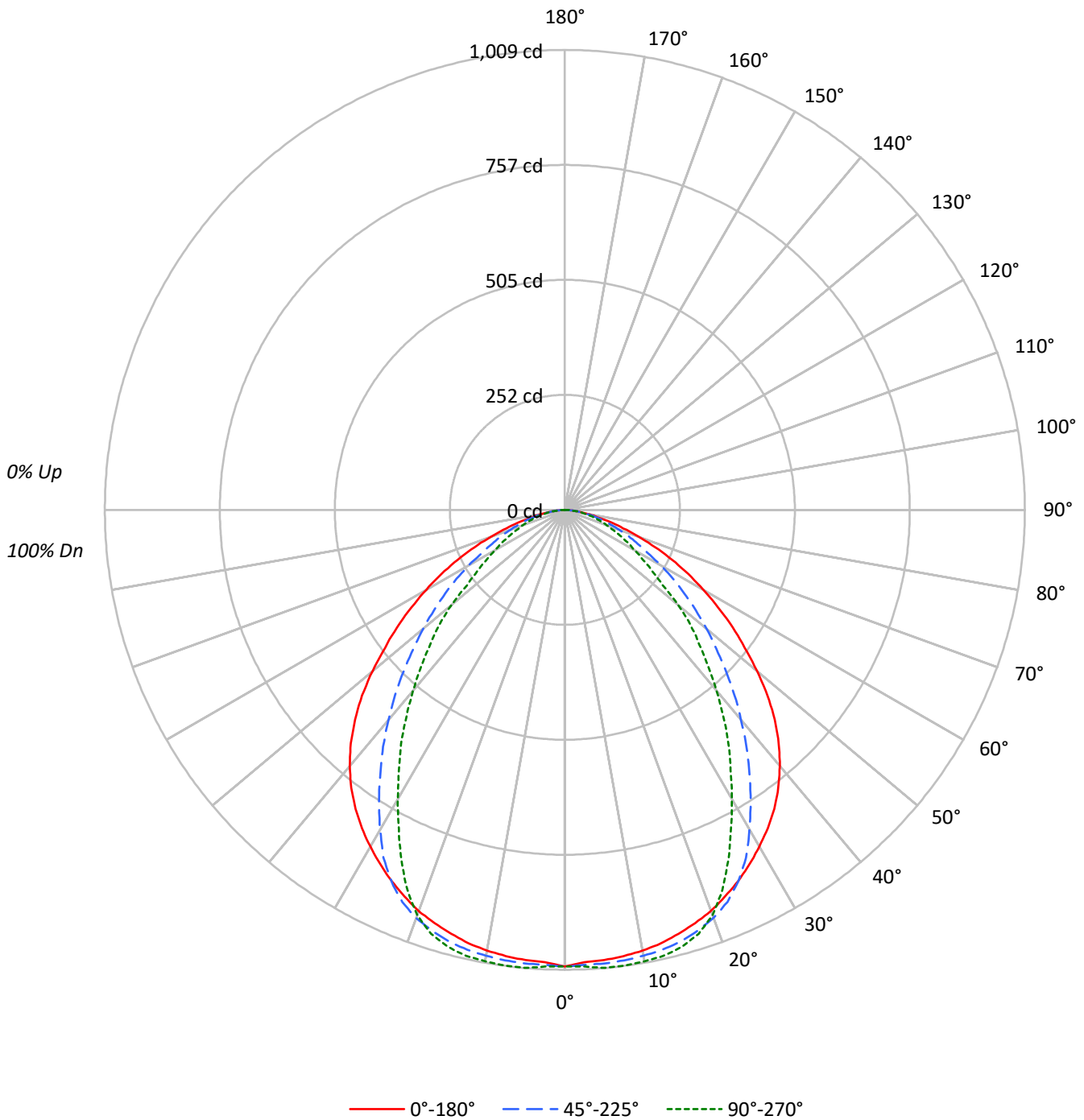
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2222.6 lumens  
Efficiency: N/A  
Efficacy: 124.9 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): 17.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: 0.9973  
Total Harmonic Distortion (THDi): 0.0531  
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°	16177	16177	16177
5°	16068	16193	16347
10°	16098	16285	16488
15°	16094	16396	16588
20°	16100	16380	16265
25°	16014	16030	15112
30°	15905	15103	13662
35°	15780	13900	12339
40°	15466	12671	10901
45°	14860	11396	9522
50°	13830	10186	8148
55°	12650	8999	6607
60°	11338	7828	5699
65°	9914	6743	5066
70°	8110	5991	4593
75°	6307	5178	4223
80°	4705	4435	3729
85°	3186	3353	2130

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 14860 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.4	4.3
10°-20°	276.7	12.4
20°-30°	407.4	18.3
30°-40°	445.1	20.0
40°-50°	399.0	18.0
50°-60°	297.1	13.4
60°-70°	187.7	8.4
70°-80°	92.9	4.2
80°-90°	21.2	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°	779.6	35.1
0°-40°	1224.7	55.1
0°-60°	1920.8	86.4
0°-90°	2222.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2222.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1002	1002	1002	1002	1002	
5°	991	1008	999	1000	1009	94
15°	963	982	981	988	992	272
25°	899	919	900	863	848	414
35°	801	792	705	644	626	500
45°	651	597	499	437	417	500
55°	449	406	320	251	235	401
65°	260	238	176	142	133	257
75°	101	109	83	70	68	111
85°	17	22	18	12	12	22
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1001.9	1001.9	1001.9	1001.9	1001.9
2.5°	993.3	1009.6	999.1	1000.0	1002.9
5°	991.4	1007.6	999.1	1000.0	1008.6
7.5°	987.6	1003.8	997.1	1000.0	1008.6
10°	981.9	999.1	993.3	998.1	1005.7
12.5°	974.2	992.4	988.6	994.3	1001.9
15°	962.8	981.9	980.9	987.6	992.4
17.5°	950.4	969.5	968.5	972.3	975.2
20°	937.0	956.1	953.3	946.6	946.6
22.5°	917.9	938.9	931.3	910.3	902.7
25°	898.9	918.9	899.8	862.6	848.3
27.5°	876.9	894.1	860.7	809.2	789.1
30°	853.1	865.5	810.1	751.9	732.8
32.5°	828.3	831.1	758.6	697.5	676.5
35°	800.6	792.0	705.2	644.1	626.0
37.5°	769.1	746.2	654.6	590.7	570.6
40°	733.8	697.5	601.2	537.2	517.2
42.5°	694.7	647.0	550.6	486.6	465.7
45°	650.8	597.3	499.1	437.0	417.0
47.5°	603.1	549.6	450.4	390.3	374.1
50°	550.6	499.1	405.5	345.4	324.4
52.5°	497.1	452.3	361.6	299.6	269.1
55°	449.4	405.5	319.7	251.0	234.7
57.5°	398.9	359.7	281.5	216.6	203.2
60°	351.1	317.8	242.4	189.9	176.5
62.5°	305.3	276.7	204.2	165.1	154.6
65°	259.5	237.6	176.5	142.2	132.6
67.5°	214.7	200.4	151.7	120.2	113.6
70°	171.8	167.9	126.9	102.1	97.3
72.5°	134.5	137.4	103.1	84.9	82.1
75°	101.1	108.8	83.0	69.7	67.7
77.5°	73.5	84.9	64.9	54.4	52.5
80°	50.6	62.0	47.7	40.1	40.1
82.5°	31.5	40.1	30.5	27.7	27.7
85°	17.2	21.9	18.1	12.4	11.5
87.5°	5.7	8.6	3.8	2.9	2.9
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	20.63	22.14	21.00	22.45	22.76	17.14	18.64	17.50	18.95	19.27
	3H	22.00	23.35	22.38	23.68	24.04	18.39	19.73	18.77	20.06	20.42
	4H	22.41	23.67	22.81	24.02	24.40	18.86	20.12	19.26	20.47	20.85
	6H	22.64	23.80	23.05	24.17	24.56	19.21	20.37	19.62	20.74	21.13
	8H	22.69	23.80	23.12	24.19	24.59	19.30	20.41	19.73	20.80	21.20
	12H	22.71	23.77	23.14	24.15	24.58	19.33	20.39	19.76	20.77	21.20
4H	2H	20.81	22.07	21.21	22.42	22.80	17.89	19.15	18.29	19.50	19.88
	3H	22.41	23.46	22.83	23.86	24.26	19.34	20.38	19.75	20.78	21.18
	4H	22.95	23.89	23.38	24.30	24.74	19.90	20.84	20.34	21.26	21.70
	6H	23.31	24.13	23.77	24.57	25.03	20.34	21.15	20.80	21.60	22.06
	8H	23.40	24.17	23.87	24.61	25.08	20.46	21.22	20.92	21.66	22.13
	12H	23.45	24.13	23.93	24.61	25.08	20.51	21.19	20.99	21.67	22.14
8H	4H	23.03	23.79	23.50	24.24	24.70	20.27	21.04	20.74	21.48	21.95
	6H	23.49	24.12	23.99	24.61	25.09	20.80	21.43	21.30	21.92	22.40
	8H	23.64	24.20	24.15	24.71	25.20	20.97	21.53	21.48	22.04	22.53
	12H	23.73	24.23	24.24	24.72	25.29	21.05	21.55	21.56	22.04	22.61
12H	4H	23.02	23.70	23.50	24.18	24.65	20.32	21.00	20.80	21.48	21.95
	6H	23.48	24.05	24.00	24.56	25.05	20.87	21.43	21.38	21.94	22.43
	8H	23.67	24.17	24.18	24.66	25.23	21.08	21.58	21.59	22.07	22.64