

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: P845638

Luminaire Tested: SQ2R-PW1-050D-835-UNV-STD-W-4

Issue Date: 6/14/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P845638  
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-835-UNV-STD-W-4  
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE WAVES CONTINUOUS LENS  
500 LUMENS PER FOOT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

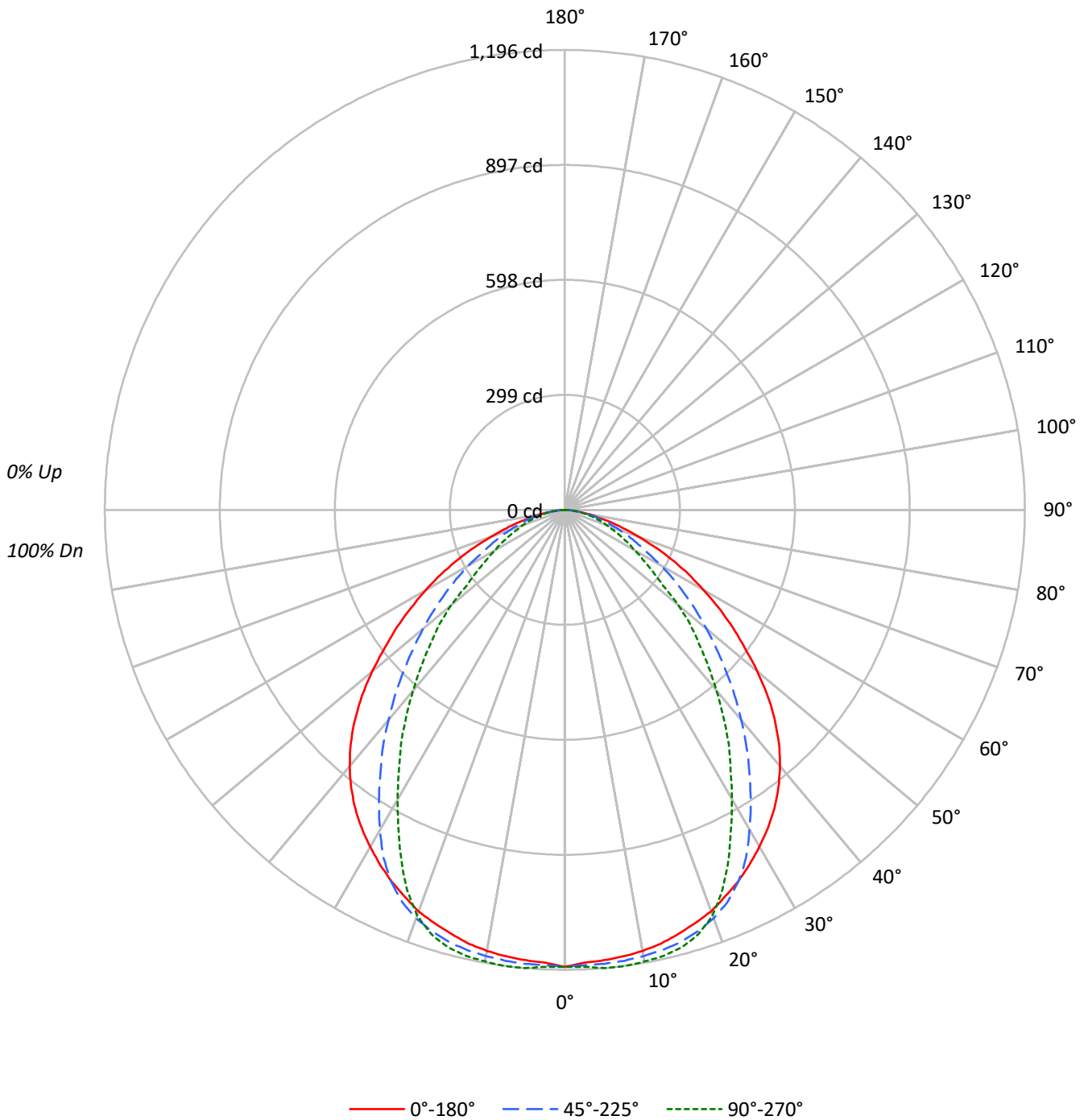
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2635.9 lumens  
Efficiency: N/A  
Efficacy: 148.1 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

TEST NUMBER: P845638

CATALOG NUMBER: SQ2R-PW1-050D-835-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P845638

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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	36				36
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°	19184	19184	19184
5°	19057	19204	19387
10°	19092	19315	19556
15°	19087	19447	19672
20°	19094	19424	19289
25°	18991	19012	17924
30°	18862	17913	16203
35°	18715	16484	14633
40°	18343	15026	12929
45°	17623	13515	11291
50°	16402	12082	9666
55°	15004	10671	7837
60°	13449	9281	6762
65°	11759	8000	6010
70°	9616	7105	5448
75°	7486	6145	5009
80°	5579	5263	4417
85°	3779	3983	2519

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 17623 cd/sqm



TEST NUMBER: P845638

CATALOG NUMBER: SQ2R-PW1-050D-835-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	113.2	4.3
10°-20°	328.2	12.4
20°-30°	483.2	18.3
30°-40°	527.9	20.0
40°-50°	473.2	18.0
50°-60°	352.4	13.4
60°-70°	222.6	8.4
70°-80°	110.2	4.2
80°-90°	25.1	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°	924.5	35.1
0°-40°	1452.5	55.1
0°-60°	2278.0	86.4
0°-90°	2635.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2635.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1188	1188	1188	1188	1188	
5°	1176	1195	1185	1186	1196	112
15°	1142	1164	1163	1171	1177	323
25°	1066	1090	1067	1023	1006	491
35°	950	939	836	764	742	593
45°	772	708	592	518	494	593
55°	533	481	379	298	278	476
65°	308	282	209	169	157	305
75°	120	129	98	83	80	131
85°	20	26	22	15	14	26
90°	0	0	0	0	0	



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CATALOG NUMBER: SQ2R-PW1-050D-835-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1188.2	1188.2	1188.2	1188.2	1188.2
2.5°	1178.1	1197.3	1184.9	1186.0	1189.4
5°	1175.8	1195.0	1184.9	1186.0	1196.2
7.5°	1171.3	1190.5	1182.6	1186.0	1196.2
10°	1164.5	1184.9	1178.1	1183.7	1192.8
12.5°	1155.4	1176.9	1172.4	1179.2	1188.2
15°	1141.9	1164.5	1163.4	1171.3	1176.9
17.5°	1127.1	1149.8	1148.6	1153.2	1156.6
20°	1111.3	1133.9	1130.5	1122.6	1122.6
22.5°	1088.7	1113.6	1104.5	1079.6	1070.6
25°	1066.0	1089.8	1067.2	1023.0	1006.1
27.5°	1040.0	1060.4	1020.8	959.7	935.9
30°	1011.7	1026.4	960.8	891.8	869.1
32.5°	982.3	985.7	899.7	827.2	802.4
35°	949.5	939.3	836.3	763.9	742.4
37.5°	912.1	885.0	776.3	700.5	676.7
40°	870.3	827.2	712.9	637.1	613.4
42.5°	823.9	767.3	653.0	577.1	552.3
45°	771.8	708.4	591.9	518.3	494.5
47.5°	715.2	651.8	534.1	462.9	443.6
50°	653.0	591.9	481.0	409.7	384.8
52.5°	589.6	536.4	428.9	355.3	319.1
55°	533.0	481.0	379.1	297.6	278.4
57.5°	473.0	426.6	333.8	256.9	241.0
60°	416.5	376.8	287.4	225.2	209.4
62.5°	362.1	328.2	242.2	195.8	183.3
65°	307.8	281.8	209.4	168.6	157.3
67.5°	254.6	237.6	179.9	142.6	134.7
70°	203.7	199.2	150.5	121.1	115.4
72.5°	159.6	163.0	122.2	100.7	97.3
75°	120.0	129.0	98.5	82.6	80.3
77.5°	87.1	100.7	77.0	64.5	62.2
80°	60.0	73.6	56.6	47.5	47.5
82.5°	37.3	47.5	36.2	32.8	32.8
85°	20.4	26.0	21.5	14.7	13.6
87.5°	6.8	10.2	4.5	3.4	3.4
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P845638

CATALOG NUMBER: SQ2R-PW1-050D-835-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	21.23	22.73	21.59	23.04	23.36	17.73	19.23	18.09	19.55	19.86
	3H	22.60	23.94	22.97	24.27	24.63	18.98	20.32	19.36	20.65	21.02
	4H	23.00	24.26	23.40	24.61	24.99	19.45	20.71	19.85	21.06	21.44
	6H	23.23	24.40	23.65	24.77	25.16	19.80	20.96	20.21	21.33	21.72
	8H	23.29	24.39	23.71	24.78	25.18	19.89	21.00	20.32	21.39	21.79
	12H	23.30	24.36	23.73	24.74	25.17	19.92	20.98	20.35	21.36	21.79
4H	2H	21.40	22.66	21.80	23.01	23.39	18.49	19.75	18.89	20.09	20.47
	3H	23.01	24.05	23.42	24.45	24.85	19.93	20.97	20.34	21.37	21.77
	4H	23.54	24.48	23.97	24.89	25.33	20.50	21.43	20.93	21.85	22.29
	6H	23.91	24.72	24.37	25.17	25.63	20.93	21.75	21.39	22.19	22.65
	8H	24.00	24.76	24.46	25.20	25.67	21.05	21.81	21.51	22.25	22.72
	12H	24.04	24.72	24.53	25.20	25.67	21.10	21.78	21.58	22.26	22.73
8H	4H	23.62	24.39	24.09	24.83	25.30	20.87	21.63	21.33	22.07	22.54
	6H	24.09	24.71	24.58	25.20	25.68	21.39	22.02	21.89	22.51	22.99
	8H	24.23	24.80	24.75	25.31	25.79	21.56	22.12	22.07	22.63	23.12
	12H	24.33	24.82	24.84	25.32	25.88	21.65	22.14	22.16	22.64	23.20
12H	4H	23.61	24.29	24.09	24.77	25.24	20.91	21.59	21.39	22.07	22.54
	6H	24.08	24.64	24.59	25.15	25.64	21.46	22.02	21.97	22.53	23.02
	8H	24.27	24.77	24.78	25.26	25.82	21.67	22.17	22.18	22.66	23.23