

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: P845642

Luminaire Tested: SQ2R-PW1-050D-940-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845642
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-940-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE WAVES CONTINUOUS LENS
500 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

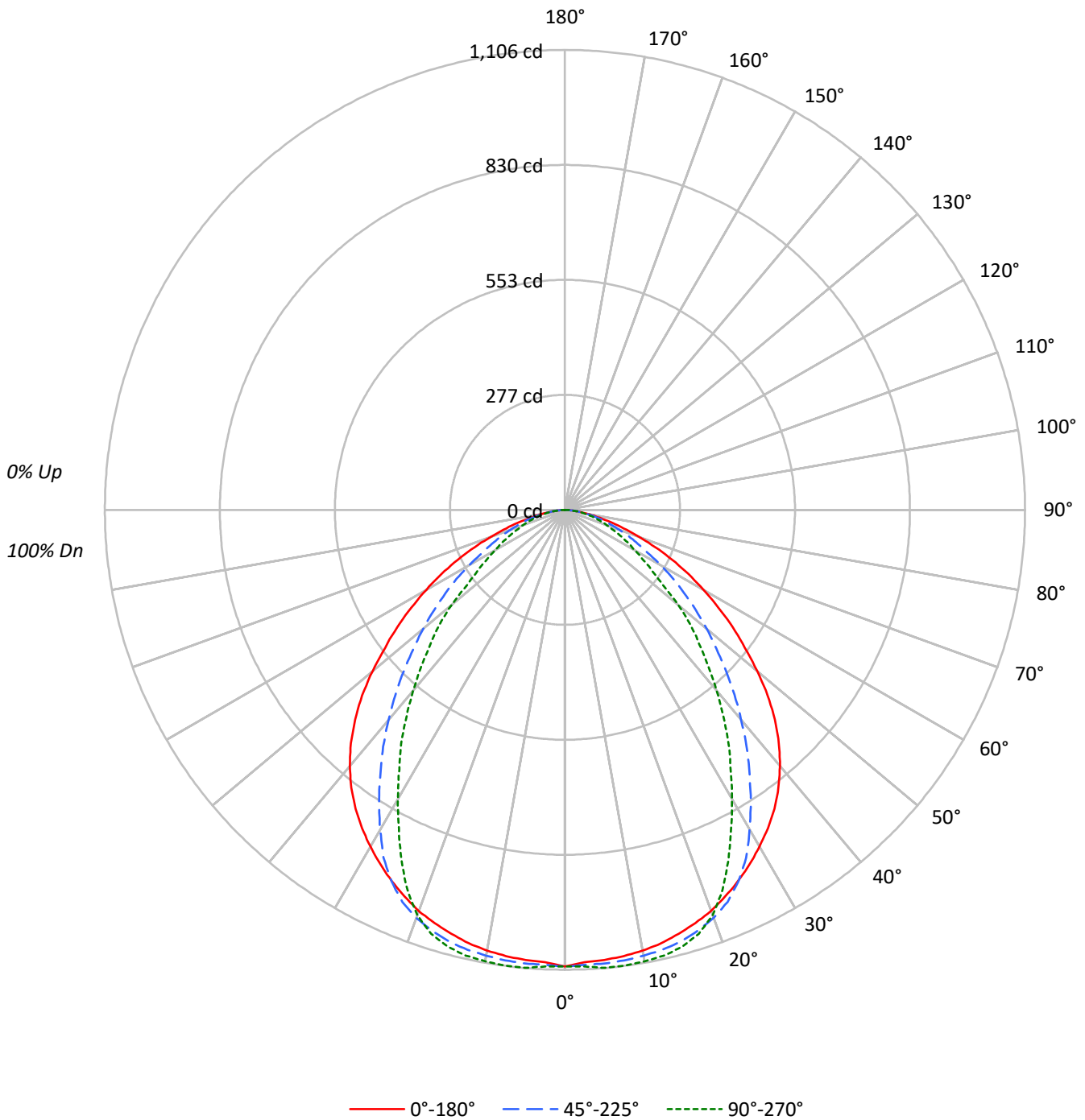
Lumens per Lamp: N/A
Luminaire Lumens: 2436.0 lumens
Efficiency: N/A
Efficacy: 136.9 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.12 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

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°	17730	17730	17730
5°	17611	17747	17917
10°	17644	17849	18072
15°	17640	17971	18181
20°	17646	17952	17826
25°	17551	17569	16564
30°	17432	16554	14975
35°	17296	15234	13523
40°	16952	13888	11948
45°	16287	12490	10435
50°	15159	11165	8932
55°	13866	9864	7243
60°	12429	8577	6248
65°	10869	7393	5555
70°	8889	6567	5037
75°	6918	5677	4635
80°	5151	4863	4082
85°	3483	3687	2334

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 16287 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.6	4.3
10°-20°	303.3	12.4
20°-30°	446.6	18.3
30°-40°	487.9	20.0
40°-50°	437.3	18.0
50°-60°	325.7	13.4
60°-70°	205.7	8.4
70°-80°	101.8	4.2
80°-90°	23.2	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°	854.4	35.1
0°-40°	1342.3	55.1
0°-60°	2105.3	86.4
0°-90°	2436.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2436.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1098	1098	1098	1098	1098	
5°	1087	1104	1095	1096	1106	103
15°	1055	1076	1075	1082	1088	298
25°	985	1007	986	945	930	454
35°	878	868	773	706	686	548
45°	713	655	547	479	457	548
55°	493	444	350	275	257	440
65°	284	260	194	156	145	282
75°	111	119	91	76	74	121
85°	19	24	20	14	13	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1098.1	1098.1	1098.1	1098.1	1098.1
2.5°	1088.7	1106.5	1095.0	1096.1	1099.2
5°	1086.6	1104.4	1095.0	1096.1	1105.5
7.5°	1082.5	1100.2	1092.9	1096.1	1105.5
10°	1076.2	1095.0	1088.7	1094.0	1102.3
12.5°	1067.8	1087.7	1083.5	1089.8	1098.1
15°	1055.3	1076.2	1075.1	1082.5	1087.7
17.5°	1041.7	1062.6	1061.5	1065.7	1068.9
20°	1027.0	1047.9	1044.8	1037.5	1037.5
22.5°	1006.1	1029.1	1020.8	997.7	989.4
25°	985.2	1007.2	986.2	945.4	929.8
27.5°	961.1	980.0	943.4	886.9	864.9
30°	935.0	948.6	887.9	824.1	803.2
32.5°	907.8	910.9	831.5	764.5	741.5
35°	877.5	868.1	772.9	705.9	686.1
37.5°	843.0	817.9	717.5	647.4	625.4
40°	804.3	764.5	658.9	588.8	566.9
42.5°	761.4	709.1	603.5	533.4	510.4
45°	713.3	654.7	547.0	479.0	457.0
47.5°	661.0	602.4	493.6	427.8	410.0
50°	603.5	547.0	444.5	378.6	355.6
52.5°	544.9	495.7	396.4	328.4	294.9
55°	492.6	444.5	350.4	275.1	257.3
57.5°	437.2	394.3	308.5	237.4	222.8
60°	384.9	348.3	265.6	208.1	193.5
62.5°	334.7	303.3	223.8	180.9	169.4
65°	284.5	260.4	193.5	155.8	145.4
67.5°	235.3	219.6	166.3	131.8	124.5
70°	188.3	184.1	139.1	111.9	106.7
72.5°	147.5	150.6	113.0	93.1	89.9
75°	110.9	119.2	91.0	76.3	74.3
77.5°	80.5	93.1	71.1	59.6	57.5
80°	55.4	68.0	52.3	43.9	43.9
82.5°	34.5	43.9	33.5	30.3	30.3
85°	18.8	24.1	19.9	13.6	12.6
87.5°	6.3	9.4	4.2	3.1	3.1
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	20.95	22.45	21.32	22.77	23.08	17.46	18.96	17.82	19.27	19.59
	3H	22.32	23.67	22.70	24.00	24.36	18.71	20.05	19.08	20.38	20.74
	4H	22.73	23.99	23.13	24.34	24.72	19.18	20.44	19.58	20.79	21.17
	6H	22.96	24.12	23.37	24.49	24.88	19.53	20.69	19.94	21.06	21.45
	8H	23.01	24.12	23.44	24.51	24.91	19.62	20.73	20.05	21.12	21.52
	12H	23.03	24.09	23.46	24.47	24.90	19.65	20.71	20.08	21.09	21.52
4H	2H	21.13	22.39	21.53	22.74	23.12	18.21	19.47	18.61	19.82	20.20
	3H	22.73	23.78	23.14	24.18	24.58	19.65	20.70	20.06	21.10	21.50
	4H	23.27	24.20	23.70	24.62	25.06	20.22	21.16	20.66	21.58	22.02
	6H	23.63	24.45	24.09	24.89	25.35	20.66	21.47	21.12	21.92	22.38
	8H	23.72	24.48	24.19	24.93	25.40	20.78	21.54	21.24	21.98	22.45
	12H	23.77	24.45	24.25	24.93	25.40	20.83	21.50	21.31	21.98	22.45
8H	4H	23.35	24.11	23.81	24.56	25.02	20.59	21.35	21.06	21.80	22.27
	6H	23.81	24.44	24.31	24.93	25.41	21.12	21.75	21.62	22.24	22.72
	8H	23.96	24.52	24.47	25.03	25.52	21.28	21.85	21.80	22.36	22.85
	12H	24.05	24.55	24.56	25.04	25.61	21.37	21.87	21.88	22.36	22.93
12H	4H	23.34	24.02	23.82	24.50	24.97	20.64	21.32	21.12	21.79	22.27
	6H	23.80	24.37	24.32	24.88	25.37	21.19	21.75	21.70	22.26	22.75
	8H	23.99	24.49	24.50	24.98	25.55	21.40	21.90	21.91	22.39	22.96