

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: P845651

Luminaire Tested: SQ2R-PW1-100D-840-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845651
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-840-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE WAVES CONTINUOUS LENS
1000 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

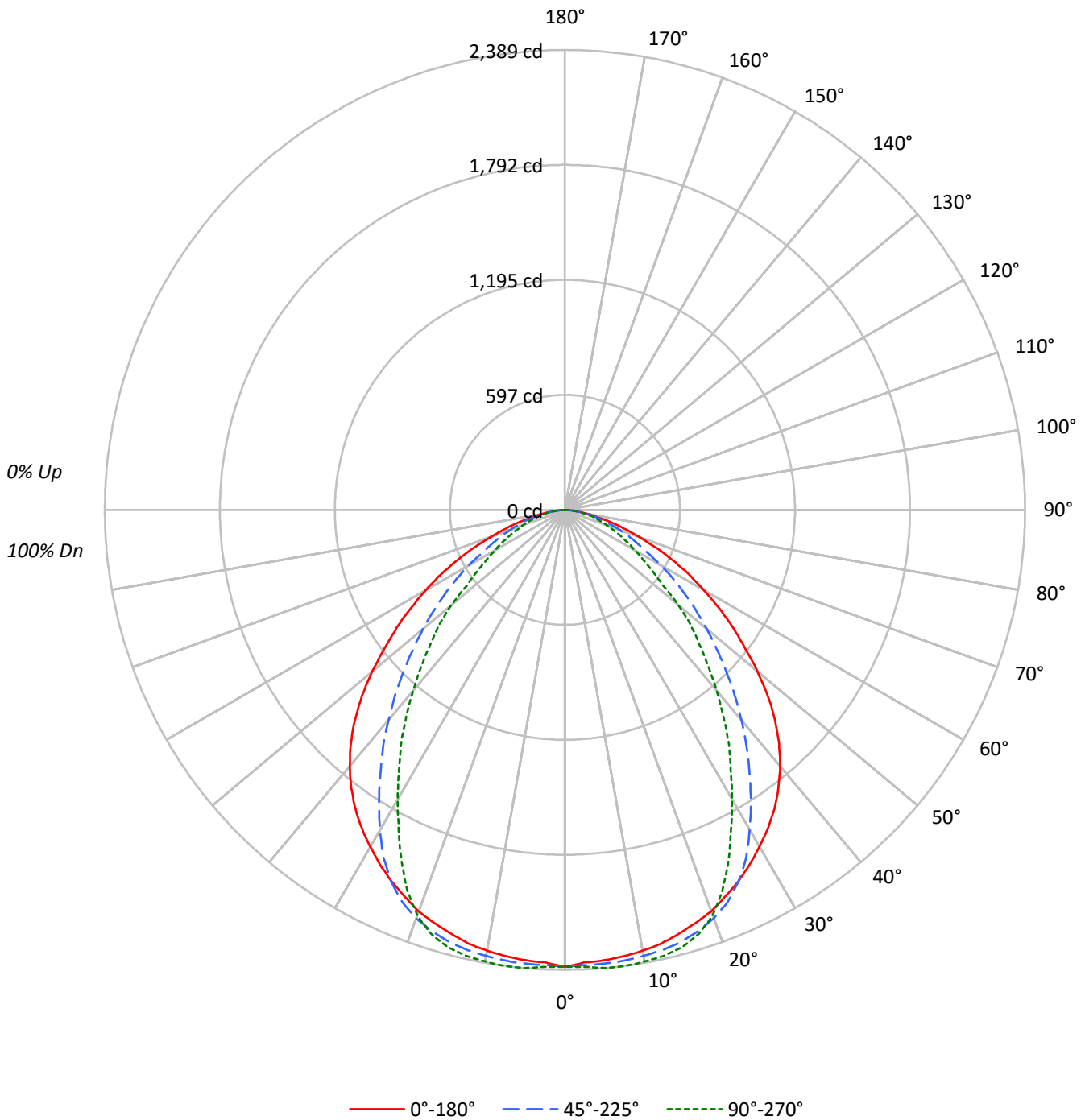
Lumens per Lamp: N/A
Luminaire Lumens: 5264.9 lumens
Efficiency: N/A
Efficacy: 140.0 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.12 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

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	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°	38321	38321	38321
5°	38063	38357	38723
10°	38133	38579	39059
15°	38123	38842	39295
20°	38139	38799	38527
25°	37933	37973	35799
30°	37675	35779	32365
35°	37381	32924	29227
40°	36636	30014	25821
45°	35200	26994	22555
50°	32760	24131	19304
55°	29968	21315	15654
60°	26860	18539	13504
65°	23488	15977	12004
70°	19209	14191	10886
75°	14947	12271	10012
80°	11139	10507	8824
85°	7540	7947	5020

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 35200 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	226.1	4.3
10°-20°	655.5	12.4
20°-30°	965.1	18.3
30°-40°	1054.4	20.0
40°-50°	945.1	18.0
50°-60°	703.8	13.4
60°-70°	444.6	8.4
70°-80°	220.1	4.2
80°-90°	50.2	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°	1846.7	35.1
0°-40°	2901.1	55.1
0°-60°	4550.0	86.4
0°-90°	5264.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5264.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2373	2373	2373	2373	2373	
5°	2348	2387	2367	2369	2389	224
15°	2281	2326	2324	2340	2351	644
25°	2129	2177	2132	2043	2010	981
35°	1896	1876	1670	1526	1483	1184
45°	1542	1415	1182	1035	988	1184
55°	1065	961	757	594	556	950
65°	615	563	418	337	314	609
75°	240	258	197	165	160	262
85°	41	52	43	29	27	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2373.4	2373.4	2373.4	2373.4	2373.4
2.5°	2353.1	2391.5	2366.6	2368.9	2375.7
5°	2348.5	2387.0	2366.6	2368.9	2389.2
7.5°	2339.5	2377.9	2362.1	2368.9	2389.2
10°	2325.9	2366.6	2353.1	2364.4	2382.4
12.5°	2307.8	2350.8	2341.8	2355.3	2373.4
15°	2280.7	2325.9	2323.7	2339.5	2350.8
17.5°	2251.3	2296.5	2294.3	2303.3	2310.1
20°	2219.7	2264.9	2258.1	2242.3	2242.3
22.5°	2174.5	2224.2	2206.1	2156.4	2138.3
25°	2129.3	2176.7	2131.5	2043.4	2009.5
27.5°	2077.3	2118.0	2038.9	1916.8	1869.3
30°	2020.8	2050.2	1919.1	1781.2	1736.0
32.5°	1962.0	1968.8	1797.0	1652.3	1602.6
35°	1896.5	1876.1	1670.4	1525.8	1482.8
37.5°	1821.9	1767.6	1550.6	1399.2	1351.7
40°	1738.2	1652.3	1424.0	1272.6	1225.1
42.5°	1645.6	1532.5	1304.2	1152.8	1103.1
45°	1541.6	1415.0	1182.2	1035.3	987.8
47.5°	1428.6	1302.0	1066.9	924.5	886.1
50°	1304.2	1182.2	960.7	818.3	768.5
52.5°	1177.7	1071.4	856.7	709.8	637.4
55°	1064.6	960.7	757.2	594.5	556.1
57.5°	944.8	852.2	666.8	513.1	481.5
60°	831.8	752.7	574.1	449.8	418.2
62.5°	723.3	655.5	483.7	391.0	366.2
65°	614.8	562.8	418.2	336.8	314.2
67.5°	508.6	474.7	359.4	284.8	269.0
70°	406.9	397.8	300.6	241.9	230.6
72.5°	318.7	325.5	244.1	201.2	194.4
75°	239.6	257.7	196.7	165.0	160.5
77.5°	174.0	201.2	153.7	128.8	124.3
80°	119.8	146.9	113.0	94.9	94.9
82.5°	74.6	94.9	72.3	65.6	65.6
85°	40.7	52.0	42.9	29.4	27.1
87.5°	13.6	20.3	9.0	6.8	6.8
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	23.63	25.13	23.99	25.44	25.76	20.13	21.64	20.50	21.95	22.26
	3H	25.00	26.35	25.38	26.67	27.04	21.38	22.73	21.76	23.06	23.42
	4H	25.40	26.66	25.80	27.01	27.39	21.86	23.12	22.26	23.47	23.85
	6H	25.64	26.80	26.05	27.17	27.56	22.21	23.37	22.62	23.74	24.13
	8H	25.69	26.80	26.12	27.19	27.59	22.30	23.40	22.72	23.79	24.20
	12H	25.70	26.76	26.14	27.15	27.58	22.33	23.39	22.76	23.77	24.20
4H	2H	23.81	25.07	24.21	25.42	25.80	20.89	22.15	21.29	22.50	22.88
	3H	25.41	26.45	25.82	26.85	27.26	22.33	23.38	22.74	23.78	24.18
	4H	25.94	26.88	26.38	27.30	27.74	22.90	23.84	23.33	24.25	24.69
	6H	26.31	27.13	26.77	27.57	28.03	23.34	24.15	23.79	24.59	25.05
	8H	26.40	27.16	26.87	27.61	28.07	23.45	24.21	23.92	24.66	25.13
	12H	26.45	27.12	26.93	27.60	28.07	23.50	24.18	23.99	24.66	25.13
8H	4H	26.03	26.79	26.49	27.23	27.70	23.27	24.03	23.74	24.48	24.94
	6H	26.49	27.12	26.99	27.61	28.09	23.80	24.42	24.30	24.92	25.39
	8H	26.64	27.20	27.15	27.71	28.20	23.96	24.53	24.48	25.04	25.52
	12H	26.73	27.23	27.24	27.72	28.29	24.05	24.55	24.56	25.04	25.61
12H	4H	26.02	26.69	26.50	27.17	27.64	23.32	23.99	23.80	24.47	24.94
	6H	26.48	27.04	26.99	27.55	28.04	23.86	24.43	24.38	24.94	25.43
	8H	26.67	27.17	27.18	27.66	28.23	24.08	24.57	24.59	25.07	25.63