

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: P845660

Luminaire Tested: SQ2R-PW1-125D-940-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845660
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-PW1-125D-940-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE WAVES CONTINUOUS LENS
1250 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

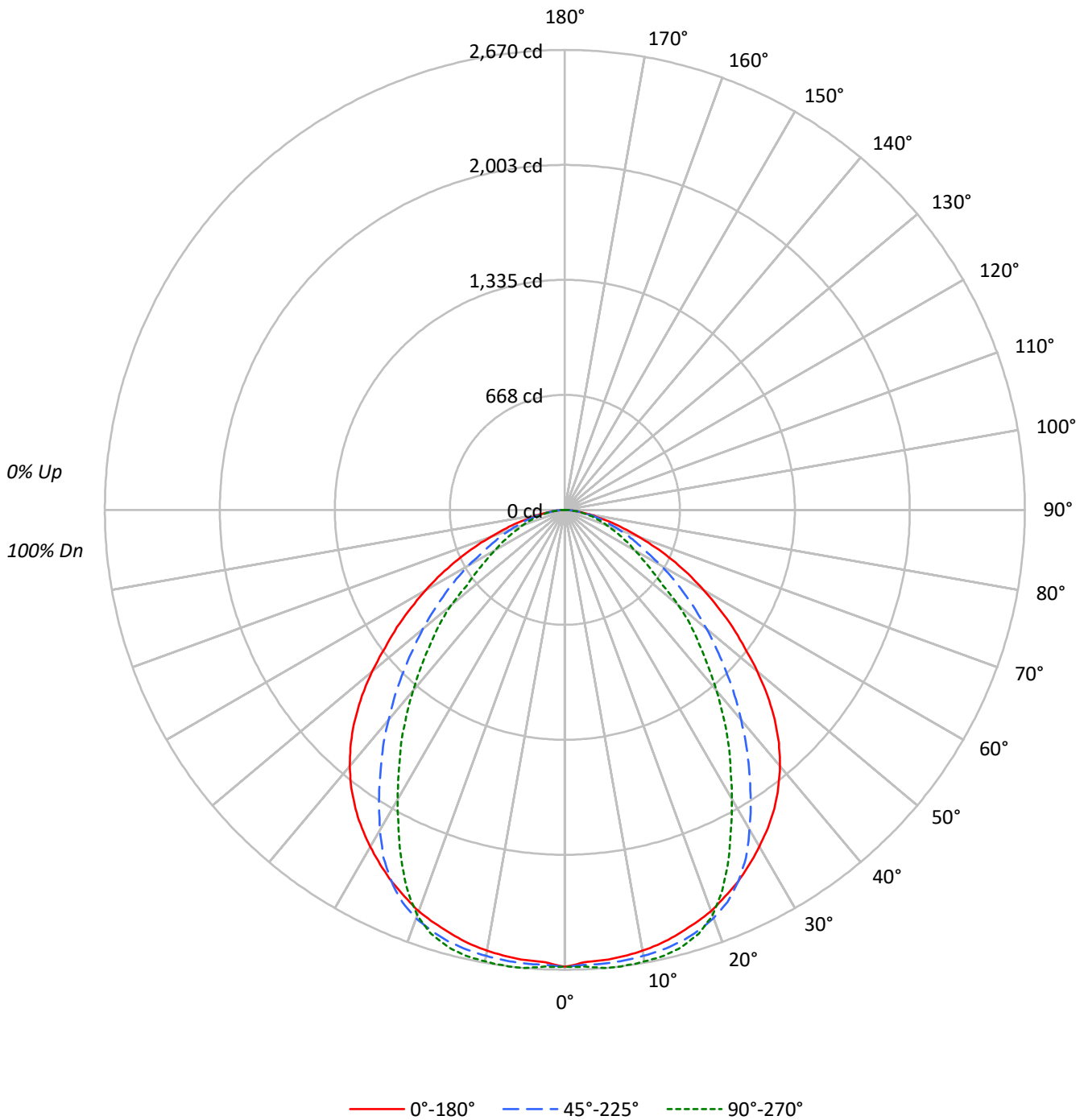
Lumens per Lamp: N/A
Luminaire Lumens: 5883.1 lumens
Efficiency: N/A
Efficacy: 119.6 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.12 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 49.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9979
Total Harmonic Distortion (THDi): 0.0523
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°	42820	42820	42820
5°	42533	42861	43271
10°	42610	43107	43647
15°	42599	43402	43908
20°	42617	43355	43051
25°	42387	42432	40002
30°	42099	39979	36165
35°	41768	36791	32658
40°	40938	33538	28854
45°	39333	30163	25204
50°	36608	26965	21572
55°	33487	23817	17489
60°	30015	20718	15090
65°	26246	17853	13414
70°	21460	15857	12161
75°	16700	13705	11185
80°	12450	11743	9865
85°	8429	8892	5613

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 39333 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	252.6	4.3
10°-20°	732.4	12.4
20°-30°	1078.5	18.3
30°-40°	1178.3	20.0
40°-50°	1056.1	18.0
50°-60°	786.5	13.4
60°-70°	496.8	8.4
70°-80°	245.9	4.2
80°-90°	56.1	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°	2063.5	35.1
0°-40°	3241.8	55.1
0°-60°	5084.3	86.4
0°-90°	5883.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5883.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2652	2652	2652	2652	2652	
5°	2624	2667	2644	2647	2670	250
15°	2548	2599	2596	2614	2627	720
25°	2379	2432	2382	2283	2245	1096
35°	2119	2096	1867	1705	1657	1323
45°	1723	1581	1321	1157	1104	1323
55°	1190	1074	846	664	621	1062
65°	687	629	467	376	351	681
75°	268	288	220	184	179	293
85°	46	58	48	33	30	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2652.1	2652.1	2652.1	2652.1	2652.1
2.5°	2629.3	2672.3	2644.5	2647.0	2654.6
5°	2624.3	2667.2	2644.5	2647.0	2669.8
7.5°	2614.2	2657.1	2639.5	2647.0	2669.8
10°	2599.0	2644.5	2629.3	2642.0	2662.2
12.5°	2578.8	2626.8	2616.7	2631.9	2652.1
15°	2548.5	2599.0	2596.5	2614.2	2626.8
17.5°	2515.7	2566.2	2563.7	2573.8	2581.4
20°	2480.3	2530.8	2523.3	2505.6	2505.6
22.5°	2429.8	2485.4	2465.2	2409.6	2389.4
25°	2379.3	2432.3	2381.8	2283.3	2245.4
27.5°	2321.2	2366.7	2278.3	2141.9	2088.8
30°	2258.1	2290.9	2144.4	1990.3	1939.8
32.5°	2192.4	2200.0	2008.0	1846.4	1790.8
35°	2119.1	2096.4	1866.6	1704.9	1656.9
37.5°	2035.8	1975.2	1732.7	1563.5	1510.4
40°	1942.3	1846.4	1591.2	1422.0	1369.0
42.5°	1838.8	1712.5	1457.4	1288.2	1232.6
45°	1722.6	1581.1	1321.0	1156.8	1103.8
47.5°	1596.3	1454.9	1192.2	1033.0	990.1
50°	1457.4	1321.0	1073.5	914.3	858.8
52.5°	1315.9	1197.2	957.3	793.1	712.3
55°	1189.6	1073.5	846.1	664.3	621.3
57.5°	1055.8	952.2	745.1	573.4	538.0
60°	929.5	841.1	641.6	502.6	467.3
62.5°	808.3	732.5	540.5	437.0	409.2
65°	687.0	628.9	467.3	376.3	351.1
67.5°	568.3	530.4	401.6	318.2	300.6
70°	454.6	444.5	335.9	270.3	257.6
72.5°	356.1	363.7	272.8	224.8	217.2
75°	267.7	287.9	219.7	184.4	179.3
77.5°	194.5	224.8	171.8	144.0	138.9
80°	133.9	164.2	126.3	106.1	106.1
82.5°	83.4	106.1	80.8	73.2	73.2
85°	45.5	58.1	48.0	32.8	30.3
87.5°	15.2	22.7	10.1	7.6	7.6
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	24.02	25.52	24.38	25.83	26.15	20.52	22.02	20.88	22.33	22.65
	3H	25.39	26.73	25.76	27.06	27.42	21.77	23.11	22.15	23.44	23.80
	4H	25.79	27.05	26.19	27.40	27.78	22.24	23.50	22.64	23.85	24.23
	6H	26.02	27.19	26.44	27.55	27.95	22.59	23.75	23.00	24.12	24.51
	8H	26.07	27.18	26.50	27.57	27.97	22.68	23.79	23.11	24.18	24.58
	12H	26.09	27.15	26.52	27.53	27.96	22.71	23.77	23.14	24.16	24.58
4H	2H	24.19	25.45	24.59	25.80	26.18	21.27	22.54	21.67	22.88	23.26
	3H	25.80	26.84	26.21	27.24	27.64	22.72	23.76	23.13	24.16	24.56
	4H	26.33	27.27	26.76	27.68	28.12	23.29	24.22	23.72	24.64	25.08
	6H	26.70	27.51	27.15	27.95	28.41	23.72	24.54	24.18	24.98	25.44
	8H	26.79	27.55	27.25	27.99	28.46	23.84	24.60	24.30	25.04	25.51
	12H	26.83	27.51	27.31	27.99	28.46	23.89	24.57	24.37	25.05	25.52
8H	4H	26.41	27.17	26.88	27.62	28.09	23.66	24.42	24.12	24.86	25.33
	6H	26.87	27.50	27.37	27.99	28.47	24.18	24.81	24.68	25.30	25.78
	8H	27.02	27.58	27.54	28.09	28.58	24.35	24.91	24.86	25.42	25.91
	12H	27.12	27.61	27.63	28.11	28.67	24.44	24.93	24.95	25.43	25.99
12H	4H	26.40	27.08	26.88	27.56	28.03	23.70	24.38	24.18	24.86	25.33
	6H	26.87	27.43	27.38	27.94	28.43	24.25	24.81	24.76	25.32	25.81
	8H	27.06	27.55	27.57	28.05	28.61	24.46	24.96	24.97	25.45	26.02