

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: P845632

Luminaire Tested: SQ2R-PR1-125D-835-UNV-STD-W-4

Issue Date: 6/14/2024

**Test Information**

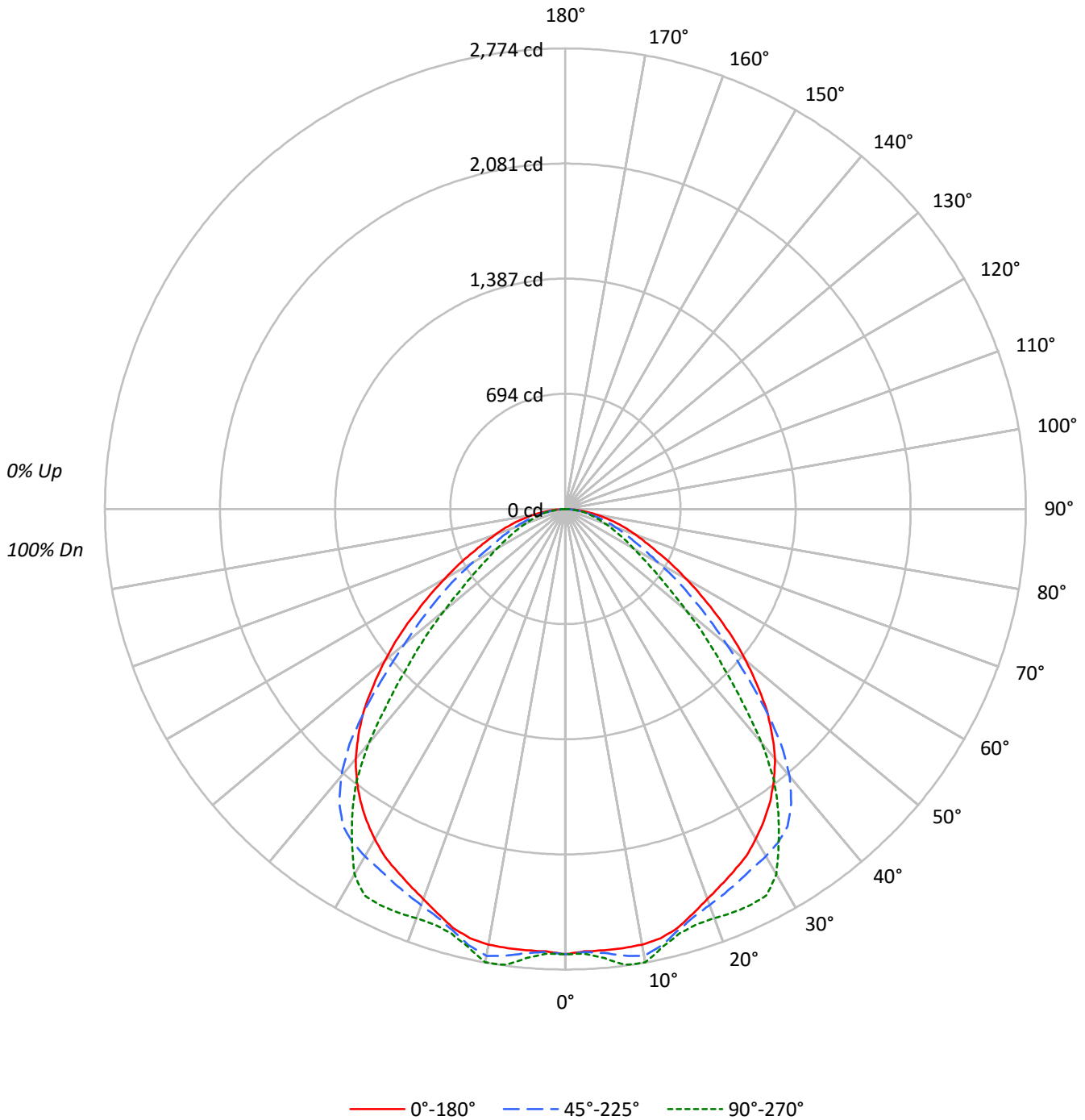
Test Method: LM-79-2019  
Report Number: P845632  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/14/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2R-PR1-125D-835-UNV-STD-W-4  
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE RIPPLE CONTINUOUS LENS  
1250 LUMENS PER FOOT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6450.5 lumens  
Efficiency: N/A  
Efficacy: 131.1 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.33 / 1.36  
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	101	97	100	97	94	96	94	92	92	91	89	87				87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75				75
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65				65
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56				56
5	80	68	60	53	78	67	59	53	65	58	53	63	57	52	61	56	52	50				50
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	52	46	41	51	45	41	39				39
8	64	51	43	38	63	51	43	38	49	42	38	48	42	37	47	41	37	35				35
9	60	47	40	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32				32
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	40	35	31	29				29

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	43289	43289	43289
5°	43232	43498	44029
10°	43688	44807	45479
15°	43674	43901	44267
20°	42967	43625	45081
25°	42847	44064	46935
30°	42800	45043	47386
35°	42395	46004	44120
40°	41418	44297	38826
45°	39189	38879	30704
50°	35628	31785	23822
55°	31311	26156	18542
60°	27093	20915	15268
65°	23389	17333	13364
70°	21031	15352	11868
75°	19264	13300	10911
80°	16774	10674	10674
85°	12153	9615	5057

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 42436 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	258.9	4.0
10°-20°	749.8	11.6
20°-30°	1159.5	18.0
30°-40°	1396.2	21.6
40°-50°	1253.4	19.4
50°-60°	836.7	13.0
60°-70°	486.1	7.5
70°-80°	249.9	3.9
80°-90°	60.1	0.9
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°	2168.2	33.6
0°-40°	3564.3	55.3
0°-60°	5654.4	87.7
0°-90°	6450.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6450.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2681	2681	2681	2681	2681	
5°	2667	2714	2684	2689	2717	255
15°	2613	2722	2626	2635	2648	734
25°	2405	2504	2473	2564	2635	1110
35°	2151	2170	2334	2290	2238	1342
45°	1716	1858	1703	1438	1345	1314
55°	1112	1156	929	719	659	999
65°	612	626	454	369	350	617
75°	309	301	213	180	175	327
85°	66	52	52	36	27	82
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2681.1	2681.1	2681.1	2681.1	2681.1
2.5°	2667.4	2708.4	2670.2	2672.9	2681.1
5°	2667.4	2713.9	2683.8	2689.3	2716.6
7.5°	2667.4	2730.3	2713.9	2733.0	2768.6
10°	2664.7	2744.0	2733.0	2735.8	2774.0
12.5°	2648.3	2744.0	2692.0	2686.6	2703.0
15°	2612.8	2722.1	2626.4	2634.6	2648.3
17.5°	2555.4	2670.2	2574.5	2601.8	2623.7
20°	2500.7	2612.8	2539.0	2577.2	2623.7
22.5°	2451.5	2563.6	2506.2	2563.6	2631.9
25°	2405.1	2503.5	2473.4	2563.6	2634.6
27.5°	2358.6	2421.5	2440.6	2566.3	2623.7
30°	2295.7	2334.0	2416.0	2522.6	2541.7
32.5°	2227.4	2246.6	2383.2	2426.9	2391.4
35°	2150.9	2170.0	2334.0	2290.3	2238.4
37.5°	2063.4	2096.2	2235.6	2123.6	2066.2
40°	1965.1	2030.6	2101.7	1910.4	1842.1
42.5°	1844.8	1959.6	1924.1	1667.1	1579.7
45°	1716.3	1858.5	1702.7	1437.6	1344.7
47.5°	1566.0	1719.1	1470.4	1229.9	1145.1
50°	1418.4	1536.0	1265.4	1044.0	948.4
52.5°	1268.1	1344.7	1090.5	869.1	784.4
55°	1112.3	1156.1	929.2	718.8	658.7
57.5°	967.5	997.6	787.1	598.5	552.1
60°	839.0	858.2	647.7	508.3	472.8
62.5°	721.5	735.2	535.7	431.8	407.2
65°	612.2	625.9	453.7	369.0	349.8
67.5°	522.0	530.2	385.4	317.0	297.9
70°	445.5	448.2	325.2	265.1	251.4
72.5°	377.2	371.7	267.8	221.4	213.2
75°	308.8	300.6	213.2	180.4	174.9
77.5°	243.2	235.0	158.5	144.9	144.9
80°	180.4	169.4	114.8	114.8	114.8
82.5°	123.0	106.6	82.0	82.0	79.3
85°	65.6	51.9	51.9	35.5	27.3
87.5°	21.9	21.9	8.2	8.2	8.2
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	23.80	25.29	24.16	25.61	25.92	20.53	22.02	20.89	22.34	22.65
	3H	25.08	26.41	25.46	26.74	27.10	21.64	22.98	22.02	23.30	23.67
	4H	25.56	26.81	25.96	27.16	27.54	22.07	23.32	22.47	23.67	24.05
	6H	25.90	27.06	26.32	27.42	27.82	22.43	23.58	22.84	23.95	24.34
	8H	26.00	27.10	26.43	27.49	27.89	22.53	23.63	22.96	24.02	24.42
	12H	26.05	27.10	26.48	27.48	27.91	22.56	23.61	22.99	23.99	24.42
4H	2H	23.95	25.20	24.35	25.55	25.93	21.17	22.42	21.57	22.77	23.15
	3H	25.48	26.51	25.89	26.91	27.31	22.49	23.52	22.90	23.92	24.33
	4H	26.10	27.02	26.53	27.44	27.88	23.02	23.95	23.45	24.36	24.80
	6H	26.58	27.38	27.04	27.83	28.29	23.49	24.29	23.94	24.74	25.20
	8H	26.72	27.47	27.19	27.92	28.39	23.62	24.37	24.08	24.82	25.29
	12H	26.80	27.47	27.28	27.95	28.42	23.67	24.34	24.15	24.82	25.29
8H	4H	26.16	26.92	26.63	27.36	27.83	23.37	24.12	23.83	24.56	25.03
	6H	26.73	27.35	27.23	27.84	28.32	23.92	24.54	24.42	25.04	25.51
	8H	26.93	27.49	27.44	28.00	28.49	24.11	24.67	24.62	25.18	25.67
	12H	27.06	27.55	27.57	28.05	28.61	24.20	24.69	24.71	25.18	25.75
12H	4H	26.15	26.82	26.63	27.30	27.77	23.41	24.08	23.89	24.56	25.03
	6H	26.72	27.28	27.23	27.79	28.28	23.98	24.54	24.50	25.05	25.54
	8H	26.95	27.45	27.46	27.94	28.51	24.21	24.71	24.72	25.20	25.77