

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: P845636

Luminaire Tested: SQ2R-PR1-125D-940-UNV-STD-W-4

Issue Date: 6/14/2024

**Test Information**

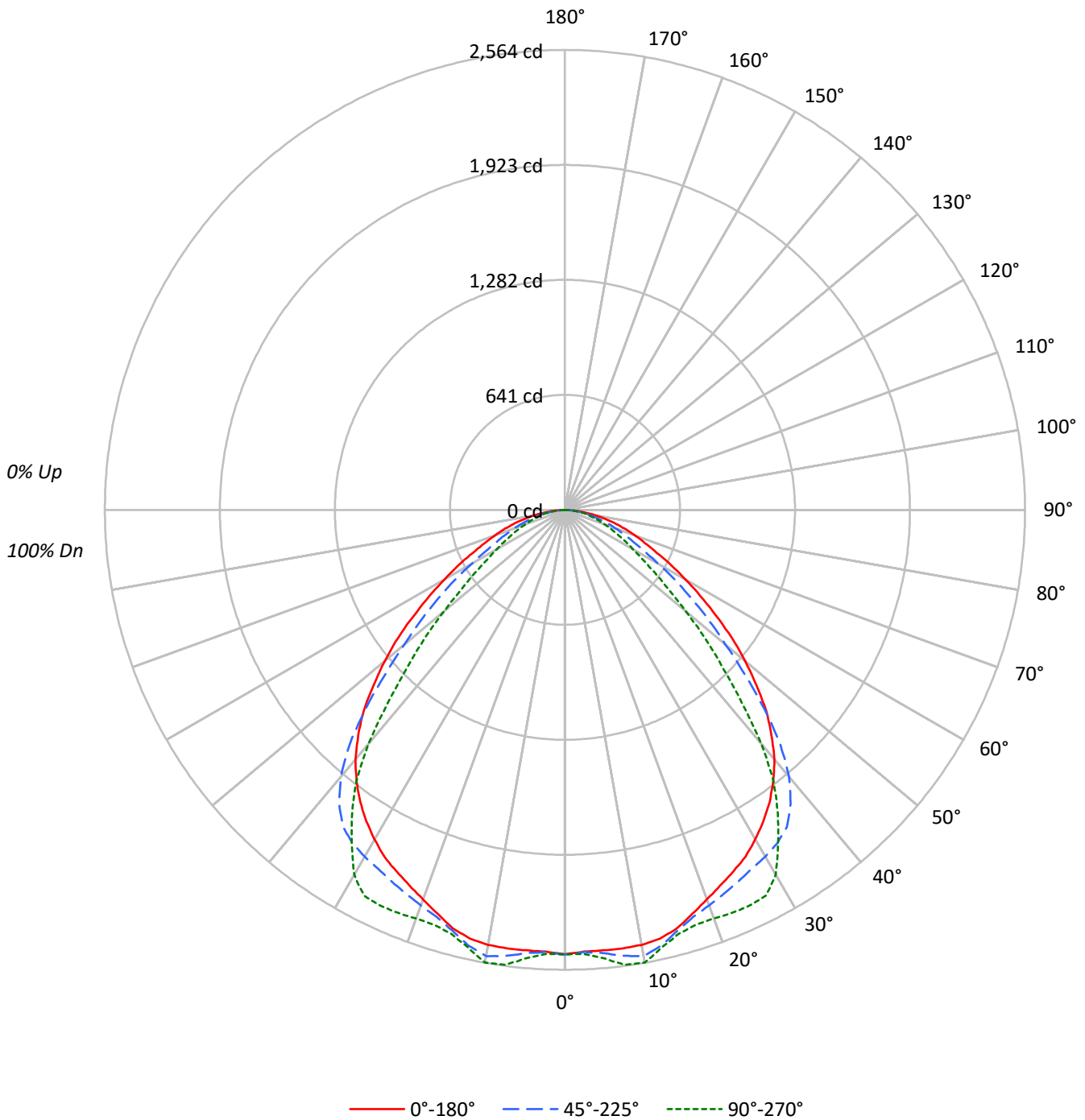
Test Method: LM-79-2019  
Report Number: P845636  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/14/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2R-PR1-125D-940-UNV-STD-W-4  
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE RIPPLE CONTINUOUS LENS  
1250 LUMENS PER FOOT  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5961.3 lumens  
Efficiency: N/A  
Efficacy: 121.2 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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56
5	80	68	60	53	78	67	59	53	65	58	53	63	57	52	61	56	52	50
6	74	62	53	47	72	61	53	47	59	52	47	57	51	46	56	50	46	44
7	69	56	48	42	67	55	48	42	54	47	42	52	46	41	51	45	41	39
8	64	51	43	38	63	51	43	38	49	42	38	48	42	37	47	41	37	35
9	60	47	40	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	40	35	31	29

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

	0°	45°	90°
0°	40006	40006	40006
5°	39955	40199	40691
10°	40374	41410	42032
15°	40363	40573	40911
20°	39709	40318	41663
25°	39597	40721	43378
30°	39556	41627	43794
35°	39180	42515	40773
40°	38276	40938	35881
45°	36219	35931	28375
50°	32928	29374	22014
55°	28938	24175	17135
60°	25039	19330	14111
65°	21616	16019	12351
70°	19435	14191	10971
75°	17804	12289	10087
80°	15500	9865	9865
85°	11226	8892	4687

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 39217 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	239.2	4.0
10°-20°	693.0	11.6
20°-30°	1071.6	18.0
30°-40°	1290.3	21.6
40°-50°	1158.3	19.4
50°-60°	773.3	13.0
60°-70°	449.2	7.5
70°-80°	230.9	3.9
80°-90°	55.5	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°	2003.8	33.6
0°-40°	3294.0	55.3
0°-60°	5225.6	87.7
0°-90°	5961.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5961.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2478	2478	2478	2478	2478	
5°	2465	2508	2480	2485	2511	235
15°	2415	2516	2427	2435	2448	679
25°	2223	2314	2286	2369	2435	1026
35°	1988	2006	2157	2117	2069	1240
45°	1586	1718	1574	1329	1243	1215
55°	1028	1068	859	664	609	923
65°	566	578	419	341	323	571
75°	285	278	197	167	162	303
85°	61	48	48	33	25	76
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2477.8	2477.8	2477.8	2477.8	2477.8
2.5°	2465.2	2503.1	2467.7	2470.2	2477.8
5°	2465.2	2508.1	2480.3	2485.4	2510.6
7.5°	2465.2	2523.3	2508.1	2525.8	2558.6
10°	2462.6	2535.9	2525.8	2528.3	2563.7
12.5°	2447.5	2535.9	2487.9	2482.8	2498.0
15°	2414.7	2515.7	2427.3	2434.9	2447.5
17.5°	2361.6	2467.7	2379.3	2404.5	2424.8
20°	2311.1	2414.7	2346.5	2381.8	2424.8
22.5°	2265.6	2369.2	2316.1	2369.2	2432.3
25°	2222.7	2313.6	2285.8	2369.2	2434.9
27.5°	2179.8	2237.8	2255.5	2371.7	2424.8
30°	2121.7	2157.0	2232.8	2331.3	2349.0
32.5°	2058.5	2076.2	2202.5	2242.9	2210.1
35°	1987.8	2005.5	2157.0	2116.6	2068.6
37.5°	1907.0	1937.3	2066.1	1962.5	1909.5
40°	1816.0	1876.7	1942.3	1765.5	1702.4
42.5°	1704.9	1811.0	1778.2	1540.7	1459.9
45°	1586.2	1717.5	1573.6	1328.6	1242.7
47.5°	1447.3	1588.7	1358.9	1136.6	1058.3
50°	1310.9	1419.5	1169.4	964.8	876.4
52.5°	1172.0	1242.7	1007.8	803.2	724.9
55°	1028.0	1068.4	858.8	664.3	608.7
57.5°	894.1	921.9	727.4	553.1	510.2
60°	775.4	793.1	598.6	469.8	437.0
62.5°	666.8	679.4	495.1	399.1	376.3
65°	565.8	578.4	419.3	341.0	323.3
67.5°	482.4	490.0	356.1	293.0	275.3
70°	411.7	414.2	300.6	245.0	232.4
72.5°	348.6	343.5	247.5	204.6	197.0
75°	285.4	277.8	197.0	166.7	161.7
77.5°	224.8	217.2	146.5	133.9	133.9
80°	166.7	156.6	106.1	106.1	106.1
82.5°	113.7	98.5	75.8	75.8	73.2
85°	60.6	48.0	48.0	32.8	25.3
87.5°	20.2	20.2	7.6	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	23.52	25.02	23.89	25.33	25.65	20.25	21.75	20.62	22.06	22.38
	3H	24.80	26.14	25.18	26.47	26.83	21.37	22.70	21.74	23.03	23.39
	4H	25.28	26.53	25.68	26.88	27.26	21.79	23.04	22.19	23.39	23.77
	6H	25.63	26.78	26.04	27.15	27.54	22.15	23.31	22.57	23.67	24.07
	8H	25.73	26.83	26.16	27.22	27.62	22.26	23.35	22.68	23.74	24.15
	12H	25.78	26.83	26.21	27.21	27.64	22.28	23.33	22.71	23.72	24.15
4H	2H	23.68	24.93	24.08	25.28	25.66	20.90	22.15	21.30	22.50	22.88
	3H	25.20	26.24	25.62	26.64	27.04	22.22	23.25	22.63	23.65	24.05
	4H	25.82	26.75	26.25	27.16	27.60	22.75	23.67	23.18	24.09	24.53
	6H	26.30	27.11	26.76	27.55	28.01	23.21	24.02	23.67	24.46	24.92
	8H	26.45	27.20	26.91	27.64	28.11	23.35	24.10	23.81	24.54	25.01
	12H	26.53	27.20	27.01	27.68	28.15	23.40	24.07	23.88	24.55	25.02
8H	4H	25.89	26.64	26.35	27.09	27.55	23.09	23.85	23.56	24.29	24.76
	6H	26.46	27.08	26.95	27.57	28.05	23.65	24.27	24.15	24.76	25.24
	8H	26.65	27.21	27.17	27.72	28.21	23.83	24.39	24.35	24.90	25.39
	12H	26.78	27.28	27.29	27.77	28.34	23.92	24.42	24.43	24.91	25.48
12H	4H	25.87	26.55	26.36	27.03	27.50	23.14	23.81	23.62	24.29	24.76
	6H	26.44	27.00	26.96	27.51	28.00	23.71	24.27	24.22	24.78	25.27
	8H	26.68	27.18	27.19	27.67	28.23	23.94	24.44	24.45	24.93	25.49