

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: P845580

Luminaire Tested: SQ2R-PH1-100D-930-UNV-STD-W-4

Issue Date: 6/14/2024

**Test Information**

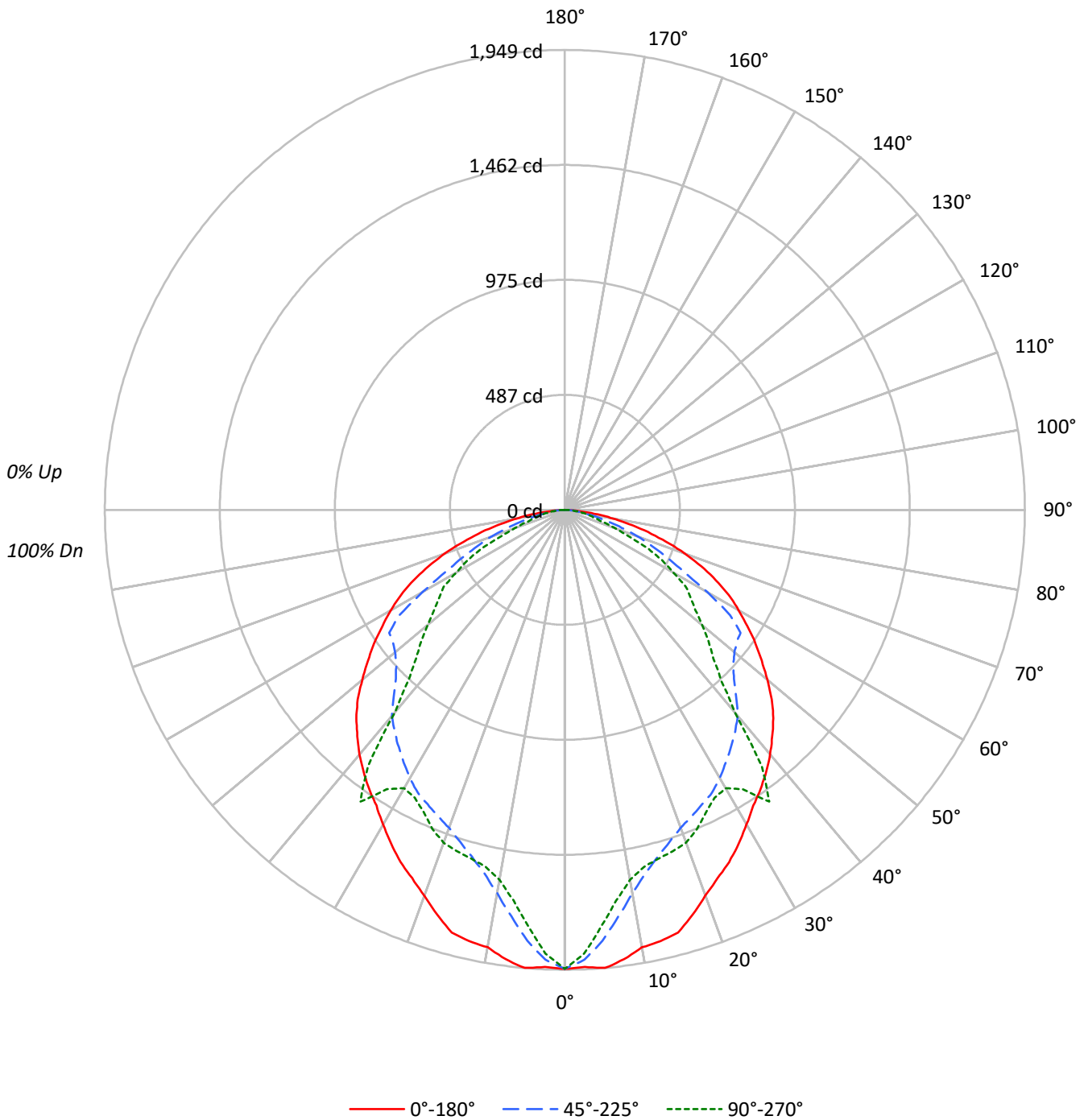
Test Method: LM-79-2019  
Report Number: P845580  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/14/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2R-PH1-100D-930-UNV-STD-W-4  
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE HEX CONTINUOUS LENS  
1000 LUMENS PER FOOT  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4297.4 lumens  
Efficiency: N/A  
Efficacy: 114.3 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.03 / 1.23  
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	100	92	86	80	97	90	84	79	87	82	77	84	79	76	81	77	74	72
3	91	81	74	67	89	80	73	67	77	71	66	74	69	64	72	67	63	61
4	84	72	64	57	82	71	63	57	69	62	56	66	60	55	64	59	55	53
5	77	65	56	50	75	64	56	49	62	54	49	60	53	48	58	52	48	46
6	72	59	50	44	70	58	49	43	56	48	43	54	48	43	53	47	42	40
7	66	53	45	39	65	52	44	38	51	44	38	49	43	38	48	42	38	36
8	62	49	40	35	60	48	40	34	47	39	34	45	39	34	44	38	34	32
9	58	45	37	31	56	44	36	31	43	36	31	42	35	31	41	35	31	29
10	54	41	34	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26

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

	0°	45°	90°
0°	31405	31405	31405
5°	31585	29695	28707
10°	30859	27035	26094
15°	30999	25429	25585
20°	29892	24644	25790
25°	29345	24531	25190
30°	28707	24464	25396
35°	28489	24185	29767
40°	28515	24030	23600
45°	28526	23117	20327
50°	28125	23569	19060
55°	27767	25579	18286
60°	27490	22410	17153
65°	27010	18170	14919
70°	25511	15465	10659
75°	22745	11659	8085
80°	18587	7569	7569
85°	11652	6854	5150

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 28526 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	171.6	4.0
10°-20°	449.8	10.5
20°-30°	659.7	15.4
30°-40°	799.7	18.6
40°-50°	785.6	18.3
50°-60°	684.4	15.9
60°-70°	474.5	11.0
70°-80°	223.9	5.2
80°-90°	48.2	1.1
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°	1281.2	29.8
0°-40°	2080.8	48.4
0°-60°	3550.8	82.6
0°-90°	4297.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4297.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1945	1945	1945	1945	1945	
5°	1949	1947	1832	1775	1771	184
15°	1854	1647	1521	1510	1531	518
25°	1647	1396	1377	1420	1414	758
35°	1445	1162	1227	1329	1510	905
45°	1249	918	1012	1051	890	961
55°	986	714	909	655	650	881
65°	707	490	476	390	390	696
75°	365	250	187	133	130	386
85°	63	41	37	30	28	83
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1945.1	1945.1	1945.1	1945.1	1945.1
2.5°	1939.6	1965.5	1908.1	1885.9	1882.2
5°	1948.8	1947.0	1832.2	1774.9	1771.2
7.5°	1921.1	1871.1	1737.9	1673.1	1669.4
10°	1882.2	1795.2	1649.0	1591.6	1591.6
12.5°	1873.0	1723.0	1576.8	1538.0	1549.1
15°	1854.5	1647.2	1521.3	1510.2	1530.6
17.5°	1798.9	1575.0	1475.0	1493.6	1517.6
20°	1739.7	1519.5	1434.3	1478.7	1501.0
22.5°	1689.7	1465.8	1404.7	1454.7	1463.9
25°	1647.2	1395.5	1377.0	1419.5	1414.0
27.5°	1595.3	1332.5	1351.0	1377.0	1375.1
30°	1539.8	1277.0	1312.2	1338.1	1362.2
32.5°	1486.2	1212.2	1269.6	1339.9	1402.9
35°	1445.4	1162.3	1227.0	1328.8	1510.2
37.5°	1401.0	1101.2	1184.5	1265.9	1371.4
40°	1352.9	1034.6	1140.1	1253.0	1119.7
42.5°	1301.1	982.7	1073.4	1228.9	980.9
45°	1249.3	918.0	1012.4	1051.2	890.2
47.5°	1190.0	869.9	967.9	893.9	825.4
50°	1119.7	821.7	938.3	799.5	758.8
52.5°	1051.2	771.8	918.0	721.8	697.7
55°	986.4	714.4	908.7	655.2	649.6
57.5°	916.1	657.0	831.0	594.1	608.9
60°	851.3	601.5	694.0	542.3	531.2
62.5°	782.9	547.8	566.3	475.6	464.5
65°	707.0	490.4	475.6	390.5	390.5
67.5°	625.6	431.2	399.8	336.8	288.7
70°	540.4	373.9	327.6	255.4	225.8
72.5°	449.7	312.8	253.6	198.0	162.9
75°	364.6	249.9	186.9	133.3	129.6
77.5°	279.5	190.6	137.0	103.6	103.6
80°	199.9	137.0	81.4	79.6	81.4
82.5°	125.9	83.3	55.5	59.2	59.2
85°	62.9	40.7	37.0	29.6	27.8
87.5°	16.7	14.8	9.3	9.3	9.3
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	23.11	24.70	23.48	25.02	25.33	21.83	23.41	22.19	23.73	24.04
	3H	25.19	26.63	25.57	26.95	27.31	22.91	24.34	23.29	24.67	25.03
	4H	25.96	27.31	26.36	27.65	28.03	23.16	24.50	23.56	24.85	25.23
	6H	26.48	27.73	26.90	28.09	28.48	23.34	24.58	23.75	24.95	25.34
	8H	26.63	27.82	27.06	28.20	28.60	23.39	24.58	23.82	24.96	25.36
	12H	26.70	27.83	27.13	28.22	28.64	23.41	24.55	23.84	24.93	25.36
4H	2H	23.58	24.92	23.98	25.27	25.65	22.55	23.89	22.95	24.24	24.62
	3H	25.75	26.87	26.16	27.27	27.67	23.80	24.91	24.21	25.31	25.71
	4H	26.60	27.60	27.03	28.02	28.45	24.10	25.11	24.53	25.52	25.96
	6H	27.22	28.10	27.68	28.54	29.00	24.35	25.23	24.80	25.67	26.13
	8H	27.41	28.23	27.87	28.67	29.14	24.42	25.24	24.88	25.68	26.15
	12H	27.51	28.24	27.99	28.72	29.19	24.46	25.20	24.94	25.67	26.14
8H	4H	26.67	27.49	27.13	27.93	28.40	24.37	25.19	24.83	25.63	26.10
	6H	27.35	28.03	27.85	28.52	28.99	24.67	25.35	25.17	25.84	26.32
	8H	27.58	28.19	28.09	28.70	29.18	24.78	25.39	25.29	25.90	26.38
	12H	27.73	28.27	28.24	28.76	29.32	24.86	25.39	25.37	25.88	26.45
12H	4H	26.66	27.39	27.14	27.87	28.34	24.40	25.13	24.88	25.61	26.08
	6H	27.33	27.94	27.84	28.45	28.93	24.71	25.31	25.22	25.82	26.31
	8H	27.60	28.13	28.10	28.62	29.19	24.86	25.39	25.36	25.88	26.45