

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: P845492

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

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845492
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-1)
Test Lab: INNOVATION CENTER
Issue Date: 6/14/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2R-F-125D-940-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH FROSTED LENS
1250 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

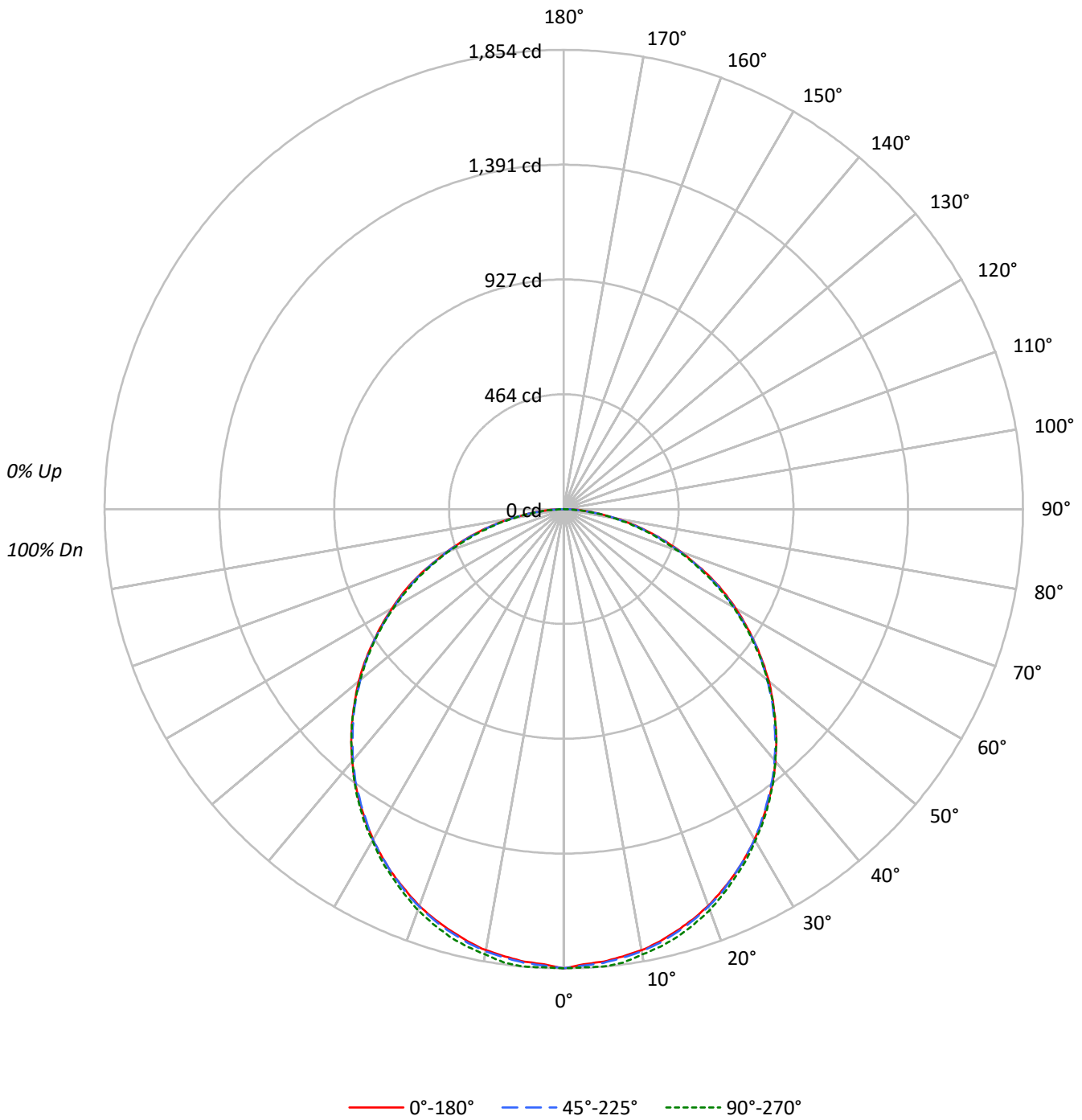
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5204.4 lumens
Efficiency: N/A
Efficacy: 105.8 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 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	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84				84
2	99	91	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70				70
3	90	79	71	65	88	78	70	64	75	68	63	72	66	62	69	65	61	59				59
4	82	70	61	55	80	69	61	54	66	59	54	64	58	53	62	57	52	50				50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43				43
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	51	45	40	38				38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33				33
8	60	47	38	32	59	46	38	32	45	37	32	44	37	32	42	36	32	30				30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27				27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24				24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	29933	29933	29933
5°	29720	29802	30047
10°	29650	29732	29939
15°	29469	29553	29849
20°	29294	29337	29598
25°	29022	29022	29202
30°	28724	28724	28819
35°	28377	28277	28476
40°	28003	27895	28003
45°	27567	27453	27567
50°	27153	26899	26965
55°	26520	26449	26306
60°	25856	25691	25530
65°	25089	24798	24508
70°	23608	23490	23014
75°	22214	21747	21117
80°	19730	19256	18550
85°	15913	14505	13561

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 27741 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	175.4	3.4
10°-20°	501.0	9.6
20°-30°	753.8	14.5
30°-40°	901.9	17.3
40°-50°	930.5	17.9
50°-60°	839.5	16.1
60°-70°	640.5	12.3
70°-80°	368.0	7.1
80°-90°	93.8	1.8
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°	1430.2	27.5
0°-40°	2332.0	44.8
0°-60°	4102.0	78.8
0°-90°	5204.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5204.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1854	1854	1854	1854	1854	
5°	1834	1859	1839	1841	1854	174
15°	1763	1786	1768	1773	1786	498
25°	1629	1647	1629	1632	1639	751
35°	1440	1450	1435	1440	1445	901
45°	1207	1215	1202	1205	1207	932
55°	942	947	940	934	934	843
65°	657	654	649	644	642	646
75°	356	354	349	341	338	376
85°	86	81	78	71	73	101
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1853.9	1853.9	1853.9	1853.9	1853.9
2.5°	1838.8	1866.6	1843.8	1848.9	1851.4
5°	1833.7	1859.0	1838.8	1841.3	1853.9
7.5°	1821.1	1848.9	1826.1	1831.2	1846.3
10°	1808.5	1833.7	1813.5	1816.0	1826.1
12.5°	1788.3	1813.5	1793.3	1798.4	1808.5
15°	1763.0	1785.7	1768.0	1773.1	1785.7
17.5°	1735.2	1760.5	1740.3	1747.8	1755.4
20°	1704.9	1725.1	1707.4	1710.0	1722.6
22.5°	1667.0	1687.2	1672.1	1672.1	1682.2
25°	1629.1	1646.8	1629.1	1631.7	1639.2
27.5°	1586.2	1601.3	1586.2	1588.7	1596.3
30°	1540.7	1555.9	1540.7	1543.3	1545.8
32.5°	1490.2	1502.8	1487.7	1490.2	1497.8
35°	1439.7	1449.8	1434.6	1439.7	1444.7
37.5°	1386.7	1394.2	1381.6	1384.1	1389.2
40°	1328.6	1336.1	1323.5	1326.0	1328.6
42.5°	1270.5	1275.5	1262.9	1265.4	1270.5
45°	1207.3	1214.9	1202.3	1204.8	1207.3
47.5°	1144.2	1149.2	1139.1	1136.6	1141.7
50°	1081.0	1083.6	1070.9	1070.9	1073.5
52.5°	1012.8	1015.4	1007.8	1002.7	1005.3
55°	942.1	947.2	939.6	934.5	934.5
57.5°	871.4	876.4	866.3	863.8	863.8
60°	800.7	803.2	795.6	793.1	790.6
62.5°	730.0	730.0	722.4	719.8	717.3
65°	656.7	654.2	649.1	644.1	641.5
67.5°	573.4	575.9	570.8	563.3	563.3
70°	500.1	502.6	497.6	487.5	487.5
72.5°	429.4	426.9	424.3	416.8	411.7
75°	356.1	353.6	348.6	341.0	338.5
77.5°	282.9	280.4	277.8	267.7	270.3
80°	212.2	209.6	207.1	199.5	199.5
82.5°	149.0	144.0	141.4	133.9	133.9
85°	85.9	80.8	78.3	70.7	73.2
87.5°	30.3	27.8	25.3	20.2	20.2
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	23.58	25.22	23.94	25.53	25.85	23.50	25.14	23.86	25.45	25.77
	3H	25.41	26.89	25.78	27.22	27.58	25.29	26.77	25.66	27.10	27.46
	4H	26.10	27.50	26.50	27.85	28.22	25.95	27.35	26.35	27.69	28.07
	6H	26.61	27.90	27.02	28.27	28.66	26.42	27.72	26.83	28.08	28.47
	8H	26.77	28.01	27.19	28.39	28.79	26.56	27.80	26.99	28.19	28.59
	12H	26.87	28.05	27.29	28.43	28.86	26.64	27.83	27.07	28.21	28.64
4H	2H	24.21	25.61	24.61	25.96	26.33	24.15	25.55	24.55	25.90	26.27
	3H	26.27	27.44	26.67	27.84	28.24	26.16	27.33	26.57	27.73	28.13
	4H	27.09	28.15	27.52	28.56	29.00	26.94	28.01	27.37	28.42	28.85
	6H	27.72	28.65	28.17	29.09	29.54	27.54	28.47	27.99	28.91	29.36
	8H	27.93	28.79	28.38	29.24	29.70	27.72	28.59	28.18	29.03	29.50
	12H	28.06	28.85	28.54	29.32	29.79	27.84	28.62	28.32	29.09	29.56
8H	4H	27.40	28.26	27.85	28.71	29.17	27.27	28.14	27.73	28.58	29.04
	6H	28.15	28.87	28.64	29.36	29.83	27.98	28.70	28.47	29.19	29.66
	8H	28.42	29.07	28.93	29.58	30.06	28.23	28.88	28.74	29.38	29.87
	12H	28.63	29.20	29.13	29.69	30.25	28.40	28.97	28.90	29.46	30.02
12H	4H	27.43	28.21	27.91	28.68	29.15	27.31	28.09	27.79	28.56	29.03
	6H	28.20	28.85	28.70	29.35	29.84	28.04	28.69	28.55	29.19	29.68
	8H	28.53	29.10	29.03	29.59	30.15	28.34	28.91	28.85	29.40	29.96