

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: P845491

Luminaire Tested: SQ2R-F-125D-935-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845491
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-935-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH FROSTED LENS
1250 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

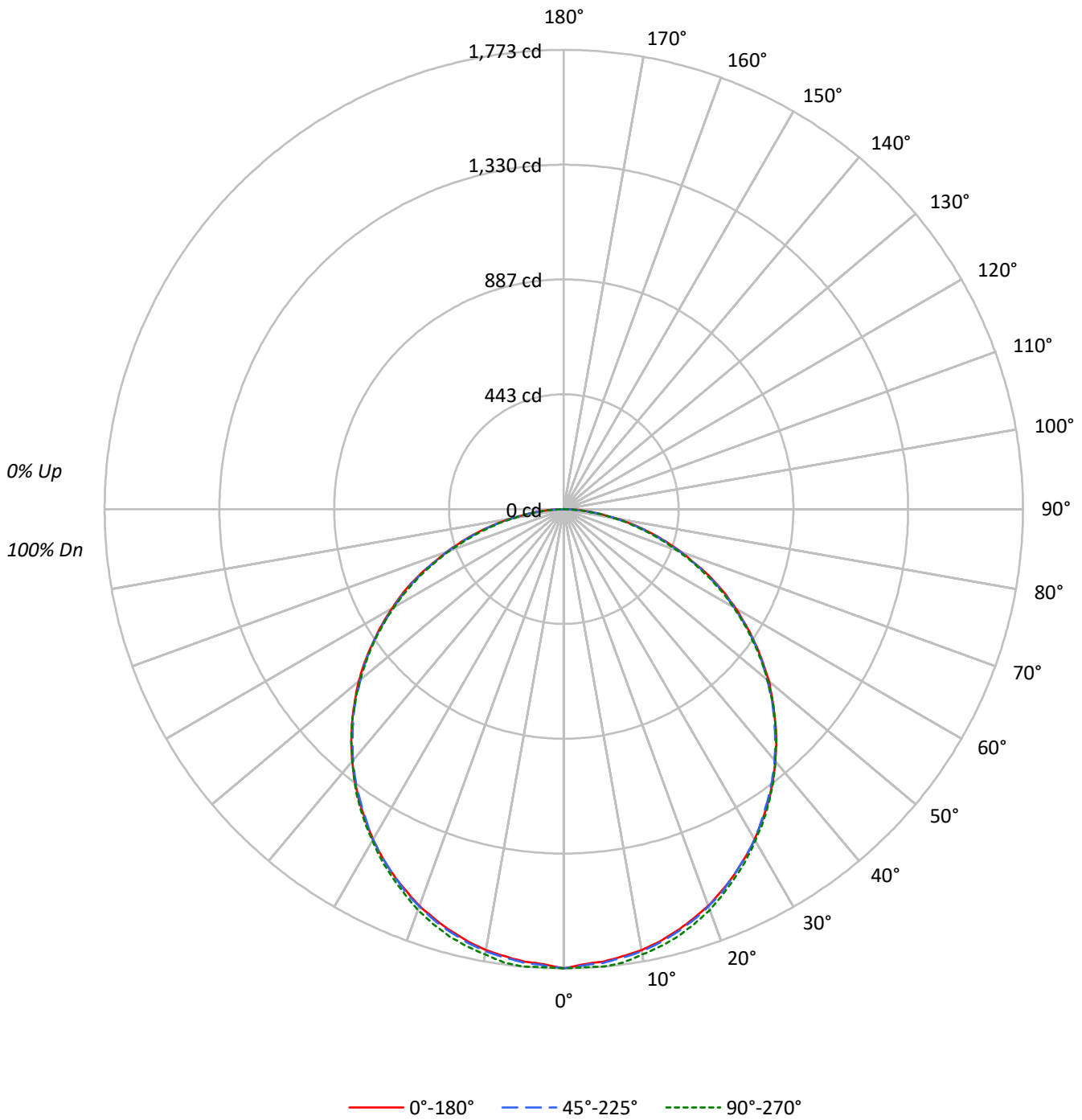
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4976.2 lumens
Efficiency: N/A
Efficacy: 101.1 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				
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84				
2	99	91	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70				
3	90	79	71	65	88	78	70	64	75	68	63	72	66	62	69	65	61	59				
4	82	70	61	55	80	69	61	54	66	59	54	64	58	53	62	57	52	50				
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43				
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	51	45	40	38				
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33				
8	60	47	38	32	59	46	38	32	45	37	32	44	37	32	42	36	32	30				
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27				
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	28622	28622	28622
5°	28417	28496	28731
10°	28350	28429	28627
15°	28177	28257	28540
20°	28010	28051	28301
25°	27750	27750	27923
30°	27466	27466	27555
35°	27133	27039	27228
40°	26774	26673	26774
45°	26359	26250	26359
50°	25962	25721	25782
55°	25357	25289	25154
60°	24723	24564	24409
65°	23988	23713	23435
70°	22575	22461	22003
75°	21241	20792	20187
80°	18866	18410	17741
85°	15209	13875	12968

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 26524 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.7	3.4
10°-20°	479.1	9.6
20°-30°	720.7	14.5
30°-40°	862.3	17.3
40°-50°	889.7	17.9
50°-60°	802.7	16.1
60°-70°	612.4	12.3
70°-80°	351.9	7.1
80°-90°	89.7	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°	1367.5	27.5
0°-40°	2229.8	44.8
0°-60°	3922.2	78.8
0°-90°	4976.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4976.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1773	1773	1773	1773	1773	
5°	1753	1778	1758	1761	1773	167
15°	1686	1707	1690	1695	1707	476
25°	1558	1575	1558	1560	1567	718
35°	1377	1386	1372	1377	1381	861
45°	1154	1162	1150	1152	1154	891
55°	901	906	898	894	894	806
65°	628	626	621	616	613	618
75°	340	338	333	326	324	359
85°	82	77	75	68	70	97
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1772.7	1772.7	1772.7	1772.7	1772.7
2.5°	1758.2	1784.7	1763.0	1767.8	1770.2
5°	1753.3	1777.5	1758.2	1760.6	1772.7
7.5°	1741.3	1767.8	1746.1	1750.9	1765.4
10°	1729.2	1753.3	1734.0	1736.4	1746.1
12.5°	1709.9	1734.0	1714.7	1719.5	1729.2
15°	1685.7	1707.4	1690.5	1695.4	1707.4
17.5°	1659.1	1683.3	1664.0	1671.2	1678.5
20°	1630.2	1649.5	1632.6	1635.0	1647.1
22.5°	1593.9	1613.3	1598.8	1598.8	1608.4
25°	1557.7	1574.6	1557.7	1560.1	1567.4
27.5°	1516.7	1531.1	1516.7	1519.1	1526.3
30°	1473.2	1487.7	1473.2	1475.6	1478.0
32.5°	1424.9	1437.0	1422.5	1424.9	1432.1
35°	1376.6	1386.2	1371.8	1376.6	1381.4
37.5°	1325.9	1333.1	1321.0	1323.5	1328.3
40°	1270.3	1277.6	1265.5	1267.9	1270.3
42.5°	1214.8	1219.6	1207.5	1209.9	1214.8
45°	1154.4	1161.6	1149.6	1152.0	1154.4
47.5°	1094.0	1098.9	1089.2	1086.8	1091.6
50°	1033.6	1036.1	1024.0	1024.0	1026.4
52.5°	968.4	970.9	963.6	958.8	961.2
55°	900.8	905.6	898.4	893.6	893.6
57.5°	833.2	838.0	828.4	825.9	825.9
60°	765.6	768.0	760.7	758.3	755.9
62.5°	698.0	698.0	690.7	688.3	685.9
65°	627.9	625.5	620.7	615.8	613.4
67.5°	548.2	550.6	545.8	538.6	538.6
70°	478.2	480.6	475.8	466.1	466.1
72.5°	410.6	408.1	405.7	398.5	393.7
75°	340.5	338.1	333.3	326.0	323.6
77.5°	270.5	268.1	265.7	256.0	258.4
80°	202.9	200.4	198.0	190.8	190.8
82.5°	142.5	137.7	135.2	128.0	128.0
85°	82.1	77.3	74.9	67.6	70.0
87.5°	29.0	26.6	24.2	19.3	19.3
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	23.42	25.06	23.78	25.37	25.69	23.34	24.98	23.71	25.30	25.61
	3H	25.25	26.74	25.63	27.06	27.42	25.13	26.62	25.51	26.94	27.30
	4H	25.94	27.34	26.34	27.69	28.07	25.79	27.19	26.19	27.54	27.91
	6H	26.45	27.75	26.86	28.11	28.50	26.27	27.56	26.68	27.93	28.32
	8H	26.61	27.85	27.04	28.24	28.64	26.41	27.65	26.83	28.04	28.43
	12H	26.71	27.90	27.14	28.28	28.71	26.49	27.67	26.92	28.06	28.48
4H	2H	24.06	25.45	24.45	25.80	26.18	23.99	25.39	24.39	25.74	26.12
	3H	26.11	27.28	26.52	27.68	28.08	26.00	27.18	26.41	27.57	27.97
	4H	26.93	27.99	27.36	28.41	28.84	26.79	27.85	27.22	28.26	28.70
	6H	27.56	28.49	28.02	28.93	29.39	27.38	28.31	27.84	28.75	29.21
	8H	27.77	28.64	28.23	29.08	29.54	27.57	28.44	28.03	28.88	29.34
	12H	27.91	28.69	28.39	29.17	29.63	27.68	28.46	28.16	28.94	29.41
8H	4H	27.24	28.11	27.70	28.55	29.02	27.11	27.98	27.57	28.42	28.89
	6H	27.99	28.71	28.48	29.20	29.67	27.82	28.55	28.32	29.03	29.51
	8H	28.27	28.91	28.77	29.42	29.91	28.07	28.72	28.58	29.23	29.71
	12H	28.47	29.04	28.98	29.53	30.09	28.24	28.82	28.75	29.31	29.87
12H	4H	27.27	28.05	27.75	28.53	29.00	27.15	27.93	27.63	28.41	28.87
	6H	28.04	28.69	28.55	29.20	29.68	27.88	28.53	28.39	29.04	29.52
	8H	28.37	28.94	28.88	29.43	29.99	28.19	28.76	28.69	29.25	29.81