

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: P845490

Luminaire Tested: SQ2R-F-125D-930-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845490
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-930-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH FROSTED LENS
1250 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

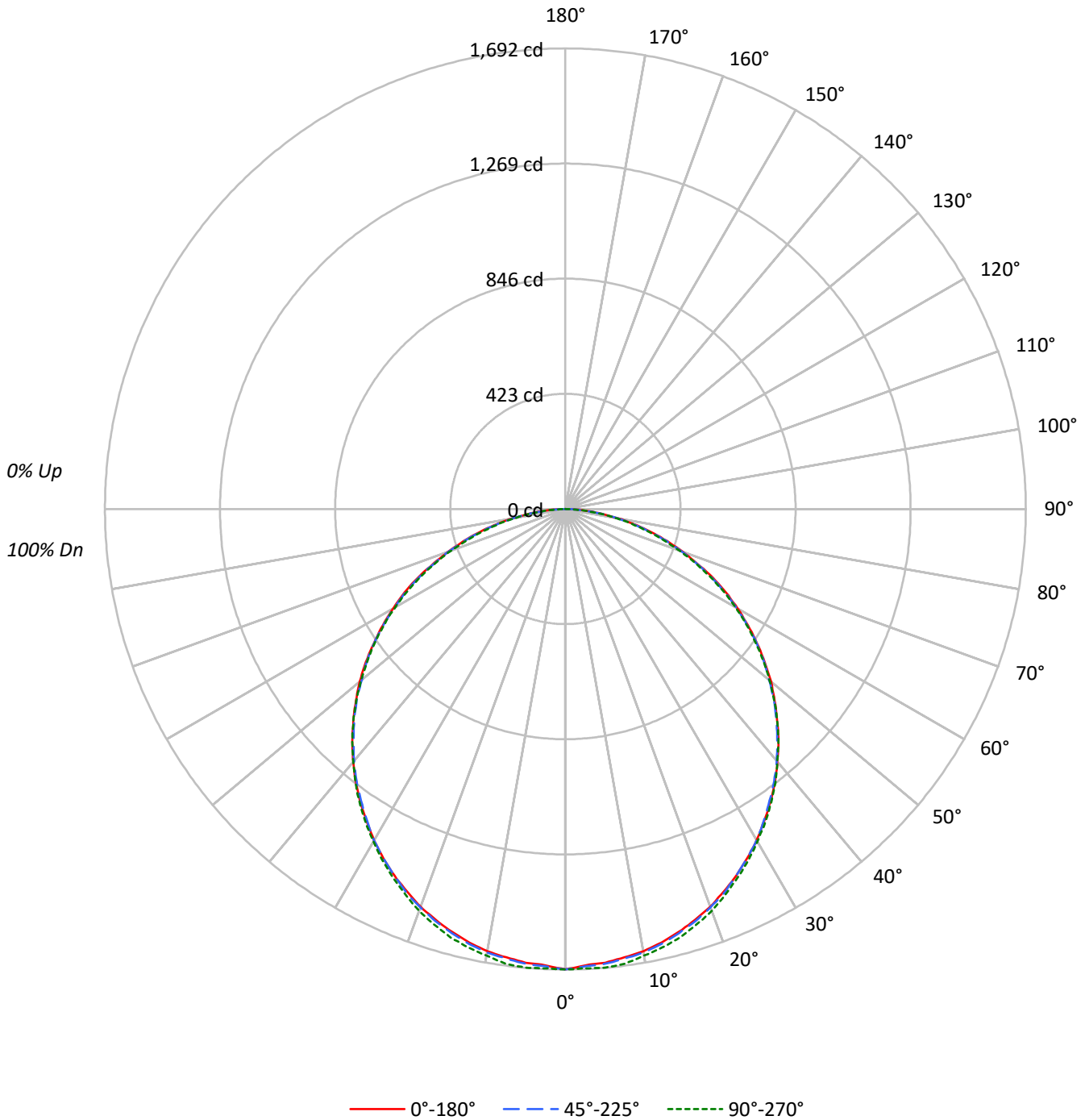
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4748.4 lumens
Efficiency: N/A
Efficacy: 96.5 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

TEST NUMBER: P845490
CATALOG NUMBER: SQ2R-F-125D-930-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P845490

CATALOG NUMBER: SQ2R-F-125D-930-UNV-STD-W-4

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°	27311	27311	27311
5°	27115	27191	27415
10°	27052	27127	27316
15°	26887	26964	27234
20°	26727	26766	27003
25°	26480	26480	26644
30°	26207	26207	26293
35°	25890	25799	25982
40°	25547	25450	25547
45°	25151	25046	25151
50°	24774	24543	24601
55°	24197	24132	24003
60°	23589	23441	23292
65°	22892	22625	22361
70°	21541	21432	20998
75°	20268	19838	19264
80°	18001	17573	16932
85°	14524	13227	12375

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 25309 cd/sqm

TEST NUMBER: P845490

CATALOG NUMBER: SQ2R-F-125D-930-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.0	3.4
10°-20°	457.1	9.6
20°-30°	687.7	14.5
30°-40°	822.8	17.3
40°-50°	849.0	17.9
50°-60°	765.9	16.1
60°-70°	584.4	12.3
70°-80°	335.8	7.1
80°-90°	85.6	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°	1304.9	27.5
0°-40°	2127.7	44.8
0°-60°	3742.6	78.8
0°-90°	4748.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4748.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1692	1692	1692	1692	1692	
5°	1673	1696	1678	1680	1692	159
15°	1608	1629	1613	1618	1629	454
25°	1486	1502	1486	1489	1496	685
35°	1314	1323	1309	1314	1318	822
45°	1102	1108	1097	1099	1102	850
55°	860	864	857	853	853	769
65°	599	597	592	588	585	589
75°	325	323	318	311	309	343
85°	78	74	71	64	67	92
90°	0	0	0	0	0	



TEST NUMBER: P845490

CATALOG NUMBER: SQ2R-F-125D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1691.5	1691.5	1691.5	1691.5	1691.5
2.5°	1677.7	1703.0	1682.3	1686.9	1689.2
5°	1673.0	1696.1	1677.7	1680.0	1691.5
7.5°	1661.5	1686.9	1666.1	1670.7	1684.6
10°	1650.0	1673.0	1654.6	1656.9	1666.1
12.5°	1631.6	1654.6	1636.2	1640.8	1650.0
15°	1608.5	1629.3	1613.1	1617.7	1629.3
17.5°	1583.2	1606.2	1587.8	1594.7	1601.6
20°	1555.5	1574.0	1557.8	1560.1	1571.6
22.5°	1520.9	1539.4	1525.6	1525.6	1534.8
25°	1486.4	1502.5	1486.4	1488.7	1495.6
27.5°	1447.2	1461.0	1447.2	1449.5	1456.4
30°	1405.7	1419.6	1405.7	1408.0	1410.3
32.5°	1359.6	1371.2	1357.3	1359.6	1366.5
35°	1313.5	1322.8	1308.9	1313.5	1318.2
37.5°	1265.2	1272.1	1260.5	1262.8	1267.5
40°	1212.1	1219.1	1207.5	1209.8	1212.1
42.5°	1159.1	1163.8	1152.2	1154.5	1159.1
45°	1101.5	1108.4	1096.9	1099.2	1101.5
47.5°	1043.9	1048.5	1039.3	1037.0	1041.6
50°	986.3	988.6	977.1	977.1	979.4
52.5°	924.1	926.4	919.5	914.9	917.2
55°	859.6	864.2	857.3	852.7	852.7
57.5°	795.0	799.7	790.4	788.1	788.1
60°	730.5	732.8	725.9	723.6	721.3
62.5°	666.0	666.0	659.1	656.8	654.5
65°	599.2	596.9	592.2	587.6	585.3
67.5°	523.1	525.4	520.8	513.9	513.9
70°	456.3	458.6	454.0	444.8	444.8
72.5°	391.8	389.5	387.2	380.2	375.6
75°	324.9	322.6	318.0	311.1	308.8
77.5°	258.1	255.8	253.5	244.3	246.6
80°	193.6	191.3	189.0	182.1	182.1
82.5°	136.0	131.4	129.1	122.1	122.1
85°	78.4	73.7	71.4	64.5	66.8
87.5°	27.7	25.3	23.0	18.4	18.4
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P845490

CATALOG NUMBER: SQ2R-F-125D-930-UNV-STD-W-4

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	23.26	24.90	23.62	25.21	25.53	23.18	24.82	23.54	25.13	25.45
	3H	25.09	26.57	25.47	26.90	27.26	24.97	26.45	25.35	26.78	27.14
	4H	25.78	27.18	26.18	27.53	27.90	25.63	27.03	26.03	27.38	27.75
	6H	26.29	27.59	26.70	27.95	28.34	26.10	27.40	26.51	27.76	28.16
	8H	26.45	27.69	26.87	28.08	28.47	26.25	27.49	26.67	27.87	28.27
	12H	26.55	27.73	26.98	28.12	28.54	26.32	27.51	26.75	27.89	28.32
4H	2H	23.89	25.29	24.29	25.64	26.01	23.83	25.23	24.23	25.58	25.95
	3H	25.95	27.12	26.36	27.52	27.92	25.84	27.01	26.25	27.41	27.81
	4H	26.77	27.83	27.20	28.24	28.68	26.62	27.69	27.06	28.10	28.53
	6H	27.40	28.33	27.85	28.77	29.22	27.22	28.15	27.67	28.59	29.04
	8H	27.61	28.48	28.07	28.92	29.38	27.41	28.27	27.87	28.72	29.18
	12H	27.75	28.53	28.23	29.00	29.47	27.52	28.30	28.00	28.77	29.24
8H	4H	27.08	27.95	27.54	28.39	28.85	26.95	27.82	27.41	28.26	28.73
	6H	27.83	28.55	28.32	29.04	29.51	27.66	28.38	28.15	28.87	29.35
	8H	28.10	28.75	28.61	29.26	29.74	27.91	28.56	28.42	29.06	29.55
	12H	28.31	28.88	28.81	29.37	29.93	28.08	28.65	28.59	29.14	29.70
12H	4H	27.11	27.89	27.59	28.36	28.83	26.99	27.77	27.47	28.24	28.71
	6H	27.88	28.53	28.39	29.03	29.52	27.72	28.37	28.23	28.87	29.36
	8H	28.21	28.78	28.71	29.27	29.83	28.02	28.60	28.53	29.09	29.65