

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: P845482

Luminaire Tested: SQ2R-F-100D-835-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845482
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-100D-835-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH FROSTED LENS
1000 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

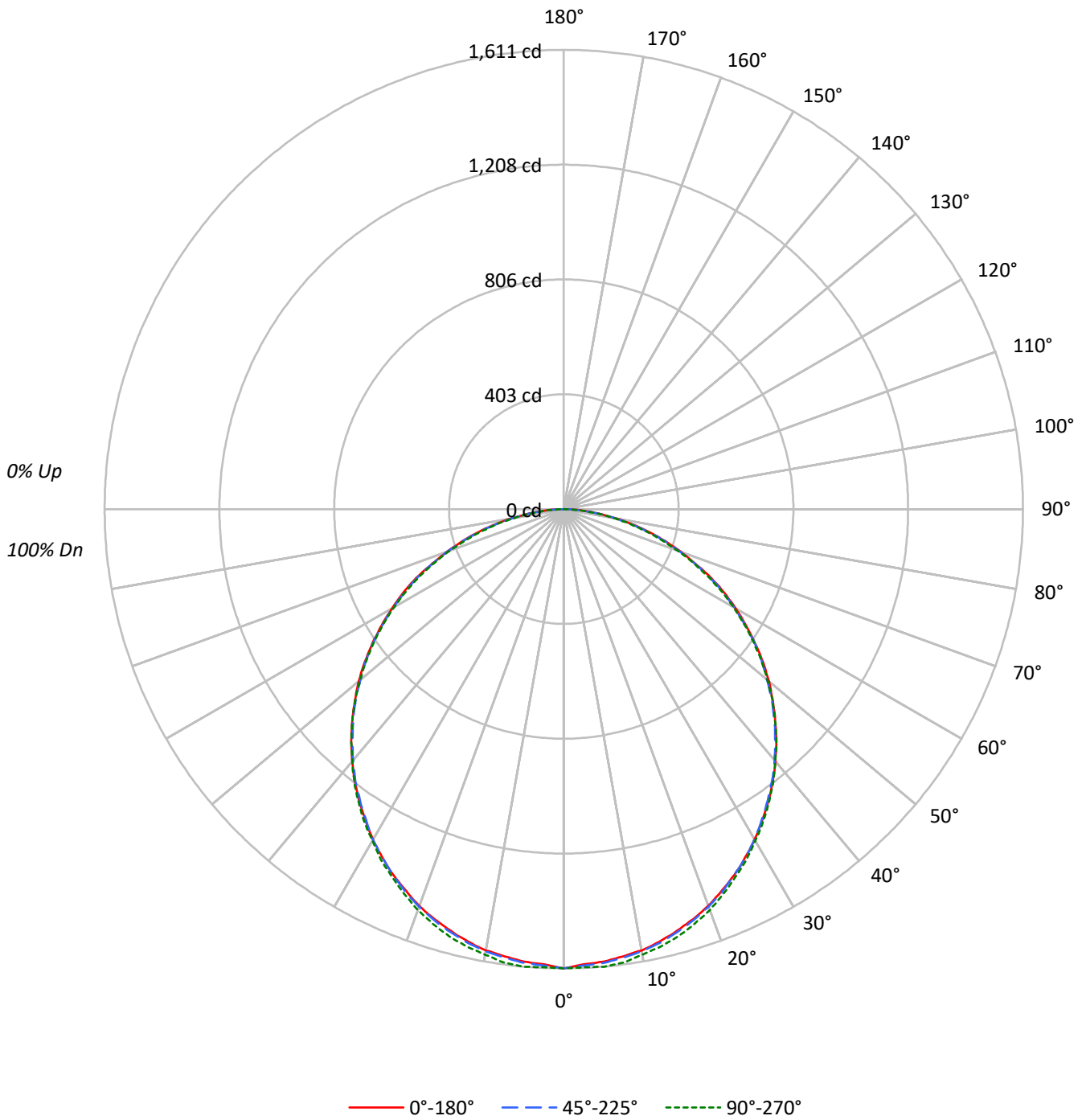
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4522.7 lumens
Efficiency: N/A
Efficacy: 120.3 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): 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

TEST NUMBER: P845482
CATALOG NUMBER: SQ2R-F-100D-835-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P845482

CATALOG NUMBER: SQ2R-F-100D-835-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				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°	26013	26013	26013
5°	25827	25898	26112
10°	25766	25838	26017
15°	25610	25683	25939
20°	25457	25495	25720
25°	25221	25221	25377
30°	24962	24962	25044
35°	24660	24573	24746
40°	24333	24241	24333
45°	23957	23857	23957
50°	23596	23378	23431
55°	23046	22984	22860
60°	22469	22326	22184
65°	21803	21551	21299
70°	20516	20412	19997
75°	19307	18896	18347
80°	17146	16736	16123
85°	13820	12597	11801

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 24108 cd/sqm

TEST NUMBER: P845482

CATALOG NUMBER: SQ2R-F-100D-835-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.4	3.4
10°-20°	435.4	9.6
20°-30°	655.0	14.5
30°-40°	783.7	17.3
40°-50°	808.6	17.9
50°-60°	729.5	16.1
60°-70°	556.6	12.3
70°-80°	319.8	7.1
80°-90°	81.5	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°	1242.8	27.5
0°-40°	2026.6	44.8
0°-60°	3564.7	78.8
0°-90°	4522.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4522.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1611	1611	1611	1611	1611	
5°	1594	1616	1598	1600	1611	151
15°	1532	1552	1536	1541	1552	432
25°	1416	1431	1416	1418	1424	652
35°	1251	1260	1247	1251	1256	783
45°	1049	1056	1045	1047	1049	810
55°	819	823	816	812	812	732
65°	571	568	564	560	558	561
75°	310	307	303	296	294	326
85°	75	70	68	62	64	88
90°	0	0	0	0	0	



TEST NUMBER: P845482

CATALOG NUMBER: SQ2R-F-100D-835-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1611.1	1611.1	1611.1	1611.1	1611.1
2.5°	1597.9	1622.1	1602.3	1606.7	1608.9
5°	1593.5	1615.5	1597.9	1600.1	1611.1
7.5°	1582.5	1606.7	1586.9	1591.3	1604.5
10°	1571.6	1593.5	1576.0	1578.2	1586.9
12.5°	1554.0	1576.0	1558.4	1562.8	1571.6
15°	1532.1	1551.8	1536.5	1540.8	1551.8
17.5°	1507.9	1529.9	1512.3	1518.9	1525.5
20°	1481.6	1499.1	1483.8	1486.0	1496.9
22.5°	1448.7	1466.2	1453.0	1453.0	1461.8
25°	1415.7	1431.1	1415.7	1417.9	1424.5
27.5°	1378.4	1391.6	1378.4	1380.6	1387.2
30°	1338.9	1352.1	1338.9	1341.1	1343.3
32.5°	1295.0	1306.0	1292.8	1295.0	1301.6
35°	1251.1	1259.9	1246.7	1251.1	1255.5
37.5°	1205.0	1211.6	1200.6	1202.8	1207.2
40°	1154.5	1161.1	1150.1	1152.3	1154.5
42.5°	1104.1	1108.4	1097.5	1099.7	1104.1
45°	1049.2	1055.8	1044.8	1047.0	1049.2
47.5°	994.3	998.7	989.9	987.7	992.1
50°	939.4	941.6	930.7	930.7	932.8
52.5°	880.2	882.4	875.8	871.4	873.6
55°	818.7	823.1	816.5	812.1	812.1
57.5°	757.3	761.6	752.9	750.7	750.7
60°	695.8	698.0	691.4	689.2	687.0
62.5°	634.3	634.3	627.8	625.6	623.4
65°	570.7	568.5	564.1	559.7	557.5
67.5°	498.3	500.4	496.1	489.5	489.5
70°	434.6	436.8	432.4	423.6	423.6
72.5°	373.1	370.9	368.7	362.2	357.8
75°	309.5	307.3	302.9	296.3	294.1
77.5°	245.8	243.6	241.4	232.7	234.9
80°	184.4	182.2	180.0	173.4	173.4
82.5°	129.5	125.1	122.9	116.3	116.3
85°	74.6	70.2	68.0	61.5	63.7
87.5°	26.3	24.1	21.9	17.6	17.6
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P845482

CATALOG NUMBER: SQ2R-F-100D-835-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	23.09	24.73	23.45	25.04	25.36	23.01	24.65	23.37	24.96	25.28
	3H	24.92	26.40	25.30	26.73	27.09	24.80	26.28	25.18	26.61	26.97
	4H	25.61	27.01	26.01	27.36	27.73	25.46	26.86	25.86	27.21	27.58
	6H	26.12	27.42	26.53	27.78	28.17	25.93	27.23	26.34	27.60	27.99
	8H	26.28	27.52	26.70	27.91	28.31	26.08	27.32	26.50	27.70	28.10
	12H	26.38	27.57	26.81	27.95	28.38	26.15	27.34	26.58	27.72	28.15
4H	2H	23.72	25.12	24.12	25.47	25.85	23.66	25.06	24.06	25.41	25.78
	3H	25.78	26.95	26.19	27.35	27.75	25.67	26.84	26.08	27.24	27.64
	4H	26.60	27.66	27.03	28.07	28.51	26.45	27.52	26.89	27.93	28.37
	6H	27.23	28.16	27.68	28.60	29.06	27.05	27.98	27.50	28.42	28.87
	8H	27.44	28.31	27.90	28.75	29.21	27.24	28.10	27.70	28.55	29.01
	12H	27.58	28.36	28.06	28.83	29.30	27.35	28.13	27.83	28.61	29.07
8H	4H	26.91	27.78	27.37	28.22	28.68	26.78	27.65	27.24	28.09	28.56
	6H	27.66	28.38	28.15	28.87	29.34	27.49	28.21	27.99	28.70	29.18
	8H	27.93	28.58	28.44	29.09	29.57	27.74	28.39	28.25	28.90	29.38
	12H	28.14	28.71	28.64	29.20	29.76	27.91	28.48	28.42	28.97	29.53
12H	4H	26.94	27.72	27.42	28.19	28.66	26.82	27.60	27.30	28.07	28.54
	6H	27.71	28.36	28.22	28.86	29.35	27.55	28.20	28.06	28.71	29.19
	8H	28.04	28.61	28.55	29.10	29.66	27.85	28.43	28.36	28.92	29.48