

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: P845488

Luminaire Tested: SQ2R-F-125D-835-UNV-STD-W-4

Issue Date: 6/14/2024

**Test Information**

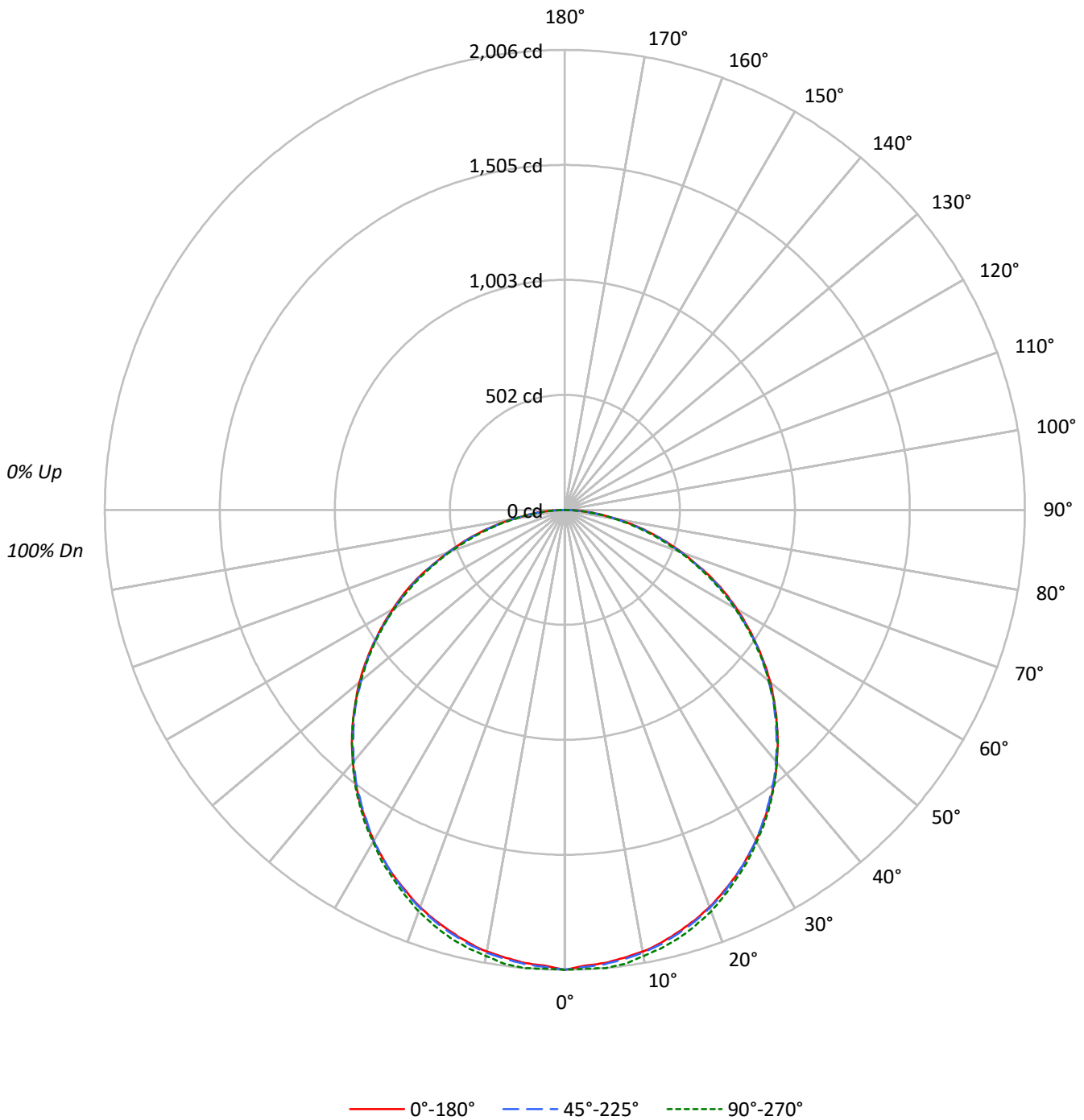
Test Method: LM-79-2019  
Report Number: P845488  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/14/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2R-F-125D-835-UNV-STD-W-4  
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH FROSTED LENS  
1250 LUMENS PER FOOT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5631.4 lumens  
Efficiency: N/A  
Efficacy: 114.5 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: P845488  
CATALOG NUMBER: SQ2R-F-125D-835-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P845488

CATALOG NUMBER: SQ2R-F-125D-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	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°	32389	32389	32389
5°	32159	32246	32512
10°	32083	32172	32396
15°	31888	31978	32299
20°	31697	31744	32026
25°	31404	31404	31598
30°	31081	31081	31183
35°	30705	30598	30813
40°	30300	30184	30300
45°	29830	29704	29830
50°	29381	29107	29175
55°	28696	28620	28465
60°	27978	27800	27622
65°	27148	26835	26521
70°	25544	25416	24902
75°	24042	23531	22845
80°	21348	20837	20074
85°	17210	15691	14691

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 30017 cd/sqm



TEST NUMBER: P845488

CATALOG NUMBER: SQ2R-F-125D-835-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	189.7	3.4
10°-20°	542.2	9.6
20°-30°	815.6	14.5
30°-40°	975.9	17.3
40°-50°	1006.9	17.9
50°-60°	908.4	16.1
60°-70°	693.0	12.3
70°-80°	398.2	7.1
80°-90°	101.5	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°	1547.5	27.5
0°-40°	2523.4	44.8
0°-60°	4438.6	78.8
0°-90°	5631.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5631.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2006	2006	2006	2006	2006	
5°	1984	2012	1990	1992	2006	188
15°	1908	1932	1913	1919	1932	538
25°	1763	1782	1763	1766	1774	812
35°	1558	1569	1552	1558	1563	975
45°	1306	1315	1301	1304	1306	1008
55°	1019	1025	1017	1011	1011	912
65°	711	708	702	697	694	699
75°	385	383	377	369	366	406
85°	93	88	85	76	79	109
90°	0	0	0	0	0	



TEST NUMBER: P845488

CATALOG NUMBER: SQ2R-F-125D-835-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2006.0	2006.0	2006.0	2006.0	2006.0
2.5°	1989.6	2019.7	1995.1	2000.6	2003.3
5°	1984.2	2011.5	1989.6	1992.4	2006.0
7.5°	1970.5	2000.6	1976.0	1981.4	1997.8
10°	1956.9	1984.2	1962.3	1965.1	1976.0
12.5°	1935.0	1962.3	1940.5	1945.9	1956.9
15°	1907.7	1932.3	1913.1	1918.6	1932.3
17.5°	1877.6	1904.9	1883.1	1891.3	1899.5
20°	1844.8	1866.7	1847.5	1850.3	1863.9
22.5°	1803.8	1825.7	1809.3	1809.3	1820.2
25°	1762.8	1781.9	1762.8	1765.5	1773.7
27.5°	1716.3	1732.7	1716.3	1719.1	1727.3
30°	1667.1	1683.5	1667.1	1669.9	1672.6
32.5°	1612.5	1626.2	1609.8	1612.5	1620.7
35°	1557.8	1568.8	1552.4	1557.8	1563.3
37.5°	1500.4	1508.6	1495.0	1497.7	1503.2
40°	1437.6	1445.8	1432.1	1434.8	1437.6
42.5°	1374.7	1380.2	1366.5	1369.2	1374.7
45°	1306.4	1314.6	1300.9	1303.7	1306.4
47.5°	1238.1	1243.5	1232.6	1229.9	1235.3
50°	1169.7	1172.5	1158.8	1158.8	1161.5
52.5°	1095.9	1098.7	1090.5	1085.0	1087.7
55°	1019.4	1024.9	1016.7	1011.2	1011.2
57.5°	942.9	948.4	937.4	934.7	934.7
60°	866.4	869.1	860.9	858.2	855.4
62.5°	789.8	789.8	781.6	778.9	776.2
65°	710.6	707.9	702.4	696.9	694.2
67.5°	620.4	623.1	617.7	609.5	609.5
70°	541.1	543.9	538.4	527.5	527.5
72.5°	464.6	461.9	459.1	451.0	445.5
75°	385.4	382.6	377.2	369.0	366.2
77.5°	306.1	303.4	300.6	289.7	292.4
80°	229.6	226.8	224.1	215.9	215.9
82.5°	161.2	155.8	153.0	144.9	144.9
85°	92.9	87.5	84.7	76.5	79.3
87.5°	32.8	30.1	27.3	21.9	21.9
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P845488

CATALOG NUMBER: SQ2R-F-125D-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	23.85	25.49	24.21	25.80	26.12	23.77	25.41	24.14	25.73	26.04
	3H	25.68	27.17	26.06	27.49	27.85	25.56	27.05	25.94	27.37	27.73
	4H	26.37	27.77	26.77	28.12	28.50	26.22	27.62	26.62	27.97	28.34
	6H	26.88	28.18	27.29	28.54	28.93	26.70	27.99	27.11	28.36	28.75
	8H	27.04	28.28	27.46	28.67	29.07	26.84	28.08	27.26	28.47	28.86
	12H	27.14	28.33	27.57	28.71	29.14	26.92	28.10	27.35	28.49	28.91
4H	2H	24.49	25.88	24.88	26.23	26.61	24.42	25.82	24.82	26.17	26.55
	3H	26.54	27.71	26.95	28.11	28.51	26.43	27.60	26.84	28.00	28.40
	4H	27.36	28.42	27.79	28.84	29.27	27.22	28.28	27.65	28.69	29.13
	6H	27.99	28.92	28.45	29.36	29.82	27.81	28.74	28.27	29.18	29.64
	8H	28.20	29.07	28.66	29.51	29.97	28.00	28.87	28.46	29.31	29.77
	12H	28.34	29.12	28.82	29.59	30.06	28.11	28.89	28.59	29.37	29.84
8H	4H	27.67	28.54	28.13	28.98	29.44	27.54	28.41	28.00	28.85	29.32
	6H	28.42	29.14	28.91	29.63	30.10	28.25	28.98	28.75	29.46	29.94
	8H	28.70	29.34	29.20	29.85	30.34	28.50	29.15	29.01	29.66	30.14
	12H	28.90	29.47	29.41	29.96	30.52	28.67	29.25	29.18	29.74	30.30
12H	4H	27.70	28.48	28.18	28.96	29.43	27.58	28.36	28.06	28.84	29.30
	6H	28.47	29.12	28.98	29.63	30.11	28.31	28.96	28.82	29.47	29.95
	8H	28.80	29.37	29.31	29.86	30.42	28.62	29.19	29.12	29.68	30.24