

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: P686074

Luminaire Tested: SQ4R-F-100D-835-1-UNV-STD-W-4

Issue Date: 11/18/2022

**Test Information**

Test Method: LM-79-2019  
Report Number: P686074  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2203-586-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/18/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4R-F-100D-835-1-UNV-STD-W-4  
Description: CORELITE SQ4R RECESSED LED LUMINAIRE WITH FROSTED LENS.  
1000 LUMENS PER FOOT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

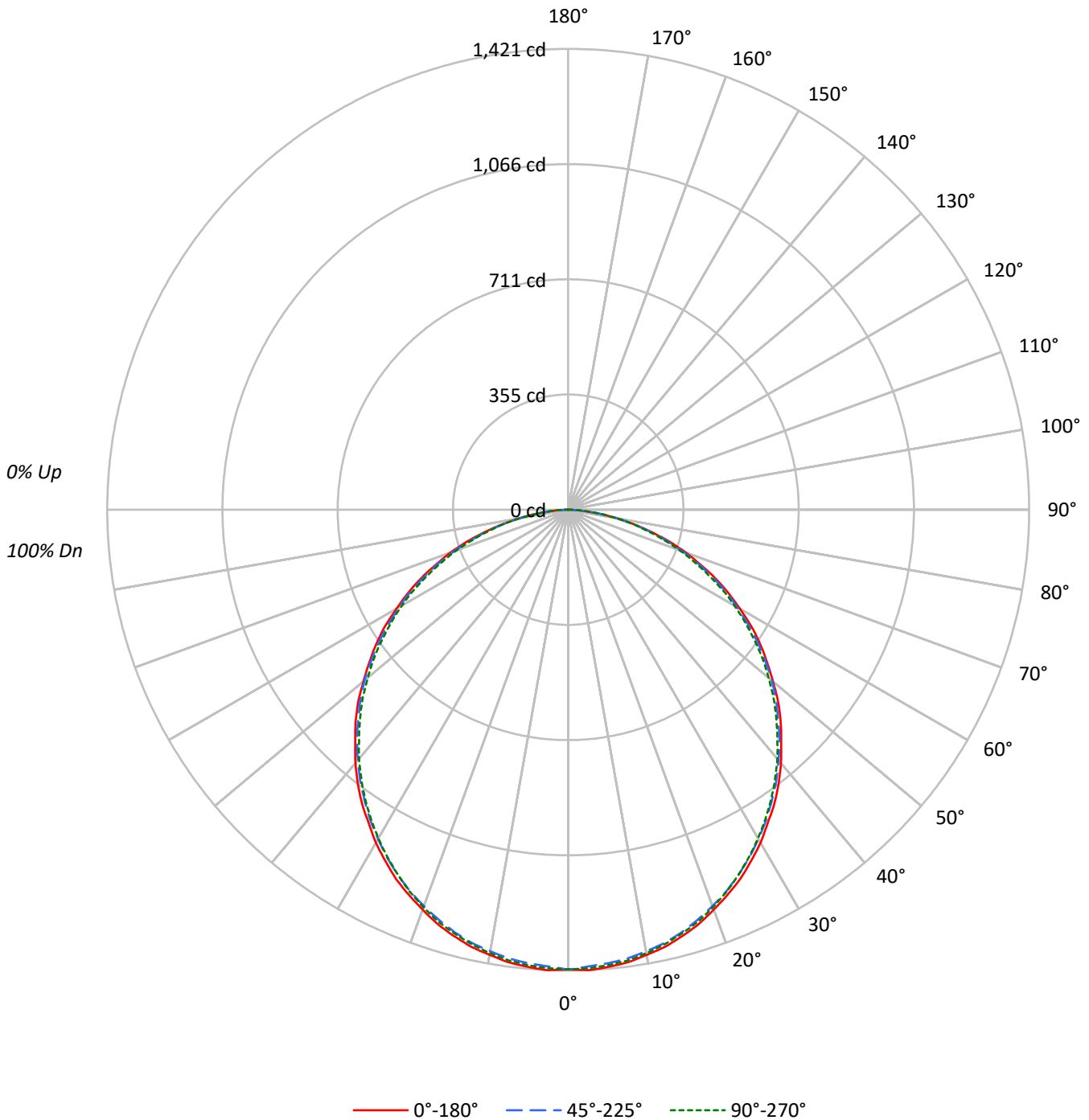
Lumens per Lamp: N/A  
Luminaire Lumens: 3951.0 lumens  
Efficiency: N/A  
Efficacy: 106.8 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.23 / 1.35  
Luminous Opening: Rectangular (W 0.29' x L: 3.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 37  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



TEST NUMBER: P686074  
CATALOG NUMBER: SQ4R-F-100D-835-1-UNV-STD-W-4

### Luminous Intensity Polar Plot



TEST NUMBER: P686074

CATALOG NUMBER: SQ4R-F-100D-835-1-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	94	91	88	90	88	86	84				84
2	99	91	84	78	96	89	82	77	85	80	75	82	77	74	79	75	72	70				70
3	90	80	71	65	88	78	70	64	75	68	63	72	67	62	70	65	61	59				59
4	82	70	62	55	80	69	61	54	67	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	43	36	63	51	42	36	49	41	36	48	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	35	29	41	34	29	40	34	29	39	33	29	27				27
10	53	40	32	27	52	39	32	26	38	31	26	37	31	26	36	30	26	24				24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	13647	13647	13647
5°	13680	13566	13624
10°	13629	13514	13572
15°	13565	13448	13487
20°	13445	13325	13365
25°	13341	13195	13195
30°	13182	13030	13009
35°	13021	12861	12815
40°	12823	12676	12602
45°	12618	12459	12353
50°	12335	12277	12073
55°	12125	11961	11764
60°	11772	11584	11397
65°	11399	11133	10866
70°	10851	10522	10302
75°	9850	9634	9415
80°	8422	8422	8311
85°	6020	6451	6451

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 12618 cd/sqm

TEST NUMBER: P686074

CATALOG NUMBER: SQ4R-F-100D-835-1-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	134.0	3.4
10°-20°	382.3	9.7
20°-30°	574.7	14.5
30°-40°	686.8	17.4
40°-50°	707.7	17.9
50°-60°	636.8	16.1
60°-70°	484.1	12.3
70°-80°	275.2	7.0
80°-90°	69.5	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°	1091.0	27.6
0°-40°	1777.8	45.0
0°-60°	3122.2	79.0
0°-90°	3951.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3951.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1418	1418	1418	1418	1418	
5°	1416	1414	1404	1416	1410	134
15°	1361	1359	1349	1357	1353	384
25°	1256	1252	1242	1246	1242	578
35°	1108	1104	1094	1094	1090	692
45°	927	927	915	909	907	714
55°	722	720	713	707	701	645
65°	500	498	489	483	477	494
75°	265	263	259	257	253	282
85°	54	56	58	58	58	67
90°	0	0	0	0	0	

TEST NUMBER: P686074

CATALOG NUMBER: SQ4R-F-100D-835-1-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1417.5	1417.5	1417.5	1417.5	1417.5
2.5°	1421.4	1417.5	1409.7	1419.4	1415.5
5°	1415.5	1413.6	1403.8	1415.5	1409.7
7.5°	1407.7	1405.8	1396.0	1405.8	1401.9
10°	1394.1	1392.2	1382.4	1392.2	1388.3
12.5°	1380.5	1378.5	1368.8	1376.6	1372.7
15°	1361.0	1359.1	1349.3	1357.1	1353.2
17.5°	1339.6	1337.6	1326.0	1333.7	1331.8
20°	1312.3	1310.4	1300.6	1306.5	1304.5
22.5°	1285.1	1283.1	1273.4	1279.2	1275.3
25°	1255.9	1252.0	1242.2	1246.1	1242.2
27.5°	1220.8	1218.9	1209.1	1211.1	1207.2
30°	1185.8	1183.8	1172.1	1174.1	1170.2
32.5°	1144.9	1144.9	1135.1	1135.1	1131.2
35°	1107.9	1104.0	1094.3	1094.3	1090.4
37.5°	1065.0	1061.2	1053.4	1051.4	1047.5
40°	1020.3	1018.3	1008.6	1006.6	1002.7
42.5°	971.6	973.5	963.8	958.0	954.1
45°	926.8	926.8	915.1	909.3	907.3
47.5°	878.1	878.1	868.4	862.6	858.7
50°	823.6	827.5	819.7	810.0	806.1
52.5°	773.0	774.9	765.2	759.4	755.5
55°	722.4	720.4	712.6	706.8	700.9
57.5°	669.8	667.8	656.2	650.3	646.4
60°	611.4	611.4	601.6	595.8	591.9
62.5°	556.9	554.9	547.1	539.3	537.4
65°	500.4	498.4	488.7	482.9	477.0
67.5°	440.0	438.1	432.2	424.5	420.6
70°	385.5	379.7	373.8	368.0	366.0
72.5°	327.1	321.3	315.4	311.5	307.6
75°	264.8	262.9	259.0	257.0	253.1
77.5°	208.3	208.3	204.4	202.5	202.5
80°	151.9	151.9	151.9	149.9	149.9
82.5°	99.3	101.2	101.2	99.3	101.2
85°	54.5	56.5	58.4	58.4	58.4
87.5°	17.5	23.4	21.4	23.4	23.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)