

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



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: P686306

Luminaire Tested: SQ4R-F-100D-92765-1-UNV-STD-W-4\_4000K

Issue Date: 5/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P686306  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2203-586-27)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4R-F-100D-92765-1-UNV-STD-W-4\_4000K  
Description: CORELITE SQ4R RECESSED LED LUMINAIRE WITH FROSTED LENS, WHITE TUNING 2700K-6500I  
1000 LUMENS PER FOOT  
Light Source: 2700K AND 6500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

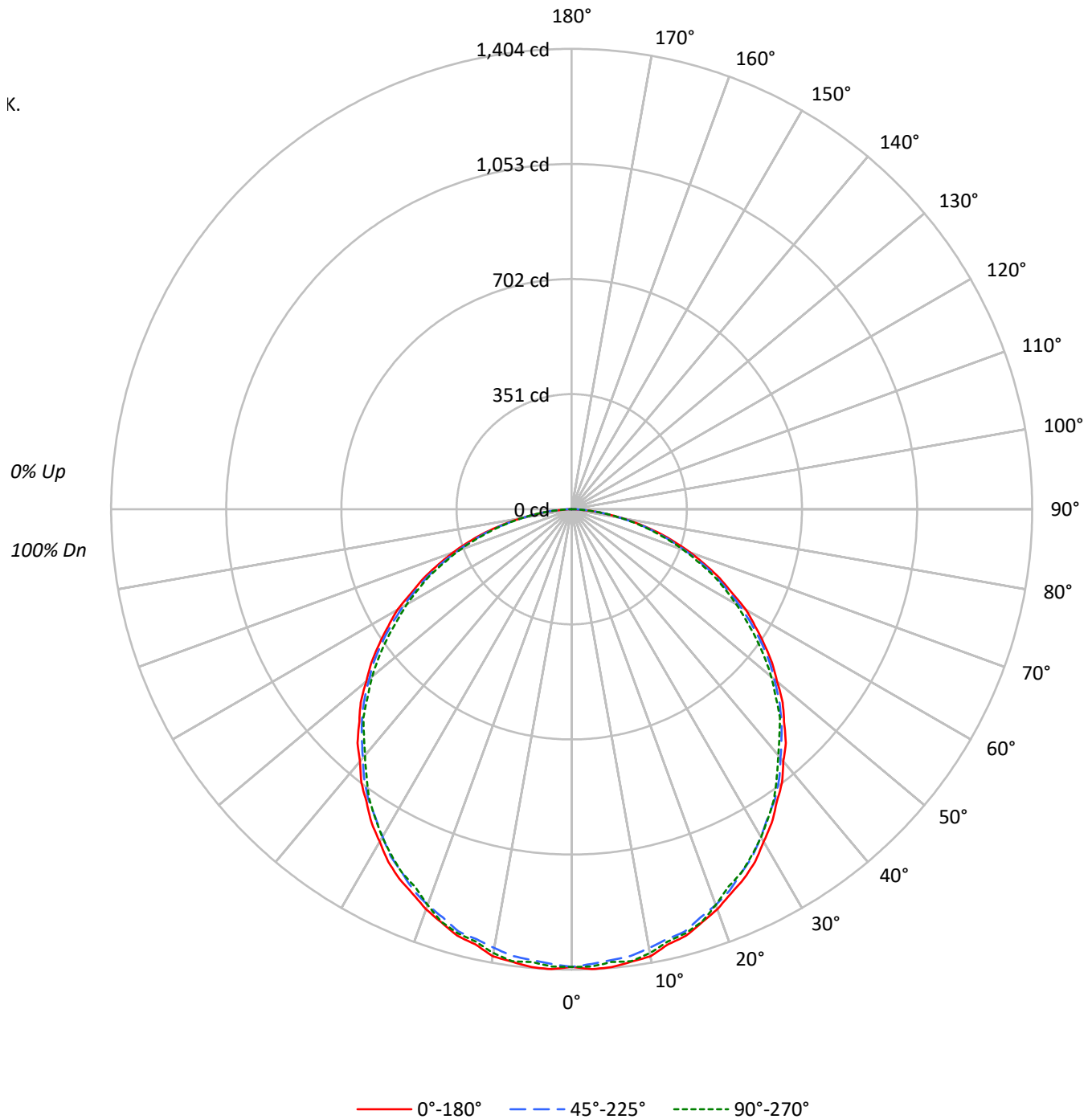
Lumens per Lamp: N/A  
Luminaire Lumens: 3903.1 lumens  
Efficiency: N/A  
Efficacy: 84.5 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.23 / 1.35  
Luminous Opening: Rectangular (W 0.29' x L: 3.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 46.2  
Input Voltage (V): 120  
Input Current (Ain): 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



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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	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	67	62	70	65	61	59
4	82	70	62	55	80	69	61	54	67	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	43	36	63	51	42	36	49	41	36	48	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	34	29	39	33	29	27
10	53	40	32	26	52	39	32	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	13437	13437	13437
5°	13545	13337	13394
10°	13530	13281	13434
15°	13423	13286	13345
20°	13295	13155	13155
25°	13202	12994	12994
30°	13010	12814	12835
35°	12809	12694	12648
40°	12614	12442	12319
45°	12465	12304	12224
50°	12243	12067	11891
55°	12009	11811	11516
60°	11815	11437	11172
65°	11342	11030	10853
70°	10815	10373	10209
75°	10062	9697	9407
80°	8588	8366	8366
85°	6274	6495	6274

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 12491 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	132.2	3.4
10°-20°	377.1	9.7
20°-30°	566.6	14.5
30°-40°	676.4	17.3
40°-50°	697.9	17.9
50°-60°	628.6	16.1
60°-70°	478.2	12.3
70°-80°	274.5	7.0
80°-90°	71.4	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°	1075.9	27.6
0°-40°	1752.3	44.9
0°-60°	3078.8	78.9
0°-90°	3903.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3903.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1396	1396	1396	1396	1396	
5°	1402	1396	1380	1396	1386	133
15°	1347	1341	1333	1337	1339	379
25°	1243	1233	1223	1227	1223	572
35°	1090	1088	1080	1076	1076	683
45°	916	917	904	896	898	708
55°	716	718	704	698	686	641
65°	498	492	484	474	476	491
75°	270	263	261	255	253	285
85°	57	59	59	59	57	71
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1395.7	1395.7	1395.7	1395.7	1395.7
2.5°	1403.6	1403.6	1387.9	1397.7	1395.7
5°	1401.6	1395.7	1380.1	1395.7	1385.9
7.5°	1391.8	1382.0	1374.2	1384.0	1389.9
10°	1384.0	1382.0	1358.5	1370.3	1374.2
12.5°	1358.5	1368.3	1342.8	1350.6	1350.6
15°	1346.7	1340.8	1333.0	1336.9	1338.9
17.5°	1321.2	1317.3	1305.6	1315.4	1319.3
20°	1297.7	1291.8	1284.0	1286.0	1284.0
22.5°	1268.3	1264.4	1258.5	1258.5	1246.8
25°	1242.8	1233.0	1223.2	1227.1	1223.2
27.5°	1211.5	1203.6	1193.8	1195.8	1189.9
30°	1170.3	1172.3	1152.7	1152.7	1154.6
32.5°	1135.0	1127.2	1113.5	1113.5	1115.4
35°	1089.9	1088.0	1080.1	1076.2	1076.2
37.5°	1052.7	1052.7	1039.0	1033.1	1027.2
40°	1003.7	1005.6	990.0	988.0	980.2
42.5°	966.4	962.5	946.8	944.9	937.0
45°	915.5	917.4	903.7	895.9	897.8
47.5°	872.3	866.5	856.7	848.8	842.9
50°	817.4	815.5	805.7	799.8	793.9
52.5°	770.4	764.5	758.6	744.9	741.0
55°	715.5	717.5	703.7	697.9	686.1
57.5°	662.6	660.6	648.9	639.1	629.3
60°	613.6	607.7	594.0	584.2	580.2
62.5°	548.9	546.9	537.1	529.3	525.4
65°	497.9	492.0	484.2	474.4	476.4
67.5°	439.1	435.2	427.3	419.5	415.6
70°	384.2	378.3	368.5	364.6	362.7
72.5°	327.4	321.5	313.6	305.8	307.8
75°	270.5	262.7	260.7	254.8	252.9
77.5°	211.7	207.8	203.9	201.9	200.0
80°	154.9	156.8	150.9	149.0	150.9
82.5°	105.9	105.9	103.9	101.9	103.9
85°	56.8	58.8	58.8	58.8	56.8
87.5°	19.6	23.5	25.5	25.5	23.5
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	20.85	22.49	21.22	22.81	23.12	20.61	22.25	20.98	22.57	22.88
	3H	22.69	24.17	23.07	24.50	24.86	22.42	23.90	22.79	24.23	24.59
	4H	23.38	24.77	23.77	25.12	25.50	23.08	24.48	23.48	24.83	25.21
	6H	23.86	25.16	24.27	25.52	25.91	23.57	24.87	23.98	25.23	25.62
	8H	24.01	25.24	24.43	25.63	26.03	23.72	24.96	24.14	25.35	25.75
	12H	24.09	25.27	24.52	25.65	26.08	23.81	24.99	24.24	25.37	25.80
4H	2H	21.47	22.86	21.86	23.21	23.59	21.28	22.67	21.67	23.02	23.40
	3H	23.52	24.69	23.93	25.09	25.49	23.30	24.47	23.70	24.87	25.26
	4H	24.33	25.39	24.76	25.81	26.24	24.09	25.15	24.52	25.56	26.00
	6H	24.95	25.88	25.40	26.32	26.77	24.70	25.62	25.15	26.06	26.52
	8H	25.14	26.01	25.60	26.45	26.91	24.89	25.76	25.35	26.20	26.66
	12H	25.26	26.04	25.73	26.51	26.98	25.01	25.79	25.49	26.27	26.74
8H	4H	24.63	25.50	25.09	25.94	26.41	24.42	25.28	24.88	25.73	26.19
	6H	25.36	26.08	25.85	26.57	27.05	25.13	25.86	25.63	26.34	26.82
	8H	25.62	26.27	26.13	26.77	27.26	25.40	26.04	25.90	26.55	27.04
	12H	25.80	26.37	26.31	26.86	27.42	25.58	26.16	26.09	26.65	27.21
12H	4H	24.66	25.44	25.14	25.92	26.39	24.45	25.23	24.93	25.71	26.18
	6H	25.41	26.06	25.92	26.56	27.05	25.19	25.84	25.70	26.35	26.83
	8H	25.72	26.29	26.23	26.78	27.34	25.51	26.08	26.01	26.57	27.13