

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: P686304

Luminaire Tested: SQ4R-F-100D-92765-1-UNV-STD-W-4\_3000K

Issue Date: 5/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P686304  
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\_3000K  
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**

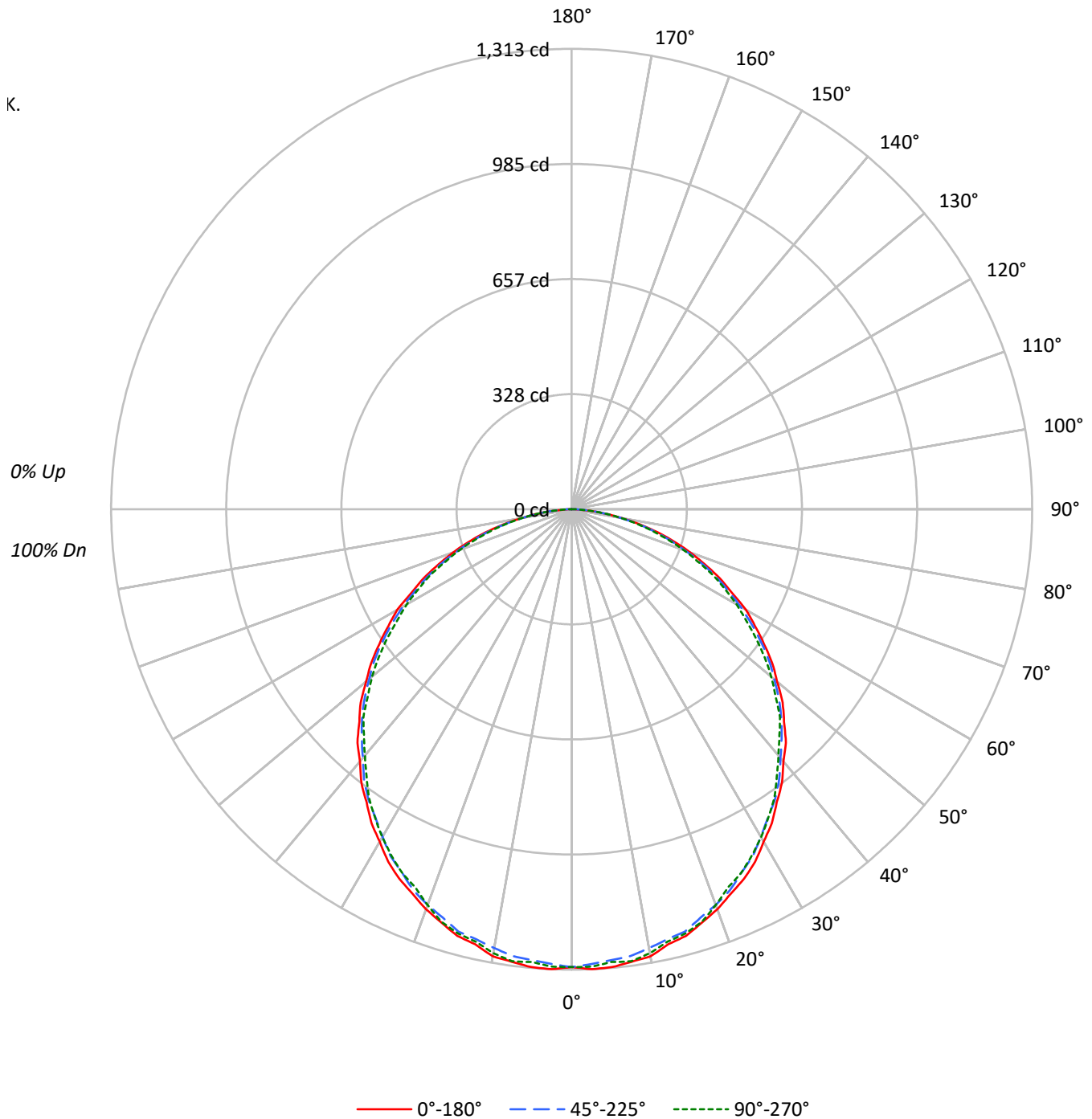
Lumens per Lamp: N/A  
Luminaire Lumens: 3650.7 lumens  
Efficiency: N/A  
Efficacy: 79.2 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.23 / 1.35  
Luminous Opening: Rectangular (W 0.29' x L: 3.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 46.1  
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



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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	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	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	34	29	41	34	29	40	34	29	39	33	29	27				27
10	53	40	32	26	52	39	32	26	38	31	26	37	31	26	36	30	26	24				24

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

	0°	45°	90°
0°	12568	12568	12568
5°	12670	12474	12528
10°	12655	12421	12565
15°	12554	12427	12482
20°	12436	12304	12304
25°	12349	12153	12153
30°	12168	11985	12006
35°	11982	11874	11830
40°	11798	11636	11522
45°	11659	11509	11434
50°	11452	11287	11122
55°	11232	11048	10771
60°	11050	10698	10450
65°	10609	10317	10151
70°	10117	9703	9548
75°	9411	9072	8797
80°	8033	7828	7828
85°	5877	6075	5877

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 11683 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	123.6	3.4
10°-20°	352.7	9.7
20°-30°	530.0	14.5
30°-40°	632.7	17.3
40°-50°	652.8	17.9
50°-60°	587.9	16.1
60°-70°	447.3	12.3
70°-80°	256.8	7.0
80°-90°	66.8	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°	1006.3	27.6
0°-40°	1639.0	44.9
0°-60°	2879.7	78.9
0°-90°	3650.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3650.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1306	1306	1306	1306	1306	
5°	1311	1306	1291	1306	1296	124
15°	1260	1254	1247	1250	1252	355
25°	1162	1153	1144	1148	1144	535
35°	1020	1018	1010	1007	1007	639
45°	856	858	845	838	840	662
55°	669	671	658	653	642	599
65°	466	460	453	444	446	459
75°	253	246	244	238	236	266
85°	53	55	55	55	53	66
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1305.5	1305.5	1305.5	1305.5	1305.5
2.5°	1312.8	1312.8	1298.2	1307.3	1305.5
5°	1311.0	1305.5	1290.8	1305.5	1296.3
7.5°	1301.8	1292.7	1285.3	1294.5	1300.0
10°	1294.5	1292.7	1270.6	1281.7	1285.3
12.5°	1270.6	1279.8	1256.0	1263.3	1263.3
15°	1259.6	1254.1	1246.8	1250.5	1252.3
17.5°	1235.8	1232.1	1221.1	1230.3	1234.0
20°	1213.8	1208.3	1201.0	1202.8	1201.0
22.5°	1186.3	1182.6	1177.1	1177.1	1166.1
25°	1162.5	1153.3	1144.1	1147.8	1144.1
27.5°	1133.1	1125.8	1116.6	1118.5	1113.0
30°	1094.6	1096.5	1078.1	1078.1	1080.0
32.5°	1061.6	1054.3	1041.5	1041.5	1043.3
35°	1019.5	1017.6	1010.3	1006.6	1006.6
37.5°	984.6	984.6	971.8	966.3	960.8
40°	938.8	940.6	925.9	924.1	916.8
42.5°	903.9	900.3	885.6	883.8	876.4
45°	856.3	858.1	845.3	837.9	839.8
47.5°	815.9	810.4	801.3	793.9	788.4
50°	764.6	762.8	753.6	748.1	742.6
52.5°	720.6	715.1	709.6	696.7	693.1
55°	669.2	671.1	658.2	652.7	641.7
57.5°	619.7	617.9	606.9	597.7	588.6
60°	573.9	568.4	555.6	546.4	542.7
62.5°	513.4	511.6	502.4	495.1	491.4
65°	465.7	460.2	452.9	443.7	445.6
67.5°	410.7	407.0	399.7	392.4	388.7
70°	359.4	353.9	344.7	341.0	339.2
72.5°	306.2	300.7	293.4	286.0	287.9
75°	253.0	245.7	243.9	238.4	236.5
77.5°	198.0	194.4	190.7	188.9	187.0
80°	144.9	146.7	141.2	139.3	141.2
82.5°	99.0	99.0	97.2	95.3	97.2
85°	53.2	55.0	55.0	55.0	53.2
87.5°	18.3	22.0	23.8	23.8	22.0
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	20.62	22.26	20.99	22.58	22.89	20.38	22.02	20.74	22.33	22.65
	3H	22.46	23.94	22.83	24.27	24.63	22.18	23.67	22.56	23.99	24.35
	4H	23.14	24.54	23.54	24.89	25.26	22.85	24.25	23.25	24.60	24.97
	6H	23.63	24.93	24.04	25.29	25.68	23.34	24.63	23.75	25.00	25.39
	8H	23.77	25.01	24.20	25.40	25.80	23.49	24.73	23.91	25.11	25.51
	12H	23.85	25.04	24.28	25.42	25.85	23.57	24.76	24.00	25.14	25.57
4H	2H	21.23	22.63	21.63	22.98	23.36	21.04	22.44	21.44	22.79	23.16
	3H	23.29	24.46	23.70	24.86	25.26	23.06	24.24	23.47	24.63	25.03
	4H	24.10	25.16	24.53	25.58	26.01	23.86	24.92	24.29	25.33	25.77
	6H	24.72	25.64	25.17	26.08	26.54	24.46	25.39	24.92	25.83	26.29
	8H	24.91	25.77	25.37	26.22	26.68	24.66	25.53	25.12	25.97	26.43
	12H	25.02	25.80	25.50	26.28	26.75	24.78	25.56	25.26	26.04	26.51
8H	4H	24.40	25.27	24.86	25.71	26.17	24.18	25.05	24.64	25.49	25.96
	6H	25.13	25.85	25.62	26.34	26.81	24.90	25.62	25.40	26.11	26.59
	8H	25.39	26.04	25.90	26.54	27.03	25.16	25.81	25.67	26.32	26.80
	12H	25.57	26.14	26.07	26.63	27.19	25.35	25.92	25.86	26.41	26.97
12H	4H	24.43	25.21	24.91	25.68	26.15	24.22	25.00	24.70	25.48	25.94
	6H	25.18	25.83	25.68	26.33	26.82	24.96	25.61	25.47	26.11	26.60
	8H	25.49	26.06	26.00	26.55	27.11	25.27	25.85	25.78	26.34	26.90