

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: P686278

Luminaire Tested: SQ4R-F-050D-92765-1-UNV-STD-W-4\_3000K

Issue Date: 5/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P686278  
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-050D-92765-1-UNV-STD-W-4\_3000K  
Description: CORELITE SQ4R RECESSED LED LUMINAIRE WITH FROSTED LENS, WHITE TUNING 2700K-6500I  
500 LUMENS PER FOOT  
Light Source: 2700K AND 6500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

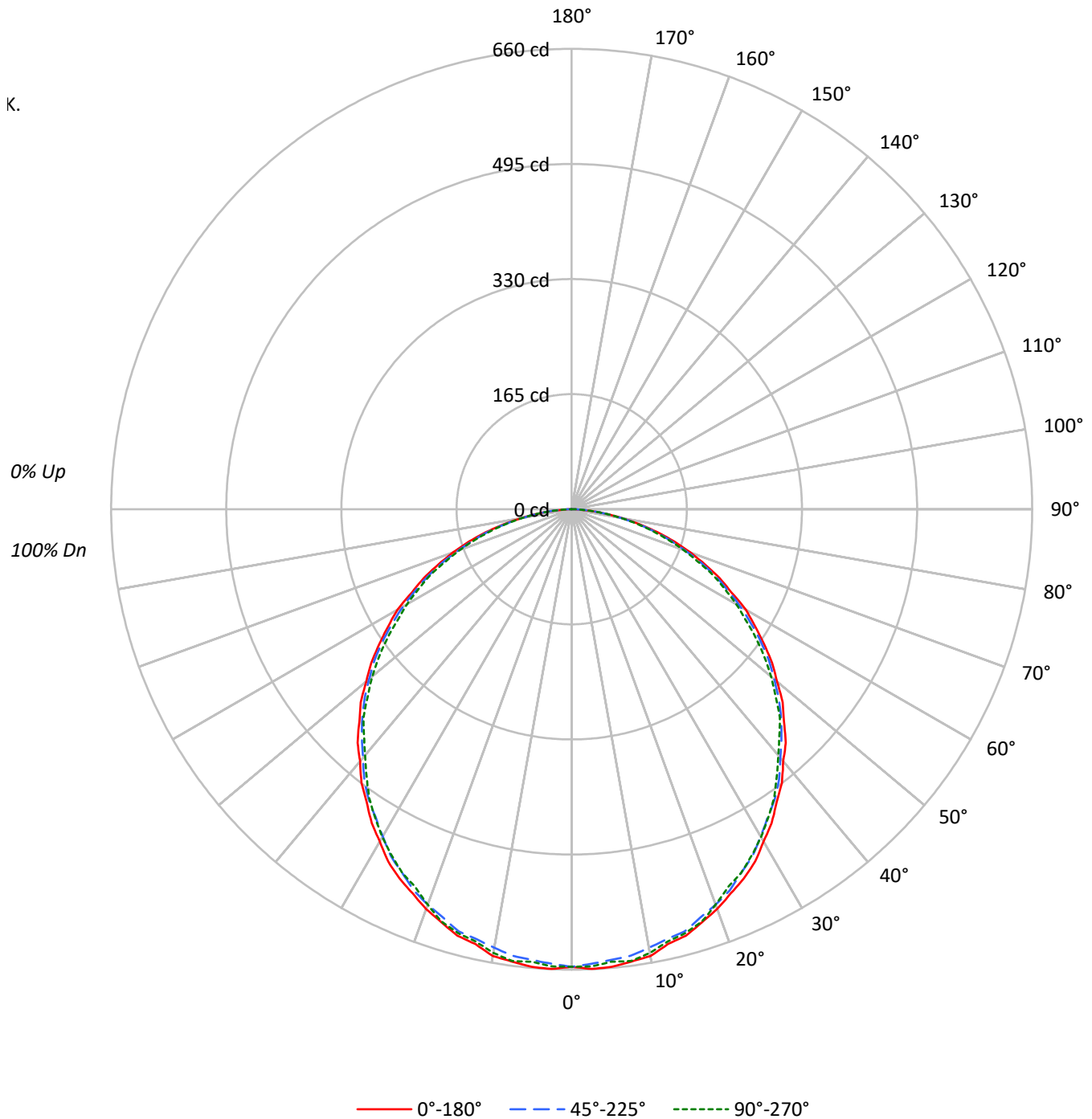
Lumens per Lamp: N/A  
Luminaire Lumens: 1834.0 lumens  
Efficiency: N/A  
Efficacy: 86.9 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.23 / 1.35  
Luminous Opening: Rectangular (W 0.29' x L: 3.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 21.1  
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	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°	6314	6314	6314
5°	6365	6267	6293
10°	6357	6240	6312
15°	6307	6243	6270
20°	6248	6181	6181
25°	6204	6106	6106
30°	6113	6021	6031
35°	6019	5965	5943
40°	5927	5846	5789
45°	5857	5781	5744
50°	5753	5670	5588
55°	5643	5551	5411
60°	5551	5374	5251
65°	5331	5183	5098
70°	5081	4875	4796
75°	4728	4557	4419
80°	4036	3931	3931
85°	2949	3049	2949

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 5869 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.1	3.4
10°-20°	177.2	9.7
20°-30°	266.3	14.5
30°-40°	317.8	17.3
40°-50°	327.9	17.9
50°-60°	295.4	16.1
60°-70°	224.7	12.3
70°-80°	129.0	7.0
80°-90°	33.6	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°	505.5	27.6
0°-40°	823.4	44.9
0°-60°	1446.7	78.9
0°-90°	1834.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1834.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	656	656	656	656	656	
5°	659	656	648	656	651	63
15°	633	630	626	628	629	178
25°	584	579	575	577	575	269
35°	512	511	508	506	506	321
45°	430	431	425	421	422	332
55°	336	337	331	328	322	301
65°	234	231	228	223	224	231
75°	127	123	122	120	119	134
85°	27	28	28	28	27	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	655.8	655.8	655.8	655.8	655.8
2.5°	659.5	659.5	652.2	656.8	655.8
5°	658.6	655.8	648.5	655.8	651.2
7.5°	654.0	649.4	645.7	650.3	653.1
10°	650.3	649.4	638.3	643.9	645.7
12.5°	638.3	642.9	631.0	634.7	634.7
15°	632.8	630.0	626.4	628.2	629.1
17.5°	620.8	619.0	613.5	618.1	619.9
20°	609.8	607.0	603.3	604.3	603.3
22.5°	596.0	594.1	591.4	591.4	585.8
25°	584.0	579.4	574.8	576.6	574.8
27.5°	569.3	565.6	561.0	561.9	559.1
30°	549.9	550.8	541.6	541.6	542.5
32.5°	533.3	529.6	523.2	523.2	524.1
35°	512.1	511.2	507.5	505.7	505.7
37.5°	494.6	494.6	488.2	485.4	482.7
40°	471.6	472.5	465.2	464.2	460.6
42.5°	454.1	452.3	444.9	444.0	440.3
45°	430.2	431.1	424.6	421.0	421.9
47.5°	409.9	407.1	402.5	398.8	396.1
50°	384.1	383.2	378.6	375.8	373.1
52.5°	362.0	359.2	356.5	350.0	348.2
55°	336.2	337.1	330.7	327.9	322.4
57.5°	311.3	310.4	304.9	300.3	295.7
60°	288.3	285.5	279.1	274.5	272.7
62.5°	257.9	257.0	252.4	248.7	246.9
65°	234.0	231.2	227.5	222.9	223.8
67.5°	206.3	204.5	200.8	197.1	195.3
70°	180.5	177.8	173.2	171.3	170.4
72.5°	153.8	151.1	147.4	143.7	144.6
75°	127.1	123.4	122.5	119.7	118.8
77.5°	99.5	97.6	95.8	94.9	94.0
80°	72.8	73.7	70.9	70.0	70.9
82.5°	49.7	49.7	48.8	47.9	48.8
85°	26.7	27.6	27.6	27.6	26.7
87.5°	9.2	11.1	12.0	12.0	11.1
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	18.23	19.87	18.59	20.18	20.50	17.99	19.63	18.35	19.94	20.26
	3H	20.06	21.55	20.44	21.87	22.23	19.79	21.28	20.17	21.60	21.96
	4H	20.75	22.15	21.15	22.50	22.87	20.46	21.86	20.86	22.21	22.58
	6H	21.24	22.53	21.65	22.90	23.29	20.95	22.24	21.36	22.61	23.00
	8H	21.38	22.62	21.81	23.01	23.41	21.10	22.33	21.52	22.72	23.12
	12H	21.46	22.65	21.89	23.03	23.46	21.18	22.37	21.61	22.75	23.18
4H	2H	18.84	20.24	19.24	20.59	20.96	18.65	20.05	19.05	20.40	20.77
	3H	20.90	22.07	21.30	22.47	22.87	20.67	21.84	21.08	22.24	22.64
	4H	21.71	22.77	22.14	23.18	23.62	21.46	22.53	21.90	22.94	23.37
	6H	22.32	23.25	22.78	23.69	24.15	22.07	23.00	22.52	23.44	23.89
	8H	22.51	23.38	22.97	23.82	24.29	22.26	23.13	22.72	23.57	24.04
	12H	22.63	23.41	23.11	23.89	24.36	22.39	23.17	22.87	23.64	24.11
8H	4H	22.01	22.88	22.47	23.32	23.78	21.79	22.66	22.25	23.10	23.57
	6H	22.74	23.46	23.23	23.95	24.42	22.51	23.23	23.00	23.72	24.19
	8H	23.00	23.64	23.50	24.15	24.63	22.77	23.42	23.28	23.92	24.41
	12H	23.18	23.75	23.68	24.24	24.80	22.96	23.53	23.47	24.02	24.58
12H	4H	22.04	22.82	22.52	23.29	23.76	21.83	22.61	22.31	23.08	23.55
	6H	22.78	23.43	23.29	23.94	24.42	22.57	23.22	23.07	23.72	24.21
	8H	23.10	23.67	23.60	24.16	24.72	22.88	23.45	23.39	23.94	24.51