

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: P686299

Luminaire Tested: SQ4R-F-075D-93050-1-UNV-STD-W-4\_3500K

Issue Date: 5/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P686299  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2203-586-21)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4R-F-075D-93050-1-UNV-STD-W-4\_3500K  
Description: CORELITE SQ4R RECESSED LED LUMINAIRE WITH FROSTED LENS, WHITE TUNING 3000K-5000K  
750 LUMENS PER FOOT  
Light Source: 3000K AND 5000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

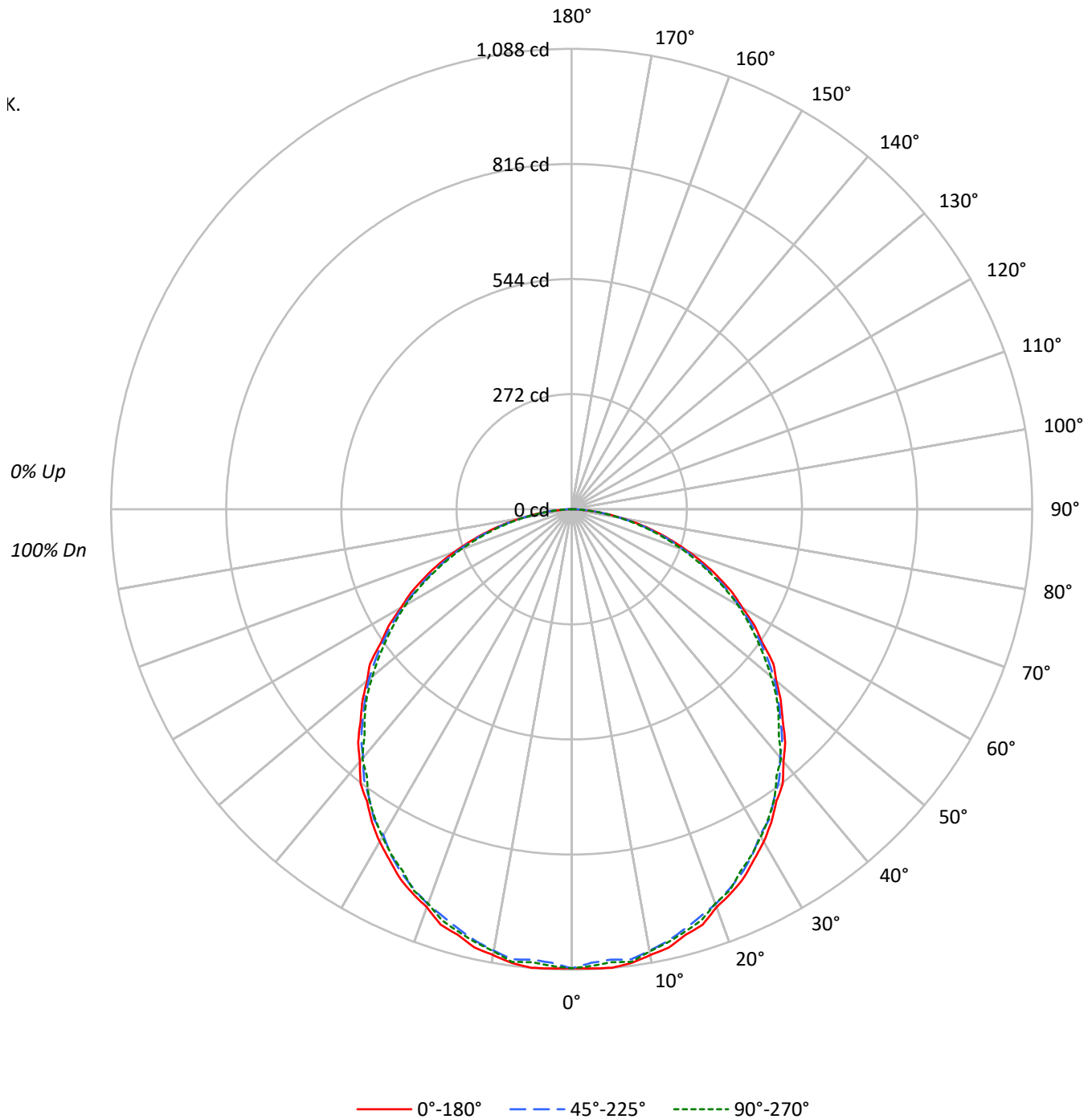
Lumens per Lamp: N/A  
Luminaire Lumens: 3017.8 lumens  
Efficiency: N/A  
Efficacy: 91.4 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.23 / 1.35  
Luminous Opening: Rectangular (W 0.29' x L: 3.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 33  
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	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	94	91	88	90	88	86	84																												
2	99	91	84	78	96	89	82	77	85	80	75	82	77	74	79	75	72	70																												
3	90	80	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	35	29	41	34	29	40	34	29	39	33	29	27																												
10	53	40	32	27	52	39	32	26	38	31	26	37	31	26	36	30	26	24																												

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

	0°	45°	90°
0°	10443	10443	10443
5°	10512	10323	10381
10°	10457	10354	10369
15°	10377	10242	10302
20°	10251	10173	10158
25°	10214	10086	10022
30°	10087	9887	9937
35°	9905	9799	9817
40°	9780	9629	9667
45°	9593	9491	9409
50°	9451	9361	9204
55°	9230	9102	8951
60°	8967	8822	8736
65°	8761	8454	8317
70°	8290	8034	7865
75°	7655	7432	7209
80°	6581	6498	6331
85°	4816	4982	4816

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 9634 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	102.5	3.4
10°-20°	292.2	9.7
20°-30°	438.7	14.5
30°-40°	524.2	17.4
40°-50°	539.4	17.9
50°-60°	486.1	16.1
60°-70°	369.3	12.2
70°-80°	211.0	7.0
80°-90°	54.3	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°	833.5	27.6
0°-40°	1357.8	45.0
0°-60°	2383.3	79.0
0°-90°	3017.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3017.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1085	1085	1085	1085	1085	
5°	1088	1080	1068	1080	1074	103
15°	1041	1040	1028	1038	1034	294
25°	962	951	950	951	944	442
35°	843	847	834	831	835	530
45°	705	708	697	693	691	546
55°	550	556	542	538	533	495
65°	385	382	371	365	365	380
75°	206	203	200	195	194	218
85°	44	45	45	44	44	54
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1084.7	1084.7	1084.7	1084.7	1084.7
2.5°	1086.2	1086.2	1072.7	1087.7	1080.2
5°	1087.7	1080.2	1068.2	1080.2	1074.2
7.5°	1081.7	1071.2	1072.7	1074.2	1078.7
10°	1069.7	1065.2	1059.1	1065.2	1060.7
12.5°	1060.7	1060.7	1045.6	1051.6	1048.6
15°	1041.1	1039.6	1027.6	1038.1	1033.6
17.5°	1029.1	1021.6	1009.6	1017.1	1018.6
20°	1000.6	1002.1	993.0	1000.6	991.5
22.5°	982.5	988.5	972.0	981.0	975.0
25°	961.5	951.0	949.5	951.0	943.5
27.5°	933.0	931.4	922.4	919.4	920.9
30°	907.4	910.4	889.4	889.4	893.9
32.5°	877.4	875.9	868.4	860.8	865.3
35°	842.8	847.3	833.8	830.8	835.3
37.5°	818.8	812.8	805.3	800.7	794.7
40°	778.2	781.2	766.2	766.2	769.2
42.5°	746.7	745.2	736.1	730.1	724.1
45°	704.6	707.6	697.1	692.6	691.1
47.5°	670.0	668.5	661.0	652.0	656.5
50°	631.0	629.5	625.0	616.0	614.5
52.5°	600.9	594.9	584.4	576.9	573.9
55°	549.9	555.9	542.3	537.8	533.3
57.5°	512.3	509.3	501.8	494.3	492.8
60°	465.7	465.7	458.2	453.7	453.7
62.5°	428.2	423.7	414.6	411.6	410.1
65°	384.6	381.6	371.1	365.1	365.1
67.5°	341.0	338.0	327.5	321.5	321.5
70°	294.5	291.5	285.4	280.9	279.4
72.5°	249.4	247.9	241.9	237.4	234.4
75°	205.8	202.8	199.8	195.3	193.8
77.5°	163.8	160.8	157.7	153.2	151.7
80°	118.7	117.2	117.2	112.7	114.2
82.5°	81.1	81.1	79.6	76.6	78.1
85°	43.6	45.1	45.1	43.6	43.6
87.5°	15.0	18.0	19.5	18.0	18.0
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	19.92	21.56	20.29	21.88	22.19	19.73	21.37	20.10	21.69	22.00
	3H	21.76	23.25	22.14	23.57	23.93	21.52	23.00	21.90	23.33	23.69
	4H	22.44	23.84	22.84	24.19	24.56	22.18	23.58	22.58	23.92	24.30
	6H	22.92	24.22	23.33	24.58	24.97	22.65	23.94	23.06	24.31	24.70
	8H	23.06	24.30	23.49	24.69	25.09	22.79	24.03	23.22	24.42	24.82
	12H	23.14	24.33	23.57	24.71	25.14	22.88	24.06	23.31	24.44	24.87
4H	2H	20.53	21.93	20.93	22.28	22.65	20.38	21.78	20.78	22.13	22.50
	3H	22.59	23.77	23.00	24.16	24.56	22.39	23.56	22.80	23.96	24.36
	4H	23.40	24.46	23.83	24.88	25.31	23.17	24.23	23.61	24.65	25.08
	6H	24.00	24.93	24.46	25.37	25.83	23.76	24.69	24.22	25.13	25.59
	8H	24.19	25.06	24.65	25.50	25.96	23.95	24.82	24.41	25.26	25.73
	12H	24.31	25.09	24.79	25.56	26.03	24.07	24.85	24.55	25.33	25.80
8H	4H	23.70	24.57	24.16	25.01	25.47	23.50	24.37	23.96	24.81	25.27
	6H	24.41	25.14	24.91	25.62	26.10	24.20	24.92	24.69	25.41	25.88
	8H	24.67	25.31	25.18	25.82	26.31	24.45	25.10	24.96	25.61	26.09
	12H	24.85	25.42	25.35	25.91	26.47	24.64	25.21	25.14	25.70	26.26
12H	4H	23.73	24.51	24.21	24.98	25.45	23.53	24.31	24.01	24.79	25.26
	6H	24.46	25.11	24.97	25.62	26.10	24.26	24.90	24.77	25.41	25.90
	8H	24.77	25.34	25.28	25.83	26.39	24.56	25.14	25.07	25.63	26.19