

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: P686312

Luminaire Tested: SQ4R-F-100D-93050-1-UNV-STD-W-4_3500K

Issue Date: 5/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P686312
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-100D-93050-1-UNV-STD-W-4_3500K
Description: CORELITE SQ4R RECESSED LED LUMINAIRE WITH FROSTED LENS, WHITE TUNING 3000K-5000K
1000 LUMENS PER FOOT
Light Source: 3000K AND 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3998.6 lumens
Efficiency: N/A
Efficacy: 86.0 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

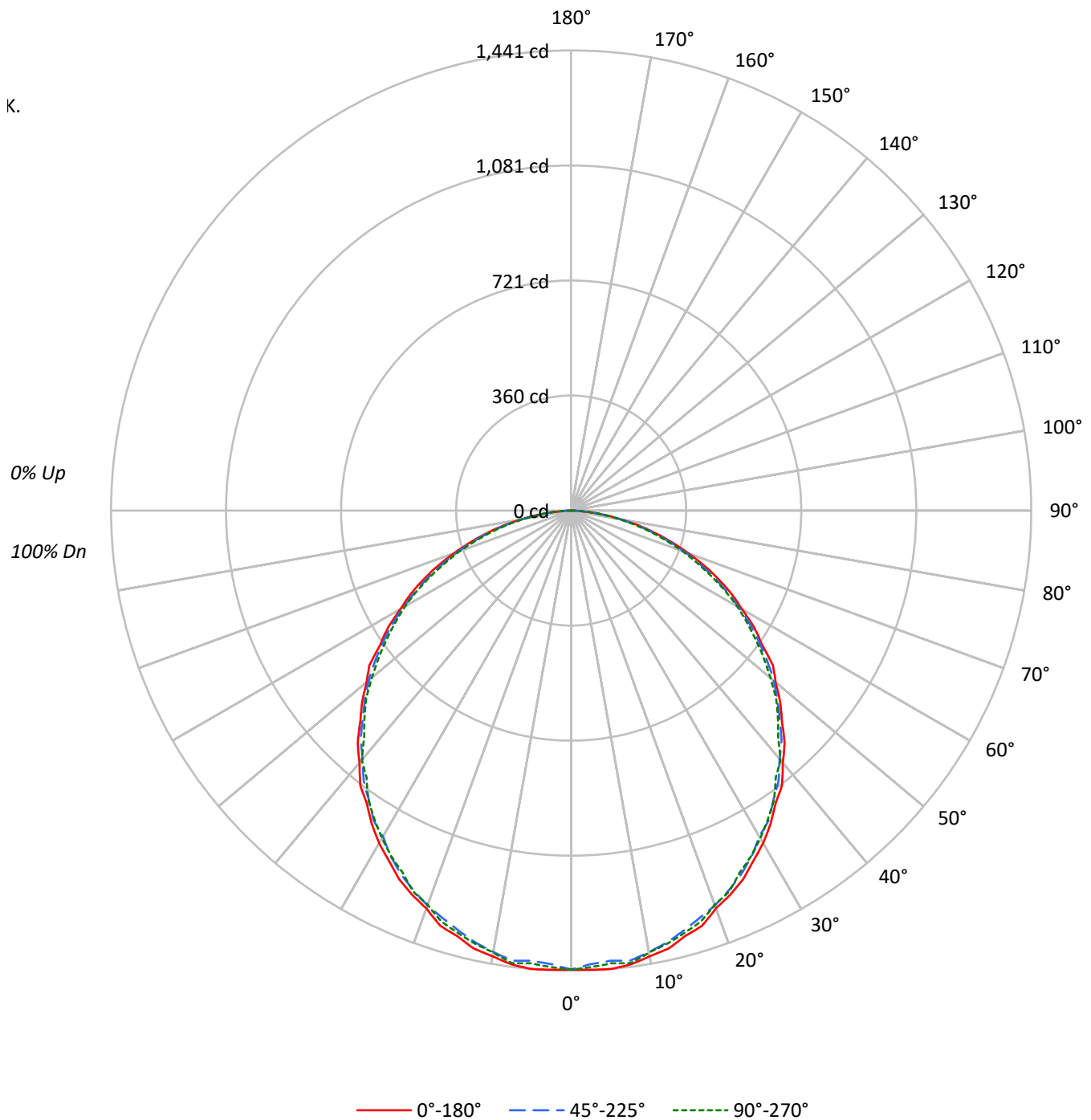
Input Watts (W): 46.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	13836	13836	13836
5°	13928	13678	13755
10°	13855	13719	13738
15°	13749	13570	13650
20°	13582	13481	13460
25°	13533	13363	13279
30°	13366	13100	13167
35°	13124	12985	13008
40°	12958	12759	12809
45°	12711	12575	12467
50°	12521	12403	12193
55°	12228	12062	11862
60°	11882	11690	11576
65°	11609	11201	11019
70°	10984	10646	10421
75°	10144	9846	9552
80°	8721	8610	8388
85°	6374	6595	6374

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 12766 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.9	3.4
10°-20°	387.2	9.7
20°-30°	581.3	14.5
30°-40°	694.6	17.4
40°-50°	714.7	17.9
50°-60°	644.1	16.1
60°-70°	489.4	12.2
70°-80°	279.5	7.0
80°-90°	71.9	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°	1104.4	27.6
0°-40°	1799.0	45.0
0°-60°	3157.8	79.0
0°-90°	3998.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3998.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1437	1437	1437	1437	1437	
5°	1441	1431	1415	1431	1423	137
15°	1380	1378	1362	1376	1370	390
25°	1274	1260	1258	1260	1250	586
35°	1117	1123	1105	1101	1107	702
45°	934	938	924	918	916	723
55°	728	736	719	713	707	655
65°	510	506	492	484	484	503
75°	273	269	265	259	257	288
85°	58	60	60	58	58	72
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1437.2	1437.2	1437.2	1437.2	1437.2
2.5°	1439.2	1439.2	1421.3	1441.2	1431.2
5°	1441.2	1431.2	1415.3	1431.2	1423.3
7.5°	1433.2	1419.3	1421.3	1423.3	1429.2
10°	1417.3	1411.3	1403.4	1411.3	1405.3
12.5°	1405.3	1405.3	1385.4	1393.4	1389.4
15°	1379.5	1377.5	1361.5	1375.5	1369.5
17.5°	1363.5	1353.6	1337.7	1347.6	1349.6
20°	1325.7	1327.7	1315.8	1325.7	1313.8
22.5°	1301.8	1309.8	1287.9	1299.8	1291.9
25°	1274.0	1260.0	1258.0	1260.0	1250.1
27.5°	1236.1	1234.2	1222.2	1218.2	1220.2
30°	1202.3	1206.3	1178.4	1178.4	1184.4
32.5°	1162.5	1160.5	1150.5	1140.6	1146.6
35°	1116.7	1122.7	1104.8	1100.8	1106.8
37.5°	1084.9	1076.9	1066.9	1061.0	1053.0
40°	1031.1	1035.1	1015.2	1015.2	1019.2
42.5°	989.3	987.3	975.4	967.4	959.5
45°	933.6	937.6	923.6	917.7	915.7
47.5°	887.8	885.8	875.8	863.9	869.9
50°	836.0	834.0	828.1	816.1	814.1
52.5°	796.2	788.3	774.3	764.4	760.4
55°	728.5	736.5	718.6	712.6	706.7
57.5°	678.8	674.8	664.8	654.9	652.9
60°	617.1	617.1	607.1	601.2	601.2
62.5°	567.3	561.3	549.4	545.4	543.4
65°	509.6	505.6	491.7	483.7	483.7
67.5°	451.9	447.9	433.9	426.0	426.0
70°	390.2	386.2	378.2	372.2	370.2
72.5°	330.4	328.4	320.5	314.5	310.5
75°	272.7	268.7	264.7	258.8	256.8
77.5°	217.0	213.0	209.0	203.0	201.0
80°	157.3	155.3	155.3	149.3	151.3
82.5°	107.5	107.5	105.5	101.5	103.5
85°	57.7	59.7	59.7	57.7	57.7
87.5°	19.9	23.9	25.9	23.9	23.9
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	20.90	22.54	21.26	22.85	23.17	20.71	22.35	21.08	22.67	22.98
	3H	22.74	24.22	23.12	24.55	24.91	22.50	23.98	22.87	24.31	24.67
	4H	23.42	24.82	23.82	25.17	25.54	23.16	24.55	23.55	24.90	25.28
	6H	23.90	25.19	24.31	25.56	25.95	23.63	24.92	24.04	25.29	25.68
	8H	24.04	25.28	24.47	25.67	26.07	23.77	25.01	24.20	25.40	25.80
	12H	24.12	25.31	24.55	25.69	26.12	23.86	25.04	24.28	25.42	25.85
4H	2H	21.51	22.91	21.91	23.25	23.63	21.36	22.76	21.76	23.11	23.48
	3H	23.57	24.74	23.98	25.14	25.54	23.37	24.54	23.78	24.94	25.34
	4H	24.38	25.44	24.81	25.85	26.29	24.15	25.21	24.58	25.63	26.06
	6H	24.98	25.91	25.44	26.35	26.80	24.74	25.67	25.20	26.11	26.56
	8H	25.17	26.03	25.63	26.48	26.94	24.93	25.80	25.39	26.24	26.70
	12H	25.28	26.06	25.76	26.54	27.01	25.05	25.83	25.53	26.30	26.77
8H	4H	24.68	25.54	25.14	25.99	26.45	24.48	25.34	24.94	25.79	26.25
	6H	25.39	26.11	25.89	26.60	27.08	25.18	25.90	25.67	26.39	26.86
	8H	25.65	26.29	26.15	26.80	27.28	25.43	26.08	25.94	26.58	27.07
	12H	25.82	26.40	26.33	26.89	27.45	25.61	26.18	26.12	26.67	27.23
12H	4H	24.71	25.49	25.19	25.96	26.43	24.51	25.29	24.99	25.77	26.23
	6H	25.44	26.09	25.95	26.59	27.08	25.23	25.88	25.74	26.39	26.87
	8H	25.75	26.32	26.25	26.81	27.37	25.54	26.11	26.05	26.60	27.16