

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: P686311

Luminaire Tested: SQ4R-F-100D-93050-1-UNV-STD-W-4_3000K

Issue Date: 5/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P686311
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_3000K
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

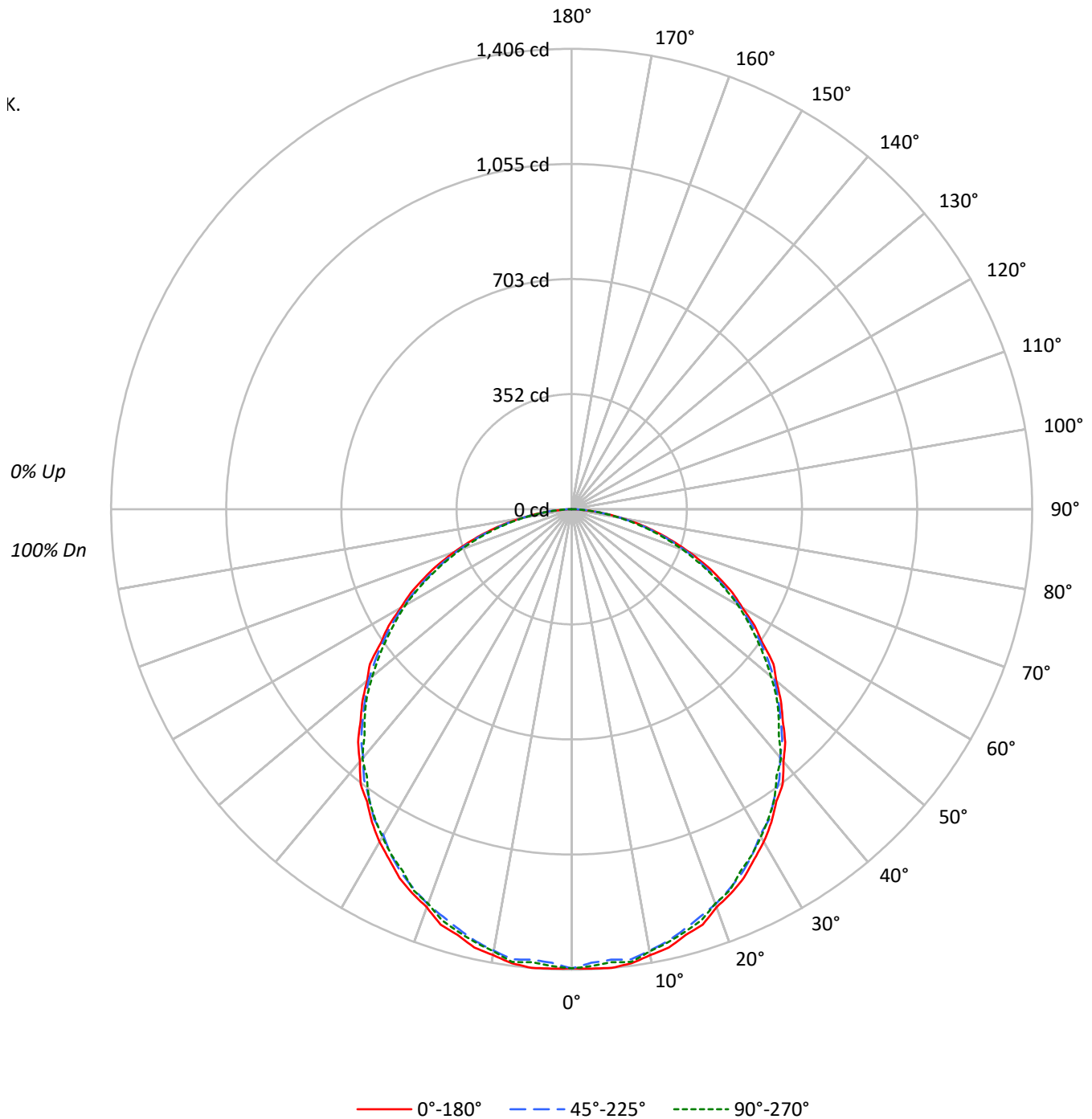
Lumens per Lamp: N/A
Luminaire Lumens: 3900.5 lumens
Efficiency: N/A
Efficacy: 84.2 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.23 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 46.3
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	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°	13498	13498	13498
5°	13586	13342	13418
10°	13515	13382	13402
15°	13412	13238	13315
20°	13249	13150	13130
25°	13201	13036	12953
30°	13038	12779	12843
35°	12802	12666	12688
40°	12640	12446	12495
45°	12399	12267	12161
50°	12214	12099	11895
55°	11929	11766	11570
60°	11589	11403	11291
65°	11324	10925	10748
70°	10713	10384	10167
75°	9894	9608	9318
80°	8505	8399	8183
85°	6219	6440	6219

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 12452 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.5	3.4
10°-20°	377.7	9.7
20°-30°	567.1	14.5
30°-40°	677.6	17.4
40°-50°	697.2	17.9
50°-60°	628.3	16.1
60°-70°	477.3	12.2
70°-80°	272.7	7.0
80°-90°	70.1	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°	1077.3	27.6
0°-40°	1754.9	45.0
0°-60°	3080.4	79.0
0°-90°	3900.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3900.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1402	1402	1402	1402	1402	
5°	1406	1396	1381	1396	1388	133
15°	1346	1344	1328	1342	1336	380
25°	1243	1229	1227	1229	1219	571
35°	1089	1095	1078	1074	1080	684
45°	911	915	901	895	893	705
55°	711	718	701	695	689	639
65°	497	493	480	472	472	491
75°	266	262	258	252	250	281
85°	56	58	58	56	56	70
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1402.0	1402.0	1402.0	1402.0	1402.0
2.5°	1403.9	1403.9	1386.4	1405.8	1396.1
5°	1405.8	1396.1	1380.6	1396.1	1388.4
7.5°	1398.1	1384.5	1386.4	1388.4	1394.2
10°	1382.5	1376.7	1368.9	1376.7	1370.9
12.5°	1370.9	1370.9	1351.5	1359.2	1355.3
15°	1345.6	1343.7	1328.2	1341.8	1335.9
17.5°	1330.1	1320.4	1304.9	1314.6	1316.5
20°	1293.2	1295.2	1283.5	1293.2	1281.6
22.5°	1269.9	1277.7	1256.3	1268.0	1260.2
25°	1242.7	1229.1	1227.2	1229.1	1219.4
27.5°	1205.8	1203.9	1192.2	1188.4	1190.3
30°	1172.8	1176.7	1149.5	1149.5	1155.3
32.5°	1134.0	1132.0	1122.3	1112.6	1118.5
35°	1089.3	1095.2	1077.7	1073.8	1079.6
37.5°	1058.3	1050.5	1040.8	1035.0	1027.2
40°	1005.8	1009.7	990.3	990.3	994.2
42.5°	965.1	963.1	951.5	943.7	935.9
45°	910.7	914.6	901.0	895.2	893.2
47.5°	866.0	864.1	854.4	842.7	848.5
50°	815.5	813.6	807.8	796.1	794.2
52.5°	776.7	768.9	755.3	745.6	741.8
55°	710.7	718.5	701.0	695.2	689.3
57.5°	662.1	658.3	648.5	638.8	636.9
60°	601.9	601.9	592.2	586.4	586.4
62.5°	553.4	547.6	535.9	532.0	530.1
65°	497.1	493.2	479.6	471.8	471.8
67.5°	440.8	436.9	423.3	415.5	415.5
70°	380.6	376.7	368.9	363.1	361.2
72.5°	322.3	320.4	312.6	306.8	302.9
75°	266.0	262.1	258.3	252.4	250.5
77.5°	211.7	207.8	203.9	198.1	196.1
80°	153.4	151.5	151.5	145.6	147.6
82.5°	104.9	104.9	102.9	99.0	101.0
85°	56.3	58.3	58.3	56.3	56.3
87.5°	19.4	23.3	25.2	23.3	23.3
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	20.81	22.45	21.18	22.77	23.08	20.63	22.26	20.99	22.58	22.89
	3H	22.65	24.14	23.03	24.46	24.82	22.41	23.89	22.79	24.22	24.58
	4H	23.33	24.73	23.73	25.08	25.45	23.07	24.47	23.47	24.81	25.19
	6H	23.81	25.11	24.22	25.47	25.86	23.54	24.84	23.95	25.20	25.59
	8H	23.96	25.19	24.38	25.58	25.98	23.69	24.92	24.11	25.31	25.71
	12H	24.03	25.22	24.46	25.60	26.03	23.77	24.95	24.20	25.34	25.76
4H	2H	21.42	22.82	21.82	23.17	23.54	21.27	22.67	21.67	23.02	23.39
	3H	23.49	24.66	23.89	25.05	25.45	23.28	24.45	23.69	24.85	25.25
	4H	24.29	25.35	24.72	25.77	26.20	24.07	25.13	24.50	25.54	25.97
	6H	24.90	25.82	25.35	26.26	26.72	24.66	25.58	25.11	26.02	26.48
	8H	25.08	25.95	25.54	26.39	26.86	24.84	25.71	25.30	26.15	26.62
	12H	25.20	25.98	25.68	26.45	26.92	24.96	25.74	25.44	26.22	26.69
8H	4H	24.59	25.46	25.05	25.90	26.37	24.39	25.26	24.85	25.70	26.16
	6H	25.31	26.03	25.80	26.51	26.99	25.09	25.81	25.59	26.30	26.78
	8H	25.56	26.21	26.07	26.71	27.20	25.35	25.99	25.85	26.50	26.98
	12H	25.74	26.31	26.24	26.80	27.36	25.53	26.10	26.03	26.59	27.15
12H	4H	24.62	25.40	25.10	25.87	26.34	24.43	25.20	24.90	25.68	26.15
	6H	25.35	26.00	25.86	26.51	26.99	25.15	25.80	25.66	26.30	26.79
	8H	25.66	26.23	26.17	26.72	27.28	25.46	26.03	25.96	26.52	27.08