

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: P686315

Luminaire Tested: SQ4R-F-100D-93050-1-UNV-STD-W-4_5000K

Issue Date: 5/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P686315
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_5000K
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

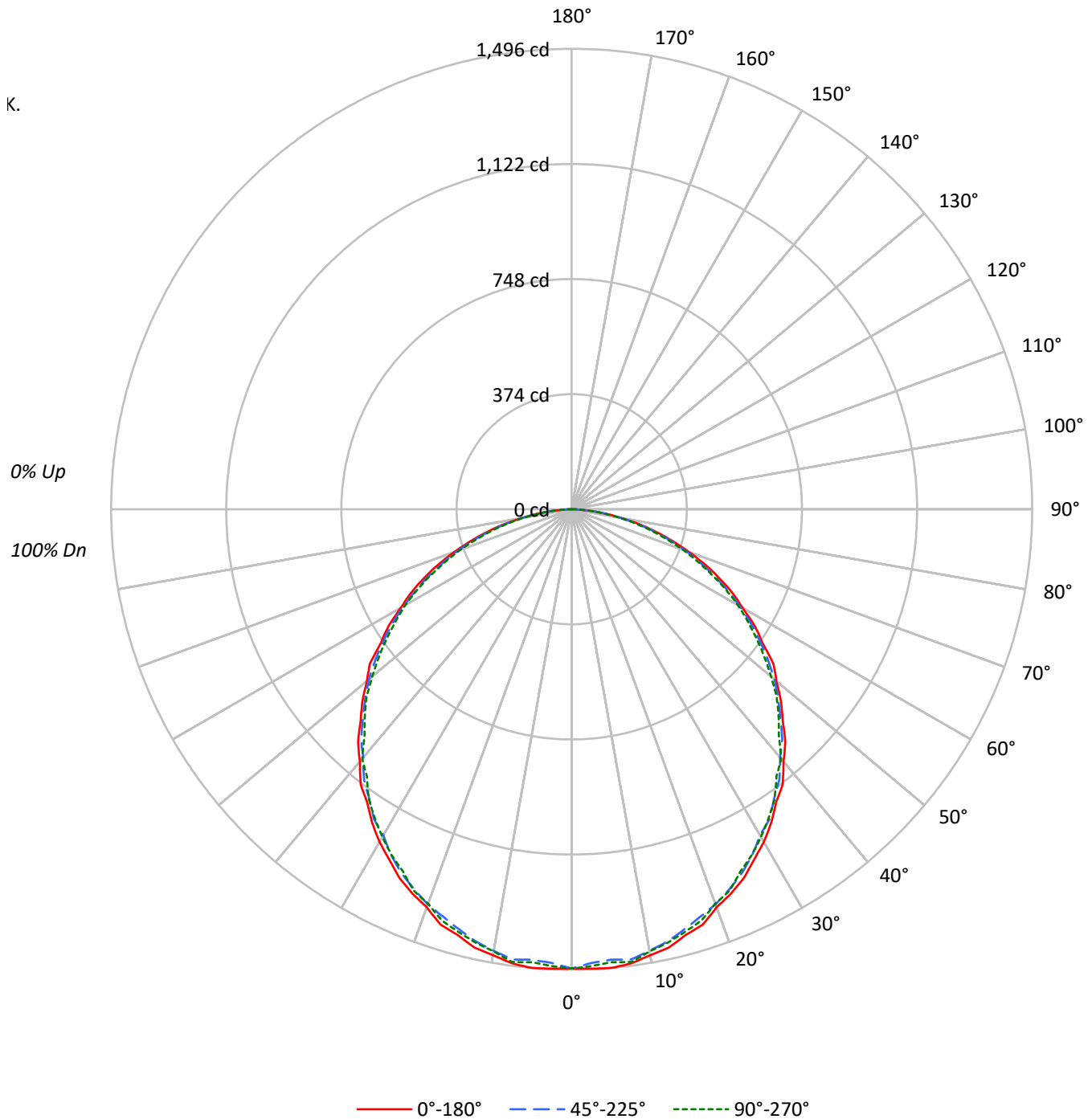
Lumens per Lamp: N/A
Luminaire Lumens: 4150.8 lumens
Efficiency: N/A
Efficacy: 89.8 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.23 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 46.2
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°	14363	14363	14363
5°	14458	14199	14278
10°	14382	14241	14261
15°	14273	14087	14170
20°	14099	13994	13972
25°	14048	13872	13785
30°	13875	13599	13668
35°	13624	13478	13503
40°	13452	13244	13297
45°	13194	13054	12941
50°	12999	12875	12657
55°	12694	12521	12313
60°	12335	12134	12015
65°	12051	11627	11438
70°	11400	11051	10817
75°	10531	10222	9917
80°	9048	8937	8704
85°	6617	6849	6617

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 13252 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.0	3.4
10°-20°	402.0	9.7
20°-30°	603.5	14.5
30°-40°	721.1	17.4
40°-50°	741.9	17.9
50°-60°	668.6	16.1
60°-70°	508.0	12.2
70°-80°	290.1	7.0
80°-90°	74.6	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°	1146.5	27.6
0°-40°	1867.5	45.0
0°-60°	3278.1	79.0
0°-90°	4150.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4150.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1492	1492	1492	1492	1492	
5°	1496	1486	1469	1486	1477	142
15°	1432	1430	1413	1428	1422	405
25°	1322	1308	1306	1308	1298	608
35°	1159	1165	1147	1143	1149	728
45°	969	973	959	953	950	750
55°	756	765	746	740	734	680
65°	529	525	510	502	502	522
75°	283	279	275	269	267	299
85°	60	62	62	60	60	74
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1491.9	1491.9	1491.9	1491.9	1491.9
2.5°	1494.0	1494.0	1475.4	1496.0	1485.7
5°	1496.0	1485.7	1469.2	1485.7	1477.4
7.5°	1487.8	1473.3	1475.4	1477.4	1483.6
10°	1471.2	1465.0	1456.8	1465.0	1458.8
12.5°	1458.8	1458.8	1438.2	1446.4	1442.3
15°	1432.0	1429.9	1413.4	1427.9	1421.7
17.5°	1415.5	1405.1	1388.6	1398.9	1401.0
20°	1376.2	1378.3	1365.9	1376.2	1363.8
22.5°	1351.4	1359.7	1336.9	1349.3	1341.1
25°	1322.5	1308.0	1305.9	1308.0	1297.7
27.5°	1283.2	1281.1	1268.7	1264.6	1266.7
30°	1248.1	1252.2	1223.3	1223.3	1229.5
32.5°	1206.8	1204.7	1194.4	1184.0	1190.2
35°	1159.2	1165.4	1146.8	1142.7	1148.9
37.5°	1126.2	1117.9	1107.6	1101.4	1093.1
40°	1070.4	1074.5	1053.8	1053.8	1058.0
42.5°	1027.0	1024.9	1012.5	1004.2	996.0
45°	969.1	973.3	958.8	952.6	950.5
47.5°	921.6	919.5	909.2	896.8	903.0
50°	867.9	865.8	859.6	847.2	845.1
52.5°	826.5	818.3	803.8	793.5	789.3
55°	756.3	764.6	746.0	739.8	733.6
57.5°	704.6	700.5	690.2	679.8	677.8
60°	640.6	640.6	630.2	624.0	624.0
62.5°	588.9	582.7	570.3	566.2	564.1
65°	529.0	524.9	510.4	502.1	502.1
67.5°	469.1	464.9	450.5	442.2	442.2
70°	405.0	400.9	392.6	386.4	384.3
72.5°	343.0	340.9	332.7	326.5	322.4
75°	283.1	279.0	274.8	268.6	266.6
77.5°	225.2	221.1	217.0	210.8	208.7
80°	163.2	161.2	161.2	155.0	157.0
82.5°	111.6	111.6	109.5	105.4	107.5
85°	59.9	62.0	62.0	59.9	59.9
87.5°	20.7	24.8	26.9	24.8	24.8
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	21.03	22.67	21.40	22.98	23.30	20.84	22.48	21.21	22.79	23.11
	3H	22.87	24.35	23.25	24.68	25.04	22.63	24.11	23.00	24.44	24.80
	4H	23.55	24.95	23.95	25.30	25.67	23.29	24.68	23.68	25.03	25.41
	6H	24.03	25.32	24.44	25.69	26.08	23.76	25.05	24.17	25.42	25.81
	8H	24.17	25.41	24.60	25.80	26.20	23.90	25.14	24.33	25.53	25.93
	12H	24.25	25.44	24.68	25.82	26.25	23.98	25.17	24.41	25.55	25.98
4H	2H	21.64	23.04	22.04	23.38	23.76	21.49	22.89	21.89	23.23	23.61
	3H	23.70	24.87	24.11	25.27	25.67	23.50	24.67	23.91	25.07	25.47
	4H	24.51	25.57	24.94	25.98	26.42	24.28	25.34	24.71	25.75	26.19
	6H	25.11	26.04	25.57	26.48	26.93	24.87	25.80	25.33	26.24	26.69
	8H	25.30	26.16	25.76	26.61	27.07	25.06	25.93	25.52	26.37	26.83
	12H	25.41	26.19	25.89	26.67	27.14	25.18	25.96	25.66	26.43	26.90
8H	4H	24.81	25.67	25.27	26.12	26.58	24.61	25.47	25.07	25.92	26.38
	6H	25.52	26.24	26.02	26.73	27.21	25.31	26.03	25.80	26.52	26.99
	8H	25.78	26.42	26.28	26.93	27.41	25.56	26.21	26.07	26.71	27.20
	12H	25.95	26.53	26.46	27.02	27.58	25.74	26.31	26.25	26.80	27.36
12H	4H	24.84	25.62	25.32	26.09	26.56	24.64	25.42	25.12	25.90	26.36
	6H	25.57	26.22	26.08	26.72	27.21	25.36	26.01	25.87	26.52	27.00
	8H	25.88	26.45	26.38	26.94	27.50	25.67	26.24	26.18	26.73	27.29