

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: P686305

Luminaire Tested: SQ4R-F-100D-92765-1-UNV-STD-W-4_3500K

Issue Date: 5/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P686305
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-100D-92765-1-UNV-STD-W-4_3500K
Description: CORELITE SQ4R RECESSED LED LUMINAIRE WITH FROSTED LENS, WHITE TUNING 2700K-6500I
1000 LUMENS PER FOOT
Light Source: 2700K AND 6500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

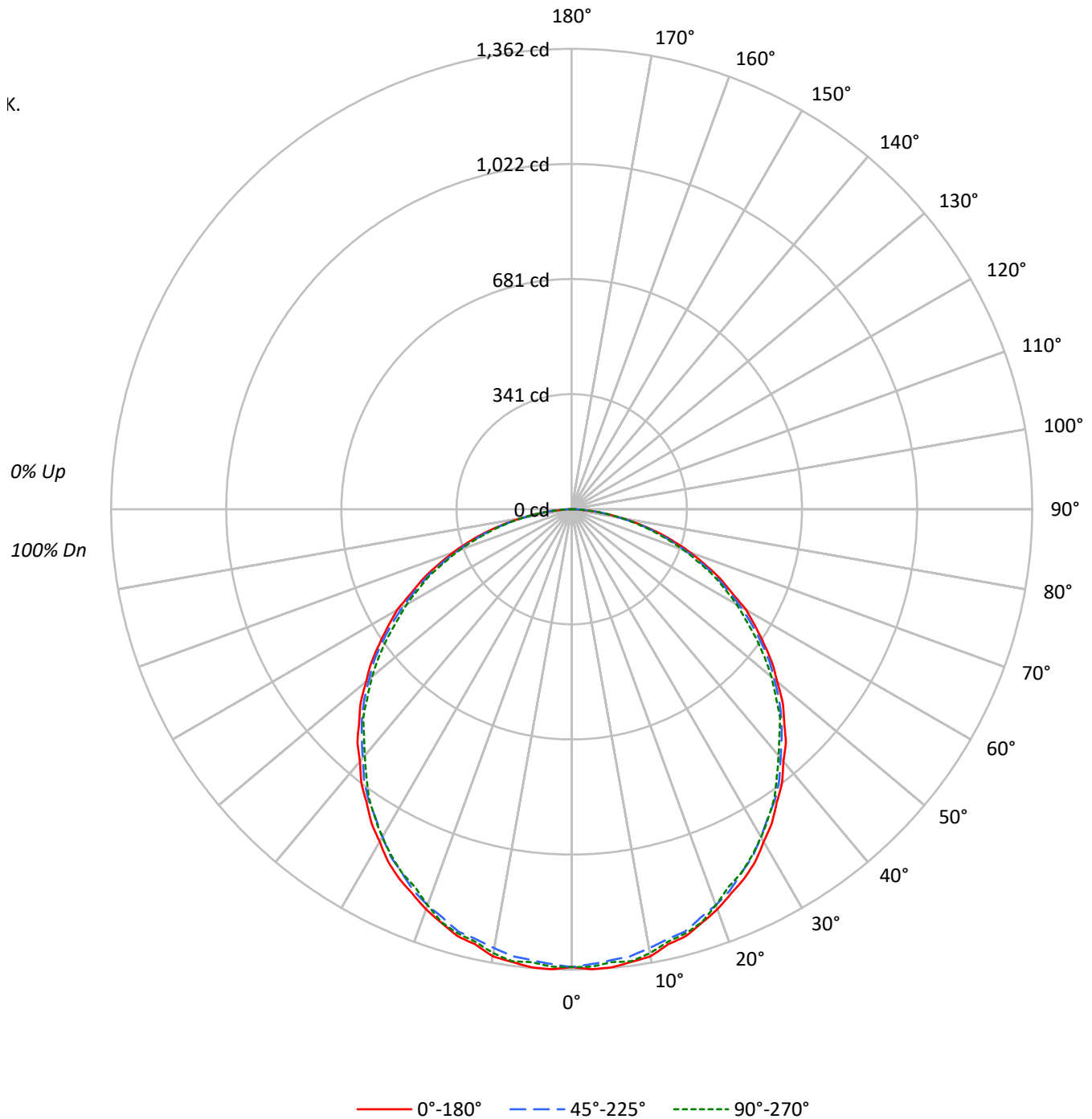
Lumens per Lamp: N/A
Luminaire Lumens: 3787.6 lumens
Efficiency: N/A
Efficacy: 82.0 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.23 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	13039	13039	13039
5°	13145	12942	12997
10°	13129	12888	13036
15°	13026	12893	12950
20°	12902	12766	12766
25°	12812	12609	12609
30°	12625	12435	12456
35°	12431	12319	12275
40°	12241	12074	11954
45°	12096	11940	11863
50°	11882	11711	11539
55°	11654	11462	11175
60°	11464	11098	10842
65°	11007	10704	10531
70°	10497	10066	9905
75°	9764	9411	9128
80°	8333	8122	8122
85°	6097	6307	6097

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 12122 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.3	3.4
10°-20°	365.9	9.7
20°-30°	549.9	14.5
30°-40°	656.4	17.3
40°-50°	677.3	17.9
50°-60°	610.0	16.1
60°-70°	464.1	12.3
70°-80°	266.4	7.0
80°-90°	69.3	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°	1044.1	27.6
0°-40°	1700.5	44.9
0°-60°	2987.8	78.9
0°-90°	3787.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3787.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1354	1354	1354	1354	1354	
5°	1360	1354	1339	1354	1345	129
15°	1307	1301	1294	1297	1299	368
25°	1206	1197	1187	1191	1187	555
35°	1058	1056	1048	1044	1044	663
45°	888	890	877	869	871	687
55°	694	696	683	677	666	622
65°	483	478	470	460	462	477
75°	262	255	253	247	245	276
85°	55	57	57	57	55	69
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1354.4	1354.4	1354.4	1354.4	1354.4
2.5°	1362.1	1362.1	1346.8	1356.3	1354.4
5°	1360.2	1354.4	1339.2	1354.4	1344.9
7.5°	1350.6	1341.1	1333.5	1343.0	1348.7
10°	1343.0	1341.1	1318.3	1329.7	1333.5
12.5°	1318.3	1327.8	1303.1	1310.7	1310.7
15°	1306.9	1301.2	1293.6	1297.4	1299.3
17.5°	1282.2	1278.4	1266.9	1276.5	1280.3
20°	1259.3	1253.6	1246.0	1247.9	1246.0
22.5°	1230.8	1227.0	1221.3	1221.3	1209.9
25°	1206.1	1196.6	1187.0	1190.8	1187.0
27.5°	1175.6	1168.0	1158.5	1160.4	1154.7
30°	1135.7	1137.6	1118.6	1118.6	1120.5
32.5°	1101.4	1093.8	1080.5	1080.5	1082.4
35°	1057.7	1055.8	1048.2	1044.4	1044.4
37.5°	1021.5	1021.5	1008.2	1002.5	996.8
40°	974.0	975.9	960.7	958.8	951.2
42.5°	937.8	934.0	918.8	916.9	909.3
45°	888.4	890.3	877.0	869.4	871.3
47.5°	846.5	840.8	831.3	823.7	818.0
50°	793.3	791.4	781.9	776.1	770.4
52.5°	747.6	741.9	736.2	722.9	719.1
55°	694.3	696.2	682.9	677.2	665.8
57.5°	643.0	641.1	629.7	620.2	610.6
60°	595.4	589.7	576.4	566.9	563.1
62.5°	532.6	530.7	521.2	513.6	509.8
65°	483.2	477.5	469.9	460.4	462.3
67.5°	426.1	422.3	414.7	407.1	403.3
70°	372.9	367.1	357.6	353.8	351.9
72.5°	317.7	312.0	304.4	296.8	298.7
75°	262.5	254.9	253.0	247.3	245.4
77.5°	205.4	201.6	197.8	195.9	194.0
80°	150.3	152.2	146.5	144.6	146.5
82.5°	102.7	102.7	100.8	98.9	100.8
85°	55.2	57.1	57.1	57.1	55.2
87.5°	19.0	22.8	24.7	24.7	22.8
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	20.75	22.39	21.11	22.70	23.02	20.51	22.15	20.87	22.46	22.77
	3H	22.58	24.07	22.96	24.39	24.75	22.31	23.80	22.69	24.12	24.48
	4H	23.27	24.67	23.67	25.02	25.39	22.98	24.38	23.38	24.73	25.10
	6H	23.76	25.05	24.17	25.42	25.81	23.47	24.76	23.88	25.13	25.52
	8H	23.90	25.14	24.33	25.53	25.93	23.62	24.85	24.04	25.24	25.64
	12H	23.98	25.17	24.41	25.55	25.98	23.70	24.89	24.13	25.27	25.70
4H	2H	21.36	22.76	21.76	23.11	23.48	21.17	22.57	21.57	22.92	23.29
	3H	23.42	24.59	23.82	24.99	25.38	23.19	24.36	23.60	24.76	25.16
	4H	24.23	25.29	24.66	25.70	26.14	23.99	25.05	24.42	25.46	25.89
	6H	24.84	25.77	25.30	26.21	26.67	24.59	25.52	25.04	25.96	26.41
	8H	25.03	25.90	25.49	26.34	26.81	24.78	25.65	25.24	26.10	26.56
	12H	25.15	25.93	25.63	26.41	26.88	24.91	25.69	25.39	26.17	26.63
8H	4H	24.53	25.40	24.99	25.84	26.30	24.31	25.18	24.77	25.62	26.09
	6H	25.26	25.98	25.75	26.47	26.94	25.03	25.75	25.52	26.24	26.72
	8H	25.52	26.16	26.02	26.67	27.15	25.29	25.94	25.80	26.45	26.93
	12H	25.70	26.27	26.20	26.76	27.32	25.48	26.05	25.99	26.54	27.10
12H	4H	24.56	25.34	25.04	25.81	26.28	24.35	25.13	24.83	25.60	26.07
	6H	25.30	25.95	25.81	26.46	26.94	25.09	25.74	25.60	26.24	26.73
	8H	25.62	26.19	26.12	26.68	27.24	25.40	25.98	25.91	26.47	27.03