

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: P686303

Luminaire Tested: SQ4R-F-100D-92765-1-UNV-STD-W-4_2700K

Issue Date: 5/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P686303
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_2700K
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

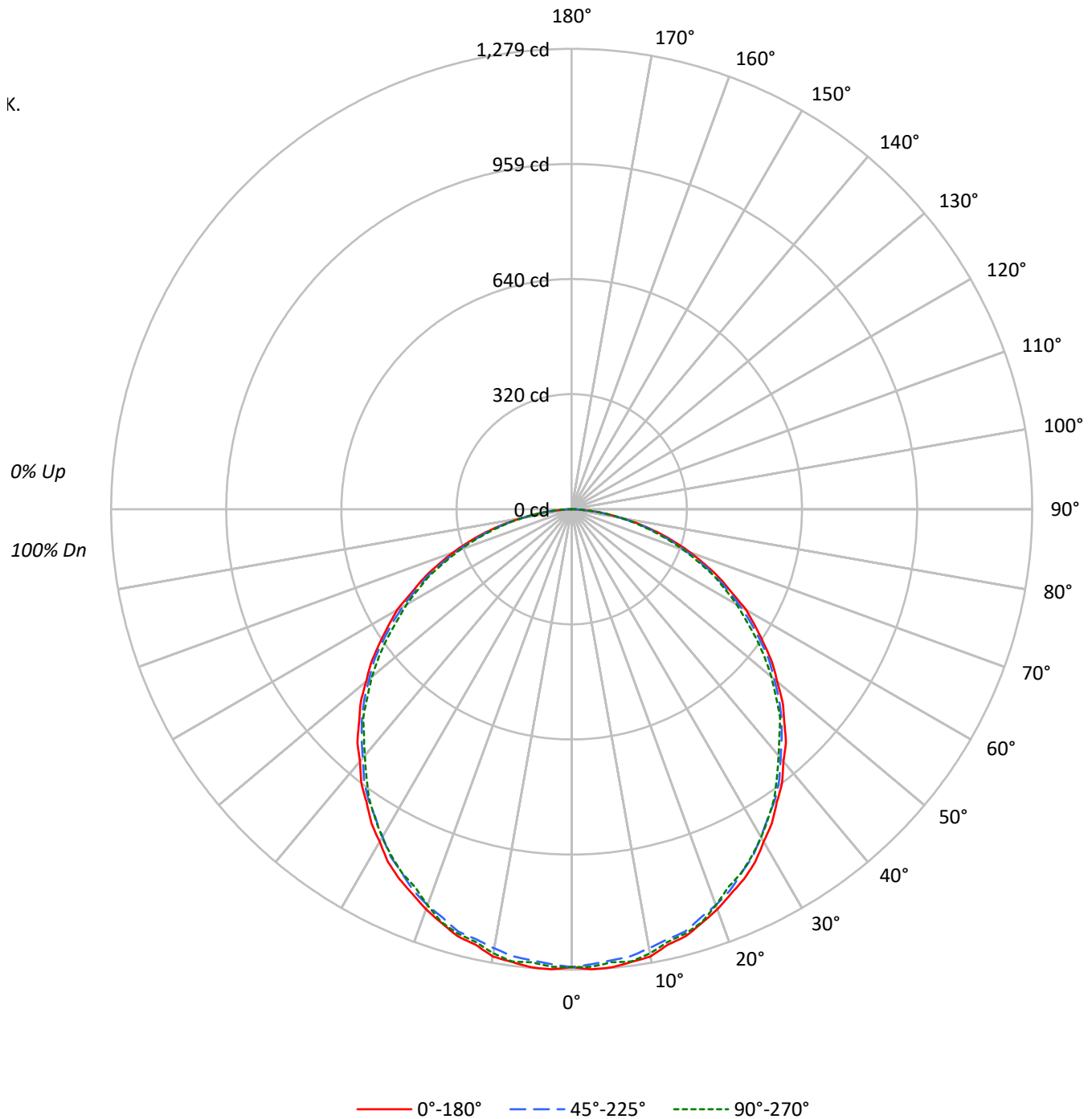
Lumens per Lamp: N/A
Luminaire Lumens: 3557.4 lumens
Efficiency: N/A
Efficacy: 77.5 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.23 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 45.9
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	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°	12247	12247	12247
5°	12346	12156	12208
10°	12331	12104	12244
15°	12234	12109	12163
20°	12118	11990	11990
25°	12033	11843	11843
30°	11857	11679	11699
35°	11675	11571	11528
40°	11497	11340	11227
45°	11360	11215	11141
50°	11158	10998	10838
55°	10945	10766	10496
60°	10767	10424	10184
65°	10338	10053	9891
70°	9858	9455	9303
75°	9173	8838	8574
80°	7823	7629	7629
85°	5722	5921	5722

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 11385 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.5	3.4
10°-20°	343.7	9.7
20°-30°	516.4	14.5
30°-40°	616.5	17.3
40°-50°	636.1	17.9
50°-60°	572.9	16.1
60°-70°	435.9	12.3
70°-80°	250.2	7.0
80°-90°	65.1	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°	980.6	27.6
0°-40°	1597.1	44.9
0°-60°	2806.2	78.9
0°-90°	3557.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3557.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1272	1272	1272	1272	1272	
5°	1278	1272	1258	1272	1263	121
15°	1228	1222	1215	1218	1220	346
25°	1133	1124	1115	1118	1115	521
35°	993	992	984	981	981	623
45°	834	836	824	816	818	645
55°	652	654	641	636	625	584
65°	454	448	441	432	434	448
75°	247	239	238	232	230	259
85°	52	54	54	54	52	64
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1272.1	1272.1	1272.1	1272.1	1272.1
2.5°	1279.3	1279.3	1265.0	1273.9	1272.1
5°	1277.5	1272.1	1257.8	1272.1	1263.2
7.5°	1268.5	1259.6	1252.5	1261.4	1266.8
10°	1261.4	1259.6	1238.2	1248.9	1252.5
12.5°	1238.2	1247.1	1223.9	1231.0	1231.0
15°	1227.5	1222.1	1214.9	1218.5	1220.3
17.5°	1204.2	1200.7	1189.9	1198.9	1202.4
20°	1182.8	1177.4	1170.3	1172.1	1170.3
22.5°	1156.0	1152.4	1147.1	1147.1	1136.3
25°	1132.8	1123.8	1114.9	1118.5	1114.9
27.5°	1104.2	1097.0	1088.1	1089.9	1084.5
30°	1066.6	1068.4	1050.6	1050.6	1052.4
32.5°	1034.5	1027.3	1014.8	1014.8	1016.6
35°	993.4	991.6	984.5	980.9	980.9
37.5°	959.4	959.4	946.9	941.6	936.2
40°	914.8	916.6	902.3	900.5	893.3
42.5°	880.8	877.3	863.0	861.2	854.0
45°	834.4	836.2	823.7	816.5	818.3
47.5°	795.1	789.7	780.8	773.6	768.3
50°	745.0	743.3	734.3	729.0	723.6
52.5°	702.2	696.8	691.4	678.9	675.4
55°	652.1	653.9	641.4	636.1	625.3
57.5°	603.9	602.1	591.4	582.5	573.5
60°	559.2	553.9	541.4	532.4	528.9
62.5°	500.3	498.5	489.6	482.4	478.8
65°	453.8	448.5	441.3	432.4	434.2
67.5°	400.2	396.6	389.5	382.4	378.8
70°	350.2	344.8	335.9	332.3	330.5
72.5°	298.4	293.0	285.9	278.7	280.5
75°	246.6	239.4	237.6	232.3	230.5
77.5°	193.0	189.4	185.8	184.0	182.2
80°	141.1	142.9	137.6	135.8	137.6
82.5°	96.5	96.5	94.7	92.9	94.7
85°	51.8	53.6	53.6	53.6	51.8
87.5°	17.9	21.4	23.2	23.2	21.4
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	20.53	22.17	20.90	22.49	22.80	20.29	21.93	20.65	22.24	22.56
	3H	22.37	23.85	22.74	24.18	24.54	22.09	23.58	22.47	23.90	24.26
	4H	23.05	24.45	23.45	24.80	25.17	22.76	24.16	23.16	24.51	24.88
	6H	23.54	24.84	23.95	25.20	25.59	23.25	24.54	23.66	24.91	25.30
	8H	23.68	24.92	24.11	25.31	25.71	23.40	24.64	23.82	25.02	25.42
	12H	23.76	24.95	24.19	25.33	25.76	23.48	24.67	23.91	25.05	25.48
4H	2H	21.14	22.54	21.54	22.89	23.26	20.95	22.35	21.35	22.70	23.07
	3H	23.20	24.37	23.61	24.77	25.17	22.97	24.15	23.38	24.54	24.94
	4H	24.01	25.07	24.44	25.49	25.92	23.77	24.83	24.20	25.24	25.68
	6H	24.63	25.55	25.08	25.99	26.45	24.37	25.30	24.83	25.74	26.20
	8H	24.81	25.68	25.27	26.13	26.59	24.57	25.44	25.03	25.88	26.34
	12H	24.93	25.71	25.41	26.19	26.66	24.69	25.47	25.17	25.95	26.42
8H	4H	24.31	25.18	24.77	25.62	26.08	24.09	24.96	24.55	25.40	25.87
	6H	25.04	25.76	25.53	26.25	26.72	24.81	25.54	25.31	26.02	26.50
	8H	25.30	25.94	25.81	26.45	26.94	25.07	25.72	25.58	26.23	26.71
	12H	25.48	26.05	25.98	26.54	27.10	25.26	25.83	25.77	26.33	26.89
12H	4H	24.34	25.12	24.82	25.59	26.06	24.13	24.91	24.61	25.39	25.85
	6H	25.09	25.74	25.59	26.24	26.73	24.87	25.52	25.38	26.02	26.51
	8H	25.40	25.97	25.91	26.46	27.02	25.19	25.76	25.69	26.25	26.81