

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: P686309

Luminaire Tested: SQ4R-F-100D-92765-1-UNV-STD-W-4\_5700K

Issue Date: 5/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P686309  
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\_5700K  
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**

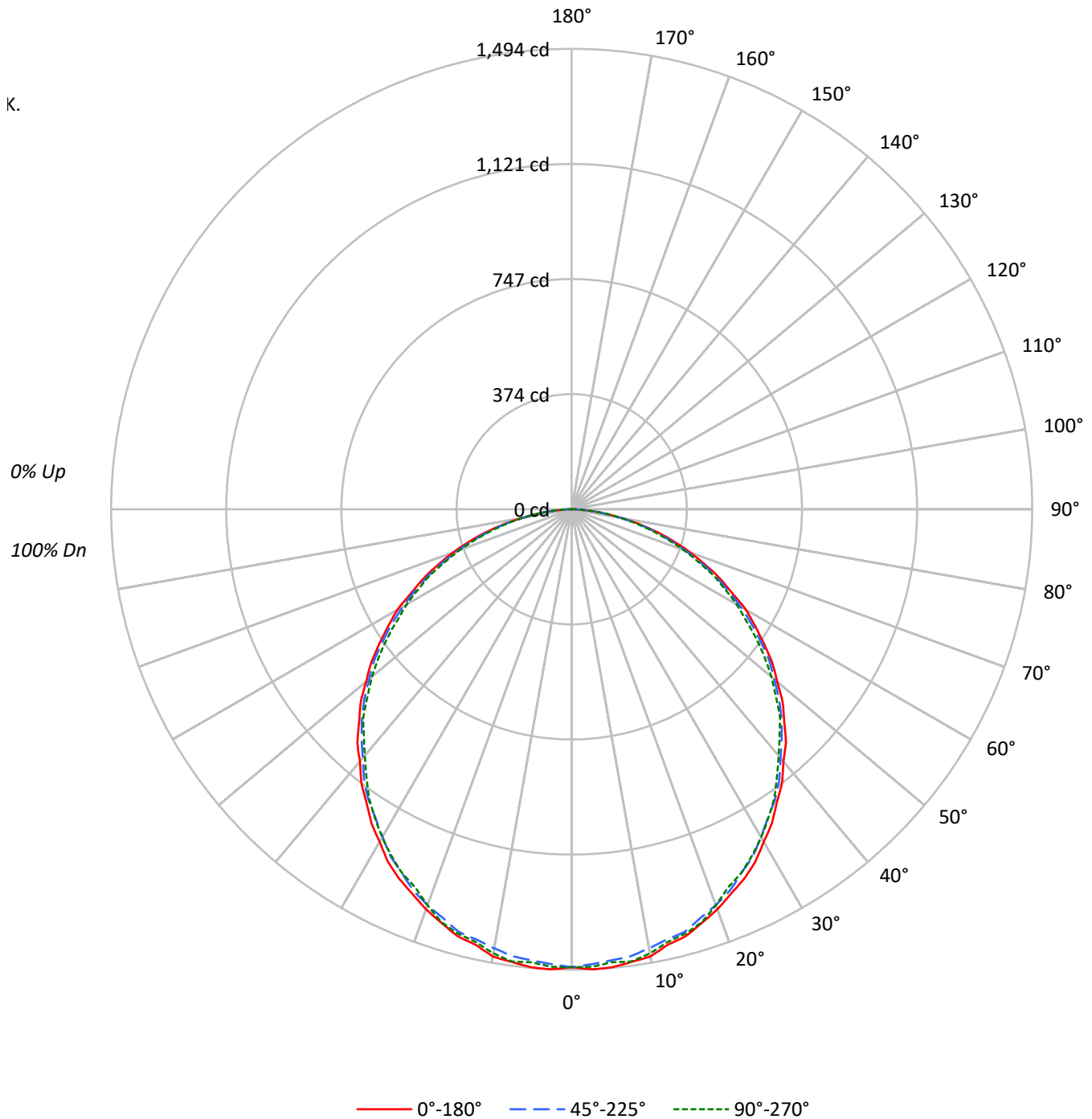
Lumens per Lamp: N/A  
Luminaire Lumens: 4155.6 lumens  
Efficiency: N/A  
Efficacy: 89.6 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.23 / 1.35  
Luminous Opening: Rectangular (W 0.29' x L: 3.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 46.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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°	14307	14307	14307
5°	14422	14200	14260
10°	14405	14140	14303
15°	14292	14146	14208
20°	14156	14006	14006
25°	14057	13835	13835
30°	13851	13642	13666
35°	13639	13516	13466
40°	13430	13246	13116
45°	13271	13100	13015
50°	13035	12848	12660
55°	12787	12577	12261
60°	12579	12177	11896
65°	12076	11743	11554
70°	11516	11045	10868
75°	10713	10326	10013
80°	9142	8909	8909
85°	6683	6915	6683

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 13299 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	140.7	3.4
10°-20°	401.5	9.7
20°-30°	603.3	14.5
30°-40°	720.2	17.3
40°-50°	743.1	17.9
50°-60°	669.3	16.1
60°-70°	509.2	12.3
70°-80°	292.3	7.0
80°-90°	76.0	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°	1145.5	27.6
0°-40°	1865.7	44.9
0°-60°	3278.1	78.9
0°-90°	4155.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4155.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1486	1486	1486	1486	1486	
5°	1492	1486	1469	1486	1476	142
15°	1434	1428	1419	1423	1426	404
25°	1323	1313	1302	1307	1302	609
35°	1160	1158	1150	1146	1146	728
45°	975	977	962	954	956	753
55°	762	764	749	743	730	682
65°	530	524	516	505	507	523
75°	288	280	278	271	269	303
85°	60	63	63	63	60	75
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1486.1	1486.1	1486.1	1486.1	1486.1
2.5°	1494.4	1494.4	1477.7	1488.1	1486.1
5°	1492.3	1486.1	1469.4	1486.1	1475.6
7.5°	1481.9	1471.4	1463.1	1473.5	1479.8
10°	1473.5	1471.4	1446.4	1458.9	1463.1
12.5°	1446.4	1456.8	1429.7	1438.0	1438.0
15°	1433.9	1427.6	1419.3	1423.4	1425.5
17.5°	1406.7	1402.6	1390.0	1400.5	1404.7
20°	1381.7	1375.4	1367.1	1369.2	1367.1
22.5°	1350.4	1346.2	1340.0	1340.0	1327.4
25°	1323.3	1312.8	1302.4	1306.6	1302.4
27.5°	1289.9	1281.5	1271.1	1273.2	1266.9
30°	1246.0	1248.1	1227.2	1227.2	1229.3
32.5°	1208.5	1200.1	1185.5	1185.5	1187.6
35°	1160.5	1158.4	1150.0	1145.8	1145.8
37.5°	1120.8	1120.8	1106.2	1099.9	1093.7
40°	1068.6	1070.7	1054.0	1051.9	1043.6
42.5°	1029.0	1024.8	1008.1	1006.0	997.7
45°	974.7	976.8	962.2	953.8	955.9
47.5°	928.8	922.5	912.1	903.7	897.5
50°	870.3	868.3	857.8	851.6	845.3
52.5°	820.3	814.0	807.7	793.1	788.9
55°	761.8	763.9	749.3	743.0	730.5
57.5°	705.5	703.4	690.8	680.4	670.0
60°	653.3	647.0	632.4	622.0	617.8
62.5°	584.4	582.3	571.9	563.5	559.4
65°	530.1	523.9	515.5	505.1	507.2
67.5°	467.5	463.3	455.0	446.7	442.5
70°	409.1	402.8	392.4	388.2	386.1
72.5°	348.6	342.3	333.9	325.6	327.7
75°	288.0	279.7	277.6	271.3	269.2
77.5°	225.4	221.2	217.1	215.0	212.9
80°	164.9	167.0	160.7	158.6	160.7
82.5°	112.7	112.7	110.6	108.5	110.6
85°	60.5	62.6	62.6	62.6	60.5
87.5°	20.9	25.0	27.1	27.1	25.0
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	21.07	22.71	21.44	23.03	23.34	20.83	22.47	21.19	22.78	23.10
	3H	22.91	24.39	23.28	24.72	25.08	22.63	24.12	23.01	24.44	24.80
	4H	23.59	24.99	23.99	25.34	25.71	23.30	24.70	23.70	25.05	25.42
	6H	24.08	25.38	24.49	25.74	26.13	23.79	25.08	24.20	25.45	25.84
	8H	24.22	25.46	24.65	25.85	26.25	23.94	25.18	24.36	25.56	25.96
	12H	24.30	25.49	24.73	25.87	26.30	24.02	25.21	24.45	25.59	26.02
4H	2H	21.68	23.08	22.08	23.43	23.81	21.49	22.89	21.89	23.24	23.61
	3H	23.74	24.91	24.15	25.31	25.71	23.51	24.69	23.92	25.08	25.48
	4H	24.55	25.61	24.98	26.03	26.46	24.31	25.37	24.74	25.78	26.22
	6H	25.17	26.09	25.62	26.53	26.99	24.91	25.84	25.37	26.28	26.74
	8H	25.36	26.22	25.82	26.67	27.13	25.11	25.97	25.57	26.42	26.88
	12H	25.47	26.25	25.95	26.73	27.20	25.23	26.01	25.71	26.49	26.96
8H	4H	24.85	25.72	25.31	26.16	26.62	24.63	25.50	25.09	25.94	26.41
	6H	25.58	26.30	26.07	26.79	27.26	25.35	26.07	25.85	26.56	27.04
	8H	25.84	26.49	26.35	26.99	27.48	25.61	26.26	26.12	26.77	27.25
	12H	26.02	26.59	26.52	27.08	27.64	25.80	26.37	26.31	26.86	27.42
12H	4H	24.88	25.66	25.36	26.13	26.60	24.67	25.45	25.15	25.93	26.39
	6H	25.63	26.28	26.13	26.78	27.27	25.41	26.06	25.92	26.56	27.05
	8H	25.94	26.51	26.45	27.00	27.56	25.72	26.30	26.23	26.79	27.35