

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: P686307

Luminaire Tested: SQ4R-F-100D-92765-1-UNV-STD-W-4_4500K

Issue Date: 5/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P686307
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_4500K
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

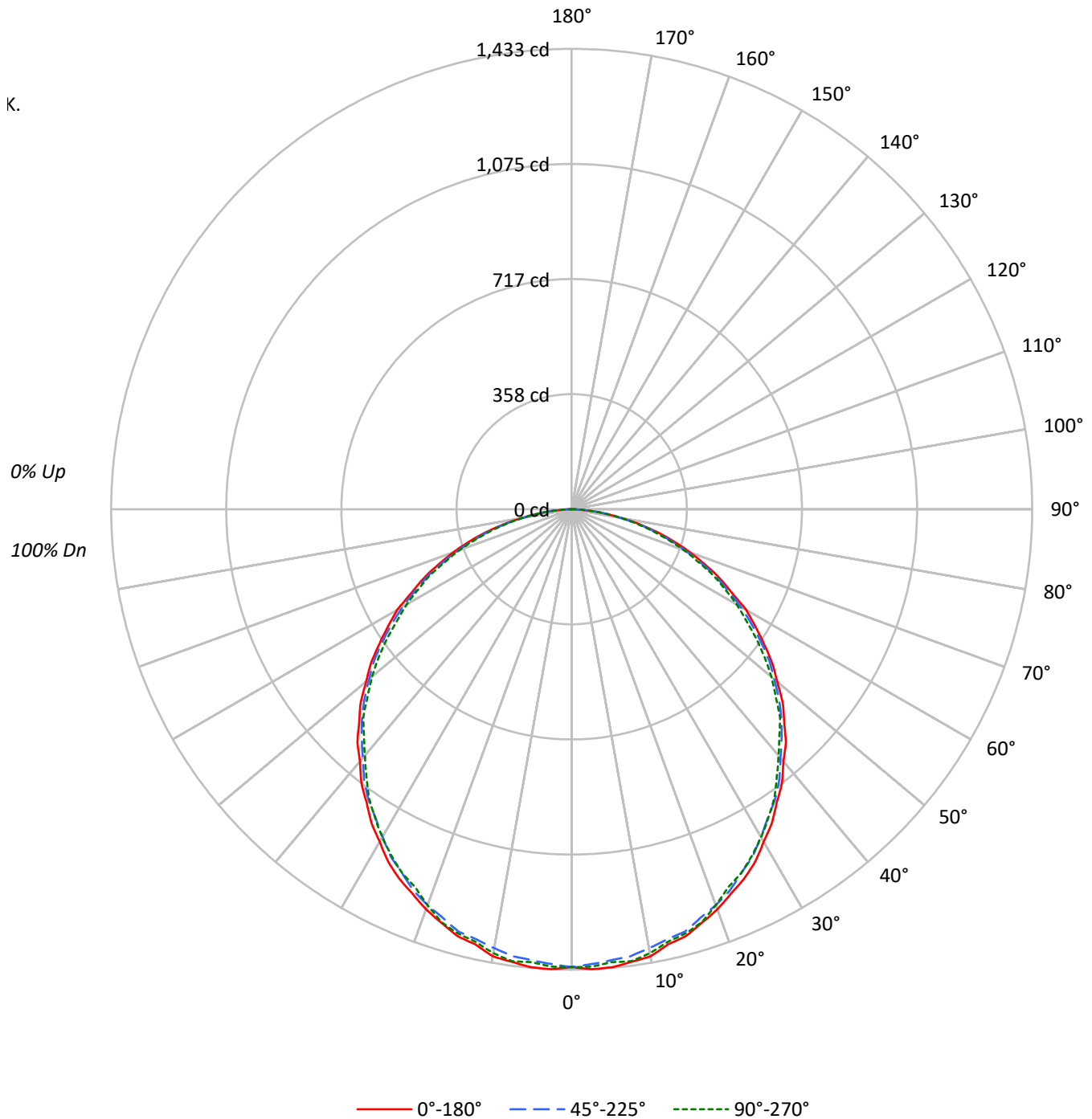
Lumens per Lamp: N/A
Luminaire Lumens: 3985.0 lumens
Efficiency: N/A
Efficacy: 86.1 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.23 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 46.3
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	93	91	88	90	88	86	84
2	99	91	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	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	34	29	41	34	29	40	34	29	39	33	29	27
10	53	40	32	26	52	39	32	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13719	13719	13719
5°	13829	13617	13675
10°	13813	13559	13716
15°	13705	13565	13625
20°	13575	13431	13431
25°	13479	13267	13267
30°	13283	13083	13105
35°	13079	12961	12914
40°	12879	12702	12576
45°	12726	12563	12481
50°	12500	12320	12141
55°	12261	12060	11758
60°	12063	11676	11406
65°	11581	11263	11080
70°	11043	10592	10423
75°	10274	9902	9604
80°	8765	8544	8544
85°	6407	6628	6407

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 12753 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.0	3.4
10°-20°	385.0	9.7
20°-30°	578.5	14.5
30°-40°	690.6	17.3
40°-50°	712.6	17.9
50°-60°	641.8	16.1
60°-70°	488.3	12.3
70°-80°	280.3	7.0
80°-90°	72.9	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°	1098.5	27.6
0°-40°	1789.1	44.9
0°-60°	3143.5	78.9
0°-90°	3985.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3985.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1425	1425	1425	1425	1425	
5°	1431	1425	1409	1425	1415	136
15°	1375	1369	1361	1365	1367	387
25°	1269	1259	1249	1253	1249	584
35°	1113	1111	1103	1099	1099	698
45°	935	937	923	915	917	722
55°	730	732	718	712	700	654
65°	508	502	494	484	486	501
75°	276	268	266	260	258	290
85°	58	60	60	60	58	72
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1425.0	1425.0	1425.0	1425.0	1425.0
2.5°	1433.0	1433.0	1417.0	1427.0	1425.0
5°	1431.0	1425.0	1409.0	1425.0	1415.0
7.5°	1421.0	1411.0	1403.0	1413.0	1419.0
10°	1413.0	1411.0	1387.0	1399.0	1403.0
12.5°	1387.0	1397.0	1371.0	1379.0	1379.0
15°	1375.0	1369.0	1361.0	1365.0	1367.0
17.5°	1349.0	1345.0	1333.0	1343.0	1347.0
20°	1325.0	1319.0	1311.0	1313.0	1311.0
22.5°	1294.9	1290.9	1284.9	1284.9	1272.9
25°	1268.9	1258.9	1248.9	1252.9	1248.9
27.5°	1236.9	1228.9	1218.9	1220.9	1214.9
30°	1194.9	1196.9	1176.9	1176.9	1178.9
32.5°	1158.8	1150.8	1136.8	1136.8	1138.8
35°	1112.8	1110.8	1102.8	1098.8	1098.8
37.5°	1074.8	1074.8	1060.8	1054.8	1048.8
40°	1024.8	1026.8	1010.7	1008.7	1000.7
42.5°	986.7	982.7	966.7	964.7	956.7
45°	934.7	936.7	922.7	914.7	916.7
47.5°	890.7	884.6	874.6	866.6	860.6
50°	834.6	832.6	822.6	816.6	810.6
52.5°	786.6	780.6	774.6	760.6	756.6
55°	730.5	732.5	718.5	712.5	700.5
57.5°	676.5	674.5	662.5	652.5	642.5
60°	626.5	620.5	606.4	596.4	592.4
62.5°	560.4	558.4	548.4	540.4	536.4
65°	508.4	502.4	494.4	484.4	486.4
67.5°	448.3	444.3	436.3	428.3	424.3
70°	392.3	386.3	376.3	372.3	370.3
72.5°	334.2	328.2	320.2	312.2	314.2
75°	276.2	268.2	266.2	260.2	258.2
77.5°	216.2	212.2	208.2	206.2	204.1
80°	158.1	160.1	154.1	152.1	154.1
82.5°	108.1	108.1	106.1	104.1	106.1
85°	58.0	60.0	60.0	60.0	58.0
87.5°	20.0	24.0	26.0	26.0	24.0
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	20.93	22.57	21.29	22.88	23.19	20.68	22.32	21.05	22.64	22.95
	3H	22.76	24.24	23.14	24.57	24.93	22.49	23.97	22.87	24.30	24.66
	4H	23.45	24.85	23.85	25.19	25.57	23.16	24.55	23.56	24.90	25.28
	6H	23.94	25.23	24.35	25.60	25.99	23.64	24.94	24.05	25.30	25.69
	8H	24.08	25.32	24.50	25.71	26.10	23.79	25.03	24.22	25.42	25.82
	12H	24.16	25.34	24.59	25.73	26.15	23.88	25.06	24.31	25.45	25.88
4H	2H	21.54	22.94	21.94	23.28	23.66	21.35	22.75	21.75	23.09	23.47
	3H	23.59	24.76	24.00	25.16	25.56	23.37	24.54	23.78	24.94	25.34
	4H	24.41	25.47	24.84	25.88	26.32	24.16	25.22	24.59	25.64	26.07
	6H	25.02	25.95	25.47	26.39	26.84	24.77	25.70	25.22	26.14	26.59
	8H	25.21	26.08	25.67	26.52	26.98	24.96	25.83	25.42	26.27	26.74
	12H	25.33	26.11	25.81	26.58	27.05	25.09	25.87	25.57	26.34	26.81
8H	4H	24.70	25.57	25.16	26.01	26.48	24.49	25.36	24.95	25.80	26.26
	6H	25.43	26.16	25.93	26.64	27.12	25.21	25.93	25.70	26.42	26.89
	8H	25.69	26.34	26.20	26.85	27.33	25.47	26.12	25.98	26.62	27.11
	12H	25.87	26.44	26.38	26.93	27.49	25.66	26.23	26.16	26.72	27.28
12H	4H	24.73	25.51	25.21	25.99	26.46	24.52	25.30	25.00	25.78	26.25
	6H	25.48	26.13	25.99	26.64	27.12	25.26	25.91	25.77	26.42	26.90
	8H	25.79	26.37	26.30	26.86	27.42	25.58	26.15	26.09	26.64	27.20