

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: P686310

Luminaire Tested: SQ4R-F-100D-92765-1-UNV-STD-W-4_6500K

Issue Date: 5/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P686310
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_6500K
Description: CORELITE SQ4R RECESSED LED LUMINAIRE WITH FROSTED LENS, WHITE TUNING 2700K-6500K
1000 LUMENS PER FOOT
Light Source: 2700K AND 6500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

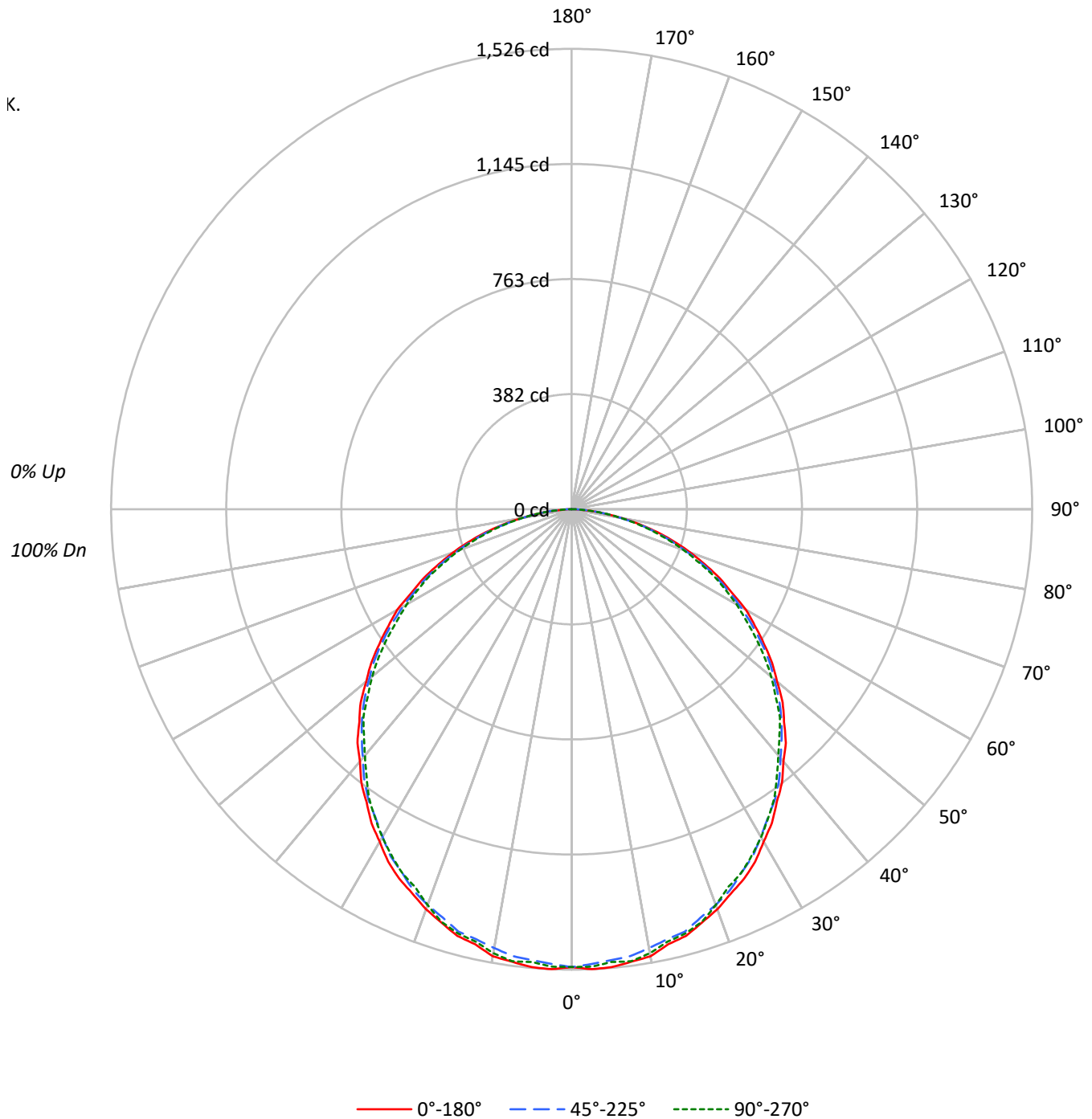
Lumens per Lamp: N/A
Luminaire Lumens: 4242.7 lumens
Efficiency: N/A
Efficacy: 91.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.23 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 3.83' x H: 0')
CIE Type: Direct

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	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°	14607	14607	14607
5°	14724	14497	14559
10°	14707	14436	14603
15°	14591	14442	14506
20°	14452	14299	14299
25°	14351	14125	14125
30°	14142	13929	13953
35°	13925	13799	13750
40°	13711	13524	13390
45°	13548	13374	13287
50°	13309	13117	12926
55°	13055	12840	12518
60°	12843	12433	12144
65°	12329	11989	11796
70°	11758	11276	11096
75°	10940	10542	10226
80°	9331	9098	9098
85°	6827	7058	6827

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 13578 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.7	3.4
10°-20°	409.9	9.7
20°-30°	615.9	14.5
30°-40°	735.3	17.3
40°-50°	758.7	17.9
50°-60°	683.3	16.1
60°-70°	519.9	12.3
70°-80°	298.4	7.0
80°-90°	77.7	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°	1169.5	27.6
0°-40°	1904.8	44.9
0°-60°	3346.8	78.9
0°-90°	4242.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4242.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1517	1517	1517	1517	1517	
5°	1524	1517	1500	1517	1506	145
15°	1464	1458	1449	1453	1455	412
25°	1351	1340	1330	1334	1330	622
35°	1185	1183	1174	1170	1170	743
45°	995	997	982	974	976	769
55°	778	780	765	759	746	696
65°	541	535	526	516	518	534
75°	294	286	283	277	275	309
85°	62	64	64	64	62	77
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1517.2	1517.2	1517.2	1517.2	1517.2
2.5°	1525.7	1525.7	1508.7	1519.3	1517.2
5°	1523.6	1517.2	1500.1	1517.2	1506.5
7.5°	1512.9	1502.3	1493.8	1504.4	1510.8
10°	1504.4	1502.3	1476.7	1489.5	1493.8
12.5°	1476.7	1487.4	1459.7	1468.2	1468.2
15°	1463.9	1457.5	1449.0	1453.3	1455.4
17.5°	1436.2	1432.0	1419.2	1429.8	1434.1
20°	1410.6	1404.3	1395.7	1397.9	1395.7
22.5°	1378.7	1374.4	1368.0	1368.0	1355.2
25°	1351.0	1340.3	1329.7	1333.9	1329.7
27.5°	1316.9	1308.4	1297.7	1299.8	1293.4
30°	1272.1	1274.3	1253.0	1253.0	1255.1
32.5°	1233.8	1225.3	1210.3	1210.3	1212.5
35°	1184.8	1182.6	1174.1	1169.9	1169.9
37.5°	1144.3	1144.3	1129.4	1123.0	1116.6
40°	1091.0	1093.1	1076.1	1074.0	1065.4
42.5°	1050.5	1046.3	1029.2	1027.1	1018.6
45°	995.1	997.3	982.3	973.8	975.9
47.5°	948.2	941.9	931.2	922.7	916.3
50°	888.6	886.4	875.8	869.4	863.0
52.5°	837.4	831.0	824.7	809.7	805.5
55°	777.8	779.9	765.0	758.6	745.8
57.5°	720.2	718.1	705.3	694.7	684.0
60°	667.0	660.6	645.7	635.0	630.7
62.5°	596.6	594.5	583.9	575.3	571.1
65°	541.2	534.9	526.3	515.7	517.8
67.5°	477.3	473.1	464.5	456.0	451.7
70°	417.7	411.3	400.6	396.3	394.2
72.5°	355.9	349.5	340.9	332.4	334.5
75°	294.1	285.5	283.4	277.0	274.9
77.5°	230.1	225.9	221.6	219.5	217.4
80°	168.3	170.5	164.1	161.9	164.1
82.5°	115.1	115.1	112.9	110.8	112.9
85°	61.8	63.9	63.9	63.9	61.8
87.5°	21.3	25.6	27.7	27.7	25.6
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	21.14	22.78	21.51	23.10	23.41	20.90	22.54	21.27	22.85	23.17
	3H	22.98	24.46	23.36	24.79	25.15	22.71	24.19	23.08	24.52	24.88
	4H	23.67	25.06	24.06	25.41	25.79	23.37	24.77	23.77	25.12	25.50
	6H	24.15	25.45	24.56	25.81	26.20	23.86	25.16	24.27	25.52	25.91
	8H	24.30	25.53	24.72	25.92	26.32	24.01	25.25	24.43	25.64	26.04
	12H	24.38	25.56	24.81	25.94	26.37	24.10	25.28	24.53	25.66	26.09
4H	2H	21.76	23.15	22.15	23.50	23.88	21.57	22.96	21.96	23.31	23.69
	3H	23.81	24.98	24.22	25.38	25.78	23.58	24.76	23.99	25.15	25.55
	4H	24.62	25.68	25.05	26.10	26.53	24.38	25.44	24.81	25.85	26.29
	6H	25.24	26.17	25.69	26.61	27.06	24.99	25.91	25.44	26.35	26.81
	8H	25.43	26.30	25.89	26.74	27.20	25.18	26.05	25.64	26.49	26.95
	12H	25.55	26.33	26.02	26.80	27.27	25.30	26.08	25.78	26.56	27.03
8H	4H	24.92	25.79	25.38	26.23	26.70	24.71	25.57	25.17	26.02	26.48
	6H	25.65	26.37	26.14	26.86	27.34	25.42	26.15	25.92	26.63	27.11
	8H	25.91	26.56	26.42	27.06	27.55	25.69	26.33	26.19	26.84	27.33
	12H	26.09	26.66	26.60	27.15	27.71	25.87	26.45	26.38	26.94	27.50
12H	4H	24.95	25.73	25.43	26.21	26.68	24.74	25.52	25.22	26.00	26.47
	6H	25.70	26.35	26.21	26.85	27.34	25.48	26.13	25.99	26.64	27.12
	8H	26.01	26.58	26.52	27.07	27.63	25.80	26.37	26.30	26.86	27.42