

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: P686328

Luminaire Tested: SQ4R-F-125D-93050-1-UNV-STD-W-4\_5000K

Issue Date: 5/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P686328  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2203-586-21)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4R-F-125D-93050-1-UNV-STD-W-4\_5000K  
Description: CORELITE SQ4R RECESSED LED LUMINAIRE WITH FROSTED LENS, WHITE TUNING 3000K-5000K  
1250 LUMENS PER FOOT  
Light Source: 3000K AND 5000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

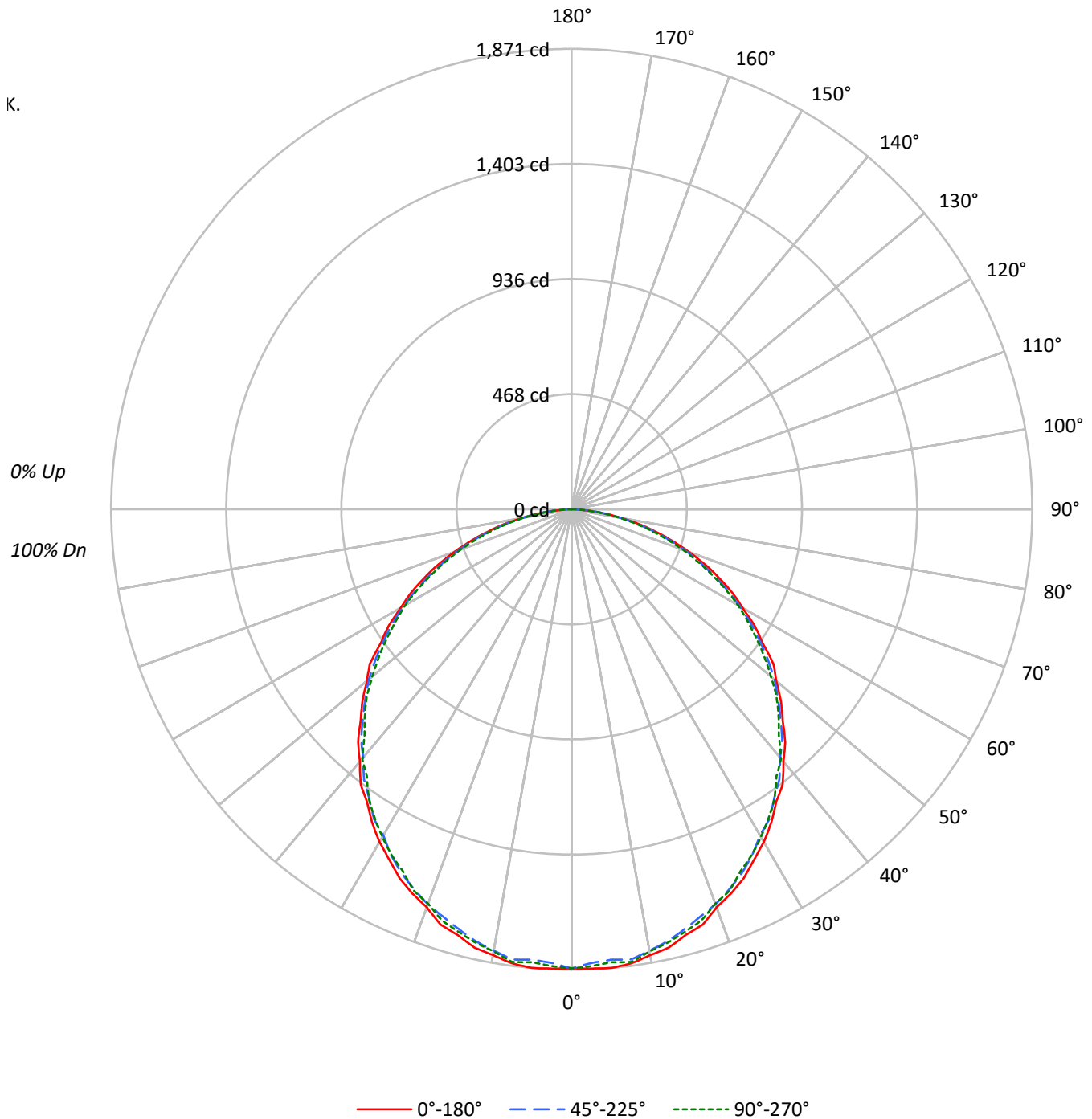
Lumens per Lamp: N/A  
Luminaire Lumens: 5190.9 lumens  
Efficiency: N/A  
Efficacy: 84.8 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.23 / 1.35  
Luminous Opening: Rectangular (W 0.29' x L: 3.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 61.2  
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	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		94	91	88		90	88	86	84
2	99	91	84	78	96	89	82	77	85	80	75		82	77	74		79	75	72	70
3	90	80	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	35	29	41	34	29		40	34	29		39	33	29	27
10	53	40	32	27	52	39	32	26	38	31	26		37	31	26		36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	17962	17962	17962
5°	18081	17756	17855
10°	17987	17810	17835
15°	17849	17617	17720
20°	17632	17500	17473
25°	17568	17349	17238
30°	17351	17006	17093
35°	17038	16856	16886
40°	16823	16563	16628
45°	16502	16325	16184
50°	16255	16101	15830
55°	15875	15659	15398
60°	15425	15177	15026
65°	15069	14541	14304
70°	14257	13821	13528
75°	13168	12785	12402
80°	11316	11177	10889
85°	8274	8561	8274

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 16571 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	176.4	3.4
10°-20°	502.7	9.7
20°-30°	754.7	14.5
30°-40°	901.7	17.4
40°-50°	927.8	17.9
50°-60°	836.1	16.1
60°-70°	635.3	12.2
70°-80°	362.8	7.0
80°-90°	93.3	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°	1433.7	27.6
0°-40°	2335.5	45.0
0°-60°	4099.4	79.0
0°-90°	5190.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5190.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1866	1866	1866	1866	1866	
5°	1871	1858	1837	1858	1848	178
15°	1791	1788	1768	1786	1778	506
25°	1654	1636	1633	1636	1623	760
35°	1450	1457	1434	1429	1437	911
45°	1212	1217	1199	1191	1189	938
55°	946	956	933	925	917	851
65°	662	656	638	628	628	653
75°	354	349	344	336	333	374
85°	75	78	78	75	75	93
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1865.7	1865.7	1865.7	1865.7	1865.7
2.5°	1868.3	1868.3	1845.1	1870.9	1858.0
5°	1870.9	1858.0	1837.3	1858.0	1847.6
7.5°	1860.6	1842.5	1845.1	1847.6	1855.4
10°	1839.9	1832.1	1821.8	1832.1	1824.4
12.5°	1824.4	1824.4	1798.5	1808.9	1803.7
15°	1790.8	1788.2	1767.5	1785.6	1777.9
17.5°	1770.1	1757.2	1736.5	1749.5	1752.0
20°	1721.0	1723.6	1708.1	1721.0	1705.5
22.5°	1690.0	1700.4	1671.9	1687.4	1677.1
25°	1653.8	1635.7	1633.2	1635.7	1622.8
27.5°	1604.7	1602.2	1586.7	1581.5	1584.1
30°	1560.8	1566.0	1529.8	1529.8	1537.6
32.5°	1509.1	1506.5	1493.6	1480.7	1488.5
35°	1449.7	1457.4	1434.2	1429.0	1436.8
37.5°	1408.3	1398.0	1385.1	1377.3	1367.0
40°	1338.6	1343.7	1317.9	1317.9	1323.1
42.5°	1284.3	1281.7	1266.2	1255.9	1245.5
45°	1212.0	1217.1	1199.0	1191.3	1188.7
47.5°	1152.5	1149.9	1137.0	1121.5	1129.3
50°	1085.3	1082.7	1075.0	1059.5	1056.9
52.5°	1033.6	1023.3	1005.2	992.3	987.1
55°	945.8	956.1	932.9	925.1	917.4
57.5°	881.2	876.0	863.1	850.2	847.6
60°	801.1	801.1	788.2	780.4	780.4
62.5°	736.5	728.7	713.2	708.0	705.5
65°	661.5	656.4	638.3	627.9	627.9
67.5°	586.6	581.4	563.3	553.0	553.0
70°	506.5	501.3	491.0	483.2	480.6
72.5°	429.0	426.4	416.0	408.3	403.1
75°	354.0	348.9	343.7	335.9	333.4
77.5°	281.7	276.5	271.3	263.6	261.0
80°	204.1	201.6	201.6	193.8	196.4
82.5°	139.5	139.5	137.0	131.8	134.4
85°	74.9	77.5	77.5	74.9	74.9
87.5°	25.8	31.0	33.6	31.0	31.0
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	21.81	23.45	22.17	23.76	24.07	21.62	23.26	21.98	23.57	23.89
	3H	23.65	25.13	24.02	25.46	25.82	23.40	24.89	23.78	25.21	25.57
	4H	24.33	25.72	24.73	26.07	26.45	24.06	25.46	24.46	25.81	26.18
	6H	24.81	26.10	25.22	26.47	26.86	24.53	25.83	24.95	26.19	26.58
	8H	24.95	26.18	25.37	26.57	26.97	24.68	25.92	25.10	26.30	26.70
	12H	25.03	26.21	25.46	26.59	27.02	24.76	25.95	25.19	26.33	26.76
4H	2H	22.42	23.81	22.81	24.16	24.54	22.27	23.66	22.67	24.01	24.39
	3H	24.48	25.65	24.89	26.05	26.45	24.27	25.45	24.68	25.84	26.24
	4H	25.29	26.35	25.72	26.76	27.19	25.06	26.12	25.49	26.53	26.97
	6H	25.89	26.81	26.34	27.25	27.71	25.65	26.58	26.10	27.02	27.47
	8H	26.07	26.94	26.53	27.38	27.85	25.84	26.70	26.30	27.14	27.61
	12H	26.19	26.97	26.67	27.45	27.91	25.96	26.74	26.44	27.21	27.68
8H	4H	25.58	26.45	26.04	26.89	27.36	25.38	26.25	25.84	26.69	27.16
	6H	26.30	27.02	26.79	27.51	27.98	26.09	26.81	26.58	27.29	27.77
	8H	26.55	27.20	27.06	27.70	28.19	26.34	26.98	26.85	27.49	27.98
	12H	26.73	27.30	27.24	27.79	28.35	26.52	27.09	27.03	27.58	28.14
12H	4H	25.61	26.39	26.09	26.87	27.34	25.42	26.20	25.90	26.67	27.14
	6H	26.35	26.99	26.86	27.50	27.99	26.14	26.79	26.65	27.30	27.78
	8H	26.65	27.23	27.16	27.72	28.28	26.45	27.02	26.95	27.51	28.07