

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: P686288

Luminaire Tested: SQ4R-F-050D-93050-1-UNV-STD-W-4_4500K

Issue Date: 5/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P686288
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-050D-93050-1-UNV-STD-W-4_4500K
Description: CORELITE SQ4R RECESSED LED LUMINAIRE WITH FROSTED LENS, WHITE TUNING 3000K-5000K
500 LUMENS PER FOOT
Light Source: 3000K AND 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

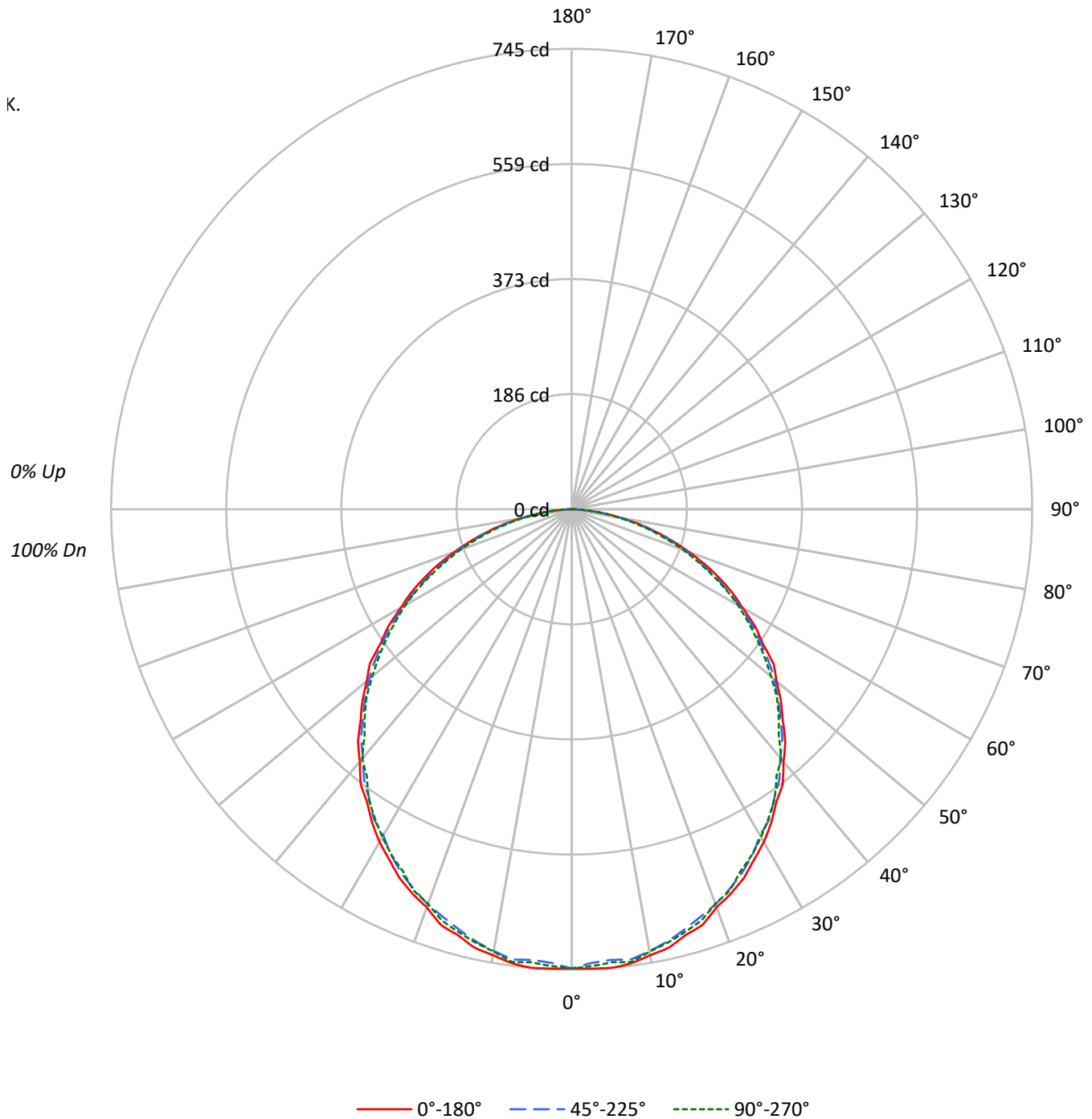
Lumens per Lamp: N/A
Luminaire Lumens: 2067.4 lumens
Efficiency: N/A
Efficacy: 97.1 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.23 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 21.3
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	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	94	91	88	90	88	86	84					84			
2	99	91	84	78	96	89	82	77	85	80	75	82	77	74	79	75	72	70					70			
3	90	80	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	35	29	41	34	29	40	34	29	39	33	29	27					27			
10	53	40	32	27	52	39	32	26	38	31	26	37	31	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7154	7154	7154
5°	7201	7072	7112
10°	7164	7093	7103
15°	7108	7017	7058
20°	7022	6970	6960
25°	6997	6909	6865
30°	6910	6773	6808
35°	6786	6713	6725
40°	6700	6597	6622
45°	6572	6501	6445
50°	6475	6412	6304
55°	6323	6236	6133
60°	6142	6044	5984
65°	6003	5791	5697
70°	5678	5503	5388
75°	5245	5092	4940
80°	4507	4452	4336
85°	3292	3413	3292

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 6599 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.2	3.4
10°-20°	200.2	9.7
20°-30°	300.6	14.5
30°-40°	359.1	17.4
40°-50°	369.5	17.9
50°-60°	333.0	16.1
60°-70°	253.0	12.2
70°-80°	144.5	7.0
80°-90°	37.2	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°	571.0	27.6
0°-40°	930.2	45.0
0°-60°	1632.7	79.0
0°-90°	2067.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2067.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	743	743	743	743	743	
5°	745	740	732	740	736	71
15°	713	712	704	711	708	202
25°	659	652	650	652	646	303
35°	577	580	571	569	572	363
45°	483	485	478	474	473	374
55°	377	381	372	368	365	339
65°	264	261	254	250	250	260
75°	141	139	137	134	133	149
85°	30	31	31	30	30	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	743.1	743.1	743.1	743.1	743.1
2.5°	744.1	744.1	734.8	745.1	740.0
5°	745.1	740.0	731.8	740.0	735.9
7.5°	741.0	733.8	734.8	735.9	739.0
10°	732.8	729.7	725.6	729.7	726.6
12.5°	726.6	726.6	716.3	720.4	718.4
15°	713.2	712.2	704.0	711.2	708.1
17.5°	705.0	699.8	691.6	696.8	697.8
20°	685.4	686.5	680.3	685.4	679.3
22.5°	673.1	677.2	665.9	672.1	667.9
25°	658.7	651.5	650.4	651.5	646.3
27.5°	639.1	638.1	631.9	629.9	630.9
30°	621.6	623.7	609.3	609.3	612.4
32.5°	601.0	600.0	594.9	589.7	592.8
35°	577.4	580.5	571.2	569.1	572.2
37.5°	560.9	556.8	551.6	548.6	544.4
40°	533.1	535.2	524.9	524.9	526.9
42.5°	511.5	510.5	504.3	500.2	496.1
45°	482.7	484.7	477.5	474.5	473.4
47.5°	459.0	458.0	452.8	446.7	449.8
50°	432.3	431.2	428.1	422.0	420.9
52.5°	411.7	407.6	400.4	395.2	393.1
55°	376.7	380.8	371.5	368.4	365.4
57.5°	351.0	348.9	343.7	338.6	337.6
60°	319.0	319.0	313.9	310.8	310.8
62.5°	293.3	290.2	284.1	282.0	281.0
65°	263.5	261.4	254.2	250.1	250.1
67.5°	233.6	231.6	224.4	220.2	220.2
70°	201.7	199.7	195.5	192.5	191.4
72.5°	170.8	169.8	165.7	162.6	160.6
75°	141.0	138.9	136.9	133.8	132.8
77.5°	112.2	110.1	108.1	105.0	103.9
80°	81.3	80.3	80.3	77.2	78.2
82.5°	55.6	55.6	54.5	52.5	53.5
85°	29.8	30.9	30.9	29.8	29.8
87.5°	10.3	12.4	13.4	12.4	12.4
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	18.61	20.25	18.97	20.56	20.87	18.42	20.06	18.78	20.37	20.69
	3H	20.45	21.93	20.83	22.26	22.62	20.21	21.69	20.58	22.01	22.37
	4H	21.13	22.53	21.53	22.87	23.25	20.86	22.26	21.26	22.61	22.98
	6H	21.61	22.90	22.02	23.27	23.66	21.34	22.63	21.75	23.00	23.39
	8H	21.75	22.99	22.17	23.37	23.77	21.48	22.72	21.90	23.11	23.50
	12H	21.83	23.01	22.26	23.39	23.82	21.56	22.75	21.99	23.13	23.56
4H	2H	19.22	20.61	19.61	20.96	21.34	19.07	20.47	19.47	20.81	21.19
	3H	21.28	22.45	21.69	22.85	23.25	21.08	22.25	21.49	22.64	23.04
	4H	22.09	23.15	22.52	23.56	24.00	21.86	22.92	22.29	23.33	23.77
	6H	22.69	23.62	23.14	24.06	24.51	22.45	23.38	22.90	23.82	24.27
	8H	22.88	23.74	23.34	24.18	24.65	22.64	23.50	23.10	23.95	24.41
	12H	22.99	23.77	23.47	24.25	24.72	22.76	23.54	23.24	24.01	24.48
8H	4H	22.39	23.25	22.85	23.69	24.16	22.19	23.05	22.65	23.49	23.96
	6H	23.10	23.82	23.59	24.31	24.78	22.89	23.61	23.38	24.10	24.57
	8H	23.35	24.00	23.86	24.51	24.99	23.14	23.79	23.65	24.29	24.78
	12H	23.53	24.10	24.04	24.59	25.15	23.32	23.89	23.83	24.38	24.94
12H	4H	22.41	23.19	22.89	23.67	24.14	22.22	23.00	22.70	23.47	23.94
	6H	23.15	23.80	23.66	24.30	24.79	22.94	23.59	23.45	24.10	24.58
	8H	23.46	24.03	23.96	24.52	25.08	23.25	23.82	23.76	24.31	24.87