

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: P1036203

Luminaire Tested: SQ4R-F-050D-B50-1D-UNV

Issue Date: 8/14/2023

Test Information

Test Method: LM-79-2019
Report Number: P1036203
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P520092)
Test Lab: INNOVATION CENTER
Issue Date: 8/14/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4R-F-050D-B50-1D-UNV
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH, DIRECT ONLY 500 LUMENS PER FOOT DOV

Light Source: -
Ballast/Driver: -

Summary

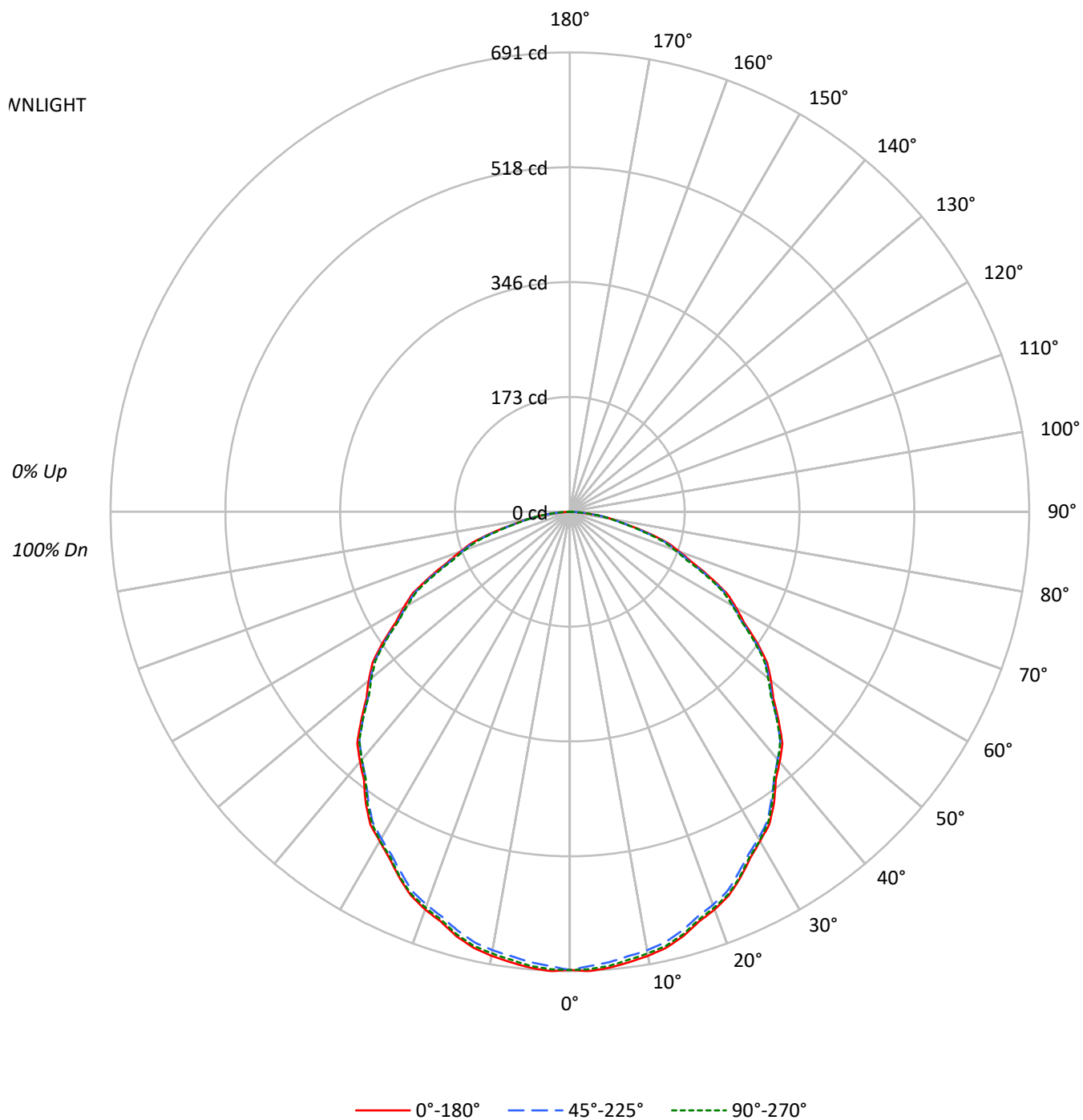
Lumens per Lamp: N/A
Luminaire Lumens: 1881.2 lumens
Efficiency: N/A
Efficacy: 112.0 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 16.8
Input Voltage (V): NR
Input Current (Ain): 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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90
2	99	91	84	79	97	89	83	78	86	80	76		82	78	74		79
3	90	80	72	65	88	78	71	65	75	69	64		73	67	63		70
4	83	71	62	55	81	70	61	55	67	60	54		65	59	54		63
5	76	63	54	48	74	62	54	48	60	53	47		58	52	46		56
6	70	57	48	42	68	56	48	42	54	47	41		53	46	41		51
7	65	52	43	37	64	51	43	37	49	42	36		48	41	36		47
8	61	47	39	33	59	47	38	33	45	38	33		44	37	32		43
9	57	43	35	30	55	43	35	30	42	34	29		41	34	29		40
10	53	40	32	27	52	40	32	27	39	32	27		38	31	27		37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6360	6360	6360
5°	6376	6299	6350
10°	6353	6275	6319
15°	6310	6231	6284
20°	6250	6179	6224
25°	6180	6106	6163
30°	6095	6045	6084
35°	6028	5956	5986
40°	5914	5856	5868
45°	5791	5742	5742
50°	5668	5616	5589
55°	5537	5463	5432
60°	5329	5244	5211
65°	5076	4975	4914
70°	4732	4629	4529
75°	4242	4114	4010
80°	3432	3390	3284
85°	2032	2350	2435

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 5804 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.0	3.5
10°-20°	185.2	9.8
20°-30°	278.2	14.8
30°-40°	332.1	17.7
40°-50°	340.3	18.1
50°-60°	303.4	16.1
60°-70°	226.0	12.0
70°-80°	122.7	6.5
80°-90°	28.4	1.5
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°	528.4	28.1
0°-40°	860.4	45.7
0°-60°	1504.2	80.0
0°-90°	1881.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1881.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	689	689	689	689	689	
5°	688	688	680	686	686	65
15°	661	659	652	658	658	186
25°	607	605	600	604	605	280
35°	535	533	529	529	532	334
45°	444	445	440	439	440	343
55°	344	344	340	337	338	307
65°	232	232	228	225	225	230
75°	119	118	115	114	112	126
85°	19	21	22	23	23	28
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	689.3	689.3	689.3	689.3	689.3
2.5°	691.4	690.0	684.0	689.3	688.6
5°	688.4	687.5	680.1	686.4	685.6
7.5°	683.4	681.6	674.3	680.6	679.7
10°	678.1	676.3	669.8	675.4	674.5
12.5°	671.6	670.5	663.3	668.8	668.6
15°	660.6	658.8	652.3	657.9	657.9
17.5°	646.2	645.2	638.8	644.1	643.6
20°	636.6	634.9	629.3	633.9	633.9
22.5°	624.8	623.8	618.2	622.1	622.8
25°	607.1	605.4	599.8	603.5	605.4
27.5°	587.6	586.2	581.6	583.9	585.2
30°	572.1	572.1	567.4	568.5	571.1
32.5°	558.1	558.1	552.7	553.7	554.9
35°	535.2	533.4	528.8	528.8	531.5
37.5°	508.6	507.7	504.8	504.2	505.0
40°	491.0	490.0	486.2	487.2	487.2
42.5°	473.3	472.2	468.5	467.3	468.7
45°	443.8	444.8	440.1	439.2	440.1
47.5°	415.0	415.0	411.2	408.6	410.0
50°	394.9	394.9	391.3	389.4	389.4
52.5°	374.2	375.0	370.4	368.0	368.7
55°	344.2	344.2	339.6	336.8	337.7
57.5°	310.9	310.9	306.4	303.6	305.2
60°	288.8	288.8	284.2	281.4	282.4
62.5°	266.7	266.7	262.1	259.3	259.4
65°	232.5	231.6	227.9	225.1	225.1
67.5°	199.6	197.3	194.5	190.9	190.9
70°	175.4	174.3	171.6	167.9	167.9
72.5°	153.2	151.6	148.7	145.9	145.9
75°	119.0	118.1	115.4	113.5	112.5
77.5°	85.3	84.5	84.3	81.8	82.5
80°	64.6	64.6	63.8	61.8	61.8
82.5°	46.1	46.8	45.2	44.8	44.1
85°	19.2	21.1	22.2	23.0	23.0
87.5°	3.8	5.8	5.1	5.9	5.9
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	18.01	19.64	18.38	19.95	20.27	17.85	19.48	18.22	19.79	20.11
	3H	19.75	21.22	20.13	21.55	21.91	19.55	21.02	19.92	21.34	21.70
	4H	20.41	21.79	20.81	22.14	22.52	20.18	21.56	20.58	21.91	22.29
	6H	20.78	22.06	21.19	22.43	22.82	20.55	21.83	20.96	22.19	22.58
	8H	20.90	22.13	21.33	22.52	22.92	20.67	21.89	21.09	22.28	22.68
	12H	20.96	22.13	21.39	22.51	22.94	20.73	21.91	21.16	22.29	22.72
4H	2H	18.63	20.02	19.03	20.36	20.74	18.51	19.89	18.90	20.24	20.61
	3H	20.61	21.76	21.01	22.16	22.56	20.43	21.59	20.84	21.98	22.38
	4H	21.37	22.41	21.80	22.83	23.26	21.16	22.21	21.59	22.62	23.06
	6H	21.84	22.76	22.30	23.20	23.65	21.63	22.54	22.09	22.98	23.44
	8H	22.01	22.86	22.47	23.31	23.77	21.79	22.65	22.25	23.09	23.55
	12H	22.09	22.86	22.57	23.33	23.80	21.89	22.66	22.37	23.13	23.60
8H	4H	21.63	22.48	22.09	22.92	23.39	21.44	22.30	21.90	22.74	23.21
	6H	22.21	22.91	22.70	23.40	23.88	22.01	22.72	22.51	23.21	23.69
	8H	22.44	23.07	22.95	23.58	24.07	22.24	22.87	22.75	23.38	23.87
	12H	22.57	23.13	23.07	23.62	24.18	22.39	22.95	22.90	23.44	24.00
12H	4H	21.64	22.41	22.12	22.89	23.36	21.47	22.23	21.95	22.71	23.18
	6H	22.24	22.88	22.75	23.39	23.87	22.06	22.69	22.57	23.20	23.69
	8H	22.52	23.09	23.03	23.58	24.14	22.33	22.89	22.84	23.38	23.95