

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: P1036168

Luminaire Tested: SQ4R-BB-050D-B2750-1D-UNV-W2A_5000K

Issue Date: 8/14/2023

Test Information

Test Method: LM-79-2019
Report Number: P1036168
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P518604)
Test Lab: INNOVATION CENTER
Issue Date: 8/14/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4R-BB-050D-B2750-1D-UNV-W2A_5000K
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH, DIRECT ONLY 500 LUMENS PER FOOT DOV

Light Source: -
Ballast/Driver: -

Summary

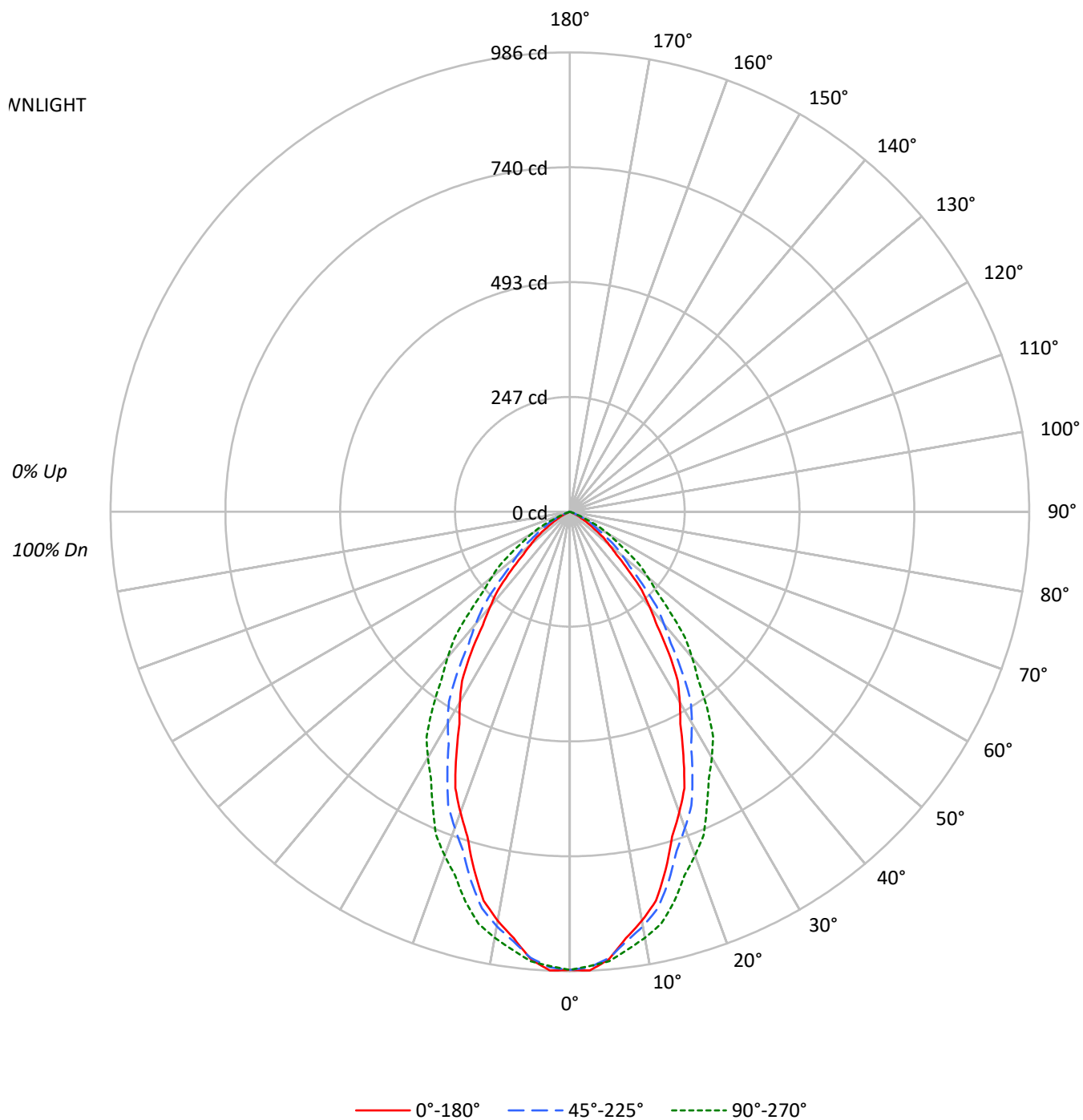
Lumens per Lamp: N/A
Luminaire Lumens: 1172.9 lumens
Efficiency: N/A
Efficacy: 69.8 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

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	112	109	106	104	110	107	104	102	103	101	99		99	98	96		96
2	106	100	95	91	103	98	94	90	95	91	88		92	89	86		89
3	99	91	85	81	97	90	84	80	87	82	79		85	81	77		82
4	93	84	77	72	91	82	76	72	80	75	71		78	74	70		76
5	87	77	70	65	85	76	70	65	74	68	64		72	67	64		71
6	82	71	64	59	80	70	64	59	69	63	58		67	62	58		66
7	77	66	59	54	75	65	59	54	64	58	53		62	57	53		61
8	72	61	54	50	71	61	54	49	59	53	49		58	53	49		57
9	68	57	50	46	67	57	50	46	56	50	46		55	49	45		54
10	65	54	47	42	63	53	47	42	52	46	42		51	46	42		51

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9072	9072	9072
5°	8925	8904	8970
10°	8351	8464	8699
15°	7592	7833	8270
20°	6739	7090	7710
25°	5869	6333	7084
30°	5027	5579	6491
35°	4168	4736	5776
40°	3202	3788	4921
45°	2316	2868	3960
50°	1577	2136	3142
55°	1026	1546	2442
60°	589	1089	1766
65°	155	666	893
70°	81	205	256
75°	36	18	0
80°	27	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 3960 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.7	7.7
10°-20°	229.5	19.6
20°-30°	287.3	24.5
30°-40°	265.3	22.6
40°-50°	178.3	15.2
50°-60°	92.1	7.9
60°-70°	28.8	2.5
70°-80°	1.8	0.2
80°-90°	0.0	0.0
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°	606.5	51.7
0°-40°	871.8	74.3
0°-60°	1142.2	97.4
0°-90°	1172.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1172.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	983	983	983	983	983	
5°	964	954	961	965	968	89
15°	795	792	820	848	866	221
25°	576	581	622	665	696	264
35°	370	379	420	470	513	229
45°	178	188	220	263	304	139
55°	64	74	96	123	152	60
65°	7	14	30	37	41	12
75°	1	1	0	0	0	1
85°	0	0	0	0	0	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	983.3	983.3	983.3	983.3	983.3
2.5°	985.5	976.2	978.6	978.6	976.0
5°	963.7	953.9	961.4	964.7	968.5
7.5°	923.1	915.4	929.7	940.1	947.9
10°	891.4	884.9	903.4	917.8	928.5
12.5°	854.8	849.8	872.1	892.0	905.7
15°	794.8	792.1	820.1	847.6	865.8
17.5°	730.6	730.5	762.4	796.7	818.5
20°	686.4	687.8	722.1	759.8	785.3
22.5°	642.2	645.5	682.1	721.4	750.8
25°	576.5	581.1	622.1	664.8	695.9
27.5°	513.3	520.2	563.3	607.5	645.5
30°	471.9	479.8	523.7	570.3	609.3
32.5°	431.1	440.6	483.3	532.7	572.4
35°	370.1	379.4	420.5	470.0	512.8
37.5°	307.0	316.1	356.2	405.0	451.3
40°	265.9	276.1	314.5	361.7	408.6
42.5°	228.7	238.9	274.8	321.2	365.6
45°	177.5	188.1	219.8	262.6	303.5
47.5°	135.1	146.6	174.3	213.2	250.4
50°	109.9	121.5	148.8	183.0	218.9
52.5°	89.7	101.0	125.7	157.8	190.6
55°	63.8	74.4	96.1	123.4	151.8
57.5°	44.1	53.3	72.7	95.4	117.7
60°	31.9	40.7	59.0	77.4	95.7
62.5°	21.2	29.3	47.1	61.4	73.6
65°	7.1	13.7	30.5	36.7	40.9
67.5°	3.6	4.3	15.9	16.9	18.3
70°	3.0	3.0	7.6	8.1	9.5
72.5°	2.0	2.0	3.0	3.9	4.2
75°	1.0	1.0	0.5	0.0	0.0
77.5°	0.5	0.5	0.5	0.0	0.0
80°	0.5	0.5	0.0	0.0	0.0
82.5°	0.1	0.1	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	7.59	8.82	7.96	9.13	9.45	12.17	13.41	12.54	13.72	14.03
	3H	7.47	8.55	7.85	8.88	9.25	12.15	13.23	12.53	13.56	13.93
	4H	7.39	8.39	7.80	8.75	9.13	12.07	13.07	12.47	13.42	13.81
	6H	7.31	8.22	7.72	8.59	8.99	11.98	12.90	12.40	13.27	13.66
	8H	7.26	8.12	7.69	8.52	8.92	11.93	12.80	12.36	13.19	13.60
	12H	7.21	8.04	7.64	8.42	8.85	11.89	12.71	12.32	13.09	13.53
4H	2H	7.96	8.96	8.36	9.31	9.70	12.11	13.11	12.51	13.46	13.85
	3H	7.84	8.65	8.26	9.06	9.46	12.09	12.90	12.50	13.30	13.71
	4H	7.75	8.47	8.19	8.89	9.34	11.99	12.71	12.43	13.13	13.58
	6H	7.66	8.28	8.13	8.73	9.20	11.90	12.52	12.37	12.96	13.43
	8H	7.60	8.17	8.07	8.62	9.10	11.84	12.41	12.31	12.86	13.33
	12H	7.55	8.05	8.04	8.54	9.01	11.78	12.29	12.27	12.77	13.25
8H	4H	7.61	8.18	8.08	8.63	9.10	11.84	12.41	12.31	12.86	13.33
	6H	7.50	7.96	8.01	8.46	8.95	11.73	12.19	12.23	12.69	13.18
	8H	7.43	7.85	7.96	8.37	8.86	11.66	12.08	12.19	12.60	13.09
	12H	7.38	7.75	7.90	8.25	8.82	11.61	11.98	12.13	12.47	13.05
12H	4H	7.56	8.06	8.04	8.54	9.02	11.79	12.29	12.27	12.77	13.25
	6H	7.43	7.85	7.96	8.37	8.86	11.66	12.08	12.19	12.60	13.09
	8H	7.38	7.75	7.90	8.25	8.82	11.61	11.98	12.13	12.47	13.05