

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: METALUX

Report Number: P1586329

Luminaire Tested: 22CZSP-31-L945

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1586329
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2605-772-10)
Test Lab: INNOVATION CENTER
Issue Date: 9/3/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 22CZSP-31-L945
Description: 2x2 CZSP LED Luminaire, 4500K CCT and 3000 lumens, 90CRI, Ribbed Lens
Light Source: -
Ballast/Driver: -

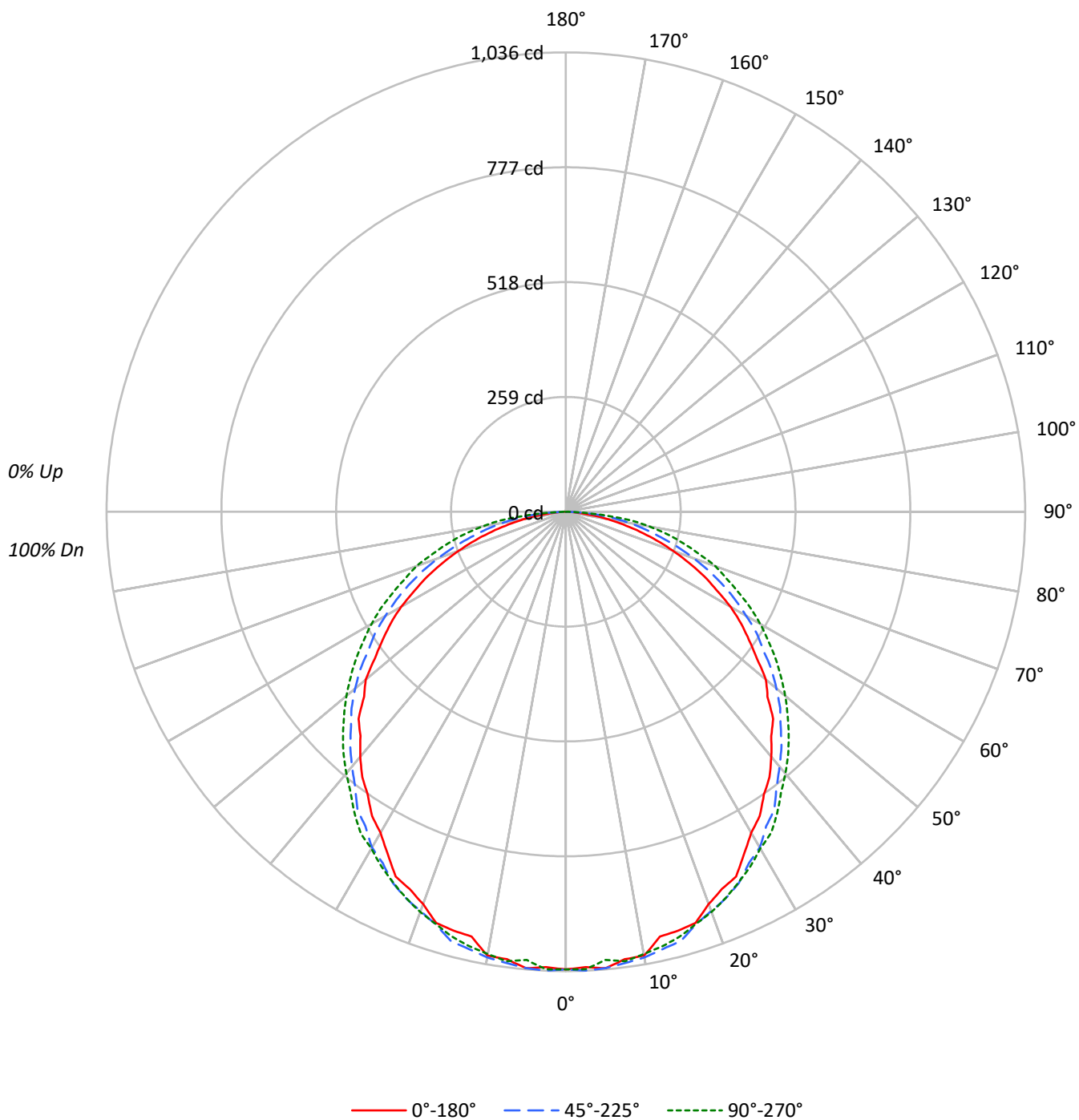
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3013.0 lumens
Efficiency: N/A
Efficacy: 143.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 1.88' x L: 1.83' x H: 0')
CIE Type: Direct

Input Watts (W): 21
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			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	108	103	99	95	106	101	97	93	97	93	90		93	90	88		89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74		81	76	72		78	74	71	68
3	89	79	70	63	87	77	69	63	74	67	62		71	65	61		69	64	60	57
4	82	69	60	54	79	68	60	53	66	58	52		63	57	52		61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45		57	50	45		55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40		51	44	39		50	44	39	37
7	64	50	42	35	62	50	41	35	48	40	35		47	40	35		45	39	34	32
8	60	46	37	31	58	45	37	31	44	37	31		43	36	31		42	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28		39	33	28		38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25		37	30	25		36	30	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3232	3232	3232
5°	3248	3248	3189
10°	3232	3244	3220
15°	3170	3248	3216
20°	3137	3193	3201
25°	3137	3190	3186
30°	3023	3162	3171
35°	2977	3132	3176
40°	2947	3065	3149
45°	2928	3033	3147
50°	2870	3021	3146
55°	2754	2964	3154
60°	2688	2942	3171
65°	2552	2899	3180
70°	2353	2806	3289
75°	2091	2682	3320
80°	1738	2631	3441
85°	1063	2353	2910

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 3560 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.9	3.2
10°-20°	279.6	9.3
20°-30°	421.8	14.0
30°-40°	506.6	16.8
40°-50°	528.8	17.6
50°-60°	486.9	16.2
60°-70°	384.5	12.8
70°-80°	236.8	7.9
80°-90°	70.2	2.3
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°	799.3	26.5
0°-40°	1305.8	43.3
0°-60°	2321.5	77.1
0°-90°	3013.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3013.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1032	1032	1032	1032	1032	
5°	1033	1023	1033	1034	1015	98
15°	978	992	1002	997	992	276
25°	908	914	923	920	922	414
35°	779	793	819	823	831	489
45°	661	666	685	700	711	506
55°	504	518	543	567	578	453
65°	344	357	391	420	429	339
75°	173	190	222	257	274	183
85°	30	42	66	78	81	40
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1032.0	1032.0	1032.0	1032.0	1032.0
2.5°	1028.1	1039.0	1035.8	1037.7	1032.6
5°	1033.2	1023.0	1033.2	1034.5	1014.6
7.5°	1017.8	1019.1	1026.2	1028.1	1022.3
10°	1016.5	1020.4	1020.4	1014.0	1012.7
12.5°	981.2	1000.5	1010.1	1014.6	1003.7
15°	978.0	991.5	1001.8	997.3	992.1
17.5°	972.2	968.3	975.4	980.5	974.8
20°	941.4	947.8	958.1	959.3	960.6
22.5°	920.8	922.7	943.3	945.2	942.6
25°	907.9	914.4	923.4	919.5	922.1
27.5°	870.0	885.4	893.8	901.5	901.5
30°	836.0	854.0	874.5	877.1	877.1
32.5°	813.5	825.7	841.1	846.3	860.4
35°	778.8	792.9	819.3	823.1	830.8
37.5°	754.4	768.5	780.7	794.2	797.4
40°	721.0	735.7	749.9	765.3	770.4
42.5°	685.6	701.0	719.7	735.7	742.2
45°	661.2	666.3	685.0	699.7	710.7
47.5°	616.9	631.6	655.4	674.0	678.5
50°	589.2	595.0	620.1	645.1	645.8
52.5°	543.0	560.3	584.7	608.5	611.7
55°	504.4	517.9	543.0	567.4	577.7
57.5°	468.4	478.7	510.8	535.3	541.0
60°	429.2	440.2	469.7	498.0	506.3
62.5°	383.6	399.0	431.2	458.1	469.7
65°	344.4	356.6	391.3	419.6	429.2
67.5°	300.1	316.8	349.6	381.0	391.3
70°	257.0	273.7	306.5	339.3	359.2
72.5°	214.6	232.0	264.7	302.6	313.6
75°	172.8	189.6	221.7	257.0	274.4
77.5°	131.7	149.7	182.5	217.8	234.5
80°	96.4	110.5	145.9	176.7	190.8
82.5°	59.8	74.5	107.3	136.2	148.4
85°	29.6	42.4	65.5	77.7	81.0
87.5°	9.0	13.5	20.6	27.0	30.8
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	15.54	17.20	15.91	17.52	17.83	16.36	18.03	16.73	18.34	18.66
	3H	17.30	18.80	17.67	19.13	19.49	18.51	20.02	18.89	20.35	20.71
	4H	17.91	19.33	18.31	19.68	20.05	19.43	20.85	19.82	21.20	21.57
	6H	18.31	19.63	18.72	20.00	20.39	20.23	21.55	20.64	21.91	22.30
	8H	18.41	19.68	18.84	20.07	20.46	20.55	21.81	20.97	22.20	22.60
	12H	18.46	19.67	18.89	20.05	20.48	20.75	21.96	21.18	22.35	22.77
4H	2H	16.33	17.76	16.73	18.10	18.48	16.97	18.39	17.37	18.74	19.11
	3H	18.31	19.51	18.72	19.90	20.30	19.35	20.55	19.76	20.95	21.34
	4H	19.04	20.13	19.47	20.54	20.97	20.42	21.50	20.85	21.92	22.35
	6H	19.56	20.51	20.01	20.95	21.40	21.38	22.34	21.84	22.78	23.23
	8H	19.70	20.59	20.16	21.03	21.50	21.78	22.67	22.24	23.11	23.58
	12H	19.77	20.58	20.25	21.05	21.52	22.05	22.85	22.53	23.33	23.79
8H	4H	19.50	20.40	19.96	20.84	21.30	20.71	21.60	21.16	22.04	22.50
	6H	20.16	20.90	20.65	21.39	21.86	21.83	22.58	22.32	23.06	23.54
	8H	20.36	21.03	20.87	21.54	22.02	22.34	23.01	22.85	23.51	24.00
	12H	20.49	21.09	21.00	21.57	22.13	22.71	23.30	23.21	23.79	24.35
12H	4H	19.60	20.40	20.07	20.87	21.34	20.73	21.53	21.21	22.01	22.48
	6H	20.30	20.97	20.80	21.47	21.96	21.88	22.55	22.39	23.05	23.54
	8H	20.57	21.16	21.08	21.65	22.21	22.45	23.05	22.96	23.53	24.09