

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: P1586328

Luminaire Tested: 22CZSP-31-L945-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1586328
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2608-884-6)
Test Lab: INNOVATION CENTER
Issue Date: 9/3/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 22CZSP-31-L945-S
Description: 2x2 CZSP LED Luminaire, 4500K CCT and 3000 lumens, 90CRI, Smooth Lens
Light Source: -
Ballast/Driver: -

Summary

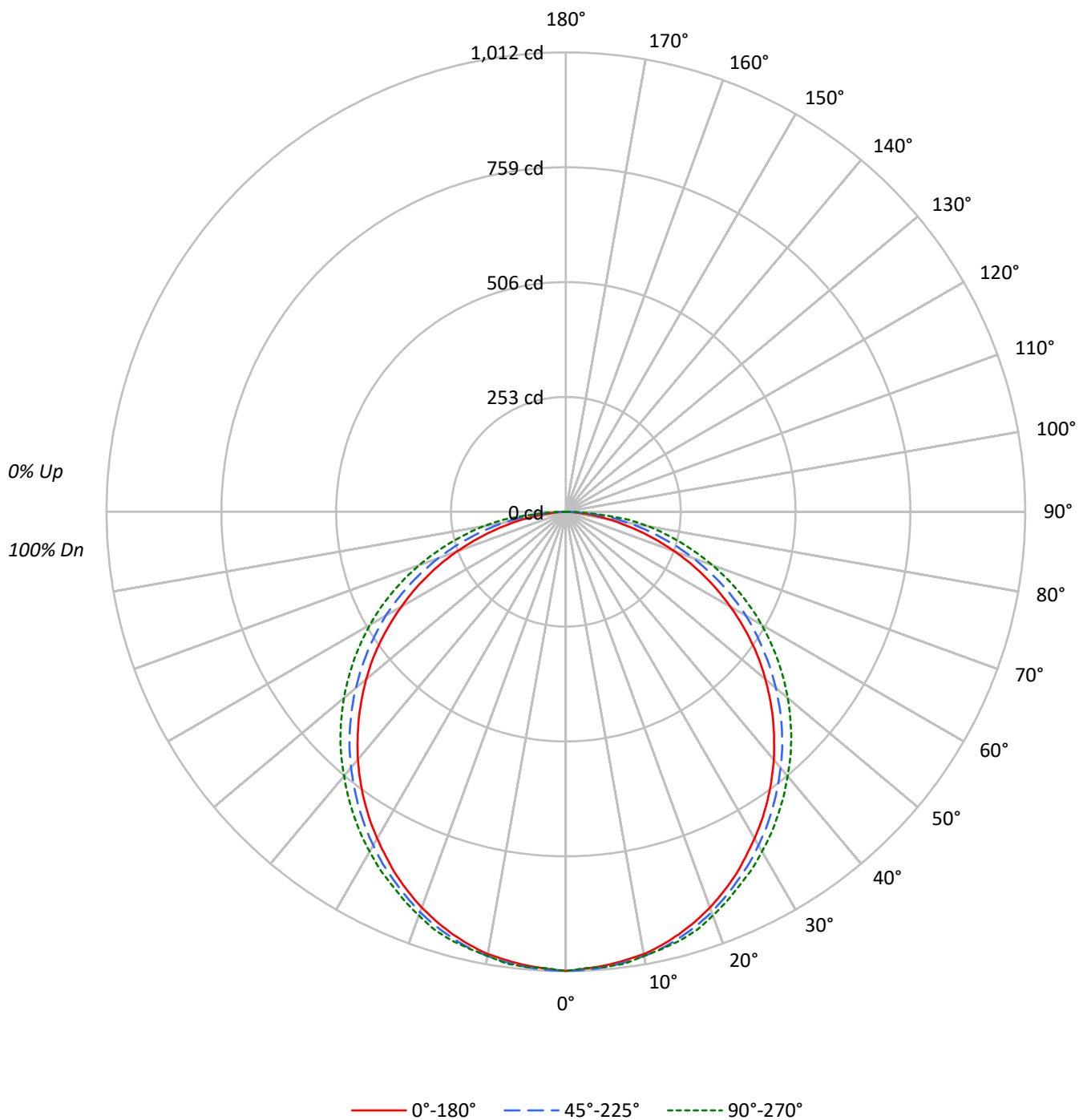
Lumens per Lamp: N/A
Luminaire Lumens: 2953.0 lumens
Efficiency: N/A
Efficacy: 140.6 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37
Luminous Opening: Rectangular (W 1.88' x L: 1.83' x H: 0')
CIE Type: Direct

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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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	69		
3	89	79	70	64	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	32	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°	3167	3167	3167
5°	3153	3165	3163
10°	3146	3161	3158
15°	3123	3149	3168
20°	3092	3129	3155
25°	3054	3096	3134
30°	3006	3069	3125
35°	2963	3039	3116
40°	2914	3009	3107
45°	2858	2979	3110
50°	2797	2942	3109
55°	2724	2901	3113
60°	2622	2869	3121
65°	2501	2813	3130
70°	2332	2735	3144
75°	2077	2627	3175
80°	1719	2501	3331
85°	1117	2260	2910

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 3435 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.7	3.2
10°-20°	273.9	9.3
20°-30°	413.1	14.0
30°-40°	497.6	16.8
40°-50°	519.6	17.6
50°-60°	477.2	16.2
60°-70°	375.9	12.7
70°-80°	230.6	7.8
80°-90°	69.4	2.4
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°	782.7	26.5
0°-40°	1280.3	43.4
0°-60°	2277.1	77.1
0°-90°	2953.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2953.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1012	1012	1012	1012	1012	
5°	1003	1004	1007	1010	1006	95
15°	964	966	971	977	977	272
25°	884	886	896	907	907	407
35°	775	779	795	811	815	485
45°	645	652	673	696	702	498
55°	499	508	531	561	570	445
65°	338	349	380	412	422	334
75°	172	185	217	251	262	182
85°	31	43	63	80	81	41
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1011.5	1011.5	1011.5	1011.5	1011.5
2.5°	1007.6	1009.5	1010.2	1010.8	1006.3
5°	1003.1	1004.4	1006.9	1010.2	1006.3
7.5°	996.6	997.9	1001.1	1005.6	1003.7
10°	989.5	990.1	994.0	997.2	993.3
12.5°	977.8	979.7	984.3	986.9	985.6
15°	963.5	965.5	971.3	977.1	977.1
17.5°	946.7	949.3	956.4	964.2	964.8
20°	927.9	929.8	938.9	946.7	946.7
22.5°	906.5	909.1	918.2	926.6	927.9
25°	883.8	885.8	896.1	907.2	907.2
27.5°	857.3	861.2	874.1	885.1	887.7
30°	831.3	834.6	848.8	862.4	864.4
32.5°	804.1	808.0	822.9	837.8	841.1
35°	775.0	778.9	795.1	811.3	815.1
37.5°	744.5	749.1	765.9	784.7	788.6
40°	712.8	718.0	736.1	756.2	760.1
42.5°	679.1	686.2	705.6	726.4	732.2
45°	645.4	652.5	672.6	695.9	702.4
47.5°	609.7	618.2	638.9	663.5	670.6
50°	574.1	582.5	603.9	630.5	638.3
52.5°	537.8	546.2	568.3	596.1	604.6
55°	498.9	508.0	531.3	561.1	570.2
57.5°	458.8	470.4	495.0	525.5	534.6
60°	418.6	430.3	458.1	487.9	498.3
62.5°	379.1	390.1	418.6	450.3	461.4
65°	337.6	349.3	379.7	411.5	422.5
67.5°	296.8	308.4	338.9	371.9	383.6
70°	254.7	267.6	298.7	331.8	343.4
72.5°	212.5	226.1	257.9	291.6	302.6
75°	171.7	185.3	217.1	251.4	262.4
77.5°	131.5	146.4	177.5	212.5	222.9
80°	95.3	109.5	138.7	173.0	184.7
82.5°	60.9	73.2	102.4	134.8	143.2
85°	31.1	42.8	62.9	79.7	81.0
87.5°	9.7	13.6	20.7	31.1	31.8
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	15.48	17.15	15.85	17.46	17.77	16.31	17.98	16.68	18.29	18.60
	3H	17.24	18.75	17.62	19.07	19.43	18.43	19.94	18.81	20.26	20.62
	4H	17.86	19.28	18.26	19.63	20.00	19.32	20.74	19.72	21.09	21.46
	6H	18.27	19.59	18.68	19.95	20.34	20.10	21.42	20.51	21.78	22.17
	8H	18.38	19.64	18.80	20.03	20.43	20.42	21.68	20.84	22.07	22.47
	12H	18.43	19.64	18.86	20.02	20.45	20.63	21.84	21.06	22.22	22.65
4H	2H	16.26	17.68	16.65	18.02	18.40	16.90	18.32	17.30	18.67	19.05
	3H	18.23	19.43	18.64	19.83	20.23	19.26	20.45	19.67	20.85	21.25
	4H	18.97	20.06	19.40	20.47	20.90	20.31	21.39	20.74	21.81	22.24
	6H	19.50	20.45	19.95	20.89	21.34	21.26	22.21	21.71	22.65	23.11
	8H	19.64	20.54	20.10	20.98	21.44	21.66	22.55	22.12	22.99	23.46
	12H	19.73	20.53	20.21	21.01	21.47	21.94	22.74	22.41	23.21	23.68
8H	4H	19.43	20.32	19.89	20.76	21.23	20.60	21.49	21.06	21.93	22.40
	6H	20.09	20.83	20.58	21.32	21.79	21.71	22.45	22.20	22.94	23.41
	8H	20.30	20.97	20.81	21.47	21.96	22.22	22.89	22.73	23.39	23.88
	12H	20.44	21.03	20.94	21.52	22.08	22.61	23.20	23.11	23.69	24.25
12H	4H	19.52	20.32	20.00	20.80	21.26	20.62	21.43	21.10	21.90	22.37
	6H	20.22	20.89	20.73	21.40	21.88	21.76	22.43	22.26	22.93	23.42
	8H	20.50	21.09	21.00	21.58	22.14	22.34	22.93	22.84	23.42	23.98

END OF REPORT