

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: P1586316

Luminaire Tested: 22CZSP-31-L840-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1586316
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-L840-S
Description: 2x2 CZSP LED Luminaire, 4000K CCT and 3000 lumens, 80CRI, Smooth Lens
Light Source: -
Ballast/Driver: -

Summary

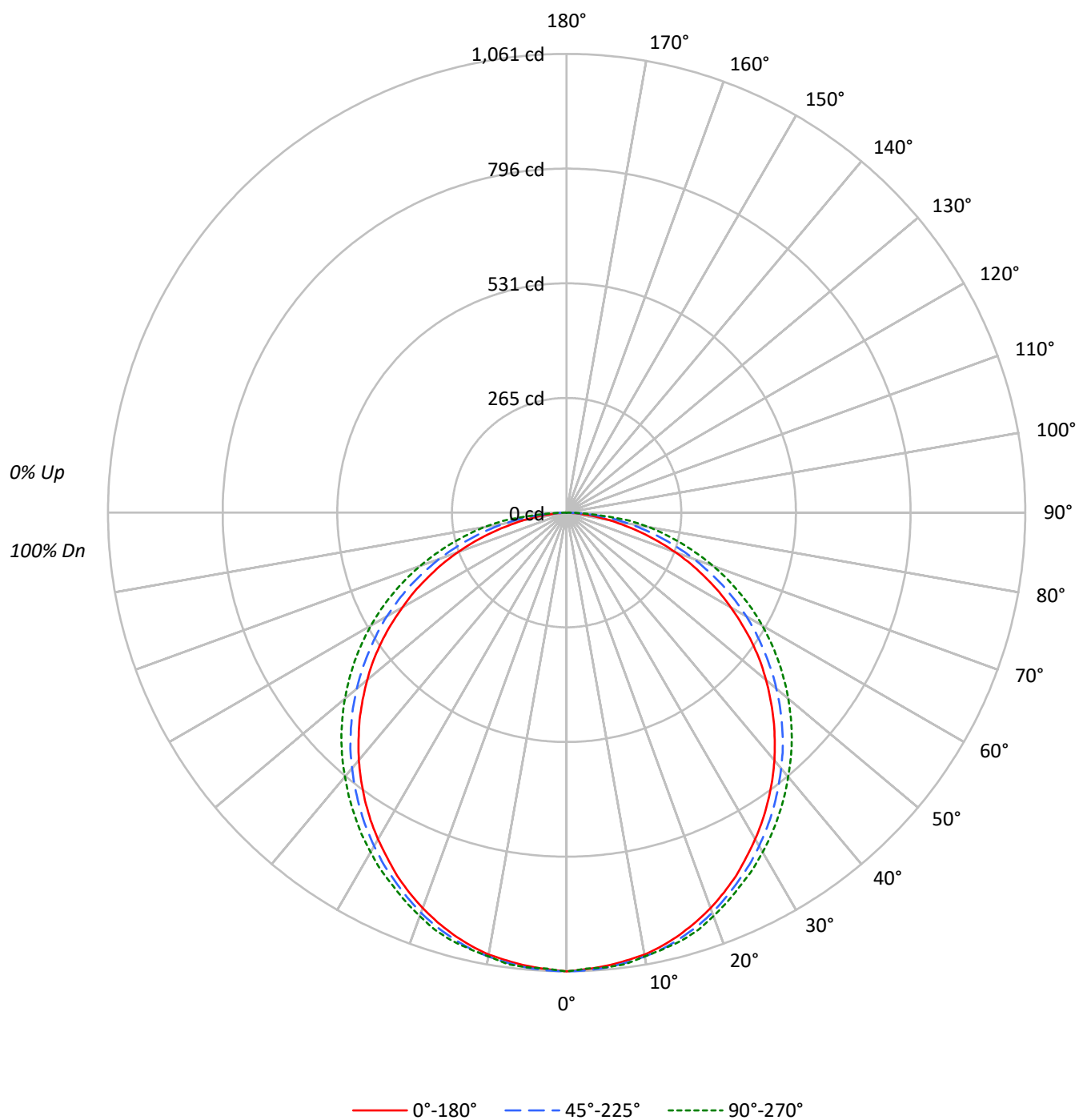
Lumens per Lamp: N/A
Luminaire Lumens: 3098.0 lumens
Efficiency: N/A
Efficacy: 147.5 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37
Luminous Opening: Rectangular (W 1.88' x L: 1.83' x H: 0')
CIE Type: Direct

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			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	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°	3323	3323	3323
5°	3308	3321	3318
10°	3300	3316	3313
15°	3277	3303	3323
20°	3244	3282	3310
25°	3204	3248	3288
30°	3154	3220	3279
35°	3108	3188	3269
40°	3057	3156	3259
45°	2998	3125	3263
50°	2934	3087	3262
55°	2857	3043	3266
60°	2750	3010	3274
65°	2624	2952	3284
70°	2446	2869	3299
75°	2179	2755	3331
80°	1801	2624	3493
85°	1171	2368	3054

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 3603 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.4	3.2
10°-20°	287.4	9.3
20°-30°	433.4	14.0
30°-40°	522.0	16.8
40°-50°	545.2	17.6
50°-60°	500.7	16.2
60°-70°	394.3	12.7
70°-80°	241.9	7.8
80°-90°	72.8	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°	821.1	26.5
0°-40°	1343.1	43.4
0°-60°	2388.9	77.1
0°-90°	3098.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3098.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1061	1061	1061	1061	1061	
5°	1052	1054	1056	1060	1056	100
15°	1011	1013	1019	1025	1025	285
25°	927	929	940	952	952	427
35°	813	817	834	851	855	509
45°	677	684	706	730	737	522
55°	523	533	557	589	598	467
65°	354	366	398	432	443	350
75°	180	194	228	264	275	191
85°	33	45	66	84	85	43
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1061.1	1061.1	1061.1	1061.1	1061.1
2.5°	1057.1	1059.1	1059.8	1060.5	1055.7
5°	1052.3	1053.7	1056.4	1059.8	1055.7
7.5°	1045.5	1046.9	1050.3	1055.0	1053.0
10°	1038.0	1038.7	1042.8	1046.2	1042.1
12.5°	1025.8	1027.8	1032.6	1035.3	1034.0
15°	1010.8	1012.9	1019.0	1025.1	1025.1
17.5°	993.2	995.9	1003.4	1011.5	1012.2
20°	973.5	975.5	985.0	993.2	993.2
22.5°	951.0	953.7	963.3	972.1	973.5
25°	927.2	929.3	940.1	951.7	951.7
27.5°	899.4	903.4	917.0	928.6	931.3
30°	872.2	875.6	890.5	904.8	906.8
32.5°	843.6	847.7	863.3	879.0	882.4
35°	813.0	817.1	834.1	851.1	855.2
37.5°	781.1	785.8	803.5	823.2	827.3
40°	747.8	753.2	772.2	793.3	797.4
42.5°	712.4	719.9	740.3	762.0	768.2
45°	677.1	684.5	705.6	730.1	736.9
47.5°	639.7	648.5	670.3	696.1	703.6
50°	602.3	611.1	633.6	661.4	669.6
52.5°	564.2	573.1	596.2	625.4	634.2
55°	523.4	533.0	557.4	588.7	598.2
57.5°	481.3	493.5	519.4	551.3	560.8
60°	439.1	451.4	480.6	511.9	522.8
62.5°	397.7	409.2	439.1	472.5	484.0
65°	354.2	366.4	398.4	431.7	443.2
67.5°	311.3	323.6	355.5	390.2	402.4
70°	267.2	280.8	313.4	348.1	360.3
72.5°	223.0	237.2	270.6	305.9	317.5
75°	180.1	194.4	227.7	263.8	275.3
77.5°	138.0	153.6	186.3	223.0	233.8
80°	99.9	114.9	145.5	181.5	193.7
82.5°	63.9	76.8	107.4	141.4	150.2
85°	32.6	44.9	65.9	83.6	85.0
87.5°	10.2	14.3	21.8	32.6	33.3
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	15.65	17.31	16.01	17.63	17.94	16.48	18.14	16.84	18.46	18.77
	3H	17.41	18.91	17.78	19.24	19.60	18.60	20.10	18.97	20.43	20.79
	4H	18.02	19.45	18.42	19.79	20.17	19.49	20.91	19.88	21.26	21.63
	6H	18.44	19.76	18.85	20.12	20.51	20.27	21.59	20.68	21.95	22.34
	8H	18.54	19.81	18.97	20.19	20.59	20.59	21.85	21.01	22.24	22.64
	12H	18.59	19.80	19.02	20.19	20.61	20.80	22.01	21.23	22.39	22.82
4H	2H	16.42	17.84	16.82	18.19	18.57	17.07	18.49	17.47	18.84	19.21
	3H	18.40	19.60	18.81	19.99	20.39	19.42	20.62	19.83	21.02	21.42
	4H	19.14	20.22	19.57	20.63	21.07	20.48	21.56	20.91	21.97	22.41
	6H	19.66	20.62	20.12	21.06	21.51	21.43	22.38	21.88	22.82	23.27
	8H	19.81	20.70	20.27	21.14	21.61	21.82	22.72	22.28	23.16	23.62
	12H	19.89	20.70	20.37	21.17	21.64	22.10	22.91	22.58	23.38	23.85
8H	4H	19.59	20.49	20.05	20.93	21.39	20.76	21.66	21.22	22.10	22.56
	6H	20.26	21.00	20.75	21.49	21.96	21.88	22.62	22.37	23.11	23.58
	8H	20.47	21.14	20.97	21.64	22.12	22.39	23.06	22.90	23.56	24.05
	12H	20.61	21.20	21.11	21.69	22.25	22.77	23.37	23.28	23.85	24.41
12H	4H	19.68	20.49	20.16	20.96	21.43	20.79	21.59	21.27	22.07	22.54
	6H	20.39	21.06	20.89	21.56	22.05	21.92	22.59	22.43	23.10	23.58
	8H	20.67	21.26	21.17	21.75	22.31	22.50	23.09	23.01	23.58	24.14