

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: P1586708

Luminaire Tested: 22CZSP-A-49HE-L945-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1586708
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-A-49HE-L945-S
Description: 2x2 CZSP LED Luminaire, 4500K CCT and 4500 lumens, 90CRI, Smooth Lens, Air Vented Housing
Light Source: -
Ballast/Driver: -

Summary

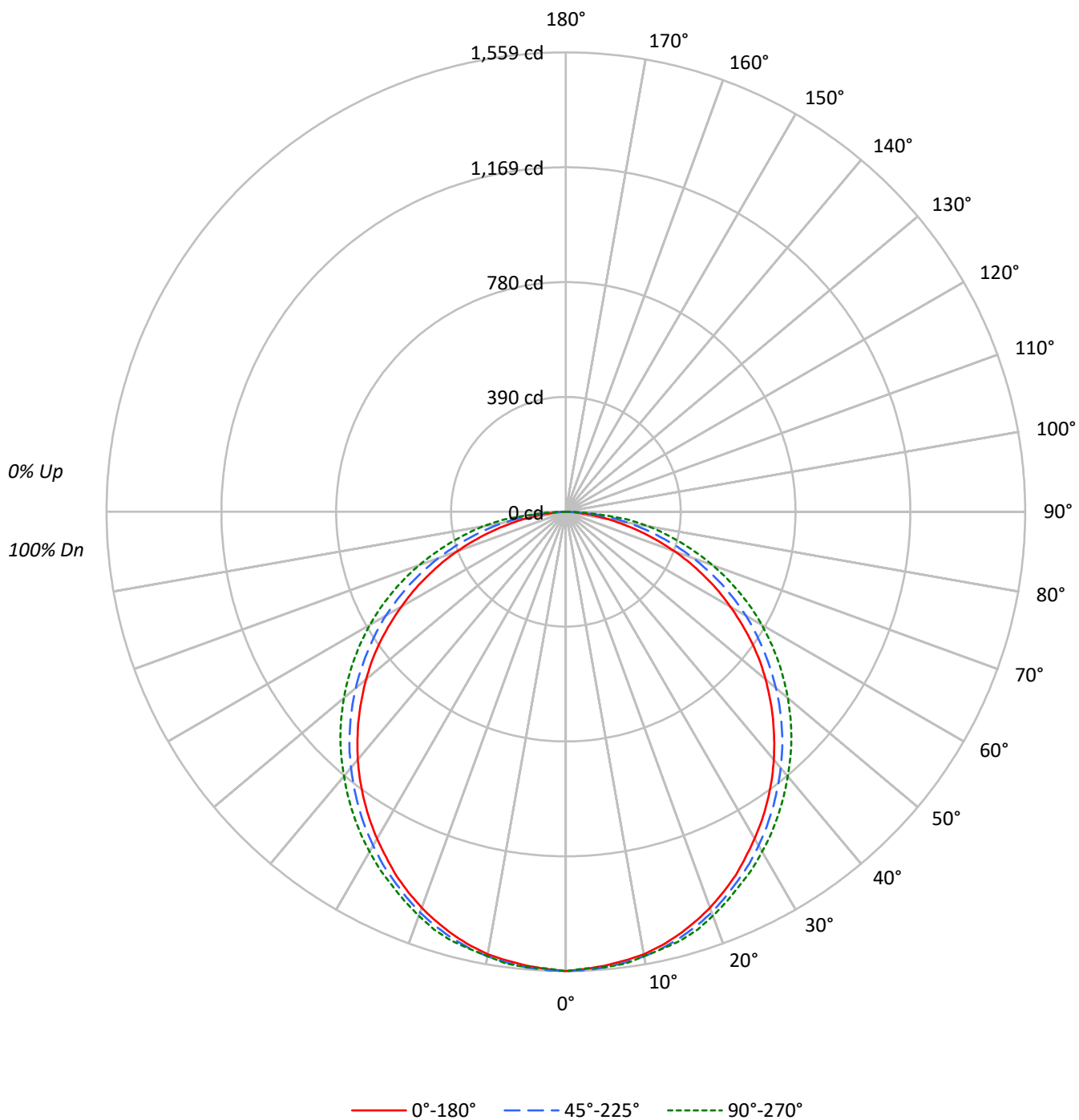
Lumens per Lamp: N/A
Luminaire Lumens: 4551.0 lumens
Efficiency: N/A
Efficacy: 141.3 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37
Luminous Opening: Rectangular (W 1.88' x L: 1.83' x H: 0')
CIE Type: Direct

Input Watts (W): 32.2
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

TEST NUMBER: P1586708

CATALOG NUMBER: 22CZSP-A-49HE-L945-S

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°	4881	4881	4881
5°	4859	4878	4875
10°	4849	4871	4868
15°	4814	4853	4882
20°	4765	4822	4862
25°	4706	4772	4830
30°	4632	4730	4817
35°	4565	4684	4802
40°	4490	4637	4788
45°	4404	4590	4794
50°	4310	4534	4792
55°	4198	4471	4798
60°	4040	4421	4809
65°	3855	4336	4824
70°	3593	4215	4846
75°	3201	4047	4893
80°	2647	3854	5132
85°	1721	3481	4484

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 5295 cd/sqm

TEST NUMBER: P1586708

CATALOG NUMBER: 22CZSP-A-49HE-L945-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.4	3.2
10°-20°	422.1	9.3
20°-30°	636.7	14.0
30°-40°	766.8	16.8
40°-50°	800.8	17.6
50°-60°	735.5	16.2
60°-70°	579.3	12.7
70°-80°	355.4	7.8
80°-90°	106.9	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°	1206.2	26.5
0°-40°	1973.1	43.4
0°-60°	3509.4	77.1
0°-90°	4551.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4551.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1559	1559	1559	1559	1559	
5°	1546	1548	1552	1557	1551	147
15°	1485	1488	1497	1506	1506	419
25°	1362	1365	1381	1398	1398	627
35°	1194	1200	1225	1250	1256	747
45°	995	1006	1037	1072	1082	767
55°	769	783	819	865	879	686
65°	520	538	585	634	651	515
75°	265	286	334	388	404	281
85°	48	66	97	123	125	63
90°	0	0	0	0	0	

TEST NUMBER: P1586708

CATALOG NUMBER: 22CZSP-A-49HE-L945-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1558.8	1558.8	1558.8	1558.8	1558.8
2.5°	1552.8	1555.8	1556.8	1557.8	1550.9
5°	1545.9	1547.9	1551.8	1556.8	1550.9
7.5°	1535.9	1537.9	1542.9	1549.9	1546.9
10°	1524.9	1525.9	1531.9	1536.9	1530.9
12.5°	1506.9	1509.9	1516.9	1520.9	1518.9
15°	1484.9	1487.9	1496.9	1505.9	1505.9
17.5°	1459.0	1463.0	1474.0	1485.9	1486.9
20°	1430.0	1433.0	1447.0	1459.0	1459.0
22.5°	1397.1	1401.1	1415.0	1428.0	1430.0
25°	1362.1	1365.1	1381.1	1398.1	1398.1
27.5°	1321.2	1327.2	1347.1	1364.1	1368.1
30°	1281.2	1286.2	1308.2	1329.2	1332.2
32.5°	1239.3	1245.3	1268.2	1291.2	1296.2
35°	1194.3	1200.3	1225.3	1250.3	1256.3
37.5°	1147.4	1154.4	1180.4	1209.3	1215.3
40°	1098.5	1106.5	1134.4	1165.4	1171.4
42.5°	1046.5	1057.5	1087.5	1119.4	1128.4
45°	994.6	1005.6	1036.6	1072.5	1082.5
47.5°	939.7	952.7	984.6	1022.6	1033.6
50°	884.8	897.8	930.7	971.7	983.6
52.5°	828.9	841.8	875.8	918.7	931.7
55°	768.9	782.9	818.9	864.8	878.8
57.5°	707.0	725.0	762.9	809.9	823.9
60°	645.1	663.1	706.0	752.0	767.9
62.5°	584.2	601.2	645.1	694.0	711.0
65°	520.3	538.3	585.2	634.1	651.1
67.5°	457.4	475.3	522.3	573.2	591.2
70°	392.5	412.4	460.4	511.3	529.3
72.5°	327.5	348.5	397.4	449.4	466.4
75°	264.6	285.6	334.5	387.5	404.4
77.5°	202.7	225.7	273.6	327.5	343.5
80°	146.8	168.8	213.7	266.6	284.6
82.5°	93.9	112.8	157.8	207.7	220.7
85°	47.9	65.9	96.9	122.8	124.8
87.5°	15.0	21.0	32.0	47.9	48.9
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1586708

CATALOG NUMBER: 22CZSP-A-49HE-L945-S

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	16.99	18.65	17.35	18.96	19.28	17.82	19.48	18.18	19.79	20.11
	3H	18.74	20.25	19.12	20.58	20.93	19.93	21.44	20.31	21.77	22.13
	4H	19.36	20.78	19.76	21.13	21.50	20.82	22.24	21.22	22.59	22.97
	6H	19.77	21.09	20.18	21.46	21.85	21.60	22.92	22.01	23.29	23.68
	8H	19.88	21.14	20.30	21.53	21.93	21.92	23.19	22.35	23.57	23.97
	12H	19.93	21.14	20.36	21.52	21.95	22.13	23.34	22.56	23.73	24.15
4H	2H	17.76	19.18	18.16	19.53	19.90	18.40	19.83	18.80	20.17	20.55
	3H	19.74	20.93	20.14	21.33	21.73	20.76	21.96	21.17	22.35	22.75
	4H	20.47	21.56	20.90	21.97	22.41	21.81	22.90	22.24	23.31	23.75
	6H	21.00	21.95	21.45	22.39	22.85	22.76	23.72	23.22	24.16	24.61
	8H	21.15	22.04	21.61	22.48	22.94	23.16	24.05	23.62	24.49	24.96
	12H	21.23	22.03	21.71	22.51	22.98	23.44	24.24	23.92	24.72	25.18
8H	4H	20.93	21.82	21.39	22.26	22.73	22.10	22.99	22.56	23.43	23.90
	6H	21.59	22.34	22.08	22.82	23.30	23.21	23.96	23.70	24.44	24.92
	8H	21.80	22.47	22.31	22.98	23.46	23.72	24.39	24.23	24.90	25.38
	12H	21.94	22.53	22.45	23.02	23.58	24.11	24.70	24.61	25.19	25.75
12H	4H	21.02	21.82	21.50	22.30	22.77	22.13	22.93	22.60	23.40	23.87
	6H	21.72	22.39	22.23	22.90	23.38	23.26	23.93	23.77	24.43	24.92
	8H	22.00	22.59	22.51	23.08	23.64	23.84	24.43	24.34	24.92	25.48