

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: P1586469

Luminaire Tested: 22CZSP-49HE-L945

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1586469
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2601-668-1)
Test Lab: INNOVATION CENTER
Issue Date: 9/3/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 22CZSP-49HE-L945
Description: 2x2 CZSP LED Luminaire, 4500K CCT and 4500 lumens, 90CRI, Ribbed Lens
Light Source: -
Ballast/Driver: -

Summary

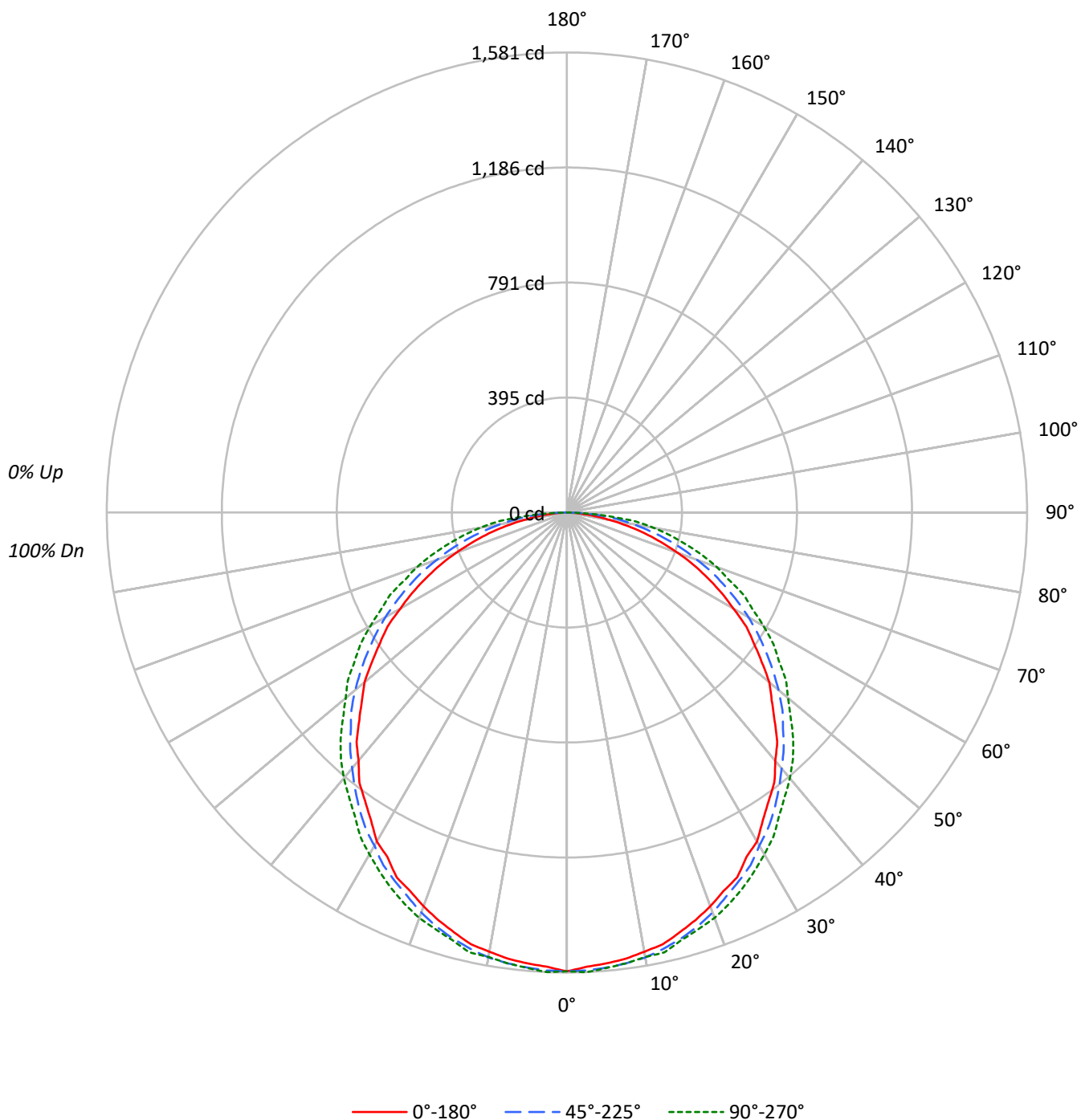
Lumens per Lamp: N/A
Luminaire Lumens: 4644.0 lumens
Efficiency: N/A
Efficacy: 144.2 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.38
Luminous Opening: Rectangular (W 1.88' x L: 1.83' x H: 0')
CIE Type: Direct

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: P1586469

CATALOG NUMBER: 22CZSP-49HE-L945

Luminous Intensity Polar Plot



TEST NUMBER: P1586469

CATALOG NUMBER: 22CZSP-49HE-L945

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	105	101	97	93	97	93	90		93	90	87		89	87	85	83
2	98	90	82	76	95	88	81	76	84	79	74		81	76	72		78	74	70	68
3	89	78	70	63	87	77	69	63	74	67	62		71	65	60		68	64	59	57
4	82	69	60	53	79	68	59	53	65	58	52		63	57	51		61	55	51	49
5	75	62	53	46	73	61	52	46	58	51	45		56	50	44		55	49	44	42
6	69	56	46	40	67	55	46	40	53	45	39		51	44	39		49	43	39	36
7	64	50	41	35	62	49	41	35	48	40	35		46	40	34		45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31		43	36	31		41	35	31	29
9	56	42	34	28	54	41	34	28	40	33	28		39	33	28		38	32	28	26
10	52	39	31	25	51	38	31	25	37	30	25		36	30	25		35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4937	4937	4937
5°	4889	4934	4938
10°	4873	4936	4932
15°	4844	4913	4932
20°	4799	4875	4941
25°	4780	4829	4927
30°	4720	4781	4905
35°	4621	4751	4860
40°	4552	4691	4871
45°	4466	4648	4869
50°	4422	4622	4830
55°	4281	4560	4854
60°	4136	4510	4884
65°	3957	4441	4967
70°	3719	4356	5020
75°	3351	4279	5121
80°	2741	4202	5457
85°	1786	4186	5102

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 5724 cd/sqm

TEST NUMBER: P1586469

CATALOG NUMBER: 22CZSP-49HE-L945

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.0	3.2
10°-20°	426.8	9.2
20°-30°	644.9	13.9
30°-40°	777.9	16.8
40°-50°	813.2	17.5
50°-60°	749.9	16.1
60°-70°	594.2	12.8
70°-80°	371.5	8.0
80°-90°	116.6	2.5
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°	1220.7	26.3
0°-40°	1998.6	43.0
0°-60°	3561.7	76.7
0°-90°	4644.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4644.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1577	1577	1577	1577	1577	
5°	1555	1562	1570	1575	1571	148
15°	1494	1501	1516	1526	1521	422
25°	1384	1379	1398	1418	1426	634
35°	1209	1223	1243	1264	1271	758
45°	1008	1023	1050	1077	1099	781
55°	784	802	835	881	889	703
65°	534	557	599	646	670	529
75°	277	300	354	403	423	292
85°	50	71	116	136	142	65
90°	0	0	0	0	0	



TEST NUMBER: P1586469

CATALOG NUMBER: 22CZSP-49HE-L945

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1576.7	1576.7	1576.7	1576.7	1576.7
2.5°	1562.5	1569.6	1575.3	1573.8	1580.9
5°	1555.4	1562.5	1569.6	1575.3	1571.0
7.5°	1546.9	1554.0	1562.5	1571.0	1562.5
10°	1532.6	1536.9	1552.5	1554.0	1551.1
12.5°	1519.9	1524.1	1535.5	1545.4	1548.3
15°	1494.3	1501.4	1515.6	1525.5	1521.3
17.5°	1468.7	1478.7	1491.5	1501.4	1501.4
20°	1440.3	1447.4	1463.0	1470.1	1482.9
22.5°	1407.6	1416.2	1429.0	1448.8	1455.9
25°	1383.5	1379.2	1397.7	1417.6	1426.1
27.5°	1335.2	1340.9	1366.5	1384.9	1392.0
30°	1305.4	1308.2	1322.4	1348.0	1356.5
32.5°	1252.8	1261.3	1286.9	1305.4	1321.0
35°	1208.8	1223.0	1242.9	1264.2	1271.3
37.5°	1170.4	1173.3	1196.0	1224.4	1230.1
40°	1113.6	1130.7	1147.7	1183.2	1191.7
42.5°	1069.6	1078.1	1102.3	1136.3	1149.1
45°	1008.5	1022.7	1049.7	1076.7	1099.4
47.5°	954.5	968.7	1004.2	1038.3	1042.6
50°	907.7	913.3	948.8	987.2	991.5
52.5°	843.7	857.9	892.0	934.6	948.8
55°	784.1	802.5	835.2	880.7	889.2
57.5°	731.5	740.0	778.4	823.9	840.9
60°	660.5	684.6	720.2	764.2	779.8
62.5°	599.4	622.1	660.5	701.7	718.7
65°	534.1	556.8	599.4	646.3	670.4
67.5°	471.6	490.0	541.2	589.5	600.8
70°	406.2	427.6	475.8	525.6	548.3
72.5°	338.1	362.2	416.2	463.1	487.2
75°	277.0	299.7	353.7	403.4	423.3
77.5°	213.1	238.6	291.2	340.9	363.6
80°	152.0	177.6	233.0	282.7	302.6
82.5°	98.0	125.0	177.6	221.6	238.6
85°	49.7	71.0	116.5	136.4	142.0
87.5°	15.6	25.6	39.8	45.5	45.5
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1586469

CATALOG NUMBER: 22CZSP-49HE-L945

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	17.07	18.74	17.44	19.05	19.37	17.86	19.53	18.23	19.84	20.16
	3H	18.85	20.37	19.23	20.69	21.05	20.01	21.52	20.38	21.84	22.20
	4H	19.49	20.92	19.89	21.27	21.64	20.93	22.36	21.33	22.70	23.08
	6H	19.92	21.24	20.33	21.61	22.00	21.75	23.08	22.17	23.44	23.83
	8H	20.03	21.30	20.45	21.69	22.09	22.10	23.37	22.52	23.76	24.16
	12H	20.08	21.30	20.51	21.68	22.11	22.34	23.56	22.77	23.94	24.37
4H	2H	17.84	19.27	18.24	19.62	19.99	18.46	19.89	18.86	20.23	20.61
	3H	19.86	21.06	20.26	21.46	21.85	20.84	22.05	21.25	22.45	22.84
	4H	20.62	21.71	21.05	22.12	22.56	21.93	23.02	22.36	23.44	23.87
	6H	21.16	22.12	21.62	22.56	23.01	22.93	23.89	23.38	24.33	24.78
	8H	21.32	22.22	21.78	22.66	23.12	23.36	24.25	23.82	24.70	25.16
	12H	21.41	22.22	21.89	22.69	23.16	23.67	24.48	24.15	24.95	25.42
8H	4H	21.10	21.99	21.55	22.44	22.90	22.24	23.14	22.70	23.58	24.04
	6H	21.79	22.54	22.28	23.02	23.50	23.40	24.15	23.90	24.64	25.11
	8H	22.01	22.69	22.52	23.19	23.68	23.95	24.62	24.46	25.13	25.61
	12H	22.16	22.76	22.67	23.25	23.81	24.38	24.97	24.88	25.46	26.02
12H	4H	21.19	22.00	21.67	22.48	22.94	22.27	23.08	22.75	23.55	24.02
	6H	21.93	22.61	22.44	23.11	23.60	23.46	24.14	23.97	24.64	25.12
	8H	22.24	22.83	22.74	23.32	23.88	24.08	24.67	24.58	25.16	25.72