

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: P1586448

Luminaire Tested: 22CZSP-47-L945-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1586448
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-47-L945-S
Description: 2x2 CZSP LED Luminaire, 4500K CCT and 4500 lumens, 90CRI, Smooth Lens
Light Source: -
Ballast/Driver: -

Summary

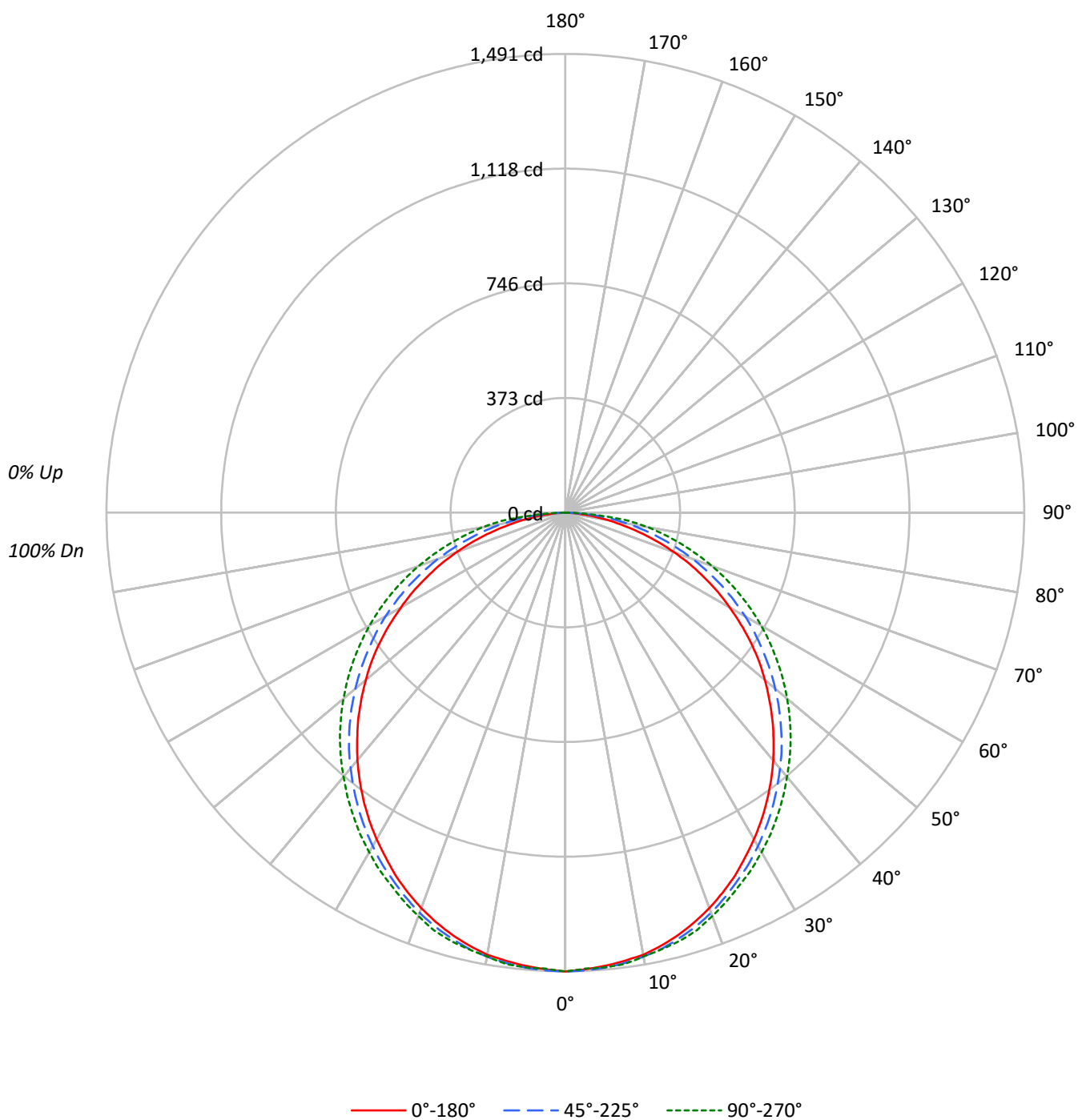
Lumens per Lamp: N/A
Luminaire Lumens: 4354.0 lumens
Efficiency: N/A
Efficacy: 131.5 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37
Luminous Opening: Rectangular (W 1.88' x L: 1.83' x H: 0')
CIE Type: Direct

Input Watts (W): 33.1
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: P1586448

CATALOG NUMBER: 22CZSP-47-L945-S

Luminous Intensity Polar Plot



TEST NUMBER: P1586448

CATALOG NUMBER: 22CZSP-47-L945-S

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°	4670	4670	4670
5°	4649	4667	4664
10°	4639	4660	4657
15°	4606	4643	4670
20°	4559	4613	4651
25°	4502	4565	4621
30°	4432	4525	4608
35°	4368	4481	4594
40°	4296	4436	4581
45°	4214	4392	4586
50°	4124	4338	4585
55°	4016	4277	4590
60°	3865	4230	4601
65°	3688	4148	4615
70°	3438	4032	4636
75°	3063	3873	4681
80°	2532	3688	4910
85°	1649	3331	4290

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 5064 cd/sqm

TEST NUMBER: P1586448

CATALOG NUMBER: 22CZSP-47-L945-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.0	3.2
10°-20°	403.9	9.3
20°-30°	609.1	14.0
30°-40°	733.6	16.8
40°-50°	766.2	17.6
50°-60°	703.6	16.2
60°-70°	554.2	12.7
70°-80°	340.0	7.8
80°-90°	102.3	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°	1154.0	26.5
0°-40°	1887.6	43.4
0°-60°	3357.5	77.1
0°-90°	4354.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4354.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1491	1491	1491	1491	1491	
5°	1479	1481	1485	1490	1484	141
15°	1421	1424	1432	1441	1441	401
25°	1303	1306	1321	1338	1338	600
35°	1143	1148	1172	1196	1202	715
45°	952	962	992	1026	1036	734
55°	736	749	783	827	841	657
65°	498	515	560	607	623	492
75°	253	273	320	371	387	268
85°	46	63	93	118	119	60
90°	0	0	0	0	0	

TEST NUMBER: P1586448

CATALOG NUMBER: 22CZSP-47-L945-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1491.4	1491.4	1491.4	1491.4	1491.4
2.5°	1485.6	1488.5	1489.5	1490.4	1483.7
5°	1478.9	1480.9	1484.7	1489.5	1483.7
7.5°	1469.4	1471.3	1476.1	1482.8	1479.9
10°	1458.9	1459.8	1465.6	1470.3	1464.6
12.5°	1441.7	1444.5	1451.2	1455.1	1453.1
15°	1420.7	1423.5	1432.1	1440.7	1440.7
17.5°	1395.8	1399.6	1410.2	1421.6	1422.6
20°	1368.1	1371.0	1384.4	1395.8	1395.8
22.5°	1336.6	1340.4	1353.8	1366.2	1368.1
25°	1303.1	1306.0	1321.3	1337.5	1337.5
27.5°	1264.0	1269.7	1288.8	1305.1	1308.9
30°	1225.8	1230.5	1251.6	1271.6	1274.5
32.5°	1185.6	1191.4	1213.3	1235.3	1240.1
35°	1142.6	1148.4	1172.3	1196.1	1201.9
37.5°	1097.7	1104.4	1129.3	1157.0	1162.7
40°	1050.9	1058.6	1085.3	1114.9	1120.7
42.5°	1001.2	1011.8	1040.4	1071.0	1079.6
45°	951.6	962.1	991.7	1026.1	1035.6
47.5°	899.0	911.4	942.0	978.3	988.8
50°	846.5	858.9	890.4	929.6	941.1
52.5°	793.0	805.4	837.9	879.0	891.4
55°	735.6	749.0	783.4	827.4	840.7
57.5°	676.4	693.6	729.9	774.8	788.2
60°	617.2	634.4	675.5	719.4	734.7
62.5°	558.9	575.1	617.2	664.0	680.2
65°	497.8	515.0	559.9	606.7	622.9
67.5°	437.6	454.8	499.7	548.4	565.6
70°	375.5	394.6	440.4	489.2	506.4
72.5°	313.4	333.4	380.2	429.9	446.2
75°	253.2	273.2	320.1	370.7	386.9
77.5°	193.9	215.9	261.8	313.4	328.7
80°	140.4	161.5	204.5	255.1	272.3
82.5°	89.8	108.0	151.0	198.7	211.1
85°	45.9	63.1	92.7	117.5	119.4
87.5°	14.3	20.1	30.6	45.9	46.8
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1586448

CATALOG NUMBER: 22CZSP-47-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	16.83	18.49	17.20	18.81	19.12	17.66	19.32	18.03	19.64	19.95
	3H	18.59	20.10	18.96	20.42	20.78	19.78	21.29	20.16	21.61	21.97
	4H	19.21	20.63	19.60	20.98	21.35	20.67	22.09	21.07	22.44	22.81
	6H	19.62	20.94	20.03	21.30	21.69	21.45	22.77	21.86	23.13	23.52
	8H	19.73	20.99	20.15	21.38	21.77	21.77	23.03	22.19	23.42	23.82
	12H	19.78	20.99	20.21	21.37	21.80	21.98	23.19	22.41	23.57	24.00
4H	2H	17.60	19.03	18.00	19.37	19.75	18.25	19.67	18.65	20.02	20.39
	3H	19.58	20.78	19.99	21.18	21.58	20.61	21.80	21.01	22.20	22.60
	4H	20.32	21.40	20.75	21.82	22.25	21.66	22.74	22.09	23.16	23.59
	6H	20.85	21.80	21.30	22.24	22.69	22.61	23.56	23.06	24.00	24.46
	8H	20.99	21.89	21.45	22.33	22.79	23.01	23.90	23.47	24.34	24.81
	12H	21.08	21.88	21.56	22.35	22.82	23.28	24.09	23.76	24.56	25.03
8H	4H	20.78	21.67	21.24	22.11	22.57	21.95	22.84	22.41	23.28	23.74
	6H	21.44	22.18	21.93	22.67	23.14	23.06	23.80	23.55	24.29	24.76
	8H	21.65	22.32	22.16	22.82	23.31	23.57	24.24	24.08	24.74	25.23
	12H	21.79	22.38	22.29	22.87	23.43	23.96	24.55	24.46	25.04	25.60
12H	4H	20.87	21.67	21.35	22.14	22.61	21.97	22.77	22.45	23.25	23.72
	6H	21.57	22.24	22.08	22.75	23.23	23.11	23.78	23.61	24.28	24.77
	8H	21.85	22.44	22.35	22.93	23.49	23.68	24.28	24.19	24.77	25.32