

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: P1588648

Luminaire Tested: 24CZSP-A-47-L945-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1588648
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: 24CZSP-A-47-L945-S
Description: 2x4 CZSP LED Luminaire, 4500K CCT and 4000 lumens, 90CRI, Smooth Lens, Air Vented Housing
Light Source: -
Ballast/Driver: -

Summary

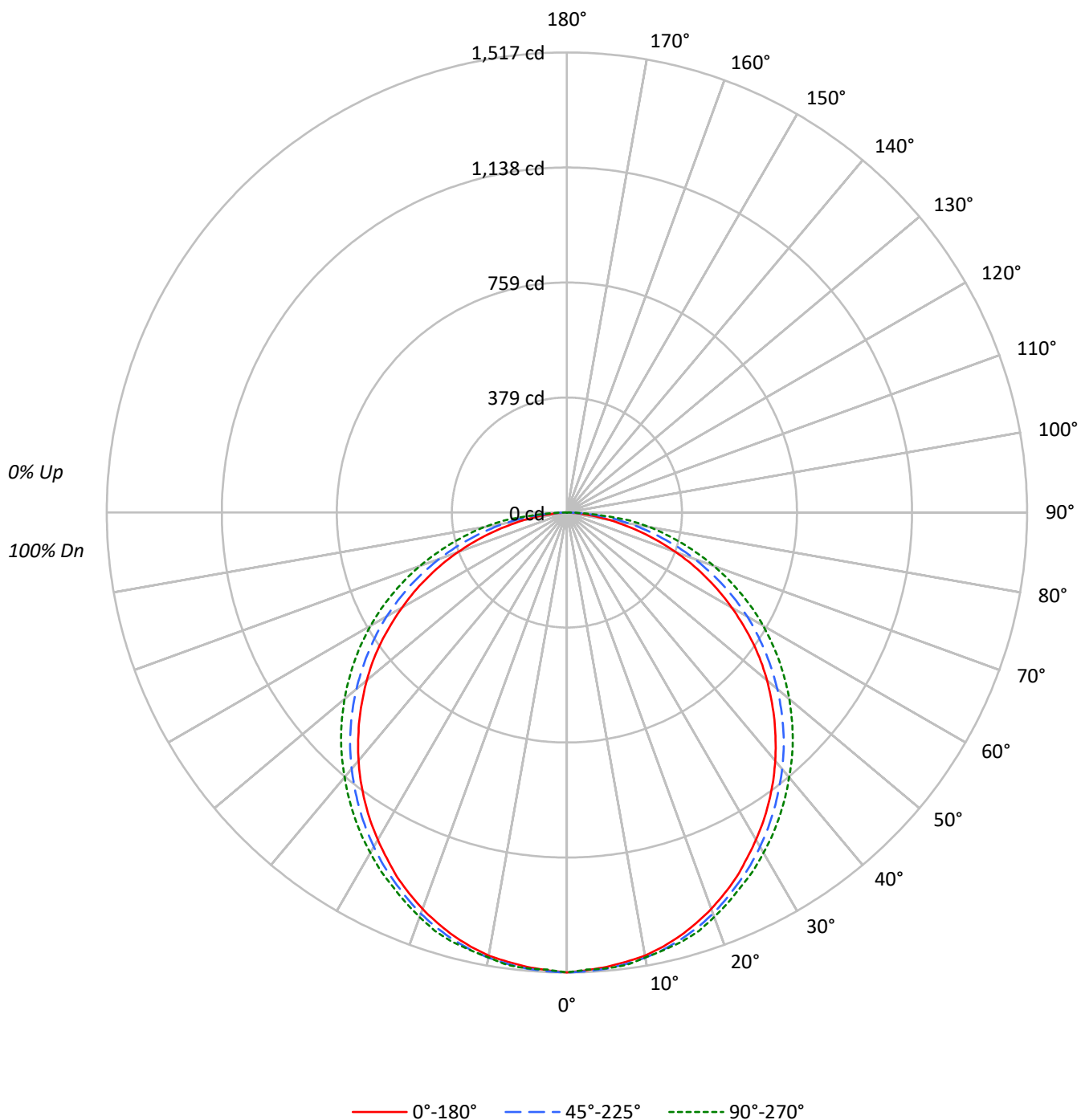
Lumens per Lamp: N/A
Luminaire Lumens: 4428.0 lumens
Efficiency: N/A
Efficacy: 137.5 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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: P1588648

CATALOG NUMBER: 24CZSP-A-47-L945-S

Luminous Intensity Polar Plot



TEST NUMBER: P1588648

CATALOG NUMBER: 24CZSP-A-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°	2323	2323	2323
5°	2313	2321	2320
10°	2308	2318	2317
15°	2291	2310	2323
20°	2268	2295	2314
25°	2240	2271	2299
30°	2205	2251	2292
35°	2173	2229	2285
40°	2137	2207	2279
45°	2096	2184	2281
50°	2051	2158	2281
55°	1998	2127	2283
60°	1923	2104	2289
65°	1835	2064	2296
70°	1710	2006	2306
75°	1524	1926	2329
80°	1260	1834	2442
85°	819	1655	2135

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 2519 cd/sqm

TEST NUMBER: P1588648

CATALOG NUMBER: 24CZSP-A-47-L945-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.4	3.2
10°-20°	410.7	9.3
20°-30°	619.4	14.0
30°-40°	746.1	16.8
40°-50°	779.2	17.6
50°-60°	715.6	16.2
60°-70°	563.6	12.7
70°-80°	345.8	7.8
80°-90°	104.0	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°	1173.6	26.5
0°-40°	1919.7	43.4
0°-60°	3414.5	77.1
0°-90°	4428.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4428.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1517	1517	1517	1517	1517	
5°	1504	1506	1510	1515	1509	143
15°	1445	1448	1456	1465	1465	407
25°	1325	1328	1344	1360	1360	610
35°	1162	1168	1192	1216	1222	727
45°	968	978	1008	1044	1053	746
55°	748	762	797	841	855	668
65°	506	524	569	617	634	501
75°	258	278	326	377	394	273
85°	47	64	94	120	122	61
90°	0	0	0	0	0	

TEST NUMBER: P1588648

CATALOG NUMBER: 24CZSP-A-47-L945-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1516.7	1516.7	1516.7	1516.7	1516.7
2.5°	1510.9	1513.8	1514.8	1515.7	1508.9
5°	1504.1	1506.0	1509.9	1514.8	1508.9
7.5°	1494.4	1496.3	1501.2	1508.0	1505.0
10°	1483.7	1484.6	1490.5	1495.3	1489.5
12.5°	1466.2	1469.1	1475.9	1479.8	1477.8
15°	1444.8	1447.7	1456.5	1465.2	1465.2
17.5°	1419.5	1423.4	1434.1	1445.8	1446.8
20°	1391.4	1394.3	1407.9	1419.5	1419.5
22.5°	1359.3	1363.2	1376.8	1389.4	1391.4
25°	1325.3	1328.2	1343.8	1360.3	1360.3
27.5°	1285.5	1291.3	1310.7	1327.2	1331.1
30°	1246.6	1251.5	1272.8	1293.2	1296.1
32.5°	1205.8	1211.6	1234.0	1256.3	1261.2
35°	1162.1	1167.9	1192.2	1216.5	1222.3
37.5°	1116.4	1123.2	1148.5	1176.6	1182.5
40°	1068.8	1076.6	1103.8	1133.9	1139.7
42.5°	1018.3	1029.0	1058.1	1089.2	1097.9
45°	967.7	978.4	1008.5	1043.5	1053.2
47.5°	914.3	926.9	958.0	994.9	1005.6
50°	860.9	873.5	905.6	945.4	957.1
52.5°	806.4	819.1	852.1	893.9	906.5
55°	748.2	761.8	796.7	841.4	855.0
57.5°	687.9	705.4	742.3	788.0	801.6
60°	627.7	645.2	686.9	731.6	747.2
62.5°	568.4	584.9	627.7	675.3	691.8
65°	506.2	523.7	569.4	617.0	633.5
67.5°	445.0	462.5	508.2	557.7	575.2
70°	381.8	401.3	447.9	497.5	515.0
72.5°	318.7	339.1	386.7	437.2	453.7
75°	257.5	277.9	325.5	377.0	393.5
77.5°	197.2	219.6	266.2	318.7	334.2
80°	142.8	164.2	207.9	259.4	276.9
82.5°	91.3	109.8	153.5	202.1	214.7
85°	46.6	64.1	94.2	119.5	121.5
87.5°	14.6	20.4	31.1	46.6	47.6
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1588648

CATALOG NUMBER: 24CZSP-A-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	14.41	16.07	14.77	16.38	16.70	15.24	16.90	15.60	17.21	17.53
	3H	16.16	17.67	16.54	18.00	18.36	17.35	18.86	17.73	19.19	19.55
	4H	16.78	18.20	17.18	18.55	18.92	18.24	19.66	18.64	20.01	20.39
	6H	17.19	18.51	17.60	18.88	19.27	19.02	20.34	19.43	20.71	21.10
	8H	17.30	18.56	17.72	18.95	19.35	19.34	20.61	19.77	20.99	21.39
	12H	17.35	18.56	17.78	18.94	19.37	19.55	20.77	19.98	21.15	21.57
4H	2H	15.18	16.60	15.58	16.95	17.32	15.82	17.25	16.22	17.59	17.97
	3H	17.16	18.35	17.56	18.75	19.15	18.18	19.38	18.59	19.77	20.17
	4H	17.89	18.98	18.32	19.39	19.83	19.23	20.32	19.66	20.73	21.17
	6H	18.42	19.37	18.87	19.81	20.27	20.18	21.14	20.64	21.58	22.03
	8H	18.57	19.46	19.03	19.90	20.36	20.58	21.47	21.04	21.91	22.38
	12H	18.65	19.45	19.13	19.93	20.40	20.86	21.66	21.34	22.14	22.60
8H	4H	18.35	19.24	18.81	19.68	20.15	19.52	20.41	19.98	20.85	21.32
	6H	19.01	19.76	19.50	20.24	20.72	20.63	21.38	21.12	21.86	22.34
	8H	19.22	19.89	19.73	20.40	20.88	21.14	21.81	21.65	22.32	22.80
	12H	19.36	19.95	19.87	20.44	21.00	21.53	22.12	22.04	22.61	23.17
12H	4H	18.44	19.24	18.92	19.72	20.19	19.55	20.35	20.02	20.82	21.29
	6H	19.14	19.81	19.65	20.32	20.80	20.68	21.35	21.19	21.85	22.34
	8H	19.42	20.01	19.93	20.50	21.06	21.26	21.85	21.76	22.34	22.90