

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: P1588348

Luminaire Tested: 24CZSP-52-L945-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1588348
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-52-L945-S
Description: 2x4 CZSP LED Luminaire, 4500K CCT and 4500 lumens, 90CRI, Smooth Lens
Light Source: -
Ballast/Driver: -

Summary

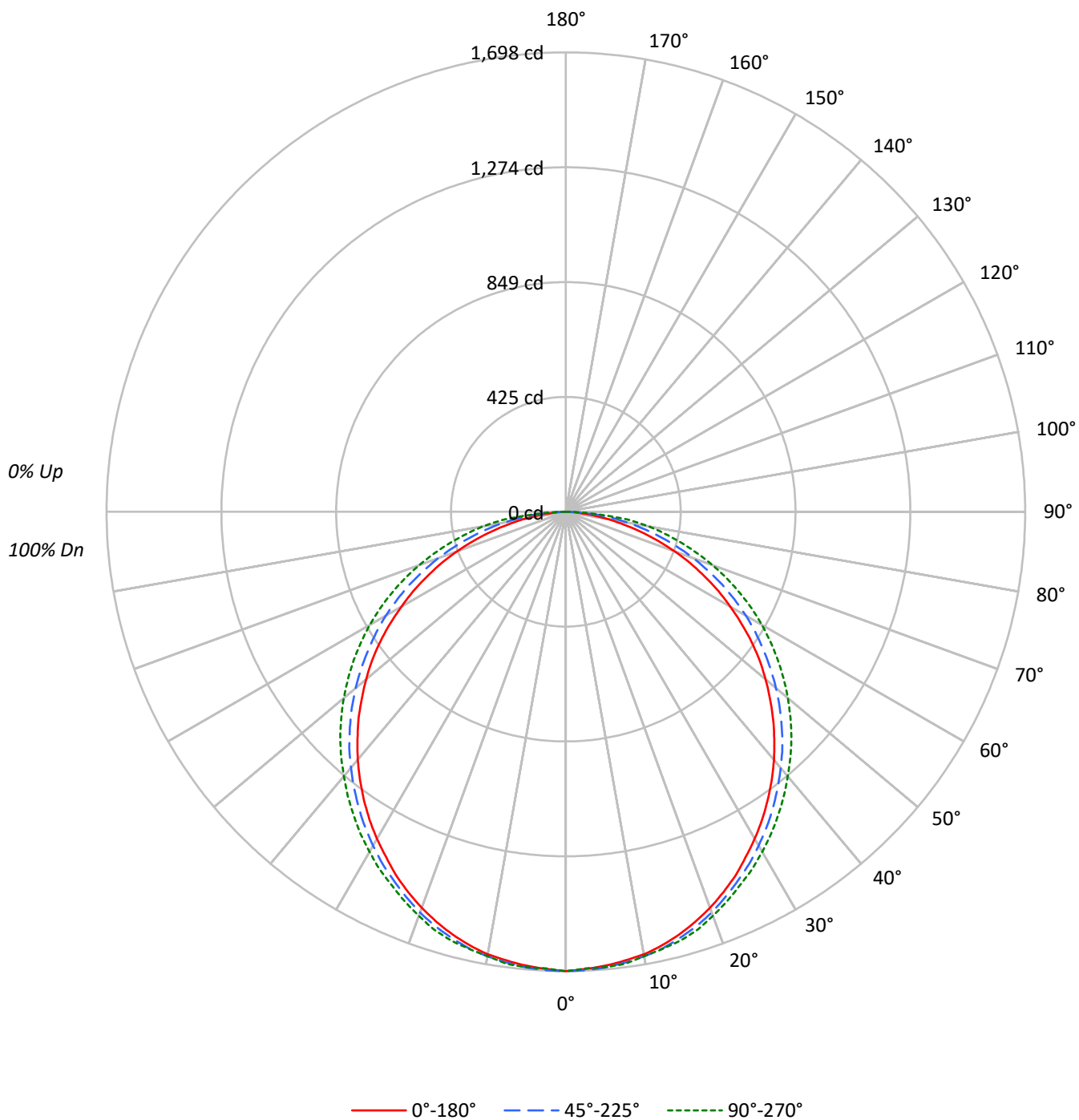
Lumens per Lamp: N/A
Luminaire Lumens: 4958.0 lumens
Efficiency: N/A
Efficacy: 135.1 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 36.7
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°	2601	2601	2601
5°	2589	2599	2598
10°	2584	2596	2594
15°	2565	2586	2601
20°	2539	2569	2591
25°	2508	2543	2574
30°	2469	2521	2567
35°	2433	2496	2559
40°	2393	2471	2551
45°	2347	2446	2554
50°	2297	2416	2553
55°	2237	2382	2557
60°	2153	2356	2563
65°	2054	2310	2571
70°	1915	2246	2582
75°	1706	2157	2607
80°	1410	2053	2735
85°	917	1854	2390

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 2821 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.6	3.2
10°-20°	459.9	9.3
20°-30°	693.6	14.0
30°-40°	835.4	16.8
40°-50°	872.5	17.6
50°-60°	801.2	16.2
60°-70°	631.1	12.7
70°-80°	387.2	7.8
80°-90°	116.5	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°	1314.1	26.5
0°-40°	2149.5	43.4
0°-60°	3823.2	77.1
0°-90°	4958.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4958.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1698	1698	1698	1698	1698	
5°	1684	1686	1691	1696	1690	160
15°	1618	1621	1631	1641	1641	456
25°	1484	1487	1505	1523	1523	683
35°	1301	1308	1335	1362	1369	814
45°	1084	1096	1129	1168	1179	835
55°	838	853	892	942	957	748
65°	567	586	638	691	709	561
75°	288	311	364	422	441	306
85°	52	72	106	134	136	68
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1698.2	1698.2	1698.2	1698.2	1698.2
2.5°	1691.7	1695.0	1696.1	1697.2	1689.5
5°	1684.1	1686.3	1690.6	1696.1	1689.5
7.5°	1673.2	1675.4	1680.8	1688.5	1685.2
10°	1661.3	1662.3	1668.9	1674.3	1667.8
12.5°	1641.7	1644.9	1652.6	1656.9	1654.7
15°	1617.7	1621.0	1630.8	1640.6	1640.6
17.5°	1589.5	1593.8	1605.8	1618.8	1619.9
20°	1557.9	1561.2	1576.4	1589.5	1589.5
22.5°	1522.0	1526.4	1541.6	1555.7	1557.9
25°	1483.9	1487.2	1504.6	1523.1	1523.1
27.5°	1439.3	1445.8	1467.6	1486.1	1490.5
30°	1395.8	1401.2	1425.2	1448.0	1451.3
32.5°	1350.1	1356.6	1381.7	1406.7	1412.1
35°	1301.2	1307.7	1334.9	1362.1	1368.6
37.5°	1250.0	1257.6	1285.9	1317.5	1324.0
40°	1196.7	1205.4	1235.9	1269.6	1276.1
42.5°	1140.1	1152.1	1184.7	1219.6	1229.4
45°	1083.6	1095.5	1129.3	1168.4	1179.3
47.5°	1023.7	1037.9	1072.7	1114.0	1126.0
50°	963.9	978.0	1013.9	1058.5	1071.6
52.5°	903.0	917.1	954.1	1000.9	1015.0
55°	837.7	852.9	892.1	942.1	957.4
57.5°	770.2	789.8	831.2	882.3	897.5
60°	702.8	722.4	769.2	819.2	836.6
62.5°	636.4	654.9	702.8	756.1	774.6
65°	566.8	586.4	637.5	690.8	709.3
67.5°	498.3	517.9	569.0	624.5	644.1
70°	427.6	449.3	501.5	557.0	576.6
72.5°	356.8	379.7	433.0	489.6	508.1
75°	288.3	311.1	364.5	422.1	440.6
77.5°	220.8	245.9	298.1	356.8	374.2
80°	159.9	183.9	232.8	290.5	310.1
82.5°	102.3	122.9	171.9	226.3	240.4
85°	52.2	71.8	105.5	133.8	136.0
87.5°	16.3	22.8	34.8	52.2	53.3
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	14.80	16.46	15.16	16.78	17.09	15.63	17.29	15.99	17.61	17.92
	3H	16.55	18.06	16.93	18.39	18.75	17.75	19.25	18.12	19.58	19.94
	4H	17.17	18.60	17.57	18.94	19.32	18.63	20.06	19.03	20.40	20.78
	6H	17.58	18.90	17.99	19.27	19.66	19.42	20.74	19.83	21.10	21.49
	8H	17.69	18.95	18.12	19.34	19.74	19.74	21.00	20.16	21.39	21.79
	12H	17.74	18.95	18.17	19.34	19.76	19.95	21.16	20.38	21.54	21.97
4H	2H	15.57	16.99	15.97	17.34	17.72	16.22	17.64	16.61	17.99	18.36
	3H	17.55	18.75	17.96	19.14	19.54	18.57	19.77	18.98	20.17	20.57
	4H	18.28	19.37	18.72	19.78	20.22	19.62	20.71	20.05	21.12	21.56
	6H	18.81	19.77	19.27	20.21	20.66	20.58	21.53	21.03	21.97	22.42
	8H	18.96	19.85	19.42	20.29	20.76	20.97	21.87	21.43	22.31	22.77
	12H	19.04	19.85	19.52	20.32	20.79	21.25	22.05	21.73	22.53	23.00
8H	4H	18.74	19.64	19.20	20.08	20.54	19.91	20.81	20.37	21.25	21.71
	6H	19.41	20.15	19.90	20.64	21.11	21.03	21.77	21.52	22.26	22.73
	8H	19.62	20.28	20.12	20.79	21.27	21.54	22.21	22.04	22.71	23.20
	12H	19.76	20.35	20.26	20.84	21.40	21.92	22.51	22.43	23.00	23.56
12H	4H	18.83	19.64	19.31	20.11	20.58	19.94	20.74	20.42	21.22	21.68
	6H	19.54	20.21	20.04	20.71	21.20	21.07	21.74	21.58	22.25	22.73
	8H	19.82	20.41	20.32	20.90	21.46	21.65	22.24	22.16	22.73	23.29