

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: P1589828

Luminaire Tested: 24CZSP-SB-52-L945-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1589828
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2608-884-8)
Test Lab: INNOVATION CENTER
Issue Date: 9/3/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 24CZSP-SB-52-L945-S
Description: 2x4 CZSP LED Luminaire, 4500K CCT and 4500 lumens, 90CRI, Smooth Lens, SB housing
Light Source: -
Ballast/Driver: -

Summary

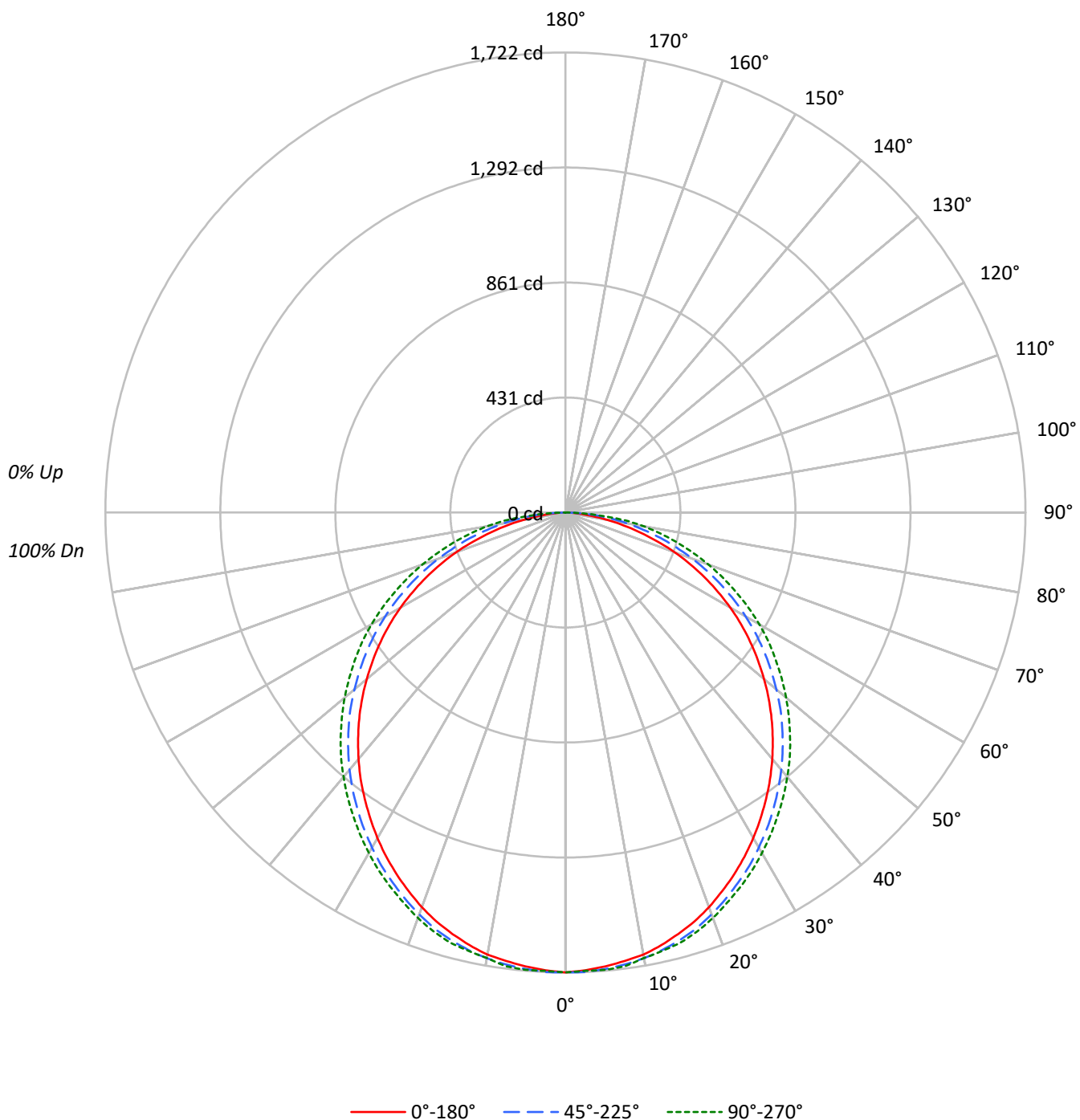
Lumens per Lamp: N/A
Luminaire Lumens: 5008.0 lumens
Efficiency: N/A
Efficacy: 136.5 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.38
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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: 28.75 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	94	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	66	61		69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53		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	45	39		50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35		47	40	35		45	39	35	33
8	60	46	38	32	58	45	37	31	44	37	31		43	36	31		42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26		37	30	25		36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2637	2637	2637
5°	2622	2637	2642
10°	2614	2636	2634
15°	2590	2627	2643
20°	2562	2609	2632
25°	2525	2583	2616
30°	2488	2561	2603
35°	2448	2536	2590
40°	2408	2514	2583
45°	2364	2487	2576
50°	2313	2457	2570
55°	2255	2425	2566
60°	2185	2389	2568
65°	2085	2339	2554
70°	1949	2267	2547
75°	1728	2180	2556
80°	1406	2072	2632
85°	909	1912	2272

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 2667 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.9	3.3
10°-20°	466.5	9.3
20°-30°	703.4	14.0
30°-40°	846.4	16.9
40°-50°	882.9	17.6
50°-60°	809.2	16.2
60°-70°	635.5	12.7
70°-80°	386.7	7.7
80°-90°	114.4	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°	1332.9	26.6
0°-40°	2179.3	43.5
0°-60°	3871.4	77.3
0°-90°	5008.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5008.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1722	1722	1722	1722	1722	
5°	1705	1716	1715	1713	1718	162
15°	1633	1649	1657	1659	1667	461
25°	1494	1515	1529	1538	1548	689
35°	1309	1329	1356	1376	1385	819
45°	1091	1114	1148	1175	1189	842
55°	845	866	908	945	961	755
65°	575	597	645	688	705	569
75°	292	319	368	413	432	310
85°	52	73	109	122	129	67
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1721.6	1721.6	1721.6	1721.6	1721.6
2.5°	1715.1	1723.7	1721.6	1714.0	1717.3
5°	1705.4	1716.2	1715.1	1713.0	1718.3
7.5°	1693.6	1705.4	1706.5	1706.5	1713.0
10°	1680.6	1692.5	1694.6	1691.4	1693.6
12.5°	1659.1	1673.1	1677.4	1677.4	1680.6
15°	1633.2	1649.4	1656.9	1659.1	1666.6
17.5°	1605.2	1622.5	1632.2	1637.5	1644.0
20°	1571.8	1590.1	1600.9	1607.4	1614.9
22.5°	1534.1	1554.6	1566.4	1572.9	1581.5
25°	1494.3	1514.7	1528.7	1538.4	1548.1
27.5°	1452.2	1471.6	1491.0	1502.9	1511.5
30°	1407.0	1427.5	1447.9	1463.0	1471.6
32.5°	1358.5	1380.1	1403.8	1419.9	1429.6
35°	1309.0	1329.4	1356.4	1375.8	1385.4
37.5°	1258.3	1279.9	1307.9	1328.4	1340.2
40°	1204.5	1227.1	1257.2	1279.9	1291.7
42.5°	1148.4	1170.0	1203.4	1229.2	1243.2
45°	1091.3	1114.0	1148.4	1175.4	1189.4
47.5°	1032.1	1053.6	1091.3	1122.6	1134.4
50°	970.7	991.1	1031.0	1064.4	1078.4
52.5°	908.2	929.7	969.6	1005.2	1020.2
55°	844.6	866.2	908.2	944.8	961.0
57.5°	780.0	801.5	844.6	882.3	901.7
60°	713.2	734.7	780.0	818.8	838.2
62.5°	644.2	666.9	713.2	753.1	773.5
65°	575.3	596.8	645.3	688.4	704.6
67.5°	506.3	527.9	575.3	618.4	637.8
70°	435.2	460.0	506.3	551.6	568.8
72.5°	360.9	388.9	435.2	482.6	499.9
75°	292.0	318.9	368.4	412.6	432.0
77.5°	224.1	253.2	299.5	344.7	364.1
80°	159.4	187.5	234.9	278.0	298.4
82.5°	101.3	126.0	173.5	212.2	227.3
85°	51.7	73.3	108.8	121.7	129.3
87.5°	15.1	25.9	38.8	48.5	53.9
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	14.9	16.5	15.2	16.8	17.2	15.6	17.3	16.0	17.6	17.9
	3H	16.6	18.1	17.0	18.5	18.8	17.7	19.2	18.1	19.5	19.9
	4H	17.3	18.7	17.7	19.0	19.4	18.5	20.0	18.9	20.3	20.7
	6H	17.7	19.0	18.1	19.3	19.7	19.3	20.6	19.7	21.0	21.4
	8H	17.8	19.0	18.2	19.4	19.8	19.6	20.8	20.0	21.2	21.6
	12H	17.8	19.0	18.2	19.4	19.8	19.8	21.0	20.2	21.4	21.8
4H	2H	15.6	17.1	16.0	17.4	17.8	16.2	17.6	16.6	18.0	18.3
	3H	17.6	18.8	18.0	19.2	19.6	18.5	19.7	18.9	20.1	20.5
	4H	18.4	19.5	18.8	19.9	20.3	19.5	20.6	20.0	21.0	21.5
	6H	18.9	19.8	19.4	20.3	20.7	20.4	21.4	20.9	21.8	22.3
	8H	19.0	19.9	19.5	20.4	20.8	20.8	21.7	21.3	22.1	22.6
	12H	19.1	19.9	19.6	20.4	20.9	21.1	21.9	21.5	22.3	22.8
8H	4H	18.8	19.7	19.3	20.1	20.6	19.8	20.7	20.3	21.2	21.6
	6H	19.5	20.2	20.0	20.7	21.2	20.9	21.6	21.4	22.1	22.6
	8H	19.7	20.4	20.2	20.9	21.3	21.4	22.0	21.9	22.5	23.0
	12H	19.8	20.4	20.3	20.9	21.5	21.7	22.3	22.2	22.8	23.4
12H	4H	18.9	19.7	19.4	20.2	20.6	19.9	20.7	20.3	21.1	21.6
	6H	19.6	20.3	20.1	20.7	21.3	21.0	21.6	21.5	22.1	22.6
	8H	19.9	20.5	20.4	21.0	21.5	21.5	22.1	22.0	22.6	23.1

(END OF REPORT)