

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: P1589808

Luminaire Tested: 24CZSP-SB-49HE-L945-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1589808
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-49HE-L945-S
Description: 2x4 CZSP LED Luminaire, 4500K CCT and 4500 lumens, 90CRI, Smooth Lens, SB housing
Light Source: -
Ballast/Driver: -

Summary

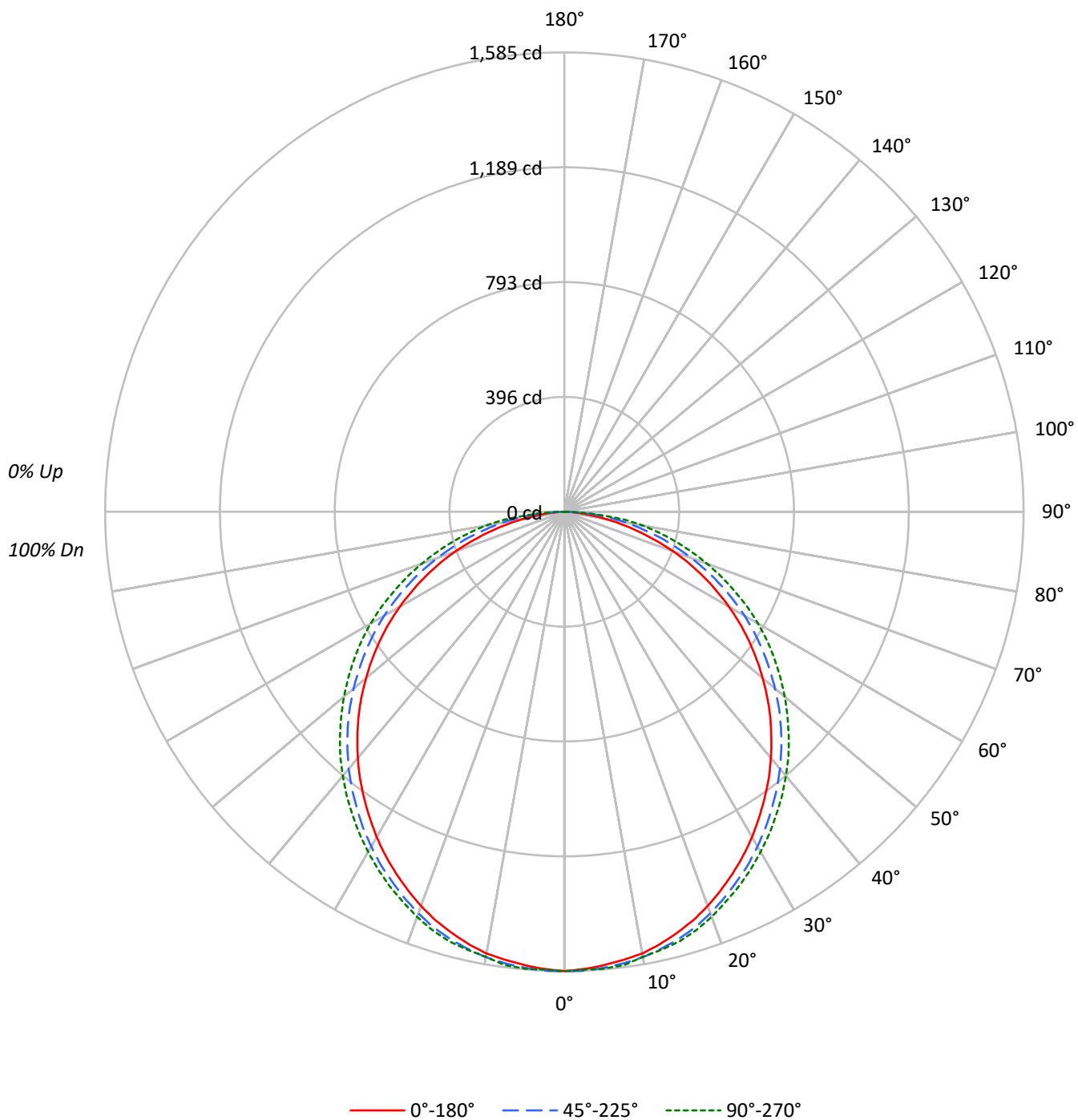
Lumens per Lamp: N/A
Luminaire Lumens: 4611.0 lumens
Efficiency: N/A
Efficacy: 138.5 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.38
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	108	103	99	95	106	101	97	93	97	94	90		93	90	88		89
2	98	90	83	77	96	88	81	76	84	79	74		81	76	72		78
3	89	79	70	64	87	77	69	63	74	67	62		71	66	61		69
4	82	70	61	54	79	68	60	53	66	58	53		63	57	52		61
5	75	62	53	46	73	61	52	46	59	51	45		57	50	45		55
6	69	56	47	40	67	55	46	40	53	45	40		51	45	39		50
7	64	51	42	35	63	50	41	35	48	41	35		47	40	35		45
8	60	46	38	32	58	45	37	31	44	37	31		43	36	31		42
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		38
10	52	39	31	26	51	39	31	26	38	30	26		37	30	25		36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2428	2428	2428
5°	2414	2428	2432
10°	2407	2427	2425
15°	2385	2419	2433
20°	2359	2403	2424
25°	2325	2379	2409
30°	2291	2358	2396
35°	2253	2335	2385
40°	2217	2315	2378
45°	2176	2290	2372
50°	2129	2262	2366
55°	2077	2233	2363
60°	2012	2200	2364
65°	1920	2153	2351
70°	1794	2088	2345
75°	1591	2007	2354
80°	1295	1907	2424
85°	836	1761	2091

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 2456 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	150.0	3.3
10°-20°	429.6	9.3
20°-30°	647.7	14.0
30°-40°	779.3	16.9
40°-50°	812.9	17.6
50°-60°	745.1	16.2
60°-70°	585.1	12.7
70°-80°	356.1	7.7
80°-90°	105.3	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°	1227.2	26.6
0°-40°	2006.5	43.5
0°-60°	3564.5	77.3
0°-90°	4611.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4611.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1585	1585	1585	1585	1585	
5°	1570	1580	1579	1577	1582	149
15°	1504	1519	1526	1528	1534	424
25°	1376	1395	1408	1416	1425	634
35°	1205	1224	1249	1267	1276	754
45°	1005	1026	1057	1082	1095	775
55°	778	798	836	870	885	695
65°	530	550	594	634	649	524
75°	269	294	339	380	398	285
85°	48	68	100	112	119	62
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1585.1	1585.1	1585.1	1585.1	1585.1
2.5°	1579.2	1587.1	1585.1	1578.2	1581.1
5°	1570.2	1580.1	1579.2	1577.2	1582.1
7.5°	1559.3	1570.2	1571.2	1571.2	1577.2
10°	1547.4	1558.3	1560.3	1557.3	1559.3
12.5°	1527.6	1540.5	1544.4	1544.4	1547.4
15°	1503.8	1518.6	1525.6	1527.6	1534.5
17.5°	1478.0	1493.8	1502.8	1507.7	1513.7
20°	1447.2	1464.1	1474.0	1480.0	1486.9
22.5°	1412.5	1431.4	1442.3	1448.2	1456.2
25°	1375.8	1394.7	1407.5	1416.5	1425.4
27.5°	1337.1	1355.0	1372.8	1383.7	1391.7
30°	1295.5	1314.3	1333.2	1347.0	1355.0
32.5°	1250.8	1270.7	1292.5	1307.4	1316.3
35°	1205.2	1224.0	1248.8	1266.7	1275.6
37.5°	1158.6	1178.4	1204.2	1223.0	1234.0
40°	1109.0	1129.8	1157.6	1178.4	1189.3
42.5°	1057.4	1077.2	1108.0	1131.8	1144.7
45°	1004.8	1025.7	1057.4	1082.2	1095.1
47.5°	950.3	970.1	1004.8	1033.6	1044.5
50°	893.7	912.6	949.3	980.0	992.9
52.5°	836.2	856.0	892.7	925.5	939.4
55°	777.7	797.5	836.2	869.9	884.8
57.5°	718.2	738.0	777.7	812.4	830.2
60°	656.7	676.5	718.2	753.9	771.7
62.5°	593.2	614.0	656.7	693.4	712.2
65°	529.7	549.5	594.2	633.8	648.7
67.5°	466.2	486.0	529.7	569.4	587.2
70°	400.7	423.6	466.2	507.9	523.7
72.5°	332.3	358.1	400.7	444.4	460.3
75°	268.8	293.6	339.2	379.9	397.8
77.5°	206.3	233.1	275.8	317.4	335.3
80°	146.8	172.6	216.2	255.9	274.8
82.5°	93.2	116.1	159.7	195.4	209.3
85°	47.6	67.5	100.2	112.1	119.0
87.5°	13.9	23.8	35.7	44.6	49.6
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	14.6	16.2	14.9	16.6	16.9	15.3	17.0	15.7	17.3	17.6
	3H	16.3	17.9	16.7	18.2	18.5	17.4	18.9	17.8	19.2	19.6
	4H	17.0	18.4	17.4	18.7	19.1	18.3	19.7	18.7	20.0	20.4
	6H	17.4	18.7	17.8	19.1	19.4	19.0	20.3	19.4	20.7	21.1
	8H	17.5	18.7	17.9	19.1	19.5	19.3	20.6	19.7	20.9	21.3
	12H	17.5	18.7	18.0	19.1	19.5	19.5	20.7	19.9	21.1	21.5
4H	2H	15.3	16.8	15.7	17.1	17.5	15.9	17.3	16.3	17.7	18.1
	3H	17.3	18.5	17.7	18.9	19.3	18.2	19.4	18.6	19.8	20.2
	4H	18.1	19.2	18.5	19.6	20.0	19.3	20.3	19.7	20.7	21.2
	6H	18.6	19.6	19.1	20.0	20.5	20.2	21.1	20.6	21.5	22.0
	8H	18.8	19.6	19.2	20.1	20.5	20.5	21.4	21.0	21.9	22.3
	12H	18.8	19.6	19.3	20.1	20.6	20.8	21.6	21.3	22.1	22.5
8H	4H	18.5	19.4	19.0	19.9	20.3	19.6	20.4	20.0	20.9	21.3
	6H	19.2	19.9	19.7	20.4	20.9	20.6	21.3	21.1	21.8	22.3
	8H	19.4	20.1	19.9	20.6	21.1	21.1	21.7	21.6	22.3	22.7
	12H	19.5	20.1	20.0	20.6	21.2	21.4	22.0	21.9	22.5	23.1
12H	4H	18.6	19.4	19.1	19.9	20.4	19.6	20.4	20.1	20.9	21.3
	6H	19.3	20.0	19.8	20.5	21.0	20.7	21.3	21.2	21.8	22.3
	8H	19.6	20.2	20.1	20.7	21.2	21.2	21.8	21.7	22.3	22.8

(END OF REPORT)