

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: P1589803

Luminaire Tested: 24CZSP-SB-49HE-L930

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1589803
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2608-884-7)
Test Lab: INNOVATION CENTER
Issue Date: 9/3/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 24CZSP-SB-49HE-L930
Description: 2x4 CZSP LED Luminaire, 3000K CCT and 4500 lumens, 90CRI, Ribbed Lens, SB housing
Light Source: -
Ballast/Driver: -

Summary

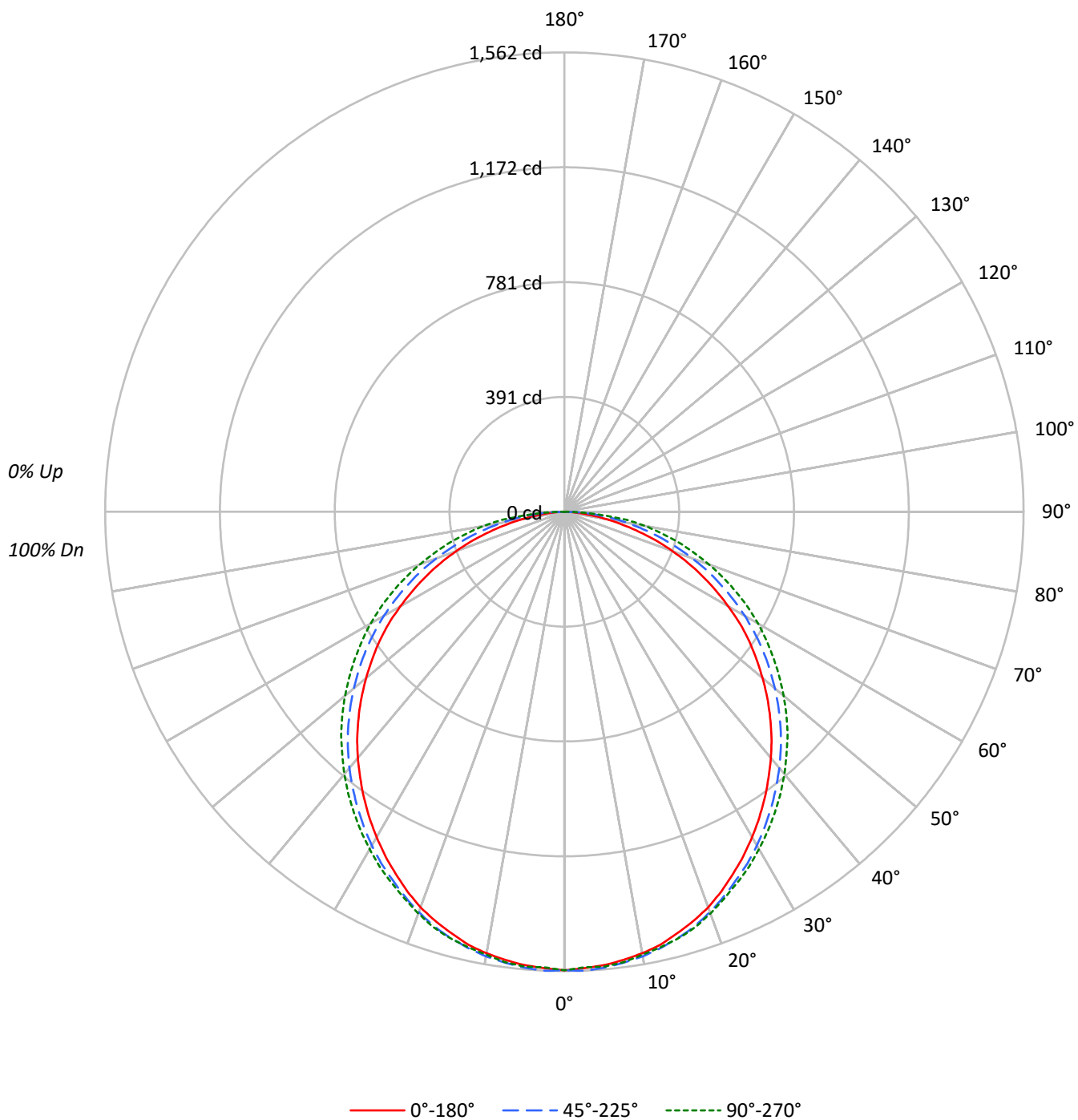
Lumens per Lamp: N/A
Luminaire Lumens: 4550.0 lumens
Efficiency: N/A
Efficacy: 136.6 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.26 / 1.38
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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			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	68
3	89	79	70	63	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°	2388	2388	2388
5°	2379	2393	2387
10°	2371	2387	2378
15°	2353	2378	2381
20°	2332	2361	2369
25°	2295	2335	2352
30°	2258	2316	2342
35°	2222	2294	2334
40°	2185	2274	2328
45°	2144	2253	2326
50°	2097	2228	2320
55°	2049	2204	2319
60°	1973	2171	2333
65°	1881	2129	2335
70°	1755	2070	2342
75°	1562	1995	2382
80°	1282	1911	2471
85°	847	1794	2234

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 2531 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.5	3.2
10°-20°	422.1	9.3
20°-30°	636.3	14.0
30°-40°	766.2	16.8
40°-50°	800.5	17.6
50°-60°	735.4	16.2
60°-70°	579.1	12.7
70°-80°	355.1	7.8
80°-90°	107.7	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°	1205.9	26.5
0°-40°	1972.1	43.3
0°-60°	3508.1	77.1
0°-90°	4550.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4550.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1559	1559	1559	1559	1559	
5°	1548	1550	1556	1554	1552	147
15°	1484	1490	1499	1505	1501	419
25°	1358	1366	1382	1396	1392	626
35°	1188	1204	1227	1249	1248	743
45°	990	1011	1040	1069	1074	764
55°	768	790	825	861	869	685
65°	519	546	587	627	644	513
75°	264	295	337	378	402	280
85°	48	71	102	114	127	62
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1559.1	1559.1	1559.1	1559.1	1559.1
2.5°	1553.3	1557.2	1562.0	1554.3	1550.4
5°	1547.5	1550.4	1556.2	1554.3	1552.4
7.5°	1537.0	1538.9	1546.6	1546.6	1544.7
10°	1524.4	1528.3	1535.0	1534.1	1529.2
12.5°	1508.1	1511.0	1518.7	1518.7	1515.8
15°	1484.0	1489.8	1499.4	1505.2	1501.3
17.5°	1459.0	1464.7	1477.2	1483.0	1481.1
20°	1431.0	1435.8	1448.4	1457.0	1453.2
22.5°	1396.4	1402.1	1416.6	1426.2	1422.4
25°	1357.8	1366.5	1381.9	1396.4	1391.5
27.5°	1319.3	1328.9	1348.2	1362.7	1360.7
30°	1276.9	1289.5	1309.7	1328.0	1324.1
32.5°	1233.6	1248.1	1269.2	1288.5	1287.5
35°	1188.3	1203.8	1226.9	1249.0	1248.1
37.5°	1140.2	1158.5	1182.6	1206.6	1207.6
40°	1093.0	1110.3	1137.3	1163.3	1164.3
42.5°	1042.9	1061.2	1090.1	1117.1	1118.0
45°	990.0	1011.2	1040.0	1068.9	1073.7
47.5°	936.0	958.2	988.0	1018.9	1024.6
50°	880.2	903.3	935.1	967.8	973.6
52.5°	823.4	847.4	880.2	912.9	921.6
55°	767.5	789.7	825.3	860.9	868.6
57.5°	708.8	729.0	767.5	805.1	814.7
60°	644.2	669.3	708.8	746.3	761.7
62.5°	581.7	608.6	649.1	686.6	704.0
65°	519.1	546.0	587.4	626.9	644.2
67.5°	455.5	483.4	527.7	565.3	584.5
70°	391.9	419.9	462.2	502.7	522.9
72.5°	328.4	358.2	399.6	441.1	461.3
75°	263.9	294.7	337.1	377.5	402.5
77.5°	203.2	233.0	275.4	316.8	338.0
80°	145.4	175.3	216.7	258.1	280.2
82.5°	92.4	120.4	160.8	195.5	215.7
85°	48.2	71.3	102.1	113.6	127.1
87.5°	14.4	27.9	39.5	44.3	54.9
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	14.5	16.2	14.9	16.5	16.8	15.3	16.9	15.6	17.3	17.6
	3H	16.3	17.8	16.7	18.1	18.5	17.4	18.9	17.8	19.2	19.6
	4H	16.9	18.3	17.3	18.7	19.1	18.3	19.7	18.7	20.0	20.4
	6H	17.3	18.7	17.7	19.0	19.4	19.0	20.4	19.4	20.7	21.1
	8H	17.4	18.7	17.9	19.1	19.5	19.3	20.6	19.8	21.0	21.4
	12H	17.5	18.7	17.9	19.1	19.5	19.6	20.8	20.0	21.1	21.6
4H	2H	15.3	16.7	15.7	17.1	17.5	15.9	17.3	16.3	17.7	18.0
	3H	17.3	18.5	17.7	18.9	19.3	18.2	19.4	18.6	19.8	20.2
	4H	18.1	19.1	18.5	19.6	20.0	19.3	20.3	19.7	20.7	21.2
	6H	18.6	19.5	19.0	20.0	20.4	20.2	21.1	20.6	21.6	22.0
	8H	18.7	19.6	19.2	20.1	20.5	20.6	21.5	21.0	21.9	22.4
	12H	18.8	19.6	19.3	20.1	20.6	20.8	21.6	21.3	22.1	22.6
8H	4H	18.5	19.4	19.0	19.8	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	21.4	21.1	21.9	22.3
	8H	19.4	20.1	19.9	20.6	21.1	21.1	21.8	21.6	22.3	22.8
	12H	19.6	20.1	20.1	20.6	21.2	21.5	22.1	22.0	22.6	23.1
12H	4H	18.6	19.4	19.1	19.9	20.3	19.6	20.4	20.1	20.9	21.3
	6H	19.3	20.0	19.8	20.5	21.0	20.7	21.4	21.2	21.8	22.4
	8H	19.6	20.2	20.1	20.7	21.2	21.2	21.8	21.7	22.3	22.9

(END OF REPORT)