

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: P1589805

Luminaire Tested: 24CZSP-SB-49HE-L935

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1589805
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-L935
Description: 2x4 CZSP LED Luminaire, 3500K CCT and 4500 lumens, 90CRI, Ribbed Lens, SB housing
Light Source: -
Ballast/Driver: -

Summary

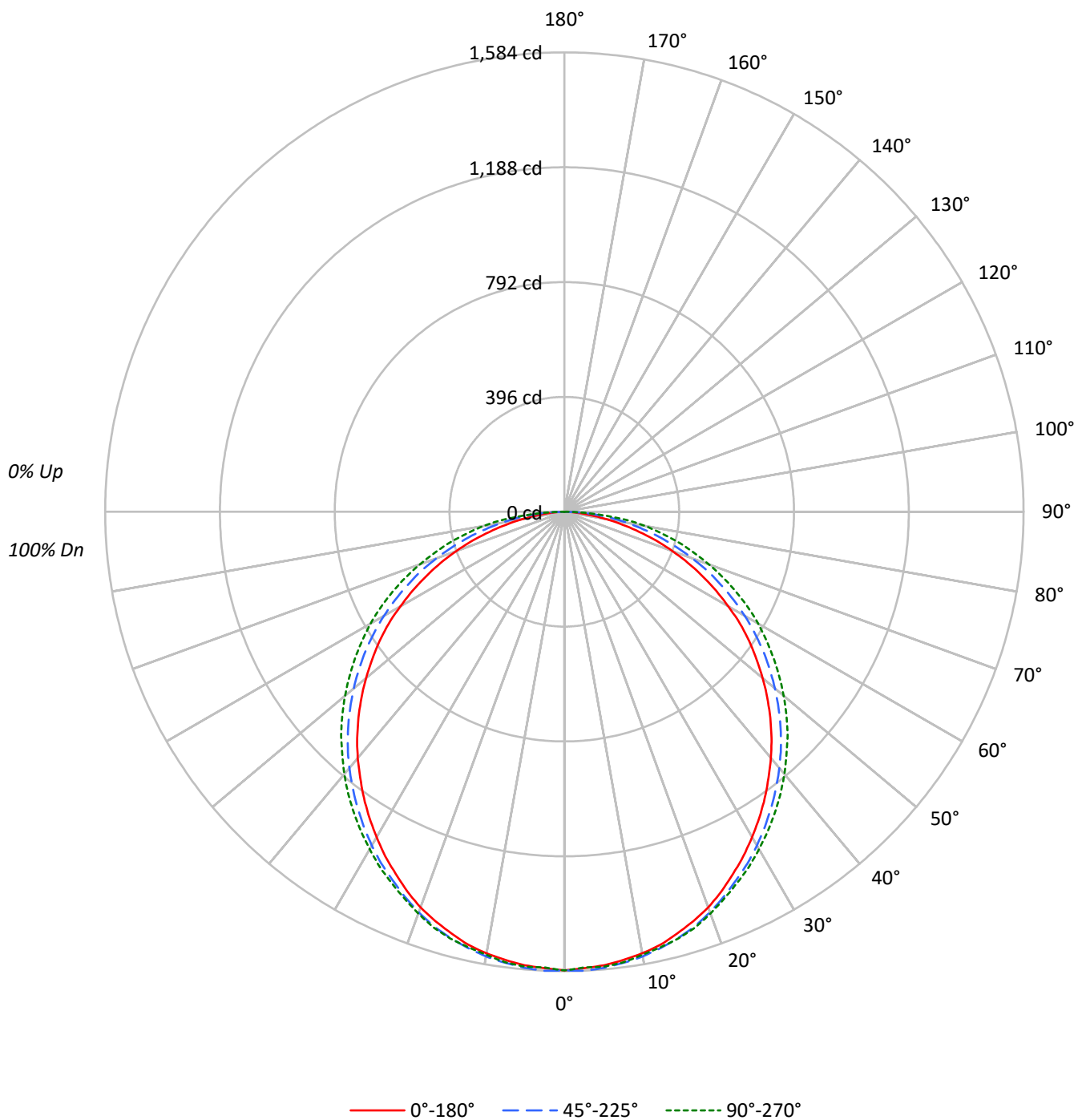
Lumens per Lamp: N/A
Luminaire Lumens: 4615.0 lumens
Efficiency: N/A
Efficacy: 138.6 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.26 / 1.38
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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°	2422	2422	2422
5°	2413	2427	2421
10°	2405	2422	2412
15°	2387	2411	2415
20°	2366	2394	2402
25°	2327	2369	2385
30°	2291	2349	2375
35°	2254	2327	2367
40°	2217	2307	2361
45°	2175	2285	2359
50°	2127	2260	2353
55°	2079	2235	2353
60°	2002	2202	2367
65°	1908	2159	2368
70°	1780	2099	2375
75°	1584	2023	2416
80°	1301	1939	2507
85°	858	1819	2265

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 2567 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.6	3.2
10°-20°	428.2	9.3
20°-30°	645.4	14.0
30°-40°	777.2	16.8
40°-50°	812.0	17.6
50°-60°	746.0	16.2
60°-70°	587.4	12.7
70°-80°	360.2	7.8
80°-90°	109.2	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°	1223.1	26.5
0°-40°	2000.3	43.3
0°-60°	3558.2	77.1
0°-90°	4615.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4615.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1581	1581	1581	1581	1581	
5°	1570	1573	1578	1576	1574	149
15°	1505	1511	1521	1527	1523	425
25°	1377	1386	1402	1416	1411	635
35°	1205	1221	1244	1267	1266	754
45°	1004	1026	1055	1084	1089	774
55°	778	801	837	873	881	695
65°	526	554	596	636	654	521
75°	268	299	342	383	408	284
85°	49	72	104	115	129	63
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1581.4	1581.4	1581.4	1581.4	1581.4
2.5°	1575.5	1579.4	1584.3	1576.5	1572.6
5°	1569.7	1572.6	1578.4	1576.5	1574.5
7.5°	1558.9	1560.9	1568.7	1568.7	1566.7
10°	1546.2	1550.1	1557.0	1556.0	1551.1
12.5°	1529.6	1532.5	1540.4	1540.4	1537.4
15°	1505.2	1511.0	1520.8	1526.7	1522.8
17.5°	1479.8	1485.7	1498.4	1504.2	1502.3
20°	1451.5	1456.4	1469.0	1477.8	1473.9
22.5°	1416.3	1422.2	1436.8	1446.6	1442.7
25°	1377.2	1386.0	1401.7	1416.3	1411.4
27.5°	1338.2	1347.9	1367.5	1382.1	1380.2
30°	1295.2	1307.9	1328.4	1347.0	1343.0
32.5°	1251.2	1265.9	1287.4	1306.9	1305.9
35°	1205.3	1221.0	1244.4	1266.9	1265.9
37.5°	1156.5	1175.0	1199.5	1223.9	1224.9
40°	1108.6	1126.2	1153.6	1179.9	1180.9
42.5°	1057.8	1076.4	1105.7	1133.0	1134.0
45°	1004.1	1025.6	1054.9	1084.2	1089.1
47.5°	949.4	971.9	1002.2	1033.4	1039.3
50°	892.8	916.2	948.4	981.6	987.5
52.5°	835.1	859.5	892.8	926.0	934.8
55°	778.5	800.9	837.1	873.2	881.0
57.5°	718.9	739.4	778.5	816.6	826.3
60°	653.5	678.8	718.9	757.0	772.6
62.5°	590.0	617.3	658.3	696.4	714.0
65°	526.5	553.8	595.8	635.9	653.5
67.5°	462.0	490.3	535.3	573.4	592.9
70°	397.5	425.9	468.8	509.9	530.4
72.5°	333.1	363.4	405.4	447.4	467.9
75°	267.6	298.9	341.9	382.9	408.3
77.5°	206.1	236.4	279.4	321.4	342.8
80°	147.5	177.8	219.8	261.8	284.2
82.5°	93.8	122.1	163.1	198.3	218.8
85°	48.8	72.3	103.5	115.3	128.9
87.5°	14.7	28.3	40.0	44.9	55.7
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	15.0	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	19.3	19.6
	4H	17.0	18.4	17.4	18.7	19.1	18.3	19.7	18.7	20.1	20.5
	6H	17.4	18.7	17.8	19.1	19.5	19.1	20.4	19.5	20.8	21.2
	8H	17.5	18.8	17.9	19.1	19.5	19.4	20.7	19.8	21.0	21.4
	12H	17.5	18.8	18.0	19.1	19.6	19.6	20.8	20.0	21.2	21.6
4H	2H	15.4	16.8	15.8	17.1	17.5	15.9	17.4	16.3	17.7	18.1
	3H	17.4	18.5	17.8	18.9	19.3	18.3	19.5	18.7	19.9	20.3
	4H	18.1	19.2	18.5	19.6	20.0	19.3	20.4	19.7	20.8	21.2
	6H	18.6	19.6	19.1	20.0	20.5	20.2	21.2	20.7	21.6	22.1
	8H	18.8	19.7	19.2	20.1	20.6	20.6	21.5	21.1	21.9	22.4
	12H	18.9	19.7	19.4	20.2	20.6	20.9	21.7	21.4	22.2	22.6
8H	4H	18.6	19.4	19.0	19.9	20.4	19.6	20.5	20.1	20.9	21.4
	6H	19.2	20.0	19.7	20.5	20.9	20.7	21.4	21.2	21.9	22.4
	8H	19.5	20.1	20.0	20.6	21.1	21.2	21.8	21.7	22.3	22.8
	12H	19.6	20.2	20.1	20.7	21.2	21.5	22.1	22.1	22.6	23.2
12H	4H	18.6	19.4	19.1	19.9	20.4	19.6	20.4	20.1	20.9	21.4
	6H	19.4	20.0	19.9	20.5	21.0	20.8	21.4	21.3	21.9	22.4
	8H	19.7	20.2	20.2	20.7	21.3	21.3	21.9	21.8	22.4	22.9

(END OF REPORT)