

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: P1589809

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

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1589809
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-L945
Description: 2x4 CZSP LED Luminaire, 4500K CCT and 4500 lumens, 90CRI, Ribbed Lens, SB housing
Light Source: -
Ballast/Driver: -

Summary

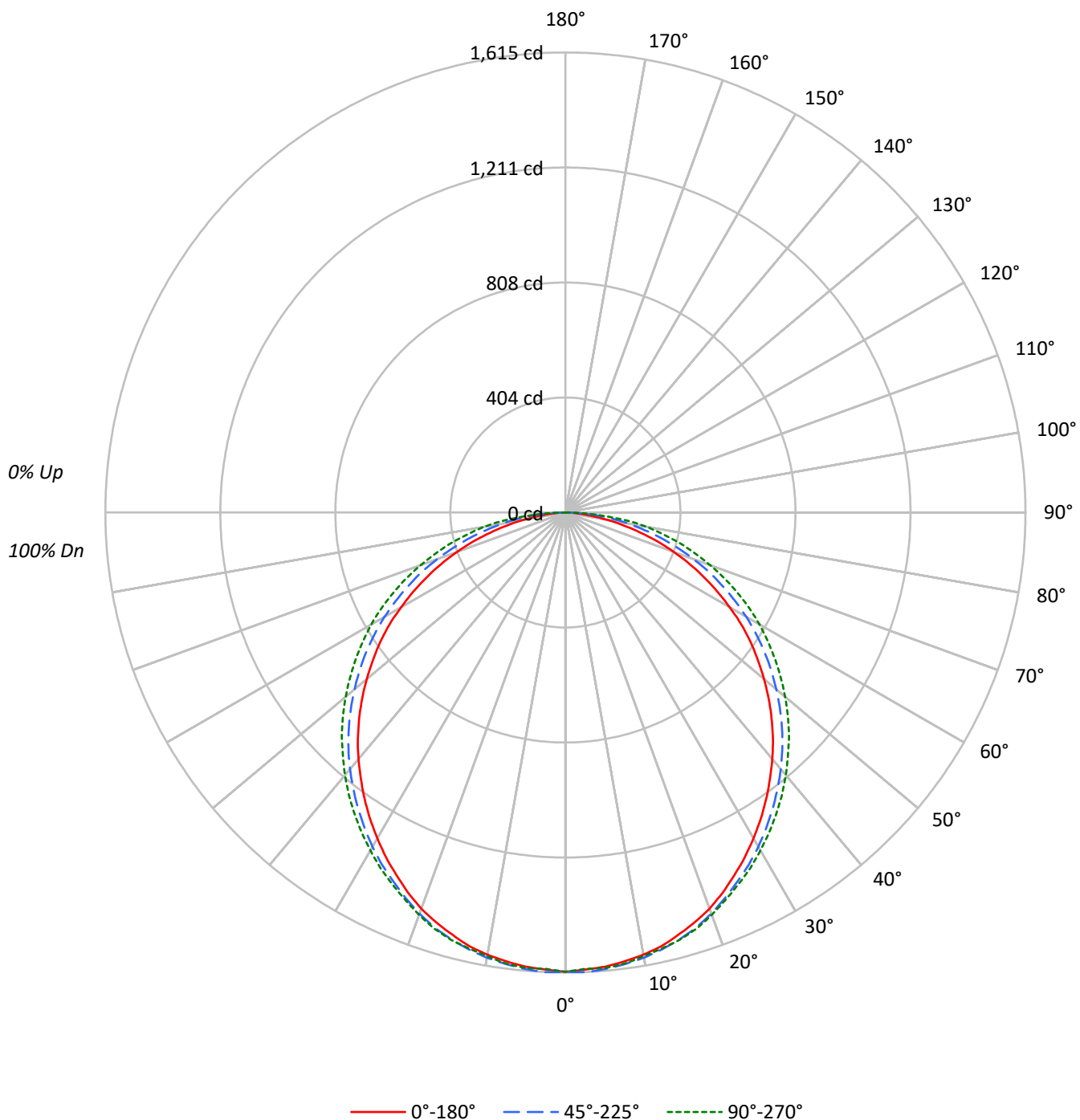
Lumens per Lamp: N/A
Luminaire Lumens: 4705.0 lumens
Efficiency: N/A
Efficacy: 141.3 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.26 / 1.38
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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°	2469	2469	2469
5°	2460	2474	2468
10°	2452	2469	2459
15°	2433	2459	2462
20°	2412	2441	2449
25°	2373	2415	2432
30°	2335	2395	2422
35°	2298	2372	2413
40°	2260	2351	2407
45°	2217	2330	2405
50°	2169	2304	2399
55°	2119	2279	2398
60°	2041	2245	2413
65°	1945	2201	2414
70°	1815	2141	2421
75°	1615	2062	2463
80°	1327	1977	2556
85°	875	1856	2309

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 2618 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.5	3.2
10°-20°	436.5	9.3
20°-30°	658.0	14.0
30°-40°	792.3	16.8
40°-50°	827.8	17.6
50°-60°	760.5	16.2
60°-70°	598.9	12.7
70°-80°	367.2	7.8
80°-90°	111.3	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°	1247.0	26.5
0°-40°	2039.3	43.3
0°-60°	3627.6	77.1
0°-90°	4705.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4705.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1612	1612	1612	1612	1612	
5°	1600	1603	1609	1607	1605	152
15°	1534	1540	1550	1556	1552	433
25°	1404	1413	1429	1444	1439	647
35°	1229	1245	1269	1292	1291	769
45°	1024	1046	1076	1105	1110	790
55°	794	817	853	890	898	708
65°	537	565	607	648	666	531
75°	273	305	348	390	416	290
85°	50	74	106	118	131	64
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1612.2	1612.2	1612.2	1612.2	1612.2
2.5°	1606.2	1610.2	1615.2	1607.2	1603.3
5°	1600.3	1603.3	1609.2	1607.2	1605.2
7.5°	1589.3	1591.3	1599.3	1599.3	1597.3
10°	1576.4	1580.3	1587.3	1586.3	1581.3
12.5°	1559.4	1562.4	1570.4	1570.4	1567.4
15°	1534.5	1540.5	1550.5	1556.4	1552.5
17.5°	1508.7	1514.6	1527.6	1533.5	1531.6
20°	1479.8	1484.8	1497.7	1506.7	1502.7
22.5°	1443.9	1449.9	1464.8	1474.8	1470.8
25°	1404.1	1413.1	1429.0	1443.9	1438.9
27.5°	1364.3	1374.2	1394.1	1409.1	1407.1
30°	1320.4	1333.4	1354.3	1373.2	1369.2
32.5°	1275.6	1290.6	1312.5	1332.4	1331.4
35°	1228.8	1244.8	1268.7	1291.6	1290.6
37.5°	1179.0	1198.0	1222.9	1247.7	1248.7
40°	1130.2	1148.2	1176.1	1202.9	1203.9
42.5°	1078.5	1097.4	1127.3	1155.1	1156.1
45°	1023.7	1045.6	1075.5	1105.3	1110.3
47.5°	967.9	990.8	1021.7	1053.6	1059.5
50°	910.2	934.1	966.9	1000.8	1006.8
52.5°	851.4	876.3	910.2	944.0	953.0
55°	793.7	816.6	853.4	890.3	898.2
57.5°	732.9	753.8	793.7	832.5	842.5
60°	666.2	692.1	732.9	771.8	787.7
62.5°	601.5	629.4	671.2	710.0	727.9
65°	536.7	564.6	607.4	648.3	666.2
67.5°	471.0	499.9	545.7	584.5	604.5
70°	405.3	434.2	478.0	519.8	540.7
72.5°	339.6	370.4	413.3	456.1	477.0
75°	272.9	304.7	348.5	390.4	416.2
77.5°	210.1	241.0	284.8	327.6	349.5
80°	150.4	181.2	224.1	266.9	289.8
82.5°	95.6	124.5	166.3	202.1	223.1
85°	49.8	73.7	105.6	117.5	131.4
87.5°	14.9	28.9	40.8	45.8	56.8
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	14.7	16.3	15.0	16.6	16.9	15.4	17.1	15.8	17.4	17.7
	3H	16.4	17.9	16.8	18.3	18.6	17.5	19.0	17.9	19.3	19.7
	4H	17.0	18.5	17.4	18.8	19.2	18.4	19.8	18.8	20.1	20.5
	6H	17.5	18.8	17.9	19.1	19.5	19.1	20.5	19.6	20.8	21.2
	8H	17.6	18.8	18.0	19.2	19.6	19.5	20.7	19.9	21.1	21.5
	12H	17.6	18.8	18.0	19.2	19.6	19.7	20.9	20.1	21.3	21.7
4H	2H	15.4	16.8	15.8	17.2	17.6	16.0	17.4	16.4	17.8	18.1
	3H	17.4	18.6	17.8	19.0	19.4	18.3	19.5	18.7	19.9	20.3
	4H	18.2	19.3	18.6	19.7	20.1	19.4	20.5	19.8	20.9	21.3
	6H	18.7	19.7	19.2	20.1	20.6	20.3	21.3	20.8	21.7	22.1
	8H	18.9	19.7	19.3	20.2	20.7	20.7	21.6	21.1	22.0	22.5
	12H	18.9	19.7	19.4	20.2	20.7	21.0	21.8	21.4	22.2	22.7
8H	4H	18.6	19.5	19.1	20.0	20.4	19.7	20.6	20.1	21.0	21.5
	6H	19.3	20.0	19.8	20.5	21.0	20.8	21.5	21.2	22.0	22.5
	8H	19.5	20.2	20.0	20.7	21.2	21.2	21.9	21.7	22.4	22.9
	12H	19.7	20.3	20.2	20.8	21.3	21.6	22.2	22.1	22.7	23.3
12H	4H	18.7	19.5	19.2	20.0	20.5	19.7	20.5	20.2	21.0	21.4
	6H	19.4	20.1	20.0	20.6	21.1	20.8	21.5	21.3	21.9	22.5
	8H	19.7	20.3	20.2	20.8	21.4	21.4	21.9	21.9	22.4	23.0

(END OF REPORT)