

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: P1589810

Luminaire Tested: 24CZSP-SB-49HE-L950-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1589810
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-L950-S
Description: 2x4 CZSP LED Luminaire, 5000K CCT and 4500 lumens, 90CRI, Smooth Lens, SB housing
Light Source: -
Ballast/Driver: -

Summary

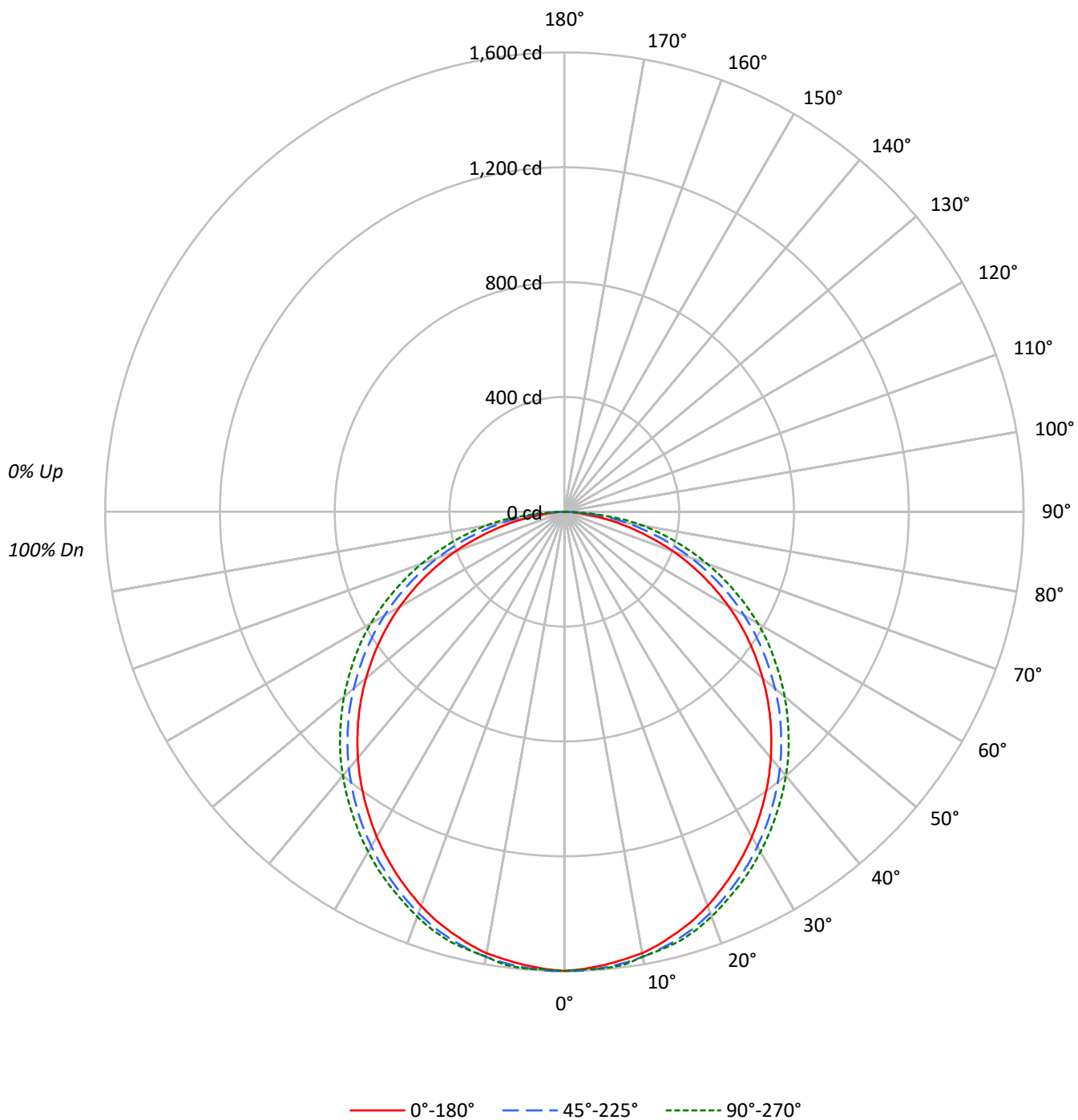
Lumens per Lamp: N/A
Luminaire Lumens: 4653.0 lumens
Efficiency: N/A
Efficacy: 139.7 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.38
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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°	2450	2450	2450
5°	2436	2450	2455
10°	2429	2449	2447
15°	2406	2441	2455
20°	2380	2424	2446
25°	2346	2400	2431
30°	2312	2379	2418
35°	2274	2356	2407
40°	2238	2335	2400
45°	2196	2311	2394
50°	2149	2282	2388
55°	2096	2253	2384
60°	2030	2220	2385
65°	1937	2173	2372
70°	1811	2107	2367
75°	1605	2026	2375
80°	1306	1925	2446
85°	844	1777	2111

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 2478 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.4	3.3
10°-20°	433.5	9.3
20°-30°	653.6	14.0
30°-40°	786.4	16.9
40°-50°	820.3	17.6
50°-60°	751.9	16.2
60°-70°	590.4	12.7
70°-80°	359.3	7.7
80°-90°	106.3	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°	1238.4	26.6
0°-40°	2024.8	43.5
0°-60°	3597.0	77.3
0°-90°	4653.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4653.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1600	1600	1600	1600	1600	
5°	1584	1594	1594	1592	1596	151
15°	1518	1532	1540	1542	1548	428
25°	1388	1407	1420	1429	1438	640
35°	1216	1235	1260	1278	1287	761
45°	1014	1035	1067	1092	1105	782
55°	785	805	844	878	893	701
65°	534	554	600	640	655	529
75°	271	296	342	383	401	288
85°	48	68	101	113	120	63
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1599.5	1599.5	1599.5	1599.5	1599.5
2.5°	1593.5	1601.5	1599.5	1592.5	1595.5
5°	1584.5	1594.5	1593.5	1591.5	1596.5
7.5°	1573.5	1584.5	1585.5	1585.5	1591.5
10°	1561.5	1572.5	1574.5	1571.5	1573.5
12.5°	1541.5	1554.5	1558.5	1558.5	1561.5
15°	1517.5	1532.5	1539.5	1541.5	1548.5
17.5°	1491.4	1507.5	1516.5	1521.5	1527.5
20°	1460.4	1477.4	1487.4	1493.4	1500.4
22.5°	1425.4	1444.4	1455.4	1461.4	1469.4
25°	1388.3	1407.4	1420.4	1429.4	1438.4
27.5°	1349.3	1367.3	1385.3	1396.3	1404.4
30°	1307.3	1326.3	1345.3	1359.3	1367.3
32.5°	1262.2	1282.2	1304.3	1319.3	1328.3
35°	1216.2	1235.2	1260.2	1278.2	1287.2
37.5°	1169.1	1189.1	1215.2	1234.2	1245.2
40°	1119.1	1140.1	1168.1	1189.1	1200.2
42.5°	1067.0	1087.0	1118.1	1142.1	1155.1
45°	1014.0	1035.0	1067.0	1092.1	1105.1
47.5°	958.9	978.9	1014.0	1043.0	1054.0
50°	901.9	920.9	957.9	989.0	1002.0
52.5°	843.8	863.8	900.9	933.9	947.9
55°	784.8	804.8	843.8	877.8	892.9
57.5°	724.7	744.7	784.8	819.8	837.8
60°	662.6	682.7	724.7	760.7	778.7
62.5°	598.6	619.6	662.6	699.7	718.7
65°	534.5	554.5	599.6	639.6	654.6
67.5°	470.5	490.5	534.5	574.6	592.6
70°	404.4	427.4	470.5	512.5	528.5
72.5°	335.3	361.3	404.4	448.4	464.4
75°	271.3	296.3	342.3	383.4	401.4
77.5°	208.2	235.2	278.3	320.3	338.3
80°	148.1	174.2	218.2	258.2	277.3
82.5°	94.1	117.1	161.2	197.2	211.2
85°	48.0	68.1	101.1	113.1	120.1
87.5°	14.0	24.0	36.0	45.0	50.0
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	16.3	15.0	16.6	16.9	15.3	17.0	15.7	17.3	17.6
	3H	16.4	17.9	16.8	18.2	18.6	17.4	18.9	17.8	19.3	19.6
	4H	17.0	18.4	17.4	18.8	19.1	18.3	19.7	18.7	20.1	20.4
	6H	17.4	18.7	17.8	19.1	19.5	19.0	20.4	19.4	20.7	21.1
	8H	17.5	18.8	17.9	19.2	19.6	19.3	20.6	19.8	21.0	21.4
	12H	17.6	18.8	18.0	19.2	19.6	19.5	20.7	20.0	21.1	21.5
4H	2H	15.4	16.8	15.8	17.1	17.5	16.0	17.4	16.4	17.7	18.1
	3H	17.4	18.6	17.8	19.0	19.4	18.3	19.5	18.7	19.9	20.3
	4H	18.1	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	21.1	20.6	21.6	22.0
	8H	18.8	19.7	19.2	20.1	20.6	20.6	21.4	21.0	21.9	22.4
	12H	18.9	19.7	19.3	20.1	20.6	20.8	21.6	21.3	22.1	22.6
8H	4H	18.6	19.4	19.0	19.9	20.4	19.6	20.5	20.0	20.9	21.4
	6H	19.2	20.0	19.7	20.5	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	20.2	20.1	20.6	21.2	21.5	22.1	22.0	22.5	23.1
12H	4H	18.6	19.4	19.1	19.9	20.4	19.6	20.4	20.1	20.9	21.4
	6H	19.4	20.0	19.9	20.5	21.0	20.7	21.4	21.2	21.8	22.4
	8H	19.6	20.2	20.1	20.7	21.3	21.2	21.8	21.7	22.3	22.9

(END OF REPORT)