

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: P1589807

Luminaire Tested: 24CZSP-SB-49HE-L940

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1589807
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-L940
Description: 2x4 CZSP LED Luminaire, 4000K CCT and 4500 lumens, 90CRI, Ribbed Lens, SB housing
Light Source: -
Ballast/Driver: -

Summary

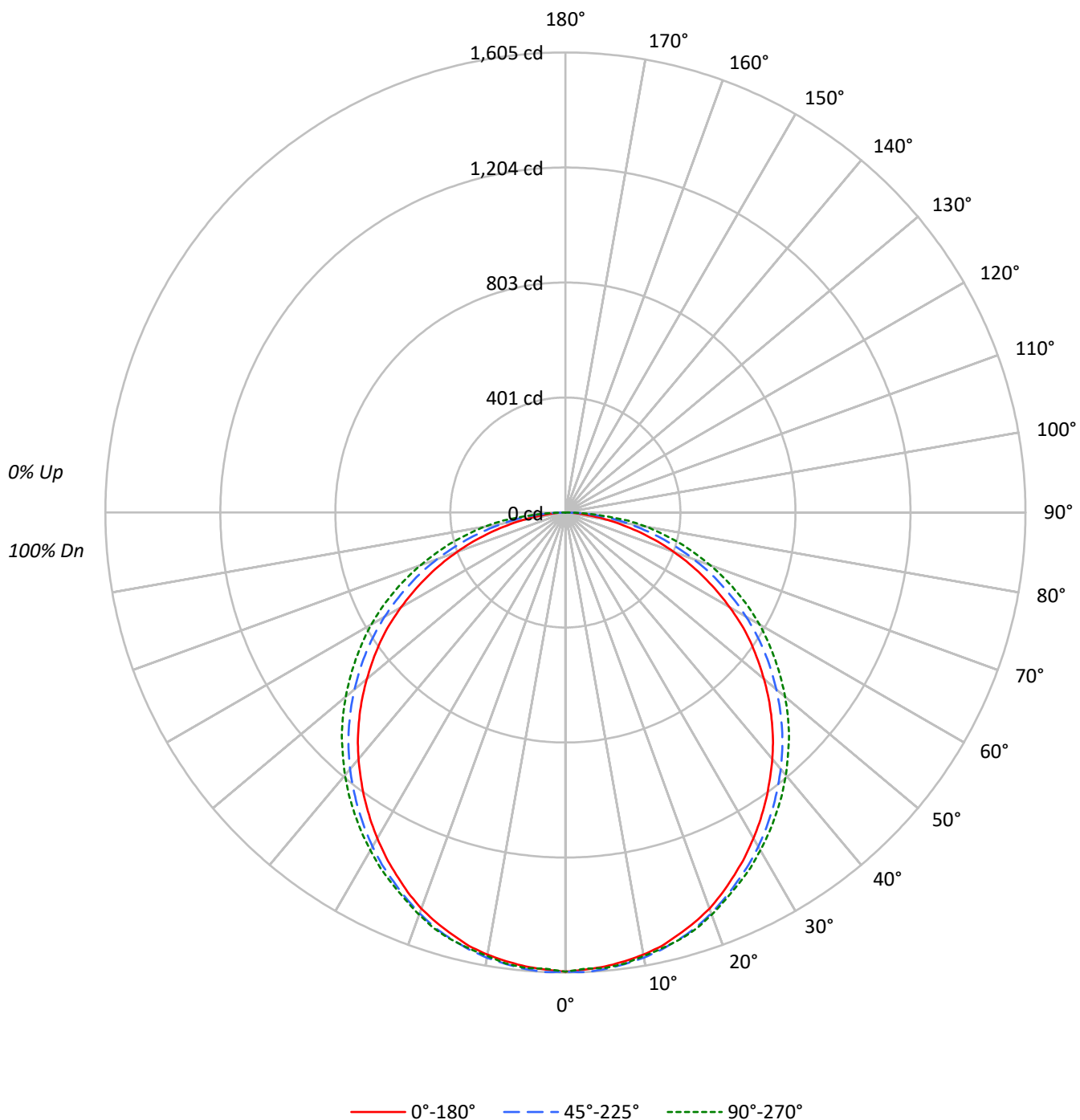
Lumens per Lamp: N/A
Luminaire Lumens: 4675.0 lumens
Efficiency: N/A
Efficacy: 140.4 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.26 / 1.38
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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°	2454	2454	2454
5°	2445	2458	2452
10°	2436	2453	2444
15°	2418	2443	2446
20°	2396	2425	2434
25°	2358	2400	2416
30°	2320	2380	2406
35°	2283	2357	2398
40°	2245	2336	2392
45°	2203	2315	2390
50°	2155	2289	2384
55°	2106	2264	2383
60°	2028	2231	2398
65°	1933	2188	2399
70°	1803	2127	2406
75°	1604	2049	2448
80°	1318	1963	2539
85°	870	1843	2295

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 2600 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.5	3.2
10°-20°	433.7	9.3
20°-30°	653.8	14.0
30°-40°	787.3	16.8
40°-50°	822.5	17.6
50°-60°	755.7	16.2
60°-70°	595.1	12.7
70°-80°	364.8	7.8
80°-90°	110.6	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°	1239.0	26.5
0°-40°	2026.3	43.3
0°-60°	3604.5	77.1
0°-90°	4675.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4675.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1602	1602	1602	1602	1602	
5°	1590	1593	1599	1597	1595	151
15°	1525	1531	1541	1546	1543	430
25°	1395	1404	1420	1435	1430	643
35°	1221	1237	1261	1283	1282	764
45°	1017	1039	1069	1098	1103	785
55°	789	811	848	885	892	704
65°	533	561	604	644	662	527
75°	271	303	346	388	414	288
85°	50	73	105	117	131	64
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1601.9	1601.9	1601.9	1601.9	1601.9
2.5°	1596.0	1600.0	1604.9	1597.0	1593.0
5°	1590.1	1593.0	1599.0	1597.0	1595.0
7.5°	1579.2	1581.2	1589.1	1589.1	1587.1
10°	1566.3	1570.3	1577.2	1576.2	1571.3
12.5°	1549.5	1552.5	1560.4	1560.4	1557.4
15°	1524.8	1530.7	1540.6	1546.5	1542.6
17.5°	1499.0	1505.0	1517.8	1523.8	1521.8
20°	1470.3	1475.3	1488.1	1497.1	1493.1
22.5°	1434.7	1440.7	1455.5	1465.4	1461.4
25°	1395.1	1404.0	1419.9	1434.7	1429.8
27.5°	1355.6	1365.5	1385.2	1400.1	1398.1
30°	1312.0	1324.9	1345.7	1364.5	1360.5
32.5°	1267.5	1282.3	1304.1	1323.9	1322.9
35°	1221.0	1236.8	1260.6	1283.3	1282.3
37.5°	1171.5	1190.3	1215.1	1239.8	1240.8
40°	1123.0	1140.8	1168.6	1195.3	1196.3
42.5°	1071.6	1090.4	1120.1	1147.8	1148.8
45°	1017.2	1038.9	1068.6	1098.3	1103.2
47.5°	961.8	984.5	1015.2	1046.8	1052.8
50°	904.4	928.1	960.8	994.4	1000.3
52.5°	846.0	870.7	904.4	938.0	946.9
55°	788.6	811.4	848.0	884.6	892.5
57.5°	728.2	749.0	788.6	827.2	837.1
60°	661.9	687.7	728.2	766.8	782.7
62.5°	597.6	625.3	666.9	705.5	723.3
65°	533.3	561.0	603.6	644.1	661.9
67.5°	468.0	496.7	542.2	580.8	600.6
70°	402.7	431.4	474.9	516.5	537.3
72.5°	337.4	368.1	410.6	453.2	474.0
75°	271.1	302.8	346.3	387.9	413.6
77.5°	208.8	239.4	283.0	325.5	347.3
80°	149.4	180.1	222.6	265.2	287.9
82.5°	95.0	123.7	165.2	200.9	221.6
85°	49.5	73.2	104.9	116.8	130.6
87.5°	14.8	28.7	40.6	45.5	56.4
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	15.4	17.0	15.7	17.4	17.7
	3H	16.4	17.9	16.8	18.2	18.6	17.5	19.0	17.9	19.3	19.7
	4H	17.0	18.4	17.4	18.8	19.2	18.4	19.8	18.8	20.1	20.5
	6H	17.4	18.8	17.8	19.1	19.5	19.1	20.4	19.5	20.8	21.2
	8H	17.5	18.8	18.0	19.2	19.6	19.4	20.7	19.9	21.1	21.5
	12H	17.6	18.8	18.0	19.2	19.6	19.6	20.9	20.1	21.2	21.7
4H	2H	15.4	16.8	15.8	17.2	17.5	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	18.1	19.2	18.6	19.6	20.1	19.3	20.4	19.8	20.8	21.3
	6H	18.7	19.6	19.1	20.1	20.5	20.3	21.2	20.7	21.7	22.1
	8H	18.8	19.7	19.3	20.2	20.6	20.7	21.6	21.1	22.0	22.5
	12H	18.9	19.7	19.4	20.2	20.7	20.9	21.7	21.4	22.2	22.7
8H	4H	18.6	19.5	19.1	19.9	20.4	19.6	20.5	20.1	21.0	21.4
	6H	19.3	20.0	19.8	20.5	21.0	20.7	21.5	21.2	22.0	22.4
	8H	19.5	20.2	20.0	20.7	21.2	21.2	21.9	21.7	22.4	22.9
	12H	19.6	20.2	20.2	20.7	21.3	21.6	22.2	22.1	22.7	23.2
12H	4H	18.7	19.5	19.2	20.0	20.4	19.7	20.5	20.2	21.0	21.4
	6H	19.4	20.1	19.9	20.6	21.1	20.8	21.5	21.3	21.9	22.5
	8H	19.7	20.3	20.2	20.8	21.3	21.3	21.9	21.8	22.4	23.0

(END OF REPORT)