

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: P1589802

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

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1589802
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-L930-S
Description: 2x4 CZSP LED Luminaire, 3000K CCT and 4500 lumens, 90CRI, Smooth Lens, SB housing
Light Source: -
Ballast/Driver: -

Summary

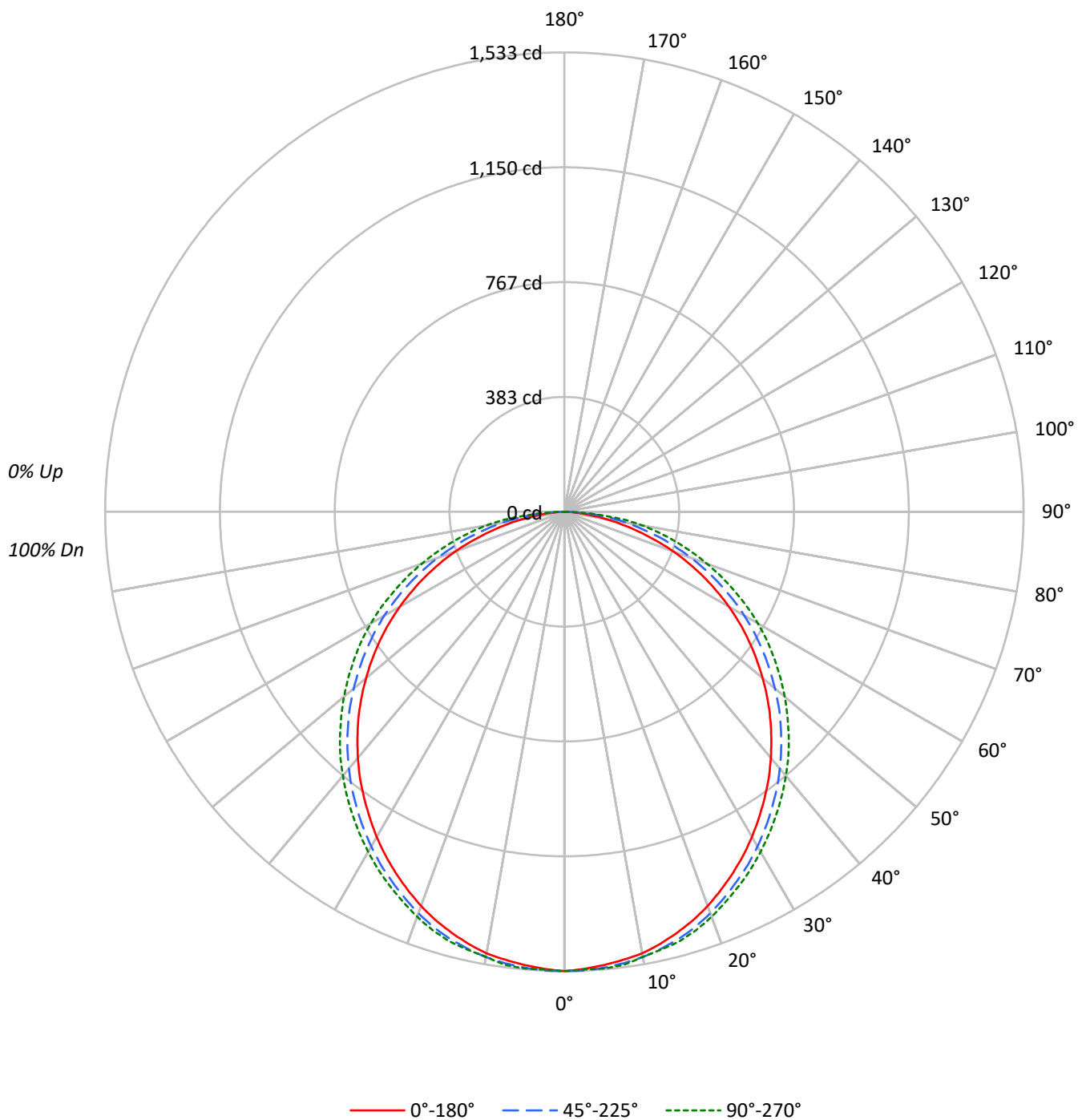
Lumens per Lamp: N/A
Luminaire Lumens: 4459.0 lumens
Efficiency: N/A
Efficacy: 133.9 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.38
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1589802

CATALOG NUMBER: 24CZSP-SB-49HE-L930-S

Luminous Intensity Polar Plot



TEST NUMBER: P1589802

CATALOG NUMBER: 24CZSP-SB-49HE-L930-S

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°	2348	2348	2348
5°	2335	2348	2352
10°	2327	2347	2345
15°	2306	2339	2353
20°	2281	2323	2344
25°	2248	2300	2329
30°	2216	2280	2317
35°	2179	2258	2307
40°	2144	2238	2300
45°	2105	2215	2294
50°	2059	2187	2288
55°	2008	2159	2285
60°	1945	2127	2286
65°	1856	2082	2273
70°	1735	2019	2268
75°	1539	1942	2277
80°	1252	1844	2344
85°	808	1703	2023

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 2375 cd/sqm

TEST NUMBER: P1589802

CATALOG NUMBER: 24CZSP-SB-49HE-L930-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.1	3.3
10°-20°	415.4	9.3
20°-30°	626.3	14.0
30°-40°	753.6	16.9
40°-50°	786.1	17.6
50°-60°	720.5	16.2
60°-70°	565.8	12.7
70°-80°	344.4	7.7
80°-90°	101.9	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°	1186.8	26.6
0°-40°	1940.4	43.5
0°-60°	3447.0	77.3
0°-90°	4459.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4459.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1533	1533	1533	1533	1533	
5°	1518	1528	1527	1525	1530	144
15°	1454	1469	1475	1477	1484	410
25°	1330	1349	1361	1370	1378	613
35°	1166	1184	1208	1225	1234	729
45°	972	992	1022	1046	1059	749
55°	752	771	809	841	856	672
65°	512	531	575	613	627	507
75°	260	284	328	367	385	276
85°	46	65	97	108	115	60
90°	0	0	0	0	0	

TEST NUMBER: P1589802

CATALOG NUMBER: 24CZSP-SB-49HE-L930-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1532.8	1532.8	1532.8	1532.8	1532.8
2.5°	1527.1	1534.8	1532.8	1526.1	1529.0
5°	1518.5	1528.1	1527.1	1525.2	1530.0
7.5°	1507.9	1518.5	1519.4	1519.4	1525.2
10°	1496.4	1507.0	1508.9	1506.0	1507.9
12.5°	1477.2	1489.7	1493.5	1493.5	1496.4
15°	1454.2	1468.6	1475.3	1477.2	1483.9
17.5°	1429.3	1444.6	1453.2	1458.0	1463.8
20°	1399.5	1415.8	1425.4	1431.2	1437.9
22.5°	1365.9	1384.2	1394.7	1400.5	1408.1
25°	1330.5	1348.7	1361.1	1369.8	1378.4
27.5°	1293.0	1310.3	1327.6	1338.1	1345.8
30°	1252.8	1271.0	1289.2	1302.6	1310.3
32.5°	1209.6	1228.8	1249.9	1264.3	1272.9
35°	1165.5	1183.7	1207.7	1224.9	1233.6
37.5°	1120.4	1139.6	1164.5	1182.7	1193.3
40°	1072.4	1092.6	1119.4	1139.6	1150.1
42.5°	1022.5	1041.7	1071.5	1094.5	1107.0
45°	971.7	991.8	1022.5	1046.5	1059.0
47.5°	918.9	938.1	971.7	999.5	1010.1
50°	864.3	882.5	918.0	947.7	960.2
52.5°	808.6	827.8	863.3	895.0	908.4
55°	752.0	771.2	808.6	841.2	855.6
57.5°	694.5	713.7	752.0	785.6	802.9
60°	635.0	654.2	694.5	729.0	746.3
62.5°	573.6	593.8	635.0	670.5	688.7
65°	512.2	531.4	574.6	612.9	627.3
67.5°	450.8	470.0	512.2	550.6	567.9
70°	387.5	409.6	450.8	491.1	506.5
72.5°	321.3	346.3	387.5	429.7	445.1
75°	260.0	283.9	328.1	367.4	384.7
77.5°	199.5	225.4	266.7	307.0	324.2
80°	142.0	166.9	209.1	247.5	265.7
82.5°	90.2	112.2	154.4	189.0	202.4
85°	46.0	65.2	96.9	108.4	115.1
87.5°	13.4	23.0	34.5	43.2	48.0
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1589802

CATALOG NUMBER: 24CZSP-SB-49HE-L930-S

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	16.1	14.8	16.4	16.8	15.2	16.9	15.6	17.2	17.5
	3H	16.2	17.7	16.6	18.1	18.4	17.3	18.8	17.7	19.1	19.5
	4H	16.9	18.3	17.3	18.6	19.0	18.1	19.6	18.5	19.9	20.3
	6H	17.3	18.6	17.7	18.9	19.3	18.9	20.2	19.3	20.6	21.0
	8H	17.4	18.6	17.8	19.0	19.4	19.2	20.4	19.6	20.8	21.2
	12H	17.4	18.6	17.8	19.0	19.4	19.4	20.6	19.8	21.0	21.4
4H	2H	15.2	16.7	15.6	17.0	17.4	15.8	17.2	16.2	17.6	17.9
	3H	17.2	18.4	17.6	18.8	19.2	18.1	19.3	18.5	19.7	20.1
	4H	18.0	19.1	18.4	19.5	19.9	19.1	20.2	19.6	20.6	21.1
	6H	18.5	19.4	18.9	19.9	20.3	20.0	21.0	20.5	21.4	21.9
	8H	18.6	19.5	19.1	20.0	20.4	20.4	21.3	20.9	21.7	22.2
	12H	18.7	19.5	19.2	20.0	20.5	20.7	21.5	21.1	21.9	22.4
8H	4H	18.4	19.3	18.9	19.7	20.2	19.4	20.3	19.9	20.8	21.2
	6H	19.1	19.8	19.6	20.3	20.8	20.5	21.2	21.0	21.7	22.2
	8H	19.3	20.0	19.8	20.5	20.9	21.0	21.6	21.5	22.1	22.6
	12H	19.4	20.0	19.9	20.5	21.1	21.3	21.9	21.8	22.4	23.0
12H	4H	18.5	19.3	19.0	19.8	20.2	19.5	20.3	19.9	20.7	21.2
	6H	19.2	19.9	19.7	20.3	20.9	20.6	21.2	21.1	21.7	22.2
	8H	19.5	20.1	20.0	20.6	21.1	21.1	21.7	21.6	22.2	22.7

(END OF REPORT)