

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: P1589806

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

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1589806
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-L940-S
Description: 2x4 CZSP LED Luminaire, 4000K CCT and 4500 lumens, 90CRI, Smooth Lens, SB housing
Light Source: -
Ballast/Driver: -

Summary

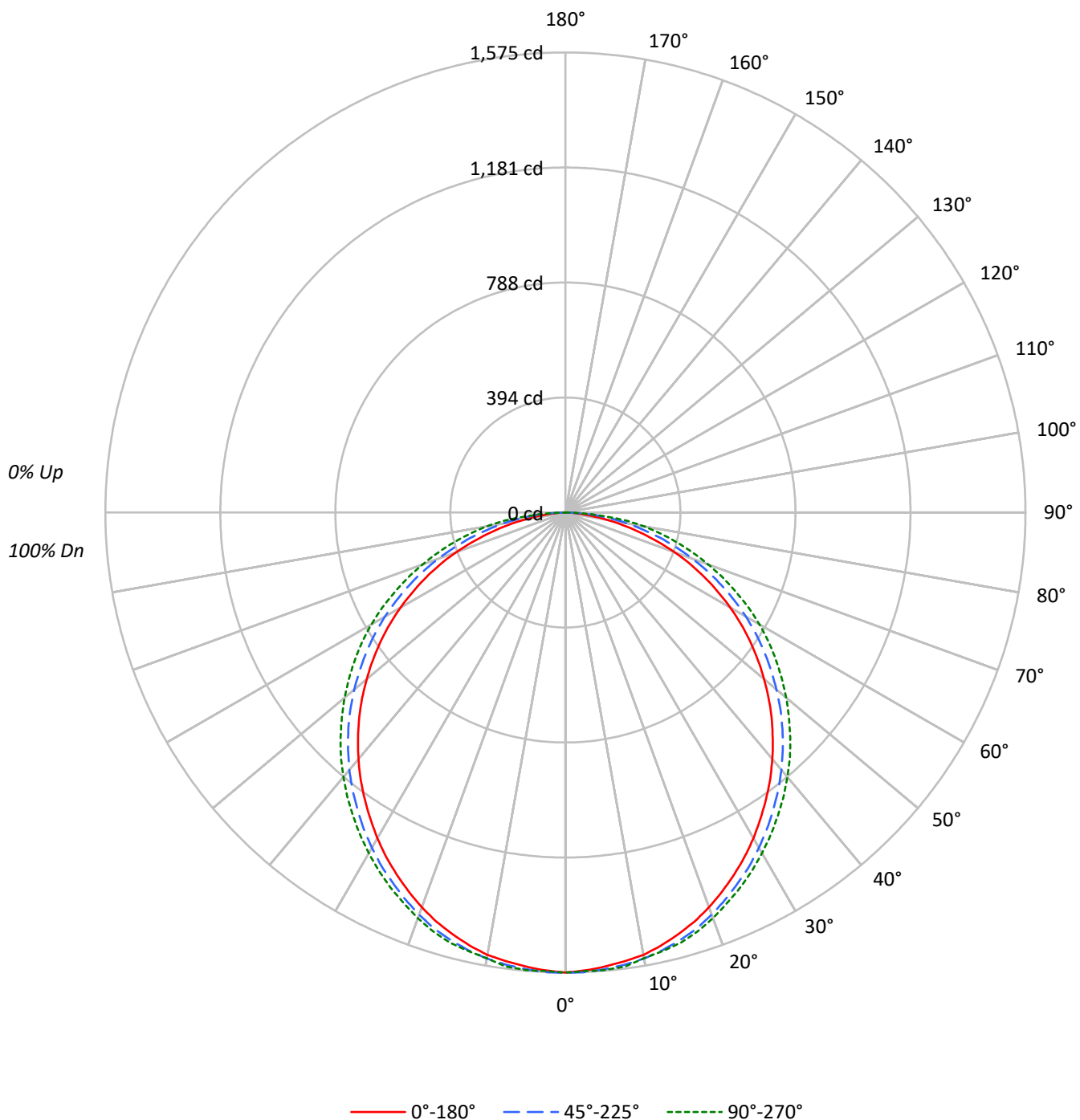
Lumens per Lamp: N/A
Luminaire Lumens: 4582.0 lumens
Efficiency: N/A
Efficacy: 137.6 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.38
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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: P1589806

CATALOG NUMBER: 24CZSP-SB-49HE-L940-S

Luminous Intensity Polar Plot



TEST NUMBER: P1589806

CATALOG NUMBER: 24CZSP-SB-49HE-L940-S

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	94	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	69
3	89	79	70	64	87	77	69	63	74	67	62		71	66	61		69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53		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	45	39		50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35		47	40	35		45	39	35	33
8	60	46	38	32	58	45	37	31	44	37	31		43	36	31		42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26		37	30	25		36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2412	2412	2412
5°	2399	2413	2417
10°	2392	2411	2410
15°	2369	2404	2418
20°	2344	2387	2408
25°	2311	2364	2394
30°	2277	2343	2381
35°	2239	2320	2370
40°	2203	2300	2363
45°	2163	2276	2357
50°	2116	2248	2351
55°	2064	2219	2348
60°	1999	2186	2349
65°	1908	2140	2336
70°	1783	2075	2330
75°	1581	1995	2339
80°	1287	1895	2408
85°	831	1750	2079

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 2441 cd/sqm

TEST NUMBER: P1589806

CATALOG NUMBER: 24CZSP-SB-49HE-L940-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.1	3.3
10°-20°	426.9	9.3
20°-30°	643.6	14.0
30°-40°	774.4	16.9
40°-50°	807.8	17.6
50°-60°	740.4	16.2
60°-70°	581.4	12.7
70°-80°	353.8	7.7
80°-90°	104.7	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°	1219.5	26.6
0°-40°	1993.9	43.5
0°-60°	3542.1	77.3
0°-90°	4582.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4582.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1575	1575	1575	1575	1575	
5°	1560	1570	1569	1567	1572	148
15°	1494	1509	1516	1518	1525	422
25°	1367	1386	1399	1408	1416	630
35°	1198	1216	1241	1259	1268	749
45°	998	1019	1051	1075	1088	770
55°	773	792	831	864	879	691
65°	526	546	590	630	645	521
75°	267	292	337	378	395	283
85°	47	67	100	111	118	62
90°	0	0	0	0	0	

TEST NUMBER: P1589806

CATALOG NUMBER: 24CZSP-SB-49HE-L940-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1575.1	1575.1	1575.1	1575.1	1575.1
2.5°	1569.2	1577.1	1575.1	1568.2	1571.2
5°	1560.3	1570.2	1569.2	1567.2	1572.2
7.5°	1549.5	1560.3	1561.3	1561.3	1567.2
10°	1537.7	1548.5	1550.5	1547.5	1549.5
12.5°	1518.0	1530.8	1534.7	1534.7	1537.7
15°	1494.3	1509.1	1516.0	1518.0	1524.9
17.5°	1468.7	1484.4	1493.3	1498.2	1504.2
20°	1438.1	1454.9	1464.7	1470.6	1477.5
22.5°	1403.6	1422.4	1433.2	1439.1	1447.0
25°	1367.2	1385.9	1398.7	1407.6	1416.4
27.5°	1328.7	1346.5	1364.2	1375.0	1382.9
30°	1287.3	1306.0	1324.8	1338.6	1346.5
32.5°	1243.0	1262.7	1284.4	1299.1	1308.0
35°	1197.6	1216.3	1241.0	1258.7	1267.6
37.5°	1151.3	1171.0	1196.6	1215.4	1226.2
40°	1102.0	1122.7	1150.3	1171.0	1181.8
42.5°	1050.7	1070.5	1101.0	1124.7	1137.5
45°	998.5	1019.2	1050.7	1075.4	1088.2
47.5°	944.3	964.0	998.5	1027.1	1037.9
50°	888.1	906.8	943.3	973.9	986.7
52.5°	830.9	850.7	887.1	919.6	933.4
55°	772.8	792.5	830.9	864.5	879.2
57.5°	713.6	733.4	772.8	807.3	825.0
60°	652.5	672.2	713.6	749.1	766.9
62.5°	589.4	610.1	652.5	689.0	707.7
65°	526.4	546.1	590.4	629.9	644.6
67.5°	463.3	483.0	526.4	565.8	583.5
70°	398.2	420.9	463.3	504.7	520.4
72.5°	330.2	355.8	398.2	441.6	457.4
75°	267.1	291.8	337.1	377.5	395.3
77.5°	205.0	231.6	274.0	315.4	333.2
80°	145.9	171.5	214.9	254.3	273.0
82.5°	92.7	115.3	158.7	194.2	208.0
85°	47.3	67.0	99.6	111.4	118.3
87.5°	13.8	23.7	35.5	44.4	49.3
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1589806

CATALOG NUMBER: 24CZSP-SB-49HE-L940-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	14.6	16.2	14.9	16.5	16.8	15.3	17.0	15.7	17.3	17.6
	3H	16.3	17.8	16.7	18.2	18.5	17.4	18.9	17.8	19.2	19.6
	4H	16.9	18.4	17.3	18.7	19.1	18.2	19.7	18.6	20.0	20.4
	6H	17.4	18.7	17.8	19.0	19.4	19.0	20.3	19.4	20.7	21.1
	8H	17.5	18.7	17.9	19.1	19.5	19.3	20.5	19.7	20.9	21.3
	12H	17.5	18.7	17.9	19.1	19.5	19.5	20.7	19.9	21.1	21.5
4H	2H	15.3	16.7	15.7	17.1	17.5	15.9	17.3	16.3	17.7	18.0
	3H	17.3	18.5	17.7	18.9	19.3	18.2	19.4	18.6	19.8	20.2
	4H	18.1	19.1	18.5	19.6	20.0	19.2	20.3	19.7	20.7	21.2
	6H	18.6	19.5	19.0	20.0	20.4	20.1	21.1	20.6	21.5	22.0
	8H	18.7	19.6	19.2	20.1	20.5	20.5	21.4	21.0	21.8	22.3
	12H	18.8	19.6	19.3	20.1	20.6	20.8	21.6	21.2	22.0	22.5
8H	4H	18.5	19.4	19.0	19.8	20.3	19.5	20.4	20.0	20.9	21.3
	6H	19.2	19.9	19.7	20.4	20.9	20.6	21.3	21.1	21.8	22.3
	8H	19.4	20.0	19.9	20.6	21.0	21.1	21.7	21.6	22.2	22.7
	12H	19.5	20.1	20.0	20.6	21.2	21.4	22.0	21.9	22.5	23.0
12H	4H	18.6	19.4	19.1	19.9	20.3	19.6	20.4	20.0	20.8	21.3
	6H	19.3	20.0	19.8	20.4	21.0	20.7	21.3	21.2	21.8	22.3
	8H	19.6	20.2	20.1	20.7	21.2	21.2	21.8	21.7	22.3	22.8

(END OF REPORT)