

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: P1588330

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

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1588330
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2608-884-6)
Test Lab: INNOVATION CENTER
Issue Date: 9/3/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 24CZSP-49HE-L950-S
Description: 2x4 CZSP LED Luminaire, 5000K CCT and 4500 lumens, 90CRI, Smooth Lens
Light Source: -
Ballast/Driver: -

Summary

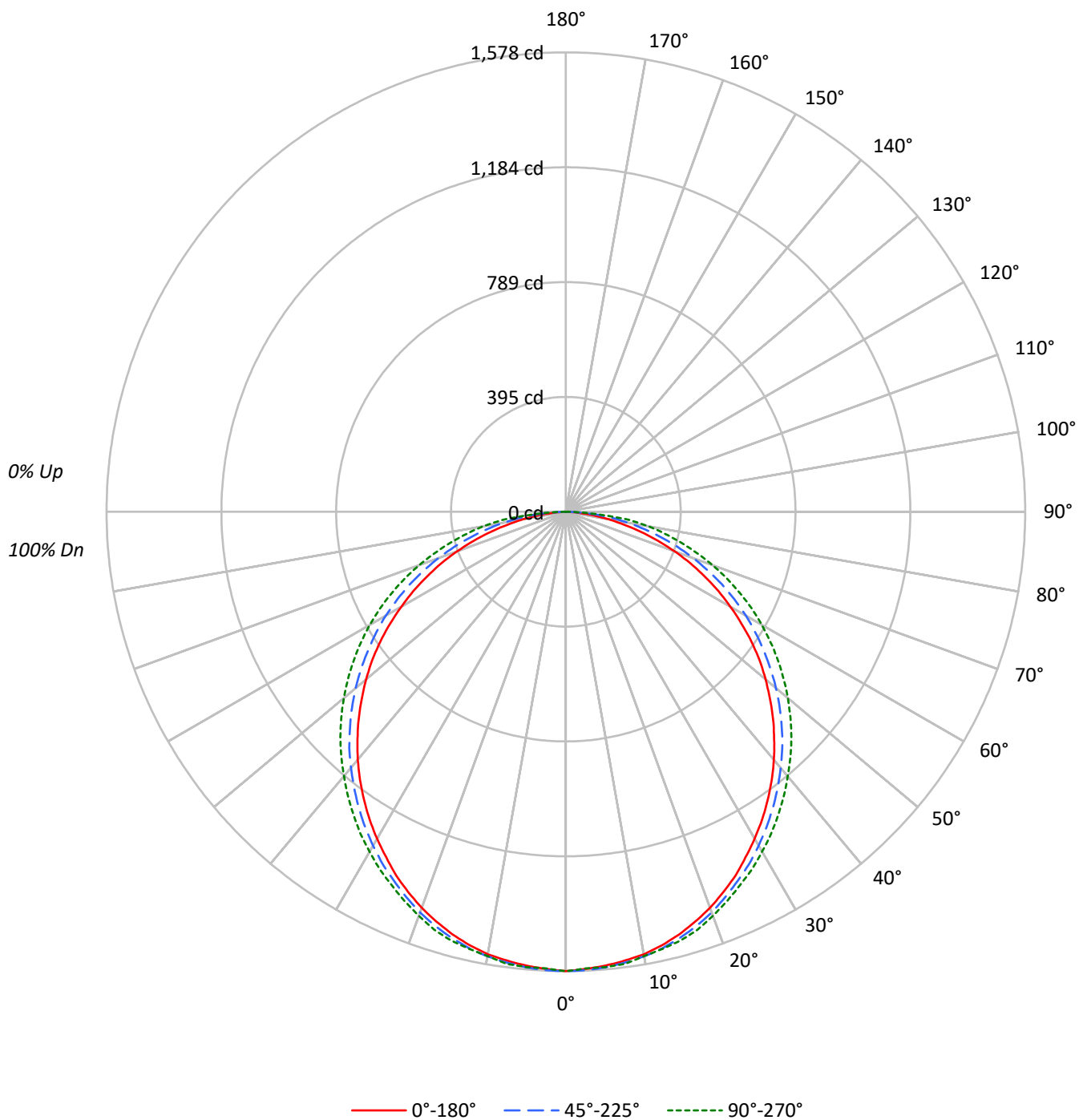
Lumens per Lamp: N/A
Luminaire Lumens: 4607.0 lumens
Efficiency: N/A
Efficacy: 138.3 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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: 24 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	50	30	10
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	69		
3	89	79	70	64	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°	2417	2417	2417
5°	2406	2415	2414
10°	2401	2412	2410
15°	2384	2403	2417
20°	2359	2388	2407
25°	2330	2363	2392
30°	2294	2342	2385
35°	2261	2319	2378
40°	2223	2296	2371
45°	2181	2273	2374
50°	2134	2245	2373
55°	2079	2213	2376
60°	2000	2189	2381
65°	1909	2147	2389
70°	1779	2087	2399
75°	1585	2004	2423
80°	1311	1908	2541
85°	852	1724	2221

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 2621 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.2	3.2
10°-20°	427.3	9.3
20°-30°	644.5	14.0
30°-40°	776.3	16.8
40°-50°	810.7	17.6
50°-60°	744.5	16.2
60°-70°	586.4	12.7
70°-80°	359.8	7.8
80°-90°	108.3	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°	1221.1	26.5
0°-40°	1997.3	43.4
0°-60°	3552.5	77.1
0°-90°	4607.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4607.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1578	1578	1578	1578	1578	
5°	1565	1567	1571	1576	1570	149
15°	1503	1506	1515	1524	1524	424
25°	1379	1382	1398	1415	1415	635
35°	1209	1215	1240	1266	1272	756
45°	1007	1018	1049	1086	1096	776
55°	778	792	829	875	890	695
65°	527	545	592	642	659	521
75°	268	289	339	392	409	284
85°	48	67	98	124	126	63
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1578.0	1578.0	1578.0	1578.0	1578.0
2.5°	1572.0	1575.0	1576.0	1577.0	1569.9
5°	1564.9	1566.9	1570.9	1576.0	1569.9
7.5°	1554.8	1556.8	1561.8	1568.9	1565.9
10°	1543.6	1544.7	1550.7	1555.8	1549.7
12.5°	1525.5	1528.5	1535.6	1539.6	1537.6
15°	1503.2	1506.2	1515.3	1524.4	1524.4
17.5°	1476.9	1481.0	1492.1	1504.2	1505.2
20°	1447.6	1450.6	1464.8	1476.9	1476.9
22.5°	1414.3	1418.3	1432.5	1445.6	1447.6
25°	1378.9	1381.9	1398.1	1415.3	1415.3
27.5°	1337.4	1343.5	1363.7	1380.9	1384.9
30°	1297.0	1302.0	1324.3	1345.5	1348.5
32.5°	1254.5	1260.6	1283.8	1307.1	1312.2
35°	1209.0	1215.1	1240.4	1265.7	1271.7
37.5°	1161.5	1168.6	1194.9	1224.2	1230.3
40°	1112.0	1120.1	1148.4	1179.7	1185.8
42.5°	1059.4	1070.5	1100.9	1133.2	1142.3
45°	1006.9	1018.0	1049.3	1085.7	1095.8
47.5°	951.3	964.4	996.8	1035.2	1046.3
50°	895.7	908.8	942.2	983.6	995.7
52.5°	839.0	852.2	886.6	930.0	943.2
55°	778.4	792.5	828.9	875.4	889.6
57.5°	715.7	733.9	772.3	819.8	834.0
60°	653.0	671.2	714.7	761.2	777.4
62.5°	591.4	608.6	653.0	702.6	719.8
65°	526.7	544.9	592.4	641.9	659.1
67.5°	463.0	481.2	528.7	580.3	598.5
70°	397.3	417.5	466.0	517.6	535.8
72.5°	331.6	352.8	402.3	454.9	472.1
75°	267.9	289.1	338.7	392.2	409.4
77.5°	205.2	228.5	277.0	331.6	347.8
80°	148.6	170.8	216.3	269.9	288.1
82.5°	95.0	114.2	159.7	210.3	223.4
85°	48.5	66.7	98.1	124.3	126.4
87.5°	15.2	21.2	32.3	48.5	49.5
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	14.54	16.21	14.91	16.52	16.83	15.37	17.04	15.74	17.35	17.66
	3H	16.30	17.81	16.68	18.13	18.49	17.49	19.00	17.87	19.32	19.68
	4H	16.92	18.34	17.32	18.69	19.06	18.38	19.80	18.78	20.15	20.52
	6H	17.33	18.65	17.74	19.01	19.40	19.16	20.48	19.57	20.85	21.24
	8H	17.44	18.70	17.86	19.09	19.49	19.48	20.74	19.90	21.13	21.53
	12H	17.49	18.70	17.92	19.08	19.51	19.69	20.90	20.12	21.28	21.71
4H	2H	15.32	16.74	15.71	17.09	17.46	15.96	17.38	16.36	17.73	18.11
	3H	17.29	18.49	17.70	18.89	19.29	18.32	19.52	18.73	19.91	20.31
	4H	18.03	19.12	18.46	19.53	19.96	19.37	20.46	19.80	20.87	21.30
	6H	18.56	19.51	19.01	19.95	20.40	20.32	21.27	20.77	21.71	22.17
	8H	18.70	19.60	19.16	20.04	20.50	20.72	21.61	21.18	22.05	22.52
	12H	18.79	19.59	19.27	20.07	20.53	21.00	21.80	21.47	22.27	22.74
8H	4H	18.49	19.38	18.95	19.82	20.29	19.66	20.55	20.12	20.99	21.46
	6H	19.15	19.89	19.64	20.38	20.85	20.77	21.51	21.26	22.00	22.48
	8H	19.36	20.03	19.87	20.53	21.02	21.28	21.95	21.79	22.46	22.94
	12H	19.50	20.09	20.00	20.58	21.14	21.67	22.26	22.17	22.75	23.31
12H	4H	18.58	19.38	19.06	19.86	20.32	19.68	20.49	20.16	20.96	21.43
	6H	19.28	19.95	19.79	20.46	20.94	20.82	21.49	21.32	21.99	22.48
	8H	19.56	20.15	20.07	20.64	21.20	21.40	21.99	21.90	22.48	23.04