

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: P1588366

Luminaire Tested: 24CZSP-52HE-L940-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1588366
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-52HE-L940-S
Description: 2x4 CZSP LED Luminaire, 4000K CCT and 5000 lumens, 90CRI, Smooth Lens
Light Source: -
Ballast/Driver: -

Summary

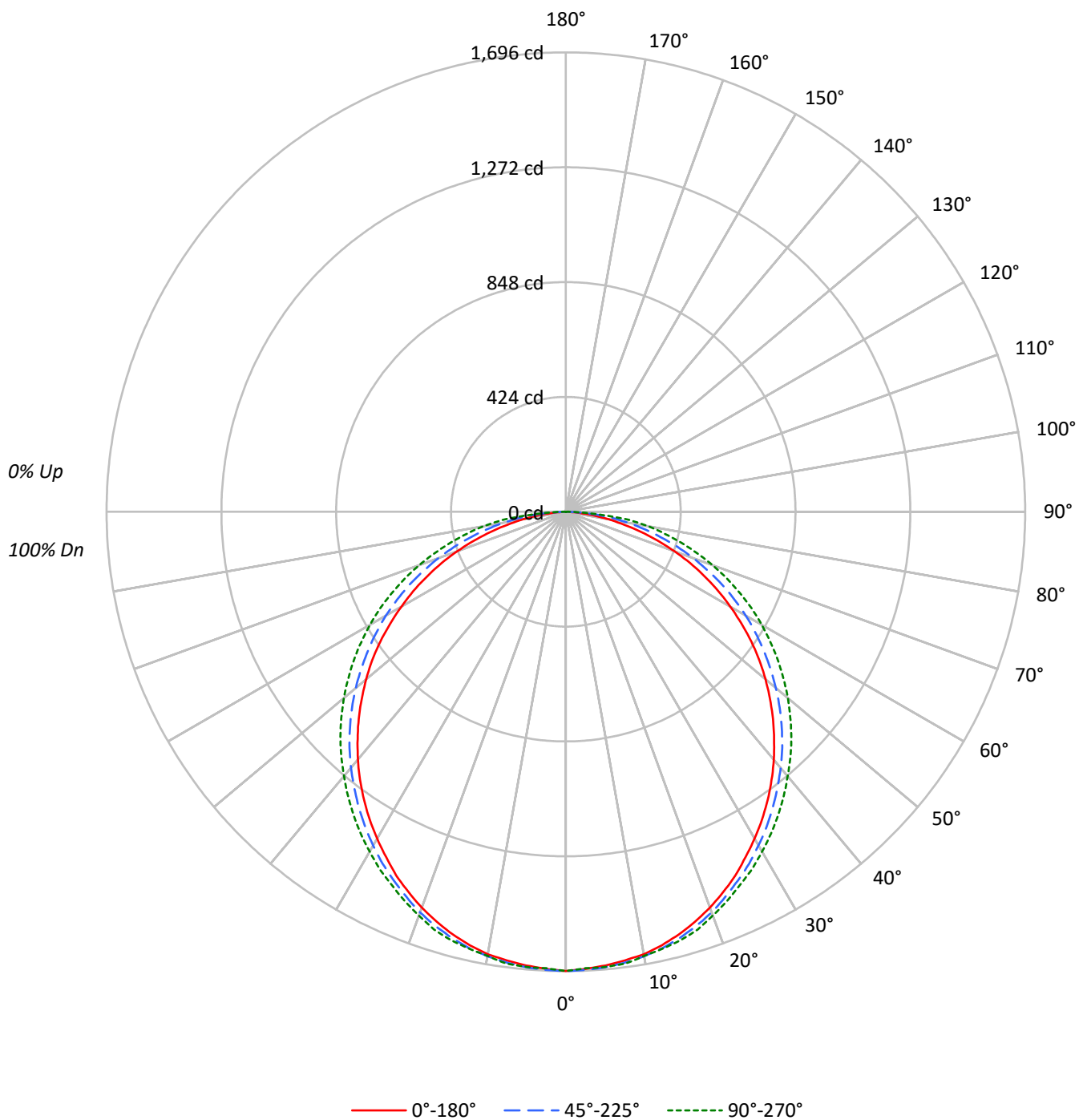
Lumens per Lamp: N/A
Luminaire Lumens: 4950.0 lumens
Efficiency: N/A
Efficacy: 134.9 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 36.7
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	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	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°	2597	2597	2597
5°	2585	2595	2593
10°	2580	2591	2590
15°	2561	2582	2597
20°	2535	2565	2587
25°	2504	2539	2570
30°	2465	2516	2562
35°	2429	2492	2555
40°	2389	2467	2547
45°	2343	2442	2550
50°	2293	2412	2549
55°	2233	2378	2552
60°	2149	2352	2559
65°	2051	2307	2567
70°	1912	2242	2578
75°	1703	2153	2603
80°	1409	2050	2731
85°	916	1852	2386

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 2816 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.3	3.2
10°-20°	459.2	9.3
20°-30°	692.5	14.0
30°-40°	834.1	16.8
40°-50°	871.1	17.6
50°-60°	800.0	16.2
60°-70°	630.1	12.7
70°-80°	386.5	7.8
80°-90°	116.3	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°	1312.0	26.5
0°-40°	2146.0	43.4
0°-60°	3817.1	77.1
0°-90°	4950.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4950.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1696	1696	1696	1696	1696	
5°	1681	1684	1688	1693	1687	160
15°	1615	1618	1628	1638	1638	455
25°	1482	1485	1502	1521	1521	682
35°	1299	1306	1333	1360	1366	813
45°	1082	1094	1127	1166	1177	834
55°	836	852	891	941	956	747
65°	566	585	636	690	708	560
75°	288	311	364	421	440	305
85°	52	72	105	134	136	68
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1695.5	1695.5	1695.5	1695.5	1695.5
2.5°	1689.0	1692.2	1693.3	1694.4	1686.8
5°	1681.4	1683.6	1687.9	1693.3	1686.8
7.5°	1670.5	1672.7	1678.1	1685.7	1682.5
10°	1658.6	1659.7	1666.2	1671.6	1665.1
12.5°	1639.0	1642.3	1649.9	1654.2	1652.1
15°	1615.1	1618.4	1628.2	1637.9	1637.9
17.5°	1586.9	1591.2	1603.2	1616.2	1617.3
20°	1555.4	1558.7	1573.9	1586.9	1586.9
22.5°	1519.5	1523.9	1539.1	1553.2	1555.4
25°	1481.5	1484.8	1502.2	1520.6	1520.6
27.5°	1437.0	1443.5	1465.2	1483.7	1488.0
30°	1393.6	1399.0	1422.9	1445.7	1448.9
32.5°	1347.9	1354.5	1379.4	1404.4	1409.8
35°	1299.1	1305.6	1332.7	1359.9	1366.4
37.5°	1248.0	1255.6	1283.8	1315.3	1321.9
40°	1194.8	1203.5	1233.9	1267.6	1274.1
42.5°	1138.3	1150.3	1182.8	1217.6	1227.4
45°	1081.8	1093.8	1127.4	1166.5	1177.4
47.5°	1022.1	1036.2	1071.0	1112.2	1124.2
50°	962.3	976.5	1012.3	1056.8	1069.9
52.5°	901.5	915.6	952.6	999.3	1013.4
55°	836.3	851.6	890.7	940.6	955.8
57.5°	769.0	788.6	829.8	880.9	896.1
60°	701.7	721.2	767.9	817.9	835.3
62.5°	635.4	653.9	701.7	754.9	773.4
65°	565.9	585.4	636.5	689.7	708.2
67.5°	497.5	517.0	568.1	623.5	643.0
70°	426.9	448.6	500.7	556.1	575.7
72.5°	356.3	379.1	432.3	488.8	507.2
75°	287.8	310.6	363.9	421.4	439.9
77.5°	220.5	245.5	297.6	356.3	373.6
80°	159.7	183.6	232.4	290.0	309.6
82.5°	102.1	122.7	171.6	225.9	240.0
85°	52.1	71.7	105.4	133.6	135.8
87.5°	16.3	22.8	34.8	52.1	53.2
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	14.79	16.46	15.16	16.77	17.08	15.62	17.29	15.99	17.60	17.91
	3H	16.55	18.06	16.93	18.38	18.74	17.74	19.25	18.12	19.57	19.93
	4H	17.17	18.59	17.57	18.94	19.31	18.63	20.05	19.03	20.40	20.77
	6H	17.58	18.90	17.99	19.26	19.65	19.41	20.73	19.82	21.09	21.48
	8H	17.69	18.95	18.11	19.34	19.74	19.73	20.99	20.15	21.38	21.78
	12H	17.74	18.95	18.17	19.33	19.76	19.94	21.15	20.37	21.53	21.96
4H	2H	15.57	16.99	15.96	17.34	17.71	16.21	17.63	16.61	17.98	18.36
	3H	17.54	18.74	17.95	19.14	19.54	18.57	19.77	18.98	20.16	20.56
	4H	18.28	19.37	18.71	19.78	20.21	19.62	20.71	20.05	21.12	21.55
	6H	18.81	19.76	19.26	20.20	20.65	20.57	21.52	21.02	21.96	22.42
	8H	18.95	19.85	19.41	20.29	20.75	20.97	21.86	21.43	22.30	22.77
	12H	19.04	19.84	19.52	20.32	20.78	21.25	22.05	21.72	22.52	22.99
8H	4H	18.74	19.63	19.20	20.07	20.54	19.91	20.80	20.37	21.24	21.71
	6H	19.40	20.14	19.89	20.63	21.10	21.02	21.76	21.51	22.25	22.72
	8H	19.61	20.28	20.12	20.78	21.27	21.53	22.20	22.04	22.70	23.19
	12H	19.75	20.34	20.25	20.83	21.39	21.92	22.51	22.42	23.00	23.56
12H	4H	18.83	19.63	19.31	20.11	20.57	19.93	20.74	20.41	21.21	21.68
	6H	19.53	20.20	20.04	20.71	21.19	21.07	21.74	21.57	22.24	22.73
	8H	19.81	20.40	20.32	20.89	21.45	21.65	22.24	22.15	22.73	23.29