

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: P1588359

Luminaire Tested: 24CZSP-52HE-L845

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1588359
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2603-711-1)
Test Lab: INNOVATION CENTER
Issue Date: 9/3/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 24CZSP-52HE-L845
Description: 2x4 CZSP LED Luminaire, 4500K CCT and 5000 lumens, 80CRI, Ribbed Lens
Light Source: -
Ballast/Driver: -

Summary

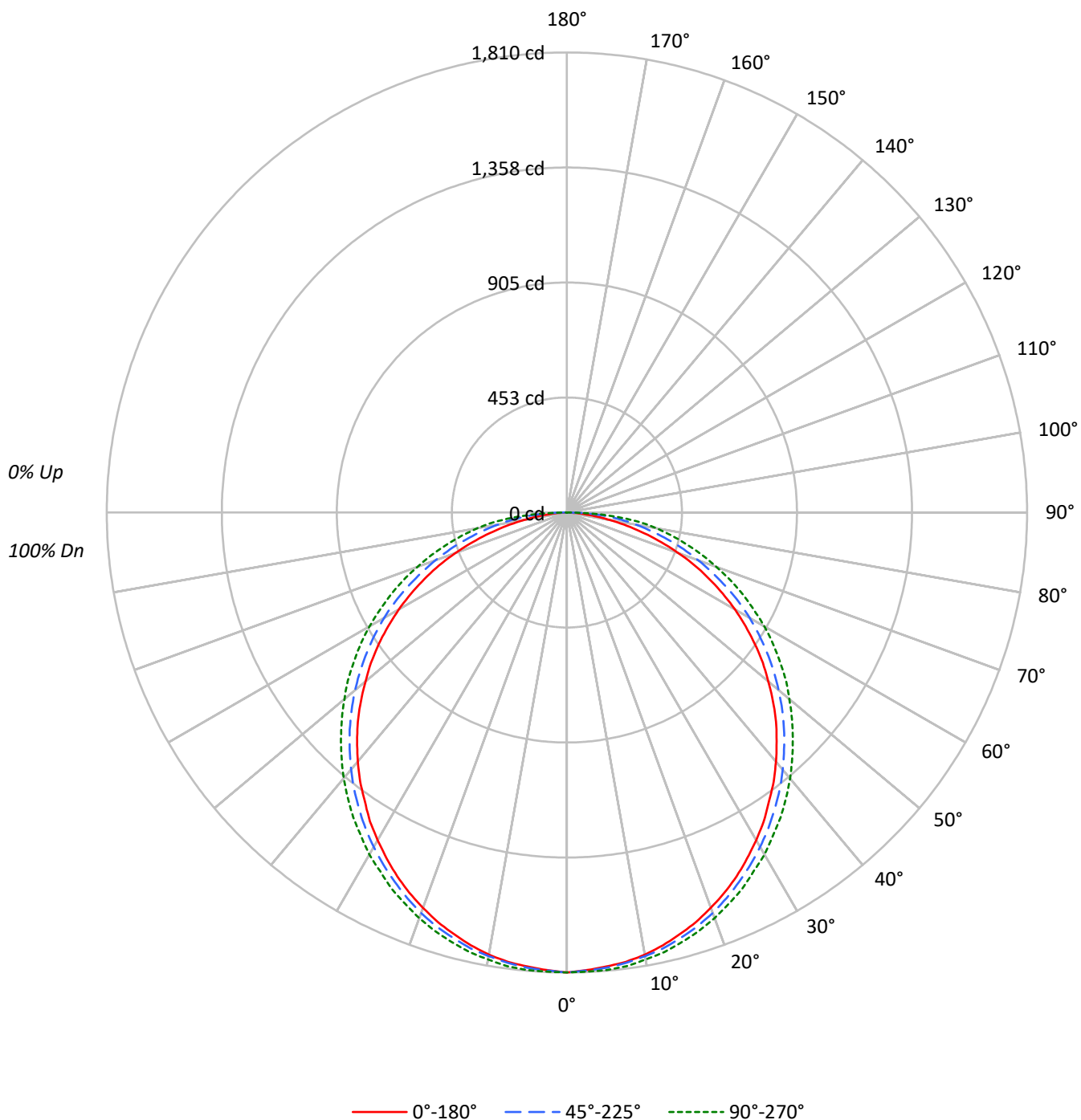
Lumens per Lamp: N/A
Luminaire Lumens: 5368.0 lumens
Efficiency: N/A
Efficacy: 146.3 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.27 / 1.38
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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	98	94	105	101	97	93	96	93	90		92	90	87		89	87	85	82
2	98	89	82	76	95	87	81	75	84	78	73		81	76	72		77	74	70	68
3	89	78	70	63	87	77	69	62	74	67	61		71	65	60		68	63	59	57
4	81	69	60	53	79	68	59	53	65	58	52		63	56	51		61	55	51	48
5	75	62	52	46	73	60	52	45	58	51	45		56	50	44		54	49	44	42
6	69	55	46	40	67	54	46	39	53	45	39		51	44	39		49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	35		46	39	34		45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31		42	36	31		41	35	30	29
9	56	42	34	28	54	41	33	28	40	33	28		39	32	28		38	32	27	26
10	52	39	31	25	51	38	30	25	37	30	25		36	30	25		35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2772	2772	2772
5°	2757	2764	2778
10°	2747	2757	2777
15°	2723	2747	2775
20°	2698	2734	2768
25°	2669	2709	2759
30°	2633	2688	2748
35°	2592	2664	2739
40°	2558	2641	2730
45°	2520	2616	2723
50°	2464	2591	2722
55°	2412	2567	2730
60°	2339	2544	2749
65°	2240	2504	2767
70°	2096	2462	2801
75°	1864	2427	2893
80°	1533	2437	3145
85°	1044	2715	3473

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 85°

Luminance: 3473 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.3	3.2
10°-20°	490.3	9.1
20°-30°	741.5	13.8
30°-40°	894.7	16.7
40°-50°	935.6	17.4
50°-60°	863.2	16.1
60°-70°	686.4	12.8
70°-80°	433.2	8.1
80°-90°	151.9	2.8
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°	1403.1	26.1
0°-40°	2297.8	42.8
0°-60°	4096.6	76.3
0°-90°	5368.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5368.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1810	1810	1810	1810	1810	
5°	1793	1807	1798	1802	1807	170
15°	1718	1737	1732	1746	1750	485
25°	1579	1603	1603	1624	1633	727
35°	1386	1416	1425	1453	1465	869
45°	1163	1189	1208	1244	1257	896
55°	903	930	961	1007	1022	807
65°	618	646	691	749	764	611
75°	315	351	410	471	489	334
85°	59	98	154	192	198	75
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1809.6	1809.6	1809.6	1809.6	1809.6
2.5°	1802.1	1814.0	1803.6	1809.6	1808.1
5°	1793.2	1806.6	1797.7	1802.1	1806.6
7.5°	1782.8	1797.7	1787.3	1794.7	1800.7
10°	1766.5	1781.3	1772.4	1781.3	1785.8
12.5°	1744.2	1762.0	1756.1	1766.5	1770.9
15°	1717.5	1736.8	1732.3	1745.7	1750.1
17.5°	1689.2	1710.0	1707.1	1721.9	1726.4
20°	1655.1	1678.8	1677.3	1692.2	1698.1
22.5°	1619.4	1643.2	1641.7	1658.0	1665.5
25°	1579.3	1603.1	1603.1	1623.9	1632.8
27.5°	1534.7	1561.5	1562.9	1583.7	1591.2
30°	1488.7	1515.4	1519.9	1542.1	1554.0
32.5°	1441.1	1466.4	1473.8	1499.1	1508.0
35°	1386.1	1415.9	1424.8	1453.0	1464.9
37.5°	1335.6	1362.4	1374.3	1404.0	1415.9
40°	1279.2	1307.4	1320.8	1353.5	1365.3
42.5°	1221.2	1249.5	1264.3	1300.0	1311.9
45°	1163.3	1188.6	1207.9	1243.5	1256.9
47.5°	1099.4	1127.6	1148.4	1187.1	1200.4
50°	1034.0	1063.8	1087.5	1129.1	1142.5
52.5°	971.6	998.4	1025.1	1071.2	1086.0
55°	903.3	930.0	961.2	1007.3	1022.2
57.5°	833.5	860.2	895.9	944.9	961.2
60°	763.6	790.4	830.5	881.0	897.4
62.5°	690.8	717.6	762.2	814.2	829.0
65°	618.0	646.3	690.8	748.8	763.6
67.5°	543.8	572.0	619.5	680.4	696.8
70°	468.0	499.2	549.7	610.6	625.5
72.5°	389.3	424.9	481.4	540.8	558.6
75°	315.0	350.6	410.1	471.0	488.8
77.5°	242.2	282.3	341.7	405.6	424.9
80°	173.8	213.9	276.3	338.7	356.6
82.5°	111.4	153.0	215.4	274.9	289.7
85°	59.4	98.1	154.5	191.7	197.6
87.5°	19.3	50.5	69.8	92.1	93.6
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	15.10	16.77	15.46	17.08	17.40	15.82	17.49	16.18	17.81	18.12
	3H	16.89	18.40	17.26	18.73	19.09	17.99	19.50	18.36	19.83	20.19
	4H	17.52	18.95	17.91	19.30	19.67	18.92	20.35	19.32	20.70	21.07
	6H	17.94	19.27	18.35	19.63	20.02	19.78	21.11	20.19	21.47	21.86
	8H	18.05	19.32	18.48	19.71	20.11	20.16	21.43	20.58	21.82	22.22
	12H	18.11	19.33	18.54	19.71	20.14	20.47	21.69	20.90	22.07	22.50
4H	2H	15.86	17.30	16.26	17.64	18.02	16.42	17.86	16.82	18.20	18.58
	3H	17.89	19.09	18.29	19.49	19.89	18.84	20.04	19.24	20.44	20.84
	4H	18.65	19.75	19.08	20.16	20.59	19.94	21.04	20.37	21.45	21.88
	6H	19.20	20.17	19.65	20.61	21.06	20.98	21.94	21.43	22.38	22.84
	8H	19.36	20.26	19.82	20.71	21.17	21.44	22.35	21.90	22.79	23.25
	12H	19.46	20.27	19.94	20.75	21.22	21.84	22.66	22.32	23.13	23.60
8H	4H	19.14	20.04	19.59	20.48	20.94	20.26	21.16	20.71	21.60	22.06
	6H	19.84	20.60	20.34	21.09	21.56	21.47	22.23	21.97	22.72	23.19
	8H	20.09	20.77	20.59	21.27	21.75	22.07	22.75	22.58	23.26	23.74
	12H	20.26	20.86	20.76	21.35	21.91	22.61	23.22	23.12	23.71	24.26
12H	4H	19.24	20.06	19.72	20.53	21.00	20.29	21.10	20.77	21.58	22.04
	6H	20.01	20.69	20.51	21.19	21.67	21.54	22.22	22.04	22.72	23.21
	8H	20.33	20.93	20.83	21.42	21.98	22.21	22.82	22.72	23.31	23.86