

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: P1588848

Luminaire Tested: 24CZSP-A-70VHE-L945-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1588848
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-A-70VHE-L945-S
Description: 2x4 CZSP LED Luminaire, 4500K CCT and 7500 lumens, 90CRI, Smooth Lens, Air Vented Housing
Light Source: -
Ballast/Driver: -

Summary

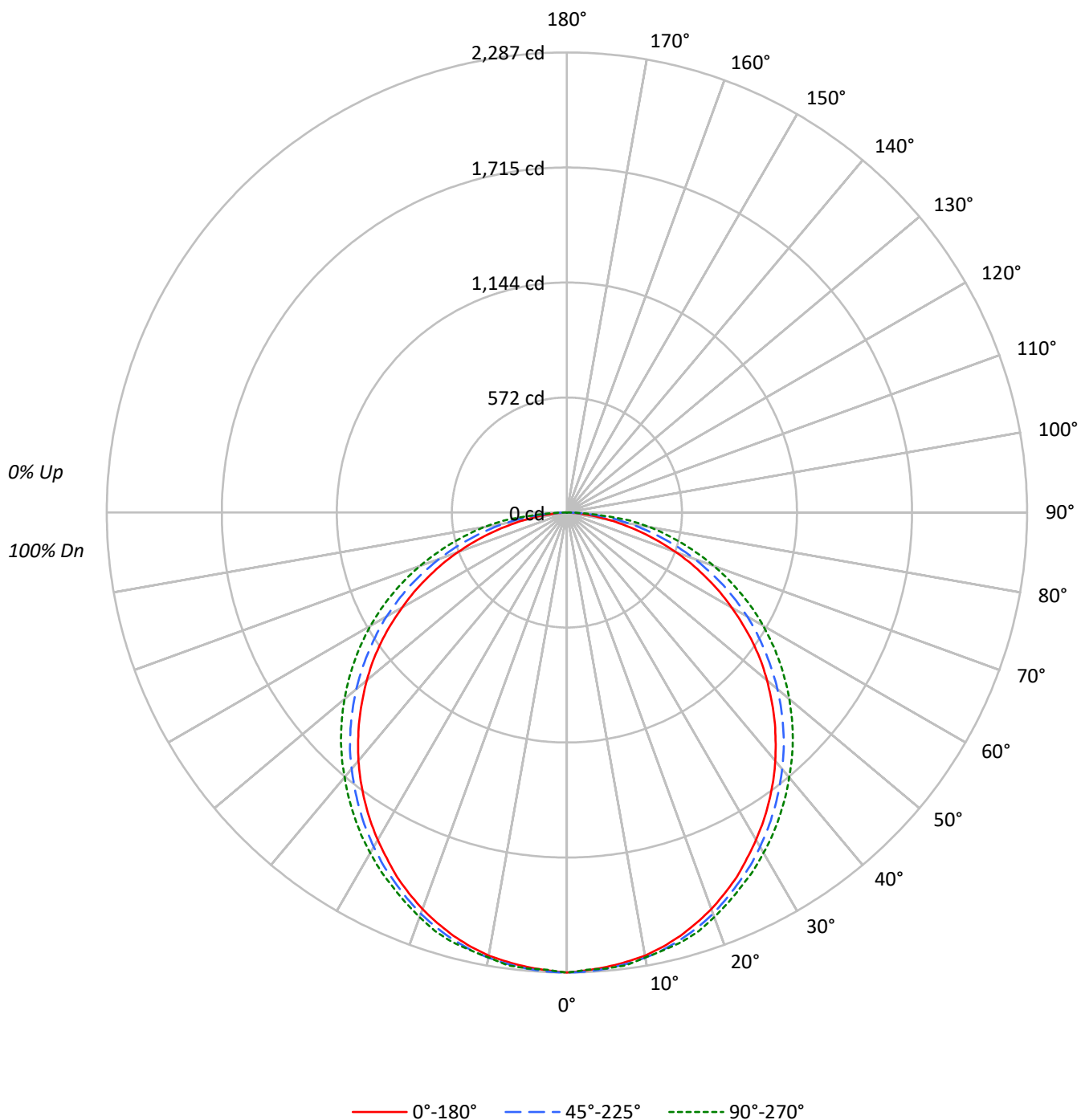
Lumens per Lamp: N/A
Luminaire Lumens: 6677.0 lumens
Efficiency: N/A
Efficacy: 125.3 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 53.3
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
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	93	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	65	61		69
4	82	69	60	54	79	68	60	53	66	58	52		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	44	39		50
7	64	50	42	35	62	50	41	35	48	40	35		47	40	35		45
8	60	46	37	32	58	45	37	31	44	37	31		43	36	31		42
9	56	42	34	28	54	42	34	28	40	33	28		39	33	28		38
10	52	39	31	26	51	38	31	26	37	30	25		37	30	25		36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3503	3503	3503
5°	3487	3501	3498
10°	3479	3495	3493
15°	3455	3482	3503
20°	3420	3460	3489
25°	3377	3424	3466
30°	3324	3394	3457
35°	3276	3361	3446
40°	3222	3328	3436
45°	3161	3294	3440
50°	3093	3254	3439
55°	3012	3208	3443
60°	2899	3173	3451
65°	2766	3112	3462
70°	2579	3025	3477
75°	2298	2904	3512
80°	1900	2765	3683
85°	1235	2497	3218

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 3800 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	216.3	3.2
10°-20°	619.3	9.3
20°-30°	934.1	14.0
30°-40°	1125.1	16.8
40°-50°	1175.0	17.6
50°-60°	1079.1	16.2
60°-70°	849.9	12.7
70°-80°	521.4	7.8
80°-90°	156.9	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°	1769.7	26.5
0°-40°	2894.8	43.4
0°-60°	5148.8	77.1
0°-90°	6677.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6677.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2287	2287	2287	2287	2287	
5°	2268	2271	2277	2284	2275	216
15°	2179	2183	2196	2209	2209	614
25°	1998	2003	2026	2051	2051	920
35°	1752	1761	1798	1834	1843	1096
45°	1459	1475	1521	1574	1588	1125
55°	1128	1149	1201	1269	1289	1007
65°	763	790	859	930	955	755
75°	388	419	491	568	593	412
85°	70	97	142	180	183	92
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2287.1	2287.1	2287.1	2287.1	2287.1
2.5°	2278.3	2282.7	2284.1	2285.6	2275.3
5°	2268.0	2270.9	2276.8	2284.1	2275.3
7.5°	2253.4	2256.3	2263.6	2273.9	2269.5
10°	2237.2	2238.7	2247.5	2254.8	2246.0
12.5°	2210.9	2215.3	2225.5	2231.4	2228.4
15°	2178.6	2183.0	2196.2	2209.4	2209.4
17.5°	2140.5	2146.4	2162.5	2180.1	2181.6
20°	2098.1	2102.4	2123.0	2140.5	2140.5
22.5°	2049.7	2055.6	2076.1	2095.1	2098.1
25°	1998.4	2002.8	2026.3	2051.2	2051.2
27.5°	1938.4	1947.1	1976.4	2001.4	2007.2
30°	1879.7	1887.1	1919.3	1950.1	1954.5
32.5°	1818.2	1827.0	1860.7	1894.4	1901.7
35°	1752.3	1761.1	1797.7	1834.3	1843.1
37.5°	1683.4	1693.7	1731.8	1774.3	1783.0
40°	1611.6	1623.4	1664.4	1709.8	1718.6
42.5°	1535.4	1551.6	1595.5	1642.4	1655.6
45°	1459.3	1475.4	1520.8	1573.5	1588.2
47.5°	1378.7	1397.7	1444.6	1500.3	1516.4
50°	1298.1	1317.1	1365.5	1425.6	1443.1
52.5°	1216.0	1235.1	1284.9	1347.9	1367.0
55°	1128.1	1148.7	1201.4	1268.8	1289.3
57.5°	1037.3	1063.7	1119.4	1188.2	1208.7
60°	946.5	972.8	1035.8	1103.2	1126.7
62.5°	857.1	882.0	946.5	1018.3	1043.2
65°	763.3	789.7	858.6	930.4	955.3
67.5°	671.0	697.4	766.3	841.0	867.4
70°	575.8	605.1	675.4	750.1	776.5
72.5°	480.6	511.3	583.1	659.3	684.2
75°	388.3	419.0	490.8	568.5	593.4
77.5°	297.4	331.1	401.4	480.6	504.0
80°	215.4	247.6	313.5	391.2	417.6
82.5°	137.7	165.6	231.5	304.7	323.8
85°	70.3	96.7	142.1	180.2	183.1
87.5°	22.0	30.8	46.9	70.3	71.8
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	15.83	17.50	16.20	17.81	18.12	16.66	18.33	17.03	18.64	18.95
	3H	17.59	19.10	17.97	19.42	19.78	18.78	20.29	19.16	20.61	20.97
	4H	18.21	19.63	18.61	19.98	20.35	19.67	21.09	20.07	21.44	21.81
	6H	18.62	19.94	19.03	20.30	20.69	20.45	21.77	20.86	22.13	22.52
	8H	18.73	19.99	19.15	20.38	20.78	20.77	22.03	21.19	22.42	22.82
	12H	18.78	19.99	19.21	20.37	20.80	20.98	22.19	21.41	22.57	23.00
4H	2H	16.61	18.03	17.00	18.38	18.75	17.25	18.67	17.65	19.02	19.40
	3H	18.58	19.78	18.99	20.18	20.58	19.61	20.80	20.02	21.20	21.60
	4H	19.32	20.41	19.75	20.82	21.25	20.66	21.75	21.09	22.16	22.59
	6H	19.85	20.80	20.30	21.24	21.69	21.61	22.56	22.06	23.00	23.46
	8H	19.99	20.89	20.45	21.33	21.79	22.01	22.90	22.47	23.34	23.81
	12H	20.08	20.88	20.56	21.36	21.82	22.29	23.09	22.76	23.56	24.03
8H	4H	19.78	20.67	20.24	21.11	21.58	20.95	21.84	21.41	22.28	22.75
	6H	20.44	21.18	20.93	21.67	22.14	22.06	22.80	22.55	23.29	23.76
	8H	20.65	21.32	21.16	21.82	22.31	22.57	23.24	23.08	23.74	24.23
	12H	20.79	21.38	21.29	21.87	22.43	22.96	23.55	23.46	24.04	24.60
12H	4H	19.87	20.67	20.35	21.15	21.61	20.97	21.78	21.45	22.25	22.72
	6H	20.57	21.24	21.08	21.75	22.23	22.11	22.78	22.61	23.28	23.77
	8H	20.85	21.44	21.35	21.93	22.49	22.68	23.28	23.19	23.77	24.33