

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: P1588849

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

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1588849
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2605-776-5)
Test Lab: INNOVATION CENTER
Issue Date: 9/3/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 24CZSP-A-70VHE-L945
Description: 2x4 CZSP LED Luminaire, 4500K CCT and 7500 lumens, 90CRI, Ribbed Lens, Air Vented Housing
Light Source: -
Ballast/Driver: -

Summary

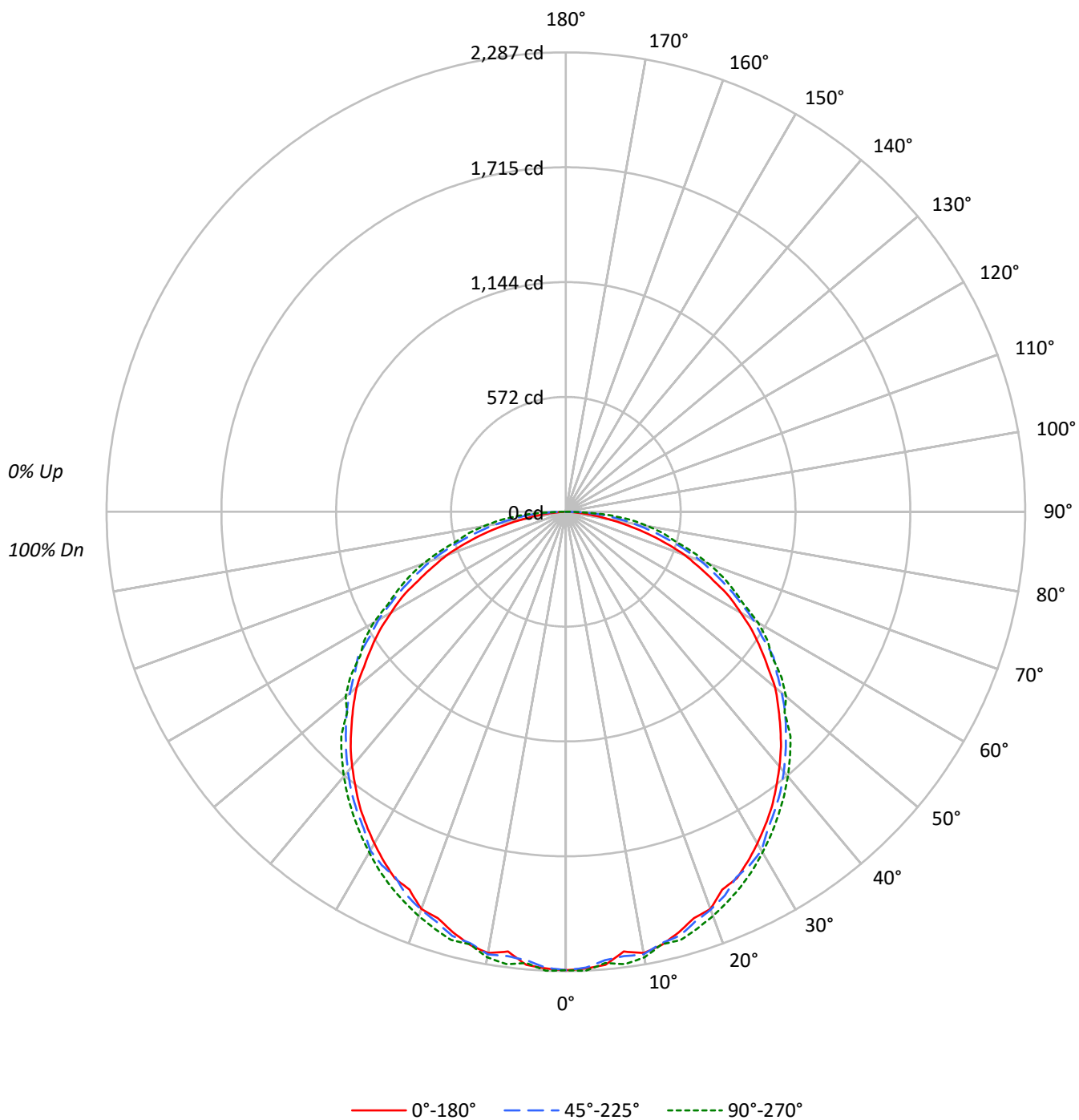
Lumens per Lamp: N/A
Luminaire Lumens: 6813.0 lumens
Efficiency: N/A
Efficacy: 127.8 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.27 / 1.39
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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			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	105	101	97	93	97	93	90		93	90	87		89	87	85	83
2	98	89	82	76	95	88	81	75	84	78	74		81	76	72		78	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	28
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°	3495	3495	3495
5°	3480	3445	3468
10°	3470	3479	3503
15°	3438	3466	3500
20°	3430	3436	3490
25°	3402	3393	3481
30°	3372	3444	3464
35°	3347	3393	3449
40°	3310	3375	3438
45°	3268	3357	3425
50°	3242	3343	3410
55°	3160	3373	3338
60°	3079	3301	3386
65°	2941	3230	3341
70°	2820	3202	3389
75°	2497	3106	3320
80°	1971	3035	3673
85°	1206	3242	4188

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 85°

Luminance: 4188 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	215.5	3.2
10°-20°	615.7	9.0
20°-30°	938.0	13.8
30°-40°	1141.8	16.8
40°-50°	1197.2	17.6
50°-60°	1109.0	16.3
60°-70°	874.5	12.8
70°-80°	541.0	7.9
80°-90°	180.2	2.6
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°	1769.2	26.0
0°-40°	2911.0	42.7
0°-60°	5217.2	76.6
0°-90°	6813.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6813.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2282	2282	2282	2282	2282	
5°	2264	2263	2240	2290	2255	214
15°	2168	2179	2186	2170	2207	612
25°	2013	2024	2008	2063	2060	925
35°	1790	1806	1815	1849	1844	1118
45°	1509	1537	1550	1567	1581	1166
55°	1183	1219	1263	1274	1250	1058
65°	811	843	891	925	922	807
75°	422	455	525	565	561	446
85°	69	117	184	224	238	92
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2282.2	2282.2	2282.2	2282.2	2282.2
2.5°	2275.8	2289.7	2272.0	2286.9	2286.9
5°	2263.7	2262.8	2240.5	2289.7	2255.4
7.5°	2208.1	2247.0	2231.2	2291.5	2271.1
10°	2231.2	2221.0	2236.8	2277.6	2252.6
12.5°	2208.1	2224.7	2199.7	2179.3	2205.3
15°	2168.2	2179.3	2185.8	2170.0	2207.1
17.5°	2120.9	2162.6	2140.4	2132.9	2175.6
20°	2104.2	2106.0	2107.9	2145.9	2141.3
22.5°	2035.6	2072.7	2068.0	2098.6	2102.3
25°	2013.3	2024.4	2007.7	2063.4	2059.7
27.5°	1962.3	1986.4	1983.6	2002.2	2012.4
30°	1906.7	1930.8	1947.5	1927.1	1958.6
32.5°	1849.2	1890.0	1871.4	1909.4	1903.0
35°	1789.8	1806.5	1814.9	1849.2	1844.5
37.5°	1721.2	1749.9	1754.6	1806.5	1784.2
40°	1655.3	1684.1	1687.8	1718.4	1719.3
42.5°	1585.8	1599.7	1619.2	1654.4	1651.6
45°	1508.8	1536.6	1549.6	1567.2	1581.2
47.5°	1434.6	1464.3	1481.0	1509.7	1477.3
50°	1360.4	1381.8	1403.1	1433.7	1430.9
52.5°	1266.8	1315.0	1325.2	1341.9	1353.0
55°	1183.3	1218.6	1263.1	1274.2	1250.1
57.5°	1098.9	1125.8	1158.3	1192.6	1189.8
60°	1005.3	1037.7	1077.6	1103.6	1105.4
62.5°	919.9	942.2	980.2	1018.2	998.8
65°	811.4	843.0	891.2	924.6	921.8
67.5°	715.0	749.3	798.5	842.0	843.9
70°	629.7	648.2	715.0	748.4	756.7
72.5°	524.9	557.3	616.7	653.8	657.5
75°	422.0	455.3	524.9	564.8	561.1
77.5°	317.2	365.4	433.1	480.4	496.1
80°	223.5	267.1	344.1	390.4	416.4
82.5°	141.0	186.4	261.5	319.0	334.8
85°	68.6	116.8	184.5	224.4	238.3
87.5°	17.6	48.2	85.3	104.8	113.1
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	16.15	17.82	16.52	18.14	18.45	16.58	18.25	16.95	18.57	18.88
	3H	17.95	19.47	18.33	19.79	20.15	18.65	20.17	19.03	20.50	20.86
	4H	18.60	20.03	18.99	20.37	20.75	19.50	20.93	19.89	21.28	21.65
	6H	19.01	20.34	19.42	20.70	21.09	20.29	21.62	20.70	21.98	22.37
	8H	19.11	20.38	19.53	20.77	21.17	20.63	21.90	21.05	22.29	22.69
	12H	19.15	20.37	19.58	20.75	21.18	20.93	22.15	21.36	22.53	22.96
4H	2H	16.89	18.32	17.29	18.67	19.04	17.22	18.65	17.62	19.00	19.38
	3H	18.92	20.13	19.33	20.53	20.93	19.54	20.74	19.95	21.14	21.54
	4H	19.70	20.79	20.13	21.20	21.64	20.54	21.64	20.97	22.05	22.49
	6H	20.23	21.19	20.68	21.63	22.09	21.49	22.46	21.95	22.89	23.35
	8H	20.38	21.28	20.83	21.72	22.18	21.92	22.82	22.38	23.26	23.72
	12H	20.46	21.27	20.94	21.74	22.21	22.30	23.11	22.78	23.58	24.05
8H	4H	20.15	21.05	20.60	21.49	21.95	20.88	21.78	21.34	22.22	22.69
	6H	20.82	21.58	21.32	22.06	22.54	22.00	22.75	22.49	23.24	23.71
	8H	21.04	21.72	21.55	22.22	22.71	22.54	23.22	23.05	23.73	24.21
	12H	21.19	21.79	21.69	22.28	22.84	23.06	23.66	23.57	24.15	24.71
12H	4H	20.23	21.04	20.71	21.52	21.98	20.92	21.73	21.39	22.20	22.67
	6H	20.96	21.64	21.46	22.14	22.63	22.06	22.74	22.57	23.25	23.73
	8H	21.25	21.85	21.76	22.34	22.90	22.69	23.29	23.19	23.78	24.33