

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: P1588838

Luminaire Tested: 24CZSP-A-70VHE-L845-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1588838
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-L845-S
Description: 2x4 CZSP LED Luminaire, 4500K CCT and 7500 lumens, 80CRI, Smooth Lens, Air Vented Housing
Light Source: -
Ballast/Driver: -

Summary

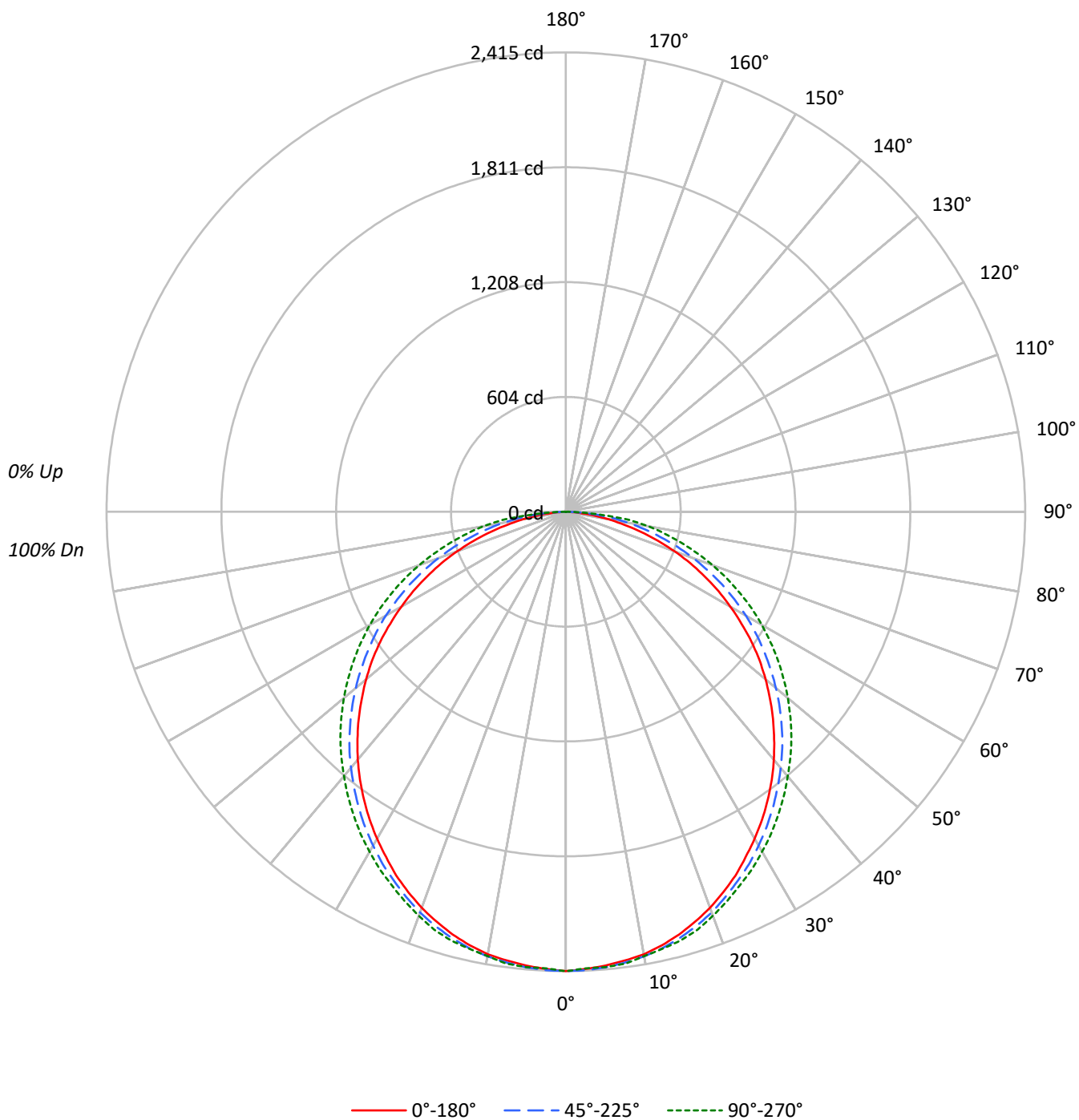
Lumens per Lamp: N/A
Luminaire Lumens: 7050.0 lumens
Efficiency: N/A
Efficacy: 132.3 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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			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°	3699	3699	3699
5°	3682	3696	3694
10°	3674	3691	3688
15°	3647	3677	3699
20°	3611	3654	3684
25°	3566	3616	3660
30°	3510	3584	3650
35°	3459	3549	3639
40°	3402	3514	3628
45°	3337	3478	3632
50°	3266	3436	3631
55°	3181	3387	3635
60°	3061	3350	3644
65°	2921	3285	3655
70°	2723	3194	3672
75°	2426	3067	3707
80°	2006	2920	3889
85°	1306	2638	3399

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 4012 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	228.4	3.2
10°-20°	653.9	9.3
20°-30°	986.3	14.0
30°-40°	1187.9	16.8
40°-50°	1240.6	17.6
50°-60°	1139.3	16.2
60°-70°	897.4	12.7
70°-80°	550.5	7.8
80°-90°	165.7	2.4
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°	1868.6	26.5
0°-40°	3056.5	43.4
0°-60°	5436.4	77.1
0°-90°	7050.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7050.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2415	2415	2415	2415	2415	
5°	2395	2398	2404	2412	2402	228
15°	2300	2305	2319	2333	2333	649
25°	2110	2115	2140	2166	2166	971
35°	1850	1860	1898	1937	1946	1157
45°	1541	1558	1606	1661	1677	1188
55°	1191	1213	1268	1340	1361	1063
65°	806	834	906	982	1009	797
75°	410	442	518	600	626	435
85°	74	102	150	190	193	97
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2414.8	2414.8	2414.8	2414.8	2414.8
2.5°	2405.5	2410.2	2411.7	2413.3	2402.4
5°	2394.7	2397.8	2404.0	2411.7	2402.4
7.5°	2379.2	2382.3	2390.1	2400.9	2396.2
10°	2362.2	2363.8	2373.0	2380.8	2371.5
12.5°	2334.4	2339.0	2349.8	2356.0	2352.9
15°	2300.3	2305.0	2318.9	2332.8	2332.8
17.5°	2260.1	2266.3	2283.3	2301.9	2303.4
20°	2215.3	2219.9	2241.6	2260.1	2260.1
22.5°	2164.2	2170.4	2192.1	2212.2	2215.3
25°	2110.1	2114.7	2139.5	2165.8	2165.8
27.5°	2046.6	2055.9	2086.9	2113.2	2119.3
30°	1984.8	1992.5	2026.5	2059.0	2063.7
32.5°	1919.8	1929.1	1964.6	2000.2	2008.0
35°	1850.2	1859.5	1898.1	1936.8	1946.1
37.5°	1777.5	1788.3	1828.5	1873.4	1882.7
40°	1701.7	1714.0	1757.4	1805.3	1814.6
42.5°	1621.2	1638.2	1684.6	1734.1	1748.1
45°	1540.8	1557.8	1605.8	1661.4	1676.9
47.5°	1455.7	1475.8	1525.3	1584.1	1601.1
50°	1370.6	1390.7	1441.8	1505.2	1523.8
52.5°	1284.0	1304.1	1356.7	1423.2	1443.3
55°	1191.2	1212.8	1268.5	1339.7	1361.3
57.5°	1095.3	1123.1	1181.9	1254.6	1276.2
60°	999.3	1027.2	1093.7	1164.9	1189.6
62.5°	905.0	931.3	999.3	1075.1	1101.4
65°	806.0	833.8	906.5	982.3	1008.6
67.5°	708.5	736.4	809.1	888.0	915.8
70°	608.0	638.9	713.2	792.0	819.9
72.5°	507.4	539.9	615.7	696.1	722.4
75°	409.9	442.4	518.2	600.2	626.5
77.5°	314.0	349.6	423.9	507.4	532.2
80°	227.4	261.4	331.1	413.0	440.9
82.5°	145.4	174.8	244.4	321.8	341.9
85°	74.3	102.1	150.1	190.3	193.4
87.5°	23.2	32.5	49.5	74.3	75.8
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	16.02	17.68	16.39	18.00	18.31	16.85	18.51	17.22	18.83	19.14
	3H	17.78	19.29	18.15	19.61	19.97	18.97	20.48	19.35	20.80	21.16
	4H	18.40	19.82	18.79	20.17	20.54	19.86	21.28	20.26	21.63	22.00
	6H	18.81	20.13	19.22	20.49	20.88	20.64	21.96	21.05	22.32	22.71
	8H	18.92	20.18	19.34	20.57	20.96	20.96	22.22	21.38	22.61	23.01
	12H	18.97	20.18	19.40	20.56	20.99	21.17	22.38	21.60	22.76	23.19
4H	2H	16.79	18.22	17.19	18.56	18.94	17.44	18.86	17.84	19.21	19.58
	3H	18.77	19.97	19.18	20.37	20.77	19.80	20.99	20.20	21.39	21.79
	4H	19.51	20.59	19.94	21.01	21.44	20.85	21.93	21.28	22.35	22.78
	6H	20.04	20.99	20.49	21.43	21.88	21.80	22.75	22.25	23.19	23.65
	8H	20.18	21.07	20.64	21.52	21.98	22.20	23.09	22.66	23.53	23.99
	12H	20.27	21.07	20.75	21.54	22.01	22.47	23.28	22.95	23.75	24.22
8H	4H	19.97	20.86	20.43	21.30	21.76	21.14	22.03	21.60	22.47	22.93
	6H	20.63	21.37	21.12	21.86	22.33	22.25	22.99	22.74	23.48	23.95
	8H	20.84	21.51	21.35	22.01	22.50	22.76	23.43	23.27	23.93	24.42
	12H	20.98	21.57	21.48	22.06	22.62	23.15	23.74	23.65	24.23	24.79
12H	4H	20.06	20.86	20.54	21.33	21.80	21.16	21.96	21.64	22.44	22.91
	6H	20.76	21.43	21.27	21.93	22.42	22.30	22.97	22.80	23.47	23.95
	8H	21.04	21.63	21.54	22.12	22.68	22.87	23.47	23.38	23.96	24.51