

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: P1588846

Luminaire Tested: 24CZSP-A-70VHE-L940-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1588846
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-L940-S
Description: 2x4 CZSP LED Luminaire, 4000K CCT and 7500 lumens, 90CRI, Smooth Lens, Air Vented Housing
Light Source: -
Ballast/Driver: -

Summary

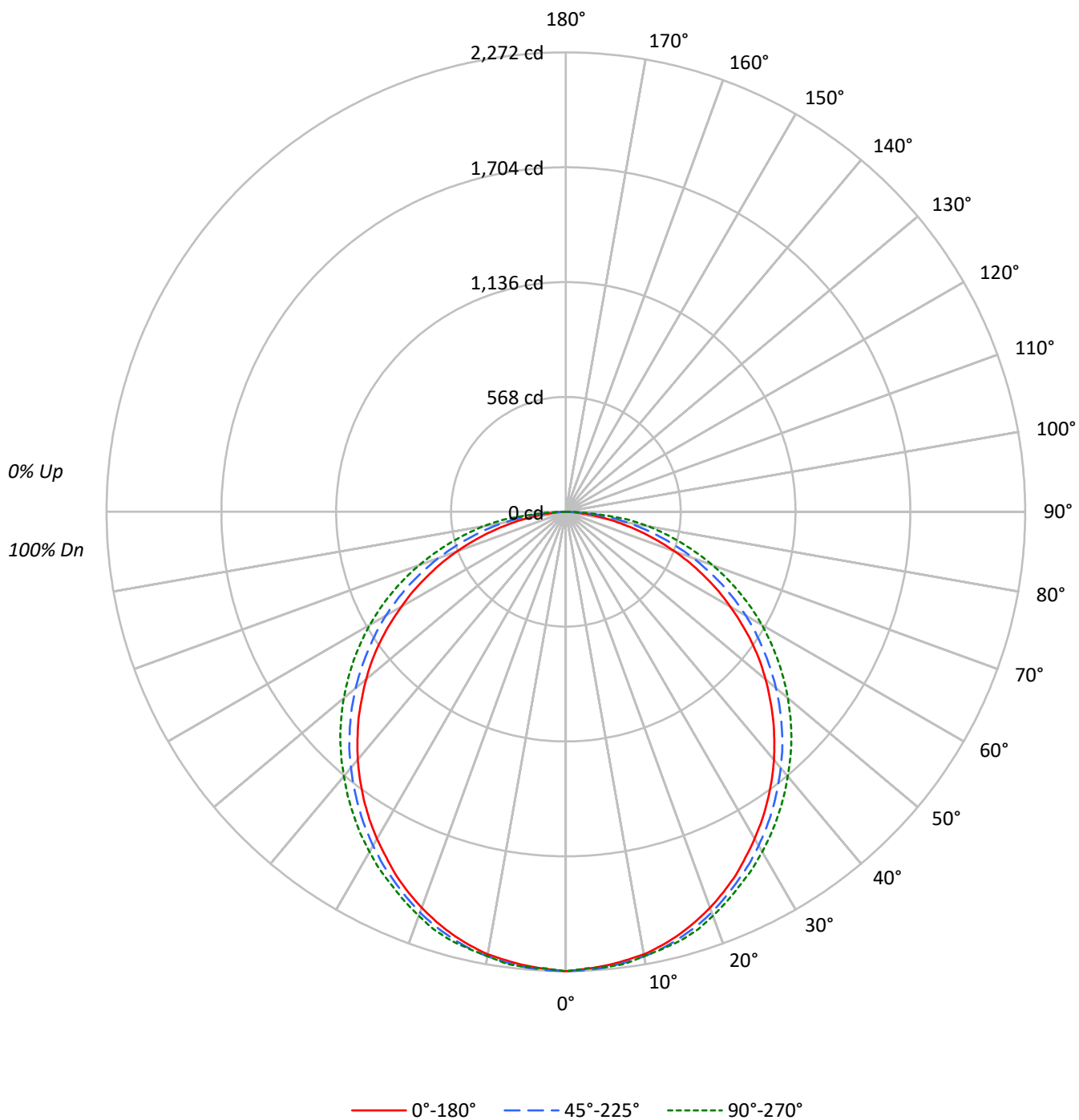
Lumens per Lamp: N/A
Luminaire Lumens: 6634.0 lumens
Efficiency: N/A
Efficacy: 124.5 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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°	3480	3480	3480
5°	3465	3478	3476
10°	3457	3473	3471
15°	3432	3460	3481
20°	3398	3438	3467
25°	3356	3402	3444
30°	3303	3372	3434
35°	3255	3340	3424
40°	3202	3306	3414
45°	3141	3273	3418
50°	3073	3233	3416
55°	2993	3188	3421
60°	2881	3153	3429
65°	2749	3091	3440
70°	2562	3005	3455
75°	2283	2886	3489
80°	1888	2748	3660
85°	1228	2481	3198

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 3775 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.9	3.2
10°-20°	615.4	9.3
20°-30°	928.0	14.0
30°-40°	1117.8	16.8
40°-50°	1167.4	17.6
50°-60°	1072.1	16.2
60°-70°	844.4	12.7
70°-80°	518.1	7.8
80°-90°	155.9	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°	1758.3	26.5
0°-40°	2876.1	43.4
0°-60°	5115.6	77.1
0°-90°	6634.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6634.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2272	2272	2272	2272	2272	
5°	2253	2256	2262	2269	2261	214
15°	2165	2169	2182	2195	2195	610
25°	1986	1990	2013	2038	2038	914
35°	1741	1750	1786	1822	1831	1089
45°	1450	1466	1511	1563	1578	1118
55°	1121	1141	1194	1261	1281	1001
65°	758	785	853	924	949	750
75°	386	416	488	565	590	409
85°	70	96	141	179	182	91
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2272.3	2272.3	2272.3	2272.3	2272.3
2.5°	2263.6	2268.0	2269.4	2270.9	2260.7
5°	2253.4	2256.3	2262.1	2269.4	2260.7
7.5°	2238.8	2241.8	2249.0	2259.2	2254.9
10°	2222.8	2224.3	2233.0	2240.3	2231.6
12.5°	2196.6	2201.0	2211.2	2217.0	2214.1
15°	2164.6	2169.0	2182.1	2195.2	2195.2
17.5°	2126.8	2132.6	2148.6	2166.1	2167.5
20°	2084.5	2088.9	2109.3	2126.8	2126.8
22.5°	2036.5	2042.3	2062.7	2081.6	2084.5
25°	1985.6	1989.9	2013.2	2038.0	2038.0
27.5°	1925.9	1934.6	1963.7	1988.5	1994.3
30°	1867.6	1874.9	1906.9	1937.5	1941.9
32.5°	1806.5	1815.2	1848.7	1882.2	1889.5
35°	1741.0	1749.7	1786.1	1822.5	1831.2
37.5°	1672.6	1682.8	1720.6	1762.8	1771.6
40°	1601.3	1612.9	1653.7	1698.8	1707.5
42.5°	1525.6	1541.6	1585.2	1631.8	1644.9
45°	1449.9	1465.9	1511.0	1563.4	1578.0
47.5°	1369.8	1388.7	1435.3	1490.6	1506.6
50°	1289.7	1308.7	1356.7	1416.4	1433.8
52.5°	1208.2	1227.1	1276.6	1339.2	1358.2
55°	1120.9	1141.3	1193.7	1260.6	1281.0
57.5°	1030.6	1056.8	1112.1	1180.6	1200.9
60°	940.4	966.6	1029.2	1096.1	1119.4
62.5°	851.6	876.3	940.4	1011.7	1036.4
65°	758.4	784.6	853.0	924.4	949.1
67.5°	666.7	692.9	761.3	835.6	861.8
70°	572.1	601.2	671.1	745.3	771.5
72.5°	477.5	508.0	579.4	655.1	679.8
75°	385.8	416.3	487.7	564.8	589.6
77.5°	295.5	329.0	398.9	477.5	500.8
80°	214.0	246.0	311.5	388.7	414.9
82.5°	136.8	164.5	230.0	302.8	321.7
85°	69.9	96.1	141.2	179.0	182.0
87.5°	21.8	30.6	46.6	69.9	71.3
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	15.81	17.47	16.18	17.79	18.10	16.64	18.30	17.01	18.62	18.93
	3H	17.57	19.07	17.94	19.40	19.76	18.76	20.27	19.13	20.59	20.95
	4H	18.19	19.61	18.58	19.95	20.33	19.65	21.07	20.04	21.42	21.79
	6H	18.60	19.92	19.01	20.28	20.67	20.43	21.75	20.84	22.11	22.50
	8H	18.70	19.97	19.13	20.35	20.75	20.75	22.01	21.17	22.40	22.80
	12H	18.76	19.97	19.18	20.35	20.78	20.96	22.17	21.39	22.55	22.98
4H	2H	16.58	18.01	16.98	18.35	18.73	17.23	18.65	17.63	19.00	19.37
	3H	18.56	19.76	18.97	20.15	20.55	19.58	20.78	19.99	21.18	21.58
	4H	19.30	20.38	19.73	20.80	21.23	20.64	21.72	21.07	22.14	22.57
	6H	19.83	20.78	20.28	21.22	21.67	21.59	22.54	22.04	22.98	23.43
	8H	19.97	20.86	20.43	21.31	21.77	21.99	22.88	22.44	23.32	23.78
	12H	20.06	20.86	20.53	21.33	21.80	22.26	23.07	22.74	23.54	24.01
8H	4H	19.76	20.65	20.21	21.09	21.55	20.93	21.82	21.38	22.26	22.72
	6H	20.42	21.16	20.91	21.65	22.12	22.04	22.78	22.53	23.27	23.74
	8H	20.63	21.30	21.14	21.80	22.29	22.55	23.22	23.06	23.72	24.21
	12H	20.77	21.36	21.27	21.85	22.41	22.93	23.53	23.44	24.02	24.57
12H	4H	19.85	20.65	20.32	21.12	21.59	20.95	21.75	21.43	22.23	22.70
	6H	20.55	21.22	21.06	21.72	22.21	22.08	22.75	22.59	23.26	23.74
	8H	20.83	21.42	21.33	21.91	22.47	22.66	23.25	23.17	23.74	24.30