

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: P1588496

Luminaire Tested: 24CZSP-70VHE-L840-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1588496
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-70VHE-L840-S
Description: 2x4 CZSP LED Luminaire, 4000K CCT and 7500 lumens, 80CRI, Smooth Lens
Light Source: -
Ballast/Driver: -

Summary

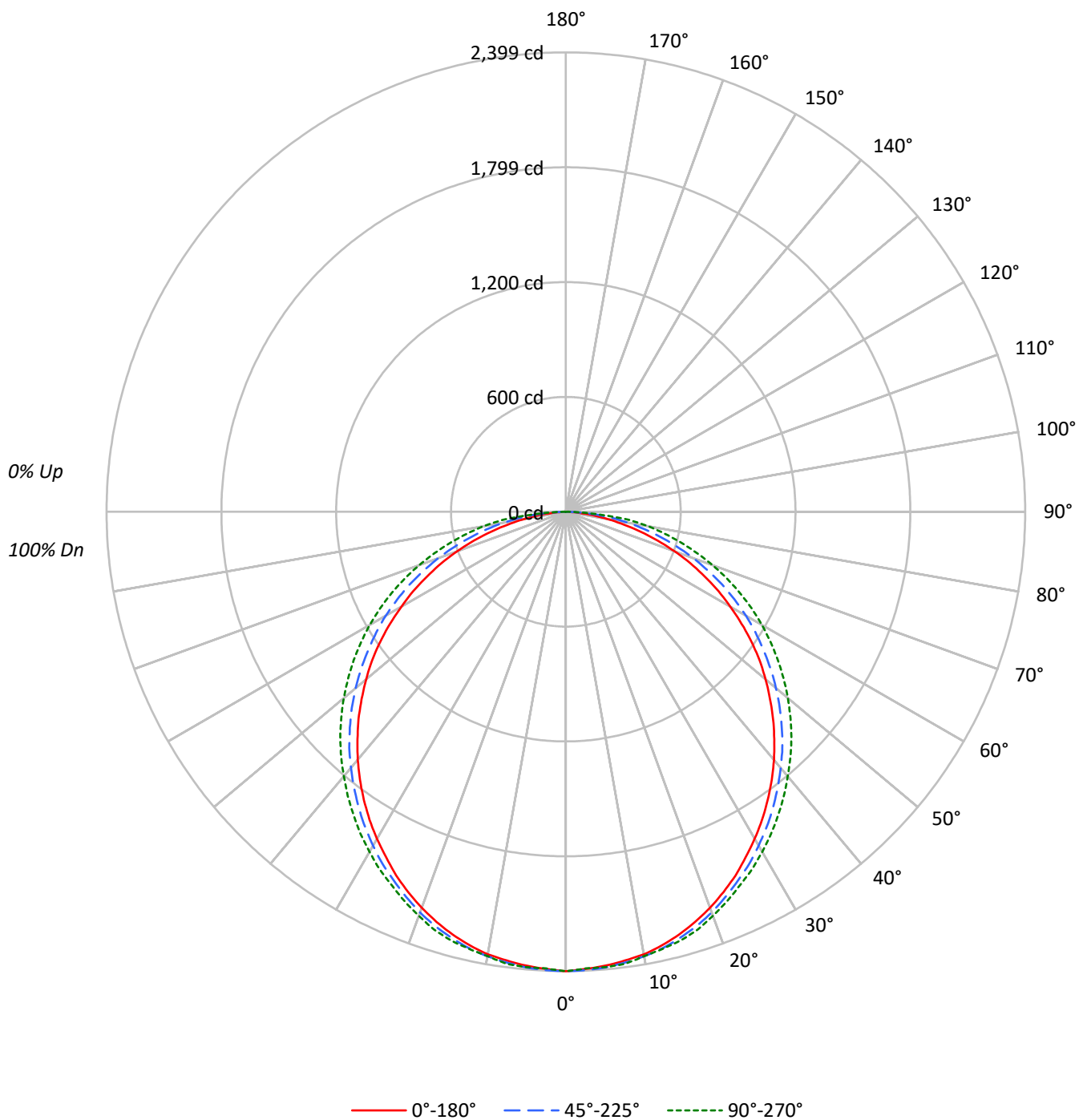
Lumens per Lamp: N/A
Luminaire Lumens: 7005.0 lumens
Efficiency: N/A
Efficacy: 131.4 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1588496

CATALOG NUMBER: 24CZSP-70VHE-L840-S

Luminous Intensity Polar Plot



TEST NUMBER: P1588496

CATALOG NUMBER: 24CZSP-70VHE-L840-S

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°	3675	3675	3675
5°	3658	3672	3670
10°	3650	3667	3665
15°	3624	3654	3675
20°	3588	3630	3660
25°	3543	3593	3637
30°	3488	3561	3626
35°	3437	3526	3616
40°	3381	3491	3605
45°	3316	3456	3609
50°	3245	3414	3608
55°	3161	3366	3612
60°	3042	3329	3621
65°	2902	3264	3632
70°	2705	3173	3648
75°	2410	3047	3684
80°	1993	2901	3864
85°	1297	2620	3376

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 3986 cd/sqm

TEST NUMBER: P1588496

CATALOG NUMBER: 24CZSP-70VHE-L840-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	226.9	3.2
10°-20°	649.8	9.3
20°-30°	979.9	14.0
30°-40°	1180.3	16.8
40°-50°	1232.7	17.6
50°-60°	1132.1	16.2
60°-70°	891.7	12.7
70°-80°	547.0	7.8
80°-90°	164.6	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°	1856.6	26.5
0°-40°	3037.0	43.4
0°-60°	5401.7	77.1
0°-90°	7005.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7005.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2399	2399	2399	2399	2399	
5°	2379	2382	2389	2396	2387	226
15°	2286	2290	2304	2318	2318	645
25°	2097	2101	2126	2152	2152	965
35°	1838	1848	1886	1924	1934	1150
45°	1531	1548	1596	1651	1666	1180
55°	1184	1205	1260	1331	1353	1057
65°	801	828	901	976	1002	792
75°	407	440	515	596	622	432
85°	74	101	149	189	192	96
90°	0	0	0	0	0	

TEST NUMBER: P1588496

CATALOG NUMBER: 24CZSP-70VHE-L840-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2399.4	2399.4	2399.4	2399.4	2399.4
2.5°	2390.2	2394.8	2396.3	2397.9	2387.1
5°	2379.4	2382.5	2388.6	2396.3	2387.1
7.5°	2364.0	2367.1	2374.8	2385.6	2381.0
10°	2347.1	2348.7	2357.9	2365.6	2356.4
12.5°	2319.5	2324.1	2334.8	2341.0	2337.9
15°	2285.7	2290.3	2304.1	2317.9	2317.9
17.5°	2245.7	2251.8	2268.7	2287.2	2288.7
20°	2201.1	2205.7	2227.2	2245.7	2245.7
22.5°	2150.4	2156.5	2178.1	2198.0	2201.1
25°	2096.6	2101.2	2125.8	2151.9	2151.9
27.5°	2033.6	2042.8	2073.5	2099.7	2105.8
30°	1972.1	1979.8	2013.6	2045.9	2050.5
32.5°	1907.5	1916.8	1952.1	1987.5	1995.1
35°	1838.4	1847.6	1886.0	1924.4	1933.7
37.5°	1766.1	1776.9	1816.8	1861.4	1870.6
40°	1690.8	1703.1	1746.1	1793.8	1803.0
42.5°	1610.9	1627.8	1673.9	1723.1	1736.9
45°	1530.9	1547.9	1595.5	1650.8	1666.2
47.5°	1446.4	1466.4	1515.6	1574.0	1590.9
50°	1361.9	1381.8	1432.6	1495.6	1514.0
52.5°	1275.8	1295.8	1348.0	1414.1	1434.1
55°	1183.6	1205.1	1260.4	1331.1	1352.6
57.5°	1088.3	1115.9	1174.3	1246.6	1268.1
60°	993.0	1020.6	1086.7	1157.4	1182.0
62.5°	899.2	925.3	993.0	1068.3	1094.4
65°	800.8	828.5	900.7	976.1	1002.2
67.5°	704.0	731.7	803.9	882.3	910.0
70°	604.1	634.8	708.6	787.0	814.7
72.5°	504.2	536.4	611.8	691.7	717.8
75°	407.3	439.6	514.9	596.4	622.5
77.5°	312.0	347.4	421.2	504.2	528.8
80°	226.0	259.8	328.9	410.4	438.1
82.5°	144.5	173.7	242.9	319.7	339.7
85°	73.8	101.4	149.1	189.1	192.1
87.5°	23.1	32.3	49.2	73.8	75.3
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1588496

CATALOG NUMBER: 24CZSP-70VHE-L840-S

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	16.00	17.66	16.36	17.98	18.29	16.83	18.49	17.19	18.81	19.12
	3H	17.76	19.26	18.13	19.59	19.95	18.95	20.45	19.32	20.78	21.14
	4H	18.37	19.80	18.77	20.14	20.52	19.84	21.26	20.23	21.61	21.98
	6H	18.79	20.11	19.20	20.47	20.86	20.62	21.94	21.03	22.30	22.69
	8H	18.89	20.16	19.32	20.54	20.94	20.94	22.20	21.36	22.59	22.99
	12H	18.94	20.16	19.37	20.54	20.96	21.15	22.36	21.58	22.74	23.17
4H	2H	16.77	18.19	17.17	18.54	18.92	17.42	18.84	17.82	19.19	19.56
	3H	18.75	19.95	19.16	20.34	20.74	19.77	20.97	20.18	21.37	21.77
	4H	19.49	20.57	19.92	20.98	21.42	20.83	21.91	21.26	22.32	22.76
	6H	20.01	20.97	20.47	21.41	21.86	21.78	22.73	22.23	23.17	23.62
	8H	20.16	21.05	20.62	21.49	21.96	22.18	23.07	22.63	23.51	23.97
	12H	20.24	21.05	20.72	21.52	21.99	22.45	23.26	22.93	23.73	24.20
8H	4H	19.94	20.84	20.40	21.28	21.74	21.11	22.01	21.57	22.45	22.91
	6H	20.61	21.35	21.10	21.84	22.31	22.23	22.97	22.72	23.46	23.93
	8H	20.82	21.49	21.32	21.99	22.47	22.74	23.41	23.25	23.91	24.40
	12H	20.96	21.55	21.46	22.04	22.60	23.12	23.72	23.63	24.21	24.76
12H	4H	20.03	20.84	20.51	21.31	21.78	21.14	21.94	21.62	22.42	22.88
	6H	20.74	21.41	21.24	21.91	22.40	22.27	22.94	22.78	23.45	23.93
	8H	21.02	21.61	21.52	22.10	22.66	22.85	23.44	23.36	23.93	24.49