

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: P1588752

Luminaire Tested: 24CZSP-A-60VHE-L830-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1588752
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-60VHE-L830-S
Description: 2x4 CZSP LED Luminaire, 3000K CCT and 6000 lumens, 80CRI, Smooth Lens, Air Vented Housing
Light Source: -
Ballast/Driver: -

Summary

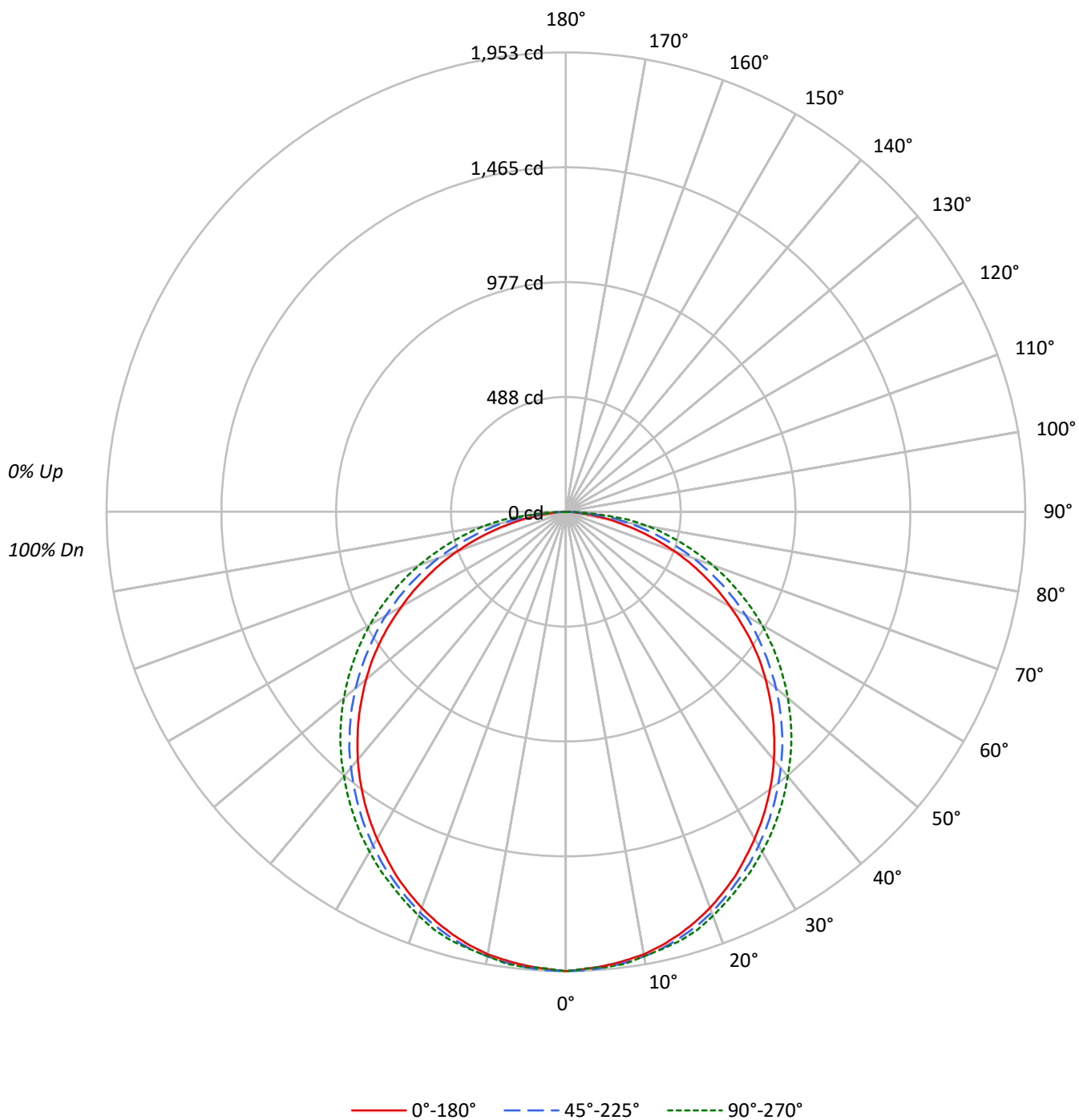
Lumens per Lamp: N/A
Luminaire Lumens: 5702.0 lumens
Efficiency: N/A
Efficacy: 131.1 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 43.5
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: P1588752

CATALOG NUMBER: 24CZSP-A-60VHE-L830-S

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	30	10	50	30	10
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°	2991	2991	2991
5°	2978	2989	2987
10°	2971	2985	2983
15°	2950	2974	2992
20°	2920	2955	2979
25°	2884	2924	2960
30°	2839	2899	2952
35°	2798	2870	2943
40°	2752	2842	2934
45°	2699	2813	2938
50°	2641	2779	2937
55°	2573	2740	2940
60°	2476	2710	2947
65°	2363	2657	2957
70°	2202	2583	2969
75°	1962	2480	2999
80°	1622	2362	3145
85°	1056	2133	2748

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 3245 cd/sqm

TEST NUMBER: P1588752

CATALOG NUMBER: 24CZSP-A-60VHE-L830-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.7	3.2
10°-20°	528.9	9.3
20°-30°	797.7	14.0
30°-40°	960.8	16.8
40°-50°	1003.4	17.6
50°-60°	921.5	16.2
60°-70°	725.8	12.7
70°-80°	445.3	7.8
80°-90°	134.0	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°	1511.3	26.5
0°-40°	2472.1	43.4
0°-60°	4396.9	77.1
0°-90°	5702.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5702.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1953	1953	1953	1953	1953	
5°	1937	1939	1944	1951	1943	184
15°	1860	1864	1876	1887	1887	525
25°	1707	1710	1730	1752	1752	786
35°	1496	1504	1535	1566	1574	936
45°	1246	1260	1299	1344	1356	961
55°	963	981	1026	1084	1101	860
65°	652	674	733	794	816	645
75°	332	358	419	486	507	352
85°	60	83	121	154	156	78
90°	0	0	0	0	0	

TEST NUMBER: P1588752

CATALOG NUMBER: 24CZSP-A-60VHE-L830-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1953.1	1953.1	1953.1	1953.1	1953.1
2.5°	1945.6	1949.3	1950.6	1951.8	1943.1
5°	1936.8	1939.3	1944.3	1950.6	1943.1
7.5°	1924.3	1926.8	1933.1	1941.8	1938.1
10°	1910.5	1911.8	1919.3	1925.6	1918.1
12.5°	1888.0	1891.8	1900.5	1905.5	1903.0
15°	1860.5	1864.3	1875.5	1886.8	1886.8
17.5°	1828.0	1833.0	1846.7	1861.8	1863.0
20°	1791.7	1795.4	1813.0	1828.0	1828.0
22.5°	1750.4	1755.4	1772.9	1789.2	1791.7
25°	1706.6	1710.4	1730.4	1751.6	1751.6
27.5°	1655.3	1662.8	1687.8	1709.1	1714.1
30°	1605.3	1611.5	1639.0	1665.3	1669.1
32.5°	1552.7	1560.2	1589.0	1617.8	1624.0
35°	1496.4	1503.9	1535.2	1566.5	1574.0
37.5°	1437.6	1446.4	1478.9	1515.2	1522.7
40°	1376.3	1386.3	1421.3	1460.1	1467.6
42.5°	1311.2	1325.0	1362.5	1402.6	1413.8
45°	1246.2	1259.9	1298.7	1343.8	1356.3
47.5°	1177.4	1193.6	1233.7	1281.2	1295.0
50°	1108.5	1124.8	1166.1	1217.4	1232.4
52.5°	1038.5	1054.7	1097.3	1151.1	1167.3
55°	963.4	980.9	1026.0	1083.5	1101.0
57.5°	885.8	908.4	955.9	1014.7	1032.2
60°	808.3	830.8	884.6	942.1	962.2
62.5°	731.9	753.2	808.3	869.6	890.8
65°	651.9	674.4	733.2	794.5	815.8
67.5°	573.0	595.6	654.4	718.2	740.7
70°	491.7	516.7	576.8	640.6	663.1
72.5°	410.4	436.7	498.0	563.0	584.3
75°	331.6	357.8	419.1	485.5	506.7
77.5°	254.0	282.8	342.8	410.4	430.4
80°	183.9	211.4	267.8	334.1	356.6
82.5°	117.6	141.4	197.7	260.2	276.5
85°	60.1	82.6	121.4	153.9	156.4
87.5°	18.8	26.3	40.0	60.1	61.3
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1588752

CATALOG NUMBER: 24CZSP-A-60VHE-L830-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	15.29	16.95	15.65	17.26	17.58	16.12	17.78	16.48	18.09	18.41
	3H	17.04	18.55	17.42	18.87	19.23	18.23	19.74	18.61	20.07	20.42
	4H	17.66	19.08	18.06	19.43	19.80	19.12	20.54	19.52	20.89	21.26
	6H	18.07	19.39	18.48	19.75	20.14	19.90	21.22	20.31	21.59	21.98
	8H	18.18	19.44	18.60	19.83	20.23	20.22	21.48	20.65	21.87	22.27
	12H	18.23	19.44	18.66	19.82	20.25	20.43	21.64	20.86	22.02	22.45
4H	2H	16.06	17.48	16.45	17.83	18.20	16.70	18.13	17.10	18.47	18.85
	3H	18.03	19.23	18.44	19.63	20.03	19.06	20.26	19.47	20.65	21.05
	4H	18.77	19.86	19.20	20.27	20.70	20.11	21.20	20.54	21.61	22.04
	6H	19.30	20.25	19.75	20.69	21.15	21.06	22.01	21.52	22.45	22.91
	8H	19.45	20.34	19.90	20.78	21.24	21.46	22.35	21.92	22.79	23.26
	12H	19.53	20.33	20.01	20.81	21.28	21.74	22.54	22.22	23.01	23.48
8H	4H	19.23	20.12	19.69	20.56	21.03	20.40	21.29	20.86	21.73	22.20
	6H	19.89	20.64	20.38	21.12	21.60	21.51	22.26	22.00	22.74	23.22
	8H	20.10	20.77	20.61	21.28	21.76	22.02	22.69	22.53	23.20	23.68
	12H	20.24	20.83	20.75	21.32	21.88	22.41	23.00	22.91	23.49	24.05
12H	4H	19.32	20.12	19.80	20.60	21.07	20.42	21.23	20.90	21.70	22.17
	6H	20.02	20.69	20.53	21.20	21.68	21.56	22.23	22.07	22.73	23.22
	8H	20.30	20.89	20.81	21.38	21.94	22.14	22.73	22.64	23.22	23.78