

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: P1589900

Luminaire Tested: 24CZSP-SB-60VHE-L850-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1589900
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2608-884-8)
Test Lab: INNOVATION CENTER
Issue Date: 9/3/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 24CZSP-SB-60VHE-L850-S
Description: 2x4 CZSP LED Luminaire, 5000K CCT and 6000 lumens, 80CRI, Smooth Lens, SB housing
Light Source: -
Ballast/Driver: -

Summary

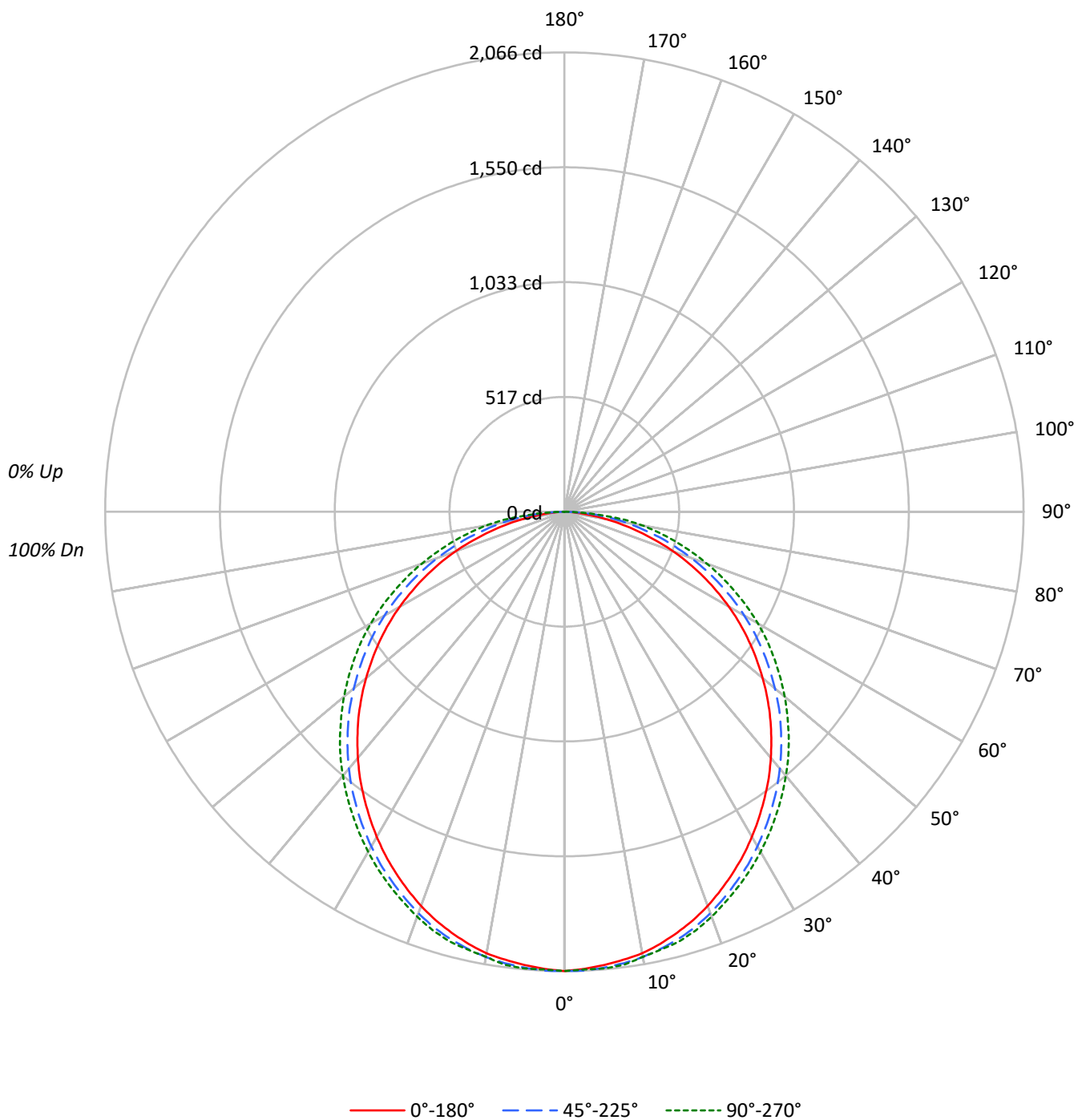
Lumens per Lamp: N/A
Luminaire Lumens: 6009.0 lumens
Efficiency: N/A
Efficacy: 138.1 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.38
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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: 28.75 FT

TEST NUMBER: P1589900

CATALOG NUMBER: 24CZSP-SB-60VHE-L850-S

Luminous Intensity Polar Plot



TEST NUMBER: P1589900

CATALOG NUMBER: 24CZSP-SB-60VHE-L850-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	94	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	66	61		69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53		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	45	39		50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35		47	40	35		45	39	35	33
8	60	46	38	32	58	45	37	31	44	37	31		43	36	31		42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26		37	30	25		36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3164	3164	3164
5°	3146	3164	3170
10°	3136	3162	3160
15°	3107	3152	3171
20°	3074	3131	3158
25°	3030	3100	3139
30°	2986	3073	3123
35°	2937	3043	3108
40°	2890	3016	3099
45°	2836	2985	3091
50°	2775	2948	3083
55°	2706	2910	3079
60°	2621	2867	3081
65°	2502	2806	3064
70°	2339	2721	3056
75°	2073	2616	3068
80°	1687	2486	3159
85°	1090	2295	2726

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 3201 cd/sqm

TEST NUMBER: P1589900

CATALOG NUMBER: 24CZSP-SB-60VHE-L850-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.5	3.3
10°-20°	559.8	9.3
20°-30°	844.0	14.0
30°-40°	1015.6	16.9
40°-50°	1059.3	17.6
50°-60°	971.0	16.2
60°-70°	762.5	12.7
70°-80°	464.1	7.7
80°-90°	137.3	2.3
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°	1599.3	26.6
0°-40°	2614.9	43.5
0°-60°	4645.2	77.3
0°-90°	6009.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6009.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2066	2066	2066	2066	2066	
5°	2046	2059	2058	2055	2062	194
15°	1960	1979	1988	1991	2000	553
25°	1793	1818	1834	1846	1858	826
35°	1571	1595	1628	1651	1662	983
45°	1310	1337	1378	1410	1427	1010
55°	1014	1039	1090	1134	1153	906
65°	690	716	774	826	845	683
75°	350	383	442	495	518	371
85°	62	88	131	146	155	81
90°	0	0	0	0	0	

TEST NUMBER: P1589900

CATALOG NUMBER: 24CZSP-SB-60VHE-L850-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2065.7	2065.7	2065.7	2065.7	2065.7
2.5°	2057.9	2068.3	2065.7	2056.6	2060.5
5°	2046.3	2059.2	2057.9	2055.3	2061.8
7.5°	2032.1	2046.3	2047.6	2047.6	2055.3
10°	2016.6	2030.8	2033.4	2029.5	2032.1
12.5°	1990.7	2007.5	2012.7	2012.7	2016.6
15°	1959.7	1979.1	1988.1	1990.7	1999.8
17.5°	1926.1	1946.8	1958.4	1964.9	1972.6
20°	1886.0	1908.0	1920.9	1928.7	1937.7
22.5°	1840.8	1865.3	1879.5	1887.3	1897.6
25°	1792.9	1817.5	1834.3	1845.9	1857.6
27.5°	1742.5	1765.8	1789.1	1803.3	1813.6
30°	1688.2	1712.8	1737.3	1755.4	1765.8
32.5°	1630.1	1655.9	1684.3	1703.7	1715.4
35°	1570.6	1595.2	1627.5	1650.7	1662.4
37.5°	1509.8	1535.7	1569.3	1593.9	1608.1
40°	1445.2	1472.4	1508.5	1535.7	1549.9
42.5°	1378.0	1403.8	1443.9	1474.9	1491.7
45°	1309.5	1336.6	1378.0	1410.3	1427.1
47.5°	1238.4	1264.2	1309.5	1347.0	1361.2
50°	1164.7	1189.3	1237.1	1277.2	1294.0
52.5°	1089.7	1115.6	1163.4	1206.1	1224.2
55°	1013.5	1039.3	1089.7	1133.7	1153.1
57.5°	935.9	961.7	1013.5	1058.7	1082.0
60°	855.7	881.6	935.9	982.4	1005.7
62.5°	773.0	800.2	855.7	903.6	928.1
65°	690.3	716.1	774.3	826.0	845.4
67.5°	607.6	633.4	690.3	742.0	765.3
70°	522.2	552.0	607.6	661.8	682.5
72.5°	433.0	466.7	522.2	579.1	599.8
75°	350.3	382.6	442.1	495.1	518.4
77.5°	268.9	303.8	359.4	413.7	436.9
80°	191.3	224.9	281.8	333.5	358.1
82.5°	121.5	151.2	208.1	254.7	272.8
85°	62.0	87.9	130.6	146.1	155.1
87.5°	18.1	31.0	46.5	58.2	64.6
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1589900

CATALOG NUMBER: 24CZSP-SB-60VHE-L850-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	15.5	17.2	15.9	17.5	17.8	16.2	17.9	16.6	18.2	18.5
	3H	17.3	18.8	17.6	19.1	19.5	18.3	19.8	18.7	20.1	20.5
	4H	17.9	19.3	18.3	19.7	20.0	19.2	20.6	19.6	20.9	21.3
	6H	18.3	19.6	18.7	20.0	20.4	19.9	21.2	20.3	21.6	22.0
	8H	18.4	19.7	18.8	20.0	20.4	20.2	21.5	20.6	21.9	22.3
	12H	18.4	19.7	18.9	20.0	20.5	20.4	21.6	20.8	22.0	22.4
4H	2H	16.3	17.7	16.7	18.0	18.4	16.8	18.3	17.2	18.6	19.0
	3H	18.3	19.5	18.7	19.9	20.3	19.2	20.3	19.6	20.7	21.1
	4H	19.0	20.1	19.4	20.5	20.9	20.2	21.3	20.6	21.7	22.1
	6H	19.5	20.5	20.0	20.9	21.4	21.1	22.0	21.5	22.5	22.9
	8H	19.7	20.6	20.1	21.0	21.5	21.4	22.3	21.9	22.8	23.2
	12H	19.8	20.6	20.2	21.0	21.5	21.7	22.5	22.2	23.0	23.4
8H	4H	19.4	20.3	19.9	20.8	21.2	20.5	21.4	20.9	21.8	22.3
	6H	20.1	20.9	20.6	21.3	21.8	21.5	22.3	22.0	22.8	23.2
	8H	20.3	21.0	20.8	21.5	22.0	22.0	22.7	22.5	23.2	23.7
	12H	20.5	21.0	21.0	21.5	22.1	22.4	22.9	22.9	23.4	24.0
12H	4H	19.5	20.3	20.0	20.8	21.3	20.5	21.3	21.0	21.8	22.2
	6H	20.2	20.9	20.8	21.4	21.9	21.6	22.3	22.1	22.7	23.3
	8H	20.5	21.1	21.0	21.6	22.2	22.1	22.7	22.6	23.2	23.8

(END OF REPORT)