

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: P1589908

Luminaire Tested: 24CZSP-SB-60VHE-L945-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1589908
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-L945-S
Description: 2x4 CZSP LED Luminaire, 4500K CCT and 6000 lumens, 90CRI, Smooth Lens, SB housing
Light Source: -
Ballast/Driver: -

Summary

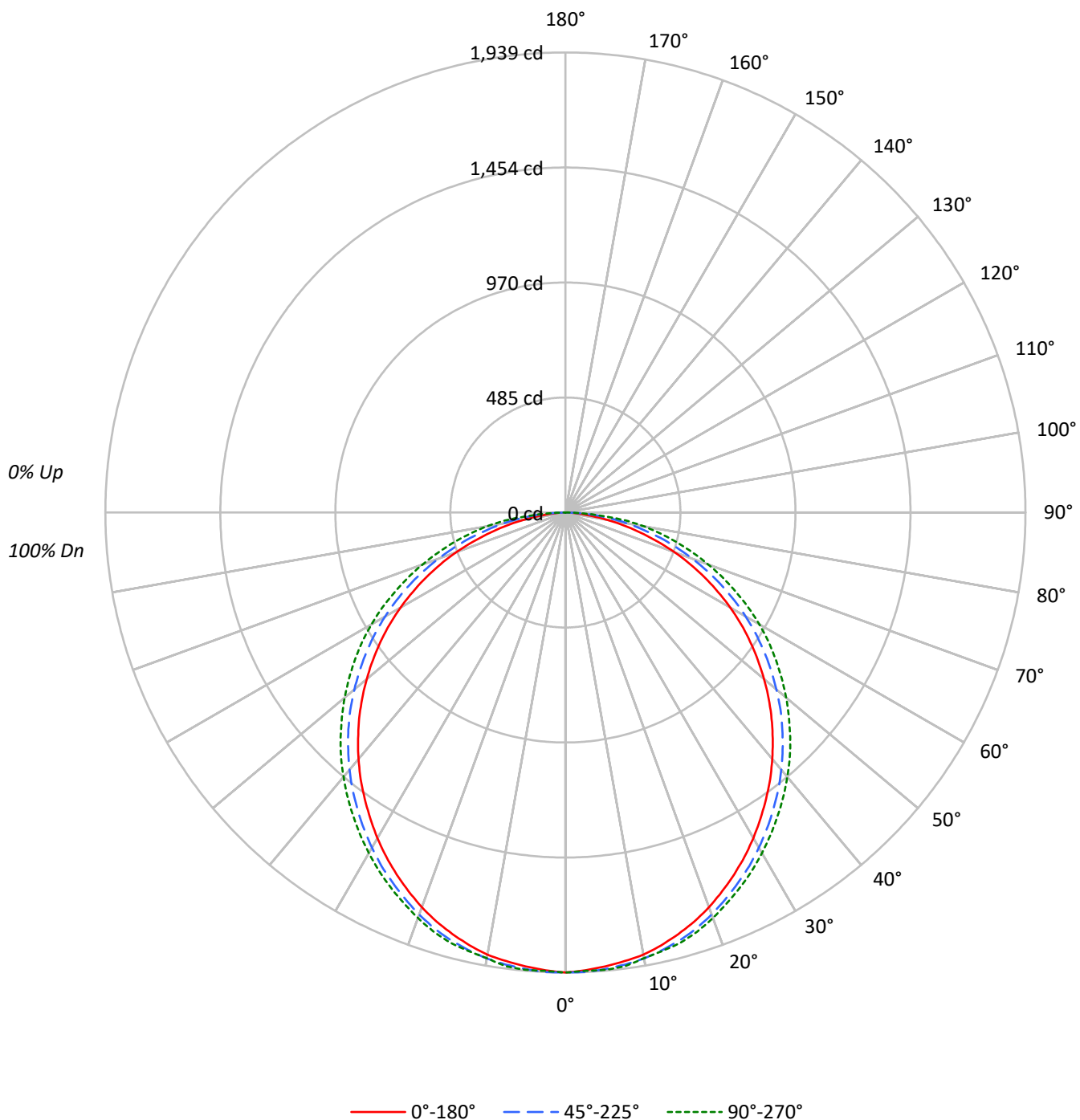
Lumens per Lamp: N/A
Luminaire Lumens: 5640.0 lumens
Efficiency: N/A
Efficacy: 129.7 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.38
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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

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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
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	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°	2970	2970	2970
5°	2953	2970	2975
10°	2944	2968	2966
15°	2916	2959	2976
20°	2885	2939	2964
25°	2844	2910	2946
30°	2802	2884	2931
35°	2756	2856	2917
40°	2712	2831	2909
45°	2662	2802	2901
50°	2605	2767	2894
55°	2540	2731	2890
60°	2460	2691	2891
65°	2348	2634	2876
70°	2195	2553	2869
75°	1946	2455	2879
80°	1584	2333	2964
85°	1023	2153	2559

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 3004 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	183.5	3.3
10°-20°	525.4	9.3
20°-30°	792.2	14.0
30°-40°	953.2	16.9
40°-50°	994.3	17.6
50°-60°	911.4	16.2
60°-70°	715.7	12.7
70°-80°	435.6	7.7
80°-90°	128.8	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°	1501.1	26.6
0°-40°	2454.3	43.5
0°-60°	4359.9	77.3
0°-90°	5640.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5640.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1939	1939	1939	1939	1939	
5°	1921	1933	1932	1929	1935	182
15°	1839	1858	1866	1868	1877	519
25°	1683	1706	1722	1733	1744	775
35°	1474	1497	1528	1549	1560	923
45°	1229	1254	1293	1324	1340	948
55°	951	976	1023	1064	1082	850
65°	648	672	727	775	794	641
75°	329	359	415	465	486	349
85°	58	82	122	137	146	76
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1938.8	1938.8	1938.8	1938.8	1938.8
2.5°	1931.6	1941.3	1938.8	1930.3	1934.0
5°	1920.6	1932.8	1931.6	1929.1	1935.2
7.5°	1907.3	1920.6	1921.9	1921.9	1929.1
10°	1892.7	1906.1	1908.5	1904.9	1907.3
12.5°	1868.5	1884.2	1889.1	1889.1	1892.7
15°	1839.3	1857.5	1866.0	1868.5	1877.0
17.5°	1807.8	1827.2	1838.1	1844.2	1851.5
20°	1770.2	1790.8	1802.9	1810.2	1818.7
22.5°	1727.7	1750.8	1764.1	1771.4	1781.1
25°	1682.8	1705.9	1721.7	1732.6	1743.5
27.5°	1635.5	1657.4	1679.2	1692.5	1702.2
30°	1584.6	1607.6	1630.7	1647.6	1657.4
32.5°	1530.0	1554.2	1580.9	1599.1	1610.0
35°	1474.1	1497.2	1527.5	1549.4	1560.3
37.5°	1417.1	1441.4	1472.9	1496.0	1509.3
40°	1356.5	1381.9	1415.9	1441.4	1454.7
42.5°	1293.4	1317.6	1355.2	1384.4	1400.1
45°	1229.1	1254.5	1293.4	1323.7	1339.5
47.5°	1162.3	1186.6	1229.1	1264.2	1277.6
50°	1093.2	1116.2	1161.1	1198.7	1214.5
52.5°	1022.8	1047.1	1092.0	1132.0	1149.0
55°	951.2	975.5	1022.8	1064.1	1082.3
57.5°	878.4	902.7	951.2	993.7	1015.5
60°	803.2	827.5	878.4	922.1	943.9
62.5°	725.5	751.0	803.2	848.1	871.1
65°	647.9	672.2	726.8	775.3	793.5
67.5°	570.2	594.5	647.9	696.4	718.3
70°	490.2	518.1	570.2	621.2	640.6
72.5°	406.5	438.0	490.2	543.6	563.0
75°	328.8	359.1	414.9	464.7	486.5
77.5°	252.4	285.1	337.3	388.3	410.1
80°	179.6	211.1	264.5	313.0	336.1
82.5°	114.0	142.0	195.3	239.0	256.0
85°	58.2	82.5	122.5	137.1	145.6
87.5°	17.0	29.1	43.7	54.6	60.7
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	15.3	16.9	15.6	17.3	17.6	16.0	17.7	16.4	18.0	18.3
	3H	17.0	18.6	17.4	18.9	19.2	18.1	19.6	18.5	19.9	20.3
	4H	17.7	19.1	18.1	19.4	19.8	19.0	20.4	19.4	20.7	21.1
	6H	18.1	19.4	18.5	19.8	20.1	19.7	21.0	20.1	21.4	21.8
	8H	18.2	19.4	18.6	19.8	20.2	20.0	21.3	20.4	21.6	22.0
	12H	18.2	19.4	18.7	19.8	20.2	20.2	21.4	20.6	21.8	22.2
4H	2H	16.0	17.5	16.4	17.8	18.2	16.6	18.0	17.0	18.4	18.8
	3H	18.0	19.2	18.4	19.6	20.0	18.9	20.1	19.3	20.5	20.9
	4H	18.8	19.9	19.2	20.3	20.7	20.0	21.0	20.4	21.4	21.9
	6H	19.3	20.3	19.8	20.7	21.2	20.9	21.8	21.3	22.2	22.7
	8H	19.5	20.3	19.9	20.8	21.2	21.2	22.1	21.7	22.6	23.0
	12H	19.5	20.3	20.0	20.8	21.3	21.5	22.3	22.0	22.8	23.2
8H	4H	19.2	20.1	19.7	20.6	21.0	20.2	21.1	20.7	21.6	22.0
	6H	19.9	20.6	20.4	21.1	21.6	21.3	22.0	21.8	22.5	23.0
	8H	20.1	20.8	20.6	21.3	21.8	21.8	22.4	22.3	23.0	23.4
	12H	20.2	20.8	20.7	21.3	21.9	22.1	22.7	22.6	23.2	23.8
12H	4H	19.3	20.1	19.8	20.6	21.1	20.3	21.1	20.8	21.6	22.0
	6H	20.0	20.7	20.5	21.2	21.7	21.4	22.0	21.9	22.5	23.0
	8H	20.3	20.9	20.8	21.4	21.9	21.9	22.5	22.4	23.0	23.5

(END OF REPORT)