

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: P1589909

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

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1589909
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2608-884-7)
Test Lab: INNOVATION CENTER
Issue Date: 9/3/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 24CZSP-SB-60VHE-L945
Description: 2x4 CZSP LED Luminaire, 4500K CCT and 6000 lumens, 90CRI, Ribbed Lens, SB housing
Light Source: -
Ballast/Driver: -

Summary

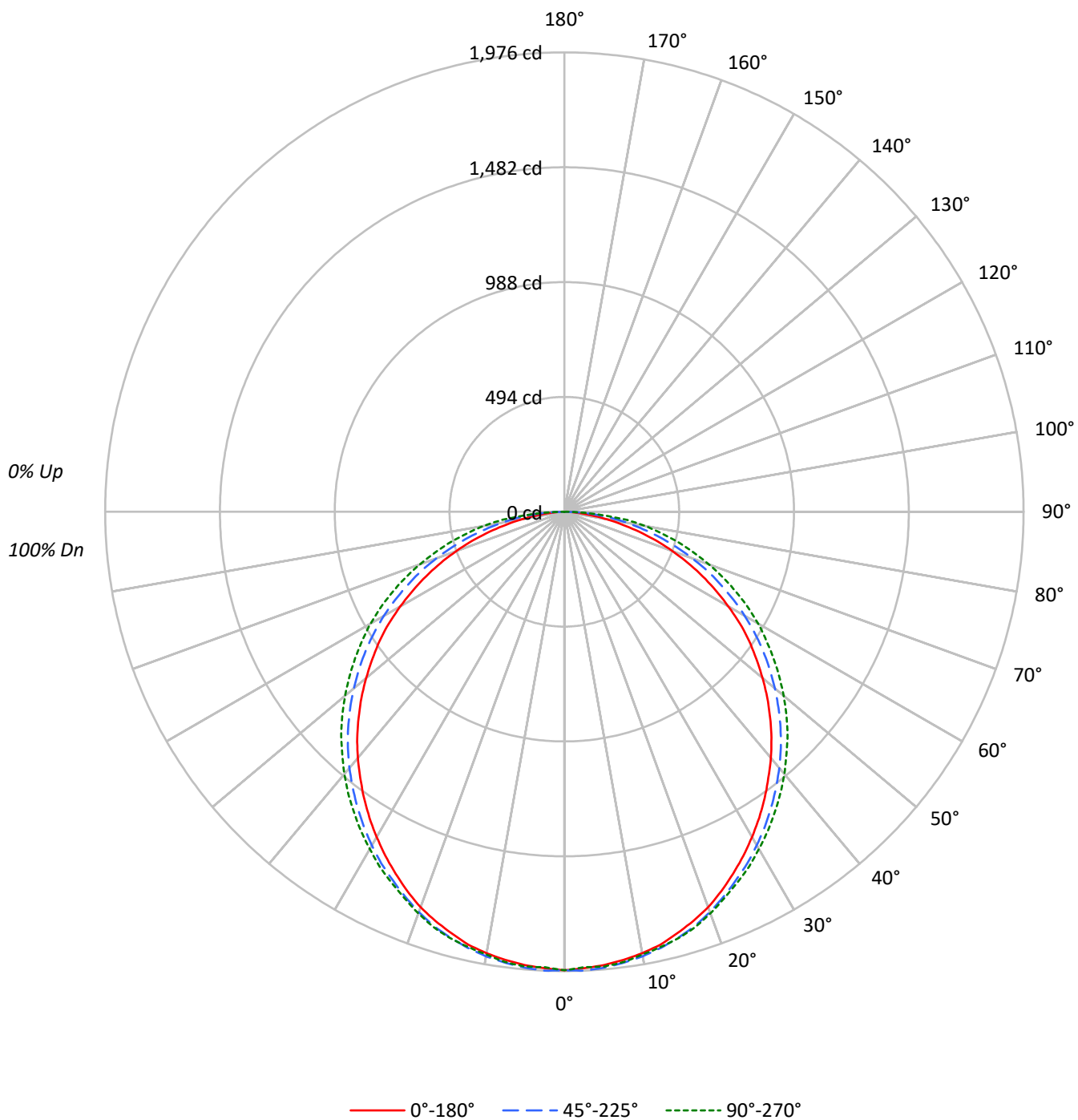
Lumens per Lamp: N/A
Luminaire Lumens: 5755.0 lumens
Efficiency: N/A
Efficacy: 132.3 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.26 / 1.38
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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			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	68
3	89	79	70	63	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°	3020	3020	3020
5°	3009	3026	3019
10°	2999	3020	3008
15°	2976	3007	3011
20°	2950	2986	2996
25°	2902	2954	2975
30°	2856	2930	2962
35°	2810	2902	2952
40°	2764	2876	2944
45°	2712	2849	2942
50°	2653	2818	2934
55°	2592	2788	2934
60°	2496	2746	2951
65°	2379	2693	2953
70°	2220	2618	2962
75°	1975	2523	3013
80°	1622	2418	3126
85°	1070	2269	2826

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 3201 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	186.5	3.2
10°-20°	533.9	9.3
20°-30°	804.8	14.0
30°-40°	969.2	16.8
40°-50°	1012.5	17.6
50°-60°	930.2	16.2
60°-70°	732.5	12.7
70°-80°	449.1	7.8
80°-90°	136.2	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°	1525.3	26.5
0°-40°	2494.4	43.3
0°-60°	4437.2	77.1
0°-90°	5755.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5755.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1972	1972	1972	1972	1972	
5°	1957	1961	1968	1966	1964	186
15°	1877	1884	1896	1904	1899	530
25°	1717	1728	1748	1766	1760	792
35°	1503	1523	1552	1580	1579	940
45°	1252	1279	1316	1352	1358	966
55°	971	999	1044	1089	1099	866
65°	656	691	743	793	815	649
75°	334	373	426	478	509	355
85°	61	90	129	144	161	78
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1972.0	1972.0	1972.0	1972.0	1972.0
2.5°	1964.7	1969.6	1975.7	1965.9	1961.0
5°	1957.4	1961.0	1968.4	1965.9	1963.5
7.5°	1944.0	1946.4	1956.2	1956.2	1953.7
10°	1928.2	1933.0	1941.6	1940.3	1934.2
12.5°	1907.5	1911.1	1920.9	1920.9	1917.2
15°	1877.0	1884.3	1896.5	1903.8	1898.9
17.5°	1845.3	1852.6	1868.5	1875.8	1873.3
20°	1810.0	1816.1	1831.9	1842.9	1838.0
22.5°	1766.2	1773.5	1791.7	1803.9	1799.0
25°	1717.4	1728.4	1747.9	1766.2	1760.1
27.5°	1668.7	1680.9	1705.3	1723.5	1721.1
30°	1615.1	1631.0	1656.5	1679.7	1674.8
32.5°	1560.3	1578.6	1605.4	1629.7	1628.5
35°	1503.1	1522.6	1551.8	1579.8	1578.6
37.5°	1442.2	1465.3	1495.8	1526.2	1527.4
40°	1382.5	1404.4	1438.5	1471.4	1472.6
42.5°	1319.1	1342.3	1378.8	1412.9	1414.1
45°	1252.1	1278.9	1315.5	1352.0	1358.1
47.5°	1183.9	1212.0	1249.7	1288.7	1296.0
50°	1113.3	1142.5	1182.7	1224.1	1231.4
52.5°	1041.4	1071.9	1113.3	1154.7	1165.7
55°	970.8	998.8	1043.9	1088.9	1098.7
57.5°	896.5	922.1	970.8	1018.3	1030.5
60°	814.9	846.5	896.5	944.0	963.5
62.5°	735.7	769.8	821.0	868.5	890.4
65°	656.5	690.6	743.0	792.9	814.9
67.5°	576.1	611.5	667.5	715.0	739.4
70°	495.7	531.1	584.7	635.8	661.4
72.5°	415.4	453.1	505.5	557.9	583.4
75°	333.7	372.7	426.3	477.5	509.1
77.5°	257.0	294.8	348.4	400.7	427.5
80°	183.9	221.7	274.1	326.4	354.4
82.5°	116.9	152.3	203.4	247.3	272.8
85°	60.9	90.1	129.1	143.7	160.8
87.5°	18.3	35.3	49.9	56.0	69.4
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	15.4	17.0	15.7	17.3	17.6	16.1	17.8	16.5	18.1	18.4
	3H	17.1	18.6	17.5	19.0	19.3	18.2	19.7	18.6	20.0	20.4
	4H	17.7	19.2	18.1	19.5	19.9	19.1	20.5	19.5	20.8	21.2
	6H	18.2	19.5	18.6	19.8	20.2	19.8	21.2	20.3	21.5	21.9
	8H	18.3	19.5	18.7	19.9	20.3	20.2	21.4	20.6	21.8	22.2
	12H	18.3	19.5	18.7	19.9	20.3	20.4	21.6	20.8	22.0	22.4
4H	2H	16.1	17.5	16.5	17.9	18.3	16.7	18.1	17.1	18.5	18.8
	3H	18.1	19.3	18.5	19.7	20.1	19.0	20.2	19.4	20.6	21.0
	4H	18.9	20.0	19.3	20.4	20.8	20.1	21.2	20.5	21.6	22.0
	6H	19.4	20.4	19.9	20.8	21.3	21.0	21.9	21.4	22.4	22.8
	8H	19.6	20.4	20.0	20.9	21.4	21.4	22.3	21.8	22.7	23.2
	12H	19.6	20.4	20.1	20.9	21.4	21.7	22.5	22.1	22.9	23.4
8H	4H	19.3	20.2	19.8	20.7	21.1	20.4	21.3	20.8	21.7	22.2
	6H	20.0	20.7	20.5	21.2	21.7	21.5	22.2	21.9	22.7	23.2
	8H	20.2	20.9	20.7	21.4	21.9	21.9	22.6	22.4	23.1	23.6
	12H	20.4	21.0	20.9	21.5	22.0	22.3	22.9	22.8	23.4	24.0
12H	4H	19.4	20.2	19.9	20.7	21.2	20.4	21.2	20.9	21.7	22.1
	6H	20.1	20.8	20.7	21.3	21.8	21.5	22.2	22.0	22.6	23.2
	8H	20.4	21.0	20.9	21.5	22.1	22.1	22.6	22.6	23.1	23.7

(END OF REPORT)