

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: P1589988

Luminaire Tested: 24CZSP-SB-70VHE-L945-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1589988
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-70VHE-L945-S
Description: 2x4 CZSP LED Luminaire, 4500K CCT and 7500 lumens, 90CRI, Smooth Lens, SB housing
Light Source: -
Ballast/Driver: -

Summary

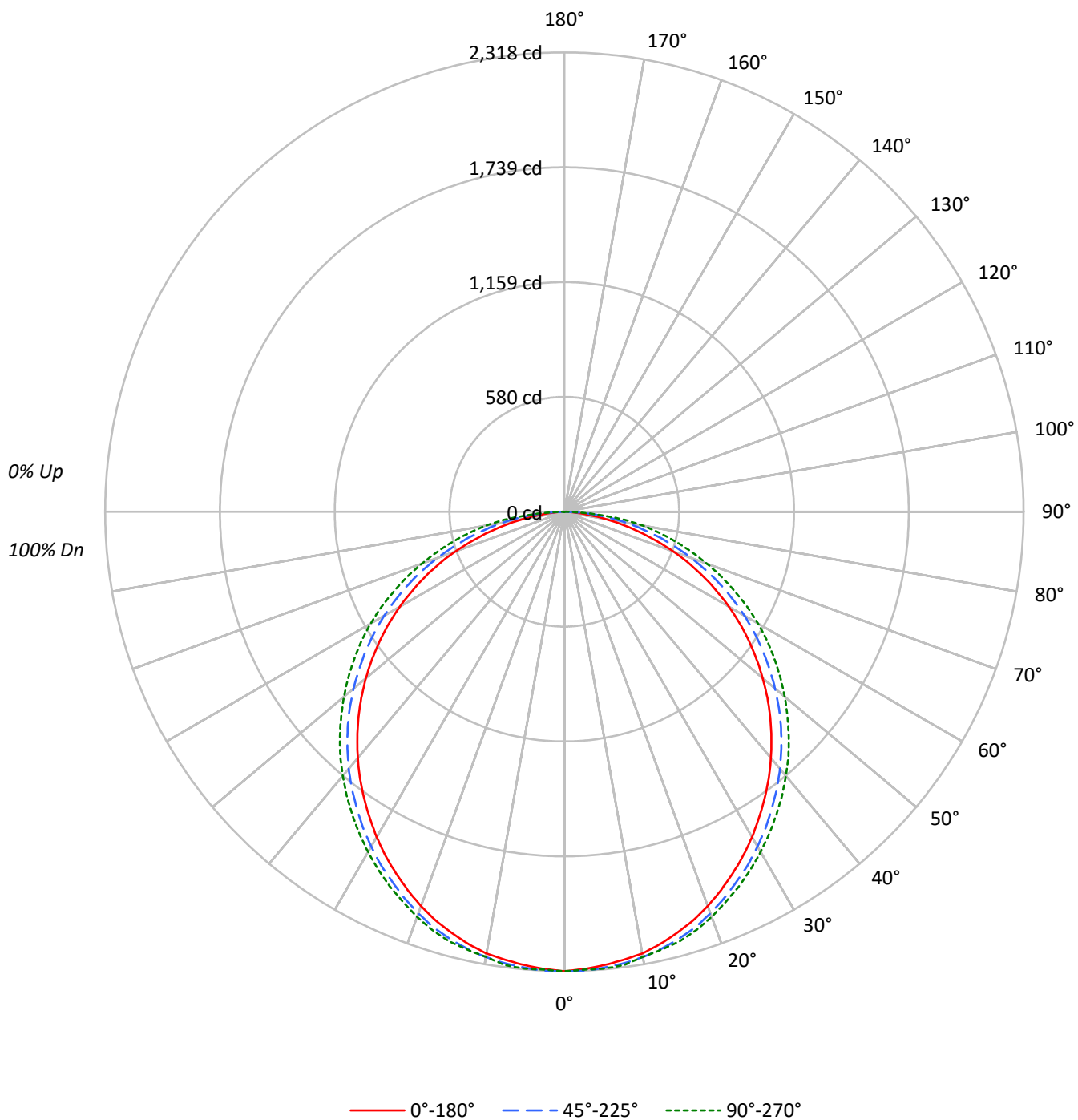
Lumens per Lamp: N/A
Luminaire Lumens: 6744.0 lumens
Efficiency: N/A
Efficacy: 126.5 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.38
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 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: 28.75 FT

TEST NUMBER: P1589988

CATALOG NUMBER: 24CZSP-SB-70VHE-L945-S

Luminous Intensity Polar Plot



TEST NUMBER: P1589988

CATALOG NUMBER: 24CZSP-SB-70VHE-L945-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°	3551	3551	3551
5°	3531	3551	3558
10°	3520	3549	3547
15°	3487	3538	3559
20°	3450	3514	3545
25°	3401	3479	3523
30°	3351	3449	3505
35°	3296	3415	3488
40°	3243	3385	3478
45°	3183	3350	3469
50°	3115	3308	3460
55°	3037	3266	3456
60°	2942	3218	3457
65°	2808	3149	3439
70°	2625	3054	3430
75°	2327	2936	3443
80°	1894	2790	3545
85°	1223	2575	3060

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 3592 cd/sqm

TEST NUMBER: P1589988

CATALOG NUMBER: 24CZSP-SB-70VHE-L945-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	219.4	3.3
10°-20°	628.3	9.3
20°-30°	947.3	14.0
30°-40°	1139.8	16.9
40°-50°	1188.9	17.6
50°-60°	1089.8	16.2
60°-70°	855.7	12.7
70°-80°	520.8	7.7
80°-90°	154.1	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°	1794.9	26.6
0°-40°	2934.7	43.5
0°-60°	5213.4	77.3
0°-90°	6744.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6744.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2318	2318	2318	2318	2318	
5°	2297	2311	2310	2307	2314	218
15°	2199	2221	2231	2234	2244	620
25°	2012	2040	2059	2072	2085	927
35°	1763	1790	1826	1853	1866	1103
45°	1470	1500	1546	1583	1602	1133
55°	1137	1166	1223	1272	1294	1016
65°	775	804	869	927	949	766
75°	393	429	496	556	582	417
85°	70	99	146	164	174	91
90°	0	0	0	0	0	

TEST NUMBER: P1589988

CATALOG NUMBER: 24CZSP-SB-70VHE-L945-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2318.4	2318.4	2318.4	2318.4	2318.4
2.5°	2309.6	2321.3	2318.4	2308.2	2312.6
5°	2296.6	2311.1	2309.6	2306.7	2314.0
7.5°	2280.6	2296.6	2298.0	2298.0	2306.7
10°	2263.2	2279.2	2282.1	2277.7	2280.6
12.5°	2234.2	2253.1	2258.9	2258.9	2263.2
15°	2199.4	2221.2	2231.3	2234.2	2244.4
17.5°	2161.7	2184.9	2197.9	2205.2	2213.9
20°	2116.7	2141.4	2155.9	2164.6	2174.7
22.5°	2065.9	2093.5	2109.4	2118.1	2129.8
25°	2012.2	2039.8	2058.7	2071.7	2084.8
27.5°	1955.7	1981.8	2007.9	2023.8	2035.5
30°	1894.7	1922.3	1949.9	1970.2	1981.8
32.5°	1829.4	1858.5	1890.4	1912.1	1925.2
35°	1762.7	1790.3	1826.5	1852.7	1865.7
37.5°	1694.5	1723.5	1761.3	1788.8	1804.8
40°	1622.0	1652.4	1693.1	1723.5	1739.5
42.5°	1546.5	1575.6	1620.5	1655.3	1674.2
45°	1469.6	1500.1	1546.5	1582.8	1601.7
47.5°	1389.9	1418.9	1469.6	1511.7	1527.7
50°	1307.2	1334.7	1388.4	1433.4	1452.2
52.5°	1223.0	1252.0	1305.7	1353.6	1373.9
55°	1137.4	1166.4	1223.0	1272.3	1294.1
57.5°	1050.4	1079.4	1137.4	1188.2	1214.3
60°	960.4	989.4	1050.4	1102.6	1128.7
62.5°	867.6	898.0	960.4	1014.1	1041.7
65°	774.7	803.7	869.0	927.1	948.8
67.5°	681.9	710.9	774.7	832.8	858.9
70°	586.1	619.5	681.9	742.8	766.0
72.5°	486.0	523.7	586.1	650.0	673.2
75°	393.2	429.4	496.2	555.7	581.8
77.5°	301.8	340.9	403.3	464.3	490.4
80°	214.7	252.4	316.3	374.3	401.9
82.5°	136.4	169.7	233.6	285.8	306.1
85°	69.6	98.7	146.5	163.9	174.1
87.5°	20.3	34.8	52.2	65.3	72.5
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1589988

CATALOG NUMBER: 24CZSP-SB-70VHE-L945-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	15.9	17.6	16.3	17.9	18.2	16.6	18.3	17.0	18.6	18.9
	3H	17.7	19.2	18.0	19.5	19.9	18.7	20.2	19.1	20.5	20.9
	4H	18.3	19.7	18.7	20.1	20.4	19.6	21.0	20.0	21.3	21.7
	6H	18.7	20.0	19.1	20.4	20.8	20.3	21.6	20.7	22.0	22.4
	8H	18.8	20.1	19.2	20.5	20.8	20.6	21.9	21.0	22.3	22.7
	12H	18.9	20.1	19.3	20.4	20.9	20.8	22.0	21.2	22.4	22.8
4H	2H	16.7	18.1	17.1	18.4	18.8	17.2	18.7	17.6	19.0	19.4
	3H	18.7	19.9	19.1	20.3	20.7	19.6	20.8	20.0	21.1	21.5
	4H	19.4	20.5	19.8	20.9	21.3	20.6	21.7	21.0	22.1	22.5
	6H	19.9	20.9	20.4	21.3	21.8	21.5	22.4	21.9	22.9	23.3
	8H	20.1	21.0	20.5	21.4	21.9	21.8	22.7	22.3	23.2	23.6
	12H	20.2	21.0	20.6	21.4	21.9	22.1	22.9	22.6	23.4	23.8
8H	4H	19.8	20.7	20.3	21.2	21.6	20.9	21.8	21.3	22.2	22.7
	6H	20.5	21.3	21.0	21.7	22.2	21.9	22.7	22.4	23.2	23.6
	8H	20.7	21.4	21.2	21.9	22.4	22.4	23.1	22.9	23.6	24.1
	12H	20.9	21.4	21.4	21.9	22.5	22.8	23.3	23.3	23.8	24.4
12H	4H	19.9	20.7	20.4	21.2	21.7	20.9	21.7	21.4	22.2	22.6
	6H	20.7	21.3	21.2	21.8	22.3	22.0	22.7	22.5	23.1	23.7
	8H	20.9	21.5	21.4	22.0	22.6	22.5	23.1	23.0	23.6	24.2

(END OF REPORT)