

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: P1589748

Luminaire Tested: 24CZSP-SB-42-L945-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1589748
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-42-L945-S
Description: 2x4 CZSP LED Luminaire, 4500K CCT and 3500 lumens, 90CRI, Smooth Lens, SB housing
Light Source: -
Ballast/Driver: -

Summary

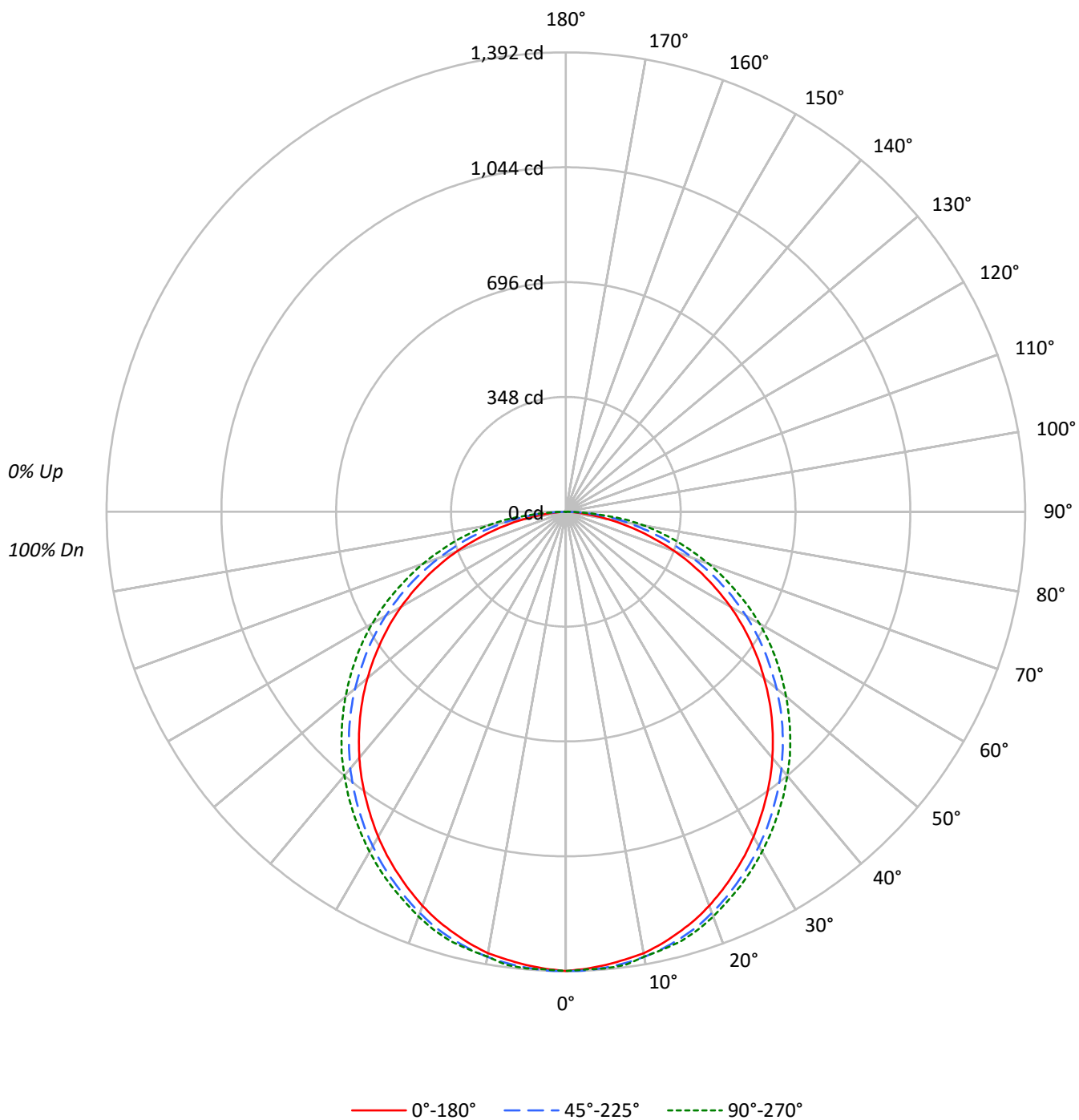
Lumens per Lamp: N/A
Luminaire Lumens: 4048.0 lumens
Efficiency: N/A
Efficacy: 141.0 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.38
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 28.7
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: P1589748

CATALOG NUMBER: 24CZSP-SB-42-L945-S

Luminous Intensity Polar Plot



TEST NUMBER: P1589748

CATALOG NUMBER: 24CZSP-SB-42-L945-S

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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	108	103	99	95	106	101	97	93	97	94	90		93	90	88		89
2	98	90	83	77	96	88	81	76	84	79	74		81	76	72		78
3	89	79	70	64	87	77	69	63	74	67	62		71	66	61		69
4	82	70	61	54	79	68	60	53	66	58	53		63	57	52		61
5	75	62	53	46	73	61	52	46	59	51	45		57	50	45		55
6	69	56	47	40	67	55	46	40	53	45	40		51	45	39		50
7	64	51	42	35	63	50	41	35	48	41	35		47	40	35		45
8	60	46	38	32	58	45	37	31	44	37	31		43	36	31		42
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		38
10	52	39	31	26	51	39	31	26	38	30	26		37	30	25		36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2131	2131	2131
5°	2119	2131	2135
10°	2113	2130	2129
15°	2093	2124	2136
20°	2071	2109	2128
25°	2041	2088	2115
30°	2011	2070	2104
35°	1978	2050	2094
40°	1947	2032	2088
45°	1911	2011	2082
50°	1870	1986	2077
55°	1823	1960	2074
60°	1766	1931	2075
65°	1685	1890	2064
70°	1575	1833	2059
75°	1397	1762	2066
80°	1137	1674	2127
85°	735	1546	1836

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 2156 cd/sqm

TEST NUMBER: P1589748

CATALOG NUMBER: 24CZSP-SB-42-L945-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.7	3.3
10°-20°	377.1	9.3
20°-30°	568.6	14.0
30°-40°	684.1	16.9
40°-50°	713.6	17.6
50°-60°	654.1	16.2
60°-70°	513.6	12.7
70°-80°	312.6	7.7
80°-90°	92.5	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°	1077.4	26.6
0°-40°	1761.5	43.5
0°-60°	3129.3	77.3
0°-90°	4048.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4048.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1392	1392	1392	1392	1392	
5°	1378	1387	1386	1385	1389	131
15°	1320	1333	1339	1341	1347	372
25°	1208	1224	1236	1244	1251	557
35°	1058	1075	1096	1112	1120	662
45°	882	900	928	950	961	680
55°	683	700	734	764	777	610
65°	465	482	522	556	570	460
75°	236	258	298	334	349	250
85°	42	59	88	98	104	54
90°	0	0	0	0	0	

TEST NUMBER: P1589748

CATALOG NUMBER: 24CZSP-SB-42-L945-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1391.6	1391.6	1391.6	1391.6	1391.6
2.5°	1386.3	1393.3	1391.6	1385.5	1388.1
5°	1378.5	1387.2	1386.3	1384.6	1388.9
7.5°	1368.9	1378.5	1379.4	1379.4	1384.6
10°	1358.5	1368.1	1369.8	1367.2	1368.9
12.5°	1341.1	1352.4	1355.9	1355.9	1358.5
15°	1320.2	1333.2	1339.3	1341.1	1347.2
17.5°	1297.5	1311.4	1319.3	1323.6	1328.9
20°	1270.5	1285.3	1294.0	1299.3	1305.4
22.5°	1240.0	1256.6	1266.2	1271.4	1278.4
25°	1207.8	1224.4	1235.7	1243.5	1251.4
27.5°	1173.9	1189.5	1205.2	1214.8	1221.8
30°	1137.3	1153.8	1170.4	1182.6	1189.5
32.5°	1098.1	1115.5	1134.7	1147.7	1155.6
35°	1058.0	1074.6	1096.4	1112.0	1119.9
37.5°	1017.1	1034.5	1057.2	1073.7	1083.3
40°	973.6	991.9	1016.2	1034.5	1044.1
42.5°	928.3	945.7	972.7	993.6	1004.9
45°	882.1	900.4	928.3	950.1	961.4
47.5°	834.2	851.7	882.1	907.4	917.0
50°	784.6	801.1	833.4	860.4	871.7
52.5°	734.1	751.5	783.7	812.5	824.7
55°	682.7	700.1	734.1	763.7	776.8
57.5°	630.5	647.9	682.7	713.2	728.9
60°	576.5	593.9	630.5	661.8	677.5
62.5°	520.7	539.0	576.5	608.7	625.2
65°	465.0	482.4	521.6	556.5	569.5
67.5°	409.3	426.7	465.0	499.8	515.5
70°	351.8	371.8	409.3	445.9	459.8
72.5°	291.7	314.4	351.8	390.1	404.1
75°	236.0	257.8	297.8	333.5	349.2
77.5°	181.1	204.6	242.1	278.7	294.3
80°	128.9	151.5	189.8	224.7	241.2
82.5°	81.9	101.9	140.2	171.6	183.7
85°	41.8	59.2	88.0	98.4	104.5
87.5°	12.2	20.9	31.3	39.2	43.5
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1589748

CATALOG NUMBER: 24CZSP-SB-42-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	14.13	15.79	14.49	16.10	16.42	14.86	16.52	15.23	16.84	17.15
	3H	15.90	17.40	16.27	17.73	18.09	16.94	18.45	17.32	18.77	19.13
	4H	16.52	17.94	16.91	18.28	18.66	17.81	19.23	18.21	19.58	19.95
	6H	16.93	18.24	17.34	18.61	19.00	18.55	19.87	18.96	20.23	20.62
	8H	17.03	18.29	17.45	18.68	19.07	18.85	20.11	19.27	20.50	20.89
	12H	17.08	18.28	17.51	18.67	19.09	19.04	20.25	19.47	20.63	21.06
4H	2H	14.90	16.32	15.30	16.66	17.04	15.47	16.89	15.87	17.24	17.61
	3H	16.89	18.08	17.30	18.48	18.88	17.78	18.98	18.19	19.37	19.77
	4H	17.63	18.71	18.06	19.13	19.56	18.80	19.88	19.23	20.30	20.73
	6H	18.16	19.11	18.61	19.55	20.00	19.71	20.66	20.16	21.09	21.55
	8H	18.30	19.19	18.76	19.63	20.10	20.07	20.96	20.53	21.40	21.87
	12H	18.38	19.18	18.86	19.66	20.13	20.33	21.13	20.81	21.60	22.07
8H	4H	18.08	18.97	18.54	19.41	19.87	19.10	19.99	19.56	20.43	20.89
	6H	18.74	19.48	19.23	19.97	20.44	20.16	20.90	20.65	21.38	21.86
	8H	18.95	19.61	19.46	20.12	20.60	20.63	21.29	21.13	21.80	22.28
	12H	19.09	19.68	19.59	20.16	20.72	20.98	21.57	21.48	22.06	22.62
12H	4H	18.16	18.96	18.64	19.43	19.90	19.12	19.92	19.60	20.40	20.87
	6H	18.86	19.53	19.37	20.04	20.52	20.21	20.87	20.71	21.38	21.86
	8H	19.14	19.73	19.65	20.22	20.78	20.74	21.33	21.25	21.82	22.38