

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: P1588288

Luminaire Tested: 24CZSP-43HE-L945-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1588288
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2608-884-6)
Test Lab: INNOVATION CENTER
Issue Date: 9/3/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 24CZSP-43HE-L945-S
Description: 2x4 CZSP LED Luminaire, 4500K CCT and 4000 lumens, 90CRI, Smooth Lens
Light Source: -
Ballast/Driver: -

Summary

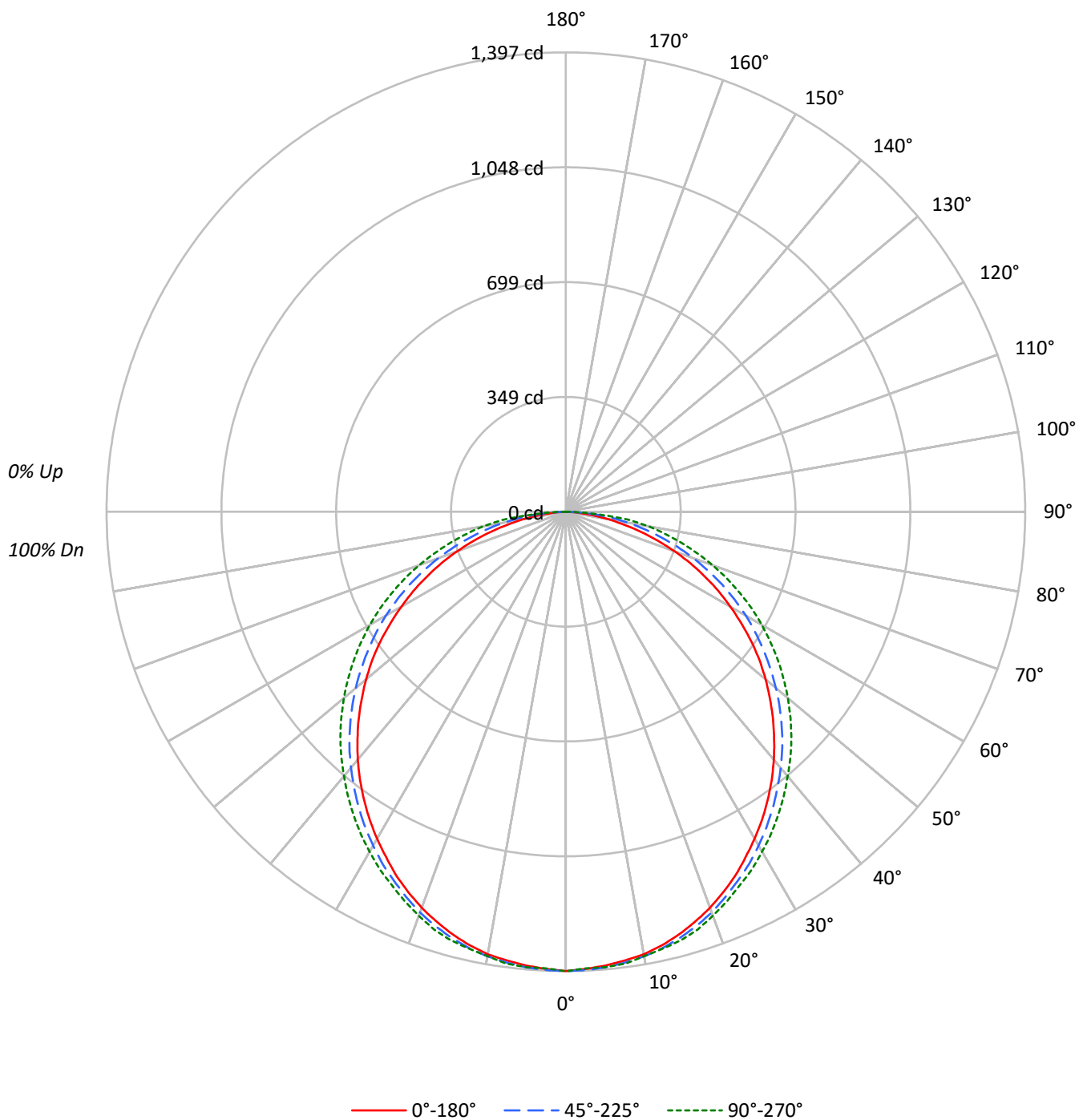
Lumens per Lamp: N/A
Luminaire Lumens: 4078.0 lumens
Efficiency: N/A
Efficacy: 138.2 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 29.5
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: 24 FT

TEST NUMBER: P1588288

CATALOG NUMBER: 24CZSP-43HE-L945-S

Luminous Intensity Polar Plot



TEST NUMBER: P1588288

CATALOG NUMBER: 24CZSP-43HE-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	93	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	65	61		69
4	82	69	60	54	79	68	60	53	66	58	52		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	44	39		50
7	64	50	42	35	62	50	41	35	48	40	35		47	40	35		45
8	60	46	37	32	58	45	37	31	44	37	31		43	36	31		42
9	56	42	34	28	54	42	34	28	40	33	28		39	33	28		38
10	52	39	31	26	51	38	31	26	37	30	25		37	30	25		36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2139	2139	2139
5°	2130	2138	2137
10°	2125	2135	2133
15°	2110	2127	2140
20°	2089	2113	2131
25°	2063	2091	2117
30°	2030	2073	2111
35°	2001	2053	2105
40°	1968	2032	2099
45°	1930	2012	2101
50°	1889	1987	2100
55°	1840	1959	2103
60°	1771	1938	2108
65°	1690	1900	2114
70°	1575	1847	2124
75°	1403	1774	2145
80°	1160	1689	2249
85°	756	1525	1966

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 2321 cd/sqm

TEST NUMBER: P1588288

CATALOG NUMBER: 24CZSP-43HE-L945-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.1	3.2
10°-20°	378.3	9.3
20°-30°	570.5	14.0
30°-40°	687.1	16.8
40°-50°	717.6	17.6
50°-60°	659.0	16.2
60°-70°	519.1	12.7
70°-80°	318.4	7.8
80°-90°	95.8	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°	1080.8	26.5
0°-40°	1768.0	43.4
0°-60°	3144.6	77.1
0°-90°	4078.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4078.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1397	1397	1397	1397	1397	
5°	1385	1387	1391	1395	1390	132
15°	1331	1333	1341	1349	1349	375
25°	1220	1223	1238	1253	1253	562
35°	1070	1076	1098	1120	1126	669
45°	891	901	929	961	970	687
55°	689	702	734	775	787	615
65°	466	482	524	568	583	461
75°	237	256	300	347	362	251
85°	43	59	87	110	112	56
90°	0	0	0	0	0	

TEST NUMBER: P1588288

CATALOG NUMBER: 24CZSP-43HE-L945-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1396.8	1396.8	1396.8	1396.8	1396.8
2.5°	1391.5	1394.1	1395.0	1395.9	1389.7
5°	1385.2	1387.0	1390.6	1395.0	1389.7
7.5°	1376.2	1378.0	1382.5	1388.8	1386.1
10°	1366.4	1367.3	1372.7	1377.1	1371.8
12.5°	1350.3	1353.0	1359.2	1362.8	1361.0
15°	1330.6	1333.3	1341.3	1349.4	1349.4
17.5°	1307.3	1310.9	1320.8	1331.5	1332.4
20°	1281.4	1284.1	1296.6	1307.3	1307.3
22.5°	1251.9	1255.4	1268.0	1279.6	1281.4
25°	1220.5	1223.2	1237.5	1252.8	1252.8
27.5°	1183.9	1189.2	1207.1	1222.3	1225.9
30°	1148.1	1152.5	1172.2	1191.0	1193.7
32.5°	1110.5	1115.8	1136.4	1157.0	1161.5
35°	1070.2	1075.6	1098.0	1120.3	1125.7
37.5°	1028.2	1034.4	1057.7	1083.6	1089.0
40°	984.3	991.5	1016.5	1044.3	1049.6
42.5°	937.8	947.6	974.5	1003.1	1011.2
45°	891.2	901.1	928.8	961.0	970.0
47.5°	842.0	853.7	882.3	916.3	926.1
50°	792.8	804.4	834.0	870.7	881.4
52.5°	742.7	754.3	784.8	823.2	834.9
55°	689.0	701.5	733.8	774.9	787.4
57.5°	633.5	649.6	683.6	725.7	738.2
60°	578.1	594.2	632.6	673.8	688.1
62.5°	523.5	538.7	578.1	621.9	637.1
65°	466.2	482.3	524.4	568.2	583.4
67.5°	409.8	425.9	468.0	513.6	529.7
70°	351.7	369.6	412.5	458.2	474.3
72.5°	293.5	312.3	356.1	402.7	417.9
75°	237.1	255.9	299.8	347.2	362.4
77.5°	181.6	202.2	245.2	293.5	307.8
80°	131.5	151.2	191.5	238.9	255.0
82.5°	84.1	101.1	141.4	186.1	197.8
85°	43.0	59.1	86.8	110.1	111.9
87.5°	13.4	18.8	28.6	43.0	43.8
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1588288

CATALOG NUMBER: 24CZSP-43HE-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	14.12	15.78	14.48	16.10	16.41	14.95	16.61	15.32	16.93	17.24
	3H	15.88	17.38	16.25	17.71	18.07	17.07	18.57	17.44	18.90	19.26
	4H	16.49	17.92	16.89	18.26	18.64	17.96	19.38	18.35	19.73	20.10
	6H	16.91	18.23	17.32	18.59	18.98	18.74	20.06	19.15	20.42	20.81
	8H	17.01	18.28	17.44	18.66	19.06	19.06	20.32	19.48	20.71	21.11
	12H	17.06	18.27	17.49	18.66	19.08	19.27	20.48	19.70	20.86	21.29
4H	2H	14.89	16.31	15.29	16.66	17.04	15.54	16.96	15.94	17.31	17.68
	3H	16.87	18.07	17.28	18.46	18.86	17.89	19.09	18.30	19.49	19.89
	4H	17.61	18.69	18.04	19.10	19.54	18.95	20.03	19.38	20.44	20.88
	6H	18.13	19.09	18.59	19.53	19.98	19.90	20.85	20.35	21.29	21.74
	8H	18.28	19.17	18.74	19.61	20.08	20.30	21.19	20.75	21.63	22.09
	12H	18.36	19.17	18.84	19.64	20.11	20.57	21.38	21.05	21.85	22.32
8H	4H	18.07	18.96	18.52	19.40	19.86	19.23	20.13	19.69	20.57	21.03
	6H	18.73	19.47	19.22	19.96	20.43	20.35	21.09	20.84	21.58	22.05
	8H	18.94	19.61	19.44	20.11	20.59	20.86	21.53	21.37	22.03	22.52
	12H	19.08	19.67	19.58	20.16	20.72	21.24	21.84	21.75	22.33	22.88
12H	4H	18.15	18.96	18.63	19.43	19.90	19.26	20.06	19.74	20.54	21.01
	6H	18.86	19.53	19.36	20.03	20.52	20.39	21.06	20.90	21.57	22.05
	8H	19.14	19.73	19.64	20.22	20.78	20.97	21.56	21.48	22.05	22.61