

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: P1588289

Luminaire Tested: 24CZSP-43HE-L945

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1588289
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2603-711-1)
Test Lab: INNOVATION CENTER
Issue Date: 9/3/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 24CZSP-43HE-L945
Description: 2x4 CZSP LED Luminaire, 4500K CCT and 4000 lumens, 90CRI, Ribbed Lens
Light Source: -
Ballast/Driver: -

Summary

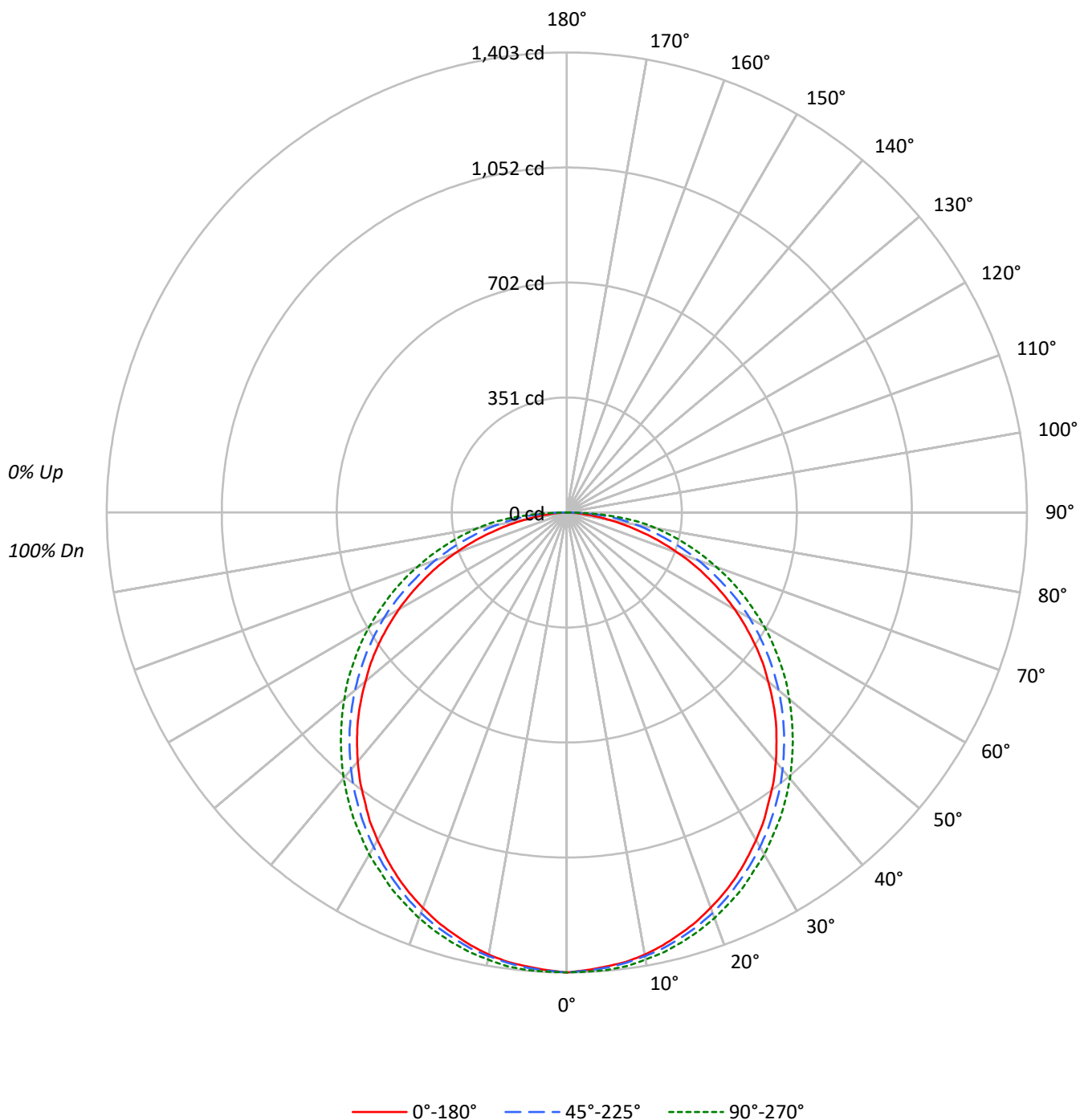
Lumens per Lamp: N/A
Luminaire Lumens: 4161.0 lumens
Efficiency: N/A
Efficacy: 141.1 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.27 / 1.38
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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: P1588289

CATALOG NUMBER: 24CZSP-43HE-L945

Luminous Intensity Polar Plot





TEST NUMBER: P1588289

CATALOG NUMBER: 24CZSP-43HE-L945

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	0		
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	108	103	98	94	105	101	97	93	96	93	90	92	90	87	89	87	85	82		
2	98	89	82	76	95	87	81	75	84	78	73	81	76	72	77	74	70	68		
3	89	78	70	63	87	77	69	62	74	67	61	71	65	60	68	63	59	57		
4	81	69	60	53	79	68	59	53	65	58	52	63	56	51	61	55	51	48		
5	75	62	52	46	73	60	52	45	58	51	45	56	50	44	54	49	44	42		
6	69	55	46	40	67	54	46	39	53	45	39	51	44	39	49	43	38	36		
7	64	50	41	35	62	49	41	35	48	40	35	46	39	34	45	39	34	32		
8	60	46	37	31	58	45	37	31	44	36	31	42	36	31	41	35	30	29		
9	56	42	34	28	54	41	33	28	40	33	28	39	32	28	38	32	27	26		
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2148	2148	2148
5°	2137	2142	2153
10°	2130	2137	2153
15°	2111	2129	2151
20°	2091	2119	2145
25°	2069	2100	2139
30°	2041	2084	2130
35°	2009	2065	2123
40°	1983	2047	2116
45°	1953	2028	2110
50°	1910	2009	2110
55°	1870	1990	2116
60°	1813	1972	2131
65°	1736	1941	2145
70°	1625	1908	2171
75°	1445	1881	2242
80°	1188	1889	2438
85°	810	2105	2692

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 85°

Luminance: 2692 cd/sqm

TEST NUMBER: P1588289

CATALOG NUMBER: 24CZSP-43HE-L945

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.8	3.2
10°-20°	380.1	9.1
20°-30°	574.8	13.8
30°-40°	693.6	16.7
40°-50°	725.2	17.4
50°-60°	669.1	16.1
60°-70°	532.0	12.8
70°-80°	335.8	8.1
80°-90°	117.7	2.8
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°	1087.6	26.1
0°-40°	1781.2	42.8
0°-60°	3175.4	76.3
0°-90°	4161.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4161.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1403	1403	1403	1403	1403	
5°	1390	1400	1394	1397	1400	132
15°	1331	1346	1343	1353	1357	376
25°	1224	1243	1243	1259	1266	564
35°	1074	1098	1104	1126	1136	673
45°	902	921	936	964	974	694
55°	700	721	745	781	792	625
65°	479	501	536	580	592	473
75°	244	272	318	365	379	259
85°	46	76	120	149	153	58
90°	0	0	0	0	0	

TEST NUMBER: P1588289

CATALOG NUMBER: 24CZSP-43HE-L945

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1402.7	1402.7	1402.7	1402.7	1402.7
2.5°	1396.9	1406.1	1398.1	1402.7	1401.5
5°	1390.0	1400.4	1393.5	1396.9	1400.4
7.5°	1382.0	1393.5	1385.4	1391.2	1395.8
10°	1369.3	1380.8	1373.9	1380.8	1384.3
12.5°	1352.0	1365.8	1361.2	1369.3	1372.7
15°	1331.3	1346.3	1342.8	1353.2	1356.6
17.5°	1309.4	1325.5	1323.2	1334.7	1338.2
20°	1282.9	1301.3	1300.2	1311.7	1316.3
22.5°	1255.3	1273.7	1272.6	1285.2	1291.0
25°	1224.2	1242.6	1242.6	1258.7	1265.6
27.5°	1189.6	1210.4	1211.5	1227.6	1233.4
30°	1153.9	1174.7	1178.1	1195.4	1204.6
32.5°	1117.1	1136.7	1142.4	1162.0	1168.9
35°	1074.5	1097.5	1104.4	1126.3	1135.5
37.5°	1035.3	1056.0	1065.3	1088.3	1097.5
40°	991.6	1013.4	1023.8	1049.1	1058.3
42.5°	946.6	968.5	980.0	1007.7	1016.9
45°	901.7	921.3	936.3	963.9	974.3
47.5°	852.2	874.1	890.2	920.2	930.5
50°	801.5	824.6	843.0	875.2	885.6
52.5°	753.2	773.9	794.6	830.3	841.8
55°	700.2	720.9	745.1	780.8	792.3
57.5°	646.1	666.8	694.4	732.4	745.1
60°	591.9	612.7	643.8	682.9	695.6
62.5°	535.5	556.2	590.8	631.1	642.6
65°	479.1	501.0	535.5	580.4	591.9
67.5°	421.5	443.4	480.2	527.4	540.1
70°	362.8	386.9	426.1	473.3	484.8
72.5°	301.7	329.4	373.1	419.2	433.0
75°	244.1	271.8	317.9	365.1	378.9
77.5°	187.7	218.8	264.9	314.4	329.4
80°	134.7	165.8	214.2	262.6	276.4
82.5°	86.4	118.6	167.0	213.1	224.6
85°	46.1	76.0	119.8	148.6	153.2
87.5°	15.0	39.2	54.1	71.4	72.6
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1588289

CATALOG NUMBER: 24CZSP-43HE-L945

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	14.21	15.89	14.58	16.20	16.51	14.93	16.61	15.30	16.92	17.23
	3H	16.00	17.52	16.38	17.84	18.20	17.10	18.62	17.48	18.94	19.30
	4H	16.63	18.06	17.03	18.41	18.79	18.03	19.47	18.43	19.81	20.19
	6H	17.05	18.39	17.46	18.75	19.14	18.89	20.23	19.30	20.59	20.98
	8H	17.17	18.44	17.59	18.83	19.23	19.27	20.55	19.70	20.93	21.33
	12H	17.23	18.45	17.65	18.83	19.26	19.58	20.80	20.01	21.19	21.61
4H	2H	14.98	16.41	15.38	16.76	17.13	15.54	16.97	15.94	17.32	17.69
	3H	17.00	18.21	17.41	18.61	19.01	17.95	19.16	18.36	19.56	19.96
	4H	17.76	18.86	18.19	19.27	19.71	19.05	20.15	19.48	20.56	21.00
	6H	18.32	19.28	18.77	19.72	20.17	20.10	21.06	20.55	21.50	21.95
	8H	18.48	19.38	18.93	19.82	20.28	20.56	21.46	21.02	21.90	22.37
	12H	18.57	19.39	19.05	19.86	20.33	20.96	21.77	21.43	22.24	22.71
8H	4H	18.25	19.15	18.71	19.60	20.06	19.37	20.27	19.83	20.72	21.18
	6H	18.96	19.72	19.45	20.20	20.68	20.59	21.35	21.08	21.83	22.30
	8H	19.20	19.88	19.71	20.39	20.87	21.19	21.87	21.69	22.37	22.85
	12H	19.37	19.98	19.88	20.46	21.02	21.73	22.33	22.23	22.82	23.38
12H	4H	18.35	19.17	18.83	19.64	20.11	19.40	20.22	19.88	20.69	21.16
	6H	19.12	19.80	19.63	20.31	20.79	20.65	21.33	21.16	21.84	22.32
	8H	19.44	20.05	19.95	20.54	21.09	21.33	21.93	21.83	22.42	22.98

END OF REPORT