

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: P1588618

Luminaire Tested: 24CZSP-A-43HE-L845-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1588618
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-A-43HE-L845-S
Description: 2x4 CZSP LED Luminaire, 4500K CCT and 4000 lumens, 80CRI, Smooth Lens, Air Vented Housing
Light Source: -
Ballast/Driver: -

Summary

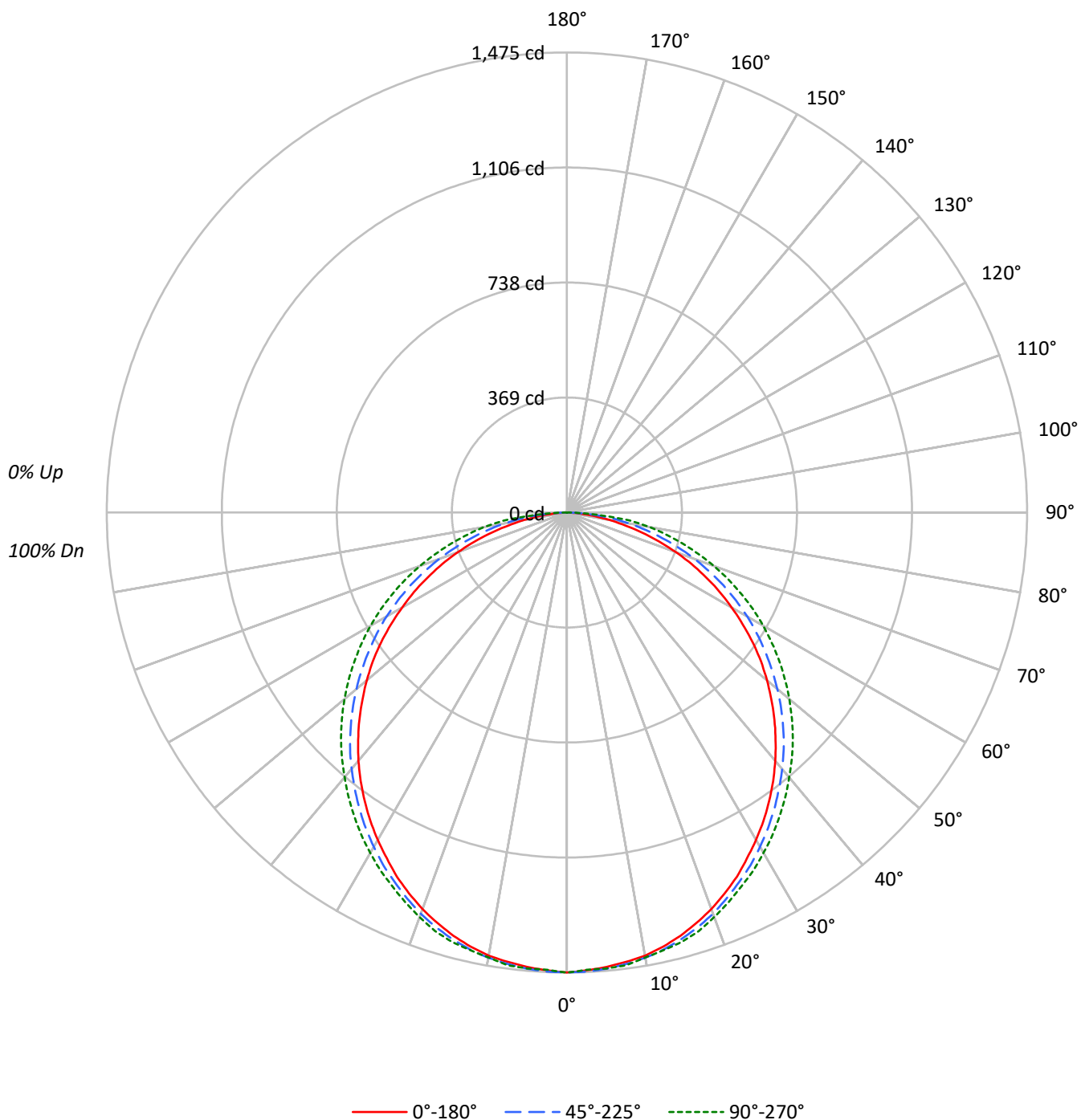
Lumens per Lamp: N/A
Luminaire Lumens: 4306.0 lumens
Efficiency: N/A
Efficacy: 146.0 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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

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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	69
3	89	79	70	64	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°	2259	2259	2259
5°	2249	2257	2256
10°	2244	2254	2253
15°	2228	2246	2259
20°	2205	2232	2250
25°	2178	2208	2235
30°	2144	2189	2229
35°	2113	2168	2222
40°	2078	2146	2216
45°	2038	2124	2218
50°	1995	2098	2218
55°	1943	2069	2220
60°	1870	2046	2226
65°	1784	2007	2232
70°	1663	1951	2243
75°	1482	1873	2265
80°	1225	1783	2375
85°	798	1611	2075

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 2450 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.5	3.2
10°-20°	399.4	9.3
20°-30°	602.4	14.0
30°-40°	725.6	16.8
40°-50°	757.7	17.6
50°-60°	695.9	16.2
60°-70°	548.1	12.7
70°-80°	336.3	7.8
80°-90°	101.2	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°	1141.3	26.5
0°-40°	1866.8	43.4
0°-60°	3320.4	77.1
0°-90°	4306.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4306.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1475	1475	1475	1475	1475	
5°	1463	1464	1468	1473	1467	139
15°	1405	1408	1416	1425	1425	396
25°	1289	1292	1307	1323	1323	593
35°	1130	1136	1159	1183	1189	707
45°	941	952	981	1015	1024	726
55°	728	741	775	818	832	649
65°	492	509	554	600	616	487
75°	250	270	316	367	383	265
85°	45	62	92	116	118	59
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1474.9	1474.9	1474.9	1474.9	1474.9
2.5°	1469.3	1472.1	1473.0	1474.0	1467.4
5°	1462.6	1464.5	1468.3	1473.0	1467.4
7.5°	1453.2	1455.1	1459.8	1466.4	1463.6
10°	1442.8	1443.7	1449.4	1454.1	1448.5
12.5°	1425.8	1428.6	1435.2	1439.0	1437.1
15°	1405.0	1407.8	1416.3	1424.8	1424.8
17.5°	1380.4	1384.2	1394.6	1405.9	1406.9
20°	1353.0	1355.9	1369.1	1380.4	1380.4
22.5°	1321.9	1325.6	1338.9	1351.1	1353.0
25°	1288.8	1291.6	1306.7	1322.8	1322.8
27.5°	1250.0	1255.7	1274.6	1290.7	1294.5
30°	1212.3	1217.0	1237.8	1257.6	1260.4
32.5°	1172.6	1178.2	1200.0	1221.7	1226.4
35°	1130.0	1135.7	1159.3	1183.0	1188.6
37.5°	1085.6	1092.3	1116.8	1144.2	1149.9
40°	1039.3	1046.9	1073.4	1102.6	1108.3
42.5°	990.2	1000.6	1028.9	1059.2	1067.7
45°	941.1	951.5	980.8	1014.8	1024.2
47.5°	889.1	901.4	931.6	967.5	977.9
50°	837.1	849.4	880.6	919.3	930.7
52.5°	784.2	796.5	828.6	869.3	881.6
55°	727.5	740.8	774.8	818.2	831.5
57.5°	669.0	686.0	721.9	766.3	779.5
60°	610.4	627.4	668.0	711.5	726.6
62.5°	552.7	568.8	610.4	656.7	672.7
65°	492.3	509.3	553.7	600.0	616.0
67.5°	432.7	449.8	494.2	542.3	559.4
70°	371.3	390.2	435.6	483.8	500.8
72.5°	309.9	329.8	376.1	425.2	441.2
75°	250.4	270.2	316.5	366.6	382.7
77.5°	191.8	213.5	258.9	309.9	325.0
80°	138.9	159.7	202.2	252.3	269.3
82.5°	88.8	106.8	149.3	196.5	208.8
85°	45.4	62.4	91.7	116.2	118.1
87.5°	14.2	19.8	30.2	45.4	46.3
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	14.31	15.97	14.67	16.29	16.60	15.14	16.80	15.50	17.12	17.43
	3H	16.07	17.57	16.44	17.90	18.26	17.26	18.76	17.63	19.09	19.45
	4H	16.68	18.11	17.08	18.45	18.83	18.15	19.57	18.54	19.91	20.29
	6H	17.09	18.42	17.50	18.78	19.17	18.93	20.25	19.34	20.61	21.00
	8H	17.20	18.46	17.63	18.85	19.25	19.25	20.51	19.67	20.90	21.30
	12H	17.25	18.46	17.68	18.85	19.27	19.46	20.67	19.89	21.05	21.48
4H	2H	15.08	16.50	15.48	16.85	17.23	15.73	17.15	16.13	17.50	17.87
	3H	17.06	18.26	17.47	18.65	19.05	18.08	19.28	18.49	19.68	20.08
	4H	17.80	18.88	18.23	19.29	19.73	19.13	20.22	19.57	20.63	21.07
	6H	18.32	19.28	18.78	19.72	20.17	20.09	21.04	20.54	21.48	21.93
	8H	18.47	19.36	18.93	19.80	20.27	20.48	21.38	20.94	21.82	22.28
	12H	18.55	19.36	19.03	19.83	20.30	20.76	21.56	21.24	22.04	22.51
8H	4H	18.25	19.15	18.71	19.59	20.05	19.42	20.32	19.88	20.76	21.22
	6H	18.92	19.66	19.41	20.15	20.62	20.54	21.28	21.03	21.77	22.24
	8H	19.13	19.79	19.63	20.30	20.78	21.05	21.72	21.55	22.22	22.71
	12H	19.27	19.86	19.77	20.35	20.91	21.43	22.02	21.94	22.51	23.07
12H	4H	18.34	19.15	18.82	19.62	20.09	19.45	20.25	19.93	20.73	21.19
	6H	19.05	19.72	19.55	20.22	20.71	20.58	21.25	21.09	21.76	22.24
	8H	19.33	19.92	19.83	20.41	20.97	21.16	21.75	21.67	22.24	22.80