

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: P1588612

Luminaire Tested: 24CZSP-A-43HE-L830-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1588612
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-L830-S
Description: 2x4 CZSP LED Luminaire, 3000K CCT and 4000 lumens, 80CRI, Smooth Lens, Air Vented Housing
Light Source: -
Ballast/Driver: -

Summary

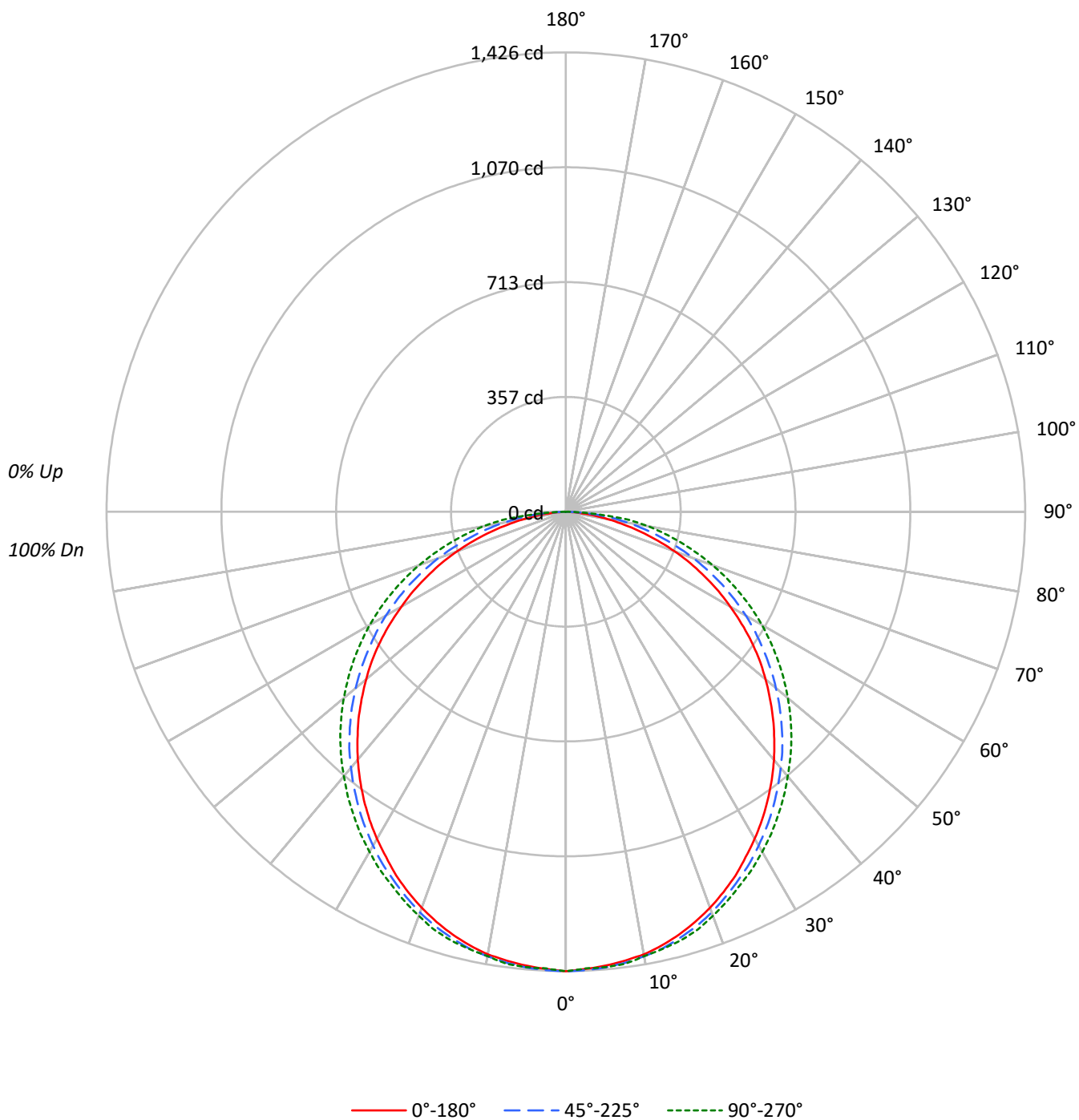
Lumens per Lamp: N/A
Luminaire Lumens: 4164.0 lumens
Efficiency: N/A
Efficacy: 141.2 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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: P1588612

CATALOG NUMBER: 24CZSP-A-43HE-L830-S

Luminous Intensity Polar Plot



TEST NUMBER: P1588612

CATALOG NUMBER: 24CZSP-A-43HE-L830-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	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°	2185	2185	2185
5°	2175	2183	2182
10°	2170	2180	2178
15°	2154	2172	2185
20°	2133	2158	2176
25°	2106	2135	2162
30°	2073	2117	2156
35°	2043	2096	2149
40°	2010	2075	2143
45°	1971	2054	2145
50°	1929	2029	2145
55°	1879	2001	2147
60°	1808	1979	2152
65°	1725	1940	2159
70°	1608	1886	2169
75°	1433	1811	2190
80°	1185	1724	2297
85°	771	1557	2007

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 2369 cd/sqm

TEST NUMBER: P1588612

CATALOG NUMBER: 24CZSP-A-43HE-L830-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.9	3.2
10°-20°	386.2	9.3
20°-30°	582.5	14.0
30°-40°	701.6	16.8
40°-50°	732.7	17.6
50°-60°	672.9	16.2
60°-70°	530.0	12.7
70°-80°	325.2	7.8
80°-90°	97.9	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°	1103.6	26.5
0°-40°	1805.3	43.4
0°-60°	3211.0	77.1
0°-90°	4164.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4164.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1426	1426	1426	1426	1426	
5°	1414	1416	1420	1424	1419	134
15°	1359	1361	1370	1378	1378	383
25°	1246	1249	1264	1279	1279	574
35°	1093	1098	1121	1144	1149	684
45°	910	920	948	981	990	702
55°	704	716	749	791	804	628
65°	476	492	535	580	596	471
75°	242	261	306	354	370	257
85°	44	60	89	112	114	57
90°	0	0	0	0	0	

TEST NUMBER: P1588612

CATALOG NUMBER: 24CZSP-A-43HE-L830-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1426.3	1426.3	1426.3	1426.3	1426.3
2.5°	1420.8	1423.5	1424.5	1425.4	1419.0
5°	1414.4	1416.2	1419.9	1424.5	1419.0
7.5°	1405.3	1407.1	1411.7	1418.1	1415.3
10°	1395.2	1396.1	1401.6	1406.2	1400.7
12.5°	1378.8	1381.5	1387.9	1391.6	1389.7
15°	1358.7	1361.4	1369.6	1377.9	1377.9
17.5°	1334.9	1338.6	1348.6	1359.6	1360.5
20°	1308.4	1311.2	1323.9	1334.9	1334.9
22.5°	1278.3	1281.9	1294.7	1306.6	1308.4
25°	1246.3	1249.0	1263.6	1279.2	1279.2
27.5°	1208.8	1214.3	1232.6	1248.1	1251.8
30°	1172.3	1176.8	1196.9	1216.1	1218.9
32.5°	1133.9	1139.4	1160.4	1181.4	1186.0
35°	1092.8	1098.3	1121.1	1143.9	1149.4
37.5°	1049.8	1056.2	1080.0	1106.5	1112.0
40°	1005.1	1012.4	1038.0	1066.3	1071.8
42.5°	957.6	967.6	995.0	1024.3	1032.5
45°	910.0	920.1	948.4	981.3	990.4
47.5°	859.8	871.7	900.9	935.6	945.7
50°	809.5	821.4	851.6	889.0	900.0
52.5°	758.4	770.2	801.3	840.6	852.5
55°	703.5	716.3	749.2	791.3	804.1
57.5°	646.9	663.3	698.1	741.0	753.8
60°	590.2	606.7	646.0	688.0	702.6
62.5°	534.5	550.0	590.2	635.0	650.6
65°	476.0	492.5	535.4	580.2	595.7
67.5°	418.5	434.9	477.9	524.5	540.9
70°	359.1	377.4	421.2	467.8	484.3
72.5°	299.7	318.9	363.7	411.2	426.7
75°	242.1	261.3	306.1	354.5	370.0
77.5°	185.5	206.5	250.4	299.7	314.3
80°	134.3	154.4	195.5	244.0	260.4
82.5°	85.9	103.2	144.4	190.0	201.9
85°	43.9	60.3	88.6	112.4	114.2
87.5°	13.7	19.2	29.2	43.9	44.8
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1588612

CATALOG NUMBER: 24CZSP-A-43HE-L830-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	14.19	15.85	14.56	16.17	16.48	15.02	16.69	15.39	17.00	17.31
	3H	15.95	17.46	16.32	17.78	18.14	17.14	18.65	17.52	18.97	19.33
	4H	16.57	17.99	16.96	18.34	18.71	18.03	19.45	18.43	19.80	20.17
	6H	16.98	18.30	17.39	18.66	19.05	18.81	20.13	19.22	20.49	20.88
	8H	17.09	18.35	17.51	18.74	19.13	19.13	20.39	19.55	20.78	21.18
	12H	17.14	18.35	17.57	18.73	19.16	19.34	20.55	19.77	20.93	21.36
4H	2H	14.96	16.39	15.36	16.73	17.11	15.61	17.03	16.01	17.38	17.76
	3H	16.94	18.14	17.35	18.54	18.94	17.97	19.16	18.37	19.56	19.96
	4H	17.68	18.77	18.11	19.18	19.61	19.02	20.10	19.45	20.52	20.95
	6H	18.21	19.16	18.66	19.60	20.05	19.97	20.92	20.42	21.36	21.82
	8H	18.35	19.25	18.81	19.69	20.15	20.37	21.26	20.83	21.70	22.17
	12H	18.44	19.24	18.92	19.72	20.18	20.64	21.45	21.12	21.92	22.39
8H	4H	18.14	19.03	18.60	19.47	19.94	19.31	20.20	19.77	20.64	21.10
	6H	18.80	19.54	19.29	20.03	20.50	20.42	21.16	20.91	21.65	22.12
	8H	19.01	19.68	19.52	20.18	20.67	20.93	21.60	21.44	22.10	22.59
	12H	19.15	19.74	19.65	20.23	20.79	21.32	21.91	21.82	22.40	22.96
12H	4H	18.23	19.03	18.71	19.50	19.97	19.33	20.14	19.81	20.61	21.08
	6H	18.93	19.60	19.44	20.11	20.59	20.47	21.14	20.97	21.64	22.13
	8H	19.21	19.80	19.71	20.29	20.85	21.04	21.64	21.55	22.13	22.68