

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: P1588613

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

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1588613
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-A-43HE-L830
Description: 2x4 CZSP LED Luminaire, 3000K CCT and 4000 lumens, 80CRI, Ribbed Lens, Air Vented Housing
Light Source: -
Ballast/Driver: -

Summary

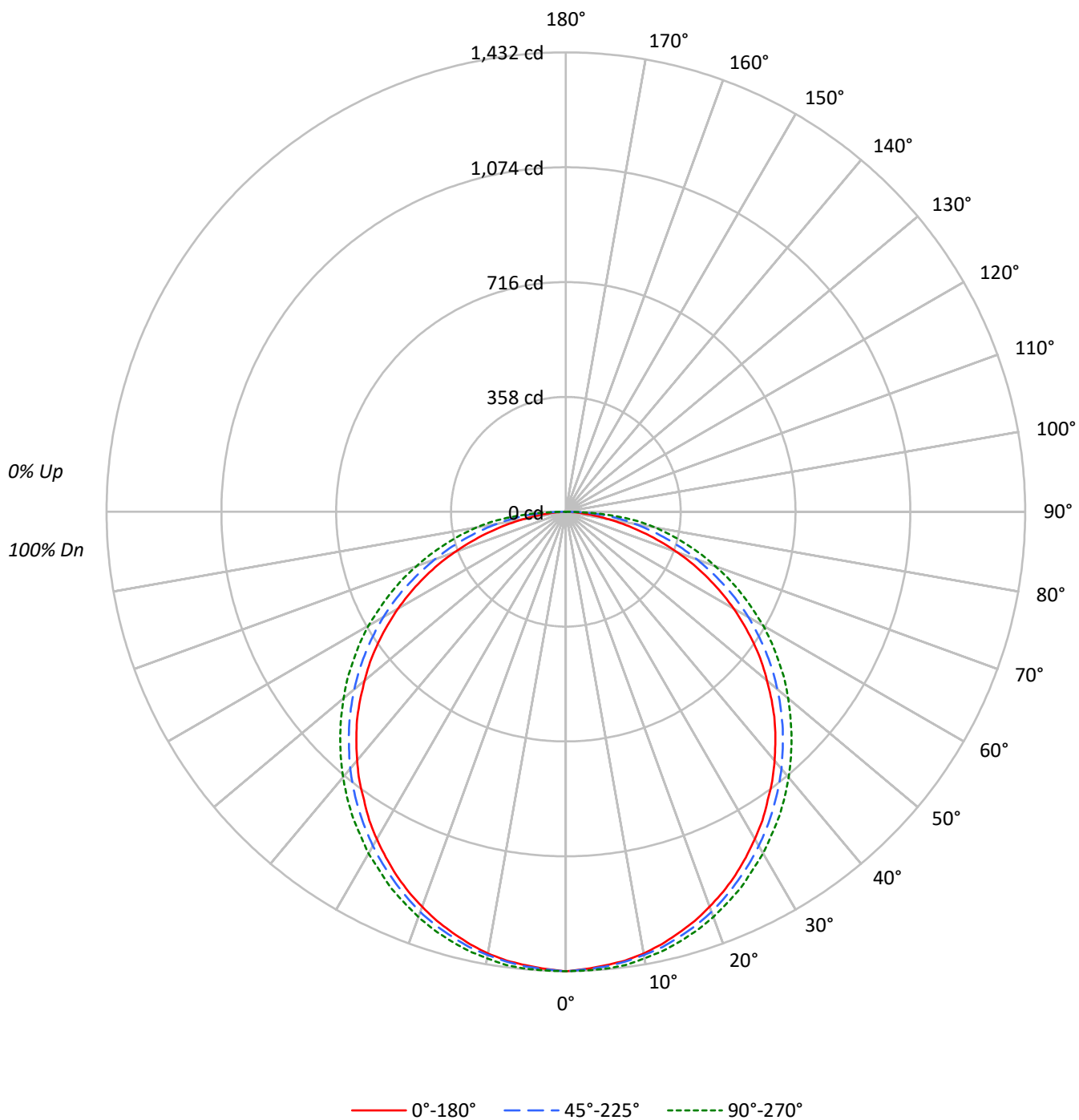
Lumens per Lamp: N/A
Luminaire Lumens: 4249.0 lumens
Efficiency: N/A
Efficacy: 144.0 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.27 / 1.38
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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: P1588613

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

Luminous Intensity Polar Plot



TEST NUMBER: P1588613

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

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	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°	2194	2194	2194
5°	2182	2188	2199
10°	2175	2182	2198
15°	2156	2174	2197
20°	2135	2164	2191
25°	2113	2144	2184
30°	2084	2128	2176
35°	2052	2109	2168
40°	2024	2090	2161
45°	1994	2071	2155
50°	1950	2051	2155
55°	1909	2032	2161
60°	1852	2014	2176
65°	1773	1982	2191
70°	1659	1948	2217
75°	1475	1921	2290
80°	1214	1929	2489
85°	826	2149	2748

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 85°

Luminance: 2748 cd/sqm

TEST NUMBER: P1588613

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.6	3.2
10°-20°	388.1	9.1
20°-30°	586.9	13.8
30°-40°	708.2	16.7
40°-50°	740.5	17.4
50°-60°	683.2	16.1
60°-70°	543.3	12.8
70°-80°	342.9	8.1
80°-90°	120.2	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°	1110.6	26.1
0°-40°	1818.8	42.8
0°-60°	3242.6	76.3
0°-90°	4249.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4249.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1432	1432	1432	1432	1432	
5°	1419	1430	1423	1426	1430	135
15°	1359	1375	1371	1382	1385	384
25°	1250	1269	1269	1285	1292	576
35°	1097	1121	1128	1150	1160	687
45°	921	941	956	984	995	709
55°	715	736	761	797	809	639
65°	489	512	547	593	604	483
75°	249	278	325	373	387	264
85°	47	78	122	152	156	60
90°	0	0	0	0	0	

TEST NUMBER: P1588613

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1432.4	1432.4	1432.4	1432.4	1432.4
2.5°	1426.5	1435.9	1427.6	1432.4	1431.2
5°	1419.4	1430.0	1422.9	1426.5	1430.0
7.5°	1411.2	1422.9	1414.7	1420.6	1425.3
10°	1398.2	1410.0	1403.0	1410.0	1413.5
12.5°	1380.6	1394.7	1390.0	1398.2	1401.8
15°	1359.4	1374.7	1371.2	1381.8	1385.3
17.5°	1337.1	1353.6	1351.2	1363.0	1366.5
20°	1310.0	1328.9	1327.7	1339.4	1344.2
22.5°	1281.8	1300.6	1299.5	1312.4	1318.3
25°	1250.1	1268.9	1268.9	1285.4	1292.4
27.5°	1214.8	1236.0	1237.1	1253.6	1259.5
30°	1178.3	1199.5	1203.0	1220.7	1230.1
32.5°	1140.7	1160.7	1166.6	1186.6	1193.6
35°	1097.2	1120.7	1127.8	1150.1	1159.5
37.5°	1057.2	1078.4	1087.8	1111.3	1120.7
40°	1012.5	1034.9	1045.5	1071.3	1080.7
42.5°	966.7	989.0	1000.8	1029.0	1038.4
45°	920.8	940.8	956.1	984.3	994.9
47.5°	870.2	892.6	909.0	939.6	950.2
50°	818.5	842.0	860.8	893.8	904.3
52.5°	769.1	790.3	811.4	847.9	859.6
55°	715.0	736.2	760.9	797.3	809.1
57.5°	659.7	680.9	709.1	747.9	760.9
60°	604.5	625.6	657.4	697.4	710.3
62.5°	546.8	568.0	603.3	644.4	656.2
65°	489.2	511.6	546.8	592.7	604.5
67.5°	430.4	452.8	490.4	538.6	551.5
70°	370.4	395.1	435.1	483.3	495.1
72.5°	308.1	336.3	381.0	428.1	442.2
75°	249.3	277.5	324.6	372.8	386.9
77.5°	191.7	223.4	270.5	321.0	336.3
80°	137.6	169.3	218.7	268.1	282.2
82.5°	88.2	121.1	170.5	217.6	229.3
85°	47.0	77.6	122.3	151.7	156.4
87.5°	15.3	40.0	55.3	72.9	74.1
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1588613

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

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	14.29	15.96	14.65	16.27	16.59	15.01	16.68	15.37	16.99	17.31
	3H	16.07	17.59	16.45	17.92	18.28	17.17	18.69	17.55	19.02	19.38
	4H	16.70	18.14	17.10	18.48	18.86	18.11	19.54	18.51	19.89	20.26
	6H	17.13	18.46	17.54	18.82	19.21	18.97	20.30	19.38	20.66	21.05
	8H	17.24	18.51	17.66	18.90	19.30	19.34	20.62	19.77	21.01	21.40
	12H	17.30	18.52	17.73	18.90	19.33	19.65	20.88	20.08	21.26	21.69
4H	2H	15.05	16.48	15.45	16.83	17.20	15.61	17.04	16.01	17.39	17.76
	3H	17.07	18.28	17.48	18.68	19.08	18.02	19.23	18.43	19.63	20.03
	4H	17.84	18.93	18.27	19.35	19.78	19.13	20.22	19.56	20.64	21.07
	6H	18.39	19.35	18.84	19.79	20.25	20.17	21.13	20.62	21.57	22.02
	8H	18.55	19.45	19.01	19.89	20.36	20.63	21.54	21.09	21.98	22.44
	12H	18.65	19.46	19.12	19.94	20.40	21.03	21.84	21.51	22.32	22.79
8H	4H	18.32	19.23	18.78	19.67	20.13	19.44	20.35	19.90	20.79	21.25
	6H	19.03	19.79	19.52	20.27	20.75	20.66	21.42	21.15	21.90	22.38
	8H	19.27	19.95	19.78	20.46	20.94	21.26	21.94	21.76	22.44	22.93
	12H	19.45	20.05	19.95	20.54	21.10	21.80	22.40	22.31	22.89	23.45
12H	4H	18.43	19.24	18.91	19.72	20.18	19.47	20.29	19.95	20.76	21.23
	6H	19.19	19.87	19.70	20.38	20.86	20.72	21.41	21.23	21.91	22.39
	8H	19.52	20.12	20.02	20.61	21.17	21.40	22.00	21.91	22.49	23.05