

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: P1588616

Luminaire Tested: 24CZSP-A-43HE-L840-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1588616
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-L840-S
Description: 2x4 CZSP LED Luminaire, 4000K CCT and 4000 lumens, 80CRI, Smooth Lens, Air Vented Housing
Light Source: -
Ballast/Driver: -

Summary

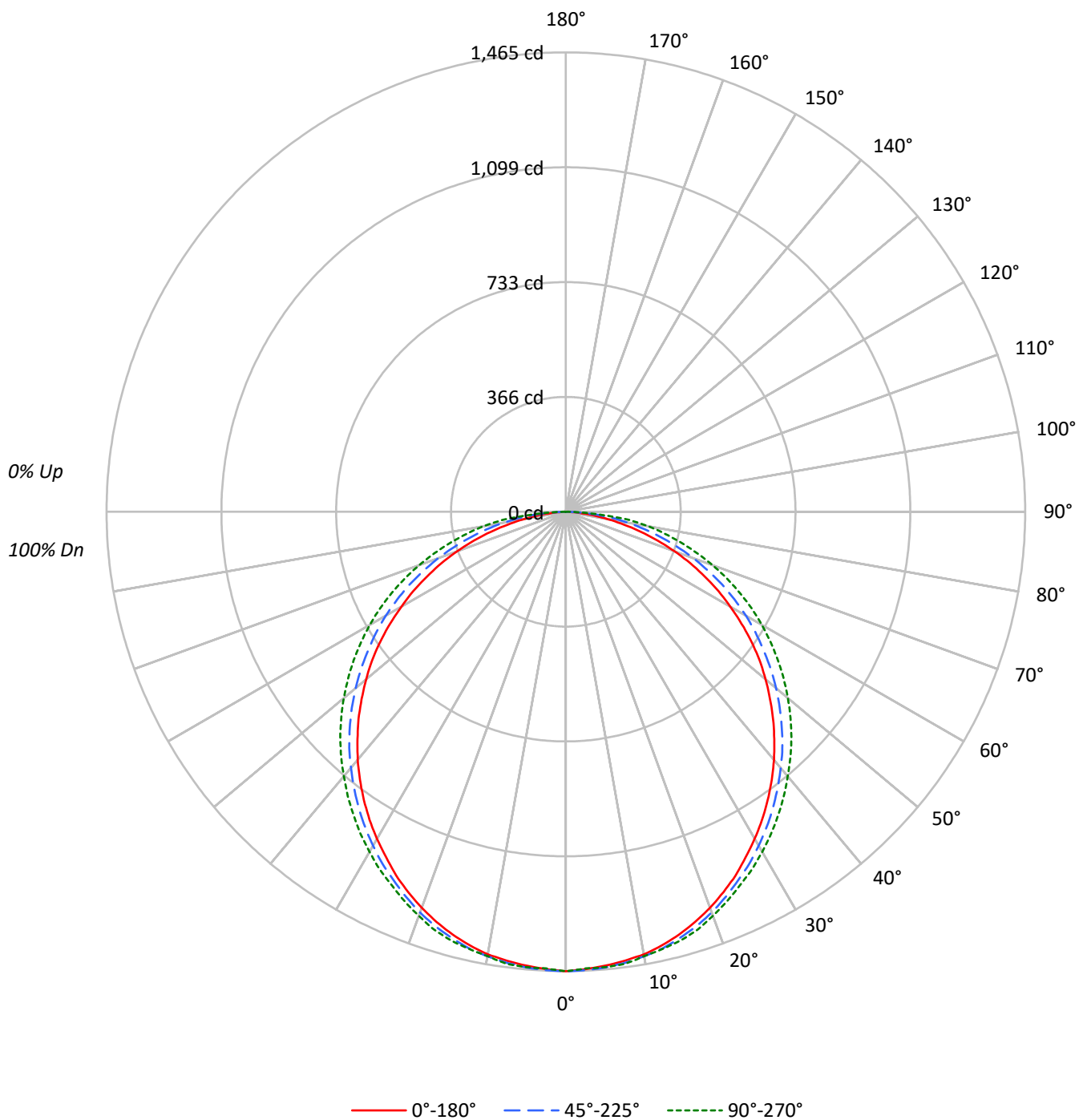
Lumens per Lamp: N/A
Luminaire Lumens: 4278.0 lumens
Efficiency: N/A
Efficacy: 145.0 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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			
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°	2244	2244	2244
5°	2234	2243	2241
10°	2229	2240	2238
15°	2213	2231	2245
20°	2191	2217	2235
25°	2164	2194	2221
30°	2130	2175	2215
35°	2099	2154	2208
40°	2065	2132	2202
45°	2025	2111	2204
50°	1982	2085	2203
55°	1930	2055	2206
60°	1858	2033	2211
65°	1773	1994	2218
70°	1652	1938	2228
75°	1472	1861	2250
80°	1217	1772	2359
85°	793	1601	2061

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 2435 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.6	3.2
10°-20°	396.8	9.3
20°-30°	598.5	14.0
30°-40°	720.8	16.8
40°-50°	752.8	17.6
50°-60°	691.4	16.2
60°-70°	544.5	12.7
70°-80°	334.1	7.8
80°-90°	100.5	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°	1133.9	26.5
0°-40°	1854.7	43.4
0°-60°	3298.9	77.1
0°-90°	4278.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4278.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1465	1465	1465	1465	1465	
5°	1453	1455	1459	1464	1458	138
15°	1396	1399	1407	1416	1416	394
25°	1280	1283	1298	1314	1314	589
35°	1123	1128	1152	1175	1181	702
45°	935	945	974	1008	1018	721
55°	723	736	770	813	826	645
65°	489	506	550	596	612	484
75°	249	268	314	364	380	264
85°	45	62	91	116	117	59
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1465.3	1465.3	1465.3	1465.3	1465.3
2.5°	1459.7	1462.5	1463.5	1464.4	1457.8
5°	1453.1	1455.0	1458.8	1463.5	1457.8
7.5°	1443.7	1445.6	1450.3	1456.9	1454.1
10°	1433.4	1434.4	1440.0	1444.7	1439.0
12.5°	1416.5	1419.3	1425.9	1429.7	1427.8
15°	1395.9	1398.7	1407.1	1415.6	1415.6
17.5°	1371.5	1375.2	1385.5	1396.8	1397.7
20°	1344.2	1347.1	1360.2	1371.5	1371.5
22.5°	1313.3	1317.0	1330.2	1342.4	1344.2
25°	1280.4	1283.2	1298.2	1314.2	1314.2
27.5°	1241.9	1247.5	1266.3	1282.3	1286.0
30°	1204.4	1209.1	1229.7	1249.4	1252.2
32.5°	1164.9	1170.6	1192.2	1213.8	1218.4
35°	1122.7	1128.3	1151.8	1175.3	1180.9
37.5°	1078.6	1085.2	1109.6	1136.8	1142.4
40°	1032.6	1040.1	1066.4	1095.5	1101.1
42.5°	983.8	994.1	1022.3	1052.3	1060.7
45°	935.0	945.3	974.4	1008.2	1017.6
47.5°	883.3	895.5	925.6	961.2	971.6
50°	831.7	843.9	874.9	913.4	924.6
52.5°	779.1	791.3	823.3	863.6	875.8
55°	722.8	736.0	769.7	812.9	826.1
57.5°	664.6	681.5	717.2	761.3	774.4
60°	606.4	623.3	663.7	706.9	721.9
62.5°	549.1	565.1	606.4	652.4	668.4
65°	489.1	506.0	550.1	596.1	612.0
67.5°	429.9	446.8	490.9	538.8	555.7
70°	368.9	387.7	432.7	480.6	497.5
72.5°	307.9	327.6	373.6	422.4	438.4
75°	248.8	268.5	314.5	364.2	380.2
77.5°	190.6	212.1	257.2	307.9	322.9
80°	138.0	158.6	200.9	250.6	267.5
82.5°	88.2	106.1	148.3	195.3	207.5
85°	45.1	62.0	91.1	115.5	117.3
87.5°	14.1	19.7	30.0	45.1	46.0
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	14.29	15.95	14.65	16.26	16.58	15.12	16.78	15.48	17.09	17.41
	3H	16.04	17.55	16.42	17.88	18.24	17.23	18.74	17.61	19.07	19.43
	4H	16.66	18.08	17.06	18.43	18.81	18.12	19.54	18.52	19.89	20.27
	6H	17.07	18.39	17.48	18.76	19.15	18.90	20.22	19.31	20.59	20.98
	8H	17.18	18.44	17.60	18.83	19.23	19.22	20.49	19.65	20.87	21.27
	12H	17.23	18.44	17.66	18.82	19.25	19.43	20.65	19.86	21.03	21.46
4H	2H	15.06	16.48	15.46	16.83	17.20	15.70	17.13	16.10	17.47	17.85
	3H	17.04	18.23	17.44	18.63	19.03	18.06	19.26	18.47	19.65	20.05
	4H	17.77	18.86	18.20	19.27	19.71	19.11	20.20	19.54	20.61	21.05
	6H	18.30	19.25	18.75	19.69	20.15	20.06	21.02	20.52	21.46	21.91
	8H	18.45	19.34	18.91	19.78	20.24	20.46	21.35	20.92	21.79	22.26
	12H	18.53	19.33	19.01	19.81	20.28	20.74	21.54	21.22	22.02	22.48
8H	4H	18.23	19.12	18.69	19.57	20.03	19.40	20.29	19.86	20.73	21.20
	6H	18.89	19.64	19.38	20.12	20.60	20.51	21.26	21.00	21.74	22.22
	8H	19.10	19.77	19.61	20.28	20.76	21.02	21.69	21.53	22.20	22.68
	12H	19.24	19.83	19.75	20.32	20.88	21.41	22.00	21.92	22.49	23.05
12H	4H	18.32	19.12	18.80	19.60	20.07	19.43	20.23	19.90	20.70	21.17
	6H	19.02	19.69	19.53	20.20	20.68	20.56	21.23	21.07	21.73	22.22
	8H	19.30	19.89	19.81	20.38	20.94	21.14	21.73	21.64	22.22	22.78