

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: P1588653

Luminaire Tested: 24CZSP-A-49HE-L830

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1588653
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-49HE-L830
Description: 2x4 CZSP LED Luminaire, 3000K CCT and 4500 lumens, 80CRI, Ribbed Lens, Air Vented Housing
Light Source: -
Ballast/Driver: -

Summary

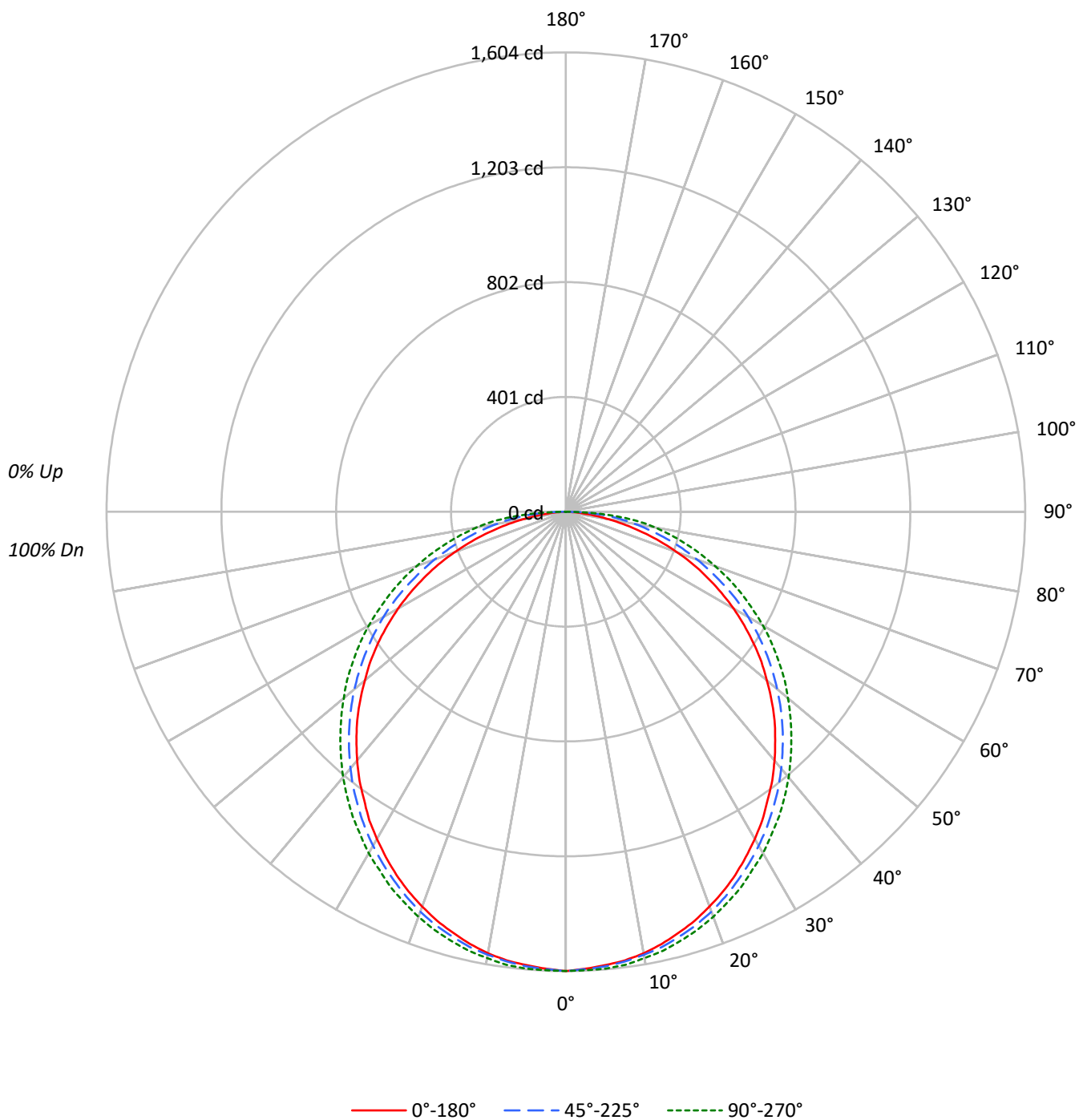
Lumens per Lamp: N/A
Luminaire Lumens: 4757.0 lumens
Efficiency: N/A
Efficacy: 142.9 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.27 / 1.38
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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	50	30	10
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°	2456	2456	2456
5°	2443	2449	2461
10°	2435	2443	2461
15°	2413	2434	2459
20°	2391	2423	2453
25°	2365	2401	2445
30°	2333	2382	2435
35°	2297	2361	2427
40°	2267	2340	2419
45°	2233	2319	2413
50°	2183	2296	2413
55°	2138	2275	2419
60°	2073	2255	2436
65°	1985	2219	2452
70°	1857	2181	2482
75°	1652	2151	2564
80°	1358	2160	2787
85°	926	2406	3077

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 85°

Luminance: 3077 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.8	3.2
10°-20°	434.5	9.1
20°-30°	657.1	13.8
30°-40°	792.9	16.7
40°-50°	829.1	17.4
50°-60°	764.9	16.1
60°-70°	608.2	12.8
70°-80°	383.9	8.1
80°-90°	134.6	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°	1243.4	26.1
0°-40°	2036.3	42.8
0°-60°	3630.3	76.3
0°-90°	4757.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4757.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1604	1604	1604	1604	1604	
5°	1589	1601	1593	1597	1601	151
15°	1522	1539	1535	1547	1551	430
25°	1400	1421	1421	1439	1447	645
35°	1228	1255	1263	1288	1298	770
45°	1031	1053	1070	1102	1114	794
55°	800	824	852	893	906	715
65°	548	573	612	664	677	541
75°	279	311	363	417	433	296
85°	53	87	137	170	175	67
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1603.6	1603.6	1603.6	1603.6	1603.6
2.5°	1597.0	1607.6	1598.3	1603.6	1602.3
5°	1589.1	1601.0	1593.1	1597.0	1601.0
7.5°	1579.9	1593.1	1583.9	1590.4	1595.7
10°	1565.4	1578.6	1570.7	1578.6	1582.5
12.5°	1545.7	1561.5	1556.2	1565.4	1569.4
15°	1522.0	1539.1	1535.1	1547.0	1550.9
17.5°	1497.0	1515.4	1512.8	1525.9	1529.9
20°	1466.7	1487.7	1486.4	1499.6	1504.9
22.5°	1435.1	1456.1	1454.8	1469.3	1475.9
25°	1399.5	1420.6	1420.6	1439.0	1446.9
27.5°	1360.0	1383.7	1385.0	1403.5	1410.1
30°	1319.2	1342.9	1346.9	1366.6	1377.1
32.5°	1277.1	1299.5	1306.1	1328.4	1336.3
35°	1228.4	1254.7	1262.6	1287.6	1298.2
37.5°	1183.6	1207.3	1217.8	1244.2	1254.7
40°	1133.6	1158.6	1170.4	1199.4	1209.9
42.5°	1082.2	1107.2	1120.4	1152.0	1162.5
45°	1030.9	1053.3	1070.4	1102.0	1113.8
47.5°	974.3	999.3	1017.7	1052.0	1063.8
50°	916.3	942.7	963.7	1000.6	1012.5
52.5°	861.0	884.7	908.4	949.3	962.4
55°	800.5	824.2	851.8	892.6	905.8
57.5°	738.6	762.3	793.9	837.3	851.8
60°	676.7	700.4	736.0	780.7	795.2
62.5°	612.2	635.9	675.4	721.5	734.7
65°	547.7	572.7	612.2	663.6	676.7
67.5°	481.9	506.9	549.0	603.0	617.5
70°	414.7	442.4	487.1	541.1	554.3
72.5°	344.9	376.5	426.6	479.2	495.0
75°	279.1	310.7	363.4	417.4	433.2
77.5°	214.6	250.2	302.8	359.4	376.5
80°	154.0	189.6	244.9	300.2	316.0
82.5°	98.7	135.6	190.9	243.6	256.7
85°	52.7	86.9	136.9	169.8	175.1
87.5°	17.1	44.8	61.9	81.6	82.9
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	14.68	16.35	15.04	16.66	16.98	15.40	17.07	15.76	17.39	17.70
	3H	16.47	17.98	16.84	18.31	18.67	17.57	19.08	17.94	19.41	19.77
	4H	17.10	18.53	17.49	18.88	19.25	18.50	19.93	18.90	20.28	20.65
	6H	17.52	18.85	17.93	19.21	19.60	19.36	20.69	19.77	21.05	21.44
	8H	17.63	18.90	18.06	19.29	19.69	19.74	21.01	20.16	21.40	21.80
	12H	17.69	18.91	18.12	19.29	19.72	20.05	21.27	20.48	21.65	22.08
4H	2H	15.44	16.88	15.84	17.22	17.60	16.00	17.44	16.40	17.78	18.16
	3H	17.47	18.68	17.87	19.07	19.47	18.42	19.63	18.82	20.02	20.42
	4H	18.23	19.33	18.66	19.74	20.17	19.52	20.62	19.95	21.03	21.46
	6H	18.78	19.75	19.23	20.19	20.64	20.56	21.52	21.01	21.96	22.42
	8H	18.94	19.84	19.40	20.29	20.75	21.02	21.93	21.48	22.37	22.83
	12H	19.04	19.85	19.52	20.33	20.80	21.42	22.24	21.90	22.71	23.18
8H	4H	18.72	19.62	19.17	20.06	20.52	19.84	20.74	20.29	21.18	21.64
	6H	19.42	20.18	19.92	20.67	21.14	21.05	21.81	21.55	22.30	22.77
	8H	19.67	20.35	20.17	20.85	21.33	21.65	22.33	22.16	22.84	23.32
	12H	19.84	20.44	20.34	20.93	21.49	22.19	22.80	22.70	23.29	23.84
12H	4H	18.82	19.64	19.30	20.11	20.58	19.87	20.68	20.35	21.16	21.62
	6H	19.59	20.27	20.09	20.77	21.26	21.12	21.80	21.62	22.30	22.79
	8H	19.91	20.51	20.41	21.00	21.56	21.79	22.40	22.30	22.89	23.44