

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: P1588649

Luminaire Tested: 24CZSP-A-47-L945

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1588649
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2604-747-1)
Test Lab: INNOVATION CENTER
Issue Date: 9/3/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 24CZSP-A-47-L945
Description: 2x4 CZSP LED Luminaire, 4500K CCT and 4000 lumens, 90CRI, Ribbed Lens, Air Vented Housing
Light Source: -
Ballast/Driver: -

Summary

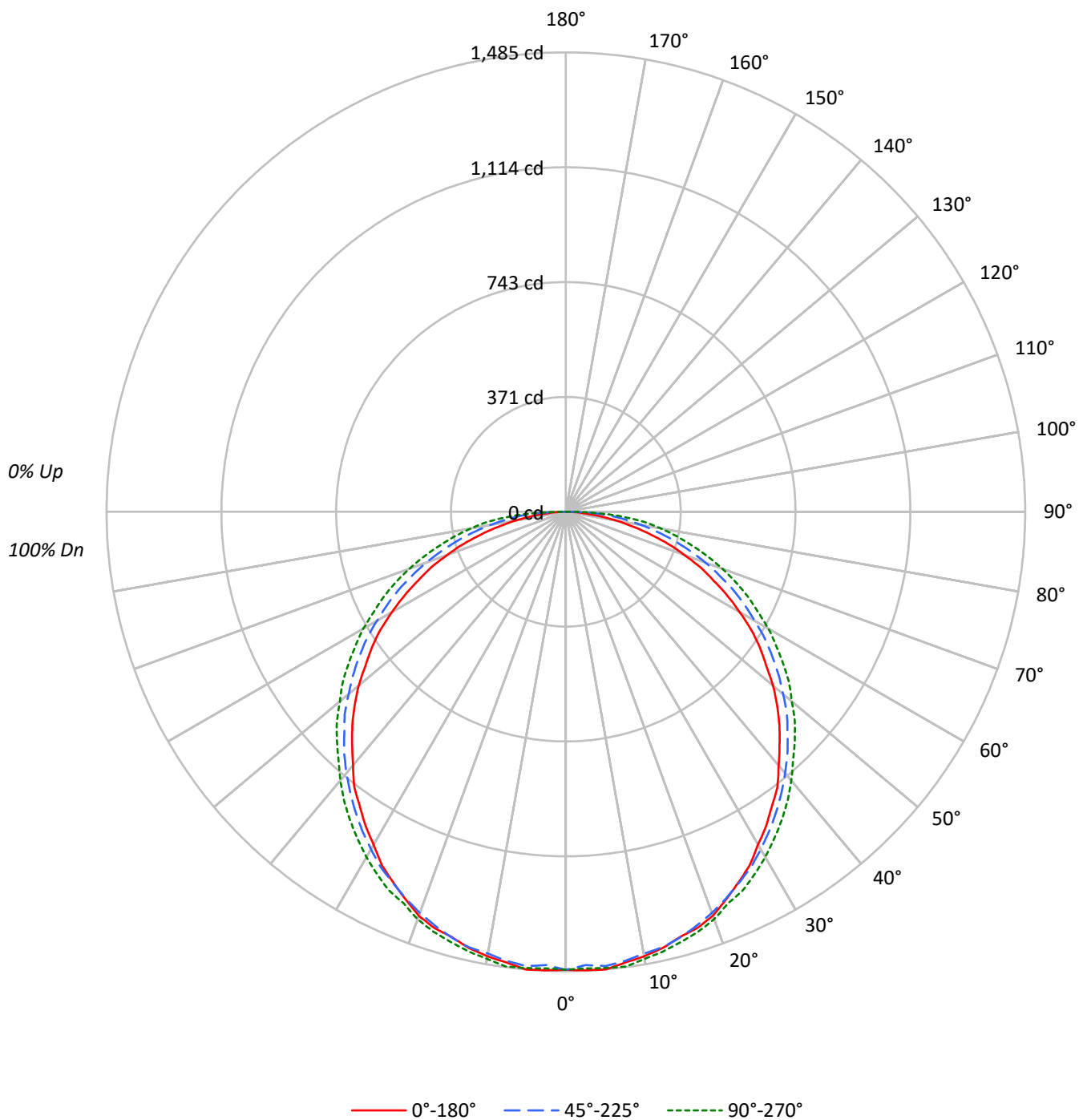
Lumens per Lamp: N/A
Luminaire Lumens: 4519.0 lumens
Efficiency: N/A
Efficacy: 140.3 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 32.2
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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	108	103	98	94	105	100	96	92	96	93	89		92	89	87		89
2	98	89	82	76	95	87	80	75	83	78	73		80	75	71		77
3	89	78	69	62	86	76	68	62	73	66	61		70	64	60		68
4	81	69	60	53	79	67	59	52	65	57	51		62	56	51		60
5	74	61	52	45	72	60	51	45	58	50	44		56	49	44		54
6	69	55	46	39	67	54	45	39	52	44	39		50	44	38		49
7	64	50	41	35	62	49	40	34	47	40	34		46	39	34		45
8	59	45	37	31	58	45	36	31	43	36	30		42	35	30		41
9	55	42	33	28	54	41	33	28	40	33	27		39	32	27		38
10	52	38	30	25	51	38	30	25	37	30	25		36	29	25		35

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2268	2268	2268
5°	2283	2266	2276
10°	2269	2255	2282
15°	2257	2260	2282
20°	2265	2249	2284
25°	2233	2237	2284
30°	2197	2228	2280
35°	2171	2216	2275
40°	2140	2205	2268
45°	2114	2194	2267
50°	2084	2184	2272
55°	2046	2176	2292
60°	1989	2161	2317
65°	1910	2161	2354
70°	1822	2147	2409
75°	1678	2152	2498
80°	1470	2195	2749
85°	1123	2529	3290

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 3648 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.6	3.1
10°-20°	404.1	8.9
20°-30°	613.8	13.6
30°-40°	743.6	16.5
40°-50°	782.3	17.3
50°-60°	727.4	16.1
60°-70°	585.6	13.0
70°-80°	379.4	8.4
80°-90°	142.3	3.1
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°	1158.5	25.6
0°-40°	1902.1	42.1
0°-60°	3411.7	75.5
0°-90°	4519.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4519.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1480	1480	1480	1480	1480	
5°	1485	1483	1474	1483	1480	141
15°	1423	1429	1425	1443	1439	403
25°	1321	1320	1324	1346	1352	609
35°	1161	1170	1185	1206	1216	728
45°	976	989	1013	1035	1046	753
55°	766	786	815	847	858	683
65°	527	551	596	632	649	524
75°	284	312	364	406	422	301
85°	64	94	144	180	187	78
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1480.5	1480.5	1480.5	1480.5	1480.5
2.5°	1483.8	1483.8	1466.5	1484.9	1477.3
5°	1484.9	1482.7	1474.0	1482.7	1480.5
7.5°	1469.7	1471.9	1464.3	1475.1	1482.7
10°	1458.9	1461.0	1450.2	1467.5	1467.5
12.5°	1444.8	1447.0	1442.6	1458.9	1455.6
15°	1423.2	1428.6	1425.3	1442.6	1439.4
17.5°	1411.3	1406.9	1403.7	1416.7	1423.2
20°	1389.6	1379.9	1379.9	1397.2	1401.5
22.5°	1355.0	1351.7	1352.8	1374.5	1370.1
25°	1321.4	1320.4	1323.6	1346.3	1351.7
27.5°	1287.9	1285.7	1295.5	1317.1	1321.4
30°	1242.4	1246.8	1259.7	1283.6	1289.0
32.5°	1204.6	1212.1	1224.0	1246.8	1253.3
35°	1161.3	1169.9	1185.1	1205.6	1216.5
37.5°	1123.4	1128.8	1145.0	1164.5	1177.5
40°	1070.4	1084.4	1102.8	1131.0	1134.2
42.5°	1022.7	1036.8	1060.6	1090.9	1087.7
45°	976.2	989.2	1013.0	1034.6	1046.5
47.5°	926.4	938.3	969.7	995.7	1004.3
50°	874.5	889.6	916.7	943.7	953.5
52.5°	816.0	832.3	866.9	896.1	910.2
55°	766.2	785.7	814.9	847.4	858.2
57.5°	711.0	727.3	763.0	795.5	806.3
60°	649.4	668.8	705.6	740.3	756.5
62.5°	589.8	611.5	650.4	686.2	699.1
65°	527.1	550.9	596.3	632.0	649.4
67.5°	472.9	492.4	536.8	576.8	595.2
70°	406.9	432.9	479.4	523.8	537.9
72.5°	348.5	371.2	419.9	464.3	481.6
75°	283.6	311.7	363.6	405.8	422.1
77.5°	224.0	253.2	305.2	349.6	368.0
80°	166.7	194.8	248.9	294.4	311.7
82.5°	112.6	140.7	194.8	239.2	258.7
85°	63.9	94.2	143.9	179.7	187.2
87.5°	28.1	54.1	81.2	97.4	103.9
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	14.53	16.21	14.89	16.52	16.84	15.20	16.89	15.57	17.20	17.51
	3H	16.38	17.91	16.76	18.24	18.60	17.42	18.95	17.80	19.28	19.63
	4H	17.07	18.51	17.47	18.86	19.23	18.38	19.83	18.78	20.18	20.55
	6H	17.56	18.90	17.97	19.27	19.66	19.28	20.62	19.69	20.98	21.37
	8H	17.71	18.99	18.13	19.38	19.78	19.68	20.97	20.10	21.35	21.75
	12H	17.80	19.03	18.23	19.41	19.84	20.04	21.27	20.47	21.65	22.08
4H	2H	15.32	16.77	15.72	17.11	17.49	15.84	17.29	16.24	17.63	18.01
	3H	17.41	18.63	17.82	19.03	19.43	18.30	19.52	18.71	19.92	20.32
	4H	18.23	19.34	18.66	19.75	20.19	19.43	20.54	19.86	20.95	21.39
	6H	18.85	19.83	19.31	20.27	20.72	20.50	21.48	20.95	21.92	22.37
	8H	19.05	19.97	19.51	20.41	20.87	20.99	21.91	21.45	22.35	22.81
	12H	19.19	20.01	19.66	20.49	20.95	21.44	22.27	21.92	22.74	23.21
8H	4H	18.74	19.65	19.20	20.09	20.56	19.77	20.69	20.23	21.13	21.59
	6H	19.52	20.29	20.01	20.78	21.25	21.02	21.79	21.51	22.28	22.75
	8H	19.81	20.50	20.31	21.00	21.48	21.65	22.34	22.15	22.84	23.32
	12H	20.02	20.64	20.53	21.13	21.68	22.26	22.87	22.76	23.36	23.92
12H	4H	18.85	19.67	19.32	20.15	20.61	19.81	20.64	20.29	21.11	21.58
	6H	19.69	20.38	20.20	20.89	21.37	21.10	21.79	21.60	22.29	22.78
	8H	20.06	20.67	20.56	21.16	21.72	21.80	22.42	22.31	22.90	23.46