

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: P1588349

Luminaire Tested: 24CZSP-52-L945

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1588349
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-52-L945
Description: 2x4 CZSP LED Luminaire, 4500K CCT and 4500 lumens, 90CRI, Ribbed Lens
Light Source: -
Ballast/Driver: -

Summary

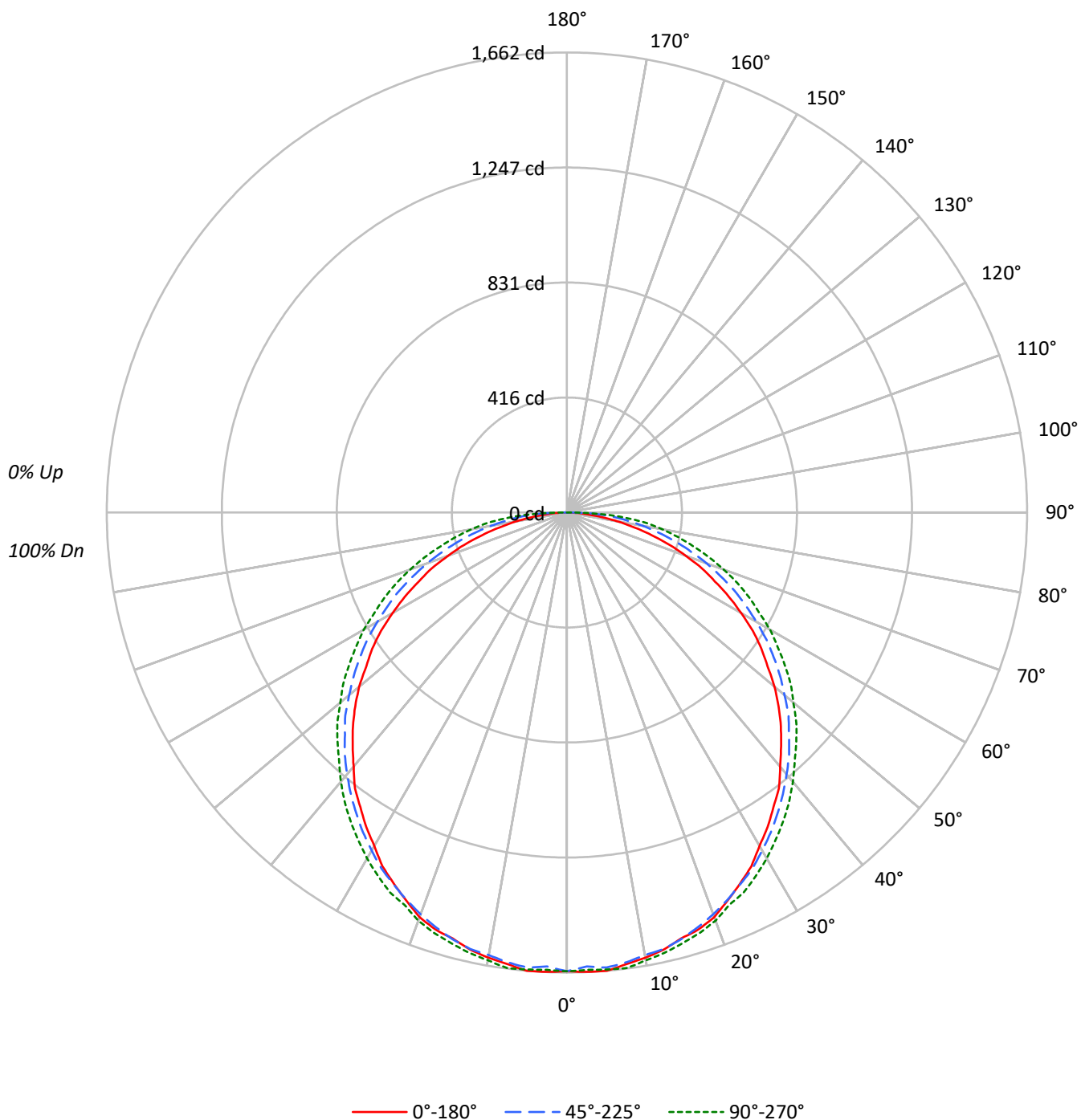
Lumens per Lamp: N/A
Luminaire Lumens: 5059.0 lumens
Efficiency: N/A
Efficacy: 137.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 36.7
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°	2539	2539	2539
5°	2556	2537	2548
10°	2540	2525	2555
15°	2526	2530	2555
20°	2536	2518	2557
25°	2500	2504	2557
30°	2460	2494	2552
35°	2431	2481	2546
40°	2396	2468	2539
45°	2367	2456	2538
50°	2333	2445	2543
55°	2291	2436	2566
60°	2227	2420	2594
65°	2138	2419	2634
70°	2040	2403	2697
75°	1878	2409	2796
80°	1646	2458	3077
85°	1257	2831	3683

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 4084 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.4	3.1
10°-20°	452.4	8.9
20°-30°	687.2	13.6
30°-40°	832.4	16.5
40°-50°	875.8	17.3
50°-60°	814.3	16.1
60°-70°	655.6	13.0
70°-80°	424.7	8.4
80°-90°	159.3	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°	1296.9	25.6
0°-40°	2129.3	42.1
0°-60°	3819.4	75.5
0°-90°	5059.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5059.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1657	1657	1657	1657	1657	
5°	1662	1660	1650	1660	1657	157
15°	1593	1599	1596	1615	1611	451
25°	1479	1478	1482	1507	1513	682
35°	1300	1310	1327	1350	1362	814
45°	1093	1107	1134	1158	1172	843
55°	858	880	912	949	961	765
65°	590	617	668	708	727	587
75°	317	349	407	454	472	337
85°	72	105	161	201	210	88
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1657.4	1657.4	1657.4	1657.4	1657.4
2.5°	1661.1	1661.1	1641.7	1662.3	1653.8
5°	1662.3	1659.9	1650.2	1659.9	1657.4
7.5°	1645.3	1647.8	1639.3	1651.4	1659.9
10°	1633.2	1635.6	1623.5	1642.9	1642.9
12.5°	1617.5	1619.9	1615.0	1633.2	1629.6
15°	1593.2	1599.3	1595.7	1615.0	1611.4
17.5°	1579.9	1575.1	1571.4	1586.0	1593.2
20°	1555.7	1544.8	1544.8	1564.2	1569.0
22.5°	1516.9	1513.3	1514.5	1538.7	1533.9
25°	1479.3	1478.1	1481.8	1507.2	1513.3
27.5°	1441.8	1439.4	1450.3	1474.5	1479.3
30°	1390.9	1395.7	1410.3	1436.9	1443.0
32.5°	1348.5	1357.0	1370.3	1395.7	1403.0
35°	1300.0	1309.7	1326.7	1349.7	1361.8
37.5°	1257.6	1263.7	1281.9	1303.7	1318.2
40°	1198.3	1214.0	1234.6	1266.1	1269.7
42.5°	1144.9	1160.7	1187.3	1221.3	1217.6
45°	1092.8	1107.4	1134.0	1158.3	1171.6
47.5°	1037.1	1050.4	1085.6	1114.7	1124.3
50°	979.0	995.9	1026.2	1056.5	1067.4
52.5°	913.5	931.7	970.5	1003.2	1018.9
55°	857.8	879.6	912.3	948.7	960.8
57.5°	796.0	814.2	854.2	890.5	902.6
60°	726.9	748.8	790.0	828.7	846.9
62.5°	660.3	684.5	728.2	768.1	782.7
65°	590.0	616.7	667.6	707.6	726.9
67.5°	529.5	551.3	600.9	645.8	666.4
70°	455.6	484.6	536.7	586.4	602.2
72.5°	390.1	415.6	470.1	519.8	539.2
75°	317.4	348.9	407.1	454.3	472.5
77.5°	250.8	283.5	341.7	391.3	411.9
80°	186.6	218.1	278.7	329.6	348.9
82.5°	126.0	157.5	218.1	267.8	289.6
85°	71.5	105.4	161.1	201.1	209.6
87.5°	31.5	60.6	90.9	109.0	116.3
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	14.92	16.60	15.29	16.92	17.23	15.60	17.28	15.96	17.59	17.91
	3H	16.78	18.30	17.15	18.63	18.99	17.81	19.34	18.19	19.67	20.03
	4H	17.46	18.91	17.86	19.25	19.63	18.78	20.22	19.17	20.57	20.94
	6H	17.95	19.30	18.36	19.66	20.05	19.67	21.01	20.08	21.37	21.76
	8H	18.10	19.39	18.52	19.77	20.17	20.07	21.36	20.50	21.75	22.14
	12H	18.19	19.42	18.62	19.80	20.23	20.43	21.66	20.86	22.05	22.47
4H	2H	15.71	17.16	16.11	17.51	17.88	16.23	17.68	16.63	18.02	18.40
	3H	17.80	19.02	18.21	19.42	19.82	18.69	19.92	19.10	20.31	20.71
	4H	18.62	19.73	19.05	20.14	20.58	19.82	20.93	20.25	21.34	21.78
	6H	19.25	20.22	19.70	20.66	21.11	20.89	21.87	21.34	22.31	22.76
	8H	19.44	20.36	19.90	20.80	21.26	21.38	22.30	21.84	22.74	23.20
	12H	19.58	20.41	20.06	20.88	21.35	21.84	22.66	22.31	23.14	23.60
8H	4H	19.13	20.05	19.59	20.49	20.95	20.17	21.08	20.62	21.52	21.98
	6H	19.92	20.68	20.41	21.17	21.64	21.42	22.18	21.91	22.67	23.14
	8H	20.20	20.89	20.70	21.39	21.88	22.04	22.73	22.54	23.23	23.72
	12H	20.42	21.03	20.92	21.52	22.07	22.65	23.26	23.15	23.75	24.31
12H	4H	19.24	20.06	19.72	20.54	21.01	20.20	21.03	20.68	21.50	21.97
	6H	20.08	20.77	20.59	21.28	21.76	21.49	22.18	21.99	22.68	23.17
	8H	20.45	21.06	20.96	21.55	22.11	22.19	22.81	22.70	23.30	23.85