

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: P1589788

Luminaire Tested: 24CZSP-SB-47-L945-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1589788
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2608-884-8)
Test Lab: INNOVATION CENTER
Issue Date: 9/3/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 24CZSP-SB-47-L945-S
Description: 2x4 CZSP LED Luminaire, 4500K CCT and 4000 lumens, 90CRI, Smooth Lens, SB housing
Light Source: -
Ballast/Driver: -

Summary

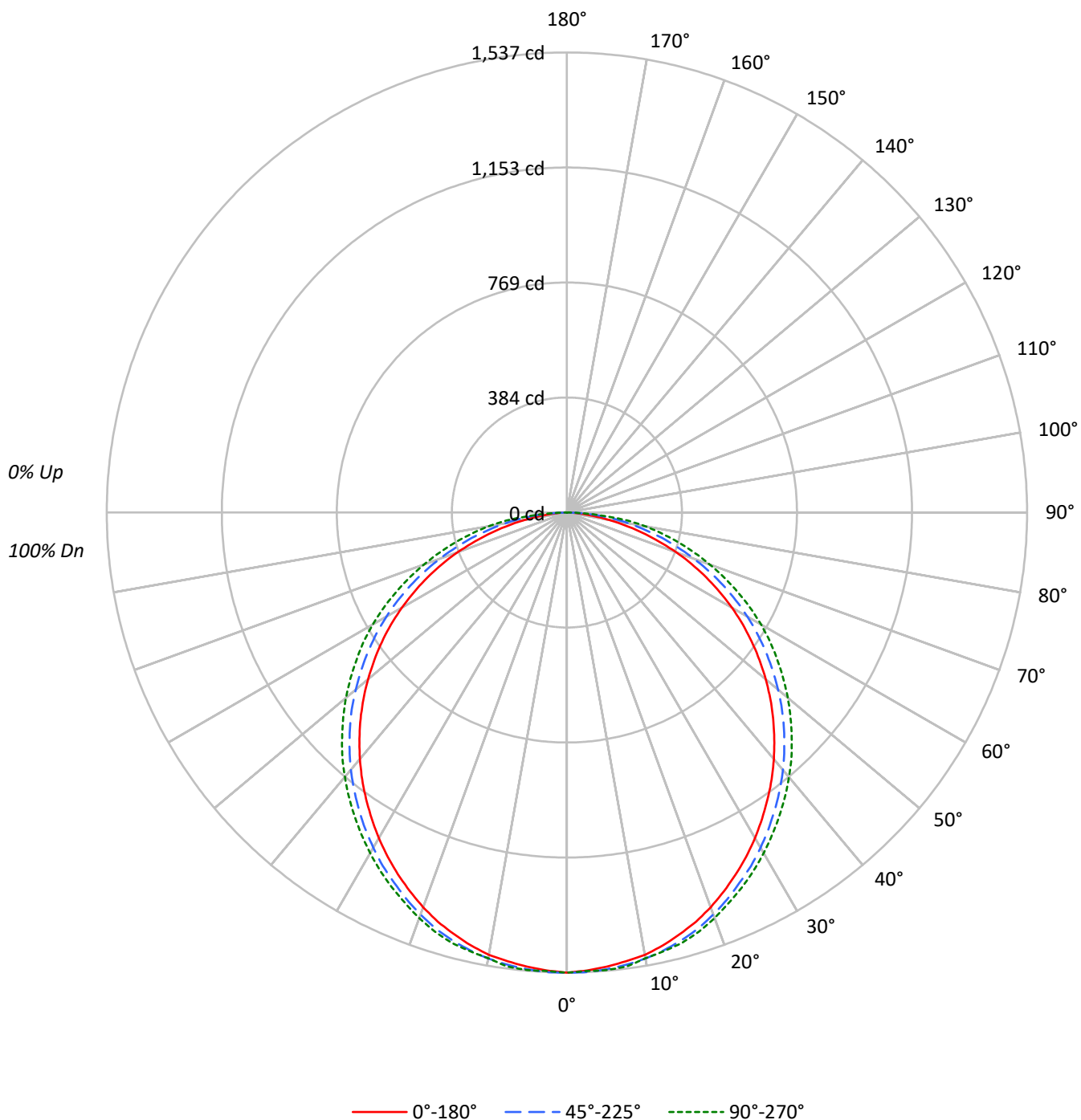
Lumens per Lamp: N/A
Luminaire Lumens: 4472.0 lumens
Efficiency: N/A
Efficacy: 138.9 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.38
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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			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	99	95	106	101	97	93	97	94	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	66	61		69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53		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	45	39		50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35		47	40	35		45	39	35	33
8	60	46	38	32	58	45	37	31	44	37	31		43	36	31		42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26		37	30	25		36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2355	2355	2355
5°	2341	2355	2359
10°	2334	2354	2352
15°	2313	2346	2360
20°	2288	2330	2351
25°	2255	2307	2336
30°	2222	2287	2324
35°	2186	2265	2313
40°	2150	2245	2306
45°	2111	2221	2301
50°	2065	2194	2295
55°	2014	2166	2291
60°	1951	2134	2293
65°	1862	2089	2280
70°	1741	2025	2275
75°	1543	1947	2283
80°	1256	1850	2351
85°	812	1708	2028

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 2382 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.5	3.3
10°-20°	416.6	9.3
20°-30°	628.1	14.0
30°-40°	755.8	16.9
40°-50°	788.4	17.6
50°-60°	722.6	16.2
60°-70°	567.5	12.7
70°-80°	345.4	7.7
80°-90°	102.2	2.3
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°	1190.2	26.6
0°-40°	1946.0	43.5
0°-60°	3457.0	77.3
0°-90°	4472.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4472.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1537	1537	1537	1537	1537	
5°	1523	1532	1532	1530	1534	145
15°	1458	1473	1480	1482	1488	411
25°	1334	1353	1365	1374	1382	615
35°	1169	1187	1211	1228	1237	731
45°	974	995	1026	1050	1062	751
55°	754	774	811	844	858	674
65°	514	533	576	615	629	508
75°	261	285	329	368	386	276
85°	46	65	97	109	115	60
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1537.3	1537.3	1537.3	1537.3	1537.3
2.5°	1531.5	1539.2	1537.3	1530.6	1533.5
5°	1522.9	1532.5	1531.5	1529.6	1534.4
7.5°	1512.3	1522.9	1523.9	1523.9	1529.6
10°	1500.8	1511.3	1513.3	1510.4	1512.3
12.5°	1481.5	1494.0	1497.9	1497.9	1500.8
15°	1458.4	1472.9	1479.6	1481.5	1488.3
17.5°	1433.4	1448.8	1457.5	1462.3	1468.1
20°	1403.6	1420.0	1429.6	1435.3	1442.1
22.5°	1369.9	1388.2	1398.8	1404.6	1412.3
25°	1334.3	1352.6	1365.1	1373.8	1382.4
27.5°	1296.8	1314.1	1331.4	1342.0	1349.7
30°	1256.4	1274.7	1293.0	1306.4	1314.1
32.5°	1213.1	1232.4	1253.5	1268.0	1276.6
35°	1168.9	1187.1	1211.2	1228.5	1237.2
37.5°	1123.6	1142.9	1167.9	1186.2	1196.8
40°	1075.5	1095.7	1122.7	1142.9	1153.5
42.5°	1025.5	1044.8	1074.6	1097.7	1110.2
45°	974.5	994.7	1025.5	1049.6	1062.1
47.5°	921.6	940.9	974.5	1002.4	1013.0
50°	866.8	885.1	920.7	950.5	963.0
52.5°	811.0	830.2	865.8	897.6	911.0
55°	754.2	773.5	811.0	843.7	858.1
57.5°	696.5	715.7	754.2	787.9	805.2
60°	636.9	656.1	696.5	731.1	748.5
62.5°	575.3	595.5	636.9	672.5	690.7
65°	513.7	533.0	576.3	614.7	629.2
67.5°	452.2	471.4	513.7	552.2	569.5
70°	388.7	410.8	452.2	492.6	508.0
72.5°	322.3	347.3	388.7	431.0	446.4
75°	260.7	284.8	329.0	368.5	385.8
77.5°	200.1	226.1	267.4	307.8	325.2
80°	142.4	167.4	209.7	248.2	266.5
82.5°	90.4	112.6	154.9	189.5	203.0
85°	46.2	65.4	97.2	108.7	115.4
87.5°	13.5	23.1	34.6	43.3	48.1
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	14.47	16.13	14.84	16.45	16.76	15.21	16.87	15.57	17.18	17.50
	3H	16.24	17.75	16.62	18.07	18.43	17.29	18.79	17.67	19.12	19.48
	4H	16.86	18.28	17.26	18.63	19.00	18.15	19.57	18.55	19.92	20.30
	6H	17.27	18.59	17.68	18.95	19.34	18.90	20.22	19.31	20.58	20.97
	8H	17.37	18.63	17.80	19.02	19.42	19.19	20.45	19.62	20.84	21.24
	12H	17.42	18.63	17.85	19.01	19.44	19.39	20.60	19.82	20.98	21.41
4H	2H	15.24	16.66	15.64	17.01	17.38	15.81	17.23	16.21	17.58	17.96
	3H	17.23	18.43	17.64	18.83	19.23	18.13	19.32	18.54	19.72	20.12
	4H	17.98	19.06	18.41	19.47	19.91	19.15	20.23	19.58	20.64	21.08
	6H	18.51	19.46	18.96	19.89	20.35	20.05	21.00	20.50	21.44	21.89
	8H	18.65	19.54	19.11	19.98	20.44	20.42	21.31	20.88	21.75	22.21
	12H	18.73	19.53	19.21	20.00	20.47	20.67	21.47	21.15	21.95	22.42
8H	4H	18.42	19.31	18.88	19.75	20.22	19.44	20.33	19.90	20.77	21.24
	6H	19.09	19.83	19.58	20.31	20.79	20.50	21.24	20.99	21.73	22.20
	8H	19.30	19.96	19.80	20.47	20.95	20.97	21.64	21.48	22.14	22.63
	12H	19.43	20.02	19.94	20.51	21.07	21.32	21.91	21.83	22.40	22.96
12H	4H	18.50	19.30	18.98	19.78	20.25	19.47	20.27	19.95	20.75	21.21
	6H	19.21	19.88	19.72	20.38	20.87	20.55	21.22	21.06	21.72	22.21
	8H	19.49	20.08	19.99	20.57	21.12	21.09	21.68	21.59	22.17	22.73

END OF REPORT

FIELD PERFORMANCE MAY DIFFER FROM LABORATORY PERFORMANCE

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