

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: P1589768

Luminaire Tested: 24CZSP-SB-43HE-L945-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1589768
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-43HE-L945-S
Description: 2x4 CZSP LED Luminaire, 4500K CCT and 4000 lumens, 90CRI, Smooth Lens, SB housing
Light Source: -
Ballast/Driver: -

Summary

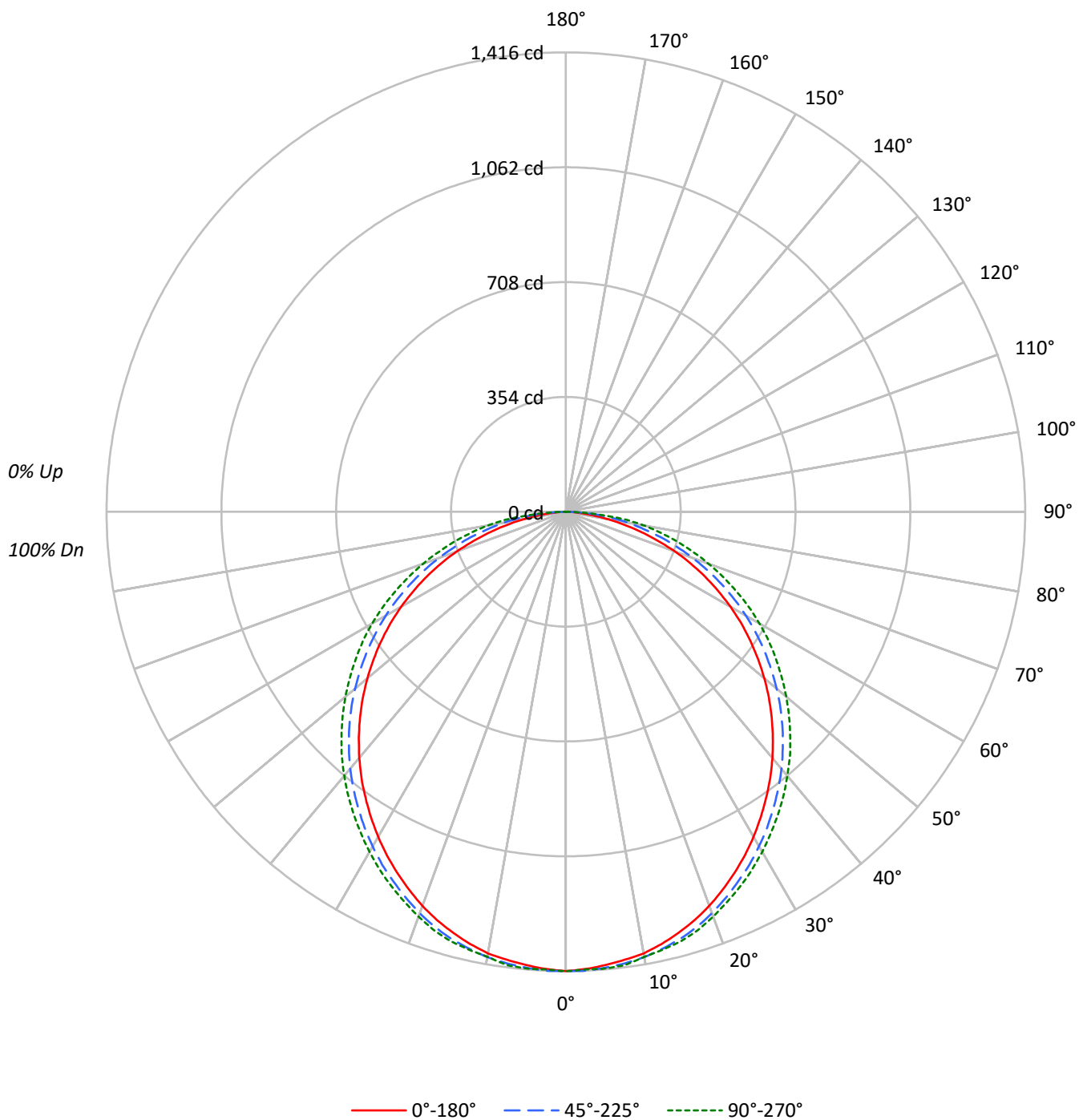
Lumens per Lamp: N/A
Luminaire Lumens: 4119.0 lumens
Efficiency: N/A
Efficacy: 139.6 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.38
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 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			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°	2169	2169	2169
5°	2157	2169	2173
10°	2150	2168	2166
15°	2130	2161	2174
20°	2107	2146	2165
25°	2077	2125	2152
30°	2047	2106	2141
35°	2013	2086	2131
40°	1981	2068	2124
45°	1944	2046	2119
50°	1902	2021	2114
55°	1855	1995	2111
60°	1797	1965	2112
65°	1715	1924	2100
70°	1603	1865	2095
75°	1421	1793	2103
80°	1156	1704	2164
85°	747	1573	1868

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 2194 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.0	3.3
10°-20°	383.7	9.3
20°-30°	578.6	14.0
30°-40°	696.1	16.9
40°-50°	726.2	17.6
50°-60°	665.6	16.2
60°-70°	522.7	12.7
70°-80°	318.1	7.7
80°-90°	94.1	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°	1096.3	26.6
0°-40°	1792.4	43.5
0°-60°	3184.2	77.3
0°-90°	4119.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4119.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1416	1416	1416	1416	1416	
5°	1403	1412	1411	1409	1413	133
15°	1343	1357	1363	1365	1371	379
25°	1229	1246	1257	1265	1273	566
35°	1077	1093	1116	1132	1140	674
45°	898	916	945	967	978	692
55°	695	712	747	777	790	621
65°	473	491	531	566	580	468
75°	240	262	303	339	355	255
85°	42	60	90	100	106	55
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1416.0	1416.0	1416.0	1416.0	1416.0
2.5°	1410.7	1417.7	1416.0	1409.8	1412.4
5°	1402.7	1411.5	1410.7	1408.9	1413.3
7.5°	1392.9	1402.7	1403.6	1403.6	1408.9
10°	1382.3	1392.0	1393.8	1391.2	1392.9
12.5°	1364.6	1376.1	1379.6	1379.6	1382.3
15°	1343.3	1356.6	1362.8	1364.6	1370.8
17.5°	1320.3	1334.4	1342.4	1346.9	1352.2
20°	1292.8	1307.9	1316.7	1322.0	1328.2
22.5°	1261.8	1278.6	1288.4	1293.7	1300.8
25°	1229.0	1245.8	1257.4	1265.3	1273.3
27.5°	1194.4	1210.4	1226.3	1236.1	1243.2
30°	1157.2	1174.1	1190.9	1203.3	1210.4
32.5°	1117.4	1135.1	1154.6	1167.9	1175.8
35°	1076.6	1093.4	1115.6	1131.5	1139.5
37.5°	1035.0	1052.7	1075.7	1092.5	1102.3
40°	990.6	1009.3	1034.1	1052.7	1062.4
42.5°	944.6	962.3	989.8	1011.0	1022.5
45°	897.6	916.2	944.6	966.7	978.2
47.5°	848.9	866.6	897.6	923.3	933.1
50°	798.4	815.2	848.0	875.5	887.0
52.5°	747.0	764.7	797.5	826.7	839.1
55°	694.7	712.4	747.0	777.1	790.4
57.5°	641.5	659.2	694.7	725.7	741.7
60°	586.6	604.3	641.5	673.4	689.4
62.5°	529.9	548.5	586.6	619.4	636.2
65°	473.2	490.9	530.8	566.2	579.5
67.5°	416.5	434.2	473.2	508.6	524.6
70°	358.0	378.4	416.5	453.7	467.9
72.5°	296.8	319.9	358.0	397.0	411.1
75°	240.1	262.3	303.0	339.4	355.3
77.5°	184.3	208.2	246.3	283.5	299.5
80°	131.1	154.2	193.2	228.6	245.4
82.5°	83.3	103.7	142.7	174.6	187.0
85°	42.5	60.3	89.5	100.1	106.3
87.5°	12.4	21.3	31.9	39.9	44.3
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	14.19	15.85	14.55	16.16	16.48	14.92	16.58	15.29	16.90	17.21
	3H	15.96	17.46	16.33	17.79	18.15	17.00	18.51	17.38	18.83	19.19
	4H	16.58	18.00	16.97	18.34	18.72	17.87	19.29	18.27	19.64	20.01
	6H	16.99	18.30	17.40	18.67	19.06	18.61	19.93	19.02	20.29	20.69
	8H	17.09	18.35	17.51	18.74	19.14	18.91	20.17	19.33	20.56	20.96
	12H	17.14	18.35	17.57	18.73	19.15	19.10	20.31	19.53	20.69	21.12
4H	2H	14.96	16.38	15.36	16.72	17.10	15.53	16.95	15.93	17.30	17.67
	3H	16.95	18.14	17.36	18.54	18.94	17.84	19.04	18.25	19.43	19.83
	4H	17.69	18.77	18.12	19.19	19.62	18.86	19.94	19.29	20.36	20.79
	6H	18.22	19.17	18.67	19.61	20.06	19.77	20.72	20.22	21.16	21.61
	8H	18.36	19.25	18.82	19.69	20.16	20.13	21.02	20.59	21.46	21.93
	12H	18.44	19.24	18.92	19.72	20.19	20.39	21.19	20.87	21.66	22.13
8H	4H	18.14	19.03	18.60	19.47	19.93	19.16	20.05	19.62	20.49	20.95
	6H	18.80	19.54	19.29	20.03	20.50	20.22	20.96	20.71	21.44	21.92
	8H	19.01	19.68	19.52	20.18	20.66	20.69	21.35	21.19	21.86	22.34
	12H	19.15	19.74	19.65	20.23	20.78	21.04	21.63	21.54	22.12	22.68
12H	4H	18.22	19.02	18.70	19.49	19.96	19.18	19.99	19.66	20.46	20.93
	6H	18.92	19.59	19.43	20.10	20.58	20.27	20.93	20.77	21.44	21.92
	8H	19.20	19.79	19.71	20.28	20.84	20.80	21.39	21.31	21.88	22.44