

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: P1589797

Luminaire Tested: 24CZSP-SB-49HE-L840

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1589797
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2608-884-7)
Test Lab: INNOVATION CENTER
Issue Date: 9/3/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 24CZSP-SB-49HE-L840
Description: 2x4 CZSP LED Luminaire, 4000K CCT and 4500 lumens, 80CRI, Ribbed Lens, SB housing
Light Source: -
Ballast/Driver: -

Summary

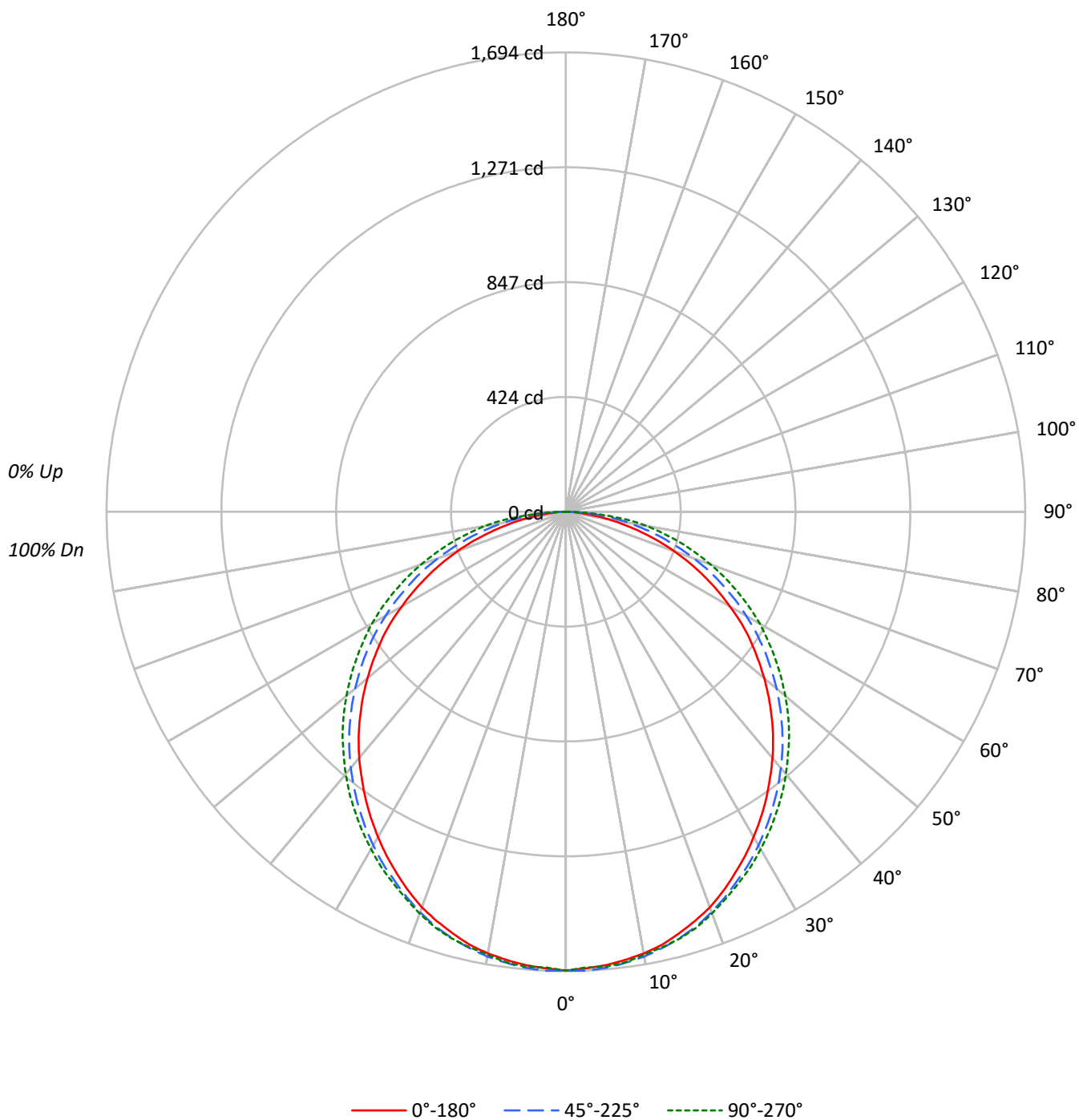
Lumens per Lamp: N/A
Luminaire Lumens: 4936.0 lumens
Efficiency: N/A
Efficacy: 148.2 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.26 / 1.38
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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			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	93	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	68
3	89	79	70	63	87	77	69	63	74	67	62		71	65	61		69	64	60	57
4	82	69	60	54	79	68	60	53	66	58	52		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	44	39		50	44	39	37
7	64	50	42	35	62	50	41	35	48	40	35		47	40	35		45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31		43	36	31		42	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28		39	33	28		38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25		37	30	25		36	30	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2591	2591	2591
5°	2581	2596	2589
10°	2572	2590	2580
15°	2553	2579	2583
20°	2530	2561	2570
25°	2489	2533	2551
30°	2450	2513	2541
35°	2411	2488	2531
40°	2371	2467	2525
45°	2326	2444	2523
50°	2275	2417	2517
55°	2223	2391	2516
60°	2141	2355	2531
65°	2041	2310	2533
70°	1904	2246	2540
75°	1694	2164	2584
80°	1391	2074	2681
85°	917	1945	2423

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 2746 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.0	3.2
10°-20°	458.0	9.3
20°-30°	690.3	14.0
30°-40°	831.2	16.8
40°-50°	868.4	17.6
50°-60°	797.8	16.2
60°-70°	628.3	12.7
70°-80°	385.2	7.8
80°-90°	116.8	2.4
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°	1308.2	26.5
0°-40°	2139.4	43.3
0°-60°	3805.7	77.1
0°-90°	4936.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4936.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1691	1691	1691	1691	1691	
5°	1679	1682	1688	1686	1684	159
15°	1610	1616	1627	1633	1629	454
25°	1473	1482	1499	1515	1510	679
35°	1289	1306	1331	1355	1354	806
45°	1074	1097	1128	1160	1165	828
55°	833	857	895	934	942	743
65°	563	592	637	680	699	557
75°	286	320	366	410	437	304
85°	52	77	111	123	138	67
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1691.4	1691.4	1691.4	1691.4	1691.4
2.5°	1685.1	1689.3	1694.5	1686.1	1682.0
5°	1678.8	1682.0	1688.2	1686.1	1684.1
7.5°	1667.3	1669.4	1677.8	1677.8	1675.7
10°	1653.8	1657.9	1665.3	1664.2	1659.0
12.5°	1636.0	1639.1	1647.5	1647.5	1644.4
15°	1609.9	1616.2	1626.6	1632.9	1628.7
17.5°	1582.7	1589.0	1602.6	1608.8	1606.7
20°	1552.4	1557.6	1571.2	1580.6	1576.5
22.5°	1514.8	1521.1	1536.8	1547.2	1543.0
25°	1473.0	1482.4	1499.1	1514.8	1509.6
27.5°	1431.2	1441.7	1462.6	1478.3	1476.2
30°	1385.3	1398.9	1420.8	1440.6	1436.5
32.5°	1338.3	1353.9	1376.9	1397.8	1396.8
35°	1289.2	1305.9	1330.9	1355.0	1353.9
37.5°	1236.9	1256.8	1282.9	1309.0	1310.1
40°	1185.7	1204.5	1233.8	1262.0	1263.0
42.5°	1131.4	1151.3	1182.6	1211.9	1212.9
45°	1074.0	1096.9	1128.3	1159.6	1164.8
47.5°	1015.4	1039.5	1071.9	1105.3	1111.6
50°	954.9	979.9	1014.4	1049.9	1056.2
52.5°	893.2	919.3	954.9	990.4	999.8
55°	832.6	856.7	895.3	934.0	942.3
57.5°	768.9	790.8	832.6	873.4	883.8
60°	698.9	726.1	768.9	809.6	826.4
62.5°	631.0	660.3	704.1	744.9	763.7
65°	563.1	592.3	637.3	680.1	698.9
67.5°	494.1	524.4	572.5	613.2	634.1
70°	425.2	455.5	501.5	545.3	567.3
72.5°	356.2	388.6	433.6	478.5	500.4
75°	286.2	319.7	365.6	409.5	436.7
77.5°	220.4	252.8	298.8	343.7	366.7
80°	157.7	190.1	235.1	280.0	304.0
82.5°	100.3	130.6	174.5	212.1	234.0
85°	52.2	77.3	110.7	123.3	137.9
87.5°	15.7	30.3	42.8	48.1	59.5
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	14.82	16.48	15.19	16.80	17.11	15.57	17.23	15.93	17.54	17.86
	3H	16.58	18.09	16.96	18.42	18.78	17.66	19.17	18.04	19.50	19.86
	4H	17.21	18.63	17.61	18.98	19.35	18.55	19.97	18.94	20.32	20.69
	6H	17.62	18.94	18.03	19.30	19.69	19.31	20.63	19.72	21.00	21.39
	8H	17.73	18.99	18.15	19.38	19.78	19.63	20.89	20.05	21.28	21.67
	12H	17.78	18.99	18.21	19.37	19.80	19.84	21.05	20.27	21.43	21.86
4H	2H	15.59	17.01	15.99	17.36	17.74	16.17	17.59	16.57	17.94	18.32
	3H	17.58	18.78	17.99	19.18	19.58	18.50	19.70	18.91	20.09	20.49
	4H	18.34	19.42	18.77	19.84	20.27	19.53	20.62	19.96	21.03	21.47
	6H	18.87	19.83	19.33	20.27	20.72	20.46	21.42	20.92	21.86	22.31
	8H	19.02	19.91	19.48	20.36	20.82	20.85	21.74	21.31	22.18	22.65
	12H	19.11	19.91	19.59	20.39	20.85	21.12	21.93	21.60	22.40	22.87
8H	4H	18.79	19.68	19.25	20.12	20.59	19.83	20.73	20.29	21.17	21.63
	6H	19.47	20.21	19.96	20.70	21.17	20.92	21.66	21.41	22.15	22.62
	8H	19.69	20.36	20.20	20.86	21.35	21.41	22.07	21.91	22.58	23.06
	12H	19.84	20.43	20.34	20.92	21.48	21.78	22.37	22.29	22.86	23.42
12H	4H	18.87	19.68	19.35	20.15	20.62	19.86	20.67	20.34	21.14	21.61
	6H	19.60	20.27	20.10	20.77	21.25	20.97	21.64	21.48	22.14	22.63
	8H	19.89	20.48	20.39	20.97	21.53	21.52	22.12	22.03	22.61	23.16