

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: P1589798

Luminaire Tested: 24CZSP-SB-49HE-L845-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1589798
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-49HE-L845-S
Description: 2x4 CZSP LED Luminaire, 4500K CCT and 4500 lumens, 80CRI, Smooth Lens, SB housing
Light Source: -
Ballast/Driver: -

Summary

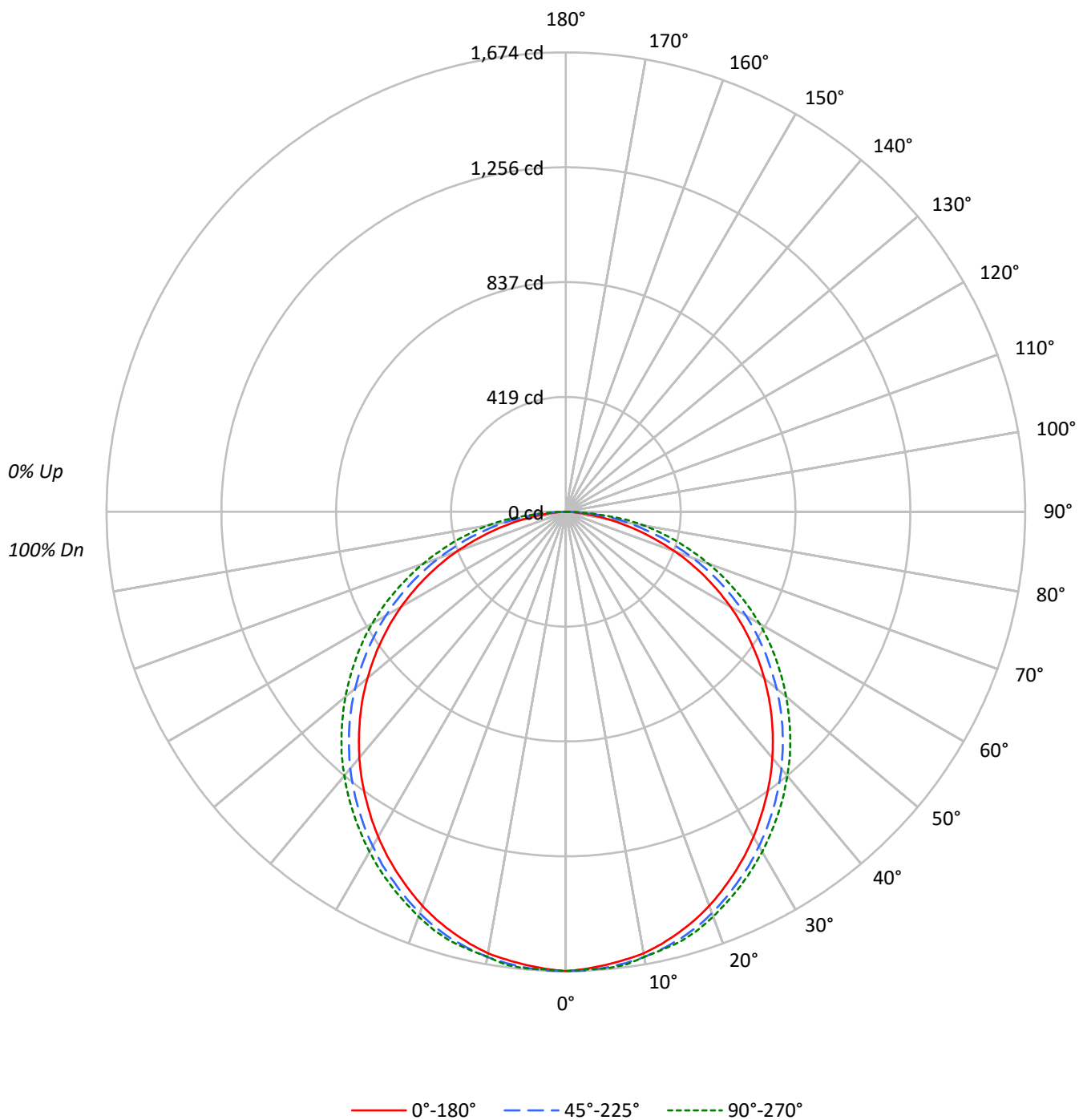
Lumens per Lamp: N/A
Luminaire Lumens: 4869.0 lumens
Efficiency: N/A
Efficacy: 146.2 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.38
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 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			
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°	2564	2564	2564
5°	2549	2564	2569
10°	2541	2562	2561
15°	2518	2554	2569
20°	2491	2537	2559
25°	2455	2512	2544
30°	2419	2490	2530
35°	2379	2466	2519
40°	2341	2444	2511
45°	2298	2419	2505
50°	2249	2389	2498
55°	2193	2358	2495
60°	2124	2323	2496
65°	2027	2274	2483
70°	1895	2205	2476
75°	1680	2120	2485
80°	1367	2014	2559
85°	884	1859	2209

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 2593 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.4	3.3
10°-20°	453.6	9.3
20°-30°	683.9	14.0
30°-40°	822.9	16.9
40°-50°	858.4	17.6
50°-60°	786.8	16.2
60°-70°	617.8	12.7
70°-80°	376.0	7.7
80°-90°	111.2	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°	1295.9	26.6
0°-40°	2118.8	43.5
0°-60°	3763.9	77.3
0°-90°	4869.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4869.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1674	1674	1674	1674	1674	
5°	1658	1669	1668	1665	1671	158
15°	1588	1604	1611	1613	1620	448
25°	1453	1473	1486	1496	1505	669
35°	1273	1292	1319	1338	1347	796
45°	1061	1083	1117	1143	1156	818
55°	821	842	883	919	934	734
65°	559	580	627	669	685	553
75°	284	310	358	401	420	301
85°	50	71	106	118	126	66
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1673.8	1673.8	1673.8	1673.8	1673.8
2.5°	1667.5	1675.9	1673.8	1666.5	1669.6
5°	1658.1	1668.6	1667.5	1665.4	1670.7
7.5°	1646.6	1658.1	1659.1	1659.1	1665.4
10°	1634.0	1645.5	1647.6	1644.5	1646.6
12.5°	1613.0	1626.7	1630.8	1630.8	1634.0
15°	1587.9	1603.6	1610.9	1613.0	1620.4
17.5°	1560.7	1577.4	1586.9	1592.1	1598.4
20°	1528.2	1546.0	1556.5	1562.8	1570.1
22.5°	1491.5	1511.4	1523.0	1529.2	1537.6
25°	1452.8	1472.7	1486.3	1495.7	1505.2
27.5°	1411.9	1430.8	1449.6	1461.2	1469.5
30°	1367.9	1387.8	1407.7	1422.4	1430.8
32.5°	1320.8	1341.8	1364.8	1380.5	1389.9
35°	1272.6	1292.5	1318.7	1337.6	1347.0
37.5°	1223.4	1244.3	1271.6	1291.5	1303.0
40°	1171.0	1193.0	1222.4	1244.3	1255.9
42.5°	1116.6	1137.5	1170.0	1195.1	1208.7
45°	1061.0	1083.0	1116.6	1142.7	1156.4
47.5°	1003.4	1024.4	1061.0	1091.4	1102.9
50°	943.7	963.6	1002.4	1034.9	1048.5
52.5°	883.0	903.9	942.7	977.3	991.9
55°	821.2	842.1	883.0	918.6	934.3
57.5°	758.3	779.3	821.2	857.8	876.7
60°	693.4	714.3	758.3	796.0	814.9
62.5°	626.4	648.4	693.4	732.2	752.1
65°	559.3	580.3	627.4	669.3	685.0
67.5°	492.3	513.2	559.3	601.2	620.1
70°	423.2	447.3	492.3	536.3	553.0
72.5°	350.9	378.1	423.2	469.2	486.0
75°	283.9	310.0	358.2	401.2	420.0
77.5°	217.9	246.1	291.2	335.2	354.0
80°	155.0	182.3	228.3	270.2	290.1
82.5°	98.5	122.5	168.6	206.3	221.0
85°	50.3	71.2	105.8	118.4	125.7
87.5°	14.7	25.1	37.7	47.1	52.4
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	14.77	16.43	15.14	16.74	17.06	15.51	17.17	15.87	17.48	17.79
	3H	16.54	18.04	16.92	18.37	18.73	17.58	19.09	17.96	19.42	19.78
	4H	17.16	18.58	17.56	18.93	19.30	18.45	19.87	18.85	20.22	20.59
	6H	17.57	18.88	17.98	19.25	19.64	19.19	20.51	19.60	20.88	21.27
	8H	17.67	18.93	18.09	19.32	19.72	19.49	20.75	19.91	21.14	21.54
	12H	17.72	18.93	18.15	19.31	19.74	19.68	20.89	20.11	21.27	21.70
4H	2H	15.54	16.96	15.94	17.31	17.68	16.11	17.53	16.51	17.88	18.25
	3H	17.53	18.73	17.94	19.12	19.52	18.42	19.62	18.83	20.01	20.41
	4H	18.27	19.36	18.70	19.77	20.20	19.44	20.53	19.87	20.94	21.37
	6H	18.80	19.75	19.25	20.19	20.64	20.35	21.30	20.80	21.74	22.19
	8H	18.94	19.83	19.40	20.27	20.74	20.71	21.60	21.17	22.04	22.51
	12H	19.02	19.82	19.50	20.30	20.77	20.97	21.77	21.45	22.24	22.71
8H	4H	18.72	19.61	19.18	20.05	20.51	19.74	20.63	20.20	21.07	21.53
	6H	19.38	20.12	19.87	20.61	21.08	20.80	21.54	21.29	22.02	22.50
	8H	19.59	20.26	20.10	20.76	21.25	21.27	21.93	21.78	22.44	22.92
	12H	19.73	20.32	20.23	20.81	21.37	21.62	22.21	22.13	22.70	23.26
12H	4H	18.80	19.60	19.28	20.07	20.54	19.77	20.57	20.24	21.04	21.51
	6H	19.50	20.17	20.01	20.68	21.16	20.85	21.51	21.35	22.02	22.50
	8H	19.78	20.37	20.29	20.86	21.42	21.38	21.97	21.89	22.46	23.02

END OF REPORT