

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: P1589794

Luminaire Tested: 24CZSP-SB-49HE-L835-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1589794
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-L835-S
Description: 2x4 CZSP LED Luminaire, 3500K CCT and 4500 lumens, 80CRI, Smooth Lens, SB housing
Light Source: -
Ballast/Driver: -

Summary

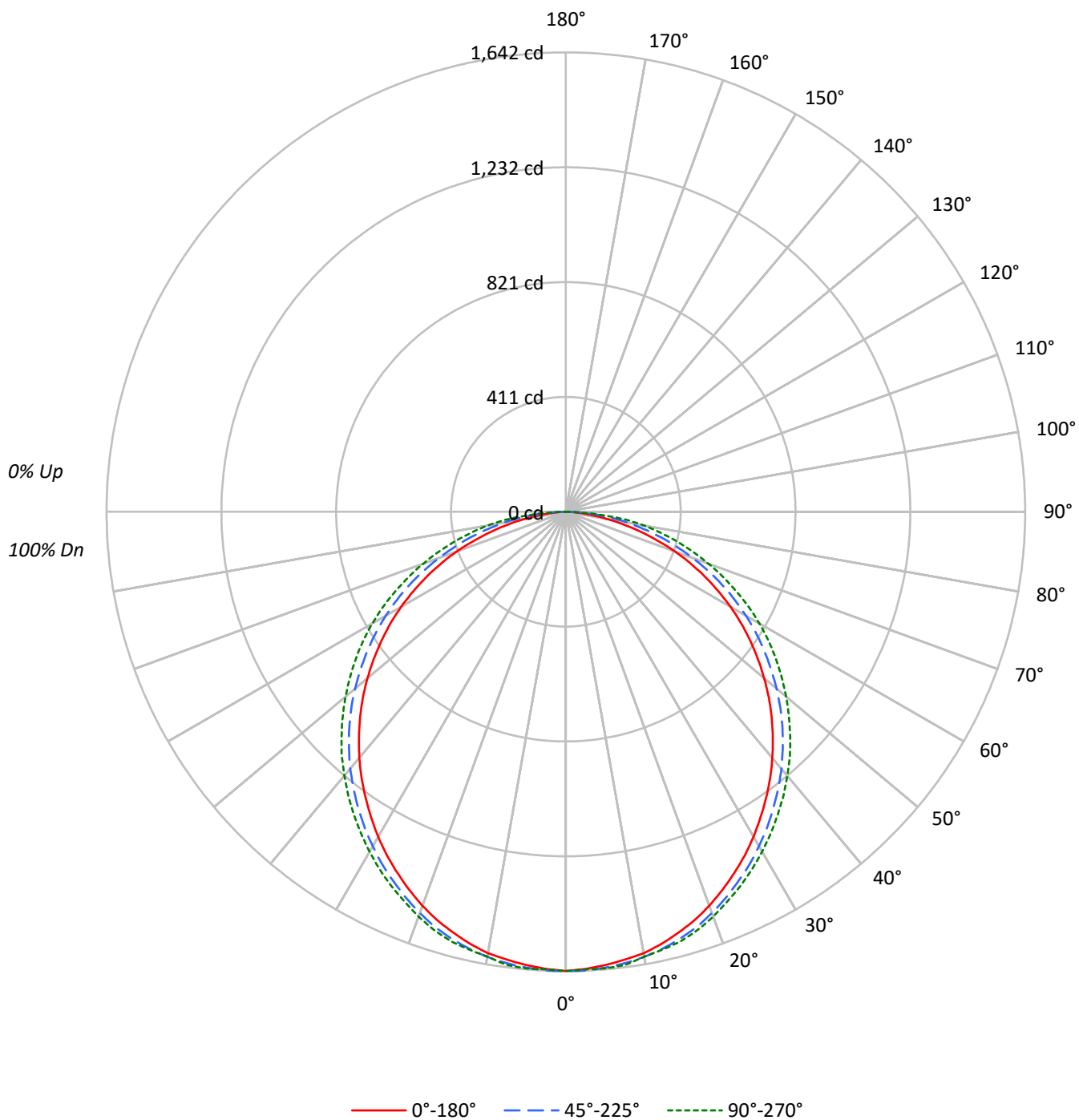
Lumens per Lamp: N/A
Luminaire Lumens: 4775.0 lumens
Efficiency: N/A
Efficacy: 143.4 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.38
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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			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°	2514	2514	2514
5°	2500	2514	2519
10°	2492	2513	2511
15°	2469	2505	2520
20°	2443	2488	2510
25°	2408	2463	2495
30°	2373	2442	2482
35°	2334	2418	2470
40°	2296	2397	2462
45°	2254	2372	2456
50°	2205	2342	2450
55°	2150	2312	2447
60°	2083	2278	2448
65°	1988	2230	2435
70°	1858	2162	2429
75°	1648	2079	2438
80°	1341	1975	2509
85°	866	1822	2167

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 2543 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.3	3.3
10°-20°	444.8	9.3
20°-30°	670.7	14.0
30°-40°	807.0	16.9
40°-50°	841.8	17.6
50°-60°	771.6	16.2
60°-70°	605.9	12.7
70°-80°	368.8	7.7
80°-90°	109.1	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°	1270.9	26.6
0°-40°	2077.9	43.5
0°-60°	3691.3	77.3
0°-90°	4775.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4775.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1642	1642	1642	1642	1642	
5°	1626	1636	1635	1633	1638	154
15°	1557	1573	1580	1582	1589	439
25°	1425	1444	1458	1467	1476	657
35°	1248	1268	1293	1312	1321	781
45°	1041	1062	1095	1121	1134	802
55°	805	826	866	901	916	720
65°	548	569	615	656	672	543
75°	278	304	351	393	412	295
85°	49	70	104	116	123	64
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1641.5	1641.5	1641.5	1641.5	1641.5
2.5°	1635.3	1643.5	1641.5	1634.3	1637.4
5°	1626.1	1636.3	1635.3	1633.3	1638.4
7.5°	1614.8	1626.1	1627.1	1627.1	1633.3
10°	1602.4	1613.7	1615.8	1612.7	1614.8
12.5°	1581.9	1595.3	1599.4	1599.4	1602.4
15°	1557.2	1572.7	1579.8	1581.9	1589.1
17.5°	1530.5	1547.0	1556.2	1561.4	1567.5
20°	1498.7	1516.2	1526.4	1532.6	1539.8
22.5°	1462.7	1482.3	1493.6	1499.7	1507.9
25°	1424.7	1444.3	1457.6	1466.9	1476.1
27.5°	1384.7	1403.2	1421.7	1433.0	1441.2
30°	1341.5	1361.1	1380.6	1394.9	1403.2
32.5°	1295.3	1315.9	1338.5	1353.9	1363.1
35°	1248.1	1267.6	1293.3	1311.7	1321.0
37.5°	1199.8	1220.3	1247.0	1266.5	1277.8
40°	1148.4	1170.0	1198.8	1220.3	1231.6
42.5°	1095.0	1115.5	1147.4	1172.0	1185.4
45°	1040.6	1062.1	1095.0	1120.7	1134.0
47.5°	984.1	1004.6	1040.6	1070.4	1081.7
50°	925.5	945.0	983.0	1014.9	1028.2
52.5°	865.9	886.5	924.5	958.4	972.8
55°	805.3	825.9	865.9	900.9	916.3
57.5°	743.7	764.2	805.3	841.3	859.8
60°	680.0	700.6	743.7	780.7	799.2
62.5°	614.3	635.8	680.0	718.0	737.5
65°	548.5	569.1	615.3	656.4	671.8
67.5°	482.8	503.3	548.5	589.6	608.1
70°	415.0	438.6	482.8	525.9	542.4
72.5°	344.1	370.8	415.0	460.2	476.6
75°	278.4	304.1	351.3	393.4	411.9
77.5°	213.7	241.4	285.6	328.7	347.2
80°	152.0	178.7	223.9	265.0	284.5
82.5°	96.6	120.2	165.4	202.4	216.7
85°	49.3	69.9	103.7	116.1	123.3
87.5°	14.4	24.7	37.0	46.2	51.4
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	14.70	16.36	15.07	16.68	16.99	15.44	17.10	15.80	17.41	17.73
	3H	16.47	17.98	16.85	18.30	18.66	17.52	19.02	17.89	19.35	19.71
	4H	17.09	18.51	17.49	18.86	19.23	18.38	19.80	18.78	20.15	20.52
	6H	17.50	18.82	17.91	19.18	19.57	19.13	20.44	19.54	20.81	21.20
	8H	17.60	18.86	18.03	19.25	19.65	19.42	20.68	19.85	21.07	21.47
	12H	17.65	18.86	18.08	19.24	19.67	19.62	20.82	20.04	21.20	21.63
4H	2H	15.47	16.89	15.87	17.24	17.61	16.04	17.46	16.44	17.81	18.18
	3H	17.46	18.66	17.87	19.05	19.45	18.36	19.55	18.76	19.95	20.35
	4H	18.20	19.29	18.64	19.70	20.14	19.37	20.46	19.80	20.87	21.30
	6H	18.73	19.68	19.19	20.12	20.58	20.28	21.23	20.73	21.67	22.12
	8H	18.88	19.76	19.33	20.21	20.67	20.65	21.54	21.10	21.98	22.44
	12H	18.96	19.76	19.43	20.23	20.70	20.90	21.70	21.38	22.18	22.64
8H	4H	18.65	19.54	19.11	19.98	20.45	19.67	20.56	20.13	21.00	21.47
	6H	19.31	20.06	19.81	20.54	21.02	20.73	21.47	21.22	21.96	22.43
	8H	19.52	20.19	20.03	20.69	21.18	21.20	21.87	21.71	22.37	22.86
	12H	19.66	20.25	20.16	20.74	21.30	21.55	22.14	22.06	22.63	23.19
12H	4H	18.73	19.53	19.21	20.01	20.47	19.70	20.50	20.18	20.97	21.44
	6H	19.44	20.10	19.94	20.61	21.09	20.78	21.45	21.29	21.95	22.44
	8H	19.71	20.30	20.22	20.79	21.35	21.32	21.91	21.82	22.40	22.96