

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: P1589793

Luminaire Tested: 24CZSP-SB-49HE-L830

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1589793
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-L830
Description: 2x4 CZSP LED Luminaire, 3000K CCT and 4500 lumens, 80CRI, Ribbed Lens, SB housing
Light Source: -
Ballast/Driver: -

Summary

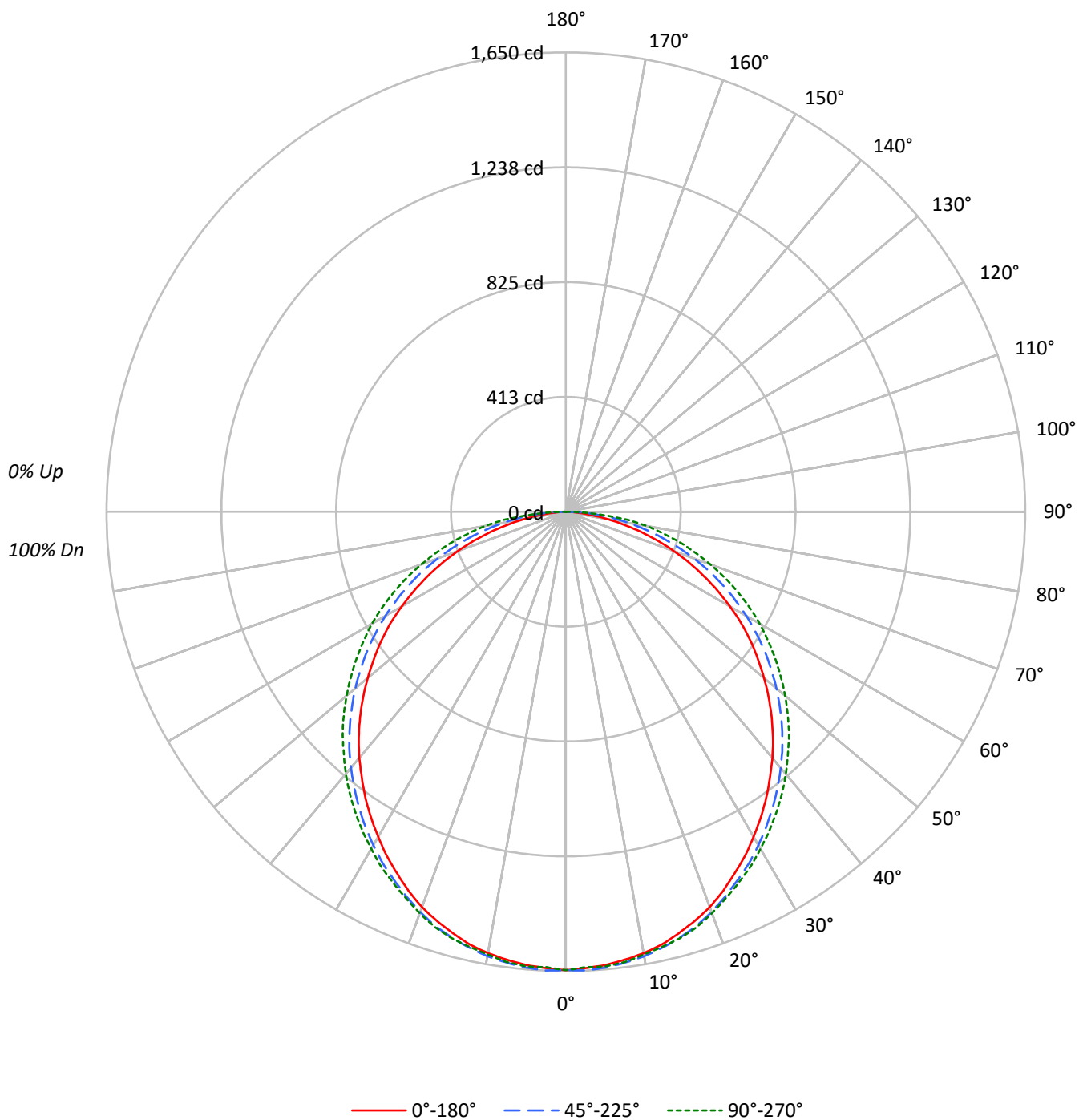
Lumens per Lamp: N/A
Luminaire Lumens: 4805.0 lumens
Efficiency: N/A
Efficacy: 144.3 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.26 / 1.38
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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°	2522	2522	2522
5°	2513	2527	2521
10°	2504	2521	2512
15°	2485	2511	2514
20°	2463	2493	2501
25°	2423	2466	2483
30°	2385	2446	2473
35°	2346	2422	2464
40°	2308	2401	2458
45°	2264	2379	2456
50°	2215	2353	2450
55°	2164	2327	2449
60°	2084	2293	2464
65°	1986	2248	2466
70°	1854	2186	2473
75°	1649	2106	2516
80°	1355	2018	2610
85°	893	1894	2358

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 2673 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.8	3.2
10°-20°	445.8	9.3
20°-30°	671.9	14.0
30°-40°	809.2	16.8
40°-50°	845.4	17.6
50°-60°	776.7	16.2
60°-70°	611.6	12.7
70°-80°	375.0	7.8
80°-90°	113.7	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°	1273.5	26.5
0°-40°	2082.7	43.3
0°-60°	3704.7	77.1
0°-90°	4805.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4805.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1646	1646	1646	1646	1646	
5°	1634	1637	1643	1641	1639	155
15°	1567	1573	1583	1590	1586	442
25°	1434	1443	1459	1475	1470	661
35°	1255	1271	1296	1319	1318	785
45°	1045	1068	1098	1129	1134	806
55°	810	834	872	909	917	723
65°	548	577	620	662	680	542
75°	279	311	356	399	425	296
85°	51	75	108	120	134	65
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1646.5	1646.5	1646.5	1646.5	1646.5
2.5°	1640.4	1644.4	1649.5	1641.4	1637.3
5°	1634.3	1637.3	1643.4	1641.4	1639.4
7.5°	1623.1	1625.1	1633.3	1633.3	1631.2
10°	1609.9	1613.9	1621.1	1620.0	1615.0
12.5°	1592.6	1595.6	1603.8	1603.8	1600.7
15°	1567.2	1573.3	1583.4	1589.5	1585.5
17.5°	1540.7	1546.8	1560.0	1566.1	1564.1
20°	1511.2	1516.3	1529.5	1538.7	1534.6
22.5°	1474.6	1480.7	1496.0	1506.1	1502.1
25°	1433.9	1443.1	1459.4	1474.6	1469.5
27.5°	1393.3	1403.4	1423.8	1439.0	1437.0
30°	1348.5	1361.7	1383.1	1402.4	1398.3
32.5°	1302.7	1318.0	1340.4	1360.7	1359.7
35°	1254.9	1271.2	1295.6	1319.0	1318.0
37.5°	1204.1	1223.4	1248.8	1274.3	1275.3
40°	1154.3	1172.6	1201.0	1228.5	1229.5
42.5°	1101.4	1120.7	1151.2	1179.7	1180.7
45°	1045.4	1067.8	1098.3	1128.8	1133.9
47.5°	988.5	1011.9	1043.4	1076.0	1082.1
50°	929.5	953.9	987.5	1022.1	1028.2
52.5°	869.5	894.9	929.5	964.1	973.2
55°	810.5	833.9	871.5	909.2	917.3
57.5°	748.5	769.8	810.5	850.2	860.4
60°	680.4	706.8	748.5	788.2	804.4
62.5°	614.3	642.7	685.4	725.1	743.4
65°	548.1	576.6	620.4	662.1	680.4
67.5°	481.0	510.5	557.3	597.0	617.3
70°	413.9	443.4	488.1	530.9	552.2
72.5°	346.8	378.3	422.0	465.8	487.1
75°	278.7	311.2	355.9	398.7	425.1
77.5°	214.6	246.1	290.9	334.6	357.0
80°	153.6	185.1	228.8	272.5	295.9
82.5°	97.6	127.1	169.8	206.4	227.8
85°	50.8	75.3	107.8	120.0	134.2
87.5°	15.3	29.5	41.7	46.8	58.0
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	14.73	16.39	15.09	16.70	17.02	15.47	17.14	15.84	17.45	17.76
	3H	16.49	18.00	16.87	18.32	18.68	17.57	19.08	17.95	19.40	19.76
	4H	17.11	18.54	17.51	18.88	19.26	18.45	19.88	18.85	20.22	20.60
	6H	17.53	18.85	17.94	19.21	19.60	19.22	20.54	19.63	20.90	21.30
	8H	17.63	18.90	18.06	19.28	19.68	19.53	20.79	19.96	21.18	21.58
	12H	17.68	18.90	18.11	19.28	19.70	19.74	20.96	20.17	21.34	21.77
4H	2H	15.50	16.92	15.89	17.27	17.64	16.08	17.50	16.47	17.85	18.22
	3H	17.49	18.69	17.90	19.09	19.48	18.41	19.60	18.81	20.00	20.40
	4H	18.24	19.33	18.67	19.74	20.18	19.44	20.53	19.87	20.94	21.37
	6H	18.78	19.73	19.23	20.17	20.63	20.37	21.32	20.82	21.76	22.22
	8H	18.93	19.82	19.39	20.26	20.73	20.75	21.65	21.21	22.09	22.55
	12H	19.01	19.82	19.49	20.29	20.76	21.03	21.83	21.51	22.31	22.78
8H	4H	18.70	19.59	19.16	20.03	20.49	19.74	20.63	20.20	21.07	21.54
	6H	19.37	20.12	19.87	20.61	21.08	20.82	21.57	21.32	22.06	22.53
	8H	19.59	20.26	20.10	20.77	21.25	21.31	21.98	21.82	22.49	22.97
	12H	19.74	20.33	20.25	20.82	21.38	21.69	22.28	22.19	22.77	23.33
12H	4H	18.78	19.58	19.26	20.06	20.53	19.77	20.57	20.25	21.05	21.51
	6H	19.50	20.17	20.01	20.68	21.16	20.88	21.55	21.38	22.05	22.54
	8H	19.79	20.39	20.30	20.87	21.43	21.43	22.02	21.94	22.51	23.07