

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: P1589792

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

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1589792
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-L830-S
Description: 2x4 CZSP LED Luminaire, 3000K CCT and 4500 lumens, 80CRI, Smooth Lens, SB housing
Light Source: -
Ballast/Driver: -

Summary

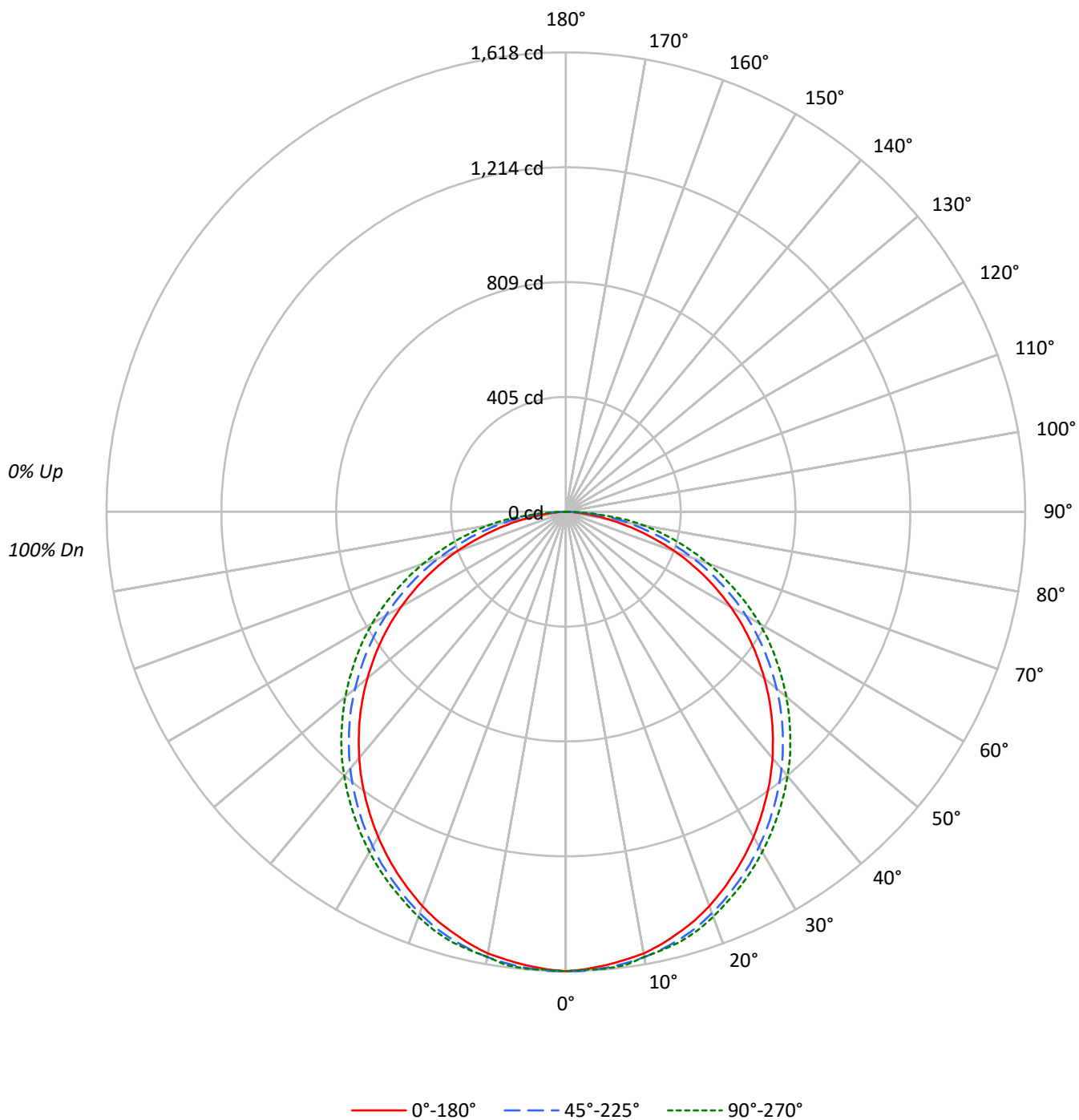
Lumens per Lamp: N/A
Luminaire Lumens: 4708.0 lumens
Efficiency: N/A
Efficacy: 141.4 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.38
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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°	2479	2479	2479
5°	2465	2479	2484
10°	2457	2478	2476
15°	2435	2470	2484
20°	2409	2453	2475
25°	2374	2429	2460
30°	2339	2407	2447
35°	2301	2384	2435
40°	2264	2363	2428
45°	2222	2338	2422
50°	2174	2309	2416
55°	2120	2280	2412
60°	2054	2246	2414
65°	1960	2199	2401
70°	1832	2132	2395
75°	1624	2050	2403
80°	1322	1948	2474
85°	854	1798	2135

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 2508 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.2	3.3
10°-20°	438.6	9.3
20°-30°	661.3	14.0
30°-40°	795.7	16.9
40°-50°	830.0	17.6
50°-60°	760.8	16.2
60°-70°	597.4	12.7
70°-80°	363.6	7.7
80°-90°	107.6	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°	1253.0	26.6
0°-40°	2048.7	43.5
0°-60°	3639.5	77.3
0°-90°	4708.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4708.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1618	1618	1618	1618	1618	
5°	1603	1613	1612	1610	1615	152
15°	1535	1551	1558	1560	1567	433
25°	1405	1424	1437	1446	1455	647
35°	1230	1250	1275	1293	1302	770
45°	1026	1047	1080	1105	1118	791
55°	794	814	854	888	903	710
65°	541	561	607	647	662	535
75°	274	300	346	388	406	291
85°	49	69	102	114	122	63
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1618.4	1618.4	1618.4	1618.4	1618.4
2.5°	1612.4	1620.5	1618.4	1611.4	1614.4
5°	1603.3	1613.4	1612.4	1610.3	1615.4
7.5°	1592.1	1603.3	1604.3	1604.3	1610.3
10°	1580.0	1591.1	1593.1	1590.1	1592.1
12.5°	1559.7	1572.9	1576.9	1576.9	1580.0
15°	1535.4	1550.6	1557.7	1559.7	1566.8
17.5°	1509.1	1525.3	1534.4	1539.4	1545.5
20°	1477.7	1494.9	1505.0	1511.1	1518.2
22.5°	1442.2	1461.5	1472.6	1478.7	1486.8
25°	1404.7	1424.0	1437.2	1446.3	1455.4
27.5°	1365.2	1383.5	1401.7	1412.8	1421.0
30°	1322.7	1342.0	1361.2	1375.4	1383.5
32.5°	1277.1	1297.4	1319.7	1334.9	1344.0
35°	1230.5	1249.8	1275.1	1293.3	1302.5
37.5°	1182.9	1203.2	1229.5	1248.8	1259.9
40°	1132.3	1153.6	1181.9	1203.2	1214.3
42.5°	1079.6	1099.9	1131.3	1155.6	1168.8
45°	1026.0	1047.2	1079.6	1105.0	1118.1
47.5°	970.3	990.5	1026.0	1055.3	1066.5
50°	912.5	931.8	969.2	1000.6	1013.8
52.5°	853.8	874.0	911.5	944.9	959.1
55°	794.0	814.3	853.8	888.2	903.4
57.5°	733.3	753.5	794.0	829.5	847.7
60°	670.5	690.7	733.3	769.7	788.0
62.5°	605.7	626.9	670.5	707.9	727.2
65°	540.8	561.1	606.7	647.2	662.4
67.5°	476.0	496.3	540.8	581.3	599.6
70°	409.2	432.5	476.0	518.6	534.8
72.5°	339.3	365.6	409.2	453.7	469.9
75°	274.5	299.8	346.4	387.9	406.1
77.5°	210.7	238.0	281.6	324.1	342.3
80°	149.9	176.2	220.8	261.3	280.5
82.5°	95.2	118.5	163.1	199.5	213.7
85°	48.6	68.9	102.3	114.4	121.5
87.5°	14.2	24.3	36.5	45.6	50.6
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	14.65	16.31	15.02	16.63	16.94	15.39	17.05	15.75	17.36	17.68
	3H	16.42	17.93	16.80	18.25	18.61	17.47	18.97	17.84	19.30	19.66
	4H	17.04	18.46	17.44	18.81	19.18	18.33	19.75	18.73	20.10	20.47
	6H	17.45	18.77	17.86	19.13	19.52	19.08	20.40	19.49	20.76	21.15
	8H	17.55	18.81	17.98	19.20	19.60	19.37	20.63	19.80	21.02	21.42
	12H	17.60	18.81	18.03	19.19	19.62	19.57	20.77	20.00	21.16	21.58
4H	2H	15.42	16.84	15.82	17.19	17.56	15.99	17.41	16.39	17.76	18.14
	3H	17.41	18.61	17.82	19.01	19.40	18.31	19.50	18.72	19.90	20.30
	4H	18.16	19.24	18.59	19.65	20.09	19.32	20.41	19.76	20.82	21.26
	6H	18.68	19.63	19.14	20.07	20.53	20.23	21.18	20.68	21.62	22.07
	8H	18.83	19.72	19.29	20.16	20.62	20.60	21.49	21.06	21.93	22.39
	12H	18.91	19.71	19.39	20.18	20.65	20.85	21.65	21.33	22.13	22.59
8H	4H	18.60	19.49	19.06	19.93	20.40	19.62	20.51	20.08	20.95	21.42
	6H	19.26	20.01	19.76	20.49	20.97	20.68	21.42	21.17	21.91	22.38
	8H	19.47	20.14	19.98	20.64	21.13	21.15	21.82	21.66	22.32	22.81
	12H	19.61	20.20	20.12	20.69	21.25	21.50	22.09	22.01	22.58	23.14
12H	4H	18.68	19.48	19.16	19.96	20.43	19.65	20.45	20.13	20.92	21.39
	6H	19.39	20.06	19.90	20.56	21.05	20.73	21.40	21.24	21.90	22.39
	8H	19.67	20.26	20.17	20.74	21.30	21.27	21.86	21.77	22.35	22.91

END OF REPORT