

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: P1586452

Luminaire Tested: 22CZSP-49HE-L830-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1586452
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2608-884-6)
Test Lab: INNOVATION CENTER
Issue Date: 9/3/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 22CZSP-49HE-L830-S
Description: 2x2 CZSP LED Luminaire, 3000K CCT and 4500 lumens, 80CRI, Smooth Lens
Light Source: -
Ballast/Driver: -

Summary

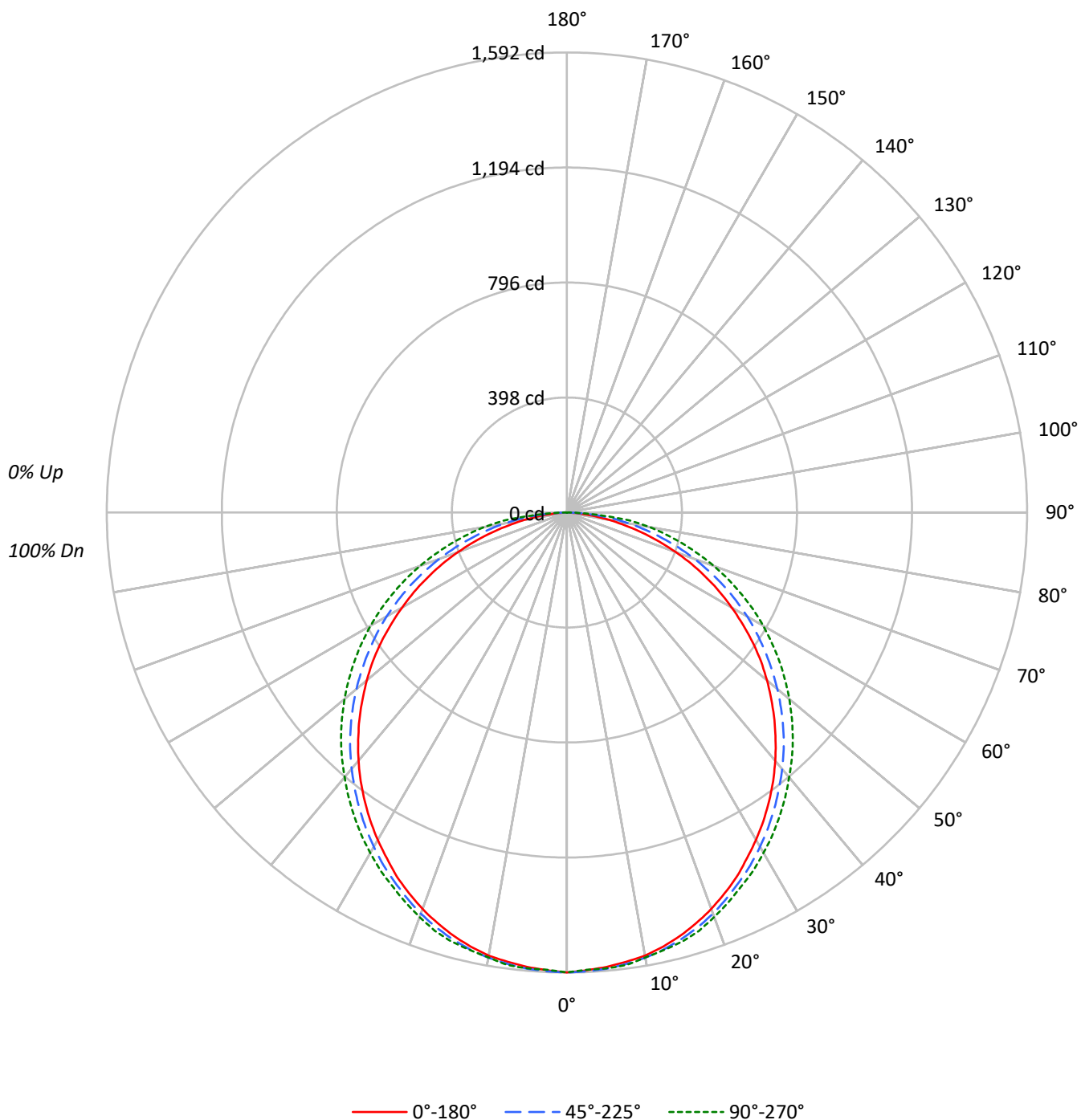
Lumens per Lamp: N/A
Luminaire Lumens: 4647.0 lumens
Efficiency: N/A
Efficacy: 144.3 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37
Luminous Opening: Rectangular (W 1.88' x L: 1.83' x H: 0')
CIE Type: Direct

Input Watts (W): 32.2
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	69
3	89	79	70	64	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°	4984	4984	4984
5°	4962	4981	4978
10°	4951	4974	4970
15°	4916	4955	4985
20°	4866	4923	4964
25°	4805	4872	4932
30°	4730	4830	4918
35°	4662	4783	4904
40°	4585	4735	4889
45°	4497	4687	4895
50°	4401	4629	4893
55°	4287	4565	4899
60°	4125	4515	4911
65°	3937	4427	4926
70°	3669	4304	4948
75°	3269	4133	4997
80°	2703	3935	5240
85°	1757	3553	4581

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 5405 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	150.5	3.2
10°-20°	431.0	9.3
20°-30°	650.1	14.0
30°-40°	783.0	16.8
40°-50°	817.7	17.6
50°-60°	751.0	16.2
60°-70°	591.5	12.7
70°-80°	362.9	7.8
80°-90°	109.2	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°	1231.7	26.5
0°-40°	2014.7	43.4
0°-60°	3583.4	77.1
0°-90°	4647.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4647.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1592	1592	1592	1592	1592	
5°	1578	1580	1585	1590	1584	150
15°	1516	1519	1528	1538	1538	428
25°	1391	1394	1410	1428	1428	640
35°	1220	1226	1251	1277	1283	763
45°	1016	1027	1058	1095	1105	783
55°	785	799	836	883	897	701
65°	531	550	598	648	665	526
75°	270	292	342	396	413	287
85°	49	67	99	125	128	64
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1591.7	1591.7	1591.7	1591.7	1591.7
2.5°	1585.6	1588.7	1589.7	1590.7	1583.6
5°	1578.5	1580.5	1584.6	1589.7	1583.6
7.5°	1568.3	1570.3	1575.4	1582.5	1579.5
10°	1557.1	1558.1	1564.2	1569.3	1563.2
12.5°	1538.7	1541.8	1548.9	1553.0	1550.9
15°	1516.3	1519.3	1528.5	1537.7	1537.7
17.5°	1489.8	1493.8	1505.0	1517.3	1518.3
20°	1460.2	1463.2	1477.5	1489.8	1489.8
22.5°	1426.5	1430.6	1444.9	1458.1	1460.2
25°	1390.8	1393.9	1410.2	1427.6	1427.6
27.5°	1349.0	1355.2	1375.5	1392.9	1397.0
30°	1308.3	1313.3	1335.8	1357.2	1360.3
32.5°	1265.4	1271.5	1295.0	1318.4	1323.5
35°	1219.5	1225.7	1251.1	1276.6	1282.8
37.5°	1171.6	1178.8	1205.3	1234.8	1241.0
40°	1121.6	1129.8	1158.4	1190.0	1196.1
42.5°	1068.6	1079.8	1110.4	1143.1	1152.2
45°	1015.6	1026.8	1058.4	1095.1	1105.3
47.5°	959.5	972.8	1005.4	1044.2	1055.4
50°	903.4	916.7	950.3	992.1	1004.4
52.5°	846.3	859.6	894.3	938.1	951.4
55°	785.2	799.4	836.1	883.0	897.3
57.5°	721.9	740.3	779.0	827.0	841.2
60°	658.7	677.1	720.9	767.8	784.1
62.5°	596.5	613.8	658.7	708.7	726.0
65°	531.3	549.6	597.5	647.5	664.8
67.5°	467.0	485.4	533.3	585.3	603.7
70°	400.7	421.1	470.1	522.1	540.4
72.5°	334.5	355.9	405.8	458.9	476.2
75°	270.2	291.6	341.6	395.6	413.0
77.5°	207.0	230.4	279.4	334.5	350.8
80°	149.9	172.3	218.2	272.3	290.6
82.5°	95.8	115.2	161.1	212.1	225.3
85°	48.9	67.3	98.9	125.4	127.5
87.5°	15.3	21.4	32.6	48.9	50.0
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	17.06	18.72	17.42	19.04	19.35	17.89	19.55	18.25	19.87	20.18
	3H	18.81	20.32	19.19	20.65	21.01	20.01	21.51	20.38	21.84	22.20
	4H	19.43	20.86	19.83	21.20	21.58	20.89	22.32	21.29	22.66	23.04
	6H	19.84	21.16	20.25	21.53	21.92	21.68	23.00	22.09	23.36	23.75
	8H	19.95	21.21	20.38	21.60	22.00	22.00	23.26	22.42	23.65	24.04
	12H	20.00	21.21	20.43	21.60	22.02	22.21	23.42	22.64	23.80	24.23
4H	2H	17.83	19.25	18.23	19.60	19.97	18.48	19.90	18.87	20.25	20.62
	3H	19.81	21.01	20.22	21.40	21.80	20.83	22.03	21.24	22.43	22.83
	4H	20.54	21.63	20.98	22.04	22.48	21.88	22.97	22.31	23.38	23.82
	6H	21.07	22.03	21.53	22.46	22.92	22.84	23.79	23.29	24.23	24.68
	8H	21.22	22.11	21.68	22.55	23.02	23.23	24.13	23.69	24.57	25.03
	12H	21.30	22.11	21.78	22.58	23.05	23.51	24.31	23.99	24.79	25.26
8H	4H	21.00	21.90	21.46	22.34	22.80	22.17	23.07	22.63	23.51	23.97
	6H	21.66	22.41	22.16	22.90	23.37	23.29	24.03	23.78	24.52	24.99
	8H	21.88	22.54	22.38	23.05	23.53	23.80	24.47	24.30	24.97	25.45
	12H	22.01	22.61	22.52	23.10	23.65	24.18	24.77	24.69	25.26	25.82
12H	4H	21.09	21.90	21.57	22.37	22.84	22.20	23.00	22.68	23.48	23.94
	6H	21.80	22.47	22.30	22.97	23.46	23.33	24.00	23.84	24.51	24.99
	8H	22.07	22.67	22.58	23.16	23.71	23.91	24.50	24.42	24.99	25.55