

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: P1588327

Luminaire Tested: 24CZSP-49HE-L940

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1588327
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2603-711-1)
Test Lab: INNOVATION CENTER
Issue Date: 9/3/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 24CZSP-49HE-L940
Description: 2x4 CZSP LED Luminaire, 4000K CCT and 4500 lumens, 90CRI, Ribbed Lens
Light Source: -
Ballast/Driver: -

Summary

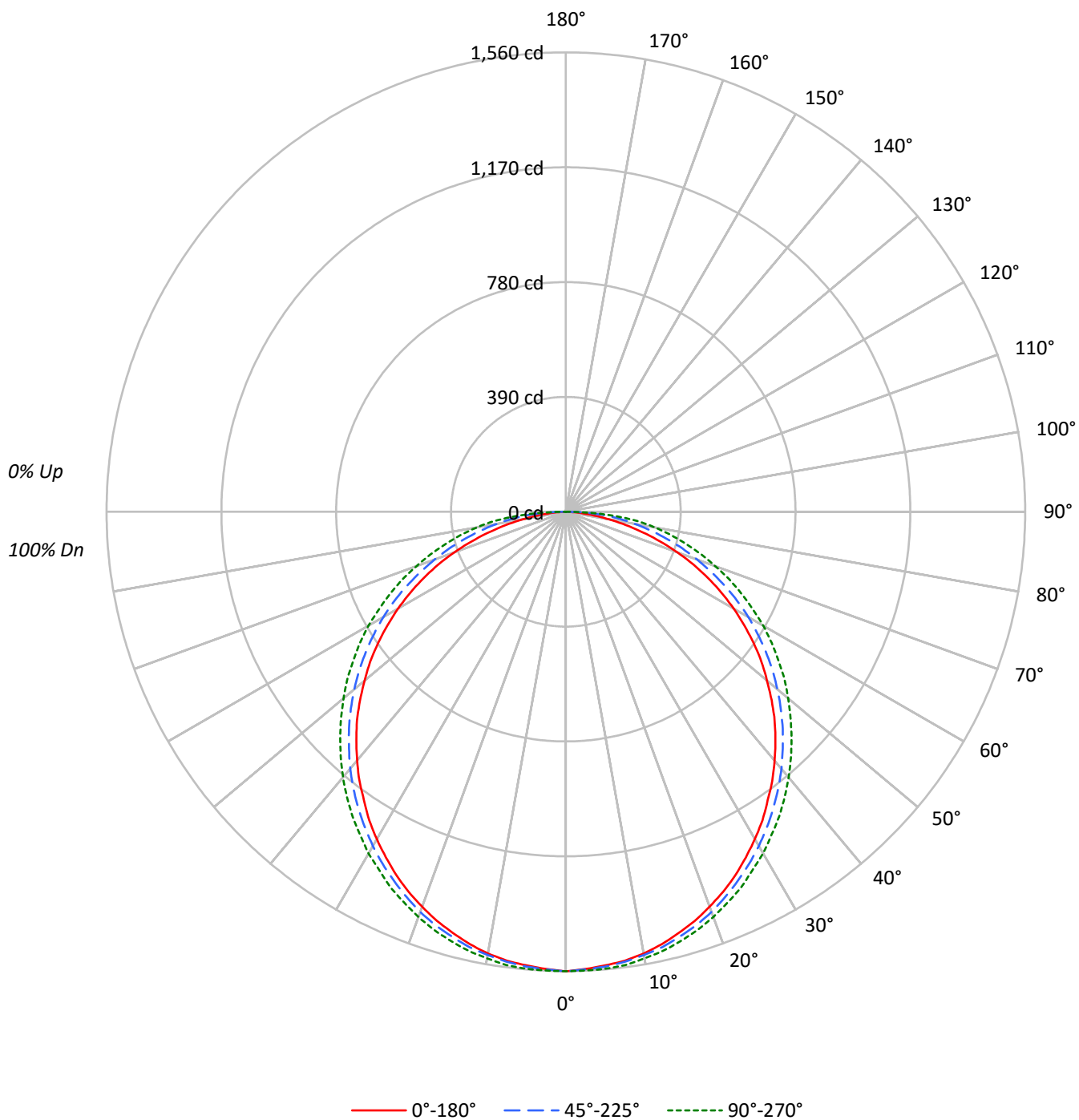
Lumens per Lamp: N/A
Luminaire Lumens: 4629.0 lumens
Efficiency: N/A
Efficacy: 139.0 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.27 / 1.38
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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	98	94	105	101	97	93	96	93	90		92	90	87		89	87	85	82
2	98	89	82	76	95	87	81	75	84	78	73		81	76	72		77	74	70	68
3	89	78	70	63	87	77	69	62	74	67	61		71	65	60		68	63	59	57
4	81	69	60	53	79	68	59	53	65	58	52		63	56	51		61	55	51	48
5	75	62	52	46	73	60	52	45	58	51	45		56	50	44		54	49	44	42
6	69	55	46	40	67	54	46	39	53	45	39		51	44	39		49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	35		46	39	34		45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31		42	36	31		41	35	30	29
9	56	42	34	28	54	41	33	28	40	33	28		39	32	28		38	32	27	26
10	52	39	31	25	51	38	30	25	37	30	25		36	30	25		35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2390	2390	2390
5°	2378	2383	2395
10°	2369	2377	2395
15°	2348	2369	2393
20°	2326	2358	2387
25°	2302	2336	2379
30°	2270	2318	2370
35°	2235	2297	2362
40°	2206	2277	2354
45°	2173	2256	2348
50°	2125	2235	2348
55°	2080	2213	2354
60°	2017	2194	2370
65°	1932	2159	2386
70°	1807	2123	2416
75°	1607	2093	2494
80°	1322	2102	2712
85°	900	2341	2995

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 85°

Luminance: 2995 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.7	3.2
10°-20°	422.8	9.1
20°-30°	639.4	13.8
30°-40°	771.6	16.7
40°-50°	806.8	17.4
50°-60°	744.3	16.1
60°-70°	591.9	12.8
70°-80°	373.6	8.1
80°-90°	131.0	2.8
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°	1209.9	26.1
0°-40°	1981.5	42.8
0°-60°	3532.6	76.3
0°-90°	4629.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4629.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1560	1560	1560	1560	1560	
5°	1546	1558	1550	1554	1558	147
15°	1481	1498	1494	1505	1509	418
25°	1362	1382	1382	1400	1408	627
35°	1195	1221	1229	1253	1263	749
45°	1003	1025	1042	1072	1084	773
55°	779	802	829	869	881	696
65°	533	557	596	646	658	527
75°	272	302	354	406	422	288
85°	51	85	133	165	170	65
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1560.5	1560.5	1560.5	1560.5	1560.5
2.5°	1554.0	1564.3	1555.3	1560.5	1559.2
5°	1546.4	1557.9	1550.2	1554.0	1557.9
7.5°	1537.4	1550.2	1541.2	1547.6	1552.8
10°	1523.3	1536.1	1528.4	1536.1	1540.0
12.5°	1504.1	1519.5	1514.3	1523.3	1527.1
15°	1481.0	1497.7	1493.8	1505.4	1509.2
17.5°	1456.7	1474.6	1472.1	1484.9	1488.7
20°	1427.2	1447.7	1446.4	1459.2	1464.4
22.5°	1396.5	1417.0	1415.7	1429.8	1436.2
25°	1361.9	1382.4	1382.4	1400.3	1408.0
27.5°	1323.4	1346.5	1347.8	1365.7	1372.1
30°	1283.7	1306.8	1310.6	1329.8	1340.1
32.5°	1242.7	1264.5	1270.9	1292.7	1300.4
35°	1195.3	1220.9	1228.6	1253.0	1263.2
37.5°	1151.8	1174.8	1185.1	1210.7	1220.9
40°	1103.1	1127.4	1139.0	1167.1	1177.4
42.5°	1053.1	1077.5	1090.3	1121.0	1131.3
45°	1003.1	1024.9	1041.6	1072.3	1083.9
47.5°	948.1	972.4	990.3	1023.6	1035.2
50°	891.7	917.3	937.8	973.7	985.2
52.5°	837.9	860.9	884.0	923.7	936.5
55°	778.9	802.0	828.9	868.6	881.4
57.5°	718.7	741.8	772.5	814.8	828.9
60°	658.5	681.6	716.2	759.7	773.8
62.5°	595.7	618.8	657.2	702.1	714.9
65°	533.0	557.3	595.7	645.7	658.5
67.5°	468.9	493.2	534.2	586.8	600.9
70°	403.6	430.5	474.0	526.6	539.4
72.5°	335.7	366.4	415.1	466.3	481.7
75°	271.6	302.4	353.6	406.1	421.5
77.5°	208.8	243.4	294.7	349.8	366.4
80°	149.9	184.5	238.3	292.1	307.5
82.5°	96.1	132.0	185.8	237.0	249.8
85°	51.2	84.6	133.2	165.3	170.4
87.5°	16.7	43.6	60.2	79.4	80.7
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	14.58	16.26	14.95	16.57	16.88	15.31	16.98	15.67	17.29	17.60
	3H	16.37	17.89	16.75	18.21	18.57	17.47	18.99	17.85	19.32	19.67
	4H	17.00	18.43	17.40	18.78	19.16	18.41	19.84	18.80	20.19	20.56
	6H	17.42	18.76	17.84	19.12	19.51	19.27	20.60	19.68	20.96	21.35
	8H	17.54	18.81	17.96	19.20	19.60	19.64	20.92	20.07	21.30	21.70
	12H	17.60	18.82	18.02	19.20	19.63	19.95	21.17	20.38	21.56	21.98
4H	2H	15.35	16.78	15.75	17.13	17.50	15.91	17.34	16.31	17.69	18.06
	3H	17.37	18.58	17.78	18.98	19.38	18.32	19.53	18.73	19.93	20.33
	4H	18.13	19.23	18.56	19.64	20.08	19.42	20.52	19.85	20.93	21.37
	6H	18.69	19.65	19.14	20.09	20.54	20.47	21.43	20.92	21.87	22.32
	8H	18.85	19.75	19.30	20.19	20.66	20.93	21.83	21.39	22.27	22.74
	12H	18.94	19.76	19.42	20.23	20.70	21.33	22.14	21.80	22.61	23.08
8H	4H	18.62	19.53	19.08	19.97	20.43	19.74	20.64	20.20	21.09	21.55
	6H	19.33	20.09	19.82	20.57	21.05	20.96	21.72	21.45	22.20	22.68
	8H	19.57	20.25	20.08	20.76	21.24	21.56	22.24	22.06	22.74	23.22
	12H	19.74	20.35	20.25	20.84	21.39	22.10	22.70	22.60	23.19	23.75
12H	4H	18.73	19.54	19.20	20.01	20.48	19.77	20.59	20.25	21.06	21.53
	6H	19.49	20.17	20.00	20.68	21.16	21.02	21.70	21.53	22.21	22.69
	8H	19.82	20.42	20.32	20.91	21.47	21.70	22.30	22.20	22.79	23.35

END OF REPORT