

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: P1588315

Luminaire Tested: 24CZSP-49HE-L835

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1588315
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-L835
Description: 2x4 CZSP LED Luminaire, 3500K CCT and 4500 lumens, 80CRI, Ribbed Lens
Light Source: -
Ballast/Driver: -

Summary

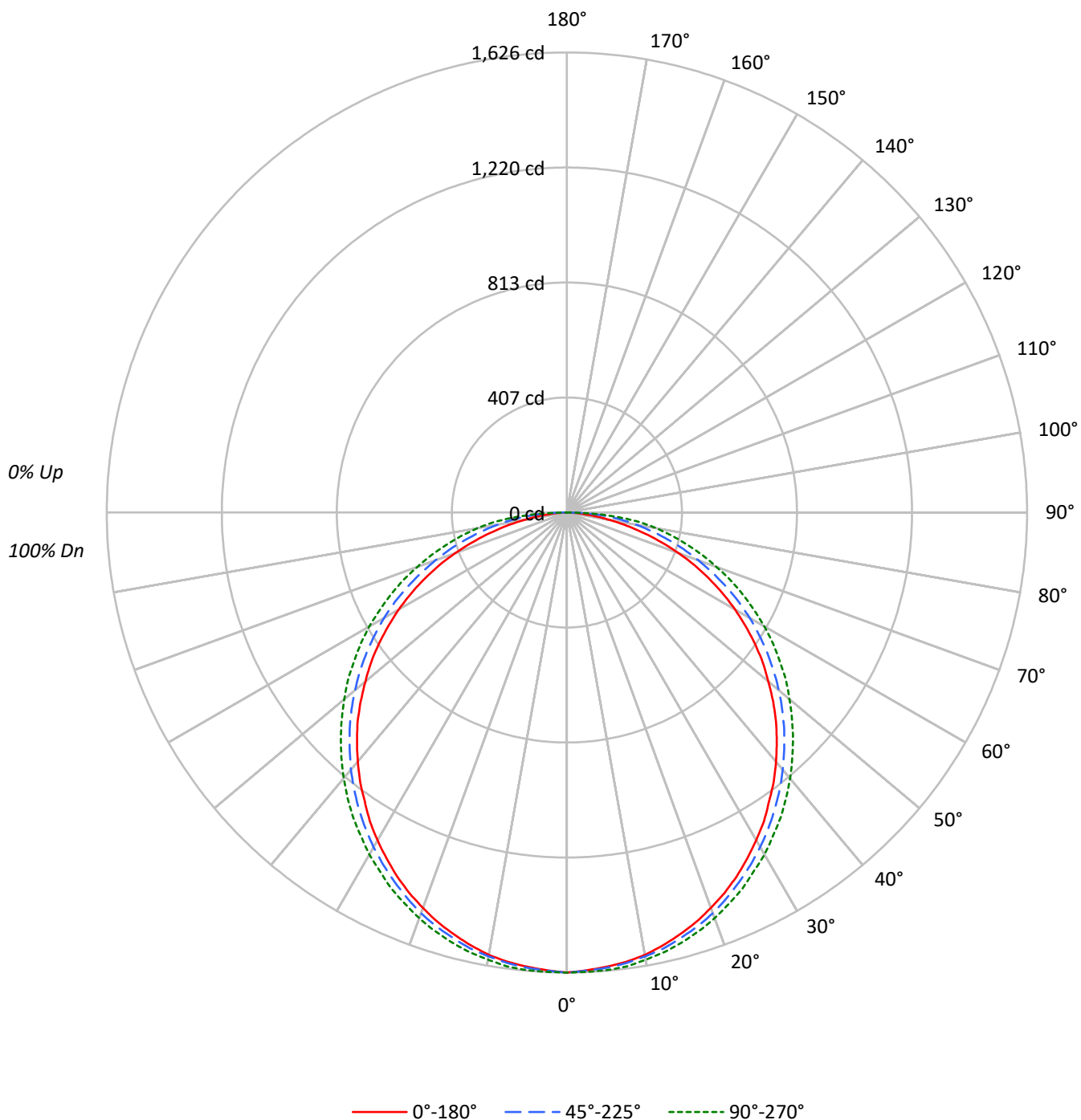
Lumens per Lamp: N/A
Luminaire Lumens: 4824.0 lumens
Efficiency: N/A
Efficacy: 144.9 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.27 / 1.38
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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°	2491	2491	2491
5°	2478	2484	2496
10°	2469	2477	2496
15°	2447	2469	2494
20°	2424	2457	2487
25°	2398	2435	2480
30°	2366	2416	2470
35°	2329	2394	2461
40°	2298	2373	2453
45°	2264	2351	2447
50°	2214	2329	2446
55°	2168	2307	2453
60°	2102	2286	2470
65°	2013	2250	2487
70°	1884	2212	2517
75°	1675	2181	2600
80°	1378	2190	2826
85°	938	2441	3121

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 85°

Luminance: 3121 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.9	3.2
10°-20°	440.6	9.1
20°-30°	666.3	13.8
30°-40°	804.1	16.7
40°-50°	840.8	17.4
50°-60°	775.7	16.1
60°-70°	616.8	12.8
70°-80°	389.3	8.1
80°-90°	136.5	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°	1260.9	26.1
0°-40°	2065.0	42.8
0°-60°	3681.4	76.3
0°-90°	4824.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4824.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1626	1626	1626	1626	1626	
5°	1612	1624	1616	1620	1624	153
15°	1543	1561	1557	1569	1573	436
25°	1419	1441	1441	1459	1467	654
35°	1246	1272	1280	1306	1316	781
45°	1045	1068	1086	1118	1130	805
55°	812	836	864	905	919	725
65°	555	581	621	673	686	549
75°	283	315	368	423	439	300
85°	53	88	139	172	178	68
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1626.2	1626.2	1626.2	1626.2	1626.2
2.5°	1619.5	1630.2	1620.8	1626.2	1624.9
5°	1611.5	1623.5	1615.5	1619.5	1623.5
7.5°	1602.2	1615.5	1606.2	1612.8	1618.2
10°	1587.5	1600.8	1592.8	1600.8	1604.8
12.5°	1567.4	1583.5	1578.1	1587.5	1591.5
15°	1543.4	1560.8	1556.8	1568.8	1572.8
17.5°	1518.0	1536.7	1534.1	1547.4	1551.4
20°	1487.3	1508.7	1507.4	1520.7	1526.1
22.5°	1455.3	1476.7	1475.3	1490.0	1496.7
25°	1419.2	1440.6	1440.6	1459.3	1467.3
27.5°	1379.2	1403.2	1404.6	1423.2	1429.9
30°	1337.8	1361.8	1365.8	1385.9	1396.5
32.5°	1295.1	1317.8	1324.4	1347.1	1355.2
35°	1245.7	1272.4	1280.4	1305.8	1316.4
37.5°	1200.3	1224.3	1235.0	1261.7	1272.4
40°	1149.5	1174.9	1186.9	1216.3	1227.0
42.5°	1097.5	1122.8	1136.2	1168.2	1178.9
45°	1045.4	1068.1	1085.5	1117.5	1129.5
47.5°	988.0	1013.4	1032.1	1066.8	1078.8
50°	929.2	956.0	977.3	1014.7	1026.7
52.5°	873.2	897.2	921.2	962.6	976.0
55°	811.8	835.8	863.8	905.2	918.6
57.5°	749.0	773.0	805.1	849.1	863.8
60°	686.3	710.3	746.3	791.7	806.4
62.5°	620.8	644.9	684.9	731.7	745.0
65°	555.4	580.8	620.8	672.9	686.3
67.5°	488.7	514.0	556.7	611.5	626.2
70°	420.6	448.6	494.0	548.7	562.1
72.5°	349.8	381.8	432.6	486.0	502.0
75°	283.0	315.1	368.5	423.2	439.3
77.5°	217.6	253.7	307.1	364.5	381.8
80°	156.2	192.3	248.3	304.4	320.4
82.5°	100.1	137.5	193.6	247.0	260.4
85°	53.4	88.1	138.9	172.2	177.6
87.5°	17.4	45.4	62.8	82.8	84.1
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	16.40	15.09	16.71	17.03	15.45	17.12	15.81	17.43	17.75
	3H	16.51	18.03	16.89	18.36	18.72	17.62	19.13	17.99	19.46	19.82
	4H	17.14	18.58	17.54	18.92	19.30	18.55	19.98	18.95	20.33	20.70
	6H	17.57	18.90	17.98	19.26	19.65	19.41	20.74	19.82	21.10	21.49
	8H	17.68	18.95	18.10	19.34	19.74	19.79	21.06	20.21	21.45	21.84
	12H	17.74	18.96	18.17	19.34	19.77	20.10	21.32	20.52	21.70	22.13
4H	2H	15.49	16.92	15.89	17.27	17.65	16.05	17.48	16.45	17.83	18.21
	3H	17.51	18.72	17.92	19.12	19.52	18.46	19.67	18.87	20.07	20.47
	4H	18.28	19.37	18.71	19.79	20.22	19.57	20.67	20.00	21.08	21.51
	6H	18.83	19.80	19.28	20.23	20.69	20.61	21.57	21.06	22.01	22.46
	8H	18.99	19.89	19.45	20.33	20.80	21.07	21.98	21.53	22.42	22.88
	12H	19.09	19.90	19.57	20.38	20.84	21.47	22.28	21.95	22.76	23.23
8H	4H	18.76	19.67	19.22	20.11	20.57	19.88	20.79	20.34	21.23	21.69
	6H	19.47	20.23	19.96	20.72	21.19	21.10	21.86	21.59	22.34	22.82
	8H	19.72	20.39	20.22	20.90	21.38	21.70	22.38	22.21	22.88	23.37
	12H	19.89	20.49	20.39	20.98	21.54	22.24	22.84	22.75	23.33	23.89
12H	4H	18.87	19.68	19.35	20.16	20.63	19.92	20.73	20.39	21.20	21.67
	6H	19.63	20.32	20.14	20.82	21.30	21.17	21.85	21.67	22.35	22.84
	8H	19.96	20.56	20.46	21.05	21.61	21.84	22.44	22.35	22.93	23.49