

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: P1589795

Luminaire Tested: 24CZSP-SB-49HE-L835

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1589795
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-L835
Description: 2x4 CZSP LED Luminaire, 3500K CCT and 4500 lumens, 80CRI, Ribbed Lens, SB housing
Light Source: -
Ballast/Driver: -

Summary

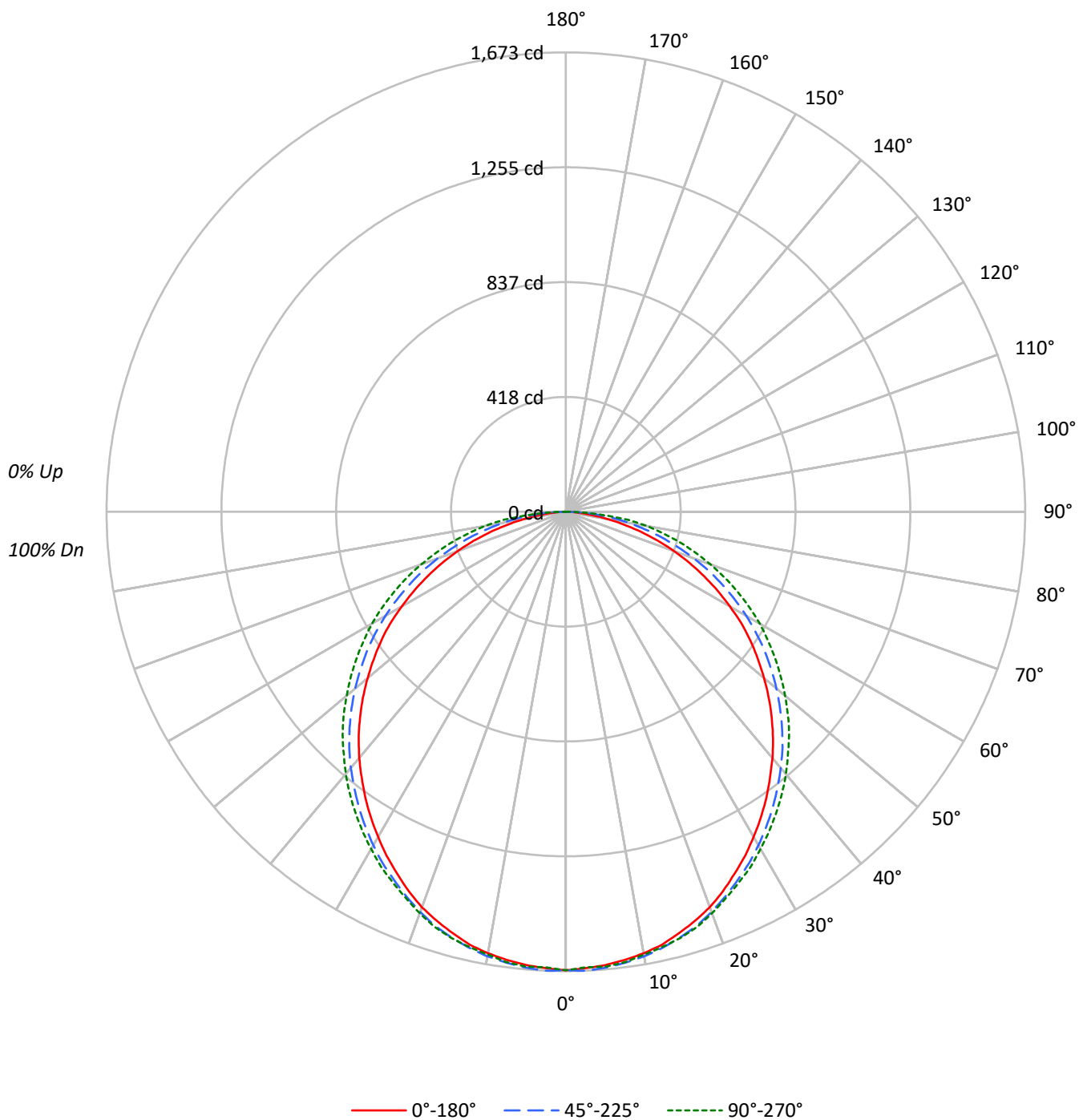
Lumens per Lamp: N/A
Luminaire Lumens: 4873.0 lumens
Efficiency: N/A
Efficacy: 146.3 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.26 / 1.38
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1589795

CATALOG NUMBER: 24CZSP-SB-49HE-L835

Luminous Intensity Polar Plot



TEST NUMBER: P1589795

CATALOG NUMBER: 24CZSP-SB-49HE-L835

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°	2558	2558	2558
5°	2548	2563	2556
10°	2539	2557	2547
15°	2520	2546	2550
20°	2498	2528	2537
25°	2458	2501	2519
30°	2419	2481	2508
35°	2380	2457	2499
40°	2340	2435	2493
45°	2296	2413	2491
50°	2246	2386	2485
55°	2195	2360	2484
60°	2114	2325	2499
65°	2015	2280	2501
70°	1880	2217	2508
75°	1672	2136	2551
80°	1373	2047	2647
85°	907	1921	2392

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 2711 cd/sqm

TEST NUMBER: P1589795

CATALOG NUMBER: 24CZSP-SB-49HE-L835

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.0	3.2
10°-20°	452.1	9.3
20°-30°	681.4	14.0
30°-40°	820.6	16.8
40°-50°	857.3	17.6
50°-60°	787.7	16.2
60°-70°	620.3	12.7
70°-80°	380.3	7.8
80°-90°	115.3	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°	1291.5	26.5
0°-40°	2112.1	43.3
0°-60°	3757.1	77.1
0°-90°	4873.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4873.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1670	1670	1670	1670	1670	
5°	1657	1660	1667	1665	1663	157
15°	1589	1596	1606	1612	1608	448
25°	1454	1464	1480	1496	1490	670
35°	1273	1289	1314	1338	1337	796
45°	1060	1083	1114	1145	1150	818
55°	822	846	884	922	930	733
65°	556	585	629	671	690	550
75°	283	316	361	404	431	300
85°	52	76	109	122	136	66
90°	0	0	0	0	0	

TEST NUMBER: P1589795

CATALOG NUMBER: 24CZSP-SB-49HE-L835

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1669.8	1669.8	1669.8	1669.8	1669.8
2.5°	1663.6	1667.7	1672.9	1664.6	1660.5
5°	1657.4	1660.5	1666.7	1664.6	1662.6
7.5°	1646.1	1648.1	1656.4	1656.4	1654.3
10°	1632.7	1636.8	1644.0	1643.0	1637.8
12.5°	1615.1	1618.2	1626.5	1626.5	1623.4
15°	1589.3	1595.5	1605.8	1612.0	1607.9
17.5°	1562.5	1568.7	1582.1	1588.3	1586.2
20°	1532.6	1537.8	1551.2	1560.5	1556.3
22.5°	1495.5	1501.7	1517.1	1527.5	1523.3
25°	1454.2	1463.5	1480.0	1495.5	1490.3
27.5°	1413.0	1423.3	1443.9	1459.4	1457.3
30°	1367.6	1381.0	1402.7	1422.3	1418.1
32.5°	1321.2	1336.7	1359.3	1380.0	1378.9
35°	1272.7	1289.2	1314.0	1337.7	1336.7
37.5°	1221.1	1240.7	1266.5	1292.3	1293.3
40°	1170.6	1189.2	1218.0	1245.9	1246.9
42.5°	1117.0	1136.6	1167.5	1196.4	1197.4
45°	1060.2	1082.9	1113.9	1144.8	1150.0
47.5°	1002.5	1026.2	1058.2	1091.2	1097.4
50°	942.7	967.4	1001.5	1036.5	1042.7
52.5°	881.8	907.6	942.7	977.7	987.0
55°	822.0	845.7	883.9	922.0	930.3
57.5°	759.1	780.7	822.0	862.2	872.5
60°	690.0	716.8	759.1	799.3	815.8
62.5°	622.9	651.8	695.1	735.4	753.9
65°	555.9	584.8	629.1	671.4	690.0
67.5°	487.8	517.7	565.2	605.4	626.0
70°	419.8	449.7	495.1	538.4	560.0
72.5°	351.7	383.7	428.0	472.4	494.0
75°	282.6	315.6	361.0	404.3	431.1
77.5°	217.6	249.6	295.0	339.3	362.0
80°	155.7	187.7	232.1	276.4	300.1
82.5°	99.0	128.9	172.2	209.4	231.0
85°	51.6	76.3	109.3	121.7	136.1
87.5°	15.5	29.9	42.3	47.4	58.8
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1589795

CATALOG NUMBER: 24CZSP-SB-49HE-L835

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	14.78	16.44	15.14	16.75	17.07	15.52	17.18	15.89	17.50	17.81
	3H	16.54	18.05	16.91	18.37	18.73	17.62	19.13	17.99	19.45	19.81
	4H	17.16	18.59	17.56	18.93	19.31	18.50	19.92	18.90	20.27	20.65
	6H	17.58	18.90	17.99	19.26	19.65	19.27	20.59	19.68	20.95	21.34
	8H	17.68	18.94	18.11	19.33	19.73	19.58	20.84	20.00	21.23	21.63
	12H	17.73	18.94	18.16	19.33	19.75	19.79	21.00	20.22	21.39	21.81
4H	2H	15.55	16.97	15.94	17.32	17.69	16.13	17.55	16.52	17.90	18.27
	3H	17.54	18.74	17.95	19.13	19.53	18.45	19.65	18.86	20.05	20.45
	4H	18.29	19.38	18.72	19.79	20.23	19.49	20.58	19.92	20.99	21.42
	6H	18.83	19.78	19.28	20.22	20.68	20.42	21.37	20.87	21.81	22.27
	8H	18.98	19.87	19.44	20.31	20.77	20.80	21.70	21.26	22.14	22.60
	12H	19.06	19.87	19.54	20.34	20.81	21.08	21.88	21.56	22.36	22.82
8H	4H	18.75	19.64	19.20	20.08	20.54	19.79	20.68	20.25	21.12	21.59
	6H	19.42	20.17	19.91	20.65	21.13	20.87	21.62	21.36	22.10	22.58
	8H	19.64	20.31	20.15	20.82	21.30	21.36	22.03	21.87	22.53	23.02
	12H	19.79	20.38	20.30	20.87	21.43	21.74	22.33	22.24	22.82	23.38
12H	4H	18.83	19.63	19.31	20.11	20.58	19.82	20.62	20.30	21.09	21.56
	6H	19.55	20.22	20.06	20.73	21.21	20.93	21.60	21.43	22.10	22.58
	8H	19.84	20.43	20.35	20.92	21.48	21.48	22.07	21.98	22.56	23.12