

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: P1589729

Luminaire Tested: 24CZSP-SB-37HE-L945

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1589729
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-37HE-L945
Description: 2x4 CZSP LED Luminaire, 4500K CCT and 3500 lumens, 90CRI, Ribbed Lens, SB housing
Light Source: -
Ballast/Driver: -

Summary

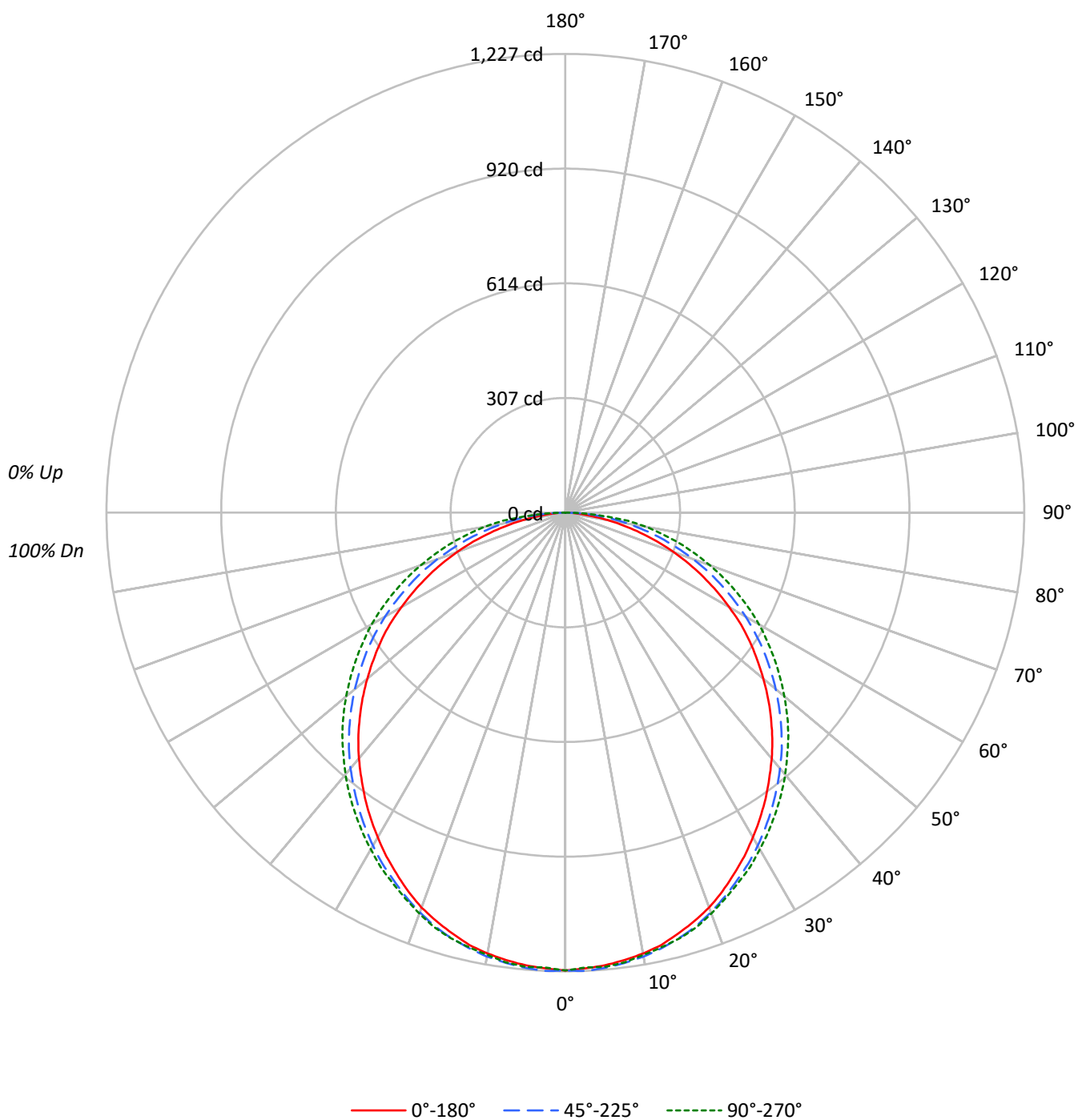
Lumens per Lamp: N/A
Luminaire Lumens: 3574.0 lumens
Efficiency: N/A
Efficacy: 144.7 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.26 / 1.38
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 24.7
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	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°	1876	1876	1876
5°	1869	1879	1875
10°	1862	1875	1868
15°	1848	1868	1870
20°	1832	1854	1861
25°	1803	1834	1847
30°	1774	1820	1839
35°	1745	1802	1833
40°	1717	1786	1828
45°	1684	1769	1827
50°	1647	1750	1822
55°	1610	1731	1822
60°	1550	1705	1833
65°	1478	1672	1834
70°	1379	1626	1839
75°	1227	1567	1871
80°	1007	1501	1941
85°	664	1409	1754

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 1988 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.9	3.2
10°-20°	331.6	9.3
20°-30°	499.8	14.0
30°-40°	601.9	16.8
40°-50°	628.8	17.6
50°-60°	577.7	16.2
60°-70°	454.9	12.7
70°-80°	278.9	7.8
80°-90°	84.6	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°	947.2	26.5
0°-40°	1549.1	43.3
0°-60°	2755.6	77.1
0°-90°	3574.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3574.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1225	1225	1225	1225	1225	
5°	1216	1218	1222	1221	1219	115
15°	1166	1170	1178	1182	1179	329
25°	1067	1073	1086	1097	1093	492
35°	933	946	964	981	980	584
45°	778	794	817	840	843	600
55°	603	620	648	676	682	538
65°	408	429	461	492	506	403
75°	207	232	265	296	316	220
85°	38	56	80	89	100	49
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1224.7	1224.7	1224.7	1224.7	1224.7
2.5°	1220.1	1223.2	1226.9	1220.9	1217.9
5°	1215.6	1217.9	1222.4	1220.9	1219.4
7.5°	1207.3	1208.8	1214.8	1214.8	1213.3
10°	1197.4	1200.5	1205.8	1205.0	1201.2
12.5°	1184.6	1186.8	1192.9	1192.9	1190.6
15°	1165.7	1170.2	1177.8	1182.3	1179.3
17.5°	1146.0	1150.5	1160.4	1164.9	1163.4
20°	1124.1	1127.8	1137.7	1144.5	1141.5
22.5°	1096.8	1101.4	1112.7	1120.3	1117.3
25°	1066.6	1073.4	1085.5	1096.8	1093.0
27.5°	1036.3	1043.9	1059.0	1070.4	1068.8
30°	1003.0	1012.9	1028.8	1043.1	1040.1
32.5°	969.0	980.3	997.0	1012.1	1011.4
35°	933.4	945.5	963.7	981.1	980.3
37.5°	895.6	910.0	928.9	947.8	948.6
40°	858.6	872.2	893.3	913.8	914.5
42.5°	819.2	833.6	856.3	877.5	878.2
45°	777.6	794.3	816.9	839.6	843.4
47.5°	735.3	752.7	776.1	800.3	804.8
50°	691.4	709.5	734.5	760.2	764.8
52.5°	646.8	665.7	691.4	717.1	723.9
55°	602.9	620.3	648.3	676.3	682.3
57.5°	556.7	572.6	602.9	632.4	639.9
60°	506.1	525.7	556.7	586.2	598.3
62.5°	456.9	478.1	509.8	539.3	553.0
65°	407.7	428.9	461.4	492.4	506.1
67.5°	357.8	379.7	414.5	444.0	459.2
70°	307.9	329.8	363.1	394.9	410.7
72.5°	257.9	281.4	313.9	346.4	362.3
75°	207.3	231.5	264.8	296.5	316.2
77.5°	159.6	183.1	216.3	248.9	265.5
80°	114.2	137.7	170.2	202.7	220.1
82.5°	72.6	94.6	126.3	153.6	169.4
85°	37.8	56.0	80.2	89.3	99.8
87.5°	11.3	21.9	31.0	34.8	43.1
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	13.70	15.36	14.06	15.68	15.99	14.45	16.11	14.81	16.42	16.74
	3H	15.46	16.97	15.84	17.29	17.65	16.54	18.05	16.92	18.37	18.73
	4H	16.09	17.51	16.48	17.86	18.23	17.42	18.85	17.82	19.19	19.57
	6H	16.50	17.82	16.91	18.18	18.57	18.19	19.51	18.60	19.88	20.27
	8H	16.60	17.87	17.03	18.26	18.65	18.50	19.77	18.93	20.15	20.55
	12H	16.66	17.87	17.09	18.25	18.68	18.72	19.93	19.14	20.31	20.74
4H	2H	14.47	15.89	14.87	16.24	16.61	15.05	16.47	15.45	16.82	17.19
	3H	16.46	17.66	16.87	18.06	18.46	17.38	18.58	17.79	18.97	19.37
	4H	17.22	18.30	17.65	18.72	19.15	18.41	19.50	18.84	19.91	20.35
	6H	17.75	18.71	18.21	19.14	19.60	19.34	20.29	19.79	20.73	21.19
	8H	17.90	18.79	18.36	19.23	19.70	19.73	20.62	20.18	21.06	21.52
	12H	17.99	18.79	18.46	19.26	19.73	20.00	20.81	20.48	21.28	21.75
8H	4H	17.67	18.56	18.13	19.00	19.47	18.71	19.60	19.17	20.05	20.51
	6H	18.35	19.09	18.84	19.58	20.05	19.80	20.54	20.29	21.03	21.50
	8H	18.57	19.24	19.07	19.74	20.22	20.28	20.95	20.79	21.46	21.94
	12H	18.71	19.31	19.22	19.80	20.35	20.66	21.25	21.16	21.74	22.30
12H	4H	17.75	18.56	18.23	19.03	19.50	18.74	19.54	19.22	20.02	20.49
	6H	18.47	19.14	18.98	19.65	20.13	19.85	20.52	20.36	21.02	21.51
	8H	18.77	19.36	19.27	19.85	20.41	20.40	20.99	20.91	21.48	22.04