

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: P1589728

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

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1589728
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2608-884-8)
Test Lab: INNOVATION CENTER
Issue Date: 9/3/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 24CZSP-SB-37HE-L945-S
Description: 2x4 CZSP LED Luminaire, 4500K CCT and 3500 lumens, 90CRI, Smooth Lens, SB housing
Light Source: -
Ballast/Driver: -

Summary

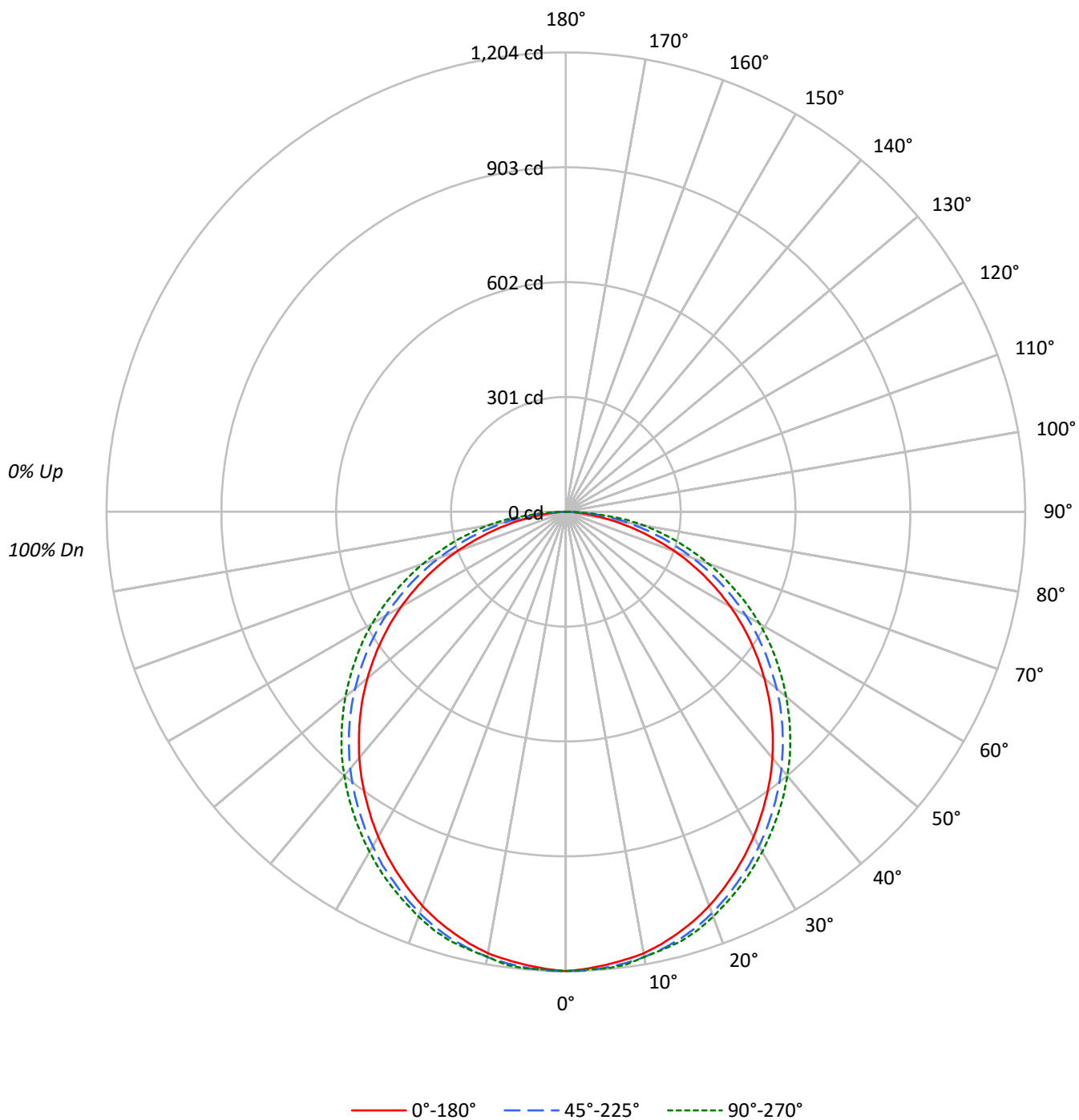
Lumens per Lamp: N/A
Luminaire Lumens: 3502.0 lumens
Efficiency: N/A
Efficacy: 141.8 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.38
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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	94	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	66	61		69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53		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	45	39		50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35		47	40	35		45	39	35	33
8	60	46	38	32	58	45	37	31	44	37	31		43	36	31		42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26		37	30	25		36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1844	1844	1844
5°	1834	1844	1847
10°	1828	1843	1842
15°	1811	1837	1848
20°	1791	1825	1841
25°	1766	1807	1830
30°	1740	1791	1820
35°	1711	1773	1811
40°	1684	1758	1806
45°	1653	1740	1802
50°	1617	1718	1797
55°	1577	1696	1794
60°	1528	1671	1795
65°	1458	1636	1786
70°	1363	1586	1781
75°	1208	1524	1788
80°	983	1448	1841
85°	636	1337	1589

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 1866 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.9	3.3
10°-20°	326.2	9.3
20°-30°	491.9	14.0
30°-40°	591.9	16.9
40°-50°	617.4	17.6
50°-60°	565.9	16.2
60°-70°	444.4	12.7
70°-80°	270.5	7.7
80°-90°	80.0	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°	932.1	26.6
0°-40°	1523.9	43.5
0°-60°	2707.2	77.3
0°-90°	3502.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3502.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1204	1204	1204	1204	1204	
5°	1193	1200	1199	1198	1202	113
15°	1142	1153	1159	1160	1165	322
25°	1045	1059	1069	1076	1083	482
35°	915	930	948	962	969	573
45°	763	779	803	822	832	589
55°	591	606	635	661	672	528
65°	402	417	451	481	493	398
75°	204	223	258	288	302	216
85°	36	51	76	85	90	47
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1203.9	1203.9	1203.9	1203.9	1203.9
2.5°	1199.3	1205.4	1203.9	1198.6	1200.9
5°	1192.6	1200.1	1199.3	1197.8	1201.6
7.5°	1184.3	1192.6	1193.3	1193.3	1197.8
10°	1175.2	1183.5	1185.0	1182.8	1184.3
12.5°	1160.2	1170.0	1173.0	1173.0	1175.2
15°	1142.1	1153.4	1158.7	1160.2	1165.4
17.5°	1122.5	1134.6	1141.3	1145.1	1149.6
20°	1099.1	1112.0	1119.5	1124.0	1129.3
22.5°	1072.8	1087.1	1095.4	1099.9	1105.9
25°	1044.9	1059.2	1069.0	1075.8	1082.6
27.5°	1015.5	1029.1	1042.6	1050.9	1057.0
30°	983.9	998.2	1012.5	1023.1	1029.1
32.5°	950.0	965.1	981.6	992.9	999.7
35°	915.3	929.6	948.5	962.0	968.8
37.5°	879.9	895.0	914.6	928.9	937.2
40°	842.3	858.1	879.2	895.0	903.3
42.5°	803.1	818.1	841.5	859.6	869.4
45°	763.2	779.0	803.1	821.9	831.7
47.5°	721.7	736.8	763.2	785.0	793.3
50°	678.8	693.1	721.0	744.3	754.1
52.5°	635.1	650.1	678.0	702.9	713.4
55°	590.6	605.7	635.1	660.7	672.0
57.5°	545.4	560.5	590.6	617.0	630.6
60°	498.7	513.8	545.4	572.6	586.1
62.5°	450.5	466.3	498.7	526.6	540.9
65°	402.3	417.4	451.3	481.4	492.7
67.5°	354.1	369.1	402.3	432.4	446.0
70°	304.4	321.7	354.1	385.7	397.8
72.5°	252.4	272.0	304.4	337.5	349.6
75°	204.2	223.0	257.6	288.5	302.1
77.5°	156.7	177.0	209.4	241.1	254.6
80°	111.5	131.1	164.2	194.4	208.7
82.5°	70.8	88.1	121.3	148.4	159.0
85°	36.2	51.2	76.1	85.1	90.4
87.5°	10.5	18.1	27.1	33.9	37.7
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	13.63	15.29	13.99	15.60	15.91	14.36	16.02	14.73	16.33	16.65
	3H	15.39	16.90	15.77	17.22	17.58	16.44	17.94	16.82	18.27	18.63
	4H	16.01	17.43	16.41	17.78	18.16	17.30	18.72	17.70	19.07	19.45
	6H	16.42	17.74	16.83	18.10	18.49	18.05	19.37	18.46	19.73	20.12
	8H	16.52	17.78	16.95	18.17	18.57	18.34	19.60	18.77	19.99	20.39
	12H	16.57	17.78	17.00	18.16	18.59	18.54	19.75	18.97	20.13	20.56
4H	2H	14.39	15.81	14.79	16.16	16.54	14.97	16.38	15.36	16.73	17.11
	3H	16.39	17.58	16.79	17.98	18.38	17.28	18.47	17.69	18.87	19.27
	4H	17.13	18.21	17.56	18.62	19.06	18.30	19.38	18.73	19.79	20.23
	6H	17.66	18.61	18.11	19.05	19.50	19.20	20.15	19.65	20.59	21.05
	8H	17.80	18.69	18.26	19.13	19.59	19.57	20.46	20.03	20.90	21.36
	12H	17.88	18.68	18.36	19.15	19.62	19.82	20.62	20.30	21.10	21.57
8H	4H	17.57	18.46	18.03	18.90	19.37	18.59	19.48	19.05	19.92	20.39
	6H	18.24	18.98	18.73	19.46	19.94	19.65	20.39	20.14	20.88	21.35
	8H	18.45	19.11	18.95	19.62	20.10	20.12	20.79	20.63	21.29	21.78
	12H	18.58	19.17	19.09	19.66	20.22	20.48	21.07	20.98	21.55	22.11
12H	4H	17.65	18.45	18.13	18.93	19.40	18.62	19.42	19.10	19.90	20.36
	6H	18.36	19.03	18.87	19.53	20.02	19.70	20.37	20.21	20.87	21.36
	8H	18.64	19.23	19.14	19.72	20.28	20.24	20.83	20.75	21.32	21.88