

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: P1589718

Luminaire Tested: 24CZSP-SB-37HE-L845-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1589718
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-L845-S
Description: 2x4 CZSP LED Luminaire, 4500K CCT and 3500 lumens, 80CRI, Smooth Lens, SB housing
Light Source: -
Ballast/Driver: -

Summary

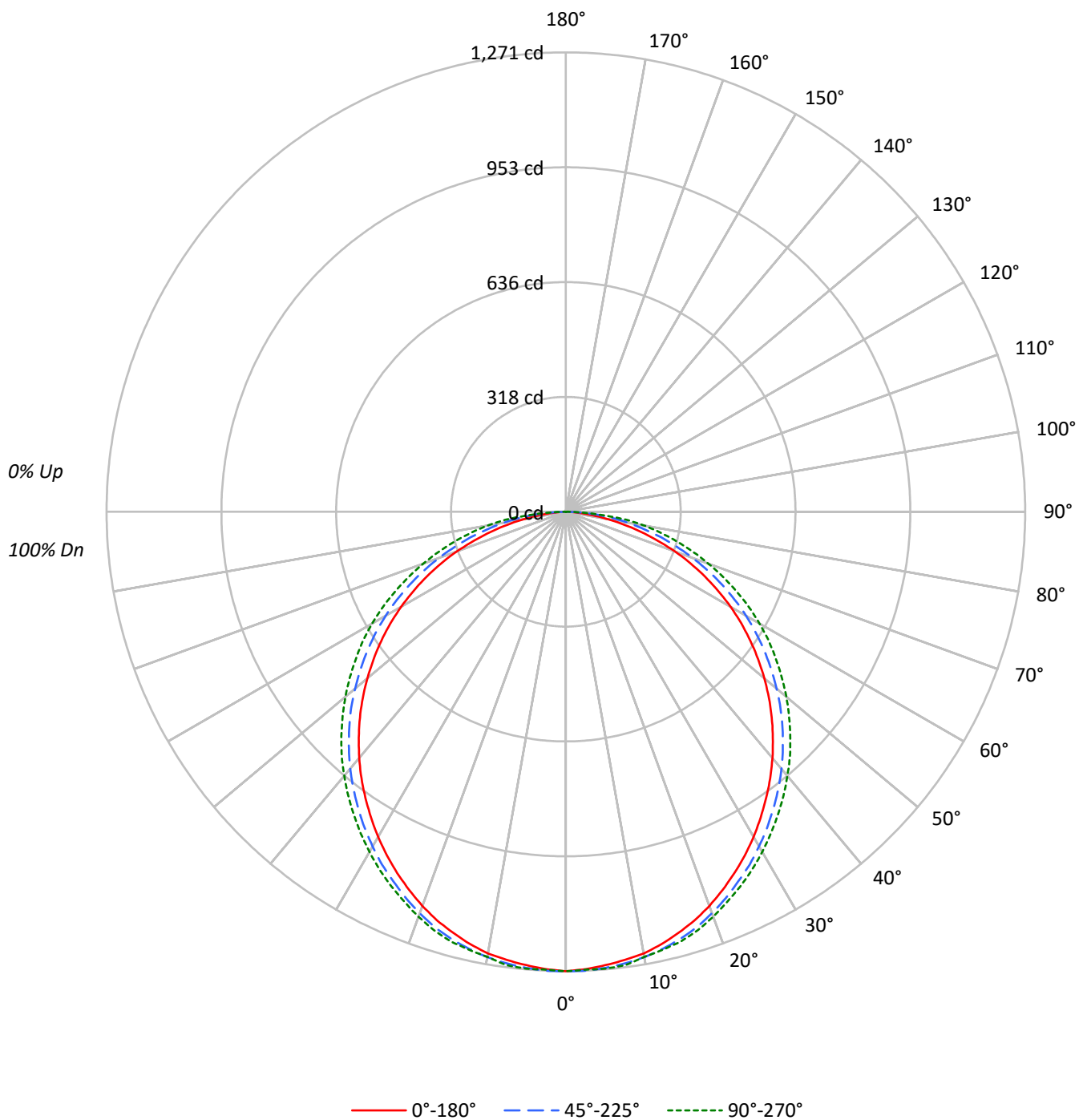
Lumens per Lamp: N/A
Luminaire Lumens: 3698.0 lumens
Efficiency: N/A
Efficacy: 149.7 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.38
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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°	1947	1947	1947
5°	1936	1947	1951
10°	1930	1946	1945
15°	1912	1940	1951
20°	1892	1927	1944
25°	1865	1908	1932
30°	1838	1891	1922
35°	1807	1873	1913
40°	1778	1856	1907
45°	1746	1837	1902
50°	1708	1814	1897
55°	1665	1791	1895
60°	1613	1764	1896
65°	1540	1727	1886
70°	1439	1674	1881
75°	1276	1610	1888
80°	1038	1529	1944
85°	671	1411	1678

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 1970 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.3	3.3
10°-20°	344.5	9.3
20°-30°	519.4	14.0
30°-40°	625.0	16.9
40°-50°	651.9	17.6
50°-60°	597.6	16.2
60°-70°	469.2	12.7
70°-80°	285.6	7.7
80°-90°	84.5	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°	984.2	26.6
0°-40°	1609.2	43.5
0°-60°	2858.7	77.3
0°-90°	3698.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3698.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1271	1271	1271	1271	1271	
5°	1259	1267	1266	1265	1269	120
15°	1206	1218	1224	1225	1231	340
25°	1103	1118	1129	1136	1143	508
35°	967	982	1002	1016	1023	605
45°	806	823	848	868	878	621
55°	624	640	671	698	710	557
65°	425	441	476	508	520	420
75°	216	236	272	305	319	229
85°	38	54	80	90	96	50
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1271.2	1271.2	1271.2	1271.2	1271.2
2.5°	1266.5	1272.8	1271.2	1265.7	1268.1
5°	1259.3	1267.3	1266.5	1264.9	1268.9
7.5°	1250.6	1259.3	1260.1	1260.1	1264.9
10°	1241.0	1249.8	1251.4	1249.0	1250.6
12.5°	1225.1	1235.4	1238.6	1238.6	1241.0
15°	1206.0	1217.9	1223.5	1225.1	1230.7
17.5°	1185.3	1198.1	1205.2	1209.2	1214.0
20°	1160.7	1174.2	1182.1	1186.9	1192.5
22.5°	1132.8	1147.9	1156.7	1161.5	1167.8
25°	1103.4	1118.5	1128.8	1136.0	1143.2
27.5°	1072.4	1086.7	1101.0	1109.8	1116.1
30°	1039.0	1054.1	1069.2	1080.3	1086.7
32.5°	1003.2	1019.1	1036.6	1048.5	1055.7
35°	966.6	981.7	1001.6	1015.9	1023.0
37.5°	929.2	945.1	965.8	980.9	989.6
40°	889.4	906.1	928.4	945.1	953.8
42.5°	848.0	863.9	888.6	907.7	918.0
45°	805.9	822.6	848.0	867.9	878.3
47.5°	762.1	778.0	805.9	828.9	837.7
50°	716.8	731.9	761.3	786.0	796.3
52.5°	670.6	686.5	716.0	742.2	753.4
55°	623.7	639.6	670.6	697.7	709.6
57.5°	576.0	591.9	623.7	651.5	665.9
60°	526.6	542.5	576.0	604.6	618.9
62.5°	475.7	492.4	526.6	556.1	571.2
65°	424.8	440.7	476.5	508.3	520.3
67.5°	373.9	389.8	424.8	456.6	470.9
70°	321.4	339.7	373.9	407.3	420.0
72.5°	266.5	287.2	321.4	356.4	369.1
75°	215.6	235.5	272.1	304.7	319.0
77.5°	165.5	186.9	221.2	254.6	268.9
80°	117.7	138.4	173.4	205.2	220.4
82.5°	74.8	93.1	128.1	156.7	167.9
85°	38.2	54.1	80.3	89.9	95.5
87.5°	11.1	19.1	28.6	35.8	39.8
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	13.81	15.47	14.18	15.79	16.10	14.55	16.21	14.91	16.52	16.84
	3H	15.58	17.09	15.96	17.41	17.77	16.63	18.13	17.01	18.46	18.82
	4H	16.20	17.62	16.60	17.97	18.34	17.49	18.91	17.89	19.26	19.64
	6H	16.61	17.93	17.02	18.29	18.68	18.24	19.56	18.65	19.92	20.31
	8H	16.71	17.97	17.14	18.36	18.76	18.53	19.79	18.96	20.18	20.58
	12H	16.76	17.97	17.19	18.35	18.78	18.73	19.94	19.16	20.32	20.75
4H	2H	14.58	16.00	14.98	16.35	16.72	15.15	16.57	15.55	16.92	17.30
	3H	16.57	17.77	16.98	18.17	18.57	17.47	18.66	17.88	19.06	19.46
	4H	17.32	18.40	17.75	18.81	19.25	18.49	19.57	18.92	19.98	20.42
	6H	17.85	18.79	18.30	19.23	19.69	19.39	20.34	19.84	20.78	21.23
	8H	17.99	18.88	18.45	19.32	19.78	19.76	20.65	20.22	21.09	21.55
	12H	18.07	18.87	18.55	19.34	19.81	20.01	20.81	20.49	21.29	21.76
8H	4H	17.76	18.65	18.22	19.09	19.56	18.78	19.67	19.24	20.11	20.58
	6H	18.43	19.17	18.92	19.65	20.13	19.84	20.58	20.33	21.07	21.54
	8H	18.63	19.30	19.14	19.81	20.29	20.31	20.98	20.82	21.48	21.97
	12H	18.77	19.36	19.28	19.85	20.41	20.66	21.25	21.17	21.74	22.30
12H	4H	17.84	18.64	18.32	19.12	19.59	18.81	19.61	19.29	20.08	20.55
	6H	18.55	19.22	19.06	19.72	20.21	19.89	20.56	20.40	21.06	21.55
	8H	18.83	19.42	19.33	19.91	20.46	20.43	21.02	20.93	21.51	22.07