

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: P1588758

Luminaire Tested: 24CZSP-A-60VHE-L845-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1588758
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2608-884-6)
Test Lab: INNOVATION CENTER
Issue Date: 9/3/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 24CZSP-A-60VHE-L845-S
Description: 2x4 CZSP LED Luminaire, 4500K CCT and 6000 lumens, 80CRI, Smooth Lens, Air Vented Housing
Light Source: -
Ballast/Driver: -

Summary

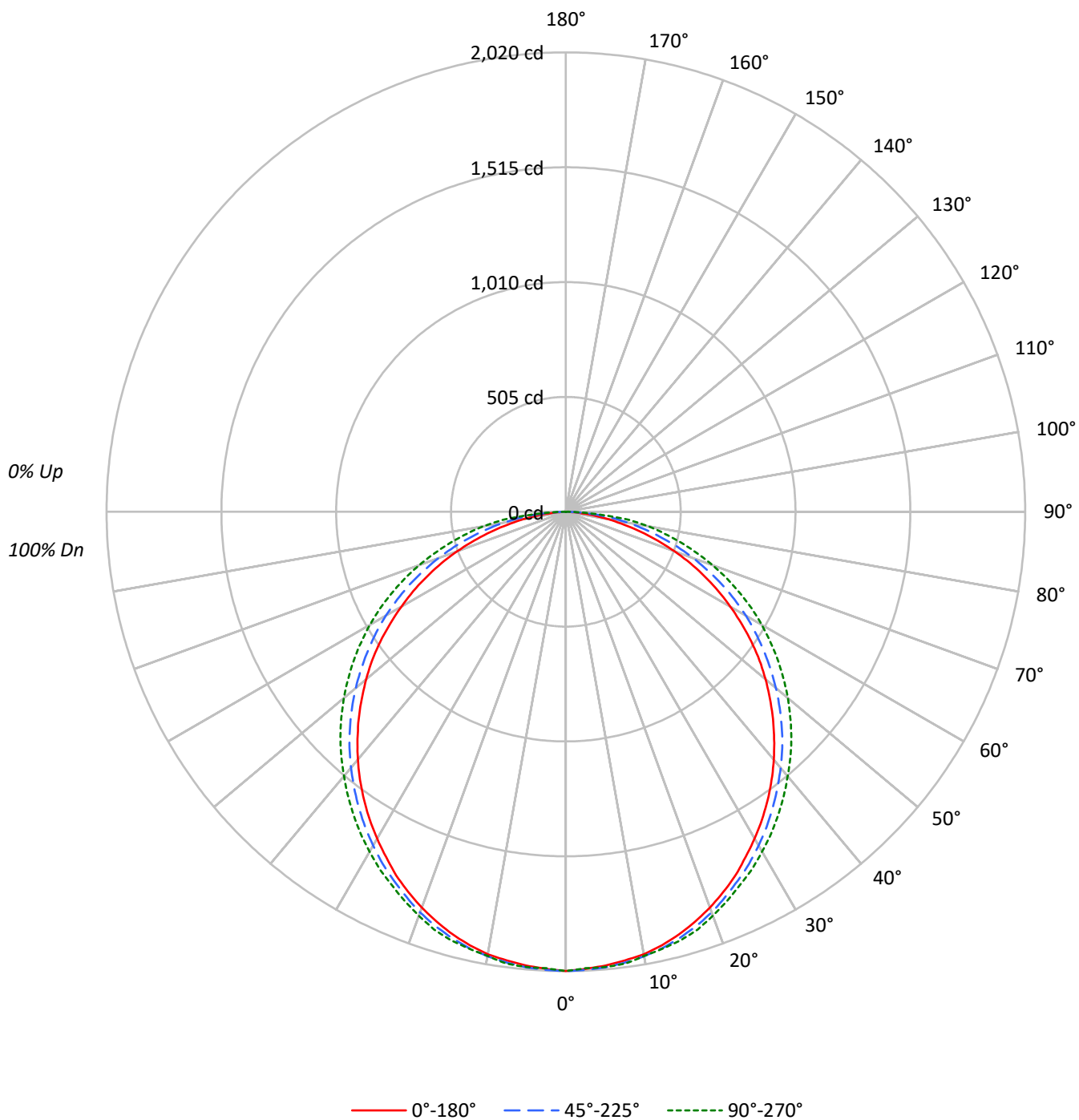
Lumens per Lamp: N/A
Luminaire Lumens: 5896.0 lumens
Efficiency: N/A
Efficacy: 135.5 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 43.5
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	69
3	89	79	70	64	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°	3093	3093	3093
5°	3079	3091	3089
10°	3073	3087	3085
15°	3050	3075	3094
20°	3020	3055	3081
25°	2982	3024	3061
30°	2936	2997	3052
35°	2893	2968	3043
40°	2845	2939	3034
45°	2791	2909	3038
50°	2731	2873	3036
55°	2660	2833	3040
60°	2560	2802	3048
65°	2443	2747	3057
70°	2277	2671	3071
75°	2029	2565	3101
80°	1678	2442	3252
85°	1091	2205	2842

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 3355 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	191.0	3.2
10°-20°	546.9	9.3
20°-30°	824.8	14.0
30°-40°	993.5	16.8
40°-50°	1037.5	17.6
50°-60°	952.8	16.2
60°-70°	750.5	12.7
70°-80°	460.4	7.8
80°-90°	138.6	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°	1562.7	26.5
0°-40°	2556.2	43.4
0°-60°	4546.5	77.1
0°-90°	5896.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5896.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2020	2020	2020	2020	2020	
5°	2003	2005	2010	2017	2009	190
15°	1924	1928	1939	1951	1951	543
25°	1765	1769	1789	1811	1811	812
35°	1547	1555	1587	1620	1628	968
45°	1289	1303	1343	1390	1402	993
55°	996	1014	1061	1120	1138	889
65°	674	697	758	822	844	667
75°	343	370	433	502	524	363
85°	62	85	126	159	162	81
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2019.5	2019.5	2019.5	2019.5	2019.5
2.5°	2011.8	2015.7	2016.9	2018.2	2009.2
5°	2002.7	2005.3	2010.5	2016.9	2009.2
7.5°	1989.8	1992.4	1998.8	2007.9	2004.0
10°	1975.6	1976.8	1984.6	1991.1	1983.3
12.5°	1952.3	1956.1	1965.2	1970.4	1967.8
15°	1923.8	1927.7	1939.3	1951.0	1951.0
17.5°	1890.2	1895.3	1909.6	1925.1	1926.4
20°	1852.6	1856.5	1874.6	1890.2	1890.2
22.5°	1810.0	1815.1	1833.2	1850.1	1852.6
25°	1764.7	1768.6	1789.3	1811.2	1811.2
27.5°	1711.6	1719.4	1745.3	1767.3	1772.4
30°	1659.9	1666.3	1694.8	1722.0	1725.9
32.5°	1605.5	1613.3	1643.1	1672.8	1679.3
35°	1547.3	1555.1	1587.4	1619.8	1627.5
37.5°	1486.5	1495.6	1529.2	1566.7	1574.5
40°	1423.1	1433.5	1469.7	1509.8	1517.6
42.5°	1355.8	1370.1	1408.9	1450.3	1461.9
45°	1288.6	1302.8	1342.9	1389.5	1402.4
47.5°	1217.4	1234.2	1275.6	1324.8	1339.0
50°	1146.3	1163.1	1205.8	1258.8	1274.3
52.5°	1073.8	1090.6	1134.6	1190.2	1207.1
55°	996.2	1014.3	1060.9	1120.4	1138.5
57.5°	916.0	939.3	988.4	1049.2	1067.3
60°	835.8	859.0	914.7	974.2	994.9
62.5°	756.8	778.8	835.8	899.2	921.1
65°	674.0	697.3	758.1	821.5	843.5
67.5°	592.5	615.8	676.6	742.6	765.9
70°	508.4	534.3	596.4	662.4	685.7
72.5°	424.3	451.5	514.9	582.2	604.2
75°	342.8	370.0	433.4	502.0	524.0
77.5°	262.6	292.4	354.5	424.3	445.0
80°	190.2	218.6	276.9	345.4	368.7
82.5°	121.6	146.2	204.4	269.1	285.9
85°	62.1	85.4	125.5	159.1	161.7
87.5°	19.4	27.2	41.4	62.1	63.4
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	15.40	17.06	15.77	17.38	17.69	16.23	17.89	16.60	18.21	18.52
	3H	17.16	18.66	17.53	18.99	19.35	18.35	19.86	18.72	20.18	20.54
	4H	17.78	19.20	18.17	19.54	19.92	19.24	20.66	19.63	21.01	21.38
	6H	18.19	19.51	18.60	19.87	20.26	20.02	21.34	20.43	21.70	22.09
	8H	18.29	19.56	18.72	19.95	20.34	20.34	21.60	20.76	21.99	22.39
	12H	18.35	19.56	18.77	19.94	20.37	20.55	21.76	20.98	22.14	22.57
4H	2H	16.17	17.60	16.57	17.94	18.32	16.82	18.24	17.22	18.59	18.96
	3H	18.15	19.35	18.56	19.74	20.14	19.17	20.37	19.58	20.77	21.17
	4H	18.89	19.97	19.32	20.39	20.82	20.23	21.31	20.66	21.73	22.16
	6H	19.42	20.37	19.87	20.81	21.26	21.18	22.13	21.63	22.57	23.02
	8H	19.56	20.45	20.02	20.90	21.36	21.58	22.47	22.03	22.91	23.37
	12H	19.65	20.45	20.12	20.92	21.39	21.85	22.66	22.33	23.13	23.60
8H	4H	19.35	20.24	19.80	20.68	21.14	20.52	21.41	20.97	21.85	22.31
	6H	20.01	20.75	20.50	21.24	21.71	21.63	22.37	22.12	22.86	23.33
	8H	20.22	20.89	20.73	21.39	21.88	22.14	22.81	22.65	23.31	23.80
	12H	20.36	20.95	20.86	21.44	22.00	22.52	23.12	23.03	23.61	24.16
12H	4H	19.44	20.24	19.91	20.71	21.18	20.54	21.34	21.02	21.82	22.29
	6H	20.14	20.81	20.65	21.31	21.80	21.67	22.34	22.18	22.85	23.33
	8H	20.42	21.01	20.92	21.50	22.06	22.25	22.84	22.76	23.33	23.89