

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: P1588759

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

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1588759
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2605-776-5)
Test Lab: INNOVATION CENTER
Issue Date: 9/3/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 24CZSP-A-60VHE-L845
Description: 2x4 CZSP LED Luminaire, 4500K CCT and 6000 lumens, 80CRI, Ribbed Lens, Air Vented Housing
Light Source: -
Ballast/Driver: -

Summary

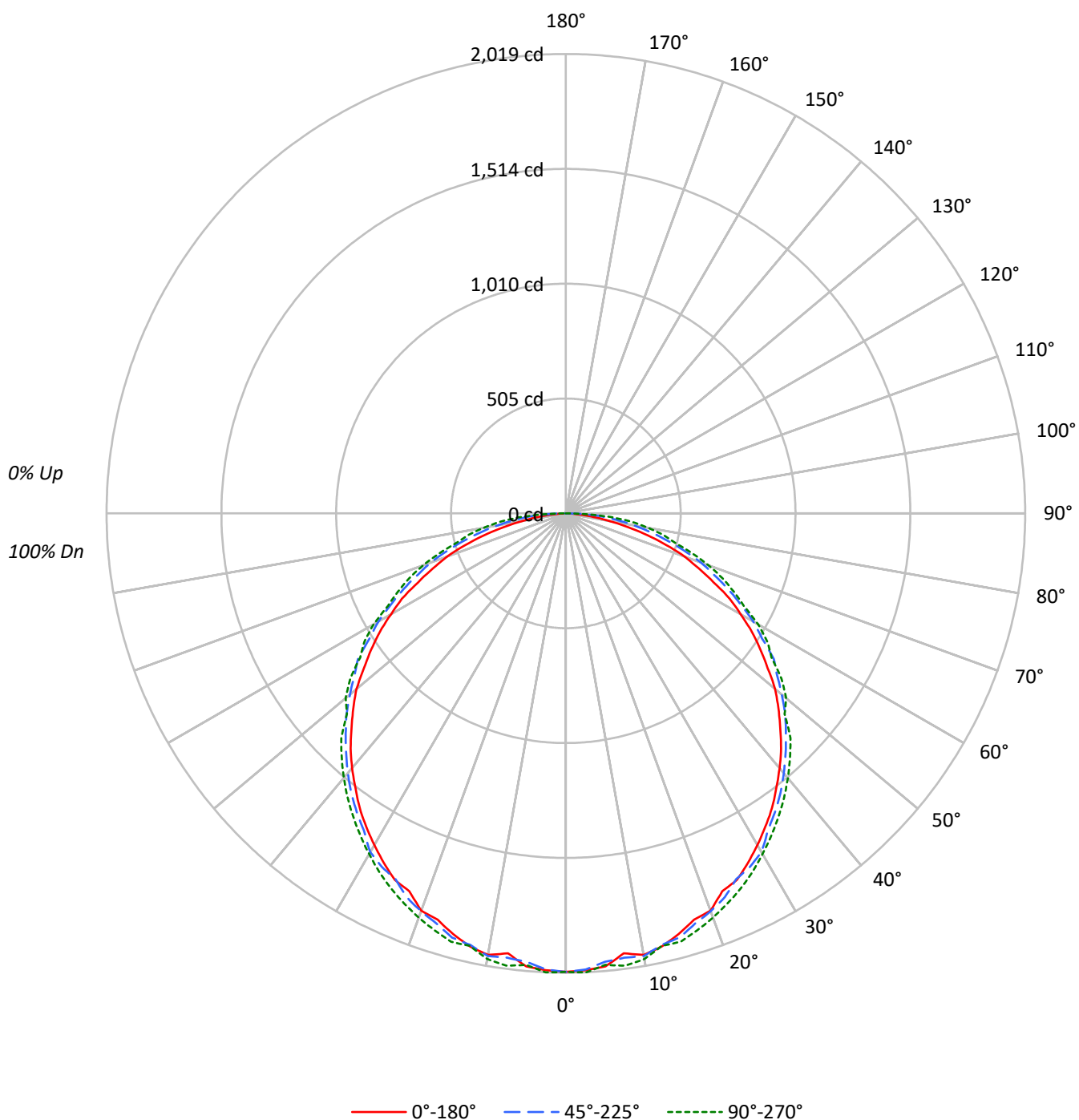
Lumens per Lamp: N/A
Luminaire Lumens: 6016.0 lumens
Efficiency: N/A
Efficacy: 138.3 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.27 / 1.39
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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	50	30	10
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	105	101	97	93	97	93	90	93	90	87	89	87	85	83		
2	98	89	82	76	95	88	81	75	84	78	74	81	76	72	78	74	70	68		
3	89	78	70	63	87	77	69	62	74	67	61	71	65	60	68	63	59	57		
4	81	69	60	53	79	68	59	53	65	58	52	63	56	51	61	55	51	48		
5	75	62	52	46	73	60	52	45	58	51	45	56	50	44	54	49	44	42		
6	69	55	46	40	67	54	46	39	53	45	39	51	44	39	49	43	38	36		
7	64	50	41	35	62	49	41	35	48	40	35	46	39	34	45	39	34	32		
8	60	46	37	31	58	45	37	31	44	36	31	42	36	31	41	35	30	28		
9	56	42	34	28	54	41	33	28	40	33	28	39	32	28	38	32	27	26		
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3087	3087	3087
5°	3073	3042	3062
10°	3064	3072	3094
15°	3036	3060	3090
20°	3028	3034	3082
25°	3004	2996	3074
30°	2978	3041	3059
35°	2955	2996	3045
40°	2923	2980	3035
45°	2886	2964	3024
50°	2862	2952	3011
55°	2790	2978	2947
60°	2719	2915	2990
65°	2597	2852	2950
70°	2490	2828	2992
75°	2205	2743	2932
80°	1740	2680	3243
85°	1065	2864	3699

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 85°

Luminance: 3699 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	190.3	3.2
10°-20°	543.6	9.0
20°-30°	828.3	13.8
30°-40°	1008.2	16.8
40°-50°	1057.2	17.6
50°-60°	979.3	16.3
60°-70°	772.2	12.8
70°-80°	477.7	7.9
80°-90°	159.1	2.6
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°	1562.3	26.0
0°-40°	2570.5	42.7
0°-60°	4606.9	76.6
0°-90°	6016.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6016.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2015	2015	2015	2015	2015	
5°	1999	1998	1978	2022	1992	189
15°	1914	1924	1930	1916	1949	540
25°	1778	1788	1773	1822	1819	817
35°	1580	1595	1602	1633	1629	988
45°	1332	1357	1368	1384	1396	1029
55°	1045	1076	1115	1125	1104	935
65°	716	744	787	816	814	713
75°	373	402	464	499	495	393
85°	61	103	163	198	210	81
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2015.3	2015.3	2015.3	2015.3	2015.3
2.5°	2009.5	2021.8	2006.3	2019.4	2019.4
5°	1998.9	1998.1	1978.4	2021.8	1991.5
7.5°	1949.8	1984.1	1970.2	2023.5	2005.4
10°	1970.2	1961.2	1975.1	2011.2	1989.1
12.5°	1949.8	1964.5	1942.4	1924.4	1947.3
15°	1914.5	1924.4	1930.1	1916.2	1948.9
17.5°	1872.8	1909.6	1890.0	1883.4	1921.1
20°	1858.0	1859.7	1861.3	1894.9	1890.8
22.5°	1797.4	1830.2	1826.1	1853.1	1856.4
25°	1777.8	1787.6	1772.9	1822.0	1818.7
27.5°	1732.7	1754.0	1751.6	1768.0	1777.0
30°	1683.6	1704.9	1719.6	1701.6	1729.5
32.5°	1632.8	1668.9	1652.5	1686.1	1680.3
35°	1580.4	1595.2	1602.5	1632.8	1628.8
37.5°	1519.8	1545.2	1549.3	1595.2	1575.5
40°	1461.7	1487.1	1490.4	1517.4	1518.2
42.5°	1400.3	1412.6	1429.8	1460.9	1458.4
45°	1332.3	1356.9	1368.3	1383.9	1396.2
47.5°	1266.8	1293.0	1307.8	1333.1	1304.5
50°	1201.3	1220.1	1239.0	1266.0	1263.5
52.5°	1118.6	1161.2	1170.2	1184.9	1194.7
55°	1044.9	1076.0	1115.3	1125.1	1103.8
57.5°	970.4	994.1	1022.8	1053.1	1050.6
60°	887.7	916.3	951.5	974.5	976.1
62.5°	812.3	832.0	865.6	899.1	881.9
65°	716.5	744.4	786.9	816.4	814.0
67.5°	631.4	661.7	705.1	743.5	745.2
70°	556.0	572.4	631.4	660.8	668.2
72.5°	463.5	492.1	544.6	577.3	580.6
75°	372.6	402.1	463.5	498.7	495.4
77.5°	280.1	322.6	382.4	424.2	438.1
80°	197.3	235.8	303.8	344.7	367.7
82.5°	124.5	164.6	230.9	281.7	295.6
85°	60.6	103.2	163.0	198.2	210.5
87.5°	15.6	42.6	75.3	92.5	99.9
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	15.72	17.39	16.08	17.70	18.02	16.15	17.82	16.51	18.13	18.45
	3H	17.52	19.03	17.89	19.36	19.72	18.22	19.74	18.60	20.06	20.42
	4H	18.16	19.59	18.56	19.94	20.32	19.06	20.50	19.46	20.84	21.22
	6H	18.57	19.90	18.98	20.27	20.66	19.85	21.18	20.26	21.55	21.94
	8H	18.67	19.95	19.10	20.33	20.73	20.20	21.47	20.62	21.86	22.26
	12H	18.72	19.94	19.15	20.32	20.75	20.50	21.72	20.92	22.10	22.52
4H	2H	16.46	17.89	16.85	18.24	18.61	16.79	18.22	17.19	18.57	18.94
	3H	18.49	19.70	18.90	20.10	20.49	19.10	20.31	19.51	20.71	21.11
	4H	19.26	20.36	19.69	20.77	21.21	20.11	21.21	20.54	21.62	22.05
	6H	19.80	20.76	20.25	21.20	21.65	21.06	22.02	21.51	22.46	22.92
	8H	19.94	20.84	20.40	21.29	21.75	21.49	22.39	21.94	22.83	23.29
	12H	20.02	20.84	20.50	21.31	21.78	21.87	22.68	22.34	23.15	23.62
8H	4H	19.71	20.61	20.17	21.06	21.52	20.45	21.35	20.91	21.79	22.26
	6H	20.39	21.15	20.88	21.63	22.11	21.57	22.32	22.06	22.80	23.28
	8H	20.61	21.29	21.12	21.79	22.28	22.11	22.79	22.62	23.29	23.78
	12H	20.76	21.36	21.26	21.85	22.40	22.63	23.23	23.14	23.72	24.28
12H	4H	19.80	20.61	20.28	21.08	21.55	20.48	21.30	20.96	21.77	22.24
	6H	20.53	21.20	21.03	21.71	22.19	21.63	22.31	22.14	22.81	23.30
	8H	20.82	21.42	21.33	21.91	22.47	22.25	22.85	22.76	23.34	23.90