

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: P1588757

Luminaire Tested: 24CZSP-A-60VHE-L840

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1588757
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-L840
Description: 2x4 CZSP LED Luminaire, 4000K CCT and 6000 lumens, 80CRI, Ribbed Lens, Air Vented Housing
Light Source: -
Ballast/Driver: -

Summary

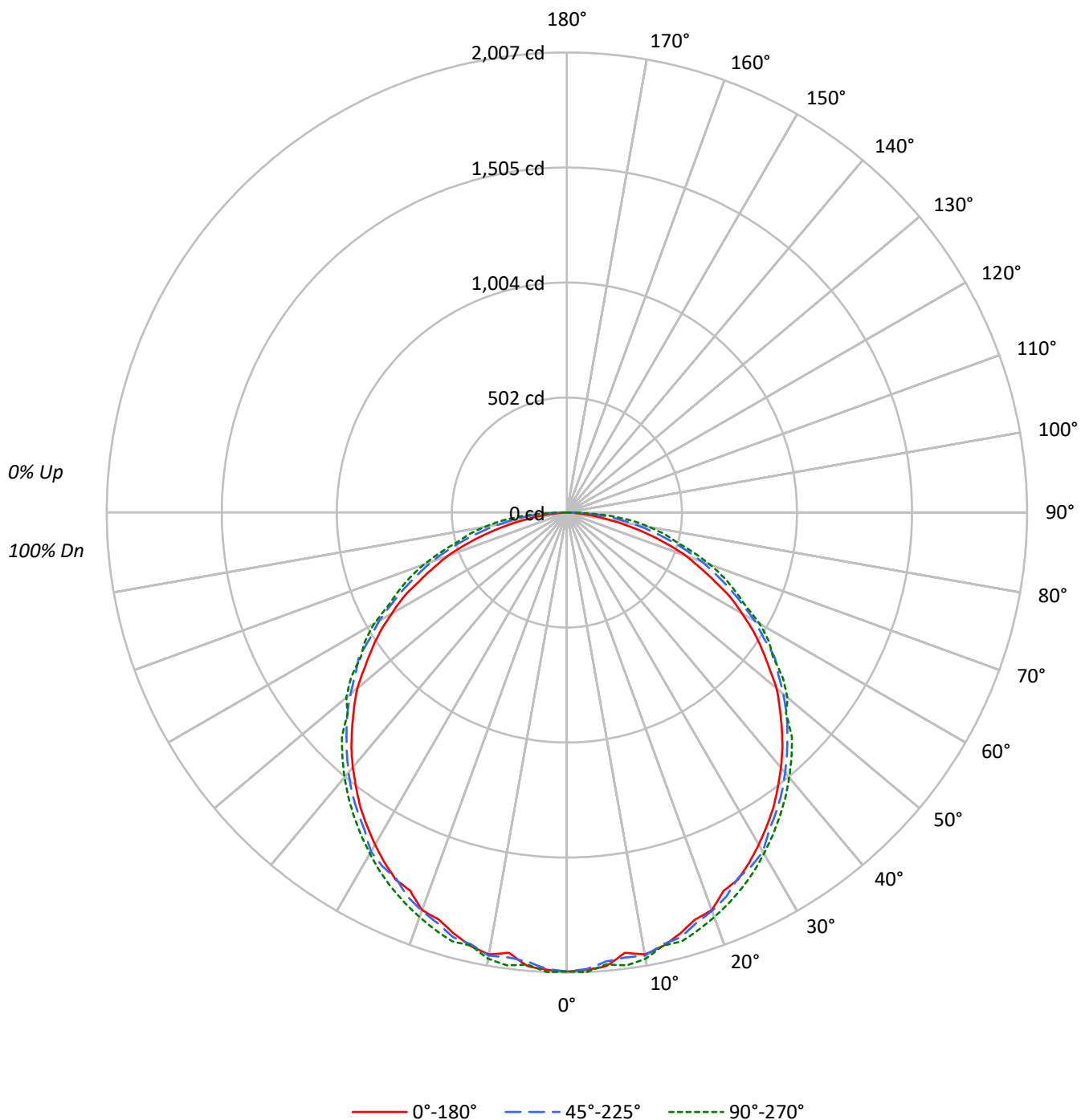
Lumens per Lamp: N/A
Luminaire Lumens: 5978.0 lumens
Efficiency: N/A
Efficacy: 137.4 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.27 / 1.39
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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	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	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°	3067	3067	3067
5°	3054	3023	3043
10°	3045	3052	3074
15°	3017	3041	3071
20°	3009	3015	3062
25°	2985	2977	3054
30°	2959	3022	3039
35°	2936	2977	3026
40°	2904	2961	3016
45°	2868	2945	3005
50°	2844	2933	2992
55°	2773	2960	2929
60°	2702	2896	2971
65°	2580	2834	2931
70°	2474	2810	2974
75°	2191	2726	2913
80°	1730	2663	3223
85°	1058	2845	3675

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 85°

Luminance: 3675 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	189.1	3.2
10°-20°	540.2	9.0
20°-30°	823.1	13.8
30°-40°	1001.9	16.8
40°-50°	1050.5	17.6
50°-60°	973.1	16.3
60°-70°	767.4	12.8
70°-80°	474.7	7.9
80°-90°	158.1	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°	1552.4	26.0
0°-40°	2554.2	42.7
0°-60°	4577.8	76.6
0°-90°	5978.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5978.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2002	2002	2002	2002	2002	
5°	1986	1985	1966	2009	1979	187
15°	1902	1912	1918	1904	1937	537
25°	1767	1776	1762	1810	1807	812
35°	1570	1585	1592	1622	1618	981
45°	1324	1348	1360	1375	1387	1023
55°	1038	1069	1108	1118	1097	929
65°	712	740	782	811	809	709
75°	370	400	461	496	492	391
85°	60	102	162	197	209	81
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2002.5	2002.5	2002.5	2002.5	2002.5
2.5°	1996.8	2009.0	1993.6	2006.6	2006.6
5°	1986.3	1985.4	1965.9	2009.0	1978.9
7.5°	1937.4	1971.6	1957.8	2010.7	1992.8
10°	1957.8	1948.8	1962.7	1998.5	1976.5
12.5°	1937.4	1952.1	1930.1	1912.2	1935.0
15°	1902.4	1912.2	1917.9	1904.1	1936.6
17.5°	1860.9	1897.6	1878.0	1871.5	1909.0
20°	1846.3	1847.9	1849.6	1882.9	1878.8
22.5°	1786.1	1818.6	1814.6	1841.4	1844.7
25°	1766.6	1776.3	1761.7	1810.5	1807.2
27.5°	1721.8	1743.0	1740.5	1756.8	1765.7
30°	1673.0	1694.1	1708.8	1690.9	1718.5
32.5°	1622.5	1658.3	1642.1	1675.4	1669.7
35°	1570.5	1585.1	1592.4	1622.5	1618.5
37.5°	1510.2	1535.5	1539.5	1585.1	1565.6
40°	1452.5	1477.7	1480.9	1507.8	1508.6
42.5°	1391.4	1403.6	1420.7	1451.7	1449.2
45°	1323.9	1348.3	1359.7	1375.2	1387.4
47.5°	1258.8	1284.8	1299.5	1324.7	1296.2
50°	1193.7	1212.4	1231.1	1258.0	1255.5
52.5°	1111.5	1153.8	1162.8	1177.4	1187.2
55°	1038.3	1069.2	1108.3	1118.0	1096.9
57.5°	964.2	987.8	1016.3	1046.4	1044.0
60°	882.1	910.5	945.5	968.3	969.9
62.5°	807.2	826.7	860.1	893.5	876.4
65°	712.0	739.7	782.0	811.3	808.8
67.5°	627.4	657.5	700.6	738.8	740.5
70°	552.5	568.8	627.4	656.7	664.0
72.5°	460.6	489.0	541.1	573.7	576.9
75°	370.2	399.5	460.6	495.5	492.3
77.5°	278.3	320.6	380.0	421.5	435.3
80°	196.1	234.3	301.9	342.6	365.4
82.5°	123.7	163.6	229.5	279.9	293.7
85°	60.2	102.5	161.9	196.9	209.1
87.5°	15.5	42.3	74.9	91.9	99.3
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	15.70	17.37	16.06	17.68	18.00	16.13	17.80	16.49	18.11	18.43
	3H	17.50	19.01	17.87	19.34	19.70	18.20	19.72	18.58	20.04	20.40
	4H	18.14	19.57	18.54	19.92	20.29	19.04	20.47	19.44	20.82	21.20
	6H	18.55	19.88	18.96	20.24	20.63	19.83	21.16	20.24	21.52	21.91
	8H	18.65	19.92	19.08	20.31	20.71	20.18	21.45	20.60	21.84	22.23
	12H	18.70	19.92	19.13	20.30	20.73	20.47	21.69	20.90	22.07	22.50
4H	2H	16.43	17.87	16.83	18.21	18.59	16.77	18.20	17.17	18.55	18.92
	3H	18.47	19.68	18.88	20.07	20.47	19.08	20.29	19.49	20.69	21.09
	4H	19.24	20.34	19.67	20.75	21.18	20.09	21.18	20.52	21.60	22.03
	6H	19.78	20.74	20.23	21.18	21.63	21.04	22.00	21.49	22.44	22.89
	8H	19.92	20.82	20.38	21.26	21.73	21.46	22.36	21.92	22.81	23.27
	12H	20.00	20.81	20.48	21.29	21.76	21.84	22.66	22.32	23.13	23.60
8H	4H	19.69	20.59	20.15	21.03	21.50	20.43	21.33	20.89	21.77	22.23
	6H	20.37	21.12	20.86	21.61	22.08	21.54	22.30	22.03	22.78	23.26
	8H	20.59	21.27	21.10	21.77	22.25	22.09	22.77	22.60	23.27	23.76
	12H	20.74	21.34	21.24	21.82	22.38	22.61	23.21	23.11	23.70	24.26
12H	4H	19.77	20.59	20.25	21.06	21.53	20.46	21.27	20.94	21.75	22.22
	6H	20.50	21.18	21.01	21.69	22.17	21.61	22.29	22.12	22.79	23.28
	8H	20.80	21.40	21.30	21.89	22.45	22.23	22.83	22.74	23.32	23.88