

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: P1588416

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

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1588416
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-60VHE-L840-S
Description: 2x4 CZSP LED Luminaire, 4000K CCT and 6000 lumens, 80CRI, Smooth Lens
Light Source: -
Ballast/Driver: -

Summary

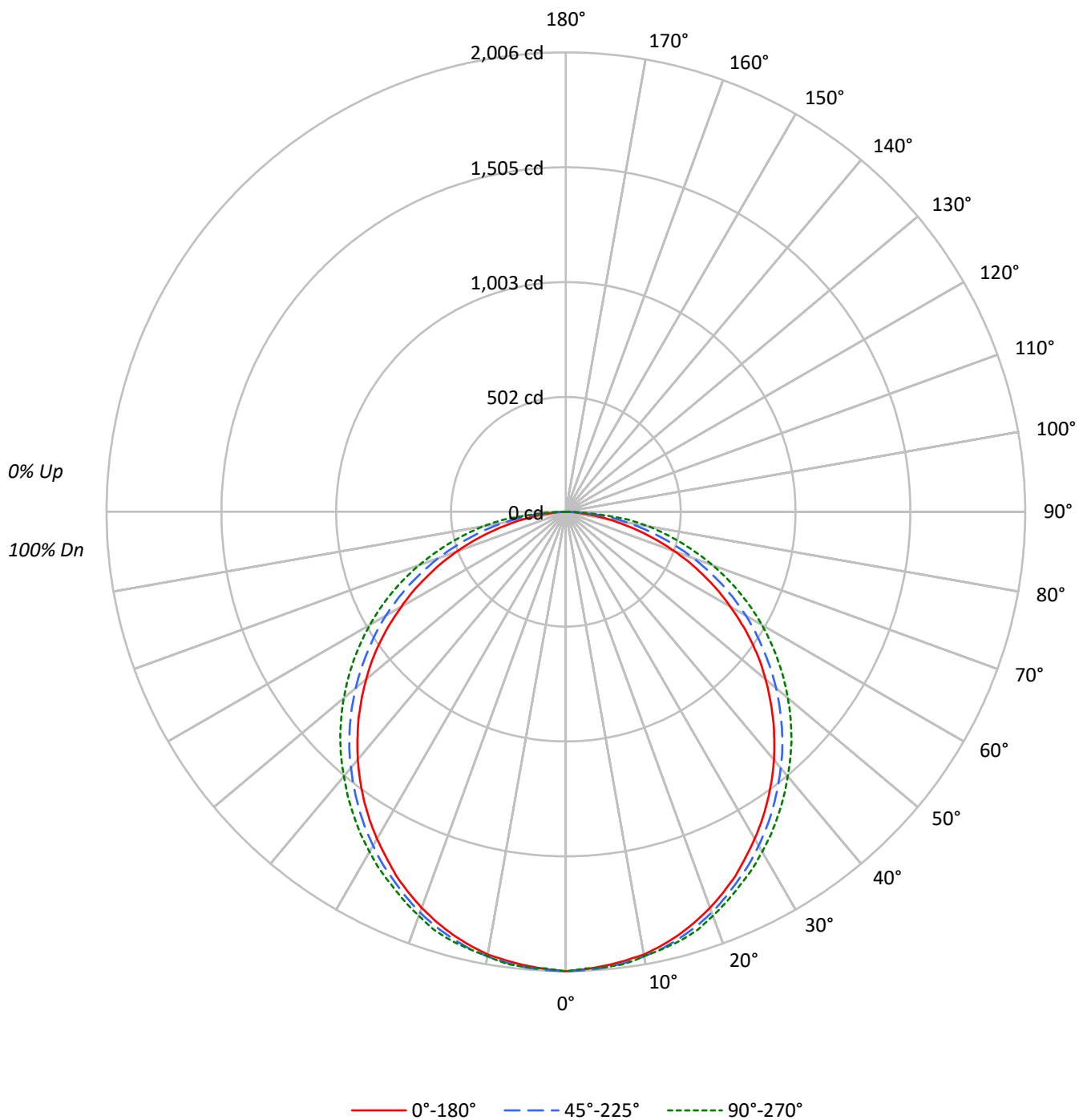
Lumens per Lamp: N/A
Luminaire Lumens: 5858.0 lumens
Efficiency: N/A
Efficacy: 134.7 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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°	3073	3073	3073
5°	3059	3071	3069
10°	3053	3067	3065
15°	3031	3055	3074
20°	3000	3036	3061
25°	2963	3004	3041
30°	2917	2978	3033
35°	2874	2949	3023
40°	2827	2920	3015
45°	2773	2890	3018
50°	2714	2855	3017
55°	2643	2815	3021
60°	2544	2784	3028
65°	2427	2730	3037
70°	2262	2654	3051
75°	2016	2548	3081
80°	1667	2426	3231
85°	1084	2191	2824

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 3334 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	189.8	3.2
10°-20°	543.4	9.3
20°-30°	819.5	14.0
30°-40°	987.1	16.8
40°-50°	1030.8	17.6
50°-60°	946.7	16.2
60°-70°	745.7	12.7
70°-80°	457.4	7.8
80°-90°	137.7	2.4
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°	1552.6	26.5
0°-40°	2539.7	43.4
0°-60°	4517.3	77.1
0°-90°	5858.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5858.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2006	2006	2006	2006	2006	
5°	1990	1992	1998	2004	1996	189
15°	1911	1915	1927	1938	1938	539
25°	1753	1757	1778	1800	1800	807
35°	1537	1545	1577	1609	1617	962
45°	1280	1294	1334	1380	1393	987
55°	990	1008	1054	1113	1131	884
65°	670	693	753	816	838	663
75°	341	368	431	499	521	361
85°	62	85	125	158	161	81
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2006.5	2006.5	2006.5	2006.5	2006.5
2.5°	1998.8	2002.7	2004.0	2005.2	1996.2
5°	1989.8	1992.4	1997.5	2004.0	1996.2
7.5°	1977.0	1979.5	1986.0	1995.0	1991.1
10°	1962.8	1964.1	1971.8	1978.2	1970.5
12.5°	1939.7	1943.5	1952.5	1957.7	1955.1
15°	1911.4	1915.3	1926.8	1938.4	1938.4
17.5°	1878.0	1883.1	1897.3	1912.7	1914.0
20°	1840.7	1844.6	1862.6	1878.0	1878.0
22.5°	1798.3	1803.4	1821.4	1838.1	1840.7
25°	1753.3	1757.2	1777.7	1799.6	1799.6
27.5°	1700.6	1708.3	1734.0	1755.9	1761.0
30°	1649.2	1655.6	1683.9	1710.9	1714.7
32.5°	1595.2	1602.9	1632.5	1662.0	1668.5
35°	1537.3	1545.1	1577.2	1609.3	1617.0
37.5°	1476.9	1485.9	1519.4	1556.6	1564.3
40°	1413.9	1424.2	1460.2	1500.1	1507.8
42.5°	1347.1	1361.2	1399.8	1440.9	1452.5
45°	1280.3	1294.4	1334.3	1380.5	1393.4
47.5°	1209.6	1226.3	1267.4	1316.3	1330.4
50°	1138.9	1155.6	1198.0	1250.7	1266.1
52.5°	1066.9	1083.6	1127.3	1182.6	1199.3
55°	989.8	1007.8	1054.0	1113.2	1131.2
57.5°	910.1	933.2	982.1	1042.5	1060.5
60°	830.4	853.5	908.8	967.9	988.5
62.5°	752.0	773.8	830.4	893.4	915.2
65°	669.7	692.8	753.2	816.2	838.1
67.5°	588.7	611.9	672.3	737.8	761.0
70°	505.2	530.9	592.6	658.1	681.3
72.5°	421.6	448.6	511.6	578.4	600.3
75°	340.6	367.6	430.6	498.7	520.6
77.5°	260.9	290.5	352.2	421.6	442.2
80°	189.0	217.2	275.1	343.2	366.3
82.5°	120.8	145.3	203.1	267.4	284.1
85°	61.7	84.8	124.7	158.1	160.7
87.5°	19.3	27.0	41.1	61.7	63.0
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	15.38	17.04	15.74	17.36	17.67	16.21	17.87	16.57	18.19	18.50
	3H	17.13	18.64	17.51	18.97	19.33	18.33	19.83	18.70	20.16	20.52
	4H	17.75	19.18	18.15	19.52	19.90	19.21	20.64	19.61	20.98	21.36
	6H	18.16	19.48	18.57	19.85	20.24	20.00	21.32	20.41	21.68	22.07
	8H	18.27	19.53	18.70	19.92	20.32	20.32	21.58	20.74	21.97	22.36
	12H	18.32	19.53	18.75	19.92	20.34	20.53	21.74	20.96	22.12	22.55
4H	2H	16.15	17.57	16.55	17.92	18.29	16.80	18.22	17.19	18.57	18.94
	3H	18.13	19.33	18.54	19.72	20.12	19.15	20.35	19.56	20.75	21.15
	4H	18.86	19.95	19.30	20.36	20.80	20.20	21.29	20.63	21.70	22.14
	6H	19.39	20.35	19.85	20.79	21.24	21.16	22.11	21.61	22.55	23.00
	8H	19.54	20.43	20.00	20.87	21.34	21.55	22.45	22.01	22.89	23.35
	12H	19.62	20.43	20.10	20.90	21.37	21.83	22.63	22.31	23.11	23.58
8H	4H	19.32	20.22	19.78	20.66	21.12	20.49	21.39	20.95	21.83	22.29
	6H	19.98	20.73	20.48	21.22	21.69	21.60	22.35	22.10	22.84	23.31
	8H	20.20	20.86	20.70	21.37	21.85	22.12	22.79	22.62	23.29	23.77
	12H	20.33	20.93	20.84	21.42	21.97	22.50	23.09	23.01	23.58	24.14
12H	4H	19.41	20.22	19.89	20.69	21.16	20.52	21.32	21.00	21.80	22.26
	6H	20.12	20.79	20.62	21.29	21.78	21.65	22.32	22.16	22.83	23.31
	8H	20.40	20.99	20.90	21.48	22.04	22.23	22.82	22.74	23.31	23.87