

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: P1588767

Luminaire Tested: 24CZSP-A-60VHE-L940

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1588767
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-L940
Description: 2x4 CZSP LED Luminaire, 4000K CCT and 6000 lumens, 90CRI, Ribbed Lens, Air Vented Housing
Light Source: -
Ballast/Driver: -

Summary

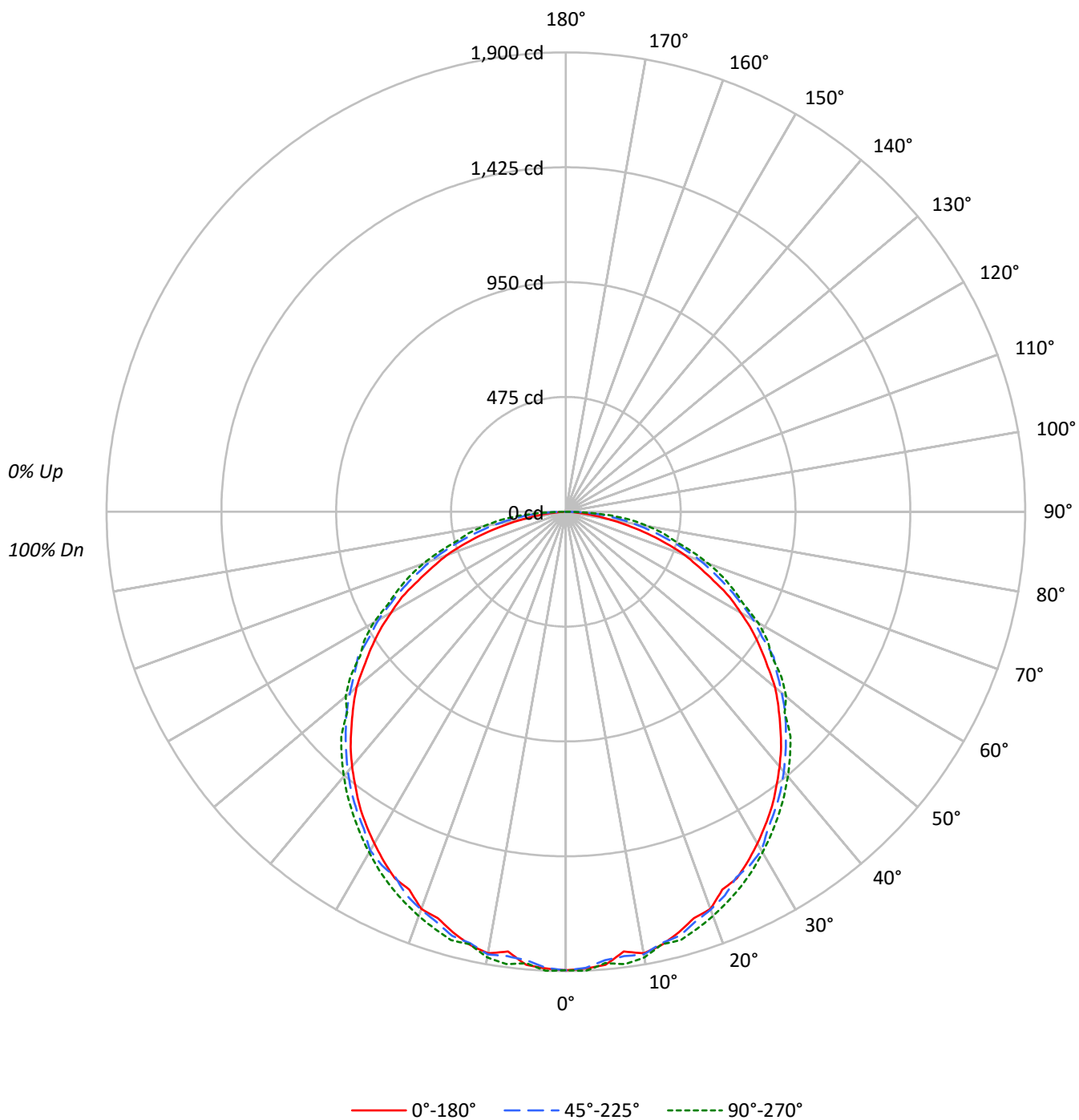
Lumens per Lamp: N/A
Luminaire Lumens: 5661.0 lumens
Efficiency: N/A
Efficacy: 130.1 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.27 / 1.39
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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°	2904	2904	2904
5°	2892	2862	2881
10°	2883	2891	2911
15°	2857	2880	2908
20°	2850	2855	2900
25°	2827	2819	2892
30°	2802	2862	2878
35°	2781	2820	2866
40°	2750	2804	2856
45°	2716	2789	2846
50°	2694	2778	2833
55°	2625	2802	2774
60°	2559	2743	2814
65°	2443	2684	2776
70°	2343	2660	2816
75°	2075	2581	2759
80°	1638	2522	3052
85°	1002	2694	3480

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 85°

Luminance: 3480 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	179.1	3.2
10°-20°	511.6	9.0
20°-30°	779.4	13.8
30°-40°	948.7	16.8
40°-50°	994.8	17.6
50°-60°	921.5	16.3
60°-70°	726.7	12.8
70°-80°	449.5	7.9
80°-90°	149.7	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°	1470.1	26.0
0°-40°	2418.8	42.7
0°-60°	4335.1	76.6
0°-90°	5661.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5661.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1896	1896	1896	1896	1896	
5°	1881	1880	1862	1902	1874	177
15°	1802	1811	1816	1803	1834	508
25°	1673	1682	1668	1714	1711	769
35°	1487	1501	1508	1536	1533	929
45°	1254	1277	1288	1302	1314	969
55°	983	1012	1050	1059	1039	879
65°	674	700	740	768	766	671
75°	351	378	436	469	466	370
85°	57	97	153	186	198	77
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1896.3	1896.3	1896.3	1896.3	1896.3
2.5°	1890.9	1902.5	1887.9	1900.2	1900.2
5°	1880.9	1880.2	1861.7	1902.5	1874.0
7.5°	1834.7	1867.1	1854.0	1904.0	1887.1
10°	1854.0	1845.5	1858.6	1892.5	1871.7
12.5°	1834.7	1848.6	1827.8	1810.8	1832.4
15°	1801.6	1810.8	1816.2	1803.1	1833.9
17.5°	1762.3	1796.9	1778.4	1772.3	1807.7
20°	1748.4	1749.9	1751.5	1783.1	1779.2
22.5°	1691.4	1722.2	1718.3	1743.8	1746.9
25°	1672.9	1682.1	1668.3	1714.5	1711.4
27.5°	1630.5	1650.5	1648.2	1663.6	1672.1
30°	1584.3	1604.3	1618.2	1601.2	1627.4
32.5°	1536.5	1570.4	1555.0	1586.6	1581.2
35°	1487.2	1501.0	1508.0	1536.5	1532.6
37.5°	1430.2	1454.0	1457.9	1501.0	1482.6
40°	1375.4	1399.3	1402.4	1427.8	1428.6
42.5°	1317.7	1329.2	1345.4	1374.7	1372.4
45°	1253.7	1276.8	1287.6	1302.2	1313.8
47.5°	1192.1	1216.7	1230.6	1254.5	1227.5
50°	1130.4	1148.1	1165.9	1191.3	1189.0
52.5°	1052.6	1092.7	1101.1	1115.0	1124.2
55°	983.2	1012.5	1049.5	1058.7	1038.7
57.5°	913.1	935.5	962.4	990.9	988.6
60°	835.3	862.3	895.4	917.0	918.5
62.5°	764.4	782.9	814.5	846.1	829.9
65°	674.2	700.4	740.5	768.2	765.9
67.5°	594.1	622.6	663.5	699.7	701.2
70°	523.2	538.6	594.1	621.8	628.8
72.5°	436.1	463.1	512.4	543.2	546.3
75°	350.6	378.3	436.1	469.3	466.2
77.5°	263.5	303.6	359.9	399.1	412.2
80°	185.7	221.9	285.9	324.4	346.0
82.5°	117.1	154.9	217.3	265.1	278.2
85°	57.0	97.1	153.3	186.5	198.0
87.5°	14.6	40.1	70.9	87.1	94.0
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	15.51	17.18	15.87	17.49	17.81	15.94	17.61	16.30	17.92	18.24
	3H	17.31	18.82	17.68	19.15	19.51	18.01	19.53	18.39	19.85	20.21
	4H	17.95	19.38	18.35	19.73	20.10	18.85	20.28	19.25	20.63	21.01
	6H	18.36	19.69	18.77	20.05	20.44	19.64	20.97	20.05	21.33	21.72
	8H	18.46	19.74	18.89	20.12	20.52	19.99	21.26	20.41	21.65	22.04
	12H	18.51	19.73	18.94	20.11	20.54	20.28	21.50	20.71	21.88	22.31
4H	2H	16.25	17.68	16.64	18.02	18.40	16.58	18.01	16.98	18.36	18.73
	3H	18.28	19.49	18.69	19.88	20.28	18.89	20.10	19.30	20.50	20.90
	4H	19.05	20.15	19.48	20.56	20.99	19.90	20.99	20.33	21.41	21.84
	6H	19.59	20.55	20.04	20.99	21.44	20.85	21.81	21.30	22.25	22.70
	8H	19.73	20.63	20.19	21.07	21.54	21.27	22.18	21.73	22.62	23.08
	12H	19.81	20.63	20.29	21.10	21.57	21.65	22.47	22.13	22.94	23.41
8H	4H	19.50	20.40	19.96	20.84	21.31	20.24	21.14	20.70	21.58	22.04
	6H	20.18	20.93	20.67	21.42	21.89	21.35	22.11	21.85	22.59	23.07
	8H	20.40	21.08	20.91	21.58	22.06	21.90	22.58	22.41	23.08	23.57
	12H	20.55	21.15	21.05	21.64	22.19	22.42	23.02	22.92	23.51	24.07
12H	4H	19.59	20.40	20.06	20.87	21.34	20.27	21.08	20.75	21.56	22.03
	6H	20.31	20.99	20.82	21.50	21.98	21.42	22.10	21.93	22.60	23.09
	8H	20.61	21.21	21.11	21.70	22.26	22.04	22.64	22.55	23.13	23.69