

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: METALUX

Report Number: P685510

Luminaire Tested: **4CZL-7-UNV-W-L935-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685510
Test Lab: INNOVATION CENTER(G2)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-7-UNV-W-L935-CD-U
Description: METALUX CRUZE LINEAR 4FT WIDE LENS MODEL @90 CRI and 3500K
Light Source: (392) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

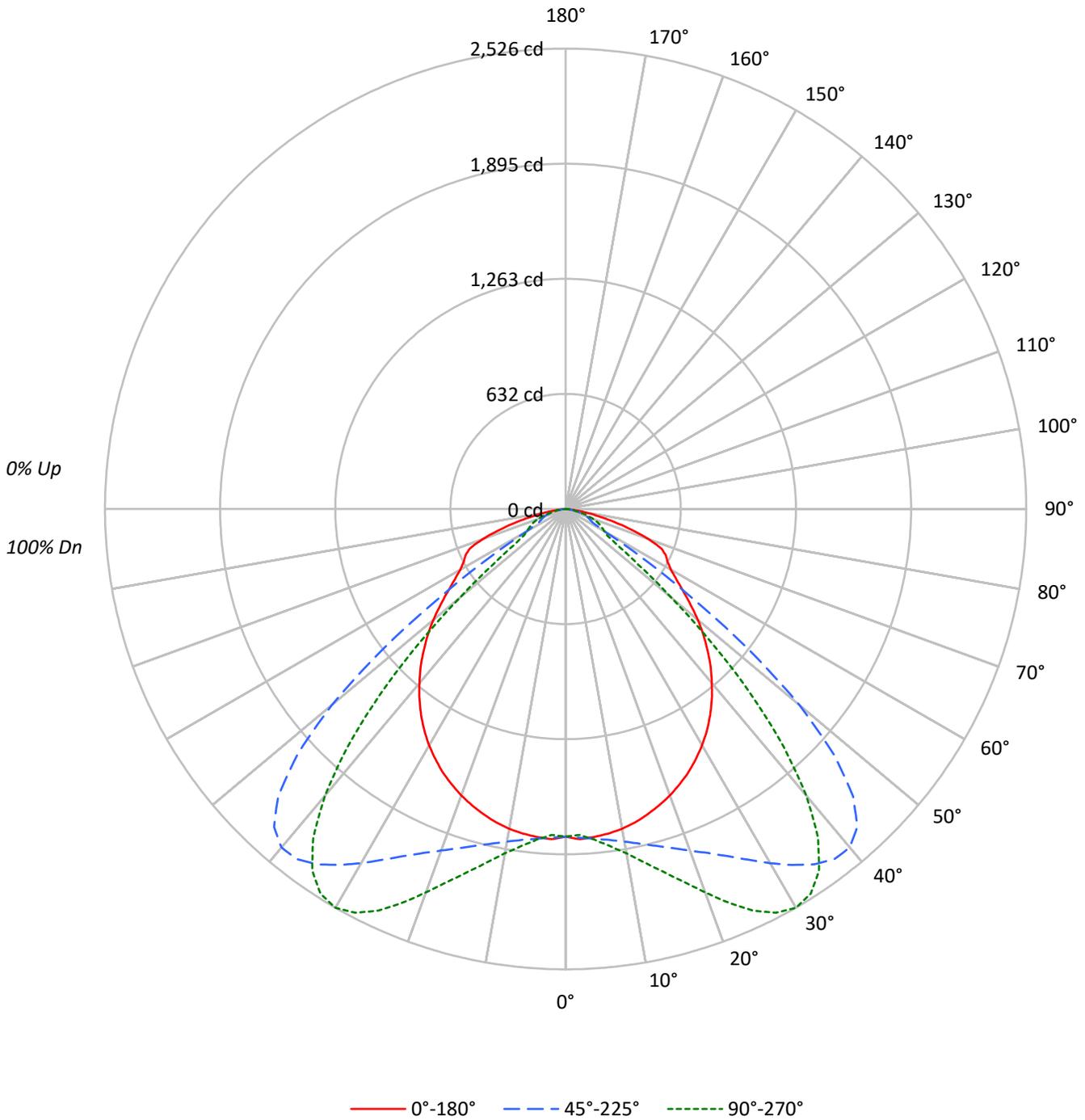
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5749.4 lumens
Efficiency: N/A
Efficacy: 130.7 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.69 / 1.65
Luminous Opening: Rectangular (W 0.83' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 44
Input Voltage (V): 120
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: 25 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				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	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100
1	111	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	89	89	89	87
2	102	94	88	83	99	93	87	82	89	85	81	86	82	79	83	80	77	77	77	77	75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	67	67	67	65
4	86	75	67	61	84	73	66	60	71	65	59	69	63	59	67	62	58	58	58	58	56
5	79	67	59	52	77	66	58	52	64	57	52	62	56	51	60	55	51	51	51	51	49
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45	45	45	45	43
7	68	55	46	40	66	54	46	40	52	45	40	51	45	40	50	44	39	39	39	39	38
8	63	50	42	36	61	49	41	36	48	41	36	47	40	35	45	40	35	35	35	35	33
9	59	46	38	32	57	45	37	32	44	37	32	43	36	32	42	36	32	32	32	32	30
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29	29	29	29	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5805	5805	5805
5°	5855	5886	5904
10°	5841	6075	6288
15°	5799	6396	6883
20°	5748	6852	7690
25°	5679	7487	8661
30°	5582	8367	9418
35°	5446	9378	9548
40°	5257	10218	8650
45°	5030	10179	6565
50°	4757	8412	3784
55°	4434	4628	1946
60°	4303	1615	1586
65°	4637	1175	1590
70°	4579	1204	1534
75°	3462	1053	1233
80°	2092	861	872
85°	1041	441	185



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	174.0	3.0
10°-20°	541.0	9.4
20°-30°	950.4	16.5
30°-40°	1320.3	23.0
40°-50°	1338.9	23.3
50°-60°	859.2	14.9
60°-70°	401.9	7.0
70°-80°	139.4	2.4
80°-90°	24.3	0.4
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°	1665.3	29.0
0°-40°	2985.6	51.9
0°-60°	5183.8	90.2
0°-90°	5749.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5749.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1798	1798	1798	1798	1798	
5°	1806	1794	1816	1822	1821	172
15°	1734	1776	1913	2016	2059	489
25°	1594	1757	2101	2347	2431	734
35°	1381	1772	2379	2461	2422	863
45°	1101	1897	2229	1662	1438	849
55°	788	1959	822	396	346	711
65°	607	626	154	193	208	590
75°	278	96	84	97	99	300
85°	28	25	12	7	5	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1797.7	1797.7	1797.7	1797.7	1797.7	1797.7	1797.7	1797.7	1797.7	1797.7	1797.7
2.5°	1813.3	1807.7	1798.3	1794.5	1796.4	1805.8	1808.9	1802.0	1800.2	1795.2	1790.2
5°	1806.4	1801.4	1794.5	1793.3	1800.2	1815.8	1822.7	1820.8	1823.9	1824.5	1821.4
7.5°	1796.4	1792.0	1786.4	1792.0	1806.4	1831.4	1847.0	1852.0	1863.3	1865.8	1865.2
10°	1781.4	1777.7	1775.8	1790.2	1815.2	1852.7	1880.2	1893.9	1910.2	1915.8	1917.7
12.5°	1761.4	1757.7	1762.7	1787.7	1827.0	1880.8	1921.4	1945.8	1968.9	1980.8	1984.6
15°	1734.5	1733.3	1745.8	1785.8	1842.0	1913.3	1969.6	2007.7	2040.8	2053.9	2058.9
17.5°	1705.2	1705.8	1728.3	1785.2	1860.2	1951.4	2023.3	2077.7	2118.3	2137.1	2142.7
20°	1672.7	1674.5	1708.3	1784.5	1882.7	1993.9	2082.7	2153.9	2204.6	2229.6	2237.7
22.5°	1634.5	1638.3	1686.4	1785.2	1906.4	2042.7	2152.7	2237.7	2298.3	2328.3	2338.3
25°	1593.9	1599.5	1663.9	1788.3	1936.4	2101.4	2232.7	2332.1	2393.3	2419.6	2430.8
27.5°	1547.0	1556.4	1639.5	1792.7	1972.1	2169.6	2314.6	2410.2	2467.1	2487.1	2497.1
30°	1497.0	1507.6	1615.8	1801.4	2018.3	2244.0	2390.2	2470.9	2509.0	2520.2	2525.9
32.5°	1442.0	1459.5	1592.0	1815.8	2072.7	2315.8	2445.8	2494.0	2503.4	2499.6	2501.5
35°	1381.4	1400.1	1569.5	1839.5	2134.6	2379.0	2467.7	2467.7	2440.2	2423.3	2422.1
37.5°	1317.0	1340.7	1547.0	1867.0	2206.5	2420.8	2444.0	2382.1	2315.2	2279.0	2273.3
40°	1247.0	1278.9	1531.4	1904.5	2271.5	2424.0	2359.0	2231.5	2117.7	2058.9	2052.1
42.5°	1177.6	1217.0	1524.5	1953.3	2320.2	2366.5	2199.0	2002.1	1847.7	1778.3	1770.8
45°	1101.4	1153.2	1527.0	2020.2	2333.3	2229.0	1960.8	1705.8	1532.6	1445.1	1437.6
47.5°	1025.7	1090.1	1533.3	2095.8	2275.8	1995.8	1643.9	1348.9	1177.0	1085.1	1083.8
50°	947.0	1030.7	1548.3	2157.7	2120.2	1674.5	1254.5	966.3	828.8	758.8	753.2
52.5°	865.1	978.8	1580.8	2168.9	1843.3	1262.0	851.3	645.1	555.7	511.3	502.5
55°	787.6	935.1	1633.9	2067.7	1445.1	822.0	536.3	406.9	361.9	343.8	345.7
57.5°	720.7	902.6	1695.8	1803.3	938.2	483.8	310.7	270.6	269.4	271.3	271.9
60°	666.3	882.6	1723.3	1352.6	515.0	250.0	216.9	225.6	237.5	244.4	245.6
62.5°	630.7	872.0	1639.5	783.8	228.8	174.4	189.4	205.6	219.4	225.6	226.3
65°	606.9	843.8	1341.4	387.5	140.0	153.8	172.5	189.4	201.9	206.9	208.1
67.5°	570.1	764.4	919.5	160.6	123.1	138.8	156.9	173.1	183.8	187.5	188.1
70°	485.0	640.1	534.4	106.9	111.3	127.5	141.9	154.4	161.3	163.1	162.5
72.5°	378.8	506.9	270.0	96.9	103.1	111.9	120.0	126.9	130.6	132.5	132.5
75°	277.5	370.7	126.9	85.6	76.9	84.4	92.5	96.9	98.1	98.8	98.8
77.5°	186.3	255.6	75.6	66.3	59.4	65.6	68.8	66.9	65.6	66.9	66.9
80°	112.5	157.5	66.3	48.1	45.6	46.3	43.8	43.8	46.3	47.5	46.9
82.5°	60.6	89.4	58.1	35.0	30.6	28.1	27.5	26.3	25.0	24.4	24.4
85°	28.1	45.6	37.5	21.3	16.3	11.9	9.4	6.9	6.3	5.0	5.0
87.5°	11.3	17.5	11.3	6.9	3.8	2.5	1.9	1.3	0.6	0.6	0.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)