

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: P685530

Luminaire Tested: **4CZL-7-UNV-W-L950-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685530
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-L950-CD-U
Description: METALUX CRUZE LINEAR 4FT WIDE LENS MODEL @90 CRI and 5000K
Light Source: (392) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

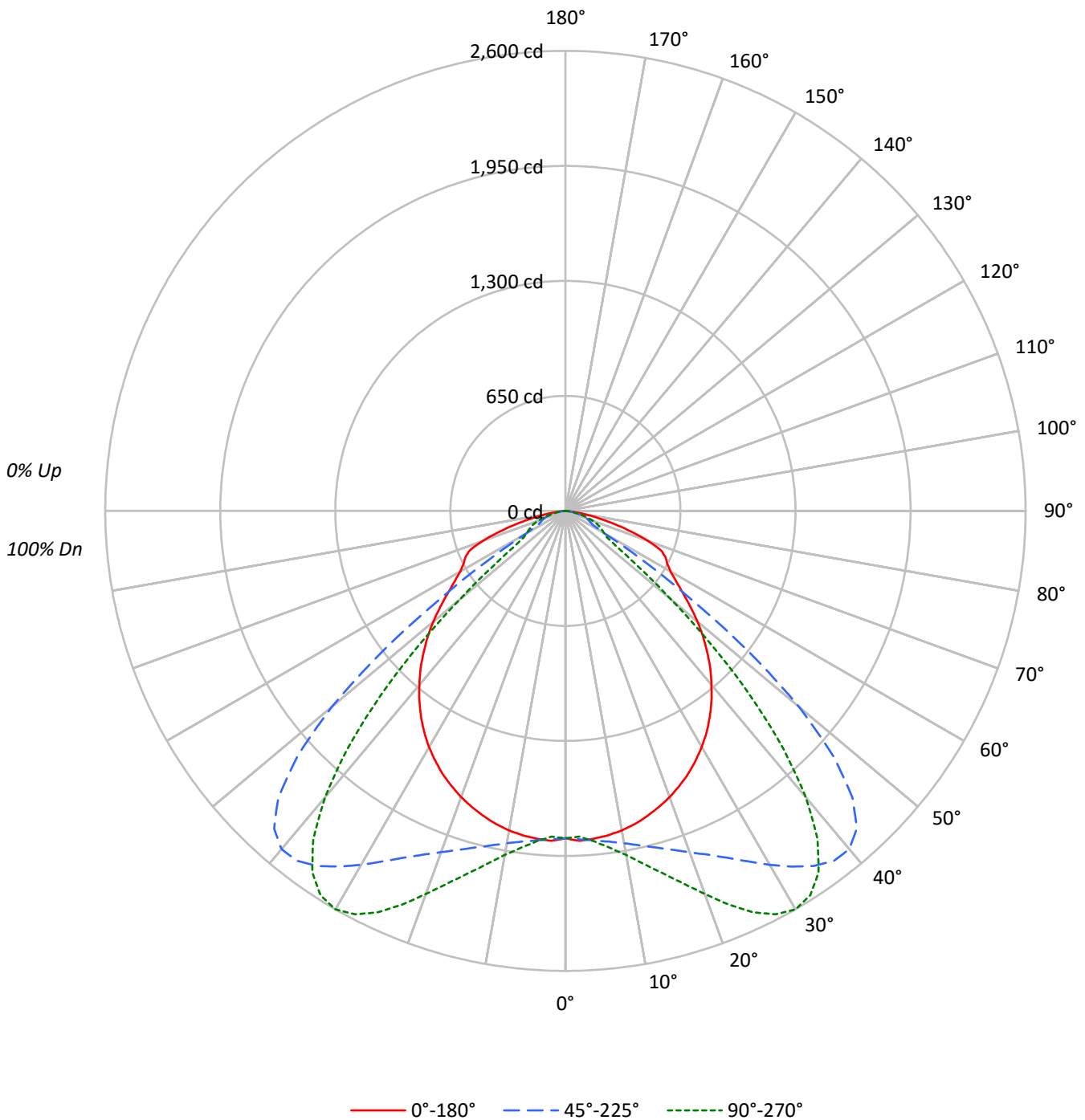
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5917.8 lumens
Efficiency: N/A
Efficacy: 134.5 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°	5975	5975	5975
5°	6027	6058	6077
10°	6012	6253	6472
15°	5969	6584	7085
20°	5917	7053	7915
25°	5845	7707	8915
30°	5746	8612	9694
35°	5605	9653	9828
40°	5410	10517	8904
45°	5177	10478	6758
50°	4897	8659	3895
55°	4564	4763	2003
60°	4429	1662	1633
65°	4773	1210	1637
70°	4714	1239	1580
75°	3565	1084	1269
80°	2153	885	898
85°	1074	452	189



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	179.1	3.0
10°-20°	556.9	9.4
20°-30°	978.2	16.5
30°-40°	1359.0	23.0
40°-50°	1378.2	23.3
50°-60°	884.4	14.9
60°-70°	413.7	7.0
70°-80°	143.4	2.4
80°-90°	25.0	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°	1714.2	29.0
0°-40°	3073.1	51.9
0°-60°	5335.7	90.2
0°-90°	5917.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5917.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1850	1850	1850	1850	1850	
5°	1859	1846	1869	1875	1875	177
15°	1785	1828	1969	2075	2119	504
25°	1641	1809	2163	2416	2502	755
35°	1422	1824	2449	2533	2493	888
45°	1134	1952	2294	1711	1480	874
55°	811	2017	846	407	356	732
65°	625	644	158	198	214	608
75°	286	99	87	100	102	309
85°	29	26	12	7	5	44
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°	1850.3	1850.3	1850.3	1850.3	1850.3	1850.3	1850.3	1850.3	1850.3	1850.3	1850.3
2.5°	1866.4	1860.6	1851.0	1847.1	1849.1	1858.7	1861.9	1854.9	1852.9	1847.8	1842.6
5°	1859.4	1854.2	1847.1	1845.8	1852.9	1869.0	1876.1	1874.2	1877.4	1878.0	1874.8
7.5°	1849.1	1844.6	1838.8	1844.6	1859.4	1885.1	1901.2	1906.3	1917.9	1920.5	1919.8
10°	1833.6	1829.8	1827.8	1842.6	1868.4	1907.0	1935.3	1949.4	1966.2	1971.9	1973.9
12.5°	1813.0	1809.2	1814.3	1840.1	1880.6	1935.9	1977.7	2002.8	2026.6	2038.9	2042.7
15°	1785.4	1784.1	1796.9	1838.1	1896.0	1969.4	2027.3	2066.5	2100.6	2114.1	2119.3
17.5°	1755.1	1755.8	1778.9	1837.5	1914.7	2008.6	2082.6	2138.6	2180.4	2199.7	2205.5
20°	1721.7	1723.6	1758.3	1836.8	1937.8	2052.4	2143.7	2217.1	2269.2	2294.9	2303.3
22.5°	1682.4	1686.3	1735.8	1837.5	1962.3	2102.6	2215.8	2303.3	2365.7	2396.6	2406.9
25°	1640.6	1646.4	1712.7	1840.7	1993.2	2163.0	2298.1	2400.4	2463.5	2490.5	2502.1
27.5°	1592.4	1602.0	1687.6	1845.2	2029.8	2233.2	2382.4	2480.9	2539.4	2560.0	2570.3
30°	1540.9	1551.8	1663.1	1854.2	2077.5	2309.7	2460.3	2543.3	2582.5	2594.1	2599.9
32.5°	1484.3	1502.3	1638.7	1869.0	2133.4	2383.7	2517.5	2567.1	2576.7	2572.9	2574.8
35°	1421.9	1441.2	1615.5	1893.5	2197.1	2448.7	2540.0	2540.0	2511.7	2494.4	2493.1
37.5°	1355.6	1380.0	1592.4	1921.8	2271.1	2491.8	2515.6	2451.9	2383.1	2345.7	2340.0
40°	1283.5	1316.3	1576.3	1960.4	2338.0	2495.0	2428.1	2296.9	2179.8	2119.3	2112.2
42.5°	1212.1	1252.7	1569.2	2010.5	2388.2	2435.8	2263.4	2060.7	1901.8	1830.4	1822.7
45°	1133.6	1187.0	1571.8	2079.4	2401.7	2294.3	2018.3	1755.8	1577.6	1487.5	1479.8
47.5°	1055.8	1122.0	1578.2	2157.2	2342.5	2054.3	1692.1	1388.4	1211.5	1116.9	1115.6
50°	974.7	1060.9	1593.6	2220.9	2182.3	1723.6	1291.3	994.7	853.1	781.1	775.3
52.5°	890.4	1007.5	1627.1	2232.5	1897.3	1299.0	876.3	664.0	572.0	526.3	517.3
55°	810.7	962.5	1681.8	2128.3	1487.5	846.0	552.0	418.8	372.5	353.9	355.8
57.5°	741.8	929.0	1745.5	1856.1	965.7	498.0	319.8	278.6	277.3	279.2	279.9
60°	685.8	908.4	1773.8	1392.3	530.1	257.4	223.3	232.3	244.5	251.6	252.8
62.5°	649.2	897.5	1687.6	806.8	235.5	179.5	194.9	211.7	225.8	232.3	232.9
65°	624.7	868.6	1380.7	398.9	144.1	158.3	177.6	194.9	207.8	213.0	214.2
67.5°	586.8	786.8	946.4	165.3	126.7	142.8	161.5	178.2	189.2	193.0	193.7
70°	499.3	658.8	550.1	110.0	114.5	131.2	146.0	158.9	166.0	167.9	167.3
72.5°	389.9	521.8	277.9	99.7	106.2	115.2	123.5	130.6	134.5	136.4	136.4
75°	285.7	381.5	130.6	88.1	79.1	86.9	95.2	99.7	101.0	101.7	101.7
77.5°	191.7	263.1	77.8	68.2	61.1	67.6	70.8	68.8	67.6	68.8	68.8
80°	115.8	162.1	68.2	49.5	47.0	47.6	45.0	45.0	47.6	48.9	48.3
82.5°	62.4	92.0	59.8	36.0	31.5	29.0	28.3	27.0	25.7	25.1	25.1
85°	29.0	47.0	38.6	21.9	16.7	12.2	9.7	7.1	6.4	5.1	5.1
87.5°	11.6	18.0	11.6	7.1	3.9	2.6	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)