

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: P685319

Luminaire Tested: **4CZL-5-UNV-L850-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685319
Test Lab: INNOVATION CENTER(G2)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-5-UNV-L850-CD-U
Description: METALUX CRUZE LINEAR 4FT BASE MODEL @80 CRI and 5000K
Light Source: (392) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

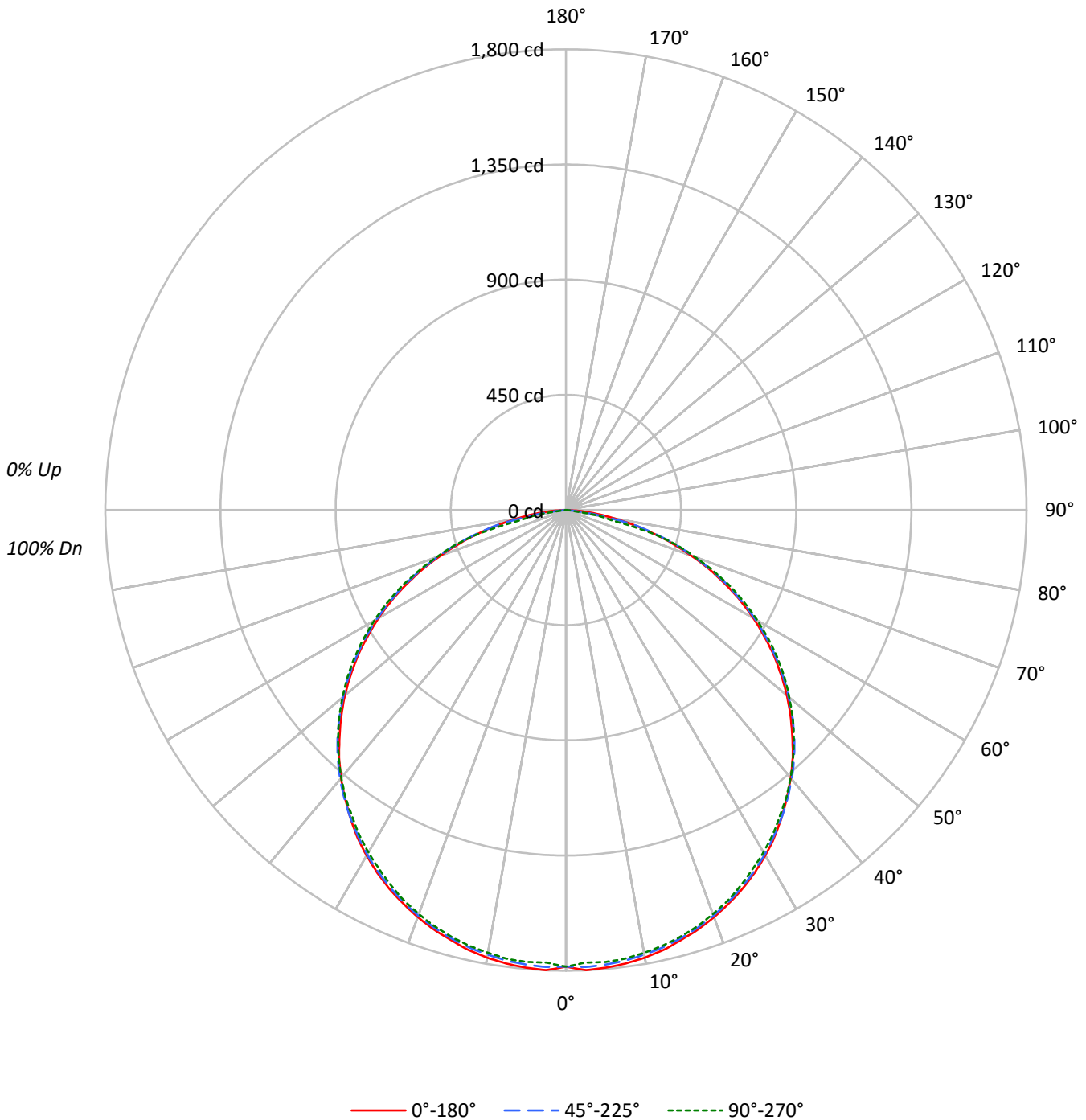
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5292.1 lumens
Efficiency: N/A
Efficacy: 170.7 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 1.29 / 1.41
Luminous Opening: Rectangular (W 0.83' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31
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	109	104	100	96	106	102	98	95	98	94	92	94	91	89	90	88	86	86	86	86	84
2	99	91	84	78	96	89	82	77	85	80	75	82	77	74	79	75	72	72	72	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	61	61	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	52	52	52	50
5	76	63	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	45	45	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	39	39	39	37
7	65	51	42	36	63	50	42	36	48	41	35	47	40	35	46	40	35	35	35	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	31	31	31	29
9	56	42	34	29	55	42	34	29	41	33	28	40	33	28	39	33	28	28	28	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	25	25	25	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5761	5761	5761
5°	5818	5781	5746
10°	5823	5784	5759
15°	5815	5791	5773
20°	5817	5796	5774
25°	5818	5795	5765
30°	5811	5794	5758
35°	5789	5789	5749
40°	5762	5785	5758
45°	5713	5763	5751
50°	5665	5706	5726
55°	5590	5629	5685
60°	5468	5517	5583
65°	5264	5339	5430
70°	4923	5021	5067
75°	4430	4512	4281
80°	3701	3013	2345
85°	2760	726	263



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	169.2	3.2
10°-20°	488.0	9.2
20°-30°	747.2	14.1
30°-40°	914.9	17.3
40°-50°	967.8	18.3
50°-60°	892.5	16.9
60°-70°	688.5	13.0
70°-80°	367.7	6.9
80°-90°	56.3	1.1
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°	1404.4	26.5
0°-40°	2319.3	43.8
0°-60°	4179.6	79.0
0°-90°	5292.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5292.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1784	1784	1784	1784	1784	
5°	1795	1774	1783	1776	1773	171
15°	1739	1721	1732	1726	1727	491
25°	1633	1616	1626	1614	1618	753
35°	1469	1460	1469	1456	1458	919
45°	1251	1251	1262	1253	1259	966
55°	993	992	1000	1006	1010	886
65°	689	689	699	704	711	680
75°	355	354	362	364	343	376
85°	74	53	20	8	7	91
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1784.0	1784.0	1784.0	1784.0	1784.0
2.5°	1799.7	1778.5	1787.2	1780.7	1769.8
5°	1794.9	1773.7	1783.4	1775.8	1772.6
7.5°	1787.2	1765.5	1775.3	1769.3	1768.2
10°	1775.8	1753.5	1763.9	1757.3	1756.3
12.5°	1760.6	1738.9	1750.3	1742.7	1743.7
15°	1739.4	1720.9	1732.3	1726.3	1726.9
17.5°	1718.2	1699.2	1711.1	1705.1	1705.7
20°	1692.6	1674.1	1686.7	1677.4	1680.1
22.5°	1663.8	1647.5	1658.4	1646.4	1651.9
25°	1632.8	1616.0	1626.3	1614.3	1618.1
27.5°	1597.5	1581.7	1592.0	1579.5	1581.2
30°	1558.3	1544.2	1554.0	1541.5	1544.2
32.5°	1516.5	1504.0	1511.6	1500.2	1504.0
35°	1468.6	1459.9	1468.6	1456.1	1458.3
37.5°	1418.6	1409.9	1421.9	1411.0	1414.8
40°	1366.9	1358.8	1372.4	1361.5	1365.9
42.5°	1312.0	1306.0	1319.6	1308.8	1314.2
45°	1251.1	1250.6	1262.0	1253.3	1259.3
47.5°	1190.8	1189.7	1201.1	1195.1	1202.2
50°	1127.7	1126.6	1135.9	1135.3	1139.7
52.5°	1060.3	1061.9	1070.6	1072.2	1077.1
55°	992.9	991.8	999.9	1005.9	1009.7
57.5°	919.4	921.6	928.1	935.2	937.9
60°	846.6	845.5	854.2	860.2	864.5
62.5°	769.4	769.4	776.4	785.1	789.5
65°	688.9	688.9	698.7	704.1	710.7
67.5°	606.8	605.2	613.9	625.8	624.7
70°	521.4	522.0	531.8	537.7	536.7
72.5°	436.6	438.2	448.6	451.3	454.0
75°	355.1	354.5	361.6	364.3	343.1
77.5°	274.0	274.6	278.9	204.4	179.4
80°	199.0	200.1	162.0	126.1	126.1
82.5°	131.6	129.4	83.2	48.9	35.9
85°	74.5	53.3	19.6	8.2	7.1
87.5°	30.4	9.8	5.4	3.8	3.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)