

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: P685499

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

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685499  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 05/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4CZL-5-UNV-W-L850-CD-U  
Description: METALUX CRUZE LINEAR 4FT WIDE LENS MODEL @80 CRI and 5000K  
Light Source: (392) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

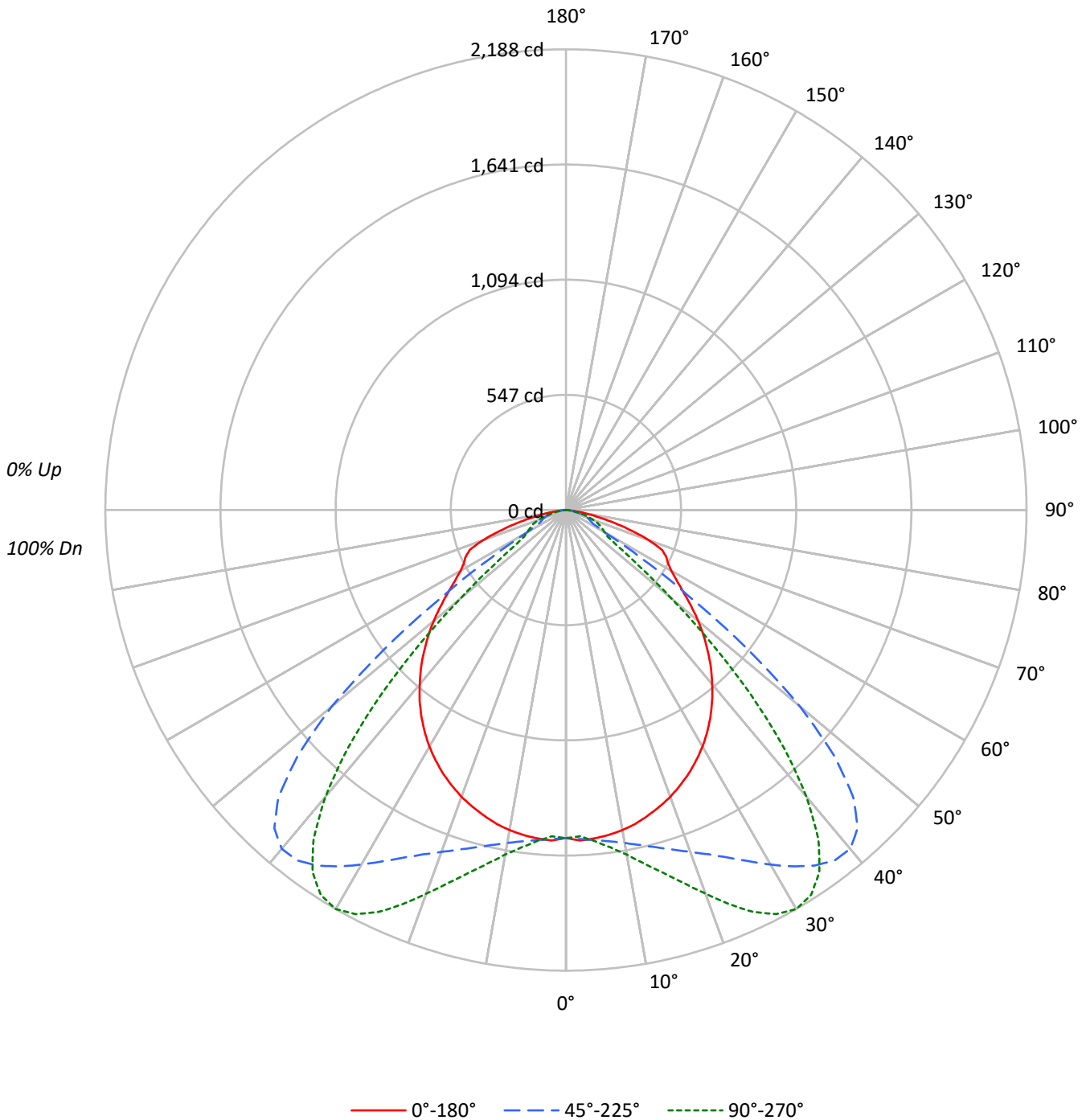
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4981.5 lumens  
Efficiency: N/A  
Efficacy: 160.7 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): 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	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°	5030	5030	5030
5°	5074	5100	5116
10°	5061	5264	5448
15°	5024	5542	5964
20°	4980	5937	6663
25°	4921	6488	7504
30°	4837	7250	8160
35°	4718	8126	8273
40°	4555	8854	7495
45°	4358	8820	5688
50°	4122	7289	3278
55°	3842	4010	1686
60°	3728	1399	1374
65°	4018	1018	1378
70°	3968	1043	1329
75°	3001	912	1068
80°	1813	746	755
85°	904	382	159



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	150.8	3.0
10°-20°	468.8	9.4
20°-30°	823.4	16.5
30°-40°	1144.0	23.0
40°-50°	1160.1	23.3
50°-60°	744.5	14.9
60°-70°	348.2	7.0
70°-80°	120.7	2.4
80°-90°	21.0	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°	1442.9	29.0
0°-40°	2586.9	51.9
0°-60°	4491.5	90.2
0°-90°	4981.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4981.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1558	1558	1558	1558	1558	
5°	1565	1554	1573	1578	1578	149
15°	1503	1539	1658	1747	1784	424
25°	1381	1523	1821	2034	2106	636
35°	1197	1535	2061	2132	2099	747
45°	954	1644	1931	1440	1246	736
55°	682	1698	712	343	300	616
65°	526	542	133	167	180	512
75°	240	83	73	84	86	260
85°	24	22	10	6	4	37
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°	1557.6	1557.6	1557.6	1557.6	1557.6	1557.6	1557.6	1557.6	1557.6	1557.6	1557.6
2.5°	1571.1	1566.3	1558.1	1554.9	1556.5	1564.6	1567.3	1561.4	1559.8	1555.4	1551.1
5°	1565.2	1560.8	1554.9	1553.8	1559.8	1573.3	1579.3	1577.6	1580.3	1580.9	1578.2
7.5°	1556.5	1552.7	1547.8	1552.7	1565.2	1586.8	1600.4	1604.7	1614.5	1616.6	1616.1
10°	1543.5	1540.3	1538.6	1551.1	1572.8	1605.3	1629.1	1641.0	1655.1	1660.0	1661.6
12.5°	1526.2	1522.9	1527.3	1548.9	1583.0	1629.6	1664.8	1685.9	1706.0	1716.3	1719.5
15°	1502.9	1501.8	1512.6	1547.3	1596.0	1657.8	1706.5	1739.6	1768.3	1779.6	1784.0
17.5°	1477.4	1478.0	1497.5	1546.8	1611.8	1690.8	1753.1	1800.2	1835.4	1851.7	1856.5
20°	1449.3	1450.9	1480.1	1546.2	1631.2	1727.7	1804.6	1866.3	1910.2	1931.8	1938.9
22.5°	1416.2	1419.5	1461.2	1546.8	1651.8	1769.9	1865.2	1938.9	1991.4	2017.4	2026.1
25°	1381.0	1385.9	1441.7	1549.5	1677.8	1820.8	1934.5	2020.6	2073.7	2096.5	2106.2
27.5°	1340.4	1348.5	1420.6	1553.3	1708.7	1879.8	2005.5	2088.3	2137.6	2155.0	2163.6
30°	1297.1	1306.3	1400.0	1560.8	1748.8	1944.3	2071.0	2140.9	2173.9	2183.7	2188.5
32.5°	1249.4	1264.6	1379.4	1573.3	1795.9	2006.6	2119.2	2160.9	2169.0	2165.8	2167.4
35°	1196.9	1213.1	1359.9	1593.9	1849.5	2061.3	2138.2	2138.2	2114.3	2099.7	2098.6
37.5°	1141.1	1161.7	1340.4	1617.7	1911.8	2097.6	2117.6	2064.0	2006.0	1974.6	1969.7
40°	1080.5	1108.1	1326.9	1650.2	1968.1	2100.3	2043.9	1933.5	1834.9	1784.0	1778.0
42.5°	1020.3	1054.5	1320.9	1692.4	2010.4	2050.4	1905.3	1734.7	1600.9	1540.8	1534.3
45°	954.3	999.2	1323.1	1750.4	2021.7	1931.3	1698.9	1478.0	1328.0	1252.1	1245.6
47.5°	888.7	944.5	1328.5	1815.9	1971.9	1729.3	1424.4	1168.7	1019.8	940.2	939.1
50°	820.5	893.1	1341.5	1869.5	1837.1	1450.9	1087.0	837.3	718.1	657.5	652.6
52.5°	749.6	848.1	1369.7	1879.3	1597.1	1093.5	737.6	558.9	481.5	443.0	435.4
55°	682.4	810.2	1415.7	1791.6	1252.1	712.2	464.7	352.6	313.6	297.9	299.5
57.5°	624.4	782.0	1469.3	1562.5	812.9	419.2	269.2	234.5	233.4	235.0	235.6
60°	577.3	764.7	1493.1	1172.0	446.3	216.6	187.9	195.5	205.8	211.8	212.8
62.5°	546.5	755.5	1420.6	679.1	198.2	151.1	164.1	178.2	190.1	195.5	196.1
65°	525.9	731.1	1162.2	335.8	121.3	133.2	149.5	164.1	174.9	179.3	180.3
67.5°	493.9	662.4	796.7	139.2	106.7	120.2	135.9	150.0	159.2	162.5	163.0
70°	420.3	554.6	463.1	92.6	96.4	110.5	122.9	133.8	139.7	141.4	140.8
72.5°	328.2	439.2	234.0	83.9	89.4	96.9	104.0	109.9	113.2	114.8	114.8
75°	240.5	321.2	109.9	74.2	66.6	73.1	80.2	83.9	85.0	85.6	85.6
77.5°	161.4	221.5	65.5	57.4	51.5	56.9	59.6	57.9	56.9	57.9	57.9
80°	97.5	136.5	57.4	41.7	39.5	40.1	37.9	37.9	40.1	41.2	40.6
82.5°	52.5	77.4	50.4	30.3	26.5	24.4	23.8	22.7	21.7	21.1	21.1
85°	24.4	39.5	32.5	18.4	14.1	10.3	8.1	6.0	5.4	4.3	4.3
87.5°	9.7	15.2	9.7	6.0	3.2	2.2	1.6	1.1	0.5	0.5	0.5
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)