

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: P685509

Luminaire Tested: **4CZL-5-UNV-W-L935-CD-U**

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685509  
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-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

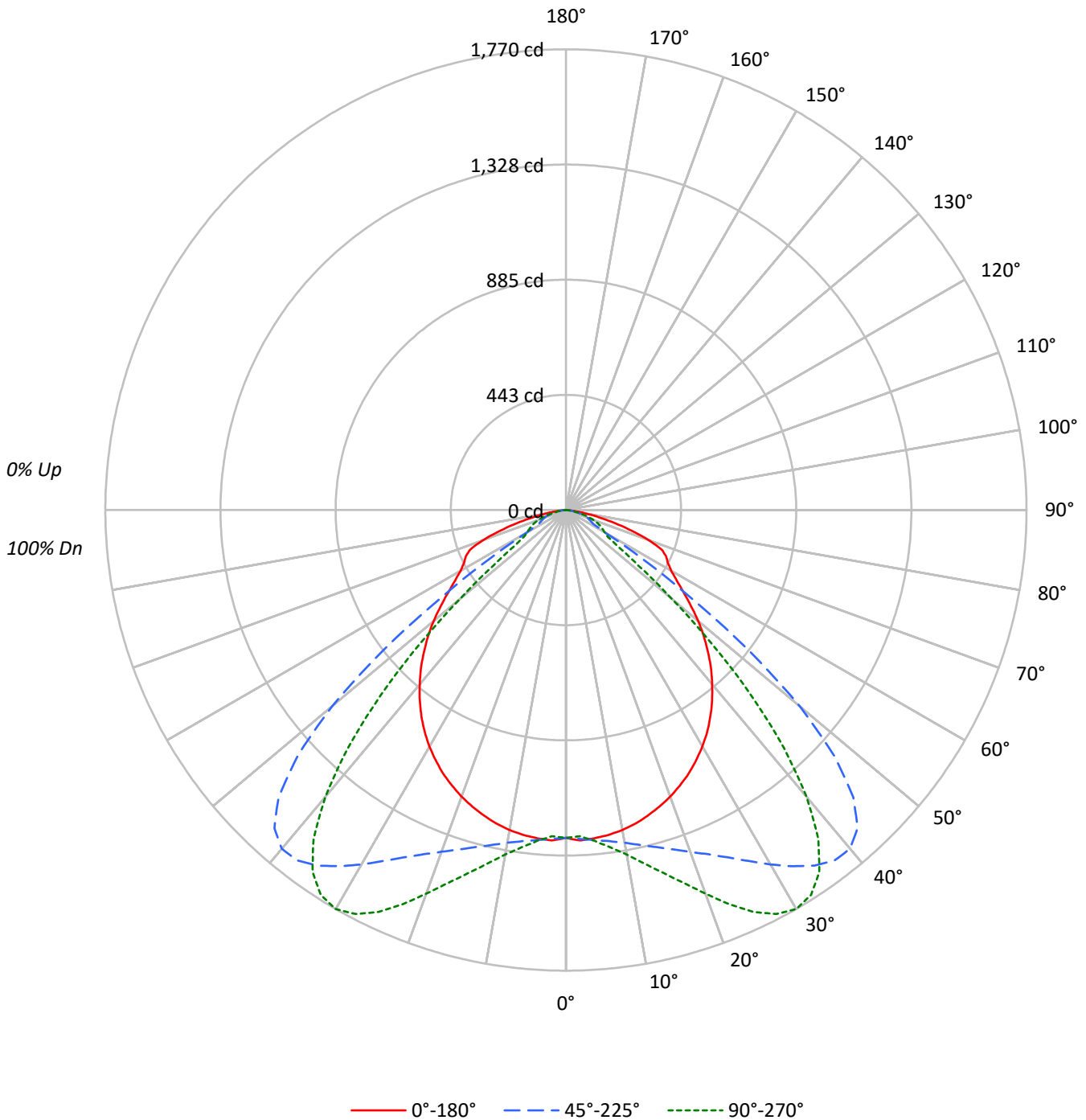
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4028.6 lumens  
Efficiency: N/A  
Efficacy: 130.0 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				
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°	4067	4067	4067
5°	4103	4124	4137
10°	4093	4257	4406
15°	4063	4482	4823
20°	4027	4801	5388
25°	3980	5247	6069
30°	3911	5863	6600
35°	3816	6571	6691
40°	3683	7160	6061
45°	3524	7132	4601
50°	3333	5894	2652
55°	3107	3242	1364
60°	3015	1132	1111
65°	3250	823	1114
70°	3209	843	1075
75°	2427	737	863
80°	1465	603	610
85°	730	308	130



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	121.9	3.0
10°-20°	379.1	9.4
20°-30°	665.9	16.5
30°-40°	925.1	23.0
40°-50°	938.2	23.3
50°-60°	602.1	14.9
60°-70°	281.6	7.0
70°-80°	97.7	2.4
80°-90°	17.0	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°	1166.9	29.0
0°-40°	2092.0	51.9
0°-60°	3632.3	90.2
0°-90°	4028.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4028.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1260	1260	1260	1260	1260	
5°	1266	1257	1272	1276	1276	120
15°	1215	1244	1341	1413	1443	343
25°	1117	1231	1472	1645	1703	514
35°	968	1242	1667	1724	1697	604
45°	772	1329	1562	1165	1007	595
55°	552	1373	576	277	242	498
65°	425	439	108	135	146	414
75°	194	67	59	68	69	210
85°	20	18	8	5	4	30
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°	1259.6	1259.6	1259.6	1259.6	1259.6	1259.6	1259.6	1259.6	1259.6	1259.6	1259.6
2.5°	1270.6	1266.6	1260.1	1257.4	1258.8	1265.3	1267.5	1262.7	1261.4	1257.9	1254.4
5°	1265.8	1262.3	1257.4	1256.6	1261.4	1272.3	1277.2	1275.8	1278.0	1278.5	1276.3
7.5°	1258.8	1255.7	1251.7	1255.7	1265.8	1283.3	1294.2	1297.7	1305.6	1307.4	1306.9
10°	1248.2	1245.6	1244.3	1254.4	1271.9	1298.2	1317.4	1327.1	1338.5	1342.4	1343.7
12.5°	1234.2	1231.6	1235.1	1252.6	1280.2	1317.9	1346.4	1363.4	1379.6	1388.0	1390.6
15°	1215.4	1214.5	1223.3	1251.3	1290.7	1340.7	1380.1	1406.8	1430.0	1439.2	1442.7
17.5°	1194.8	1195.2	1211.0	1250.9	1303.4	1367.4	1417.7	1455.8	1484.3	1497.5	1501.4
20°	1172.0	1173.3	1197.0	1250.4	1319.2	1397.2	1459.4	1509.3	1544.8	1562.3	1568.0
22.5°	1145.3	1147.9	1181.7	1250.9	1335.8	1431.3	1508.4	1568.0	1610.5	1631.5	1638.5
25°	1116.9	1120.8	1165.9	1253.1	1356.9	1472.5	1564.5	1634.1	1677.0	1695.4	1703.3
27.5°	1084.0	1090.6	1148.8	1256.1	1381.8	1520.2	1621.8	1688.9	1728.7	1742.7	1749.7
30°	1049.0	1056.4	1132.2	1262.3	1414.2	1572.4	1674.8	1731.3	1758.1	1765.9	1769.9
32.5°	1010.4	1022.7	1115.5	1272.3	1452.3	1622.7	1713.8	1747.5	1754.1	1751.5	1752.8
35°	967.9	981.1	1099.8	1289.0	1495.7	1667.0	1729.1	1729.1	1709.9	1698.1	1697.2
37.5°	922.8	939.5	1084.0	1308.2	1546.1	1696.3	1712.5	1669.1	1622.3	1596.9	1592.9
40°	873.8	896.1	1073.1	1334.5	1591.6	1698.5	1652.9	1563.6	1483.9	1442.7	1437.9
42.5°	825.2	852.7	1068.2	1368.7	1625.8	1658.2	1540.8	1402.9	1294.7	1246.1	1240.8
45°	771.7	808.1	1070.0	1415.6	1635.0	1561.8	1373.9	1195.2	1073.9	1012.6	1007.4
47.5°	718.7	763.8	1074.4	1468.5	1594.7	1398.5	1151.9	945.2	824.7	760.3	759.5
50°	663.5	722.2	1084.9	1511.9	1485.6	1173.3	879.0	677.1	580.8	531.7	527.8
52.5°	606.2	685.9	1107.7	1519.8	1291.6	884.3	596.5	452.0	389.4	358.3	352.1
55°	551.9	655.2	1144.9	1448.8	1012.6	575.9	375.8	285.1	253.6	240.9	242.2
57.5°	505.0	632.4	1188.2	1263.6	657.4	339.0	217.7	189.6	188.8	190.1	190.5
60°	466.9	618.4	1207.5	947.8	360.9	175.2	152.0	158.1	166.4	171.3	172.1
62.5°	441.9	611.0	1148.8	549.2	160.3	122.2	132.7	144.1	153.7	158.1	158.5
65°	425.3	591.3	939.9	271.5	98.1	107.7	120.9	132.7	141.5	145.0	145.8
67.5°	399.4	535.7	644.3	112.6	86.3	97.2	109.9	121.3	128.8	131.4	131.8
70°	339.9	448.5	374.5	74.9	78.0	89.3	99.4	108.2	113.0	114.3	113.9
72.5°	265.4	355.2	189.2	67.9	72.3	78.4	84.1	88.9	91.5	92.9	92.9
75°	194.5	259.7	88.9	60.0	53.9	59.1	64.8	67.9	68.8	69.2	69.2
77.5°	130.5	179.1	53.0	46.4	41.6	46.0	48.2	46.9	46.0	46.9	46.9
80°	78.8	110.4	46.4	33.7	32.0	32.4	30.7	30.7	32.4	33.3	32.8
82.5°	42.5	62.6	40.7	24.5	21.5	19.7	19.3	18.4	17.5	17.1	17.1
85°	19.7	32.0	26.3	14.9	11.4	8.3	6.6	4.8	4.4	3.5	3.5
87.5°	7.9	12.3	7.9	4.8	2.6	1.8	1.3	0.9	0.4	0.4	0.4
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)