

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: P685299

Luminaire Tested: **4CZL-5-UNV-L835-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685299
Test Lab: INNOVATION CENTER(G2)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-5-UNV-L835-CD-U
Description: METALUX CRUZE LINEAR 4FT BASE MODEL @80 CRI and 3500K
Light Source: (392) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

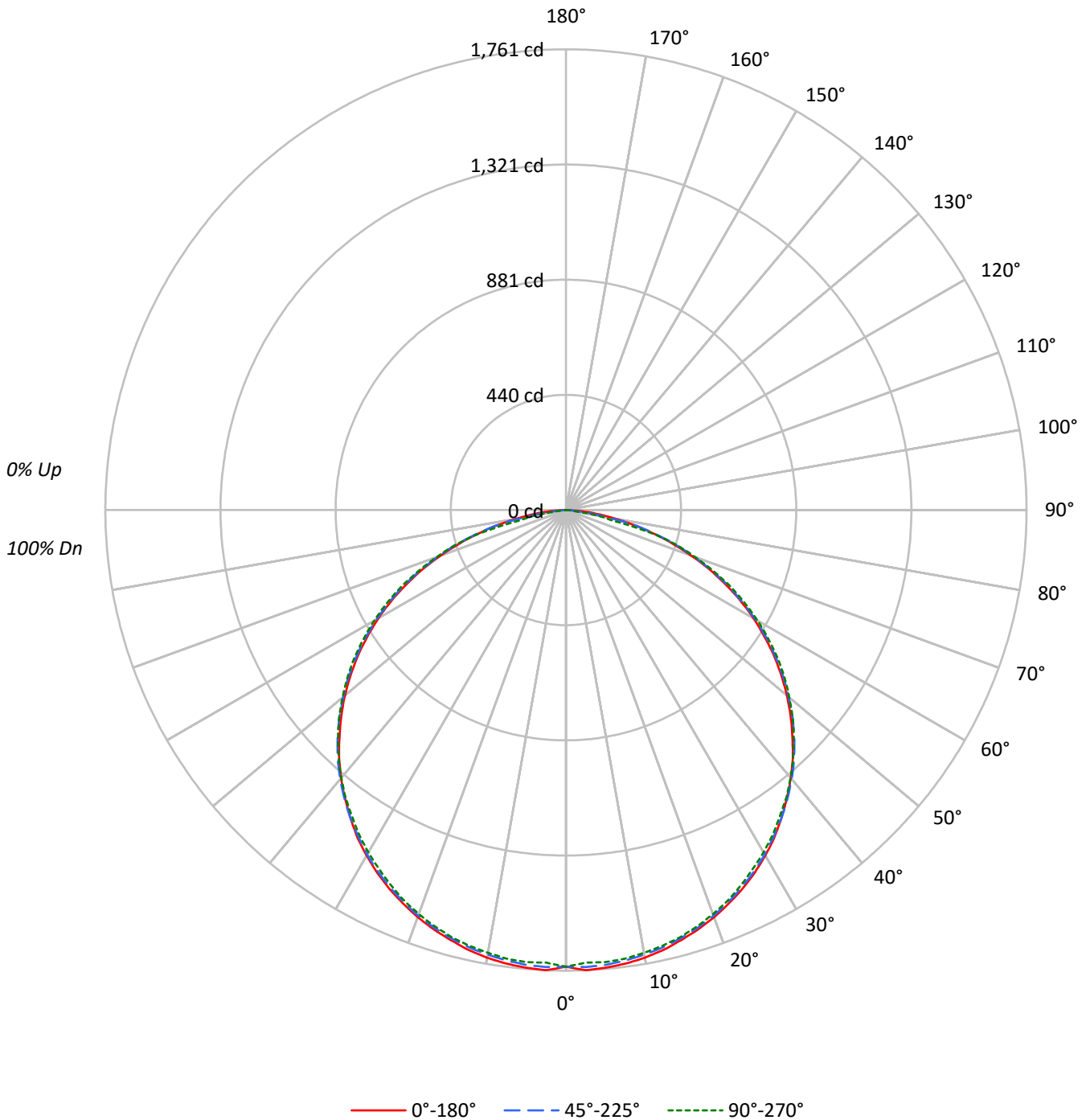
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5177.7 lumens
Efficiency: N/A
Efficacy: 167.0 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°	5636	5636	5636
5°	5692	5656	5622
10°	5697	5659	5634
15°	5689	5666	5649
20°	5691	5671	5649
25°	5692	5669	5641
30°	5685	5669	5633
35°	5664	5664	5625
40°	5638	5660	5633
45°	5590	5639	5627
50°	5543	5583	5601
55°	5469	5508	5562
60°	5349	5397	5463
65°	5150	5223	5313
70°	4817	4912	4958
75°	4334	4414	4188
80°	3621	2947	2295
85°	2701	711	256



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	165.6	3.2
10°-20°	477.4	9.2
20°-30°	731.1	14.1
30°-40°	895.1	17.3
40°-50°	946.9	18.3
50°-60°	873.2	16.9
60°-70°	673.6	13.0
70°-80°	359.8	6.9
80°-90°	55.1	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°	1374.1	26.5
0°-40°	2269.2	43.8
0°-60°	4089.3	79.0
0°-90°	5177.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5177.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1745	1745	1745	1745	1745	
5°	1756	1735	1745	1738	1734	167
15°	1702	1684	1695	1689	1690	481
25°	1598	1581	1591	1580	1583	736
35°	1437	1428	1437	1425	1427	899
45°	1224	1224	1235	1226	1232	945
55°	971	970	978	984	988	867
65°	674	674	684	689	695	665
75°	347	347	354	356	336	368
85°	73	52	19	8	7	89
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1745.4	1745.4	1745.4	1745.4	1745.4
2.5°	1760.9	1740.1	1748.6	1742.2	1731.6
5°	1756.1	1735.3	1744.9	1737.5	1734.3
7.5°	1748.6	1727.3	1736.9	1731.1	1730.0
10°	1737.5	1715.6	1725.7	1719.4	1718.3
12.5°	1722.6	1701.3	1712.4	1705.0	1706.1
15°	1701.8	1683.7	1694.9	1689.0	1689.6
17.5°	1681.1	1662.4	1674.1	1668.3	1668.8
20°	1656.1	1638.0	1650.2	1641.2	1643.8
22.5°	1627.9	1611.9	1622.5	1610.8	1616.2
25°	1597.5	1581.0	1591.2	1579.5	1583.2
27.5°	1563.0	1547.5	1557.6	1545.4	1547.0
30°	1524.7	1510.8	1520.4	1508.2	1510.8
32.5°	1483.7	1471.5	1478.9	1467.7	1471.5
35°	1436.9	1428.4	1436.9	1424.6	1426.8
37.5°	1387.9	1379.4	1391.1	1380.5	1384.2
40°	1337.4	1329.4	1342.7	1332.1	1336.3
42.5°	1283.7	1277.8	1291.1	1280.5	1285.8
45°	1224.1	1223.6	1234.7	1226.2	1232.1
47.5°	1165.0	1164.0	1175.1	1169.3	1176.2
50°	1103.3	1102.3	1111.3	1110.8	1115.0
52.5°	1037.4	1039.0	1047.5	1049.1	1053.9
55°	971.4	970.3	978.3	984.2	987.9
57.5°	899.6	901.7	908.1	915.0	917.7
60°	828.3	827.2	835.7	841.6	845.9
62.5°	752.8	752.8	759.7	768.2	772.4
65°	674.0	674.0	683.6	688.9	695.3
67.5°	593.7	592.1	600.6	612.3	611.2
70°	510.2	510.7	520.3	526.1	525.1
72.5°	427.2	428.8	438.9	441.5	444.2
75°	347.4	346.9	353.8	356.4	335.7
77.5°	268.1	268.7	272.9	200.0	175.6
80°	194.7	195.8	158.5	123.4	123.4
82.5°	128.7	126.6	81.4	47.9	35.1
85°	72.9	52.1	19.2	8.0	6.9
87.5°	29.8	9.6	5.3	3.7	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)