

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: P685393

Luminaire Tested: **4CZL-16-UNV-N-L935-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685393
Test Lab: INNOVATION CENTER(G3)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-16-UNV-N-L935-CD-U
Description: METALUX CRUZE LINEAR 4FT NARROW LENS MODEL @90 CRI and 3500K
Light Source: (588) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

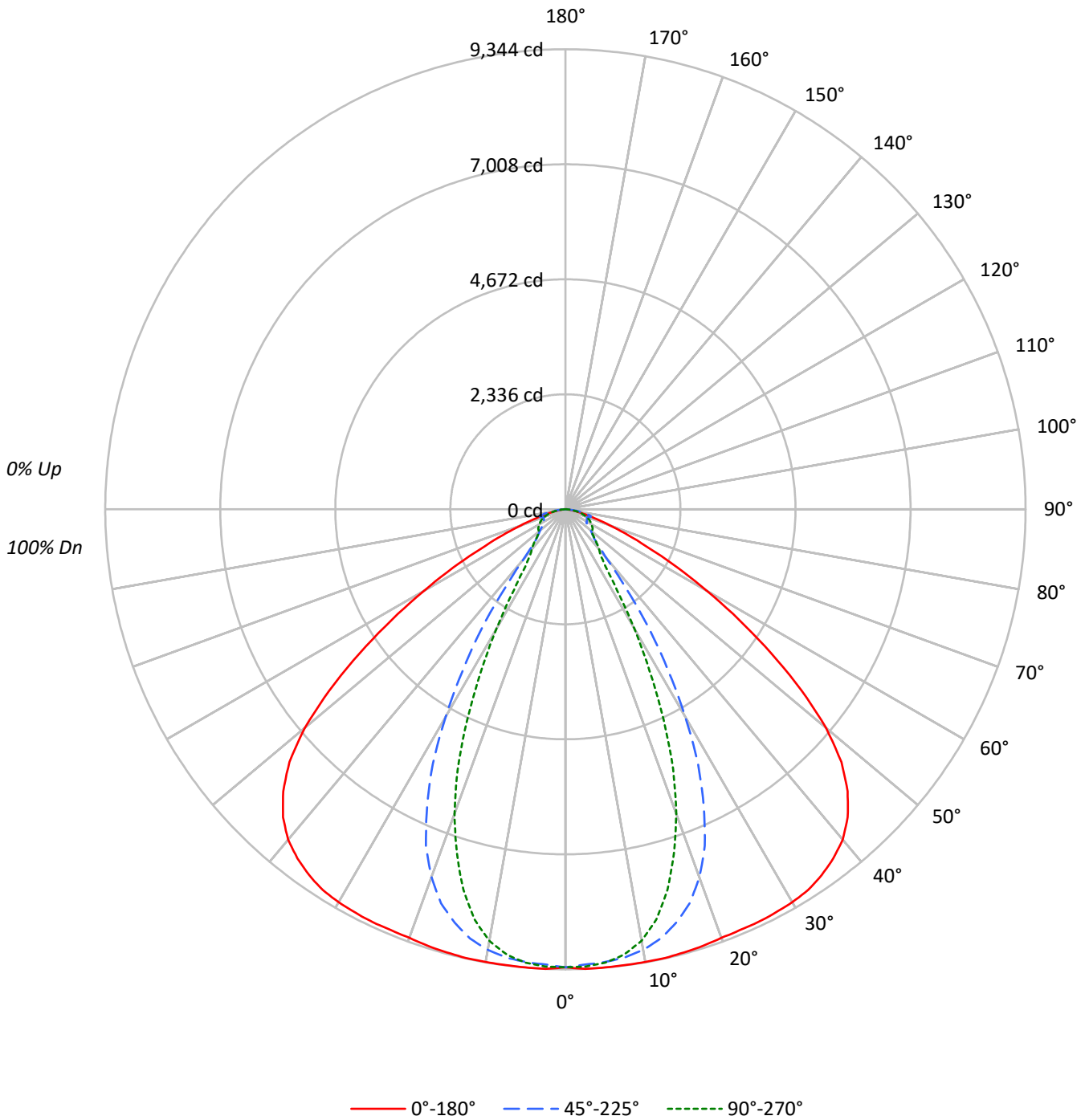
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13133.9 lumens
Efficiency: N/A
Efficacy: 127.5 lumens/watt
Spacing Criteria (0/90/45): 1.48 / 0.81 / 0.89
Luminous Opening: Rectangular (W 0.83' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 103
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	80	79
3	96	88	81	76	94	86	80	76	84	79	74	81	77	73	79	75	72	70
4	90	80	73	68	88	79	72	67	77	71	66	74	70	66	72	68	65	63
5	84	74	66	61	82	73	66	60	71	64	60	69	63	59	67	62	59	57
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	53	52
7	74	63	55	50	73	62	55	50	61	54	50	59	54	49	58	53	49	47
8	70	58	51	46	68	58	51	46	56	50	46	55	50	45	54	49	45	44
9	66	54	47	42	65	54	47	42	53	47	42	52	46	42	51	46	42	40
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	30041	30041	30041
5°	30275	29925	29972
10°	30611	29798	29181
15°	31146	29061	26754
20°	31832	27329	22617
25°	32976	23686	16806
30°	34355	18141	10427
35°	35768	11727	5593
40°	36926	5460	4478
45°	37006	3704	3814
50°	34695	3394	3510
55°	28684	3058	3808
60°	21470	3225	3910
65°	14473	3687	4186
70°	9187	4495	4307
75°	5542	6697	4299
80°	3381	5977	4004
85°	2186	3872	2749



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	880.7	6.7
10°-20°	2431.5	18.5
20°-30°	3105.3	23.6
30°-40°	2518.6	19.2
40°-50°	1782.1	13.6
50°-60°	1160.6	8.8
60°-70°	712.8	5.4
70°-80°	423.4	3.2
80°-90°	118.9	0.9
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°	6417.5	48.9
0°-40°	8936.1	68.0
0°-60°	11878.8	90.4
0°-90°	13133.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13133.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9303	9303	9303	9303	9303	
5°	9340	9320	9232	9269	9246	891
15°	9316	9190	8693	8241	8003	2639
25°	9255	8491	6648	5168	4717	4279
35°	9073	6160	2975	1596	1419	5675
45°	8103	3101	811	862	835	6181
55°	5095	1044	543	634	676	4553
65°	1894	535	482	579	548	1968
75°	444	304	537	393	345	518
85°	59	118	104	93	74	82
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9302.9	9302.9	9302.9	9302.9	9302.9
2.5°	9344.3	9326.0	9255.0	9310.8	9294.9
5°	9339.6	9319.6	9231.9	9269.4	9246.2
7.5°	9336.4	9306.9	9182.4	9171.3	9123.4
10°	9335.6	9283.7	9087.5	8979.9	8899.3
12.5°	9337.2	9245.4	8932.0	8694.3	8530.8
15°	9316.4	9190.4	8692.7	8241.3	8002.8
17.5°	9297.3	9064.4	8391.2	7687.0	7328.9
20°	9263.0	8940.0	7952.6	7007.5	6581.6
22.5°	9253.4	8751.7	7398.3	6132.5	5710.6
25°	9255.0	8490.9	6647.8	5168.3	4716.8
27.5°	9237.5	8143.2	5830.2	4235.9	3701.5
30°	9213.5	7650.3	4865.2	3236.5	2796.3
32.5°	9171.3	6958.8	3877.0	2306.6	1941.3
35°	9073.2	6159.6	2974.9	1595.9	1418.9
37.5°	8936.8	5271.1	2005.9	1198.0	1169.2
40°	8759.7	4464.8	1295.3	1047.2	1062.4
42.5°	8485.4	3768.5	945.9	952.3	953.9
45°	8103.3	3101.0	811.1	862.2	835.1
47.5°	7600.9	2435.0	737.0	751.3	747.3
50°	6906.2	1823.2	675.5	672.4	698.7
52.5°	6047.2	1348.7	612.5	639.7	689.1
55°	5094.9	1044.0	543.1	634.1	676.3
57.5°	4181.7	846.2	503.3	618.1	642.8
60°	3324.3	705.1	499.3	588.6	605.4
62.5°	2568.2	604.6	496.9	574.3	580.6
65°	1894.2	535.2	482.5	579.0	547.9
67.5°	1379.8	512.8	471.4	571.1	504.9
70°	973.0	450.6	476.1	527.2	456.2
72.5°	660.4	376.5	529.6	465.0	399.6
75°	444.2	303.9	536.8	393.2	344.6
77.5°	288.7	252.8	456.2	321.4	285.5
80°	181.8	210.6	321.4	247.2	215.3
82.5°	118.0	161.9	203.4	174.7	148.3
85°	59.0	118.0	104.5	93.3	74.2
87.5°	35.1	71.8	55.8	40.7	37.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)