

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: P685360

Luminaire Tested: **4CZL-7-UNV-N-L835-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685360
Test Lab: INNOVATION CENTER(G3)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-7-UNV-N-L835-CD-U
Description: METALUX CRUZE LINEAR 4FT NARROW LENS MODEL @80 CRI and 3500K
Light Source: (392) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

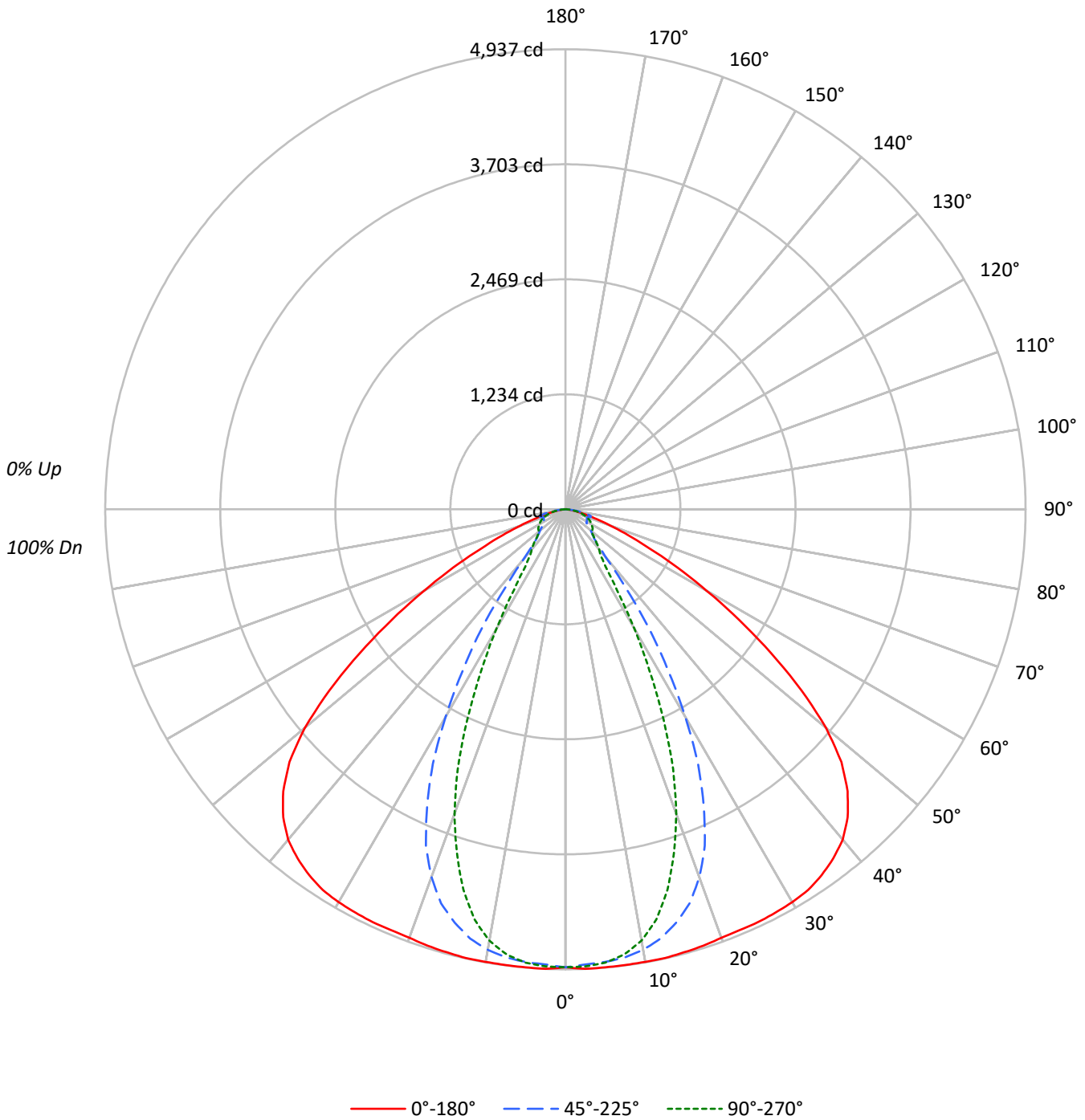
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6938.8 lumens
Efficiency: N/A
Efficacy: 157.7 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): 44
Input Voltage (V): 120
Input Current (A_{in}): 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
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°	15871	15871	15871
5°	15994	15810	15835
10°	16172	15742	15417
15°	16455	15353	14135
20°	16817	14438	11949
25°	17421	12514	8879
30°	18150	9584	5508
35°	18897	6196	2955
40°	19508	2885	2366
45°	19551	1957	2015
50°	18330	1793	1854
55°	15154	1616	2012
60°	11343	1704	2065
65°	7646	1948	2212
70°	4854	2375	2275
75°	2928	3538	2271
80°	1787	3158	2116
85°	1156	2045	1452



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	465.3	6.7
10°-20°	1284.6	18.5
20°-30°	1640.6	23.6
30°-40°	1330.6	19.2
40°-50°	941.5	13.6
50°-60°	613.2	8.8
60°-70°	376.6	5.4
70°-80°	223.7	3.2
80°-90°	62.8	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°	3390.4	48.9
0°-40°	4721.0	68.0
0°-60°	6275.7	90.4
0°-90°	6938.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6938.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4915	4915	4915	4915	4915	
5°	4934	4924	4877	4897	4885	471
15°	4922	4855	4592	4354	4228	1394
25°	4890	4486	3512	2730	2492	2261
35°	4794	3254	1572	843	750	2998
45°	4281	1638	428	456	441	3265
55°	2692	552	287	335	357	2405
65°	1001	283	255	306	290	1040
75°	235	160	284	208	182	274
85°	31	62	55	49	39	44
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4914.8	4914.8	4914.8	4914.8	4914.8
2.5°	4936.7	4927.0	4889.5	4919.0	4910.6
5°	4934.2	4923.7	4877.3	4897.1	4884.9
7.5°	4932.5	4916.9	4851.2	4845.3	4820.0
10°	4932.1	4904.7	4801.0	4744.2	4701.6
12.5°	4932.9	4884.5	4718.9	4593.3	4506.9
15°	4922.0	4855.4	4592.5	4354.0	4228.0
17.5°	4911.9	4788.8	4433.2	4061.1	3871.9
20°	4893.7	4723.1	4201.4	3702.1	3477.1
22.5°	4888.7	4623.6	3908.6	3239.9	3017.0
25°	4889.5	4485.9	3512.1	2730.5	2492.0
27.5°	4880.3	4302.1	3080.2	2237.9	1955.6
30°	4867.6	4041.7	2570.3	1709.9	1477.3
32.5°	4845.3	3676.4	2048.3	1218.6	1025.6
35°	4793.5	3254.2	1571.7	843.2	749.6
37.5°	4721.4	2784.8	1059.7	632.9	617.7
40°	4627.9	2358.8	684.3	553.3	561.3
42.5°	4482.9	1991.0	499.7	503.1	504.0
45°	4281.1	1638.3	428.5	455.5	441.2
47.5°	4015.6	1286.4	389.3	396.9	394.8
50°	3648.6	963.2	356.9	355.2	369.1
52.5°	3194.8	712.5	323.6	337.9	364.1
55°	2691.7	551.6	287.0	335.0	357.3
57.5°	2209.2	447.1	265.9	326.6	339.6
60°	1756.3	372.5	263.8	311.0	319.8
62.5°	1356.8	319.4	262.5	303.4	306.8
65°	1000.7	282.7	254.9	305.9	289.5
67.5°	729.0	270.9	249.0	301.7	266.7
70°	514.1	238.1	251.6	278.5	241.0
72.5°	348.9	198.9	279.8	245.7	211.1
75°	234.7	160.5	283.6	207.7	182.0
77.5°	152.5	133.6	241.0	169.8	150.8
80°	96.1	111.2	169.8	130.6	113.8
82.5°	62.4	85.5	107.4	92.3	78.4
85°	31.2	62.4	55.2	49.3	39.2
87.5°	18.5	37.9	29.5	21.5	19.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)