

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: P685389

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

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685389
Test Lab: INNOVATION CENTER(G3)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-5-UNV-N-L935-CD-U
Description: METALUX CRUZE LINEAR 4FT NARROW LENS MODEL @90 CRI and 3500K
Light Source: (392) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

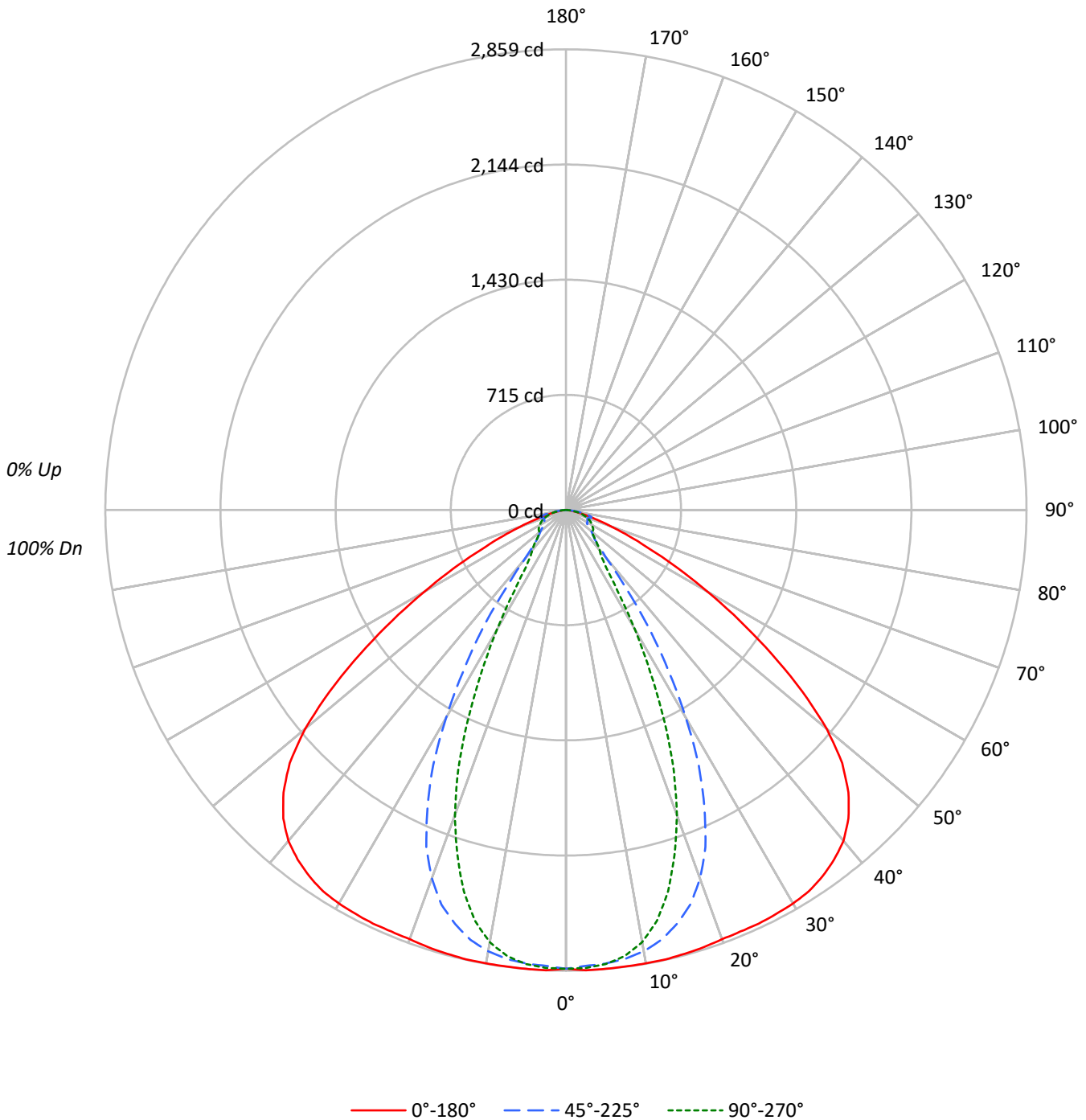
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4018.8 lumens
Efficiency: N/A
Efficacy: 129.6 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): 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	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	91	91	91	89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	80	80	80	80	79
3	96	88	81	76	94	86	80	76	84	79	74	81	77	73	79	75	72	72	72	72	70
4	90	80	73	68	88	79	72	67	77	71	66	74	70	66	72	68	65	65	65	65	63
5	84	74	66	61	82	73	66	60	71	64	60	69	63	59	67	62	59	59	59	59	57
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	53	53	53	53	52
7	74	63	55	50	73	62	55	50	61	54	50	59	54	49	58	53	49	49	49	49	47
8	70	58	51	46	68	58	51	46	56	50	46	55	50	45	54	49	45	45	45	45	44
9	66	54	47	42	65	54	47	42	53	47	42	52	46	42	51	46	42	42	42	42	40
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	39	39	39	37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9192	9192	9192
5°	9264	9157	9171
10°	9367	9118	8929
15°	9530	8892	8187
20°	9740	8362	6921
25°	10090	7248	5142
30°	10512	5551	3190
35°	10944	3589	1712
40°	11299	1671	1370
45°	11323	1133	1167
50°	10616	1038	1074
55°	8777	936	1165
60°	6569	987	1196
65°	4429	1128	1281
70°	2811	1376	1318
75°	1696	2049	1315
80°	1034	1830	1225
85°	671	1186	841



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	269.5	6.7
10°-20°	744.0	18.5
20°-30°	950.2	23.6
30°-40°	770.7	19.2
40°-50°	545.3	13.6
50°-60°	355.1	8.8
60°-70°	218.1	5.4
70°-80°	129.5	3.2
80°-90°	36.4	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°	1963.7	48.9
0°-40°	2734.3	68.0
0°-60°	3634.8	90.4
0°-90°	4018.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4018.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2846	2846	2846	2846	2846	
5°	2858	2852	2825	2836	2829	273
15°	2851	2812	2660	2522	2449	807
25°	2832	2598	2034	1581	1443	1309
35°	2776	1885	910	488	434	1736
45°	2480	949	248	264	256	1891
55°	1559	320	166	194	207	1393
65°	580	164	148	177	168	602
75°	136	93	164	120	105	159
85°	18	36	32	29	23	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2846.5	2846.5	2846.5	2846.5	2846.5
2.5°	2859.2	2853.6	2831.9	2849.0	2844.1
5°	2857.8	2851.7	2824.8	2836.3	2829.2
7.5°	2856.8	2847.8	2809.7	2806.3	2791.6
10°	2856.6	2840.7	2780.7	2747.7	2723.1
12.5°	2857.0	2829.0	2733.1	2660.3	2610.3
15°	2850.7	2812.1	2659.9	2521.7	2448.8
17.5°	2844.8	2773.6	2567.6	2352.1	2242.5
20°	2834.3	2735.5	2433.4	2144.2	2013.9
22.5°	2831.4	2677.9	2263.8	1876.5	1747.4
25°	2831.9	2598.1	2034.1	1581.4	1443.3
27.5°	2826.5	2491.7	1784.0	1296.1	1132.6
30°	2819.2	2340.9	1488.7	990.3	855.6
32.5°	2806.3	2129.3	1186.3	705.8	594.0
35°	2776.3	1884.8	910.3	488.3	434.2
37.5°	2734.5	1612.9	613.8	366.6	357.8
40°	2680.4	1366.2	396.3	320.4	325.1
42.5°	2596.4	1153.1	289.4	291.4	291.9
45°	2479.5	948.8	248.2	263.8	255.5
47.5°	2325.8	745.1	225.5	229.9	228.7
50°	2113.2	557.9	206.7	205.7	213.8
52.5°	1850.4	412.7	187.4	195.7	210.9
55°	1559.0	319.5	166.2	194.0	207.0
57.5°	1279.5	258.9	154.0	189.1	196.7
60°	1017.2	215.7	152.8	180.1	185.2
62.5°	785.8	185.0	152.0	175.7	177.7
65°	579.6	163.8	147.6	177.2	167.7
67.5°	422.2	156.9	144.2	174.7	154.5
70°	297.7	137.9	145.7	161.3	139.6
72.5°	202.1	115.2	162.0	142.3	122.3
75°	135.9	93.0	164.2	120.3	105.4
77.5°	88.3	77.4	139.6	98.4	87.4
80°	55.6	64.4	98.4	75.7	65.9
82.5°	36.1	49.5	62.2	53.4	45.4
85°	18.1	36.1	32.0	28.6	22.7
87.5°	10.7	22.0	17.1	12.4	11.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)