

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: P685900

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

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685900
Test Lab: INNOVATION CENTER(G3)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-7-UNV-LVRF-L835-CD-U
Description: METALUX CRUZE LINEAR 4FT LOUVER MODEL WITH FROSTED LAY-IN @80 CRI and 3500K
Light Source: (392) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

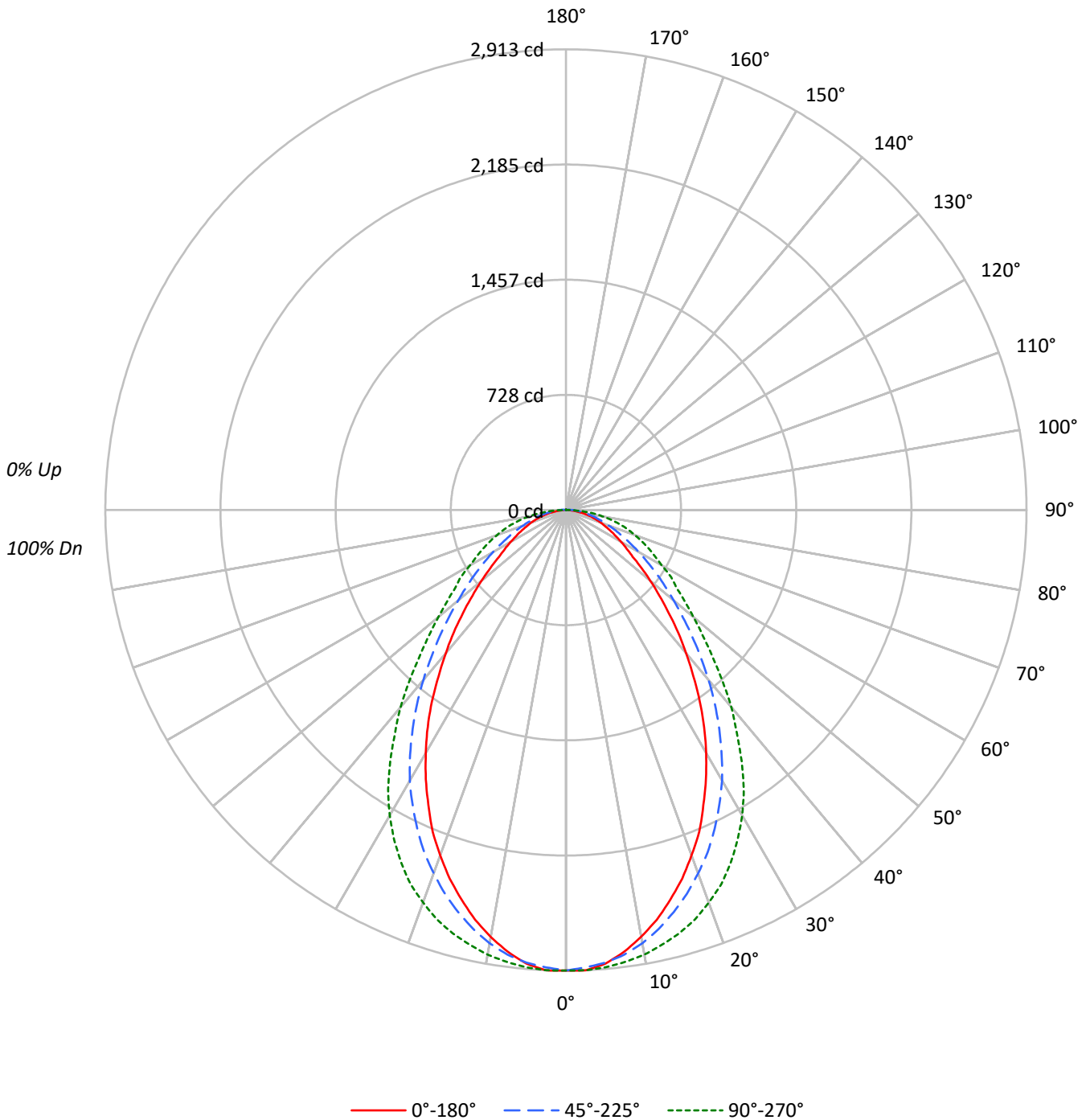
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5371.5 lumens
Efficiency: N/A
Efficacy: 122.1 lumens/watt
Spacing Criteria (0/90/45): 0.97 / 1.15 / 1.12
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	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	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	88	88	88	86
2	101	94	88	83	99	92	87	82	89	84	80	85	82	78	82	79	76	76	76	76	74
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	74	70	67	67	67	67	65
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	59	59	59	57
5	80	69	61	55	78	68	60	54	66	59	54	64	58	53	62	57	53	53	53	53	51
6	75	63	55	49	73	62	54	48	60	53	48	58	52	48	57	51	47	47	47	47	45
7	70	57	49	44	68	57	49	44	55	48	43	54	48	43	52	47	43	43	43	43	41
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	39	39	39	37
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	36	36	36	34
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	33	33	33	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9403	9403	9403
5°	9334	9313	9406
10°	8985	9119	9360
15°	8526	8800	9262
20°	7985	8399	9077
25°	7332	7924	8776
30°	6608	7364	8311
35°	5820	6660	7634
40°	4982	5913	6864
45°	4197	5155	5978
50°	3505	4468	5285
55°	2901	3925	4792
60°	2614	3440	4519
65°	2376	3028	4420
70°	2213	2718	4386
75°	2052	2538	4474
80°	1860	2514	4484
85°	1597	2946	4435



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	272.5	5.1
10°-20°	744.6	13.9
20°-30°	1028.8	19.2
30°-40°	1058.3	19.7
40°-50°	867.6	16.2
50°-60°	622.6	11.6
60°-70°	418.8	7.8
70°-80°	244.4	4.6
80°-90°	94.2	1.8
90°-100°	16.3	0.3
100°-110°	1.4	0.0
110°-120°	0.2	0.0
120°-130°	0.2	0.0
130°-140°	0.3	0.0
140°-150°	0.4	0.0
150°-160°	0.4	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	2045.9	38.1
0°-40°	3104.2	57.8
0°-60°	4594.5	85.5
0°-90°	5351.8	99.6
90°-120°	17.9	0.3
90°-150°	18.9	0.4
90°-180°	20.0	0.4
0°-180°	5371.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2912	2912	2912	2912	2912	
5°	2880	2882	2873	2900	2902	270
15°	2550	2576	2632	2734	2770	715
25°	2058	2106	2224	2379	2463	944
35°	1476	1545	1690	1848	1936	920
45°	919	991	1129	1240	1309	713
55°	515	577	697	793	851	474
65°	311	329	396	509	578	310
75°	164	170	203	282	359	175
85°	43	54	80	119	120	47
90°	0	18	41	62	13	3
95°	0	3	17	30	5	0
105°	0	0	1	2	1	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	1	0	0	0	0
145°	1	1	1	0	0	0
155°	1	1	1	0	0	0
165°	1	1	1	1	0	0
175°	1	2	1	1	1	0
180°	1	1	1	1	1	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2911.9	2911.9	2911.9	2911.9	2911.9
2.5°	2913.1	2910.6	2894.3	2913.1	2912.3
5°	2879.6	2881.7	2872.9	2899.7	2901.8
7.5°	2817.3	2825.7	2835.3	2874.6	2881.7
10°	2740.3	2752.8	2780.9	2839.5	2854.5
12.5°	2653.7	2667.5	2713.1	2793.9	2814.8
15°	2550.3	2576.2	2632.3	2734.4	2770.4
17.5°	2443.6	2475.4	2544.8	2665.8	2714.3
20°	2323.5	2355.3	2444.0	2578.7	2641.5
22.5°	2202.9	2233.9	2342.3	2485.8	2564.1
25°	2057.7	2105.9	2223.9	2378.7	2463.2
27.5°	1918.8	1969.8	2101.2	2267.4	2351.5
30°	1772.3	1832.2	1974.9	2133.5	2228.9
32.5°	1627.1	1687.8	1833.4	1998.7	2093.3
35°	1476.4	1544.7	1689.5	1847.6	1936.4
37.5°	1323.7	1398.2	1547.2	1702.8	1774.4
40°	1181.8	1255.1	1402.8	1542.1	1628.4
42.5°	1050.8	1122.8	1259.7	1386.0	1463.5
45°	919.0	990.6	1128.7	1239.6	1309.0
47.5°	801.0	874.2	1002.7	1114.9	1173.0
50°	697.6	764.2	889.3	991.0	1052.1
52.5°	603.0	663.7	787.6	886.4	945.4
55°	515.2	576.7	697.2	792.6	851.2
57.5°	456.2	500.1	608.5	714.4	789.7
60°	404.7	431.9	532.7	658.3	699.7
62.5°	352.4	377.1	459.9	570.4	634.9
65°	310.9	329.4	396.3	508.9	578.4
67.5°	269.9	283.7	341.1	449.5	519.8
70°	234.4	243.1	287.9	390.9	464.5
72.5°	200.5	205.1	245.2	337.3	410.5
75°	164.5	170.3	203.4	282.5	358.6
77.5°	130.2	138.5	167.8	235.6	299.2
80°	100.0	106.7	135.2	193.8	241.1
82.5°	69.5	78.7	105.5	153.2	184.6
85°	43.1	53.6	79.5	118.9	119.7
87.5°	18.0	33.5	58.2	87.9	61.1
90°	0.4	18.0	40.6	61.9	13.0
92.5°	0.0	8.4	27.6	44.4	7.5
95°	0.4	2.9	17.2	29.7	5.4
97.5°	0.0	0.8	9.2	18.8	3.3
100°	0.0	0.4	3.8	10.5	2.1
102.5°	0.0	0.4	1.7	4.6	1.3
105°	0.0	0.4	0.8	1.7	0.8
107.5°	0.0	0.4	0.4	0.4	0.4
110°	0.4	0.4	0.4	0.4	0.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	0.4	0.4	0.0	0.0
115°	0.4	0.4	0.4	0.0	0.0
117.5°	0.4	0.4	0.4	0.0	0.0
120°	0.4	0.4	0.4	0.0	0.0
122.5°	0.4	0.4	0.4	0.0	0.0
125°	0.4	0.4	0.4	0.0	0.0
127.5°	0.4	0.4	0.4	0.0	0.0
130°	0.4	0.4	0.4	0.0	0.0
132.5°	0.4	0.8	0.4	0.4	0.0
135°	0.4	0.8	0.4	0.4	0.0
137.5°	0.4	0.8	0.4	0.4	0.0
140°	0.4	0.8	0.4	0.4	0.4
142.5°	0.8	0.8	0.8	0.4	0.4
145°	0.8	0.8	0.8	0.4	0.4
147.5°	0.8	0.8	0.8	0.4	0.4
150°	0.8	0.8	0.8	0.4	0.4
152.5°	0.8	1.3	0.8	0.4	0.4
155°	0.8	1.3	0.8	0.4	0.4
157.5°	0.8	1.3	0.8	0.4	0.4
160°	0.8	1.3	0.8	0.4	0.4
162.5°	1.3	1.3	0.8	0.8	0.4
165°	1.3	1.3	1.3	0.8	0.4
167.5°	1.3	1.3	1.3	0.8	0.4
170°	1.3	1.3	1.3	0.8	0.8
172.5°	1.3	1.3	1.3	0.8	0.8
175°	1.3	1.7	1.3	0.8	0.8
177.5°	1.3	1.7	1.3	0.8	0.8
180°	1.3	1.3	1.3	1.3	1.3

(END OF REPORT)