

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: P685412

Luminaire Tested: **4CZL-12-UNV-N-L950-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685412
Test Lab: INNOVATION CENTER(G3)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-12-UNV-N-L950-CD-U
Description: METALUX CRUZE LINEAR 4FT NARROW LENS MODEL @90 CRI and 5000K
Light Source: (588) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

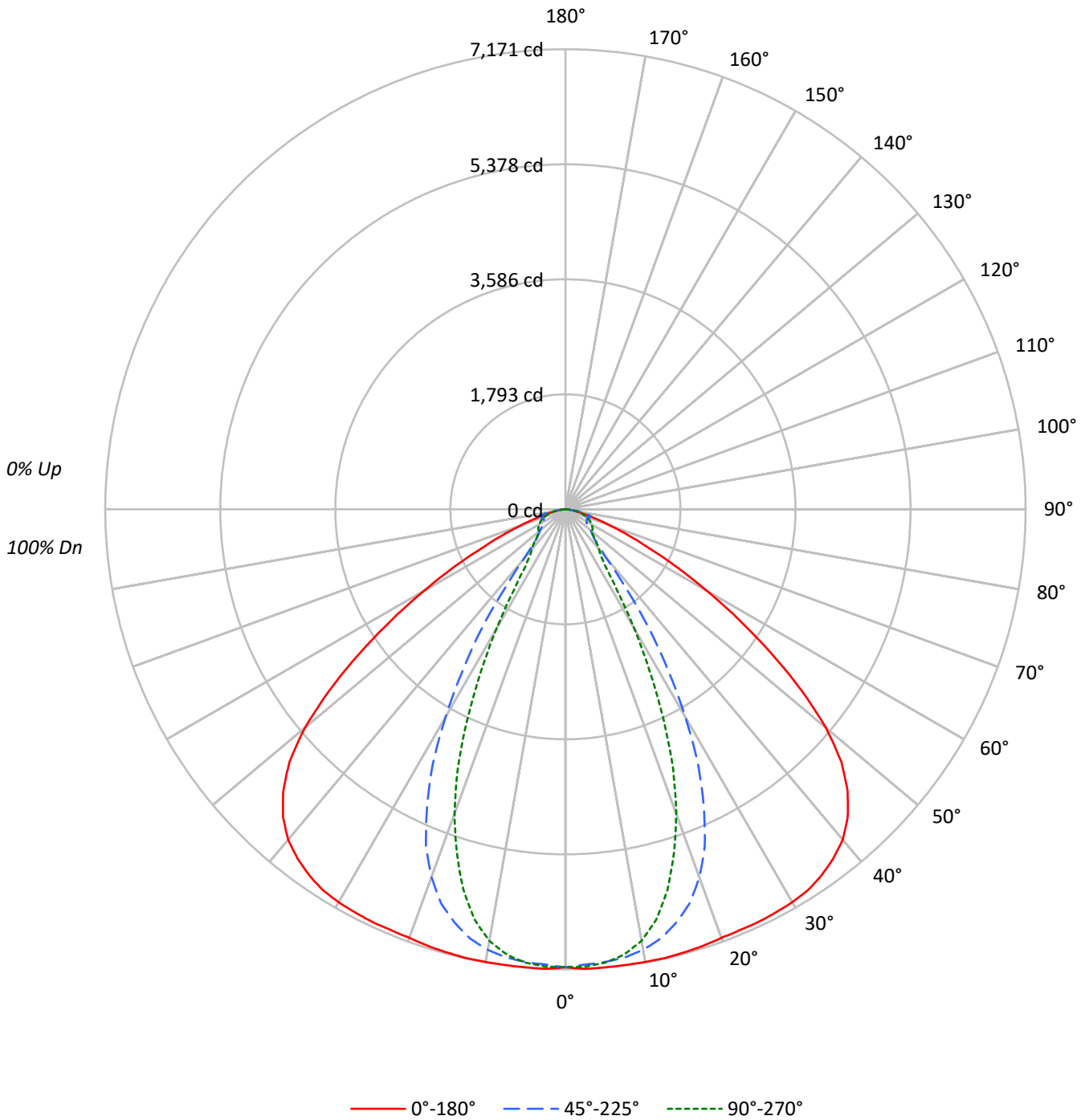
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10079.2 lumens
Efficiency: N/A
Efficacy: 130.9 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): 77
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°	23054	23054	23054
5°	23233	22966	23001
10°	23492	22868	22394
15°	23902	22302	20532
20°	24428	20973	17357
25°	25306	18177	12897
30°	26365	13922	8002
35°	27449	9000	4293
40°	28338	4190	3437
45°	28399	2843	2926
50°	26626	2604	2694
55°	22012	2347	2922
60°	16476	2475	3001
65°	11108	2829	3213
70°	7050	3450	3305
75°	4253	5139	3299
80°	2596	4588	3074
85°	1678	2971	2108



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	675.9	6.7
10°-20°	1866.0	18.5
20°-30°	2383.1	23.6
30°-40°	1932.8	19.2
40°-50°	1367.6	13.6
50°-60°	890.7	8.8
60°-70°	547.0	5.4
70°-80°	324.9	3.2
80°-90°	91.3	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°	4924.9	48.9
0°-40°	6857.8	68.0
0°-60°	9116.1	90.4
0°-90°	10079.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10079.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7139	7139	7139	7139	7139	
5°	7167	7152	7085	7114	7096	684
15°	7150	7053	6671	6325	6142	2025
25°	7102	6516	5102	3966	3620	3284
35°	6963	4727	2283	1225	1089	4355
45°	6219	2380	622	662	641	4743
55°	3910	801	417	487	519	3494
65°	1454	411	370	444	420	1510
75°	341	233	412	302	264	398
85°	45	91	80	72	57	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7139.2	7139.2	7139.2	7139.2	7139.2
2.5°	7171.1	7157.0	7102.5	7145.4	7133.1
5°	7167.4	7152.1	7084.8	7113.5	7095.8
7.5°	7164.9	7142.3	7046.8	7038.2	7001.5
10°	7164.3	7124.5	6974.0	6891.3	6829.5
12.5°	7165.6	7095.2	6854.6	6672.2	6546.7
15°	7149.6	7052.9	6671.0	6324.6	6141.6
17.5°	7135.0	6956.2	6439.6	5899.2	5624.4
20°	7108.6	6860.7	6103.0	5377.7	5050.8
22.5°	7101.3	6716.3	5677.6	4706.2	4382.5
25°	7102.5	6516.1	5101.6	3966.2	3619.8
27.5°	7089.0	6249.3	4474.3	3250.7	2840.6
30°	7070.7	5871.0	3733.7	2483.8	2145.9
32.5°	7038.2	5340.3	2975.3	1770.1	1489.8
35°	6963.0	4727.1	2283.0	1224.8	1088.9
37.5°	6858.3	4045.2	1539.4	919.3	897.3
40°	6722.4	3426.4	994.0	803.7	815.3
42.5°	6511.9	2892.1	725.9	730.8	732.0
45°	6218.7	2379.7	622.5	661.7	640.8
47.5°	5833.1	1868.7	565.6	576.6	573.5
50°	5300.0	1399.2	518.4	516.0	536.2
52.5°	4640.7	1035.0	470.1	490.9	528.8
55°	3909.9	801.2	416.8	486.6	519.0
57.5°	3209.1	649.4	386.2	474.4	493.3
60°	2551.1	541.1	383.2	451.7	464.6
62.5°	1970.9	464.0	381.3	440.7	445.6
65°	1453.7	410.7	370.3	444.4	420.5
67.5°	1058.9	393.6	361.7	438.2	387.4
70°	746.7	345.8	365.4	404.6	350.1
72.5°	506.8	288.9	406.4	356.8	306.6
75°	340.9	233.2	411.9	301.8	264.4
77.5°	221.6	194.0	350.1	246.7	219.1
80°	139.6	161.6	246.7	189.7	165.3
82.5°	90.6	124.3	156.1	134.0	113.8
85°	45.3	90.6	80.2	71.6	56.9
87.5°	26.9	55.1	42.8	31.2	28.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)