

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: P685381

Luminaire Tested: **4CZL-9-UNV-N-L850-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685381
Test Lab: INNOVATION CENTER(G3)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-9-UNV-N-L850-CD-U
Description: METALUX CRUZE LINEAR 4FT NARROW LENS MODEL @80 CRI and 5000K
Light Source: (588) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

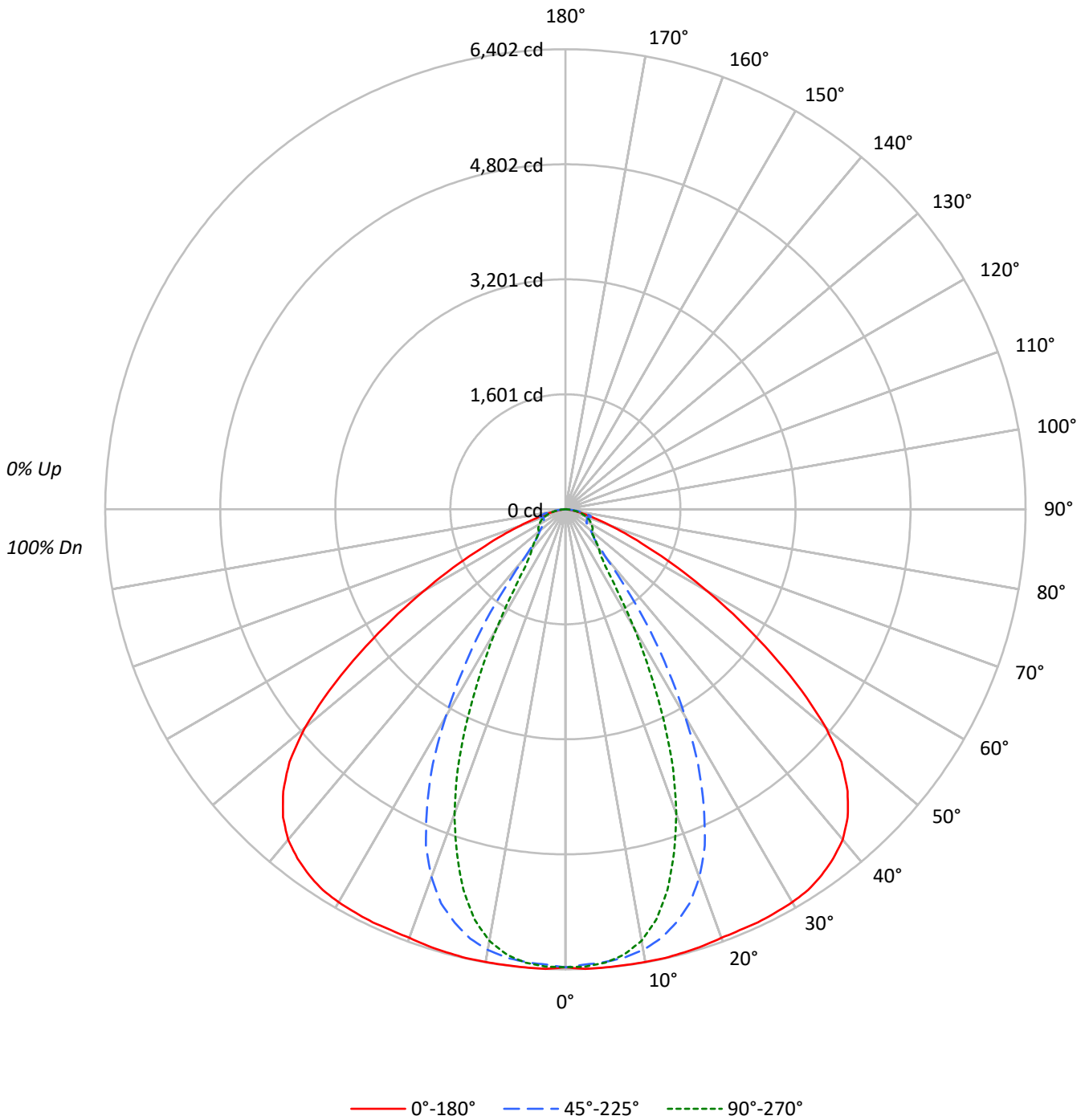
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8998.7 lumens
Efficiency: N/A
Efficacy: 166.6 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): 54
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	100	100	100	100
1	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89	89	89	89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	80	79	79	79	79
3	96	88	81	76	94	86	80	76	84	79	74	81	77	73	79	75	72	70	70	70	70
4	90	80	73	68	88	79	72	67	77	71	66	74	70	66	72	68	65	63	63	63	63
5	84	74	66	61	82	73	66	60	71	64	60	69	63	59	67	62	59	57	57	57	57
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	53	52	52	52	52
7	74	63	55	50	73	62	55	50	61	54	50	59	54	49	58	53	49	47	47	47	47
8	70	58	51	46	68	58	51	46	56	50	46	55	50	45	54	49	45	44	44	44	44
9	66	54	47	42	65	54	47	42	53	47	42	52	46	42	51	46	42	40	40	40	40
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37	37	37	37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	20583	20583	20583
5°	20743	20503	20535
10°	20973	20416	19993
15°	21340	19911	18331
20°	21810	18724	15496
25°	22593	16228	11515
30°	23538	12429	7144
35°	24506	8035	3832
40°	25300	3741	3068
45°	25355	2538	2613
50°	23771	2325	2405
55°	19653	2095	2609
60°	14710	2209	2679
65°	9916	2526	2868
70°	6295	3080	2951
75°	3798	4589	2946
80°	2317	4095	2743
85°	1497	2653	1882



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	603.4	6.7
10°-20°	1665.9	18.5
20°-30°	2127.6	23.6
30°-40°	1725.6	19.2
40°-50°	1221.0	13.6
50°-60°	795.2	8.8
60°-70°	488.3	5.4
70°-80°	290.1	3.2
80°-90°	81.5	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°	4396.9	48.9
0°-40°	6122.6	68.0
0°-60°	8138.8	90.4
0°-90°	8998.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8998.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6374	6374	6374	6374	6374	
5°	6399	6385	6325	6351	6335	611
15°	6383	6297	5956	5646	5483	1808
25°	6341	5818	4555	3541	3232	2932
35°	6216	4220	2038	1094	972	3888
45°	5552	2125	556	591	572	4235
55°	3491	715	372	434	463	3120
65°	1298	367	331	397	375	1348
75°	304	208	368	269	236	355
85°	40	81	72	64	51	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6373.9	6373.9	6373.9	6373.9	6373.9
2.5°	6402.3	6389.7	6341.1	6379.3	6368.4
5°	6399.0	6385.4	6325.2	6350.9	6335.1
7.5°	6396.8	6376.6	6291.4	6283.7	6250.9
10°	6396.3	6360.8	6226.3	6152.6	6097.4
12.5°	6397.4	6334.5	6119.8	5956.9	5844.9
15°	6383.2	6296.8	5955.8	5646.5	5483.2
17.5°	6370.1	6210.5	5749.3	5266.8	5021.4
20°	6346.6	6125.2	5448.7	4801.2	4509.4
22.5°	6340.0	5996.3	5068.9	4201.7	3912.6
25°	6341.1	5817.6	4554.7	3541.0	3231.7
27.5°	6329.1	5579.3	3994.6	2902.2	2536.1
30°	6312.7	5241.6	3333.4	2217.5	1915.9
32.5°	6283.7	4767.8	2656.3	1580.4	1330.1
35°	6216.5	4220.3	2038.3	1093.5	972.1
37.5°	6123.1	3611.5	1374.3	820.8	801.1
40°	6001.7	3059.1	887.4	717.5	727.9
42.5°	5813.8	2582.0	648.1	652.5	653.6
45°	5552.0	2124.6	555.7	590.7	572.1
47.5°	5207.7	1668.3	504.9	514.8	512.0
50°	4731.8	1249.2	462.8	460.7	478.7
52.5°	4143.2	924.1	419.7	438.3	472.1
55°	3490.8	715.3	372.1	434.4	463.4
57.5°	2865.1	579.8	344.8	423.5	440.4
60°	2277.6	483.1	342.1	403.3	414.8
62.5°	1759.6	414.2	340.4	393.4	397.8
65°	1297.8	366.7	330.6	396.7	375.4
67.5°	945.4	351.4	323.0	391.3	345.9
70°	666.7	308.7	326.2	361.2	312.6
72.5°	452.5	257.9	362.8	318.6	273.8
75°	304.4	208.2	367.8	269.4	236.1
77.5°	197.8	173.2	312.6	220.2	195.6
80°	124.6	144.3	220.2	169.4	147.5
82.5°	80.9	110.9	139.3	119.7	101.6
85°	40.4	80.9	71.6	63.9	50.8
87.5°	24.0	49.2	38.3	27.9	25.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)