

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: P685800

Luminaire Tested: **4CZL-7-UNV-M-LVR-L850-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685800
Test Lab: INNOVATION CENTER(G3)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-7-UNV-M-LVR-L850-CD-U
Description: METALUX CRUZE LINEAR 4FT LOUVER MODEL WITH MEDIUM LENS @80 CRI and 5000K
Light Source: (392) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

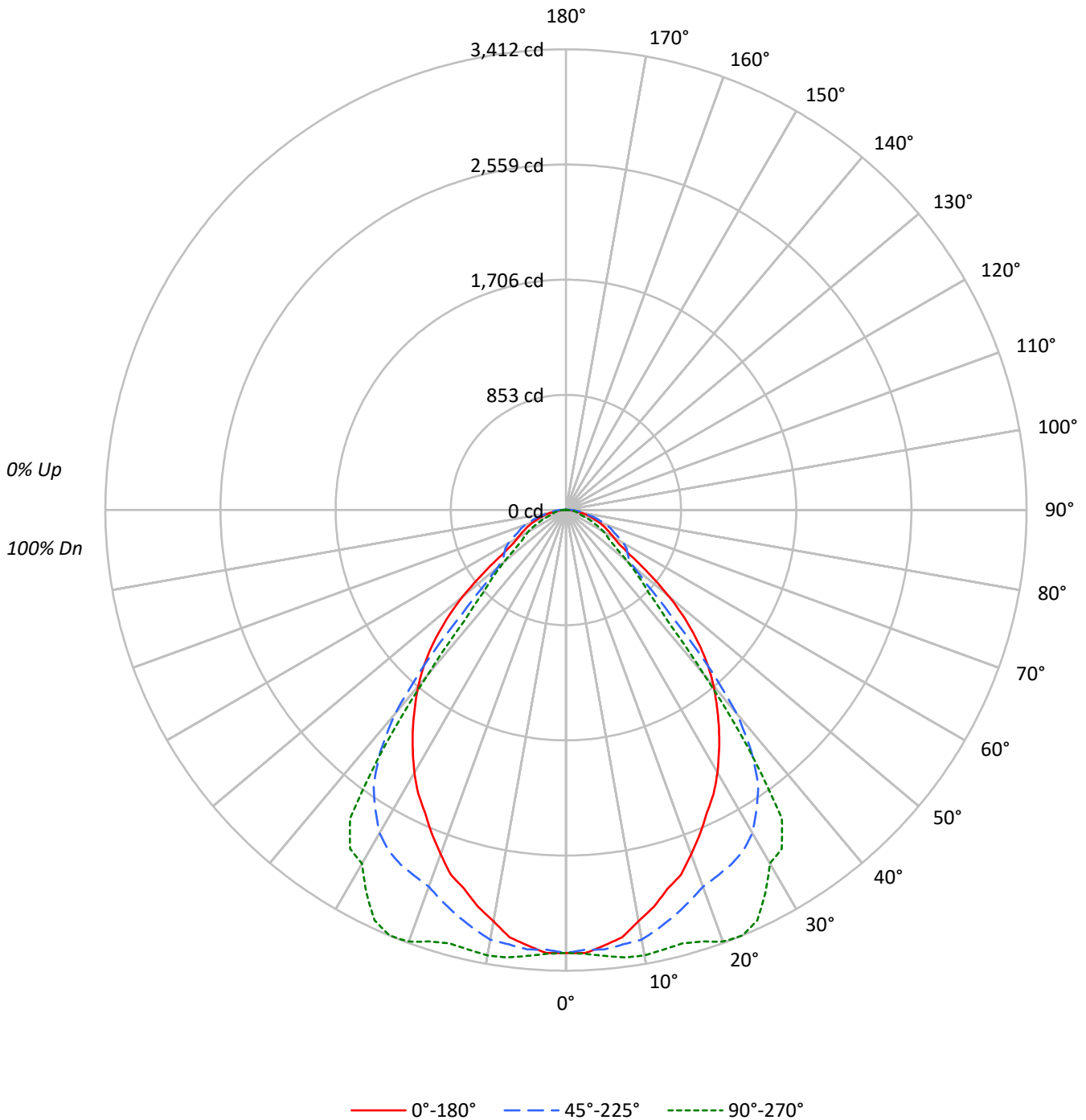
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6068.0 lumens
Efficiency: N/A
Efficacy: 137.9 lumens/watt
Spacing Criteria (0/90/45): 1.05 / 1.34 / 1.2
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	90	88
2	103	96	90	86	100	94	89	84	91	86	83	87	84	81	84	81	79	77
3	95	87	80	74	93	85	79	74	82	77	72	79	75	71	77	73	70	68
4	89	78	71	65	86	77	70	65	75	69	64	73	67	63	70	66	62	60
5	83	72	64	58	81	70	63	58	68	62	57	67	61	57	65	60	56	54
6	77	65	58	52	75	65	57	52	63	56	51	61	55	51	60	55	51	49
7	72	60	53	47	70	59	52	47	58	51	47	57	51	46	55	50	46	44
8	68	56	48	43	66	55	48	43	54	47	42	52	47	42	51	46	42	40
9	64	52	44	39	62	51	44	39	50	43	39	49	43	39	48	42	39	37
10	60	48	41	36	59	47	41	36	46	40	36	46	40	36	45	39	35	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10592	10592	10592
5°	10494	10589	10747
10°	10139	10595	10982
15°	9712	10397	11110
20°	9320	10199	11688
25°	8806	10321	11948
30°	8370	10298	11269
35°	7794	9793	10989
40°	7174	8301	6697
45°	6321	4948	3969
50°	5017	3286	2996
55°	3248	3126	2273
60°	2652	3177	2089
65°	2526	2994	1706
70°	2399	3004	1349
75°	2278	2812	1254
80°	2107	2657	1408
85°	1886	3249	1727



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	311.3	5.1
10°-20°	882.9	14.6
20°-30°	1331.4	21.9
30°-40°	1471.2	24.2
40°-50°	922.4	15.2
50°-60°	496.6	8.2
60°-70°	337.3	5.6
70°-80°	201.4	3.3
80°-90°	87.5	1.4
90°-100°	19.2	0.3
100°-110°	2.2	0.0
110°-120°	0.8	0.0
120°-130°	0.8	0.0
130°-140°	0.9	0.0
140°-150°	0.8	0.0
150°-160°	0.6	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	2525.6	41.6
0°-40°	3996.8	65.9
0°-60°	5415.8	89.3
0°-90°	6042.1	99.6
90°-120°	22.2	0.4
90°-150°	24.7	0.4
90°-180°	26.0	0.4
0°-180°	6068.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3280	3280	3280	3280	3280	
5°	3238	3243	3267	3305	3315	305
15°	2905	3007	3110	3261	3323	820
25°	2471	2622	2897	3205	3353	1141
35°	1977	2209	2484	2672	2788	1234
45°	1384	1507	1083	883	869	1056
55°	577	604	555	480	404	560
65°	331	364	392	318	223	327
75°	183	203	225	185	100	193
85°	51	62	88	116	47	55
90°	1	19	44	74	14	4
95°	0	3	18	38	7	0
105°	0	1	1	3	1	0
115°	0	1	1	1	1	0
125°	0	1	1	1	1	0
135°	1	1	1	1	1	1
145°	1	1	1	1	2	1
155°	1	1	1	1	1	1
165°	1	2	2	2	2	0
175°	2	2	2	2	2	0
180°	2	2	2	2	2	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3280.2	3280.2	3280.2	3280.2	3280.2
2.5°	3284.5	3275.5	3258.9	3288.8	3289.2
5°	3237.5	3243.0	3266.6	3305.1	3315.3
7.5°	3191.7	3213.1	3244.7	3337.6	3342.3
10°	3092.0	3136.5	3231.1	3320.5	3349.1
12.5°	3009.1	3074.9	3172.5	3290.1	3334.6
15°	2905.1	3006.9	3110.0	3260.6	3323.4
17.5°	2832.4	2914.1	3040.3	3246.9	3350.0
20°	2712.2	2827.3	2968.0	3256.3	3401.3
22.5°	2595.5	2735.3	2931.6	3259.7	3412.0
25°	2471.4	2621.5	2896.6	3205.4	3353.4
27.5°	2368.8	2494.5	2844.4	3092.0	3199.0
30°	2244.7	2392.7	2761.8	2918.8	3022.3
32.5°	2111.3	2299.0	2628.0	2786.2	2974.4
35°	1977.0	2209.2	2484.2	2672.4	2787.5
37.5°	1836.7	2135.2	2258.4	2288.8	2210.1
40°	1701.9	2032.1	1969.3	1675.4	1588.6
42.5°	1554.8	1810.6	1536.0	1152.7	1113.8
45°	1384.1	1506.9	1083.4	883.3	869.1
47.5°	1202.3	1166.8	808.0	738.3	730.1
50°	998.7	932.9	654.0	651.4	596.3
52.5°	778.5	740.8	586.4	565.0	477.3
55°	577.0	603.5	555.2	480.3	403.8
57.5°	461.9	523.5	533.4	419.6	361.0
60°	410.6	458.1	491.9	385.8	323.4
62.5°	368.3	405.9	440.6	358.0	278.9
65°	330.6	363.6	391.8	318.2	223.3
67.5°	290.9	325.1	359.7	273.3	189.9
70°	254.1	290.4	318.2	242.5	142.9
72.5°	216.0	253.6	266.0	202.7	114.2
75°	182.6	203.2	225.4	185.2	100.5
77.5°	147.6	165.1	174.1	169.8	88.5
80°	113.3	127.5	142.9	154.4	75.7
82.5°	83.0	93.2	114.2	136.0	60.7
85°	50.9	62.4	87.7	115.5	46.6
87.5°	22.7	37.2	64.6	95.4	29.9
90°	1.3	19.2	44.5	74.0	13.7
92.5°	0.4	8.6	29.1	54.7	9.4
95°	0.4	3.0	17.5	38.1	6.8
97.5°	0.4	1.3	9.8	24.4	4.3
100°	0.4	0.9	4.7	14.1	3.0
102.5°	0.4	0.9	2.1	6.8	2.1
105°	0.4	0.9	1.3	3.0	1.3
107.5°	0.4	0.9	0.9	1.3	0.9
110°	0.4	0.9	0.9	0.9	0.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.4	0.9	0.9	0.9	0.9
115°	0.4	0.9	0.9	0.9	0.9
117.5°	0.4	0.9	0.9	0.9	0.9
120°	0.4	0.9	0.9	0.9	0.9
122.5°	0.4	0.9	0.9	0.9	0.9
125°	0.4	0.9	0.9	0.9	0.9
127.5°	0.4	0.9	0.9	0.9	0.9
130°	0.4	0.9	0.9	0.9	0.9
132.5°	0.9	0.9	1.3	1.3	1.3
135°	0.9	0.9	1.3	1.3	1.3
137.5°	0.9	1.3	1.3	1.3	1.3
140°	0.9	1.3	1.3	1.3	1.3
142.5°	0.9	1.3	1.3	1.3	1.3
145°	0.9	1.3	1.3	1.3	1.7
147.5°	0.9	1.3	1.3	1.3	1.7
150°	0.9	1.3	1.3	1.3	1.3
152.5°	1.3	1.3	1.3	1.3	1.3
155°	1.3	1.3	1.3	1.3	1.3
157.5°	1.3	1.3	1.3	1.7	1.7
160°	1.3	1.7	1.7	1.7	1.7
162.5°	1.3	1.7	1.7	1.7	1.7
165°	1.3	1.7	1.7	1.7	1.7
167.5°	1.3	1.7	1.7	1.7	2.1
170°	1.7	1.7	1.7	2.1	2.1
172.5°	1.7	1.7	1.7	2.1	2.1
175°	1.7	1.7	1.7	2.1	2.1
177.5°	1.7	2.1	1.7	2.1	2.6
180°	2.1	2.1	2.1	2.1	2.1

(END OF REPORT)