

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: P685920

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

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685920
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-L850-CD-U
Description: METALUX CRUZE LINEAR 4FT LOUVER MODEL WITH FROSTED LAY-IN @80 CRI and 5000K
Light Source: (392) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

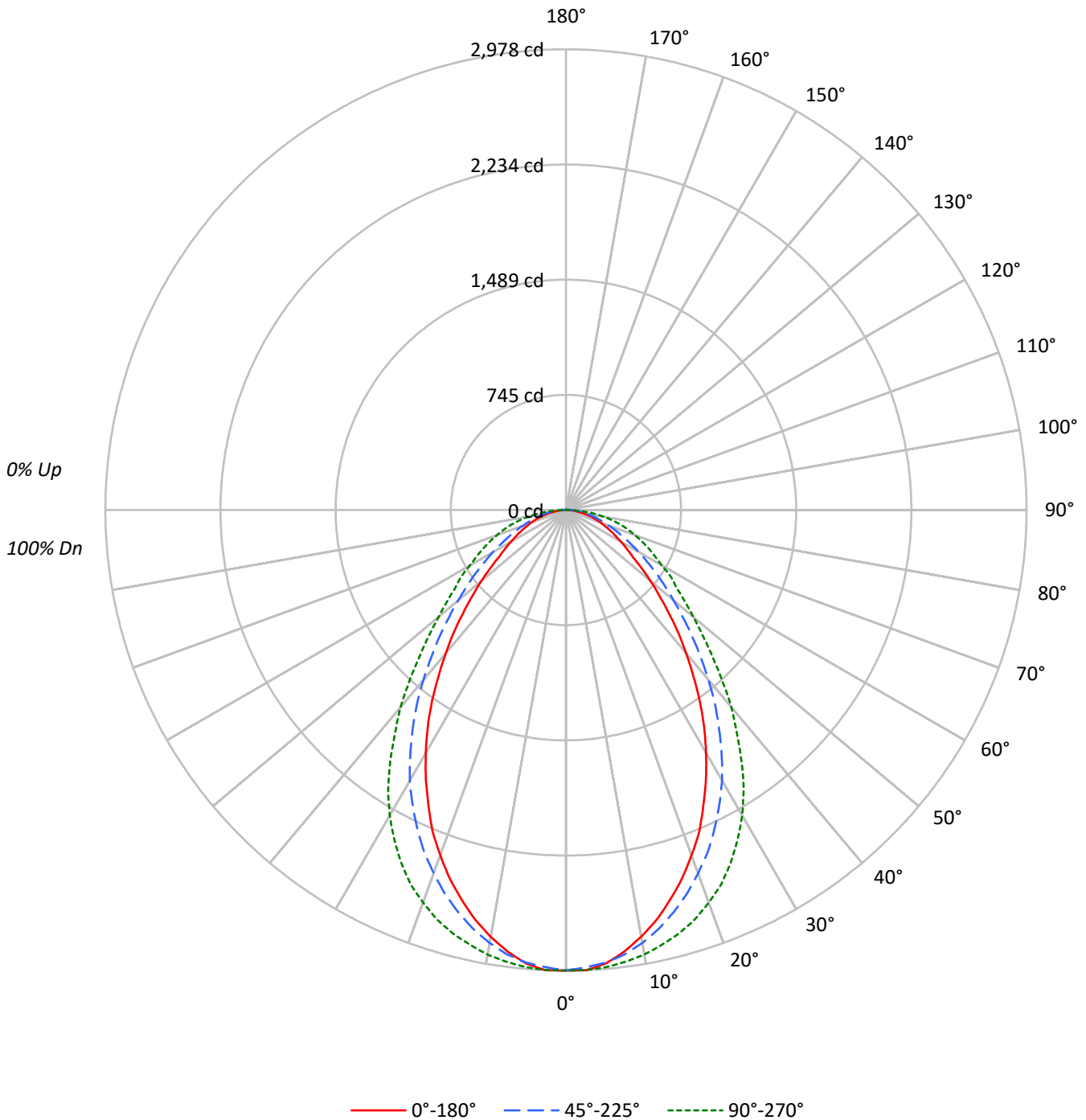
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5490.1 lumens
Efficiency: N/A
Efficacy: 124.8 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				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°	9611	9611	9611
5°	9540	9518	9614
10°	9184	9320	9567
15°	8714	8995	9466
20°	8161	8584	9278
25°	7494	8099	8970
30°	6755	7526	8494
35°	5949	6807	7802
40°	5092	6044	7016
45°	4290	5268	6110
50°	3582	4566	5402
55°	2964	4012	4898
60°	2671	3517	4619
65°	2428	3095	4517
70°	2261	2779	4483
75°	2097	2594	4574
80°	1901	2570	4582
85°	1634	3012	4531



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	278.5	5.1
10°-20°	761.0	13.9
20°-30°	1051.5	19.2
30°-40°	1081.7	19.7
40°-50°	886.8	16.2
50°-60°	636.3	11.6
60°-70°	428.0	7.8
70°-80°	249.8	4.6
80°-90°	96.3	1.8
90°-100°	16.7	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°	2091.0	38.1
0°-40°	3172.8	57.8
0°-60°	4695.9	85.5
0°-90°	5470.0	99.6
90°-120°	18.3	0.3
90°-150°	19.3	0.4
90°-180°	20.0	0.4
0°-180°	5490.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2976	2976	2976	2976	2976	
5°	2943	2945	2936	2964	2966	276
15°	2607	2633	2690	2795	2832	731
25°	2103	2152	2273	2431	2518	965
35°	1509	1579	1727	1888	1979	940
45°	939	1012	1154	1267	1338	729
55°	526	589	713	810	870	485
65°	318	337	405	520	591	317
75°	168	174	208	289	367	178
85°	44	55	81	122	122	48
90°	0	18	42	63	13	3
95°	0	3	18	30	6	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	1
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°	2976.2	2976.2	2976.2	2976.2	2976.2
2.5°	2977.5	2974.9	2958.2	2977.5	2976.6
5°	2943.2	2945.4	2936.4	2963.8	2965.9
7.5°	2879.5	2888.1	2897.9	2938.1	2945.4
10°	2800.8	2813.6	2842.3	2902.2	2917.6
12.5°	2712.3	2726.4	2773.0	2855.6	2876.9
15°	2606.6	2633.1	2690.5	2794.8	2831.6
17.5°	2497.5	2530.1	2601.1	2724.7	2774.3
20°	2374.8	2407.3	2498.0	2635.7	2699.9
22.5°	2251.6	2283.2	2394.0	2540.7	2620.7
25°	2103.2	2152.4	2273.0	2431.2	2517.6
27.5°	1961.2	2013.3	2147.7	2317.5	2403.4
30°	1811.5	1872.6	2018.5	2180.6	2278.1
32.5°	1663.0	1725.1	1873.9	2042.9	2139.5
35°	1509.0	1578.8	1726.8	1888.4	1979.1
37.5°	1352.9	1429.1	1581.3	1740.5	1813.6
40°	1207.9	1282.8	1433.8	1576.2	1664.3
42.5°	1074.0	1147.6	1287.5	1416.7	1495.8
45°	939.3	1012.4	1153.6	1267.0	1338.0
47.5°	818.7	893.5	1024.9	1139.5	1198.9
50°	713.0	781.0	908.9	1012.9	1075.3
52.5°	616.4	678.4	805.0	905.9	966.3
55°	526.5	589.4	712.6	810.1	870.0
57.5°	466.2	511.1	621.9	730.1	807.1
60°	413.6	441.4	544.5	672.8	715.2
62.5°	360.2	385.4	470.1	583.0	648.9
65°	317.8	336.6	405.1	520.1	591.1
67.5°	275.9	290.0	348.6	459.4	531.2
70°	239.5	248.5	294.3	399.5	474.8
72.5°	204.9	209.6	250.7	344.8	419.6
75°	168.1	174.1	207.9	288.7	366.6
77.5°	133.0	141.6	171.5	240.8	305.8
80°	102.2	109.1	138.2	198.0	246.4
82.5°	71.0	80.4	107.8	156.6	188.6
85°	44.1	54.8	81.3	121.5	122.3
87.5°	18.4	34.2	59.5	89.8	62.4
90°	0.4	18.4	41.5	63.3	13.3
92.5°	0.0	8.6	28.2	45.3	7.7
95°	0.4	3.0	17.5	30.4	5.6
97.5°	0.0	0.9	9.4	19.2	3.4
100°	0.0	0.4	3.8	10.7	2.1
102.5°	0.0	0.4	1.7	4.7	1.3
105°	0.0	0.4	0.9	1.7	0.9
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	0.9	0.4	0.4	0.0
135°	0.4	0.9	0.4	0.4	0.0
137.5°	0.4	0.9	0.4	0.4	0.0
140°	0.4	0.9	0.4	0.4	0.4
142.5°	0.9	0.9	0.9	0.4	0.4
145°	0.9	0.9	0.9	0.4	0.4
147.5°	0.9	0.9	0.9	0.4	0.4
150°	0.9	0.9	0.9	0.4	0.4
152.5°	0.9	1.3	0.9	0.4	0.4
155°	0.9	1.3	0.9	0.4	0.4
157.5°	0.9	1.3	0.9	0.4	0.4
160°	0.9	1.3	0.9	0.4	0.4
162.5°	1.3	1.3	0.9	0.9	0.4
165°	1.3	1.3	1.3	0.9	0.4
167.5°	1.3	1.3	1.3	0.9	0.4
170°	1.3	1.3	1.3	0.9	0.9
172.5°	1.3	1.3	1.3	0.9	0.9
175°	1.3	1.7	1.3	0.9	0.9
177.5°	1.3	1.7	1.3	0.9	0.9
180°	1.3	1.3	1.3	1.3	1.3

(END OF REPORT)