

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: P685860

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

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685860
Test Lab: INNOVATION CENTER(G3)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-7-UNV-W-LVR-L850-CD-U
Description: METALUX CRUZE LINEAR 4FT LOUVER MODEL WITH WIDE LENS @80 CRI and 5000K
Light Source: (392) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

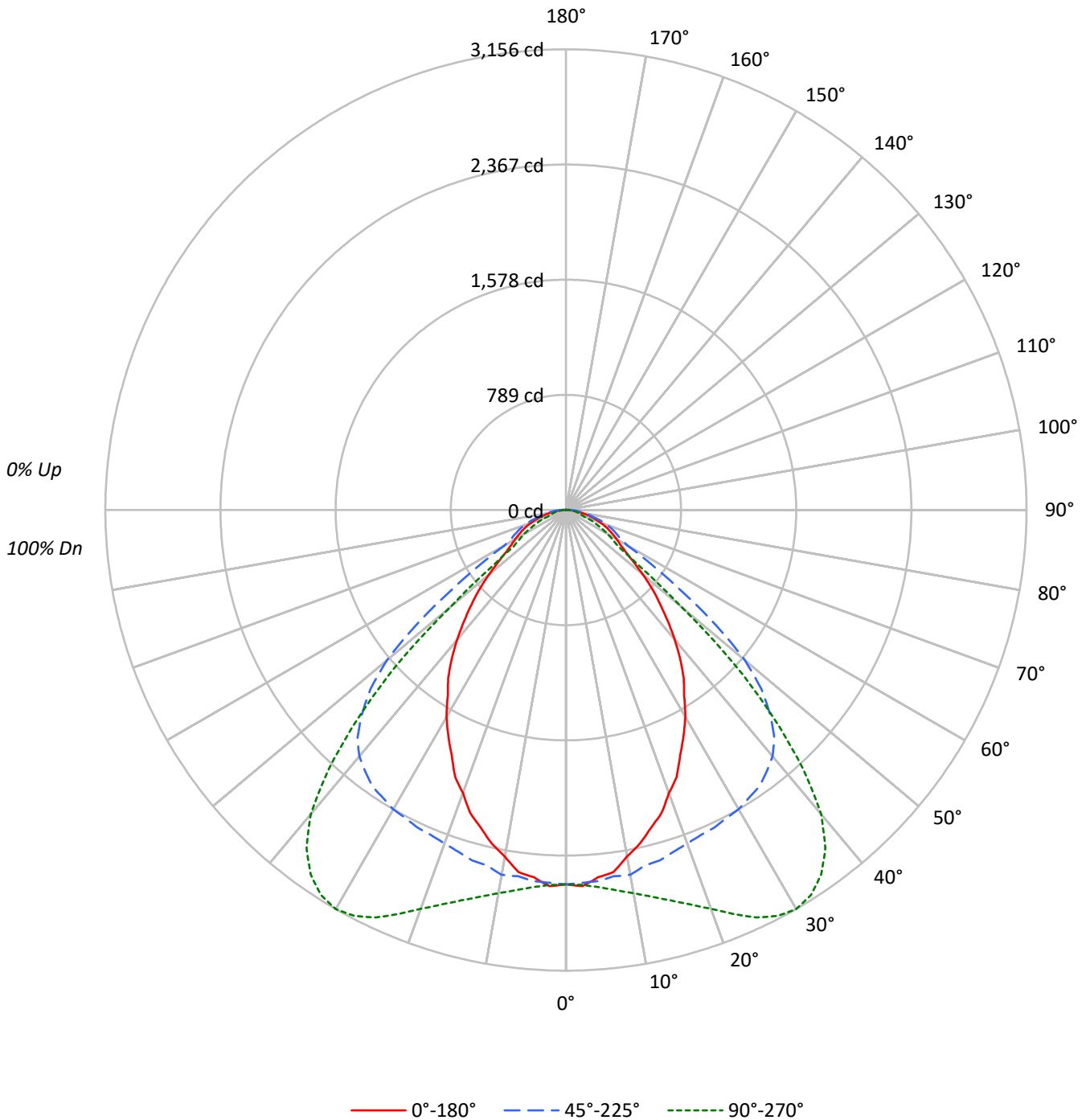
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6101.0 lumens
Efficiency: N/A
Efficacy: 138.7 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.64 / 1.46
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	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	89	89	89	87	
2	102	95	89	84	99	93	88	83	89	85	81	86	82	79	83	80	77	77	77	77	75	
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	68	68	68	66	
4	87	76	68	62	85	75	68	62	72	66	61	70	65	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	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	47	47	47	45	
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	42	42	42	40	
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38	38	38	38	36	
9	61	48	40	35	59	47	40	35	46	40	35	45	39	35	44	39	34	34	34	34	33	
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	35	31	31	31	31	30	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8281	8281	8281
5°	8186	8271	8407
10°	7904	8321	8741
15°	7532	8306	9255
20°	7089	8351	9990
25°	6601	8556	10972
30°	6102	8827	11769
35°	5544	9113	12016
40°	4888	9284	11464
45°	4167	9031	9191
50°	3453	8030	5215
55°	2813	5426	2495
60°	2597	3155	2155
65°	2504	2902	1752
70°	2362	2848	1252
75°	2198	2599	1216
80°	2005	2553	1337
85°	1538	3060	1475



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	243.8	4.0
10°-20°	707.8	11.6
20°-30°	1123.2	18.4
30°-40°	1402.9	23.0
40°-50°	1288.5	21.1
50°-60°	687.6	11.3
60°-70°	353.9	5.8
70°-80°	194.6	3.2
80°-90°	80.3	1.3
90°-100°	15.5	0.3
100°-110°	0.8	0.0
110°-120°	0.2	0.0
120°-130°	0.3	0.0
130°-140°	0.5	0.0
140°-150°	0.4	0.0
150°-160°	0.3	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	2074.9	34.0
0°-40°	3477.7	57.0
0°-60°	5453.9	89.4
0°-90°	6082.7	99.7
90°-120°	16.5	0.3
90°-150°	17.7	0.3
90°-180°	18.0	0.3
0°-180°	6101.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2564	2564	2564	2564	2564	
5°	2525	2532	2552	2591	2593	239
15°	2253	2326	2484	2687	2768	634
25°	1853	2027	2401	2841	3079	854
35°	1406	1666	2312	2816	3048	873
45°	912	1315	1978	2049	2013	706
55°	500	896	964	540	443	461
65°	328	430	380	310	229	324
75°	176	196	208	185	98	187
85°	42	54	83	109	40	48
90°	0	15	41	66	9	2
95°	0	2	15	30	4	0
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	1	1	0	0	0
145°	0	1	1	0	0	0
155°	1	1	1	0	0	0
165°	1	1	1	0	0	0
175°	1	1	1	0	0	0
180°	1	1	1	1	1	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2564.4	2564.4	2564.4	2564.4	2564.4
2.5°	2579.3	2573.8	2555.4	2572.1	2570.8
5°	2525.4	2531.8	2551.5	2590.9	2593.4
7.5°	2501.5	2519.0	2530.1	2615.3	2626.4
10°	2410.4	2437.7	2537.8	2626.4	2665.7
12.5°	2341.9	2397.1	2494.2	2644.3	2712.8
15°	2253.0	2326.5	2484.4	2686.7	2768.4
17.5°	2177.2	2252.5	2454.4	2718.8	2833.0
20°	2063.0	2199.5	2430.0	2752.1	2907.0
22.5°	1981.3	2119.5	2411.2	2781.7	2994.7
25°	1852.6	2026.7	2401.4	2841.1	3079.4
27.5°	1744.8	1948.4	2379.6	2879.2	3135.4
30°	1636.6	1852.6	2367.2	2886.0	3156.4
32.5°	1506.1	1774.7	2335.9	2870.2	3126.4
35°	1406.4	1666.1	2311.6	2815.9	3048.1
37.5°	1285.0	1580.5	2258.1	2717.5	2919.8
40°	1159.6	1501.4	2202.5	2563.9	2719.6
42.5°	1033.0	1412.4	2113.5	2359.0	2406.5
45°	912.4	1315.3	1977.5	2049.3	2012.6
47.5°	804.2	1211.0	1816.6	1660.9	1574.5
50°	687.4	1104.9	1598.5	1264.4	1038.1
52.5°	582.2	1016.3	1298.2	856.4	645.9
55°	499.6	895.7	963.7	539.8	443.1
57.5°	441.0	803.3	695.5	426.9	379.4
60°	402.1	687.8	488.5	391.8	333.6
62.5°	363.6	544.1	417.9	357.2	280.6
65°	327.7	429.5	379.8	309.7	229.3
67.5°	290.4	348.6	343.1	281.0	191.2
70°	250.2	286.6	301.6	235.3	132.6
72.5°	214.3	240.4	256.6	201.0	112.5
75°	176.2	195.5	208.3	185.2	97.5
77.5°	139.9	157.4	169.8	167.7	85.5
80°	107.8	119.3	137.3	150.1	71.9
82.5°	73.6	82.1	108.2	129.6	56.0
85°	41.5	54.3	82.6	108.6	39.8
87.5°	12.0	32.1	59.9	87.3	23.1
90°	0.0	15.4	40.6	65.9	8.6
92.5°	0.0	6.0	26.5	46.2	6.0
95°	0.0	1.7	15.4	30.4	3.8
97.5°	0.0	0.4	7.3	18.0	1.7
100°	0.0	0.4	2.6	8.6	0.4
102.5°	0.0	0.4	0.9	3.0	0.0
105°	0.0	0.4	0.4	0.4	0.0
107.5°	0.0	0.4	0.4	0.0	0.0
110°	0.0	0.4	0.4	0.0	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°	0.0	0.4	0.4	0.0	0.0
117.5°	0.0	0.4	0.4	0.0	0.0
120°	0.0	0.4	0.4	0.0	0.0
122.5°	0.0	0.4	0.4	0.0	0.0
125°	0.0	0.4	0.4	0.0	0.0
127.5°	0.4	0.4	0.4	0.4	0.0
130°	0.4	0.9	0.9	0.4	0.0
132.5°	0.4	0.9	0.9	0.4	0.0
135°	0.4	0.9	0.9	0.4	0.4
137.5°	0.4	0.9	0.9	0.4	0.4
140°	0.4	0.9	0.9	0.4	0.4
142.5°	0.4	0.9	0.9	0.4	0.4
145°	0.4	0.9	0.9	0.4	0.4
147.5°	0.4	0.9	0.9	0.4	0.4
150°	0.4	0.9	0.9	0.4	0.4
152.5°	0.9	0.9	0.9	0.4	0.4
155°	0.9	0.9	0.9	0.4	0.4
157.5°	0.9	0.9	0.9	0.4	0.4
160°	0.9	0.9	0.9	0.4	0.4
162.5°	0.9	1.3	0.9	0.4	0.4
165°	0.9	1.3	0.9	0.4	0.4
167.5°	0.9	1.3	0.9	0.4	0.4
170°	0.9	1.3	0.9	0.4	0.4
172.5°	0.9	1.3	0.9	0.4	0.4
175°	1.3	1.3	0.9	0.4	0.4
177.5°	1.3	1.3	0.9	0.9	0.9
180°	0.9	0.9	0.9	0.9	0.9

(END OF REPORT)