

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: P685840

Luminaire Tested: **4CZL-7-UNV-W-LVR-L835-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685840
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-L835-CD-U
Description: METALUX CRUZE LINEAR 4FT LOUVER MODEL WITH WIDE LENS @80 CRI and 3500K
Light Source: (392) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

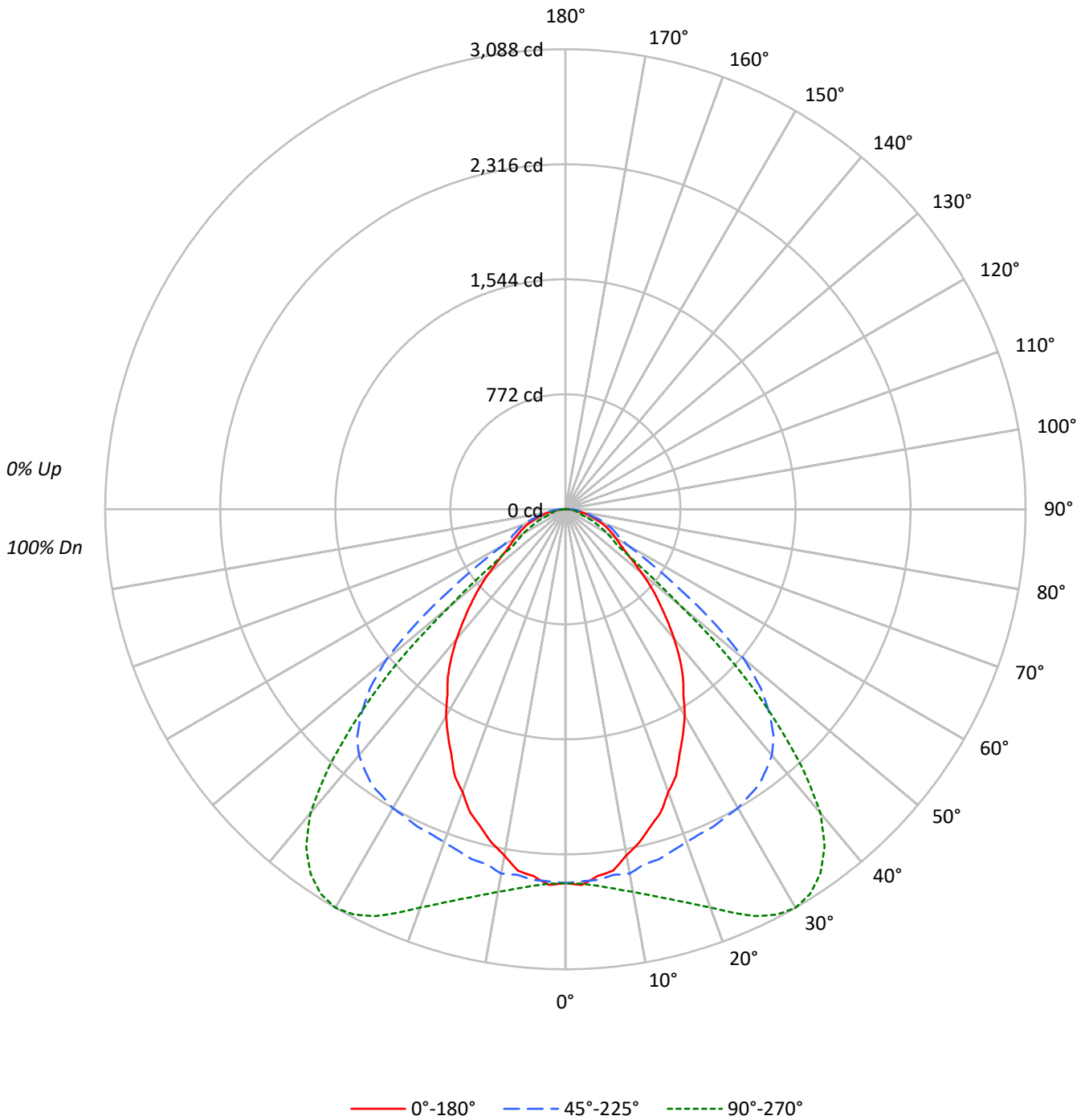
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5969.2 lumens
Efficiency: N/A
Efficacy: 135.7 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°	8102	8102	8102
5°	8009	8092	8225
10°	7733	8142	8552
15°	7369	8126	9055
20°	6936	8170	9774
25°	6458	8371	10735
30°	5970	8636	11515
35°	5424	8915	11757
40°	4783	9084	11217
45°	4077	8836	8992
50°	3378	7857	5103
55°	2752	5308	2441
60°	2541	3086	2108
65°	2450	2839	1714
70°	2311	2785	1225
75°	2151	2543	1190
80°	1962	2497	1307
85°	1504	2994	1441



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	238.6	4.0
10°-20°	692.5	11.6
20°-30°	1099.0	18.4
30°-40°	1372.6	23.0
40°-50°	1260.7	21.1
50°-60°	672.8	11.3
60°-70°	346.3	5.8
70°-80°	190.4	3.2
80°-90°	78.6	1.3
90°-100°	15.2	0.3
100°-110°	0.8	0.0
110°-120°	0.2	0.0
120°-130°	0.2	0.0
130°-140°	0.4	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°	2030.0	34.0
0°-40°	3402.6	57.0
0°-60°	5336.1	89.4
0°-90°	5951.3	99.7
90°-120°	16.2	0.3
90°-150°	17.3	0.3
90°-180°	18.0	0.3
0°-180°	5969.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2509	2509	2509	2509	2509	
5°	2471	2477	2496	2535	2537	233
15°	2204	2276	2431	2629	2709	620
25°	1812	1983	2350	2780	3013	835
35°	1376	1630	2262	2755	2982	854
45°	893	1287	1935	2005	1969	691
55°	489	876	943	528	434	451
65°	321	420	372	303	224	317
75°	172	191	204	181	95	183
85°	41	53	81	106	39	47
90°	0	15	40	64	8	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°	2508.9	2508.9	2508.9	2508.9	2508.9
2.5°	2523.6	2518.1	2500.2	2516.5	2515.2
5°	2470.9	2477.1	2496.4	2534.9	2537.4
7.5°	2447.4	2464.6	2475.5	2558.7	2569.6
10°	2358.3	2385.1	2483.0	2569.6	2608.1
12.5°	2291.3	2345.3	2440.3	2587.2	2654.2
15°	2204.3	2276.3	2430.7	2628.6	2708.6
17.5°	2130.2	2203.8	2401.4	2660.0	2771.8
20°	2018.5	2152.0	2377.5	2692.7	2844.2
22.5°	1938.5	2073.7	2359.1	2721.5	2930.0
25°	1812.5	1982.9	2349.5	2779.7	3012.8
27.5°	1707.1	1906.3	2328.1	2817.0	3067.6
30°	1601.2	1812.5	2316.0	2823.7	3088.2
32.5°	1473.6	1736.4	2285.5	2808.2	3058.9
35°	1376.0	1630.1	2261.6	2755.0	2982.3
37.5°	1257.2	1546.4	2209.3	2658.8	2856.7
40°	1134.6	1469.0	2154.9	2508.5	2660.9
42.5°	1010.7	1381.9	2067.8	2308.1	2354.5
45°	892.7	1286.9	1934.8	2005.1	1969.1
47.5°	786.8	1184.8	1777.4	1625.1	1540.5
50°	672.5	1081.0	1564.0	1237.1	1015.7
52.5°	569.6	994.4	1270.2	837.8	631.9
55°	488.8	876.4	942.9	528.2	433.6
57.5°	431.5	786.0	680.5	417.7	371.2
60°	393.4	673.0	477.9	383.4	326.4
62.5°	355.7	532.3	408.9	349.5	274.5
65°	320.6	420.2	371.6	303.0	224.3
67.5°	284.2	341.1	335.6	275.0	187.1
70°	244.8	280.4	295.0	230.2	129.7
72.5°	209.7	235.2	251.1	196.7	110.1
75°	172.4	191.3	203.8	181.2	95.4
77.5°	136.9	154.0	166.1	164.1	83.7
80°	105.5	116.8	134.3	146.9	70.3
82.5°	72.0	80.4	105.9	126.8	54.8
85°	40.6	53.2	80.8	106.3	38.9
87.5°	11.7	31.4	58.6	85.4	22.6
90°	0.0	15.1	39.8	64.4	8.4
92.5°	0.0	5.9	25.9	45.2	5.9
95°	0.0	1.7	15.1	29.7	3.8
97.5°	0.0	0.4	7.1	17.6	1.7
100°	0.0	0.4	2.5	8.4	0.4
102.5°	0.0	0.4	0.8	2.9	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	0.8	0.8	0.4	0.0
132.5°	0.4	0.8	0.8	0.4	0.0
135°	0.4	0.8	0.8	0.4	0.4
137.5°	0.4	0.8	0.8	0.4	0.4
140°	0.4	0.8	0.8	0.4	0.4
142.5°	0.4	0.8	0.8	0.4	0.4
145°	0.4	0.8	0.8	0.4	0.4
147.5°	0.4	0.8	0.8	0.4	0.4
150°	0.4	0.8	0.8	0.4	0.4
152.5°	0.8	0.8	0.8	0.4	0.4
155°	0.8	0.8	0.8	0.4	0.4
157.5°	0.8	0.8	0.8	0.4	0.4
160°	0.8	0.8	0.8	0.4	0.4
162.5°	0.8	1.3	0.8	0.4	0.4
165°	0.8	1.3	0.8	0.4	0.4
167.5°	0.8	1.3	0.8	0.4	0.4
170°	0.8	1.3	0.8	0.4	0.4
172.5°	0.8	1.3	0.8	0.4	0.4
175°	1.3	1.3	0.8	0.4	0.4
177.5°	1.3	1.3	0.8	0.8	0.8
180°	0.8	0.8	0.8	0.8	0.8

(END OF REPORT)