

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: P685850

Luminaire Tested: **4CZL-7-UNV-W-LVR-L840-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685850
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-L840-CD-U
Description: METALUX CRUZE LINEAR 4FT LOUVER MODEL WITH WIDE LENS @80 CRI and 4000K
Light Source: (392) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

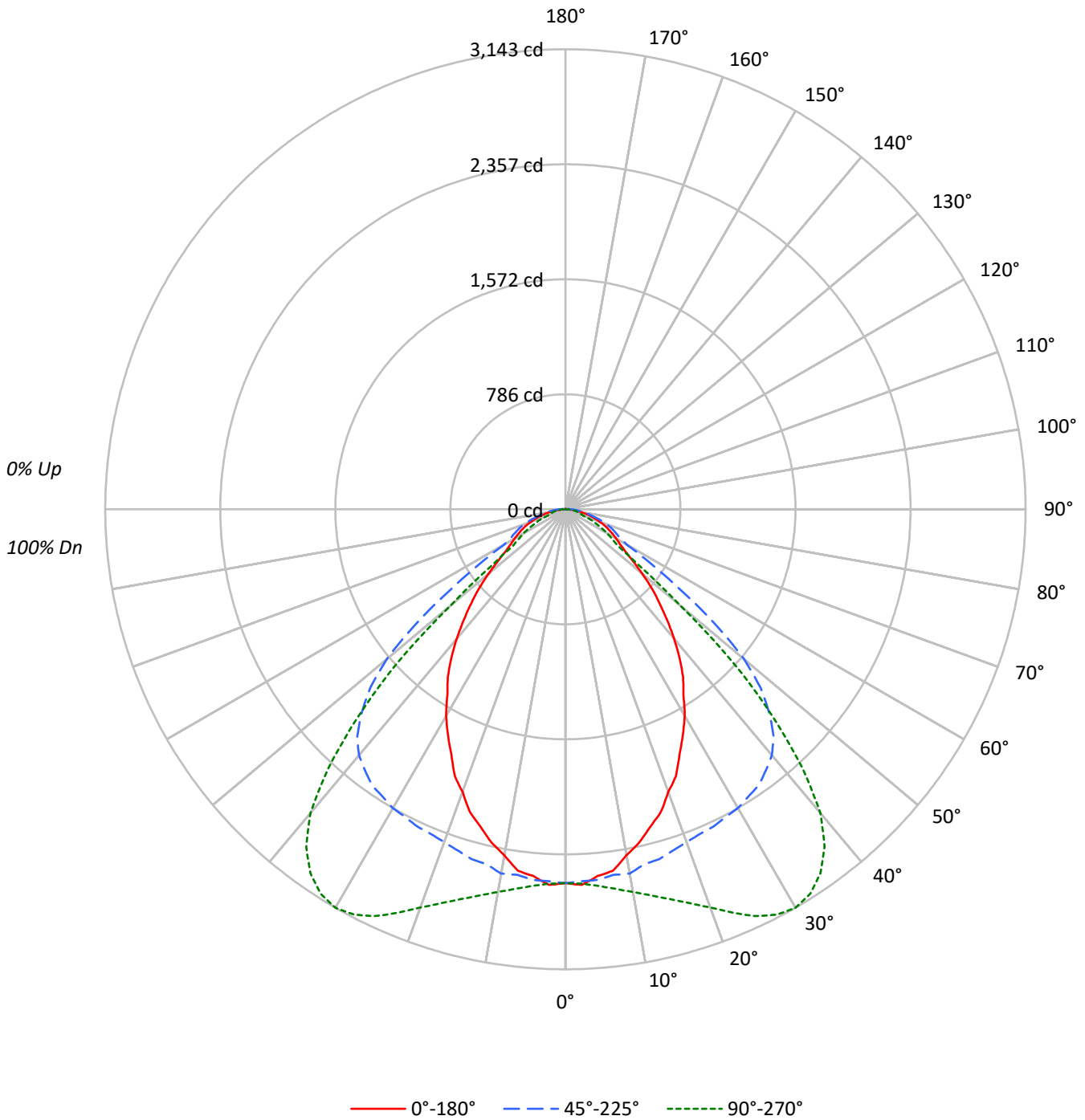
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6075.5 lumens
Efficiency: N/A
Efficacy: 138.1 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°	8246	8246	8246
5°	8152	8236	8372
10°	7871	8287	8704
15°	7500	8271	9216
20°	7060	8316	9948
25°	6573	8520	10926
30°	6077	8790	11720
35°	5521	9074	11966
40°	4868	9246	11417
45°	4149	8993	9152
50°	3439	7997	5194
55°	2801	5403	2484
60°	2586	3141	2145
65°	2493	2891	1744
70°	2353	2835	1246
75°	2190	2588	1211
80°	1995	2542	1331
85°	1530	3046	1467



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	242.8	4.0
10°-20°	704.8	11.6
20°-30°	1118.5	18.4
30°-40°	1397.0	23.0
40°-50°	1283.1	21.1
50°-60°	684.8	11.3
60°-70°	352.4	5.8
70°-80°	193.8	3.2
80°-90°	79.9	1.3
90°-100°	15.4	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°	2066.2	34.0
0°-40°	3463.2	57.0
0°-60°	5431.1	89.4
0°-90°	6057.3	99.7
90°-120°	16.5	0.3
90°-150°	17.6	0.3
90°-180°	18.0	0.3
0°-180°	6075.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2554	2554	2554	2554	2554	
5°	2515	2521	2541	2580	2583	238
15°	2244	2317	2474	2676	2757	631
25°	1845	2018	2391	2829	3066	850
35°	1401	1659	2302	2804	3035	869
45°	909	1310	1969	2041	2004	703
55°	498	892	960	538	441	459
65°	326	428	378	308	228	322
75°	176	195	207	184	97	186
85°	41	54	82	108	40	47
90°	0	15	40	66	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°	2553.6	2553.6	2553.6	2553.6	2553.6
2.5°	2568.5	2563.0	2544.7	2561.3	2560.0
5°	2514.9	2521.3	2540.8	2580.0	2582.6
7.5°	2491.0	2508.5	2519.6	2604.3	2615.4
10°	2400.3	2427.5	2527.2	2615.4	2654.6
12.5°	2332.1	2387.1	2483.8	2633.3	2701.4
15°	2243.5	2316.8	2474.0	2675.5	2756.8
17.5°	2168.1	2243.1	2444.2	2707.4	2821.1
20°	2054.4	2190.3	2419.9	2740.6	2894.8
22.5°	1973.0	2110.6	2401.1	2770.0	2982.1
25°	1844.8	2018.2	2391.3	2829.2	3066.5
27.5°	1737.5	1940.2	2369.6	2867.1	3122.3
30°	1629.7	1844.8	2357.3	2874.0	3143.2
32.5°	1499.8	1767.3	2326.2	2858.2	3113.3
35°	1400.6	1659.1	2301.9	2804.1	3035.4
37.5°	1279.6	1573.9	2248.6	2706.1	2907.6
40°	1154.8	1495.1	2193.3	2553.2	2708.3
42.5°	1028.7	1406.5	2104.7	2349.2	2396.4
45°	908.6	1309.8	1969.2	2040.8	2004.1
47.5°	800.8	1205.9	1809.1	1654.0	1568.0
50°	684.5	1100.3	1591.8	1259.1	1033.8
52.5°	579.7	1012.1	1292.8	852.8	643.2
55°	497.5	892.0	959.7	537.6	441.3
57.5°	439.2	800.0	692.6	425.1	377.8
60°	400.4	684.9	486.4	390.2	332.2
62.5°	362.1	541.8	416.2	355.7	279.4
65°	326.3	427.7	378.3	308.4	228.3
67.5°	289.2	347.2	341.6	279.9	190.4
70°	249.2	285.4	300.3	234.3	132.0
72.5°	213.4	239.4	255.6	200.2	112.0
75°	175.5	194.7	207.4	184.4	97.1
77.5°	139.3	156.8	169.1	167.0	85.2
80°	107.3	118.8	136.7	149.5	71.6
82.5°	73.3	81.8	107.8	129.1	55.8
85°	41.3	54.1	82.2	108.2	39.6
87.5°	11.9	31.9	59.6	86.9	23.0
90°	0.0	15.3	40.5	65.6	8.5
92.5°	0.0	6.0	26.4	46.0	6.0
95°	0.0	1.7	15.3	30.2	3.8
97.5°	0.0	0.4	7.2	17.9	1.7
100°	0.0	0.4	2.6	8.5	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)