

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: P685815

Luminaire Tested: **8CZL-14-UNV-M-LVR-L935-CD-U**

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685815  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 05/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 8CZL-14-UNV-M-LVR-L935-CD-U  
Description: METALUX CRUZE LINEAR 8FT LOUVER MODEL WITH MEDIUM LENS @90 CRI and 3500K  
Light Source: (784) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

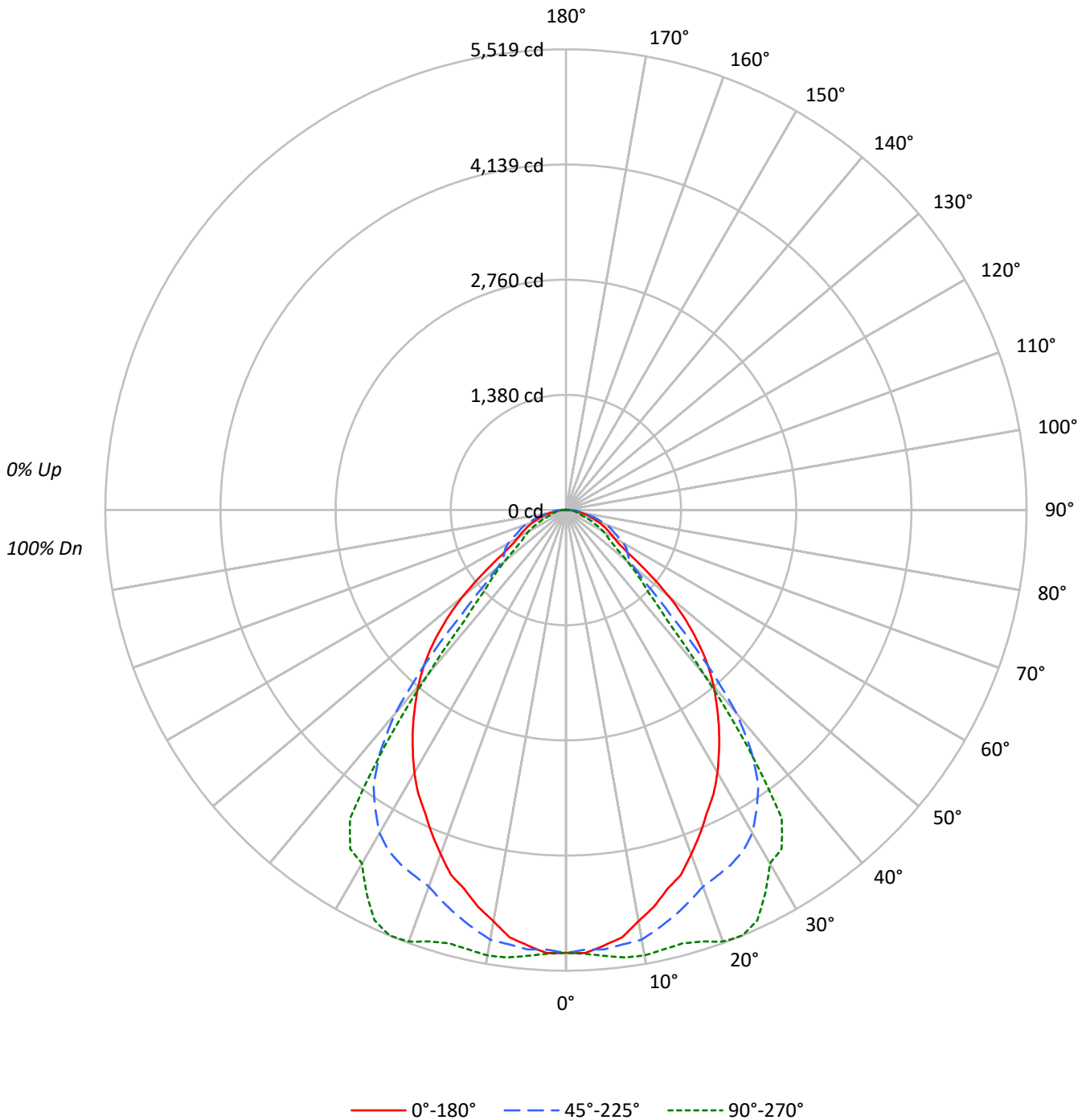
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9814.4 lumens  
Efficiency: N/A  
Efficacy: 110.3 lumens/watt  
Spacing Criteria (0/90/45): 1.05 / 1.34 / 1.2  
Luminous Opening: Rectangular (W 0.83' x L: 8' x H: 0')  
CIE Type: Direct

Input Watts (W): 89  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	90	90	90	90	88
2	103	96	90	86	100	94	89	84	91	86	83	87	84	81	84	81	79	79	79	79	77
3	95	87	80	74	93	85	79	74	82	77	72	79	75	71	77	73	70	70	70	70	68
4	89	78	71	65	86	77	70	65	75	69	64	73	67	63	70	66	62	62	62	62	60
5	83	72	64	58	81	70	63	58	68	62	57	67	61	57	65	60	56	56	56	56	54
6	77	65	58	52	75	65	57	52	63	56	51	61	55	51	60	55	51	51	51	51	49
7	72	60	53	47	70	59	52	47	58	51	47	57	51	46	55	50	46	46	46	46	44
8	68	56	48	43	66	55	48	43	54	47	42	52	47	42	51	46	42	42	42	42	40
9	64	52	44	39	62	51	44	39	50	43	39	49	43	39	48	42	39	39	39	39	37
10	60	48	41	36	59	47	41	36	46	40	36	46	40	36	45	39	35	35	35	35	34

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	8566	8566	8566
5°	8487	8563	8691
10°	8199	8568	8881
15°	7854	8408	8985
20°	7537	8248	9452
25°	7121	8346	9663
30°	6769	8328	9114
35°	6302	7920	8887
40°	5802	6713	5416
45°	5112	4001	3210
50°	4058	2657	2422
55°	2627	2528	1838
60°	2145	2569	1689
65°	2043	2421	1380
70°	1940	2430	1091
75°	1843	2274	1014
80°	1704	2149	1139
85°	1525	2627	1397



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	503.5	5.1
10°-20°	1428.1	14.6
20°-30°	2153.4	21.9
30°-40°	2379.5	24.2
40°-50°	1491.9	15.2
50°-60°	803.2	8.2
60°-70°	545.5	5.6
70°-80°	325.8	3.3
80°-90°	141.6	1.4
90°-100°	31.0	0.3
100°-110°	3.6	0.0
110°-120°	1.3	0.0
120°-130°	1.2	0.0
130°-140°	1.4	0.0
140°-150°	1.3	0.0
150°-160°	1.0	0.0
160°-170°	0.8	0.0
170°-180°	0.3	0.0
0°-30°	4085.0	41.6
0°-40°	6464.4	65.9
0°-60°	8759.6	89.3
0°-90°	9772.5	99.6
90°-120°	35.9	0.4
90°-150°	39.8	0.4
90°-180°	42.0	0.4
0°-180°	9814.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5306	5306	5306	5306	5306	
5°	5236	5245	5283	5346	5362	493
15°	4699	4863	5030	5274	5375	1327
25°	3997	4240	4685	5184	5424	1845
35°	3198	3573	4018	4322	4508	1995
45°	2239	2437	1752	1429	1406	1708
55°	933	976	898	777	653	907
65°	535	588	634	515	361	529
75°	295	329	365	300	163	311
85°	82	101	142	187	75	89
90°	2	31	72	120	22	6
95°	1	5	28	62	11	1
105°	1	1	2	5	2	1
115°	1	1	1	1	1	1
125°	1	1	1	1	1	1
135°	1	1	2	2	2	1
145°	1	2	2	2	3	1
155°	2	2	2	2	2	1
165°	2	3	3	3	3	1
175°	3	3	3	4	4	0
180°	4	4	4	4	4	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5305.5	5305.5	5305.5	5305.5	5305.5
2.5°	5312.4	5297.9	5270.9	5319.3	5320.0
5°	5236.3	5245.3	5283.4	5345.6	5362.2
7.5°	5162.3	5196.9	5248.1	5398.2	5405.8
10°	5001.1	5073.0	5225.9	5370.5	5416.9
12.5°	4866.9	4973.4	5131.2	5321.4	5393.4
15°	4698.8	4863.4	5030.2	5273.7	5375.4
17.5°	4581.2	4713.3	4917.4	5251.5	5418.3
20°	4386.8	4572.9	4800.5	5266.8	5501.3
22.5°	4197.9	4424.1	4741.7	5272.3	5518.6
25°	3997.3	4240.1	4684.9	5184.4	5423.8
27.5°	3831.2	4034.6	4600.5	5001.1	5174.0
30°	3630.6	3870.0	4467.0	4720.9	4888.3
32.5°	3414.8	3718.5	4250.5	4506.5	4810.8
35°	3197.5	3573.2	4018.0	4322.4	4508.5
37.5°	2970.6	3453.5	3652.8	3701.9	3574.6
40°	2752.7	3286.8	3185.1	2709.8	2569.4
42.5°	2514.7	2928.4	2484.3	1864.4	1801.5
45°	2238.7	2437.2	1752.4	1428.6	1405.8
47.5°	1944.7	1887.3	1306.8	1194.1	1180.9
50°	1615.4	1508.8	1057.8	1053.6	964.4
52.5°	1259.1	1198.2	948.5	913.9	772.1
55°	933.3	976.1	898.0	776.9	653.1
57.5°	747.2	846.8	862.7	678.7	583.9
60°	664.1	740.9	795.6	624.0	523.0
62.5°	595.6	656.5	712.6	579.0	451.1
65°	534.8	588.0	633.7	514.7	361.1
67.5°	470.4	525.8	581.8	442.1	307.2
70°	410.9	469.7	514.7	392.3	231.1
72.5°	349.4	410.2	430.3	327.9	184.7
75°	295.4	328.6	364.6	299.6	162.6
77.5°	238.7	267.0	281.6	274.6	143.2
80°	183.3	206.2	231.1	249.7	122.5
82.5°	134.2	150.8	184.7	220.0	98.2
85°	82.3	101.0	141.8	186.8	75.4
87.5°	36.7	60.2	104.5	154.3	48.4
90°	2.1	31.1	71.9	119.7	22.1
92.5°	0.7	13.8	47.0	88.6	15.2
95°	0.7	4.8	28.4	61.6	11.1
97.5°	0.7	2.1	15.9	39.4	6.9
100°	0.7	1.4	7.6	22.8	4.8
102.5°	0.7	1.4	3.5	11.1	3.5
105°	0.7	1.4	2.1	4.8	2.1
107.5°	0.7	1.4	1.4	2.1	1.4
110°	0.7	1.4	1.4	1.4	1.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.7	1.4	1.4	1.4	1.4
115°	0.7	1.4	1.4	1.4	1.4
117.5°	0.7	1.4	1.4	1.4	1.4
120°	0.7	1.4	1.4	1.4	1.4
122.5°	0.7	1.4	1.4	1.4	1.4
125°	0.7	1.4	1.4	1.4	1.4
127.5°	0.7	1.4	1.4	1.4	1.4
130°	0.7	1.4	1.4	1.4	1.4
132.5°	1.4	1.4	2.1	2.1	2.1
135°	1.4	1.4	2.1	2.1	2.1
137.5°	1.4	2.1	2.1	2.1	2.1
140°	1.4	2.1	2.1	2.1	2.1
142.5°	1.4	2.1	2.1	2.1	2.1
145°	1.4	2.1	2.1	2.1	2.8
147.5°	1.4	2.1	2.1	2.1	2.8
150°	1.4	2.1	2.1	2.1	2.1
152.5°	2.1	2.1	2.1	2.1	2.1
155°	2.1	2.1	2.1	2.1	2.1
157.5°	2.1	2.1	2.1	2.8	2.8
160°	2.1	2.8	2.8	2.8	2.8
162.5°	2.1	2.8	2.8	2.8	2.8
165°	2.1	2.8	2.8	2.8	2.8
167.5°	2.1	2.8	2.8	2.8	3.5
170°	2.8	2.8	2.8	3.5	3.5
172.5°	2.8	2.8	2.8	3.5	3.5
175°	2.8	2.8	2.8	3.5	3.5
177.5°	2.8	3.5	2.8	3.5	4.2
180°	3.5	3.5	3.5	3.5	3.5

(END OF REPORT)