

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: P685945

Luminaire Tested: **8CZL-14-UNV-LVRF-L940-CD-U**

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685945  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 05/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 8CZL-14-UNV-LVRF-L940-CD-U  
Description: METALUX CRUZE LINEAR 8FT LOUVER MODEL WITH FROSTED LAY-IN @90 CRI and 4000K  
Light Source: (784) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

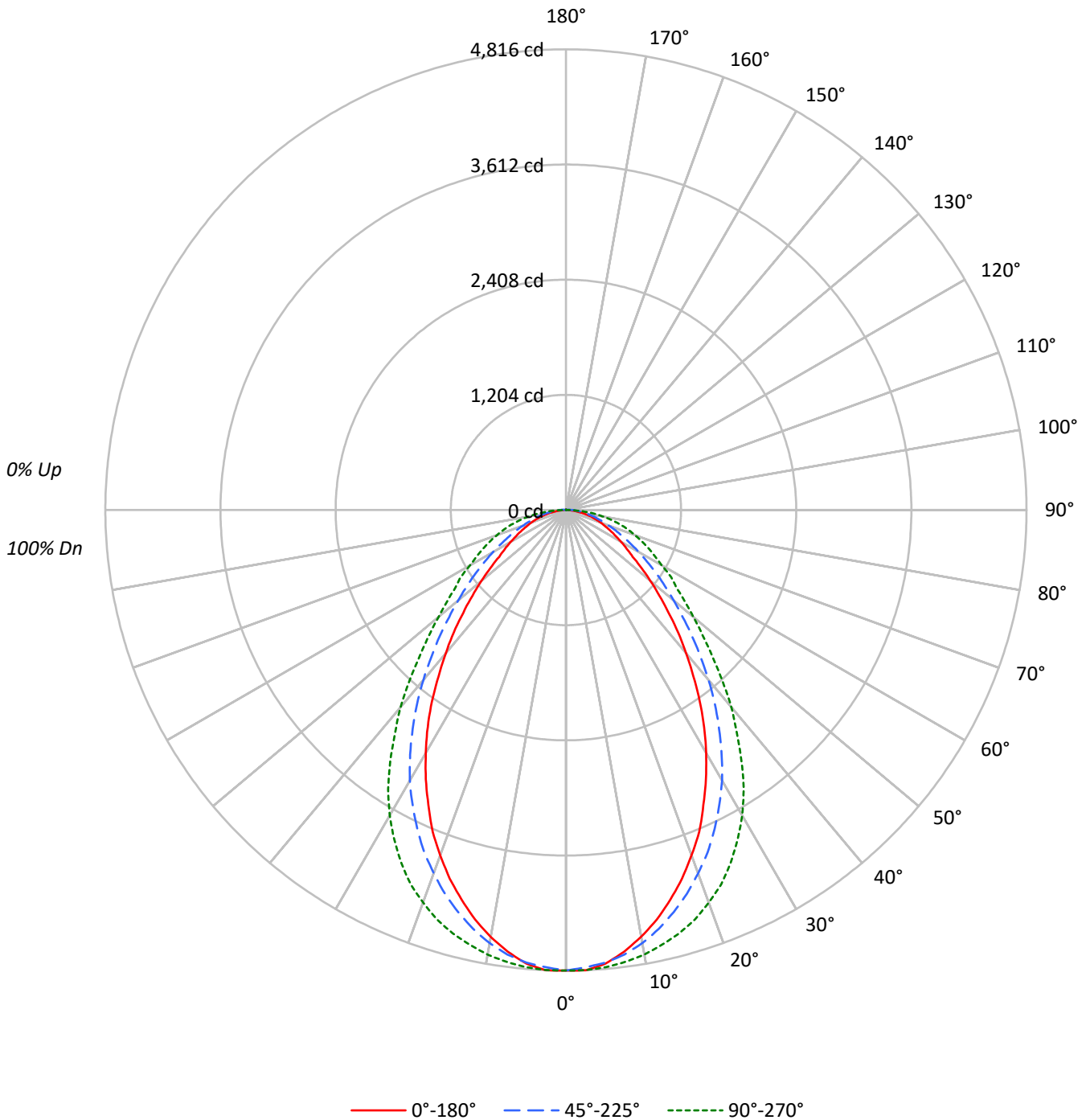
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8879.8 lumens  
Efficiency: N/A  
Efficacy: 99.8 lumens/watt  
Spacing Criteria (0/90/45): 0.97 / 1.15 / 1.12  
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 (Ain): 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	100			100	
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86			86	
2	101	94	88	83	99	92	87	82	89	84	80	85	82	78	82	79	76	74			74	
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	74	70	67	65			65	
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57			57	
5	80	69	61	55	78	68	60	54	66	59	54	64	58	53	62	57	53	51			51	
6	75	63	55	49	73	62	54	48	60	53	48	58	52	48	57	51	47	45			45	
7	70	57	49	44	68	57	49	44	55	48	43	54	48	43	52	47	43	41			41	
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37			37	
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34			34	
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31			31	

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

	0°	45°	90°
0°	7772	7772	7772
5°	7715	7698	7775
10°	7427	7537	7737
15°	7047	7274	7656
20°	6600	6942	7503
25°	6060	6549	7254
30°	5462	6087	6869
35°	4811	5505	6310
40°	4118	4888	5674
45°	3469	4260	4941
50°	2897	3693	4369
55°	2397	3245	3961
60°	2160	2844	3735
65°	1964	2503	3653
70°	1829	2247	3625
75°	1696	2097	3699
80°	1537	2078	3705
85°	1321	2434	3666



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	450.4	5.1
10°-20°	1230.9	13.9
20°-30°	1700.7	19.2
30°-40°	1749.6	19.7
40°-50°	1434.3	16.2
50°-60°	1029.2	11.6
60°-70°	692.3	7.8
70°-80°	404.0	4.6
80°-90°	155.7	1.8
90°-100°	27.0	0.3
100°-110°	2.3	0.0
110°-120°	0.4	0.0
120°-130°	0.4	0.0
130°-140°	0.6	0.0
140°-150°	0.7	0.0
150°-160°	0.6	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	3382.1	38.1
0°-40°	5131.6	57.8
0°-60°	7595.2	85.5
0°-90°	8847.2	99.6
90°-120°	29.7	0.3
90°-150°	31.4	0.4
90°-180°	33.0	0.4
0°-180°	8879.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4814	4814	4814	4814	4814	
5°	4760	4764	4749	4794	4797	447
15°	4216	4259	4352	4520	4580	1183
25°	3402	3481	3676	3932	4072	1561
35°	2441	2554	2793	3054	3201	1521
45°	1519	1638	1866	2049	2164	1179
55°	852	953	1153	1310	1407	784
65°	514	544	655	841	956	512
75°	272	282	336	467	593	289
85°	71	89	131	196	198	77
90°	1	30	67	102	21	4
95°	1	5	28	49	9	0
105°	0	1	1	3	1	0
115°	1	1	1	0	0	1
125°	1	1	1	0	0	1
135°	1	1	1	1	0	1
145°	1	1	1	1	1	1
155°	1	2	1	1	1	1
165°	2	2	2	1	1	1
175°	2	3	2	1	1	0
180°	2	2	2	2	2	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4813.7	4813.7	4813.7	4813.7	4813.7
2.5°	4815.8	4811.6	4784.6	4815.8	4814.4
5°	4760.4	4763.9	4749.4	4793.6	4797.1
7.5°	4657.3	4671.2	4687.1	4752.1	4763.9
10°	4530.0	4550.8	4597.2	4694.0	4718.9
12.5°	4386.8	4409.7	4485.1	4618.6	4653.2
15°	4216.0	4258.9	4351.6	4520.4	4579.9
17.5°	4039.5	4092.1	4207.0	4406.9	4487.2
20°	3841.0	3893.6	4040.2	4263.0	4366.8
22.5°	3641.7	3692.9	3872.1	4109.4	4238.8
25°	3401.7	3481.2	3676.3	3932.3	4072.1
27.5°	3172.0	3256.4	3473.6	3748.3	3887.3
30°	2929.9	3028.8	3264.7	3526.9	3684.6
32.5°	2689.8	2790.1	3030.9	3304.1	3460.5
35°	2440.7	2553.5	2792.9	3054.4	3201.1
37.5°	2188.2	2311.4	2557.7	2815.0	2933.3
40°	1953.7	2074.8	2319.0	2549.4	2691.9
42.5°	1737.2	1856.2	2082.4	2291.3	2419.3
45°	1519.2	1637.5	1865.8	2049.2	2164.0
47.5°	1324.1	1445.2	1657.6	1843.0	1939.2
50°	1153.3	1263.3	1470.1	1638.2	1739.2
52.5°	996.9	1097.2	1302.0	1465.3	1562.8
55°	851.6	953.3	1152.6	1310.3	1407.2
57.5°	754.1	826.7	1005.9	1180.9	1305.5
60°	669.0	714.0	880.7	1088.2	1156.7
62.5°	582.5	623.3	760.3	943.0	1049.5
65°	514.0	544.5	655.2	841.3	956.1
67.5°	446.2	469.1	563.8	743.0	859.2
70°	387.4	401.9	476.0	646.2	767.9
72.5°	331.4	339.0	405.4	557.6	678.7
75°	271.9	281.6	336.2	467.0	592.9
77.5°	215.2	229.0	277.4	389.5	494.7
80°	165.3	176.4	223.5	320.3	398.5
82.5°	114.8	130.1	174.3	253.2	305.1
85°	71.3	88.6	131.4	196.5	197.9
87.5°	29.7	55.3	96.2	145.3	101.0
90°	0.7	29.7	67.1	102.4	21.4
92.5°	0.0	13.8	45.7	73.3	12.5
95°	0.7	4.8	28.4	49.1	9.0
97.5°	0.0	1.4	15.2	31.1	5.5
100°	0.0	0.7	6.2	17.3	3.5
102.5°	0.0	0.7	2.8	7.6	2.1
105°	0.0	0.7	1.4	2.8	1.4
107.5°	0.0	0.7	0.7	0.7	0.7
110°	0.7	0.7	0.7	0.7	0.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	0.7	0.7	0.0	0.0
115°	0.7	0.7	0.7	0.0	0.0
117.5°	0.7	0.7	0.7	0.0	0.0
120°	0.7	0.7	0.7	0.0	0.0
122.5°	0.7	0.7	0.7	0.0	0.0
125°	0.7	0.7	0.7	0.0	0.0
127.5°	0.7	0.7	0.7	0.0	0.0
130°	0.7	0.7	0.7	0.0	0.0
132.5°	0.7	1.4	0.7	0.7	0.0
135°	0.7	1.4	0.7	0.7	0.0
137.5°	0.7	1.4	0.7	0.7	0.0
140°	0.7	1.4	0.7	0.7	0.7
142.5°	1.4	1.4	1.4	0.7	0.7
145°	1.4	1.4	1.4	0.7	0.7
147.5°	1.4	1.4	1.4	0.7	0.7
150°	1.4	1.4	1.4	0.7	0.7
152.5°	1.4	2.1	1.4	0.7	0.7
155°	1.4	2.1	1.4	0.7	0.7
157.5°	1.4	2.1	1.4	0.7	0.7
160°	1.4	2.1	1.4	0.7	0.7
162.5°	2.1	2.1	1.4	1.4	0.7
165°	2.1	2.1	2.1	1.4	0.7
167.5°	2.1	2.1	2.1	1.4	0.7
170°	2.1	2.1	2.1	1.4	1.4
172.5°	2.1	2.1	2.1	1.4	1.4
175°	2.1	2.8	2.1	1.4	1.4
177.5°	2.1	2.8	2.1	1.4	1.4
180°	2.1	2.1	2.1	2.1	2.1

(END OF REPORT)