

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: P685667

Luminaire Tested: **8CZL-24-UNV-LVR-L835-CD-U**

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685667  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 05/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 8CZL-24-UNV-LVR-L835-CD-U  
Description: METALUX CRUZE LINEAR 8FT LOUVER MODEL @80 CRI and 3500K  
Light Source: (1176) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

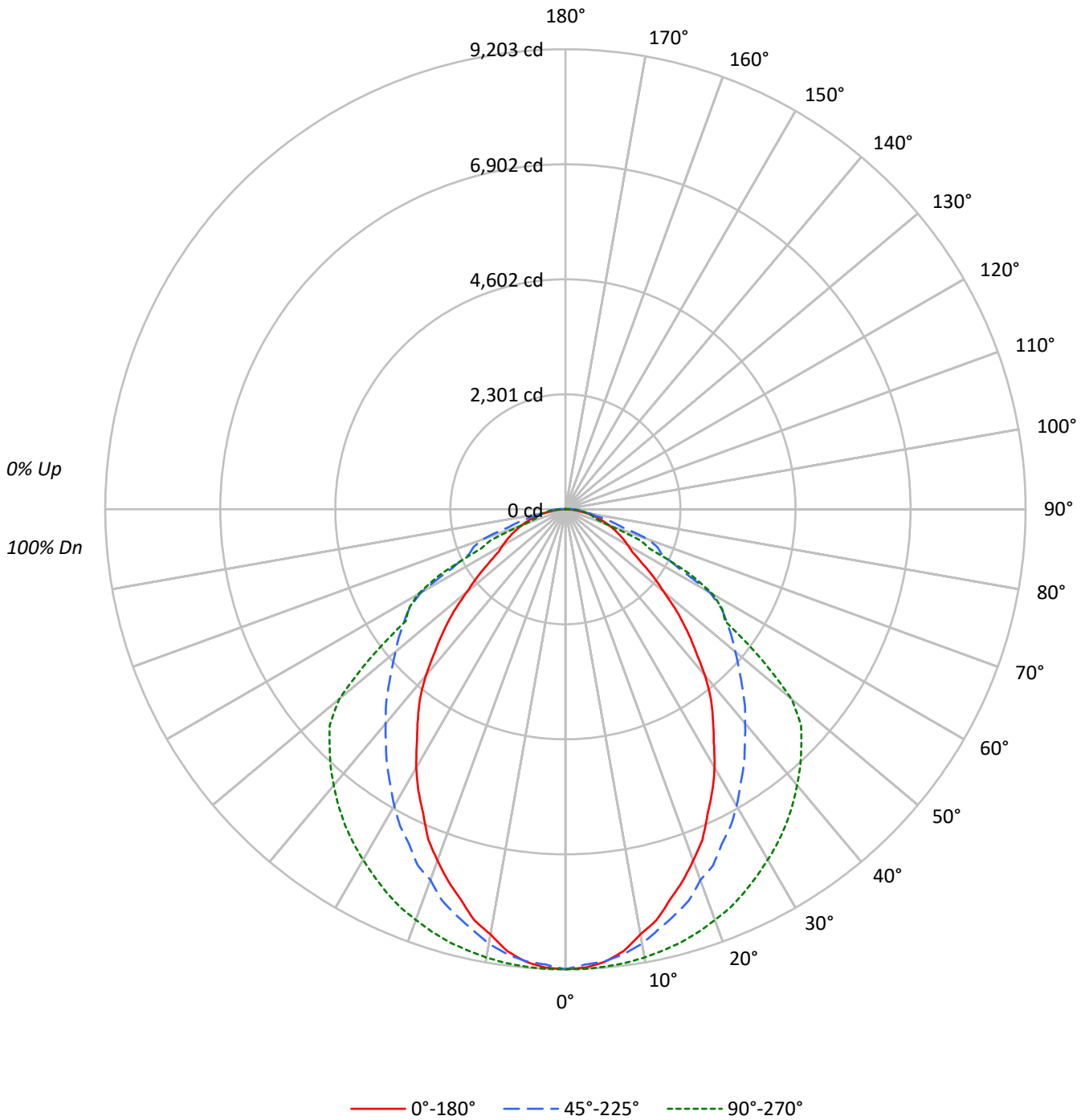
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 20837.7 lumens  
Efficiency: N/A  
Efficacy: 135.3 lumens/watt  
Spacing Criteria (0/90/45): 1.01 / 1.31 / 1.26  
Luminous Opening: Rectangular (W 0.83' x L: 8' x H: 0')  
CIE Type: Direct

Input Watts (W): 154  
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				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	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	88	88	88	88	85
2	101	93	87	81	98	91	85	80	88	83	78	84	80	77	81	78	75	75	75	75	73
3	92	82	75	69	90	81	74	68	78	72	67	75	70	66	73	68	65	65	65	65	63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	60	56	56	56	56	54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	49	49	49	49	47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	44	44	44	42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	39	39	39	37
8	63	50	42	36	61	49	42	36	48	41	36	47	40	36	46	40	35	35	35	35	34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	32	32	32	30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	34	29	29	29	29	28

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

	0°	45°	90°
0°	14856	14856	14856
5°	14728	14707	14883
10°	14155	14467	14926
15°	13512	14062	14986
20°	12848	13563	15021
25°	11983	13172	15071
30°	11125	12767	15095
35°	10142	12266	15165
40°	9150	11788	15192
45°	7870	11410	15231
50°	6432	11141	14831
55°	5237	11098	10969
60°	4670	10788	11005
65°	4515	8096	7097
70°	4337	8297	4034
75°	4181	5848	3601
80°	3813	4757	4292
85°	3414	5930	5348



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	861.8	4.1
10°-20°	2389.2	11.5
20°-30°	3456.6	16.6
30°-40°	3945.2	18.9
40°-50°	3876.5	18.6
50°-60°	3092.1	14.8
60°-70°	1947.7	9.3
70°-80°	862.9	4.1
80°-90°	330.9	1.6
90°-100°	65.6	0.3
100°-110°	4.4	0.0
110°-120°	0.5	0.0
120°-130°	0.6	0.0
130°-140°	1.0	0.0
140°-150°	0.9	0.0
150°-160°	0.7	0.0
160°-170°	0.7	0.0
170°-180°	0.3	0.0
0°-30°	6707.7	32.2
0°-40°	10652.9	51.1
0°-60°	17621.5	84.6
0°-90°	20762.9	99.6
90°-120°	70.5	0.3
90°-150°	73.0	0.4
90°-180°	75.0	0.4
0°-180°	20837.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	9201	9201	9201	9201	9201	
5°	9087	9107	9074	9150	9183	853
15°	8084	8164	8412	8807	8965	2276
25°	6726	6943	7394	8071	8460	3100
35°	5146	5457	6223	7141	7694	3217
45°	3447	3948	4997	6116	6670	2649
55°	1860	2519	3942	4251	3897	1711
65°	1182	1609	2119	2258	1858	1171
75°	670	774	937	710	577	703
85°	184	224	320	413	289	195
90°	1	77	169	246	47	11
95°	1	11	70	120	16	1
105°	1	1	1	4	0	1
115°	1	1	0	0	0	1
125°	1	3	0	0	0	1
135°	1	3	1	0	0	1
145°	3	3	1	0	0	2
155°	3	3	1	0	0	1
165°	4	4	3	1	0	1
175°	4	4	3	1	1	0
180°	3	3	3	3	3	

TEST NUMBER: P685667

CATALOG NUMBER: 8CZL-24-UNV-LVR-L835-CD-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	9201.2	9201.2	9201.2	9201.2	9201.2
2.5°	9176.9	9171.2	9115.4	9194.0	9202.6
5°	9086.9	9106.9	9074.0	9149.7	9182.6
7.5°	8914.0	8935.4	8974.0	9112.6	9152.6
10°	8633.9	8688.2	8823.9	9018.3	9104.0
12.5°	8419.5	8486.7	8608.2	8938.2	9036.8
15°	8083.7	8163.7	8412.4	8806.8	8965.4
17.5°	7797.9	7943.7	8208.0	8641.0	8862.5
20°	7477.8	7595.0	7893.7	8478.1	8742.5
22.5°	7157.7	7306.4	7713.6	8260.9	8621.0
25°	6726.2	6943.4	7393.5	8070.9	8459.5
27.5°	6360.4	6634.7	7152.0	7846.5	8279.5
30°	5967.4	6180.3	6847.7	7617.9	8096.6
32.5°	5524.4	5858.8	6519.0	7356.4	7905.1
35°	5145.7	5457.3	6223.2	7140.6	7693.6
37.5°	4779.9	5072.9	5896.0	6896.2	7459.3
40°	4341.2	4727.1	5593.0	6617.6	7207.8
42.5°	3855.4	4328.4	5311.5	6354.7	6952.0
45°	3446.7	3948.3	4997.1	6116.0	6670.5
47.5°	3022.3	3551.0	4702.8	5825.9	6391.8
50°	2560.7	3203.8	4435.5	5557.3	5904.5
52.5°	2223.5	2842.2	4195.5	5071.4	4977.1
55°	1860.5	2519.3	3942.5	4251.2	3896.8
57.5°	1584.7	2227.8	3705.3	3338.1	3719.6
60°	1446.1	1994.9	3340.9	3178.0	3408.1
62.5°	1316.1	1790.5	2555.0	2980.8	2803.7
65°	1181.8	1609.0	2119.2	2257.8	1857.7
67.5°	1051.7	1451.8	1997.7	1686.2	1617.6
70°	918.8	1330.4	1757.6	1437.6	854.5
72.5°	793.1	1190.3	1201.8	795.9	634.5
75°	670.2	774.5	937.4	710.2	577.3
77.5°	535.9	664.5	627.3	635.9	523.0
80°	410.1	457.3	511.6	568.7	461.6
82.5°	290.1	340.1	414.4	497.3	378.7
85°	184.3	224.3	320.1	413.0	288.7
87.5°	72.9	141.5	238.6	333.0	170.0
90°	1.4	77.2	168.6	245.8	47.2
92.5°	1.4	35.7	112.9	180.1	24.3
95°	1.4	11.4	70.0	120.0	15.7
97.5°	1.4	4.3	37.2	74.3	8.6
100°	1.4	1.4	15.7	40.0	4.3
102.5°	1.4	1.4	5.7	15.7	1.4
105°	1.4	1.4	1.4	4.3	0.0
107.5°	1.4	1.4	0.0	0.0	0.0
110°	1.4	1.4	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	1.4	1.4	0.0	0.0	0.0
115°	1.4	1.4	0.0	0.0	0.0
117.5°	1.4	1.4	0.0	0.0	0.0
120°	1.4	1.4	0.0	0.0	0.0
122.5°	1.4	1.4	0.0	0.0	0.0
125°	1.4	2.9	0.0	0.0	0.0
127.5°	1.4	1.4	0.0	0.0	0.0
130°	1.4	2.9	1.4	0.0	0.0
132.5°	1.4	2.9	1.4	0.0	0.0
135°	1.4	2.9	1.4	0.0	0.0
137.5°	1.4	2.9	1.4	0.0	0.0
140°	2.9	2.9	1.4	0.0	0.0
142.5°	2.9	2.9	1.4	0.0	0.0
145°	2.9	2.9	1.4	0.0	0.0
147.5°	2.9	2.9	1.4	0.0	0.0
150°	2.9	2.9	1.4	0.0	0.0
152.5°	2.9	2.9	1.4	0.0	0.0
155°	2.9	2.9	1.4	0.0	0.0
157.5°	2.9	4.3	1.4	0.0	0.0
160°	4.3	4.3	1.4	0.0	0.0
162.5°	4.3	4.3	2.9	1.4	0.0
165°	4.3	4.3	2.9	1.4	0.0
167.5°	4.3	4.3	2.9	1.4	0.0
170°	4.3	4.3	2.9	1.4	1.4
172.5°	4.3	4.3	2.9	1.4	1.4
175°	4.3	4.3	2.9	1.4	1.4
177.5°	4.3	4.3	2.9	1.4	1.4
180°	2.9	2.9	2.9	2.9	2.9

(END OF REPORT)