

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: P685847

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

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685847  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 05/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 8CZL-24-UNV-W-LVR-L835-CD-U  
Description: METALUX CRUZE LINEAR 8FT LOUVER MODEL WITH WIDE LENS @80 CRI and 3500K  
Light Source: (1176) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

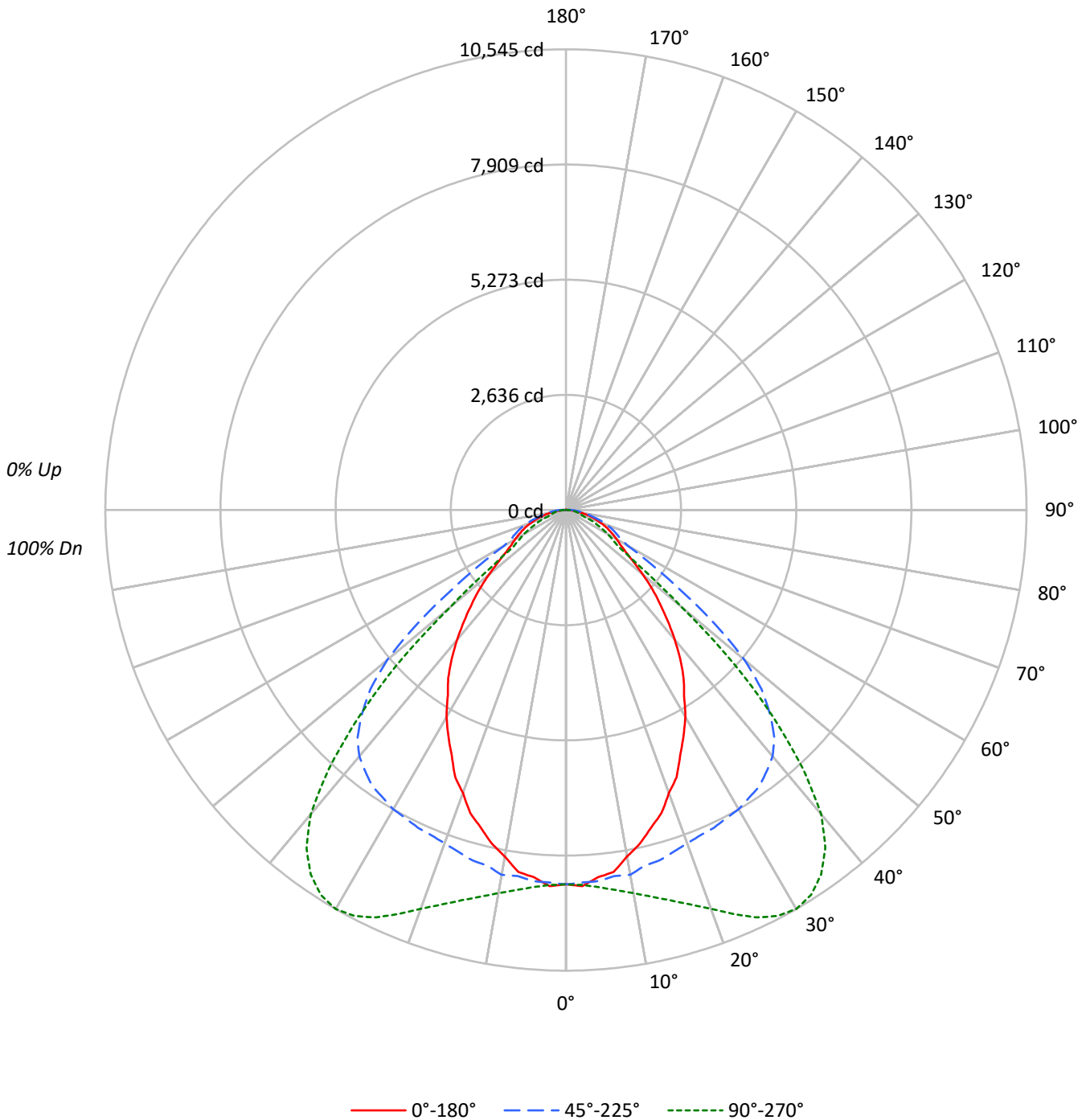
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 20382.2 lumens  
Efficiency: N/A  
Efficacy: 132.4 lumens/watt  
Spacing Criteria (0/90/45): 1 / 1.64 / 1.46  
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 (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

TEST NUMBER: P685847  
CATALOG NUMBER: 8CZL-24-UNV-W-LVR-L835-CD-U

### Luminous Intensity Polar Plot





TEST NUMBER: P685847

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

**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	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°	13832	13832	13832
5°	13674	13816	14042
10°	13202	13900	14601
15°	12581	13873	15460
20°	11842	13949	16687
25°	11026	14292	18327
30°	10193	14744	19659
35°	9261	15221	20072
40°	8165	15508	19150
45°	6960	15085	15352
50°	5768	13414	8712
55°	4698	9063	4168
60°	4338	5270	3599
65°	4182	4848	2926
70°	3947	4756	2091
75°	3673	4341	2032
80°	3348	4265	2232
85°	2568	5109	2462



TEST NUMBER: P685847  
 CATALOG NUMBER: 8CZL-24-UNV-W-LVR-L835-CD-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	814.6	4.0
10°-20°	2364.6	11.6
20°-30°	3752.5	18.4
30°-40°	4686.7	23.0
40°-50°	4304.6	21.1
50°-60°	2297.3	11.3
60°-70°	1182.4	5.8
70°-80°	650.1	3.2
80°-90°	268.2	1.3
90°-100°	51.7	0.3
100°-110°	2.8	0.0
110°-120°	0.7	0.0
120°-130°	0.9	0.0
130°-140°	1.6	0.0
140°-150°	1.4	0.0
150°-160°	1.1	0.0
160°-170°	0.7	0.0
170°-180°	0.3	0.0
0°-30°	6931.6	34.0
0°-40°	11618.4	57.0
0°-60°	18220.3	89.4
0°-90°	20321.0	99.7
90°-120°	55.3	0.3
90°-150°	59.1	0.3
90°-180°	61.0	0.3
0°-180°	20382.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	8567	8567	8567	8567	8567	
5°	8437	8458	8524	8656	8664	797
15°	7527	7772	8300	8976	9249	2116
25°	6189	6771	8022	9492	10288	2852
35°	4699	5566	7722	9407	10183	2917
45°	3048	4394	6606	6846	6724	2359
55°	1669	2992	3220	1803	1480	1541
65°	1095	1435	1269	1035	766	1081
75°	589	653	696	619	326	625
85°	139	182	276	363	133	159
90°	0	51	136	220	29	5
95°	0	6	51	102	13	0
105°	0	1	1	1	0	0
115°	0	1	1	0	0	0
125°	0	1	1	0	0	1
135°	1	3	3	1	1	1
145°	1	3	3	1	1	1
155°	3	3	3	1	1	1
165°	3	4	3	1	1	1
175°	4	4	3	1	1	0
180°	3	3	3	3	3	

TEST NUMBER: P685847

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

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	8567.0	8567.0	8567.0	8567.0	8567.0
2.5°	8617.0	8598.4	8536.9	8592.7	8588.4
5°	8436.9	8458.4	8524.1	8655.6	8664.1
7.5°	8356.9	8415.5	8452.6	8737.0	8774.2
10°	8052.5	8144.0	8478.4	8774.2	8905.6
12.5°	7823.9	8008.2	8332.6	8834.2	9062.8
15°	7526.6	7772.4	8299.7	8975.7	9248.6
17.5°	7273.7	7525.2	8199.7	9082.8	9464.4
20°	6892.1	7348.0	8118.2	9194.3	9711.6
22.5°	6619.2	7080.8	8055.4	9292.9	10004.5
25°	6189.1	6770.7	8022.5	9491.5	10287.5
27.5°	5829.0	6509.2	7949.6	9618.7	10474.7
30°	5467.4	6189.1	7908.2	9641.6	10544.7
32.5°	5031.6	5929.0	7803.9	9588.7	10444.7
35°	4698.6	5566.0	7722.4	9407.2	10183.2
37.5°	4292.8	5280.2	7543.8	9078.5	9754.5
40°	3874.1	5015.9	7358.0	8565.5	9085.7
42.5°	3451.1	4718.6	7060.8	7881.0	8039.7
45°	3048.1	4394.2	6606.3	6846.4	6723.5
47.5°	2686.6	4045.5	6069.0	5548.9	5260.2
50°	2296.4	3691.2	5340.2	4224.2	3468.2
52.5°	1944.9	3395.3	4337.1	2860.9	2157.8
55°	1669.1	2992.4	3219.6	1803.4	1480.5
57.5°	1473.3	2683.7	2323.6	1426.2	1267.5
60°	1343.3	2297.9	1631.9	1309.0	1114.6
62.5°	1214.7	1817.7	1396.1	1193.2	937.4
65°	1094.6	1434.7	1269.0	1034.6	766.0
67.5°	970.3	1164.6	1146.1	938.9	638.8
70°	836.0	957.4	1007.5	786.0	443.0
72.5°	715.9	803.1	857.4	671.6	375.8
75°	588.8	653.1	695.9	618.8	325.8
77.5°	467.3	525.9	567.3	560.2	285.8
80°	360.1	398.7	458.7	501.6	240.1
82.5°	245.8	274.4	361.5	433.0	187.2
85°	138.6	181.5	275.8	363.0	132.9
87.5°	40.0	107.2	200.1	291.5	77.2
90°	0.0	51.4	135.8	220.1	28.6
92.5°	0.0	20.0	88.6	154.3	20.0
95°	0.0	5.7	51.4	101.5	12.9
97.5°	0.0	1.4	24.3	60.0	5.7
100°	0.0	1.4	8.6	28.6	1.4
102.5°	0.0	1.4	2.9	10.0	0.0
105°	0.0	1.4	1.4	1.4	0.0
107.5°	0.0	1.4	1.4	0.0	0.0
110°	0.0	1.4	1.4	0.0	0.0



TEST NUMBER: P685847  
 CATALOG NUMBER: 8CZL-24-UNV-W-LVR-L835-CD-U

**CANDELA DISTRIBUTION (continued):**

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

(END OF REPORT)