

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: P685507

Luminaire Tested: **8CZL-24-UNV-W-L850-CD-U**

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685507  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 05/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 8CZL-24-UNV-W-L850-CD-U  
Description: METALUX CRUZE LINEAR 8FT WIDE LENS MODEL @80 CRI and 5000K  
Light Source: (1176) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

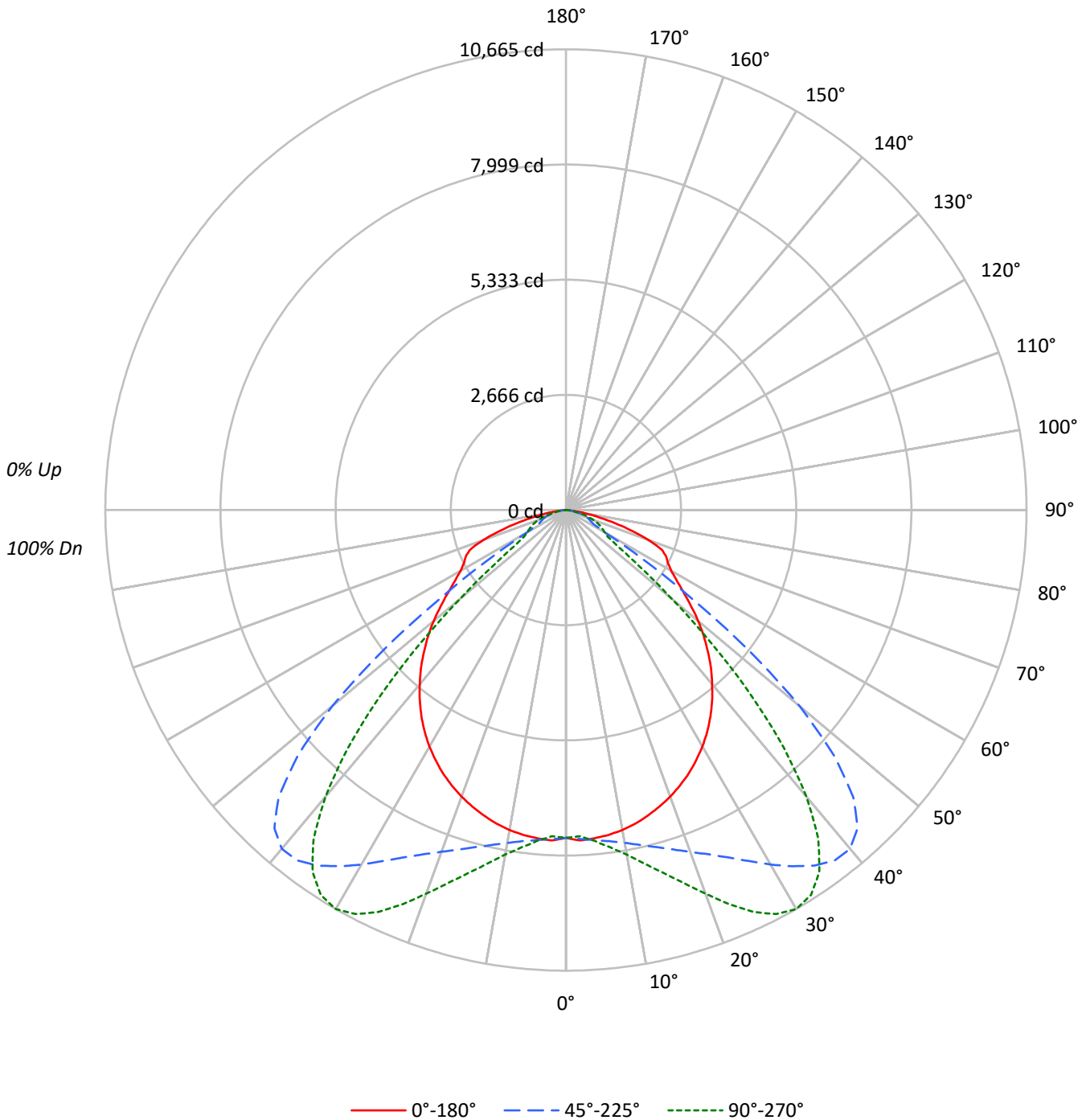
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 24275.4 lumens  
Efficiency: N/A  
Efficacy: 157.6 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.69 / 1.65  
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	
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87
2	102	94	88	83	99	93	87	82	89	85	81	86	82	79	83	80	77	75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65
4	86	75	67	61	84	73	66	60	71	65	59	69	63	59	67	62	58	56
5	79	67	59	52	77	66	58	52	64	57	52	62	56	51	60	55	51	49
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45	43
7	68	55	46	40	66	54	46	40	52	45	40	51	45	40	50	44	39	38
8	63	50	42	36	61	49	41	36	48	41	36	47	40	35	45	40	35	33
9	59	46	38	32	57	45	37	32	44	37	32	43	36	32	42	36	32	30
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29	27

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

	0°	45°	90°
0°	12255	12255	12255
5°	12362	12426	12464
10°	12332	12825	13275
15°	12242	13504	14531
20°	12135	14465	16234
25°	11989	15807	18285
30°	11784	17664	19883
35°	11496	19799	20158
40°	11097	21572	18262
45°	10618	21490	13860
50°	10043	17760	7988
55°	9361	9769	4108
60°	9085	3409	3349
65°	9790	2480	3357
70°	9668	2542	3239
75°	7310	2223	2601
80°	4417	1816	1840
85°	2201	928	391



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	734.6	3.0
10°-20°	2284.3	9.4
20°-30°	4012.7	16.5
30°-40°	5574.6	23.0
40°-50°	5653.4	23.3
50°-60°	3628.0	14.9
60°-70°	1696.9	7.0
70°-80°	588.4	2.4
80°-90°	102.6	0.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	7031.6	29.0
0°-40°	12606.2	51.9
0°-60°	21887.5	90.2
0°-90°	24275.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	24275.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	7590	7590	7590	7590	7590	
5°	7627	7573	7667	7691	7690	725
15°	7324	7498	8078	8512	8693	2066
25°	6730	7419	8873	9911	10264	3098
35°	5833	7482	10045	10390	10227	3642
45°	4650	8009	9411	7020	6070	3585
55°	3325	8272	3470	1671	1460	3001
65°	2563	2643	649	813	879	2493
75°	1172	405	356	410	417	1268
85°	119	107	50	28	21	179
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	7590.2	7590.2	7590.2	7590.2	7590.2	7590.2	7590.2	7590.2	7590.2	7590.2	7590.2
2.5°	7656.2	7632.5	7592.9	7577.0	7585.0	7624.6	7637.7	7608.7	7600.8	7579.7	7558.6
5°	7627.2	7606.1	7577.0	7571.8	7600.8	7666.8	7695.8	7687.9	7701.1	7703.7	7690.5
7.5°	7585.0	7566.5	7542.7	7566.5	7627.2	7732.8	7798.7	7819.9	7867.4	7877.9	7875.3
10°	7521.6	7505.8	7497.9	7558.6	7664.1	7822.5	7938.6	7996.7	8065.3	8089.0	8097.0
12.5°	7437.2	7421.3	7442.4	7548.0	7714.3	7941.3	8112.8	8215.7	8313.4	8363.5	8379.4
15°	7323.7	7318.4	7371.2	7540.1	7777.6	8078.5	8316.0	8477.0	8616.9	8672.3	8693.4
17.5°	7199.6	7202.3	7297.3	7537.5	7854.2	8239.5	8543.0	8772.6	8944.1	9023.3	9047.1
20°	7062.4	7070.3	7212.8	7534.8	7949.2	8418.9	8793.7	9094.6	9308.3	9413.9	9448.2
22.5°	6901.4	6917.3	7120.5	7537.5	8049.5	8624.8	9089.3	9448.2	9704.2	9830.9	9873.1
25°	6729.9	6753.6	7025.5	7550.7	8176.1	8872.9	9427.1	9846.7	10105.4	10216.2	10263.7
27.5°	6531.9	6571.5	6922.5	7569.1	8326.6	9160.5	9772.8	10176.6	10416.8	10501.2	10543.5
30°	6320.8	6365.7	6822.2	7606.1	8521.9	9474.6	10092.2	10432.6	10593.6	10641.1	10664.9
32.5°	6088.6	6162.5	6722.0	7666.8	8751.5	9778.1	10327.1	10530.3	10569.9	10554.0	10561.9
35°	5832.6	5911.7	6626.9	7767.1	9012.8	10044.7	10419.4	10419.4	10303.3	10232.0	10226.8
37.5°	5560.7	5661.0	6531.9	7883.2	9316.3	10221.5	10319.1	10057.9	9775.5	9622.4	9598.6
40°	5265.1	5399.7	6466.0	8041.5	9590.7	10234.7	9960.2	9421.8	8941.5	8693.4	8664.4
42.5°	4972.2	5138.5	6436.9	8247.4	9796.6	9991.9	9284.6	8453.3	7801.4	7508.4	7476.8
45°	4650.2	4869.3	6447.5	8529.8	9852.0	9411.3	8279.1	7202.3	6471.2	6101.8	6070.1
47.5°	4330.9	4602.7	6473.9	8849.1	9609.2	8426.9	6941.0	5695.3	4969.6	4581.6	4576.3
50°	3998.3	4352.0	6537.2	9110.4	8952.1	7070.3	5296.8	4080.2	3499.5	3203.9	3180.2
52.5°	3652.6	4132.9	6674.5	9157.9	7782.9	5328.5	3594.5	2723.6	2346.2	2158.8	2121.9
55°	3325.3	3948.2	6898.8	8730.4	6101.8	3470.5	2264.4	1718.1	1528.1	1451.5	1459.5
57.5°	3043.0	3811.0	7160.1	7614.0	3961.4	2042.7	1311.7	1142.8	1137.5	1145.4	1148.0
60°	2813.4	3726.5	7276.2	5711.2	2174.7	1055.7	915.8	952.7	1002.9	1031.9	1037.2
62.5°	2662.9	3681.6	6922.5	3309.5	965.9	736.3	799.7	868.3	926.3	952.7	955.4
65°	2562.6	3562.9	5663.7	1636.3	591.2	649.2	728.4	799.7	852.5	873.6	878.8
67.5°	2406.9	3227.7	3882.2	678.3	519.9	585.9	662.4	731.0	775.9	791.7	794.4
70°	2048.0	2702.5	2256.5	451.3	469.8	538.4	599.1	651.9	680.9	688.8	686.2
72.5°	1599.3	2140.4	1140.1	409.1	435.5	472.4	506.7	535.8	551.6	559.5	559.5
75°	1171.8	1565.0	535.8	361.6	324.6	356.3	390.6	409.1	414.3	417.0	417.0
77.5°	786.5	1079.4	319.3	279.8	250.7	277.1	290.3	282.4	277.1	282.4	282.4
80°	475.0	665.1	279.8	203.2	192.7	195.3	184.7	184.7	195.3	200.6	197.9
82.5°	256.0	377.4	245.4	147.8	129.3	118.8	116.1	110.8	105.6	102.9	102.9
85°	118.8	192.7	158.3	89.7	68.6	50.1	39.6	29.0	26.4	21.1	21.1
87.5°	47.5	73.9	47.5	29.0	15.8	10.6	7.9	5.3	2.6	2.6	2.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)