

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: P685445

Luminaire Tested: **8CZL-14-UNV-M-L850-CD-U**

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685445  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 05/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 8CZL-14-UNV-M-L850-CD-U  
Description: METALUX CRUZE LINEAR 8FT MEDIUM LENS MODEL @80 CRI and 5000K  
Light Source: (784) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

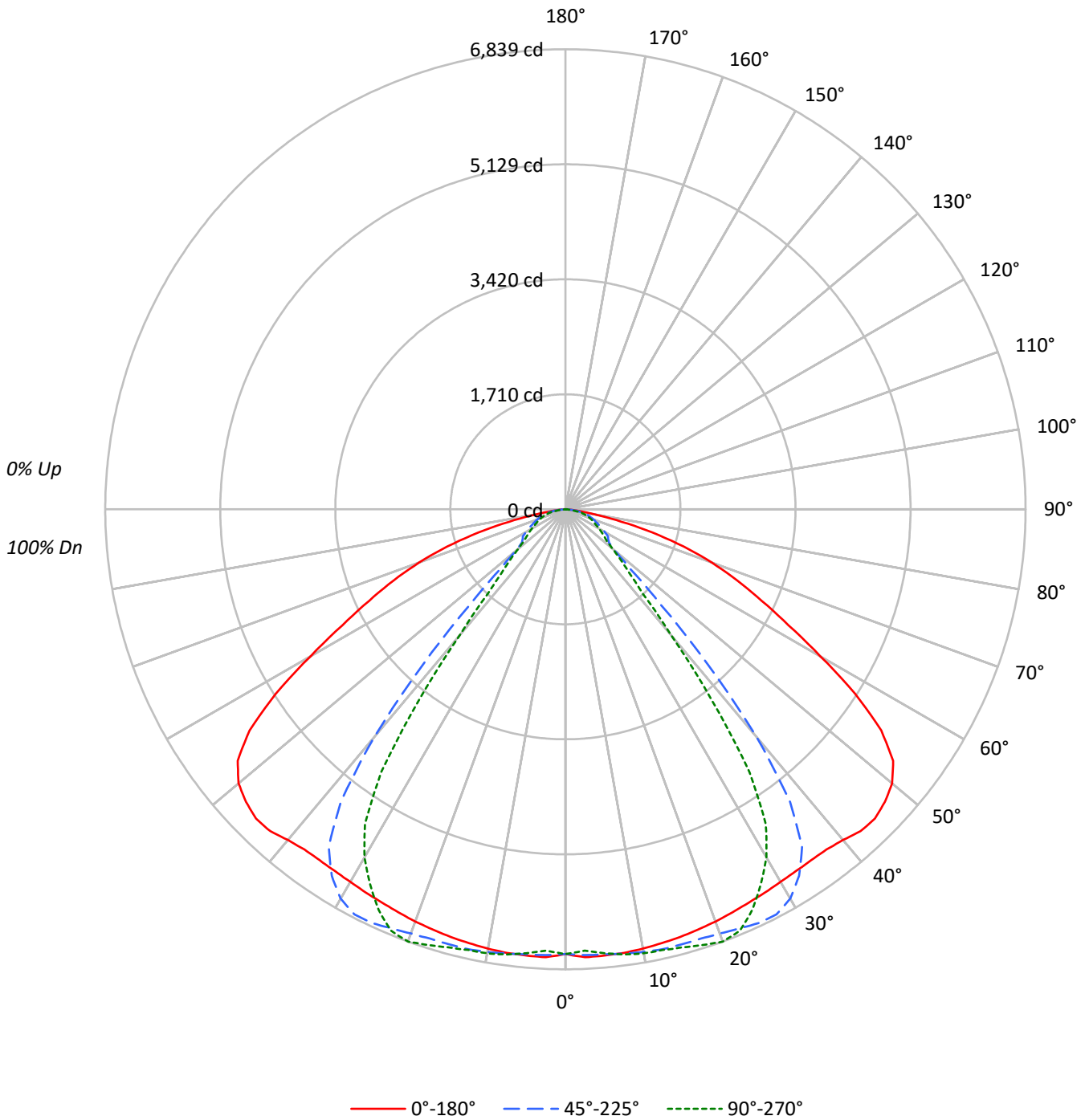
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14284.6 lumens  
Efficiency: N/A  
Efficacy: 160.5 lumens/watt  
Spacing Criteria (0/90/45): 1.48 / 1.28 / 1.22  
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	90	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77
3	95	86	80	74	93	85	79	73	82	77	72	79	75	71	77	73	70	68
4	88	78	71	65	86	77	70	64	74	68	64	72	67	63	70	66	62	60
5	82	71	63	57	80	70	63	57	68	61	56	66	60	56	64	59	55	53
6	76	65	57	51	75	64	56	51	62	55	51	61	55	50	59	54	50	48
7	71	59	51	46	70	59	51	46	57	50	46	56	50	45	54	49	45	43
8	67	55	47	42	65	54	47	41	53	46	41	51	45	41	50	45	41	39
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34	33

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

	0°	45°	90°
0°	10675	10675	10675
5°	10795	10764	10734
10°	10874	10958	10989
15°	11002	11191	11269
20°	11205	11533	11751
25°	11492	12094	11706
30°	11924	12458	11136
35°	12551	12085	9404
40°	13527	9320	5143
45°	14851	4582	3074
50°	15924	2395	2292
55°	16127	2186	1978
60°	14143	2178	1865
65°	12307	2093	1806
70°	10921	2121	1818
75°	8378	2178	1845
80°	4264	2212	1529
85°	1682	1247	435



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	633.5	4.4
10°-20°	1888.2	13.2
20°-30°	3047.3	21.3
30°-40°	3568.9	25.0
40°-50°	2429.5	17.0
50°-60°	1406.8	9.8
60°-70°	804.3	5.6
70°-80°	414.0	2.9
80°-90°	92.2	0.6
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°	5569.0	39.0
0°-40°	9137.9	64.0
0°-60°	12974.2	90.8
0°-90°	14284.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14284.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	6612	6612	6612	6612	6612	
5°	6660	6595	6642	6634	6623	635
15°	6582	6572	6695	6712	6742	1863
25°	6451	6541	6789	6684	6571	2986
35°	6368	6682	6131	5171	4771	4009
45°	6504	4839	2007	1352	1346	4997
55°	5729	1661	776	723	703	4992
65°	3221	592	548	484	473	3230
75°	1343	366	349	304	296	1428
85°	91	111	67	31	24	154
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°	6611.8	6611.8	6611.8	6611.8	6611.8	6611.8	6611.8	6611.8	6611.8	6611.8	6611.8
2.5°	6665.1	6646.3	6608.7	6593.1	6593.1	6633.8	6640.0	6615.0	6610.3	6588.4	6568.0
5°	6660.4	6641.6	6605.6	6591.5	6596.2	6641.6	6652.5	6632.2	6638.5	6632.2	6622.8
7.5°	6651.0	6630.6	6597.8	6588.4	6602.5	6660.4	6679.2	6668.2	6682.3	6679.2	6676.0
10°	6632.2	6616.5	6585.2	6583.7	6611.8	6683.8	6707.3	6693.2	6697.9	6696.4	6702.6
12.5°	6607.1	6593.1	6566.5	6580.5	6621.2	6697.9	6713.6	6691.7	6697.9	6699.5	6710.5
15°	6582.1	6564.9	6547.7	6580.5	6622.8	6694.8	6710.5	6707.3	6726.1	6727.7	6741.8
17.5°	6550.8	6539.8	6535.1	6579.0	6611.8	6691.7	6727.7	6746.5	6771.5	6777.8	6791.9
20°	6521.1	6511.7	6522.6	6571.1	6607.1	6712.0	6762.1	6790.3	6816.9	6824.7	6838.8
22.5°	6485.1	6478.8	6508.5	6560.2	6615.0	6743.3	6799.7	6802.8	6791.9	6771.5	6780.9
25°	6450.6	6450.6	6494.4	6557.1	6638.5	6788.7	6793.4	6704.2	6624.4	6571.1	6571.1
27.5°	6422.4	6428.7	6483.5	6571.1	6683.8	6791.9	6661.9	6485.1	6367.7	6291.0	6286.3
30°	6395.8	6406.8	6483.5	6610.3	6716.7	6682.3	6430.3	6215.8	6053.0	5979.5	5973.2
32.5°	6377.0	6394.3	6511.7	6669.8	6677.6	6461.6	6132.9	5862.1	5669.5	5560.0	5541.2
35°	6367.7	6388.0	6564.9	6721.4	6519.5	6131.3	5664.8	5246.9	4941.7	4800.8	4771.0
37.5°	6373.9	6409.9	6638.5	6677.6	6123.5	5481.7	4811.7	4212.2	3792.7	3659.7	3567.3
40°	6417.7	6478.8	6696.4	6320.7	5292.3	4422.0	3534.5	2889.6	2600.0	2504.5	2440.3
42.5°	6491.3	6552.4	6544.5	5503.6	4134.0	3141.6	2277.5	1890.9	1750.0	1734.4	1704.6
45°	6503.8	6527.3	6053.0	4434.5	3006.9	2006.7	1466.7	1352.4	1349.3	1360.2	1346.2
47.5°	6438.1	6392.7	5343.9	3392.0	2070.9	1297.6	1103.5	1122.3	1131.7	1123.9	1112.9
50°	6339.5	6172.0	4548.8	2493.5	1380.6	953.3	962.7	979.9	947.0	925.1	912.6
52.5°	6139.1	5813.5	3665.9	1767.2	954.8	814.0	889.1	839.0	792.0	779.5	778.0
55°	5729.0	5281.3	2820.7	1274.2	729.4	776.4	790.5	726.3	712.2	706.0	702.8
57.5°	5104.5	4619.2	2121.0	920.4	640.2	749.8	687.2	662.1	648.0	643.3	638.6
60°	4379.7	3878.8	1581.0	676.2	621.4	674.6	623.0	599.5	583.9	577.6	577.6
62.5°	3737.9	3210.4	1169.3	549.4	616.7	608.9	561.9	536.9	527.5	524.4	521.2
65°	3221.4	2582.8	843.7	508.7	576.0	547.9	502.5	485.2	479.0	472.7	472.7
67.5°	2761.2	2022.4	621.4	499.3	529.1	493.1	458.6	444.5	436.7	435.2	433.6
70°	2313.5	1490.2	472.7	488.4	502.5	449.2	416.4	399.2	389.8	385.1	385.1
72.5°	1842.4	1022.1	377.2	449.2	460.2	397.6	364.7	352.2	344.4	339.7	338.1
75°	1343.0	641.8	331.8	377.2	396.0	349.1	316.2	305.2	302.1	297.4	295.8
77.5°	854.7	383.5	283.3	308.4	324.0	294.3	269.2	255.1	253.6	248.9	247.3
80°	458.6	245.8	227.0	242.6	252.0	237.9	208.2	180.0	172.2	165.9	164.4
82.5°	212.9	156.5	169.1	183.1	187.8	151.8	125.2	112.7	104.9	97.0	92.4
85°	90.8	84.5	104.9	112.7	92.4	67.3	43.8	32.9	26.6	25.0	23.5
87.5°	32.9	32.9	39.1	26.6	15.7	12.5	12.5	11.0	9.4	7.8	7.8
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)