

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: P685456

Luminaire Tested: **8CZL-18-UNV-M-L935-CD-U**

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685456  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 05/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 8CZL-18-UNV-M-L935-CD-U  
Description: METALUX CRUZE LINEAR 8FT MEDIUM LENS MODEL @90 CRI and 3500K  
Light Source: (1176) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

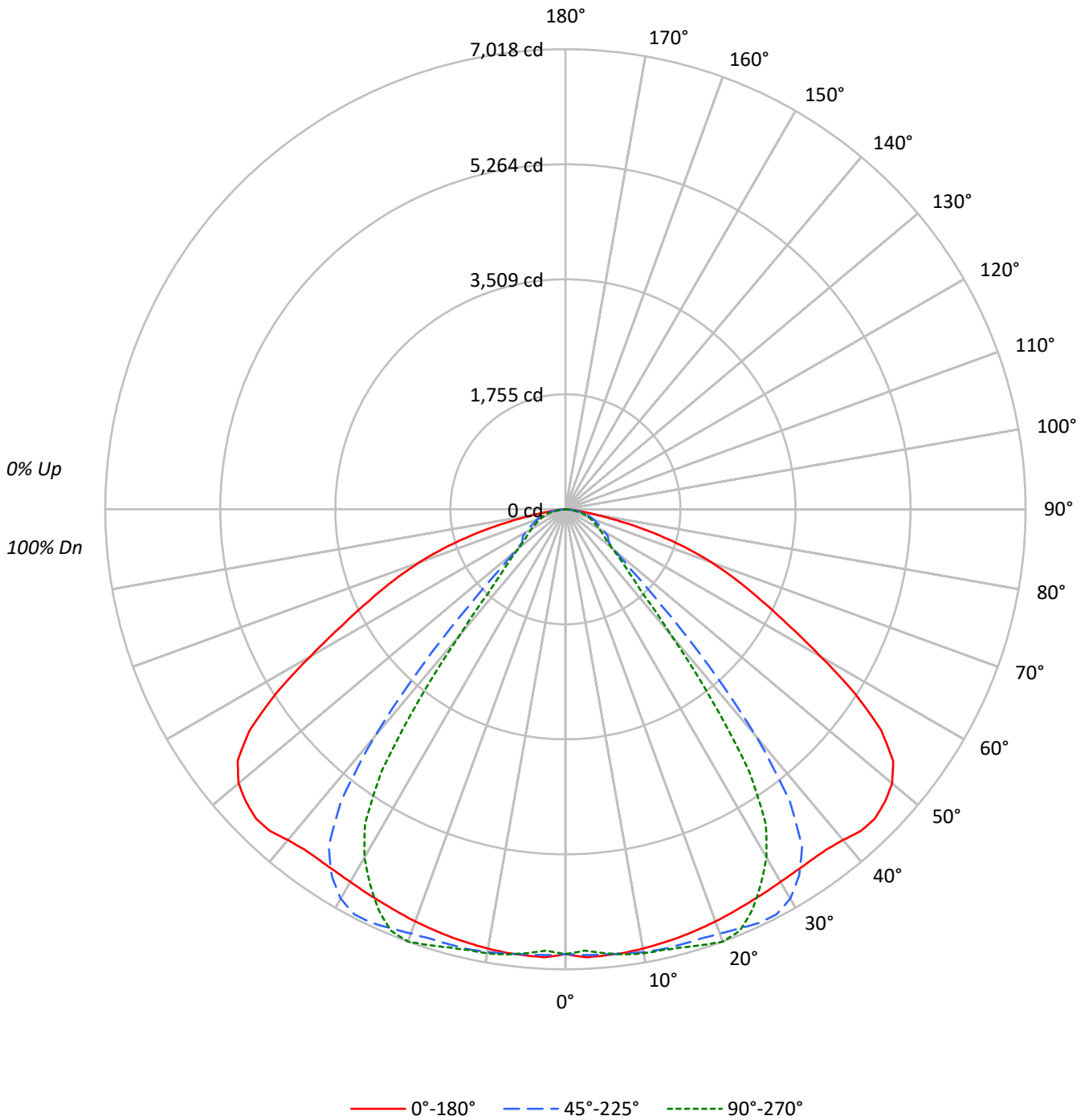
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14658.5 lumens  
Efficiency: N/A  
Efficacy: 134.5 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): 109  
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

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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	102	102	102	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	90	90	90	88
2	103	96	90	86	100	94	89	85	91	87	83	88	84	81	85	82	79	79	79	79	77
3	95	86	80	74	93	85	79	73	82	77	72	79	75	71	77	73	70	70	70	70	68
4	88	78	71	65	86	77	70	64	74	68	64	72	67	63	70	66	62	62	62	62	60
5	82	71	63	57	80	70	63	57	68	61	56	66	60	56	64	59	55	55	55	55	53
6	76	65	57	51	75	64	56	51	62	55	51	61	55	50	59	54	50	50	50	50	48
7	71	59	51	46	70	59	51	46	57	50	46	56	50	45	54	49	45	45	45	45	43
8	67	55	47	42	65	54	47	41	53	46	41	51	45	41	50	45	41	41	41	41	39
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	37	37	37	36
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34	34	34	34	33

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

	0°	45°	90°
0°	10955	10955	10955
5°	11077	11046	11015
10°	11158	11245	11277
15°	11290	11484	11564
20°	11498	11835	12058
25°	11793	12411	12013
30°	12236	12784	11428
35°	12879	12401	9650
40°	13881	9564	5278
45°	15240	4702	3154
50°	16341	2457	2352
55°	16549	2243	2030
60°	14513	2236	1914
65°	12629	2148	1853
70°	11208	2176	1865
75°	8598	2235	1894
80°	4376	2271	1569
85°	1727	1280	446



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	650.1	4.4
10°-20°	1937.6	13.2
20°-30°	3127.1	21.3
30°-40°	3662.3	25.0
40°-50°	2493.1	17.0
50°-60°	1443.6	9.8
60°-70°	825.3	5.6
70°-80°	424.8	2.9
80°-90°	94.6	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°	5714.8	39.0
0°-40°	9377.0	64.0
0°-60°	13313.7	90.8
0°-90°	14658.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14658.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	6785	6785	6785	6785	6785	
5°	6835	6768	6815	6807	6796	651
15°	6754	6744	6870	6888	6918	1912
25°	6620	6713	6966	6859	6743	3064
35°	6534	6857	6292	5306	4896	4114
45°	6674	4966	2059	1387	1381	5127
55°	5879	1704	797	742	721	5122
65°	3306	608	562	496	485	3314
75°	1378	375	358	312	304	1465
85°	93	114	69	32	24	158
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°	6784.9	6784.9	6784.9	6784.9	6784.9	6784.9	6784.9	6784.9	6784.9	6784.9	6784.9
2.5°	6839.5	6820.2	6781.7	6765.6	6765.6	6807.4	6813.8	6788.1	6783.3	6760.8	6739.9
5°	6834.7	6815.4	6778.5	6764.0	6768.8	6815.4	6826.7	6805.8	6812.2	6805.8	6796.2
7.5°	6825.1	6804.2	6770.5	6760.8	6775.3	6834.7	6854.0	6842.7	6857.2	6854.0	6850.8
10°	6805.8	6789.7	6757.6	6756.0	6784.9	6858.8	6882.9	6868.4	6873.3	6871.6	6878.1
12.5°	6780.1	6765.6	6738.3	6752.8	6794.5	6873.3	6889.3	6866.8	6873.3	6874.9	6886.1
15°	6754.4	6736.7	6719.1	6752.8	6796.2	6870.0	6886.1	6882.9	6902.2	6903.8	6918.2
17.5°	6722.3	6711.0	6706.2	6751.2	6784.9	6866.8	6903.8	6923.0	6948.7	6955.2	6969.6
20°	6691.7	6682.1	6693.4	6743.1	6780.1	6887.7	6939.1	6968.0	6995.3	7003.4	7017.8
22.5°	6654.8	6648.4	6678.9	6731.9	6788.1	6919.8	6977.7	6980.9	6969.6	6948.7	6958.4
25°	6619.5	6619.5	6664.4	6728.7	6812.2	6966.4	6971.2	6879.7	6797.8	6743.1	6743.1
27.5°	6590.5	6597.0	6653.2	6743.1	6858.8	6969.6	6836.3	6654.8	6534.3	6455.6	6450.8
30°	6563.2	6574.5	6653.2	6783.3	6892.5	6857.2	6598.6	6378.5	6211.5	6136.0	6129.5
32.5°	6544.0	6561.6	6682.1	6844.3	6852.4	6630.7	6293.4	6015.5	5817.9	5705.5	5686.2
35°	6534.3	6555.2	6736.7	6897.3	6690.1	6291.8	5813.1	5384.2	5071.0	4926.4	4895.9
37.5°	6540.8	6577.7	6812.2	6852.4	6283.8	5625.2	4937.7	4322.5	3892.0	3755.5	3660.7
40°	6585.7	6648.4	6871.6	6486.1	5430.8	4537.7	3627.0	2965.2	2668.0	2570.0	2504.2
42.5°	6661.2	6723.9	6715.8	5647.7	4242.2	3223.8	2337.1	1940.4	1795.8	1779.8	1749.2
45°	6674.1	6698.2	6211.5	4550.6	3085.7	2059.2	1505.1	1387.8	1384.6	1395.9	1381.4
47.5°	6606.6	6560.0	5483.8	3480.8	2125.1	1331.6	1132.4	1151.7	1161.3	1153.3	1142.1
50°	6505.4	6333.5	4667.8	2558.8	1416.7	978.2	987.9	1005.5	971.8	949.3	936.5
52.5°	6299.8	5965.7	3761.9	1813.5	979.8	835.3	912.4	861.0	812.8	799.9	798.3
55°	5879.0	5419.6	2894.5	1307.5	748.5	796.7	811.2	745.3	730.9	724.4	721.2
57.5°	5238.1	4740.1	2176.5	944.5	657.0	769.4	705.2	679.5	665.0	660.2	655.4
60°	4494.4	3980.4	1622.3	693.9	637.7	692.3	639.3	615.2	599.1	592.7	592.7
62.5°	3835.8	3294.5	1199.9	563.8	632.9	624.8	576.7	551.0	541.3	538.1	534.9
65°	3305.7	2650.4	865.8	522.0	591.1	562.2	515.6	497.9	491.5	485.1	485.1
67.5°	2833.5	2075.3	637.7	512.4	542.9	506.0	470.6	456.2	448.2	446.5	444.9
70°	2374.1	1529.2	485.1	501.2	515.6	461.0	427.3	409.6	400.0	395.1	395.1
72.5°	1890.6	1048.9	387.1	461.0	472.2	408.0	374.3	361.4	353.4	348.6	347.0
75°	1378.2	658.6	340.5	387.1	406.4	358.2	324.5	313.2	310.0	305.2	303.6
77.5°	877.0	393.5	290.7	316.4	332.5	302.0	276.3	261.8	260.2	255.4	253.8
80°	470.6	252.2	232.9	249.0	258.6	244.2	213.6	184.7	176.7	170.3	168.7
82.5°	218.5	160.6	173.5	187.9	192.8	155.8	128.5	115.7	107.6	99.6	94.8
85°	93.2	86.7	107.6	115.7	94.8	69.1	45.0	33.7	27.3	25.7	24.1
87.5°	33.7	33.7	40.2	27.3	16.1	12.9	12.9	11.2	9.6	8.0	8.0
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)