

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: P685425

Luminaire Tested: **8CZL-14-UNV-M-L835-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685425
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-L835-CD-U
Description: METALUX CRUZE LINEAR 8FT MEDIUM LENS MODEL @80 CRI and 3500K
Light Source: (784) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

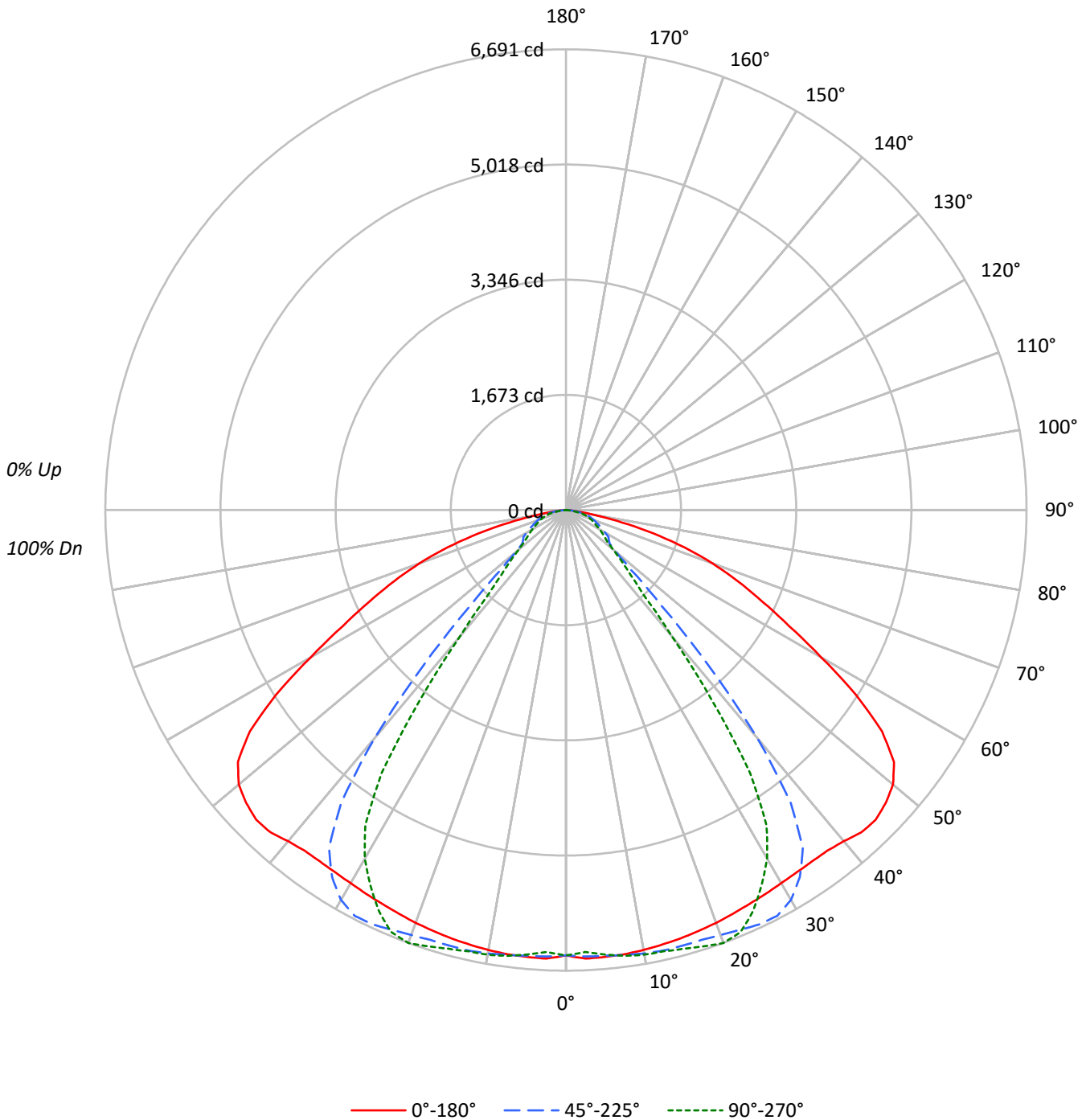
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13975.9 lumens
Efficiency: N/A
Efficacy: 157.0 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 (A_{in}): 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	93	92	90	88
2	103	96	90	86	100	94	89	85	91	87	83	88	84	81	85	82	79	85	82	79	77
3	95	86	80	74	93	85	79	73	82	77	72	79	75	71	77	73	70	77	73	70	68
4	88	78	71	65	86	77	70	64	74	68	64	72	67	63	70	66	62	70	66	62	60
5	82	71	63	57	80	70	63	57	68	61	56	66	60	56	64	59	55	64	59	55	53
6	76	65	57	51	75	64	56	51	62	55	51	61	55	50	59	54	50	59	54	50	48
7	71	59	51	46	70	59	51	46	57	50	46	56	50	45	54	49	45	54	49	45	43
8	67	55	47	42	65	54	47	41	53	46	41	51	45	41	50	45	41	50	45	41	39
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	47	41	37	36
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34	44	38	34	33

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10445	10445	10445
5°	10562	10532	10502
10°	10639	10721	10752
15°	10765	10949	11026
20°	10962	11284	11497
25°	11243	11833	11453
30°	11666	12189	10896
35°	12280	11824	9201
40°	13234	9119	5032
45°	14530	4483	3007
50°	15580	2343	2243
55°	15778	2138	1936
60°	13837	2132	1825
65°	12041	2048	1767
70°	10685	2075	1778
75°	8197	2130	1805
80°	4172	2165	1495
85°	1645	1221	426



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	619.8	4.4
10°-20°	1847.4	13.2
20°-30°	2981.4	21.3
30°-40°	3491.7	25.0
40°-50°	2377.0	17.0
50°-60°	1376.4	9.8
60°-70°	786.9	5.6
70°-80°	405.0	2.9
80°-90°	90.2	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°	5448.6	39.0
0°-40°	8940.4	64.0
0°-60°	12693.8	90.8
0°-90°	13975.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13975.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6469	6469	6469	6469	6469	
5°	6516	6453	6498	6490	6480	621
15°	6440	6430	6550	6567	6596	1823
25°	6311	6400	6642	6540	6429	2921
35°	6230	6538	5999	5059	4668	3922
45°	6363	4735	1963	1322	1317	4889
55°	5605	1625	760	707	688	4884
65°	3152	580	536	473	462	3160
75°	1314	358	342	298	289	1397
85°	89	108	66	31	23	150
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°	6469.0	6469.0	6469.0	6469.0	6469.0	6469.0	6469.0	6469.0	6469.0	6469.0	6469.0
2.5°	6521.0	6502.7	6465.9	6450.6	6450.6	6490.4	6496.5	6472.0	6467.4	6446.0	6426.1
5°	6516.4	6498.1	6462.8	6449.1	6453.7	6498.1	6508.8	6488.9	6495.0	6488.9	6479.7
7.5°	6507.3	6487.3	6455.2	6446.0	6459.8	6516.4	6534.8	6524.1	6537.9	6534.8	6531.8
10°	6488.9	6473.6	6442.9	6441.4	6469.0	6539.4	6562.4	6548.6	6553.2	6551.7	6557.8
12.5°	6464.4	6450.6	6424.6	6438.3	6478.2	6553.2	6568.5	6547.1	6553.2	6554.7	6565.5
15°	6439.9	6423.0	6406.2	6438.3	6479.7	6550.1	6565.5	6562.4	6580.8	6582.3	6596.1
17.5°	6409.2	6398.5	6393.9	6436.8	6469.0	6547.1	6582.3	6600.7	6625.2	6631.3	6645.1
20°	6380.1	6371.0	6381.7	6429.1	6464.4	6567.0	6616.0	6643.6	6669.6	6677.2	6691.0
22.5°	6344.9	6338.8	6367.9	6418.4	6472.0	6597.6	6652.7	6655.8	6645.1	6625.2	6634.4
25°	6311.2	6311.2	6354.1	6415.4	6495.0	6642.0	6646.6	6559.3	6481.2	6429.1	6429.1
27.5°	6283.7	6289.8	6343.4	6429.1	6539.4	6645.1	6518.0	6344.9	6230.1	6155.0	6150.4
30°	6257.6	6268.3	6343.4	6467.4	6571.6	6537.9	6291.3	6081.5	5922.2	5850.3	5844.1
32.5°	6239.2	6256.1	6371.0	6525.6	6533.3	6321.9	6000.3	5735.4	5547.0	5439.8	5421.4
35°	6230.1	6250.0	6423.0	6576.2	6378.6	5998.8	5542.4	5133.5	4834.9	4697.0	4667.9
37.5°	6236.2	6271.4	6495.0	6533.3	5991.1	5363.2	4707.8	4121.2	3710.8	3580.6	3490.2
40°	6279.1	6338.8	6551.7	6184.1	5177.9	4326.4	3458.1	2827.1	2543.8	2450.4	2387.6
42.5°	6351.0	6410.8	6403.1	5384.7	4044.6	3073.7	2228.3	1850.0	1712.2	1696.9	1667.8
45°	6363.3	6386.3	5922.2	4338.7	2942.0	1963.4	1435.0	1323.2	1320.1	1330.9	1317.1
47.5°	6299.0	6254.6	5228.5	3318.7	2026.1	1269.6	1079.7	1098.1	1107.3	1099.6	1088.9
50°	6202.5	6038.6	4450.5	2439.6	1350.8	932.7	941.9	958.7	926.5	905.1	892.9
52.5°	6006.5	5687.9	3586.7	1729.0	934.2	796.4	869.9	820.9	774.9	762.7	761.1
55°	5605.2	5167.2	2759.7	1246.6	713.7	759.6	773.4	710.6	696.8	690.7	687.6
57.5°	4994.2	4519.4	2075.2	900.5	626.4	733.6	672.3	647.8	634.0	629.4	624.8
60°	4285.1	3795.0	1546.8	661.6	608.0	660.1	609.5	586.6	571.2	565.1	565.1
62.5°	3657.2	3141.1	1144.0	537.5	603.4	595.7	549.8	525.3	516.1	513.0	510.0
65°	3151.8	2526.9	825.5	497.7	563.6	536.0	491.6	474.8	468.6	462.5	462.5
67.5°	2701.5	1978.7	608.0	488.5	517.6	482.4	448.7	434.9	427.3	425.8	424.2
70°	2263.5	1458.0	462.5	477.8	491.6	439.5	407.4	390.5	381.3	376.7	376.7
72.5°	1802.6	1000.1	369.1	439.5	450.3	389.0	356.8	344.6	336.9	332.3	330.8
75°	1314.0	627.9	324.7	369.1	387.5	341.5	309.4	298.6	295.6	291.0	289.4
77.5°	836.2	375.2	277.2	301.7	317.0	287.9	263.4	249.6	248.1	243.5	242.0
80°	448.7	240.4	222.1	237.4	246.6	232.8	203.7	176.1	168.5	162.3	160.8
82.5°	208.3	153.1	165.4	179.2	183.8	148.6	122.5	110.3	102.6	95.0	90.4
85°	88.8	82.7	102.6	110.3	90.4	65.9	42.9	32.2	26.0	24.5	23.0
87.5°	32.2	32.2	38.3	26.0	15.3	12.3	12.3	10.7	9.2	7.7	7.7
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)