

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: P685455

Luminaire Tested: **8CZL-14-UNV-M-L935-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685455
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-L935-CD-U
Description: METALUX CRUZE LINEAR 8FT MEDIUM LENS MODEL @90 CRI and 3500K
Light Source: (784) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

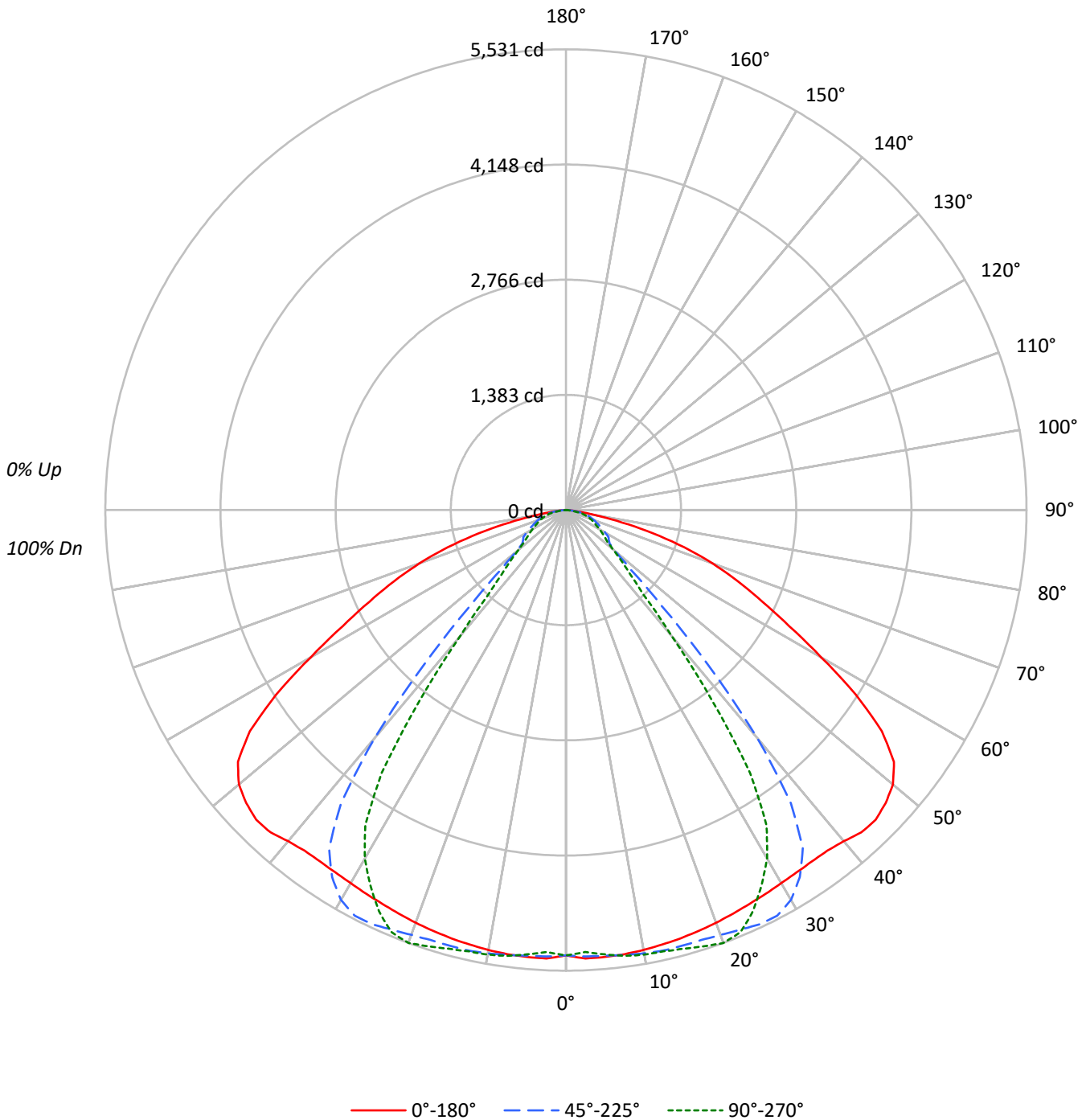
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11552.0 lumens
Efficiency: N/A
Efficacy: 129.8 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	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°	8633	8633	8633
5°	8730	8705	8681
10°	8793	8862	8887
15°	8898	9050	9113
20°	9061	9326	9503
25°	9293	9781	9467
30°	9643	10075	9006
35°	10150	9773	7605
40°	10939	7537	4160
45°	12010	3705	2486
50°	12878	1936	1854
55°	13042	1768	1600
60°	11437	1762	1508
65°	9953	1693	1461
70°	8833	1715	1470
75°	6775	1761	1492
80°	3449	1789	1236
85°	1360	1008	352



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	512.3	4.4
10°-20°	1527.0	13.2
20°-30°	2464.4	21.3
30°-40°	2886.2	25.0
40°-50°	1964.8	17.0
50°-60°	1137.7	9.8
60°-70°	650.4	5.6
70°-80°	334.8	2.9
80°-90°	74.5	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°	4503.7	39.0
0°-40°	7389.8	64.0
0°-60°	10492.2	90.8
0°-90°	11552.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11552.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5347	5347	5347	5347	5347	
5°	5386	5333	5371	5365	5356	513
15°	5323	5315	5414	5428	5452	1507
25°	5217	5290	5490	5406	5314	2415
35°	5150	5404	4958	4181	3858	3242
45°	5260	3913	1623	1093	1089	4041
55°	4633	1343	628	585	568	4037
65°	2605	479	443	391	382	2612
75°	1086	296	282	246	239	1155
85°	73	90	54	25	19	124
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°	5347.0	5347.0	5347.0	5347.0	5347.0	5347.0	5347.0	5347.0	5347.0	5347.0	5347.0
2.5°	5390.1	5374.9	5344.5	5331.8	5331.8	5364.7	5369.8	5349.6	5345.8	5328.0	5311.6
5°	5386.3	5371.1	5342.0	5330.6	5334.4	5371.1	5379.9	5363.5	5368.5	5363.5	5355.9
7.5°	5378.7	5362.2	5335.6	5328.0	5339.4	5386.3	5401.5	5392.6	5404.0	5401.5	5398.9
10°	5363.5	5350.8	5325.5	5324.2	5347.0	5405.3	5424.2	5412.8	5416.6	5415.4	5420.4
12.5°	5343.2	5331.8	5310.3	5321.7	5354.6	5416.6	5429.3	5411.6	5416.6	5417.9	5426.8
15°	5323.0	5309.0	5295.1	5321.7	5355.9	5414.1	5426.8	5424.2	5439.4	5440.7	5452.1
17.5°	5297.7	5288.8	5285.0	5320.4	5347.0	5411.6	5440.7	5455.9	5476.1	5481.2	5492.6
20°	5273.6	5266.0	5274.9	5314.1	5343.2	5428.0	5468.5	5491.3	5512.9	5519.2	5530.6
22.5°	5244.5	5239.4	5263.5	5305.2	5349.6	5453.4	5498.9	5501.5	5492.6	5476.1	5483.7
25°	5216.6	5216.6	5252.1	5302.7	5368.5	5490.1	5493.9	5421.7	5357.1	5314.1	5314.1
27.5°	5193.9	5198.9	5243.2	5314.1	5405.3	5492.6	5387.5	5244.5	5149.5	5087.5	5083.7
30°	5172.3	5181.2	5243.2	5345.8	5431.8	5404.0	5200.2	5026.8	4895.1	4835.6	4830.5
32.5°	5157.1	5171.1	5266.0	5393.9	5400.2	5225.5	4959.7	4740.7	4585.0	4496.4	4481.2
35°	5149.5	5166.0	5309.0	5435.6	5272.3	4958.4	4581.2	4243.2	3996.3	3882.4	3858.4
37.5°	5154.6	5183.7	5368.5	5400.2	4952.1	4433.1	3891.3	3406.4	3067.2	2959.6	2884.9
40°	5190.1	5239.4	5415.4	5111.6	4279.9	3576.1	2858.3	2336.8	2102.6	2025.4	1973.5
42.5°	5249.5	5298.9	5292.6	4450.8	3343.2	2540.6	1841.8	1529.2	1415.2	1402.6	1378.5
45°	5259.7	5278.7	4895.1	3586.2	2431.7	1622.8	1186.1	1093.7	1091.2	1100.0	1088.6
47.5°	5206.5	5169.8	4321.7	2743.1	1674.7	1049.4	892.4	907.6	915.2	908.9	900.0
50°	5126.8	4991.3	3678.6	2016.5	1116.5	770.9	778.5	792.4	765.8	748.1	738.0
52.5°	4964.7	4701.4	2964.7	1429.2	772.2	658.3	719.0	678.5	640.5	630.4	629.1
55°	4633.1	4271.0	2281.1	1030.4	589.9	627.9	639.3	587.4	576.0	570.9	568.4
57.5°	4128.0	3735.6	1715.2	744.3	517.7	606.4	555.7	535.5	524.1	520.3	516.5
60°	3541.9	3136.8	1278.5	546.9	502.5	545.6	503.8	484.8	472.2	467.1	467.1
62.5°	3022.9	2596.3	945.6	444.3	498.8	492.4	454.4	434.2	426.6	424.1	421.5
65°	2605.2	2088.7	682.3	411.4	465.8	443.1	406.3	392.4	387.4	382.3	382.3
67.5°	2233.0	1635.5	502.5	403.8	427.9	398.7	370.9	359.5	353.2	351.9	350.6
70°	1871.0	1205.1	382.3	395.0	406.3	363.3	336.7	322.8	315.2	311.4	311.4
72.5°	1489.9	826.6	305.1	363.3	372.2	321.5	294.9	284.8	278.5	274.7	273.4
75°	1086.1	519.0	268.4	305.1	320.3	282.3	255.7	246.8	244.3	240.5	239.2
77.5°	691.2	310.1	229.1	249.4	262.0	238.0	217.7	206.3	205.1	201.3	200.0
80°	370.9	198.7	183.6	196.2	203.8	192.4	168.4	145.6	139.2	134.2	132.9
82.5°	172.2	126.6	136.7	148.1	151.9	122.8	101.3	91.1	84.8	78.5	74.7
85°	73.4	68.4	84.8	91.1	74.7	54.4	35.4	26.6	21.5	20.3	19.0
87.5°	26.6	26.6	31.6	21.5	12.7	10.1	10.1	8.9	7.6	6.3	6.3
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)