

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: P685303

Luminaire Tested: **4CZL-16-UNV-L835-CD-U**

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685303  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 05/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4CZL-16-UNV-L835-CD-U  
Description: METALUX CRUZE LINEAR 4FT BASE MODEL @80 CRI and 3500K  
Light Source: (588) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

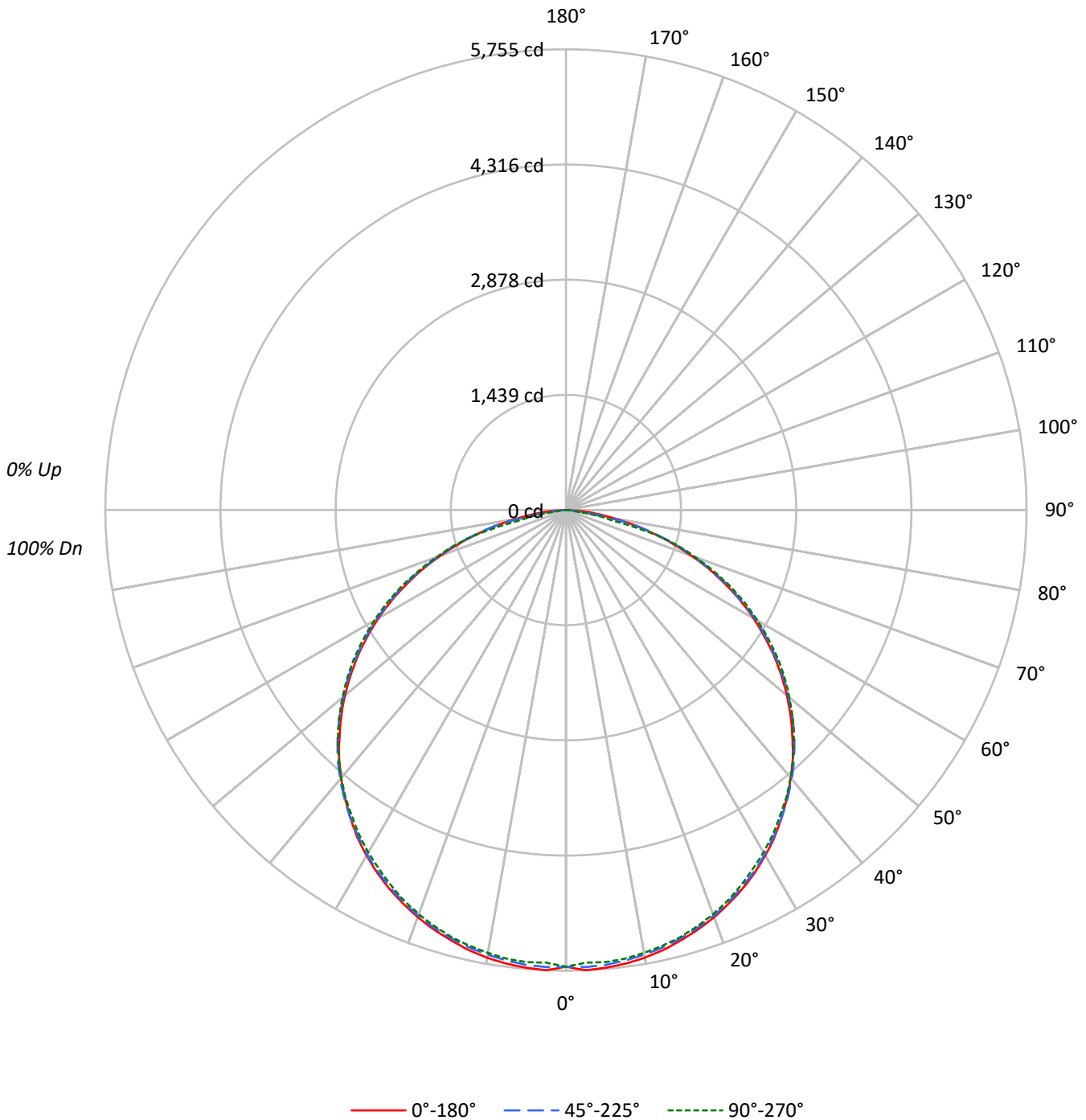
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16921.5 lumens  
Efficiency: N/A  
Efficacy: 164.3 lumens/watt  
Spacing Criteria (0/90/45): 1.3 / 1.29 / 1.41  
Luminous Opening: Rectangular (W 0.83' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 103  
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				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	109	104	100	96	106	102	98	95	98	94	92	94	91	89	90	88	86	86	86	86	84
2	99	91	84	78	96	89	82	77	85	80	75	82	77	74	79	75	72	72	72	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	61	61	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	52	52	52	50
5	76	63	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	45	45	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	39	39	39	37
7	65	51	42	36	63	50	42	36	48	41	35	47	40	35	46	40	35	35	35	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	31	31	31	29
9	56	42	34	29	55	42	34	29	41	33	28	40	33	28	39	33	28	28	28	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	25	25	25	25	24

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

	0°	45°	90°
0°	18420	18420	18420
5°	18603	18485	18372
10°	18619	18494	18414
15°	18593	18518	18460
20°	18599	18533	18461
25°	18602	18528	18435
30°	18580	18528	18411
35°	18512	18512	18382
40°	18425	18498	18410
45°	18269	18428	18389
50°	18115	18246	18307
55°	17873	18000	18176
60°	17483	17640	17853
65°	16831	17071	17362
70°	15742	16053	16202
75°	14165	14425	13687
80°	11833	9635	7502
85°	8825	2319	837



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	541.1	3.2
10°-20°	1560.3	9.2
20°-30°	2389.3	14.1
30°-40°	2925.3	17.3
40°-50°	3094.7	18.3
50°-60°	2853.8	16.9
60°-70°	2201.4	13.0
70°-80°	1175.7	6.9
80°-90°	179.9	1.1
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°	4490.7	26.5
0°-40°	7416.0	43.8
0°-60°	13364.4	79.0
0°-90°	16921.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	16921.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5704	5704	5704	5704	5704	
5°	5739	5671	5702	5678	5668	546
15°	5562	5503	5539	5520	5522	1572
25°	5221	5167	5200	5162	5174	2406
35°	4696	4668	4696	4656	4663	2938
45°	4000	3999	4035	4007	4027	3088
55°	3175	3171	3197	3216	3228	2832
65°	2203	2203	2234	2252	2272	2175
75°	1135	1134	1156	1165	1097	1202
85°	238	170	63	26	23	292
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5704.3	5704.3	5704.3	5704.3	5704.3
2.5°	5754.7	5686.9	5714.7	5693.8	5659.1
5°	5739.1	5671.2	5702.5	5678.2	5667.8
7.5°	5714.7	5645.2	5676.5	5657.3	5653.9
10°	5678.2	5606.9	5640.0	5619.1	5615.6
12.5°	5629.5	5560.0	5596.5	5572.1	5575.6
15°	5561.7	5502.6	5539.1	5520.0	5521.7
17.5°	5493.9	5433.1	5471.3	5452.2	5453.9
20°	5412.2	5353.1	5393.1	5363.5	5372.2
22.5°	5320.1	5267.9	5302.7	5264.4	5281.8
25°	5221.0	5167.1	5200.1	5161.8	5174.0
27.5°	5107.9	5057.5	5090.6	5050.6	5055.8
30°	4982.8	4937.6	4968.9	4928.9	4937.6
32.5°	4848.9	4808.9	4833.3	4796.7	4808.9
35°	4695.9	4668.1	4695.9	4655.9	4662.9
37.5°	4536.0	4508.1	4546.4	4511.6	4523.8
40°	4370.8	4344.7	4388.2	4353.4	4367.3
42.5°	4195.2	4176.1	4219.5	4184.8	4202.1
45°	4000.5	3998.7	4035.2	4007.4	4026.6
47.5°	3807.5	3804.0	3840.5	3821.4	3844.0
50°	3605.8	3602.3	3631.9	3630.2	3644.1
52.5°	3390.2	3395.4	3423.3	3428.5	3444.1
55°	3174.6	3171.2	3197.2	3216.4	3228.5
57.5°	2939.9	2946.9	2967.8	2990.4	2999.1
60°	2707.0	2703.5	2731.3	2750.4	2764.3
62.5°	2460.1	2460.1	2482.7	2510.5	2524.4
65°	2202.8	2202.8	2234.1	2251.5	2272.3
67.5°	1940.3	1935.0	1962.9	2001.1	1997.6
70°	1667.3	1669.0	1700.3	1719.5	1716.0
72.5°	1396.1	1401.3	1434.3	1443.0	1451.7
75°	1135.3	1133.6	1156.2	1164.8	1097.0
77.5°	876.2	878.0	891.9	653.7	573.7
80°	636.3	639.8	518.1	403.4	403.4
82.5°	420.7	413.8	266.0	156.5	114.7
85°	238.2	170.4	62.6	26.1	22.6
87.5°	97.4	31.3	17.4	12.2	10.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)