

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: P685379

Luminaire Tested: **4CZL-5-UNV-N-L850-CD-U**

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685379  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 05/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4CZL-5-UNV-N-L850-CD-U  
Description: METALUX CRUZE LINEAR 4FT NARROW LENS MODEL @80 CRI and 5000K  
Light Source: (392) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

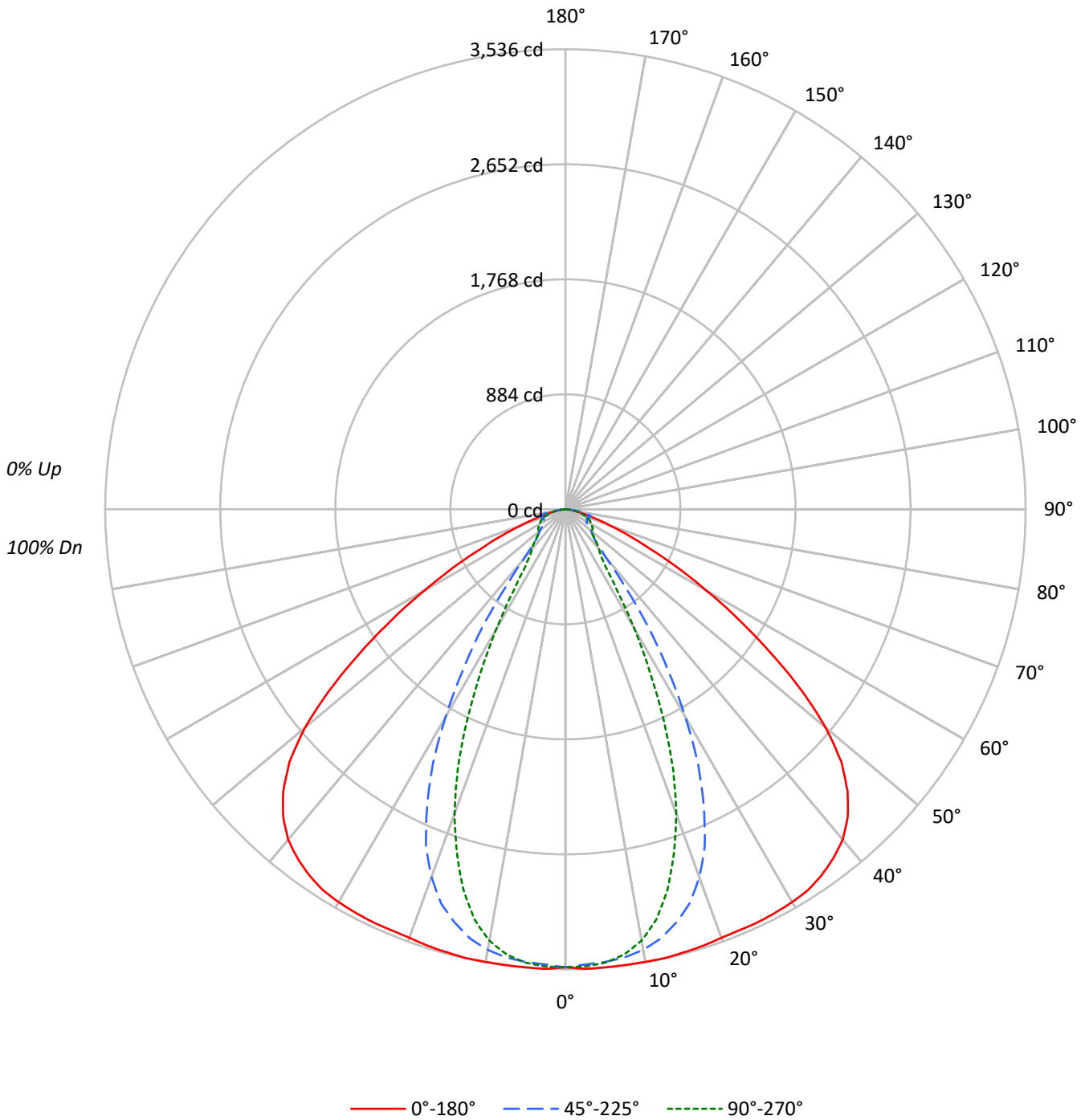
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4969.4 lumens  
Efficiency: N/A  
Efficacy: 160.3 lumens/watt  
Spacing Criteria (0/90/45): 1.48 / 0.81 / 0.89  
Luminous Opening: Rectangular (W 0.83' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 31  
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	109	105	102	99	101	99	96	97	95	93	94	92	91	89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	80	79
3	96	88	81	76	94	86	80	76	84	79	74	81	77	73	79	75	72	70
4	90	80	73	68	88	79	72	67	77	71	66	74	70	66	72	68	65	63
5	84	74	66	61	82	73	66	60	71	64	60	69	63	59	67	62	59	57
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	53	52
7	74	63	55	50	73	62	55	50	61	54	50	59	54	49	58	53	49	47
8	70	58	51	46	68	58	51	46	56	50	46	55	50	45	54	49	45	44
9	66	54	47	42	65	54	47	42	53	47	42	52	46	42	51	46	42	40
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37

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

	0°	45°	90°
0°	11366	11366	11366
5°	11455	11323	11340
10°	11582	11275	11041
15°	11784	10995	10123
20°	12044	10340	8557
25°	12477	8962	6359
30°	12999	6864	3945
35°	13533	4437	2117
40°	13972	2066	1695
45°	14002	1402	1443
50°	13127	1284	1328
55°	10853	1157	1441
60°	8123	1220	1479
65°	5476	1395	1584
70°	3476	1701	1630
75°	2097	2534	1627
80°	1279	2261	1516
85°	826	1464	1041



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	333.2	6.7
10°-20°	920.0	18.5
20°-30°	1175.0	23.6
30°-40°	953.0	19.2
40°-50°	674.3	13.6
50°-60°	439.1	8.8
60°-70°	269.7	5.4
70°-80°	160.2	3.2
80°-90°	45.0	0.9
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°	2428.2	48.9
0°-40°	3381.1	68.0
0°-60°	4494.5	90.4
0°-90°	4969.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4969.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3520	3520	3520	3520	3520	
5°	3534	3526	3493	3507	3498	337
15°	3525	3477	3289	3118	3028	998
25°	3502	3213	2515	1956	1785	1619
35°	3433	2331	1126	604	537	2147
45°	3066	1173	307	326	316	2339
55°	1928	395	206	240	256	1723
65°	717	202	183	219	207	745
75°	168	115	203	149	130	196
85°	22	45	40	35	28	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3519.9	3519.9	3519.9	3519.9	3519.9
2.5°	3535.6	3528.6	3501.8	3522.9	3516.9
5°	3533.8	3526.2	3493.0	3507.2	3498.5
7.5°	3532.6	3521.4	3474.3	3470.1	3452.0
10°	3532.3	3512.7	3438.4	3397.7	3367.2
12.5°	3532.9	3498.2	3379.6	3289.6	3227.8
15°	3525.0	3477.3	3289.0	3118.2	3028.0
17.5°	3517.8	3429.7	3175.0	2908.5	2773.0
20°	3504.8	3382.6	3009.0	2651.4	2490.2
22.5°	3501.2	3311.4	2799.3	2320.3	2160.7
25°	3501.8	3212.7	2515.3	1955.5	1784.7
27.5°	3495.1	3081.1	2206.0	1602.7	1400.5
30°	3486.1	2894.6	1840.8	1224.6	1058.0
32.5°	3470.1	2633.0	1466.9	872.7	734.5
35°	3433.0	2330.6	1125.6	603.8	536.9
37.5°	3381.4	1994.4	759.0	453.3	442.4
40°	3314.4	1689.3	490.1	396.2	402.0
42.5°	3210.6	1425.9	357.9	360.3	360.9
45°	3066.0	1173.3	306.9	326.2	316.0
47.5°	2875.9	921.3	278.8	284.3	282.8
50°	2613.1	689.9	255.6	254.4	264.4
52.5°	2288.1	510.3	231.8	242.0	260.7
55°	1927.7	395.0	205.5	239.9	255.9
57.5°	1582.2	320.2	190.4	233.9	243.2
60°	1257.8	266.8	188.9	222.7	229.0
62.5°	971.7	228.7	188.0	217.3	219.7
65°	716.7	202.5	182.6	219.1	207.3
67.5°	522.1	194.0	178.3	216.1	191.0
70°	368.2	170.5	180.2	199.5	172.6
72.5°	249.9	142.4	200.4	175.9	151.2
75°	168.1	115.0	203.1	148.8	130.4
77.5°	109.2	95.7	172.6	121.6	108.0
80°	68.8	79.7	121.6	93.5	81.5
82.5°	44.7	61.3	77.0	66.1	56.1
85°	22.3	44.7	39.5	35.3	28.1
87.5°	13.3	27.2	21.1	15.4	14.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)