

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: P685401

Luminaire Tested: **4CZL-9-UNV-N-L940-CD-U**

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685401  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 05/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4CZL-9-UNV-N-L940-CD-U  
Description: METALUX CRUZE LINEAR 4FT NARROW LENS MODEL @90 CRI and 4000K  
Light Source: (588) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

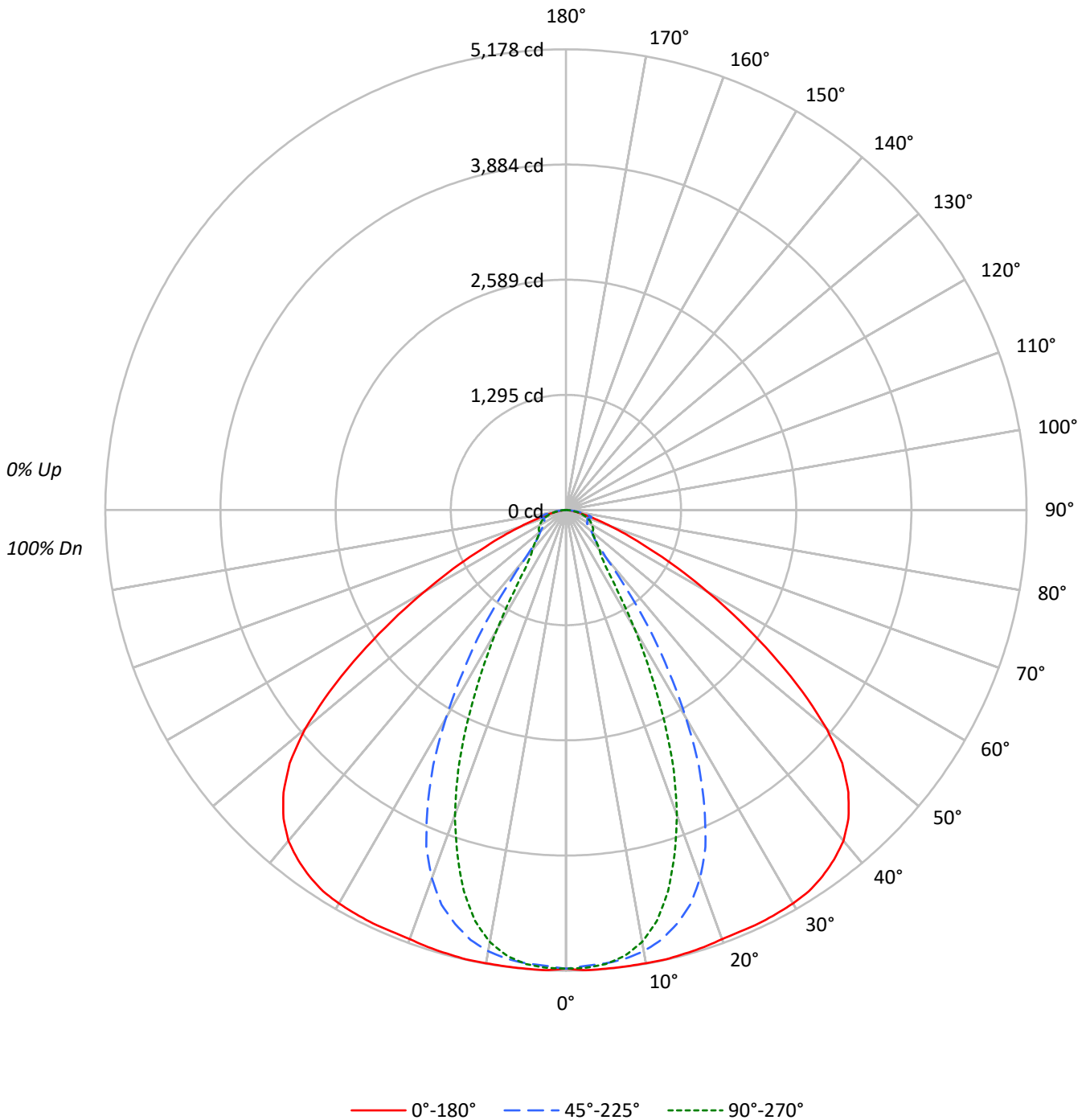
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7277.3 lumens  
Efficiency: N/A  
Efficacy: 134.8 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): 54  
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	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100
1	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89	89	89	89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	80	79	79	79	79
3	96	88	81	76	94	86	80	76	84	79	74	81	77	73	79	75	72	70	70	70	70
4	90	80	73	68	88	79	72	67	77	71	66	74	70	66	72	68	65	63	63	63	63
5	84	74	66	61	82	73	66	60	71	64	60	69	63	59	67	62	59	57	57	57	57
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	53	52	52	52	52
7	74	63	55	50	73	62	55	50	61	54	50	59	54	49	58	53	49	47	47	47	47
8	70	58	51	46	68	58	51	46	56	50	46	55	50	45	54	49	45	44	44	44	44
9	66	54	47	42	65	54	47	42	53	47	42	52	46	42	51	46	42	40	40	40	40
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37	37	37	37

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

	0°	45°	90°
0°	16645	16645	16645
5°	16775	16581	16607
10°	16961	16511	16169
15°	17257	16102	14824
20°	17637	15142	12532
25°	18271	13124	9312
30°	19036	10052	5777
35°	19818	6498	3099
40°	20460	3025	2481
45°	20504	2052	2113
50°	19224	1880	1945
55°	15893	1694	2110
60°	11896	1786	2166
65°	8020	2043	2320
70°	5090	2491	2387
75°	3072	3711	2382
80°	1874	3312	2219
85°	1212	2145	1523



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	488.0	6.7
10°-20°	1347.2	18.5
20°-30°	1720.6	23.6
30°-40°	1395.5	19.2
40°-50°	987.4	13.6
50°-60°	643.1	8.8
60°-70°	394.9	5.4
70°-80°	234.6	3.2
80°-90°	65.9	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°	3555.8	48.9
0°-40°	4951.4	68.0
0°-60°	6581.9	90.4
0°-90°	7277.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7277.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5155	5155	5155	5155	5155	
5°	5175	5164	5115	5136	5123	494
15°	5162	5092	4816	4566	4434	1462
25°	5128	4705	3683	2864	2614	2371
35°	5027	3413	1648	884	786	3144
45°	4490	1718	449	478	463	3425
55°	2823	578	301	351	375	2523
65°	1050	296	267	321	304	1090
75°	246	168	297	218	191	287
85°	33	65	58	52	41	46
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5154.6	5154.6	5154.6	5154.6	5154.6
2.5°	5177.6	5167.4	5128.1	5159.0	5150.2
5°	5174.9	5163.9	5115.2	5136.0	5123.2
7.5°	5173.1	5156.8	5087.8	5081.7	5055.1
10°	5172.7	5144.0	5035.3	4975.6	4931.0
12.5°	5173.6	5122.8	4949.1	4817.4	4726.8
15°	5162.1	5092.3	4816.5	4566.4	4434.2
17.5°	5151.5	5022.4	4649.5	4259.2	4060.8
20°	5132.5	4953.5	4406.4	3882.7	3646.7
22.5°	5127.2	4849.2	4099.3	3397.9	3164.2
25°	5128.1	4704.7	3683.4	2863.7	2613.5
27.5°	5118.3	4512.0	3230.4	2347.0	2051.0
30°	5105.1	4238.9	2695.7	1793.3	1549.4
32.5°	5081.7	3855.8	2148.2	1278.0	1075.6
35°	5027.3	3413.0	1648.4	884.3	786.2
37.5°	4951.7	2920.7	1111.4	663.8	647.9
40°	4853.6	2473.9	717.7	580.2	588.6
42.5°	4701.6	2088.1	524.1	527.7	528.5
45°	4489.9	1718.2	449.4	477.7	462.7
47.5°	4211.5	1349.2	408.3	416.3	414.1
50°	3826.6	1010.2	374.3	372.5	387.1
52.5°	3350.7	747.3	339.4	354.4	381.8
55°	2823.0	578.5	300.9	351.3	374.7
57.5°	2317.0	468.9	278.9	342.5	356.2
60°	1841.9	390.7	276.6	326.1	335.4
62.5°	1423.0	335.0	275.3	318.2	321.7
65°	1049.6	296.5	267.4	320.8	303.6
67.5°	764.5	284.2	261.2	316.4	279.7
70°	539.1	249.7	263.8	292.1	252.8
72.5°	365.9	208.6	293.4	257.6	221.4
75°	246.2	168.4	297.4	217.9	190.9
77.5°	160.0	140.1	252.8	178.1	158.2
80°	100.8	116.7	178.1	137.0	119.3
82.5°	65.4	89.7	112.7	96.8	82.2
85°	32.7	65.4	57.9	51.7	41.1
87.5°	19.4	39.8	30.9	22.5	20.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)