

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: P685402

Luminaire Tested: **4CZL-12-UNV-N-L940-CD-U**

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685402  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 05/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4CZL-12-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

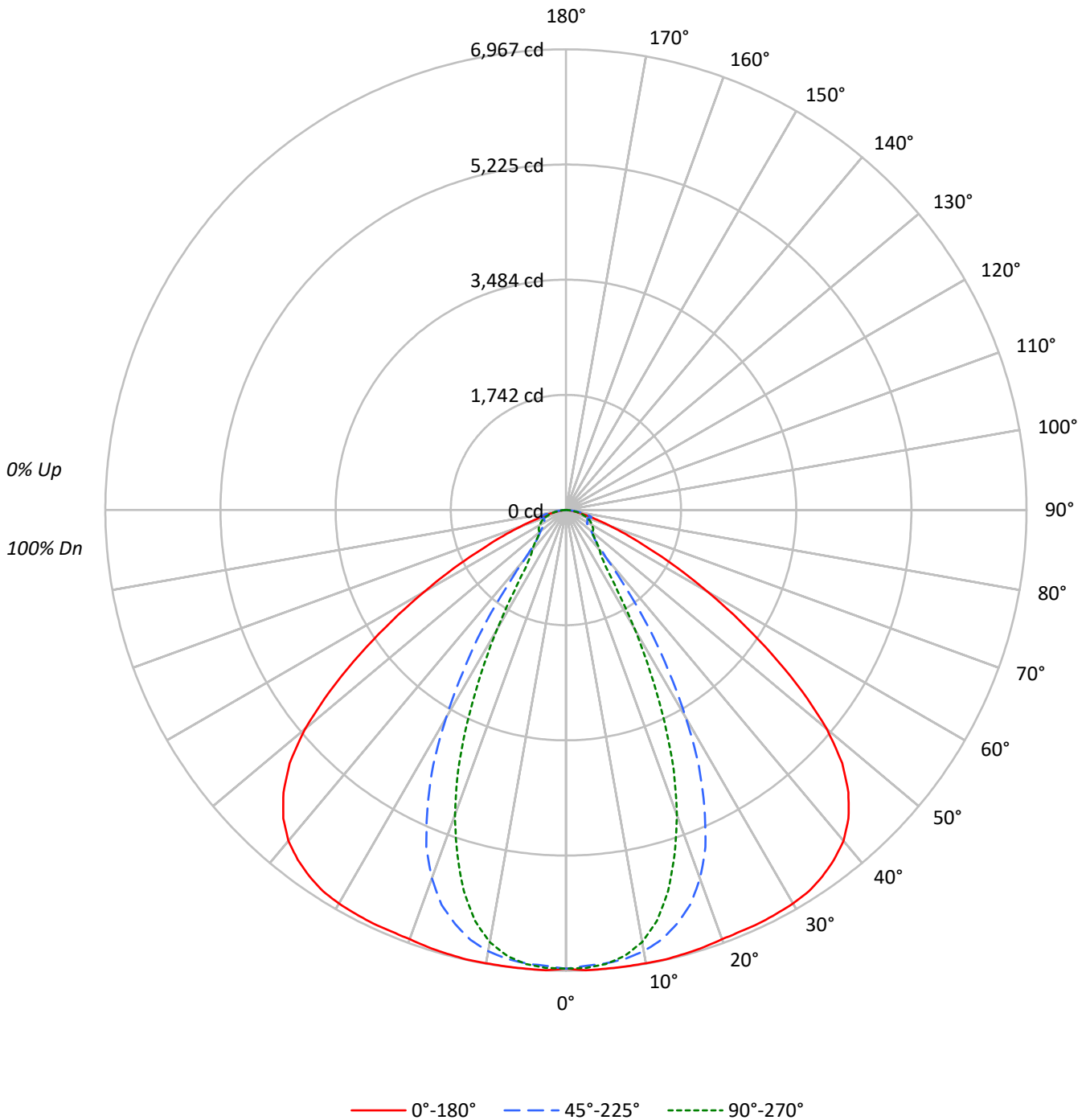
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9792.3 lumens  
Efficiency: N/A  
Efficacy: 127.2 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): 77  
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°	22398	22398	22398
5°	22572	22311	22346
10°	22823	22217	21757
15°	23222	21667	19947
20°	23733	20375	16863
25°	24586	17660	12530
30°	25614	13525	7774
35°	26667	8744	4170
40°	27531	4071	3339
45°	27591	2762	2843
50°	25868	2530	2617
55°	21386	2280	2839
60°	16007	2404	2915
65°	10791	2749	3121
70°	6850	3352	3211
75°	4132	4993	3205
80°	2522	4456	2987
85°	1630	2886	2049



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	656.6	6.7
10°-20°	1812.8	18.5
20°-30°	2315.3	23.6
30°-40°	1877.8	19.2
40°-50°	1328.7	13.6
50°-60°	865.3	8.8
60°-70°	531.4	5.4
70°-80°	315.6	3.2
80°-90°	88.7	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°	4784.7	48.9
0°-40°	6662.5	68.0
0°-60°	8856.5	90.4
0°-90°	9792.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9792.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	6936	6936	6936	6936	6936	
5°	6963	6948	6883	6911	6894	664
15°	6946	6852	6481	6144	5967	1967
25°	6900	6331	4956	3853	3517	3190
35°	6765	4592	2218	1190	1058	4231
45°	6042	2312	605	643	623	4608
55°	3799	778	405	473	504	3395
65°	1412	399	360	432	408	1467
75°	331	227	400	293	257	386
85°	44	88	78	70	55	61
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	6936.0	6936.0	6936.0	6936.0	6936.0
2.5°	6966.9	6953.2	6900.3	6941.9	6930.0
5°	6963.3	6948.5	6883.0	6911.0	6893.7
7.5°	6960.9	6938.9	6846.2	6837.8	6802.2
10°	6960.3	6921.7	6775.4	6695.1	6635.1
12.5°	6961.5	6893.2	6659.5	6482.3	6360.3
15°	6946.1	6852.1	6481.1	6144.5	5966.7
17.5°	6931.8	6758.2	6256.3	5731.2	5464.2
20°	6906.2	6665.4	5929.2	5224.6	4907.0
22.5°	6899.1	6525.1	5515.9	4572.2	4257.7
25°	6900.3	6330.6	4956.4	3853.3	3516.7
27.5°	6887.2	6071.3	4346.9	3158.2	2759.8
30°	6869.4	5703.9	3627.3	2413.1	2084.8
32.5°	6837.8	5188.3	2890.6	1719.7	1447.4
35°	6764.7	4592.5	2218.0	1189.9	1057.9
37.5°	6663.0	3930.0	1495.5	893.2	871.8
40°	6531.0	3328.8	965.7	780.8	792.1
42.5°	6326.5	2809.7	705.3	710.0	711.2
45°	6041.6	2312.0	604.8	642.8	622.6
47.5°	5667.0	1815.5	549.5	560.2	557.2
50°	5149.1	1359.4	503.7	501.3	520.9
52.5°	4508.6	1005.5	456.7	476.9	513.8
55°	3798.6	778.4	405.0	472.7	504.3
57.5°	3117.7	630.9	375.2	460.9	479.3
60°	2478.5	525.7	372.2	438.8	451.3
62.5°	1914.8	450.7	370.5	428.1	432.9
65°	1412.3	399.0	359.8	431.7	408.5
67.5°	1028.7	382.4	351.4	425.8	376.4
70°	725.5	336.0	355.0	393.1	340.1
72.5°	492.4	280.7	394.8	346.7	297.9
75°	331.2	226.6	400.2	293.2	256.9
77.5°	215.3	188.5	340.1	239.6	212.9
80°	135.6	157.0	239.6	184.3	160.6
82.5°	88.0	120.7	151.6	130.2	110.6
85°	44.0	88.0	77.9	69.6	55.3
87.5°	26.2	53.5	41.6	30.3	27.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)