

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: P685592

Luminaire Tested: **4CZL-12-UNV-FL-L950-CD-U**

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685592  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 05/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4CZL-12-UNV-FL-L950-CD-U  
Description: METALUX CRUZE LINEAR 4FT FROSTED LENS MODEL @90 CRI and 5000K  
Light Source: (588) 5000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

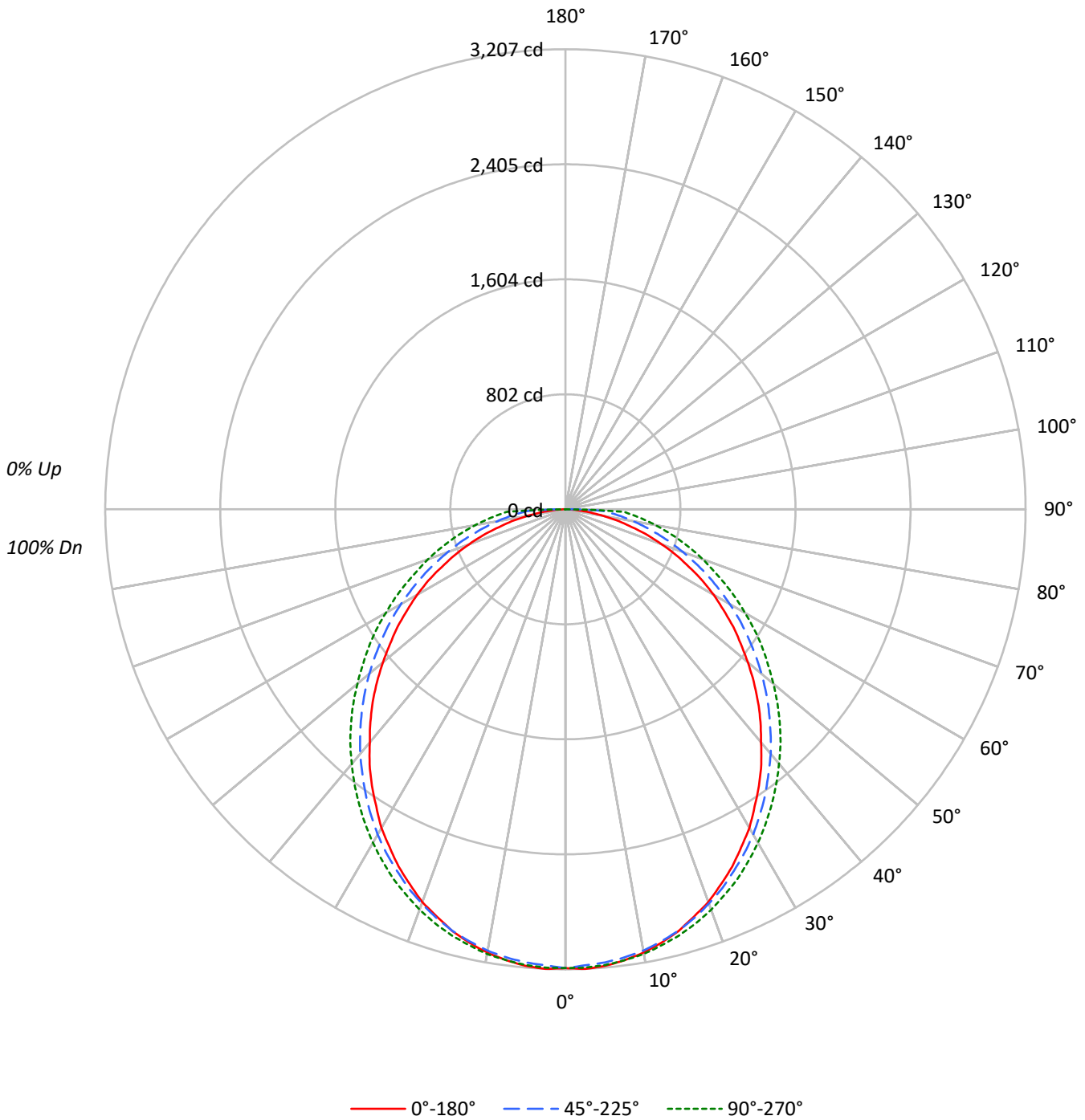
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9007.9 lumens  
Efficiency: N/A  
Efficacy: 117.0 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.83' x L: 4' x H: 0.08')  
CIE Type: Direct

Input Watts (W): 77  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	100	100	100	100
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82	82	82	82
2	98	89	82	76	95	87	81	75	84	78	74	81	76	72	78	74	70	68	68	68	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	59	57	57	57	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	49	49	49	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42	42	42	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37	37	37	37
7	64	51	42	36	63	50	41	36	48	41	35	47	40	35	46	39	35	33	33	33	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29	29	29	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26	26	26	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24	24	24	24

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

	0°	45°	90°
0°	10327	10327	10327
5°	10337	10201	10247
10°	10251	10093	10144
15°	10118	9941	10006
20°	9939	9748	9850
25°	9702	9525	9672
30°	9449	9301	9463
35°	9138	9028	9238
40°	8789	8753	9009
45°	8492	8447	8772
50°	8134	8131	8494
55°	7803	7787	8244
60°	7438	7441	7957
65°	6954	7069	7706
70°	6389	6656	7555
75°	5559	6297	7467
80°	4489	6038	7566
85°	2873	6085	8197



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	302.5	3.4
10°-20°	860.7	9.6
20°-30°	1285.6	14.3
30°-40°	1520.4	16.9
40°-50°	1549.2	17.2
50°-60°	1388.2	15.4
60°-70°	1081.3	12.0
70°-80°	700.0	7.8
80°-90°	319.9	3.6
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°	2448.8	27.2
0°-40°	3969.3	44.1
0°-60°	6906.7	76.7
0°-90°	9007.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9007.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3198	3198	3198	3198	3198	
5°	3195	3189	3171	3189	3189	303
15°	3044	3044	3042	3070	3073	857
25°	2749	2759	2780	2829	2841	1265
35°	2352	2374	2427	2493	2507	1470
45°	1898	1932	2008	2084	2113	1463
55°	1427	1467	1552	1641	1673	1274
65°	951	992	1095	1186	1225	944
75°	480	542	666	776	822	515
85°	96	185	325	442	474	123
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3197.9	3197.9	3197.9	3197.9	3197.9
2.5°	3207.0	3201.6	3182.1	3199.1	3198.5
5°	3194.9	3189.4	3170.6	3189.4	3188.8
7.5°	3170.0	3168.1	3151.1	3171.8	3170.0
10°	3137.7	3135.3	3124.4	3145.0	3148.1
12.5°	3095.2	3094.0	3085.5	3109.8	3111.6
15°	3043.5	3043.5	3041.7	3070.3	3073.3
17.5°	2977.3	2985.8	2987.6	3018.6	3025.3
20°	2914.1	2916.5	2925.0	2962.7	2970.6
22.5°	2830.8	2841.1	2858.1	2899.5	2906.2
25°	2749.3	2759.1	2779.7	2829.0	2841.1
27.5°	2654.5	2673.3	2701.9	2751.2	2763.3
30°	2564.5	2580.3	2617.4	2672.1	2684.3
32.5°	2454.5	2481.3	2523.8	2581.6	2598.0
35°	2351.8	2374.3	2427.2	2492.8	2507.4
37.5°	2241.8	2268.5	2324.4	2394.3	2414.4
40°	2121.4	2160.3	2225.4	2295.3	2316.5
42.5°	2011.4	2047.3	2115.9	2195.0	2219.3
45°	1898.3	1932.4	2007.7	2084.3	2112.9
47.5°	1780.4	1815.7	1897.7	1979.2	2004.7
50°	1659.4	1701.4	1783.4	1869.2	1892.3
52.5°	1539.1	1581.0	1668.0	1753.7	1779.8
55°	1427.2	1467.4	1551.9	1641.2	1673.4
57.5°	1305.7	1348.2	1441.2	1527.5	1562.2
60°	1193.2	1224.2	1322.7	1412.0	1445.5
62.5°	1077.1	1110.6	1206.6	1298.4	1337.9
65°	950.7	992.0	1094.7	1186.5	1224.8
67.5°	835.2	874.7	980.5	1083.8	1114.8
70°	715.4	761.0	870.4	976.2	1020.0
72.5°	601.2	648.6	768.9	874.1	918.5
75°	480.2	541.6	665.6	776.2	821.8
77.5°	380.5	441.3	568.3	683.8	727.6
80°	269.9	344.7	482.0	598.7	637.6
82.5°	179.9	255.9	400.0	513.6	555.6
85°	96.0	185.4	324.6	441.9	474.1
87.5°	41.9	129.5	263.2	367.8	406.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)