

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: P685409

Luminaire Tested: **4CZL-5-UNV-N-L950-CD-U**

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685409  
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-L950-CD-U  
Description: METALUX CRUZE LINEAR 4FT NARROW LENS MODEL @90 CRI and 5000K  
Light Source: (392) 5000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

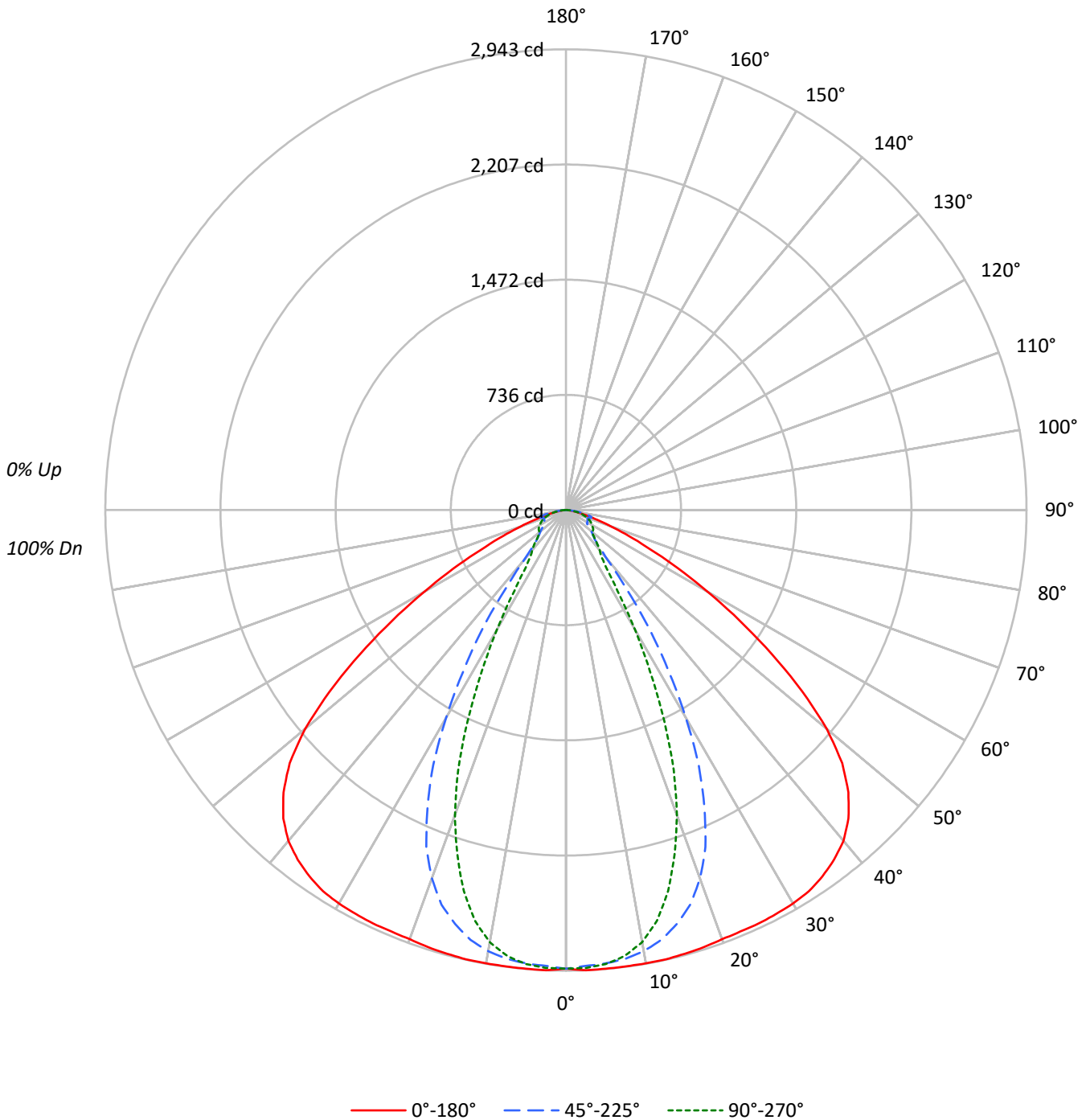
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4136.6 lumens  
Efficiency: N/A  
Efficacy: 133.4 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	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	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	91	91	91	89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	80	80	80	80	79
3	96	88	81	76	94	86	80	76	84	79	74	81	77	73	79	75	72	72	72	72	70
4	90	80	73	68	88	79	72	67	77	71	66	74	70	66	72	68	65	65	65	65	63
5	84	74	66	61	82	73	66	60	71	64	60	69	63	59	67	62	59	59	59	59	57
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	53	53	53	53	52
7	74	63	55	50	73	62	55	50	61	54	50	59	54	49	58	53	49	49	49	49	47
8	70	58	51	46	68	58	51	46	56	50	46	55	50	45	54	49	45	45	45	45	44
9	66	54	47	42	65	54	47	42	53	47	42	52	46	42	51	46	42	42	42	42	40
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	39	39	39	37

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

	0°	45°	90°
0°	9462	9462	9462
5°	9535	9425	9440
10°	9641	9385	9191
15°	9809	9153	8426
20°	10025	8607	7123
25°	10386	7460	5293
30°	10820	5714	3284
35°	11265	3694	1762
40°	11630	1719	1410
45°	11655	1167	1201
50°	10927	1069	1105
55°	9034	963	1199
60°	6762	1015	1232
65°	4559	1161	1319
70°	2894	1416	1357
75°	1745	2110	1354
80°	1066	1882	1261
85°	689	1219	867



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	277.4	6.7
10°-20°	765.8	18.5
20°-30°	978.0	23.6
30°-40°	793.3	19.2
40°-50°	561.3	13.6
50°-60°	365.6	8.8
60°-70°	224.5	5.4
70°-80°	133.3	3.2
80°-90°	37.5	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°	2021.2	48.9
0°-40°	2814.5	68.0
0°-60°	3741.3	90.4
0°-90°	4136.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4136.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2930	2930	2930	2930	2930	
5°	2942	2935	2908	2919	2912	281
15°	2934	2895	2738	2596	2520	831
25°	2915	2674	2094	1628	1486	1348
35°	2858	1940	937	503	447	1787
45°	2552	977	256	272	263	1947
55°	1605	329	171	200	213	1434
65°	597	169	152	182	173	620
75°	140	96	169	124	108	163
85°	19	37	33	29	23	26
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2930.0	2930.0	2930.0	2930.0	2930.0
2.5°	2943.0	2937.3	2914.9	2932.5	2927.5
5°	2941.5	2935.2	2907.6	2919.4	2912.1
7.5°	2940.5	2931.2	2892.0	2888.5	2873.5
10°	2940.3	2923.9	2862.1	2828.2	2802.9
12.5°	2940.8	2911.9	2813.2	2738.3	2686.8
15°	2934.2	2894.6	2737.8	2595.6	2520.5
17.5°	2928.2	2854.9	2642.9	2421.0	2308.3
20°	2917.4	2815.7	2504.7	2207.0	2072.9
22.5°	2914.4	2756.4	2330.1	1931.5	1798.6
25°	2914.9	2674.3	2093.7	1627.8	1485.6
27.5°	2909.4	2564.7	1836.3	1334.1	1165.8
30°	2901.8	2409.5	1532.3	1019.4	880.7
32.5°	2888.5	2191.7	1221.1	726.5	611.4
35°	2857.6	1940.0	937.0	502.6	446.9
37.5°	2814.7	1660.2	631.8	377.3	368.3
40°	2758.9	1406.2	407.9	329.8	334.6
42.5°	2672.5	1186.9	297.9	299.9	300.4
45°	2552.2	976.7	255.5	271.5	263.0
47.5°	2393.9	766.9	232.1	236.6	235.4
50°	2175.1	574.2	212.8	211.8	220.0
52.5°	1904.6	424.8	192.9	201.5	217.0
55°	1604.7	328.8	171.1	199.7	213.0
57.5°	1317.0	266.5	158.5	194.7	202.5
60°	1047.0	222.1	157.2	185.4	190.7
62.5°	808.9	190.4	156.5	180.9	182.9
65°	596.6	168.6	152.0	182.4	172.6
67.5°	434.6	161.5	148.5	179.9	159.0
70°	306.5	141.9	150.0	166.0	143.7
72.5°	208.0	118.6	166.8	146.4	125.9
75°	139.9	95.7	169.1	123.8	108.5
77.5°	90.9	79.6	143.7	101.2	89.9
80°	57.3	66.3	101.2	77.9	67.8
82.5°	37.2	51.0	64.1	55.0	46.7
85°	18.6	37.2	32.9	29.4	23.4
87.5°	11.1	22.6	17.6	12.8	11.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)