

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: P685582

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

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685582  
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-L940-CD-U  
Description: METALUX CRUZE LINEAR 4FT FROSTED LENS MODEL @90 CRI and 4000K  
Light Source: (588) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

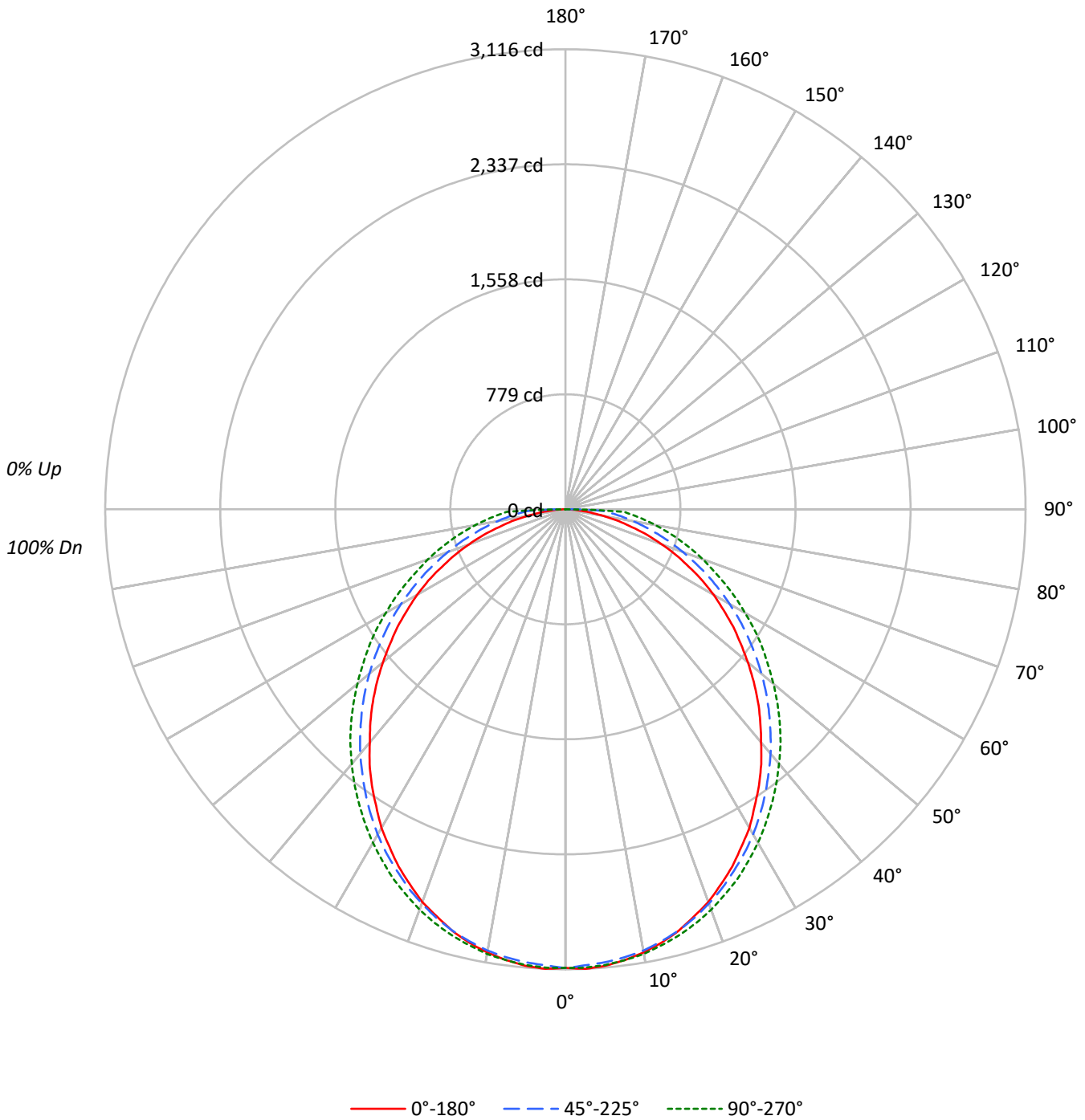
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8751.4 lumens  
Efficiency: N/A  
Efficacy: 113.7 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

TEST NUMBER: P685582  
CATALOG NUMBER: 4CZL-12-UNV-FL-L940-CD-U

### Luminous Intensity Polar Plot





TEST NUMBER: P685582  
 CATALOG NUMBER: 4CZL-12-UNV-FL-L940-CD-U

**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°	10033	10033	10033
5°	10043	9911	9955
10°	9959	9805	9855
15°	9830	9658	9721
20°	9656	9471	9569
25°	9425	9254	9396
30°	9180	9036	9193
35°	8877	8771	8975
40°	8539	8504	8753
45°	8251	8207	8522
50°	7903	7900	8252
55°	7581	7565	8009
60°	7226	7229	7731
65°	6755	6868	7487
70°	6207	6467	7339
75°	5400	6117	7254
80°	4361	5866	7351
85°	2792	5912	7963



TEST NUMBER: P685582  
 CATALOG NUMBER: 4CZL-12-UNV-FL-L940-CD-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	293.9	3.4
10°-20°	836.2	9.6
20°-30°	1249.0	14.3
30°-40°	1477.2	16.9
40°-50°	1505.1	17.2
50°-60°	1348.7	15.4
60°-70°	1050.5	12.0
70°-80°	680.1	7.8
80°-90°	310.8	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°	2379.1	27.2
0°-40°	3856.2	44.1
0°-60°	6710.0	76.7
0°-90°	8751.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8751.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3107	3107	3107	3107	3107	
5°	3104	3099	3080	3099	3098	294
15°	2957	2957	2955	2983	2986	833
25°	2671	2680	2701	2748	2760	1229
35°	2285	2307	2358	2422	2436	1428
45°	1844	1877	1951	2025	2053	1421
55°	1387	1426	1508	1594	1626	1238
65°	924	964	1064	1153	1190	917
75°	466	526	647	754	798	501
85°	93	180	315	429	461	120
90°	0	0	0	0	0	



TEST NUMBER: P685582

CATALOG NUMBER: 4CZL-12-UNV-FL-L940-CD-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3106.9	3106.9	3106.9	3106.9	3106.9
2.5°	3115.7	3110.4	3091.5	3108.1	3107.5
5°	3103.9	3098.6	3080.3	3098.6	3098.0
7.5°	3079.7	3077.9	3061.4	3081.5	3079.7
10°	3048.4	3046.0	3035.4	3055.5	3058.4
12.5°	3007.1	3005.9	2997.6	3021.2	3023.0
15°	2956.9	2956.9	2955.1	2982.9	2985.8
17.5°	2892.5	2900.8	2902.5	2932.7	2939.2
20°	2831.1	2833.4	2841.7	2878.3	2886.0
22.5°	2750.2	2760.2	2776.8	2816.9	2823.4
25°	2671.0	2680.5	2700.6	2748.4	2760.2
27.5°	2578.9	2597.2	2625.0	2672.8	2684.6
30°	2491.5	2506.9	2542.9	2596.0	2607.9
32.5°	2384.6	2410.6	2452.0	2508.1	2524.0
35°	2284.8	2306.7	2358.1	2421.8	2436.0
37.5°	2177.9	2203.9	2258.3	2326.2	2345.7
40°	2061.0	2098.8	2162.0	2229.9	2250.6
42.5°	1954.1	1989.0	2055.7	2132.5	2156.1
45°	1844.3	1877.4	1950.6	2025.0	2052.7
47.5°	1729.7	1764.0	1843.7	1922.8	1947.6
50°	1612.2	1652.9	1732.7	1815.9	1838.4
52.5°	1495.3	1536.0	1620.5	1703.7	1729.1
55°	1386.6	1425.6	1507.7	1594.5	1625.8
57.5°	1268.5	1309.8	1400.2	1484.0	1517.7
60°	1159.2	1189.4	1285.0	1371.8	1404.3
62.5°	1046.5	1078.9	1172.2	1261.4	1299.8
65°	923.6	963.8	1063.6	1152.7	1190.0
67.5°	811.4	849.8	952.6	1052.9	1083.1
70°	695.1	739.4	845.7	948.4	990.9
72.5°	584.1	630.1	747.0	849.2	892.3
75°	466.5	526.2	646.6	754.1	798.4
77.5°	369.7	428.7	552.2	664.4	706.9
80°	262.2	334.8	468.3	581.7	619.5
82.5°	174.8	248.6	388.6	499.0	539.8
85°	93.3	180.1	315.4	429.3	460.6
87.5°	40.7	125.8	255.7	357.3	394.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)