

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: P685532

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

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685532
Test Lab: INNOVATION CENTER(G2)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-12-UNV-W-L950-CD-U
Description: METALUX CRUZE LINEAR 4FT WIDE LENS MODEL @90 CRI and 5000K
Light Source: (588) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

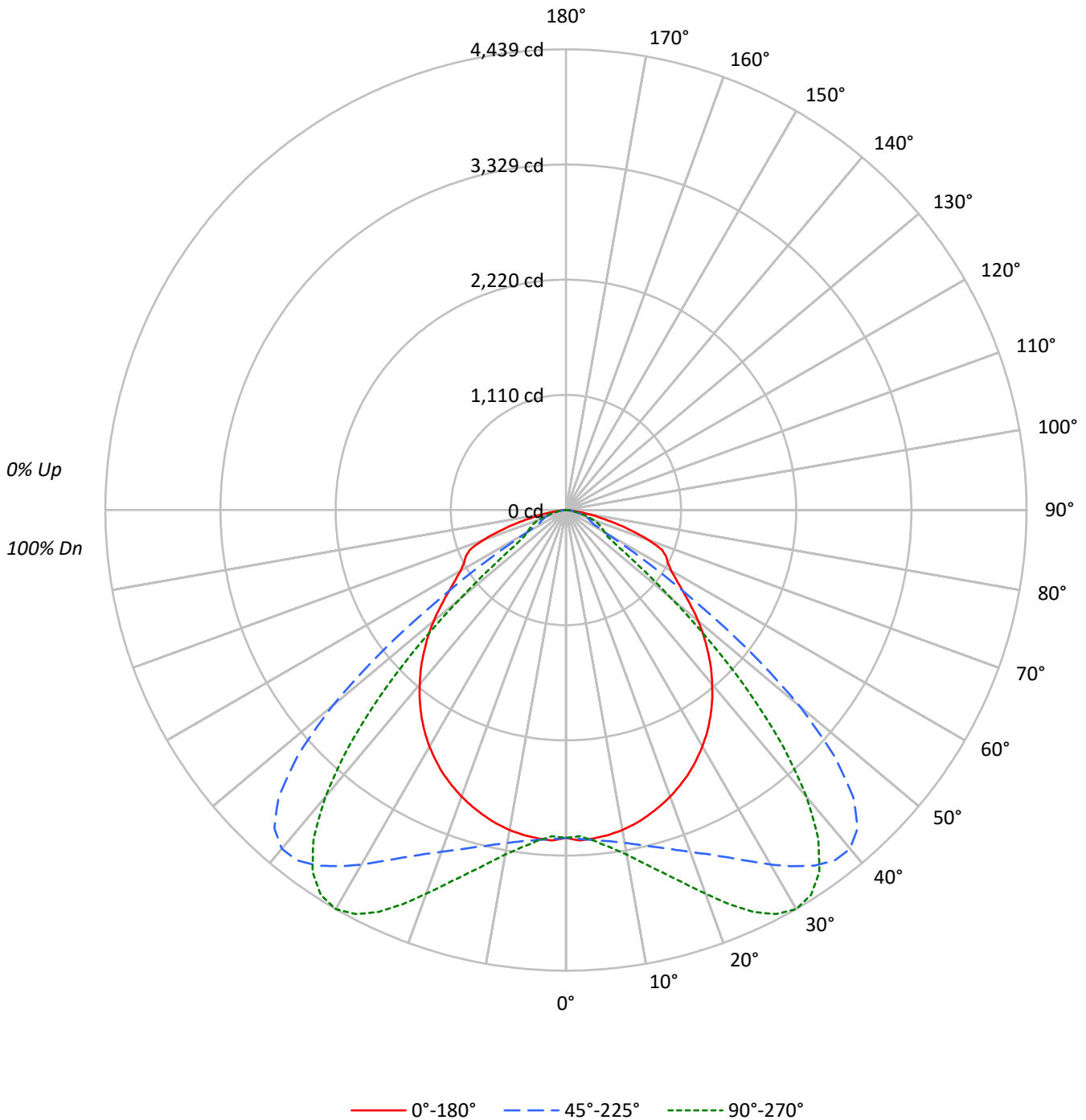
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10103.8 lumens
Efficiency: N/A
Efficacy: 131.2 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.69 / 1.65
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

TEST NUMBER: P685532
CATALOG NUMBER: 4CZL-12-UNV-W-L950-CD-U

Luminous Intensity Polar Plot





TEST NUMBER: P685532

CATALOG NUMBER: 4CZL-12-UNV-W-L950-CD-U

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	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87
2	102	94	88	83	99	93	87	82	89	85	81	86	82	79	83	80	77	75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65
4	86	75	67	61	84	73	66	60	71	65	59	69	63	59	67	62	58	56
5	79	67	59	52	77	66	58	52	64	57	52	62	56	51	60	55	51	49
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45	43
7	68	55	46	40	66	54	46	40	52	45	40	51	45	40	50	44	39	38
8	63	50	42	36	61	49	41	36	48	41	36	47	40	35	45	40	35	33
9	59	46	38	32	57	45	37	32	44	37	32	43	36	32	42	36	32	30
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10202	10202	10202
5°	10291	10344	10376
10°	10265	10676	11051
15°	10191	11241	12097
20°	10101	12042	13514
25°	9980	13159	15221
30°	9810	14704	16552
35°	9570	16481	16780
40°	9238	17957	15202
45°	8839	17888	11538
50°	8360	14784	6650
55°	7792	8132	3420
60°	7563	2838	2788
65°	8150	2065	2795
70°	8048	2116	2696
75°	6085	1850	2166
80°	3676	1512	1532
85°	1830	774	326



TEST NUMBER: P685532
 CATALOG NUMBER: 4CZL-12-UNV-W-L950-CD-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	305.8	3.0
10°-20°	950.7	9.4
20°-30°	1670.2	16.5
30°-40°	2320.3	23.0
40°-50°	2353.0	23.3
50°-60°	1510.0	14.9
60°-70°	706.3	7.0
70°-80°	244.9	2.4
80°-90°	42.7	0.4
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°	2926.7	29.0
0°-40°	5246.9	51.9
0°-60°	9110.0	90.2
0°-90°	10103.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10103.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3159	3159	3159	3159	3159	
5°	3175	3152	3191	3201	3201	302
15°	3048	3121	3362	3543	3618	860
25°	2801	3088	3693	4125	4272	1289
35°	2428	3114	4181	4325	4257	1516
45°	1936	3334	3917	2922	2526	1492
55°	1384	3443	1444	695	608	1249
65°	1067	1100	270	338	366	1038
75°	488	169	148	171	174	528
85°	49	44	21	12	9	75
90°	0	0	0	0	0	



TEST NUMBER: P685532

CATALOG NUMBER: 4CZL-12-UNV-W-L950-CD-U

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3159.2	3159.2	3159.2	3159.2	3159.2	3159.2	3159.2	3159.2	3159.2	3159.2	3159.2
2.5°	3186.7	3176.8	3160.3	3153.7	3157.0	3173.5	3179.0	3166.9	3163.6	3154.8	3146.0
5°	3174.6	3165.8	3153.7	3151.5	3163.6	3191.1	3203.1	3199.8	3205.3	3206.4	3200.9
7.5°	3157.0	3149.3	3139.4	3149.3	3174.6	3218.5	3246.0	3254.8	3274.5	3278.9	3277.8
10°	3130.6	3124.0	3120.8	3146.0	3190.0	3255.9	3304.2	3328.4	3356.9	3366.8	3370.1
12.5°	3095.5	3088.9	3097.7	3141.6	3210.8	3305.3	3376.7	3419.5	3460.2	3481.0	3487.6
15°	3048.3	3046.1	3068.0	3138.3	3237.2	3362.4	3461.3	3528.3	3586.5	3609.6	3618.4
17.5°	2996.6	2997.7	3037.3	3137.2	3269.0	3429.4	3555.7	3651.3	3722.7	3755.7	3765.6
20°	2939.5	2942.8	3002.1	3136.1	3308.6	3504.1	3660.1	3785.3	3874.3	3918.2	3932.5
22.5°	2872.5	2879.1	2963.7	3137.2	3350.3	3589.8	3783.1	3932.5	4039.1	4091.8	4109.4
25°	2801.1	2811.0	2924.1	3142.7	3403.1	3693.1	3923.7	4098.4	4206.0	4252.2	4271.9
27.5°	2718.7	2735.2	2881.3	3150.4	3465.7	3812.8	4067.6	4235.7	4335.7	4370.8	4388.4
30°	2630.8	2649.5	2839.5	3165.8	3547.0	3943.5	4200.5	4342.2	4409.3	4429.0	4438.9
32.5°	2534.2	2564.9	2797.8	3191.1	3642.5	4069.8	4298.3	4382.9	4399.4	4392.8	4396.1
35°	2427.6	2460.6	2758.3	3232.8	3751.3	4180.8	4336.8	4336.8	4288.4	4258.8	4256.6
37.5°	2314.5	2356.2	2718.7	3281.1	3877.6	4254.4	4295.0	4186.3	4068.7	4005.0	3995.1
40°	2191.4	2247.5	2691.2	3347.0	3991.8	4259.9	4145.6	3921.5	3721.6	3618.4	3606.3
42.5°	2069.5	2138.7	2679.2	3432.7	4077.5	4158.8	3864.4	3518.4	3247.1	3125.1	3112.0
45°	1935.5	2026.7	2683.6	3550.3	4100.6	3917.1	3445.9	2997.7	2693.4	2539.7	2526.5
47.5°	1802.6	1915.7	2694.5	3683.2	3999.5	3507.4	2889.0	2370.5	2068.4	1906.9	1904.7
50°	1664.2	1811.4	2720.9	3791.9	3726.0	2942.8	2204.6	1698.2	1456.6	1333.5	1323.7
52.5°	1520.3	1720.2	2778.0	3811.7	3239.4	2217.8	1496.1	1133.6	976.5	898.5	883.2
55°	1384.1	1643.3	2871.4	3633.7	2539.7	1444.5	942.5	715.1	636.0	604.2	607.5
57.5°	1266.5	1586.2	2980.1	3169.1	1648.8	850.2	545.9	475.6	473.4	476.7	477.8
60°	1171.0	1551.0	3028.5	2377.1	905.1	439.4	381.2	396.5	417.4	429.5	431.7
62.5°	1108.4	1532.4	2881.3	1377.5	402.0	306.5	332.8	361.4	385.6	396.5	397.6
65°	1066.6	1482.9	2357.3	681.1	246.1	270.2	303.2	332.8	354.8	363.6	365.8
67.5°	1001.8	1343.4	1615.8	282.3	216.4	243.9	275.7	304.3	322.9	329.5	330.6
70°	852.4	1124.8	939.2	187.8	195.5	224.1	249.4	271.3	283.4	286.7	285.6
72.5°	665.7	890.9	474.5	170.3	181.2	196.6	210.9	223.0	229.6	232.9	232.9
75°	487.7	651.4	223.0	150.5	135.1	148.3	162.6	170.3	172.5	173.6	173.6
77.5°	327.3	449.3	132.9	116.4	104.4	115.3	120.8	117.5	115.3	117.5	117.5
80°	197.7	276.8	116.4	84.6	80.2	81.3	76.9	76.9	81.3	83.5	82.4
82.5°	106.6	157.1	102.2	61.5	53.8	49.4	48.3	46.1	43.9	42.8	42.8
85°	49.4	80.2	65.9	37.3	28.6	20.9	16.5	12.1	11.0	8.8	8.8
87.5°	19.8	30.8	19.8	12.1	6.6	4.4	3.3	2.2	1.1	1.1	1.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)