

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: P685552

Luminaire Tested: **4CZL-12-UNV-FL-L840-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685552
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-L840-CD-U
Description: METALUX CRUZE LINEAR 4FT FROSTED LENS MODEL @80 CRI and 4000K
Light Source: (588) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

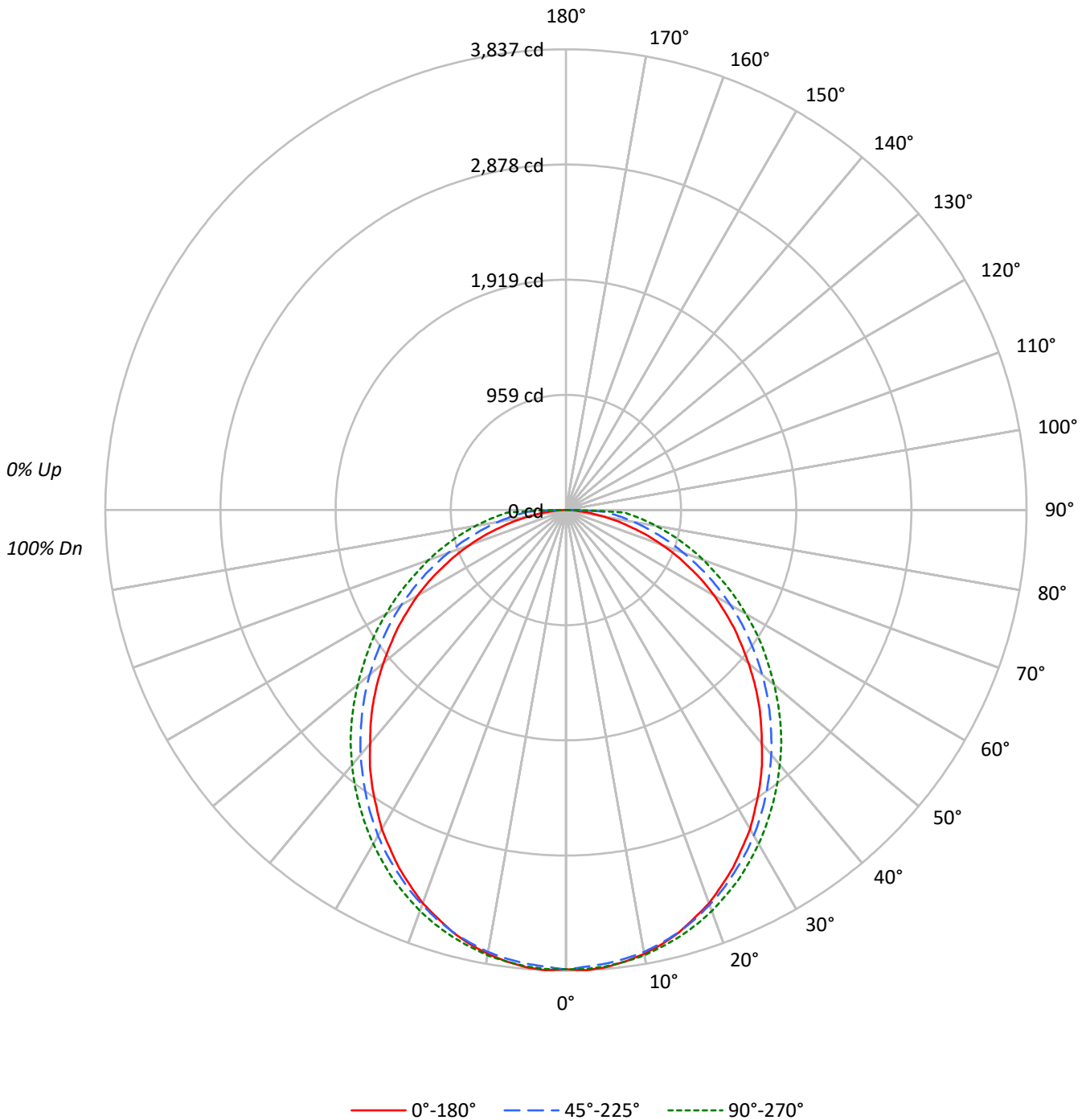
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10776.3 lumens
Efficiency: N/A
Efficacy: 140.0 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_{in}): 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: P685552
CATALOG NUMBER: 4CZL-12-UNV-FL-L840-CD-U

Luminous Intensity Polar Plot





TEST NUMBER: P68552
 CATALOG NUMBER: 4CZL-12-UNV-FL-L840-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	102	102	102	100
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	84	84	84	82
2	98	89	82	76	95	87	81	75	84	78	74	81	76	72	78	74	70	70	70	70	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	59	59	59	59	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	51	51	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	44	44	44	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	39	39	39	37
7	64	51	42	36	63	50	41	36	48	41	35	47	40	35	46	39	35	35	35	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	31	31	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	28	28	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	26	26	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12354	12354	12354
5°	12367	12204	12259
10°	12263	12074	12135
15°	12105	11893	11971
20°	11890	11662	11783
25°	11606	11394	11571
30°	11304	11127	11321
35°	10932	10801	11051
40°	10514	10472	10778
45°	10159	10105	10494
50°	9731	9728	10161
55°	9335	9315	9862
60°	8898	8902	9519
65°	8318	8458	9219
70°	7643	7962	9038
75°	6651	7533	8933
80°	5370	7224	9052
85°	3438	7279	9806



TEST NUMBER: P685552
 CATALOG NUMBER: 4CZL-12-UNV-FL-L840-CD-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	361.9	3.4
10°-20°	1029.7	9.6
20°-30°	1537.9	14.3
30°-40°	1818.9	16.9
40°-50°	1853.4	17.2
50°-60°	1660.7	15.4
60°-70°	1293.6	12.0
70°-80°	837.4	7.8
80°-90°	382.7	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°	2929.6	27.2
0°-40°	4748.5	44.1
0°-60°	8262.6	76.7
0°-90°	10776.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10776.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3826	3826	3826	3826	3826	
5°	3822	3816	3793	3816	3815	363
15°	3641	3641	3639	3673	3677	1025
25°	3289	3301	3325	3384	3399	1513
35°	2814	2840	2904	2982	3000	1758
45°	2271	2312	2402	2494	2528	1750
55°	1707	1755	1856	1963	2002	1524
65°	1137	1187	1310	1420	1465	1130
75°	574	648	796	929	983	616
85°	115	222	388	529	567	147
90°	0	0	0	0	0	



TEST NUMBER: P685552

CATALOG NUMBER: 4CZL-12-UNV-FL-L840-CD-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3825.7	3825.7	3825.7	3825.7	3825.7
2.5°	3836.6	3830.1	3806.8	3827.2	3826.5
5°	3822.1	3815.5	3793.0	3815.5	3814.8
7.5°	3792.3	3790.1	3769.7	3794.5	3792.3
10°	3753.7	3750.8	3737.7	3762.5	3766.1
12.5°	3702.8	3701.4	3691.2	3720.3	3722.5
15°	3641.0	3641.0	3638.8	3673.0	3676.7
17.5°	3561.8	3571.9	3574.1	3611.2	3619.2
20°	3486.1	3489.0	3499.2	3544.3	3553.8
22.5°	3386.5	3398.9	3419.2	3468.7	3476.7
25°	3289.1	3300.7	3325.4	3384.3	3398.9
27.5°	3175.6	3198.2	3232.3	3291.2	3305.8
30°	3068.0	3086.9	3131.3	3196.7	3211.3
32.5°	2936.4	2968.4	3019.3	3088.4	3108.0
35°	2813.5	2840.4	2903.7	2982.2	2999.6
37.5°	2681.9	2713.9	2780.8	2864.4	2888.4
40°	2537.9	2584.4	2662.2	2745.9	2771.3
42.5°	2406.3	2449.2	2531.3	2625.9	2655.0
45°	2271.0	2311.7	2401.9	2493.5	2527.7
47.5°	2129.9	2172.1	2270.3	2367.7	2398.3
50°	1985.2	2035.4	2133.6	2236.1	2263.7
52.5°	1841.2	1891.4	1995.4	2097.9	2129.2
55°	1707.4	1755.4	1856.5	1963.4	2001.9
57.5°	1562.0	1612.9	1724.2	1827.4	1868.9
60°	1427.5	1464.6	1582.4	1689.3	1729.2
62.5°	1288.6	1328.6	1443.5	1553.3	1600.5
65°	1137.3	1186.8	1309.7	1419.5	1465.3
67.5°	999.2	1046.4	1173.0	1296.6	1333.7
70°	855.9	910.4	1041.3	1167.9	1220.2
72.5°	719.2	775.9	919.9	1045.7	1098.8
75°	574.5	647.9	796.3	928.6	983.2
77.5°	455.2	527.9	679.9	818.1	870.4
80°	322.9	412.3	576.7	716.3	762.8
82.5°	215.2	306.1	478.5	614.5	664.6
85°	114.9	221.8	388.3	528.7	567.2
87.5°	50.2	154.9	314.9	439.9	485.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)