

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: P685541

Luminaire Tested: **4CZL-9-UNV-FL-L835-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685541
Test Lab: INNOVATION CENTER(G3)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-9-UNV-FL-L835-CD-U
Description: METALUX CRUZE LINEAR 4FT FROSTED LENS MODEL @80 CRI and 3500K
Light Source: (588) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

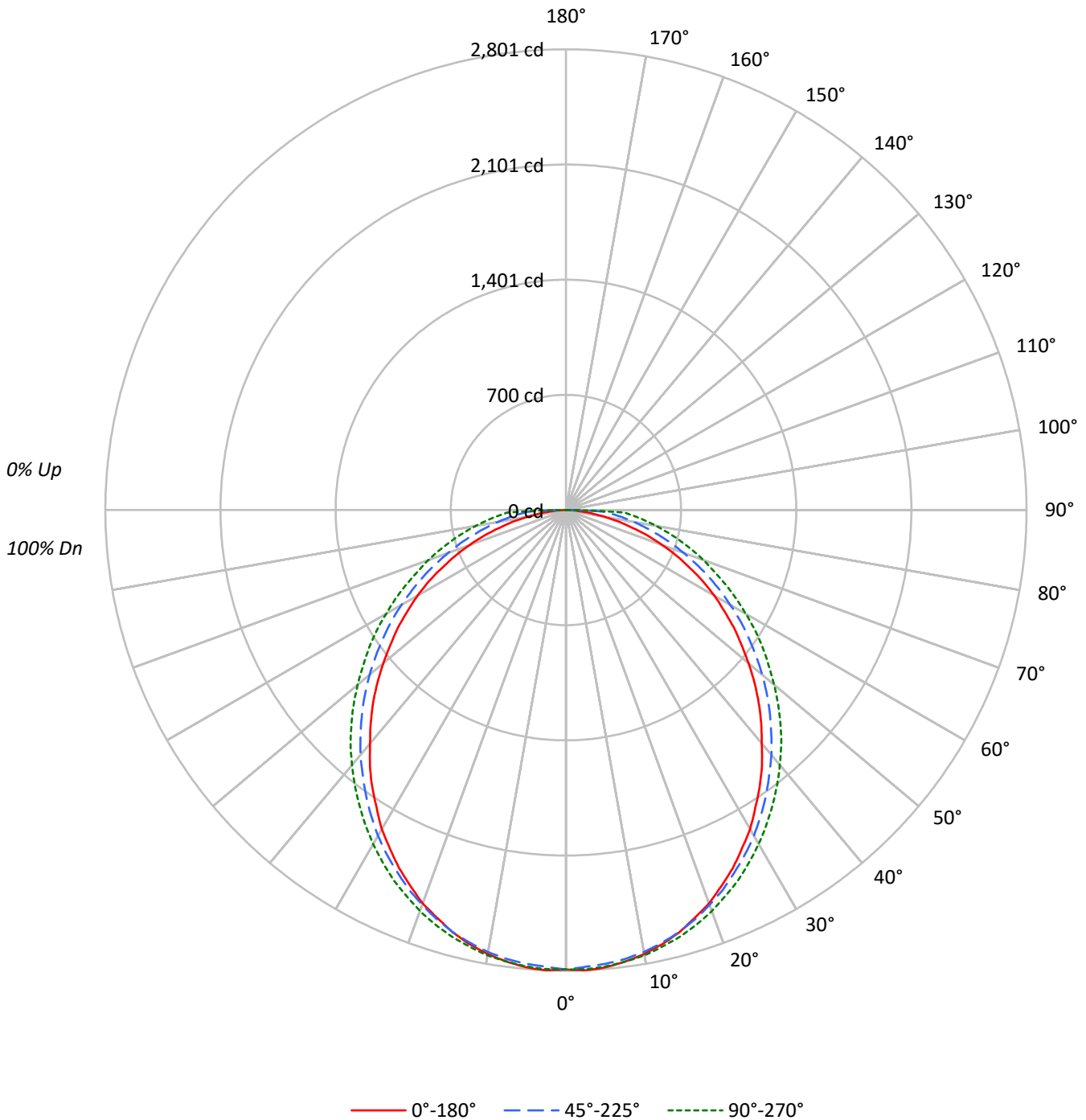
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7868.4 lumens
Efficiency: N/A
Efficacy: 145.7 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): 54
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

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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	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°	9020	9020	9020
5°	9030	8911	8951
10°	8954	8816	8861
15°	8838	8683	8740
20°	8681	8515	8604
25°	8474	8320	8448
30°	8253	8124	8266
35°	7982	7886	8069
40°	7677	7646	7870
45°	7418	7379	7662
50°	7105	7103	7419
55°	6816	6801	7201
60°	6497	6500	6950
65°	6074	6175	6731
70°	5581	5814	6599
75°	4856	5500	6523
80°	3920	5275	6610
85°	2511	5314	7161



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	264.2	3.4
10°-20°	751.9	9.6
20°-30°	1122.9	14.3
30°-40°	1328.1	16.9
40°-50°	1353.3	17.2
50°-60°	1212.6	15.4
60°-70°	944.5	12.0
70°-80°	611.5	7.8
80°-90°	279.4	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°	2139.0	27.2
0°-40°	3467.2	44.1
0°-60°	6033.0	76.7
0°-90°	7868.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7868.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2793	2793	2793	2793	2793	
5°	2791	2786	2770	2786	2785	265
15°	2658	2658	2657	2682	2684	749
25°	2402	2410	2428	2471	2482	1105
35°	2054	2074	2120	2178	2190	1284
45°	1658	1688	1754	1821	1846	1278
55°	1247	1282	1356	1434	1462	1113
65°	830	866	956	1036	1070	825
75°	420	473	581	678	718	450
85°	84	162	284	386	414	108
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2793.4	2793.4	2793.4	2793.4	2793.4
2.5°	2801.4	2796.6	2779.6	2794.5	2793.9
5°	2790.7	2786.0	2769.5	2786.0	2785.4
7.5°	2769.0	2767.4	2752.5	2770.6	2769.0
10°	2740.8	2738.7	2729.1	2747.2	2749.9
12.5°	2703.7	2702.6	2695.2	2716.4	2718.0
15°	2658.5	2658.5	2656.9	2681.9	2684.5
17.5°	2600.7	2608.1	2609.7	2636.8	2642.6
20°	2545.4	2547.6	2555.0	2587.9	2594.8
22.5°	2472.7	2481.7	2496.6	2532.7	2538.5
25°	2401.5	2410.0	2428.1	2471.1	2481.7
27.5°	2318.7	2335.2	2360.1	2403.1	2413.8
30°	2240.1	2253.9	2286.3	2334.1	2344.7
32.5°	2144.0	2167.4	2204.6	2255.0	2269.3
35°	2054.3	2073.9	2120.1	2177.5	2190.2
37.5°	1958.2	1981.6	2030.4	2091.5	2109.0
40°	1853.1	1887.0	1943.9	2004.9	2023.5
42.5°	1757.0	1788.3	1848.3	1917.3	1938.5
45°	1658.2	1687.9	1753.8	1820.7	1845.6
47.5°	1555.2	1586.0	1657.7	1728.8	1751.1
50°	1449.5	1486.2	1557.8	1632.7	1652.9
52.5°	1344.4	1381.0	1457.0	1531.8	1554.7
55°	1246.7	1281.7	1355.5	1433.6	1461.7
57.5°	1140.5	1177.7	1258.9	1334.3	1364.6
60°	1042.3	1069.4	1155.4	1233.4	1262.6
62.5°	940.9	970.1	1054.0	1134.1	1168.6
65°	830.4	866.5	956.3	1036.4	1069.9
67.5°	729.5	764.1	856.4	946.7	973.8
70°	624.9	664.8	760.3	852.7	891.0
72.5°	525.1	566.5	671.7	763.5	802.3
75°	419.5	473.1	581.4	678.0	717.9
77.5°	332.4	385.5	496.5	597.3	635.6
80°	235.7	301.1	421.1	523.0	557.0
82.5°	157.2	223.5	349.4	448.7	485.3
85°	83.9	161.9	283.5	386.0	414.2
87.5°	36.6	113.1	229.9	321.2	354.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)