

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: P685561

Luminaire Tested: **4CZL-9-UNV-FL-L850-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685561
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-L850-CD-U
Description: METALUX CRUZE LINEAR 4FT FROSTED LENS MODEL @80 CRI and 5000K
Light Source: (588) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

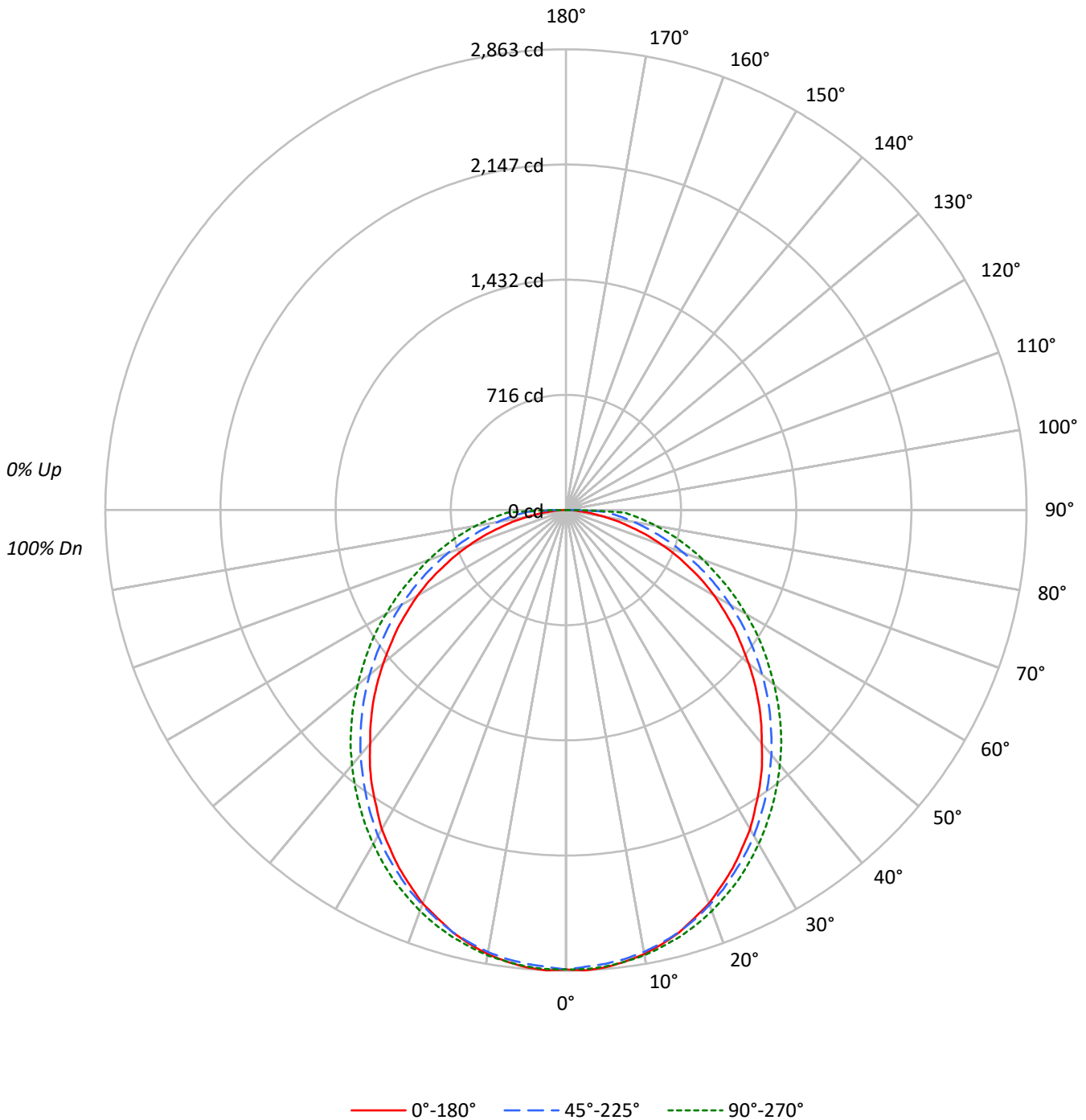
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8042.2 lumens
Efficiency: N/A
Efficacy: 148.9 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 (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				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°	9220	9220	9220
5°	9229	9108	9149
10°	9152	9011	9056
15°	9033	8875	8933
20°	8873	8703	8794
25°	8662	8504	8635
30°	8436	8304	8448
35°	8158	8060	8247
40°	7847	7815	8043
45°	7582	7542	7832
50°	7262	7260	7583
55°	6966	6952	7360
60°	6640	6644	7104
65°	6208	6312	6880
70°	5704	5942	6744
75°	4963	5621	6666
80°	4008	5391	6756
85°	2565	5432	7319



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	270.1	3.4
10°-20°	768.5	9.6
20°-30°	1147.8	14.3
30°-40°	1357.4	16.9
40°-50°	1383.1	17.2
50°-60°	1239.4	15.4
60°-70°	965.3	12.0
70°-80°	625.0	7.8
80°-90°	285.6	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°	2186.3	27.2
0°-40°	3543.7	44.1
0°-60°	6166.3	76.7
0°-90°	8042.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8042.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2855	2855	2855	2855	2855	
5°	2852	2848	2831	2848	2847	271
15°	2717	2717	2716	2741	2744	765
25°	2455	2463	2482	2526	2536	1129
35°	2100	2120	2167	2226	2239	1312
45°	1695	1725	1792	1861	1886	1306
55°	1274	1310	1386	1465	1494	1137
65°	849	886	977	1059	1094	843
75°	429	484	594	693	734	460
85°	86	166	290	394	423	110
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2855.1	2855.1	2855.1	2855.1	2855.1
2.5°	2863.2	2858.3	2841.0	2856.2	2855.6
5°	2852.4	2847.5	2830.7	2847.5	2847.0
7.5°	2830.1	2828.5	2813.3	2831.8	2830.1
10°	2801.4	2799.2	2789.4	2807.9	2810.6
12.5°	2763.4	2762.3	2754.7	2776.4	2778.0
15°	2717.2	2717.2	2715.6	2741.1	2743.8
17.5°	2658.1	2665.7	2667.3	2695.0	2701.0
20°	2601.7	2603.8	2611.4	2645.1	2652.1
22.5°	2527.3	2536.5	2551.7	2588.6	2594.6
25°	2454.6	2463.3	2481.7	2525.7	2536.5
27.5°	2369.9	2386.8	2412.3	2456.2	2467.1
30°	2289.6	2303.7	2336.8	2385.7	2396.5
32.5°	2191.4	2215.3	2253.2	2304.8	2319.5
35°	2099.7	2119.7	2167.0	2225.6	2238.6
37.5°	2001.4	2025.3	2075.2	2137.7	2155.6
40°	1894.0	1928.7	1986.8	2049.2	2068.2
42.5°	1795.8	1827.8	1889.1	1959.7	1981.4
45°	1694.8	1725.2	1792.5	1860.9	1886.4
47.5°	1589.5	1621.0	1694.3	1767.0	1789.8
50°	1481.5	1519.0	1592.3	1668.8	1689.4
52.5°	1374.1	1411.5	1489.1	1565.7	1589.0
55°	1274.2	1310.1	1385.5	1465.3	1494.0
57.5°	1165.7	1203.7	1286.7	1363.8	1394.7
60°	1065.3	1093.0	1180.9	1260.7	1290.5
62.5°	961.6	991.5	1077.2	1159.2	1194.5
65°	848.8	885.7	977.4	1059.3	1093.5
67.5°	745.7	780.9	875.4	967.6	995.3
70°	638.7	679.4	777.1	871.6	910.6
72.5°	536.7	579.1	686.5	780.4	820.0
75°	428.7	483.5	594.2	693.0	733.7
77.5°	339.7	394.0	507.4	610.5	649.6
80°	241.0	307.7	430.4	534.5	569.3
82.5°	160.6	228.5	357.1	458.6	496.0
85°	85.7	165.5	289.8	394.5	423.3
87.5°	37.4	115.6	235.0	328.3	362.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)