

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: P685551

Luminaire Tested: **4CZL-9-UNV-FL-L840-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685551
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-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

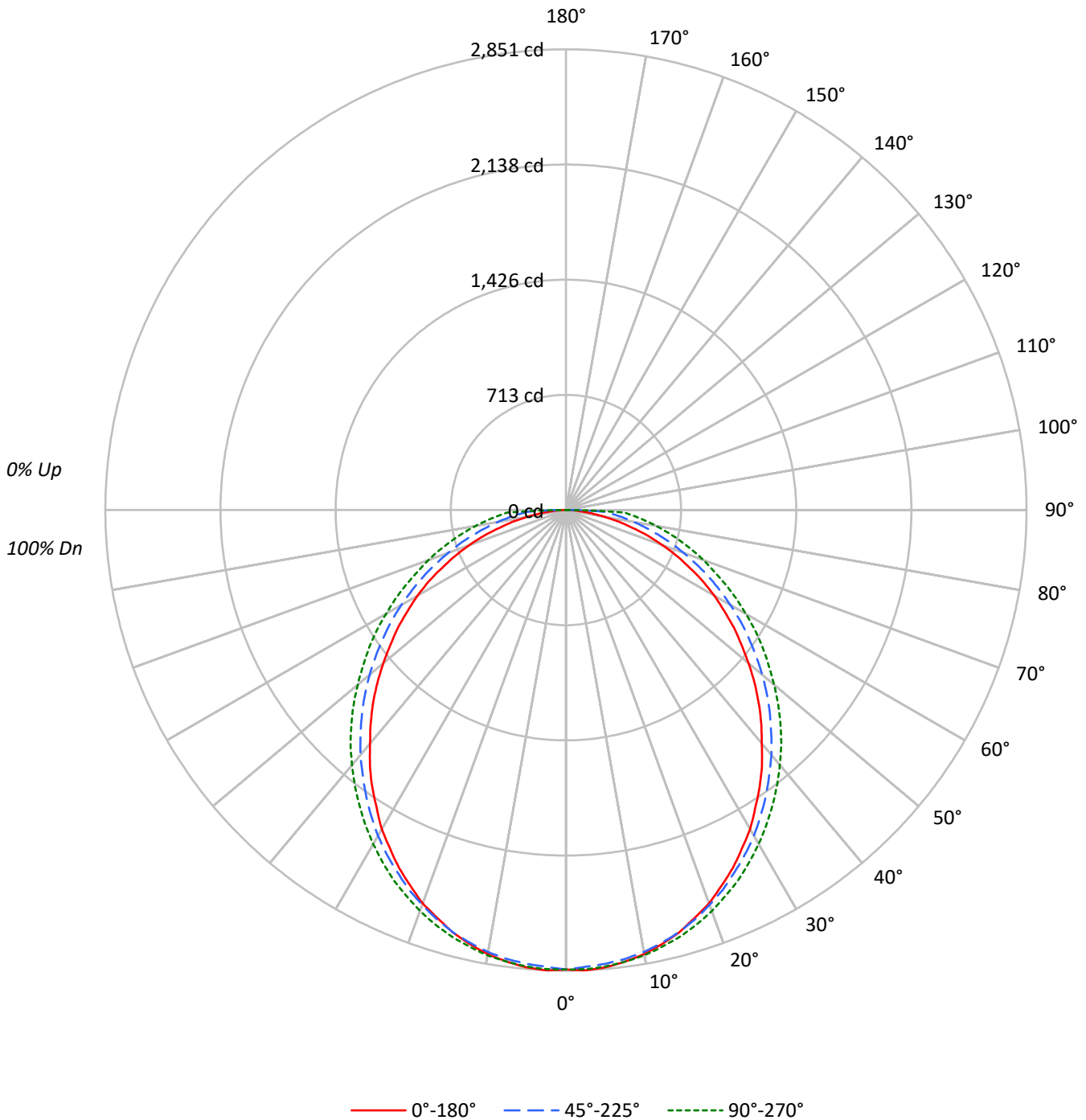
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8008.5 lumens
Efficiency: N/A
Efficacy: 148.3 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°	9181	9181	9181
5°	9190	9069	9110
10°	9114	8973	9018
15°	8996	8838	8896
20°	8836	8667	8757
25°	8625	8468	8599
30°	8400	8269	8413
35°	8124	8026	8213
40°	7814	7782	8010
45°	7550	7510	7799
50°	7232	7229	7551
55°	6937	6923	7329
60°	6612	6616	7074
65°	6182	6285	6851
70°	5681	5918	6716
75°	4942	5598	6638
80°	3990	5369	6727
85°	2556	5410	7287



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	268.9	3.4
10°-20°	765.3	9.6
20°-30°	1142.9	14.3
30°-40°	1351.8	16.9
40°-50°	1377.4	17.2
50°-60°	1234.2	15.4
60°-70°	961.3	12.0
70°-80°	622.4	7.8
80°-90°	284.4	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°	2177.1	27.2
0°-40°	3528.9	44.1
0°-60°	6140.5	76.7
0°-90°	8008.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8008.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2843	2843	2843	2843	2843	
5°	2840	2836	2819	2836	2835	269
15°	2706	2706	2704	2730	2732	762
25°	2444	2453	2471	2515	2526	1125
35°	2091	2111	2158	2216	2229	1307
45°	1688	1718	1785	1853	1878	1301
55°	1269	1305	1380	1459	1488	1133
65°	845	882	973	1055	1089	839
75°	427	482	592	690	731	458
85°	85	165	289	393	422	110
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2843.2	2843.2	2843.2	2843.2	2843.2
2.5°	2851.3	2846.4	2829.1	2844.2	2843.7
5°	2840.4	2835.6	2818.8	2835.6	2835.0
7.5°	2818.3	2816.7	2801.5	2819.9	2818.3
10°	2789.6	2787.5	2777.8	2796.1	2798.8
12.5°	2751.8	2750.7	2743.2	2764.8	2766.4
15°	2705.9	2705.9	2704.3	2729.7	2732.4
17.5°	2647.0	2654.5	2656.2	2683.7	2689.7
20°	2590.8	2592.9	2600.5	2634.0	2641.0
22.5°	2516.7	2525.9	2541.1	2577.8	2583.7
25°	2444.3	2453.0	2471.3	2515.1	2525.9
27.5°	2360.0	2376.8	2402.2	2445.9	2456.7
30°	2280.0	2294.1	2327.0	2375.7	2386.5
32.5°	2182.2	2206.0	2243.8	2295.2	2309.8
35°	2090.9	2110.9	2157.9	2216.3	2229.2
37.5°	1993.1	2016.8	2066.6	2128.7	2146.5
40°	1886.1	1920.7	1978.5	2040.6	2059.5
42.5°	1788.3	1820.1	1881.2	1951.5	1973.1
45°	1687.7	1718.0	1785.0	1853.1	1878.5
47.5°	1582.9	1614.2	1687.2	1759.6	1782.3
50°	1475.3	1512.6	1585.6	1661.8	1682.3
52.5°	1368.3	1405.6	1482.9	1559.1	1582.4
55°	1268.9	1304.6	1379.7	1459.1	1487.8
57.5°	1160.8	1198.7	1281.3	1358.1	1388.9
60°	1060.8	1088.4	1176.0	1255.4	1285.1
62.5°	957.6	987.3	1072.7	1154.3	1189.5
65°	845.2	882.0	973.3	1054.9	1088.9
67.5°	742.5	777.7	871.7	963.6	991.1
70°	636.1	676.6	773.9	867.9	906.8
72.5°	534.5	576.6	683.6	777.1	816.6
75°	426.9	481.5	591.8	690.1	730.6
77.5°	338.3	392.3	505.3	608.0	646.9
80°	239.9	306.4	428.6	532.3	566.9
82.5°	160.0	227.5	355.6	456.7	493.9
85°	85.4	164.8	288.6	392.9	421.5
87.5°	37.3	115.1	234.0	327.0	361.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)