

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: P685310

Luminaire Tested: **4CZL-7-UNV-L840-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685310
Test Lab: INNOVATION CENTER(G2)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-7-UNV-L840-CD-U
Description: METALUX CRUZE LINEAR 4FT BASE MODEL @80 CRI and 4000K
Light Source: (392) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

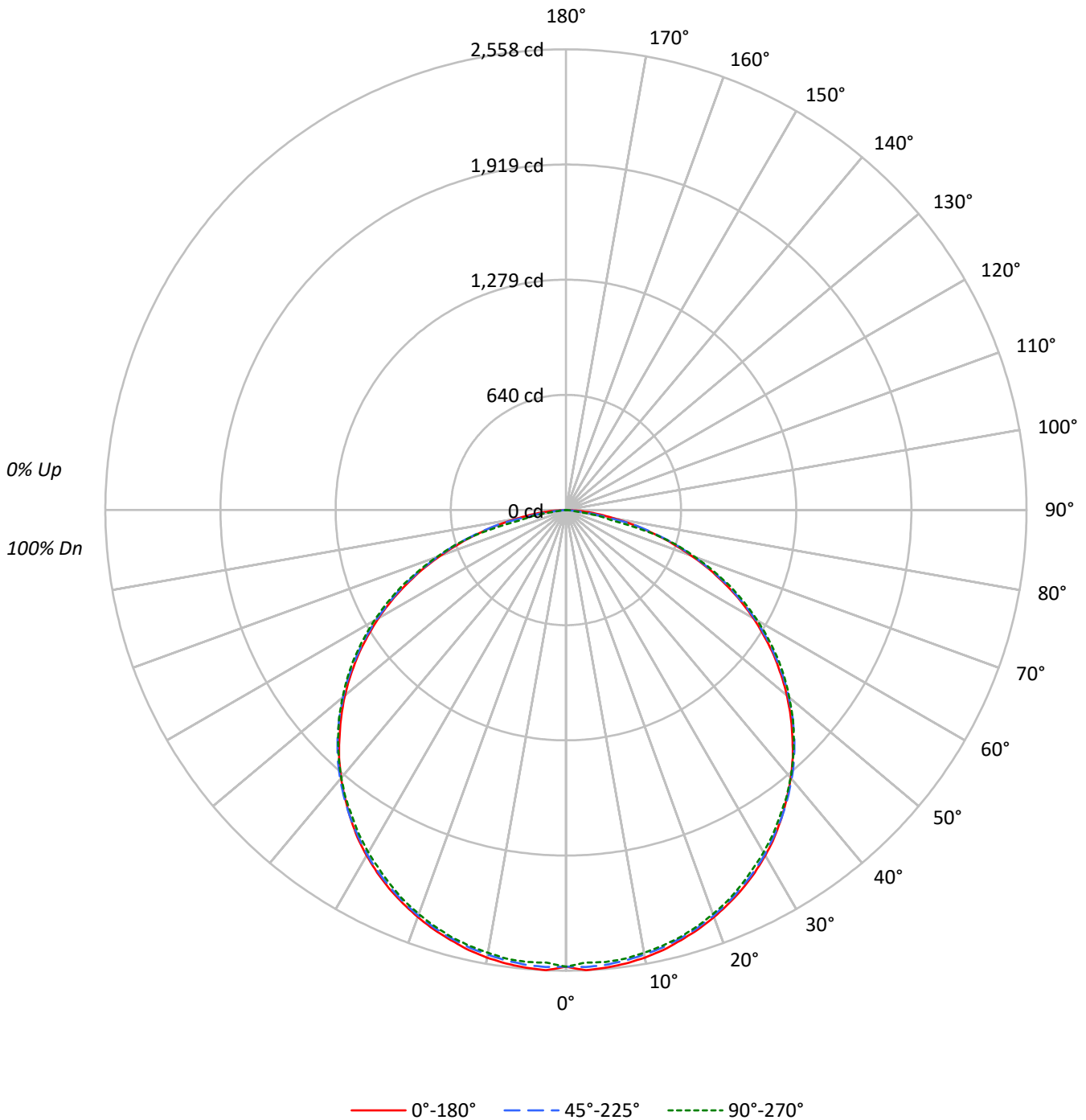
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7520.9 lumens
Efficiency: N/A
Efficacy: 170.9 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 1.29 / 1.41
Luminous Opening: Rectangular (W 0.83' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 44
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	109	104	100	96	106	102	98	95	98	94	92	94	91	89	90	88	86	86	86	86	84
2	99	91	84	78	96	89	82	77	85	80	75	82	77	74	79	75	72	72	72	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	61	61	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	52	52	52	50
5	76	63	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	45	45	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	39	39	39	37
7	65	51	42	36	63	50	42	36	48	41	35	47	40	35	46	40	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	42	34	29	55	42	34	29	41	33	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	25	25	25	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8187	8187	8187
5°	8268	8216	8166
10°	8275	8219	8184
15°	8264	8230	8205
20°	8266	8237	8205
25°	8268	8235	8194
30°	8258	8235	8183
35°	8228	8228	8170
40°	8189	8222	8183
45°	8120	8190	8173
50°	8051	8109	8136
55°	7944	8001	8079
60°	7770	7840	7935
65°	7481	7587	7717
70°	6996	7135	7201
75°	6296	6412	6084
80°	5259	4283	3334
85°	3924	1030	371



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	240.5	3.2
10°-20°	693.5	9.2
20°-30°	1062.0	14.1
30°-40°	1300.2	17.3
40°-50°	1375.5	18.3
50°-60°	1268.4	16.9
60°-70°	978.5	13.0
70°-80°	522.6	6.9
80°-90°	80.0	1.1
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°	1995.9	26.5
0°-40°	3296.1	43.8
0°-60°	5940.0	79.0
0°-90°	7520.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7520.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2535	2535	2535	2535	2535	
5°	2551	2521	2535	2524	2519	243
15°	2472	2446	2462	2453	2454	698
25°	2320	2297	2311	2294	2300	1070
35°	2087	2075	2087	2069	2072	1306
45°	1778	1777	1794	1781	1790	1373
55°	1411	1410	1421	1430	1435	1259
65°	979	979	993	1001	1010	967
75°	505	504	514	518	488	534
85°	106	76	28	12	10	130
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2535.3	2535.3	2535.3	2535.3	2535.3
2.5°	2557.7	2527.6	2540.0	2530.7	2515.2
5°	2550.8	2520.7	2534.6	2523.7	2519.1
7.5°	2540.0	2509.1	2523.0	2514.5	2512.9
10°	2523.7	2492.1	2506.7	2497.5	2495.9
12.5°	2502.1	2471.2	2487.4	2476.6	2478.2
15°	2472.0	2445.7	2461.9	2453.4	2454.2
17.5°	2441.8	2414.8	2431.8	2423.3	2424.1
20°	2405.5	2379.2	2397.0	2383.9	2387.7
22.5°	2364.6	2341.4	2356.8	2339.8	2347.6
25°	2320.5	2296.6	2311.2	2294.2	2299.7
27.5°	2270.3	2247.9	2262.6	2244.8	2247.1
30°	2214.6	2194.6	2208.5	2190.7	2194.6
32.5°	2155.1	2137.4	2148.2	2132.0	2137.4
35°	2087.1	2074.8	2087.1	2069.4	2072.5
37.5°	2016.1	2003.7	2020.7	2005.2	2010.6
40°	1942.6	1931.1	1950.4	1934.9	1941.1
42.5°	1864.6	1856.1	1875.4	1860.0	1867.7
45°	1778.1	1777.3	1793.5	1781.1	1789.6
47.5°	1692.3	1690.7	1707.0	1698.5	1708.5
50°	1602.6	1601.1	1614.2	1613.5	1619.6
52.5°	1506.8	1509.1	1521.5	1523.8	1530.8
55°	1411.0	1409.5	1421.1	1429.6	1435.0
57.5°	1306.7	1309.8	1319.1	1329.1	1333.0
60°	1203.1	1201.6	1214.0	1222.5	1228.6
62.5°	1093.4	1093.4	1103.5	1115.8	1122.0
65°	979.1	979.1	993.0	1000.7	1010.0
67.5°	862.4	860.1	872.4	889.4	887.9
70°	741.0	741.8	755.7	764.2	762.7
72.5°	620.5	622.8	637.5	641.4	645.2
75°	504.6	503.8	513.9	517.7	487.6
77.5°	389.5	390.2	396.4	290.5	255.0
80°	282.8	284.4	230.3	179.3	179.3
82.5°	187.0	183.9	118.2	69.5	51.0
85°	105.9	75.7	27.8	11.6	10.0
87.5°	43.3	13.9	7.7	5.4	4.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)