

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: P685320

Luminaire Tested: **4CZL-7-UNV-L850-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685320
Test Lab: INNOVATION CENTER(G2)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-7-UNV-L850-CD-U
Description: METALUX CRUZE LINEAR 4FT BASE MODEL @80 CRI and 5000K
Light Source: (392) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

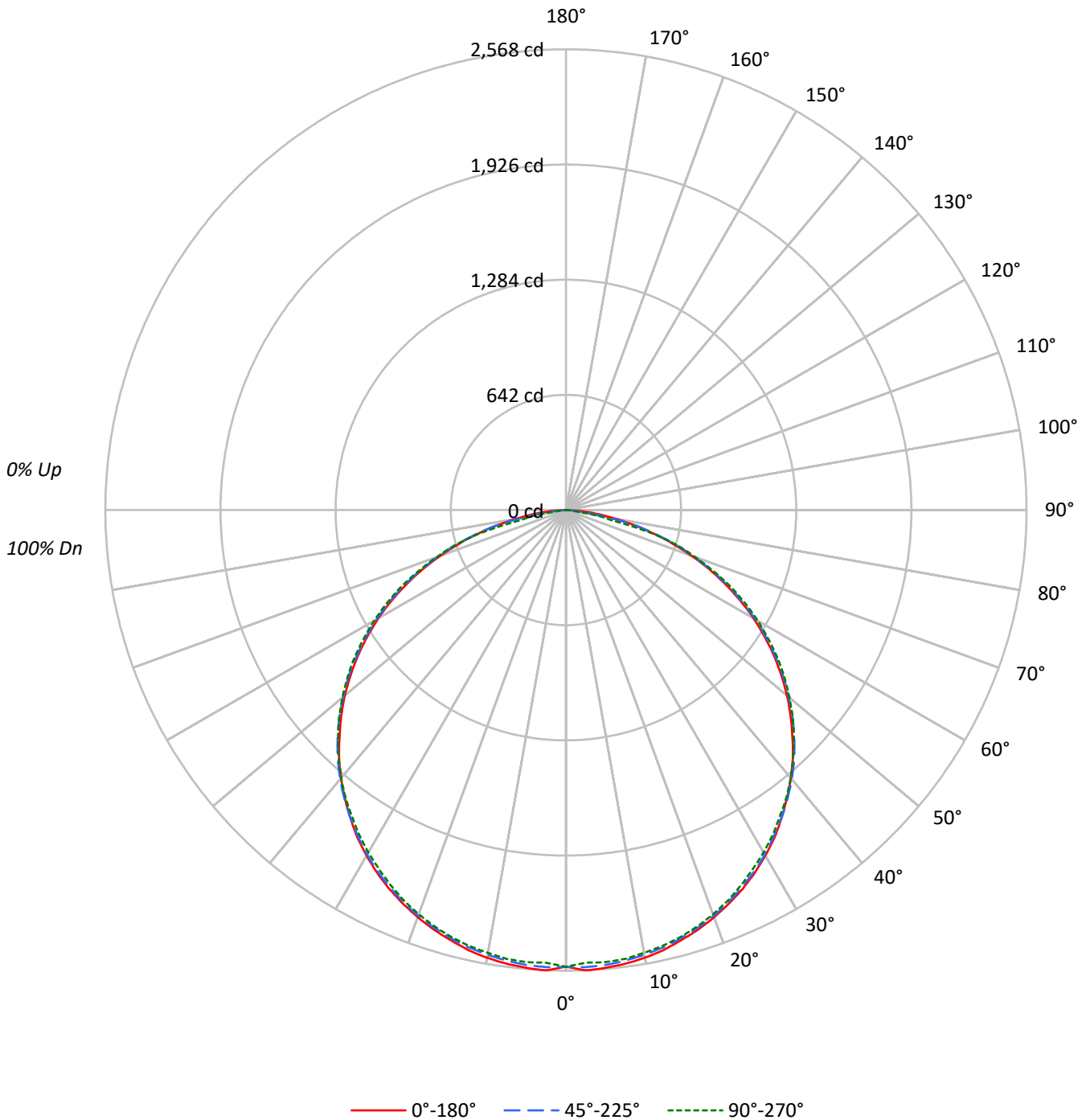
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7552.5 lumens
Efficiency: N/A
Efficacy: 171.6 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°	8222	8222	8222
5°	8303	8250	8200
10°	8310	8254	8218
15°	8299	8265	8239
20°	8301	8272	8240
25°	8303	8269	8228
30°	8293	8269	8217
35°	8262	8262	8204
40°	8223	8256	8217
45°	8154	8225	8207
50°	8085	8143	8171
55°	7977	8034	8113
60°	7803	7873	7968
65°	7513	7619	7749
70°	7026	7165	7231
75°	6322	6438	6109
80°	5281	4299	3347
85°	3938	1034	374



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	241.5	3.2
10°-20°	696.4	9.2
20°-30°	1066.4	14.1
30°-40°	1305.6	17.3
40°-50°	1381.2	18.3
50°-60°	1273.7	16.9
60°-70°	982.6	13.0
70°-80°	524.8	6.9
80°-90°	80.3	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°	2004.3	26.5
0°-40°	3310.0	43.8
0°-60°	5964.9	79.0
0°-90°	7552.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7552.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2546	2546	2546	2546	2546	
5°	2562	2531	2545	2534	2530	244
15°	2482	2456	2472	2464	2464	701
25°	2330	2306	2321	2304	2309	1074
35°	2096	2084	2096	2078	2081	1311
45°	1786	1785	1801	1789	1797	1378
55°	1417	1415	1427	1436	1441	1264
65°	983	983	997	1005	1014	971
75°	507	506	516	520	490	536
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°	2546.0	2546.0	2546.0	2546.0	2546.0
2.5°	2568.5	2538.2	2550.6	2541.3	2525.8
5°	2561.5	2531.2	2545.2	2534.3	2529.7
7.5°	2550.6	2519.6	2533.6	2525.0	2523.5
10°	2534.3	2502.5	2517.3	2508.0	2506.4
12.5°	2512.6	2481.6	2497.9	2487.0	2488.6
15°	2482.4	2456.0	2472.3	2463.7	2464.5
17.5°	2452.1	2424.9	2442.0	2433.5	2434.2
20°	2415.6	2389.2	2407.1	2393.9	2397.8
22.5°	2374.5	2351.2	2366.7	2349.7	2357.4
25°	2330.3	2306.2	2320.9	2303.9	2309.3
27.5°	2279.8	2257.3	2272.1	2254.2	2256.5
30°	2224.0	2203.8	2217.7	2199.9	2203.8
32.5°	2164.2	2146.4	2157.2	2140.9	2146.4
35°	2095.9	2083.5	2095.9	2078.1	2081.2
37.5°	2024.5	2012.1	2029.2	2013.7	2019.1
40°	1950.8	1939.2	1958.6	1943.0	1949.3
42.5°	1872.4	1863.9	1883.3	1867.8	1875.5
45°	1785.5	1784.7	1801.0	1788.6	1797.2
47.5°	1699.4	1697.8	1714.1	1705.6	1715.7
50°	1609.4	1607.8	1621.0	1620.2	1626.4
52.5°	1513.2	1515.5	1527.9	1530.2	1537.2
55°	1416.9	1415.4	1427.0	1435.6	1441.0
57.5°	1312.2	1315.3	1324.6	1334.7	1338.6
60°	1208.2	1206.6	1219.1	1227.6	1233.8
62.5°	1098.0	1098.0	1108.1	1120.5	1126.7
65°	983.2	983.2	997.1	1004.9	1014.2
67.5°	866.0	863.7	876.1	893.2	891.6
70°	744.2	744.9	758.9	767.4	765.9
72.5°	623.1	625.4	640.2	644.1	647.9
75°	506.7	505.9	516.0	519.9	489.6
77.5°	391.1	391.9	398.1	291.8	256.1
80°	284.0	285.6	231.2	180.0	180.0
82.5°	187.8	184.7	118.7	69.8	51.2
85°	106.3	76.0	27.9	11.6	10.1
87.5°	43.5	14.0	7.8	5.4	4.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)