

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: P685447

Luminaire Tested: **8CZL-24-UNV-M-L850-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685447
Test Lab: INNOVATION CENTER(G2)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 8CZL-24-UNV-M-L850-CD-U
Description: METALUX CRUZE LINEAR 8FT MEDIUM LENS MODEL @80 CRI and 5000K
Light Source: (1176) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

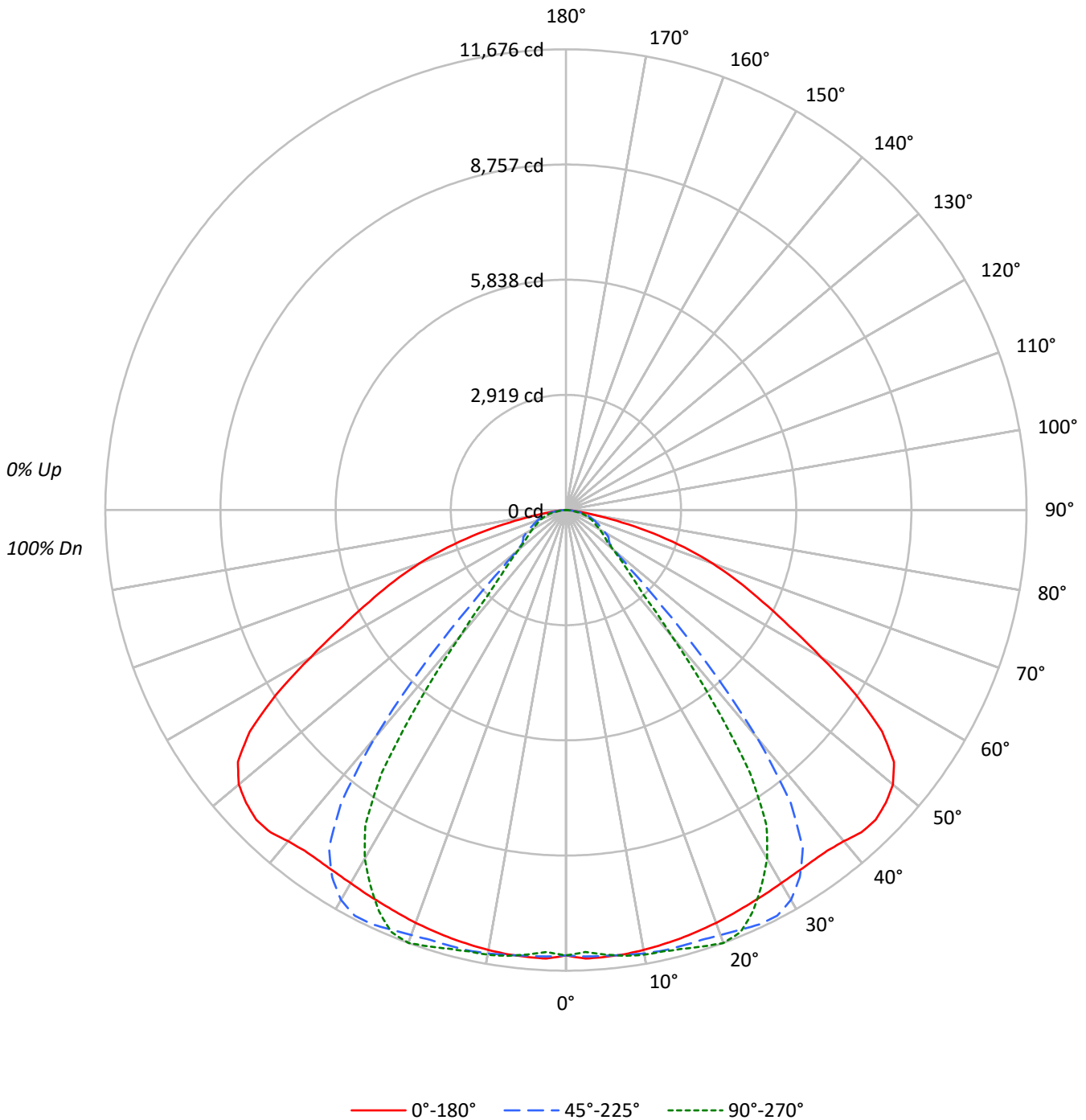
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24387.9 lumens
Efficiency: N/A
Efficacy: 158.4 lumens/watt
Spacing Criteria (0/90/45): 1.48 / 1.28 / 1.22
Luminous Opening: Rectangular (W 0.83' x L: 8' x H: 0')
CIE Type: Direct

Input Watts (W): 154
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				
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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	90	90	90	88
2	103	96	90	86	100	94	89	85	91	87	83	88	84	81	85	82	79	79	79	79	77
3	95	86	80	74	93	85	79	73	82	77	72	79	75	71	77	73	70	70	70	70	68
4	88	78	71	65	86	77	70	64	74	68	64	72	67	63	70	66	62	62	62	62	60
5	82	71	63	57	80	70	63	57	68	61	56	66	60	56	64	59	55	55	55	55	53
6	76	65	57	51	75	64	56	51	62	55	51	61	55	50	59	54	50	50	50	50	48
7	71	59	51	46	70	59	51	46	57	50	46	56	50	45	54	49	45	45	45	45	43
8	67	55	47	42	65	54	47	41	53	46	41	51	45	41	50	45	41	41	41	41	39
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	37	37	37	36
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34	34	34	34	33

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18226	18226	18226
5°	18430	18378	18326
10°	18564	18709	18761
15°	18784	19106	19240
20°	19129	19690	20062
25°	19620	20648	19986
30°	20358	21270	19013
35°	21428	20633	16055
40°	23094	15912	8781
45°	25354	7823	5248
50°	27187	4088	3913
55°	27533	3731	3378
60°	24146	3719	3184
65°	21012	3573	3083
70°	18646	3621	3103
75°	14304	3718	3151
80°	7280	3777	2609
85°	2871	2129	743



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1081.6	4.4
10°-20°	3223.7	13.2
20°-30°	5202.6	21.3
30°-40°	6093.1	25.0
40°-50°	4147.9	17.0
50°-60°	2401.8	9.8
60°-70°	1373.1	5.6
70°-80°	706.7	2.9
80°-90°	157.4	0.6
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°	9507.9	39.0
0°-40°	15600.9	64.0
0°-60°	22150.6	90.8
0°-90°	24387.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	24387.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	11288	11288	11288	11288	11288	
5°	11371	11260	11339	11326	11307	1084
15°	11238	11221	11430	11459	11510	3181
25°	11013	11168	11590	11412	11219	5097
35°	10871	11409	10468	8828	8146	6844
45°	11104	8262	3426	2308	2298	8531
55°	9781	2835	1326	1234	1200	8522
65°	5500	1011	935	826	807	5514
75°	2293	625	596	520	505	2437
85°	155	189	115	53	40	262
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°	
0°	11288.3	11288.3	11288.3	11288.3	11288.3	11288.3	11288.3	11288.3	11288.3	11288.3	11288.3	11288.3
2.5°	11379.2	11347.1	11283.0	11256.2	11256.2	11325.7	11336.4	11293.7	11285.6	11248.2	11248.2	11213.5
5°	11371.2	11339.1	11277.6	11253.6	11261.6	11339.1	11357.8	11323.1	11333.7	11323.1	11323.1	11307.0
7.5°	11355.1	11320.4	11264.3	11248.2	11272.3	11371.2	11403.2	11384.5	11408.6	11403.2	11403.2	11397.9
10°	11323.1	11296.3	11242.9	11240.2	11288.3	11411.2	11451.3	11427.3	11435.3	11432.6	11432.6	11443.3
12.5°	11280.3	11256.2	11210.8	11234.9	11304.3	11435.3	11462.0	11424.6	11435.3	11438.0	11438.0	11456.7
15°	11237.5	11208.1	11178.7	11234.9	11307.0	11429.9	11456.7	11451.3	11483.4	11486.1	11486.1	11510.1
17.5°	11184.1	11165.4	11157.4	11232.2	11288.3	11424.6	11486.1	11518.1	11560.9	11571.6	11571.6	11595.6
20°	11133.3	11117.3	11136.0	11218.8	11280.3	11459.3	11544.9	11593.0	11638.4	11651.8	11651.8	11675.8
22.5°	11071.8	11061.2	11111.9	11200.1	11293.7	11512.8	11609.0	11614.3	11595.6	11560.9	11560.9	11576.9
25°	11013.1	11013.1	11087.9	11194.8	11333.7	11590.3	11598.3	11446.0	11309.7	11218.8	11218.8	11218.8
27.5°	10964.9	10975.6	11069.2	11218.8	11411.2	11595.6	11373.8	11071.8	10871.4	10740.5	10740.5	10732.4
30°	10919.5	10938.2	11069.2	11285.6	11467.4	11408.6	10978.3	10612.2	10334.3	10208.7	10208.7	10198.0
32.5°	10887.4	10916.8	11117.3	11387.2	11400.6	11031.8	10470.6	10008.2	9679.5	9492.4	9492.4	9460.4
35°	10871.4	10906.2	11208.1	11475.4	11130.6	10467.9	9671.5	8958.0	8436.8	8196.3	8196.3	8145.5
37.5°	10882.1	10943.6	11333.7	11400.6	10454.5	9358.8	8215.0	7191.5	6475.3	6248.1	6248.1	6090.5
40°	10956.9	11061.2	11432.6	10791.2	9035.5	7549.6	6034.3	4933.3	4438.9	4275.9	4275.9	4166.3
42.5°	11082.5	11186.8	11173.4	9396.2	7057.9	5363.6	3888.4	3228.3	2987.8	2961.0	2961.0	2910.3
45°	11103.9	11144.0	10334.3	7571.0	5133.7	3426.0	2504.1	2309.0	2303.6	2322.3	2322.3	2298.3
47.5°	10991.7	10914.2	9123.6	5791.1	3535.6	2215.4	1884.1	1916.1	1932.2	1918.8	1918.8	1900.1
50°	10823.3	10537.4	7766.1	4257.2	2357.1	1627.5	1643.5	1672.9	1616.8	1579.4	1579.4	1558.0
52.5°	10481.2	9925.4	6258.8	3017.2	1630.2	1389.7	1517.9	1432.4	1352.2	1330.9	1330.9	1328.2
55°	9781.1	9016.8	4815.7	2175.4	1245.3	1325.5	1349.6	1240.0	1216.0	1205.3	1205.3	1199.9
57.5°	8714.8	7886.3	3621.1	1571.4	1093.0	1280.1	1173.2	1130.4	1106.4	1098.4	1098.4	1090.3
60°	7477.4	6622.3	2699.1	1154.5	1061.0	1151.8	1063.6	1023.5	996.8	986.1	986.1	986.1
62.5°	6381.7	5481.1	1996.3	938.0	1052.9	1039.6	959.4	916.6	900.6	895.3	895.3	889.9
65°	5499.8	4409.5	1440.4	868.5	983.5	935.3	857.8	828.5	817.8	807.1	807.1	807.1
67.5°	4714.2	3452.8	1061.0	852.5	903.3	841.8	783.0	759.0	745.6	742.9	742.9	740.3
70°	3949.8	2544.1	807.1	833.8	857.8	767.0	710.9	681.5	665.4	657.4	657.4	657.4
72.5°	3145.4	1745.1	644.1	767.0	785.7	678.8	622.7	601.3	587.9	579.9	579.9	577.2
75°	2292.9	1095.7	566.6	644.1	676.1	596.0	539.8	521.1	515.8	507.8	507.8	505.1
77.5°	1459.1	654.7	483.7	526.5	553.2	502.4	459.7	435.6	432.9	424.9	424.9	422.2
80°	783.0	419.6	387.5	414.2	430.3	406.2	355.4	307.3	294.0	283.3	283.3	280.6
82.5°	363.4	267.2	288.6	312.7	320.7	259.2	213.8	192.4	179.1	165.7	165.7	157.7
85°	155.0	144.3	179.1	192.4	157.7	114.9	74.8	56.1	45.4	42.8	42.8	40.1
87.5°	56.1	56.1	66.8	45.4	26.7	21.4	21.4	18.7	16.0	13.4	13.4	13.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)