

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: P685435

Luminaire Tested: **8CZL-14-UNV-M-L840-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685435
Test Lab: INNOVATION CENTER(G2)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 8CZL-14-UNV-M-L840-CD-U
Description: METALUX CRUZE LINEAR 8FT MEDIUM LENS MODEL @80 CRI and 4000K
Light Source: (784) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

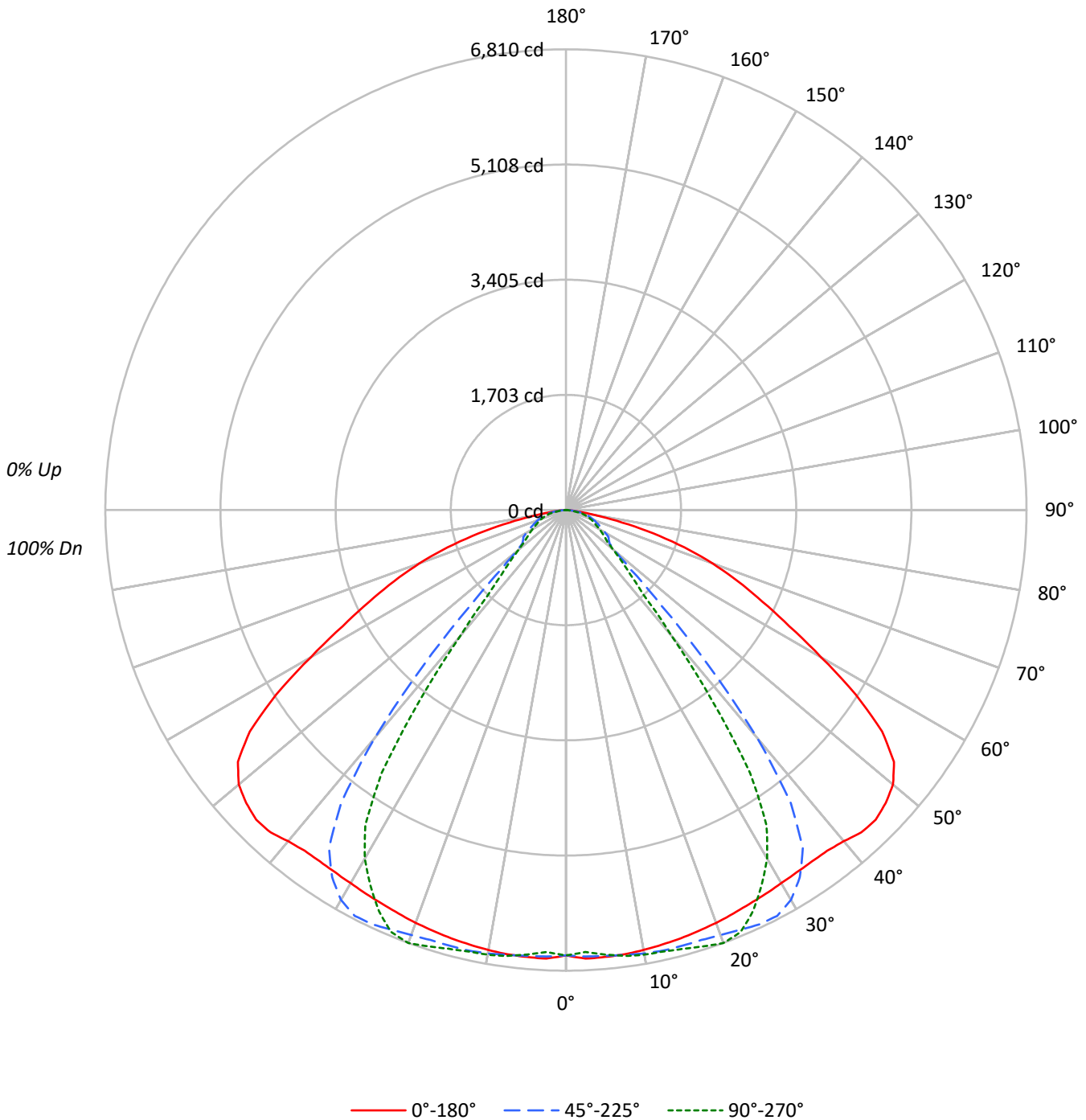
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14224.8 lumens
Efficiency: N/A
Efficacy: 159.8 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): 89
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	90	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77
3	95	86	80	74	93	85	79	73	82	77	72	79	75	71	77	73	70	68
4	88	78	71	65	86	77	70	64	74	68	64	72	67	63	70	66	62	60
5	82	71	63	57	80	70	63	57	68	61	56	66	60	56	64	59	55	53
6	76	65	57	51	75	64	56	51	62	55	51	61	55	50	59	54	50	48
7	71	59	51	46	70	59	51	46	57	50	46	56	50	45	54	49	45	43
8	67	55	47	42	65	54	47	41	53	46	41	51	45	41	50	45	41	39
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34	33

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10631	10631	10631
5°	10750	10719	10689
10°	10828	10912	10943
15°	10956	11144	11222
20°	11158	11485	11701
25°	11444	12044	11658
30°	11874	12406	11090
35°	12498	12035	9365
40°	13470	9281	5122
45°	14789	4563	3061
50°	15857	2385	2283
55°	16060	2176	1970
60°	14084	2169	1857
65°	12256	2084	1798
70°	10876	2112	1810
75°	8343	2168	1838
80°	4246	2203	1522
85°	1675	1241	433



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	630.9	4.4
10°-20°	1880.3	13.2
20°-30°	3034.5	21.3
30°-40°	3553.9	25.0
40°-50°	2419.4	17.0
50°-60°	1400.9	9.8
60°-70°	800.9	5.6
70°-80°	412.2	2.9
80°-90°	91.8	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°	5545.7	39.0
0°-40°	9099.6	64.0
0°-60°	12919.9	90.8
0°-90°	14224.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14224.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6584	6584	6584	6584	6584	
5°	6632	6567	6614	6606	6595	632
15°	6555	6545	6667	6684	6714	1856
25°	6424	6514	6760	6656	6544	2973
35°	6341	6654	6106	5149	4751	3992
45°	6477	4819	1998	1346	1340	4976
55°	5705	1654	773	720	700	4971
65°	3208	590	546	482	471	3216
75°	1337	364	348	303	295	1422
85°	90	110	67	31	23	153
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°	6584.2	6584.2	6584.2	6584.2	6584.2	6584.2	6584.2	6584.2	6584.2	6584.2	6584.2
2.5°	6637.2	6618.5	6581.1	6565.5	6565.5	6606.0	6612.2	6587.3	6582.6	6560.8	6540.5
5°	6632.5	6613.8	6578.0	6563.9	6568.6	6613.8	6624.7	6604.5	6610.7	6604.5	6595.1
7.5°	6623.2	6602.9	6570.2	6560.8	6574.8	6632.5	6651.2	6640.3	6654.3	6651.2	6648.1
10°	6604.5	6588.9	6557.7	6556.1	6584.2	6655.9	6679.3	6665.2	6669.9	6668.4	6674.6
12.5°	6579.5	6565.5	6539.0	6553.0	6593.5	6669.9	6685.5	6663.7	6669.9	6671.5	6682.4
15°	6554.6	6537.4	6520.3	6553.0	6595.1	6666.8	6682.4	6679.3	6698.0	6699.5	6713.6
17.5°	6523.4	6512.5	6507.8	6551.5	6584.2	6663.7	6699.5	6718.2	6743.2	6749.4	6763.4
20°	6493.8	6484.4	6495.3	6543.7	6579.5	6684.0	6733.8	6761.9	6788.4	6796.2	6810.2
22.5°	6457.9	6451.7	6481.3	6532.8	6587.3	6715.1	6771.2	6774.4	6763.4	6743.2	6752.5
25°	6423.6	6423.6	6467.3	6529.6	6610.7	6760.3	6765.0	6676.2	6596.7	6543.7	6543.7
27.5°	6395.6	6401.8	6456.4	6543.7	6655.9	6763.4	6634.1	6457.9	6341.0	6264.6	6260.0
30°	6369.1	6380.0	6456.4	6582.6	6688.6	6654.3	6403.4	6189.8	6027.7	5954.5	5948.2
32.5°	6350.4	6367.5	6484.4	6641.9	6649.7	6434.6	6107.2	5837.5	5645.8	5536.7	5518.0
35°	6341.0	6361.3	6537.4	6693.3	6492.2	6105.7	5641.1	5225.0	4921.0	4780.7	4751.1
37.5°	6347.3	6383.1	6610.7	6649.7	6097.9	5458.8	4791.6	4194.6	3776.9	3644.4	3552.4
40°	6390.9	6451.7	6668.4	6294.3	5270.2	4403.5	3519.7	2877.5	2589.1	2494.0	2430.1
42.5°	6464.2	6525.0	6517.2	5480.6	4116.7	3128.4	2268.0	1883.0	1742.7	1727.1	1697.5
45°	6476.6	6500.0	6027.7	4416.0	2994.4	1998.3	1460.6	1346.8	1343.6	1354.6	1340.5
47.5°	6411.2	6366.0	5321.6	3377.8	2062.2	1292.2	1098.9	1117.6	1127.0	1119.2	1108.3
50°	6313.0	6146.2	4529.7	2483.1	1374.8	949.3	958.6	975.8	943.0	921.2	908.8
52.5°	6113.4	5789.2	3650.6	1759.8	950.8	810.6	885.4	835.5	788.7	776.3	774.7
55°	5705.1	5259.2	2808.9	1268.8	726.4	773.1	787.2	723.3	709.2	703.0	699.9
57.5°	5083.1	4599.9	2112.1	916.5	637.5	746.6	684.3	659.4	645.3	640.6	636.0
60°	4361.4	3862.6	1574.3	673.4	618.8	671.8	620.4	597.0	581.4	575.2	575.2
62.5°	3722.3	3197.0	1164.4	547.1	614.2	606.4	559.6	534.7	525.3	522.2	519.1
65°	3207.9	2571.9	840.2	506.6	573.6	545.6	500.4	483.2	477.0	470.7	470.7
67.5°	2749.6	2013.9	618.8	497.2	526.9	491.0	456.7	442.7	434.9	433.3	431.8
70°	2303.8	1483.9	470.7	486.3	500.4	447.4	414.6	397.5	388.1	383.5	383.5
72.5°	1834.7	1017.9	375.7	447.4	458.3	395.9	363.2	350.7	342.9	338.3	336.7
75°	1337.4	639.1	330.5	375.7	394.4	347.6	314.9	304.0	300.8	296.2	294.6
77.5°	851.1	381.9	282.1	307.1	322.7	293.0	268.1	254.1	252.5	247.8	246.3
80°	456.7	244.7	226.0	241.6	251.0	236.9	207.3	179.3	171.5	165.2	163.7
82.5°	212.0	155.9	168.3	182.4	187.1	151.2	124.7	112.2	104.4	96.6	92.0
85°	90.4	84.2	104.4	112.2	92.0	67.0	43.6	32.7	26.5	24.9	23.4
87.5°	32.7	32.7	39.0	26.5	15.6	12.5	12.5	10.9	9.4	7.8	7.8
90°	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)