

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: P685436

Luminaire Tested: **8CZL-18-UNV-M-L840-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685436
Test Lab: INNOVATION CENTER(G2)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 8CZL-18-UNV-M-L840-CD-U
Description: METALUX CRUZE LINEAR 8FT MEDIUM LENS MODEL @80 CRI and 4000K
Light Source: (1176) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

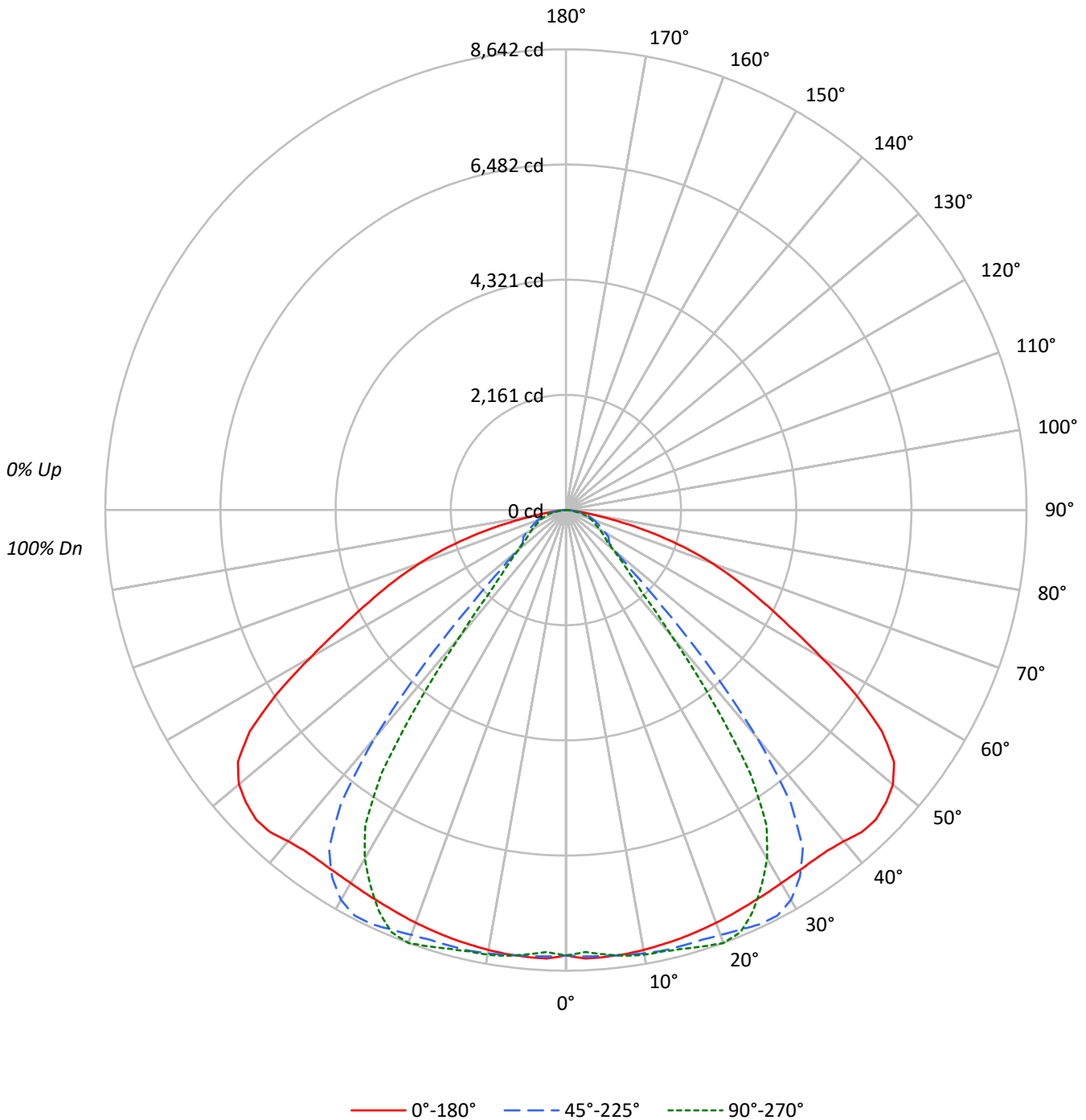
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18050.1 lumens
Efficiency: N/A
Efficacy: 165.6 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): 109
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°	13490	13490	13490
5°	13640	13602	13564
10°	13740	13847	13886
15°	13903	14141	14240
20°	14158	14573	14848
25°	14521	15282	14792
30°	15067	15742	14072
35°	15860	15271	11883
40°	17092	11777	6499
45°	18766	5790	3884
50°	20122	3026	2896
55°	20378	2762	2500
60°	17871	2753	2357
65°	15552	2645	2282
70°	13801	2680	2297
75°	10587	2752	2332
80°	5388	2795	1931
85°	2125	1577	550



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	800.5	4.4
10°-20°	2385.9	13.2
20°-30°	3850.6	21.3
30°-40°	4509.6	25.0
40°-50°	3070.0	17.0
50°-60°	1777.6	9.8
60°-70°	1016.3	5.6
70°-80°	523.1	2.9
80°-90°	116.5	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°	7037.0	39.0
0°-40°	11546.6	64.0
0°-60°	16394.2	90.8
0°-90°	18050.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	18050.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8355	8355	8355	8355	8355	
5°	8416	8334	8392	8382	8369	802
15°	8317	8305	8460	8481	8519	2355
25°	8151	8266	8578	8446	8303	3773
35°	8046	8444	7748	6534	6029	5066
45°	8218	6115	2536	1708	1701	6314
55°	7239	2099	981	913	888	6308
65°	4071	749	692	611	597	4081
75°	1697	462	441	385	374	1804
85°	115	140	85	40	30	194
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°	8354.8	8354.8	8354.8	8354.8	8354.8	8354.8	8354.8	8354.8	8354.8	8354.8	8354.8
2.5°	8422.0	8398.3	8350.8	8331.0	8331.0	8382.5	8390.4	8358.7	8352.8	8325.1	8299.4
5°	8416.1	8392.4	8346.9	8329.1	8335.0	8392.4	8406.2	8380.5	8388.4	8380.5	8368.6
7.5°	8404.2	8378.5	8337.0	8325.1	8342.9	8416.1	8439.8	8426.0	8443.8	8439.8	8435.9
10°	8380.5	8360.7	8321.1	8319.2	8354.8	8445.8	8475.4	8457.6	8463.6	8461.6	8469.5
12.5°	8348.8	8331.0	8297.4	8315.2	8366.6	8463.6	8483.3	8455.6	8463.6	8465.5	8479.4
15°	8317.2	8295.4	8273.7	8315.2	8368.6	8459.6	8479.4	8475.4	8499.2	8501.1	8518.9
17.5°	8277.6	8263.8	8257.9	8313.2	8354.8	8455.6	8501.1	8524.9	8556.5	8564.4	8582.2
20°	8240.1	8228.2	8242.0	8303.3	8348.8	8481.4	8544.7	8580.3	8613.9	8623.8	8641.6
22.5°	8194.6	8186.6	8224.2	8289.5	8358.7	8520.9	8592.1	8596.1	8582.2	8556.5	8568.4
25°	8151.0	8151.0	8206.4	8285.5	8388.4	8578.3	8584.2	8471.5	8370.6	8303.3	8303.3
27.5°	8115.4	8123.4	8192.6	8303.3	8445.8	8582.2	8418.1	8194.6	8046.2	7949.3	7943.4
30°	8081.8	8095.7	8192.6	8352.8	8487.3	8443.8	8125.3	7854.4	7648.6	7555.7	7547.8
32.5°	8058.1	8079.8	8228.2	8428.0	8437.8	8164.9	7749.5	7407.3	7164.1	7025.6	7001.9
35°	8046.2	8071.9	8295.4	8493.2	8238.1	7747.5	7158.1	6630.0	6244.3	6066.3	6028.7
37.5°	8054.1	8099.6	8388.4	8437.8	7737.7	6926.7	6080.2	5322.6	4792.5	4624.4	4507.7
40°	8109.5	8186.6	8461.6	7986.9	6687.4	5587.6	4466.2	3651.3	3285.3	3164.7	3083.6
42.5°	8202.5	8279.6	8269.7	6954.4	5223.7	3969.7	2877.9	2389.3	2211.3	2191.5	2154.0
45°	8218.3	8248.0	7648.6	5603.5	3799.6	2535.7	1853.3	1708.9	1705.0	1718.8	1701.0
47.5°	8135.2	8077.9	6752.6	4286.2	2616.8	1639.7	1394.4	1418.2	1430.0	1420.2	1406.3
50°	8010.6	7799.0	5747.9	3150.8	1744.5	1204.6	1216.4	1238.2	1196.6	1169.0	1153.1
52.5°	7757.4	7346.0	4632.3	2233.1	1206.5	1028.5	1123.5	1060.2	1000.8	985.0	983.0
55°	7239.2	6673.5	3564.2	1610.0	921.7	981.1	998.9	917.8	900.0	892.0	888.1
57.5°	6450.0	5836.9	2680.1	1163.0	809.0	947.4	868.3	836.7	818.9	812.9	807.0
60°	5534.2	4901.3	1997.7	854.5	785.2	852.5	787.2	757.5	737.8	729.9	729.9
62.5°	4723.3	4056.7	1477.5	694.3	779.3	769.4	710.1	678.4	666.6	662.6	658.7
65°	4070.6	3263.6	1066.1	642.8	727.9	692.3	634.9	613.2	605.2	597.3	597.3
67.5°	3489.1	2555.5	785.2	631.0	668.5	623.0	579.5	561.7	551.8	549.9	547.9
70°	2923.4	1883.0	597.3	617.1	634.9	567.7	526.1	504.4	492.5	486.6	486.6
72.5°	2328.0	1291.6	476.7	567.7	581.5	502.4	460.9	445.0	435.1	429.2	427.2
75°	1697.1	811.0	419.3	476.7	500.4	441.1	399.5	385.7	381.7	375.8	373.8
77.5°	1079.9	484.6	358.0	389.7	409.4	371.9	340.2	322.4	320.4	314.5	312.5
80°	579.5	310.5	286.8	306.6	318.4	300.6	263.1	227.5	217.6	209.7	207.7
82.5°	269.0	197.8	213.6	231.4	237.4	191.9	158.2	142.4	132.5	122.6	116.7
85°	114.7	106.8	132.5	142.4	116.7	85.1	55.4	41.5	33.6	31.6	29.7
87.5°	41.5	41.5	49.4	33.6	19.8	15.8	15.8	13.8	11.9	9.9	9.9
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)