

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: P685467

Luminaire Tested: **8CZL-24-UNV-M-L940-CD-U**

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685467  
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-L940-CD-U  
Description: METALUX CRUZE LINEAR 8FT MEDIUM LENS MODEL @90 CRI and 4000K  
Light Source: (1176) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

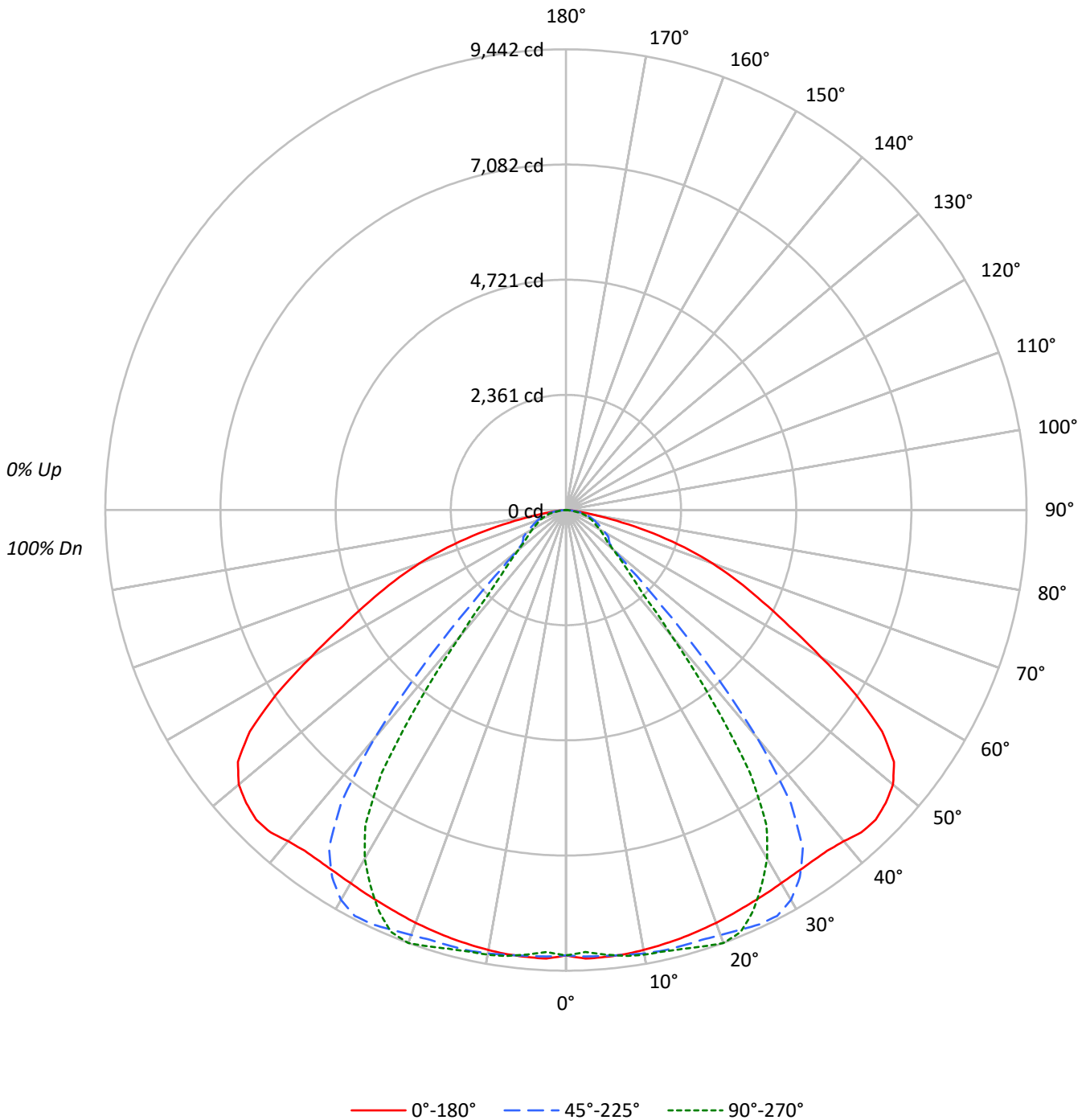
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 19722.6 lumens  
Efficiency: N/A  
Efficacy: 128.1 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°	14739	14739	14739
5°	14904	14862	14820
10°	15013	15130	15172
15°	15191	15451	15559
20°	15470	15923	16224
25°	15867	16698	16163
30°	16464	17201	15376
35°	17329	16686	12984
40°	18676	12868	7101
45°	20504	6327	4244
50°	21986	3306	3165
55°	22266	3018	2732
60°	19527	3008	2575
65°	16992	2890	2494
70°	15079	2928	2510
75°	11568	3006	2548
80°	5888	3054	2110
85°	2321	1721	600



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	874.7	4.4
10°-20°	2607.0	13.2
20°-30°	4207.4	21.3
30°-40°	4927.5	25.0
40°-50°	3354.4	17.0
50°-60°	1942.3	9.8
60°-70°	1110.5	5.6
70°-80°	571.5	2.9
80°-90°	127.3	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°	7689.0	39.0
0°-40°	12616.5	64.0
0°-60°	17913.3	90.8
0°-90°	19722.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	19722.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	9129	9129	9129	9129	9129	
5°	9196	9106	9170	9159	9144	876
15°	9088	9074	9243	9267	9308	2573
25°	8906	9032	9373	9229	9073	4122
35°	8792	9226	8465	7139	6587	5535
45°	8980	6681	2771	1866	1859	6899
55°	7910	2293	1072	998	970	6892
65°	4448	818	756	668	653	4459
75°	1854	505	482	420	408	1971
85°	125	153	93	43	32	212
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°	9128.9	9128.9	9128.9	9128.9	9128.9	9128.9	9128.9	9128.9	9128.9	9128.9	9128.9
2.5°	9202.4	9176.4	9124.6	9103.0	9103.0	9159.2	9167.8	9133.2	9126.7	9096.5	9068.4
5°	9195.9	9170.0	9120.3	9100.8	9107.3	9170.0	9185.1	9157.0	9165.6	9157.0	9144.0
7.5°	9182.9	9154.8	9109.4	9096.5	9115.9	9195.9	9221.8	9206.7	9226.2	9221.8	9217.5
10°	9157.0	9135.4	9092.2	9090.0	9128.9	9228.3	9260.7	9241.3	9247.8	9245.6	9254.2
12.5°	9122.4	9103.0	9066.2	9085.7	9141.9	9247.8	9269.4	9239.1	9247.8	9249.9	9265.1
15°	9087.8	9064.1	9040.3	9085.7	9144.0	9243.4	9265.1	9260.7	9286.7	9288.8	9308.3
17.5°	9044.6	9029.5	9023.0	9083.5	9128.9	9239.1	9288.8	9314.8	9349.3	9358.0	9377.4
20°	9003.5	8990.6	9005.7	9072.7	9122.4	9267.2	9336.4	9375.3	9412.0	9422.8	9442.3
22.5°	8953.8	8945.2	8986.3	9057.6	9133.2	9310.4	9388.2	9392.6	9377.4	9349.3	9362.3
25°	8906.3	8906.3	8966.8	9053.3	9165.6	9373.1	9379.6	9256.4	9146.2	9072.7	9072.7
27.5°	8867.4	8876.0	8951.7	9072.7	9228.3	9377.4	9198.1	8953.8	8791.7	8685.9	8679.4
30°	8830.7	8845.8	8951.7	9126.7	9273.7	9226.2	8878.2	8582.1	8357.3	8255.8	8247.1
32.5°	8804.7	8828.5	8990.6	9208.9	9219.7	8921.4	8467.6	8093.7	7827.9	7676.6	7650.6
35°	8791.7	8819.8	9064.1	9280.2	9001.4	8465.4	7821.4	7244.3	6822.9	6628.4	6587.3
37.5°	8800.4	8850.1	9165.6	9219.7	8454.6	7568.5	6643.5	5815.8	5236.6	5052.9	4925.4
40°	8860.9	8945.2	9245.6	8726.9	7307.0	6105.4	4880.0	3989.6	3589.7	3457.9	3369.3
42.5°	8962.5	9046.8	9036.0	7598.8	5707.7	4337.5	3144.5	2610.7	2416.2	2394.6	2353.5
45°	8979.8	9012.2	8357.3	6122.7	4151.7	2770.7	2025.0	1867.3	1863.0	1878.1	1858.6
47.5°	8889.0	8826.3	7378.3	4683.3	2859.3	1791.6	1523.6	1549.6	1562.5	1551.7	1536.6
50°	8752.8	8521.6	6280.4	3442.8	1906.2	1316.2	1329.1	1352.9	1307.5	1277.3	1260.0
52.5°	8476.2	8026.7	5061.5	2440.0	1318.3	1123.8	1227.6	1158.4	1093.6	1076.3	1074.1
55°	7910.0	7291.9	3894.5	1759.2	1007.1	1072.0	1091.4	1002.8	983.3	974.7	970.4
57.5°	7047.7	6377.7	2928.4	1270.8	883.9	1035.2	948.8	914.2	894.7	888.3	881.8
60°	6047.0	5355.4	2182.8	933.6	858.0	931.5	860.2	827.7	806.1	797.5	797.5
62.5°	5160.9	4432.6	1614.4	758.6	851.5	840.7	775.9	741.3	728.3	724.0	719.7
65°	4447.7	3566.0	1164.9	702.4	795.3	756.4	693.7	670.0	661.3	652.7	652.7
67.5°	3812.4	2792.3	858.0	689.4	730.5	680.8	633.2	613.8	603.0	600.8	598.7
70°	3194.2	2057.5	652.7	674.3	693.7	620.3	574.9	551.1	538.1	531.7	531.7
72.5°	2543.7	1411.3	520.8	620.3	635.4	548.9	503.6	486.3	475.5	469.0	466.8
75°	1854.3	886.1	458.2	520.8	546.8	481.9	436.6	421.4	417.1	410.6	408.5
77.5°	1180.0	529.5	391.2	425.8	447.4	406.3	371.7	352.3	350.1	343.6	341.5
80°	633.2	339.3	313.4	335.0	348.0	328.5	287.4	248.5	237.7	229.1	226.9
82.5°	293.9	216.1	233.4	252.9	259.3	209.6	172.9	155.6	144.8	134.0	127.5
85°	125.3	116.7	144.8	155.6	127.5	92.9	60.5	45.4	36.7	34.6	32.4
87.5°	45.4	45.4	54.0	36.7	21.6	17.3	17.3	15.1	13.0	10.8	10.8
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)