

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: P685438

Luminaire Tested: **8CZL-32-UNV-M-L840-CD-U**

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685438  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 05/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 8CZL-32-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

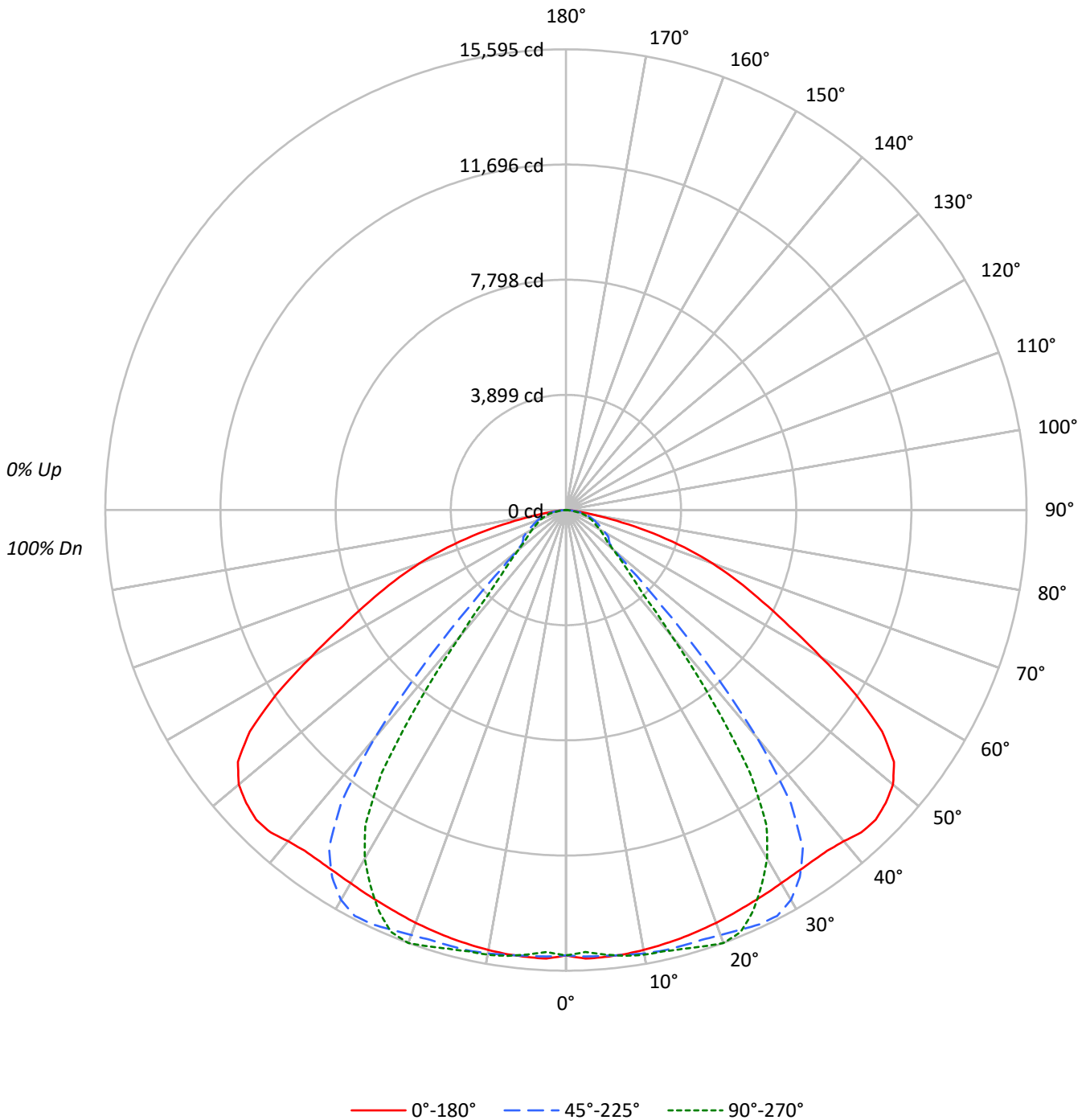
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 32574.7 lumens  
Efficiency: N/A  
Efficacy: 158.1 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): 206  
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

TEST NUMBER: P685438  
CATALOG NUMBER: 8CZL-32-UNV-M-L840-CD-U

### Luminous Intensity Polar Plot





TEST NUMBER: P685438  
 CATALOG NUMBER: 8CZL-32-UNV-M-L840-CD-U

**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°	24344	24344	24344
5°	24617	24547	24478
10°	24796	24989	25059
15°	25090	25519	25698
20°	25551	26299	26796
25°	26206	27580	26696
30°	27192	28410	25395
35°	28621	27559	21445
40°	30846	21254	11729
45°	33866	10449	7010
50°	36313	5460	5227
55°	36776	4984	4512
60°	32252	4968	4253
65°	28065	4773	4118
70°	24906	4836	4145
75°	19106	4966	4208
80°	9725	5045	3485
85°	3835	2844	991



TEST NUMBER: P685438  
 CATALOG NUMBER: 8CZL-32-UNV-M-L840-CD-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1444.7	4.4
10°-20°	4305.8	13.2
20°-30°	6949.1	21.3
30°-40°	8138.5	25.0
40°-50°	5540.3	17.0
50°-60°	3208.0	9.8
60°-70°	1834.1	5.6
70°-80°	944.0	2.9
80°-90°	210.2	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°	12699.6	39.0
0°-40°	20838.0	64.0
0°-60°	29586.4	90.8
0°-90°	32574.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	32574.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	15078	15078	15078	15078	15078	
5°	15188	15039	15146	15128	15103	1448
15°	15010	14988	15267	15306	15374	4249
25°	14710	14917	15481	15243	14985	6809
35°	14521	15238	13982	11791	10880	9142
45°	14831	11035	4576	3082	3070	11394
55°	13064	3787	1770	1648	1603	11383
65°	7346	1351	1249	1103	1078	7365
75°	3063	834	796	694	675	3256
85°	207	253	154	71	54	351
90°	0	0	0	0	0	



TEST NUMBER: P685438

CATALOG NUMBER: 8CZL-32-UNV-M-L840-CD-U

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	15077.7	15077.7	15077.7	15077.7	15077.7	15077.7	15077.7	15077.7	15077.7	15077.7	15077.7
2.5°	15199.1	15156.2	15070.6	15034.9	15034.9	15127.7	15142.0	15084.9	15074.1	15024.2	14977.8
5°	15188.4	15145.5	15063.4	15031.3	15042.0	15145.5	15170.5	15124.1	15138.4	15124.1	15102.7
7.5°	15167.0	15120.6	15045.6	15024.2	15056.3	15188.4	15231.2	15206.2	15238.3	15231.2	15224.1
10°	15124.1	15088.4	15017.0	15013.5	15077.7	15241.9	15295.5	15263.3	15274.0	15270.5	15284.8
12.5°	15067.0	15034.9	14974.2	15006.3	15099.1	15274.0	15309.7	15259.8	15274.0	15277.6	15302.6
15°	15009.9	14970.6	14931.4	15006.3	15102.7	15266.9	15302.6	15295.5	15338.3	15341.9	15374.0
17.5°	14938.5	14913.5	14902.8	15002.8	15077.7	15259.8	15341.9	15384.7	15441.8	15456.1	15488.2
20°	14870.7	14849.3	14874.3	14984.9	15067.0	15306.2	15420.4	15484.6	15545.3	15563.2	15595.3
22.5°	14788.6	14774.3	14842.1	14959.9	15084.9	15377.6	15506.1	15513.2	15488.2	15441.8	15463.2
25°	14710.1	14710.1	14810.0	14952.8	15138.4	15481.1	15491.8	15288.3	15106.3	14984.9	14984.9
27.5°	14645.8	14660.1	14785.0	14984.9	15241.9	15488.2	15191.9	14788.6	14520.9	14346.0	14335.3
30°	14585.1	14610.1	14785.0	15074.1	15316.9	15238.3	14663.7	14174.6	13803.4	13635.6	13621.3
32.5°	14542.3	14581.6	14849.3	15209.8	15227.6	14735.0	13985.4	13367.9	12928.9	12679.0	12636.2
35°	14520.9	14567.3	14970.6	15327.6	14867.1	13981.9	12918.1	11965.1	11269.0	10947.8	10879.9
37.5°	14535.1	14617.2	15138.4	15227.6	13964.0	12500.5	10972.8	9605.6	8649.0	8345.6	8135.0
40°	14635.1	14774.3	15270.5	14413.8	12068.6	10083.9	8060.0	6589.4	5929.0	5711.3	5564.9
42.5°	14802.9	14942.1	14924.2	12550.5	9427.1	7164.1	5193.7	4312.0	3990.7	3955.0	3887.2
45°	14831.4	14885.0	13803.4	10112.5	6857.1	4576.1	3344.7	3084.1	3076.9	3101.9	3069.8
47.5°	14681.5	14578.0	12186.4	7735.2	4722.5	2959.1	2516.5	2559.4	2580.8	2562.9	2537.9
50°	14456.6	14074.7	10373.1	5686.3	3148.3	2173.8	2195.3	2234.5	2159.6	2109.6	2081.0
52.5°	13999.7	13257.3	8359.9	4030.0	2177.4	1856.2	2027.5	1913.3	1806.2	1777.6	1774.1
55°	13064.5	12043.6	6432.3	2905.6	1663.4	1770.5	1802.6	1656.3	1624.1	1609.9	1602.7
57.5°	11640.3	10533.7	4836.7	2098.9	1459.9	1709.8	1567.0	1509.9	1477.8	1467.1	1456.4
60°	9987.6	8845.3	3605.2	1542.0	1417.1	1538.5	1420.7	1367.1	1331.4	1317.2	1317.2
62.5°	8524.1	7321.1	2666.4	1252.9	1406.4	1388.5	1281.5	1224.4	1202.9	1195.8	1188.7
65°	7346.1	5889.7	1924.0	1160.1	1313.6	1249.3	1145.8	1106.6	1092.3	1078.0	1078.0
67.5°	6296.7	4611.8	1417.1	1138.7	1206.5	1124.4	1045.9	1013.7	995.9	992.3	988.8
70°	5275.8	3398.2	1078.0	1113.7	1145.8	1024.5	949.5	910.2	888.8	878.1	878.1
72.5°	4201.3	2330.9	860.3	1024.5	1049.4	906.7	831.7	803.1	785.3	774.6	771.0
75°	3062.7	1463.5	756.7	860.3	903.1	796.0	721.0	696.1	688.9	678.2	674.6
77.5°	1949.0	874.5	646.1	703.2	738.9	671.1	614.0	581.8	578.3	567.6	564.0
80°	1045.9	560.4	517.6	553.3	574.7	542.6	474.7	410.5	392.6	378.4	374.8
82.5°	485.5	357.0	385.5	417.6	428.3	346.2	285.6	257.0	239.2	221.3	210.6
85°	207.0	192.8	239.2	257.0	210.6	153.5	99.9	75.0	60.7	57.1	53.5
87.5°	75.0	75.0	89.2	60.7	35.7	28.6	28.6	25.0	21.4	17.8	17.8
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)