

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: P685606

Luminaire Tested: **8CZL-18-UNV-FUL-L835-CD-U**

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685606  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 05/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 8CZL-18-UNV-FUL-L835-CD-U  
Description: METALUX CRUZE LINEAR 8FT FROSTED LENS MODEL WITH UPLIGHT @80 CRI and 3500K  
Light Source: (1176) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

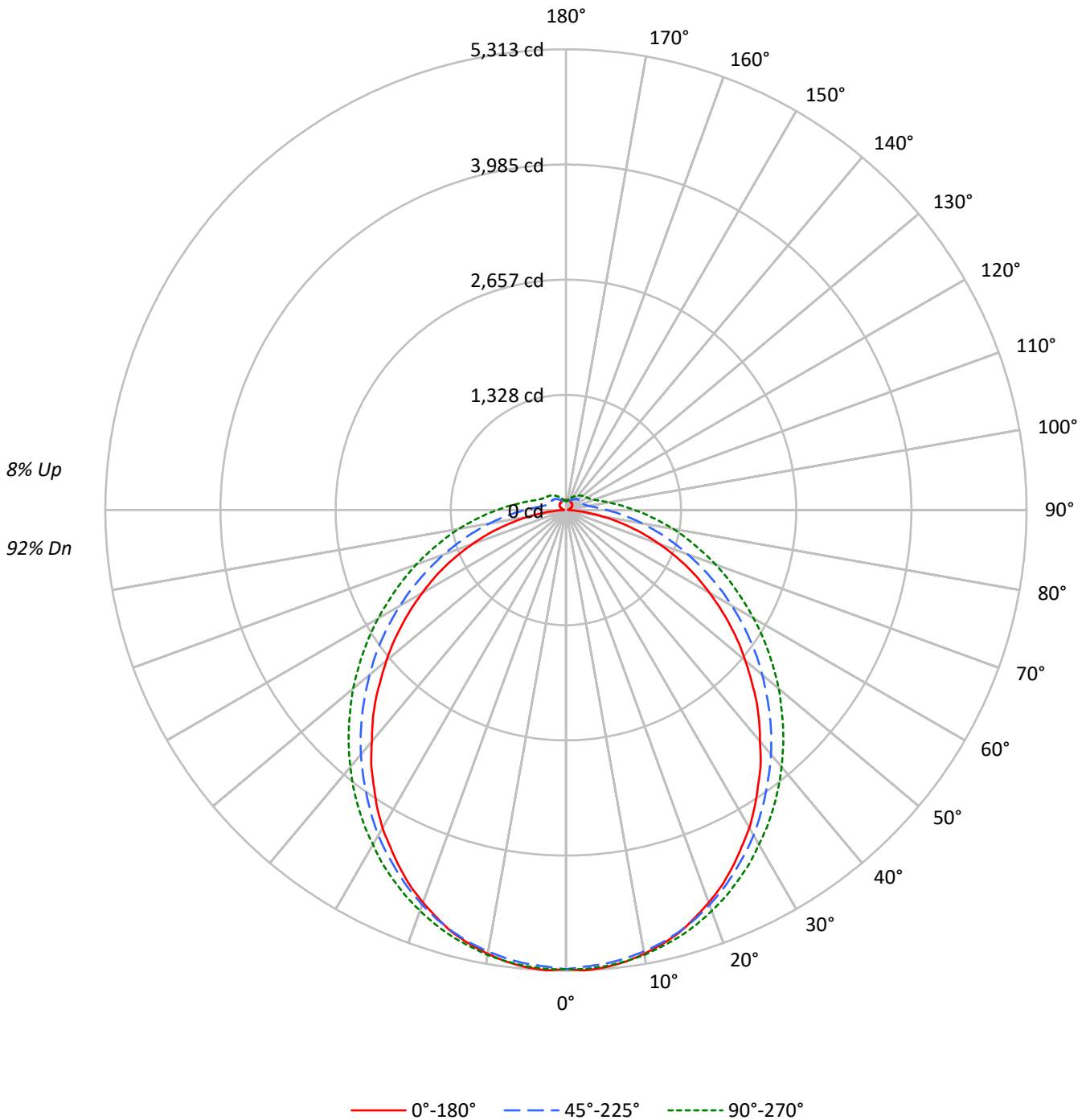
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16522.8 lumens  
Efficiency: N/A  
Efficacy: 151.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.83' x L: 8' x H: 0.17')  
CIE Type: Direct

Input Watts (W): 109  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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				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	117	117	117	117	113	113	113	113	107	107	107	100	100	100	95	95	95	95	95	95	95
1	106	101	96	92	102	98	93	90	92	88	85	87	84	81	82	79	77	77	77	77	75
2	96	87	80	74	93	85	78	73	80	74	70	75	71	67	71	68	64	64	64	64	62
3	87	77	68	61	84	74	67	60	70	64	58	66	61	56	63	58	54	54	54	54	52
4	80	68	59	52	77	66	58	51	62	55	50	59	53	48	56	51	47	47	47	47	44
5	74	61	51	45	71	59	50	44	56	49	43	53	47	42	50	45	41	41	41	41	38
6	68	54	45	39	65	53	45	38	50	43	38	48	42	37	46	40	36	36	36	36	33
7	63	49	41	34	61	48	40	34	46	39	33	44	37	32	42	36	32	32	32	32	30
8	59	45	37	31	57	44	36	30	42	35	30	40	34	29	38	33	28	28	28	28	26
9	55	41	33	28	53	40	33	27	39	32	27	37	31	26	35	30	26	26	26	26	24
10	51	38	30	25	50	37	30	25	36	29	24	34	28	24	33	27	23	23	23	23	22

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	8552	8552	8552
5°	8563	8397	8409
10°	8489	8249	8253
15°	8391	8080	8076
20°	8215	7877	7881
25°	8018	7644	7670
30°	7797	7407	7443
35°	7512	7125	7224
40°	7214	6858	6983
45°	6946	6563	6737
50°	6622	6262	6501
55°	6309	5950	6241
60°	5958	5620	5999
65°	5616	5280	5770
70°	5117	4950	5598
75°	4500	4646	5444
80°	3612	4420	5483
85°	2273	4359	5646



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	501.0	3.0
10°-20°	1425.4	8.6
20°-30°	2128.5	12.9
30°-40°	2516.2	15.2
40°-50°	2564.0	15.5
50°-60°	2311.9	14.0
60°-70°	1829.3	11.1
70°-80°	1236.3	7.5
80°-90°	691.4	4.2
90°-100°	376.2	2.3
100°-110°	246.8	1.5
110°-120°	195.7	1.2
120°-130°	166.5	1.0
130°-140°	133.2	0.8
140°-150°	95.3	0.6
150°-160°	61.4	0.4
160°-170°	33.2	0.2
170°-180°	10.4	0.1
0°-30°	4054.9	24.5
0°-40°	6571.1	39.8
0°-60°	11447.0	69.3
0°-90°	15204.1	92.0
90°-120°	818.7	5.0
90°-150°	1213.8	7.3
90°-180°	1319.0	8.0
0°-180°	16522.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5296	5296	5296	5296	5296	
5°	5293	5285	5252	5282	5279	502
15°	5048	5042	5036	5080	5090	1420
25°	4544	4566	4603	4689	4707	2092
35°	3867	3920	4010	4138	4178	2421
45°	3105	3167	3323	3478	3541	2391
55°	2308	2394	2585	2780	2850	2064
65°	1536	1613	1845	2072	2158	1516
75°	777	885	1179	1440	1524	826
85°	152	341	655	910	1002	186
90°	23	188	472	704	791	18
95°	26	123	346	553	631	22
105°	44	109	226	357	410	46
115°	68	118	202	276	307	67
125°	90	122	192	248	269	80
135°	100	120	178	222	237	77
145°	104	115	150	189	200	65
155°	112	113	124	156	160	51
165°	116	114	112	117	126	33
175°	117	115	110	97	98	11
180°	108	108	108	108	108	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5296.4	5296.4	5296.4	5296.4	5296.4
2.5°	5313.4	5304.9	5269.9	5297.5	5296.4
5°	5293.2	5284.7	5251.8	5281.5	5279.4
7.5°	5253.9	5248.6	5217.8	5250.7	5249.7
10°	5196.6	5196.6	5170.0	5208.3	5211.4
12.5°	5127.5	5126.5	5112.7	5152.0	5152.0
15°	5047.9	5041.5	5036.2	5079.7	5090.4
17.5°	4934.2	4938.5	4948.1	5000.1	5010.7
20°	4817.4	4827.0	4845.0	4906.6	4920.4
22.5°	4692.1	4702.7	4731.4	4798.3	4820.6
25°	4544.5	4565.7	4602.9	4688.9	4707.0
27.5°	4385.2	4422.3	4470.1	4561.5	4592.3
30°	4232.2	4262.0	4331.0	4426.6	4453.1
32.5°	4055.9	4092.0	4172.8	4287.5	4323.6
35°	3866.9	3920.0	4010.3	4137.7	4178.1
37.5°	3690.6	3733.1	3844.6	3980.5	4028.3
40°	3482.4	3551.5	3680.0	3813.8	3869.0
42.5°	3299.8	3359.2	3503.7	3651.3	3708.7
45°	3105.4	3167.0	3323.1	3478.2	3540.8
47.5°	2897.3	2970.5	3137.3	3310.4	3368.8
50°	2701.8	2778.3	2956.7	3132.0	3205.2
52.5°	2509.6	2589.3	2774.1	2958.8	3026.8
55°	2307.8	2393.8	2585.0	2780.4	2850.5
57.5°	2110.3	2196.3	2400.2	2602.0	2677.4
60°	1911.7	1992.4	2211.2	2418.3	2501.1
62.5°	1725.8	1804.4	2029.6	2252.6	2324.8
65°	1535.7	1613.2	1844.8	2072.0	2158.1
67.5°	1339.2	1432.7	1665.3	1903.2	1994.5
70°	1145.9	1241.5	1498.5	1746.0	1837.3
72.5°	963.3	1071.6	1330.7	1583.5	1677.0
75°	777.4	884.7	1178.9	1440.1	1524.0
77.5°	602.2	727.5	1030.2	1293.6	1392.3
80°	434.4	576.7	896.4	1154.4	1258.5
82.5°	285.7	448.2	772.1	1028.1	1121.5
85°	151.9	340.9	655.3	910.2	1001.5
87.5°	59.5	252.8	557.6	802.9	894.2
90°	23.4	188.0	471.5	704.1	791.2
92.5°	23.4	146.6	401.5	624.5	706.3
95°	25.5	123.2	346.2	553.3	630.9
97.5°	27.6	111.5	302.7	490.7	559.7
100°	31.9	107.3	269.8	439.7	502.3
102.5°	37.2	107.3	243.2	393.0	452.4
105°	43.5	109.4	226.2	356.8	409.9
107.5°	48.9	111.5	214.5	327.1	374.9
110°	55.2	114.7	208.2	304.8	346.2

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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	61.6	116.8	203.9	288.9	325.0
115°	68.0	117.9	201.8	276.1	306.9
117.5°	74.3	120.0	199.7	267.6	294.2
120°	80.7	121.1	197.5	261.3	284.6
122.5°	86.0	121.1	195.4	254.9	276.1
125°	90.3	122.1	192.2	248.5	268.7
127.5°	93.5	123.2	190.1	242.1	260.2
130°	96.6	122.1	186.9	235.8	252.8
132.5°	98.8	121.1	182.7	229.4	245.3
135°	99.8	120.0	178.4	222.0	236.8
137.5°	100.9	118.9	172.1	214.5	228.3
140°	100.9	117.9	164.6	206.0	218.8
142.5°	102.0	115.8	157.2	197.5	209.2
145°	104.1	114.7	149.7	189.0	199.7
147.5°	106.2	112.6	143.4	179.5	189.0
150°	108.3	112.6	137.0	171.0	179.5
152.5°	109.4	112.6	130.6	163.6	169.9
155°	111.5	112.6	124.3	156.1	160.4
157.5°	112.6	112.6	120.0	146.6	150.8
160°	113.6	113.6	115.8	135.9	142.3
162.5°	115.8	113.6	113.6	125.3	133.8
165°	115.8	113.6	111.5	116.8	126.4
167.5°	116.8	114.7	110.5	110.5	120.0
170°	116.8	114.7	110.5	105.1	110.5
172.5°	116.8	114.7	110.5	100.9	103.0
175°	116.8	114.7	110.5	96.6	97.7
177.5°	116.8	114.7	109.4	93.5	97.7
180°	108.3	108.3	108.3	108.3	108.3

(END OF REPORT)