

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: P685607

Luminaire Tested: **8CZL-24-UNV-FUL-L835-CD-U**

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685607  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 05/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 8CZL-24-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

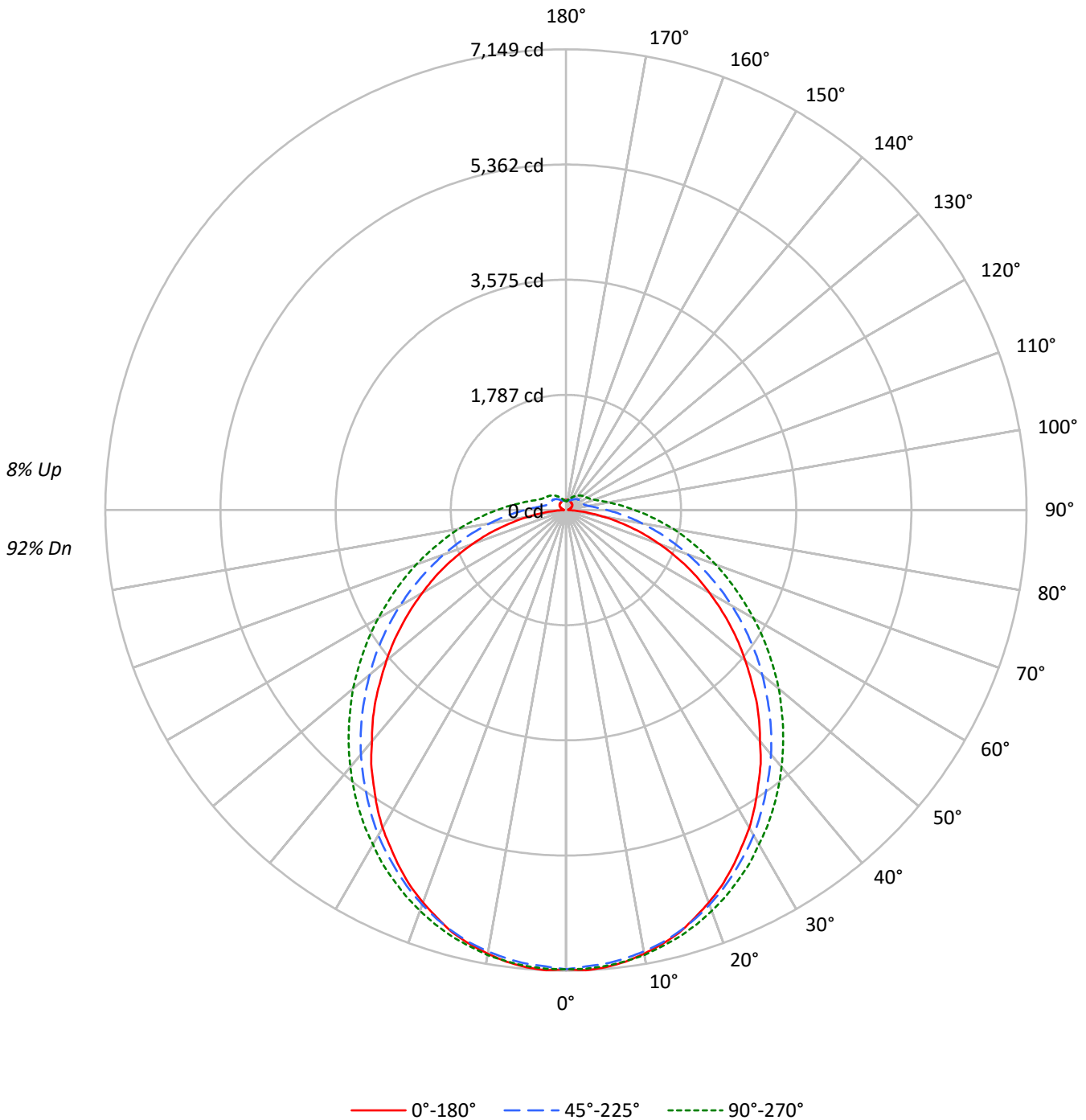
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 22231.0 lumens  
Efficiency: N/A  
Efficacy: 144.4 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): 154  
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	92
1	106	101	96	92	102	98	93	90	92	88	85	87	84	81	82	79	77	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	64	62
3	87	77	68	61	84	74	67	60	70	64	58	66	61	56	63	58	54	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	47	44
5	74	61	51	45	71	59	50	44	56	49	43	53	47	42	50	45	41	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	36	33
7	63	49	41	34	61	48	40	34	46	39	33	44	37	32	42	36	32	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	28	26
9	55	41	33	28	53	40	33	27	39	32	27	37	31	26	35	30	26	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	23	22

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

	0°	45°	90°
0°	11506	11506	11506
5°	11522	11298	11315
10°	11421	11099	11104
15°	11290	10872	10866
20°	11053	10599	10603
25°	10788	10284	10320
30°	10490	9966	10014
35°	10108	9587	9719
40°	9706	9227	9395
45°	9346	8831	9065
50°	8910	8425	8748
55°	8488	8005	8398
60°	8017	7562	8071
65°	7557	7104	7763
70°	6884	6660	7532
75°	6055	6251	7325
80°	4860	5947	7377
85°	3057	5865	7597



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	674.1	3.0
10°-20°	1917.9	8.6
20°-30°	2863.8	12.9
30°-40°	3385.4	15.2
40°-50°	3449.8	15.5
50°-60°	3110.6	14.0
60°-70°	2461.3	11.1
70°-80°	1663.4	7.5
80°-90°	930.3	4.2
90°-100°	506.2	2.3
100°-110°	332.0	1.5
110°-120°	263.3	1.2
120°-130°	224.0	1.0
130°-140°	179.2	0.8
140°-150°	128.2	0.6
150°-160°	82.7	0.4
160°-170°	44.6	0.2
170°-180°	14.0	0.1
0°-30°	5455.8	24.5
0°-40°	8841.2	39.8
0°-60°	15401.7	69.3
0°-90°	20456.7	92.0
90°-120°	1101.6	5.0
90°-150°	1633.1	7.3
90°-180°	1774.0	8.0
0°-180°	22231.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	7126	7126	7126	7126	7126	
5°	7122	7110	7066	7106	7103	676
15°	6792	6783	6776	6835	6849	1911
25°	6114	6143	6193	6309	6333	2814
35°	5203	5274	5396	5567	5622	3257
45°	4178	4261	4471	4680	4764	3218
55°	3105	3221	3478	3741	3835	2778
65°	2066	2171	2482	2788	2904	2040
75°	1046	1190	1586	1938	2050	1111
85°	204	459	882	1225	1348	250
90°	31	253	634	947	1065	24
95°	34	166	466	744	849	30
105°	59	147	304	480	552	61
115°	92	159	272	372	413	91
125°	122	164	259	334	362	108
135°	134	162	240	299	319	104
145°	140	154	202	254	269	88
155°	150	152	167	210	216	69
165°	156	153	150	157	170	44
175°	157	154	149	130	132	15
180°	146	146	146	146	146	

TEST NUMBER: P685607

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	7126.2	7126.2	7126.2	7126.2	7126.2
2.5°	7149.0	7137.6	7090.4	7127.6	7126.2
5°	7121.9	7110.4	7066.1	7106.2	7103.3
7.5°	7069.0	7061.9	7020.4	7064.7	7063.3
10°	6991.8	6991.8	6956.1	7007.6	7011.8
12.5°	6899.0	6897.5	6878.9	6931.8	6931.8
15°	6791.8	6783.2	6776.1	6834.7	6848.9
17.5°	6638.9	6644.6	6657.5	6727.5	6741.8
20°	6481.7	6494.6	6518.9	6601.7	6620.3
22.5°	6313.1	6327.4	6366.0	6456.0	6486.0
25°	6114.5	6143.0	6193.1	6308.8	6333.1
27.5°	5900.1	5950.1	6014.4	6137.3	6178.8
30°	5694.4	5734.4	5827.2	5955.8	5991.6
32.5°	5457.1	5505.7	5614.3	5768.7	5817.2
35°	5202.8	5274.2	5395.7	5567.2	5621.5
37.5°	4965.6	5022.7	5172.8	5355.7	5420.0
40°	4685.5	4778.4	4951.3	5131.3	5205.7
42.5°	4439.7	4519.8	4714.1	4912.7	4989.9
45°	4178.2	4261.1	4471.2	4679.8	4764.1
47.5°	3898.2	3996.8	4221.1	4454.0	4532.6
50°	3635.2	3738.1	3978.2	4214.0	4312.6
52.5°	3376.6	3483.8	3732.4	3981.0	4072.5
55°	3105.1	3220.8	3478.1	3741.0	3835.3
57.5°	2839.3	2955.1	3229.4	3500.9	3602.4
60°	2572.1	2680.7	2975.1	3253.7	3365.2
62.5°	2322.0	2427.8	2730.7	3030.8	3128.0
65°	2066.3	2170.6	2482.1	2787.9	2903.6
67.5°	1801.9	1927.6	2240.6	2560.7	2683.6
70°	1541.8	1670.4	2016.2	2349.2	2472.1
72.5°	1296.1	1441.8	1790.5	2130.6	2256.3
75°	1046.0	1190.3	1586.1	1937.7	2050.5
77.5°	810.2	978.8	1386.1	1740.5	1873.3
80°	584.4	775.9	1206.0	1553.3	1693.3
82.5°	384.4	603.0	1038.8	1383.2	1509.0
85°	204.3	458.7	881.7	1224.6	1347.5
87.5°	80.0	340.1	750.2	1080.3	1203.2
90°	31.4	252.9	634.5	947.4	1064.6
92.5°	31.4	197.2	540.1	840.2	950.2
95°	34.3	165.8	465.8	744.5	848.8
97.5°	37.2	150.0	407.2	660.2	753.1
100°	42.9	144.3	363.0	591.6	675.9
102.5°	50.0	144.3	327.2	528.7	608.7
105°	58.6	147.2	304.4	480.1	551.6
107.5°	65.7	150.0	288.6	440.1	504.4
110°	74.3	154.3	280.1	410.1	465.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	82.9	157.2	274.4	388.7	437.3
115°	91.5	158.6	271.5	371.5	413.0
117.5°	100.0	161.5	268.6	360.1	395.8
120°	108.6	162.9	265.8	351.5	383.0
122.5°	115.7	162.9	262.9	342.9	371.5
125°	121.5	164.3	258.6	334.4	361.5
127.5°	125.7	165.8	255.8	325.8	350.1
130°	130.0	164.3	251.5	317.2	340.1
132.5°	132.9	162.9	245.8	308.7	330.1
135°	134.3	161.5	240.1	298.6	318.7
137.5°	135.7	160.0	231.5	288.6	307.2
140°	135.7	158.6	221.5	277.2	294.4
142.5°	137.2	155.8	211.5	265.8	281.5
145°	140.0	154.3	201.5	254.4	268.6
147.5°	142.9	151.5	192.9	241.5	254.4
150°	145.8	151.5	184.3	230.1	241.5
152.5°	147.2	151.5	175.8	220.1	228.6
155°	150.0	151.5	167.2	210.1	215.8
157.5°	151.5	151.5	161.5	197.2	202.9
160°	152.9	152.9	155.8	182.9	191.5
162.5°	155.8	152.9	152.9	168.6	180.0
165°	155.8	152.9	150.0	157.2	170.0
167.5°	157.2	154.3	148.6	148.6	161.5
170°	157.2	154.3	148.6	141.5	148.6
172.5°	157.2	154.3	148.6	135.7	138.6
175°	157.2	154.3	148.6	130.0	131.5
177.5°	157.2	154.3	147.2	125.7	131.5
180°	145.8	145.8	145.8	145.8	145.8

(END OF REPORT)