

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: P685635

Luminaire Tested: **8CZL-14-UNV-FUL-L935-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685635
Test Lab: INNOVATION CENTER(G3)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 8CZL-14-UNV-FUL-L935-CD-U
Description: METALUX CRUZE LINEAR 8FT FROSTED LENS MODEL WITH UPLIGHT @90 CRI
and 3500K
Light Source: (784) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

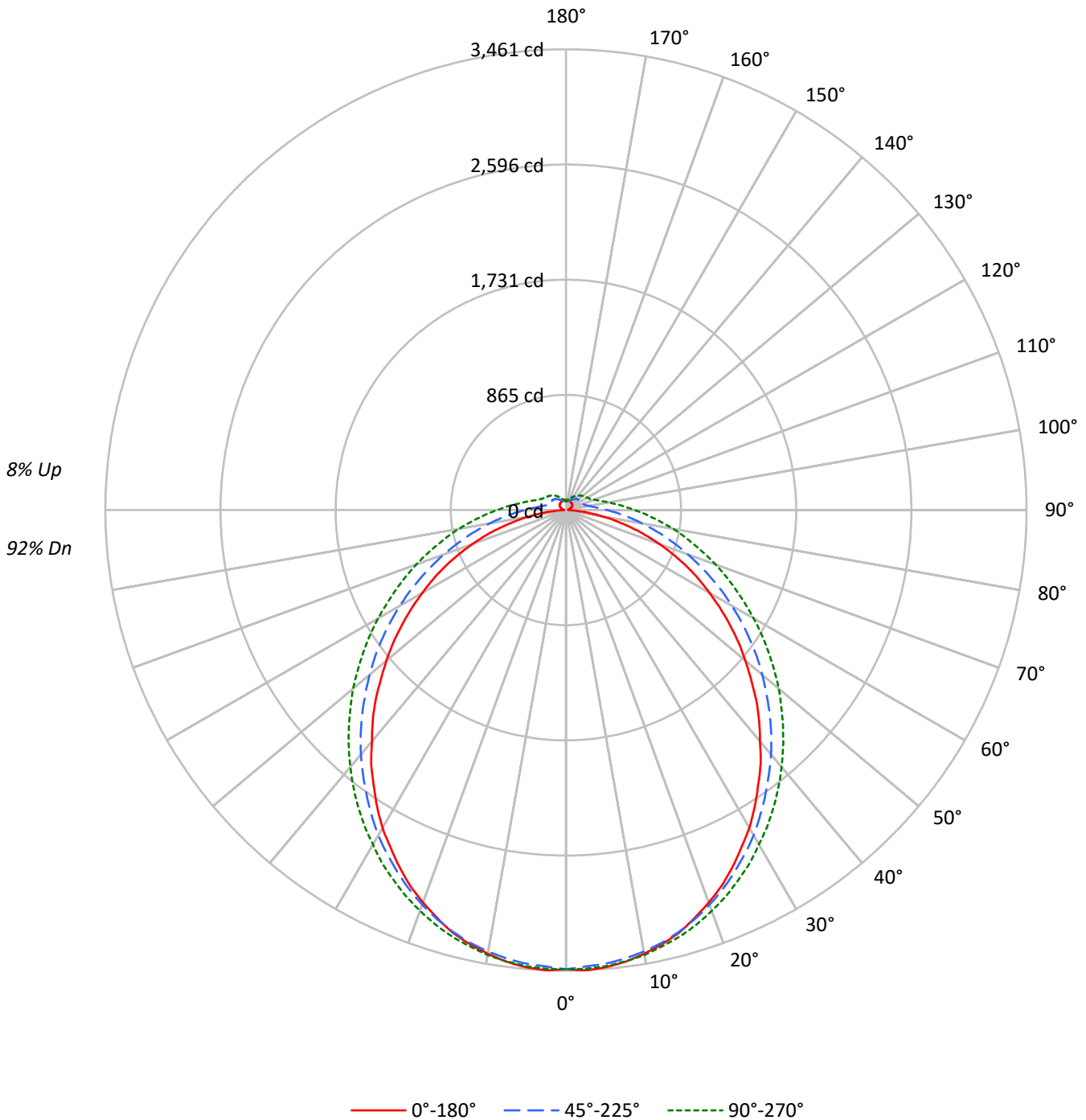
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10762.9 lumens
Efficiency: N/A
Efficacy: 120.9 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): 89
Input Voltage (V): 120
Input Current (A_{in}): 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: P685635
CATALOG NUMBER: 8CZL-14-UNV-FUL-L935-CD-U

Luminous Intensity Polar Plot





TEST NUMBER: P685635

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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°	5571	5571	5571
5°	5578	5470	5478
10°	5529	5373	5376
15°	5466	5263	5261
20°	5351	5131	5134
25°	5223	4979	4996
30°	5079	4825	4848
35°	4894	4641	4705
40°	4699	4467	4549
45°	4525	4275	4389
50°	4314	4079	4235
55°	4109	3876	4066
60°	3881	3661	3907
65°	3659	3439	3759
70°	3333	3225	3646
75°	2931	3027	3546
80°	2353	2879	3572
85°	1480	2839	3678



TEST NUMBER: P685635
 CATALOG NUMBER: 8CZL-14-UNV-FUL-L935-CD-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	326.4	3.0
10°-20°	928.5	8.6
20°-30°	1386.5	12.9
30°-40°	1639.0	15.2
40°-50°	1670.2	15.5
50°-60°	1506.0	14.0
60°-70°	1191.6	11.1
70°-80°	805.3	7.5
80°-90°	450.4	4.2
90°-100°	245.1	2.3
100°-110°	160.7	1.5
110°-120°	127.5	1.2
120°-130°	108.5	1.0
130°-140°	86.8	0.8
140°-150°	62.1	0.6
150°-160°	40.0	0.4
160°-170°	21.6	0.2
170°-180°	6.8	0.1
0°-30°	2641.3	24.5
0°-40°	4280.4	39.8
0°-60°	7456.6	69.3
0°-90°	9903.9	92.0
90°-120°	533.3	5.0
90°-150°	790.6	7.3
90°-180°	859.0	8.0
0°-180°	10762.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3450	3450	3450	3450	3450	
5°	3448	3442	3421	3440	3439	327
15°	3288	3284	3281	3309	3316	925
25°	2960	2974	2998	3054	3066	1363
35°	2519	2554	2612	2695	2722	1577
45°	2023	2063	2165	2266	2306	1558
55°	1503	1559	1684	1811	1857	1345
65°	1000	1051	1202	1350	1406	988
75°	506	576	768	938	993	538
85°	99	222	427	593	652	121
90°	15	122	307	459	515	12
95°	17	80	226	360	411	14
105°	28	71	147	232	267	30
115°	44	77	131	180	200	44
125°	59	80	125	162	175	52
135°	65	78	116	145	154	50
145°	68	75	98	123	130	43
155°	73	73	81	102	104	33
165°	75	74	73	76	82	21
175°	76	75	72	63	64	7
180°	71	71	71	71	71	

TEST NUMBER: P685635

CATALOG NUMBER: 8CZL-14-UNV-FUL-L935-CD-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3450.1	3450.1	3450.1	3450.1	3450.1
2.5°	3461.1	3455.6	3432.8	3450.7	3450.1
5°	3448.0	3442.4	3421.0	3440.4	3439.0
7.5°	3422.4	3418.9	3398.9	3420.3	3419.6
10°	3385.0	3385.0	3367.7	3392.6	3394.7
12.5°	3340.1	3339.4	3330.4	3356.0	3356.0
15°	3288.2	3284.0	3280.6	3308.9	3315.8
17.5°	3214.1	3216.9	3223.1	3257.0	3264.0
20°	3138.0	3144.3	3156.0	3196.2	3205.2
22.5°	3056.4	3063.3	3082.0	3125.6	3140.1
25°	2960.3	2974.1	2998.3	3054.3	3066.1
27.5°	2856.5	2880.7	2911.8	2971.3	2991.4
30°	2756.9	2776.2	2821.2	2883.5	2900.8
32.5°	2642.0	2665.5	2718.1	2792.8	2816.4
35°	2518.9	2553.5	2612.3	2695.3	2721.6
37.5°	2404.0	2431.7	2504.4	2592.9	2624.0
40°	2268.4	2313.4	2397.1	2484.3	2520.3
42.5°	2149.5	2188.2	2282.3	2378.4	2415.8
45°	2022.9	2063.0	2164.7	2265.7	2306.5
47.5°	1887.3	1935.0	2043.6	2156.4	2194.4
50°	1760.0	1809.8	1926.0	2040.1	2087.9
52.5°	1634.7	1686.6	1807.0	1927.4	1971.7
55°	1503.3	1559.3	1683.9	1811.2	1856.8
57.5°	1374.6	1430.7	1563.5	1694.9	1744.1
60°	1245.3	1297.8	1440.3	1575.3	1629.2
62.5°	1124.2	1175.4	1322.0	1467.3	1514.4
65°	1000.4	1050.9	1201.7	1349.7	1405.8
67.5°	872.4	933.3	1084.8	1239.7	1299.2
70°	746.5	808.7	976.1	1137.3	1196.8
72.5°	627.5	698.0	866.8	1031.5	1092.4
75°	506.4	576.3	767.9	938.1	992.7
77.5°	392.3	473.9	671.1	842.6	907.0
80°	283.0	375.7	583.9	752.0	819.8
82.5°	186.1	291.9	502.9	669.7	730.6
85°	98.9	222.1	426.8	592.9	652.4
87.5°	38.7	164.7	363.2	523.0	582.5
90°	15.2	122.5	307.2	458.7	515.4
92.5°	15.2	95.5	261.5	406.8	460.1
95°	16.6	80.2	225.5	360.4	410.9
97.5°	18.0	72.6	197.2	319.6	364.6
100°	20.8	69.9	175.7	286.4	327.2
102.5°	24.2	69.9	158.4	256.0	294.7
105°	28.4	71.3	147.4	232.4	267.0
107.5°	31.8	72.6	139.7	213.1	244.2
110°	36.0	74.7	135.6	198.5	225.5

TEST NUMBER: P685635

CATALOG NUMBER: 8CZL-14-UNV-FUL-L935-CD-U

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	40.1	76.1	132.8	188.2	211.7
115°	44.3	76.8	131.4	179.9	199.9
117.5°	48.4	78.2	130.1	174.3	191.6
120°	52.6	78.9	128.7	170.2	185.4
122.5°	56.0	78.9	127.3	166.0	179.9
125°	58.8	79.6	125.2	161.9	175.0
127.5°	60.9	80.2	123.8	157.7	169.5
130°	63.0	79.6	121.8	153.6	164.7
132.5°	64.3	78.9	119.0	149.4	159.8
135°	65.0	78.2	116.2	144.6	154.3
137.5°	65.7	77.5	112.1	139.7	148.7
140°	65.7	76.8	107.2	134.2	142.5
142.5°	66.4	75.4	102.4	128.7	136.3
145°	67.8	74.7	97.5	123.1	130.1
147.5°	69.2	73.3	93.4	116.9	123.1
150°	70.6	73.3	89.2	111.4	116.9
152.5°	71.3	73.3	85.1	106.5	110.7
155°	72.6	73.3	80.9	101.7	104.5
157.5°	73.3	73.3	78.2	95.5	98.2
160°	74.0	74.0	75.4	88.6	92.7
162.5°	75.4	74.0	74.0	81.6	87.2
165°	75.4	74.0	72.6	76.1	82.3
167.5°	76.1	74.7	71.9	71.9	78.2
170°	76.1	74.7	71.9	68.5	71.9
172.5°	76.1	74.7	71.9	65.7	67.1
175°	76.1	74.7	71.9	63.0	63.6
177.5°	76.1	74.7	71.3	60.9	63.6
180°	70.6	70.6	70.6	70.6	70.6

(END OF REPORT)