

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: P685605

Luminaire Tested: **8CZL-14-UNV-FUL-L835-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685605
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-L835-CD-U
Description: METALUX CRUZE LINEAR 8FT FROSTED LENS MODEL WITH UPLIGHT @80 CRI and 3500K
Light Source: (784) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

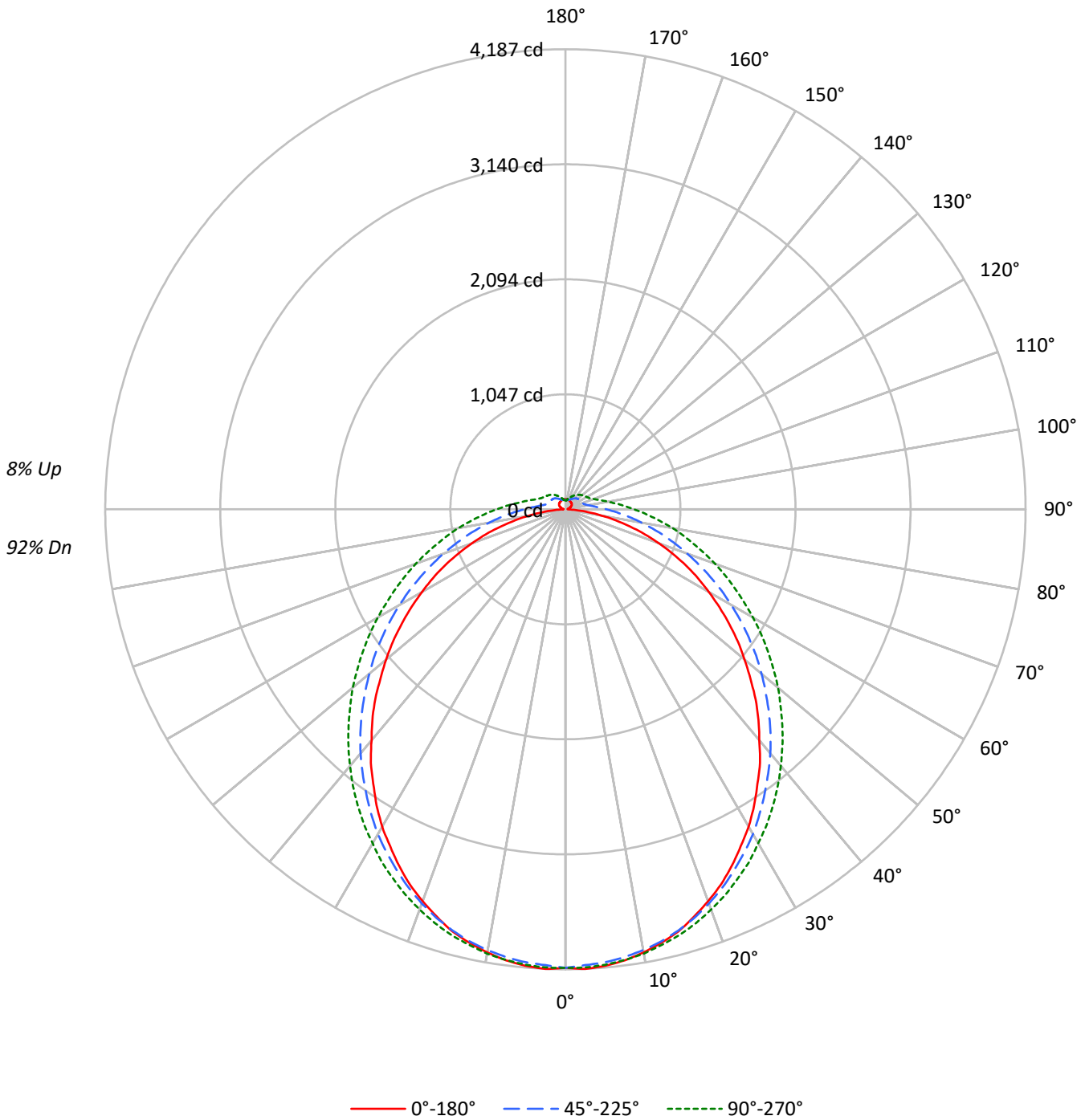
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13021.3 lumens
Efficiency: N/A
Efficacy: 146.3 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

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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	92
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°	6739	6739	6739
5°	6749	6618	6627
10°	6690	6501	6504
15°	6613	6368	6365
20°	6474	6208	6211
25°	6319	6024	6045
30°	6144	5837	5866
35°	5920	5615	5693
40°	5685	5404	5503
45°	5474	5172	5310
50°	5219	4935	5124
55°	4972	4689	4919
60°	4695	4429	4727
65°	4426	4161	4547
70°	4032	3901	4412
75°	3546	3662	4290
80°	2846	3483	4321
85°	1791	3435	4450



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	394.8	3.0
10°-20°	1123.4	8.6
20°-30°	1677.4	12.9
30°-40°	1982.9	15.2
40°-50°	2020.7	15.5
50°-60°	1822.0	14.0
60°-70°	1441.6	11.1
70°-80°	974.3	7.5
80°-90°	544.9	4.2
90°-100°	296.5	2.3
100°-110°	194.5	1.5
110°-120°	154.2	1.2
120°-130°	131.2	1.0
130°-140°	105.0	0.8
140°-150°	75.1	0.6
150°-160°	48.4	0.4
160°-170°	26.2	0.2
170°-180°	8.2	0.1
0°-30°	3195.6	24.5
0°-40°	5178.5	39.8
0°-60°	9021.1	69.3
0°-90°	11982.0	92.0
90°-120°	645.2	5.0
90°-150°	956.6	7.3
90°-180°	1039.0	8.0
0°-180°	13021.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4174	4174	4174	4174	4174	
5°	4172	4165	4139	4162	4161	396
15°	3978	3973	3969	4003	4012	1119
25°	3581	3598	3627	3695	3709	1648
35°	3047	3089	3160	3261	3293	1908
45°	2447	2496	2619	2741	2790	1885
55°	1819	1886	2037	2191	2246	1627
65°	1210	1271	1454	1633	1701	1195
75°	613	697	929	1135	1201	651
85°	120	269	516	717	789	147
90°	18	148	372	555	624	14
95°	20	97	273	436	497	17
105°	34	86	178	281	323	36
115°	54	93	159	218	242	53
125°	71	96	152	196	212	63
135°	79	95	141	175	187	61
145°	82	90	118	149	157	52
155°	88	89	98	123	126	40
165°	91	90	88	92	100	26
175°	92	90	87	76	77	9
180°	85	85	85	85	85	

TEST NUMBER: P685605

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4174.0	4174.0	4174.0	4174.0	4174.0
2.5°	4187.4	4180.7	4153.0	4174.8	4174.0
5°	4171.5	4164.8	4138.8	4162.2	4160.6
7.5°	4140.5	4136.3	4112.0	4138.0	4137.1
10°	4095.3	4095.3	4074.4	4104.5	4107.0
12.5°	4040.9	4040.1	4029.2	4060.1	4060.1
15°	3978.1	3973.1	3968.9	4003.2	4011.6
17.5°	3888.6	3891.9	3899.4	3940.5	3948.8
20°	3796.5	3804.0	3818.3	3866.8	3877.7
22.5°	3697.7	3706.1	3728.7	3781.4	3799.0
25°	3581.4	3598.1	3627.4	3695.2	3709.4
27.5°	3455.8	3485.1	3522.8	3594.8	3619.1
30°	3335.3	3358.8	3413.2	3488.5	3509.4
32.5°	3196.4	3224.8	3288.5	3378.8	3407.3
35°	3047.4	3089.3	3160.4	3260.8	3292.6
37.5°	2908.5	2941.9	3029.8	3137.0	3174.6
40°	2744.4	2798.8	2900.1	3005.6	3049.1
42.5°	2600.5	2647.3	2761.2	2877.5	2922.7
45°	2447.3	2495.8	2618.9	2741.1	2790.5
47.5°	2283.3	2341.0	2472.4	2608.8	2654.9
50°	2129.3	2189.5	2330.1	2468.2	2526.0
52.5°	1977.8	2040.5	2186.2	2331.8	2385.4
55°	1818.7	1886.5	2037.2	2191.2	2246.4
57.5°	1663.1	1730.9	1891.6	2050.6	2110.0
60°	1506.5	1570.2	1742.6	1905.8	1971.1
62.5°	1360.1	1422.0	1599.4	1775.2	1832.1
65°	1210.3	1271.4	1453.8	1632.9	1700.7
67.5°	1055.4	1129.1	1312.4	1499.8	1571.8
70°	903.1	978.4	1181.0	1376.0	1448.0
72.5°	759.1	844.5	1048.7	1247.9	1321.6
75°	612.7	697.2	929.0	1134.9	1201.1
77.5°	474.6	573.3	811.9	1019.4	1097.3
80°	342.3	454.5	706.4	909.8	991.8
82.5°	225.1	353.2	608.5	810.2	883.8
85°	119.7	268.7	516.4	717.3	789.3
87.5°	46.9	199.2	439.4	632.7	704.7
90°	18.4	148.1	371.6	554.9	623.5
92.5°	18.4	115.5	316.4	492.1	556.6
95°	20.1	97.1	272.9	436.1	497.2
97.5°	21.8	87.9	238.5	386.7	441.1
100°	25.1	84.5	212.6	346.5	395.9
102.5°	29.3	84.5	191.7	309.7	356.5
105°	34.3	86.2	178.3	281.2	323.1
107.5°	38.5	87.9	169.1	257.8	295.5
110°	43.5	90.4	164.0	240.2	272.9

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	48.5	92.1	160.7	227.7	256.1
115°	53.6	92.9	159.0	217.6	241.9
117.5°	58.6	94.6	157.4	210.9	231.8
120°	63.6	95.4	155.7	205.9	224.3
122.5°	67.8	95.4	154.0	200.9	217.6
125°	71.1	96.3	151.5	195.9	211.8
127.5°	73.7	97.1	149.8	190.8	205.1
130°	76.2	96.3	147.3	185.8	199.2
132.5°	77.8	95.4	144.0	180.8	193.3
135°	78.7	94.6	140.6	174.9	186.6
137.5°	79.5	93.7	135.6	169.1	179.9
140°	79.5	92.9	129.7	162.4	172.4
142.5°	80.3	91.2	123.9	155.7	164.9
145°	82.0	90.4	118.0	149.0	157.4
147.5°	83.7	88.7	113.0	141.4	149.0
150°	85.4	88.7	108.0	134.8	141.4
152.5°	86.2	88.7	102.9	128.9	133.9
155°	87.9	88.7	97.9	123.0	126.4
157.5°	88.7	88.7	94.6	115.5	118.8
160°	89.6	89.6	91.2	107.1	112.2
162.5°	91.2	89.6	89.6	98.8	105.5
165°	91.2	89.6	87.9	92.1	99.6
167.5°	92.1	90.4	87.0	87.0	94.6
170°	92.1	90.4	87.0	82.9	87.0
172.5°	92.1	90.4	87.0	79.5	81.2
175°	92.1	90.4	87.0	76.2	77.0
177.5°	92.1	90.4	86.2	73.7	77.0
180°	85.4	85.4	85.4	85.4	85.4

(END OF REPORT)