

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: P685616

Luminaire Tested: **8CZL-18-UNV-FUL-L840-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685616
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-L840-CD-U
Description: METALUX CRUZE LINEAR 8FT FROSTED LENS MODEL WITH UPLIGHT @80 CRI and 4000K
Light Source: (1176) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

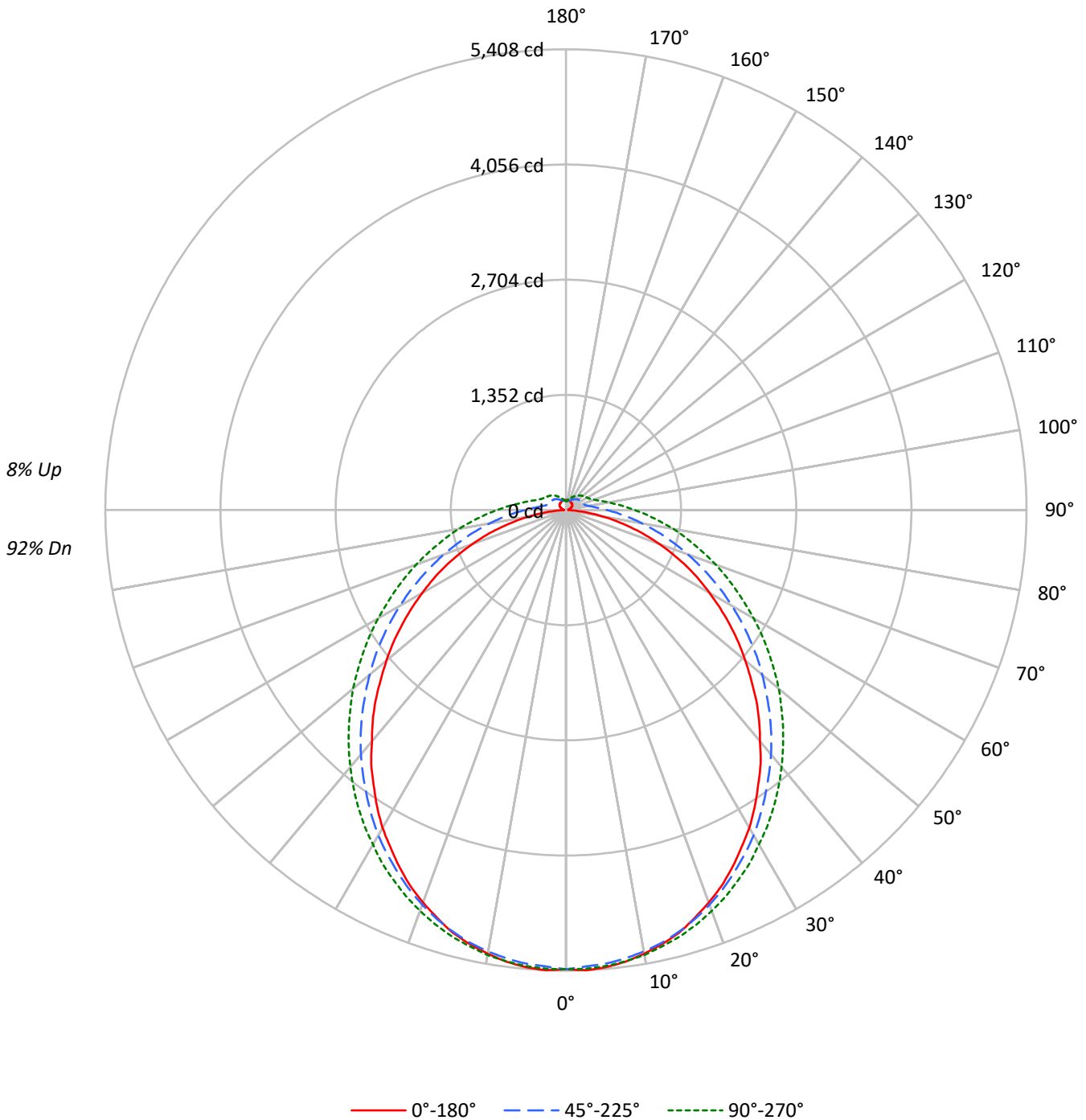
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16817.1 lumens
Efficiency: N/A
Efficacy: 154.3 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): 109
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°	8704	8704	8704
5°	8716	8547	8559
10°	8640	8396	8400
15°	8540	8224	8220
20°	8361	8017	8021
25°	8161	7780	7807
30°	7936	7539	7576
35°	7646	7252	7352
40°	7342	6980	7107
45°	7070	6680	6858
50°	6740	6373	6617
55°	6421	6056	6353
60°	6064	5720	6106
65°	5716	5374	5873
70°	5208	5038	5698
75°	4580	4729	5541
80°	3676	4499	5580
85°	2313	4437	5746



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	509.9	3.0
10°-20°	1450.8	8.6
20°-30°	2166.4	12.9
30°-40°	2561.0	15.2
40°-50°	2609.7	15.5
50°-60°	2353.1	14.0
60°-70°	1861.9	11.1
70°-80°	1258.3	7.5
80°-90°	703.7	4.2
90°-100°	382.9	2.3
100°-110°	251.2	1.5
110°-120°	199.2	1.2
120°-130°	169.5	1.0
130°-140°	135.6	0.8
140°-150°	97.0	0.6
150°-160°	62.5	0.4
160°-170°	33.8	0.2
170°-180°	10.6	0.1
0°-30°	4127.1	24.5
0°-40°	6688.1	39.8
0°-60°	11650.9	69.3
0°-90°	15474.9	92.0
90°-120°	833.3	5.0
90°-150°	1235.4	7.3
90°-180°	1342.0	8.0
0°-180°	16817.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5391	5391	5391	5391	5391	
5°	5388	5379	5345	5376	5373	511
15°	5138	5131	5126	5170	5181	1445
25°	4625	4647	4685	4772	4791	2129
35°	3936	3990	4082	4211	4252	2464
45°	3161	3223	3382	3540	3604	2434
55°	2349	2436	2631	2830	2901	2101
65°	1563	1642	1878	2109	2196	1543
75°	791	900	1200	1466	1551	841
85°	155	347	667	926	1019	189
90°	24	191	480	717	805	18
95°	26	125	352	563	642	22
105°	44	111	230	363	417	46
115°	69	120	205	281	312	69
125°	92	124	196	253	274	82
135°	102	122	182	226	241	78
145°	106	117	152	192	203	67
155°	114	115	126	159	163	52
165°	118	116	114	119	129	33
175°	119	117	112	98	99	11
180°	110	110	110	110	110	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5390.7	5390.7	5390.7	5390.7	5390.7
2.5°	5408.0	5399.4	5363.7	5391.8	5390.7
5°	5387.5	5378.9	5345.3	5375.6	5373.4
7.5°	5347.5	5342.1	5310.8	5344.3	5343.2
10°	5289.1	5289.1	5262.1	5301.0	5304.3
12.5°	5218.9	5217.8	5203.7	5243.7	5243.7
15°	5137.8	5131.3	5125.9	5170.2	5181.0
17.5°	5022.1	5026.5	5036.2	5089.2	5100.0
20°	4903.2	4913.0	4931.3	4994.0	5008.1
22.5°	4775.7	4786.5	4815.7	4883.8	4906.5
25°	4625.4	4647.0	4684.9	4772.4	4790.8
27.5°	4463.3	4501.1	4549.8	4642.7	4674.1
30°	4307.6	4337.9	4408.1	4505.4	4532.5
32.5°	4128.2	4164.9	4247.1	4363.8	4400.6
35°	3935.8	3989.8	4081.7	4211.4	4252.5
37.5°	3756.3	3799.6	3913.1	4051.4	4100.1
40°	3544.5	3614.7	3745.5	3881.7	3937.9
42.5°	3358.5	3419.1	3566.1	3716.3	3774.7
45°	3160.7	3223.4	3382.3	3540.1	3603.9
47.5°	2948.9	3023.4	3193.2	3369.3	3428.8
50°	2750.0	2827.8	3009.4	3187.7	3262.3
52.5°	2554.3	2635.4	2823.5	3011.6	3080.7
55°	2348.9	2436.5	2631.1	2829.9	2901.3
57.5°	2147.9	2235.4	2443.0	2648.3	2725.1
60°	1945.7	2027.9	2250.6	2461.3	2545.7
62.5°	1756.6	1836.5	2065.7	2292.7	2366.2
65°	1563.1	1642.0	1877.6	2109.0	2196.5
67.5°	1363.1	1458.2	1694.9	1937.1	2030.0
70°	1166.4	1263.6	1525.2	1777.1	1870.1
72.5°	980.4	1090.7	1354.4	1611.7	1706.8
75°	791.3	900.4	1199.9	1465.8	1551.2
77.5°	612.9	740.5	1048.5	1316.6	1417.1
80°	442.1	587.0	912.3	1175.0	1280.9
82.5°	290.8	456.2	785.9	1046.4	1141.5
85°	154.6	347.0	667.0	926.4	1019.3
87.5°	60.5	257.3	567.5	817.2	910.2
90°	23.8	191.3	479.9	716.7	805.3
92.5°	23.8	149.2	408.6	635.6	718.8
95°	25.9	125.4	352.4	563.2	642.1
97.5°	28.1	113.5	308.1	499.4	569.7
100°	32.4	109.2	274.6	447.5	511.3
102.5°	37.8	109.2	247.5	400.0	460.5
105°	44.3	111.3	230.2	363.2	417.3
107.5°	49.7	113.5	218.4	332.9	381.6
110°	56.2	116.7	211.9	310.2	352.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	62.7	118.9	207.5	294.0	330.8
115°	69.2	120.0	205.4	281.0	312.4
117.5°	75.7	122.1	203.2	272.4	299.4
120°	82.2	123.2	201.1	265.9	289.7
122.5°	87.6	123.2	198.9	259.4	281.0
125°	91.9	124.3	195.7	252.9	273.5
127.5°	95.1	125.4	193.5	246.5	264.8
130°	98.4	124.3	190.2	240.0	257.3
132.5°	100.5	123.2	185.9	233.5	249.7
135°	101.6	122.1	181.6	225.9	241.1
137.5°	102.7	121.1	175.1	218.4	232.4
140°	102.7	120.0	167.5	209.7	222.7
142.5°	103.8	117.8	160.0	201.1	212.9
145°	105.9	116.7	152.4	192.4	203.2
147.5°	108.1	114.6	145.9	182.7	192.4
150°	110.3	114.6	139.4	174.0	182.7
152.5°	111.3	114.6	133.0	166.5	173.0
155°	113.5	114.6	126.5	158.9	163.2
157.5°	114.6	114.6	122.1	149.2	153.5
160°	115.7	115.7	117.8	138.4	144.8
162.5°	117.8	115.7	115.7	127.6	136.2
165°	117.8	115.7	113.5	118.9	128.6
167.5°	118.9	116.7	112.4	112.4	122.1
170°	118.9	116.7	112.4	107.0	112.4
172.5°	118.9	116.7	112.4	102.7	104.9
175°	118.9	116.7	112.4	98.4	99.4
177.5°	118.9	116.7	111.3	95.1	99.4
180°	110.3	110.3	110.3	110.3	110.3

(END OF REPORT)