

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: P685615

Luminaire Tested: **8CZL-14-UNV-FUL-L840-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685615
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-L840-CD-U
Description: METALUX CRUZE LINEAR 8FT FROSTED LENS MODEL WITH UPLIGHT @80 CRI and 4000K
Light Source: (784) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

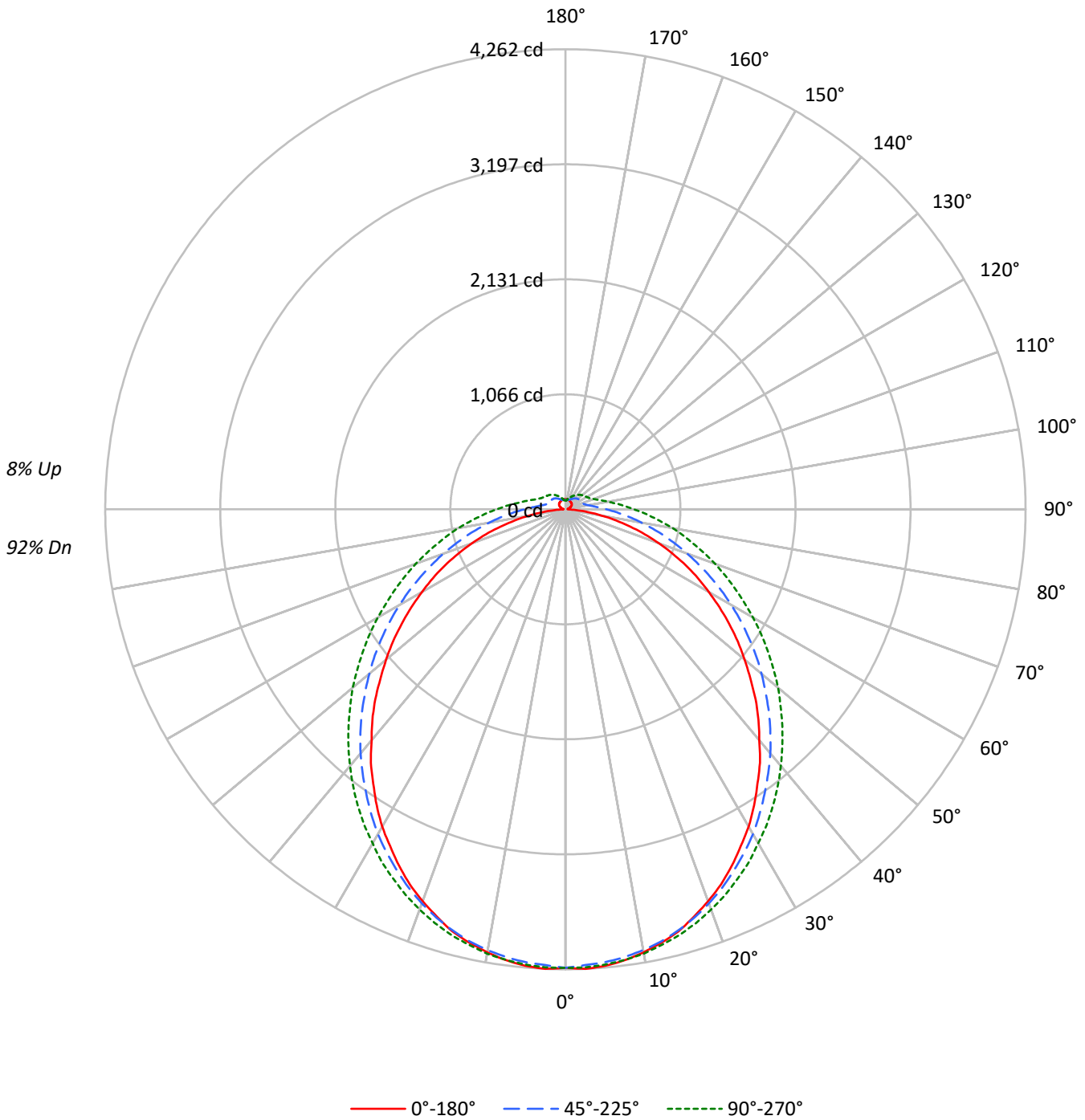
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13253.1 lumens
Efficiency: N/A
Efficacy: 148.9 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

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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°	6859	6859	6859
5°	6869	6735	6745
10°	6809	6617	6620
15°	6731	6481	6478
20°	6589	6318	6321
25°	6431	6131	6152
30°	6254	5941	5970
35°	6026	5715	5794
40°	5786	5501	5601
45°	5572	5264	5404
50°	5312	5022	5215
55°	5060	4772	5006
60°	4779	4508	4812
65°	4505	4235	4628
70°	4104	3971	4490
75°	3610	3727	4366
80°	2897	3545	4398
85°	1822	3496	4529



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	401.9	3.0
10°-20°	1143.4	8.6
20°-30°	1707.3	12.9
30°-40°	2018.2	15.2
40°-50°	2056.6	15.5
50°-60°	1854.4	14.0
60°-70°	1467.3	11.1
70°-80°	991.6	7.5
80°-90°	554.6	4.2
90°-100°	301.8	2.3
100°-110°	197.9	1.5
110°-120°	157.0	1.2
120°-130°	133.6	1.0
130°-140°	106.8	0.8
140°-150°	76.5	0.6
150°-160°	49.3	0.4
160°-170°	26.6	0.2
170°-180°	8.3	0.1
0°-30°	3252.5	24.5
0°-40°	5270.7	39.8
0°-60°	9181.8	69.3
0°-90°	12195.4	92.0
90°-120°	656.7	5.0
90°-150°	973.6	7.3
90°-180°	1058.0	8.0
0°-180°	13253.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4248	4248	4248	4248	4248	
5°	4246	4239	4212	4236	4235	403
15°	4049	4044	4040	4074	4083	1139
25°	3645	3662	3692	3761	3776	1678
35°	3102	3144	3217	3319	3351	1942
45°	2491	2540	2666	2790	2840	1918
55°	1851	1920	2074	2230	2286	1656
65°	1232	1294	1480	1662	1731	1216
75°	624	710	946	1155	1222	662
85°	122	274	526	730	803	149
90°	19	151	378	565	635	14
95°	20	99	278	444	506	18
105°	35	88	181	286	329	37
115°	54	95	162	222	246	54
125°	72	98	154	199	216	64
135°	80	96	143	178	190	62
145°	84	92	120	152	160	52
155°	89	90	100	125	129	41
165°	93	91	89	94	101	26
175°	94	92	89	78	78	9
180°	87	87	87	87	87	

TEST NUMBER: P685615

CATALOG NUMBER: 8CZL-14-UNV-FUL-L840-CD-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4248.3	4248.3	4248.3	4248.3	4248.3
2.5°	4261.9	4255.1	4227.0	4249.2	4248.3
5°	4245.8	4238.9	4212.5	4236.4	4234.7
7.5°	4214.2	4210.0	4185.3	4211.7	4210.8
10°	4168.2	4168.2	4146.9	4177.6	4180.2
12.5°	4112.9	4112.0	4100.9	4132.5	4132.5
15°	4049.0	4043.9	4039.6	4074.5	4083.0
17.5°	3957.8	3961.2	3968.9	4010.6	4019.2
20°	3864.1	3871.8	3886.3	3935.7	3946.7
22.5°	3763.6	3772.1	3795.1	3848.8	3866.7
25°	3645.2	3662.2	3692.0	3761.0	3775.5
27.5°	3517.4	3547.2	3585.6	3658.8	3683.5
30°	3394.7	3418.6	3474.0	3550.6	3571.9
32.5°	3253.3	3282.3	3347.0	3439.0	3468.0
35°	3101.7	3144.3	3216.7	3318.9	3351.3
37.5°	2960.3	2994.3	3083.8	3192.8	3231.2
40°	2793.3	2848.7	2951.8	3059.1	3103.4
42.5°	2646.8	2694.5	2810.3	2928.8	2974.8
45°	2490.9	2540.3	2665.5	2789.9	2840.2
47.5°	2323.9	2382.7	2516.4	2655.3	2702.2
50°	2167.2	2228.5	2371.6	2512.2	2571.0
52.5°	2013.0	2076.9	2225.1	2373.3	2427.9
55°	1851.1	1920.1	2073.5	2230.2	2286.4
57.5°	1692.7	1761.7	1925.2	2087.1	2147.6
60°	1533.4	1598.1	1773.6	1939.7	2006.2
62.5°	1384.3	1447.3	1627.9	1806.8	1864.8
65°	1231.8	1294.0	1479.7	1662.0	1731.0
67.5°	1074.2	1149.2	1335.7	1526.6	1599.8
70°	919.2	995.8	1202.0	1400.5	1473.7
72.5°	772.7	859.5	1067.4	1270.1	1345.1
75°	623.6	709.6	945.6	1155.1	1222.4
77.5°	483.0	583.5	826.3	1037.6	1116.8
80°	348.4	462.6	719.0	926.0	1009.5
82.5°	229.2	359.5	619.3	824.6	899.6
85°	121.8	273.5	525.6	730.1	803.3
87.5°	47.7	202.7	447.2	644.0	717.3
90°	18.7	150.8	378.2	564.8	634.6
92.5°	18.7	117.6	322.0	500.9	566.5
95°	20.4	98.8	277.7	443.8	506.0
97.5°	22.1	89.4	242.8	393.6	448.9
100°	25.6	86.0	216.4	352.7	402.9
102.5°	29.8	86.0	195.1	315.2	362.9
105°	34.9	87.7	181.4	286.2	328.8
107.5°	39.2	89.4	172.1	262.4	300.7
110°	44.3	92.0	167.0	244.5	277.7

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	49.4	93.7	163.6	231.7	260.7
115°	54.5	94.6	161.9	221.5	246.2
117.5°	59.6	96.3	160.2	214.7	236.0
120°	64.7	97.1	158.4	209.6	228.3
122.5°	69.0	97.1	156.7	204.5	221.5
125°	72.4	98.0	154.2	199.3	215.5
127.5°	75.0	98.8	152.5	194.2	208.7
130°	77.5	98.0	149.9	189.1	202.7
132.5°	79.2	97.1	146.5	184.0	196.8
135°	80.1	96.3	143.1	178.0	190.0
137.5°	80.9	95.4	138.0	172.1	183.2
140°	80.9	94.6	132.0	165.3	175.5
142.5°	81.8	92.9	126.1	158.4	167.8
145°	83.5	92.0	120.1	151.6	160.2
147.5°	85.2	90.3	115.0	144.0	151.6
150°	86.9	90.3	109.9	137.2	144.0
152.5°	87.7	90.3	104.8	131.2	136.3
155°	89.4	90.3	99.7	125.2	128.6
157.5°	90.3	90.3	96.3	117.6	121.0
160°	91.2	91.2	92.9	109.0	114.2
162.5°	92.9	91.2	91.2	100.5	107.3
165°	92.9	91.2	89.4	93.7	101.4
167.5°	93.7	92.0	88.6	88.6	96.3
170°	93.7	92.0	88.6	84.3	88.6
172.5°	93.7	92.0	88.6	80.9	82.6
175°	93.7	92.0	88.6	77.5	78.4
177.5°	93.7	92.0	87.7	75.0	78.4
180°	86.9	86.9	86.9	86.9	86.9

(END OF REPORT)