

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: P685767

Luminaire Tested: **8CZL-24-UNV-N-LVR-L940-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685767
Test Lab: INNOVATION CENTER(G3)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 8CZL-24-UNV-N-LVR-L940-CD-U
Description: METALUX CRUZE LINEAR 8FT LOUVER MODEL WITH NARROW LENS @90 CRI and 4000K
Light Source: (1176) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

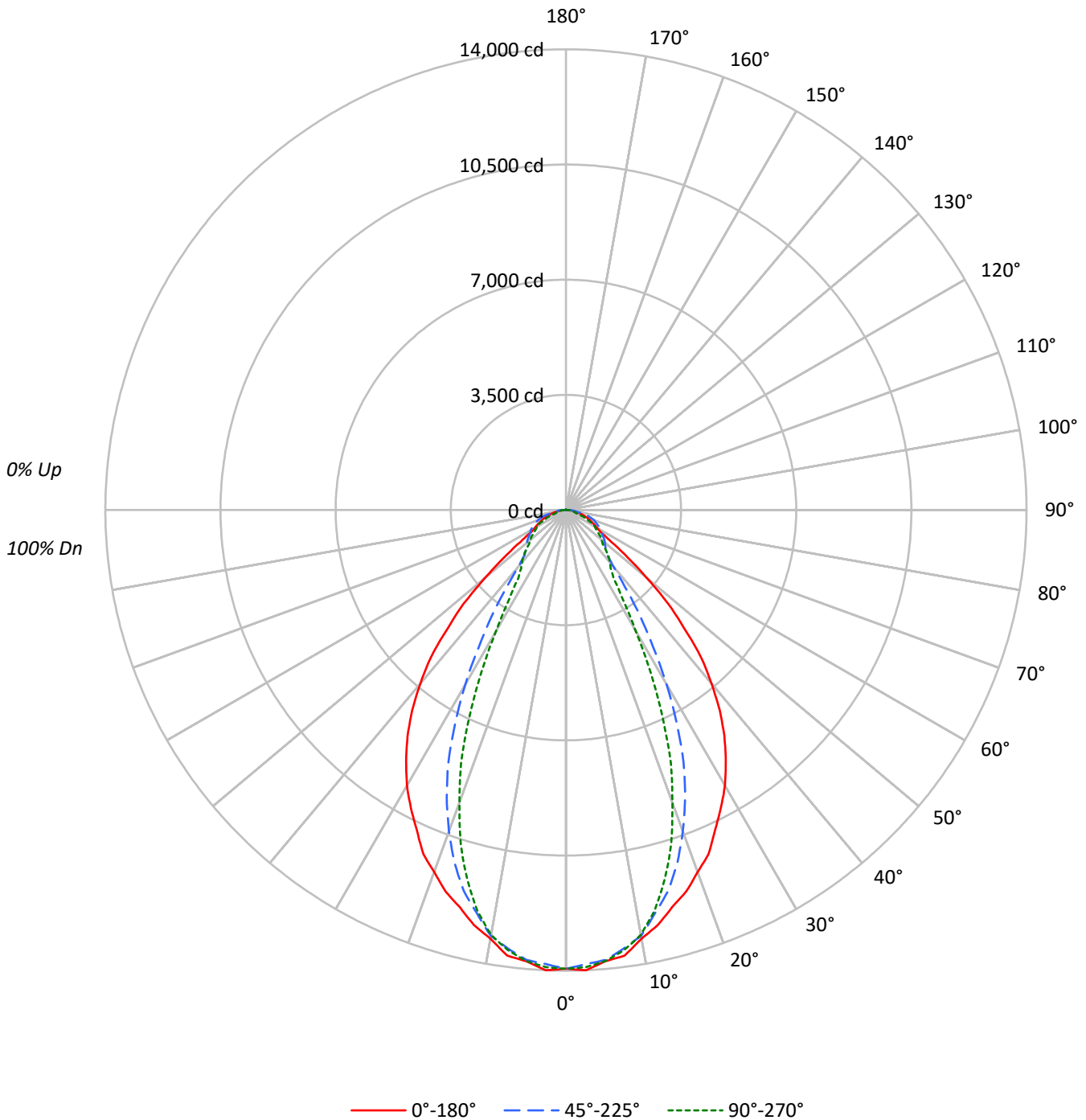
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16504.5 lumens
Efficiency: N/A
Efficacy: 107.2 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.8 / 0.85
Luminous Opening: Rectangular (W 0.83' x L: 8' x H: 0')
CIE Type: Direct

Input Watts (W): 154
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				
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	93	92	90	88
2	103	97	92	87	101	95	90	86	92	88	84	88	85	82	86	83	80	86	83	80	78
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	79	75	72	70
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	73	69	65	63
5	85	74	67	62	83	73	66	61	71	65	61	69	64	60	68	63	59	68	63	59	58
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	55	63	58	55	53
7	75	64	57	51	73	63	56	51	62	55	51	60	55	51	59	54	50	59	54	50	49
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	47	55	50	47	45
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	43	52	47	43	42
10	64	52	46	41	62	52	45	41	51	45	41	50	45	41	49	44	41	49	44	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	22507	22507	22507
5°	22308	22245	22302
10°	21679	21546	21493
15°	20875	20042	19406
20°	20106	17854	16253
25°	19107	15075	12393
30°	18023	11404	7918
35°	16542	7731	4975
40°	14508	4710	4364
45°	11623	3924	3910
50°	8036	3877	3530
55°	4734	3843	3324
60°	3528	3993	3284
65°	3339	4020	2888
70°	3212	4287	2180
75°	3028	4303	1864
80°	2811	3569	2109
85°	2494	4331	2603



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1294.9	7.8
10°-20°	3352.9	20.3
20°-30°	3916.9	23.7
30°-40°	2906.0	17.6
40°-50°	1926.4	11.7
50°-60°	1277.6	7.7
60°-70°	953.3	5.8
70°-80°	562.6	3.4
80°-90°	236.9	1.4
90°-100°	51.2	0.3
100°-110°	6.9	0.0
110°-120°	3.5	0.0
120°-130°	3.2	0.0
130°-140°	3.1	0.0
140°-150°	3.2	0.0
150°-160°	2.9	0.0
160°-170°	2.1	0.0
170°-180°	0.8	0.0
0°-30°	8564.8	51.9
0°-40°	11470.7	69.5
0°-60°	14674.8	88.9
0°-90°	16427.6	99.5
90°-120°	61.6	0.4
90°-150°	71.1	0.4
90°-180°	77.0	0.5
0°-180°	16504.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	13940	13940	13940	13940	13940	
5°	13764	13752	13725	13774	13760	1302
15°	12488	12340	11990	11783	11610	3523
25°	10725	9954	8462	7259	6956	4940
35°	8392	6218	3922	2651	2524	5210
45°	5090	3003	1718	1783	1712	3918
55°	1682	1478	1365	1318	1181	1655
65°	874	977	1052	1029	756	871
75°	485	543	690	501	299	512
85°	135	164	234	311	140	145
90°	2	50	117	201	41	9
95°	1	8	46	100	21	1
105°	1	2	5	8	7	1
115°	1	2	4	5	5	1
125°	2	2	4	5	5	2
135°	2	4	4	5	5	2
145°	4	5	5	6	6	2
155°	5	6	6	7	7	2
165°	6	7	7	8	8	2
175°	6	7	8	9	11	1
180°	8	8	8	8	8	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	13939.8	13939.8	13939.8	13939.8	13939.8
2.5°	14000.1	13924.5	13815.8	13913.9	13905.6
5°	13763.9	13752.1	13724.9	13774.5	13760.3
7.5°	13657.6	13593.8	13442.6	13559.6	13493.4
10°	13223.0	13148.6	13141.5	13117.8	13109.6
12.5°	12914.7	12824.9	12538.0	12522.6	12458.8
15°	12488.3	12339.5	11989.9	11783.3	11609.7
17.5°	12157.7	11834.0	11250.6	10865.6	10642.4
20°	11701.8	11345.1	10390.8	9718.8	9459.0
22.5°	11326.2	10694.3	9467.2	8516.5	8338.2
25°	10725.1	9953.8	8462.2	7258.7	6956.3
27.5°	10203.0	9138.9	7276.4	5956.0	5585.2
30°	9666.8	8226.0	6116.6	4678.1	4247.0
32.5°	9042.1	7305.9	4922.6	3510.1	3198.3
35°	8392.5	6218.2	3922.2	2651.4	2523.9
37.5°	7676.8	5240.3	2947.9	2214.5	2235.7
40°	6883.1	4387.6	2234.5	2030.2	2070.4
42.5°	6091.8	3669.5	1859.0	1909.7	1921.6
45°	5090.3	3003.4	1718.4	1783.4	1712.5
47.5°	4215.1	2454.2	1619.2	1612.1	1511.7
50°	3199.4	2000.7	1543.6	1458.6	1405.4
52.5°	2369.2	1687.7	1471.6	1378.3	1323.9
55°	1681.8	1477.5	1365.3	1318.0	1181.0
57.5°	1263.7	1328.7	1283.8	1177.5	1081.8
60°	1092.5	1197.6	1236.6	1110.2	1016.9
62.5°	986.2	1085.4	1159.8	1070.0	930.7
65°	874.0	976.7	1052.3	1028.7	755.9
67.5°	775.9	890.5	983.8	882.2	617.7
70°	680.3	786.6	908.2	748.8	461.8
72.5°	577.5	657.8	804.3	582.3	336.6
75°	485.4	543.3	689.7	500.8	298.8
77.5°	388.6	437.0	472.4	455.9	263.4
80°	302.3	350.8	383.8	414.5	226.8
82.5°	219.7	251.6	304.7	367.3	189.0
85°	134.6	164.2	233.8	310.6	140.5
87.5°	57.9	100.4	171.3	257.5	92.1
90°	2.4	49.6	116.9	200.8	41.3
92.5°	1.2	21.3	75.6	147.6	27.2
95°	1.2	8.3	46.1	100.4	21.3
97.5°	1.2	3.5	23.6	65.0	15.4
100°	1.2	2.4	13.0	37.8	10.6
102.5°	1.2	2.4	5.9	18.9	8.3
105°	1.2	2.4	4.7	8.3	7.1
107.5°	1.2	2.4	3.5	5.9	5.9
110°	1.2	2.4	3.5	5.9	5.9

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.2	2.4	3.5	5.9	5.9
115°	1.2	2.4	3.5	4.7	4.7
117.5°	1.2	2.4	3.5	4.7	4.7
120°	1.2	2.4	3.5	4.7	4.7
122.5°	1.2	2.4	3.5	4.7	4.7
125°	2.4	2.4	3.5	4.7	4.7
127.5°	2.4	3.5	3.5	4.7	4.7
130°	2.4	3.5	3.5	4.7	4.7
132.5°	2.4	3.5	3.5	4.7	4.7
135°	2.4	3.5	3.5	4.7	4.7
137.5°	2.4	3.5	4.7	4.7	4.7
140°	3.5	4.7	4.7	4.7	4.7
142.5°	3.5	4.7	4.7	5.9	4.7
145°	3.5	4.7	4.7	5.9	5.9
147.5°	3.5	4.7	5.9	5.9	5.9
150°	3.5	4.7	5.9	7.1	7.1
152.5°	4.7	4.7	5.9	7.1	7.1
155°	4.7	5.9	5.9	7.1	7.1
157.5°	4.7	5.9	5.9	7.1	8.3
160°	4.7	5.9	7.1	8.3	8.3
162.5°	4.7	5.9	7.1	8.3	8.3
165°	5.9	7.1	7.1	8.3	8.3
167.5°	5.9	7.1	8.3	8.3	9.4
170°	5.9	7.1	8.3	9.4	9.4
172.5°	5.9	7.1	8.3	9.4	9.4
175°	5.9	7.1	8.3	9.4	10.6
177.5°	5.9	7.1	8.3	9.4	10.6
180°	8.3	8.3	8.3	8.3	8.3

(END OF REPORT)