

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: P685765

Luminaire Tested: **8CZL-14-UNV-N-LVR-L940-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685765
Test Lab: INNOVATION CENTER(G3)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 8CZL-14-UNV-N-LVR-L940-CD-U
Description: METALUX CRUZE LINEAR 8FT LOUVER MODEL WITH NARROW LENS @90 CRI and 4000K
Light Source: (784) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

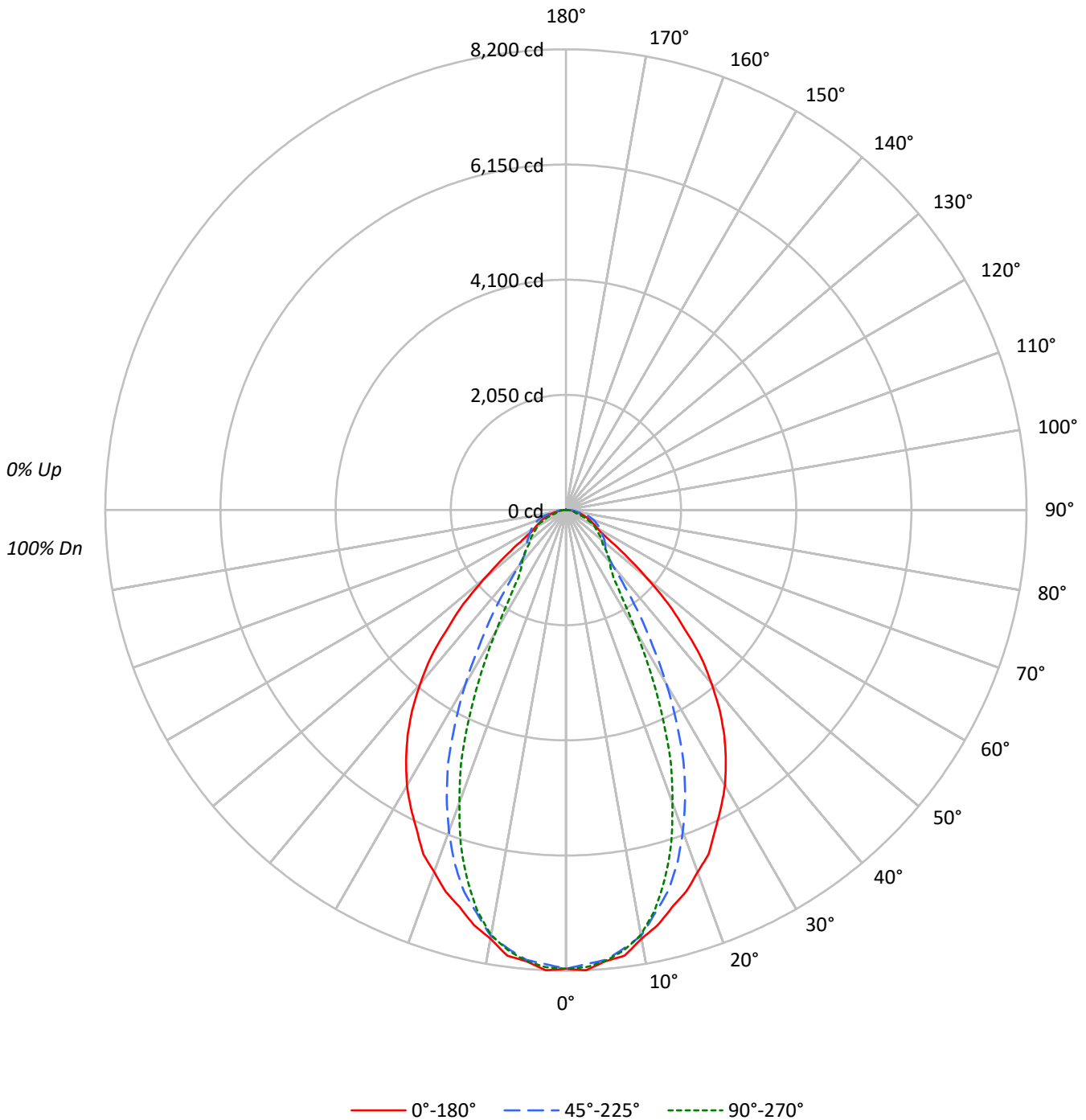
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9667.2 lumens
Efficiency: N/A
Efficacy: 108.6 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): 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				
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°	13183	13183	13183
5°	13066	13029	13063
10°	12698	12620	12589
15°	12227	11739	11367
20°	11777	10457	9520
25°	11191	8830	7259
30°	10556	6679	4638
35°	9689	4528	2914
40°	8497	2759	2556
45°	6808	2298	2290
50°	4707	2271	2068
55°	2773	2251	1947
60°	2066	2339	1923
65°	1956	2355	1691
70°	1881	2511	1277
75°	1774	2520	1092
80°	1647	2090	1235
85°	1462	2538	1525



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	758.5	7.8
10°-20°	1963.9	20.3
20°-30°	2294.3	23.7
30°-40°	1702.1	17.6
40°-50°	1128.4	11.7
50°-60°	748.3	7.7
60°-70°	558.3	5.8
70°-80°	329.5	3.4
80°-90°	138.8	1.4
90°-100°	30.0	0.3
100°-110°	4.1	0.0
110°-120°	2.1	0.0
120°-130°	1.9	0.0
130°-140°	1.8	0.0
140°-150°	1.9	0.0
150°-160°	1.7	0.0
160°-170°	1.2	0.0
170°-180°	0.5	0.0
0°-30°	5016.6	51.9
0°-40°	6718.7	69.5
0°-60°	8595.4	88.9
0°-90°	9622.1	99.5
90°-120°	36.1	0.4
90°-150°	41.8	0.4
90°-180°	45.0	0.5
0°-180°	9667.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8165	8165	8165	8165	8165	
5°	8062	8055	8039	8068	8060	763
15°	7315	7228	7023	6902	6800	2064
25°	6282	5830	4956	4252	4074	2893
35°	4916	3642	2297	1553	1478	3051
45°	2982	1759	1006	1045	1003	2295
55°	985	865	800	772	692	969
65°	512	572	616	602	443	510
75°	284	318	404	293	175	300
85°	79	96	137	182	82	85
90°	1	29	68	118	24	5
95°	1	5	27	59	12	1
105°	1	1	3	5	4	1
115°	1	1	2	3	3	1
125°	1	1	2	3	3	1
135°	1	2	2	3	3	1
145°	2	3	3	4	4	1
155°	3	4	4	4	4	1
165°	4	4	4	5	5	1
175°	4	4	5	6	6	0
180°	5	5	5	5	5	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8164.9	8164.9	8164.9	8164.9	8164.9
2.5°	8200.2	8155.9	8092.3	8149.7	8144.9
5°	8061.8	8054.9	8039.0	8068.1	8059.8
7.5°	7999.6	7962.2	7873.7	7942.2	7903.4
10°	7745.0	7701.4	7697.3	7683.4	7678.6
12.5°	7564.5	7511.9	7343.8	7334.8	7297.4
15°	7314.7	7227.6	7022.8	6901.8	6800.1
17.5°	7121.0	6931.5	6589.8	6364.2	6233.5
20°	6854.0	6645.1	6086.2	5692.5	5540.4
22.5°	6634.0	6263.9	5545.2	4988.3	4883.9
25°	6281.9	5830.2	4956.5	4251.6	4074.5
27.5°	5976.2	5352.9	4262.0	3488.6	3271.4
30°	5662.1	4818.2	3582.7	2740.1	2487.6
32.5°	5296.2	4279.3	2883.3	2055.9	1873.3
35°	4915.7	3642.1	2297.4	1553.0	1478.3
37.5°	4496.5	3069.4	1726.6	1297.1	1309.5
40°	4031.6	2569.9	1308.8	1189.1	1212.7
42.5°	3568.1	2149.3	1088.8	1118.6	1125.5
45°	2981.5	1759.2	1006.5	1044.6	1003.1
47.5°	2468.9	1437.5	948.4	944.3	885.5
50°	1874.0	1171.9	904.1	854.3	823.2
52.5°	1387.7	988.5	861.9	807.3	775.5
55°	985.1	865.4	799.7	772.0	691.8
57.5°	740.2	778.2	751.9	689.7	633.7
60°	639.9	701.5	724.3	650.3	595.6
62.5°	577.6	635.7	679.3	626.7	545.1
65°	511.9	572.1	616.4	602.5	442.7
67.5°	454.5	521.6	576.2	516.7	361.8
70°	398.5	460.7	532.0	438.6	270.5
72.5°	338.3	385.3	471.1	341.0	197.2
75°	284.3	318.2	404.0	293.3	175.0
77.5°	227.6	256.0	276.7	267.0	154.3
80°	177.1	205.5	224.8	242.8	132.8
82.5°	128.7	147.3	178.5	215.1	110.7
85°	78.9	96.2	137.0	181.9	82.3
87.5°	33.9	58.8	100.3	150.8	54.0
90°	1.4	29.1	68.5	117.6	24.2
92.5°	0.7	12.5	44.3	86.5	15.9
95°	0.7	4.8	27.0	58.8	12.5
97.5°	0.7	2.1	13.8	38.0	9.0
100°	0.7	1.4	7.6	22.1	6.2
102.5°	0.7	1.4	3.5	11.1	4.8
105°	0.7	1.4	2.8	4.8	4.2
107.5°	0.7	1.4	2.1	3.5	3.5
110°	0.7	1.4	2.1	3.5	3.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.7	1.4	2.1	3.5	3.5
115°	0.7	1.4	2.1	2.8	2.8
117.5°	0.7	1.4	2.1	2.8	2.8
120°	0.7	1.4	2.1	2.8	2.8
122.5°	0.7	1.4	2.1	2.8	2.8
125°	1.4	1.4	2.1	2.8	2.8
127.5°	1.4	2.1	2.1	2.8	2.8
130°	1.4	2.1	2.1	2.8	2.8
132.5°	1.4	2.1	2.1	2.8	2.8
135°	1.4	2.1	2.1	2.8	2.8
137.5°	1.4	2.1	2.8	2.8	2.8
140°	2.1	2.8	2.8	2.8	2.8
142.5°	2.1	2.8	2.8	3.5	2.8
145°	2.1	2.8	2.8	3.5	3.5
147.5°	2.1	2.8	3.5	3.5	3.5
150°	2.1	2.8	3.5	4.2	4.2
152.5°	2.8	2.8	3.5	4.2	4.2
155°	2.8	3.5	3.5	4.2	4.2
157.5°	2.8	3.5	3.5	4.2	4.8
160°	2.8	3.5	4.2	4.8	4.8
162.5°	2.8	3.5	4.2	4.8	4.8
165°	3.5	4.2	4.2	4.8	4.8
167.5°	3.5	4.2	4.8	4.8	5.5
170°	3.5	4.2	4.8	5.5	5.5
172.5°	3.5	4.2	4.8	5.5	5.5
175°	3.5	4.2	4.8	5.5	6.2
177.5°	3.5	4.2	4.8	5.5	6.2
180°	4.8	4.8	4.8	4.8	4.8

(END OF REPORT)