

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: P685770

Luminaire Tested: **4CZL-7-UNV-N-LVR-L950-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685770
Test Lab: INNOVATION CENTER(G3)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-7-UNV-N-LVR-L950-CD-U
Description: METALUX CRUZE LINEAR 4FT LOUVER MODEL WITH NARROW LENS @90 CRI and 5000K
Light Source: (392) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

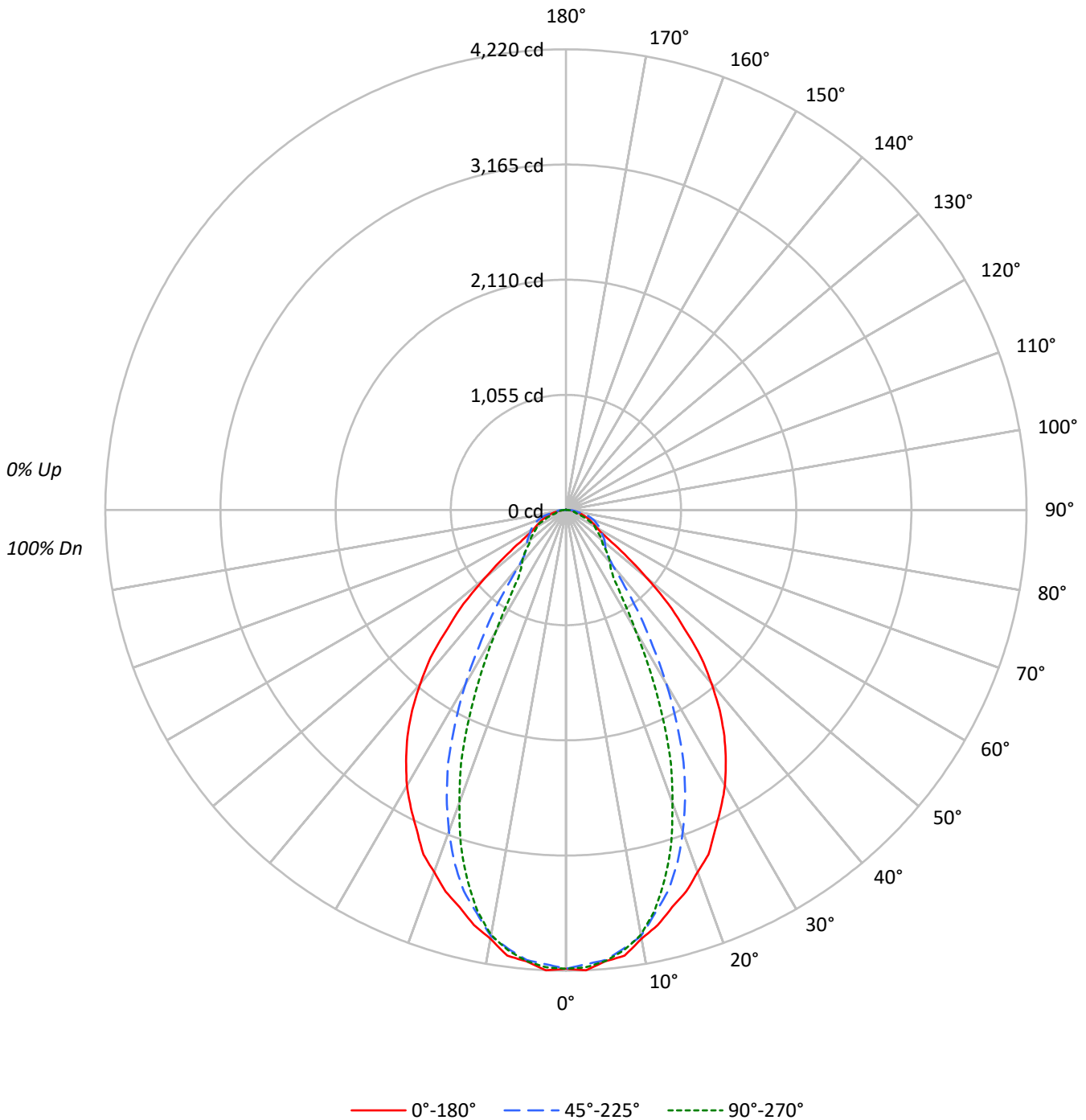
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4975.2 lumens
Efficiency: N/A
Efficacy: 113.1 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.8 / 0.85
Luminous Opening: Rectangular (W 0.83' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 44
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°	13569	13569	13569
5°	13449	13411	13446
10°	13070	12989	12958
15°	12585	12083	11700
20°	12122	10764	9799
25°	11519	9089	7472
30°	10866	6875	4774
35°	9973	4661	2999
40°	8747	2839	2631
45°	7007	2366	2357
50°	4845	2338	2129
55°	2854	2317	2004
60°	2127	2408	1979
65°	2013	2424	1741
70°	1936	2585	1314
75°	1825	2594	1124
80°	1694	2152	1272
85°	1504	2612	1571



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	390.3	7.8
10°-20°	1010.7	20.3
20°-30°	1180.7	23.7
30°-40°	876.0	17.6
40°-50°	580.7	11.7
50°-60°	385.1	7.7
60°-70°	287.4	5.8
70°-80°	169.6	3.4
80°-90°	71.4	1.4
90°-100°	15.4	0.3
100°-110°	2.1	0.0
110°-120°	1.1	0.0
120°-130°	1.0	0.0
130°-140°	0.9	0.0
140°-150°	1.0	0.0
150°-160°	0.9	0.0
160°-170°	0.6	0.0
170°-180°	0.2	0.0
0°-30°	2581.8	51.9
0°-40°	3457.8	69.5
0°-60°	4423.7	88.9
0°-90°	4952.0	99.5
90°-120°	18.6	0.4
90°-150°	21.5	0.4
90°-180°	23.0	0.5
0°-180°	4975.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4202	4202	4202	4202	4202	
5°	4149	4146	4137	4152	4148	393
15°	3765	3720	3614	3552	3500	1062
25°	3233	3000	2551	2188	2097	1489
35°	2530	1874	1182	799	761	1570
45°	1534	905	518	538	516	1181
55°	507	445	412	397	356	499
65°	264	294	317	310	228	263
75°	146	164	208	151	90	154
85°	41	50	70	94	42	44
90°	1	15	35	60	12	3
95°	0	2	14	30	6	0
105°	0	1	1	2	2	0
115°	0	1	1	1	1	0
125°	1	1	1	1	1	1
135°	1	1	1	1	1	1
145°	1	1	1	2	2	1
155°	1	2	2	2	2	1
165°	2	2	2	2	2	0
175°	2	2	2	3	3	0
180°	2	2	2	2	2	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4202.1	4202.1	4202.1	4202.1	4202.1
2.5°	4220.3	4197.5	4164.7	4194.3	4191.8
5°	4149.1	4145.5	4137.3	4152.3	4148.0
7.5°	4117.0	4097.8	4052.2	4087.5	4067.5
10°	3986.0	3963.6	3961.4	3954.3	3951.8
12.5°	3893.1	3866.0	3779.5	3774.9	3755.7
15°	3764.6	3719.7	3614.3	3552.0	3499.7
17.5°	3664.9	3567.3	3391.4	3275.4	3208.1
20°	3527.4	3419.9	3132.3	2929.7	2851.4
22.5°	3414.2	3223.8	2853.9	2567.3	2513.5
25°	3233.0	3000.5	2550.9	2188.1	2097.0
27.5°	3075.7	2754.9	2193.4	1795.4	1683.6
30°	2914.0	2479.7	1843.8	1410.2	1280.2
32.5°	2725.7	2202.3	1483.9	1058.1	964.1
35°	2529.9	1874.4	1182.3	799.3	760.8
37.5°	2314.1	1579.7	888.6	667.5	673.9
40°	2074.9	1322.6	673.6	612.0	624.1
42.5°	1836.4	1106.2	560.4	575.7	579.2
45°	1534.4	905.4	518.0	537.6	516.2
47.5°	1270.6	739.8	488.1	486.0	455.7
50°	964.5	603.1	465.3	439.7	423.7
52.5°	714.2	508.8	443.6	415.5	399.1
55°	507.0	445.4	411.6	397.3	356.0
57.5°	380.9	400.5	387.0	355.0	326.1
60°	329.3	361.0	372.8	334.7	306.5
62.5°	297.3	327.2	349.6	322.6	280.5
65°	263.5	294.4	317.2	310.1	227.9
67.5°	233.9	268.4	296.6	265.9	186.2
70°	205.1	237.1	273.8	225.7	139.2
72.5°	174.1	198.3	242.4	175.5	101.5
75°	146.3	163.8	207.9	151.0	90.1
77.5°	117.1	131.7	142.4	137.4	79.4
80°	91.1	105.7	115.7	125.0	68.4
82.5°	66.2	75.8	91.9	110.7	57.0
85°	40.6	49.5	70.5	93.6	42.4
87.5°	17.4	30.3	51.6	77.6	27.8
90°	0.7	15.0	35.2	60.5	12.5
92.5°	0.4	6.4	22.8	44.5	8.2
95°	0.4	2.5	13.9	30.3	6.4
97.5°	0.4	1.1	7.1	19.6	4.6
100°	0.4	0.7	3.9	11.4	3.2
102.5°	0.4	0.7	1.8	5.7	2.5
105°	0.4	0.7	1.4	2.5	2.1
107.5°	0.4	0.7	1.1	1.8	1.8
110°	0.4	0.7	1.1	1.8	1.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.4	0.7	1.1	1.8	1.8
115°	0.4	0.7	1.1	1.4	1.4
117.5°	0.4	0.7	1.1	1.4	1.4
120°	0.4	0.7	1.1	1.4	1.4
122.5°	0.4	0.7	1.1	1.4	1.4
125°	0.7	0.7	1.1	1.4	1.4
127.5°	0.7	1.1	1.1	1.4	1.4
130°	0.7	1.1	1.1	1.4	1.4
132.5°	0.7	1.1	1.1	1.4	1.4
135°	0.7	1.1	1.1	1.4	1.4
137.5°	0.7	1.1	1.4	1.4	1.4
140°	1.1	1.4	1.4	1.4	1.4
142.5°	1.1	1.4	1.4	1.8	1.4
145°	1.1	1.4	1.4	1.8	1.8
147.5°	1.1	1.4	1.8	1.8	1.8
150°	1.1	1.4	1.8	2.1	2.1
152.5°	1.4	1.4	1.8	2.1	2.1
155°	1.4	1.8	1.8	2.1	2.1
157.5°	1.4	1.8	1.8	2.1	2.5
160°	1.4	1.8	2.1	2.5	2.5
162.5°	1.4	1.8	2.1	2.5	2.5
165°	1.8	2.1	2.1	2.5	2.5
167.5°	1.8	2.1	2.5	2.5	2.8
170°	1.8	2.1	2.5	2.8	2.8
172.5°	1.8	2.1	2.5	2.8	2.8
175°	1.8	2.1	2.5	2.8	3.2
177.5°	1.8	2.1	2.5	2.8	3.2
180°	2.5	2.5	2.5	2.5	2.5

(END OF REPORT)