

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: P685830

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

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685830
Test Lab: INNOVATION CENTER(G3)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-7-UNV-M-LVR-L950-CD-U
Description: METALUX CRUZE LINEAR 4FT LOUVER MODEL WITH MEDIUM LENS @90 CRI and 5000K
Light Source: (392) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

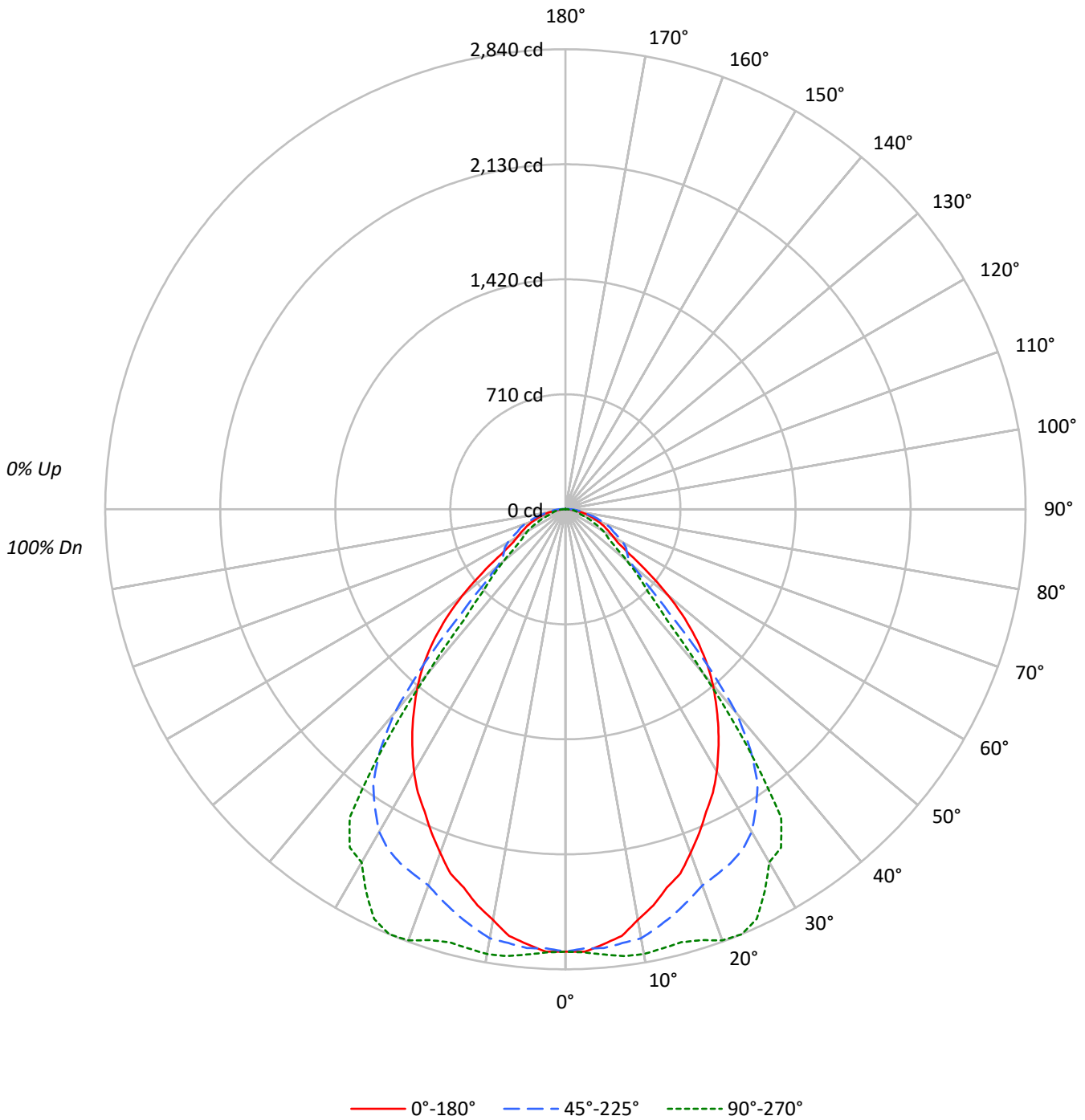
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5051.0 lumens
Efficiency: N/A
Efficacy: 114.8 lumens/watt
Spacing Criteria (0/90/45): 1.05 / 1.34 / 1.2
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	100	100	100	100
1	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	90	88	88	88	88
2	103	96	90	86	100	94	89	84	91	86	83	87	84	81	84	81	79	77	77	77	77
3	95	87	80	74	93	85	79	74	82	77	72	79	75	71	77	73	70	68	68	68	68
4	89	78	71	65	86	77	70	65	75	69	64	73	67	63	70	66	62	60	60	60	60
5	83	72	64	58	81	70	63	58	68	62	57	67	61	57	65	60	56	54	54	54	54
6	77	65	58	52	75	65	57	52	63	56	51	61	55	51	60	55	51	49	49	49	49
7	72	60	53	47	70	59	52	47	58	51	47	57	51	46	55	50	46	44	44	44	44
8	68	56	48	43	66	55	48	43	54	47	42	52	47	42	51	46	42	40	40	40	40
9	64	52	44	39	62	51	44	39	50	43	39	49	43	39	48	42	39	37	37	37	37
10	60	48	41	36	59	47	41	36	46	40	36	46	40	36	45	39	35	34	34	34	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8817	8817	8817
5°	8736	8814	8946
10°	8439	8819	9141
15°	8084	8655	9248
20°	7758	8490	9729
25°	7330	8591	9946
30°	6967	8572	9381
35°	6487	8152	9147
40°	5972	6910	5574
45°	5262	4119	3304
50°	4177	2735	2493
55°	2704	2602	1892
60°	2207	2644	1739
65°	2103	2492	1420
70°	1997	2501	1123
75°	1896	2341	1044
80°	1755	2211	1172
85°	1571	2705	1438



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	259.1	5.1
10°-20°	735.0	14.6
20°-30°	1108.3	21.9
30°-40°	1224.6	24.2
40°-50°	767.8	15.2
50°-60°	413.4	8.2
60°-70°	280.7	5.6
70°-80°	167.7	3.3
80°-90°	72.9	1.4
90°-100°	16.0	0.3
100°-110°	1.8	0.0
110°-120°	0.7	0.0
120°-130°	0.6	0.0
130°-140°	0.7	0.0
140°-150°	0.7	0.0
150°-160°	0.5	0.0
160°-170°	0.4	0.0
170°-180°	0.2	0.0
0°-30°	2102.3	41.6
0°-40°	3327.0	65.9
0°-60°	4508.2	89.3
0°-90°	5029.5	99.6
90°-120°	18.5	0.4
90°-150°	20.5	0.4
90°-180°	22.0	0.4
0°-180°	5051.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2730	2730	2730	2730	2730	
5°	2695	2700	2719	2751	2760	254
15°	2418	2503	2589	2714	2766	683
25°	2057	2182	2411	2668	2791	950
35°	1646	1839	2068	2225	2320	1027
45°	1152	1254	902	735	724	879
55°	480	502	462	400	336	467
65°	275	303	326	265	186	272
75°	152	169	188	154	84	160
85°	42	52	73	96	39	46
90°	1	16	37	62	11	3
95°	0	2	15	32	6	0
105°	0	1	1	2	1	0
115°	0	1	1	1	1	0
125°	0	1	1	1	1	0
135°	1	1	1	1	1	1
145°	1	1	1	1	1	0
155°	1	1	1	1	1	0
165°	1	1	1	1	1	0
175°	1	1	1	2	2	0
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2730.5	2730.5	2730.5	2730.5	2730.5
2.5°	2734.1	2726.6	2712.7	2737.6	2738.0
5°	2694.9	2699.5	2719.1	2751.1	2759.7
7.5°	2656.8	2674.6	2700.9	2778.2	2782.1
10°	2573.8	2610.9	2689.5	2764.0	2787.8
12.5°	2504.8	2559.6	2640.8	2738.7	2775.7
15°	2418.2	2503.0	2588.8	2714.1	2766.4
17.5°	2357.7	2425.7	2530.7	2702.7	2788.5
20°	2257.7	2353.4	2470.6	2710.6	2831.2
22.5°	2160.5	2276.9	2440.3	2713.4	2840.2
25°	2057.2	2182.2	2411.1	2668.2	2791.4
27.5°	1971.8	2076.4	2367.7	2573.8	2662.8
30°	1868.5	1991.7	2299.0	2429.6	2515.8
32.5°	1757.4	1913.7	2187.5	2319.3	2475.9
35°	1645.6	1839.0	2067.9	2224.6	2320.3
37.5°	1528.8	1777.4	1879.9	1905.2	1839.7
40°	1416.7	1691.6	1639.2	1394.6	1322.3
42.5°	1294.2	1507.1	1278.5	959.5	927.1
45°	1152.2	1254.3	901.9	735.2	723.5
47.5°	1000.8	971.3	672.6	614.5	607.8
50°	831.4	776.5	544.4	542.3	496.3
52.5°	648.0	616.7	488.1	470.3	397.3
55°	480.3	502.4	462.1	399.8	336.1
57.5°	384.5	435.8	444.0	349.3	300.5
60°	341.8	381.3	409.4	321.2	269.2
62.5°	306.6	337.9	366.7	298.0	232.1
65°	275.2	302.6	326.1	264.9	185.9
67.5°	242.1	270.6	299.4	227.5	158.1
70°	211.5	241.8	264.9	201.9	118.9
72.5°	179.8	211.1	221.5	168.8	95.1
75°	152.0	169.1	187.6	154.2	83.7
77.5°	122.8	137.4	144.9	141.3	73.7
80°	94.4	106.1	118.9	128.5	63.0
82.5°	69.1	77.6	95.1	113.2	50.6
85°	42.4	52.0	73.0	96.1	38.8
87.5°	18.9	31.0	53.8	79.4	24.9
90°	1.1	16.0	37.0	61.6	11.4
92.5°	0.4	7.1	24.2	45.6	7.8
95°	0.4	2.5	14.6	31.7	5.7
97.5°	0.4	1.1	8.2	20.3	3.6
100°	0.4	0.7	3.9	11.7	2.5
102.5°	0.4	0.7	1.8	5.7	1.8
105°	0.4	0.7	1.1	2.5	1.1
107.5°	0.4	0.7	0.7	1.1	0.7
110°	0.4	0.7	0.7	0.7	0.7



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CANDELA DISTRIBUTION (continued):

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

(END OF REPORT)