

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: P685890

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

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685890
Test Lab: INNOVATION CENTER(G3)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-7-UNV-W-LVR-L950-CD-U
Description: METALUX CRUZE LINEAR 4FT LOUVER MODEL WITH WIDE LENS @90 CRI and 5000K
Light Source: (392) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

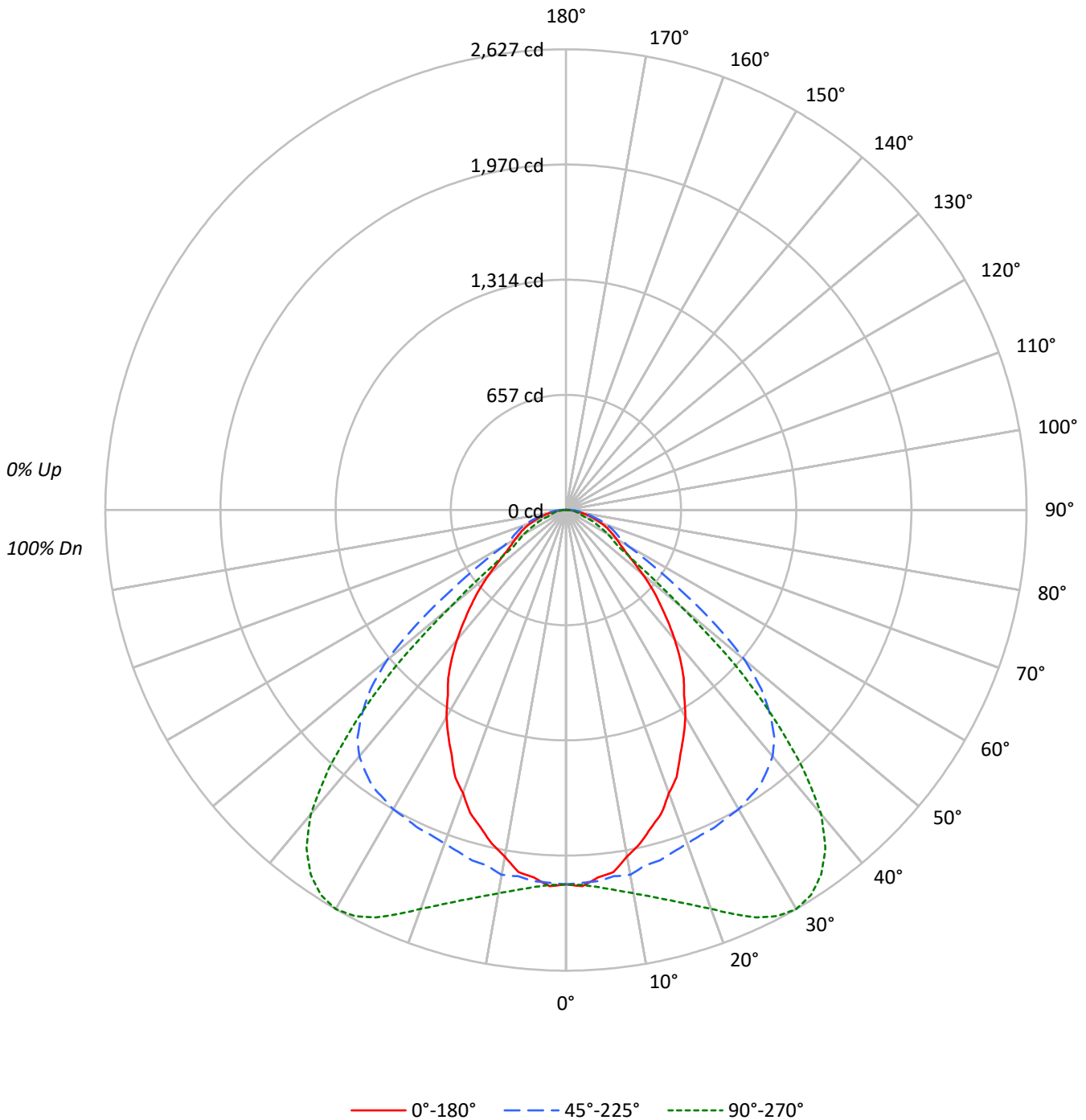
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5078.6 lumens
Efficiency: N/A
Efficacy: 115.4 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.64 / 1.46
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 (Ain): 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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	89	89	89	87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	77	77	77	75
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	68	68	68	66
4	87	76	68	62	85	75	68	62	72	66	61	70	65	60	68	63	59	59	59	59	57
5	80	69	61	55	78	68	60	54	66	59	54	64	58	53	62	57	53	53	53	53	51
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	47	47	47	45
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	42	42	42	40
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38	38	38	38	36
9	61	48	40	35	59	47	40	35	46	40	35	45	39	35	44	39	34	34	34	34	33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	35	31	31	31	31	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6893	6893	6893
5°	6814	6885	6998
10°	6579	6927	7276
15°	6270	6914	7704
20°	5901	6951	8315
25°	5495	7122	9133
30°	5080	7347	9797
35°	4615	7585	10002
40°	4069	7729	9543
45°	3468	7517	7651
50°	2875	6685	4342
55°	2341	4516	2077
60°	2162	2626	1793
65°	2084	2416	1458
70°	1967	2370	1042
75°	1830	2163	1013
80°	1668	2126	1112
85°	1278	2545	1226



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.0	4.0
10°-20°	589.2	11.6
20°-30°	935.0	18.4
30°-40°	1167.8	23.0
40°-50°	1072.6	21.1
50°-60°	572.4	11.3
60°-70°	294.6	5.8
70°-80°	162.0	3.2
80°-90°	66.8	1.3
90°-100°	12.9	0.3
100°-110°	0.7	0.0
110°-120°	0.2	0.0
120°-130°	0.2	0.0
130°-140°	0.4	0.0
140°-150°	0.3	0.0
150°-160°	0.3	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	1727.1	34.0
0°-40°	2894.9	57.0
0°-60°	4539.9	89.4
0°-90°	5063.3	99.7
90°-120°	13.8	0.3
90°-150°	14.8	0.3
90°-180°	15.0	0.3
0°-180°	5078.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2135	2135	2135	2135	2135	
5°	2102	2108	2124	2157	2159	199
15°	1875	1937	2068	2236	2304	527
25°	1542	1687	1999	2365	2563	711
35°	1171	1387	1924	2344	2537	727
45°	760	1095	1646	1706	1675	588
55°	416	746	802	449	369	384
65°	273	358	316	258	191	269
75°	147	163	173	154	81	156
85°	34	45	69	90	33	40
90°	0	13	34	55	7	1
95°	0	1	13	25	3	0
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	1	1	0	0	0
145°	0	1	1	0	0	0
155°	1	1	1	0	0	0
165°	1	1	1	0	0	0
175°	1	1	1	0	0	0
180°	1	1	1	1	1	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2134.6	2134.6	2134.6	2134.6	2134.6
2.5°	2147.0	2142.4	2127.1	2141.0	2139.9
5°	2102.2	2107.5	2123.9	2156.7	2158.8
7.5°	2082.2	2096.8	2106.1	2176.9	2186.2
10°	2006.4	2029.2	2112.5	2186.2	2219.0
12.5°	1949.4	1995.4	2076.2	2201.2	2258.1
15°	1875.4	1936.6	2068.0	2236.4	2304.4
17.5°	1812.3	1875.0	2043.1	2263.1	2358.2
20°	1717.3	1830.9	2022.8	2290.9	2419.8
22.5°	1649.3	1764.3	2007.1	2315.5	2492.8
25°	1542.1	1687.0	1998.9	2364.9	2563.3
27.5°	1452.4	1621.9	1980.8	2396.6	2609.9
30°	1362.3	1542.1	1970.4	2402.3	2627.4
32.5°	1253.7	1477.3	1944.4	2389.2	2602.4
35°	1170.7	1386.9	1924.1	2343.9	2537.3
37.5°	1069.6	1315.6	1879.6	2262.0	2430.5
40°	965.3	1249.8	1833.4	2134.2	2263.8
42.5°	859.9	1175.7	1759.3	1963.7	2003.2
45°	759.5	1094.9	1646.1	1705.9	1675.3
47.5°	669.4	1008.0	1512.2	1382.6	1310.7
50°	572.2	919.7	1330.6	1052.5	864.2
52.5°	484.6	846.0	1080.6	712.8	537.7
55°	415.9	745.6	802.2	449.3	368.9
57.5°	367.1	668.7	579.0	355.3	315.8
60°	334.7	572.5	406.6	326.2	277.7
62.5°	302.7	452.9	347.9	297.3	233.6
65°	272.7	357.5	316.2	257.8	190.8
67.5°	241.8	290.2	285.6	233.9	159.2
70°	208.3	238.6	251.0	195.8	110.4
72.5°	178.4	200.1	213.6	167.3	93.6
75°	146.7	162.7	173.4	154.2	81.2
77.5°	116.4	131.0	141.4	139.6	71.2
80°	89.7	99.3	114.3	125.0	59.8
82.5°	61.2	68.4	90.1	107.9	46.6
85°	34.5	45.2	68.7	90.4	33.1
87.5°	10.0	26.7	49.8	72.6	19.2
90°	0.0	12.8	33.8	54.8	7.1
92.5°	0.0	5.0	22.1	38.5	5.0
95°	0.0	1.4	12.8	25.3	3.2
97.5°	0.0	0.4	6.1	15.0	1.4
100°	0.0	0.4	2.1	7.1	0.4
102.5°	0.0	0.4	0.7	2.5	0.0
105°	0.0	0.4	0.4	0.4	0.0
107.5°	0.0	0.4	0.4	0.0	0.0
110°	0.0	0.4	0.4	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	0.4	0.4	0.0	0.0
115°	0.0	0.4	0.4	0.0	0.0
117.5°	0.0	0.4	0.4	0.0	0.0
120°	0.0	0.4	0.4	0.0	0.0
122.5°	0.0	0.4	0.4	0.0	0.0
125°	0.0	0.4	0.4	0.0	0.0
127.5°	0.4	0.4	0.4	0.4	0.0
130°	0.4	0.7	0.7	0.4	0.0
132.5°	0.4	0.7	0.7	0.4	0.0
135°	0.4	0.7	0.7	0.4	0.4
137.5°	0.4	0.7	0.7	0.4	0.4
140°	0.4	0.7	0.7	0.4	0.4
142.5°	0.4	0.7	0.7	0.4	0.4
145°	0.4	0.7	0.7	0.4	0.4
147.5°	0.4	0.7	0.7	0.4	0.4
150°	0.4	0.7	0.7	0.4	0.4
152.5°	0.7	0.7	0.7	0.4	0.4
155°	0.7	0.7	0.7	0.4	0.4
157.5°	0.7	0.7	0.7	0.4	0.4
160°	0.7	0.7	0.7	0.4	0.4
162.5°	0.7	1.1	0.7	0.4	0.4
165°	0.7	1.1	0.7	0.4	0.4
167.5°	0.7	1.1	0.7	0.4	0.4
170°	0.7	1.1	0.7	0.4	0.4
172.5°	0.7	1.1	0.7	0.4	0.4
175°	1.1	1.1	0.7	0.4	0.4
177.5°	1.1	1.1	0.7	0.7	0.7
180°	0.7	0.7	0.7	0.7	0.7

(END OF REPORT)