

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: P685950

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

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685950
Test Lab: INNOVATION CENTER(G3)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4CZL-7-UNV-LVRF-L950-CD-U
Description: METALUX CRUZE LINEAR 4FT LOUVER MODEL WITH FROSTED LAY-IN @90 CRI and 5000K
Light Source: (392) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

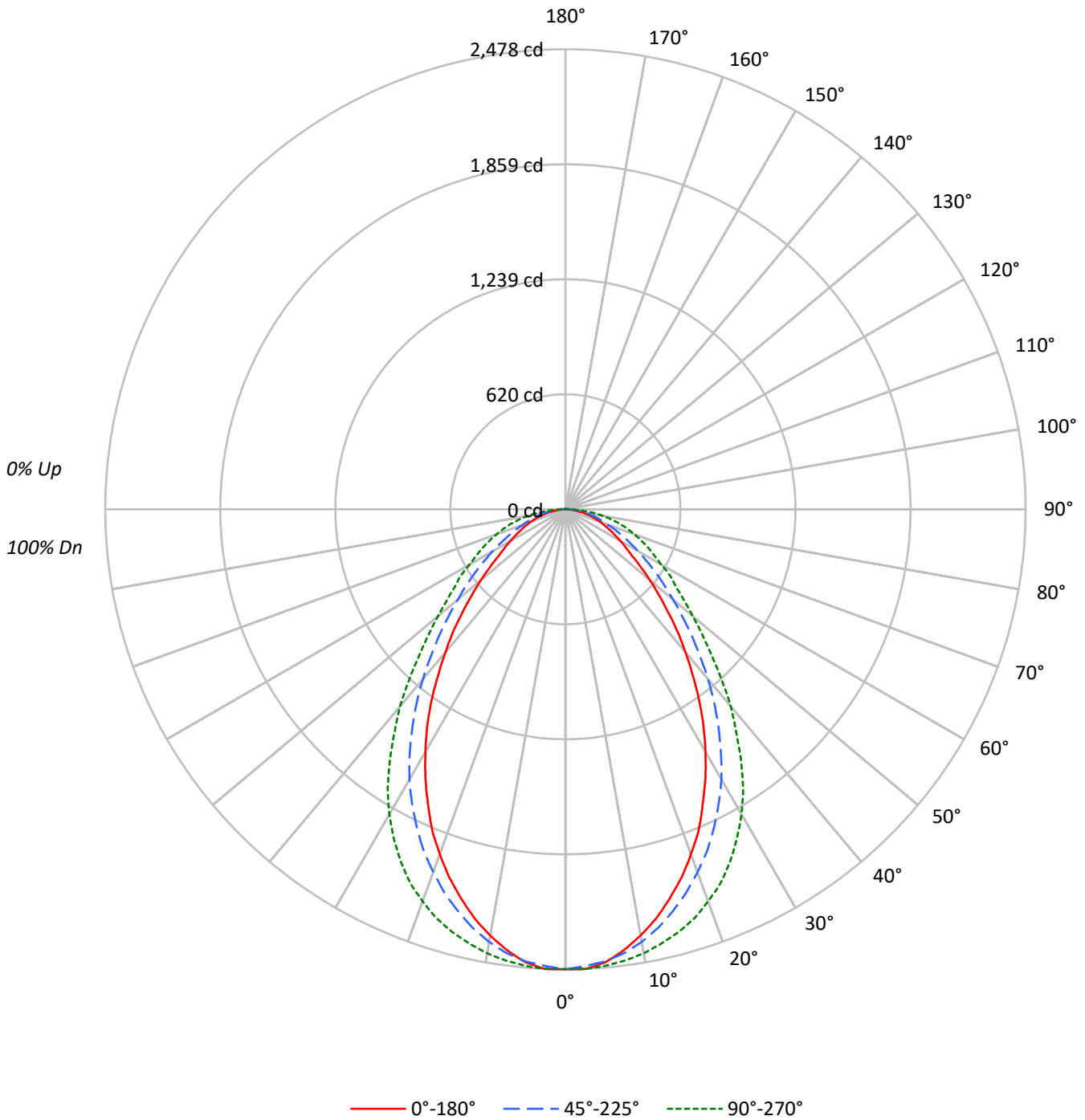
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4570.1 lumens
Efficiency: N/A
Efficacy: 103.9 lumens/watt
Spacing Criteria (0/90/45): 0.97 / 1.15 / 1.12
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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86	86	
2	101	94	88	83	99	92	87	82	89	84	80	85	81	78	82	79	76	74	74	
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	74	70	67	65	65	
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57	57	
5	80	69	61	55	78	68	60	54	66	59	54	64	58	53	62	57	53	51	51	
6	75	63	55	49	73	62	54	48	60	53	48	58	52	48	57	51	47	45	45	
7	70	57	49	44	68	57	49	44	55	48	43	54	48	43	52	47	43	41	41	
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37	37	
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34	34	
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31	31	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8000	8000	8000
5°	7942	7923	8003
10°	7645	7758	7963
15°	7254	7487	7880
20°	6793	7145	7723
25°	6238	6741	7467
30°	5623	6265	7071
35°	4952	5666	6494
40°	4239	5031	5840
45°	3571	4385	5086
50°	2982	3801	4497
55°	2468	3340	4077
60°	2224	2927	3845
65°	2021	2577	3760
70°	1883	2313	3731
75°	1745	2158	3807
80°	1583	2139	3814
85°	1360	2505	3772



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	231.8	5.1
10°-20°	633.5	13.9
20°-30°	875.3	19.2
30°-40°	900.4	19.7
40°-50°	738.2	16.2
50°-60°	529.7	11.6
60°-70°	356.3	7.8
70°-80°	207.9	4.6
80°-90°	80.1	1.8
90°-100°	13.9	0.3
100°-110°	1.2	0.0
110°-120°	0.2	0.0
120°-130°	0.2	0.0
130°-140°	0.3	0.0
140°-150°	0.4	0.0
150°-160°	0.3	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	1740.6	38.1
0°-40°	2641.0	57.8
0°-60°	3908.9	85.5
0°-90°	4553.2	99.6
90°-120°	15.3	0.3
90°-150°	16.2	0.4
90°-180°	17.0	0.4
0°-180°	4570.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2477	2477	2477	2477	2477	
5°	2450	2452	2444	2467	2469	230
15°	2170	2192	2240	2326	2357	609
25°	1751	1792	1892	2024	2096	804
35°	1256	1314	1437	1572	1647	783
45°	782	843	960	1055	1114	607
55°	438	491	593	674	724	403
65°	264	280	337	433	492	264
75°	140	145	173	240	305	149
85°	37	46	68	101	102	40
90°	0	15	34	53	11	2
95°	0	2	15	25	5	0
105°	0	0	1	1	1	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	1	0	0	0	0
145°	1	1	1	0	0	0
155°	1	1	1	0	0	0
165°	1	1	1	1	0	0
175°	1	1	1	1	1	0
180°	1	1	1	1	1	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2477.4	2477.4	2477.4	2477.4	2477.4
2.5°	2478.5	2476.3	2462.4	2478.5	2477.7
5°	2450.0	2451.7	2444.3	2467.1	2468.8
7.5°	2396.9	2404.0	2412.2	2445.7	2451.7
10°	2331.4	2342.1	2365.9	2415.8	2428.6
12.5°	2257.7	2269.5	2308.3	2377.0	2394.8
15°	2169.8	2191.8	2239.5	2326.4	2357.0
17.5°	2079.0	2106.0	2165.1	2268.0	2309.3
20°	1976.8	2003.8	2079.3	2194.0	2247.4
22.5°	1874.2	1900.6	1992.8	2114.9	2181.5
25°	1750.7	1791.6	1892.0	2023.8	2095.7
27.5°	1632.5	1675.9	1787.7	1929.1	2000.6
30°	1507.9	1558.8	1680.2	1815.1	1896.3
32.5°	1384.3	1435.9	1559.8	1700.5	1781.0
35°	1256.1	1314.2	1437.4	1572.0	1647.4
37.5°	1126.2	1189.6	1316.3	1448.8	1509.6
40°	1005.5	1067.8	1193.5	1312.0	1385.4
42.5°	894.0	955.3	1071.7	1179.2	1245.1
45°	781.9	842.8	960.3	1054.6	1113.7
47.5°	681.5	743.8	853.1	948.5	998.0
50°	593.5	650.1	756.6	843.1	895.1
52.5°	513.1	564.7	670.1	754.1	804.3
55°	438.3	490.6	593.2	674.4	724.2
57.5°	388.1	425.5	517.7	607.8	671.9
60°	344.3	367.4	453.2	560.1	595.3
62.5°	299.8	320.8	391.3	485.3	540.1
65°	264.5	280.2	337.2	433.0	492.1
67.5°	229.7	241.4	290.2	382.4	442.2
70°	199.4	206.9	245.0	332.5	395.2
72.5°	170.5	174.5	208.6	287.0	349.3
75°	139.9	144.9	173.0	240.3	305.1
77.5°	110.7	117.9	142.8	200.5	254.6
80°	85.1	90.8	115.0	164.9	205.1
82.5°	59.1	66.9	89.7	130.3	157.0
85°	36.7	45.6	67.6	101.1	101.8
87.5°	15.3	28.5	49.5	74.8	52.0
90°	0.4	15.3	34.5	52.7	11.0
92.5°	0.0	7.1	23.5	37.7	6.4
95°	0.4	2.5	14.6	25.3	4.6
97.5°	0.0	0.7	7.8	16.0	2.8
100°	0.0	0.4	3.2	8.9	1.8
102.5°	0.0	0.4	1.4	3.9	1.1
105°	0.0	0.4	0.7	1.4	0.7
107.5°	0.0	0.4	0.4	0.4	0.4
110°	0.4	0.4	0.4	0.4	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°	0.4	0.4	0.4	0.0	0.0
117.5°	0.4	0.4	0.4	0.0	0.0
120°	0.4	0.4	0.4	0.0	0.0
122.5°	0.4	0.4	0.4	0.0	0.0
125°	0.4	0.4	0.4	0.0	0.0
127.5°	0.4	0.4	0.4	0.0	0.0
130°	0.4	0.4	0.4	0.0	0.0
132.5°	0.4	0.7	0.4	0.4	0.0
135°	0.4	0.7	0.4	0.4	0.0
137.5°	0.4	0.7	0.4	0.4	0.0
140°	0.4	0.7	0.4	0.4	0.4
142.5°	0.7	0.7	0.7	0.4	0.4
145°	0.7	0.7	0.7	0.4	0.4
147.5°	0.7	0.7	0.7	0.4	0.4
150°	0.7	0.7	0.7	0.4	0.4
152.5°	0.7	1.1	0.7	0.4	0.4
155°	0.7	1.1	0.7	0.4	0.4
157.5°	0.7	1.1	0.7	0.4	0.4
160°	0.7	1.1	0.7	0.4	0.4
162.5°	1.1	1.1	0.7	0.7	0.4
165°	1.1	1.1	1.1	0.7	0.4
167.5°	1.1	1.1	1.1	0.7	0.4
170°	1.1	1.1	1.1	0.7	0.7
172.5°	1.1	1.1	1.1	0.7	0.7
175°	1.1	1.4	1.1	0.7	0.7
177.5°	1.1	1.4	1.1	0.7	0.7
180°	1.1	1.1	1.1	1.1	1.1

(END OF REPORT)