

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: P881108

Luminaire Tested: **22CZ2-39VHE-HRP-UNV-B40**

Issue Date: 10/2/2024

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



**Test Information**

Test Method: LM-79-08  
Report Number: P881108  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P475114)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 10/2/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-39VHE-HRP-UNV-B40  
Description: 2X2 3900 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 4000K CCT AND HRP LENS  
  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

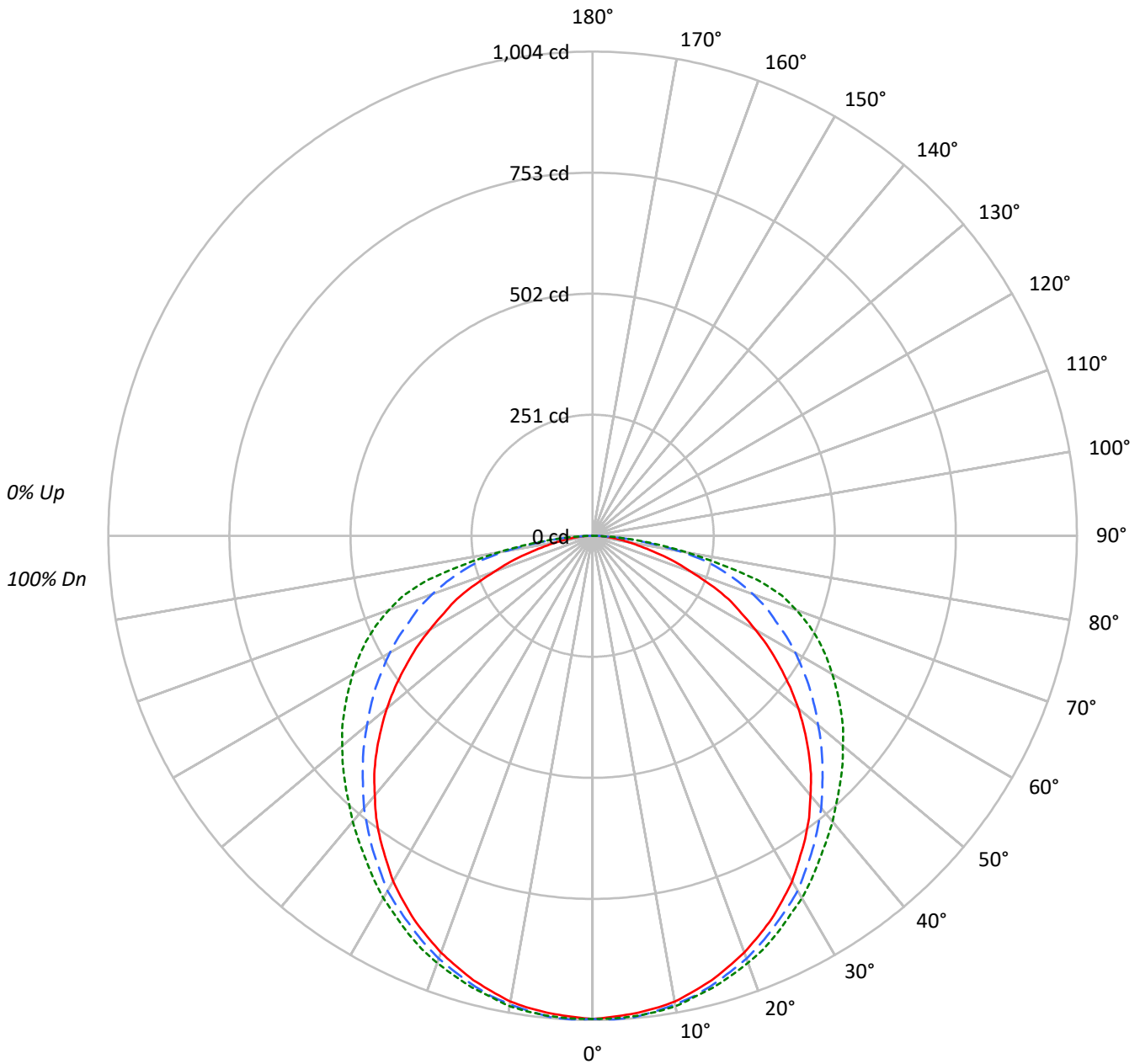
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3043.0 lumens  
Efficiency: N/A  
Efficacy: 95.1 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 1.92' x L: 1.98' x H: 0')  
CIE Type: Direct

Input Watts (W): 32  
Input Voltage (V): NR  
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	100								
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84	82								
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68								
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56								
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48								
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41								
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36								
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31								
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28								
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25								
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23								

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2843	2843	2843
5°	2832	2854	2849
10°	2826	2843	2855
15°	2803	2831	2848
20°	2777	2817	2846
25°	2747	2795	2843
30°	2711	2786	2843
35°	2660	2753	2839
40°	2602	2731	2866
45°	2542	2704	2912
50°	2458	2695	2991
55°	2345	2716	3105
60°	2212	2756	3257
65°	2089	2809	3481
70°	1784	2930	3726
75°	1494	3052	3872
80°	1226	2949	3231
85°	1061	2185	2373



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.0	3.1
10°-20°	271.7	8.9
20°-30°	411.7	13.5
30°-40°	497.1	16.3
40°-50°	522.4	17.2
50°-60°	491.5	16.2
60°-70°	409.8	13.5
70°-80°	271.5	8.9
80°-90°	72.4	2.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	778.3	25.6
0°-40°	1275.5	41.9
0°-60°	2289.3	75.2
0°-90°	3043.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3043.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1002	1002	1002	1002	1002	
5°	994	996	1002	1002	1000	94
15°	954	958	964	968	969	269
25°	877	883	893	904	908	404
35°	768	776	795	812	820	480
45°	633	643	674	708	726	488
55°	474	495	549	605	628	424
65°	311	338	418	488	518	303
75°	136	190	278	336	353	148
85°	33	50	67	73	73	38
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1002.0	1002.0	1002.0	1002.0	1002.0
2.5°	998.2	1000.1	1003.9	1003.9	1002.0
5°	994.3	996.2	1002.0	1002.0	1000.1
7.5°	988.6	990.7	994.3	998.2	996.2
10°	980.9	982.8	986.7	990.7	990.7
12.5°	967.5	969.4	977.1	979.2	979.2
15°	954.1	957.9	963.6	967.5	969.4
17.5°	936.8	940.6	948.3	956.0	956.0
20°	919.5	923.4	933.0	940.6	942.4
22.5°	898.4	904.2	913.8	923.4	927.2
25°	877.3	883.1	892.7	904.2	908.0
27.5°	852.2	858.0	871.6	885.0	886.7
30°	827.3	833.0	850.3	861.8	867.8
32.5°	796.6	804.3	821.5	838.8	844.6
35°	767.8	775.5	794.7	812.1	819.6
37.5°	737.2	744.6	765.9	787.2	796.6
40°	702.5	712.2	737.2	760.2	773.6
42.5°	670.0	679.6	704.6	735.2	748.7
45°	633.4	643.0	673.9	708.2	725.7
47.5°	595.1	606.6	643.0	685.4	702.5
50°	556.7	570.1	610.4	658.3	677.5
52.5°	516.2	533.7	579.7	631.7	654.5
55°	474.1	495.3	549.0	604.7	627.7
57.5°	433.8	453.2	516.2	575.9	600.8
60°	389.7	414.6	485.6	546.9	574.0
62.5°	347.5	374.3	453.2	518.4	546.9
65°	311.1	337.7	418.4	487.5	518.4
67.5°	262.9	299.5	389.7	454.9	485.6
70°	215.0	264.8	353.2	420.4	449.1
72.5°	178.5	226.5	316.8	383.9	410.8
75°	136.3	190.0	278.4	336.0	353.2
77.5°	101.8	157.4	238.0	266.9	268.7
80°	75.0	120.8	180.5	190.0	197.7
82.5°	52.0	84.4	117.2	128.5	132.5
85°	32.6	49.9	67.1	72.9	72.9
87.5°	17.3	19.2	23.0	23.0	23.0
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-50001EG







— 0°-180°    - - 45°-225°    - - - - 90°-270°







(END OF REPORT)