

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: P881184

Luminaire Tested: **24CZ2-40VHE-HRP-UNV-B50**

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: P881184  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P474369)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 10/2/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-40VHE-HRP-UNV-B50  
Description: 2X4 4000 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 5000K CCT AND HRP LENS  
  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

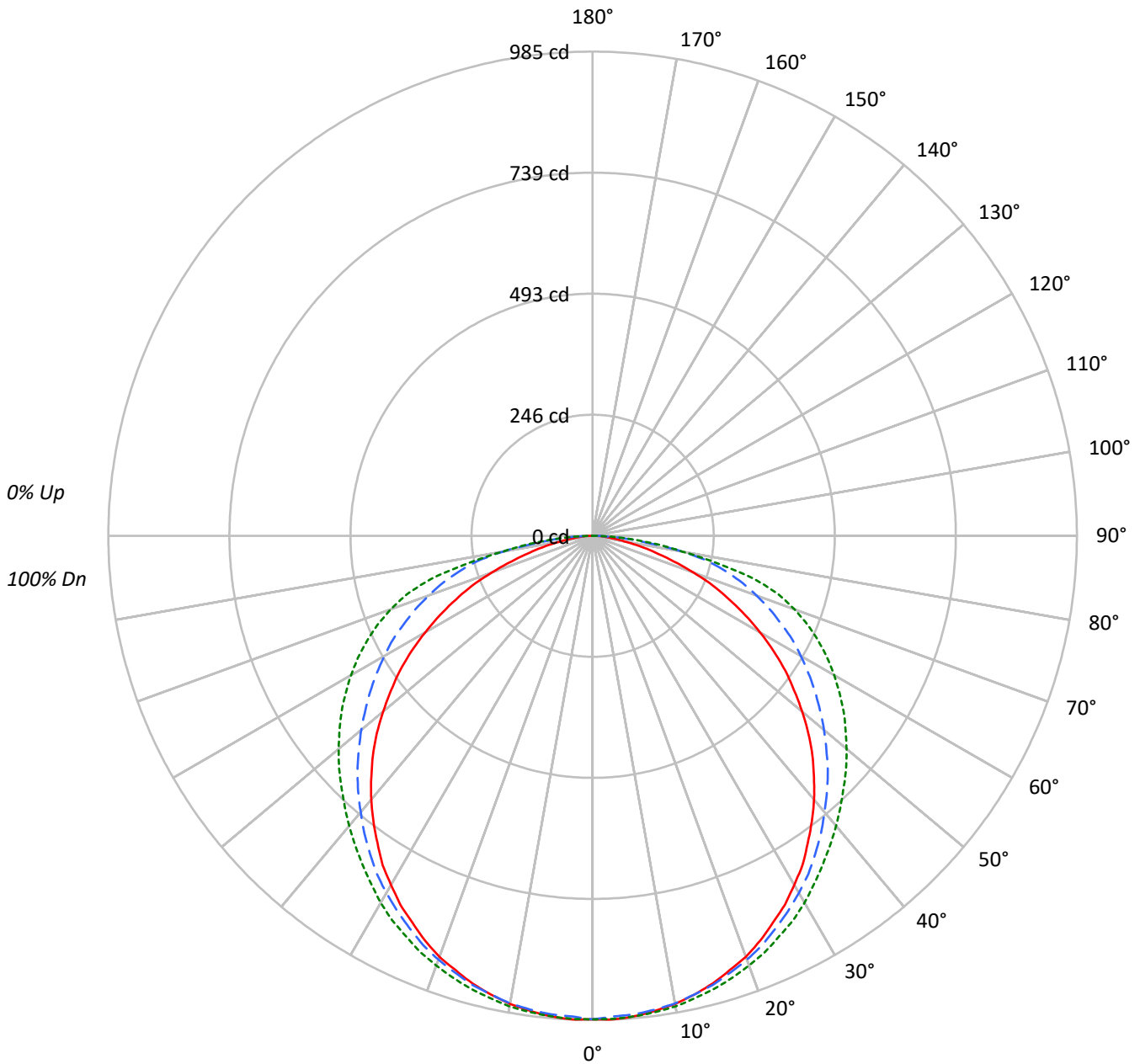
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3032.0 lumens  
Efficiency: N/A  
Efficacy: 101.1 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 1.92' x L: 3.98' x H: 0')  
CIE Type: Direct

Input Watts (W): 30  
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									
RC	80									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	86	84	82																			
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67																			
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56																			
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	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	38	50	43	38	49	42	38	36																			
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31																			
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28																			
9	55	41	33	27	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	24	35	29	24	23																			

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

	0°	45°	90°
0°	1388	1388	1388
5°	1390	1385	1390
10°	1386	1384	1393
15°	1378	1382	1395
20°	1369	1378	1397
25°	1352	1372	1399
30°	1336	1367	1405
35°	1314	1360	1406
40°	1291	1352	1419
45°	1262	1350	1442
50°	1221	1349	1480
55°	1177	1358	1534
60°	1111	1379	1602
65°	1026	1412	1692
70°	896	1461	1802
75°	726	1536	1862
80°	537	1507	1507
85°	411	1111	1253



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	93.2	3.1
10°-20°	267.6	8.8
20°-30°	407.4	13.4
30°-40°	494.7	16.3
40°-50°	522.6	17.2
50°-60°	493.2	16.3
60°-70°	410.0	13.5
70°-80°	269.8	8.9
80°-90°	73.5	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°	768.2	25.3
0°-40°	1262.9	41.7
0°-60°	2278.7	75.2
0°-90°	3032.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3032.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	984	984	984	984	984	
5°	981	981	977	981	981	93
15°	943	944	946	955	955	266
25°	868	873	881	896	899	400
35°	763	772	789	810	816	478
45°	632	645	676	710	722	487
55°	478	499	552	604	623	426
65°	307	343	423	485	507	304
75°	133	194	282	334	341	144
85°	25	56	69	76	77	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	983.7	983.7	983.7	983.7	983.7
2.5°	985.0	983.7	978.6	983.7	983.7
5°	981.2	981.2	977.4	981.2	981.2
7.5°	974.8	974.8	972.2	977.4	977.4
10°	967.2	967.2	966.0	972.2	972.2
12.5°	955.8	957.0	955.8	963.3	963.3
15°	943.1	944.3	945.7	954.6	954.6
17.5°	926.7	929.2	931.7	941.8	943.1
20°	911.4	912.5	917.7	929.2	930.4
22.5°	891.2	894.9	901.3	912.5	916.5
25°	868.1	873.3	880.9	896.2	898.7
27.5°	846.6	850.5	860.6	877.1	882.3
30°	820.0	826.3	839.0	855.5	861.9
32.5°	794.6	800.9	816.2	833.9	839.0
35°	762.9	771.8	789.4	809.8	816.2
37.5°	732.4	741.3	762.9	785.7	793.4
40°	700.6	710.7	733.8	760.3	770.4
42.5°	666.3	680.3	705.7	734.9	746.4
45°	632.1	644.8	676.5	709.5	722.3
47.5°	595.4	610.7	644.8	684.2	699.5
50°	556.0	575.0	614.4	657.4	674.1
52.5°	516.7	538.2	582.6	630.8	648.7
55°	478.5	498.8	552.1	604.3	623.3
57.5°	436.6	462.2	520.5	576.3	595.4
60°	393.5	421.5	488.7	547.0	567.4
62.5°	350.3	382.1	458.1	516.7	538.2
65°	307.1	342.8	422.7	484.9	506.6
67.5°	265.2	304.6	389.7	451.9	473.4
70°	217.1	266.6	354.1	415.1	436.6
72.5°	172.7	229.8	319.8	377.1	396.1
75°	133.2	194.3	281.7	333.8	341.4
77.5°	97.7	158.6	242.5	260.1	261.5
80°	66.1	126.9	185.4	182.8	185.4
82.5°	43.2	95.2	116.7	130.7	132.0
85°	25.4	55.9	68.6	76.2	77.4
87.5°	12.6	19.0	24.1	25.4	27.9
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)