

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: P881182

Luminaire Tested: **24CZ2-40VHE-HRP-UNV-B35**

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: P881182  
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-B35  
Description: 2X4 4000 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 3500K CCT AND HRP LENS  
  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

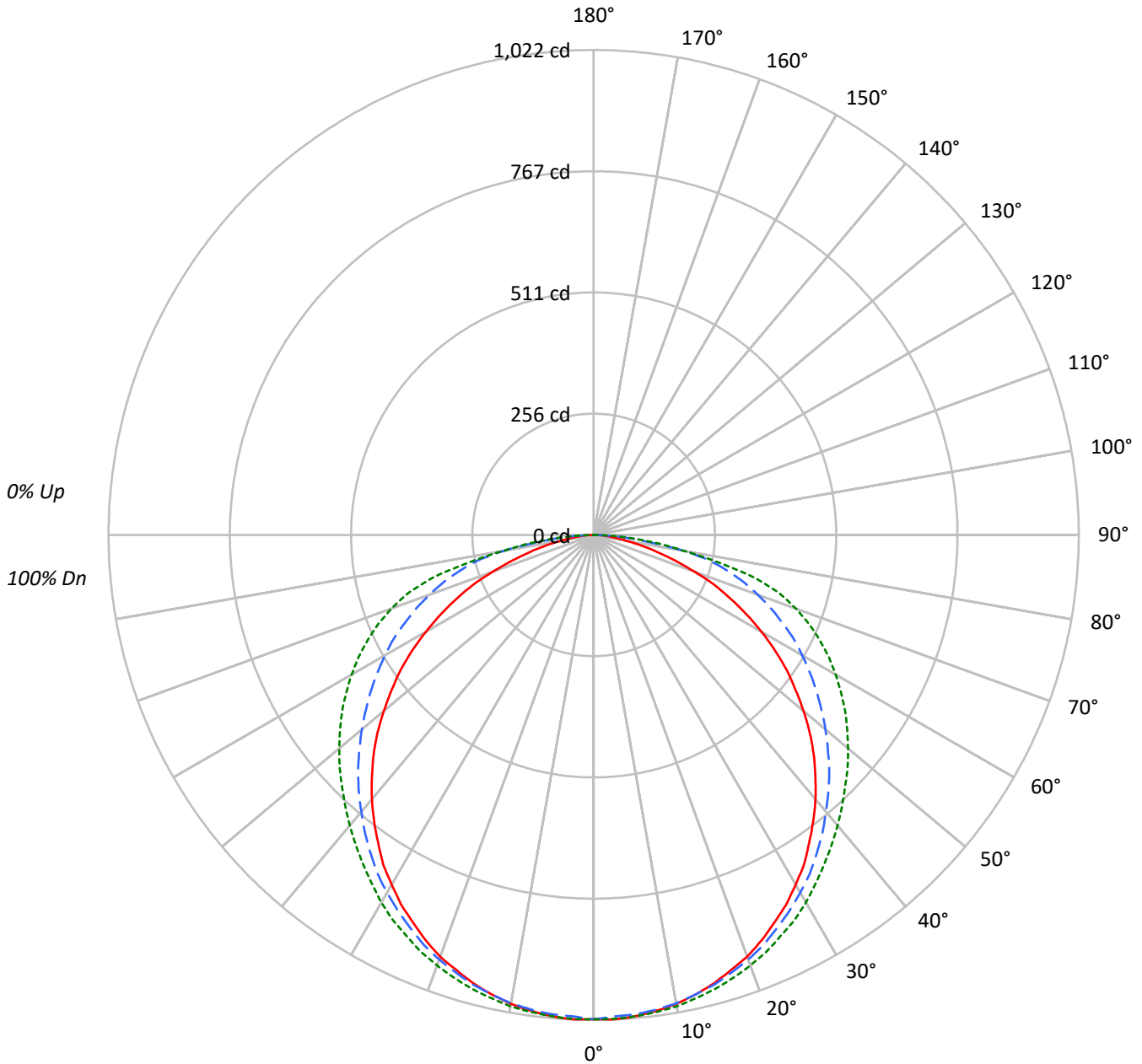
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3146.0 lumens  
Efficiency: N/A  
Efficacy: 104.9 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°	1441	1441	1441
5°	1442	1437	1442
10°	1438	1436	1446
15°	1430	1434	1447
20°	1420	1430	1450
25°	1403	1423	1452
30°	1387	1419	1457
35°	1364	1411	1459
40°	1339	1403	1473
45°	1309	1401	1496
50°	1267	1400	1536
55°	1222	1410	1591
60°	1152	1431	1662
65°	1064	1465	1755
70°	929	1516	1869
75°	754	1594	1932
80°	557	1564	1564
85°	428	1151	1302



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	96.7	3.1
10°-20°	277.7	8.8
20°-30°	422.7	13.4
30°-40°	513.3	16.3
40°-50°	542.3	17.2
50°-60°	511.7	16.3
60°-70°	425.5	13.5
70°-80°	279.9	8.9
80°-90°	76.3	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°	797.1	25.3
0°-40°	1310.3	41.7
0°-60°	2364.3	75.2
0°-90°	3146.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3146.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1021	1021	1021	1021	1021	
5°	1018	1018	1014	1018	1018	97
15°	978	980	981	990	990	276
25°	901	906	914	930	932	416
35°	792	801	819	840	847	495
45°	656	669	702	736	749	505
55°	496	518	573	627	647	442
65°	319	356	439	503	526	315
75°	138	202	292	346	354	149
85°	26	58	71	79	80	32
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1020.7	1020.7	1020.7	1020.7	1020.7
2.5°	1022.0	1020.7	1015.4	1020.7	1020.7
5°	1018.1	1018.1	1014.1	1018.1	1018.1
7.5°	1011.5	1011.5	1008.8	1014.1	1014.1
10°	1003.6	1003.6	1002.3	1008.8	1008.8
12.5°	991.8	992.9	991.8	999.6	999.6
15°	978.5	979.8	981.3	990.5	990.5
17.5°	961.5	964.1	966.7	977.2	978.5
20°	945.7	946.9	952.2	964.1	965.4
22.5°	924.7	928.6	935.2	946.9	951.0
25°	900.8	906.1	914.0	929.8	932.4
27.5°	878.4	882.5	893.0	910.1	915.4
30°	850.8	857.4	870.5	887.7	894.3
32.5°	824.4	831.1	846.9	865.2	870.5
35°	791.6	800.8	819.1	840.3	846.9
37.5°	759.9	769.1	791.6	815.2	823.3
40°	727.0	737.5	761.4	788.9	799.4
42.5°	691.4	705.9	732.3	762.5	774.5
45°	655.8	669.1	701.9	736.2	749.4
47.5°	617.8	633.6	669.1	709.9	725.8
50°	576.9	596.6	637.5	682.2	699.4
52.5°	536.1	558.5	604.5	654.5	673.1
55°	496.5	517.6	572.9	627.0	646.7
57.5°	453.0	479.5	540.0	597.9	617.8
60°	408.3	437.3	507.0	567.5	588.7
62.5°	363.5	396.4	475.4	536.1	558.5
65°	318.7	355.7	438.6	503.2	525.6
67.5°	275.2	316.1	404.4	468.9	491.2
70°	225.2	276.6	367.4	430.7	453.0
72.5°	179.1	238.5	331.8	391.3	411.0
75°	138.3	201.6	292.3	346.3	354.3
77.5°	101.4	164.6	251.6	269.9	271.3
80°	68.5	131.6	192.4	189.7	192.4
82.5°	44.8	98.8	121.1	135.7	137.0
85°	26.4	58.0	71.1	79.1	80.4
87.5°	13.1	19.7	25.1	26.4	28.9
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)