

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: P881195

Luminaire Tested: **24CZ2-40VHE-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: P881195  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P473819)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 10/2/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-40VHE-UNV-B40  
Description: 2X4 4000 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 4000K CCT AND RIBBED LENS

Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

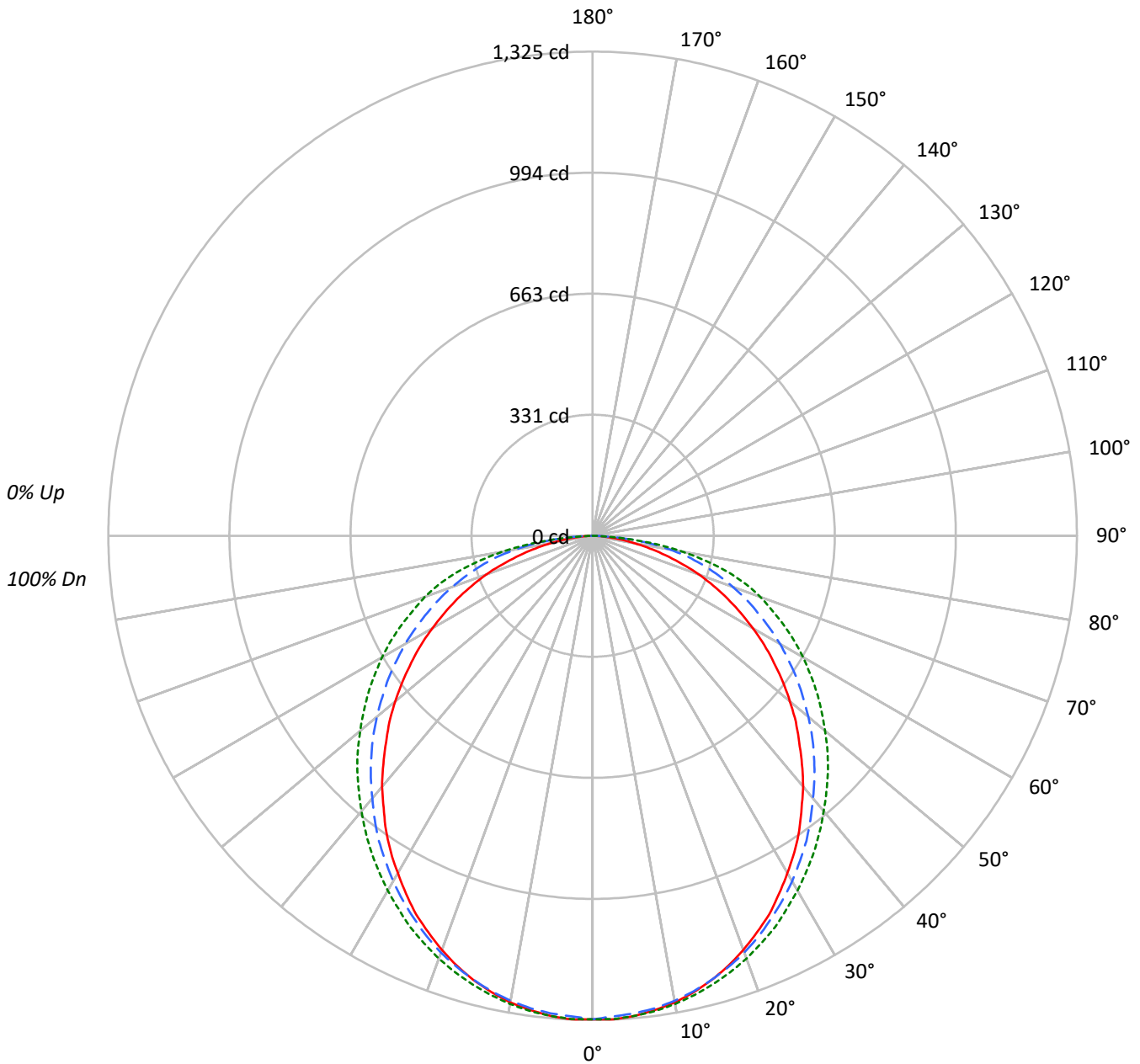
Lumens per Lamp: N/A  
Luminaire Lumens: 3829.0 lumens  
Efficiency: N/A  
Efficacy: 127.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 1.92' x L: 3.98' x H: 0')  
CIE Type: Direct

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	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83																			
2	98	89	82	76	95	88	81	75	84	78	74	81	76	72	78	74	70	68																			
3	89	78	70	63	87	77	69	63	74	67	61	71	65	60	68	63	59	57																			
4	82	69	60	53	79	68	59	53	65	58	52	63	57	51	61	55	51	48																			
5	75	62	53	46	73	61	52	46	58	51	45	56	50	44	55	49	44	42																			
6	69	56	46	40	67	55	46	40	53	45	39	51	44	39	49	43	39	37																			
7	64	50	41	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32																			
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29																			
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26																			
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	23																			

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

	0°	45°	90°
0°	1867	1867	1867
5°	1868	1859	1868
10°	1858	1852	1864
15°	1839	1838	1857
20°	1812	1823	1849
25°	1780	1800	1840
30°	1737	1779	1827
35°	1698	1756	1819
40°	1652	1728	1812
45°	1595	1710	1817
50°	1547	1691	1823
55°	1490	1679	1843
60°	1429	1671	1877
65°	1361	1665	1926
70°	1281	1682	2014
75°	1127	1717	2094
80°	940	1730	2021
85°	672	1482	1503



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	125.1	3.3
10°-20°	356.3	9.3
20°-30°	534.5	14.0
30°-40°	638.1	16.7
40°-50°	661.0	17.3
50°-60°	608.5	15.9
60°-70°	490.9	12.8
70°-80°	320.7	8.4
80°-90°	94.0	2.5
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°	1015.8	26.5
0°-40°	1654.0	43.2
0°-60°	2923.4	76.3
0°-90°	3829.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3829.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1323	1323	1323	1323	1323	
5°	1319	1318	1312	1319	1319	125
15°	1259	1259	1258	1271	1271	355
25°	1143	1146	1156	1177	1182	526
35°	985	994	1019	1047	1056	616
45°	799	819	857	895	911	618
55°	606	632	682	732	749	542
65°	408	436	499	556	577	403
75°	207	246	315	369	384	221
85°	42	72	92	97	93	51
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1323.1	1323.1	1323.1	1323.1	1323.1
2.5°	1325.0	1323.1	1316.3	1324.4	1323.7
5°	1318.8	1317.6	1312.0	1319.4	1318.8
7.5°	1308.9	1308.3	1304.0	1312.0	1312.0
10°	1296.6	1295.3	1292.3	1301.5	1300.9
12.5°	1279.3	1278.7	1276.8	1287.9	1287.3
15°	1258.8	1258.8	1258.2	1270.6	1270.6
17.5°	1234.1	1234.7	1237.2	1251.4	1252.0
20°	1206.3	1208.8	1213.7	1229.8	1231.0
22.5°	1174.7	1179.6	1186.4	1204.4	1206.3
25°	1143.2	1145.6	1156.1	1177.1	1181.5
27.5°	1104.7	1111.0	1124.6	1146.3	1150.6
30°	1065.8	1074.5	1091.8	1114.1	1120.9
32.5°	1027.4	1035.0	1055.3	1080.7	1088.7
35°	985.4	994.1	1019.4	1047.3	1056.0
37.5°	939.0	952.6	979.3	1011.4	1020.6
40°	896.4	908.7	937.8	973.7	983.6
42.5°	847.5	862.9	898.2	934.7	947.0
45°	799.2	819.1	856.7	895.1	910.6
47.5°	754.1	770.1	814.7	858.0	871.5
50°	704.5	723.1	770.1	816.0	830.2
52.5°	655.8	678.0	725.5	773.8	789.3
55°	605.6	631.6	682.3	732.5	749.1
57.5°	557.3	583.4	635.9	689.1	706.4
60°	506.1	533.8	592.0	643.3	665.0
62.5°	456.5	484.3	545.6	601.3	621.7
65°	407.6	435.5	498.6	555.5	576.6
67.5°	357.0	387.2	454.7	509.8	530.1
70°	310.5	339.6	407.6	466.4	488.0
72.5°	257.3	292.0	361.3	419.3	439.8
75°	206.6	245.6	314.8	369.3	384.1
77.5°	159.6	198.6	267.8	308.7	317.9
80°	115.7	155.3	212.8	241.2	248.6
82.5°	74.9	115.7	154.0	173.2	175.6
85°	41.5	71.8	91.5	97.1	92.8
87.5°	14.8	27.2	26.6	21.6	17.3
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)