

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: P881188

Luminaire Tested: **24CZ2-40VHE-S-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: P881188  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P473969)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 10/2/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-40VHE-S-UNV-B35  
Description: 2X4 4000 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 3500K CCT AND SMOOTH LENS

Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

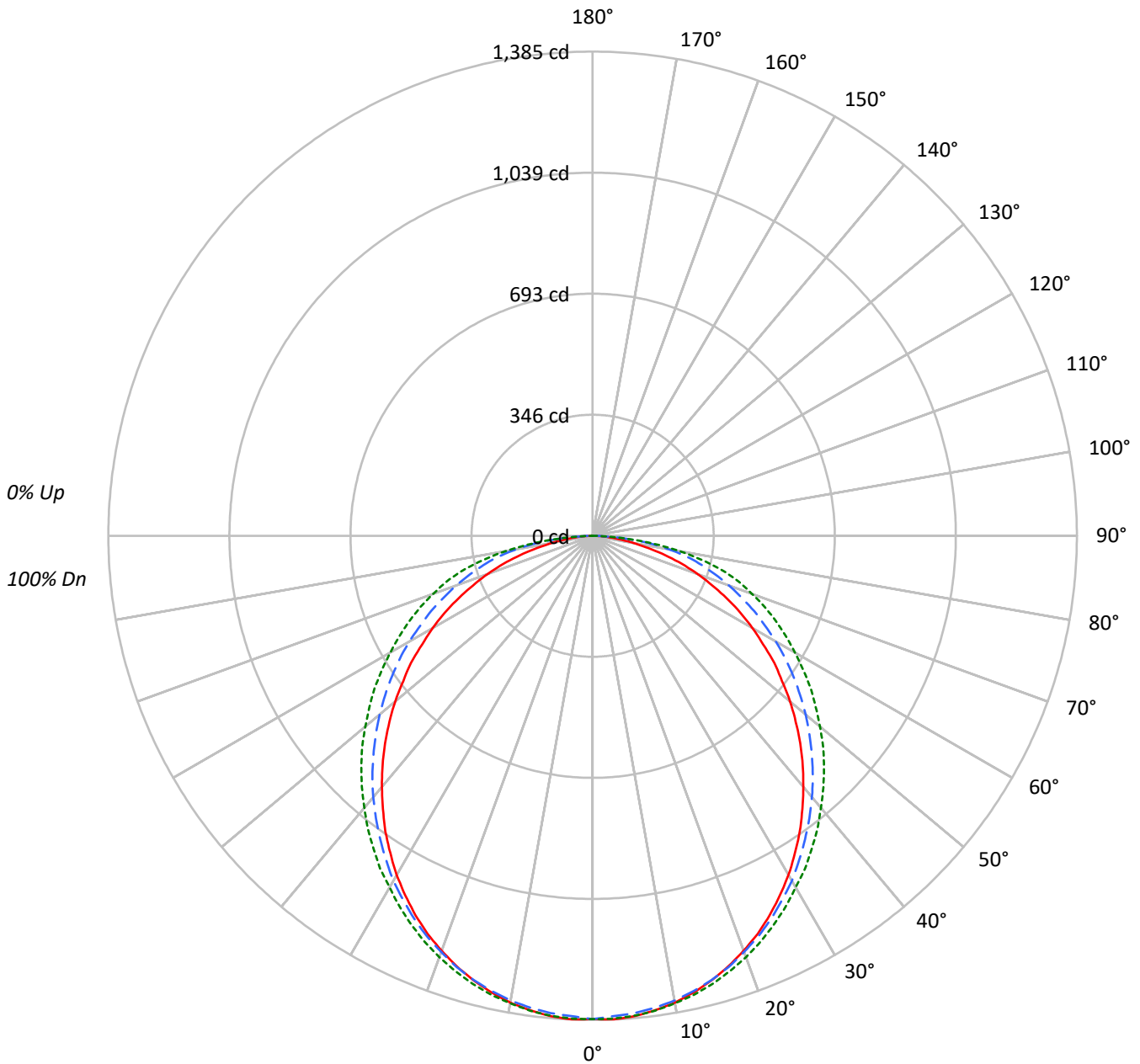
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3961.0 lumens  
Efficiency: N/A  
Efficacy: 132.0 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.25 / 1.35  
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	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68																			
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	59	57																			
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	55	51	49																			
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42																			
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37																			
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32																			
8	60	46	38	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29																			
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26																			
10	52	39	31	26	51	39	31	26	38	30	26	37	30	25	36	30	25	24																			

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

	0°	45°	90°
0°	1951	1951	1951
5°	1954	1942	1952
10°	1943	1935	1946
15°	1923	1922	1938
20°	1897	1902	1926
25°	1865	1881	1911
30°	1826	1858	1893
35°	1780	1825	1882
40°	1727	1798	1871
45°	1675	1770	1867
50°	1619	1746	1863
55°	1561	1724	1873
60°	1490	1708	1886
65°	1410	1701	1932
70°	1316	1710	2000
75°	1171	1760	2107
80°	957	1798	2057
85°	675	1571	1602



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	130.7	3.3
10°-20°	372.3	9.4
20°-30°	558.0	14.1
30°-40°	664.6	16.8
40°-50°	685.3	17.3
50°-60°	625.3	15.8
60°-70°	500.0	12.6
70°-80°	326.6	8.2
80°-90°	98.1	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°	1061.0	26.8
0°-40°	1725.6	43.6
0°-60°	3036.3	76.7
0°-90°	3961.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3961.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1383	1383	1383	1383	1383	
5°	1379	1377	1371	1379	1378	131
15°	1316	1317	1316	1327	1327	371
25°	1198	1200	1208	1226	1227	551
35°	1033	1040	1059	1086	1092	645
45°	839	854	887	924	936	647
55°	634	653	701	747	761	565
65°	422	451	509	560	578	419
75°	215	250	323	375	386	228
85°	42	75	97	99	99	53
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1382.6	1382.6	1382.6	1382.6	1382.6
2.5°	1384.6	1382.6	1375.3	1383.9	1382.6
5°	1379.4	1376.6	1370.8	1379.4	1378.1
7.5°	1368.9	1367.6	1361.7	1371.5	1370.2
10°	1355.9	1354.6	1350.0	1359.8	1357.8
12.5°	1337.7	1337.1	1333.8	1345.5	1344.2
15°	1316.2	1316.8	1315.5	1326.7	1326.7
17.5°	1291.5	1290.8	1293.4	1307.1	1305.8
20°	1262.8	1263.5	1266.7	1282.4	1282.4
22.5°	1232.9	1232.3	1239.4	1255.0	1256.3
25°	1197.8	1199.7	1208.2	1225.8	1227.1
27.5°	1160.0	1163.4	1173.8	1193.9	1195.8
30°	1120.4	1124.3	1139.9	1158.7	1161.3
32.5°	1076.8	1085.2	1099.5	1123.6	1130.1
35°	1033.2	1040.3	1059.3	1085.9	1092.4
37.5°	985.0	996.7	1018.2	1047.4	1056.0
40°	937.5	949.3	975.9	1006.6	1015.6
42.5°	889.3	901.8	932.3	966.8	976.6
45°	839.4	854.3	886.7	923.9	935.5
47.5°	788.0	805.5	840.7	880.9	894.0
50°	737.2	754.7	795.1	836.6	848.4
52.5°	682.5	704.6	747.6	792.5	804.2
55°	634.4	652.6	700.7	746.9	761.2
57.5°	577.8	602.5	653.9	700.7	714.4
60°	527.7	550.4	605.1	652.6	668.1
62.5°	476.9	500.3	554.9	608.9	623.4
65°	422.3	450.8	509.4	559.5	578.4
67.5°	370.2	400.1	460.1	513.3	532.9
70°	318.8	349.3	414.5	469.1	484.7
72.5°	268.1	300.0	367.6	421.0	439.2
75°	214.7	250.5	322.7	374.8	386.4
77.5°	164.6	204.3	277.1	312.3	320.8
80°	117.7	161.4	221.2	246.6	253.1
82.5°	77.4	119.7	165.2	178.9	176.9
85°	41.7	74.8	97.0	98.9	98.9
87.5°	16.2	30.0	30.6	23.4	22.1
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)