

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: P881189

Luminaire Tested: **24CZ2-40VHE-S-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: P881189
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-B40
Description: 2X4 4000 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 4000K CCT AND SMOOTH LENS

Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

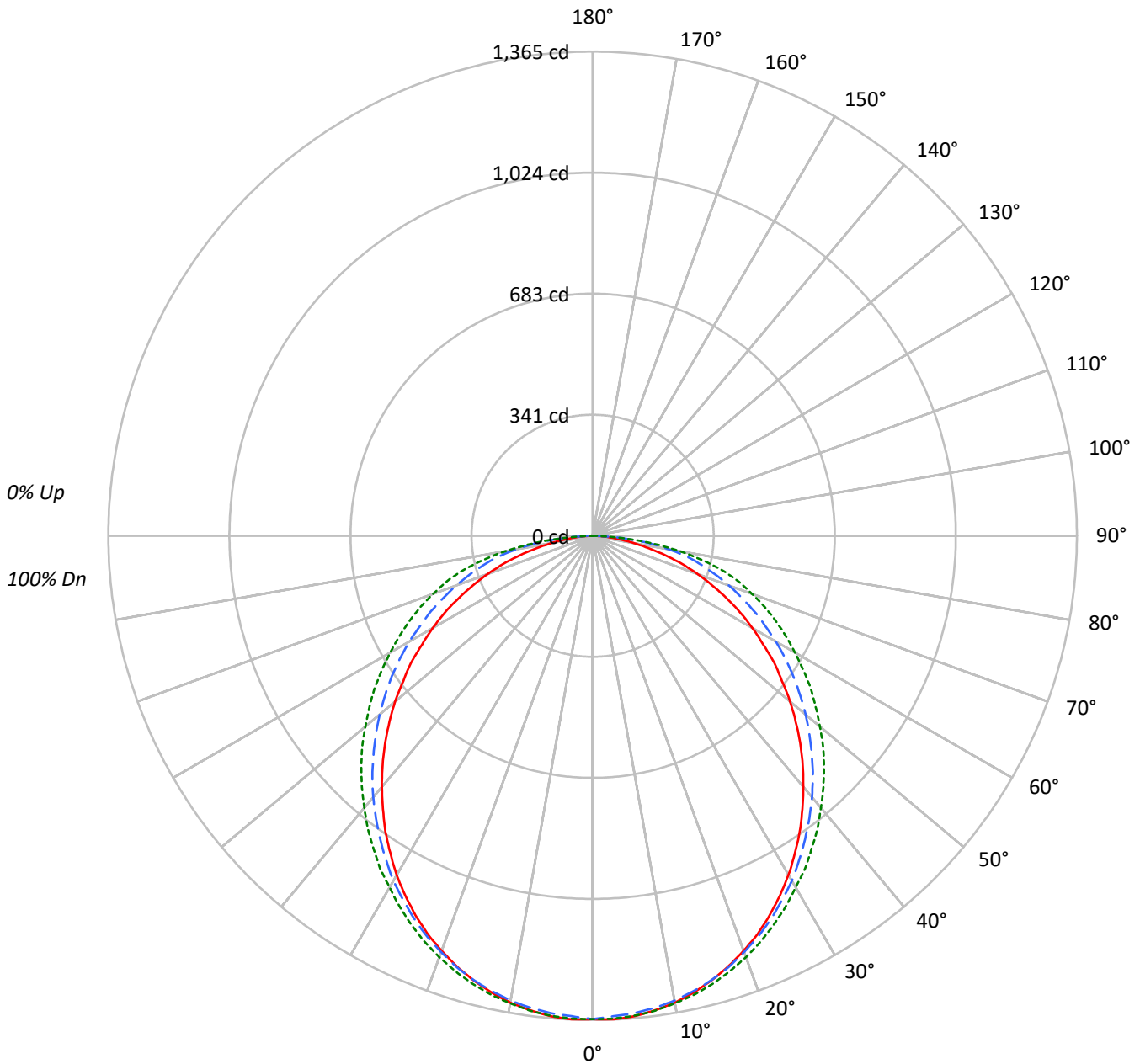
Lumens per Lamp: N/A
Luminaire Lumens: 3904.0 lumens
Efficiency: N/A
Efficacy: 130.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.25 / 1.35
Luminous Opening: Rectangular (W 1.92' x L: 3.98' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P881189

CATALOG NUMBER: 24CZ2-40VHE-S-UNV-B40

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°	1923	1923	1923
5°	1926	1914	1924
10°	1915	1907	1918
15°	1895	1894	1911
20°	1869	1875	1898
25°	1838	1854	1883
30°	1800	1831	1865
35°	1754	1799	1855
40°	1702	1772	1844
45°	1651	1744	1840
50°	1595	1721	1836
55°	1539	1699	1846
60°	1468	1683	1859
65°	1390	1676	1904
70°	1297	1686	1971
75°	1154	1735	2077
80°	943	1772	2028
85°	666	1548	1579



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CATALOG NUMBER: 24CZ2-40VHE-S-UNV-B40

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.8	3.3
10°-20°	366.9	9.4
20°-30°	550.0	14.1
30°-40°	655.1	16.8
40°-50°	675.4	17.3
50°-60°	616.3	15.8
60°-70°	492.8	12.6
70°-80°	321.9	8.2
80°-90°	96.7	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°	1045.8	26.8
0°-40°	1700.8	43.6
0°-60°	2992.6	76.7
0°-90°	3904.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3904.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1363	1363	1363	1363	1363	
5°	1360	1357	1351	1360	1358	129
15°	1297	1298	1297	1308	1308	366
25°	1180	1182	1191	1208	1209	544
35°	1018	1025	1044	1070	1077	636
45°	827	842	874	911	922	638
55°	625	643	691	736	750	557
65°	416	444	502	551	570	413
75°	212	247	318	369	381	225
85°	41	74	96	98	98	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1362.7	1362.7	1362.7	1362.7	1362.7
2.5°	1364.6	1362.7	1355.6	1364.0	1362.7
5°	1359.5	1356.8	1351.1	1359.5	1358.2
7.5°	1349.2	1347.9	1342.1	1351.7	1350.4
10°	1336.4	1335.1	1330.6	1340.2	1338.3
12.5°	1318.5	1317.8	1314.6	1326.1	1324.9
15°	1297.2	1297.9	1296.6	1307.6	1307.6
17.5°	1272.9	1272.3	1274.8	1288.3	1287.0
20°	1244.6	1245.3	1248.5	1264.0	1264.0
22.5°	1215.2	1214.6	1221.6	1237.0	1238.2
25°	1180.5	1182.5	1190.8	1208.2	1209.4
27.5°	1143.3	1146.6	1156.9	1176.7	1178.6
30°	1104.3	1108.1	1123.5	1142.0	1144.6
32.5°	1061.3	1069.6	1083.7	1107.5	1113.9
35°	1018.3	1025.3	1044.0	1070.2	1076.6
37.5°	970.8	982.3	1003.6	1032.4	1040.8
40°	924.0	935.6	961.9	992.1	1001.0
42.5°	876.5	888.8	918.9	952.9	962.5
45°	827.3	842.0	874.0	910.6	922.1
47.5°	776.6	793.9	828.6	868.2	881.1
50°	726.6	743.9	783.7	824.6	836.2
52.5°	672.7	694.5	736.8	781.1	792.6
55°	625.3	643.2	690.6	736.2	750.3
57.5°	569.5	593.8	644.4	690.6	704.1
60°	520.1	542.5	596.3	643.2	658.5
62.5°	470.1	493.1	547.0	600.2	614.4
65°	416.2	444.3	502.0	551.4	570.1
67.5°	364.9	394.3	453.4	505.9	525.2
70°	314.2	344.3	408.5	462.4	477.7
72.5°	264.2	295.7	362.3	414.9	432.8
75°	211.6	246.9	318.1	369.4	380.9
77.5°	162.2	201.4	273.2	307.8	316.1
80°	116.0	159.0	218.0	243.1	249.5
82.5°	76.3	118.0	162.9	176.3	174.4
85°	41.1	73.7	95.6	97.5	97.5
87.5°	16.0	29.6	30.2	23.0	21.8
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)