

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: P881210

Luminaire Tested: **24CZ2-45VHE-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: P881210
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: 24CZ2-45VHE-UNV-B40
Description: 2X4 4500 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 4000K CCT AND RIBBED LENS

Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

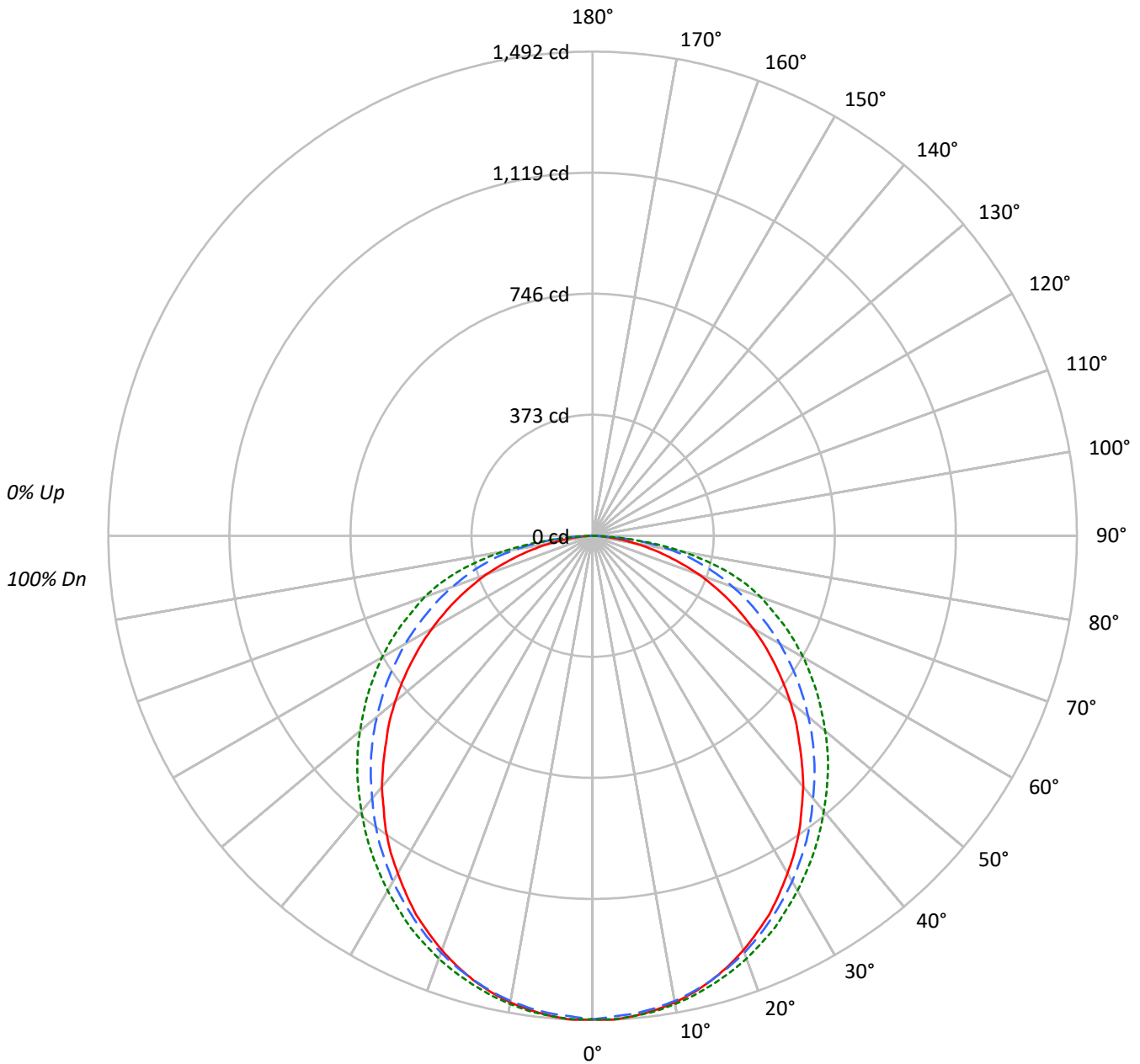
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4313.0 lumens
Efficiency: N/A
Efficacy: 126.9 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): 34
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°	2103	2103	2103
5°	2105	2094	2105
10°	2093	2086	2100
15°	2072	2071	2091
20°	2041	2053	2083
25°	2005	2028	2072
30°	1957	2004	2058
35°	1912	1978	2049
40°	1860	1946	2041
45°	1797	1926	2047
50°	1742	1905	2053
55°	1679	1891	2076
60°	1609	1882	2114
65°	1533	1876	2169
70°	1443	1894	2268
75°	1269	1934	2360
80°	1060	1948	2277
85°	756	1670	1692



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.9	3.3
10°-20°	401.3	9.3
20°-30°	602.0	14.0
30°-40°	718.8	16.7
40°-50°	744.5	17.3
50°-60°	685.4	15.9
60°-70°	552.9	12.8
70°-80°	361.2	8.4
80°-90°	105.9	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°	1144.2	26.5
0°-40°	1863.0	43.2
0°-60°	3293.0	76.3
0°-90°	4313.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4313.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1490	1490	1490	1490	1490	
5°	1486	1484	1478	1486	1486	141
15°	1418	1418	1417	1431	1431	400
25°	1288	1290	1302	1326	1331	592
35°	1110	1120	1148	1180	1189	693
45°	900	923	965	1008	1026	696
55°	682	711	769	825	844	611
65°	459	491	562	626	650	454
75°	233	277	355	416	433	248
85°	47	81	103	109	104	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1490.4	1490.4	1490.4	1490.4	1490.4
2.5°	1492.5	1490.4	1482.7	1491.8	1491.1
5°	1485.5	1484.1	1477.9	1486.2	1485.5
7.5°	1474.4	1473.7	1468.8	1477.9	1477.9
10°	1460.5	1459.1	1455.6	1466.0	1465.3
12.5°	1441.0	1440.3	1438.2	1450.7	1450.0
15°	1417.9	1417.9	1417.2	1431.2	1431.2
17.5°	1390.1	1390.8	1393.5	1409.5	1410.2
20°	1358.8	1361.5	1367.1	1385.2	1386.6
22.5°	1323.1	1328.7	1336.4	1356.7	1358.8
25°	1287.7	1290.4	1302.3	1325.9	1330.8
27.5°	1244.4	1251.5	1266.8	1291.1	1296.0
30°	1200.6	1210.3	1229.8	1255.0	1262.6
32.5°	1157.3	1165.8	1188.7	1217.3	1226.3
35°	1110.0	1119.7	1148.3	1179.7	1189.4
37.5°	1057.7	1073.0	1103.0	1139.2	1149.6
40°	1009.7	1023.6	1056.3	1096.8	1107.9
42.5°	954.6	972.0	1011.8	1052.8	1066.7
45°	900.2	922.6	965.0	1008.3	1025.7
47.5°	849.4	867.5	917.7	966.4	981.7
50°	793.6	814.5	867.5	919.1	935.1
52.5°	738.7	763.7	817.3	871.7	889.1
55°	682.2	711.4	768.6	825.1	843.8
57.5°	627.8	657.1	716.3	776.2	795.7
60°	570.0	601.3	666.9	724.6	749.1
62.5°	514.2	545.5	614.5	677.3	700.3
65°	459.1	490.6	561.7	625.7	649.5
67.5°	402.1	436.2	512.1	574.2	597.2
70°	349.8	382.5	459.1	525.4	549.7
72.5°	289.8	328.9	407.0	472.4	495.4
75°	232.8	276.6	354.6	416.0	432.7
77.5°	179.8	223.7	301.6	347.7	358.1
80°	130.4	174.9	239.7	271.7	280.1
82.5°	84.3	130.4	173.5	195.1	197.8
85°	46.7	80.8	103.1	109.4	104.5
87.5°	16.7	30.6	29.9	24.3	19.5
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)