

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: P881211

Luminaire Tested: **24CZ2-45VHE-UNV-B50**

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: P881211
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-B50
Description: 2X4 4500 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 5000K CCT AND RIBBED LENS

Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

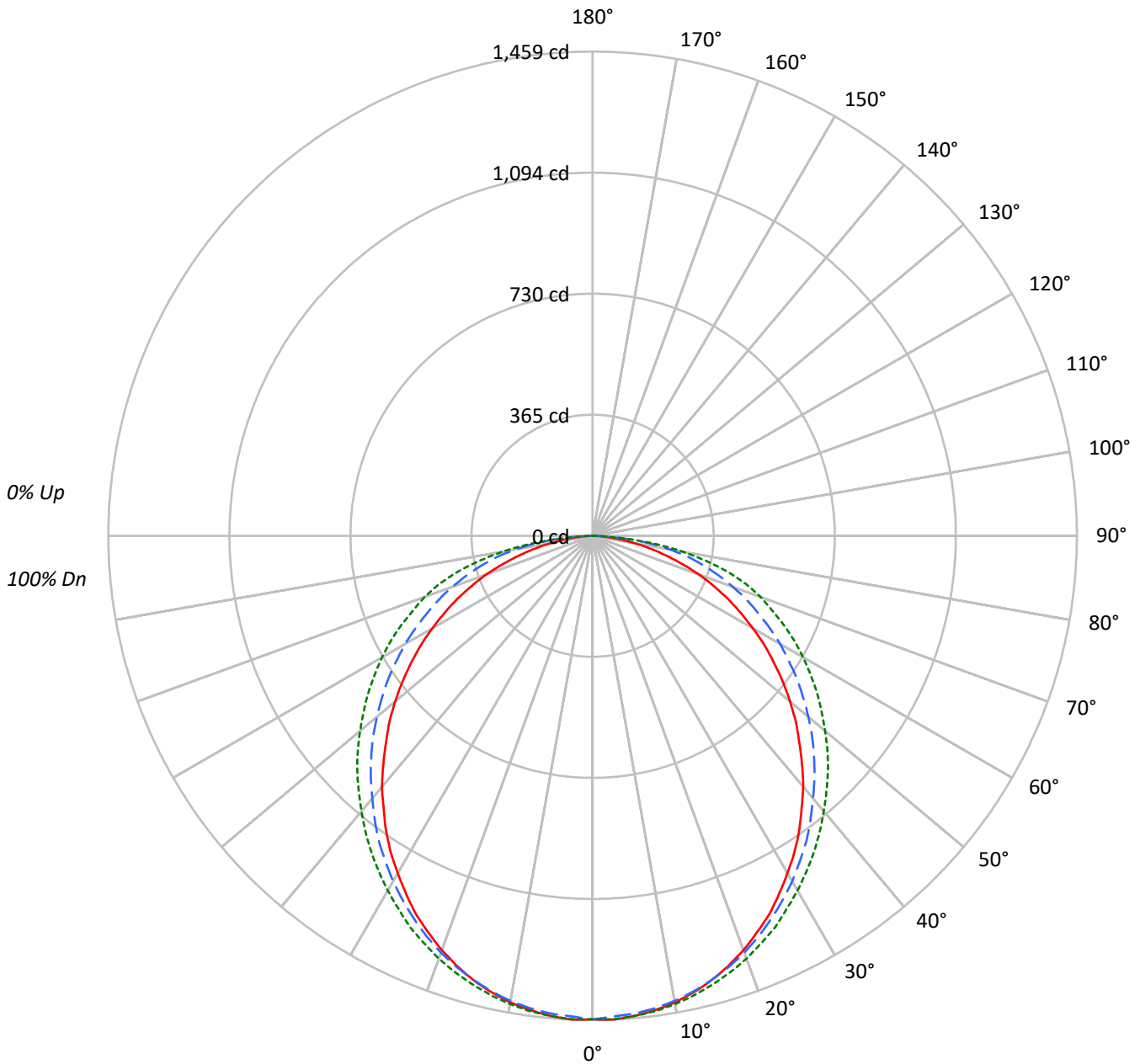
Lumens per Lamp: N/A
Luminaire Lumens: 4217.0 lumens
Efficiency: N/A
Efficacy: 124.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1.92' x L: 3.98' x H: 0')
CIE Type: Direct

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°	2057	2057	2057
5°	2058	2047	2058
10°	2046	2040	2053
15°	2026	2025	2045
20°	1995	2008	2036
25°	1961	1983	2026
30°	1913	1960	2012
35°	1870	1934	2004
40°	1819	1903	1996
45°	1757	1883	2002
50°	1704	1862	2007
55°	1641	1849	2030
60°	1573	1840	2067
65°	1499	1834	2121
70°	1411	1852	2218
75°	1241	1891	2307
80°	1036	1905	2225
85°	740	1632	1655



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.8	3.3
10°-20°	392.4	9.3
20°-30°	588.6	14.0
30°-40°	702.8	16.7
40°-50°	727.9	17.3
50°-60°	670.2	15.9
60°-70°	540.6	12.8
70°-80°	353.2	8.4
80°-90°	103.5	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°	1118.8	26.5
0°-40°	1821.6	43.2
0°-60°	3219.7	76.3
0°-90°	4217.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4217.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1457	1457	1457	1457	1457	
5°	1452	1451	1445	1453	1452	138
15°	1386	1386	1386	1399	1399	391
25°	1259	1262	1273	1296	1301	579
35°	1085	1095	1123	1153	1163	678
45°	880	902	944	986	1003	680
55°	667	696	752	807	825	597
65°	449	480	549	612	635	444
75°	228	270	347	407	423	243
85°	46	79	101	107	102	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1457.2	1457.2	1457.2	1457.2	1457.2
2.5°	1459.2	1457.2	1449.7	1458.6	1457.9
5°	1452.4	1451.1	1445.0	1453.1	1452.4
7.5°	1441.6	1440.9	1436.1	1445.0	1445.0
10°	1428.0	1426.6	1423.2	1433.4	1432.7
12.5°	1408.9	1408.2	1406.2	1418.4	1417.8
15°	1386.3	1386.3	1385.7	1399.4	1399.4
17.5°	1359.1	1359.8	1362.5	1378.2	1378.8
20°	1328.5	1331.2	1336.7	1354.4	1355.7
22.5°	1293.7	1299.1	1306.6	1326.5	1328.5
25°	1259.0	1261.7	1273.3	1296.4	1301.2
27.5°	1216.7	1223.6	1238.6	1262.4	1267.2
30°	1173.8	1183.4	1202.4	1227.0	1234.5
32.5°	1131.5	1139.8	1162.3	1190.2	1199.0
35°	1085.3	1094.8	1122.7	1153.4	1163.0
37.5°	1034.1	1049.1	1078.5	1113.9	1124.1
40°	987.2	1000.8	1032.8	1072.4	1083.2
42.5°	933.3	950.3	989.2	1029.4	1043.0
45°	880.1	902.0	943.5	985.8	1002.8
47.5°	830.5	848.2	897.3	944.9	959.9
50°	775.9	796.3	848.2	898.6	914.3
52.5°	722.2	746.7	799.1	852.3	869.3
55°	667.0	695.5	751.5	806.7	825.1
57.5°	613.8	642.5	700.3	758.9	778.0
60°	557.3	587.9	652.0	708.5	732.4
62.5°	502.8	533.4	600.9	662.2	684.7
65°	448.9	479.7	549.2	611.7	635.0
67.5°	393.1	426.5	500.7	561.4	583.9
70°	342.0	374.0	448.9	513.7	537.5
72.5°	283.4	321.6	397.9	461.8	484.4
75°	227.6	270.4	346.8	406.7	423.1
77.5°	175.8	218.7	294.9	340.0	350.2
80°	127.5	171.0	234.4	265.7	273.8
82.5°	82.4	127.5	169.6	190.7	193.4
85°	45.7	79.0	100.8	106.9	102.2
87.5°	16.3	29.9	29.2	23.8	19.0
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)