

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: P881205

Luminaire Tested: **24CZ2-45VHE-S-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: P881205
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: 24CZ2-45VHE-S-UNV-B50
Description: 2X4 4500 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 5000K CCT AND SMOOTH LENS

Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

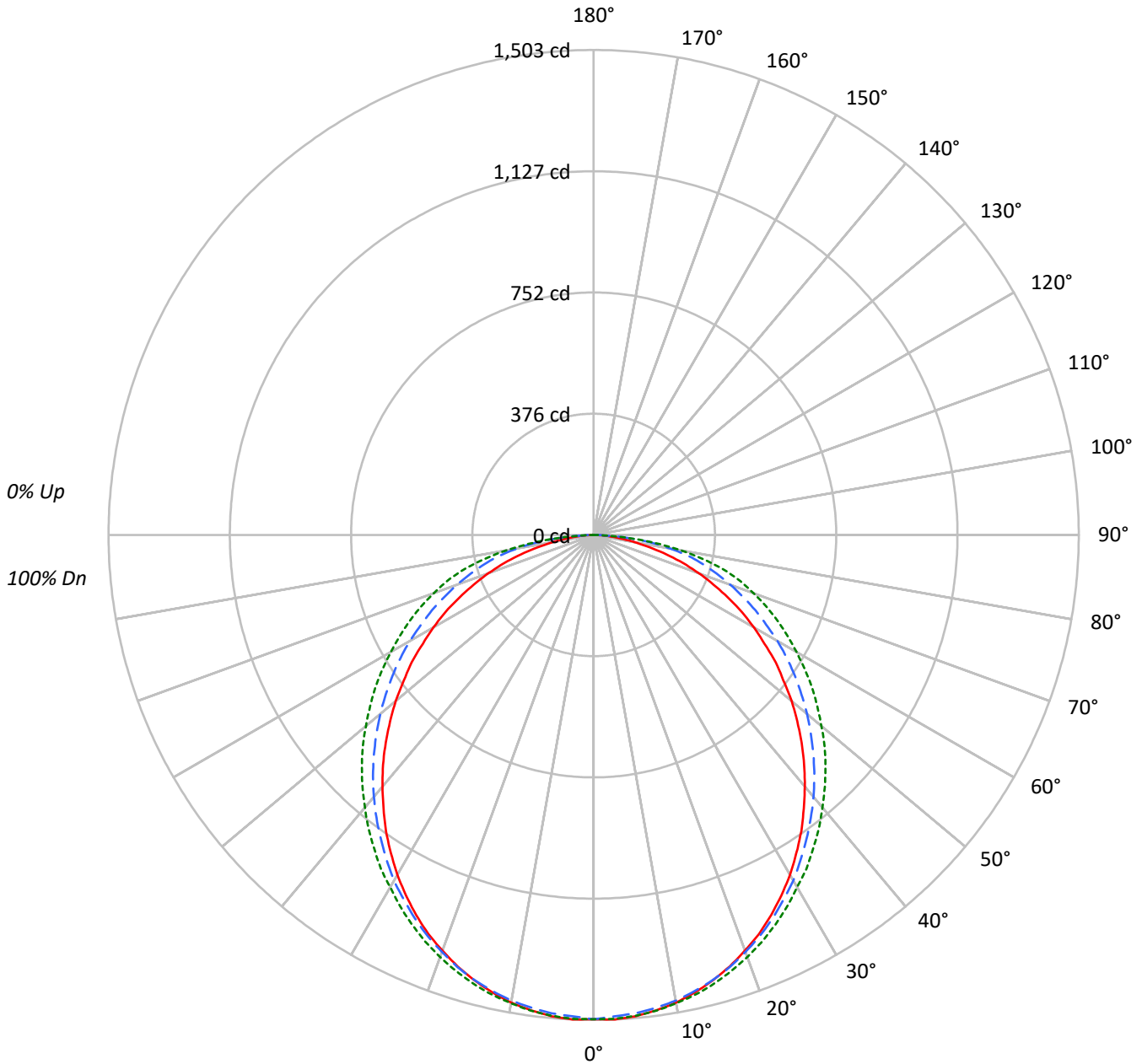
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4300.0 lumens
Efficiency: N/A
Efficacy: 126.5 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): 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	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°	2118	2118	2118
5°	2121	2108	2119
10°	2109	2100	2112
15°	2088	2087	2104
20°	2059	2065	2091
25°	2025	2042	2074
30°	1982	2017	2055
35°	1932	1981	2043
40°	1875	1952	2031
45°	1819	1921	2027
50°	1757	1895	2022
55°	1695	1872	2033
60°	1617	1854	2047
65°	1531	1847	2097
70°	1428	1857	2171
75°	1271	1910	2288
80°	1039	1951	2233
85°	732	1705	1739



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.9	3.3
10°-20°	404.1	9.4
20°-30°	605.8	14.1
30°-40°	721.5	16.8
40°-50°	743.9	17.3
50°-60°	678.9	15.8
60°-70°	542.8	12.6
70°-80°	354.6	8.2
80°-90°	106.5	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°	1151.8	26.8
0°-40°	1873.3	43.6
0°-60°	3296.1	76.7
0°-90°	4300.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4300.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1501	1501	1501	1501	1501	
5°	1497	1494	1488	1497	1496	142
15°	1429	1430	1428	1440	1440	403
25°	1300	1302	1312	1331	1332	599
35°	1122	1129	1150	1179	1186	701
45°	911	927	963	1003	1016	703
55°	689	708	761	811	826	613
65°	458	489	553	607	628	455
75°	233	272	350	407	420	248
85°	45	81	105	107	107	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1501.0	1501.0	1501.0	1501.0	1501.0
2.5°	1503.1	1501.0	1493.1	1502.4	1501.0
5°	1497.4	1494.5	1488.1	1497.4	1496.0
7.5°	1486.0	1484.6	1478.3	1488.8	1487.4
10°	1471.9	1470.5	1465.6	1476.1	1474.0
12.5°	1452.2	1451.5	1448.0	1460.6	1459.2
15°	1428.8	1429.5	1428.1	1440.2	1440.2
17.5°	1402.0	1401.3	1404.1	1418.9	1417.5
20°	1370.9	1371.6	1375.1	1392.2	1392.2
22.5°	1338.5	1337.8	1345.5	1362.4	1363.8
25°	1300.3	1302.4	1311.6	1330.7	1332.1
27.5°	1259.3	1262.9	1274.2	1296.1	1298.2
30°	1216.3	1220.5	1237.4	1257.9	1260.7
32.5°	1168.9	1178.1	1193.6	1219.8	1226.9
35°	1121.6	1129.3	1149.9	1178.8	1185.9
37.5°	1069.3	1082.0	1105.4	1137.1	1146.4
40°	1017.7	1030.6	1059.4	1092.7	1102.6
42.5°	965.5	979.0	1012.1	1049.6	1060.1
45°	911.2	927.4	962.6	1002.9	1015.6
47.5°	855.4	874.4	912.6	956.3	970.5
50°	800.3	819.3	863.1	908.2	921.1
52.5°	741.0	764.9	811.6	860.3	873.0
55°	688.7	708.4	760.7	810.9	826.4
57.5°	627.2	654.0	709.8	760.7	775.5
60°	572.8	597.5	656.8	708.4	725.3
62.5°	517.7	543.1	602.4	661.1	676.7
65°	458.4	489.4	553.0	607.4	627.9
67.5°	401.9	434.3	499.4	557.2	578.5
70°	346.1	379.2	450.0	509.3	526.2
72.5°	291.0	325.7	399.1	457.0	476.7
75°	233.1	272.0	350.3	406.8	419.5
77.5°	178.7	221.8	300.9	339.1	348.2
80°	127.8	175.2	240.1	267.7	274.8
82.5°	84.0	129.9	179.4	194.2	192.1
85°	45.2	81.2	105.3	107.4	107.4
87.5°	17.6	32.6	33.3	25.4	24.0
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)