

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: P880888

Luminaire Tested: **24CZ2-45VHE-S-B2750-W2D-3000K**

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: P880888  
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-B2750-W2D-3000K  
Description: 2X4 4500 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 3000K CCT AND SMOOTH LENS

Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

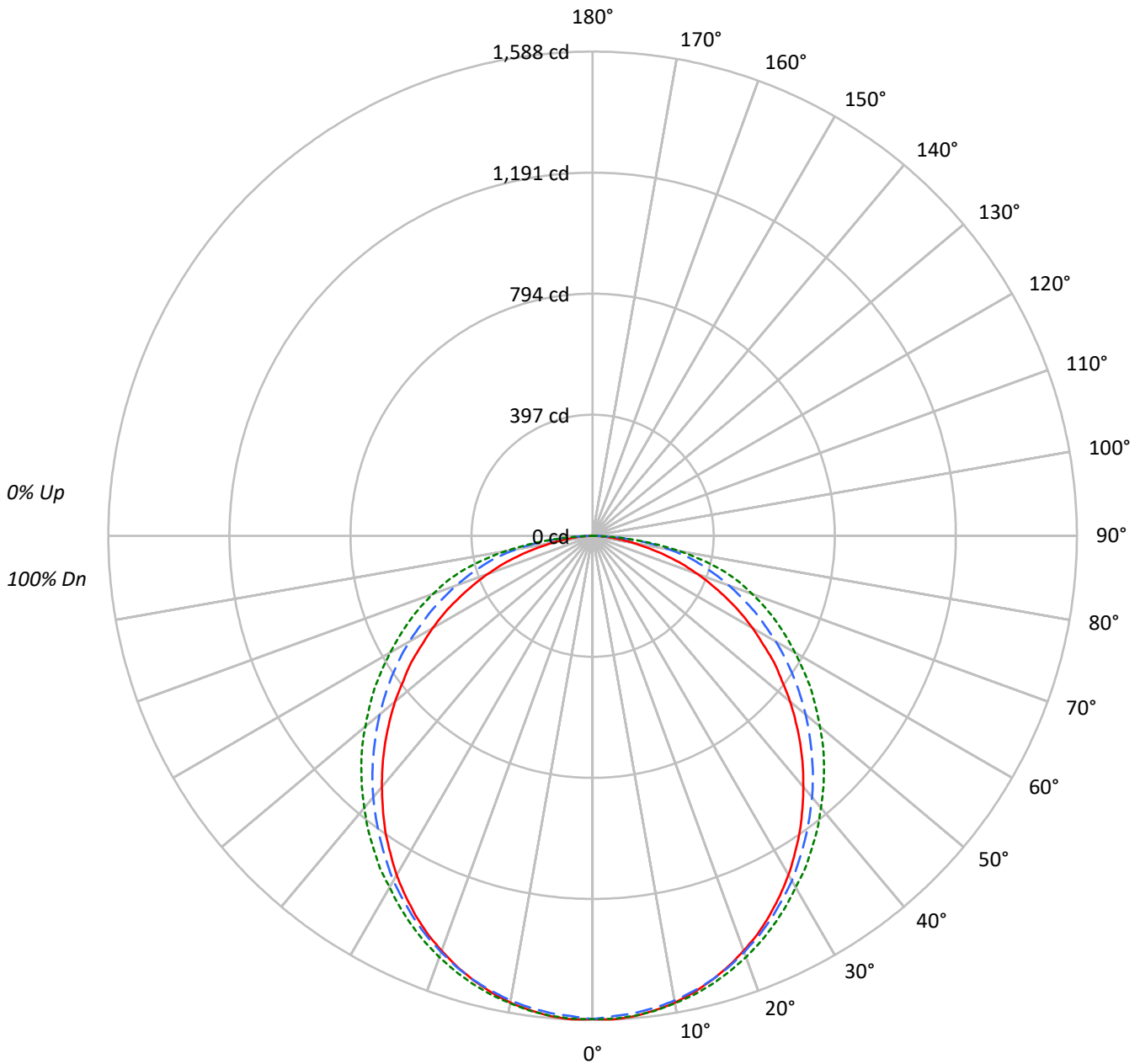
Lumens per Lamp: N/A  
Luminaire Lumens: 4542.0 lumens  
Efficiency: N/A  
Efficacy: 133.6 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.25 / 1.35  
Luminous Opening: Rectangular (W 1.92' x L: 3.98' x H: 0')  
CIE Type: Direct

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				20				
RC	80				70				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°	2238	2238	2238
5°	2241	2227	2239
10°	2228	2219	2231
15°	2205	2204	2223
20°	2175	2182	2209
25°	2139	2157	2191
30°	2094	2130	2170
35°	2041	2093	2158
40°	1981	2062	2146
45°	1921	2029	2141
50°	1856	2002	2136
55°	1790	1977	2148
60°	1708	1958	2162
65°	1617	1951	2215
70°	1509	1961	2293
75°	1343	2018	2416
80°	1097	2061	2359
85°	774	1801	1836



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	149.9	3.3
10°-20°	426.9	9.4
20°-30°	639.9	14.1
30°-40°	762.1	16.8
40°-50°	785.8	17.3
50°-60°	717.1	15.8
60°-70°	573.4	12.6
70°-80°	374.5	8.2
80°-90°	112.4	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°	1216.6	26.8
0°-40°	1978.8	43.6
0°-60°	3481.6	76.7
0°-90°	4542.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4542.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1585	1585	1585	1585	1585	
5°	1582	1579	1572	1582	1580	150
15°	1509	1510	1508	1521	1521	425
25°	1374	1376	1385	1406	1407	632
35°	1185	1193	1215	1245	1253	740
45°	962	980	1017	1059	1073	742
55°	727	748	804	856	873	648
65°	484	517	584	642	663	480
75°	246	287	370	430	443	262
85°	48	86	111	113	113	61
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1585.4	1585.4	1585.4	1585.4	1585.4
2.5°	1587.7	1585.4	1577.1	1586.9	1585.4
5°	1581.7	1578.6	1571.9	1581.7	1580.2
7.5°	1569.6	1568.2	1561.5	1572.6	1571.1
10°	1554.8	1553.3	1548.1	1559.2	1557.0
12.5°	1533.9	1533.2	1529.5	1542.9	1541.4
15°	1509.2	1510.0	1508.5	1521.3	1521.3
17.5°	1480.9	1480.2	1483.2	1498.8	1497.3
20°	1448.0	1448.8	1452.5	1470.5	1470.5
22.5°	1413.8	1413.1	1421.2	1439.1	1440.6
25°	1373.5	1375.7	1385.4	1405.6	1407.1
27.5°	1330.1	1334.0	1345.9	1369.0	1371.2
30°	1284.7	1289.2	1307.1	1328.7	1331.6
32.5°	1234.7	1244.4	1260.8	1288.5	1295.9
35°	1184.7	1192.9	1214.6	1245.1	1252.6
37.5°	1129.5	1142.9	1167.6	1201.1	1210.9
40°	1075.0	1088.6	1119.1	1154.2	1164.6
42.5°	1019.8	1034.1	1069.1	1108.6	1119.8
45°	962.5	979.6	1016.8	1059.4	1072.8
47.5°	903.5	923.6	964.0	1010.1	1025.1
50°	845.3	865.4	911.7	959.4	972.9
52.5°	782.7	808.0	857.2	908.7	922.1
55°	727.4	748.3	803.5	856.5	872.9
57.5°	662.5	690.8	749.8	803.5	819.1
60°	605.1	631.1	693.8	748.3	766.1
62.5°	546.9	573.7	636.3	698.3	714.8
65°	484.2	517.0	584.1	641.6	663.3
67.5°	424.5	458.8	527.5	588.6	611.0
70°	365.6	400.6	475.3	538.0	555.8
72.5°	307.4	344.0	421.5	482.7	503.6
75°	246.2	287.3	370.0	429.7	443.1
77.5°	188.7	234.3	317.8	358.1	367.8
80°	135.0	185.0	253.6	282.8	290.3
82.5°	88.7	137.2	189.5	205.1	202.9
85°	47.8	85.7	111.2	113.4	113.4
87.5°	18.6	34.4	35.1	26.8	25.3
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)