

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: P881201

Luminaire Tested: **24CZ2-45VHE-RDP-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: P881201  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P474311)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 10/2/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-45VHE-RDP-UNV-B40  
Description: 2X4 4500 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 4000K CCT AND RDP LENS  
  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

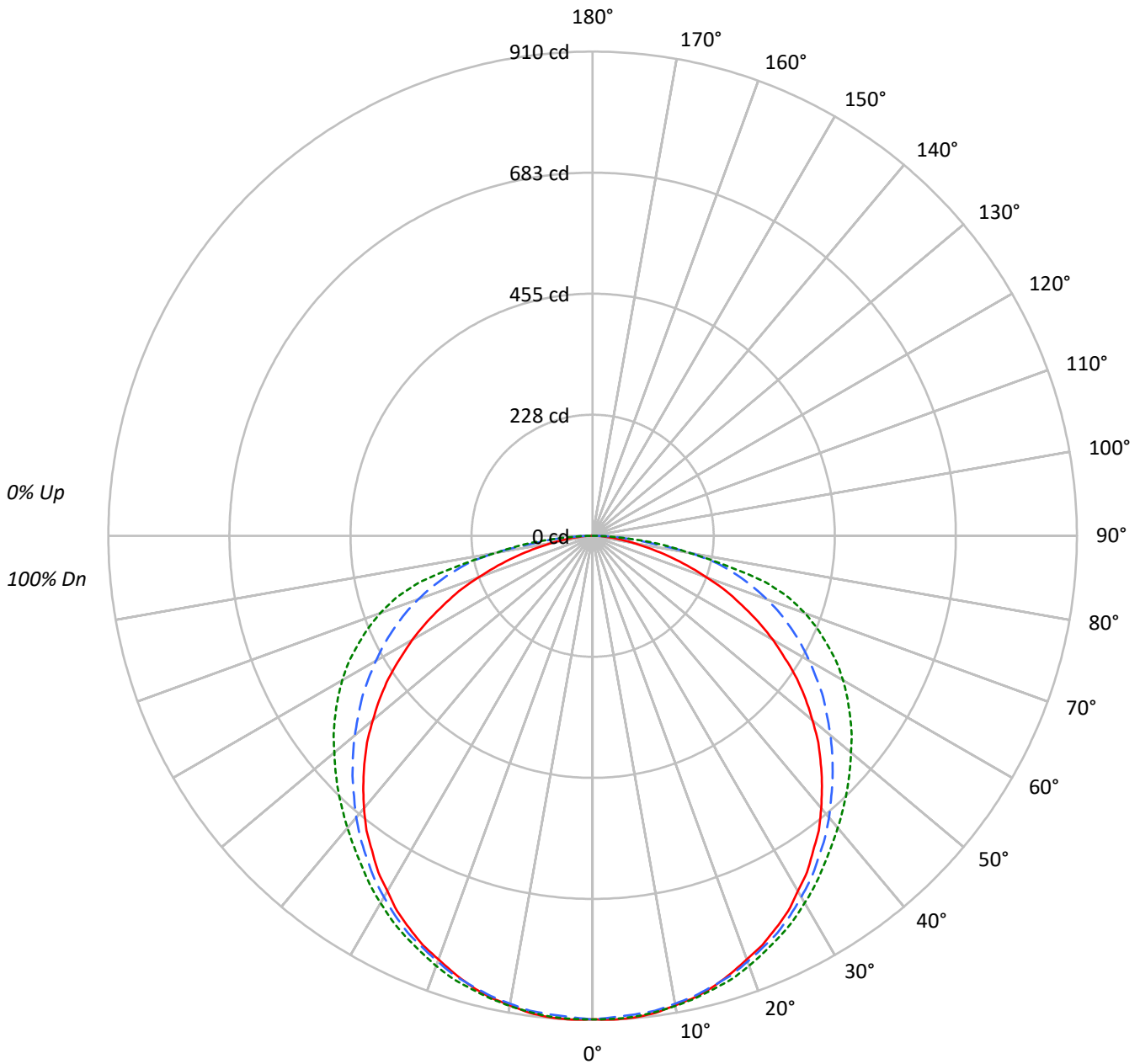
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2890.0 lumens  
Efficiency: N/A  
Efficacy: 85.0 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
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	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82																			
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67																			
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56																			
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47																			
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40																			
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35																			
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31																			
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27																			
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24																			
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1283	1283	1283
5°	1288	1279	1286
10°	1284	1280	1286
15°	1282	1280	1288
20°	1272	1279	1292
25°	1268	1281	1295
30°	1257	1278	1299
35°	1245	1274	1304
40°	1231	1273	1320
45°	1210	1273	1350
50°	1183	1281	1391
55°	1153	1302	1453
60°	1105	1327	1534
65°	1034	1374	1628
70°	940	1438	1751
75°	797	1516	1829
80°	629	1526	1479
85°	465	1161	1300



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.2	3.0
10°-20°	248.1	8.6
20°-30°	379.4	13.1
30°-40°	463.8	16.0
40°-50°	494.4	17.1
50°-60°	472.7	16.4
60°-70°	400.4	13.9
70°-80°	269.1	9.3
80°-90°	75.9	2.6
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°	713.7	24.7
0°-40°	1177.5	40.7
0°-60°	2144.6	74.2
0°-90°	2890.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2890.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	909	909	909	909	909	
5°	909	908	903	908	908	86
15°	877	877	876	883	882	247
25°	814	817	823	830	832	375
35°	722	728	740	754	757	453
45°	606	616	638	665	676	468
55°	469	486	529	570	591	417
65°	310	341	411	466	487	307
75°	146	199	278	325	336	157
85°	29	59	72	77	80	36
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	908.9	908.9	908.9	908.9	908.9
2.5°	910.3	910.3	905.9	908.9	908.9
5°	908.9	907.5	903.1	907.5	907.5
7.5°	904.5	903.1	900.2	904.5	903.1
10°	896.0	896.0	893.1	897.4	897.4
12.5°	888.7	887.3	885.9	891.7	890.3
15°	877.2	877.2	875.8	883.0	881.6
17.5°	863.0	864.4	865.9	871.6	873.0
20°	847.1	850.1	851.5	860.2	860.2
22.5°	832.9	834.3	837.2	845.7	845.7
25°	814.2	817.0	822.8	829.9	831.5
27.5°	795.5	797.0	804.2	814.2	815.6
30°	771.1	775.5	784.2	795.5	797.0
32.5°	749.7	753.9	764.0	775.5	778.4
35°	722.4	728.2	739.6	753.9	756.9
37.5°	698.1	702.3	716.7	732.5	736.7
40°	668.1	676.5	690.9	709.5	716.7
42.5°	637.9	646.6	663.8	688.0	696.5
45°	606.4	616.5	637.9	665.2	676.5
47.5°	574.9	586.4	610.7	642.2	655.1
50°	538.9	553.3	583.4	619.3	633.7
52.5°	504.6	521.8	554.7	594.9	613.5
55°	468.6	485.9	529.0	570.5	590.6
57.5°	428.6	451.4	498.9	546.2	567.6
60°	391.4	412.8	470.2	521.8	543.3
62.5°	351.2	379.9	441.5	495.9	517.5
65°	309.6	341.3	411.4	465.8	487.4
67.5°	272.4	306.8	381.3	435.8	457.2
70°	227.9	270.9	348.4	402.7	424.3
72.5°	186.3	233.6	314.0	367.0	387.0
75°	146.1	199.2	278.1	325.4	335.5
77.5°	109.0	164.8	240.8	260.9	253.8
80°	77.4	132.0	187.7	177.6	182.0
82.5°	50.3	100.4	116.2	132.0	136.1
85°	28.7	58.8	71.7	77.4	80.3
87.5°	12.9	21.6	28.7	28.7	27.3
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)