

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: P843070

Luminaire Tested: **24CZ2-45-HRP-UNV-B35**

Issue Date: 1/5/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P843070  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P295011)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 1/5/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-45-HRP-UNV-B35  
Description: 2X4 4500 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 3500K CCT AND HRP LENS  
  
Light Source: -  
Ballast/Driver: -

**Summary**

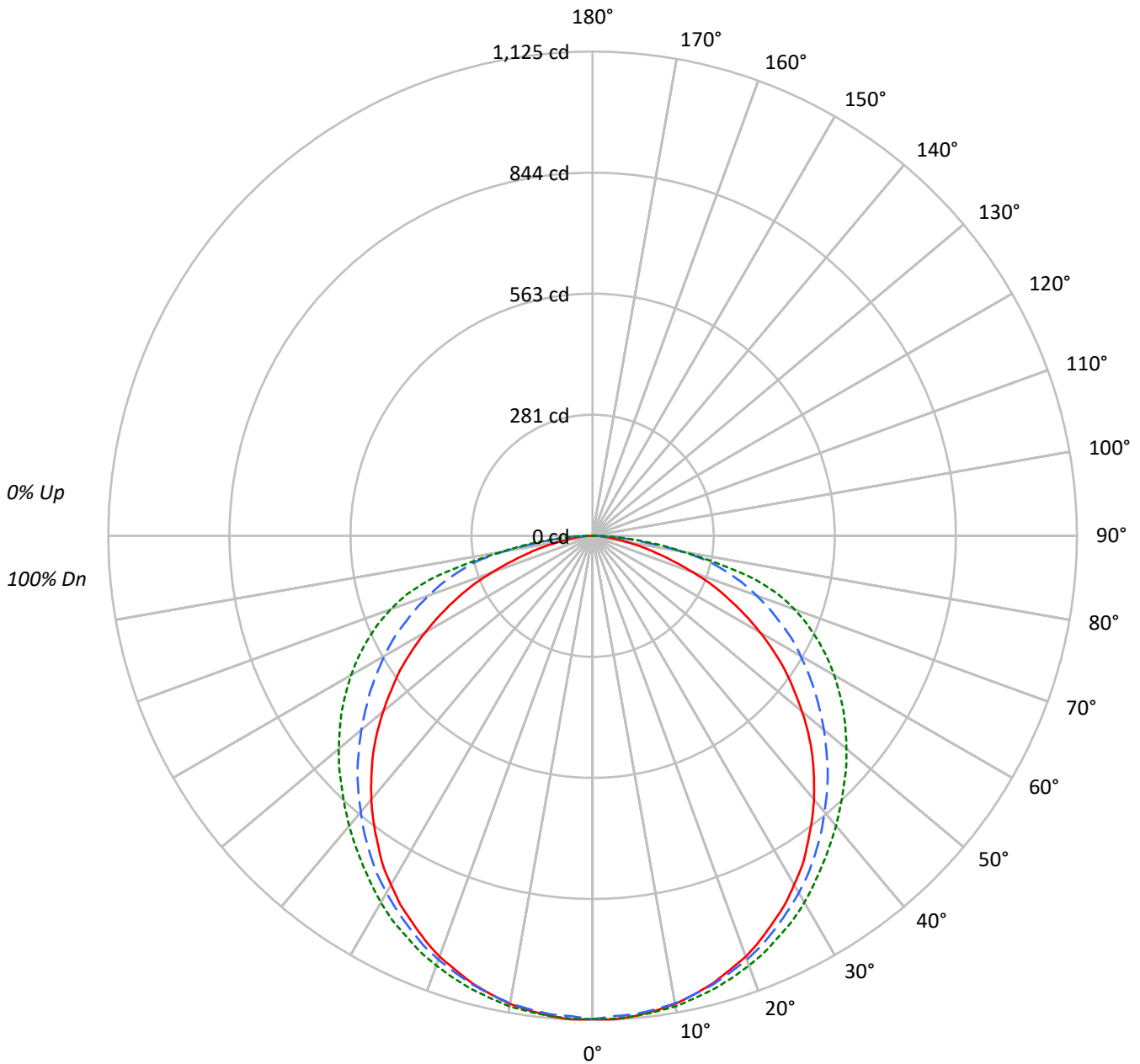
Lumens per Lamp: N/A  
Luminaire Lumens: 3462.0 lumens  
Efficiency: N/A  
Efficacy: 96.2 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 1.92' x L: 3.98' x H: 0')  
CIE Type: Direct

Input Watts (W): 36  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	101	96	93	96	93	90	92	90	87	89	86	84	82																			
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67																			
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56																			
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	50	48																			
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41																			
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36																			
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31																			
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28																			
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25																			
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24	23																			

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

	0°	45°	90°
0°	1585	1585	1585
5°	1587	1581	1587
10°	1583	1581	1591
15°	1573	1578	1593
20°	1563	1574	1596
25°	1544	1566	1598
30°	1526	1561	1604
35°	1501	1553	1606
40°	1474	1544	1621
45°	1441	1542	1646
50°	1394	1540	1690
55°	1344	1551	1751
60°	1269	1575	1829
65°	1172	1612	1931
70°	1023	1669	2057
75°	830	1754	2126
80°	612	1721	1721
85°	470	1268	1431



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.4	3.1
10°-20°	305.6	8.8
20°-30°	465.2	13.4
30°-40°	564.8	16.3
40°-50°	596.7	17.2
50°-60°	563.1	16.3
60°-70°	468.2	13.5
70°-80°	308.0	8.9
80°-90°	84.0	2.4
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°	877.1	25.3
0°-40°	1442.0	41.7
0°-60°	2601.8	75.2
0°-90°	3462.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3462.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1123	1123	1123	1123	1123	
5°	1120	1120	1116	1120	1120	106
15°	1077	1078	1080	1090	1090	304
25°	991	997	1006	1023	1026	457
35°	871	881	902	925	932	545
45°	722	736	772	810	825	556
55°	546	570	630	690	712	487
65°	351	391	483	554	578	347
75°	152	222	322	381	390	164
85°	29	64	78	87	88	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1123.3	1123.3	1123.3	1123.3	1123.3
2.5°	1124.7	1123.3	1117.4	1123.3	1123.3
5°	1120.4	1120.4	1115.9	1120.4	1120.4
7.5°	1113.1	1113.1	1110.2	1115.9	1115.9
10°	1104.5	1104.5	1102.9	1110.2	1110.2
12.5°	1091.4	1092.8	1091.4	1100.0	1100.0
15°	1076.9	1078.3	1079.7	1090.0	1090.0
17.5°	1058.0	1060.9	1063.8	1075.4	1076.9
20°	1040.7	1042.1	1047.8	1060.9	1062.4
22.5°	1017.4	1021.8	1029.0	1042.1	1046.4
25°	991.4	997.1	1005.9	1023.3	1026.1
27.5°	966.6	971.1	982.6	1001.4	1007.3
30°	936.3	943.5	958.0	976.9	984.0
32.5°	907.3	914.5	931.9	952.3	958.0
35°	871.1	881.1	901.6	924.7	931.9
37.5°	836.3	846.4	871.1	897.1	905.9
40°	799.9	811.6	837.8	868.2	879.7
42.5°	760.9	776.8	805.9	839.2	852.3
45°	721.8	736.3	772.5	810.2	824.7
47.5°	679.7	697.1	736.3	781.1	798.5
50°	634.9	656.6	701.5	750.8	769.7
52.5°	589.9	614.4	665.2	720.4	740.6
55°	546.3	569.6	630.4	689.9	711.6
57.5°	498.6	527.5	594.2	658.0	679.7
60°	449.4	481.3	558.0	624.6	647.8
62.5°	400.1	436.3	523.2	589.9	614.4
65°	350.8	391.3	482.7	553.7	578.2
67.5°	302.9	347.9	444.9	516.0	540.6
70°	247.9	304.3	404.4	473.9	498.6
72.5°	197.2	262.4	365.3	430.5	452.2
75°	152.2	221.7	321.7	381.2	389.8
77.5°	111.7	181.2	276.7	297.2	298.6
80°	75.3	145.0	211.7	208.6	211.7
82.5°	49.3	108.6	133.4	149.3	150.7
85°	29.0	63.8	78.3	86.9	88.4
87.5°	14.5	21.7	27.6	29.0	31.9
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)