

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: P881178

Luminaire Tested: **24CZ2-35VHE-SQR-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: P881178  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P474669)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 10/2/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-35VHE-SQR-UNV-B50  
Description: 2X4 3500 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 5000K CCT AND SQR LENS  
  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

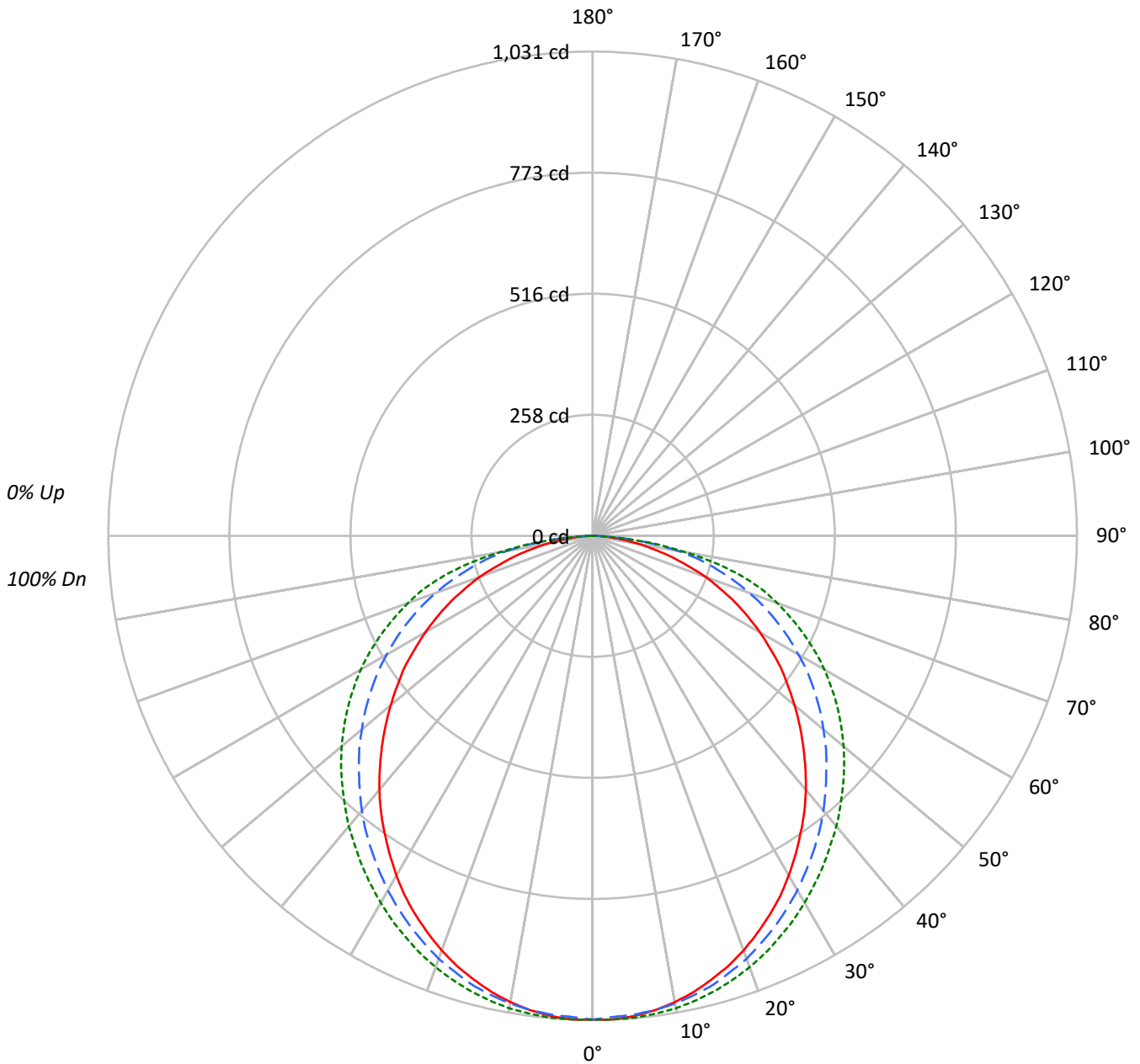
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3136.0 lumens  
Efficiency: N/A  
Efficacy: 116.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39  
Luminous Opening: Rectangular (W 1.92' x L: 3.98' x H: 0')  
CIE Type: Direct

Input Watts (W): 27  
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	101	96	93	96	93	90	92	90	87	89	87	84	82																			
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68																			
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56																			
4	81	69	59	53	79	67	59	52	65	57	51	62	56	51	60	55	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	39	50	43	38	49	43	38	36																			
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31																			
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28																			
9	55	42	33	28	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	25	35	29	24	23																			

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

	0°	45°	90°
0°	1454	1454	1454
5°	1454	1449	1459
10°	1445	1450	1464
15°	1429	1447	1466
20°	1411	1439	1468
25°	1388	1429	1468
30°	1361	1421	1470
35°	1330	1412	1476
40°	1301	1408	1488
45°	1266	1404	1504
50°	1232	1408	1531
55°	1203	1418	1566
60°	1162	1429	1609
65°	1116	1446	1658
70°	1058	1466	1724
75°	948	1486	1781
80°	798	1491	1617
85°	593	1127	1062



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	97.6	3.1
10°-20°	279.8	8.9
20°-30°	423.5	13.5
30°-40°	512.3	16.3
40°-50°	540.8	17.2
50°-60°	510.0	16.3
60°-70°	420.4	13.4
70°-80°	275.8	8.8
80°-90°	75.8	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°	800.9	25.5
0°-40°	1313.2	41.9
0°-60°	2363.9	75.4
0°-90°	3136.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3136.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1030	1030	1030	1030	1030	
5°	1026	1026	1023	1030	1030	97
15°	978	984	990	1002	1004	276
25°	891	902	918	937	943	410
35°	772	792	820	848	857	483
45°	634	663	704	741	754	489
55°	489	524	576	619	636	436
65°	334	374	433	479	496	330
75°	174	218	272	316	327	184
85°	37	63	70	68	66	45
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1030.1	1030.1	1030.1	1030.1	1030.1
2.5°	1031.0	1030.1	1025.6	1031.6	1031.0
5°	1026.0	1026.0	1023.1	1030.1	1030.1
7.5°	1019.0	1019.5	1018.5	1026.5	1026.5
10°	1008.1	1010.0	1011.5	1020.6	1021.5
12.5°	995.0	998.5	1001.5	1012.5	1013.6
15°	978.0	983.5	990.0	1001.5	1003.6
17.5°	960.4	967.0	974.0	989.0	991.5
20°	939.4	946.9	958.4	973.5	977.4
22.5°	915.9	926.3	938.4	956.4	961.4
25°	891.3	902.3	917.9	936.9	942.8
27.5°	864.8	877.7	895.3	917.4	923.8
30°	835.2	850.2	871.8	895.3	902.3
32.5°	804.1	821.6	845.7	871.8	879.7
35°	772.1	792.1	819.7	847.8	856.7
37.5°	740.4	760.5	793.1	822.7	831.1
40°	706.4	728.4	764.1	795.6	807.6
42.5°	670.3	696.5	734.0	769.1	780.6
45°	634.3	662.8	703.5	741.0	753.5
47.5°	597.7	629.3	673.9	711.9	726.4
50°	561.1	594.7	641.3	682.3	697.4
52.5°	524.0	559.1	609.7	653.3	666.9
55°	489.0	523.5	576.2	619.2	636.3
57.5°	448.4	487.5	543.1	586.7	603.2
60°	411.8	450.0	506.1	552.1	570.1
62.5°	372.2	411.3	470.4	516.5	534.1
65°	334.2	374.3	432.9	479.0	496.5
67.5°	293.1	335.2	395.3	439.9	457.0
70°	256.5	296.1	355.2	400.8	417.9
72.5°	211.9	257.1	313.6	358.7	377.2
75°	173.9	218.4	272.5	315.7	326.6
77.5°	133.8	178.4	232.0	260.0	267.5
80°	98.2	140.2	183.4	198.4	198.9
82.5°	66.1	103.2	127.8	135.3	134.3
85°	36.6	63.1	69.6	67.6	65.6
87.5°	15.0	21.0	17.0	12.0	9.5
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)