

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: P881191

Luminaire Tested: **24CZ2-40VHE-SQR-UNV-B35**

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: P881191  
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: 24CZ2-40VHE-SQR-UNV-B35  
Description: 2X4 4000 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 3500K CCT AND SQR LENS  
  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

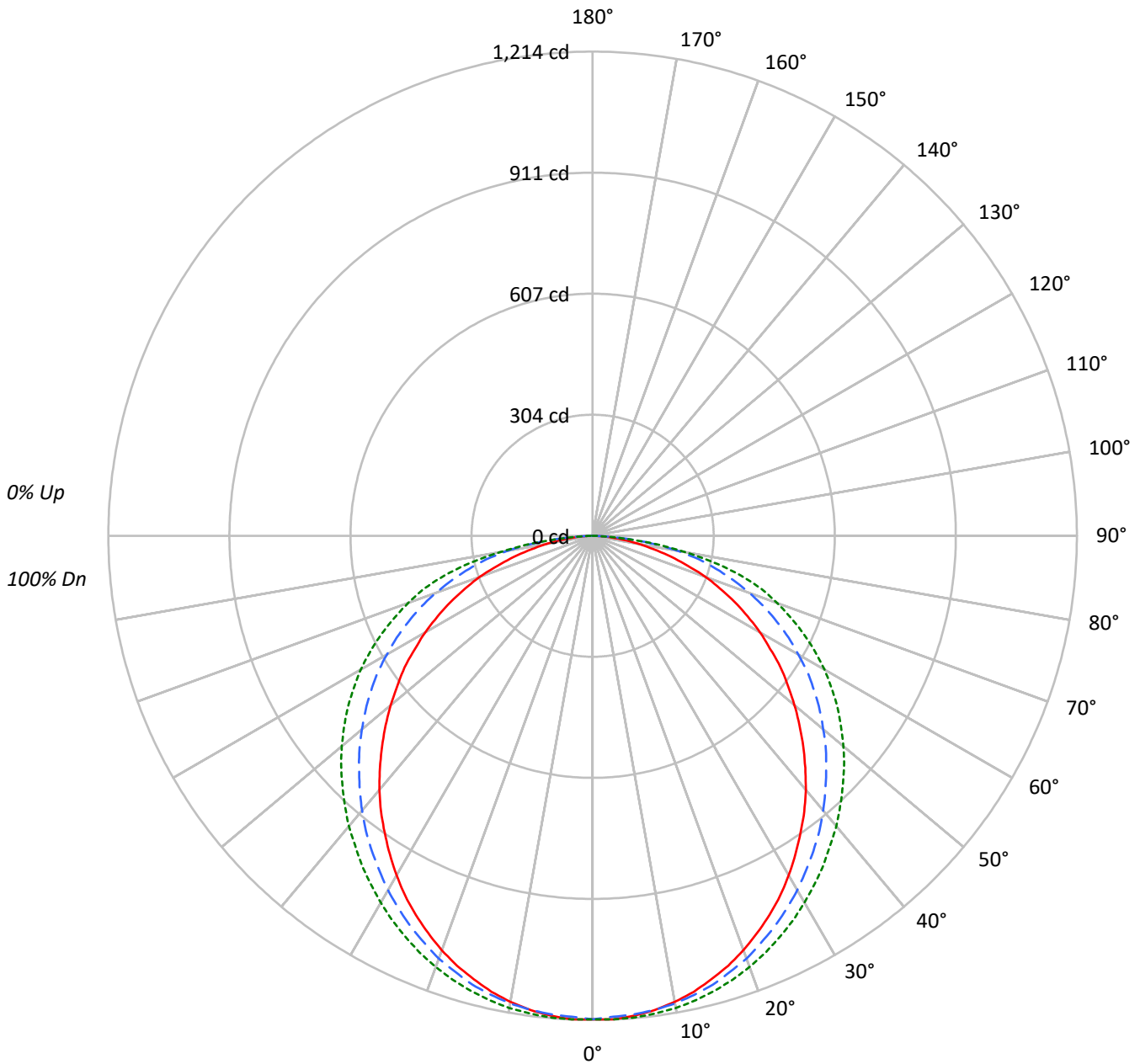
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3691.0 lumens  
Efficiency: N/A  
Efficacy: 123.0 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): 30  
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°	1711	1711	1711
5°	1711	1706	1718
10°	1700	1706	1723
15°	1682	1703	1726
20°	1661	1694	1728
25°	1634	1682	1728
30°	1602	1672	1731
35°	1566	1662	1737
40°	1532	1657	1751
45°	1490	1652	1770
50°	1450	1657	1802
55°	1416	1669	1843
60°	1368	1681	1894
65°	1313	1701	1951
70°	1246	1725	2029
75°	1116	1749	2097
80°	940	1754	1902
85°	696	1326	1250



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	114.9	3.1
10°-20°	329.3	8.9
20°-30°	498.4	13.5
30°-40°	603.0	16.3
40°-50°	636.5	17.2
50°-60°	600.2	16.3
60°-70°	494.8	13.4
70°-80°	324.6	8.8
80°-90°	89.2	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°	942.6	25.5
0°-40°	1545.6	41.9
0°-60°	2782.3	75.4
0°-90°	3691.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3691.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1212	1212	1212	1212	1212	
5°	1208	1208	1204	1212	1212	115
15°	1151	1158	1165	1179	1181	325
25°	1049	1062	1080	1103	1110	483
35°	909	932	965	998	1008	569
45°	746	780	828	872	887	576
55°	576	616	678	729	749	513
65°	393	440	510	564	584	388
75°	205	257	321	372	384	216
85°	43	74	82	80	77	53
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1212.4	1212.4	1212.4	1212.4	1212.4
2.5°	1213.5	1212.4	1207.1	1214.1	1213.5
5°	1207.6	1207.6	1204.2	1212.4	1212.4
7.5°	1199.4	1200.0	1198.8	1208.2	1208.2
10°	1186.5	1188.8	1190.5	1201.2	1202.3
12.5°	1171.1	1175.3	1178.7	1191.7	1193.0
15°	1151.0	1157.6	1165.2	1178.7	1181.2
17.5°	1130.4	1138.1	1146.4	1164.1	1167.0
20°	1105.7	1114.5	1128.0	1145.7	1150.4
22.5°	1078.0	1090.3	1104.4	1125.7	1131.6
25°	1049.1	1062.0	1080.3	1102.7	1109.7
27.5°	1017.8	1033.1	1053.8	1079.7	1087.3
30°	983.0	1000.6	1026.1	1053.8	1062.0
32.5°	946.4	967.0	995.3	1026.1	1035.4
35°	908.8	932.2	964.7	997.8	1008.4
37.5°	871.5	895.1	933.5	968.3	978.2
40°	831.4	857.3	899.3	936.4	950.6
42.5°	789.0	819.7	863.9	905.2	918.7
45°	746.5	780.1	827.9	872.1	886.9
47.5°	703.5	740.6	793.1	837.9	855.0
50°	660.4	699.9	754.8	803.1	820.8
52.5°	616.8	658.1	717.6	768.9	784.9
55°	575.6	616.2	678.2	728.8	748.9
57.5°	527.7	573.7	639.2	690.6	710.0
60°	484.7	529.6	595.6	649.9	671.0
62.5°	438.1	484.1	553.7	607.9	628.6
65°	393.3	440.5	509.5	563.8	584.3
67.5°	345.0	394.5	465.3	517.8	537.8
70°	301.9	348.5	418.0	471.8	491.8
72.5°	249.4	302.5	369.1	422.2	444.0
75°	204.7	257.0	320.7	371.5	384.5
77.5°	157.4	209.9	273.0	306.0	314.8
80°	115.6	165.0	215.8	233.6	234.0
82.5°	77.9	121.5	150.4	159.3	158.0
85°	43.0	74.3	81.9	79.6	77.2
87.5°	17.7	24.7	20.0	14.1	11.2
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)