

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: P881194

Luminaire Tested: **24CZ2-40VHE-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: P881194  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P473819)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 10/2/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-40VHE-UNV-B35  
Description: 2X4 4000 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 3500K CCT AND RIBBED LENS

Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

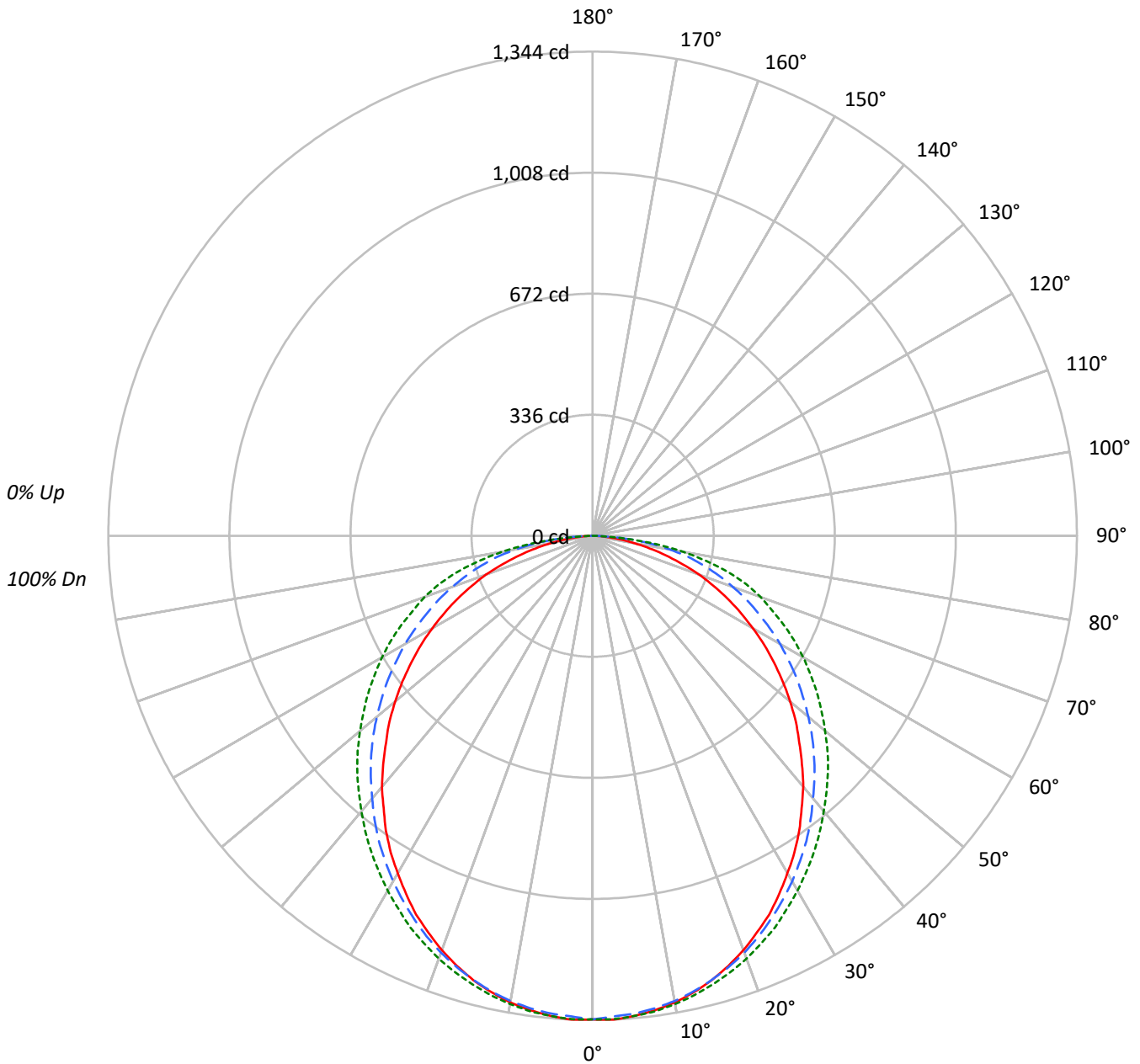
Lumens per Lamp: N/A  
Luminaire Lumens: 3885.0 lumens  
Efficiency: N/A  
Efficacy: 129.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 1.92' x L: 3.98' x H: 0')  
CIE Type: Direct

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				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	89	82	76	95	88	81	75	84	78	74	81	76	72	78	74	70	68			
3	89	78	70	63	87	77	69	63	74	67	61	71	65	60	68	63	59	57			
4	82	69	60	53	79	68	59	53	65	58	52	63	57	51	61	55	51	48			
5	75	62	53	46	73	61	52	46	58	51	45	56	50	44	55	49	44	42			
6	69	56	46	40	67	55	46	40	53	45	39	51	44	39	49	43	39	37			
7	64	50	41	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32			
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29			
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26			
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	23			

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

	0°	45°	90°
0°	1895	1895	1895
5°	1896	1886	1896
10°	1885	1879	1892
15°	1866	1865	1884
20°	1838	1849	1876
25°	1806	1827	1867
30°	1762	1805	1853
35°	1723	1782	1846
40°	1676	1753	1839
45°	1619	1735	1844
50°	1570	1716	1849
55°	1512	1703	1870
60°	1449	1696	1904
65°	1381	1689	1954
70°	1300	1707	2043
75°	1143	1742	2126
80°	954	1755	2051
85°	682	1504	1524



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	126.9	3.3
10°-20°	361.5	9.3
20°-30°	542.3	14.0
30°-40°	647.5	16.7
40°-50°	670.6	17.3
50°-60°	617.4	15.9
60°-70°	498.0	12.8
70°-80°	325.4	8.4
80°-90°	95.4	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°	1030.7	26.5
0°-40°	1678.1	43.2
0°-60°	2966.2	76.3
0°-90°	3885.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3885.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1342	1342	1342	1342	1342	
5°	1338	1337	1331	1339	1338	127
15°	1277	1277	1277	1289	1289	360
25°	1160	1162	1173	1194	1199	533
35°	1000	1009	1034	1063	1071	625
45°	811	831	869	908	924	627
55°	614	641	692	743	760	550
65°	414	442	506	564	585	409
75°	210	249	320	375	390	224
85°	42	73	93	98	94	52
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1342.5	1342.5	1342.5	1342.5	1342.5
2.5°	1344.4	1342.5	1335.6	1343.7	1343.1
5°	1338.1	1336.8	1331.2	1338.7	1338.1
7.5°	1328.1	1327.4	1323.1	1331.2	1331.2
10°	1315.5	1314.3	1311.2	1320.5	1319.9
12.5°	1298.0	1297.4	1295.5	1306.8	1306.1
15°	1277.2	1277.2	1276.6	1289.2	1289.2
17.5°	1252.1	1252.7	1255.3	1269.7	1270.3
20°	1223.9	1226.4	1231.4	1247.7	1249.0
22.5°	1191.8	1196.9	1203.7	1222.0	1223.9
25°	1159.9	1162.4	1173.0	1194.3	1198.7
27.5°	1120.9	1127.3	1141.1	1163.0	1167.4
30°	1081.4	1090.2	1107.7	1130.4	1137.3
32.5°	1042.5	1050.1	1070.8	1096.5	1104.6
35°	999.8	1008.6	1034.3	1062.6	1071.4
37.5°	952.7	966.5	993.6	1026.2	1035.6
40°	909.5	922.0	951.5	987.9	998.0
42.5°	859.9	875.5	911.4	948.3	960.9
45°	810.9	831.0	869.3	908.2	923.9
47.5°	765.1	781.4	826.6	870.5	884.3
50°	714.9	733.7	781.4	827.9	842.3
52.5°	665.4	687.9	736.2	785.2	800.8
55°	614.5	640.8	692.3	743.2	760.1
57.5°	565.5	591.9	645.2	699.2	716.7
60°	513.5	541.7	600.7	652.7	674.7
62.5°	463.2	491.4	553.6	610.1	630.8
65°	413.6	441.9	505.9	563.6	585.0
67.5°	362.2	392.9	461.3	517.2	537.9
70°	315.1	344.5	413.6	473.2	495.2
72.5°	261.1	296.3	366.6	425.5	446.3
75°	209.7	249.1	319.5	374.7	389.8
77.5°	161.9	201.5	271.7	313.2	322.6
80°	117.4	157.5	215.9	244.8	252.3
82.5°	75.9	117.4	156.3	175.7	178.2
85°	42.1	72.8	92.9	98.5	94.1
87.5°	15.0	27.6	26.9	21.9	17.5
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)