

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: P843092

Luminaire Tested: **24CZ2-45HE-S-UNV-B40**

Issue Date: 1/5/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P843092  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P272125)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 1/5/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-45HE-S-UNV-B40  
Description: 2X4 4500 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 4000K CCT AND SMOOTH LENS  
  
Light Source: -  
Ballast/Driver: -

**Summary**

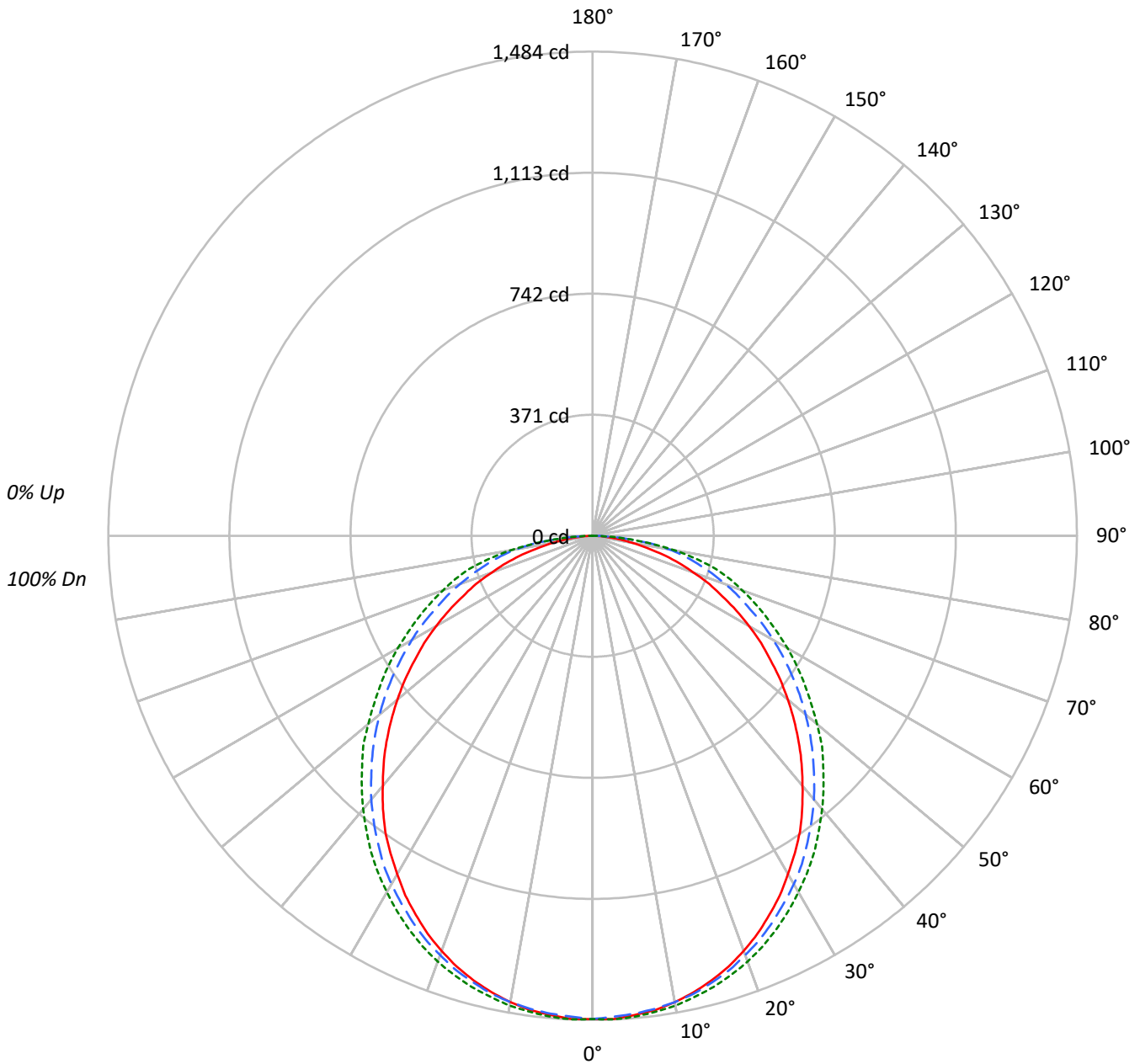
Lumens per Lamp: N/A  
Luminaire Lumens: 4216.0 lumens  
Efficiency: N/A  
Efficacy: 127.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 1.92' x L: 3.98' x H: 0')  
CIE Type: Direct

Input Watts (W): 33  
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	106	101	97	93	97	93	90	93	90	88	89	87	85	83			
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69			
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58			
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42			
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37			
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33			
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29			
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24			

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

	0°	45°	90°
0°	2090	2090	2090
5°	2089	2083	2096
10°	2080	2080	2096
15°	2060	2070	2092
20°	2033	2054	2086
25°	1996	2033	2073
30°	1951	2010	2056
35°	1908	1977	2040
40°	1843	1944	2016
45°	1783	1906	1994
50°	1714	1870	1970
55°	1638	1835	1951
60°	1561	1807	1947
65°	1462	1775	1959
70°	1353	1785	2011
75°	1212	1819	2125
80°	979	1926	2078
85°	737	1691	1648



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	140.2	3.3
10°-20°	400.6	9.5
20°-30°	602.3	14.3
30°-40°	717.4	17.0
40°-50°	734.2	17.4
50°-60°	661.0	15.7
60°-70°	519.1	12.3
70°-80°	336.9	8.0
80°-90°	104.2	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°	1143.1	27.1
0°-40°	1860.5	44.1
0°-60°	3255.8	77.2
0°-90°	4216.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4216.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1481	1481	1481	1481	1481	
5°	1474	1477	1470	1478	1480	140
15°	1410	1414	1417	1429	1432	398
25°	1282	1292	1306	1327	1331	590
35°	1108	1121	1148	1176	1184	691
45°	893	915	955	991	999	689
55°	666	695	746	785	793	597
65°	438	472	532	576	586	436
75°	222	265	334	379	390	235
85°	46	84	104	102	102	55
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1481.2	1481.2	1481.2	1481.2	1481.2
2.5°	1482.5	1482.5	1475.7	1482.5	1483.8
5°	1474.4	1477.1	1470.4	1478.4	1479.7
7.5°	1466.3	1466.3	1462.3	1470.4	1471.8
10°	1451.7	1452.9	1451.7	1461.0	1462.3
12.5°	1432.9	1435.5	1437.0	1446.3	1447.6
15°	1410.2	1414.2	1416.8	1428.9	1431.6
17.5°	1384.7	1388.7	1395.3	1408.7	1411.5
20°	1353.9	1359.2	1367.3	1384.7	1388.7
22.5°	1320.5	1325.8	1339.2	1355.2	1361.9
25°	1281.6	1292.2	1305.6	1327.1	1331.1
27.5°	1242.7	1252.1	1269.5	1292.2	1297.7
30°	1197.2	1211.9	1233.3	1256.1	1261.4
32.5°	1153.0	1167.7	1193.2	1217.4	1224.0
35°	1107.5	1120.9	1147.7	1175.7	1183.8
37.5°	1055.2	1072.6	1102.2	1130.2	1138.3
40°	1000.4	1021.8	1055.2	1084.7	1094.1
42.5°	948.1	970.8	1004.4	1036.5	1047.2
45°	893.2	914.7	954.9	991.0	999.1
47.5°	836.9	861.1	903.9	940.0	953.4
50°	780.8	806.3	851.8	889.2	897.3
52.5°	724.5	751.2	799.5	839.7	843.7
55°	665.6	695.1	745.9	784.8	792.9
57.5°	612.0	637.5	692.3	732.5	741.9
60°	553.1	581.2	640.1	677.7	689.6
62.5°	496.8	526.3	588.0	625.4	636.0
65°	437.9	471.5	531.6	575.9	586.5
67.5°	387.1	419.2	483.4	526.3	537.0
70°	328.0	364.3	432.6	476.8	487.4
72.5°	277.2	314.6	383.0	425.8	441.9
75°	222.3	265.1	333.5	379.0	389.7
77.5°	168.8	218.3	287.8	322.7	322.7
80°	120.5	172.8	237.0	253.2	255.7
82.5°	79.1	129.9	175.4	174.1	174.1
85°	45.5	84.4	104.4	101.8	101.8
87.5°	17.4	34.9	37.4	37.4	36.1
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)