

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: P843096

Luminaire Tested: **24CZ2-45HE-SQR-UNV-B50**

Issue Date: 1/5/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P843096  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P388488)  
Test Lab: INNOVATION CENTER (G2)  
Issue Date: 1/5/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-45HE-SQR-UNV-B50  
Description: 2X4 4500 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 5000K CCT AND SQR LENS  
  
Light Source: -  
Ballast/Driver: -

**Summary**

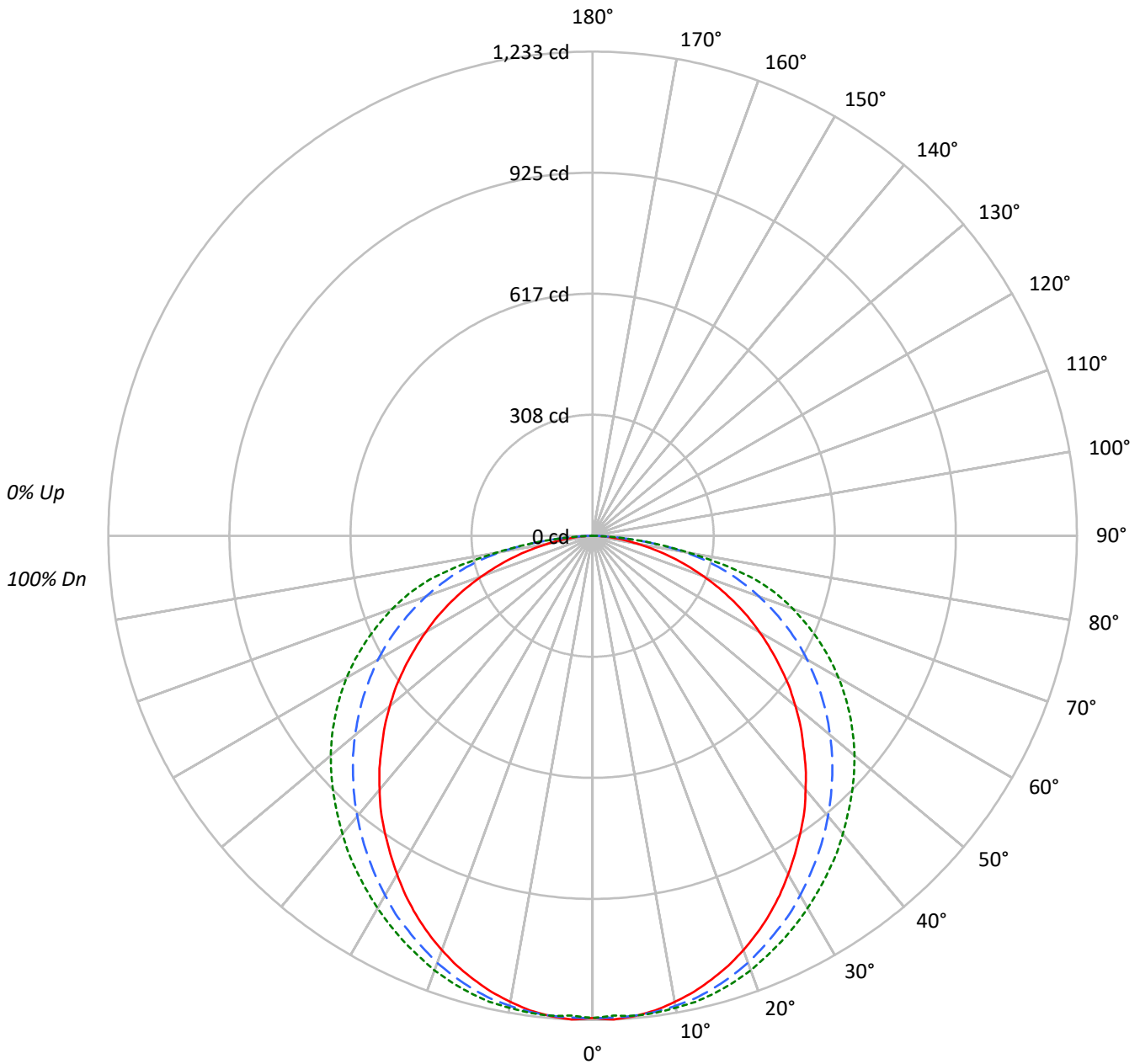
Lumens per Lamp: N/A  
Luminaire Lumens: 3842.0 lumens  
Efficiency: N/A  
Efficacy: 116.4 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41  
Luminous Opening: Rectangular (W 1.92' x L: 3.98' x H: 0')  
CIE Type: Direct

Input Watts (W): 33  
Input Voltage (V): NR  
Input Current (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

TEST NUMBER: P843096

CATALOG NUMBER: 24CZ2-45HE-SQR-UNV-B50

### Luminous Intensity Polar Plot





TEST NUMBER: P843096

CATALOG NUMBER: 24CZ2-45HE-SQR-UNV-B50

**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	100	96	92	96	93	89	92	89	87	89	86	84	82																			
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67																			
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56																			
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47																			
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43	41																			
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35																			
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31																			
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28																			
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25																			
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22																			

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

	0°	45°	90°
0°	1733	1733	1733
5°	1740	1738	1738
10°	1727	1742	1749
15°	1709	1743	1761
20°	1686	1738	1768
25°	1658	1729	1774
30°	1623	1722	1784
35°	1589	1718	1801
40°	1554	1718	1826
45°	1514	1722	1861
50°	1479	1733	1911
55°	1436	1751	1970
60°	1386	1780	2041
65°	1326	1813	2127
70°	1230	1859	2236
75°	1114	1923	2339
80°	938	1929	2010
85°	719	1457	1457



TEST NUMBER: P843096  
 CATALOG NUMBER: 24CZ2-45HE-SQR-UNV-B50

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.6	3.0
10°-20°	335.4	8.7
20°-30°	509.5	13.3
30°-40°	619.7	16.1
40°-50°	659.7	17.2
50°-60°	628.4	16.4
60°-70°	525.5	13.7
70°-80°	350.4	9.1
80°-90°	96.9	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°	961.4	25.0
0°-40°	1581.1	41.2
0°-60°	2869.2	74.7
0°-90°	3842.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3842.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1228	1228	1228	1228	1228	
5°	1228	1220	1227	1227	1227	116
15°	1170	1172	1193	1202	1205	330
25°	1064	1078	1110	1129	1139	490
35°	922	949	997	1030	1045	577
45°	759	799	863	911	933	586
55°	584	634	712	774	800	522
65°	397	455	543	610	637	392
75°	204	269	353	412	429	216
85°	44	82	90	89	90	54
90°	0	0	0	0	0	



TEST NUMBER: P843096

CATALOG NUMBER: 24CZ2-45HE-SQR-UNV-B50

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1228.0	1228.0	1228.0	1228.0	1228.0
2.5°	1233.1	1224.2	1228.0	1228.0	1223.1
5°	1228.0	1220.4	1226.9	1226.9	1226.9
7.5°	1219.3	1212.9	1223.1	1225.5	1225.5
10°	1205.3	1202.8	1215.5	1219.3	1220.4
12.5°	1190.1	1188.8	1206.6	1211.5	1215.5
15°	1169.7	1172.3	1192.6	1201.5	1205.3
17.5°	1148.2	1153.2	1176.1	1188.8	1192.6
20°	1122.8	1130.4	1157.1	1169.7	1177.4
22.5°	1095.0	1106.3	1134.2	1149.4	1158.3
25°	1064.5	1078.3	1110.1	1129.1	1139.3
27.5°	1031.5	1049.3	1086.1	1107.5	1117.7
30°	995.9	1016.2	1056.9	1082.3	1095.0
32.5°	959.1	983.2	1027.7	1055.6	1070.7
35°	922.3	949.0	997.2	1030.2	1045.3
37.5°	885.6	912.1	965.5	1001.0	1020.1
40°	843.7	875.3	932.6	971.8	990.9
42.5°	803.1	837.3	898.3	941.3	961.7
45°	758.6	799.3	862.6	911.0	932.6
47.5°	718.1	758.6	827.2	878.0	902.1
50°	673.7	716.7	789.1	845.0	870.4
52.5°	630.5	675.0	751.0	810.7	836.1
55°	583.7	634.3	711.8	773.9	800.5
57.5°	536.7	591.3	671.1	735.9	762.6
60°	491.0	546.7	630.5	695.3	723.2
62.5°	445.3	501.1	588.6	654.6	681.3
65°	397.0	455.4	542.9	610.2	636.9
67.5°	348.9	409.7	497.3	564.5	589.9
70°	298.1	362.9	450.5	516.4	541.8
72.5°	251.3	315.9	402.1	466.9	491.0
75°	204.3	268.9	352.7	412.4	428.9
77.5°	158.6	223.2	298.1	337.5	341.3
80°	115.4	176.4	237.3	248.6	247.3
82.5°	77.3	131.9	163.7	164.9	168.7
85°	44.4	82.4	90.0	88.9	90.0
87.5°	17.8	29.2	25.4	19.0	19.0
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)