

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: P272083

Luminaire Tested: **24CZ2-45-UNV-L940-CD1-U**

Issue Date: 3/3/2020

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: P272083
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-45-UNV-L940-CD1-U
Description: 2'x4' TROFFER LED MODULE,RIBBED LENS, 90CRI
Light Source: (84) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

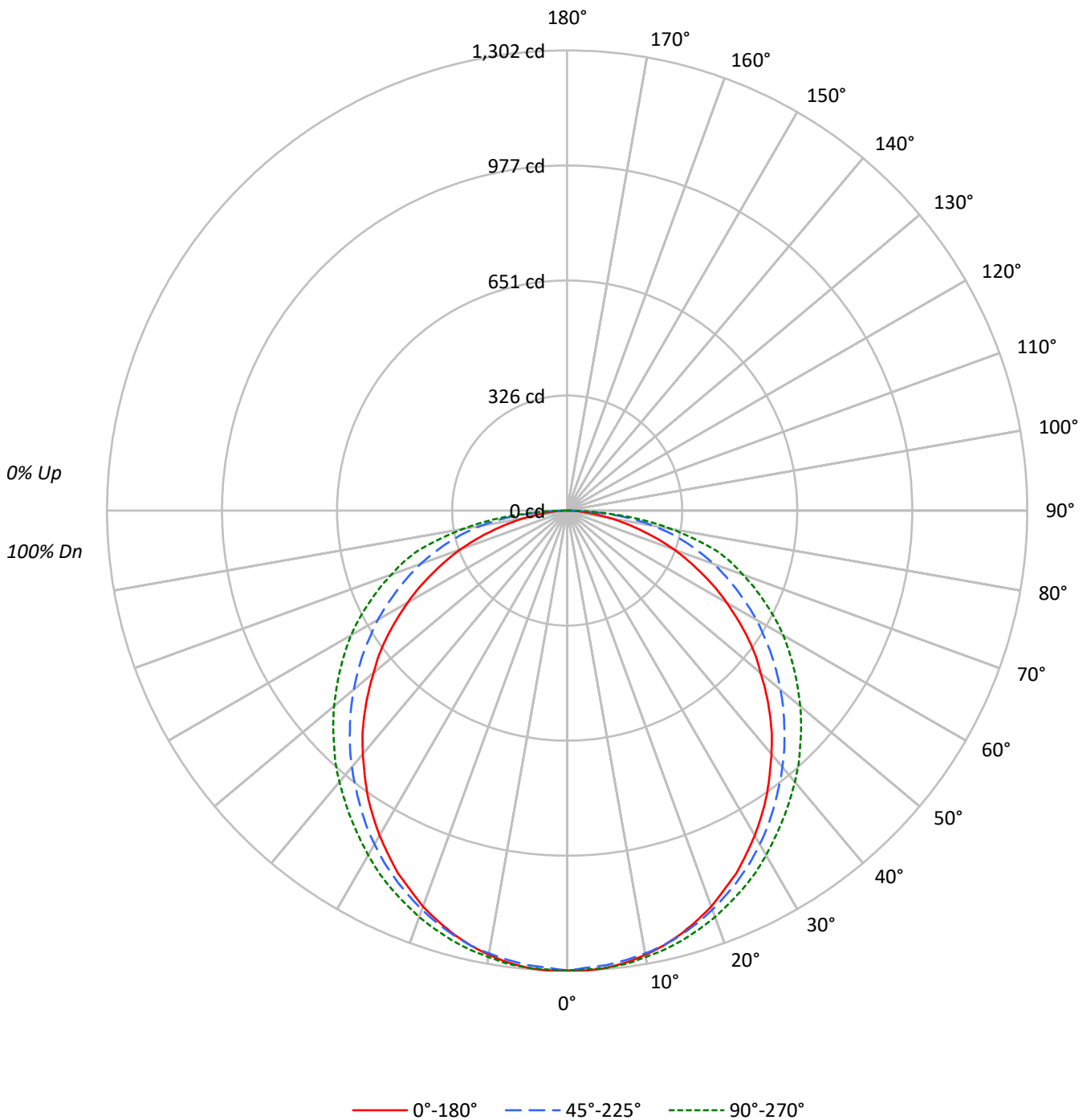
Lumens per Lamp: N/A
Luminaire Lumens: 3945.0 lumens
Efficiency: N/A
Efficacy: 92.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 42.9
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



TEST NUMBER: P272083
CATALOG NUMBER: 24CZ2-45-UNV-L940-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P272083

CATALOG NUMBER: 24CZ2-45-UNV-L940-CD1-U

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	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	92	89		92	89	87		88	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	79	67	58	52	64	57	51		62	56	50		60	54	50	47
5	74	61	52	45	72	60	51	44	58	50	44		56	49	43		54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		49	42	38	36
7	64	50	41	34	62	49	40	34	47	39	34		46	39	34		44	38	33	31
8	59	45	37	31	57	45	36	30	43	36	30		42	35	30		41	34	30	28
9	55	41	33	27	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°	1750	1750	1750
5°	1754	1743	1754
10°	1744	1738	1752
15°	1728	1732	1754
20°	1707	1720	1752
25°	1681	1708	1751
30°	1649	1694	1749
35°	1617	1677	1750
40°	1579	1664	1761
45°	1542	1654	1776
50°	1496	1649	1803
55°	1458	1652	1839
60°	1402	1666	1902
65°	1338	1684	1971
70°	1267	1735	2080
75°	1130	1810	2273
80°	963	1917	2322
85°	687	1899	2223



TEST NUMBER: P272083

CATALOG NUMBER: 24CZ2-45-UNV-L940-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.1	3.1
10°-20°	352.1	8.9
20°-30°	531.8	13.5
30°-40°	640.9	16.2
40°-50°	672.8	17.1
50°-60°	629.5	16.0
60°-70°	519.8	13.2
70°-80°	354.2	9.0
80°-90°	120.8	3.1
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°	1007.0	25.5
0°-40°	1647.9	41.8
0°-60°	2950.2	74.8
0°-90°	3945.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3945.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1301	1301	1301	1301	1301	
5°	1298	1297	1291	1298	1298	123
15°	1241	1242	1243	1256	1259	350
25°	1132	1137	1150	1173	1179	521
35°	984	995	1021	1055	1065	615
45°	810	827	869	916	933	625
55°	622	647	704	762	784	555
65°	420	456	529	596	619	417
75°	217	267	348	414	437	232
85°	44	88	123	139	144	56
90°	0	0	0	0	0	



TEST NUMBER: P272083

CATALOG NUMBER: 24CZ2-45-UNV-L940-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1301.0	1301.0	1301.0	1301.0	1301.0
2.5°	1302.3	1301.0	1294.5	1301.0	1299.7
5°	1298.4	1297.1	1290.6	1298.4	1298.4
7.5°	1289.2	1289.2	1282.7	1291.9	1293.2
10°	1276.2	1276.2	1272.2	1282.7	1282.7
12.5°	1260.5	1260.5	1260.5	1270.9	1272.2
15°	1240.8	1242.1	1243.4	1256.5	1259.1
17.5°	1217.3	1219.9	1223.8	1239.5	1242.1
20°	1192.4	1195.0	1201.6	1219.9	1223.8
22.5°	1161.0	1167.5	1176.7	1197.6	1201.6
25°	1132.2	1137.4	1150.5	1172.8	1179.3
27.5°	1096.8	1104.7	1121.7	1145.3	1154.4
30°	1061.5	1069.4	1090.3	1117.8	1125.6
32.5°	1023.5	1035.3	1057.6	1086.4	1095.5
35°	984.3	994.7	1020.9	1055.0	1065.4
37.5°	941.1	955.5	984.3	1020.9	1034.0
40°	899.2	914.9	947.6	986.9	1002.6
42.5°	857.3	873.0	909.7	954.2	969.9
45°	810.2	827.2	869.1	916.2	933.2
47.5°	763.1	784.0	829.8	879.6	897.9
50°	714.6	738.2	787.9	840.3	861.2
52.5°	671.5	693.7	746.1	802.3	822.0
55°	621.7	646.6	704.2	761.8	784.0
57.5°	570.7	598.2	659.7	722.5	744.8
60°	520.9	551.0	619.1	681.9	706.8
62.5°	472.5	502.6	573.3	638.7	663.6
65°	420.2	455.5	528.8	595.5	619.1
67.5°	370.4	408.4	485.6	551.0	574.6
70°	322.0	358.6	441.1	505.2	528.8
72.5°	269.6	311.5	394.0	460.7	485.6
75°	217.3	267.0	348.2	413.6	437.2
77.5°	168.8	219.9	301.0	354.7	366.5
80°	124.3	176.7	247.4	285.3	299.7
82.5°	79.8	132.2	188.5	216.0	227.7
85°	44.5	87.7	123.0	138.7	144.0
87.5°	18.3	38.0	49.7	56.3	56.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)