

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: P272082

Luminaire Tested: **24CZ2-45-UNV-L935-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: P272082
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-L935-CD1-U
Description: 2'x4' TROFFER LED MODULE,RIBBED LENS, 90CRI
Light Source: (84) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3904.0 lumens
Efficiency: N/A
Efficacy: 91.0 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

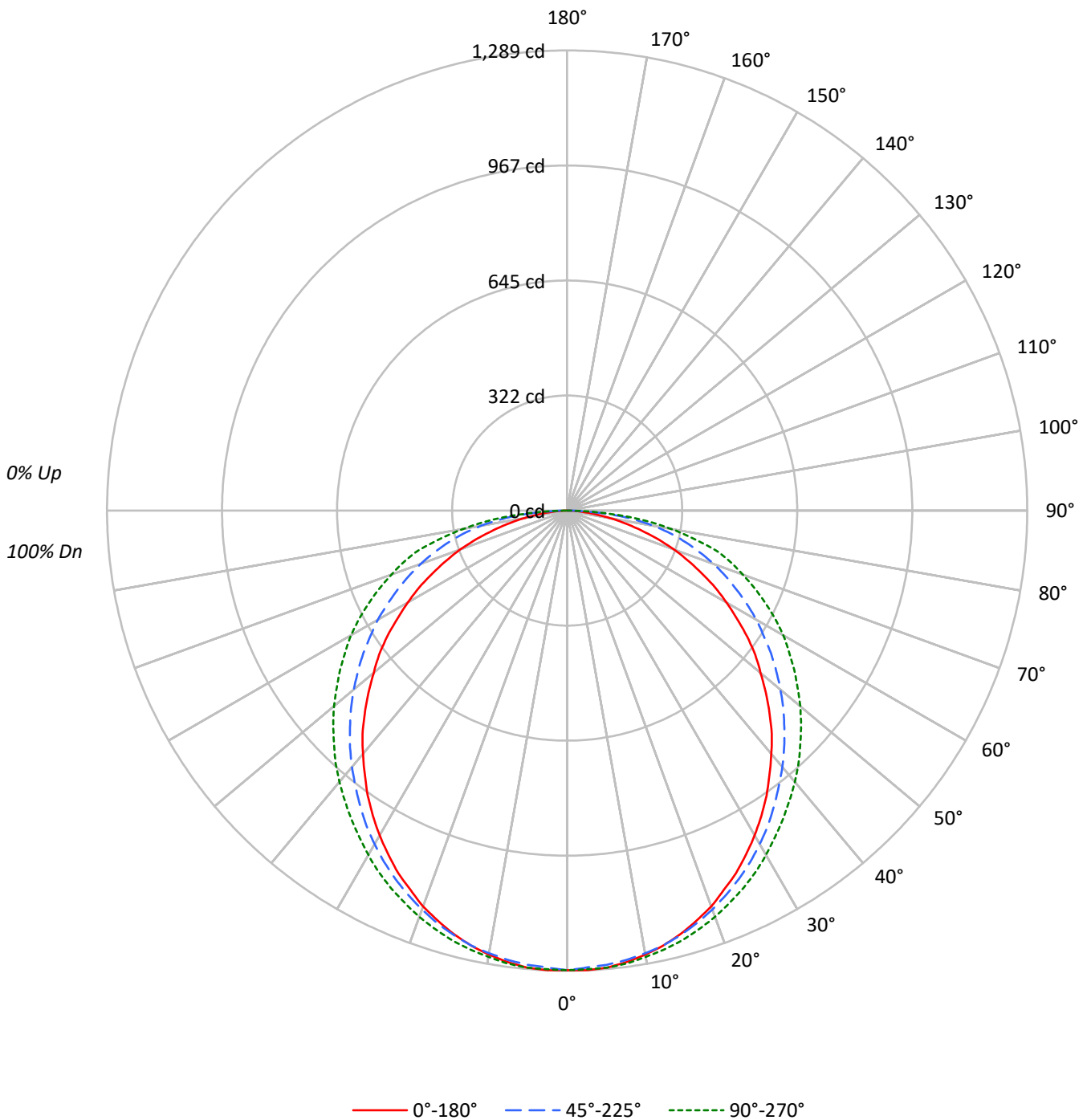
Input Watts (W): 42.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1732	1732	1732
5°	1735	1725	1735
10°	1725	1720	1734
15°	1710	1714	1736
20°	1690	1703	1734
25°	1663	1690	1733
30°	1632	1676	1731
35°	1600	1659	1732
40°	1563	1647	1743
45°	1526	1637	1757
50°	1480	1632	1784
55°	1443	1635	1820
60°	1387	1649	1882
65°	1324	1666	1951
70°	1253	1717	2059
75°	1118	1791	2249
80°	954	1897	2298
85°	679	1880	2200



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.8	3.1
10°-20°	348.4	8.9
20°-30°	526.2	13.5
30°-40°	634.2	16.2
40°-50°	665.8	17.1
50°-60°	622.9	16.0
60°-70°	514.4	13.2
70°-80°	350.5	9.0
80°-90°	119.6	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°	996.5	25.5
0°-40°	1630.7	41.8
0°-60°	2919.5	74.8
0°-90°	3904.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3904.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1288	1288	1288	1288	1288	
5°	1285	1284	1277	1285	1285	122
15°	1228	1229	1230	1244	1246	346
25°	1120	1126	1138	1161	1167	516
35°	974	984	1010	1044	1054	609
45°	802	819	860	907	924	618
55°	615	640	697	754	776	549
65°	416	451	523	589	613	412
75°	215	264	344	409	433	229
85°	44	87	122	137	142	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1287.5	1287.5	1287.5	1287.5	1287.5
2.5°	1288.8	1287.5	1281.0	1287.5	1286.2
5°	1284.9	1283.6	1277.1	1284.9	1284.9
7.5°	1275.8	1275.8	1269.4	1278.4	1279.7
10°	1262.9	1262.9	1259.0	1269.4	1269.4
12.5°	1247.4	1247.4	1247.4	1257.7	1259.0
15°	1227.9	1229.2	1230.5	1243.5	1246.1
17.5°	1204.6	1207.2	1211.1	1226.6	1229.2
20°	1180.0	1182.6	1189.1	1207.2	1211.1
22.5°	1148.9	1155.4	1164.5	1185.2	1189.1
25°	1120.4	1125.6	1138.5	1160.6	1167.0
27.5°	1085.4	1093.2	1110.1	1133.4	1142.4
30°	1050.5	1058.2	1079.0	1106.2	1113.9
32.5°	1012.9	1024.6	1046.6	1075.1	1084.1
35°	974.0	984.4	1010.3	1044.0	1054.4
37.5°	931.3	945.6	974.0	1010.3	1023.3
40°	889.9	905.4	937.8	976.6	992.2
42.5°	848.4	863.9	900.2	944.3	959.8
45°	801.8	818.6	860.1	906.7	923.5
47.5°	755.1	775.9	821.2	870.4	888.6
50°	707.2	730.5	779.8	831.6	852.3
52.5°	664.5	686.5	738.3	794.0	813.4
55°	615.3	639.9	696.9	753.9	775.9
57.5°	564.7	591.9	652.8	715.0	737.0
60°	515.5	545.3	612.7	674.8	699.4
62.5°	467.6	497.4	567.3	632.1	656.7
65°	415.8	450.8	523.3	589.4	612.7
67.5°	366.6	404.1	480.5	545.3	568.6
70°	318.6	354.9	436.5	500.0	523.3
72.5°	266.8	308.3	389.9	455.9	480.5
75°	215.0	264.2	344.5	409.3	432.6
77.5°	167.1	217.6	297.9	351.0	362.7
80°	123.1	174.9	244.8	282.4	296.6
82.5°	79.0	130.8	186.5	213.7	225.4
85°	44.0	86.8	121.8	137.3	142.5
87.5°	18.1	37.6	49.2	55.7	55.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)