

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: P272147

Luminaire Tested: **24CZ2-40-S-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: P272147
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-40-S-UNV-L940-CD1-U
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS, 90CRI
Light Source: (84) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

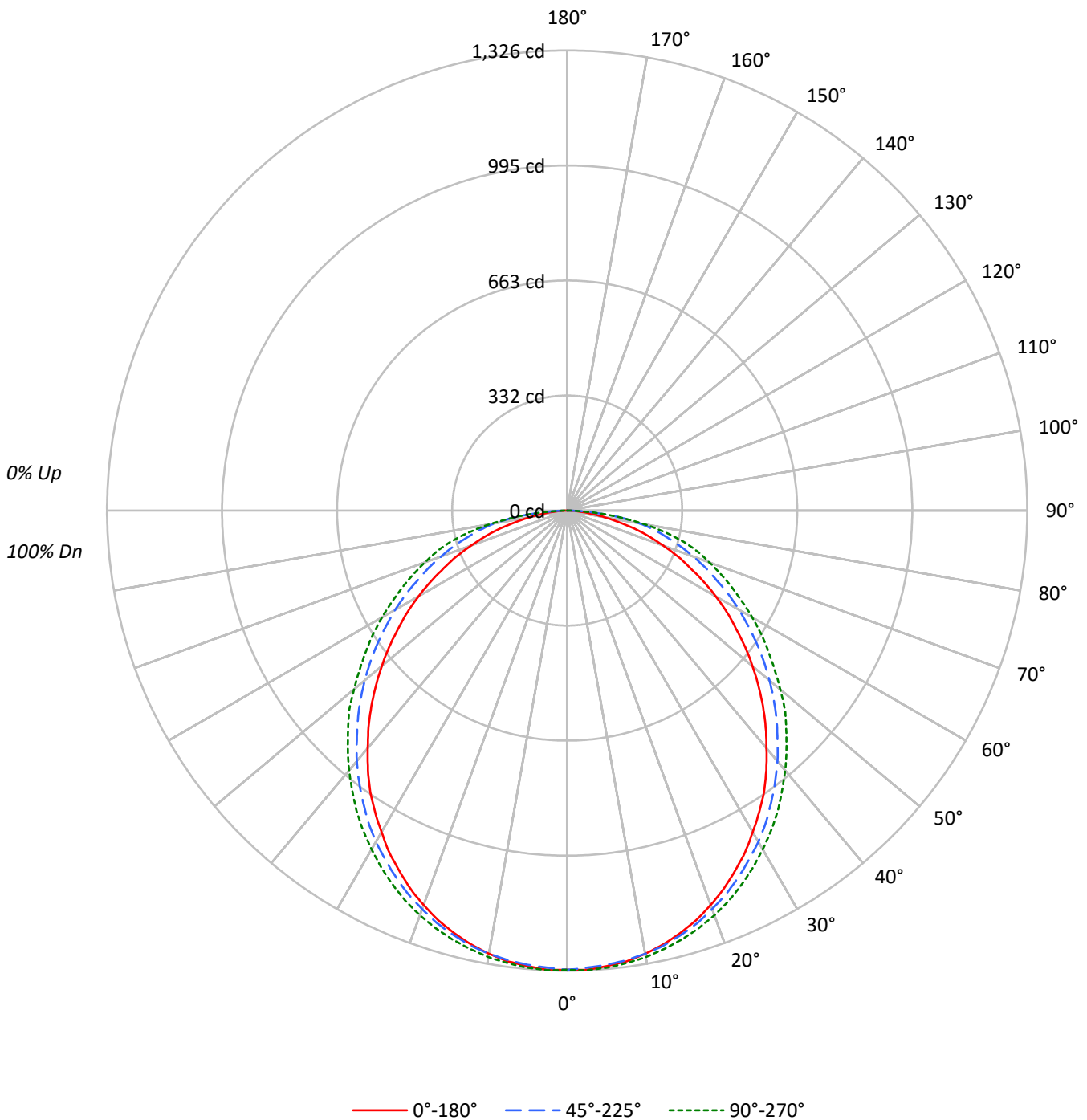
Lumens per Lamp: N/A
Luminaire Lumens: 3767.0 lumens
Efficiency: N/A
Efficacy: 104.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.2
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	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°	1781	1781	1781
5°	1779	1774	1786
10°	1772	1772	1785
15°	1755	1763	1782
20°	1732	1749	1777
25°	1700	1732	1766
30°	1662	1712	1751
35°	1625	1684	1737
40°	1570	1656	1717
45°	1519	1623	1698
50°	1460	1593	1678
55°	1395	1563	1662
60°	1330	1539	1658
65°	1246	1512	1669
70°	1153	1520	1713
75°	1032	1549	1810
80°	834	1641	1771
85°	628	1440	1403



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.3	3.3
10°-20°	358.0	9.5
20°-30°	538.1	14.3
30°-40°	641.0	17.0
40°-50°	656.0	17.4
50°-60°	590.6	15.7
60°-70°	463.8	12.3
70°-80°	301.0	8.0
80°-90°	93.1	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°	1021.4	27.1
0°-40°	1662.4	44.1
0°-60°	2909.0	77.2
0°-90°	3767.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3767.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1323	1323	1323	1323	1323	
5°	1317	1320	1314	1321	1322	125
15°	1260	1264	1266	1277	1279	355
25°	1145	1155	1167	1186	1189	528
35°	990	1002	1025	1051	1058	617
45°	798	817	853	885	893	615
55°	595	621	666	701	708	533
65°	391	421	475	514	524	390
75°	199	237	298	339	348	210
85°	41	75	93	91	91	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1323.4	1323.4	1323.4	1323.4	1323.4
2.5°	1324.6	1324.6	1318.6	1324.6	1325.8
5°	1317.4	1319.8	1313.8	1321.0	1322.2
7.5°	1310.2	1310.2	1306.6	1313.8	1315.0
10°	1297.0	1298.2	1297.0	1305.4	1306.6
12.5°	1280.3	1282.7	1283.9	1292.3	1293.5
15°	1260.0	1263.5	1265.9	1276.7	1279.1
17.5°	1237.2	1240.8	1246.8	1258.8	1261.2
20°	1209.7	1214.5	1221.7	1237.2	1240.8
22.5°	1179.8	1184.6	1196.5	1210.9	1216.9
25°	1145.1	1154.7	1166.6	1185.8	1189.4
27.5°	1110.4	1118.8	1134.3	1154.7	1159.4
30°	1069.7	1082.9	1102.0	1122.4	1127.1
32.5°	1030.2	1043.4	1066.1	1087.7	1093.6
35°	989.5	1001.5	1025.4	1050.6	1057.7
37.5°	942.9	958.4	984.8	1009.9	1017.1
40°	893.8	913.0	942.9	969.2	977.6
42.5°	847.1	867.5	897.4	926.1	935.7
45°	798.1	817.2	853.1	885.4	892.6
47.5°	747.8	769.4	807.7	840.0	851.9
50°	697.6	720.3	761.0	794.5	801.7
52.5°	647.3	671.3	714.3	750.2	753.8
55°	594.7	621.0	666.5	701.2	708.4
57.5°	546.8	569.6	618.6	654.5	662.9
60°	494.2	519.3	571.9	605.4	616.2
62.5°	443.9	470.2	525.3	558.8	568.4
65°	391.3	421.2	475.0	514.5	524.1
67.5°	345.8	374.5	432.0	470.2	479.8
70°	293.2	325.5	386.5	426.0	435.5
72.5°	247.7	281.2	342.2	380.5	394.9
75°	198.6	236.9	297.9	338.6	348.2
77.5°	150.8	195.0	257.3	288.4	288.4
80°	107.7	154.4	211.8	226.1	228.5
82.5°	70.6	116.1	156.7	155.6	155.6
85°	40.7	75.4	93.3	90.9	90.9
87.5°	15.6	31.1	33.5	33.5	32.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)