

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: P272090

Luminaire Tested: **24CZ2-50-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: P272090
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: 24CZ2-50-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

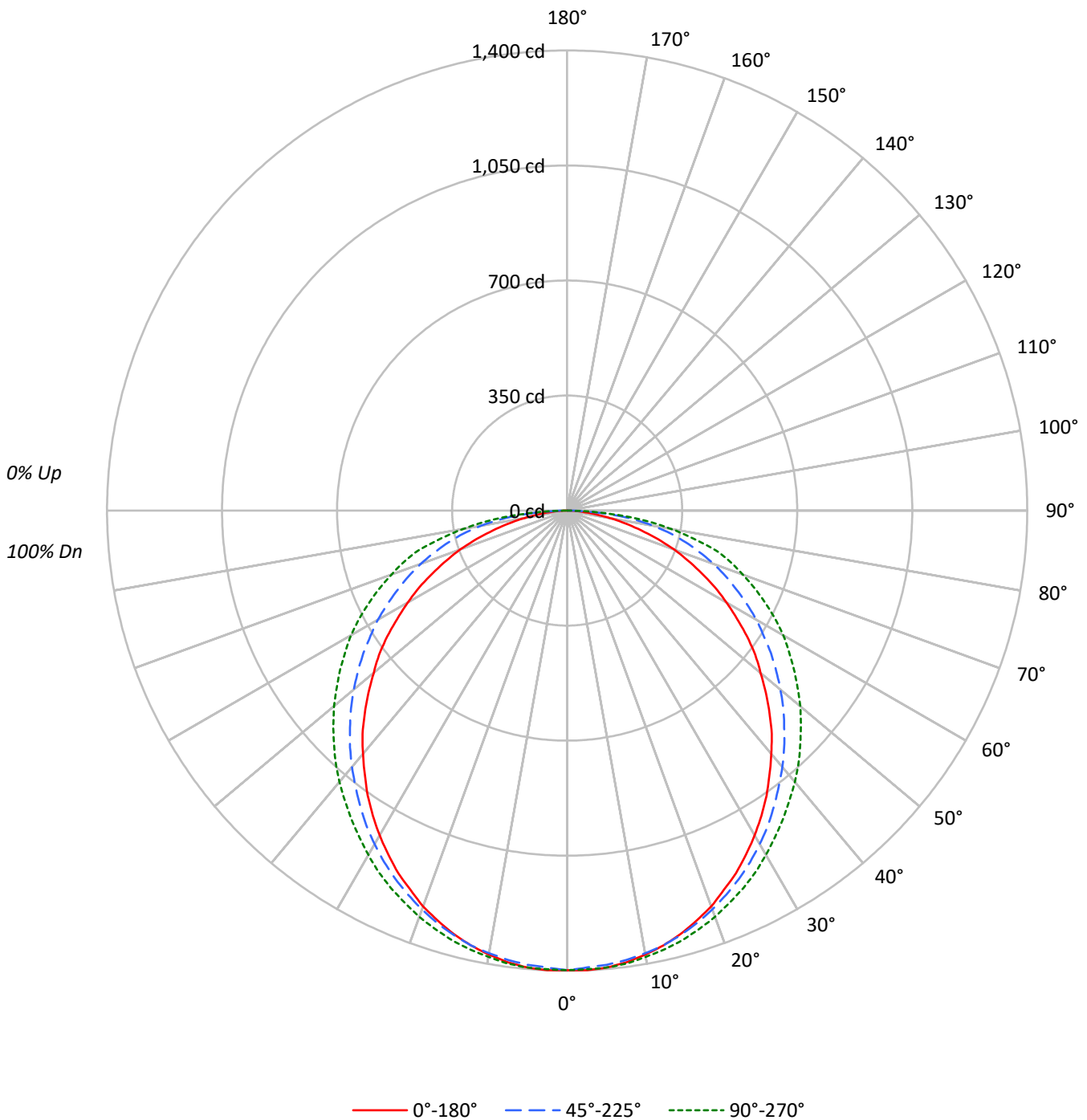
Lumens per Lamp: N/A
Luminaire Lumens: 4240.0 lumens
Efficiency: N/A
Efficacy: 87.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 48.6
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°	1881	1881	1881
5°	1885	1873	1885
10°	1874	1868	1884
15°	1858	1862	1885
20°	1835	1849	1883
25°	1806	1836	1882
30°	1773	1821	1880
35°	1738	1802	1881
40°	1697	1789	1893
45°	1657	1777	1909
50°	1608	1773	1937
55°	1567	1775	1977
60°	1507	1791	2044
65°	1438	1809	2118
70°	1362	1865	2236
75°	1214	1945	2443
80°	1035	2060	2496
85°	738	2041	2388



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.3	3.1
10°-20°	378.4	8.9
20°-30°	571.5	13.5
30°-40°	688.8	16.2
40°-50°	723.1	17.1
50°-60°	676.5	16.0
60°-70°	558.7	13.2
70°-80°	380.7	9.0
80°-90°	129.8	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°	1082.3	25.5
0°-40°	1771.1	41.8
0°-60°	3170.7	74.8
0°-90°	4240.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4240.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1398	1398	1398	1398	1398	
5°	1396	1394	1387	1396	1396	132
15°	1334	1335	1336	1350	1353	376
25°	1217	1222	1236	1260	1268	560
35°	1058	1069	1097	1134	1145	661
45°	871	889	934	985	1003	672
55°	668	695	757	819	843	596
65°	452	490	568	640	665	448
75°	234	287	374	444	470	249
85°	48	94	132	149	155	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1398.3	1398.3	1398.3	1398.3	1398.3
2.5°	1399.7	1398.3	1391.3	1398.3	1396.9
5°	1395.5	1394.1	1387.1	1395.5	1395.5
7.5°	1385.7	1385.7	1378.6	1388.5	1389.9
10°	1371.6	1371.6	1367.4	1378.6	1378.6
12.5°	1354.7	1354.7	1354.7	1366.0	1367.4
15°	1333.6	1335.0	1336.4	1350.5	1353.3
17.5°	1308.3	1311.1	1315.3	1332.2	1335.0
20°	1281.6	1284.4	1291.4	1311.1	1315.3
22.5°	1247.8	1254.8	1264.7	1287.2	1291.4
25°	1216.8	1222.5	1236.5	1260.5	1267.5
27.5°	1178.9	1187.3	1205.6	1230.9	1240.8
30°	1140.9	1149.3	1171.8	1201.4	1209.8
32.5°	1100.1	1112.7	1136.7	1167.6	1177.5
35°	1057.9	1069.1	1097.3	1133.8	1145.1
37.5°	1011.5	1026.9	1057.9	1097.3	1111.3
40°	966.4	983.3	1018.5	1060.7	1077.6
42.5°	921.4	938.3	977.7	1025.5	1042.4
45°	870.8	889.1	934.1	984.7	1003.0
47.5°	820.1	842.6	891.9	945.3	965.0
50°	768.1	793.4	846.9	903.1	925.6
52.5°	721.7	745.6	801.9	862.3	883.4
55°	668.2	694.9	756.8	818.7	842.6
57.5°	613.3	642.9	709.0	776.5	800.4
60°	559.9	592.2	665.4	732.9	759.6
62.5°	507.8	540.2	616.2	686.5	713.2
65°	451.6	489.6	568.3	640.1	665.4
67.5°	398.1	438.9	521.9	592.2	617.6
70°	346.1	385.5	474.1	543.0	568.3
72.5°	289.8	334.8	423.4	495.2	521.9
75°	233.5	287.0	374.2	444.5	469.9
77.5°	181.5	236.3	323.6	381.2	393.9
80°	133.6	189.9	265.9	306.7	322.1
82.5°	85.8	142.1	202.6	232.1	244.8
85°	47.8	94.3	132.2	149.1	154.7
87.5°	19.7	40.8	53.5	60.5	60.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)