

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: P272091

Luminaire Tested: **24CZ2-50-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: P272091
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-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

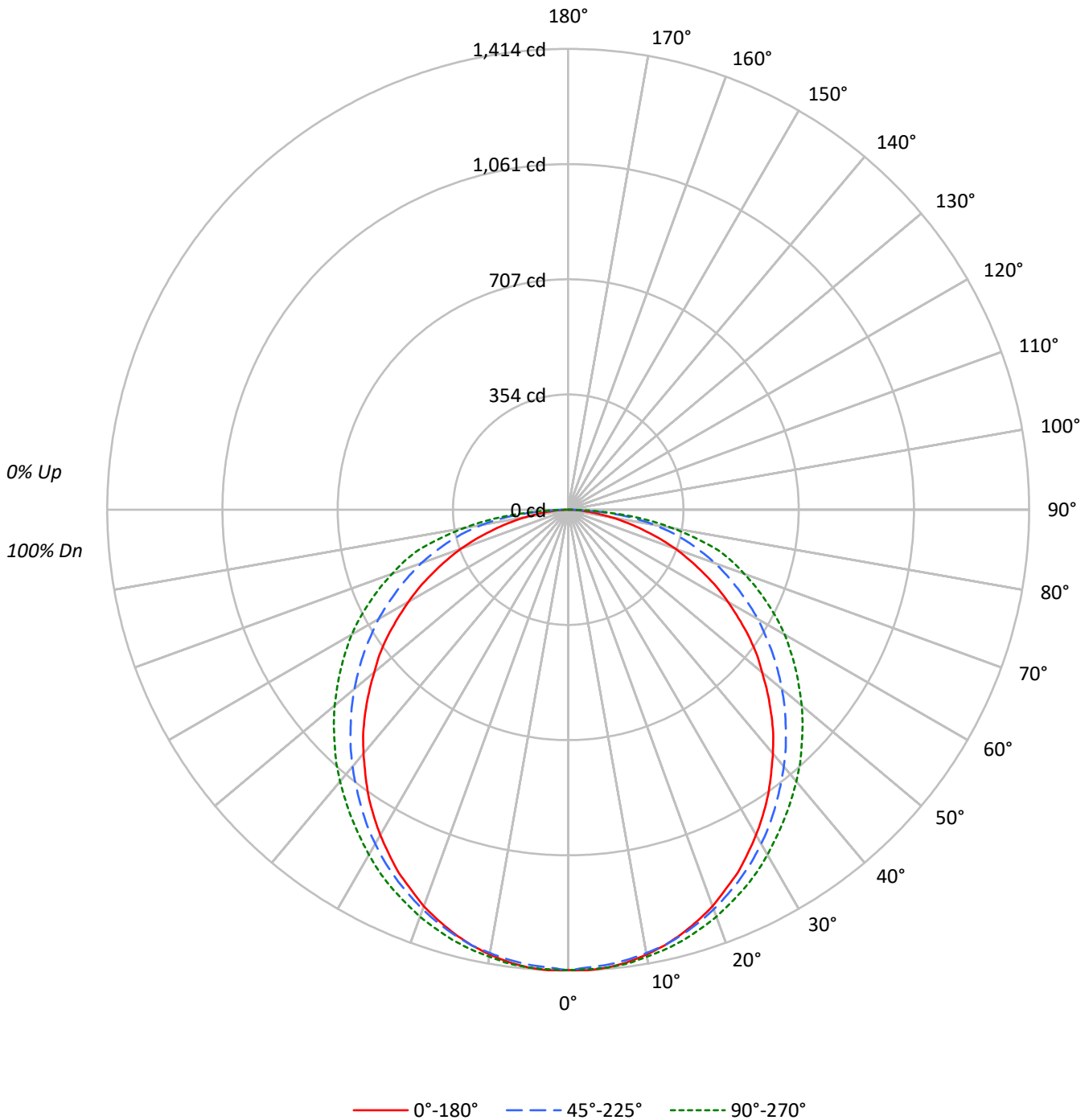
Lumens per Lamp: N/A
Luminaire Lumens: 4284.0 lumens
Efficiency: N/A
Efficacy: 88.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	1901	1901	1901
5°	1904	1893	1904
10°	1893	1888	1903
15°	1877	1881	1905
20°	1854	1868	1903
25°	1825	1855	1901
30°	1791	1840	1899
35°	1756	1821	1900
40°	1715	1808	1912
45°	1674	1796	1928
50°	1625	1791	1958
55°	1584	1794	1997
60°	1522	1809	2065
65°	1453	1828	2140
70°	1376	1884	2259
75°	1226	1966	2468
80°	1046	2081	2522
85°	746	2062	2413



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.7	3.1
10°-20°	382.3	8.9
20°-30°	577.5	13.5
30°-40°	696.0	16.2
40°-50°	730.6	17.1
50°-60°	683.6	16.0
60°-70°	564.5	13.2
70°-80°	384.7	9.0
80°-90°	131.2	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°	1093.5	25.5
0°-40°	1789.5	41.8
0°-60°	3203.7	74.8
0°-90°	4284.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4284.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1413	1413	1413	1413	1413	
5°	1410	1409	1402	1410	1410	134
15°	1347	1349	1350	1364	1367	380
25°	1230	1235	1249	1274	1281	566
35°	1069	1080	1109	1146	1157	668
45°	880	898	944	995	1013	679
55°	675	702	765	827	851	603
65°	456	495	574	647	672	453
75°	236	290	378	449	475	252
85°	48	95	134	151	156	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1412.8	1412.8	1412.8	1412.8	1412.8
2.5°	1414.2	1412.8	1405.7	1412.8	1411.4
5°	1410.0	1408.6	1401.5	1410.0	1410.0
7.5°	1400.0	1400.0	1392.9	1402.9	1404.3
10°	1385.8	1385.8	1381.6	1392.9	1392.9
12.5°	1368.8	1368.8	1368.8	1380.1	1381.6
15°	1347.4	1348.9	1350.3	1364.5	1367.3
17.5°	1321.9	1324.7	1329.0	1346.0	1348.9
20°	1294.9	1297.7	1304.8	1324.7	1329.0
22.5°	1260.7	1267.8	1277.8	1300.5	1304.8
25°	1229.5	1235.2	1249.4	1273.5	1280.6
27.5°	1191.1	1199.6	1218.1	1243.7	1253.6
30°	1152.7	1161.2	1184.0	1213.8	1222.4
32.5°	1111.5	1124.3	1148.5	1179.7	1189.7
35°	1068.9	1080.2	1108.7	1145.6	1157.0
37.5°	1022.0	1037.6	1068.9	1108.7	1122.9
40°	976.5	993.5	1029.1	1071.7	1088.8
42.5°	931.0	948.0	987.8	1036.2	1053.2
45°	879.8	898.3	943.8	994.9	1013.4
47.5°	828.6	851.4	901.1	955.1	975.0
50°	776.1	801.6	855.7	912.5	935.3
52.5°	729.2	753.3	810.2	871.3	892.6
55°	675.1	702.1	764.7	827.2	851.4
57.5°	619.7	649.6	716.4	784.6	808.8
60°	565.7	598.4	672.3	740.5	767.5
62.5°	513.1	545.8	622.6	693.6	720.6
65°	456.3	494.6	574.2	646.7	672.3
67.5°	402.2	443.5	527.3	598.4	624.0
70°	349.7	389.5	479.0	548.6	574.2
72.5°	292.8	338.3	427.8	500.3	527.3
75°	235.9	290.0	378.1	449.1	474.7
77.5°	183.4	238.8	326.9	385.2	398.0
80°	135.0	191.9	268.6	309.9	325.5
82.5°	86.7	143.6	204.7	234.5	247.3
85°	48.3	95.2	133.6	150.7	156.3
87.5°	19.9	41.2	54.0	61.1	61.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)