

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: P232286

Luminaire Tested: **22RDIA-40-UNV-L840-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232286
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1706-078-16-R2)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22RDIA-40-UNV-L840-CD1-U
Description: METALUX 2X2 OVATION LED TROFFER
AIR VENTED VERSION
Light Source: (196) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

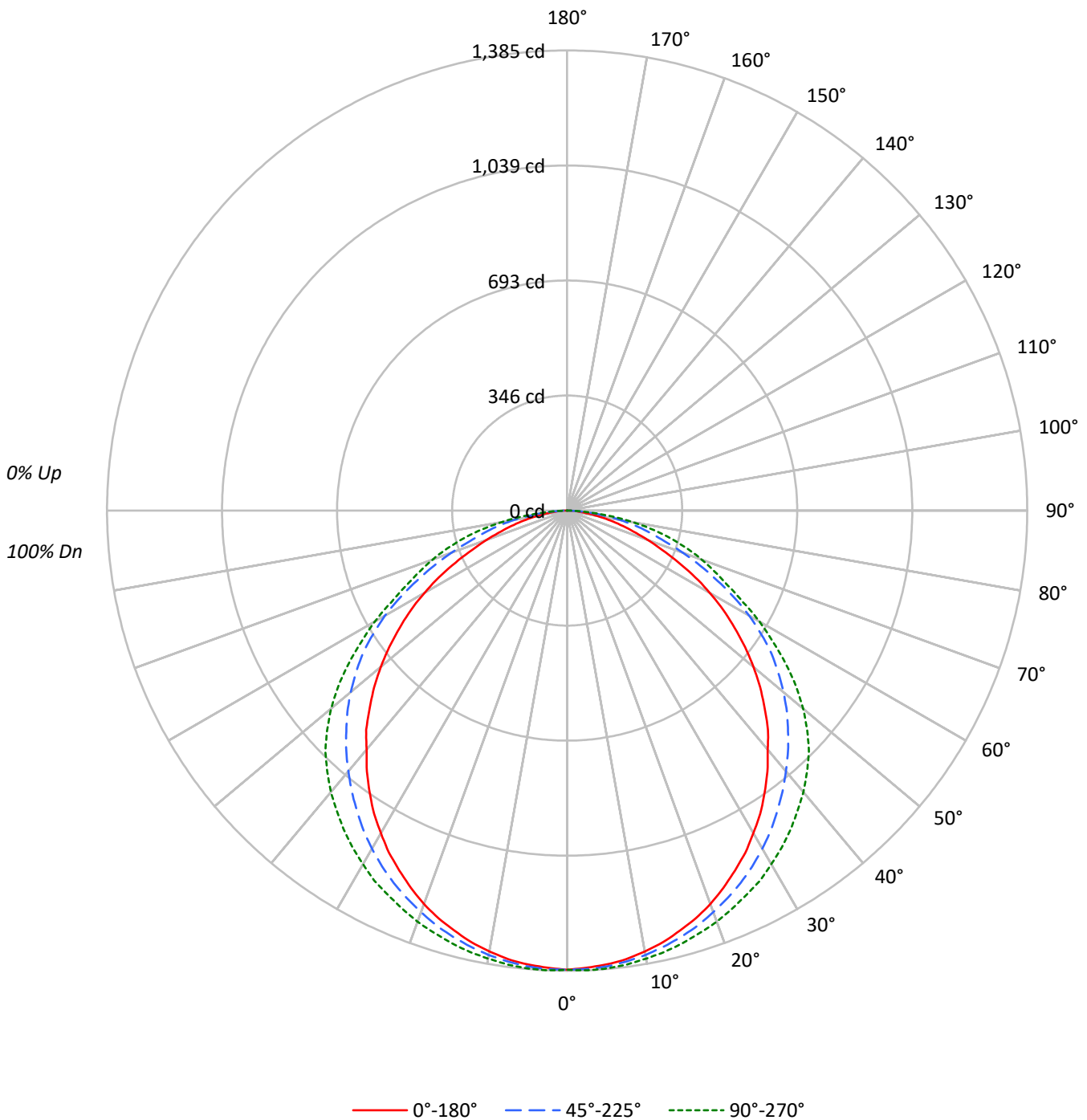
Lumens per Lamp: N/A
Luminaire Lumens: 3955.0 lumens
Efficiency: N/A
Efficacy: 94.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.39
Luminous Opening: Rectangular (W 1.67' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
Input Voltage (V): 120
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 | 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 | | | | | 100 | | | |
| 1 | 109 | 104 | 100 | 96 | 106 | 102 | 98 | 94 | 97 | 94 | 91 | 94 | 91 | 89 | 90 | 88 | 86 | 84 | | | | | 84 | | | |
| 2 | 99 | 91 | 84 | 78 | 96 | 89 | 82 | 77 | 85 | 80 | 75 | 82 | 77 | 74 | 79 | 75 | 72 | 70 | | | | | 70 | | | |
| 3 | 90 | 80 | 71 | 65 | 88 | 78 | 70 | 64 | 75 | 68 | 63 | 72 | 67 | 62 | 70 | 65 | 61 | 59 | | | | | 59 | | | |
| 4 | 82 | 70 | 62 | 55 | 80 | 69 | 61 | 54 | 67 | 59 | 54 | 64 | 58 | 53 | 62 | 57 | 52 | 50 | | | | | 50 | | | |
| 5 | 76 | 63 | 54 | 47 | 74 | 62 | 53 | 47 | 60 | 52 | 46 | 58 | 51 | 46 | 56 | 50 | 45 | 43 | | | | | 43 | | | |
| 6 | 70 | 57 | 48 | 41 | 68 | 56 | 47 | 41 | 54 | 46 | 41 | 52 | 45 | 40 | 51 | 45 | 40 | 38 | | | | | 38 | | | |
| 7 | 65 | 51 | 42 | 36 | 63 | 50 | 42 | 36 | 49 | 41 | 36 | 47 | 41 | 36 | 46 | 40 | 35 | 33 | | | | | 33 | | | |
| 8 | 60 | 47 | 38 | 32 | 59 | 46 | 38 | 32 | 45 | 37 | 32 | 43 | 37 | 32 | 42 | 36 | 32 | 30 | | | | | 30 | | | |
| 9 | 56 | 43 | 35 | 29 | 55 | 42 | 34 | 29 | 41 | 34 | 29 | 40 | 33 | 29 | 39 | 33 | 29 | 27 | | | | | 27 | | | |
| 10 | 53 | 40 | 32 | 26 | 52 | 39 | 31 | 26 | 38 | 31 | 26 | 37 | 31 | 26 | 36 | 30 | 26 | 24 | | | | | 24 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 4463 | 4463 | 4463 |
| 5° | 4444 | 4464 | 4483 |
| 10° | 4417 | 4453 | 4489 |
| 15° | 4376 | 4440 | 4503 |
| 20° | 4330 | 4420 | 4526 |
| 25° | 4258 | 4404 | 4547 |
| 30° | 4180 | 4382 | 4583 |
| 35° | 4084 | 4349 | 4621 |
| 40° | 3959 | 4317 | 4663 |
| 45° | 3837 | 4293 | 4700 |
| 50° | 3678 | 4271 | 4657 |
| 55° | 3463 | 4229 | 4521 |
| 60° | 3204 | 4089 | 4321 |
| 65° | 2835 | 3814 | 4081 |
| 70° | 2436 | 3503 | 4069 |
| 75° | 2071 | 3231 | 4017 |
| 80° | 1674 | 2994 | 3719 |
| 85° | 1260 | 2334 | 2853 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 130.9 | 3.3 |
| 10°-20° | 374.9 | 9.5 |
| 20°-30° | 569.9 | 14.4 |
| 30°-40° | 690.7 | 17.5 |
| 40°-50° | 722.7 | 18.3 |
| 50°-60° | 650.8 | 16.5 |
| 60°-70° | 475.8 | 12.0 |
| 70°-80° | 268.7 | 6.8 |
| 80°-90° | 70.3 | 1.8 |
| 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° | 1075.7 | 27.2 |
| 0°-40° | 1766.5 | 44.7 |
| 0°-60° | 3140.1 | 79.4 |
| 0°-90° | 3955.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3955.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1382 | 1382 | 1382 | 1382 | 1382 | |
| 5° | 1371 | 1373 | 1377 | 1381 | 1383 | 130 |
| 15° | 1309 | 1315 | 1328 | 1342 | 1347 | 369 |
| 25° | 1195 | 1208 | 1236 | 1266 | 1276 | 551 |
| 35° | 1036 | 1056 | 1103 | 1152 | 1172 | 648 |
| 45° | 840 | 873 | 940 | 1003 | 1029 | 648 |
| 55° | 615 | 665 | 751 | 793 | 803 | 550 |
| 65° | 371 | 437 | 499 | 529 | 534 | 369 |
| 75° | 166 | 207 | 259 | 305 | 322 | 178 |
| 85° | 34 | 45 | 63 | 72 | 77 | 42 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P232286

CATALOG NUMBER: 22RDIA-40-UNV-L840-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1382.1 | 1382.1 | 1382.1 | 1382.1 | 1382.1 |
| 2.5° | 1377.1 | 1378.1 | 1381.1 | 1385.1 | 1385.1 |
| 5° | 1371.1 | 1373.1 | 1377.1 | 1381.1 | 1383.1 |
| 7.5° | 1362.1 | 1364.1 | 1369.1 | 1376.1 | 1378.1 |
| 10° | 1347.1 | 1351.1 | 1358.1 | 1366.1 | 1369.1 |
| 12.5° | 1331.1 | 1335.1 | 1344.1 | 1355.1 | 1360.1 |
| 15° | 1309.1 | 1315.1 | 1328.1 | 1342.1 | 1347.1 |
| 17.5° | 1287.1 | 1292.1 | 1309.1 | 1326.1 | 1332.1 |
| 20° | 1260.1 | 1266.1 | 1286.1 | 1308.1 | 1317.1 |
| 22.5° | 1229.1 | 1239.1 | 1262.1 | 1288.1 | 1297.1 |
| 25° | 1195.1 | 1208.1 | 1236.1 | 1266.1 | 1276.1 |
| 27.5° | 1161.1 | 1173.1 | 1207.1 | 1241.1 | 1256.1 |
| 30° | 1121.1 | 1137.1 | 1175.1 | 1214.1 | 1229.1 |
| 32.5° | 1082.1 | 1099.1 | 1141.1 | 1184.1 | 1202.1 |
| 35° | 1036.1 | 1056.1 | 1103.1 | 1152.1 | 1172.1 |
| 37.5° | 990.1 | 1012.1 | 1065.1 | 1118.1 | 1139.1 |
| 40° | 939.1 | 966.1 | 1024.1 | 1083.1 | 1106.1 |
| 42.5° | 895.1 | 919.1 | 984.1 | 1046.1 | 1068.1 |
| 45° | 840.1 | 873.1 | 940.1 | 1003.1 | 1029.1 |
| 47.5° | 788.1 | 821.1 | 897.1 | 959.1 | 980.1 |
| 50° | 732.1 | 771.1 | 850.1 | 911.1 | 927.1 |
| 52.5° | 675.1 | 721.1 | 801.1 | 856.1 | 868.1 |
| 55° | 615.1 | 665.1 | 751.1 | 793.1 | 803.1 |
| 57.5° | 558.1 | 611.1 | 693.1 | 728.1 | 734.1 |
| 60° | 496.1 | 554.1 | 633.1 | 660.1 | 669.1 |
| 62.5° | 435.0 | 496.1 | 567.1 | 591.1 | 597.1 |
| 65° | 371.0 | 437.0 | 499.1 | 529.1 | 534.1 |
| 67.5° | 309.0 | 377.0 | 434.0 | 463.0 | 481.1 |
| 70° | 258.0 | 320.0 | 371.0 | 411.0 | 431.0 |
| 72.5° | 208.0 | 263.0 | 307.0 | 359.0 | 378.0 |
| 75° | 166.0 | 207.0 | 259.0 | 305.0 | 322.0 |
| 77.5° | 127.0 | 156.0 | 211.0 | 249.0 | 264.0 |
| 80° | 90.0 | 113.0 | 161.0 | 191.0 | 200.0 |
| 82.5° | 57.0 | 76.0 | 110.0 | 132.0 | 138.0 |
| 85° | 34.0 | 45.0 | 63.0 | 72.0 | 77.0 |
| 87.5° | 18.0 | 17.0 | 20.0 | 21.0 | 22.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)