

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: P296534

Luminaire Tested: **22RLN-LD5-44-UNV-L92765-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P296534
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-085-11)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22RLN-LD5-44-UNV-L92765-W2A1-U-3500K
Description: RLN LED 2x2 TUNABLE WHITE TROFFER
WITH STANDARD LENS
Light Source: (252) 90 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3752.0 lumens
Efficiency: N/A
Efficacy: 105.1 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.23 / 1.3
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

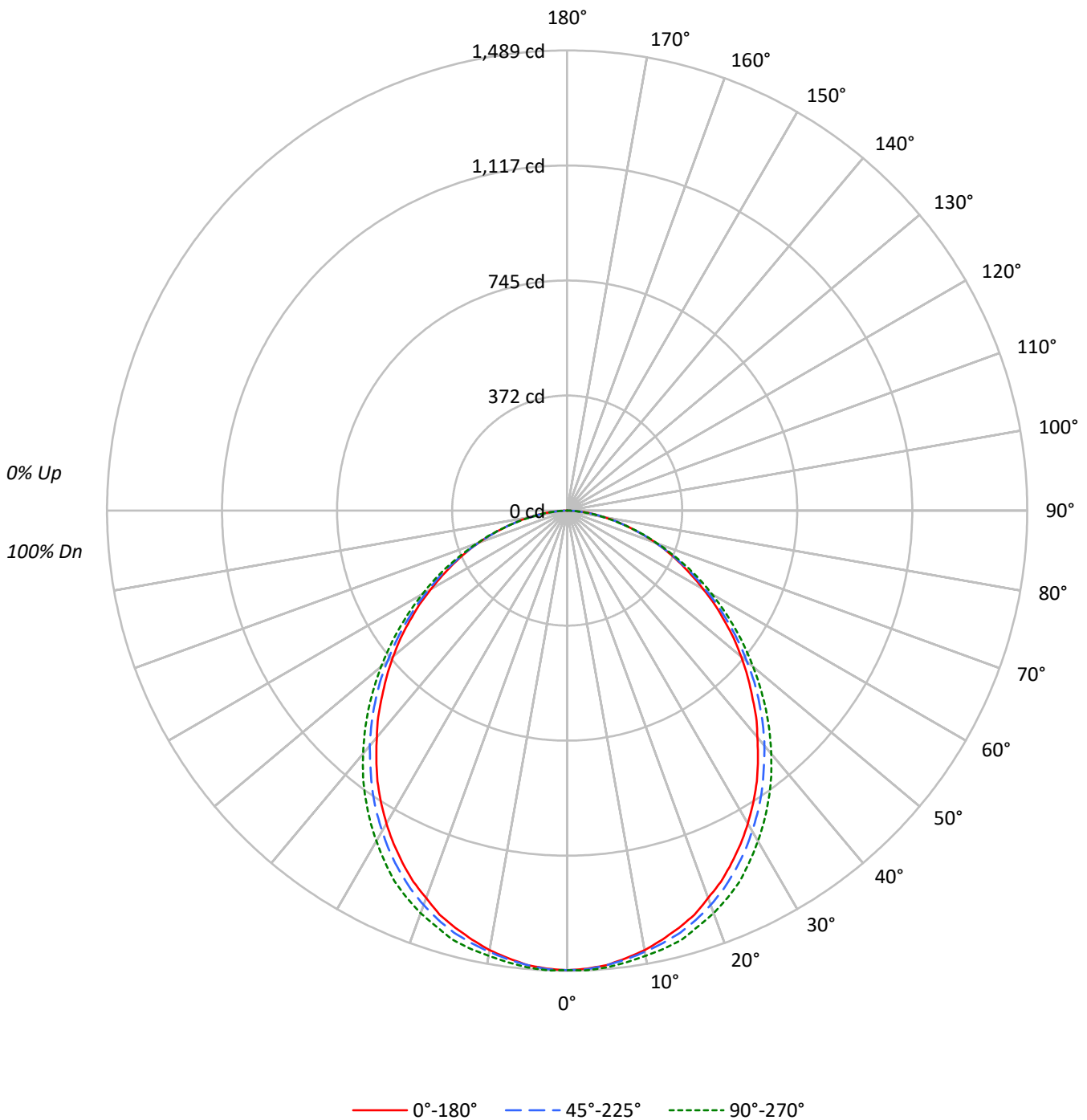
Input Watts (W): 35.712
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P296534

CATALOG NUMBER: 22RLN-LD5-44-UNV-L92765-W2A1-U-3500K

Luminous Intensity Polar Plot





TEST NUMBER: P296534

CATALOG NUMBER: 22RLN-LD5-44-UNV-L92765-W2A1-U-3500K

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 | 109 | 105 | 101 | 97 | 107 | 102 | 99 | 95 | 98 | 95 | 92 | 94 | 92 | 90 | 91 | 89 | 87 | 85 |
| 2 | 100 | 92 | 85 | 80 | 97 | 90 | 84 | 79 | 86 | 81 | 77 | 83 | 79 | 75 | 80 | 77 | 74 | 71 |
| 3 | 91 | 81 | 73 | 67 | 89 | 79 | 72 | 66 | 77 | 70 | 65 | 74 | 68 | 64 | 71 | 67 | 63 | 61 |
| 4 | 84 | 72 | 64 | 57 | 81 | 71 | 63 | 57 | 68 | 61 | 56 | 66 | 60 | 55 | 64 | 59 | 54 | 52 |
| 5 | 77 | 65 | 56 | 49 | 75 | 64 | 55 | 49 | 61 | 54 | 49 | 59 | 53 | 48 | 58 | 52 | 48 | 46 |
| 6 | 71 | 58 | 50 | 43 | 70 | 57 | 49 | 43 | 56 | 48 | 43 | 54 | 47 | 42 | 52 | 47 | 42 | 40 |
| 7 | 66 | 53 | 44 | 38 | 65 | 52 | 44 | 38 | 51 | 43 | 38 | 49 | 43 | 38 | 48 | 42 | 38 | 36 |
| 8 | 62 | 49 | 40 | 34 | 60 | 48 | 40 | 34 | 47 | 39 | 34 | 45 | 39 | 34 | 44 | 38 | 34 | 32 |
| 9 | 58 | 45 | 37 | 31 | 56 | 44 | 36 | 31 | 43 | 36 | 31 | 42 | 35 | 31 | 41 | 35 | 31 | 29 |
| 10 | 54 | 41 | 33 | 28 | 53 | 41 | 33 | 28 | 40 | 33 | 28 | 39 | 32 | 28 | 38 | 32 | 28 | 26 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 4002 | 4002 | 4002 |
| 5° | 3987 | 3987 | 4007 |
| 10° | 3946 | 3962 | 3997 |
| 15° | 3893 | 3940 | 4003 |
| 20° | 3820 | 3889 | 3970 |
| 25° | 3738 | 3816 | 3927 |
| 30° | 3633 | 3720 | 3837 |
| 35° | 3515 | 3614 | 3736 |
| 40° | 3365 | 3489 | 3608 |
| 45° | 3218 | 3346 | 3460 |
| 50° | 3078 | 3180 | 3289 |
| 55° | 2914 | 3002 | 3107 |
| 60° | 2738 | 2809 | 2909 |
| 65° | 2573 | 2621 | 2704 |
| 70° | 2399 | 2399 | 2443 |
| 75° | 2140 | 2140 | 2140 |
| 80° | 1884 | 1827 | 1827 |
| 85° | 1501 | 1445 | 1328 |



TEST NUMBER: P296534

CATALOG NUMBER: 22RLN-LD5-44-UNV-L92765-W2A1-U-3500K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 140.3 | 3.7 |
| 10°-20° | 398.8 | 10.6 |
| 20°-30° | 592.4 | 15.8 |
| 30°-40° | 687.5 | 18.3 |
| 40°-50° | 676.9 | 18.0 |
| 50°-60° | 572.8 | 15.3 |
| 60°-70° | 408.5 | 10.9 |
| 70°-80° | 219.5 | 5.9 |
| 80°-90° | 55.3 | 1.5 |
| 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° | 1131.4 | 30.2 |
| 0°-40° | 1818.8 | 48.5 |
| 0°-60° | 3068.6 | 81.8 |
| 0°-90° | 3752.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3752.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1487 | 1487 | 1487 | 1487 | 1487 | |
| 5° | 1476 | 1476 | 1476 | 1482 | 1484 | 140 |
| 15° | 1397 | 1401 | 1414 | 1427 | 1437 | 394 |
| 25° | 1259 | 1263 | 1285 | 1310 | 1323 | 579 |
| 35° | 1070 | 1072 | 1100 | 1126 | 1137 | 668 |
| 45° | 846 | 851 | 879 | 900 | 909 | 654 |
| 55° | 621 | 623 | 640 | 657 | 662 | 556 |
| 65° | 404 | 404 | 412 | 419 | 425 | 401 |
| 75° | 206 | 204 | 206 | 206 | 206 | 221 |
| 85° | 49 | 47 | 47 | 43 | 43 | 58 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P296534

CATALOG NUMBER: 22RLN-LD5-44-UNV-L92765-W2A1-U-3500K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1487.2 | 1487.2 | 1487.2 | 1487.2 | 1487.2 |
| 2.5° | 1483.5 | 1483.5 | 1485.3 | 1487.2 | 1489.1 |
| 5° | 1476.0 | 1476.0 | 1476.0 | 1481.6 | 1483.5 |
| 7.5° | 1461.0 | 1462.9 | 1464.8 | 1470.4 | 1474.1 |
| 10° | 1444.2 | 1446.1 | 1449.8 | 1459.2 | 1462.9 |
| 12.5° | 1421.7 | 1427.3 | 1433.0 | 1446.1 | 1451.7 |
| 15° | 1397.4 | 1401.2 | 1414.3 | 1427.3 | 1436.7 |
| 17.5° | 1371.2 | 1373.1 | 1388.1 | 1406.8 | 1410.5 |
| 20° | 1333.8 | 1339.4 | 1358.1 | 1376.8 | 1386.2 |
| 22.5° | 1300.1 | 1303.9 | 1324.5 | 1348.8 | 1356.3 |
| 25° | 1259.0 | 1262.7 | 1285.2 | 1309.5 | 1322.6 |
| 27.5° | 1216.0 | 1219.7 | 1244.0 | 1270.2 | 1279.6 |
| 30° | 1169.2 | 1172.9 | 1197.3 | 1225.3 | 1234.7 |
| 32.5° | 1120.6 | 1124.3 | 1150.5 | 1174.8 | 1187.9 |
| 35° | 1070.0 | 1071.9 | 1100.0 | 1126.2 | 1137.4 |
| 37.5° | 1013.9 | 1019.5 | 1045.7 | 1071.9 | 1085.0 |
| 40° | 957.8 | 963.4 | 993.3 | 1017.7 | 1027.0 |
| 42.5° | 905.4 | 912.9 | 937.2 | 959.7 | 969.0 |
| 45° | 845.6 | 851.2 | 879.2 | 899.8 | 909.2 |
| 47.5° | 791.3 | 796.9 | 821.2 | 841.8 | 847.4 |
| 50° | 735.2 | 738.9 | 759.5 | 778.2 | 785.7 |
| 52.5° | 679.1 | 680.9 | 699.6 | 718.4 | 724.0 |
| 55° | 621.1 | 622.9 | 639.8 | 656.6 | 662.2 |
| 57.5° | 566.8 | 566.8 | 581.8 | 594.9 | 600.5 |
| 60° | 508.8 | 508.8 | 521.9 | 535.0 | 540.6 |
| 62.5° | 454.6 | 454.6 | 467.7 | 477.0 | 484.5 |
| 65° | 404.1 | 404.1 | 411.6 | 419.0 | 424.7 |
| 67.5° | 355.4 | 349.8 | 357.3 | 366.7 | 364.8 |
| 70° | 304.9 | 299.3 | 304.9 | 308.7 | 310.5 |
| 72.5° | 254.4 | 250.7 | 254.4 | 256.3 | 260.0 |
| 75° | 205.8 | 203.9 | 205.8 | 205.8 | 205.8 |
| 77.5° | 164.6 | 159.0 | 162.8 | 160.9 | 159.0 |
| 80° | 121.6 | 119.7 | 117.9 | 116.0 | 117.9 |
| 82.5° | 84.2 | 82.3 | 82.3 | 78.6 | 78.6 |
| 85° | 48.6 | 46.8 | 46.8 | 43.0 | 43.0 |
| 87.5° | 18.7 | 18.7 | 16.8 | 16.8 | 16.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)