

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: P295734

Luminaire Tested: **14RLN-LD5-40-RDP-UNV-L82765-W2A1-U-2700K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P295734
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P36061-R2)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14RLN-LD5-40-RDP-UNV-L82765-W2A1-U-2700K
Description: RLN LED 1x4 TUNABLE WHITE TROFFER
WITH RDP LENS
Light Source: (168) 80 CRI LEDS TUNED TO 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3158.0 lumens
Efficiency: N/A
Efficacy: 80.1 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.35 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

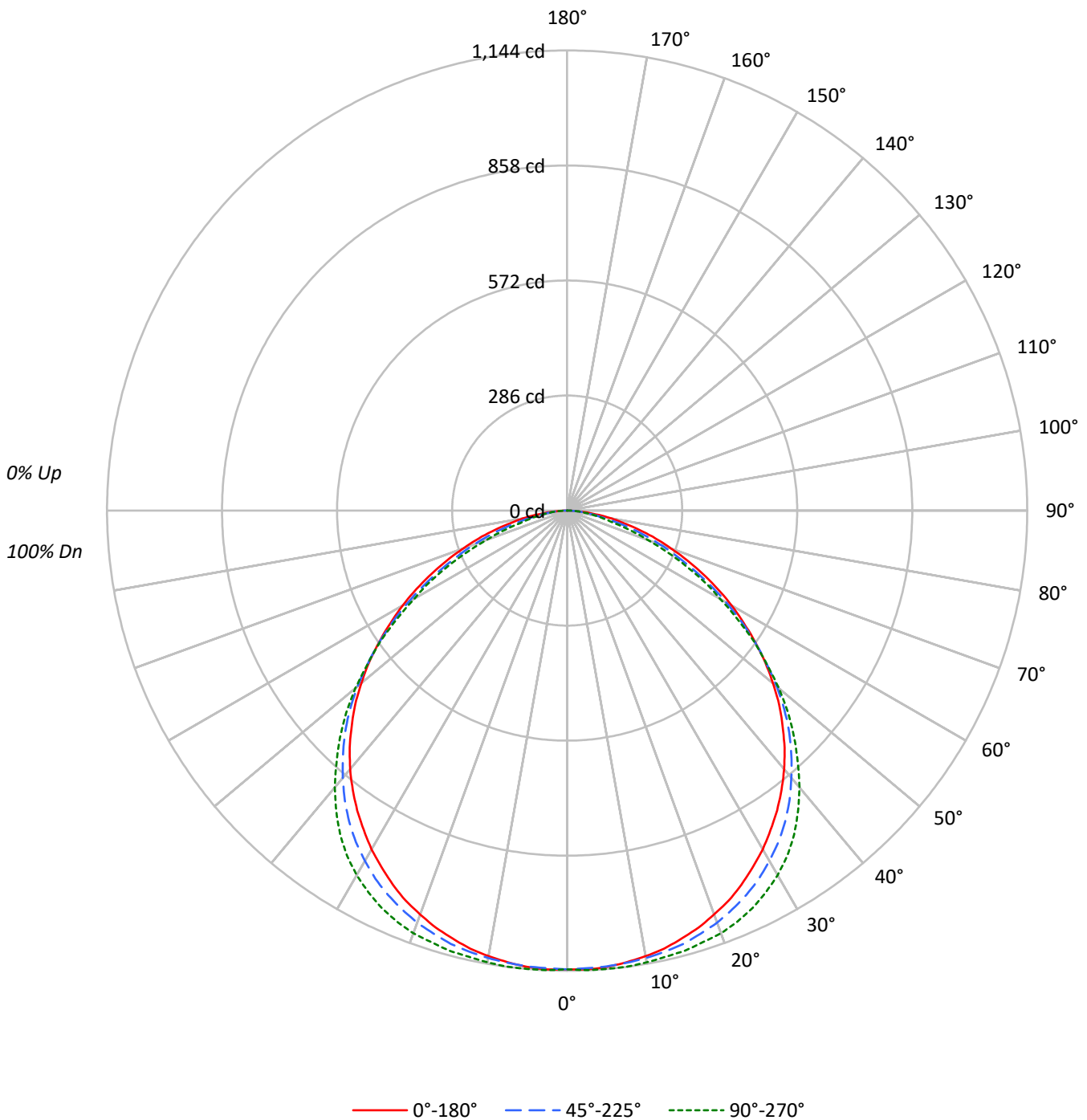
Input Watts (W): 39.432
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 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 | 103 | 99 | 96 | 98 | 95 | 93 | 94 | 92 | 90 | 91 | 89 | 87 | 85 |
| 2 | 100 | 92 | 85 | 80 | 97 | 90 | 84 | 79 | 87 | 81 | 77 | 83 | 79 | 75 | 80 | 77 | 74 | 72 |
| 3 | 91 | 81 | 73 | 67 | 89 | 79 | 72 | 66 | 77 | 70 | 65 | 74 | 68 | 64 | 71 | 67 | 63 | 61 |
| 4 | 84 | 72 | 63 | 57 | 81 | 71 | 63 | 57 | 68 | 61 | 56 | 66 | 60 | 55 | 64 | 59 | 54 | 52 |
| 5 | 77 | 64 | 56 | 49 | 75 | 63 | 55 | 49 | 61 | 54 | 48 | 59 | 53 | 48 | 57 | 52 | 47 | 45 |
| 6 | 71 | 58 | 49 | 43 | 69 | 57 | 49 | 43 | 55 | 48 | 42 | 54 | 47 | 42 | 52 | 46 | 42 | 40 |
| 7 | 66 | 53 | 44 | 38 | 64 | 52 | 44 | 38 | 50 | 43 | 38 | 49 | 42 | 37 | 48 | 42 | 37 | 35 |
| 8 | 61 | 48 | 40 | 34 | 60 | 47 | 39 | 34 | 46 | 39 | 34 | 45 | 38 | 33 | 44 | 38 | 33 | 31 |
| 9 | 57 | 44 | 36 | 30 | 56 | 44 | 36 | 30 | 42 | 35 | 30 | 41 | 35 | 30 | 40 | 34 | 30 | 28 |
| 10 | 54 | 41 | 33 | 28 | 53 | 40 | 33 | 28 | 39 | 32 | 27 | 38 | 32 | 27 | 37 | 31 | 27 | 25 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 3069 | 3069 | 3069 |
| 5° | 3076 | 3072 | 3089 |
| 10° | 3074 | 3086 | 3116 |
| 15° | 3068 | 3107 | 3155 |
| 20° | 3059 | 3122 | 3203 |
| 25° | 3046 | 3130 | 3237 |
| 30° | 3022 | 3125 | 3251 |
| 35° | 2989 | 3102 | 3231 |
| 40° | 2948 | 3047 | 3158 |
| 45° | 2884 | 2973 | 3039 |
| 50° | 2798 | 2850 | 2876 |
| 55° | 2679 | 2672 | 2657 |
| 60° | 2541 | 2457 | 2364 |
| 65° | 2367 | 2197 | 2078 |
| 70° | 2160 | 1925 | 1678 |
| 75° | 1941 | 1598 | 1256 |
| 80° | 1726 | 1167 | 1094 |
| 85° | 1355 | 969 | 969 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 108.6 | 3.4 |
| 10°-20° | 315.5 | 10.0 |
| 20°-30° | 486.9 | 15.4 |
| 30°-40° | 590.6 | 18.7 |
| 40°-50° | 599.6 | 19.0 |
| 50°-60° | 507.2 | 16.1 |
| 60°-70° | 343.2 | 10.9 |
| 70°-80° | 165.9 | 5.3 |
| 80°-90° | 40.5 | 1.3 |
| 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° | 911.0 | 28.8 |
| 0°-40° | 1501.6 | 47.5 |
| 0°-60° | 2608.4 | 82.6 |
| 0°-90° | 3158.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3158.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1140 | 1140 | 1140 | 1140 | 1140 | |
| 5° | 1139 | 1139 | 1137 | 1142 | 1144 | 108 |
| 15° | 1101 | 1108 | 1115 | 1128 | 1133 | 311 |
| 25° | 1026 | 1034 | 1054 | 1081 | 1090 | 473 |
| 35° | 910 | 919 | 944 | 974 | 984 | 569 |
| 45° | 758 | 759 | 781 | 797 | 798 | 584 |
| 55° | 571 | 566 | 570 | 570 | 566 | 510 |
| 65° | 372 | 356 | 345 | 331 | 326 | 369 |
| 75° | 187 | 173 | 154 | 133 | 121 | 199 |
| 85° | 44 | 34 | 31 | 31 | 31 | 51 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P295734

CATALOG NUMBER: 14RLN-LD5-40-RDP-UNV-L82765-W2A1-U-2700K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1140.5 | 1140.5 | 1140.5 | 1140.5 | 1140.5 |
| 2.5° | 1142.0 | 1142.0 | 1138.9 | 1142.0 | 1143.6 |
| 5° | 1138.9 | 1138.9 | 1137.3 | 1142.0 | 1143.6 |
| 7.5° | 1132.6 | 1134.2 | 1134.2 | 1140.5 | 1143.6 |
| 10° | 1124.8 | 1127.9 | 1129.5 | 1138.9 | 1140.5 |
| 12.5° | 1115.4 | 1118.5 | 1123.2 | 1134.2 | 1135.8 |
| 15° | 1101.3 | 1107.5 | 1115.4 | 1127.9 | 1132.6 |
| 17.5° | 1087.1 | 1093.4 | 1102.8 | 1120.1 | 1124.8 |
| 20° | 1068.3 | 1076.2 | 1090.3 | 1110.7 | 1118.5 |
| 22.5° | 1049.5 | 1055.8 | 1073.0 | 1098.1 | 1106.0 |
| 25° | 1026.0 | 1033.8 | 1054.2 | 1080.9 | 1090.3 |
| 27.5° | 999.3 | 1010.3 | 1032.2 | 1060.5 | 1069.9 |
| 30° | 972.6 | 982.0 | 1005.6 | 1036.9 | 1046.3 |
| 32.5° | 941.2 | 950.7 | 977.3 | 1007.1 | 1018.1 |
| 35° | 909.9 | 919.3 | 944.4 | 974.2 | 983.6 |
| 37.5° | 875.4 | 881.6 | 908.3 | 933.4 | 942.8 |
| 40° | 839.3 | 844.0 | 867.5 | 892.6 | 898.9 |
| 42.5° | 800.1 | 803.2 | 825.2 | 847.1 | 848.7 |
| 45° | 757.7 | 759.3 | 781.2 | 796.9 | 798.5 |
| 47.5° | 715.3 | 713.8 | 732.6 | 743.6 | 745.1 |
| 50° | 668.3 | 668.3 | 680.8 | 687.1 | 687.1 |
| 52.5° | 621.2 | 618.1 | 624.4 | 629.1 | 624.4 |
| 55° | 571.0 | 566.3 | 569.5 | 569.5 | 566.3 |
| 57.5° | 520.8 | 511.4 | 513.0 | 509.8 | 502.0 |
| 60° | 472.2 | 461.2 | 456.5 | 445.5 | 439.2 |
| 62.5° | 422.0 | 409.4 | 400.0 | 387.5 | 385.9 |
| 65° | 371.8 | 356.1 | 345.1 | 331.0 | 326.3 |
| 67.5° | 323.2 | 309.0 | 293.4 | 277.7 | 268.3 |
| 70° | 274.5 | 258.8 | 244.7 | 224.3 | 213.3 |
| 72.5° | 230.6 | 216.5 | 199.2 | 175.7 | 167.9 |
| 75° | 186.7 | 172.6 | 153.7 | 133.3 | 120.8 |
| 77.5° | 144.3 | 133.3 | 112.9 | 95.7 | 94.1 |
| 80° | 111.4 | 98.8 | 75.3 | 70.6 | 70.6 |
| 82.5° | 72.2 | 64.3 | 53.3 | 50.2 | 50.2 |
| 85° | 43.9 | 34.5 | 31.4 | 31.4 | 31.4 |
| 87.5° | 17.3 | 15.7 | 15.7 | 15.7 | 15.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)