

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: P292795

Luminaire Tested: **22GR-LD5-40-FGW080-UNV-L82765-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P292795
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-084-26)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22GR-LD5-40-FGW080-UNV-L82765-W2A1-U-3500K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH FGW080 LENS
Light Source: (168) 80 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3327.0 lumens
Efficiency: N/A
Efficacy: 102.2 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.24 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

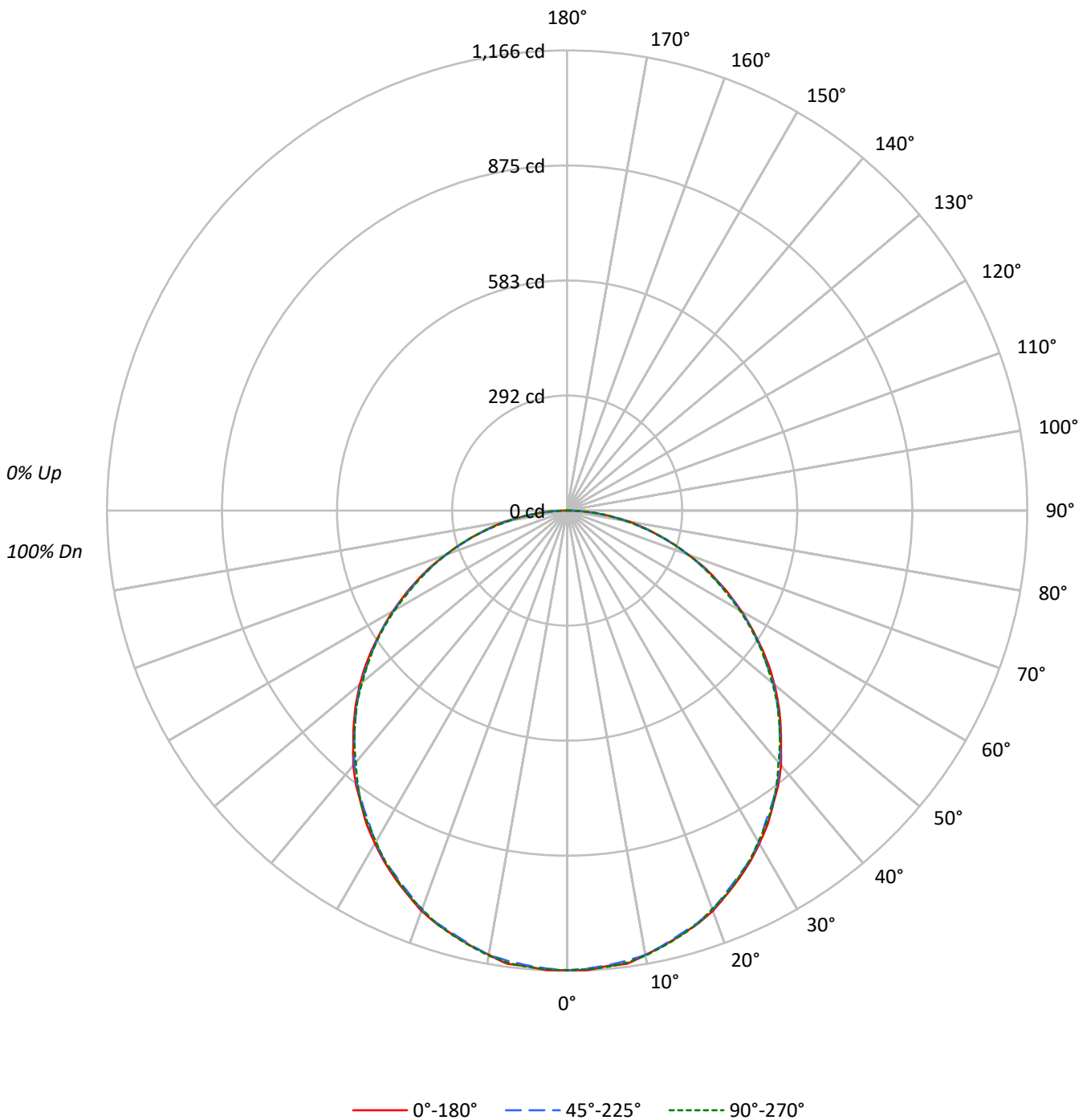
Input Watts (W): 32.55
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 108 | 103 | 99 | 95 | 106 | 101 | 97 | 94 | 97 | 94 | 91 | | 93 | 90 | 88 | | 89 | 87 | 85 | 83 |
| 2 | 98 | 90 | 83 | 77 | 96 | 88 | 82 | 76 | 85 | 79 | 74 | | 81 | 77 | 73 | | 78 | 74 | 71 | 69 |
| 3 | 90 | 79 | 71 | 64 | 87 | 77 | 70 | 63 | 74 | 68 | 62 | | 71 | 66 | 61 | | 69 | 64 | 60 | 58 |
| 4 | 82 | 70 | 61 | 54 | 80 | 68 | 60 | 54 | 66 | 59 | 53 | | 64 | 57 | 52 | | 61 | 56 | 51 | 49 |
| 5 | 75 | 62 | 53 | 46 | 73 | 61 | 53 | 46 | 59 | 51 | 46 | | 57 | 50 | 45 | | 55 | 49 | 45 | 43 |
| 6 | 70 | 56 | 47 | 41 | 68 | 55 | 47 | 40 | 53 | 46 | 40 | | 52 | 45 | 40 | | 50 | 44 | 39 | 37 |
| 7 | 65 | 51 | 42 | 36 | 63 | 50 | 42 | 36 | 48 | 41 | 35 | | 47 | 40 | 35 | | 46 | 40 | 35 | 33 |
| 8 | 60 | 46 | 38 | 32 | 58 | 46 | 37 | 32 | 44 | 37 | 32 | | 43 | 36 | 31 | | 42 | 36 | 31 | 29 |
| 9 | 56 | 43 | 34 | 29 | 55 | 42 | 34 | 29 | 41 | 34 | 28 | | 40 | 33 | 28 | | 39 | 33 | 28 | 26 |
| 10 | 53 | 39 | 31 | 26 | 51 | 39 | 31 | 26 | 38 | 31 | 26 | | 37 | 30 | 26 | | 36 | 30 | 26 | 24 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 3134 | 3134 | 3134 |
| 5° | 3130 | 3125 | 3135 |
| 10° | 3123 | 3123 | 3128 |
| 15° | 3103 | 3095 | 3105 |
| 20° | 3091 | 3083 | 3077 |
| 25° | 3057 | 3040 | 3048 |
| 30° | 3026 | 3017 | 3011 |
| 35° | 2988 | 2975 | 2988 |
| 40° | 2962 | 2948 | 2927 |
| 45° | 2911 | 2892 | 2892 |
| 50° | 2871 | 2855 | 2838 |
| 55° | 2809 | 2791 | 2787 |
| 60° | 2744 | 2729 | 2718 |
| 65° | 2675 | 2644 | 2631 |
| 70° | 2567 | 2559 | 2567 |
| 75° | 2479 | 2447 | 2468 |
| 80° | 2453 | 2331 | 2317 |
| 85° | 2171 | 2112 | 2143 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 110.2 | 3.3 |
| 10°-20° | 314.3 | 9.4 |
| 20°-30° | 473.3 | 14.2 |
| 30°-40° | 568.0 | 17.1 |
| 40°-50° | 587.7 | 17.7 |
| 50°-60° | 532.6 | 16.0 |
| 60°-70° | 412.8 | 12.4 |
| 70°-80° | 250.6 | 7.5 |
| 80°-90° | 77.6 | 2.3 |
| 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° | 897.8 | 27.0 |
| 0°-40° | 1465.8 | 44.1 |
| 0°-60° | 2586.0 | 77.7 |
| 0°-90° | 3327.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3327.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1164 | 1164 | 1164 | 1164 | 1164 | |
| 5° | 1159 | 1159 | 1157 | 1160 | 1161 | 110 |
| 15° | 1114 | 1114 | 1111 | 1116 | 1115 | 315 |
| 25° | 1030 | 1028 | 1024 | 1028 | 1027 | 475 |
| 35° | 910 | 910 | 906 | 907 | 910 | 570 |
| 45° | 765 | 764 | 760 | 760 | 760 | 590 |
| 55° | 599 | 598 | 595 | 594 | 594 | 536 |
| 65° | 420 | 420 | 415 | 417 | 413 | 415 |
| 75° | 238 | 237 | 235 | 235 | 237 | 254 |
| 85° | 70 | 69 | 68 | 68 | 69 | 80 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P292795

CATALOG NUMBER: 22GR-LD5-40-FGW080-UNV-L82765-W2A1-U-3500K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1164.5 | 1164.5 | 1164.5 | 1164.5 | 1164.5 |
| 2.5° | 1165.5 | 1160.6 | 1161.6 | 1163.5 | 1163.5 |
| 5° | 1158.6 | 1158.6 | 1156.7 | 1159.6 | 1160.6 |
| 7.5° | 1158.6 | 1153.7 | 1150.8 | 1153.7 | 1155.7 |
| 10° | 1143.0 | 1141.0 | 1143.0 | 1142.0 | 1144.9 |
| 12.5° | 1129.3 | 1127.4 | 1127.4 | 1130.3 | 1130.3 |
| 15° | 1113.7 | 1113.7 | 1110.8 | 1115.6 | 1114.7 |
| 17.5° | 1098.1 | 1098.1 | 1096.1 | 1096.1 | 1098.1 |
| 20° | 1079.5 | 1074.6 | 1076.6 | 1075.6 | 1074.6 |
| 22.5° | 1054.1 | 1051.2 | 1049.2 | 1052.1 | 1053.1 |
| 25° | 1029.7 | 1027.7 | 1023.8 | 1027.7 | 1026.7 |
| 27.5° | 1003.3 | 1001.3 | 1000.4 | 998.4 | 1000.4 |
| 30° | 974.0 | 972.0 | 971.1 | 969.1 | 969.1 |
| 32.5° | 944.7 | 940.8 | 935.9 | 940.8 | 939.8 |
| 35° | 909.5 | 909.5 | 905.6 | 906.6 | 909.5 |
| 37.5° | 878.2 | 876.3 | 874.3 | 871.4 | 872.4 |
| 40° | 843.1 | 840.1 | 839.2 | 837.2 | 833.3 |
| 42.5° | 802.0 | 802.0 | 798.1 | 799.1 | 798.1 |
| 45° | 764.9 | 763.9 | 760.0 | 760.0 | 760.0 |
| 47.5° | 725.8 | 724.9 | 721.9 | 720.0 | 721.9 |
| 50° | 685.8 | 681.9 | 681.9 | 679.0 | 678.0 |
| 52.5° | 643.8 | 640.9 | 636.9 | 637.9 | 636.0 |
| 55° | 598.8 | 597.9 | 594.9 | 594.0 | 594.0 |
| 57.5° | 553.9 | 554.9 | 552.9 | 549.0 | 550.0 |
| 60° | 509.9 | 509.0 | 507.0 | 505.1 | 505.1 |
| 62.5° | 465.0 | 465.0 | 461.1 | 461.1 | 457.2 |
| 65° | 420.1 | 420.1 | 415.2 | 417.1 | 413.2 |
| 67.5° | 375.1 | 374.2 | 371.2 | 370.3 | 371.2 |
| 70° | 326.3 | 327.3 | 325.3 | 325.3 | 326.3 |
| 72.5° | 282.3 | 281.4 | 280.4 | 280.4 | 282.3 |
| 75° | 238.4 | 237.4 | 235.4 | 235.4 | 237.4 |
| 77.5° | 198.3 | 193.4 | 192.5 | 194.4 | 191.5 |
| 80° | 158.3 | 151.4 | 150.4 | 149.5 | 149.5 |
| 82.5° | 111.4 | 108.4 | 109.4 | 108.4 | 110.4 |
| 85° | 70.3 | 69.4 | 68.4 | 68.4 | 69.4 |
| 87.5° | 33.2 | 31.3 | 31.3 | 30.3 | 30.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)