

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: P475773

Luminaire Tested: **24GR-LD5-130-A125-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475773
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-130-A125-UNV-L830-CD1-U
Description: GR 2'X4' LED TROFFER w/ A125 LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12586.9 lumens
Efficiency: N/A
Efficacy: 141.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.2 / 1.26
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

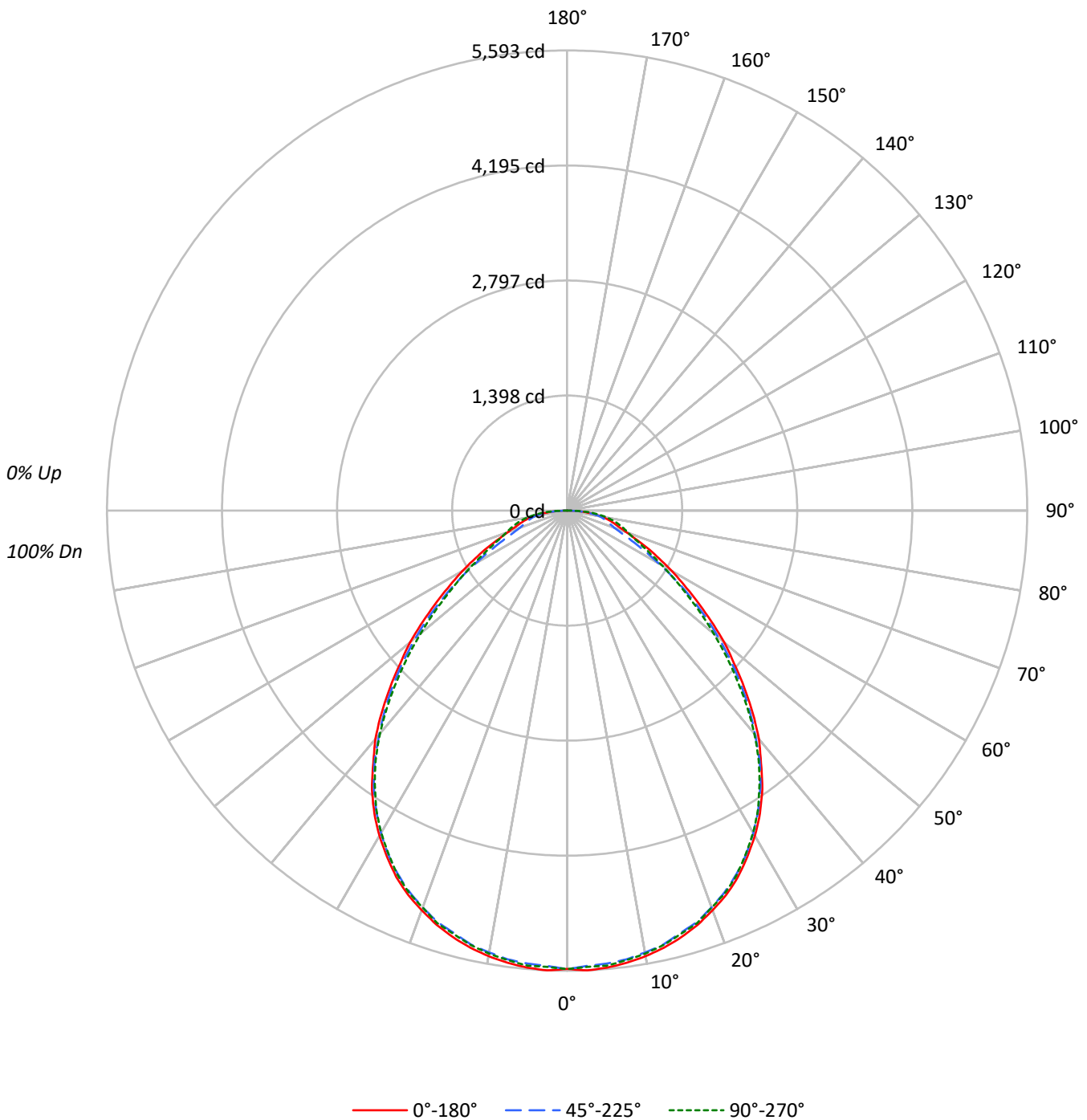
Input Watts (W): 88.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P475773

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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 | 110 | 105 | 101 | 98 | 107 | 103 | 100 | 96 | 99 | 96 | 93 | 95 | 93 | 90 | 91 | 90 | 88 | 86 | | | | | 86 | | | |
| 2 | 101 | 93 | 87 | 82 | 98 | 91 | 86 | 81 | 88 | 83 | 79 | 85 | 81 | 77 | 82 | 78 | 76 | 73 | | | | | 73 | | | |
| 3 | 93 | 83 | 76 | 70 | 90 | 82 | 75 | 69 | 79 | 73 | 68 | 76 | 71 | 67 | 73 | 69 | 66 | 63 | | | | | 63 | | | |
| 4 | 86 | 74 | 66 | 60 | 83 | 73 | 66 | 60 | 71 | 64 | 59 | 68 | 63 | 58 | 66 | 61 | 57 | 55 | | | | | 55 | | | |
| 5 | 79 | 67 | 59 | 53 | 77 | 66 | 58 | 52 | 64 | 57 | 52 | 62 | 56 | 51 | 60 | 55 | 51 | 49 | | | | | 49 | | | |
| 6 | 73 | 61 | 53 | 47 | 72 | 60 | 52 | 46 | 58 | 51 | 46 | 57 | 50 | 46 | 55 | 50 | 45 | 43 | | | | | 43 | | | |
| 7 | 68 | 56 | 47 | 42 | 67 | 55 | 47 | 41 | 53 | 46 | 41 | 52 | 46 | 41 | 51 | 45 | 41 | 39 | | | | | 39 | | | |
| 8 | 64 | 51 | 43 | 37 | 62 | 50 | 43 | 37 | 49 | 42 | 37 | 48 | 42 | 37 | 47 | 41 | 37 | 35 | | | | | 35 | | | |
| 9 | 60 | 47 | 39 | 34 | 58 | 46 | 39 | 34 | 45 | 38 | 34 | 44 | 38 | 34 | 43 | 38 | 33 | 32 | | | | | 32 | | | |
| 10 | 56 | 44 | 36 | 31 | 55 | 43 | 36 | 31 | 42 | 35 | 31 | 41 | 35 | 31 | 40 | 35 | 31 | 29 | | | | | 29 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 7496 | 7496 | 7496 |
| 5° | 7531 | 7465 | 7497 |
| 10° | 7514 | 7450 | 7470 |
| 15° | 7477 | 7405 | 7422 |
| 20° | 7401 | 7349 | 7353 |
| 25° | 7295 | 7235 | 7247 |
| 30° | 7092 | 7028 | 7024 |
| 35° | 6794 | 6727 | 6694 |
| 40° | 6367 | 6242 | 6216 |
| 45° | 5796 | 5679 | 5570 |
| 50° | 5218 | 5033 | 4869 |
| 55° | 4528 | 4282 | 4154 |
| 60° | 3954 | 3451 | 3572 |
| 65° | 3421 | 2743 | 3175 |
| 70° | 3017 | 2405 | 3101 |
| 75° | 3030 | 2615 | 3392 |
| 80° | 3319 | 3107 | 3840 |
| 85° | 3498 | 3384 | 4403 |



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CATALOG NUMBER: 24GR-LD5-130-A125-UNV-L830-CD1-U

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 526.5 | 4.2 |
| 10°-20° | 1504.5 | 12.0 |
| 20°-30° | 2243.1 | 17.8 |
| 30°-40° | 2549.9 | 20.3 |
| 40°-50° | 2298.0 | 18.3 |
| 50°-60° | 1655.3 | 13.2 |
| 60°-70° | 962.8 | 7.6 |
| 70°-80° | 589.1 | 4.7 |
| 80°-90° | 257.8 | 2.0 |
| 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° | 4274.0 | 34.0 |
| 0°-40° | 6823.9 | 54.2 |
| 0°-60° | 10777.2 | 85.6 |
| 0°-90° | 12586.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 12586.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 5571 | 5571 | 5571 | 5571 | 5571 | |
| 5° | 5576 | 5537 | 5527 | 5539 | 5551 | 530 |
| 15° | 5368 | 5338 | 5316 | 5324 | 5328 | 1513 |
| 25° | 4914 | 4884 | 4874 | 4866 | 4881 | 2257 |
| 35° | 4136 | 4108 | 4096 | 4072 | 4076 | 2574 |
| 45° | 3046 | 3011 | 2985 | 2939 | 2928 | 2349 |
| 55° | 1930 | 1884 | 1826 | 1807 | 1771 | 1740 |
| 65° | 1075 | 966 | 862 | 929 | 997 | 1075 |
| 75° | 583 | 528 | 503 | 573 | 652 | 621 |
| 85° | 227 | 224 | 219 | 298 | 285 | 240 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P475773

CATALOG NUMBER: 24GR-LD5-130-A125-UNV-L830-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 5571.0 | 5571.0 | 5571.0 | 5571.0 | 5571.0 |
| 2.5° | 5593.4 | 5563.5 | 5538.6 | 5539.9 | 5552.3 |
| 5° | 5576.0 | 5537.4 | 5527.4 | 5538.6 | 5551.1 |
| 7.5° | 5544.9 | 5508.8 | 5502.5 | 5496.3 | 5511.2 |
| 10° | 5500.0 | 5475.1 | 5452.7 | 5458.9 | 5467.7 |
| 12.5° | 5440.3 | 5419.1 | 5402.9 | 5390.5 | 5409.1 |
| 15° | 5368.0 | 5338.2 | 5315.7 | 5324.5 | 5328.2 |
| 17.5° | 5277.1 | 5248.5 | 5242.3 | 5237.3 | 5256.0 |
| 20° | 5168.8 | 5151.4 | 5132.7 | 5137.7 | 5135.2 |
| 22.5° | 5054.3 | 5028.1 | 5013.2 | 5005.7 | 5025.6 |
| 25° | 4913.6 | 4883.7 | 4873.7 | 4866.2 | 4881.2 |
| 27.5° | 4741.7 | 4725.5 | 4711.8 | 4701.9 | 4703.1 |
| 30° | 4564.9 | 4548.7 | 4523.8 | 4516.3 | 4521.3 |
| 32.5° | 4361.9 | 4343.3 | 4320.8 | 4298.4 | 4314.6 |
| 35° | 4136.5 | 4107.9 | 4095.5 | 4071.8 | 4075.5 |
| 37.5° | 3870.1 | 3857.6 | 3846.4 | 3815.3 | 3825.2 |
| 40° | 3624.8 | 3591.2 | 3553.8 | 3535.1 | 3538.9 |
| 42.5° | 3340.9 | 3306.0 | 3276.1 | 3250.0 | 3237.5 |
| 45° | 3045.8 | 3010.9 | 2984.7 | 2938.7 | 2927.5 |
| 47.5° | 2751.9 | 2719.5 | 2690.9 | 2654.8 | 2622.4 |
| 50° | 2492.9 | 2433.1 | 2404.5 | 2367.1 | 2326.0 |
| 52.5° | 2201.5 | 2166.6 | 2110.6 | 2079.5 | 2042.1 |
| 55° | 1930.1 | 1884.0 | 1825.5 | 1806.8 | 1770.7 |
| 57.5° | 1686.0 | 1636.2 | 1550.3 | 1542.8 | 1541.6 |
| 60° | 1469.3 | 1402.1 | 1282.6 | 1291.3 | 1327.4 |
| 62.5° | 1258.9 | 1163.0 | 1054.7 | 1093.3 | 1146.8 |
| 65° | 1074.6 | 966.3 | 861.7 | 928.9 | 997.4 |
| 67.5° | 897.8 | 800.7 | 712.3 | 801.9 | 874.1 |
| 70° | 767.0 | 686.1 | 611.4 | 707.3 | 788.2 |
| 72.5° | 657.5 | 595.2 | 546.6 | 633.8 | 721.0 |
| 75° | 582.8 | 528.0 | 503.1 | 572.8 | 652.5 |
| 77.5° | 513.0 | 464.5 | 457.0 | 519.2 | 577.8 |
| 80° | 428.3 | 394.7 | 401.0 | 464.5 | 495.6 |
| 82.5° | 326.2 | 316.3 | 317.5 | 397.2 | 403.4 |
| 85° | 226.6 | 224.1 | 219.2 | 297.6 | 285.2 |
| 87.5° | 114.6 | 117.0 | 115.8 | 169.3 | 151.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)