

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAILSAFE

Report Number: CRT2007161432-004

Luminaire Tested: **GH-8-GUV4-N-R2**

Test Date: 8/12/20

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-41-14
Report Number: CRT2007161432-004
The data set was measured in RADIOMETRIC UNITS. The following applies
Test Lab: Intertek Cortland
Test Date: 8/12/20
Issue Date: 8/14/20
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAILSAFE
Catalog Number: GH-8-GUV4-N-R2
Description: GH High Bay Luminaire[®]
Light Source: (8) Philips TUV 36W/G36 T8
Ballast/Driver: -

| Luminaire Equipment: | <u>Sample No.</u> | <u>Condition</u> | <u>Description</u> |
|----------------------|-------------------|------------------|---------------------------|
| | AS-5443-1 | Good | WHITE TWIN R-EVOLVE FLOOD |
| | AS-5443-2 | Good | REFLECTOR |
| | AS-5443-3 | Good | DRIVER |
| | AS-5443-4 | Good | UPPER MODULE |
| | AS-5443-5 | Good | LENS |
| | AS-5443-6 | Good | DRIVER 2 |
| | AS-5443-7 | Good | TRIM RING |

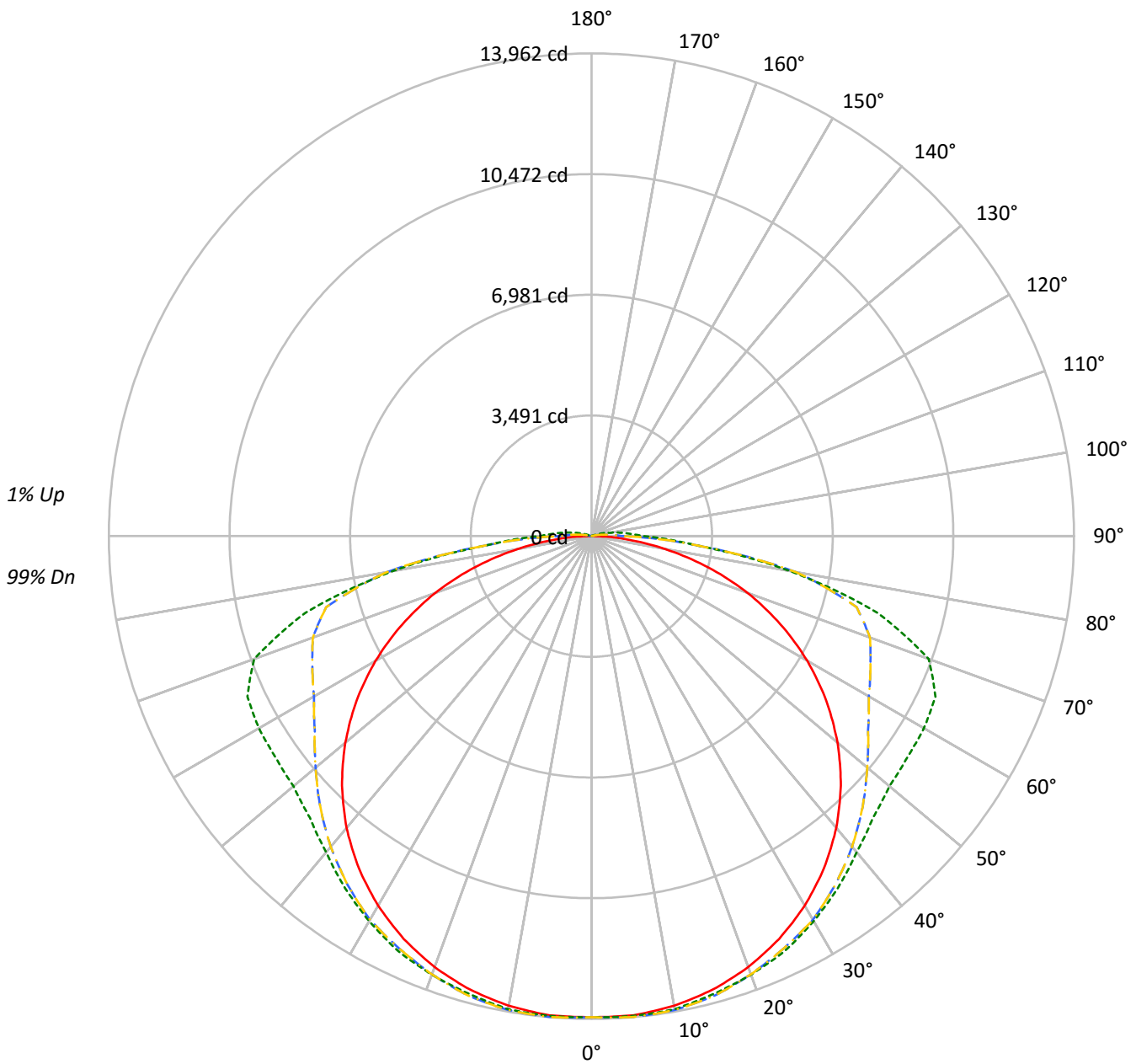
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 55747.5 lumens
Efficiency: N/A
Efficacy: 227.7 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 1.38 / 1.51
Luminous Opening: Rectangular (W 2.06' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 244.84
Input Voltage (V): NR
Input Current (A_{in}): 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



— 0°-180° - - 45°-225° - - - 90°-270° - · - 135°-315°



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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 | 110 | 110 | 110 | 105 | 105 | 105 | 101 | 101 | 101 | 99 |
| 1 | 106 | 100 | 94 | 89 | 103 | 97 | 92 | 88 | 92 | 88 | 85 | 88 | 85 | 82 | 84 | 82 | 79 | 77 |
| 2 | 94 | 85 | 76 | 70 | 91 | 82 | 75 | 69 | 79 | 72 | 67 | 75 | 70 | 65 | 72 | 67 | 63 | 61 |
| 3 | 85 | 73 | 63 | 56 | 82 | 71 | 62 | 55 | 68 | 60 | 54 | 65 | 58 | 53 | 62 | 57 | 52 | 49 |
| 4 | 77 | 64 | 54 | 46 | 75 | 62 | 53 | 46 | 59 | 51 | 45 | 57 | 50 | 44 | 54 | 48 | 43 | 41 |
| 5 | 71 | 56 | 46 | 39 | 68 | 55 | 46 | 39 | 53 | 45 | 38 | 51 | 43 | 38 | 49 | 42 | 37 | 35 |
| 6 | 65 | 50 | 41 | 34 | 63 | 49 | 40 | 33 | 47 | 39 | 33 | 46 | 38 | 33 | 44 | 37 | 32 | 30 |
| 7 | 60 | 46 | 36 | 29 | 58 | 45 | 36 | 29 | 43 | 35 | 29 | 41 | 34 | 29 | 40 | 33 | 28 | 26 |
| 8 | 56 | 41 | 32 | 26 | 54 | 41 | 32 | 26 | 39 | 31 | 26 | 38 | 31 | 25 | 36 | 30 | 25 | 23 |
| 9 | 52 | 38 | 29 | 23 | 51 | 37 | 29 | 23 | 36 | 28 | 23 | 35 | 28 | 23 | 34 | 27 | 22 | 21 |
| 10 | 49 | 35 | 26 | 21 | 47 | 34 | 26 | 21 | 33 | 26 | 21 | 32 | 25 | 20 | 31 | 25 | 20 | 18 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° | 270° |
|-----|-------|-------|-------|-------|
| 0° | 18265 | 18265 | 18265 | 18265 |
| 5° | 18333 | 18358 | 18333 | 18358 |
| 10° | 18384 | 18516 | 18384 | 18516 |
| 15° | 18454 | 18626 | 18454 | 18626 |
| 20° | 18533 | 18856 | 18533 | 18856 |
| 25° | 18620 | 19179 | 18620 | 19179 |
| 30° | 18707 | 19492 | 18707 | 19492 |
| 35° | 18801 | 19917 | 18801 | 19917 |
| 40° | 18890 | 20461 | 18890 | 20461 |
| 45° | 18951 | 21389 | 18951 | 21389 |
| 50° | 18985 | 22988 | 18985 | 22988 |
| 55° | 18993 | 25535 | 18993 | 25535 |
| 60° | 18937 | 29169 | 18937 | 29169 |
| 65° | 18757 | 34119 | 18757 | 34119 |
| 70° | 18479 | 39871 | 18479 | 39871 |
| 75° | 17779 | 43466 | 17779 | 43466 |
| 80° | 16482 | 44123 | 16482 | 44123 |
| 85° | 14476 | 45567 | 14476 | 45567 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 1328.4 | 2.4 |
| 10°-20° | 3874.7 | 7.0 |
| 20°-30° | 6057.3 | 10.9 |
| 30°-40° | 7648.6 | 13.7 |
| 40°-50° | 8520.6 | 15.3 |
| 50°-60° | 8803.4 | 15.8 |
| 60°-70° | 8622.6 | 15.5 |
| 70°-80° | 7141.8 | 12.8 |
| 80°-90° | 3067.5 | 5.5 |
| 90°-100° | 546.9 | 1.0 |
| 100°-110° | 122.5 | 0.2 |
| 110°-120° | 12.3 | 0.0 |
| 120°-130° | 0.8 | 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° | 11260.5 | 20.2 |
| 0°-40° | 18909.0 | 33.9 |
| 0°-60° | 36233.0 | 65.0 |
| 0°-90° | 55064.9 | 98.8 |
| 90°-120° | 681.8 | 1.2 |
| 90°-150° | 682.5 | 1.2 |
| 90°-180° | 683.0 | 1.2 |
| 0°-180° | 55747.5 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 90° | 180° | 270° | 360° | Flux |
|------|-------|-------|-------|-------|-------|------|
| 0° | 13912 | 13912 | 13912 | 13912 | 13912 | |
| 5° | 13911 | 13930 | 13911 | 13930 | 13911 | ### |
| 15° | 13577 | 13704 | 13577 | 13704 | 13577 | 3836 |
| 25° | 12854 | 13240 | 12854 | 13240 | 12854 | 5928 |
| 35° | 11731 | 12427 | 11731 | 12427 | 11731 | 7341 |
| 45° | 10207 | 11520 | 10207 | 11520 | 10207 | 7871 |
| 55° | 8298 | 11156 | 8298 | 11156 | 8298 | 7410 |
| 65° | 6038 | 10983 | 6038 | 10983 | 6038 | 5969 |
| 75° | 3505 | 8569 | 3505 | 8569 | 3505 | 3696 |
| 85° | 961 | 3025 | 961 | 3025 | 961 | 1054 |
| 90° | 52 | 1475 | 52 | 1475 | 52 | 146 |
| 95° | 0 | 985 | 0 | 985 | 0 | 11 |
| 105° | 0 | 283 | 0 | 283 | 0 | 0 |
| 115° | 0 | 27 | 0 | 27 | 0 | 0 |
| 125° | 0 | 0 | 0 | 0 | 0 | 0 |
| 135° | 0 | 0 | 0 | 0 | 0 | 0 |
| 145° | 0 | 0 | 0 | 0 | 0 | 0 |
| 155° | 0 | 0 | 0 | 0 | 0 | 0 |
| 165° | 0 | 0 | 0 | 0 | 0 | 0 |
| 175° | 0 | 0 | 0 | 0 | 0 | 0 |
| 180° | 0 | 0 | 0 | 0 | 0 | 0 |



TEST NUMBER: CRT2007161432-004
 CATALOG NUMBER: GH-8-GUV4-N-R2

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|
| 0° | 13912 | 13912 | 13912 | 13912 | 13912 | 13912 | 13912 | 13912 | 13912 | 13912 | 13912 |
| 5° | 13911 | 13948 | 13962 | 13943 | 13930 | 13943 | 13962 | 13948 | 13911 | 13948 | 13962 |
| 10° | 13790 | 13866 | 13916 | 13908 | 13889 | 13908 | 13916 | 13866 | 13790 | 13866 | 13916 |
| 15° | 13577 | 13693 | 13761 | 13733 | 13704 | 13733 | 13761 | 13693 | 13577 | 13693 | 13761 |
| 20° | 13265 | 13428 | 13487 | 13506 | 13496 | 13506 | 13487 | 13428 | 13265 | 13428 | 13487 |
| 25° | 12854 | 13054 | 13159 | 13238 | 13240 | 13238 | 13159 | 13054 | 12854 | 13054 | 13159 |
| 30° | 12340 | 12580 | 12813 | 12871 | 12858 | 12871 | 12813 | 12580 | 12340 | 12580 | 12813 |
| 35° | 11731 | 12024 | 12303 | 12419 | 12427 | 12419 | 12303 | 12024 | 11731 | 12024 | 12303 |
| 40° | 11022 | 11399 | 11733 | 11949 | 11939 | 11949 | 11733 | 11399 | 11022 | 11399 | 11733 |
| 45° | 10207 | 10682 | 11093 | 11409 | 11520 | 11409 | 11093 | 10682 | 10207 | 10682 | 11093 |
| 50° | 9295 | 9891 | 10414 | 11015 | 11255 | 11015 | 10414 | 9891 | 9295 | 9891 | 10414 |
| 55° | 8298 | 8955 | 9771 | 10791 | 11156 | 10791 | 9771 | 8955 | 8298 | 8955 | 9771 |
| 60° | 7212 | 7959 | 9267 | 10670 | 11109 | 10670 | 9267 | 7959 | 7212 | 7959 | 9267 |
| 65° | 6038 | 6922 | 8908 | 10541 | 10983 | 10541 | 8908 | 6922 | 6038 | 6922 | 8908 |
| 70° | 4814 | 5922 | 8575 | 10169 | 10387 | 10169 | 8575 | 5922 | 4814 | 5922 | 8575 |
| 75° | 3505 | 5083 | 7944 | 8690 | 8569 | 8690 | 7944 | 5083 | 3505 | 5083 | 7944 |
| 80° | 2180 | 4265 | 6031 | 6074 | 5836 | 6074 | 6031 | 4265 | 2180 | 4265 | 6031 |
| 85° | 961 | 2506 | 3040 | 3151 | 3025 | 3151 | 3040 | 2506 | 961 | 2506 | 3040 |
| 90° | 52 | 264 | 907 | 1356 | 1475 | 1356 | 907 | 264 | 52 | 264 | 907 |
| 95° | 0 | 60 | 474 | 858 | 985 | 858 | 474 | 60 | 0 | 60 | 474 |
| 100° | 0 | 0 | 184 | 477 | 582 | 477 | 184 | 0 | 0 | 0 | 184 |
| 105° | 0 | 0 | 45 | 206 | 283 | 206 | 45 | 0 | 0 | 0 | 45 |
| 110° | 0 | 0 | 0 | 59 | 95 | 59 | 0 | 0 | 0 | 0 | 0 |
| 115° | 0 | 0 | 0 | 25 | 27 | 25 | 0 | 0 | 0 | 0 | 0 |
| 120° | 0 | 0 | 0 | 0 | 26 | 0 | 0 | 0 | 0 | 0 | 0 |
| 125° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 130° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 135° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 140° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 145° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 155° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 160° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 165° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 170° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 175° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 180° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



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 CATALOG NUMBER: GH-8-GUV4-N-R2

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|------|--------|-------|--------|-------|--------|-------|
| 0° | 13912 | 13912 | 13912 | 13912 | 13912 | 13912 |
| 5° | 13943 | 13930 | 13943 | 13962 | 13948 | 13911 |
| 10° | 13908 | 13889 | 13908 | 13916 | 13866 | 13790 |
| 15° | 13733 | 13704 | 13733 | 13761 | 13693 | 13577 |
| 20° | 13506 | 13496 | 13506 | 13487 | 13428 | 13265 |
| 25° | 13238 | 13240 | 13238 | 13159 | 13054 | 12854 |
| 30° | 12871 | 12858 | 12871 | 12813 | 12580 | 12340 |
| 35° | 12419 | 12427 | 12419 | 12303 | 12024 | 11731 |
| 40° | 11949 | 11939 | 11949 | 11733 | 11399 | 11022 |
| 45° | 11409 | 11520 | 11409 | 11093 | 10682 | 10207 |
| 50° | 11015 | 11255 | 11015 | 10414 | 9891 | 9295 |
| 55° | 10791 | 11156 | 10791 | 9771 | 8955 | 8298 |
| 60° | 10670 | 11109 | 10670 | 9267 | 7959 | 7212 |
| 65° | 10541 | 10983 | 10541 | 8908 | 6922 | 6038 |
| 70° | 10169 | 10387 | 10169 | 8575 | 5922 | 4814 |
| 75° | 8690 | 8569 | 8690 | 7944 | 5083 | 3505 |
| 80° | 6074 | 5836 | 6074 | 6031 | 4265 | 2180 |
| 85° | 3151 | 3025 | 3151 | 3040 | 2506 | 961 |
| 90° | 1356 | 1475 | 1356 | 907 | 264 | 52 |
| 95° | 858 | 985 | 858 | 474 | 60 | 0 |
| 100° | 477 | 582 | 477 | 184 | 0 | 0 |
| 105° | 206 | 283 | 206 | 45 | 0 | 0 |
| 110° | 59 | 95 | 59 | 0 | 0 | 0 |
| 115° | 25 | 27 | 25 | 0 | 0 | 0 |
| 120° | 0 | 26 | 0 | 0 | 0 | 0 |
| 125° | 0 | 0 | 0 | 0 | 0 | 0 |
| 130° | 0 | 0 | 0 | 0 | 0 | 0 |
| 135° | 0 | 0 | 0 | 0 | 0 | 0 |
| 140° | 0 | 0 | 0 | 0 | 0 | 0 |
| 145° | 0 | 0 | 0 | 0 | 0 | 0 |
| 150° | 0 | 0 | 0 | 0 | 0 | 0 |
| 155° | 0 | 0 | 0 | 0 | 0 | 0 |
| 160° | 0 | 0 | 0 | 0 | 0 | 0 |
| 165° | 0 | 0 | 0 | 0 | 0 | 0 |
| 170° | 0 | 0 | 0 | 0 | 0 | 0 |
| 175° | 0 | 0 | 0 | 0 | 0 | 0 |
| 180° | 0 | 0 | 0 | 0 | 0 | 0 |

(END OF REPORT)