

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 50G-S24-L59-840-FAF12125-(L43)-EM10W-DIM1-UNV_ (EM MODE ONLY).IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 18125.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 6-12-2023

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.

[LUMINAIRE] 288 LEDS (4 BOARDS) 2x4'RECSSED LUMINAIRE

[MORE] WHITE REFLECTOR w/PAT 12 LENS PRISMS DOWN

[MORE] 4 ULT EVERLINE DRIVERS #D15CCUNVT-C

[LUMCAT] 50G-S24-L59-840-FAF12125-(L43)-EM10W-DIM1-UNV (EM MODE ONLY)

[LAMPCAT] HLM 80 CRI 3500K CCT

[_SEARCH_SOURCETYPE]LED

[_SEARCH_APPLICATION]INDOOR,DIRECT

[_SEARCH_MOUNTING]RECESSED

CHARACTERISTICS

| | |
|---------------------------------|-----------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 1369 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 137 |
| Total Luminaire Watts | 10 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.14 |
| Spacing Criterion (90-270) | 1.16 |
| Spacing Criterion (Diagonal) | 1.24 |
| Basic Luminous Shape | Rectangular |
| Luminous Length (0-180) | 3.77 ft |
| Luminous Width (90-270) | 1.77 ft |
| Luminous Height | 0.00 ft |

LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 742 | 732 | 722 |
| 55 | 613 | 592 | 574 |
| 65 | 493 | 463 | 457 |
| 75 | 399 | 382 | 403 |
| 85 | 399 | 399 | 470 |

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 50G-S24-L59-840-FAF12125-(L43)-EM10W-DIM1-UNV_ (EM MODE ONLY).IES****CANDELA TABULATION**

| | <u>0.0</u> | <u>22.5</u> | <u>45.0</u> | <u>67.5</u> | <u>90.0</u> |
|-----------|------------|-------------|-------------|-------------|-------------|
| 0 | 616.278 | 616.278 | 616.278 | 616.278 | 616.278 |
| 5 | 610.211 | 609.814 | 609.316 | 609.018 | 609.018 |
| 10 | 599.173 | 598.477 | 598.974 | 599.173 | 599.173 |
| 15 | 574.709 | 574.709 | 574.709 | 575.405 | 575.703 |
| 20 | 553.327 | 553.327 | 554.023 | 555.018 | 554.023 |
| 25 | 506.686 | 506.189 | 507.681 | 508.576 | 508.377 |
| 30 | 466.808 | 466.310 | 467.305 | 467.305 | 468.299 |
| 35 | 419.968 | 419.769 | 418.973 | 418.774 | 420.664 |
| 40 | 371.636 | 370.741 | 368.752 | 367.161 | 368.553 |
| 45 | 325.990 | 324.796 | 321.415 | 318.531 | 316.940 |
| 50 | 268.111 | 265.724 | 263.039 | 258.564 | 255.879 |
| 55 | 218.188 | 214.509 | 210.929 | 205.459 | 204.465 |
| 60 | 168.862 | 165.978 | 161.404 | 157.127 | 156.630 |
| 65 | 129.282 | 126.895 | 121.525 | 119.934 | 119.934 |
| 70 | 94.177 | 92.785 | 88.210 | 89.901 | 90.100 |
| 75 | 64.144 | 63.149 | 61.459 | 63.647 | 64.840 |
| 80 | 43.260 | 42.564 | 42.564 | 44.453 | 45.845 |
| 85 | 21.580 | 20.884 | 21.580 | 24.464 | 25.459 |
| 90 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 50G-S24-L59-840-FAF12125-(L43)-EM10W-DIM1-UNV_ (EM MODE ONLY).IES****ZONAL LUMEN SUMMARY**

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 220.57 | N.A. | 16.10 |
| 0-30 | 455.24 | N.A. | 33.30 |
| 0-40 | 717.37 | N.A. | 52.40 |
| 0-60 | 1152.14 | N.A. | 84.20 |
| 0-80 | 1344.42 | N.A. | 98.20 |
| 0-90 | 1368.58 | N.A. | 100.00 |
| 10-90 | 1310.7 | N.A. | 95.80 |
| 20-40 | 496.80 | N.A. | 36.30 |
| 20-50 | 742.68 | N.A. | 54.30 |
| 40-70 | 558.25 | N.A. | 40.80 |
| 60-80 | 192.28 | N.A. | 14.00 |
| 70-80 | 68.79 | N.A. | 5.00 |
| 80-90 | 24.16 | N.A. | 1.80 |
| 90-110 | 0.00 | N.A. | 0.00 |
| 90-120 | 0.00 | N.A. | 0.00 |
| 90-130 | 0.00 | N.A. | 0.00 |
| 90-150 | 0.00 | N.A. | 0.00 |
| 90-180 | 0.00 | N.A. | 0.00 |
| 110-180 | 0.00 | N.A. | 0.00 |
| 0-180 | 1368.58 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 57.88 |
| 10-20 | 162.69 |
| 20-30 | 234.67 |
| 30-40 | 262.13 |
| 40-50 | 245.88 |
| 50-60 | 188.89 |
| 60-70 | 123.48 |
| 70-80 | 68.79 |
| 80-90 | 24.16 |
| 90-100 | 0.00 |
| 100-110 | 0.00 |
| 110-120 | 0.00 |
| 120-130 | 0.00 |
| 130-140 | 0.00 |
| 140-150 | 0.00 |
| 150-160 | 0.00 |
| 160-170 | 0.00 |
| 170-180 | 0.00 |

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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

| 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 |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 110 | 105 | 101 | 98 | 107 | 103 | 99 | 96 | 99 | 96 | 93 | 95 | 92 | 90 | 91 | 89 | 88 | 85 |
| 2 | 100 | 93 | 87 | 81 | 98 | 91 | 85 | 80 | 87 | 83 | 78 | 84 | 80 | 77 | 81 | 78 | 75 | 73 |
| 3 | 92 | 82 | 75 | 69 | 90 | 81 | 74 | 68 | 78 | 72 | 67 | 75 | 70 | 66 | 73 | 68 | 65 | 63 |
| 4 | 85 | 74 | 66 | 59 | 83 | 72 | 65 | 59 | 70 | 63 | 58 | 68 | 62 | 57 | 66 | 61 | 57 | 54 |
| 5 | 79 | 66 | 58 | 52 | 77 | 65 | 57 | 51 | 63 | 56 | 51 | 61 | 55 | 50 | 60 | 54 | 50 | 48 |
| 6 | 73 | 60 | 52 | 46 | 71 | 59 | 51 | 46 | 58 | 50 | 45 | 56 | 50 | 45 | 54 | 49 | 44 | 42 |
| 7 | 68 | 55 | 47 | 41 | 66 | 54 | 46 | 41 | 53 | 46 | 40 | 51 | 45 | 40 | 50 | 44 | 40 | 38 |
| 8 | 63 | 50 | 42 | 37 | 62 | 50 | 42 | 37 | 48 | 41 | 36 | 47 | 41 | 36 | 46 | 40 | 36 | 34 |
| 9 | 59 | 46 | 39 | 33 | 58 | 46 | 38 | 33 | 45 | 38 | 33 | 44 | 37 | 33 | 43 | 37 | 33 | 31 |
| 10 | 56 | 43 | 35 | 30 | 54 | 43 | 35 | 30 | 42 | 35 | 30 | 41 | 34 | 30 | 40 | 34 | 30 | 28 |

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UGR TABLE - CORRECTED

Reflectances

| | | | | | | | | | | |
|----------------|----|----|----|----|----|----|----|----|----|----|
| Ceiling Cavity | 70 | 70 | 50 | 50 | 30 | 70 | 70 | 50 | 50 | 30 |
| Walls | 50 | 30 | 50 | 30 | 30 | 50 | 30 | 50 | 30 | 30 |
| Floor Cavity | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |

Room Size UGR Viewed Crosswise

| | | | | | | | | | | | |
|------|------|------|------|------|------|------|------|------|------|------|------|
| X=2H | Y=2H | 9.7 | 11.3 | 10.1 | 11.6 | 11.9 | 9.4 | 10.9 | 9.7 | 11.2 | 11.6 |
| | 3H | 11.2 | 12.6 | 11.6 | 12.9 | 13.3 | 10.8 | 12.2 | 11.2 | 12.6 | 12.9 |
| | 4H | 11.7 | 13.0 | 12.1 | 13.4 | 13.8 | 11.4 | 12.7 | 11.8 | 13.1 | 13.5 |
| | 6H | 12.2 | 13.4 | 12.6 | 13.8 | 14.1 | 12.0 | 13.2 | 12.4 | 13.5 | 13.9 |
| | 8H | 12.4 | 13.5 | 12.8 | 13.9 | 14.3 | 12.2 | 13.4 | 12.6 | 13.7 | 14.1 |
| | 12H | 12.5 | 13.6 | 12.9 | 14.0 | 14.4 | 12.4 | 13.5 | 12.8 | 13.9 | 14.3 |

UGR Viewed Endwise

| | | | | | | | | | | | |
|----|-----|------|------|------|------|------|------|------|------|------|------|
| 4H | 2H | 10.2 | 11.5 | 10.6 | 11.8 | 12.2 | 9.9 | 11.2 | 10.3 | 11.5 | 11.9 |
| | 3H | 11.8 | 12.9 | 12.3 | 13.3 | 13.7 | 11.6 | 12.7 | 12.0 | 13.0 | 13.5 |
| | 4H | 12.5 | 13.5 | 12.9 | 13.9 | 14.3 | 12.3 | 13.3 | 12.7 | 13.7 | 14.1 |
| | 6H | 13.1 | 14.0 | 13.6 | 14.4 | 14.9 | 13.0 | 13.8 | 13.5 | 14.3 | 14.7 |
| | 8H | 13.4 | 14.2 | 13.8 | 14.6 | 15.1 | 13.3 | 14.1 | 13.8 | 14.5 | 15.0 |
| | 12H | 13.6 | 14.3 | 14.1 | 14.8 | 15.2 | 13.6 | 14.3 | 14.1 | 14.8 | 15.2 |

| | | | | | | | | | | | |
|----|-----|------|------|------|------|------|------|------|------|------|------|
| 8H | 4H | 12.8 | 13.6 | 13.2 | 14.0 | 14.5 | 12.6 | 13.4 | 13.0 | 13.8 | 14.3 |
| | 6H | 13.5 | 14.2 | 14.0 | 14.7 | 15.1 | 13.4 | 14.1 | 13.9 | 14.6 | 15.0 |
| | 8H | 13.8 | 14.4 | 14.4 | 14.9 | 15.4 | 13.8 | 14.4 | 14.3 | 14.9 | 15.4 |
| | 12H | 14.1 | 14.7 | 14.6 | 15.2 | 15.7 | 14.2 | 14.7 | 14.7 | 15.2 | 15.8 |

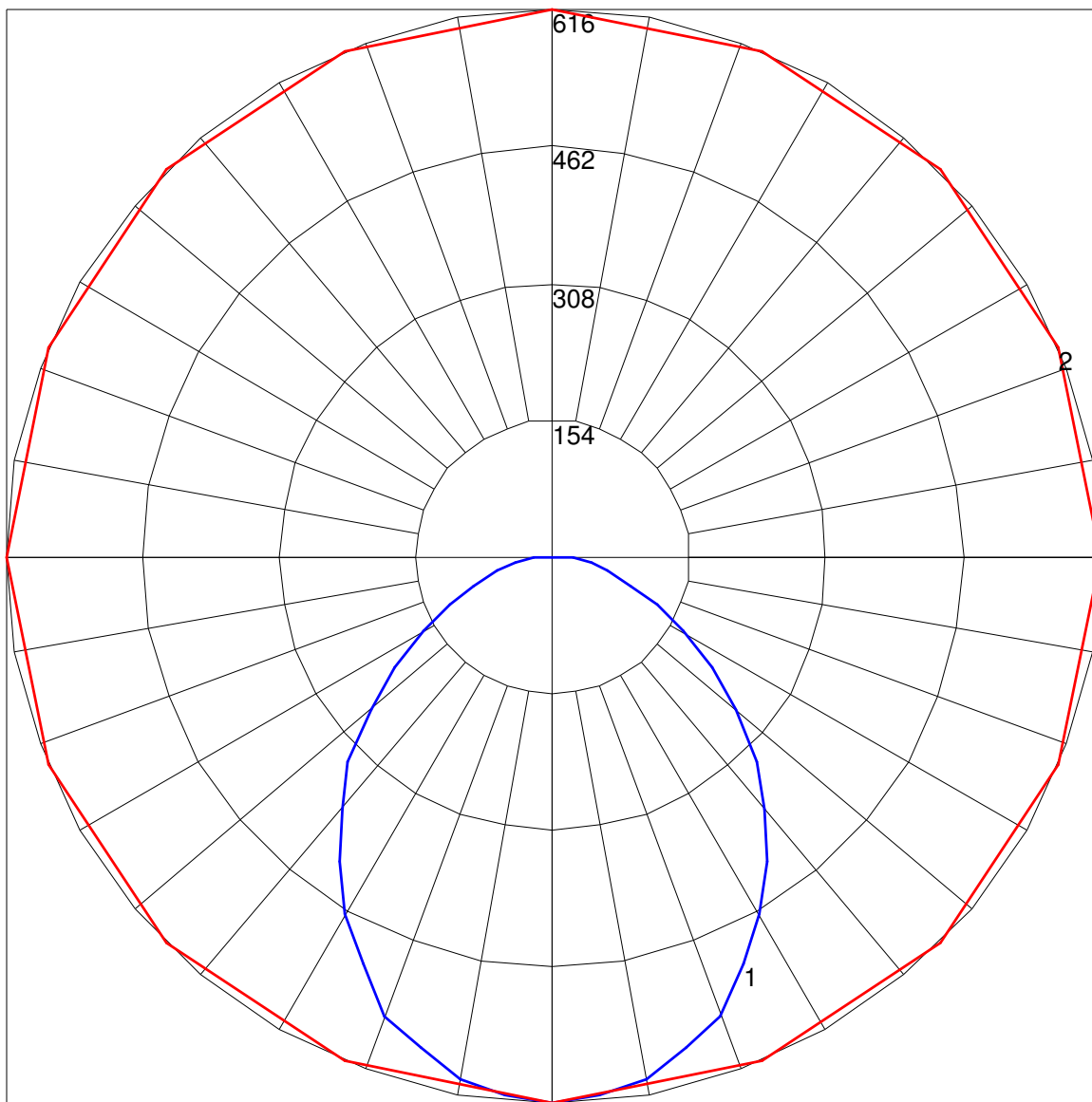
| | | | | | | | | | | | |
|-----|----|------|------|------|------|------|------|------|------|------|------|
| 12H | 4H | 12.8 | 13.5 | 13.3 | 14.0 | 14.5 | 12.6 | 13.3 | 13.1 | 13.8 | 14.3 |
| | 6H | 13.6 | 14.2 | 14.1 | 14.6 | 15.2 | 13.5 | 14.1 | 14.0 | 14.6 | 15.1 |
| | 8H | 14.0 | 14.5 | 14.5 | 15.0 | 15.6 | 13.9 | 14.5 | 14.4 | 15.0 | 15.5 |

Maximum UGR = 15.8

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POLAR GRAPH



Maximum Candela = 616.278 Located At Horizontal Angle = 0, Vertical Angle = 0

1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)

2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)