



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 50G-S22-L65-840-SAF12125-(L45)-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM BALLABS TEST NO. 18124.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUEDATE] 04-MAY-2020
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMINAIRE] 2x2' RECESSED LED TROFFER LUMINAIRE
 [MORE] WHITE REFLECTOR w/PAT 12 LENS PRISMS DOWN
 [LUMCAT] 50G-S22-L65-840-SAF12125-(L45)-DIM-UNV
 [LAMPCAT] HLM 80 CRI 4000K 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 | 4636 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 125 |
| Total Luminaire Watts | 37 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.18 |
| Spacing Criterion (90-270) | 1.22 |
| Spacing Criterion (Diagonal) | 1.26 |
| Basic Luminous Shape | Rectangular |
| Luminous Length (0-180) | 1.77 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 | 5143 | 5249 | 5466 |
| 55 | 4237 | 4272 | 4399 |
| 65 | 3372 | 3300 | 3443 |
| 75 | 2952 | 2845 | 2835 |
| 85 | 2912 | 2682 | 2739 |

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CANDELA TABULATION

| | <u>0.0</u> | <u>22.5</u> | <u>45.0</u> | <u>67.5</u> | <u>90.0</u> |
|-----------|------------|-------------|-------------|-------------|-------------|
| 0 | 2022.982 | 2022.982 | 2022.982 | 2022.982 | 2022.982 |
| 5 | 2020.050 | 2018.584 | 2014.186 | 2009.789 | 2008.323 |
| 10 | 1979.004 | 1980.470 | 1980.470 | 1976.805 | 1983.402 |
| 15 | 1943.089 | 1946.021 | 1956.282 | 1954.816 | 1965.078 |
| 20 | 1792.831 | 1810.422 | 1817.019 | 1825.082 | 1841.940 |
| 25 | 1707.807 | 1729.796 | 1740.058 | 1752.518 | 1775.973 |
| 30 | 1574.408 | 1589.067 | 1611.789 | 1623.516 | 1656.500 |
| 35 | 1409.491 | 1419.019 | 1447.605 | 1473.992 | 1504.776 |
| 40 | 1237.244 | 1242.375 | 1268.029 | 1294.415 | 1327.399 |
| 45 | 1060.600 | 1059.867 | 1082.589 | 1095.049 | 1127.299 |
| 50 | 881.756 | 882.489 | 899.347 | 895.683 | 929.399 |
| 55 | 708.777 | 710.243 | 714.640 | 711.709 | 735.896 |
| 60 | 547.524 | 546.059 | 546.059 | 538.729 | 561.451 |
| 65 | 415.591 | 408.994 | 406.795 | 404.596 | 424.386 |
| 70 | 310.044 | 303.447 | 299.050 | 299.782 | 305.646 |
| 75 | 222.821 | 218.423 | 214.759 | 212.560 | 214.026 |
| 80 | 145.860 | 145.127 | 142.928 | 137.797 | 138.530 |
| 85 | 74.029 | 76.961 | 68.166 | 68.166 | 69.632 |
| 90 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 50G-S22-L65-840-SAF12125-(L45)-DIM-UNV_.IES****ZONAL LUMEN SUMMARY**

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 735.14 | N.A. | 15.90 |
| 0-30 | 1532.44 | N.A. | 33.10 |
| 0-40 | 2436.97 | N.A. | 52.60 |
| 0-60 | 3914.43 | N.A. | 84.40 |
| 0-80 | 4558.74 | N.A. | 98.30 |
| 0-90 | 4636.21 | N.A. | 100.00 |
| 10-90 | 4445.07 | N.A. | 95.90 |
| 20-40 | 1701.83 | N.A. | 36.70 |
| 20-50 | 2537.63 | N.A. | 54.70 |
| 40-70 | 1890.41 | N.A. | 40.80 |
| 60-80 | 644.30 | N.A. | 13.90 |
| 70-80 | 231.35 | N.A. | 5.00 |
| 80-90 | 77.47 | N.A. | 1.70 |
| 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 | 4636.21 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 191.14 |
| 10-20 | 544.00 |
| 20-30 | 797.30 |
| 30-40 | 904.53 |
| 40-50 | 835.80 |
| 50-60 | 641.67 |
| 60-70 | 412.95 |
| 70-80 | 231.35 |
| 80-90 | 77.47 |
| 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 | 93 | 90 | 91 | 89 | 88 | 86 |
| 2 | 101 | 93 | 87 | 81 | 98 | 91 | 85 | 80 | 88 | 83 | 79 | 84 | 80 | 77 | 81 | 78 | 75 | 73 |
| 3 | 92 | 83 | 75 | 69 | 90 | 81 | 74 | 68 | 78 | 72 | 67 | 75 | 70 | 66 | 73 | 69 | 65 | 63 |
| 4 | 85 | 74 | 66 | 59 | 83 | 73 | 65 | 59 | 70 | 63 | 58 | 68 | 62 | 57 | 66 | 61 | 57 | 55 |
| 5 | 79 | 67 | 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 | 42 | 35 | 30 | 41 | 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 | 16.4 | 17.9 | 16.8 | 18.2 | 18.5 | 16.4 | 17.9 | 16.8 | 18.2 | 18.6 |
| | 3H | 17.8 | 19.2 | 18.2 | 19.5 | 19.9 | 17.8 | 19.2 | 18.2 | 19.5 | 19.9 |
| | 4H | 18.4 | 19.7 | 18.8 | 20.0 | 20.4 | 18.3 | 19.6 | 18.7 | 20.0 | 20.4 |
| | 6H | 18.9 | 20.1 | 19.3 | 20.4 | 20.8 | 18.8 | 20.0 | 19.2 | 20.4 | 20.7 |
| | 8H | 19.1 | 20.2 | 19.5 | 20.6 | 21.0 | 19.0 | 20.1 | 19.4 | 20.5 | 20.9 |
| | 12H | 19.2 | 20.3 | 19.6 | 20.7 | 21.1 | 19.1 | 20.2 | 19.5 | 20.6 | 21.0 |

UGR Viewed Endwise

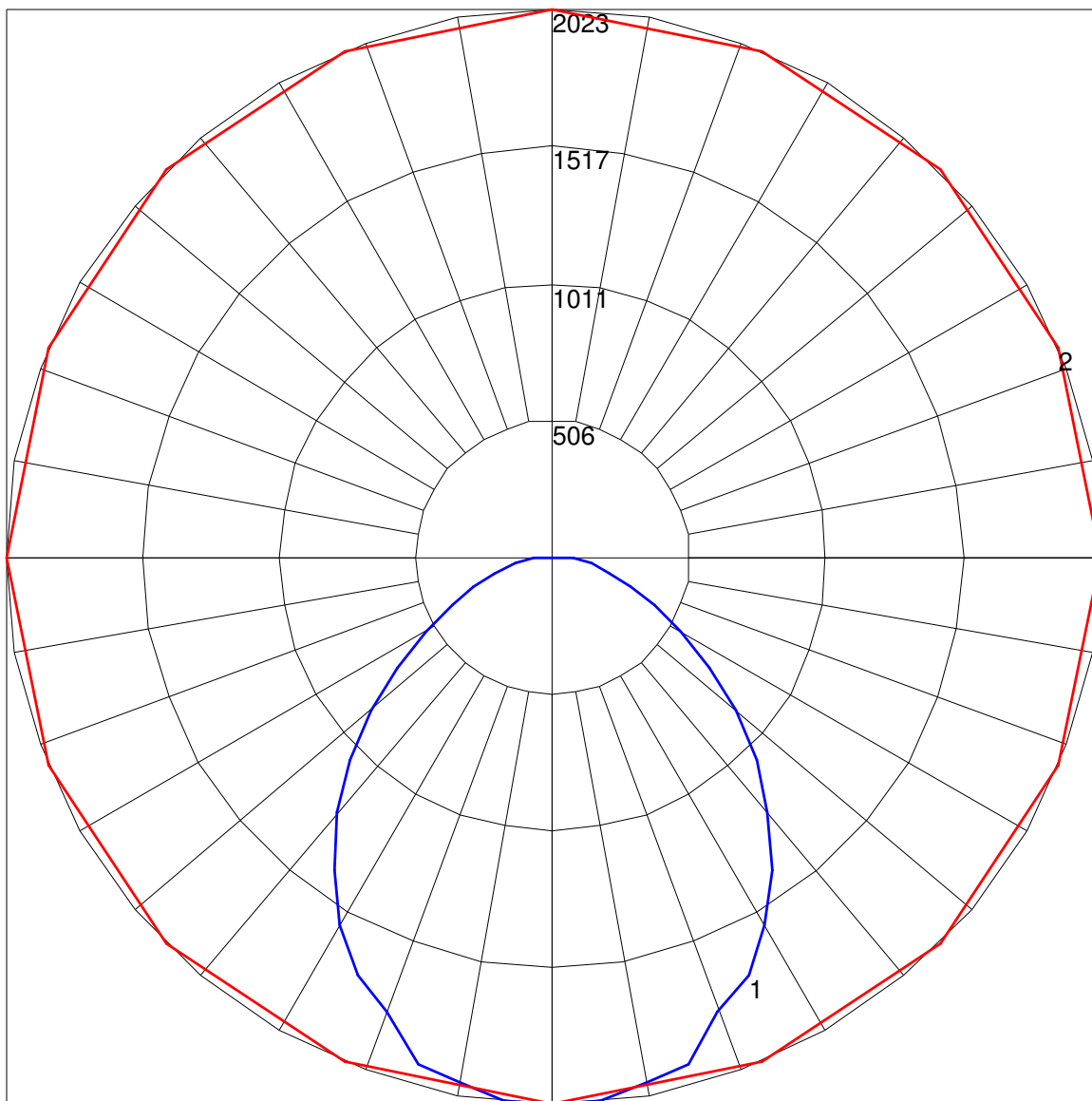
| | | | | | | | | | | | |
|----|-----|------|------|------|------|------|------|------|------|------|------|
| 4H | 2H | 16.8 | 18.1 | 17.2 | 18.5 | 18.9 | 16.8 | 18.1 | 17.2 | 18.5 | 18.9 |
| | 3H | 18.5 | 19.6 | 18.9 | 20.0 | 20.4 | 18.5 | 19.6 | 18.9 | 20.0 | 20.4 |
| | 4H | 19.2 | 20.2 | 19.6 | 20.6 | 21.0 | 19.2 | 20.1 | 19.6 | 20.5 | 21.0 |
| | 6H | 19.9 | 20.7 | 20.3 | 21.1 | 21.6 | 19.8 | 20.6 | 20.2 | 21.0 | 21.5 |
| | 8H | 20.1 | 20.9 | 20.6 | 21.3 | 21.8 | 20.0 | 20.8 | 20.5 | 21.2 | 21.7 |
| | 12H | 20.3 | 21.0 | 20.8 | 21.5 | 22.0 | 20.2 | 20.9 | 20.7 | 21.4 | 21.8 |

| | | | | | | | | | | | |
|----|-----|------|------|------|------|------|------|------|------|------|------|
| 8H | 4H | 19.5 | 20.3 | 19.9 | 20.7 | 21.2 | 19.4 | 20.2 | 19.9 | 20.7 | 21.1 |
| | 6H | 20.3 | 20.9 | 20.8 | 21.4 | 21.9 | 20.2 | 20.8 | 20.7 | 21.3 | 21.8 |
| | 8H | 20.6 | 21.2 | 21.1 | 21.7 | 22.2 | 20.5 | 21.1 | 21.0 | 21.6 | 22.1 |
| | 12H | 20.9 | 21.5 | 21.5 | 22.0 | 22.5 | 20.8 | 21.3 | 21.3 | 21.8 | 22.3 |

| | | | | | | | | | | | |
|-----|----|------|------|------|------|------|------|------|------|------|------|
| 12H | 4H | 19.5 | 20.2 | 20.0 | 20.7 | 21.2 | 19.5 | 20.2 | 19.9 | 20.6 | 21.1 |
| | 6H | 20.3 | 20.9 | 20.9 | 21.4 | 21.9 | 20.2 | 20.8 | 20.8 | 21.3 | 21.8 |
| | 8H | 20.8 | 21.3 | 21.3 | 21.8 | 22.3 | 20.6 | 21.1 | 21.1 | 21.6 | 22.2 |

Maximum UGR = 22.5

POLAR GRAPH



Maximum Candela = 2022.982 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.)