



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6PS-L12-8TW-DIM-UNV-LW-OF-WH 4000K_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]GEN from BALLABS TEST NO. 20372.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 18-DEC-2019

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 6"TALL HEAT SINK 6" SQ FORMED HOUSING DOWNLIGHT

[MORE] NO OPTIC & 6"CAST WHITE FLUSH SHALLOW TRIM

[MORE] w/SOLITE LENS

[LUMCAT] 6PS-L12-8TW-DIM-UNV-LW-OF-WH 4000k

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] Indoor, Classroom, Commercial, Industrial, Office, Direct, Downlight

[_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

| | |
|---------------------------------|-----------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 1267 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 87 |
| Total Luminaire Watts | 14.6 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.28 |
| Spacing Criterion (90-270) | 1.26 |
| Spacing Criterion (Diagonal) | 1.34 |
| Basic Luminous Shape | Rectangular |
| Luminous Length (0-180) | 0.50 ft |
| Luminous Width (90-270) | 0.50 ft |
| Luminous Height | 0.00 ft |

LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 18093 | 22847 | 17922 |
| 55 | 8433 | 13219 | 8117 |
| 65 | 5494 | 6638 | 5522 |
| 75 | 3925 | 4205 | 3971 |
| 85 | 2359 | 2081 | 2359 |

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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 | 626.894 | 626.894 | 626.894 | 626.894 | 626.894 |
| 5 | 626.894 | 624.926 | 623.520 | 621.833 | 621.552 |
| 10 | 618.741 | 615.649 | 615.368 | 613.400 | 613.400 |
| 15 | 604.404 | 602.155 | 599.906 | 600.750 | 601.593 |
| 20 | 584.164 | 581.352 | 581.634 | 583.320 | 584.726 |
| 25 | 561.955 | 560.831 | 556.333 | 559.706 | 560.831 |
| 30 | 538.060 | 533.562 | 529.064 | 531.876 | 535.530 |
| 35 | 498.704 | 496.455 | 498.141 | 497.017 | 486.616 |
| 40 | 414.368 | 425.894 | 452.600 | 429.830 | 412.119 |
| 45 | 297.423 | 323.286 | 375.574 | 333.968 | 294.612 |
| 50 | 174.856 | 202.124 | 277.183 | 225.738 | 173.169 |
| 55 | 112.447 | 123.130 | 176.261 | 129.877 | 108.231 |
| 60 | 75.059 | 82.368 | 102.327 | 85.179 | 75.621 |
| 65 | 53.975 | 56.786 | 65.219 | 58.191 | 54.256 |
| 70 | 37.951 | 38.794 | 41.605 | 39.638 | 37.389 |
| 75 | 23.614 | 23.895 | 25.301 | 25.301 | 23.895 |
| 80 | 12.931 | 12.931 | 13.494 | 13.213 | 12.931 |
| 85 | 4.779 | 4.217 | 4.217 | 3.936 | 4.779 |
| 90 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

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ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 229.02 | N.A. | 18.10 |
| 0-30 | 487.06 | N.A. | 38.40 |
| 0-40 | 793.15 | N.A. | 62.60 |
| 0-60 | 1174.13 | N.A. | 92.70 |
| 0-80 | 1260.98 | N.A. | 99.50 |
| 0-90 | 1266.89 | N.A. | 100.00 |
| 10-90 | 1207.63 | N.A. | 95.30 |
| 20-40 | 564.13 | N.A. | 44.50 |
| 20-50 | 816.87 | N.A. | 64.50 |
| 40-70 | 441.02 | N.A. | 34.80 |
| 60-80 | 86.85 | N.A. | 6.90 |
| 70-80 | 26.81 | N.A. | 2.10 |
| 80-90 | 5.91 | N.A. | 0.50 |
| 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 | 1266.89 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 59.26 |
| 10-20 | 169.76 |
| 20-30 | 258.04 |
| 30-40 | 306.08 |
| 40-50 | 252.74 |
| 50-60 | 128.25 |
| 60-70 | 60.04 |
| 70-80 | 26.81 |
| 80-90 | 5.91 |
| 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 | 104 | 104 | 104 | 104 | 102 | 102 | 102 | 102 | 97 | 97 | 97 | 93 | 93 | 93 | 89 | 89 | 89 | 88 |
| 1 | 97 | 94 | 91 | 89 | 95 | 92 | 90 | 87 | 89 | 86 | 84 | 85 | 83 | 82 | 82 | 81 | 79 | 78 |
| 2 | 90 | 85 | 80 | 76 | 88 | 83 | 79 | 75 | 80 | 76 | 73 | 77 | 74 | 71 | 75 | 72 | 70 | 68 |
| 3 | 84 | 76 | 70 | 65 | 82 | 75 | 69 | 65 | 72 | 68 | 64 | 70 | 66 | 63 | 68 | 65 | 62 | 60 |
| 4 | 78 | 69 | 62 | 57 | 76 | 68 | 62 | 57 | 66 | 60 | 56 | 64 | 59 | 55 | 62 | 58 | 55 | 53 |
| 5 | 72 | 62 | 56 | 51 | 70 | 62 | 55 | 50 | 60 | 54 | 50 | 58 | 53 | 49 | 57 | 52 | 49 | 47 |
| 6 | 67 | 57 | 50 | 45 | 66 | 56 | 50 | 45 | 55 | 49 | 45 | 53 | 48 | 44 | 52 | 47 | 44 | 42 |
| 7 | 63 | 52 | 45 | 40 | 61 | 51 | 45 | 40 | 50 | 44 | 40 | 49 | 44 | 40 | 48 | 43 | 40 | 38 |
| 8 | 59 | 48 | 41 | 37 | 57 | 47 | 41 | 36 | 46 | 40 | 36 | 45 | 40 | 36 | 44 | 39 | 36 | 34 |
| 9 | 55 | 44 | 38 | 33 | 54 | 44 | 37 | 33 | 43 | 37 | 33 | 42 | 37 | 33 | 41 | 36 | 33 | 31 |
| 10 | 52 | 41 | 35 | 30 | 51 | 41 | 34 | 30 | 40 | 34 | 30 | 39 | 34 | 30 | 38 | 33 | 30 | 29 |

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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 | 17.6 | 19.0 | 18.0 | 19.3 | 19.7 | 17.9 | 19.3 | 18.2 | 19.6 | 19.9 |
| | 3H | 18.6 | 19.8 | 19.0 | 20.1 | 20.5 | 18.8 | 20.0 | 19.1 | 20.3 | 20.7 |
| | 4H | 18.9 | 20.0 | 19.3 | 20.4 | 20.8 | 19.1 | 20.2 | 19.5 | 20.6 | 20.9 |
| | 6H | 19.1 | 20.1 | 19.5 | 20.5 | 20.9 | 19.2 | 20.3 | 19.6 | 20.7 | 21.1 |
| | 8H | 19.1 | 20.1 | 19.5 | 20.5 | 20.9 | 19.3 | 20.3 | 19.7 | 20.7 | 21.1 |
| | 12H | 19.1 | 20.1 | 19.6 | 20.5 | 20.9 | 19.3 | 20.2 | 19.7 | 20.6 | 21.1 |

UGR Viewed Endwise

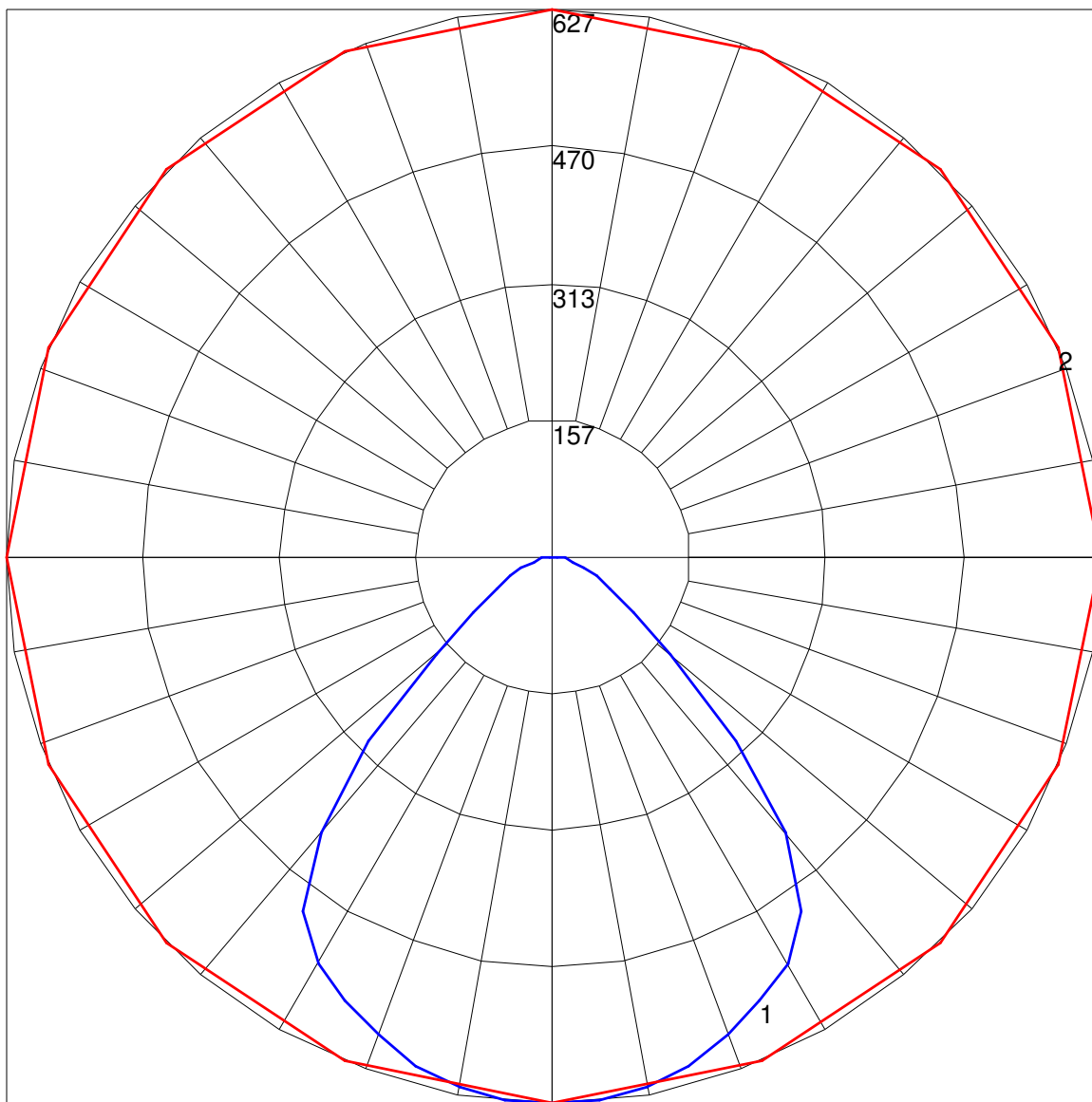
| | | | | | | | | | | | |
|----|-----|------|------|------|------|------|------|------|------|------|------|
| 4H | 2H | 18.1 | 19.3 | 18.5 | 19.6 | 20.0 | 18.3 | 19.5 | 18.7 | 19.8 | 20.2 |
| | 3H | 19.2 | 20.1 | 19.6 | 20.5 | 21.0 | 19.4 | 20.3 | 19.8 | 20.7 | 21.1 |
| | 4H | 19.6 | 20.4 | 20.0 | 20.8 | 21.3 | 19.8 | 20.6 | 20.2 | 21.0 | 21.5 |
| | 6H | 19.9 | 20.6 | 20.3 | 21.0 | 21.5 | 20.0 | 20.7 | 20.5 | 21.2 | 21.6 |
| | 8H | 19.9 | 20.6 | 20.4 | 21.0 | 21.5 | 20.1 | 20.7 | 20.5 | 21.2 | 21.7 |
| | 12H | 19.9 | 20.5 | 20.4 | 21.0 | 21.5 | 20.1 | 20.7 | 20.6 | 21.2 | 21.6 |

| | | | | | | | | | | | |
|----|-----|------|------|------|------|------|------|------|------|------|------|
| 8H | 4H | 19.7 | 20.4 | 20.2 | 20.8 | 21.3 | 19.9 | 20.5 | 20.3 | 21.0 | 21.5 |
| | 6H | 20.0 | 20.6 | 20.5 | 21.1 | 21.6 | 20.2 | 20.7 | 20.7 | 21.2 | 21.7 |
| | 8H | 20.1 | 20.6 | 20.6 | 21.1 | 21.6 | 20.3 | 20.8 | 20.8 | 21.3 | 21.8 |
| | 12H | 20.2 | 20.6 | 20.7 | 21.1 | 21.7 | 20.3 | 20.8 | 20.8 | 21.3 | 21.8 |

| | | | | | | | | | | | |
|-----|----|------|------|------|------|------|------|------|------|------|------|
| 12H | 4H | 19.7 | 20.3 | 20.2 | 20.8 | 21.2 | 19.9 | 20.4 | 20.3 | 20.9 | 21.4 |
| | 6H | 20.0 | 20.5 | 20.6 | 21.0 | 21.5 | 20.2 | 20.7 | 20.7 | 21.2 | 21.7 |
| | 8H | 20.2 | 20.6 | 20.7 | 21.1 | 21.7 | 20.3 | 20.7 | 20.8 | 21.2 | 21.8 |

Maximum UGR = 21.8

POLAR GRAPH



Maximum Candela = 626.894 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.)