



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DS-L21-9DW-DIM-UNV-RM-OF-WH.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]GEN from BALLABS TEST NO. 20323.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 23-APR-2018

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] GEN7 V13 LED 4"SHORT HEATSINK 4"SQ CAST HOUSING DOWNLIGHT

[MORE] ACRYLIC MED DIST TIR OPTIC & 4"CAST WHITE REGRESS w/SOLITE

[MORE] LENS ADVANCE #XI025C070V054DSM1 @ 625MA

[LUMCAT] 4DS-L21-9DW-DIM-UNV-RM-OF-WH

[LAMPCAT] BXRE-35E2000

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] Indoor, Classroom, Office, Downlight

[_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

| | |
|---------------------------------|-----------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 2116 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 56 |
| Total Luminaire Watts | 37.7 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 0.56 |
| Spacing Criterion (90-270) | 0.56 |
| Spacing Criterion (Diagonal) | 0.56 |
| Basic Luminous Shape | Rectangular |
| Luminous Length (0-180) | 0.33 ft |
| Luminous Width (90-270) | 0.33 ft |
| Luminous Height | 0.00 ft |

LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 7973 | 10325 | 8234 |
| 55 | 5478 | 5640 | 5156 |
| 65 | 3718 | 3499 | 3718 |
| 75 | 1428 | 1071 | 1071 |
| 85 | 0 | 0 | 0 |

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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 | 5655.102 | 5655.102 | 5655.102 | 5655.102 | 5655.102 |
| 5 | 5454.019 | 5410.181 | 5390.168 | 5369.202 | 5359.672 |
| 10 | 4625.862 | 4643.016 | 4603.943 | 4599.178 | 4550.575 |
| 15 | 3323.111 | 3283.085 | 3305.004 | 3317.393 | 3238.294 |
| 20 | 1857.397 | 1858.350 | 1922.201 | 1967.945 | 1863.115 |
| 25 | 898.679 | 907.256 | 960.624 | 956.812 | 917.739 |
| 30 | 403.119 | 425.991 | 468.876 | 469.829 | 443.145 |
| 35 | 179.164 | 196.318 | 243.015 | 232.532 | 199.177 |
| 40 | 93.394 | 100.065 | 132.467 | 119.125 | 104.830 |
| 45 | 58.133 | 60.992 | 75.287 | 67.663 | 60.039 |
| 50 | 42.885 | 42.885 | 46.697 | 44.791 | 41.932 |
| 55 | 32.402 | 33.355 | 33.355 | 31.449 | 30.496 |
| 60 | 22.872 | 22.872 | 20.966 | 21.919 | 20.966 |
| 65 | 16.201 | 16.201 | 15.248 | 16.201 | 16.201 |
| 70 | 7.624 | 7.624 | 6.671 | 7.624 | 6.671 |
| 75 | 3.812 | 3.812 | 2.859 | 5.718 | 2.859 |
| 80 | 1.906 | 1.906 | 1.906 | 2.859 | 1.906 |
| 85 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 90 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

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ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 1387.29 | N.A. | 65.60 |
| 0-30 | 1859.34 | N.A. | 87.90 |
| 0-40 | 2011.57 | N.A. | 95.10 |
| 0-60 | 2096.04 | N.A. | 99.00 |
| 0-80 | 2115.68 | N.A. | 100.00 |
| 0-90 | 2116.27 | N.A. | 100.00 |
| 10-90 | 1626.35 | N.A. | 76.80 |
| 20-40 | 624.28 | N.A. | 29.50 |
| 20-50 | 679.54 | N.A. | 32.10 |
| 40-70 | 99.56 | N.A. | 4.70 |
| 60-80 | 19.64 | N.A. | 0.90 |
| 70-80 | 4.55 | N.A. | 0.20 |
| 80-90 | 0.58 | N.A. | 0.00 |
| 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 | 2116.27 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 489.92 |
| 10-20 | 897.38 |
| 20-30 | 472.05 |
| 30-40 | 152.23 |
| 40-50 | 55.26 |
| 50-60 | 29.21 |
| 60-70 | 15.09 |
| 70-80 | 4.55 |
| 80-90 | 0.58 |
| 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 |

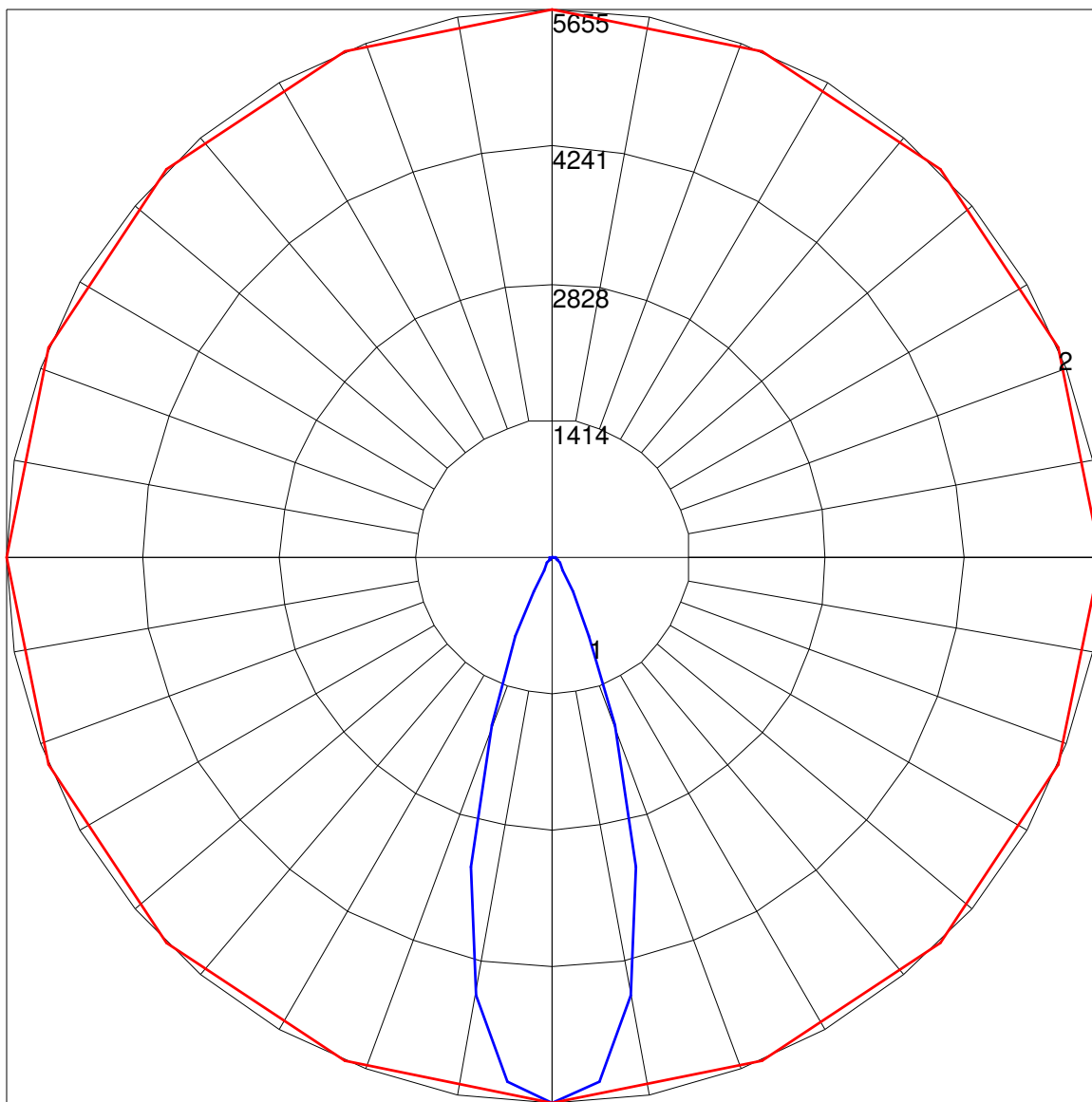
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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 | 113 | 113 | 113 | 113 | 111 | 111 | 111 | 111 | 106 | 106 | 106 | 101 | 101 | 101 | 97 | 97 | 97 | 95 |
| 1 | 109 | 107 | 105 | 103 | 107 | 105 | 103 | 101 | 101 | 99 | 98 | 97 | 96 | 95 | 94 | 93 | 92 | 91 |
| 2 | 105 | 101 | 97 | 95 | 103 | 99 | 96 | 94 | 96 | 94 | 92 | 93 | 91 | 90 | 91 | 89 | 88 | 86 |
| 3 | 100 | 95 | 91 | 88 | 99 | 94 | 90 | 87 | 92 | 89 | 86 | 89 | 87 | 85 | 87 | 85 | 83 | 82 |
| 4 | 97 | 91 | 86 | 83 | 95 | 90 | 86 | 82 | 88 | 84 | 81 | 86 | 83 | 81 | 84 | 82 | 80 | 78 |
| 5 | 93 | 86 | 82 | 78 | 92 | 86 | 81 | 78 | 84 | 80 | 77 | 82 | 79 | 77 | 81 | 78 | 76 | 75 |
| 6 | 90 | 83 | 78 | 75 | 88 | 82 | 77 | 74 | 81 | 77 | 74 | 79 | 76 | 73 | 78 | 75 | 73 | 72 |
| 7 | 86 | 79 | 74 | 71 | 85 | 79 | 74 | 71 | 77 | 73 | 71 | 76 | 73 | 70 | 75 | 72 | 70 | 69 |
| 8 | 83 | 76 | 71 | 68 | 82 | 75 | 71 | 68 | 74 | 71 | 68 | 74 | 70 | 67 | 73 | 70 | 67 | 66 |
| 9 | 80 | 73 | 68 | 65 | 80 | 73 | 68 | 65 | 72 | 68 | 65 | 71 | 67 | 65 | 70 | 67 | 65 | 64 |
| 10 | 78 | 70 | 66 | 63 | 77 | 70 | 66 | 63 | 69 | 65 | 63 | 69 | 65 | 62 | 68 | 65 | 62 | 61 |

POLAR GRAPH



Maximum Candela = 5655.102 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.)