

## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8DR-L60-835-(L50)-DIM-120-OW-CS\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]

[TESTLAB]

[ISSUE DATE] 08-08-2024

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 8DR-L60-835-(L50)-DIM-120-OW-CS

[LUMINAIRE] 8.5 INCH RECESSED LED DOWNLIGHT FIXTURE WITH

[MORE] SEMI-SPECULAR TRIM, (1) LED MODULE AND (1) ELECTRONIC DRIVER

[LAMPCAT] X1-3500K LED

[LAMP] (1) 3500K LED MODULE

[BALLASTCAT]

[BALLAST]

[OTHER]

[ MOUNTING] RECESSED

[ ABSOLUTE] TEST ABSOLUTE PHOTOMETRY IS BASED ON CALIBRATION FACTORS

[MORE] CREATED USING A 1000 WATT, NIST TRACEABLE, OMNIDIRECTIONAL

[MORE] LAB LUMEN STANDARD IN THE GONIOPHOTOMETER WITH A TEST

[MORE] DISTANCE OF 28 FEET

### CHARACTERISTICS

|                                 |                    |
|---------------------------------|--------------------|
| Lumens Per Lamp                 | N.A. (absolute)    |
| Total Lamp Lumens               | N.A. (absolute)    |
| Luminaire Lumens                | 5008               |
| Total Luminaire Efficiency      | N.A.               |
| Luminaire Efficacy Rating (LER) | 84                 |
| Total Luminaire Watts           | 59.3               |
| Ballast Factor                  | 1.00               |
| CIE Type                        | Direct             |
| Spacing Criterion (0-180)       | 1.06               |
| Spacing Criterion (90-270)      | 1.06               |
| Spacing Criterion (Diagonal)    | 0.96               |
| Basic Luminous Shape            | Circular           |
| Luminous Length (0-180)         | 0.71 ft (Diameter) |
| Luminous Width (90-270)         | 0.71 ft (Diameter) |
| Luminous Height                 | 0.00 ft            |

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**LUMINANCE DATA (cd/sq.m)**

| Angle In<br>Degrees | Average<br>0-Deg | Average<br>45-Deg | Average<br>90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45                  | 11575            | 11575             | 11575             |
| 55                  | 1923             | 1923              | 1923              |
| 65                  | 1320             | 1320              | 1320              |
| 75                  | 1027             | 1027              | 1027              |
| 85                  | 762              | 762               | 762               |

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CANDELA TABULATION

|      | <u>0</u> |
|------|----------|
| 0.0  | 4896.524 |
| 2.5  | 4902.853 |
| 5.0  | 4927.196 |
| 7.5  | 4833.229 |
| 10.0 | 4739.262 |
| 12.5 | 4678.889 |
| 15.0 | 4491.929 |
| 17.5 | 4324.929 |
| 20.0 | 4189.578 |
| 22.5 | 4053.252 |
| 25.0 | 3885.279 |
| 27.5 | 3590.232 |
| 30.0 | 3066.352 |
| 32.5 | 2493.298 |
| 35.0 | 1919.269 |
| 37.5 | 1380.783 |
| 40.0 | 906.078  |
| 42.5 | 551.145  |
| 45.0 | 299.917  |
| 47.5 | 131.457  |
| 50.0 | 64.754   |
| 52.5 | 50.635   |
| 55.0 | 40.411   |
| 57.5 | 33.595   |
| 60.0 | 28.239   |
| 62.5 | 23.856   |
| 65.0 | 20.449   |
| 67.5 | 17.041   |
| 70.0 | 14.119   |
| 72.5 | 11.684   |
| 75.0 | 9.738    |
| 77.5 | 7.790    |
| 80.0 | 5.843    |
| 82.5 | 3.895    |
| 85.0 | 2.435    |
| 87.5 | 0.974    |
| 90.0 | 0.000    |

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**ZONAL LUMEN SUMMARY**

| Zone    | Lumens  | %Lamp | %Fixt  |
|---------|---------|-------|--------|
| 0-20    | 1726.6  | N.A.  | 34.50  |
| 0-30    | 3466.36 | N.A.  | 69.20  |
| 0-40    | 4661.37 | N.A.  | 93.10  |
| 0-60    | 4974.75 | N.A.  | 99.30  |
| 0-80    | 5005.47 | N.A.  | 99.90  |
| 0-90    | 5008.25 | N.A.  | 100.00 |
| 10-90   | 4545.59 | N.A.  | 90.80  |
| 20-40   | 2934.77 | N.A.  | 58.60  |
| 20-50   | 3210.07 | N.A.  | 64.10  |
| 40-70   | 333.76  | N.A.  | 6.70   |
| 60-80   | 30.73   | N.A.  | 0.60   |
| 70-80   | 10.33   | N.A.  | 0.20   |
| 80-90   | 2.78    | N.A.  | 0.10   |
| 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   | 5008.25 | N.A.  | 100.00 |

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens  |
|---------|---------|
| 0-10    | 462.67  |
| 10-20   | 1263.93 |
| 20-30   | 1739.76 |
| 30-40   | 1195.01 |
| 40-50   | 275.29  |
| 50-60   | 38.08   |
| 60-70   | 20.39   |
| 70-80   | 10.33   |
| 80-90   | 2.78    |
| 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  | 113 | 111 | 108 | 106 | 111 | 108 | 106 | 104 | 104 | 103 | 101 | 101 | 99  | 98  | 97  | 96  | 95  | 93  |
| 2  | 108 | 103 | 99  | 95  | 105 | 101 | 97  | 94  | 98  | 95  | 92  | 95  | 92  | 90  | 92  | 90  | 88  | 87  |
| 3  | 102 | 96  | 91  | 87  | 100 | 94  | 90  | 86  | 92  | 88  | 84  | 89  | 86  | 83  | 87  | 84  | 82  | 80  |
| 4  | 97  | 89  | 84  | 79  | 95  | 88  | 83  | 79  | 86  | 81  | 78  | 84  | 80  | 77  | 82  | 79  | 76  | 74  |
| 5  | 92  | 83  | 77  | 73  | 90  | 82  | 77  | 73  | 81  | 76  | 72  | 79  | 75  | 71  | 77  | 74  | 71  | 69  |
| 6  | 87  | 78  | 72  | 68  | 86  | 77  | 71  | 67  | 76  | 71  | 67  | 74  | 70  | 66  | 73  | 69  | 66  | 64  |
| 7  | 83  | 73  | 67  | 63  | 81  | 72  | 67  | 63  | 71  | 66  | 62  | 70  | 65  | 62  | 69  | 65  | 62  | 60  |
| 8  | 78  | 69  | 63  | 58  | 77  | 68  | 62  | 58  | 67  | 62  | 58  | 66  | 61  | 58  | 65  | 61  | 58  | 56  |
| 9  | 75  | 65  | 59  | 55  | 73  | 64  | 58  | 54  | 63  | 58  | 54  | 62  | 58  | 54  | 61  | 57  | 54  | 53  |
| 10 | 71  | 61  | 55  | 51  | 70  | 61  | 55  | 51  | 60  | 55  | 51  | 59  | 54  | 51  | 58  | 54  | 51  | 49  |

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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

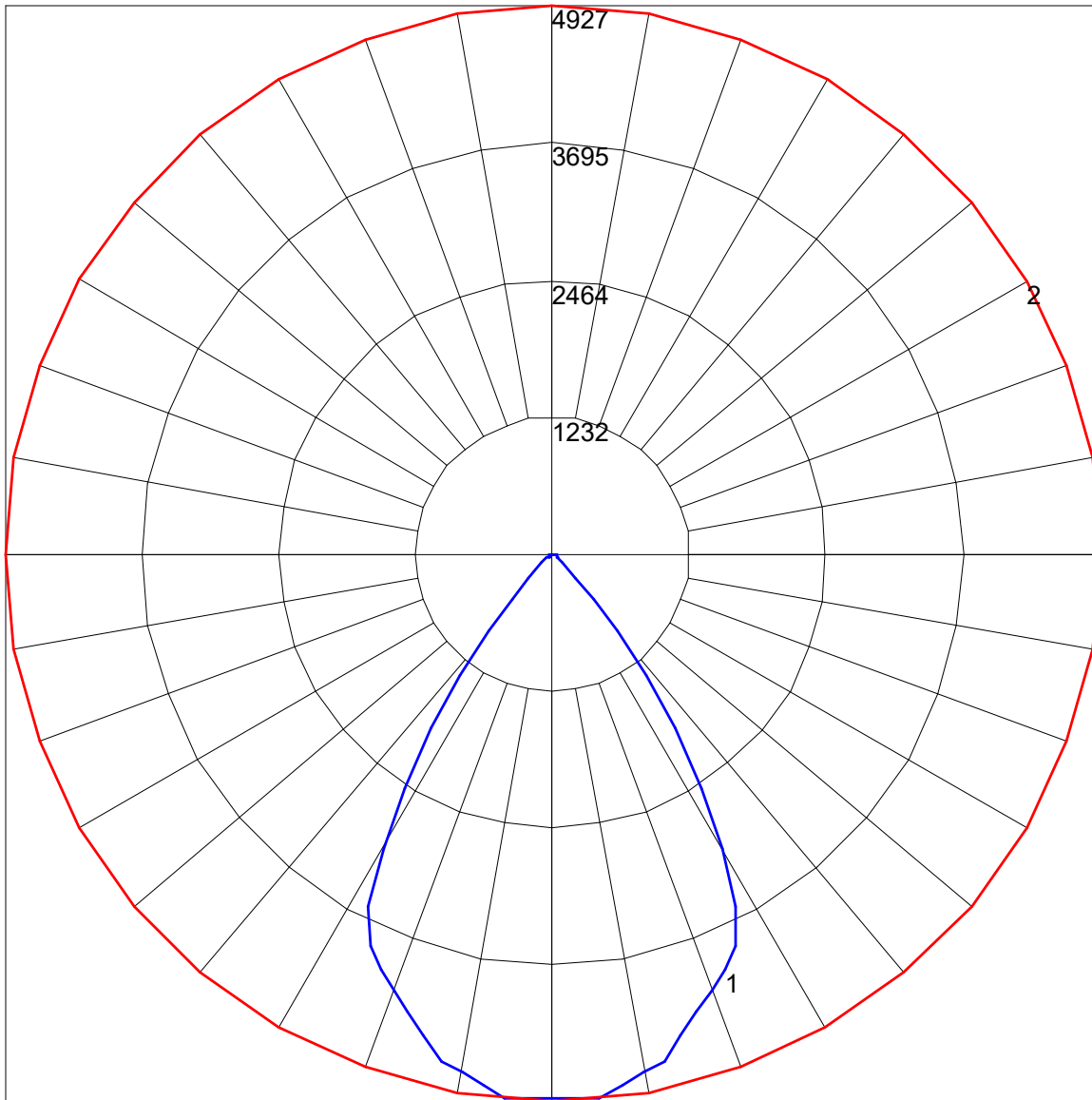
| X=2H | Y=2H | 2.8 | 3.8 | 3.2 | 4.1 | 4.4 | 2.8 | 3.8 | 3.2 | 4.1 | 4.4 |
|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|      | 3H   | 3.9 | 4.7 | 4.3 | 5.1 | 5.4 | 3.9 | 4.7 | 4.3 | 5.1 | 5.4 |
|      | 4H   | 4.3 | 5.1 | 4.7 | 5.4 | 5.8 | 4.3 | 5.1 | 4.7 | 5.4 | 5.8 |
|      | 6H   | 4.5 | 5.3 | 5.0 | 5.7 | 6.1 | 4.5 | 5.3 | 5.0 | 5.7 | 6.1 |
|      | 8H   | 4.6 | 5.3 | 5.1 | 5.7 | 6.1 | 4.6 | 5.3 | 5.1 | 5.7 | 6.1 |
|      | 12H  | 4.7 | 5.3 | 5.1 | 5.7 | 6.1 | 4.7 | 5.3 | 5.1 | 5.7 | 6.1 |

### UGR Viewed Endwise

|     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 4H  | 2H  | 3.1 | 3.9 | 3.5 | 4.3 | 4.6 | 3.1 | 3.9 | 3.5 | 4.3 | 4.6 |
|     | 3H  | 4.4 | 5.0 | 4.8 | 5.4 | 5.8 | 4.4 | 5.0 | 4.8 | 5.4 | 5.8 |
|     | 4H  | 4.9 | 5.4 | 5.3 | 5.9 | 6.3 | 4.9 | 5.4 | 5.3 | 5.9 | 6.3 |
|     | 6H  | 5.3 | 5.8 | 5.7 | 6.2 | 6.7 | 5.3 | 5.8 | 5.7 | 6.2 | 6.7 |
|     | 8H  | 5.4 | 5.8 | 5.9 | 6.3 | 6.8 | 5.4 | 5.8 | 5.9 | 6.3 | 6.8 |
|     | 12H | 5.4 | 5.8 | 5.9 | 6.3 | 6.8 | 5.4 | 5.8 | 5.9 | 6.3 | 6.8 |
| 8H  | 4H  | 5.0 | 5.4 | 5.5 | 5.9 | 6.4 | 5.0 | 5.4 | 5.5 | 5.9 | 6.4 |
|     | 6H  | 5.5 | 5.9 | 6.0 | 6.4 | 6.9 | 5.5 | 5.9 | 6.0 | 6.4 | 6.9 |
|     | 8H  | 5.7 | 6.0 | 6.2 | 6.5 | 7.0 | 5.7 | 6.0 | 6.2 | 6.5 | 7.0 |
|     | 12H | 5.8 | 6.1 | 6.3 | 6.6 | 7.2 | 5.8 | 6.1 | 6.3 | 6.6 | 7.2 |
| 12H | 4H  | 5.0 | 5.4 | 5.5 | 5.8 | 6.3 | 5.0 | 5.4 | 5.5 | 5.8 | 6.3 |
|     | 6H  | 5.5 | 5.8 | 6.1 | 6.3 | 6.9 | 5.5 | 5.8 | 6.1 | 6.3 | 6.9 |
|     | 8H  | 5.7 | 6.0 | 6.2 | 6.5 | 7.1 | 5.7 | 6.0 | 6.2 | 6.5 | 7.1 |

Maximum UGR = 7.2

POLAR GRAPH



Maximum Candela = 4927.196 Located At Horizontal Angle = 0, Vertical Angle = 5  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)