



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6DR-TL-L20-840-DIM-UNV-OW-OF-CS-WET-CC\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 20687.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 20 APRIL 2020

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 6" RND RECESSED LED CAST HOUSING DOWNLIGHT

[MORE] OPEN SEMI-SPEC SPUN ALUMINUM REFLECTOR (WIDE)

[LUMCAT] 6DR-TL-L20-835-DIM-UNV-OW-OF-CS-WET-CC

[LAMPCAT] V13 BXRE-35E2000

[\_SEARCH\_SOURCETYPE] LED

[\_SEARCH\_APPLICATION] Indoor, Architectural, Classroom, Commercial, Healthcare, Office, Downlight

[\_SEARCH\_MOUNTING] Recessed

### CHARACTERISTICS

|                                 |                    |
|---------------------------------|--------------------|
| Lumens Per Lamp                 | N.A. (absolute)    |
| Total Lamp Lumens               | N.A. (absolute)    |
| Luminaire Lumens                | 1706               |
| Total Luminaire Efficiency      | N.A.               |
| Luminaire Efficacy Rating (LER) | 90                 |
| Total Luminaire Watts           | 19                 |
| Ballast Factor                  | 1.00               |
| CIE Type                        | Direct             |
| Spacing Criterion (0-180)       | 1.26               |
| Spacing Criterion (90-270)      | 1.26               |
| Spacing Criterion (Diagonal)    | 0.98               |
| Basic Luminous Shape            | Circular           |
| Luminous Length (0-180)         | 0.48 ft (Diameter) |
| Luminous Width (90-270)         | 0.48 ft (Diameter) |
| Luminous Height                 | 0.00 ft            |

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

| Angle In<br>Degrees | Average<br>0-Deg | Average<br>45-Deg | Average<br>90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45                  | 3160             | 3160              | 3160              |
| 55                  | 1101             | 1101              | 1101              |
| 65                  | 230              | 230               | 230               |
| 75                  | 0                | 0                 | 0                 |
| 85                  | 0                | 0                 | 0                 |

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6DR-TL-L20-840-DIM-UNV-OW-OF-CS-WET-CC\_.IES

## CANDELA TABULATION

|    | <u>0</u> |
|----|----------|
| 0  | 1360.893 |
| 5  | 1285.198 |
| 10 | 1414.613 |
| 15 | 1412.171 |
| 20 | 1474.843 |
| 25 | 1613.212 |
| 30 | 1584.724 |
| 35 | 491.614  |
| 40 | 67.556   |
| 45 | 37.441   |
| 50 | 21.976   |
| 55 | 10.581   |
| 60 | 5.698    |
| 65 | 1.628    |
| 70 | 0.000    |
| 75 | 0.000    |
| 80 | 0.000    |
| 85 | 0.000    |
| 90 | 0.000    |

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 6DR-TL-L20-840-DIM-UNV-OW-OF-CS-WET-CC\_.IES****ZONAL LUMEN SUMMARY**

| Zone    | Lumens  | %Lamp | %Fixt  |
|---------|---------|-------|--------|
| 0-20    | 533.83  | N.A.  | 31.30  |
| 0-30    | 1262.41 | N.A.  | 74.00  |
| 0-40    | 1661.46 | N.A.  | 97.40  |
| 0-60    | 1703.75 | N.A.  | 99.90  |
| 0-80    | 1705.94 | N.A.  | 100.00 |
| 0-90    | 1705.94 | N.A.  | 100.00 |
| 10-90   | 1577.73 | N.A.  | 92.50  |
| 20-40   | 1127.63 | N.A.  | 66.10  |
| 20-50   | 1159.08 | N.A.  | 67.90  |
| 40-70   | 44.48   | N.A.  | 2.60   |
| 60-80   | 2.19    | N.A.  | 0.10   |
| 70-80   | 0.00    | N.A.  | 0.00   |
| 80-90   | 0.00    | 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   | 1705.94 | N.A.  | 100.00 |

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens |
|---------|--------|
| 0-10    | 128.21 |
| 10-20   | 405.61 |
| 20-30   | 728.58 |
| 30-40   | 399.05 |
| 40-50   | 31.45  |
| 50-60   | 10.84  |
| 60-70   | 2.19   |
| 70-80   | 0.00   |
| 80-90   | 0.00   |
| 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   |

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6DR-TL-L20-840-DIM-UNV-OW-OF-CS-WET-CC\_.IES

## 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  | 114 | 111 | 108 | 106 | 111 | 109 | 106 | 104 | 105 | 103 | 101 | 101 | 99  | 98  | 97  | 96  | 95  | 94  |
| 2  | 108 | 103 | 99  | 96  | 106 | 101 | 98  | 95  | 98  | 95  | 93  | 95  | 93  | 91  | 92  | 90  | 89  | 87  |
| 3  | 102 | 96  | 91  | 87  | 100 | 95  | 90  | 86  | 92  | 88  | 85  | 90  | 86  | 84  | 87  | 85  | 82  | 81  |
| 4  | 97  | 90  | 84  | 80  | 95  | 89  | 83  | 79  | 86  | 82  | 79  | 84  | 81  | 78  | 83  | 79  | 77  | 75  |
| 5  | 92  | 84  | 78  | 74  | 91  | 83  | 77  | 73  | 81  | 76  | 73  | 79  | 75  | 72  | 78  | 74  | 71  | 70  |
| 6  | 87  | 78  | 72  | 68  | 86  | 78  | 72  | 68  | 76  | 71  | 67  | 75  | 70  | 67  | 73  | 70  | 67  | 65  |
| 7  | 83  | 74  | 68  | 63  | 82  | 73  | 67  | 63  | 72  | 67  | 63  | 70  | 66  | 62  | 69  | 65  | 62  | 61  |
| 8  | 79  | 69  | 63  | 59  | 78  | 69  | 63  | 59  | 67  | 62  | 59  | 66  | 62  | 58  | 65  | 61  | 58  | 57  |
| 9  | 75  | 65  | 59  | 55  | 74  | 65  | 59  | 55  | 64  | 58  | 55  | 63  | 58  | 55  | 62  | 57  | 54  | 53  |
| 10 | 71  | 61  | 55  | 51  | 70  | 61  | 55  | 51  | 60  | 55  | 51  | 59  | 54  | 51  | 58  | 54  | 51  | 50  |

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6DR-TL-L20-840-DIM-UNV-OW-OF-CS-WET-CC\_.IES

## UGR TABLE - CORRECTED

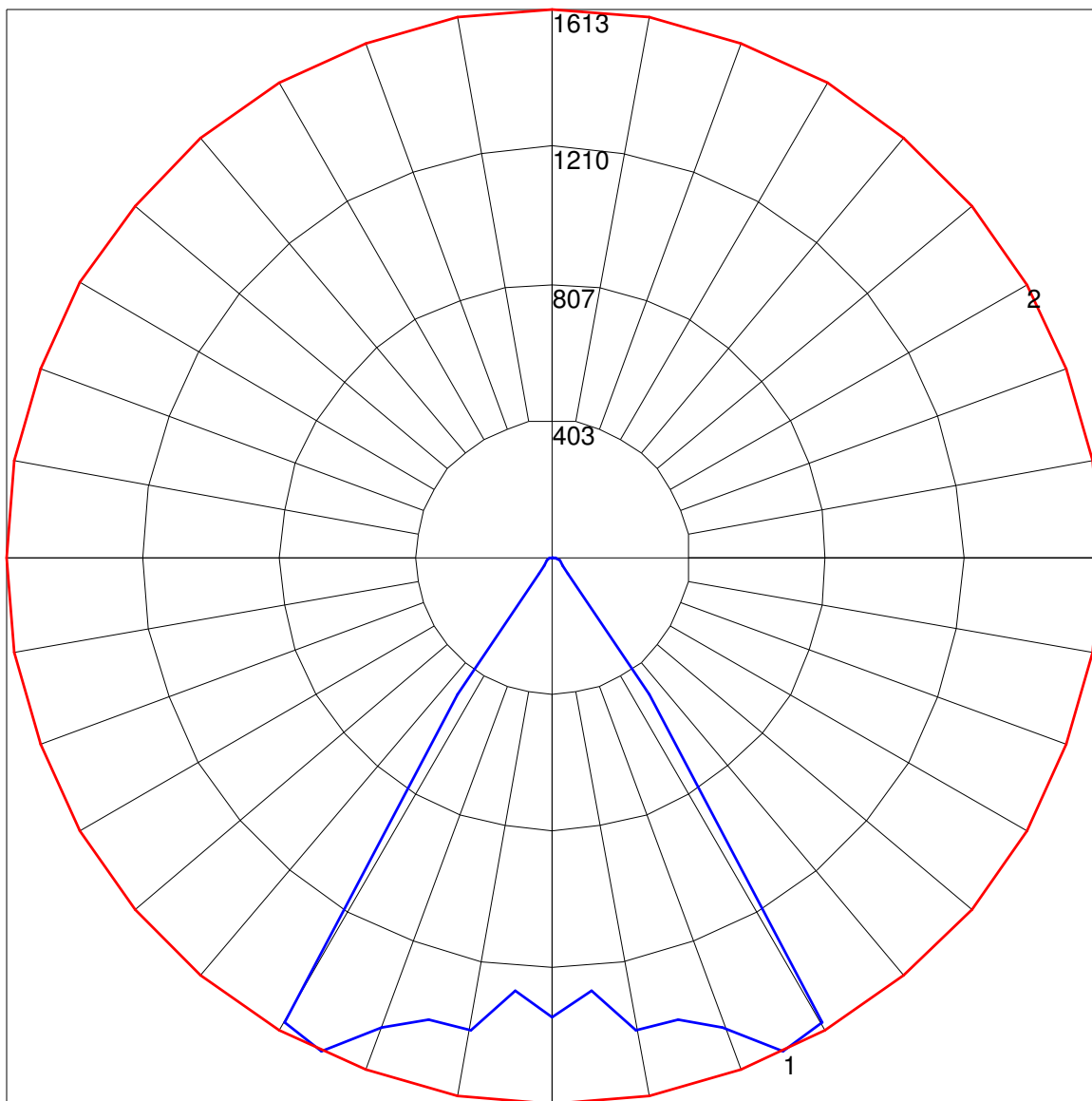
### Reflectances

|                |    |    |    |    |    |    |    |    |    |    |
|----------------|----|----|----|----|----|----|----|----|----|----|
| 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 |     |     |     |     | UGR Viewed Endwise |     |     |     |     |
|-----------|------|----------------------|-----|-----|-----|-----|--------------------|-----|-----|-----|-----|
| X=2H      | Y=2H | 1.9                  | 1.9 | 1.9 | 1.9 | 1.9 | 1.9                | 1.9 | 1.9 | 1.9 | 1.9 |
|           | 3H   | 1.9                  | 1.9 | 1.9 | 1.9 | 1.9 | 1.9                | 1.9 | 1.9 | 1.9 | 1.9 |
|           | 4H   | 1.9                  | 1.9 | 1.9 | 1.9 | 1.9 | 1.9                | 1.9 | 1.9 | 1.9 | 1.9 |
|           | 6H   | 1.9                  | 1.9 | 1.9 | 1.9 | 1.9 | 1.9                | 1.9 | 1.9 | 1.9 | 1.9 |
|           | 8H   | 1.9                  | 1.9 | 1.9 | 1.9 | 1.9 | 1.9                | 1.9 | 1.9 | 1.9 | 1.9 |
|           | 12H  | 1.9                  | 1.9 | 1.9 | 1.9 | 1.9 | 1.9                | 1.9 | 1.9 | 1.9 | 1.9 |
| 4H        | 2H   | 1.9                  | 1.9 | 1.9 | 1.9 | 1.9 | 1.9                | 1.9 | 1.9 | 1.9 | 1.9 |
|           | 3H   | 1.9                  | 1.9 | 1.9 | 1.9 | 1.9 | 1.9                | 1.9 | 1.9 | 1.9 | 1.9 |
|           | 4H   | 1.9                  | 1.9 | 1.9 | 1.9 | 1.9 | 1.9                | 1.9 | 1.9 | 1.9 | 1.9 |
|           | 6H   | 1.9                  | 1.9 | 1.9 | 1.9 | 1.9 | 1.9                | 1.9 | 1.9 | 1.9 | 1.9 |
|           | 8H   | 1.9                  | 1.9 | 1.9 | 1.9 | 1.9 | 1.9                | 1.9 | 1.9 | 1.9 | 1.9 |
|           | 12H  | 1.9                  | 1.9 | 1.9 | 1.9 | 1.9 | 1.9                | 1.9 | 1.9 | 1.9 | 1.9 |
| 8H        | 4H   | 1.9                  | 1.9 | 1.9 | 1.9 | 1.9 | 1.9                | 1.9 | 1.9 | 1.9 | 1.9 |
|           | 6H   | 1.9                  | 1.9 | 1.9 | 1.9 | 1.9 | 1.9                | 1.9 | 1.9 | 1.9 | 1.9 |
|           | 8H   | 1.9                  | 1.9 | 1.9 | 1.9 | 1.9 | 1.9                | 1.9 | 1.9 | 1.9 | 1.9 |
|           | 12H  | 1.9                  | 1.9 | 1.9 | 1.9 | 1.9 | 1.9                | 1.9 | 1.9 | 1.9 | 1.9 |
| 12H       | 4H   | 1.9                  | 1.9 | 1.9 | 1.9 | 1.9 | 1.9                | 1.9 | 1.9 | 1.9 | 1.9 |
|           | 6H   | 1.9                  | 1.9 | 1.9 | 1.9 | 1.9 | 1.9                | 1.9 | 1.9 | 1.9 | 1.9 |
|           | 8H   | 1.9                  | 1.9 | 1.9 | 1.9 | 1.9 | 1.9                | 1.9 | 1.9 | 1.9 | 1.9 |

Maximum UGR = 1.9

POLAR GRAPH



Maximum Candela = 1613.212 Located At Horizontal Angle = 0, Vertical Angle = 25  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (25) (Through Max. Cd.)