



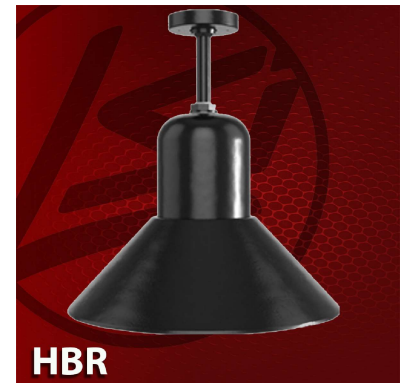
**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HBR-17L-40-GWT.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST] LED-11927  
[TESTLAB] LSI INDUSTRIES, INC.  
[ISSUE DATE] 7/31/2020  
[TEST DATE] 06/16/20  
[MANUFACT] LSI INDUSTRIES, INC.  
[LUMCAT] HBR-17L-40-GWT  
[OTHER] TEST PROCEDURE: IESNA LM-79-08  
[ABSOLUTE] NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED  
[OTHER] SCALED FROM ORIGINAL TEST DATA  
[SEARCH\_SOURCETYPE] LED  
[SEARCH\_APPLICATION] Indoor  
[SEARCH\_APPLICATION] Outdoor

**CHARACTERISTICS**

|                                 |                    |
|---------------------------------|--------------------|
| Lumens Per Lamp                 | N.A. (absolute)    |
| Total Lamp Lumens               | N.A. (absolute)    |
| Luminaire Lumens                | 1563               |
| Total Luminaire Efficiency      | N.A.               |
| Luminaire Efficacy Rating (LER) | 122                |
| Total Luminaire Watts           | 12.8               |
| Ballast Factor                  | 1.00               |
| CIE Type                        | Direct             |
| Spacing Criterion (0-180)       | 1.30               |
| Spacing Criterion (90-270)      | 1.30               |
| Spacing Criterion (Diagonal)    | 1.38               |
| Basic Luminous Shape            | Circular           |
| Luminous Length (0-180)         | 0.29 ft (Diameter) |
| Luminous Width (90-270)         | 0.29 ft (Diameter) |
| Luminous Height                 | 0.00 ft            |



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

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|------------------|---------------|----------------|----------------|
| 45               | 98560         | 97650          | 96967          |
| 55               | 90919         | 88674          | 88954          |
| 65               | 18281         | 18281          | 18662          |
| 75               | 13681         | 13681          | 13681          |
| 85               | 14774         | 14774          | 14774          |

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HBR-17L-40-GWT.IES**

**CANDELA TABULATION**

|       | <u>0.0</u> | <u>22.5</u> | <u>45.0</u> | <u>67.5</u> | <u>90.0</u> |
|-------|------------|-------------|-------------|-------------|-------------|
| 0.0   | 653        | 653         | 653         | 653         | 653         |
| 2.5   | 654        | 653         | 654         | 653         | 654         |
| 5.0   | 653        | 653         | 653         | 653         | 653         |
| 7.5   | 653        | 654         | 653         | 653         | 653         |
| 10.0  | 653        | 653         | 653         | 653         | 653         |
| 12.5  | 652        | 652         | 650         | 650         | 650         |
| 15.0  | 650        | 650         | 649         | 649         | 649         |
| 17.5  | 648        | 648         | 646         | 646         | 646         |
| 20.0  | 645        | 644         | 644         | 642         | 642         |
| 22.5  | 642        | 641         | 639         | 638         | 638         |
| 25.0  | 639        | 638         | 637         | 635         | 637         |
| 27.5  | 631        | 631         | 627         | 626         | 626         |
| 30.0  | 601        | 601         | 600         | 598         | 600         |
| 32.5  | 559        | 559         | 559         | 559         | 560         |
| 35.0  | 531        | 531         | 530         | 530         | 531         |
| 37.5  | 508        | 508         | 506         | 504         | 506         |
| 40.0  | 485        | 484         | 481         | 480         | 482         |
| 42.5  | 459        | 459         | 455         | 452         | 454         |
| 45.0  | 433        | 433         | 429         | 425         | 426         |
| 47.5  | 407        | 407         | 402         | 396         | 400         |
| 50.0  | 380        | 380         | 374         | 369         | 373         |
| 52.5  | 352        | 352         | 346         | 340         | 346         |
| 55.0  | 324        | 322         | 316         | 312         | 317         |
| 57.5  | 275        | 276         | 269         | 266         | 272         |
| 60.0  | 154        | 157         | 160         | 158         | 163         |
| 62.5  | 67         | 67          | 68          | 68          | 70          |
| 65.0  | 48         | 48          | 48          | 48          | 49          |
| 67.5  | 34         | 34          | 34          | 34          | 34          |
| 70.0  | 30         | 30          | 30          | 30          | 30          |
| 72.5  | 26         | 26          | 26          | 26          | 26          |
| 75.0  | 22         | 23          | 22          | 22          | 22          |
| 77.5  | 18         | 18          | 18          | 18          | 18          |
| 80.0  | 14         | 14          | 14          | 14          | 14          |
| 82.5  | 11         | 11          | 11          | 11          | 11          |
| 85.0  | 8          | 8           | 8           | 8           | 8           |
| 87.5  | 5          | 5           | 5           | 4           | 4           |
| 90.0  | 0          | 1           | 1           | 1           | 1           |
| 92.5  | 0          | 0           | 0           | 0           | 0           |
| 95.0  | 0          | 0           | 0           | 0           | 0           |
| 97.5  | 0          | 0           | 0           | 0           | 0           |
| 100.0 | 0          | 0           | 0           | 0           | 0           |
| 102.5 | 0          | 0           | 0           | 0           | 0           |
| 105.0 | 0          | 0           | 0           | 0           | 0           |
| 107.5 | 0          | 0           | 0           | 0           | 0           |
| 110.0 | 0          | 0           | 0           | 0           | 0           |
| 112.5 | 0          | 0           | 0           | 0           | 0           |
| 115.0 | 0          | 0           | 0           | 0           | 0           |
| 117.5 | 0          | 0           | 0           | 0           | 0           |
| 120.0 | 0          | 0           | 0           | 0           | 0           |
| 122.5 | 0          | 0           | 0           | 0           | 0           |
| 125.0 | 0          | 0           | 0           | 0           | 0           |
| 127.5 | 0          | 0           | 0           | 0           | 0           |
| 130.0 | 0          | 0           | 0           | 0           | 0           |
| 132.5 | 0          | 0           | 0           | 0           | 0           |

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : HBR-17L-40-GWT.IES

CANDELA TABULATION - (Cont.)

|       |   |   |   |   |   |
|-------|---|---|---|---|---|
| 135.0 | 0 | 0 | 0 | 0 | 0 |
| 137.5 | 0 | 0 | 0 | 0 | 0 |
| 140.0 | 0 | 0 | 0 | 0 | 0 |
| 142.5 | 0 | 0 | 0 | 0 | 0 |
| 145.0 | 0 | 0 | 0 | 0 | 0 |
| 147.5 | 0 | 0 | 0 | 0 | 0 |
| 150.0 | 0 | 0 | 0 | 0 | 0 |
| 152.5 | 0 | 0 | 0 | 0 | 0 |
| 155.0 | 0 | 0 | 0 | 0 | 0 |
| 157.5 | 0 | 0 | 0 | 0 | 0 |
| 160.0 | 0 | 0 | 0 | 0 | 0 |
| 162.5 | 0 | 0 | 0 | 0 | 0 |
| 165.0 | 0 | 0 | 0 | 0 | 0 |
| 167.5 | 0 | 0 | 0 | 0 | 0 |
| 170.0 | 0 | 0 | 0 | 0 | 0 |
| 172.5 | 0 | 0 | 0 | 0 | 0 |
| 175.0 | 0 | 0 | 0 | 0 | 0 |
| 177.5 | 0 | 0 | 0 | 0 | 0 |
| 180.0 | 0 | 0 | 0 | 0 | 0 |

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HBR-17L-40-GWT.IES**

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens  | %Lamp | %Fixt  |
|---------|---------|-------|--------|
| 0-20    | 246.12  | N.A.  | 15.70  |
| 0-30    | 537.97  | N.A.  | 34.40  |
| 0-40    | 872.19  | N.A.  | 55.80  |
| 0-60    | 1471.17 | N.A.  | 94.10  |
| 0-80    | 1554.38 | N.A.  | 99.50  |
| 0-90    | 1562.84 | N.A.  | 100.00 |
| 10-90   | 1500.49 | N.A.  | 96.00  |
| 20-40   | 626.06  | N.A.  | 40.10  |
| 20-50   | 957.05  | N.A.  | 61.20  |
| 40-70   | 658.92  | N.A.  | 42.20  |
| 60-80   | 83.21   | N.A.  | 5.30   |
| 70-80   | 23.28   | N.A.  | 1.50   |
| 80-90   | 8.46    | N.A.  | 0.50   |
| 90-110  | 0.12    | N.A.  | 0.00   |
| 90-120  | 0.12    | N.A.  | 0.00   |
| 90-130  | 0.12    | N.A.  | 0.00   |
| 90-150  | 0.12    | N.A.  | 0.00   |
| 90-180  | 0.12    | N.A.  | 0.00   |
| 110-180 | 0.00    | N.A.  | 0.00   |
| 0-180   | 1562.96 | N.A.  | 100.00 |

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens |
|---------|--------|
| 0-10    | 62.35  |
| 10-20   | 183.77 |
| 20-30   | 291.85 |
| 30-40   | 334.21 |
| 40-50   | 330.98 |
| 50-60   | 268.00 |
| 60-70   | 59.93  |
| 70-80   | 23.28  |
| 80-90   | 8.46   |
| 90-100  | 0.12   |
| 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   |

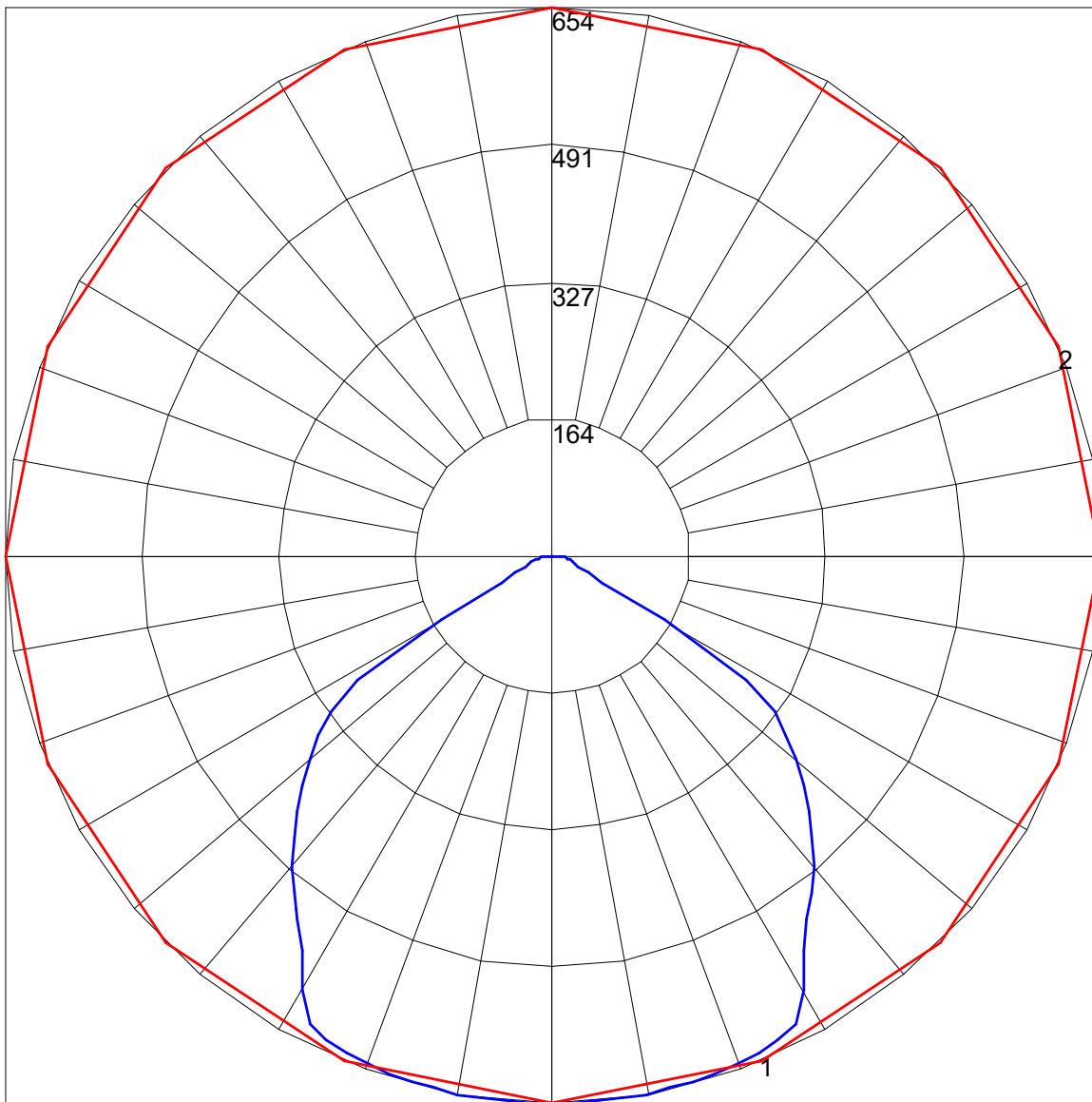
**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HBR-17L-40-GWT.IES**

**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  | 111 | 107 | 104 | 101 | 108 | 105 | 102 | 99  | 101 | 98  | 96  | 97  | 95  | 93  | 93  | 92  | 90  | 88  |
| 2  | 103 | 96  | 90  | 85  | 100 | 94  | 89  | 84  | 91  | 86  | 82  | 87  | 84  | 81  | 84  | 81  | 79  | 77  |
| 3  | 95  | 86  | 79  | 73  | 92  | 84  | 78  | 72  | 81  | 76  | 71  | 79  | 74  | 70  | 76  | 72  | 69  | 67  |
| 4  | 87  | 77  | 69  | 63  | 85  | 76  | 68  | 63  | 73  | 67  | 62  | 71  | 66  | 61  | 69  | 64  | 60  | 58  |
| 5  | 81  | 69  | 61  | 55  | 79  | 68  | 61  | 55  | 66  | 60  | 54  | 64  | 58  | 54  | 63  | 57  | 53  | 51  |
| 6  | 75  | 63  | 55  | 49  | 73  | 62  | 54  | 49  | 60  | 53  | 48  | 58  | 52  | 48  | 57  | 52  | 47  | 45  |
| 7  | 70  | 57  | 49  | 43  | 68  | 56  | 49  | 43  | 55  | 48  | 43  | 53  | 47  | 43  | 52  | 47  | 42  | 40  |
| 8  | 65  | 52  | 44  | 39  | 63  | 52  | 44  | 39  | 50  | 43  | 39  | 49  | 43  | 38  | 48  | 42  | 38  | 36  |
| 9  | 61  | 48  | 40  | 35  | 59  | 47  | 40  | 35  | 46  | 40  | 35  | 45  | 39  | 35  | 44  | 39  | 34  | 33  |
| 10 | 57  | 44  | 37  | 32  | 56  | 44  | 37  | 32  | 43  | 36  | 32  | 42  | 36  | 32  | 41  | 35  | 31  | 30  |

POLAR GRAPH



Maximum Candela = 654 Located At Horizontal Angle = 0, Vertical Angle = 2.5  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)