

Report No.: LG-4001

Test Time: 2015-09-19 15:59

## Luminaire Property

Luminaire Manufacturer: Light And Green LLC

Luminaire Description: LG-4001

Number of Lamps: 1

Luminous Length (mm): 100

Luminous Height (mm): 35

Current: 0.048 A

Power Factor: 0.458

Lamp Catalog: CREE XB-D

Lumens per Lamp: 85.16 lm

Luminous Width (mm): 100

Voltage: 110V

Power: 2.41 W

## Photometric Results

CIE Class: Direct

Measurement Flux: 168.6 lm

Downward Ratio: 198.01%

Field Angle: H129.6 V168.7

Luminaire Efficacy Rating (LER): 70

Max. Intensity: 663.02 cd

Total Rated Lamp Lumens: 85.2 lm

Efficiency: 198.01%

Upward Ratio: 0.00%

Beam Angle: H101.2 V155.3

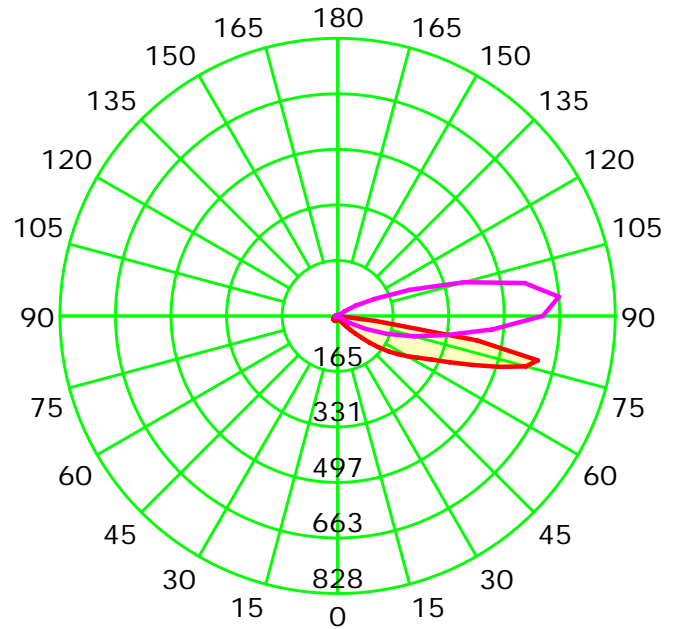
Central Intensity: 11.9 cd

Pos of Max. Intensity: H95 V77.5

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd

— C0-C180 — C90-C270 — G77.5

C Plane (°):0.0-360.0: 5.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator: 1

Gamma Plane (°):0.0-90.0:2.5

Test Device: GPM-1600L

Distance: 10.000 m

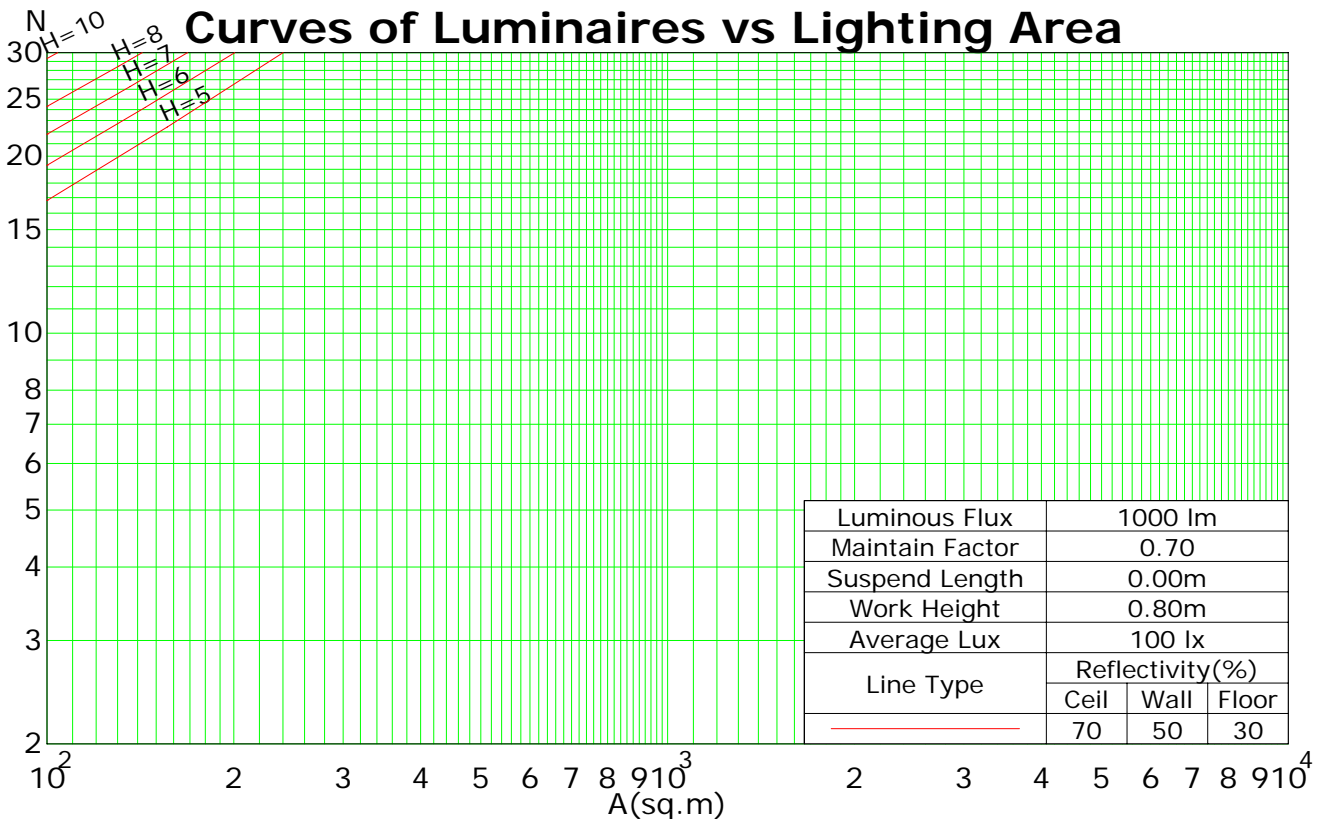
Humidity:

Inspector:

### Coefficients Of Utilization - Zonal Cavity Method

|     |          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RC  | 0.8      | 0.8 | 0.8 | 0.8 | 0.7 | 0.7 | 0.7 | 0.7 | 0.5 | 0.5 | 0.5 | 0.3 | 0.3 | 0.3 | 0.1 | 0.1 | 0.1 | 0   |
| RW  | 0.7      | 0.5 | 0.3 | 0.1 | 0.7 | 0.5 | 0.3 | 0.1 | 0.5 | 0.3 | 0.1 | 0.5 | 0.3 | 0.1 | 0.5 | 0.3 | 0.1 | 0   |
| RCR | RF = 0.2 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 236      | 236 | 236 | 236 | 230 | 230 | 230 | 230 | 220 | 220 | 220 | 211 | 211 | 211 | 202 | 202 | 202 | 198 |
| 1   | 201      | 185 | 171 | 159 | 195 | 180 | 168 | 156 | 171 | 161 | 151 | 163 | 154 | 146 | 155 | 148 | 141 | 136 |
| 2   | 171      | 146 | 124 | 107 | 165 | 141 | 122 | 105 | 133 | 117 | 102 | 126 | 112 | 100 | 119 | 108 | 97  | 91  |
| 3   | 149      | 118 | 94  | 75  | 143 | 114 | 92  | 74  | 108 | 88  | 72  | 101 | 85  | 71  | 95  | 81  | 69  | 63  |
| 4   | 132      | 99  | 74  | 56  | 126 | 96  | 73  | 55  | 90  | 70  | 54  | 85  | 67  | 53  | 80  | 64  | 52  | 46  |
| 5   | 119      | 85  | 61  | 43  | 114 | 82  | 60  | 43  | 77  | 57  | 42  | 73  | 55  | 41  | 68  | 53  | 40  | 35  |
| 6   | 108      | 74  | 51  | 35  | 104 | 72  | 50  | 34  | 68  | 48  | 34  | 64  | 46  | 33  | 60  | 45  | 33  | 27  |
| 7   | 99       | 66  | 44  | 28  | 95  | 64  | 43  | 28  | 60  | 42  | 28  | 57  | 40  | 27  | 54  | 39  | 27  | 22  |
| 8   | 92       | 59  | 38  | 24  | 88  | 57  | 38  | 24  | 54  | 36  | 24  | 52  | 35  | 23  | 49  | 34  | 23  | 18  |
| 9   | 85       | 53  | 34  | 21  | 82  | 52  | 33  | 21  | 50  | 32  | 20  | 47  | 31  | 20  | 45  | 30  | 20  | 15  |
| 10  | 80       | 49  | 30  | 18  | 77  | 48  | 30  | 18  | 46  | 29  | 18  | 43  | 28  | 18  | 41  | 27  | 17  | 13  |

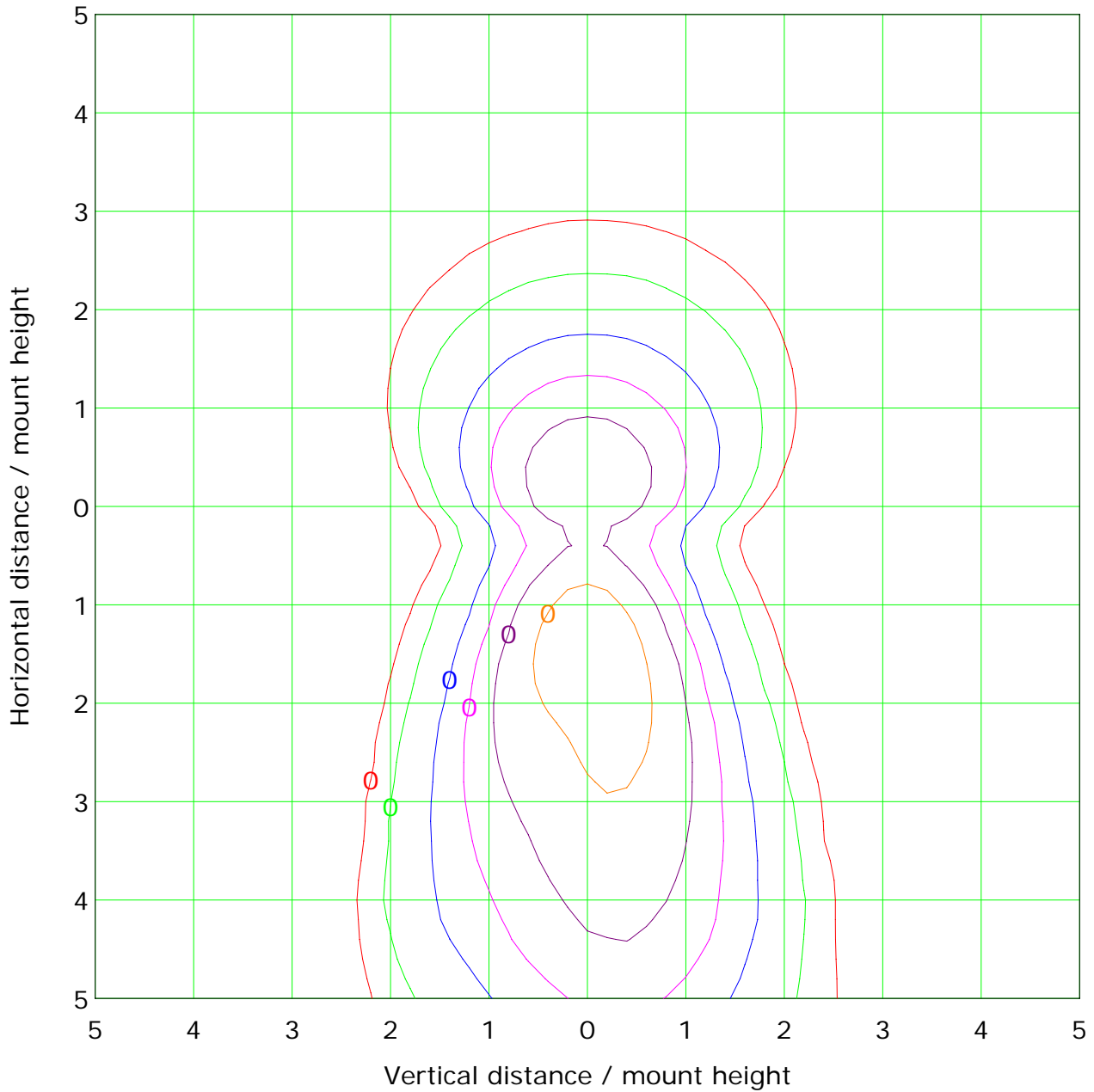
Spacing Criteria (0-180): 1.26  
 Spacing Criteria (90-270): 7.09  
 Spacing Criteria (Diagonal): 1.88



C Plane (°):0.0-360.0: 5.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator: 1

Gamma Plane (°):0.0-90.0:2.5  
 Test Device: GPM-1600L  
 Distance: 10.000 m  
 Humidity:  
 Inspector:

## IsoLux Plot



Mounting Height: 10.0m    Max Lux(100%): 0.3 lx

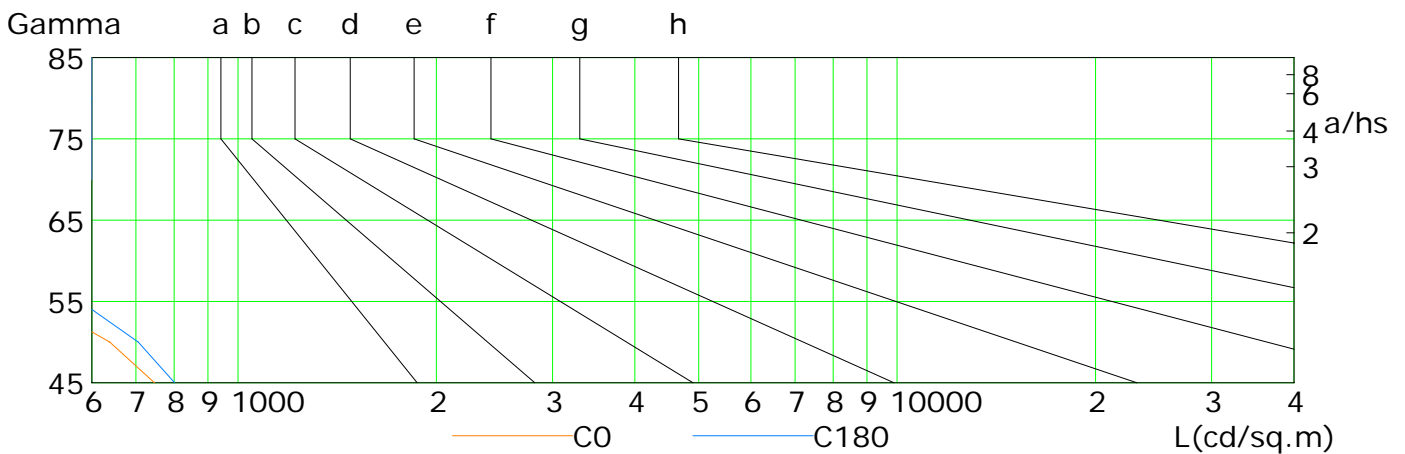
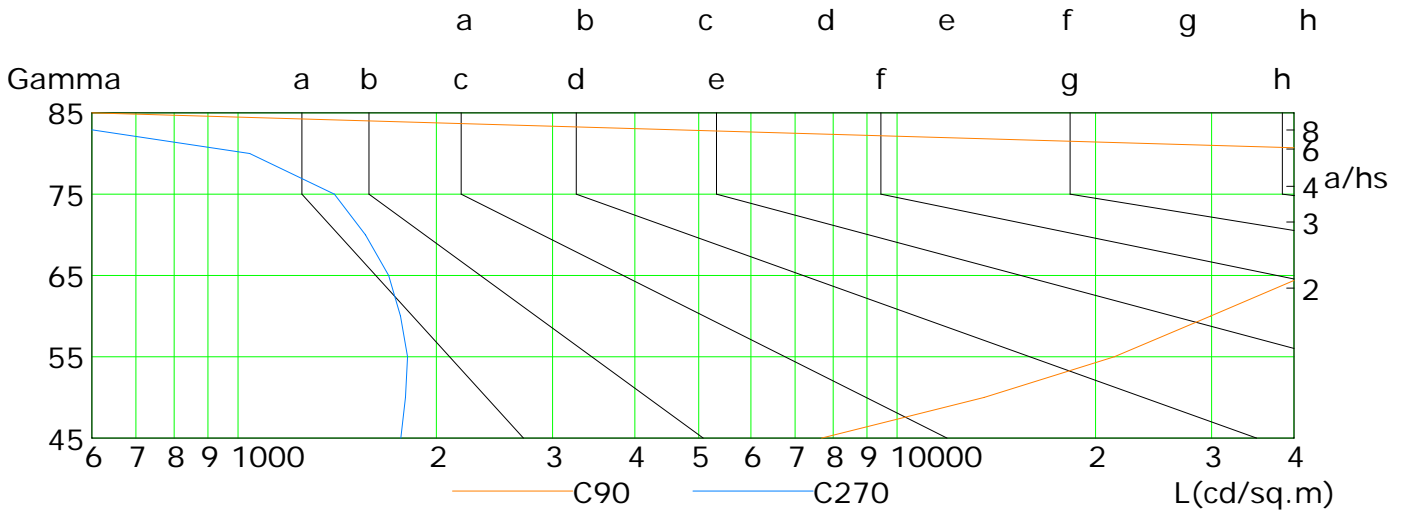
|                  |                  |
|------------------|------------------|
| — ( 1%): 0.0 lx  | — ( 2%): 0.0 lx  |
| — ( 5%): 0.0 lx  | — ( 10%): 0.0 lx |
| — ( 20%): 0.1 lx | — ( 50%): 0.2 lx |
| — (100%): 0.3 lx |                  |

C Plane (°):0.0-360.0: 5.0  
 Test Lab:  
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 Test Device: GPM-1600L  
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## Lum Limit Curve

| Dazzle | Quality | Illuminance (lx) |      |      |       |       |       |       |       |
|--------|---------|------------------|------|------|-------|-------|-------|-------|-------|
|        |         | a                | b    | c    | d     | e     | f     | g     | h     |
| 1.15   | A       | 2000             | 1000 | 500  | <=300 |       |       |       |       |
| 1.50   | B       |                  | 2000 | 1000 | 500   | <=300 |       |       |       |
| 1.85   | C       |                  |      | 2000 | 1000  | 500   | <=300 |       |       |
| 2.20   | D       |                  |      |      | 2000  | 1000  | 500   | <=300 |       |
| 2.55   | E       |                  |      |      |       | 2000  | 1000  | 500   | <=300 |

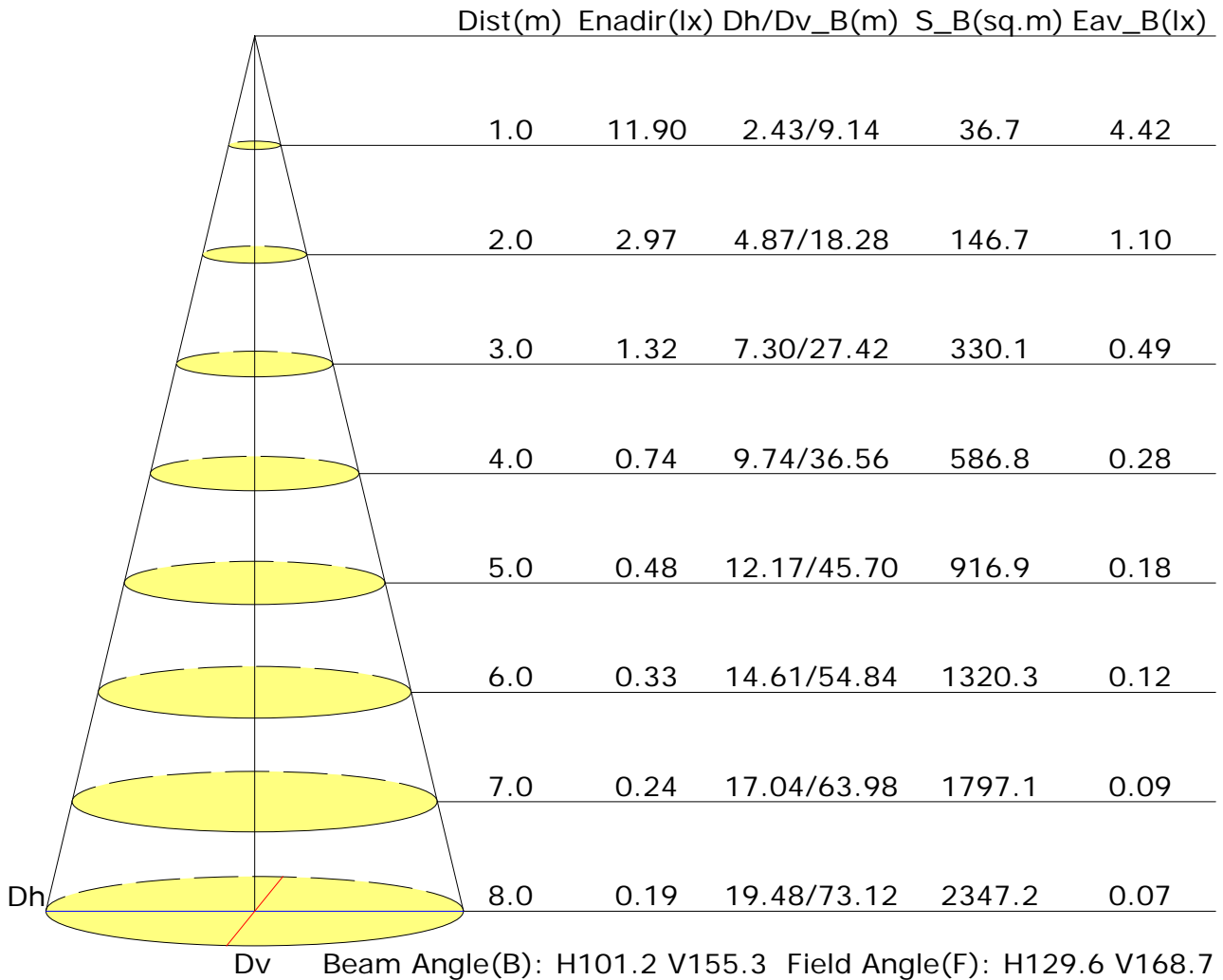


| L(cd/sq.m) | G45  | G50   | G55   | G60   | G65   | G70   | G75   | G80   | G85 |
|------------|------|-------|-------|-------|-------|-------|-------|-------|-----|
| C0         | 747  | 639   | 499   | 313   | 112   | 0     | 0     | 0     | 0   |
| C90        | 7682 | 13555 | 21351 | 29875 | 41604 | 63903 | 97456 | 81639 | 0   |
| C180       | 801  | 706   | 577   | 403   | 193   | 0     | 0     | 0     | 0   |
| C270       | 1766 | 1795  | 1808  | 1764  | 1692  | 1561  | 1401  | 1042  | 406 |

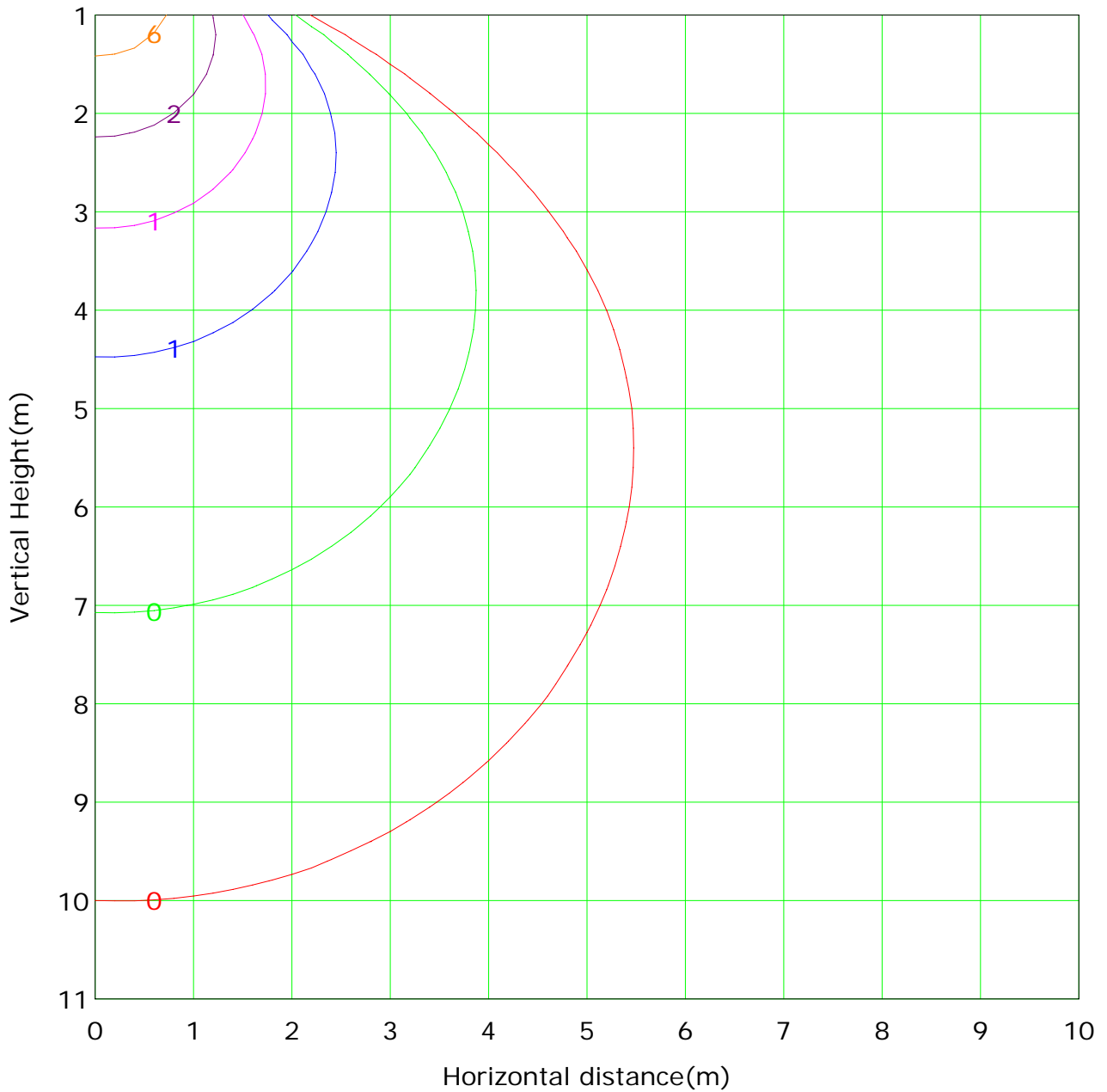
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 Test Lab:  
 Test Type: TYPE C  
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Gamma Plane (°):0.0-90.0:2.5  
 Test Device: GPM-1600L  
 Distance: 10.000 m  
 Humidity:  
 Inspector:

## Illuminance at a Distance



## Vertical IsoLux Plot

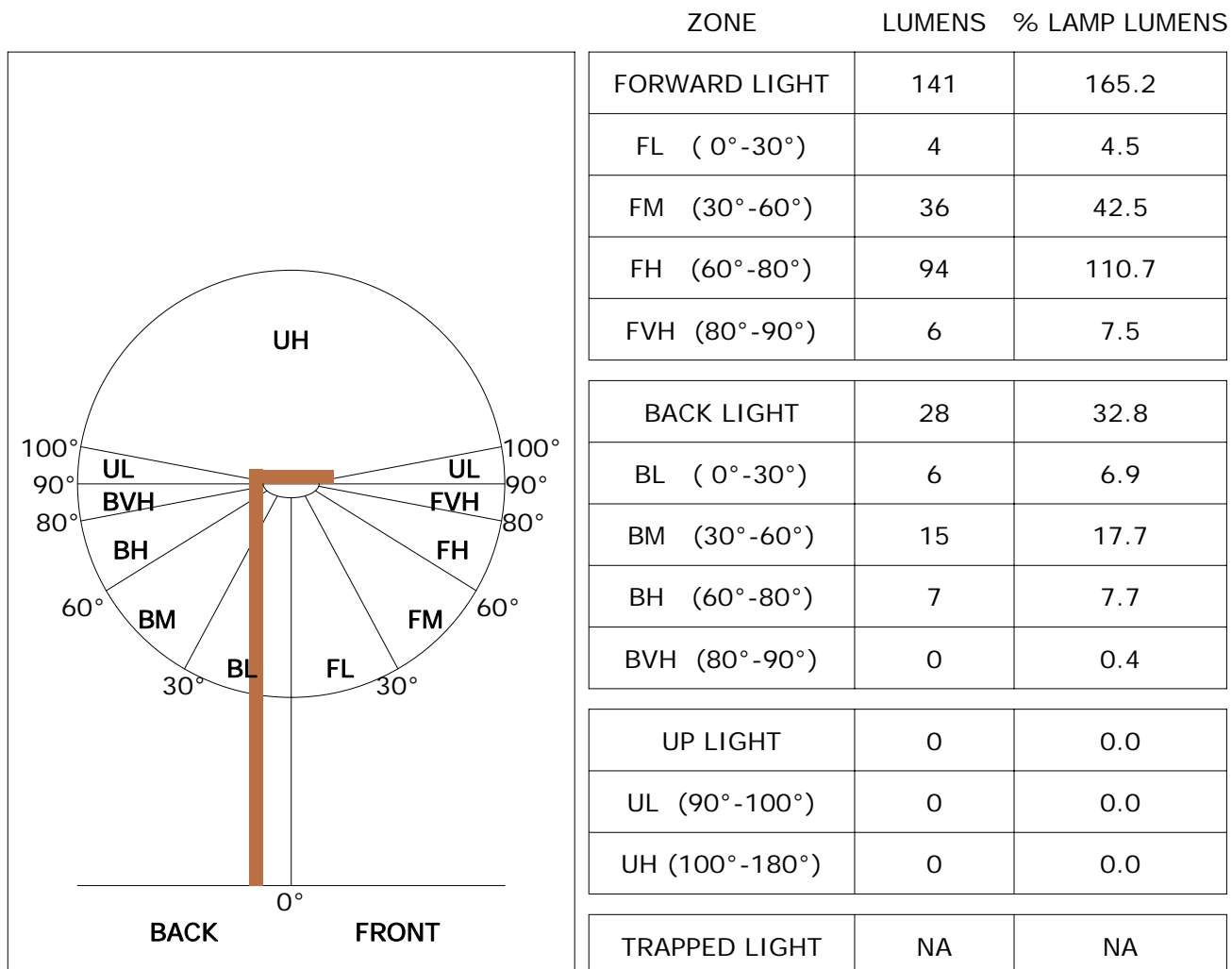


|                 |                   |                  |
|-----------------|-------------------|------------------|
| Lowest(m): 1.0m | Highest(m): 11.0m | Max Lux: 11.9 lx |
| ( 1%): 0.1 lx   | ( 2%): 0.2 lx     |                  |
| ( 5%): 0.6 lx   | ( 10%): 1.2 lx    |                  |
| ( 20%): 2.4 lx  | ( 50%): 5.9 lx    |                  |
| (100%): 11.9 lx |                   |                  |

C Plane (°):0.0-360.0: 5.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator: 1

Gamma Plane (°):0.0-90.0:2.5  
 Test Device: GPM-1600L  
 Distance: 10.000 m  
 Humidity:  
 Inspector:

**FLUX DISTRIBUTION TABLE BASED ON THE IESNA LUMINAIRE CLASSIFICATION SYSTEM**



| BUG(Backlight,Uplight,Glare) Rating Base On TM-15-07             |          |
|--|----------|
| Asymmetrical Luminaire Types<br>(Type I,II,III,IV)               | B0 U0 G0 |
| Quadrilateral Symmetrical Luminaire Types<br>(Type V,Area Light) | B0 U0 G0 |

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