

Report No.: 9

Test Time: 2015/7/14 17:11

## Luminaire Property

Luminaire Manufacturer:

Luminaire Description: HB-A400-H107E

Current: 1.95 A

Power Factor: 0.98

Voltage: 220V

Power: 420W

## Photometric Results

CIE Class: Direct

Measurement Flux: 43680.4 lm

Downward Ratio: 98%

Horizontal Diffuse Angle(10%,50%): H97.5,H86.8

Vertical Diffuse Angle(10%,50%): V95.3,V84.5

Luminaire Efficacy Rating (LER): 104

Max. Intensity: 26074.12 cd

Total Rated Lamp Lumens: 43680.4 lm

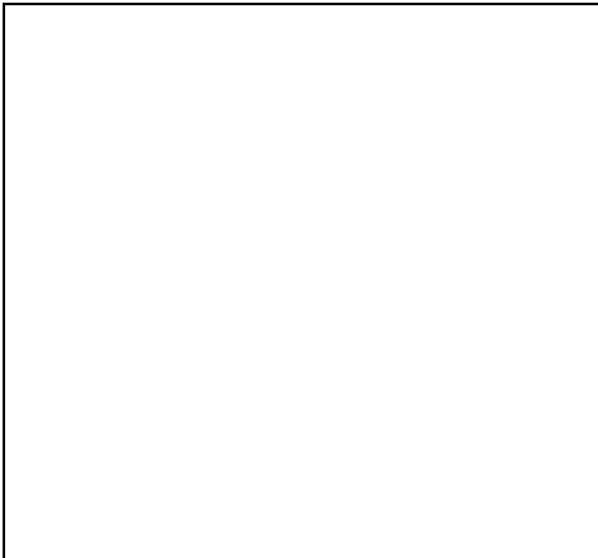
Efficiency: 100%

Upward Ratio: 2%

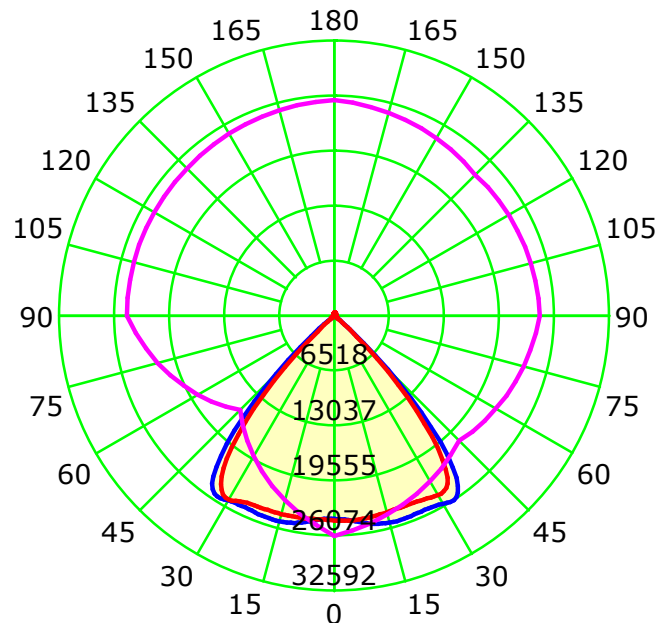
Central Intensity: 24078.93 cd

Pos of Max. Intensity: H0 V33

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 85.6° Unit: cd

— C0-C180 — C90-C270 — G33

C Plane (°):0.0-360.0: 45.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

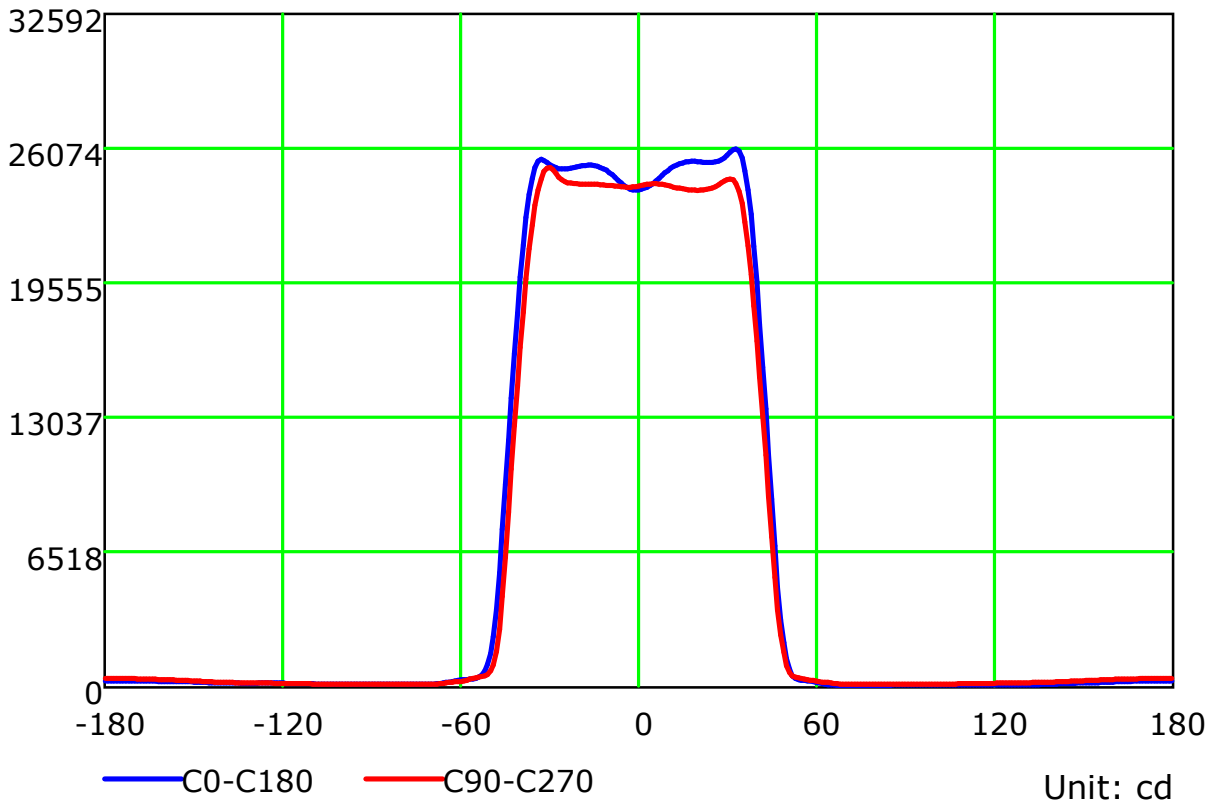
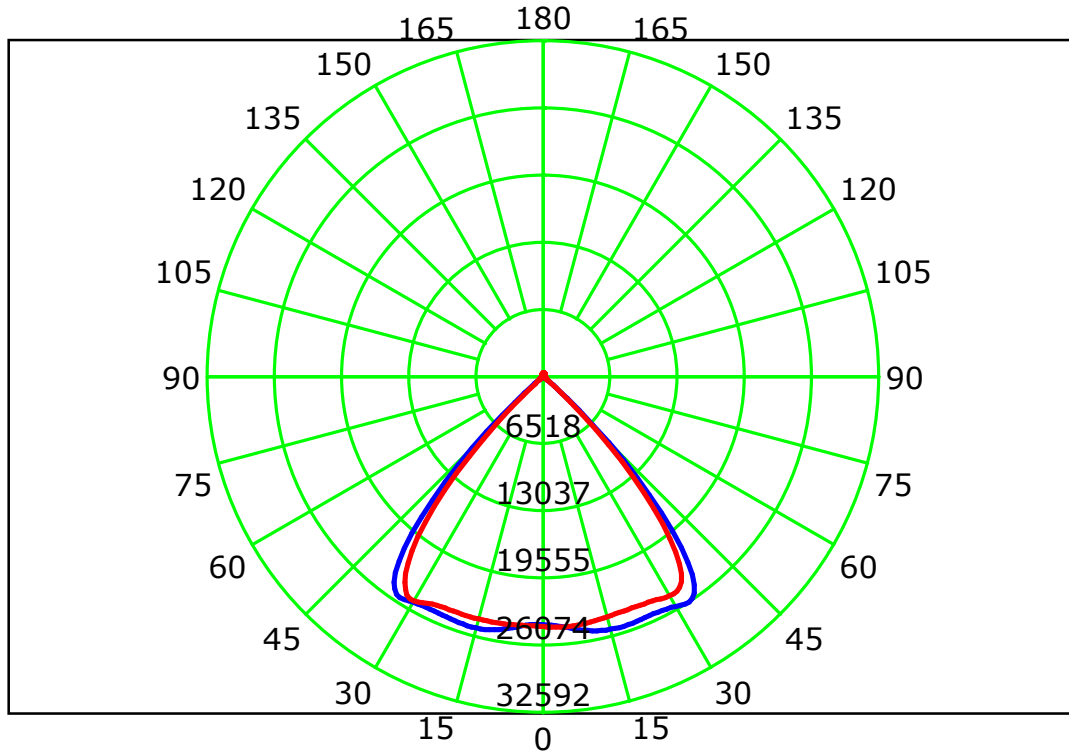
Test Device: GPM-1800B

Distance: 8.030 m

Humidity:

Inspector:

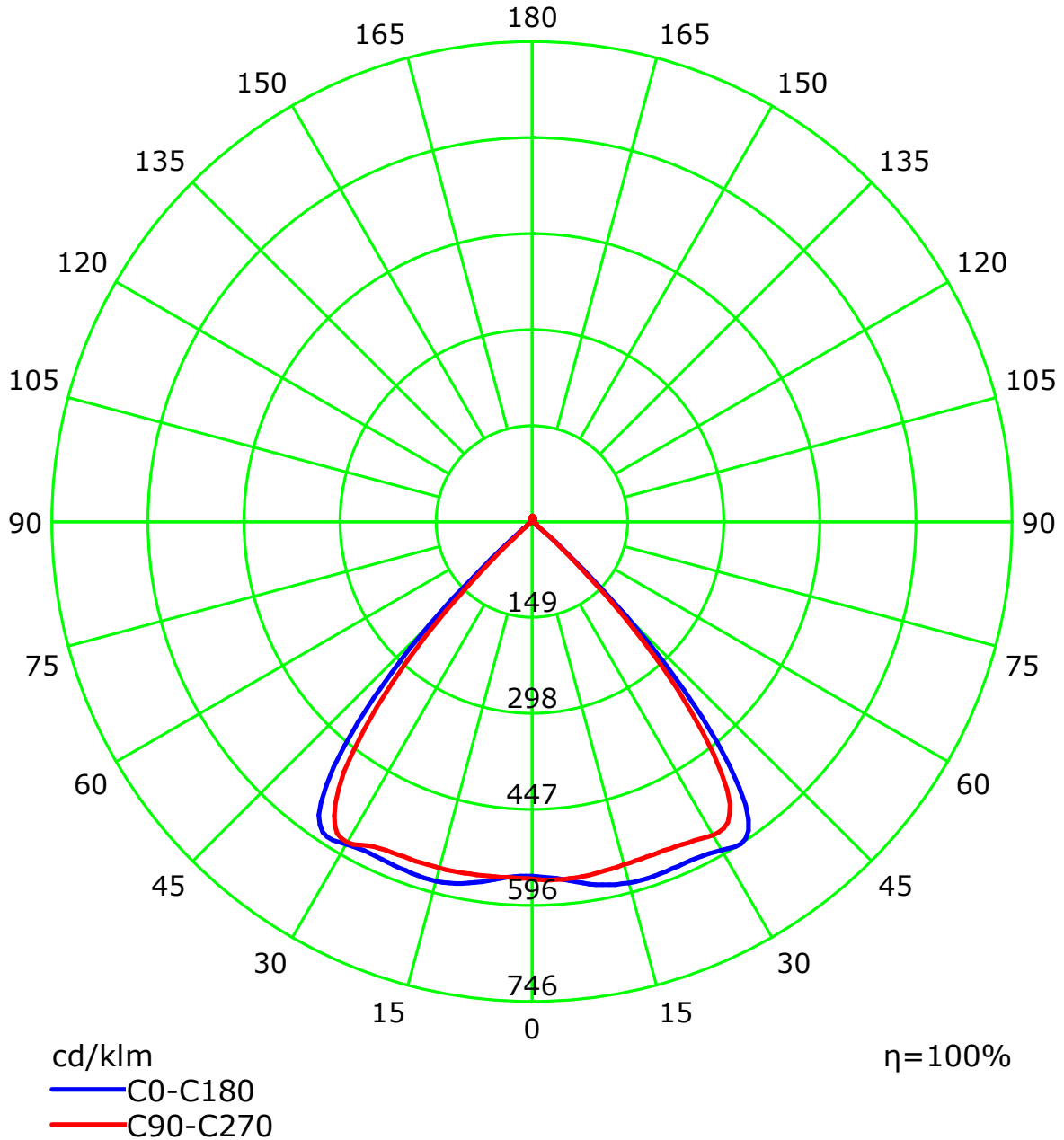
## Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 45.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 8.030 m  
Humidity:  
Inspector:

## Luminous Intensity Distribution Curve(cd/klm)



C Plane (°):0.0-360.0: 45.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 8.030 m  
Humidity:  
Inspector:

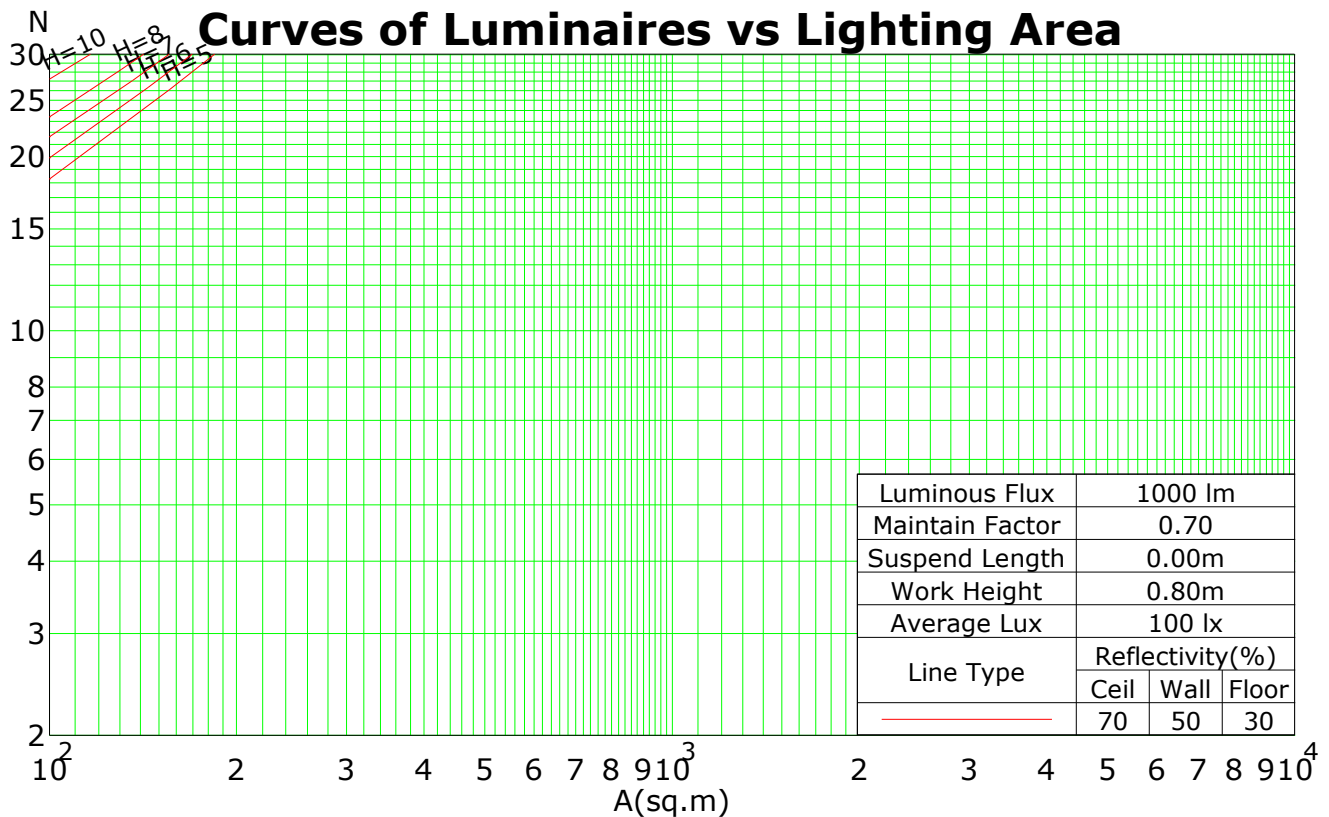
## Coefficients Of Utilization - Zonal Cavity Method

|     |          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |
|-----|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| 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   | 119      | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 110 | 110 | 110 | 105 | 105 | 105 | 100 | 100 | 100 | 98 |
| 1   | 112      | 109 | 106 | 103 | 109 | 106 | 104 | 101 | 102 | 100 | 98  | 98  | 96  | 95  | 94  | 93  | 91  | 89 |
| 2   | 105      | 100 | 95  | 91  | 103 | 98  | 93  | 90  | 94  | 90  | 87  | 91  | 88  | 85  | 87  | 85  | 83  | 81 |
| 3   | 99       | 91  | 85  | 81  | 96  | 89  | 84  | 80  | 86  | 82  | 78  | 84  | 80  | 77  | 81  | 78  | 75  | 73 |
| 4   | 92       | 84  | 77  | 72  | 90  | 82  | 76  | 72  | 80  | 74  | 70  | 77  | 73  | 69  | 75  | 71  | 68  | 66 |
| 5   | 87       | 77  | 70  | 65  | 85  | 76  | 69  | 64  | 73  | 68  | 64  | 71  | 67  | 63  | 70  | 65  | 62  | 60 |
| 6   | 81       | 71  | 64  | 59  | 79  | 70  | 63  | 58  | 68  | 62  | 58  | 66  | 61  | 57  | 65  | 60  | 56  | 55 |
| 7   | 76       | 65  | 58  | 53  | 74  | 64  | 58  | 53  | 63  | 57  | 52  | 61  | 56  | 52  | 60  | 55  | 52  | 50 |
| 8   | 71       | 60  | 53  | 48  | 70  | 60  | 53  | 48  | 58  | 52  | 48  | 57  | 52  | 48  | 56  | 51  | 47  | 46 |
| 9   | 67       | 56  | 49  | 44  | 66  | 55  | 49  | 44  | 54  | 48  | 44  | 53  | 48  | 44  | 52  | 47  | 43  | 42 |
| 10  | 63       | 52  | 45  | 41  | 62  | 51  | 45  | 41  | 50  | 45  | 40  | 49  | 44  | 40  | 48  | 44  | 40  | 38 |

Spacing Criteria (0-180): 1.52

Spacing Criteria (90-270): 1.44

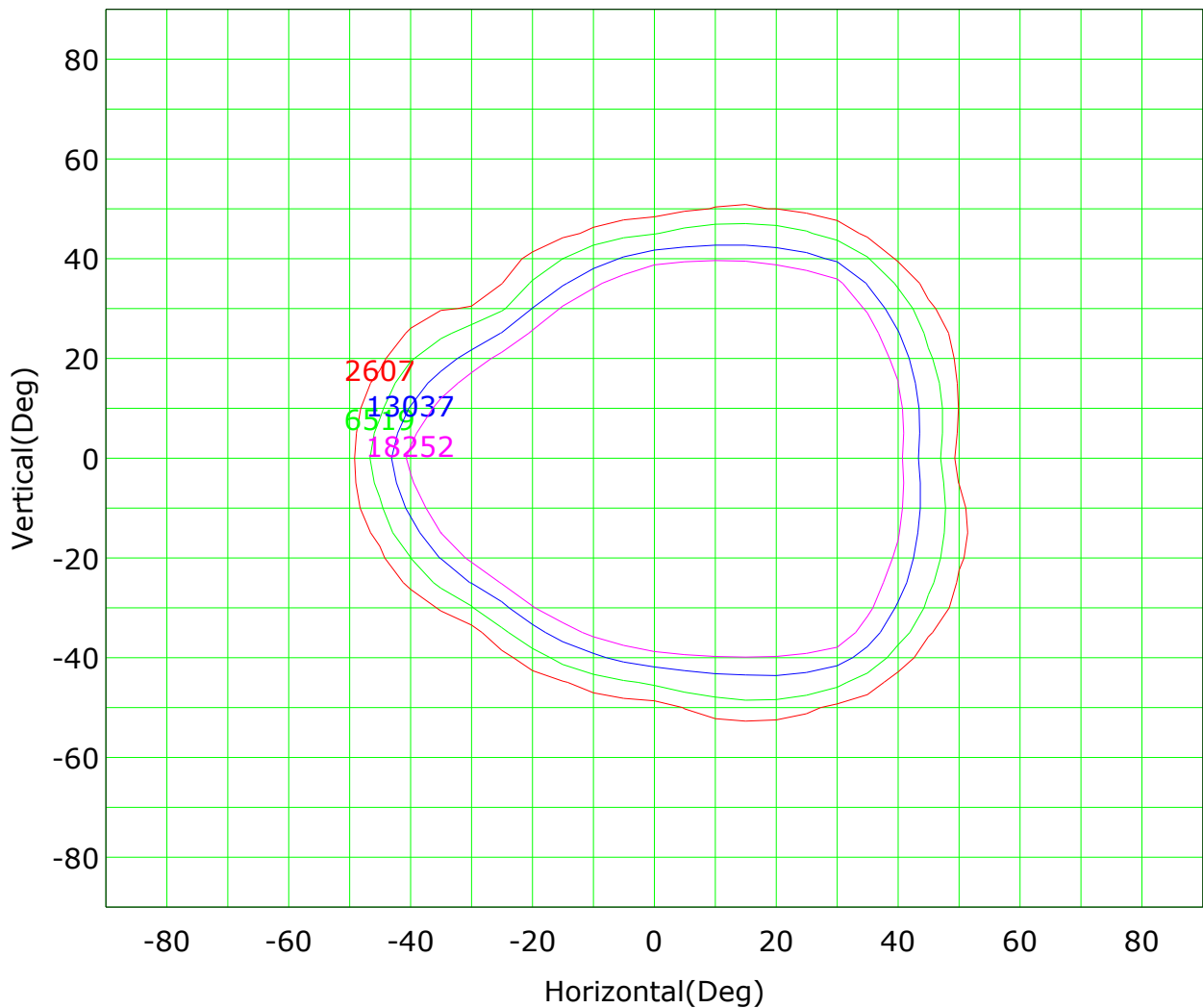
Spacing Criteria (Diagonal): 1.23



C Plane (°):0.0-360.0: 45.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 8.030 m  
Humidity:  
Inspector:

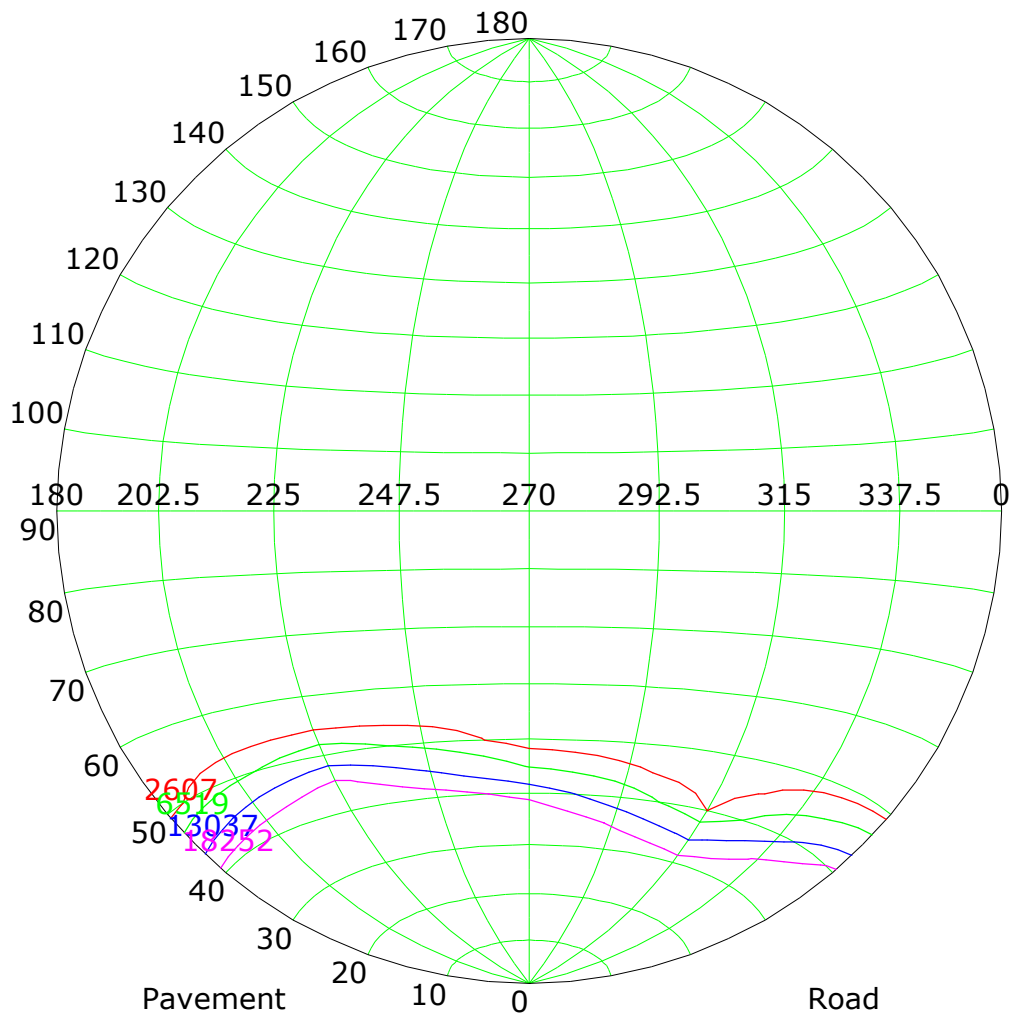
## Isocandela (rectangle)



Imax (100%): 26074 cd

|                  |                  |
|------------------|------------------|
| ( 10%): 2607 cd  | ( 25%): 6519 cd  |
| ( 50%): 13037 cd | ( 70%): 18252 cd |
| (100%): 26074 cd |                  |

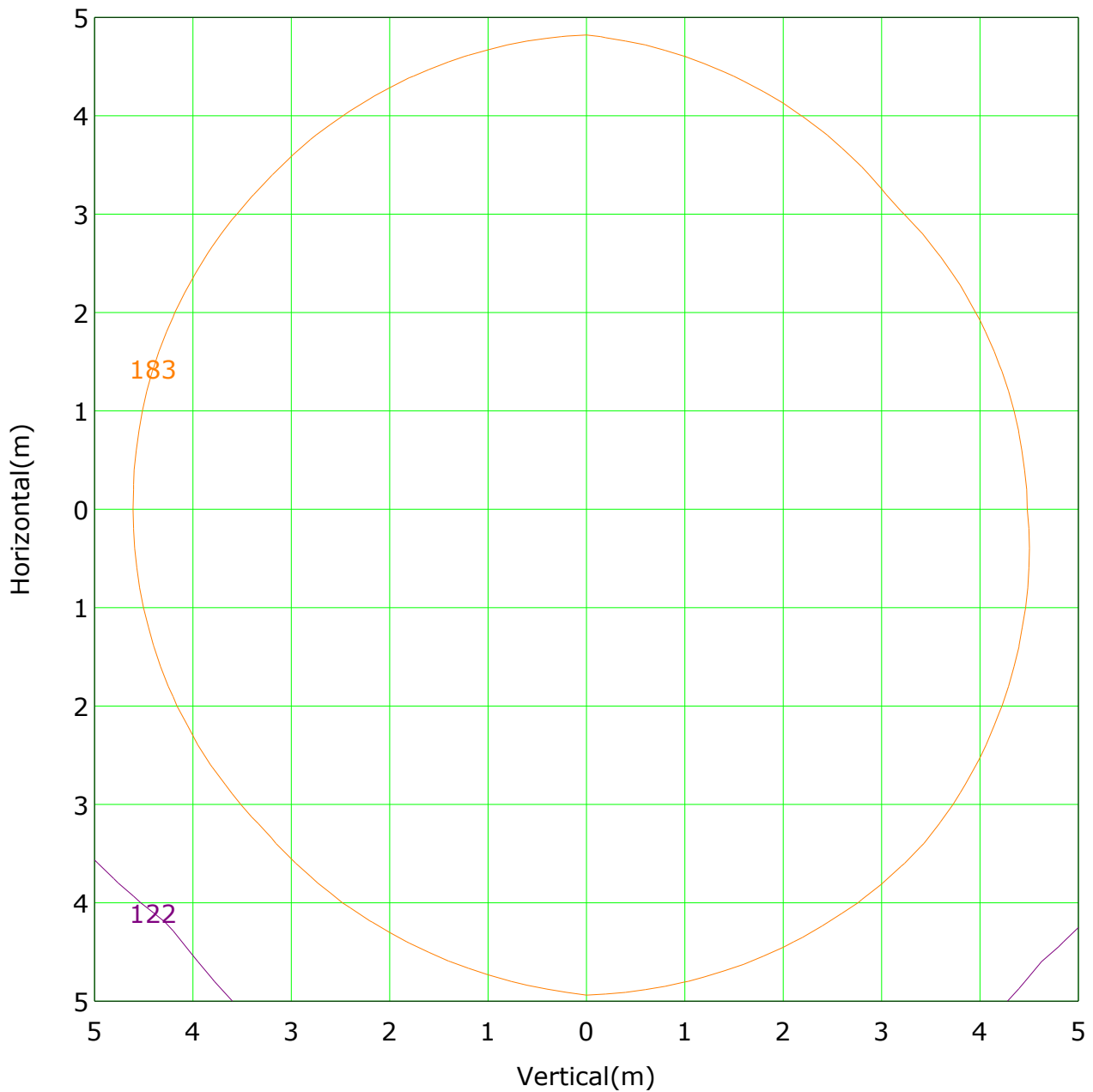
## Isocandela (sphere)



Imax (100%): 26074 cd

|                  |                  |
|------------------|------------------|
| ( 10%): 2607 cd  | ( 25%): 6519 cd  |
| ( 50%): 13037 cd | ( 70%): 18252 cd |
| (100%): 26074 cd |                  |

## IsoLux Plot



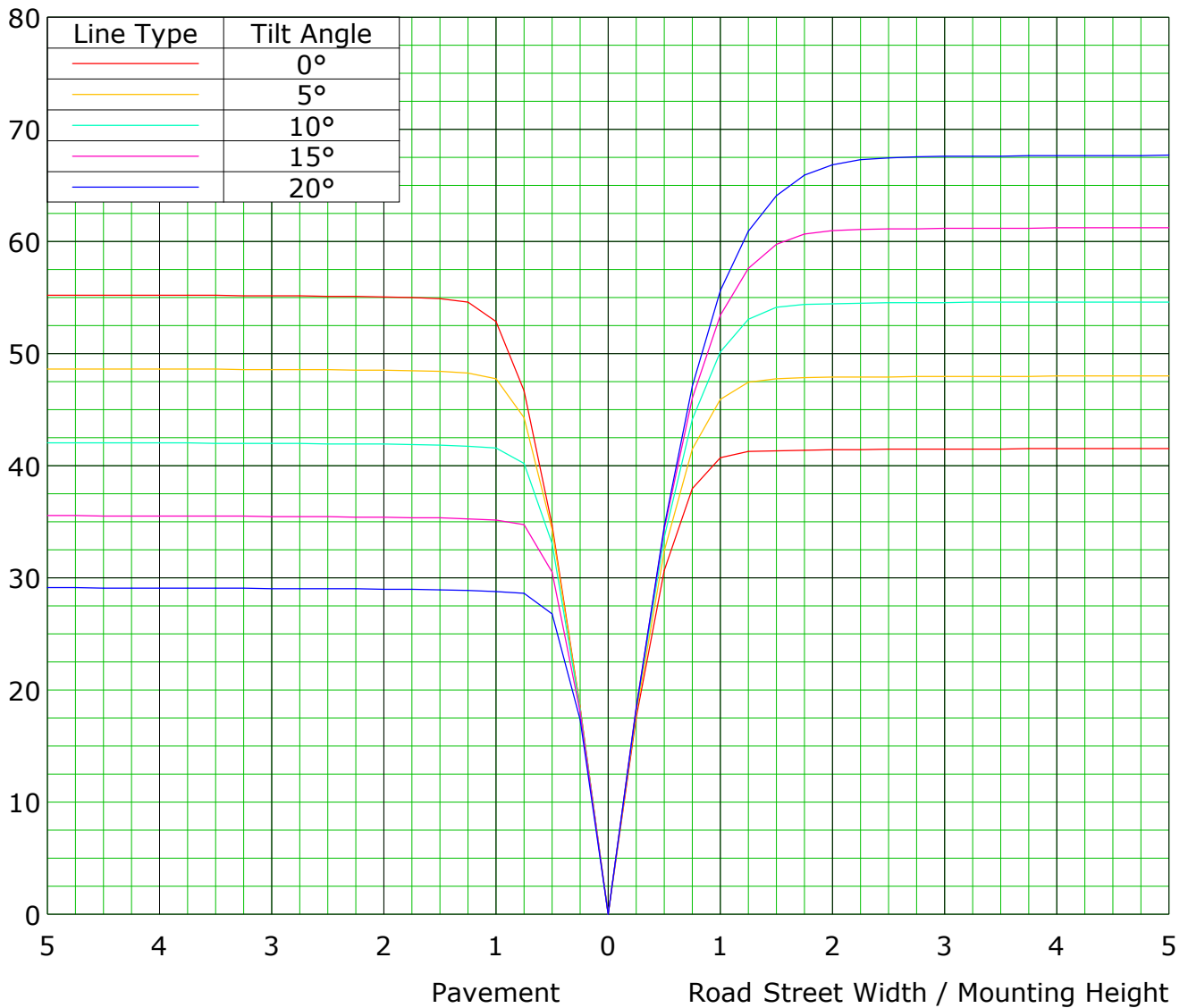
|                        |                  |                         |
|------------------------|------------------|-------------------------|
| Mounting Height: 10.0m |                  | Max Lux(100%): 244.5 lx |
| ( 1%): 2.4 lx          | ( 5%): 12.2 lx   |                         |
| ( 10%): 24.4 lx        | ( 25%): 61.1 lx  |                         |
| ( 50%): 122.2 lx       | ( 75%): 183.4 lx |                         |
| (100%): 244.5 lx       | (200%): 489.0 lx |                         |

C Plane (°):0.0-360.0: 45.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 8.030 m  
Humidity:  
Inspector:

## Roadway CU Curve

Efficiency(%)



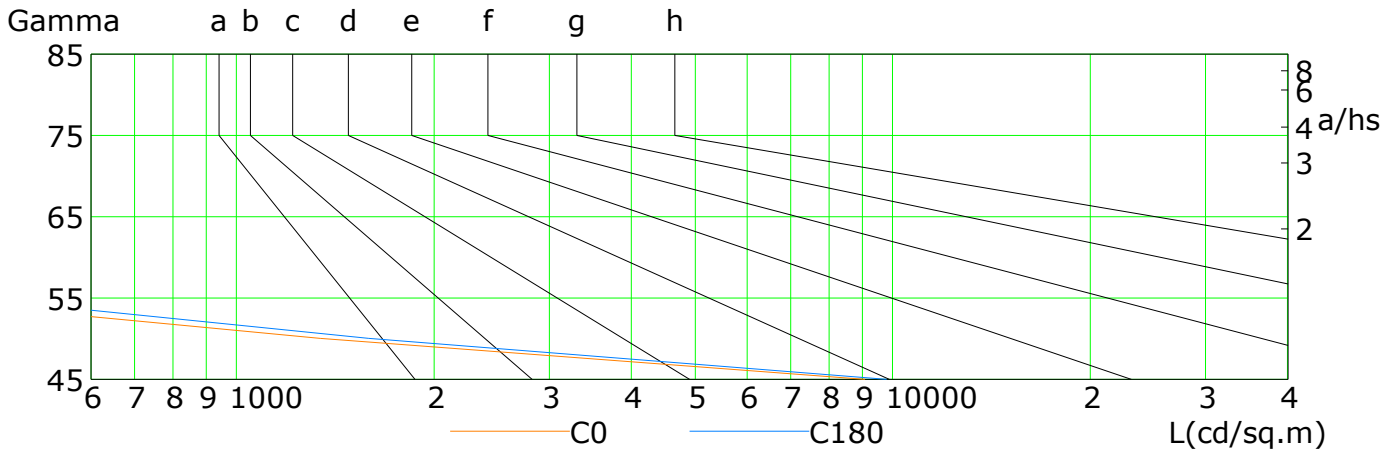
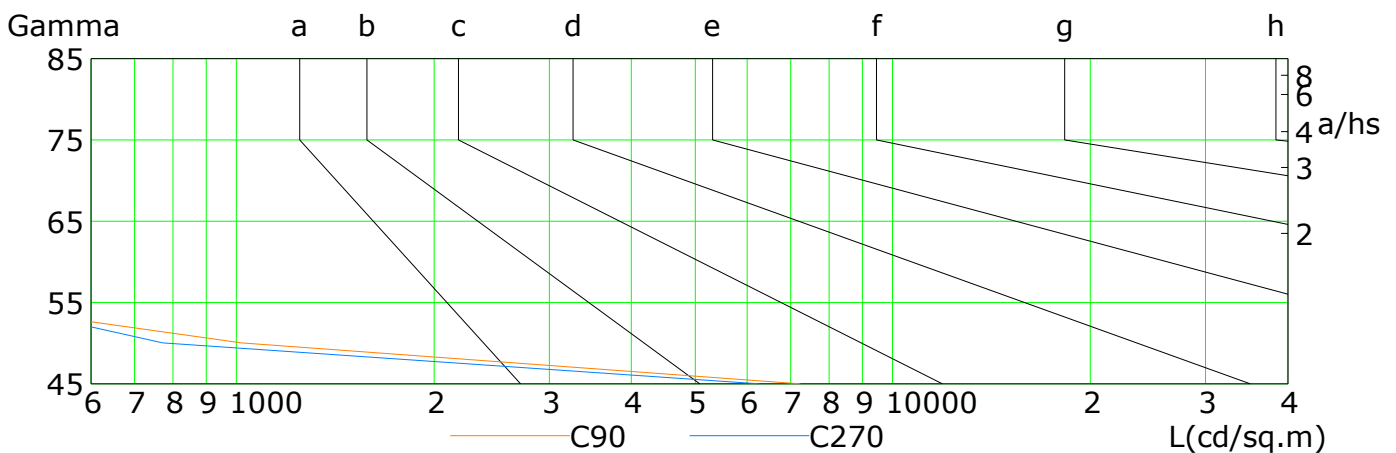
C Plane (°):0.0-360.0: 45.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 8.030 m  
Humidity:  
Inspector:

## Lum Limit Curve

| Dazzle | Quality | Illuminance (lx) |      |      |       |       |       |       |       |
|--------|---------|------------------|------|------|-------|-------|-------|-------|-------|
| 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 |

a b c d e f g h

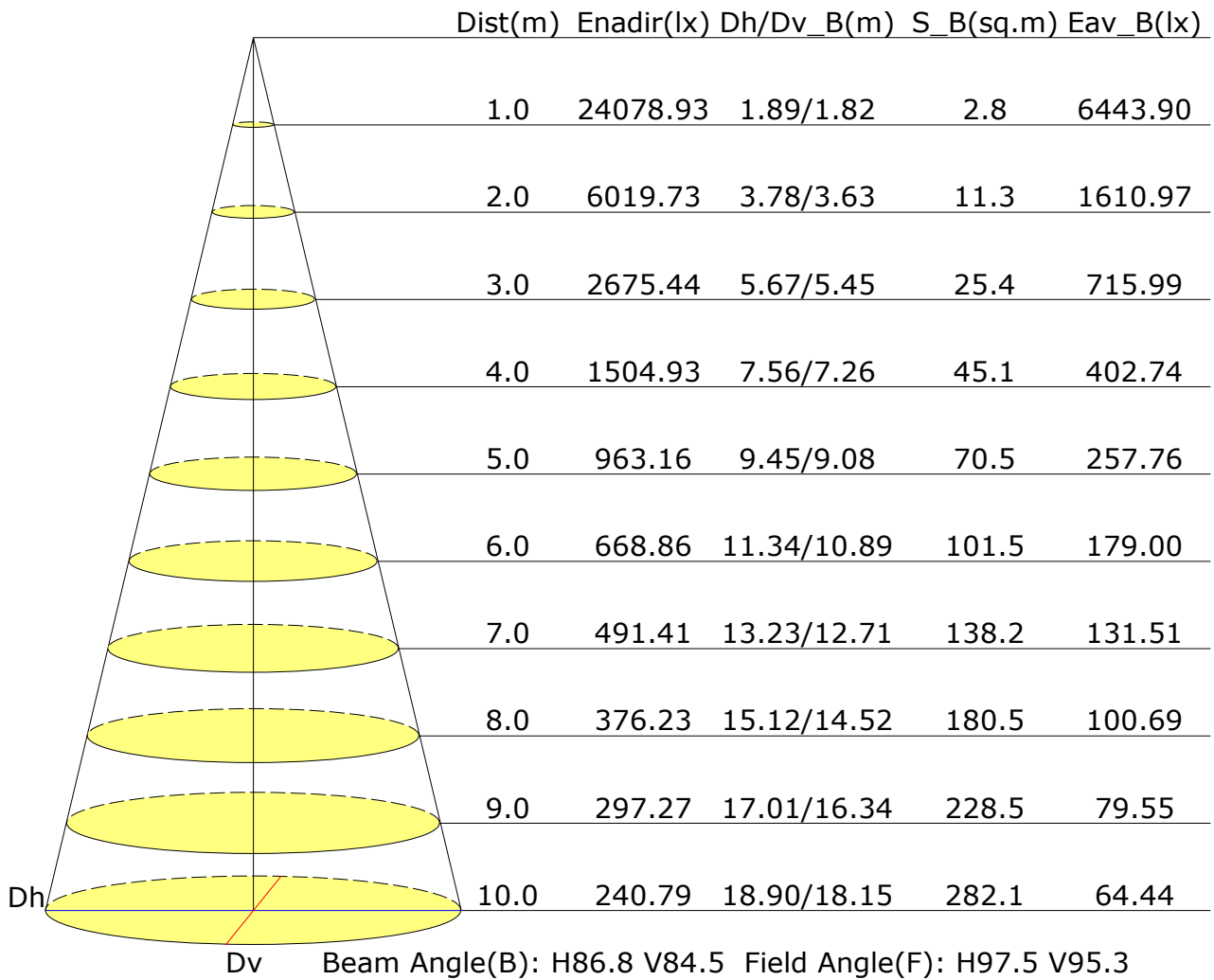


| L(cd/sq.m) | G45  | G50  | G55 | G60 | G65 | G70 | G75 | G80 | G85 |
|------------|------|------|-----|-----|-----|-----|-----|-----|-----|
| C0         | 9080 | 1343 | 305 | 194 | 74  | 43  | 53  | 58  | 61  |
| C90        | 7234 | 1018 | 374 | 260 | 179 | 120 | 116 | 114 | 111 |
| C180       | 9794 | 1591 | 397 | 315 | 190 | 120 | 117 | 114 | 111 |
| C270       | 6260 | 772  | 416 | 241 | 167 | 119 | 118 | 115 | 112 |

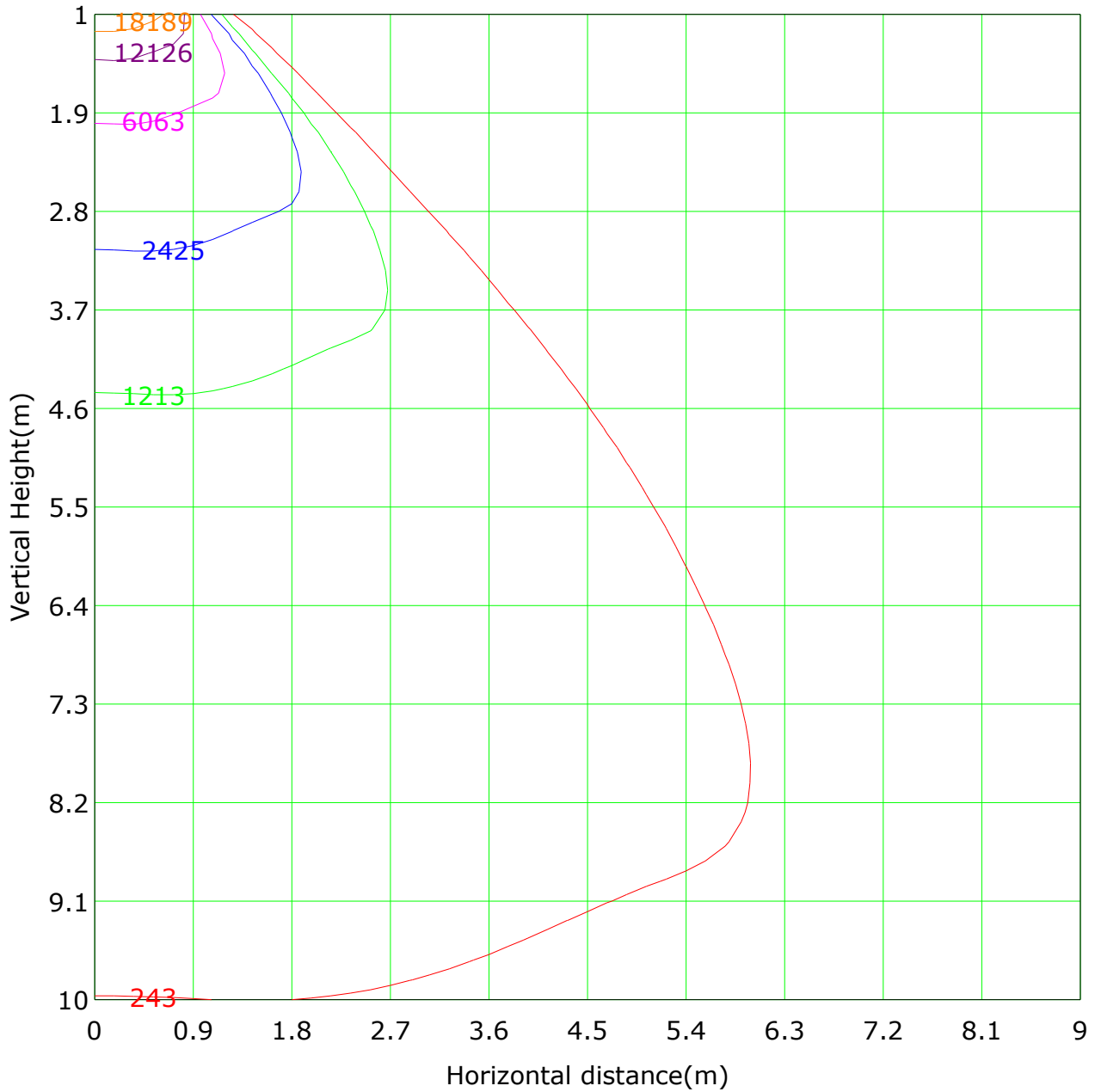
C Plane (°):0.0-360.0: 45.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 8.030 m  
Humidity:  
Inspector:

## Illuminance at a Distance



## Vertical IsoLux Plot



Lowest(m): 1.0m    Highest(m): 10.0m    Max Lux: 24252.5 lx

|                    |                    |
|--------------------|--------------------|
| ( 1%): 242.5 lx    | ( 5%): 1212.6 lx   |
| ( 10%): 2425.2 lx  | ( 25%): 6063.1 lx  |
| ( 50%): 12126.2 lx | ( 75%): 18189.4 lx |
| (100%): 24252.5 lx | (200%): 48505.0 lx |

C Plane (°): 0.0-360.0: 45.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°): 0.0-180.0: 1.0  
Test Device: GPM-1800B  
Distance: 8.030 m  
Humidity:  
Inspector:

## Area Flux Table

Unit: lm

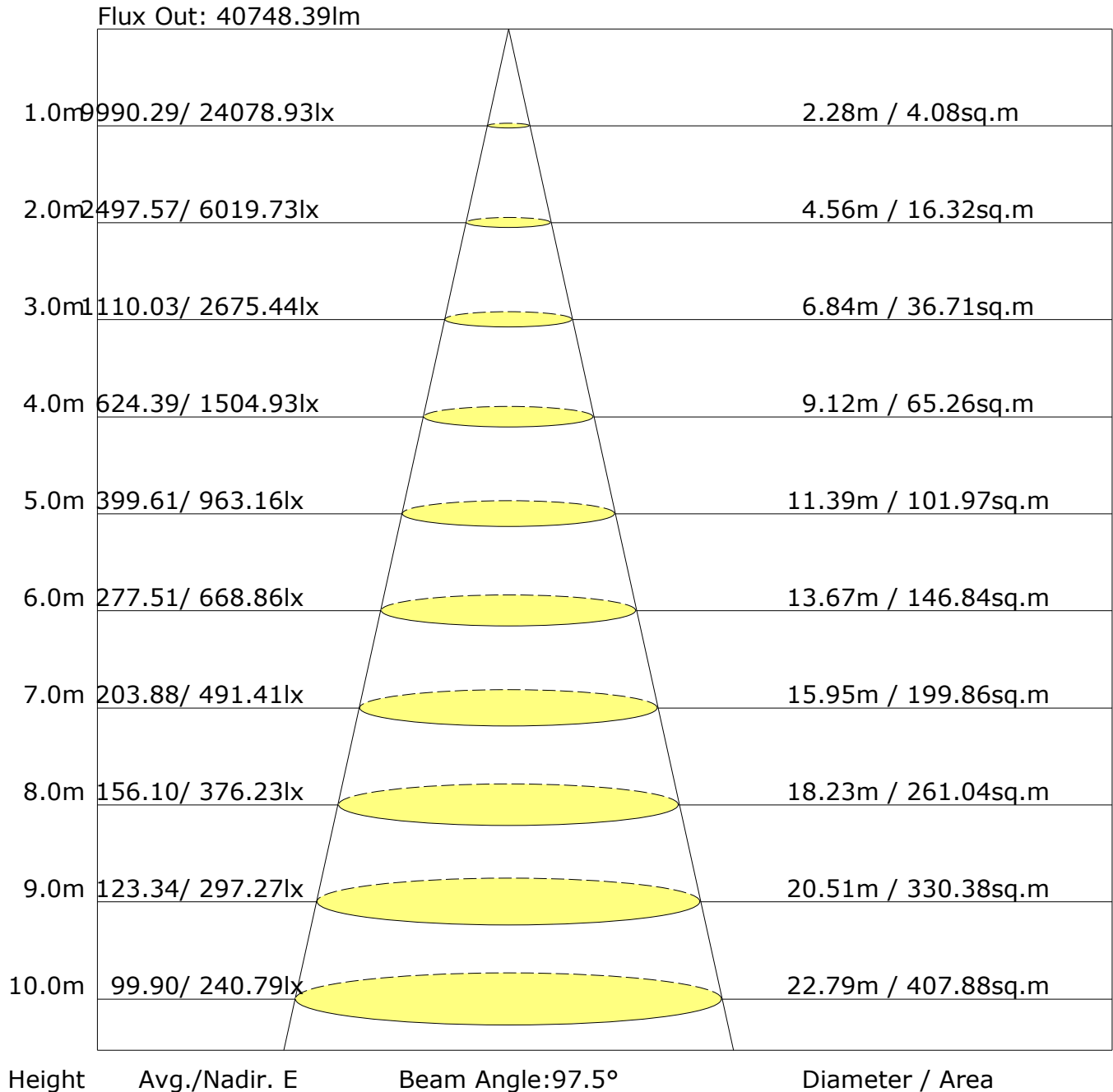
|         |     | Orbit 111 |      |       |       |       |       |       |       |       |       |       |       |       |      |      |     |     |         |         |
|---------|-----|-----------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|-----|-----|---------|---------|
| -90     | 0.3 | 0.9       | 1.4  | 1.9   | 2.4   | 2.8   | 3.1   | 3.3   | 3.4   | 3.4   | 3.2   | 3.0   | 2.7   | 2.3   | 1.7  | 1.1  | 0.6 | 0.2 | 37.8    | 0.0     |
| -80     | 0.3 | 0.9       | 1.4  | 2.0   | 2.5   | 2.9   | 3.3   | 3.5   | 3.6   | 3.5   | 3.4   | 3.1   | 2.8   | 2.3   | 1.7  | 1.1  | 0.6 | 0.2 | 39.1    | 0.0     |
| -70     | 0.3 | 0.9       | 1.5  | 2.1   | 3.1   | 4.5   | 5.6   | 6.1   | 5.7   | 5.0   | 4.2   | 3.5   | 2.9   | 2.3   | 1.7  | 1.1  | 0.6 | 0.2 | 51.1    | 0.0     |
| -60     | 0.3 | 0.9       | 1.5  | 2.7   | 5.7   | 9.8   | 16.6  | 26.8  | 21.8  | 11.6  | 8.3   | 5.3   | 3.3   | 2.4   | 1.6  | 1.0  | 0.6 | 0.2 | 120.4   | 0.0     |
| -50     | 0.3 | 0.9       | 1.7  | 4.2   | 10.6  | 68.8  | 200.6 | 273.9 | 255.8 | 173.0 | 73.1  | 15.6  | 4.6   | 3.0   | 1.7  | 1.0  | 0.6 | 0.2 | 1089.5  | 81.6    |
| -40     | 0.3 | 0.9       | 2.0  | 5.9   | 47.4  | 313.6 | 576.1 | 654.6 | 668.4 | 760.3 | 936.4 | 91.9  | 20.7  | 5.5   | 2.3  | 0.9  | 0.5 | 0.2 | 3376.3  | 302.4   |
| -30     | 0.3 | 0.9       | 2.4  | 8.9   | 133.7 | 503.2 | 682.7 | 724.5 | 746.6 | 738.4 | 650.3 | 336.6 | 71.4  | 6.3   | 3.3  | 1.0  | 0.5 | 0.2 | 4735.4  | 688.4   |
| -20     | 0.3 | 0.9       | 2.6  | 13.4  | 206.8 | 578.1 | 684.6 | 724.4 | 739.4 | 731.9 | 713.8 | 628.1 | 381.4 | 92.3  | 4.8  | 1.1  | 0.4 | 0.2 | 5504.5  | 467.5   |
| -10     | 0.3 | 0.9       | 2.7  | 12.8  | 230.0 | 602.0 | 689.8 | 732.1 | 732.6 | 732.5 | 727.9 | 690.6 | 555.1 | 176.3 | 6.8  | 1.2  | 0.4 | 0.2 | 5894.5  | 859.1   |
| 0       | 0.3 | 0.9       | 2.7  | 15.8  | 235.3 | 598.2 | 685.0 | 722.9 | 725.8 | 746.2 | 736.0 | 698.3 | 576.4 | 179.5 | 6.9  | 1.2  | 0.4 | 0.2 | 5932.6  | 895.8   |
| 10      | 0.3 | 0.9       | 2.7  | 20.1  | 227.5 | 569.8 | 670.2 | 704.9 | 725.5 | 736.4 | 725.7 | 676.8 | 440.6 | 96.6  | 5.1  | 1.1  | 0.4 | 0.2 | 5604.8  | 568.0   |
| 20      | 0.3 | 0.9       | 2.5  | 13.6  | 173.0 | 516.3 | 657.9 | 704.0 | 732.2 | 739.5 | 705.8 | 498.8 | 198.9 | 27.7  | 3.7  | 0.9  | 0.5 | 0.2 | 4976.4  | 930.9   |
| 30      | 0.3 | 0.9       | 2.2  | 6.9   | 80.3  | 386.9 | 598.0 | 645.8 | 679.0 | 635.3 | 452.5 | 163.9 | 28.6  | 6.9   | 2.5  | 0.9  | 0.5 | 0.2 | 3691.6  | 623.7   |
| 40      | 0.3 | 0.9       | 1.8  | 4.6   | 16.1  | 120.7 | 275.8 | 325.3 | 284.3 | 196.3 | 90.9  | 21.4  | 6.8   | 3.7   | 1.7  | 1.0  | 0.6 | 0.2 | 1352.4  | 248.4   |
| 50      | 0.3 | 0.9       | 1.6  | 3.2   | 6.6   | 12.1  | 28.2  | 44.3  | 30.1  | 12.0  | 9.0   | 6.2   | 3.8   | 2.4   | 1.6  | 1.0  | 0.6 | 0.2 | 164.0   | 33.5    |
| 60      | 0.3 | 0.9       | 1.5  | 2.2   | 3.6   | 5.4   | 6.4   | 6.5   | 5.9   | 5.0   | 4.3   | 3.5   | 2.9   | 2.3   | 1.7  | 1.1  | 0.6 | 0.2 | 54.3    | 0.0     |
| 70      | 0.3 | 0.9       | 1.5  | 2.0   | 2.6   | 3.1   | 3.4   | 3.6   | 3.6   | 3.5   | 3.4   | 3.1   | 2.8   | 2.3   | 1.7  | 1.1  | 0.6 | 0.2 | 39.8    | 0.0     |
| 80      | 0.3 | 0.9       | 1.4  | 2.0   | 2.5   | 2.8   | 3.1   | 3.3   | 3.4   | 3.4   | 3.2   | 3.0   | 2.7   | 2.3   | 1.7  | 1.1  | 0.6 | 0.2 | 37.9    | 0.0     |
| 90      | 5.3 | 16.3      | 35.1 | 124.4 | 389.5 | 300.5 | 790.4 | 309.5 | 383.5 | 508.0 | 827.9 | 688.2 | 238.3 | 263.6 | 52.2 | 18.9 | 9.7 | 3.2 | 4270.2  |         |
| Flux(T) | 0.0 | 0.0       | 0.0  | 6.7   | 128.8 | 422.6 | 571.9 | 523.3 | 530.2 | 600.6 | 520.2 | 378.7 | 629.8 | 652.8 | 0.0  | 0.0  | 0.0 | 0.0 |         | 4159.9  |
| Flux(E) | 0.0 | 0.0       | 0.0  | 6.7   | 128.8 | 422.6 | 571.9 | 523.3 | 530.2 | 600.6 | 520.2 | 378.7 | 629.8 | 652.8 | 0.0  | 0.0  | 0.0 | 0.0 |         | 4159.9  |
| -90     | -80 | -70       | -60  | -50   | -40   | -30   | -20   | -10   | 0     | 10    | 20    | 30    | 40    | 50    | 60   | 70   | 80  | 90  | Flux(T) | Flux(E) |

Horizontal plane

C Plane (°):0.0-360.0: 45.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 8.030 m  
Humidity:  
Inspector:

## The Average Illuminance Effective Figure



## UGR Table

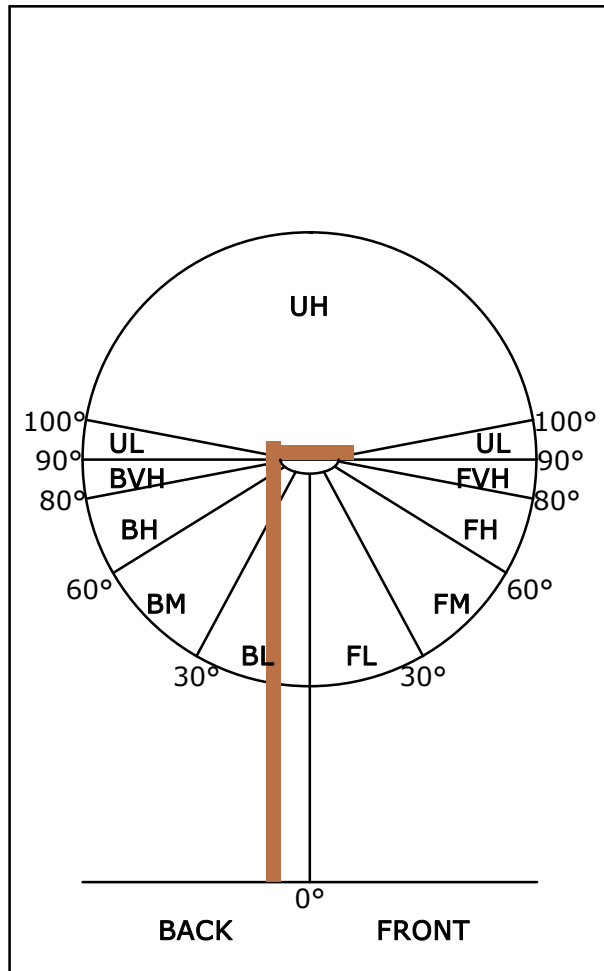
|                  |                  |      |      |      |      |                |      |      |      |      |
|------------------|------------------|------|------|------|------|----------------|------|------|------|------|
| Reflectance:     |                  |      |      |      |      |                |      |      |      |      |
| Ceiling (cavity) | 0.7              | 0.7  | 0.5  | 0.5  | 0.3  | 0.7            | 0.7  | 0.5  | 0.5  | 0.3  |
| Wall             | 0.5              | 0.3  | 0.5  | 0.3  | 0.3  | 0.5            | 0.3  | 0.5  | 0.3  | 0.3  |
| Reference plane  | 0.2              | 0.2  | 0.2  | 0.2  | 0.2  | 0.2            | 0.2  | 0.2  | 0.2  | 0.2  |
| Room dimensions  | Viewed crosswise |      |      |      |      | Viewed endwise |      |      |      |      |
| X=2H Y=2H        | 1.\$             | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$           | 1.\$ | 1.\$ | 1.\$ | 1.\$ |
| 3H               | 1.\$             | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$           | 1.\$ | 1.\$ | 1.\$ | 1.\$ |
| 4H               | 1.\$             | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$           | 1.\$ | 1.\$ | 1.\$ | 1.\$ |
| 6H               | 1.\$             | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$           | 1.\$ | 1.\$ | 1.\$ | 1.\$ |
| 8H               | 1.\$             | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$           | 1.\$ | 1.\$ | 1.\$ | 1.\$ |
| 12H              | 1.\$             | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$           | 1.\$ | 1.\$ | 1.\$ | 1.\$ |
| X=4H Y=2H        | 1.\$             | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$           | 1.\$ | 1.\$ | 1.\$ | 1.\$ |
| 3H               | 1.\$             | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$           | 1.\$ | 1.\$ | 1.\$ | 1.\$ |
| 4H               | 1.\$             | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$           | 1.\$ | 1.\$ | 1.\$ | 1.\$ |
| 6H               | 1.\$             | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$           | 1.\$ | 1.\$ | 1.\$ | 1.\$ |
| 8H               | 1.\$             | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$           | 1.\$ | 1.\$ | 1.\$ | 1.\$ |
| 12H              | 1.\$             | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$           | 1.\$ | 1.\$ | 1.\$ | 1.\$ |
| X=8H Y=4H        | 1.\$             | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$           | 1.\$ | 1.\$ | 1.\$ | 1.\$ |
| 6H               | 1.\$             | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$           | 1.\$ | 1.\$ | 1.\$ | 1.\$ |
| 8H               | 1.\$             | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$           | 1.\$ | 1.\$ | 1.\$ | 1.\$ |
| 12H              | 1.\$             | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$           | 1.\$ | 1.\$ | 1.\$ | 1.\$ |
| X=12H Y=4H       | 1.\$             | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$           | 1.\$ | 1.\$ | 1.\$ | 1.\$ |
| 6H               | 1.\$             | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$           | 1.\$ | 1.\$ | 1.\$ | 1.\$ |
| 8H               | 1.\$             | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$           | 1.\$ | 1.\$ | 1.\$ | 1.\$ |

Calculate in accordance with CIE 190:2010

C Plane (°):0.0-360.0: 45.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 8.030 m  
Humidity:  
Inspector:

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



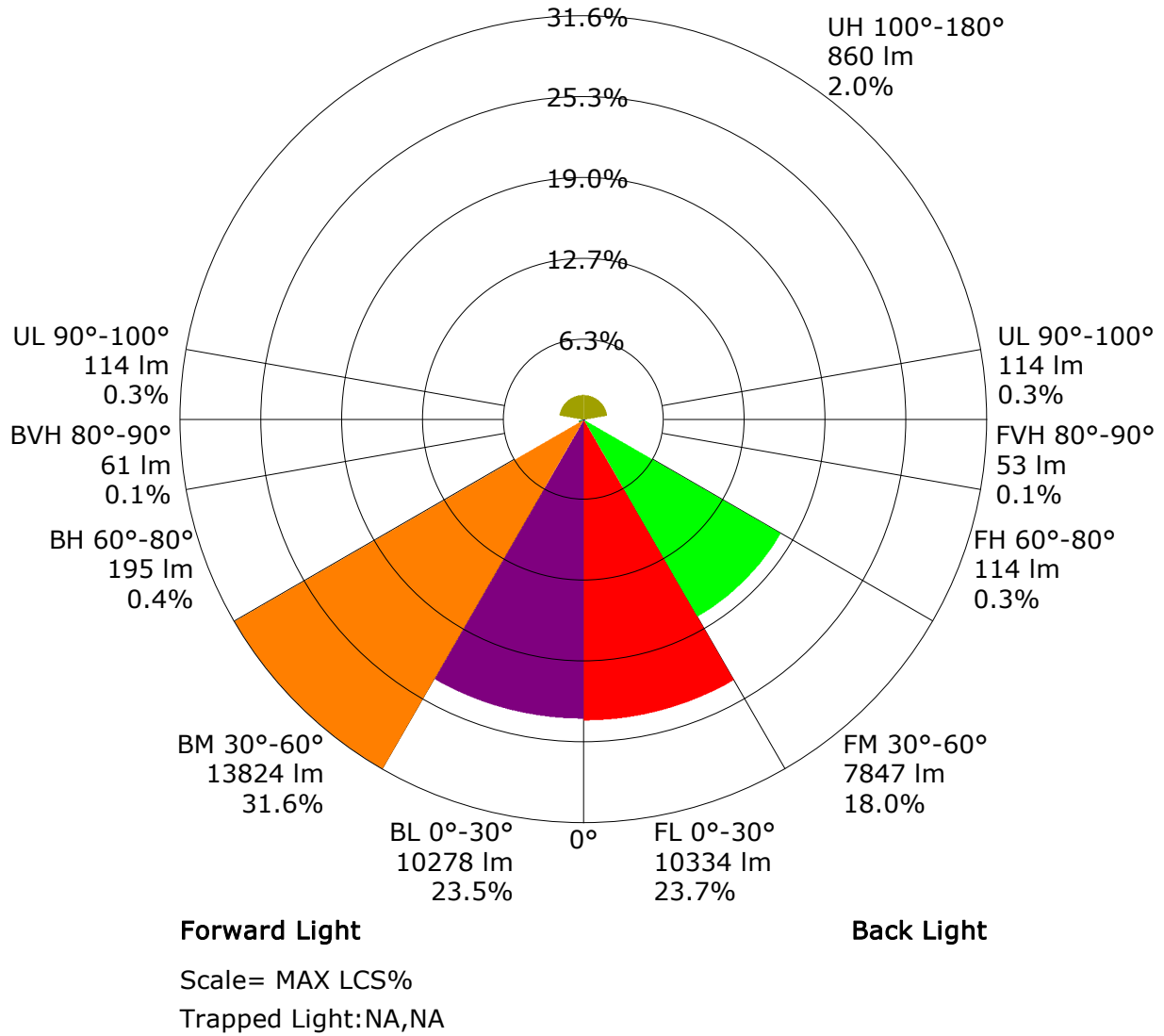
| ZONE           | LUMENS | % LAMP LUMENS |
|----------------|--------|---------------|
| FORWARD LIGHT  | 18348  | 42.0          |
| FL ( 0°-30°)   | 10334  | 23.7          |
| FM (30°-60°)   | 7847   | 18.0          |
| FH (60°-80°)   | 114    | 0.3           |
| FVH (80°-90°)  | 53     | 0.1           |
| BACK LIGHT     | 24358  | 55.8          |
| BL ( 0°-30°)   | 10278  | 23.5          |
| BM (30°-60°)   | 13824  | 31.6          |
| BH (60°-80°)   | 195    | 0.4           |
| BVH (80°-90°)  | 61     | 0.1           |
| UP LIGHT       | 974    | 2.2           |
| UL (90°-100°)  | 114    | 0.3           |
| UH (100°-180°) | 860    | 2.0           |
| TRAPPED LIGHT  | NA     | NA            |

| BUG(Backlight,Uplight,Glare) Rating Base On TM-15-07             |          |
|------------------------------------------------------------------|----------|
| Asymmetrical Luminaire Types<br>(Type I,II,III,IV)               | B5 U4 G1 |
| Quadrilateral Symmetrical Luminaire Types<br>(Type V,Area Light) | B5 U4 G1 |

C Plane (°):0.0-360.0: 45.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 8.030 m  
Humidity:  
Inspector:

## LCS Graph



## Utilisation Factor Table(Floor cavity)

| Utilisation Factors UF(F)                                                                                                                                                                         |      |       | SHR NOM = 1.25 |      |      |      |      |      |      |      |      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|----------------|------|------|------|------|------|------|------|------|
| Room Reflectance                                                                                                                                                                                  |      |       | Room Index(RI) |      |      |      |      |      |      |      |      |
| Ceiling                                                                                                                                                                                           | Wall | Floor | 0.75           | 1.00 | 1.25 | 1.50 | 2.00 | 2.50 | 3.00 | 4.00 | 5.00 |
| 0.70                                                                                                                                                                                              | 0.50 | 0.20  | 0.79           | 0.87 | 0.92 | 0.95 | 1.00 | 1.03 | 1.05 | 1.07 | 1.09 |
|                                                                                                                                                                                                   | 0.30 |       | 0.74           | 0.82 | 0.87 | 0.91 | 0.96 | 1.00 | 1.02 | 1.05 | 1.07 |
|                                                                                                                                                                                                   | 0.20 |       | 0.70           | 0.78 | 0.84 | 0.88 | 0.93 | 0.97 | 0.99 | 1.03 | 1.05 |
| 0.50                                                                                                                                                                                              | 0.50 | 0.20  | 0.77           | 0.85 | 0.90 | 0.93 | 0.97 | 0.99 | 1.01 | 1.03 | 1.05 |
|                                                                                                                                                                                                   | 0.30 |       | 0.73           | 0.81 | 0.86 | 0.89 | 0.94 | 0.97 | 0.99 | 1.01 | 1.03 |
|                                                                                                                                                                                                   | 0.20 |       | 0.69           | 0.78 | 0.83 | 0.86 | 0.91 | 0.94 | 0.97 | 1.00 | 1.01 |
| 0.30                                                                                                                                                                                              | 0.50 | 0.20  | 0.76           | 0.83 | 0.87 | 0.90 | 0.94 | 0.96 | 0.97 | 0.99 | 1.00 |
|                                                                                                                                                                                                   | 0.30 |       | 0.72           | 0.79 | 0.84 | 0.87 | 0.91 | 0.94 | 0.96 | 0.98 | 0.99 |
|                                                                                                                                                                                                   | 0.20 |       | 0.69           | 0.77 | 0.82 | 0.85 | 0.89 | 0.92 | 0.94 | 0.97 | 0.98 |
| 0.00                                                                                                                                                                                              | 0.00 | 0.00  | 0.67           | 0.74 | 0.79 | 0.82 | 0.86 | 0.88 | 0.90 | 0.92 | 0.93 |
| <p>Rating:420W Photometrically tested without ceiling board.</p> <p>Multiply UF values by service correction factors</p> <p>Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p> |      |       |                |      |      |      |      |      |      |      |      |

## Utilisation Factor Table(Wall)

| Utilisation Factors UF(W)                                                                                                                                                                         |      |       | SHR NOM = 1.25 |      |      |      |      |      |      |      |      |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|----------------|------|------|------|------|------|------|------|------|--|
| Room Reflectance                                                                                                                                                                                  |      |       | Room Index(RI) |      |      |      |      |      |      |      |      |  |
| Ceiling                                                                                                                                                                                           | Wall | Floor | 0.75           | 1.00 | 1.25 | 1.50 | 2.00 | 2.50 | 3.00 | 4.00 | 5.00 |  |
| 0.70                                                                                                                                                                                              | 0.50 | 0.20  | 0.65           | 0.52 | 0.43 | 0.37 | 0.29 | 0.24 | 0.20 | 0.16 | 0.13 |  |
|                                                                                                                                                                                                   | 0.30 |       | 0.54           | 0.44 | 0.37 | 0.33 | 0.26 | 0.22 | 0.19 | 0.15 | 0.12 |  |
|                                                                                                                                                                                                   | 0.20 |       | 0.47           | 0.39 | 0.33 | 0.29 | 0.24 | 0.20 | 0.17 | 0.14 | 0.11 |  |
| 0.50                                                                                                                                                                                              | 0.50 | 0.20  | 0.62           | 0.49 | 0.40 | 0.34 | 0.27 | 0.26 | 0.19 | 0.14 | 0.11 |  |
|                                                                                                                                                                                                   | 0.30 |       | 0.52           | 0.42 | 0.35 | 0.31 | 0.24 | 0.20 | 0.17 | 0.13 | 0.11 |  |
|                                                                                                                                                                                                   | 0.20 |       | 0.45           | 0.37 | 0.32 | 0.28 | 0.22 | 0.19 | 0.16 | 0.13 | 0.11 |  |
| 0.30                                                                                                                                                                                              | 0.50 | 0.20  | 0.59           | 0.46 | 0.38 | 0.32 | 0.25 | 0.20 | 0.17 | 0.13 | 0.11 |  |
|                                                                                                                                                                                                   | 0.30 |       | 0.50           | 0.40 | 0.34 | 0.29 | 0.23 | 0.19 | 0.16 | 0.12 | 0.10 |  |
|                                                                                                                                                                                                   | 0.20 |       | 0.44           | 0.36 | 0.30 | 0.26 | 0.21 | 0.18 | 0.15 | 0.12 | 0.10 |  |
| 0.00                                                                                                                                                                                              | 0.00 | 0.00  | 0.31           | 0.24 | 0.19 | 0.16 | 0.12 | 0.10 | 0.08 | 0.06 | 0.05 |  |
| <p>Rating:420W Photometrically tested without ceiling board.</p> <p>Multiply UF values by service correction factors</p> <p>Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p> |      |       |                |      |      |      |      |      |      |      |      |  |

## Utilisation Factor Table(Ceiling cavity)

| Utilisation Factors UF(C)                                                                                                                                                                         |      |       | SHR NOM = 1.25 |      |      |      |      |      |      |      |      |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|----------------|------|------|------|------|------|------|------|------|--|
| Room Reflectance                                                                                                                                                                                  |      |       | Room Index(RI) |      |      |      |      |      |      |      |      |  |
| Ceiling                                                                                                                                                                                           | Wall | Floor | 0.75           | 1.00 | 1.25 | 1.50 | 2.00 | 2.50 | 3.00 | 4.00 | 5.00 |  |
| 0.70                                                                                                                                                                                              | 0.50 | 0.20  | 0.16           | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.22 | 0.23 |  |
|                                                                                                                                                                                                   | 0.30 |       | 0.11           | 0.13 | 0.14 | 0.15 | 0.17 | 0.19 | 0.19 | 0.21 | 0.22 |  |
|                                                                                                                                                                                                   | 0.20 |       | 0.08           | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 |  |
| 0.50                                                                                                                                                                                              | 0.50 | 0.20  | 0.15           | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.22 |  |
|                                                                                                                                                                                                   | 0.30 |       | 0.11           | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 |  |
|                                                                                                                                                                                                   | 0.20 |       | 0.08           | 0.10 | 0.11 | 0.13 | 0.15 | 0.16 | 0.17 | 0.19 | 0.19 |  |
| 0.30                                                                                                                                                                                              | 0.50 | 0.20  | 0.15           | 0.16 | 0.17 | 0.17 | 0.19 | 0.19 | 0.20 | 0.21 | 0.21 |  |
|                                                                                                                                                                                                   | 0.30 |       | 0.11           | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 |  |
|                                                                                                                                                                                                   | 0.20 |       | 0.08           | 0.10 | 0.11 | 0.12 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 |  |
| 0.00                                                                                                                                                                                              | 0.00 | 0.00  | 0.02           | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |  |
| <p>Rating:420W Photometrically tested without ceiling board.</p> <p>Multiply UF values by service correction factors</p> <p>Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p> |      |       |                |      |      |      |      |      |      |      |      |  |

## Zonal Lumen

| Gamma<br>[°] | I <sub>mean</sub><br>[cd] | Zonal Flux<br>[lm] | Sum Zonal Flux<br>[lm] | Rel Zonal Flux<br>[%] | Sum Rel Zonal Flux<br>[%] |
|--------------|---------------------------|--------------------|------------------------|-----------------------|---------------------------|
| 0.0-1.0      | 24110.5                   | 23.1               | 23.1                   | 0.05                  | 0.05                      |
| 1.0-2.0      | 24116.6                   | 69.2               | 92.3                   | 0.16                  | 0.21                      |
| 2.0-3.0      | 24129.1                   | 115.4              | 207.7                  | 0.26                  | 0.48                      |
| 3.0-4.0      | 24147.9                   | 161.7              | 369.4                  | 0.37                  | 0.85                      |
| 4.0-5.0      | 24172.2                   | 208.0              | 577.4                  | 0.48                  | 1.32                      |
| 5.0-6.0      | 24201.2                   | 254.4              | 831.7                  | 0.58                  | 1.90                      |
| 6.0-7.0      | 24231.2                   | 300.8              | 1132.5                 | 0.69                  | 2.59                      |
| 7.0-8.0      | 24259.3                   | 347.2              | 1479.8                 | 0.79                  | 3.39                      |
| 8.0-9.0      | 24287.4                   | 393.7              | 1873.4                 | 0.90                  | 4.29                      |
| 9.0-10.0     | 24315.7                   | 440.1              | 2313.5                 | 1.01                  | 5.30                      |
| 10.0-11.0    | 24342.7                   | 486.5              | 2800.0                 | 1.11                  | 6.41                      |
| 11.0-12.0    | 24368.7                   | 532.8              | 3332.8                 | 1.22                  | 7.63                      |
| 12.0-13.0    | 24393.7                   | 579.0              | 3911.8                 | 1.33                  | 8.96                      |
| 13.0-14.0    | 24416.2                   | 625.1              | 4536.8                 | 1.43                  | 10.39                     |
| 14.0-15.0    | 24434.7                   | 670.9              | 5207.7                 | 1.54                  | 11.92                     |
| 15.0-16.0    | 24450.5                   | 716.5              | 5924.2                 | 1.64                  | 13.56                     |
| 16.0-17.0    | 24464.1                   | 761.9              | 6686.2                 | 1.74                  | 15.31                     |
| 17.0-18.0    | 24476.8                   | 807.1              | 7493.3                 | 1.85                  | 17.15                     |
| 18.0-19.0    | 24490.8                   | 852.2              | 8345.5                 | 1.95                  | 19.11                     |
| 19.0-20.0    | 24506.9                   | 897.1              | 9242.6                 | 2.05                  | 21.16                     |
| 20.0-21.0    | 24525.8                   | 941.9              | 10184.5                | 2.16                  | 23.32                     |
| 21.0-22.0    | 24549.9                   | 986.7              | 11171.2                | 2.26                  | 25.57                     |
| 22.0-23.0    | 24581.6                   | 1031.6             | 12202.7                | 2.36                  | 27.94                     |
| 23.0-24.0    | 24614.7                   | 1076.3             | 13279.1                | 2.46                  | 30.40                     |
| 24.0-25.0    | 24641.4                   | 1120.6             | 14399.7                | 2.57                  | 32.97                     |
| 25.0-26.0    | 24654.5                   | 1163.9             | 15563.6                | 2.66                  | 35.63                     |
| 26.0-27.0    | 24642.7                   | 1205.8             | 16769.4                | 2.76                  | 38.39                     |
| 27.0-28.0    | 24594.2                   | 1245.3             | 18014.7                | 2.85                  | 41.24                     |
| 28.0-29.0    | 24501.9                   | 1282.1             | 19296.8                | 2.94                  | 44.18                     |
| 29.0-30.0    | 24353.9                   | 1315.1             | 20611.9                | 3.01                  | 47.19                     |
| 30.0-31.0    | 24132.9                   | 1343.2             | 21955.1                | 3.07                  | 50.26                     |
| 31.0-32.0    | 23837.4                   | 1365.8             | 23320.9                | 3.13                  | 53.39                     |
| 32.0-33.0    | 23448.3                   | 1381.6             | 24702.5                | 3.16                  | 56.55                     |
| 33.0-34.0    | 22948.6                   | 1389.0             | 26091.5                | 3.18                  | 59.73                     |
| 34.0-35.0    | 22324.8                   | 1386.7             | 27478.1                | 3.17                  | 62.91                     |
| 35.0-36.0    | 21541.9                   | 1371.8             | 28849.9                | 3.14                  | 66.05                     |

C Plane (°):0.0-360.0: 45.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 8.030 m  
Humidity:  
Inspector:

## Zonal Lumen (Continue 1)

| Gamma<br>[°] | I <sub>mean</sub><br>[cd] | Zonal Flux<br>[lm] | Sum Zonal Flux<br>[lm] | Rel Zonal Flux<br>[%] | Sum Rel Zonal Flux<br>[%] |
|--------------|---------------------------|--------------------|------------------------|-----------------------|---------------------------|
| 36.0-37.0    | 20599.7                   | 1343.7             | 30193.6                | 3.08                  | 69.12                     |
| 37.0-38.0    | 19528.1                   | 1303.6             | 31497.2                | 2.98                  | 72.11                     |
| 38.0-39.0    | 18347.4                   | 1252.5             | 32749.7                | 2.87                  | 74.98                     |
| 39.0-40.0    | 17093.1                   | 1192.3             | 33942.0                | 2.73                  | 77.71                     |
| 40.0-41.0    | 15780.6                   | 1123.9             | 35065.9                | 2.57                  | 80.28                     |
| 41.0-42.0    | 14415.6                   | 1047.5             | 36113.4                | 2.40                  | 82.68                     |
| 42.0-43.0    | 12991.3                   | 962.5              | 37075.9                | 2.20                  | 84.88                     |
| 43.0-44.0    | 11533.9                   | 870.6              | 37946.5                | 1.99                  | 86.87                     |
| 44.0-45.0    | 10084.3                   | 775.1              | 38721.6                | 1.77                  | 88.65                     |
| 45.0-46.0    | 8636.3                    | 675.5              | 39397.1                | 1.55                  | 90.19                     |
| 46.0-47.0    | 7240.1                    | 575.9              | 39973.0                | 1.32                  | 91.51                     |
| 47.0-48.0    | 5974.8                    | 483.1              | 40456.1                | 1.11                  | 92.62                     |
| 48.0-49.0    | 4877.9                    | 400.6              | 40856.7                | 0.92                  | 93.54                     |
| 49.0-50.0    | 3959.3                    | 330.2              | 41186.9                | 0.76                  | 94.29                     |
| 50.0-51.0    | 3188.0                    | 269.8              | 41456.6                | 0.62                  | 94.91                     |
| 51.0-52.0    | 2514.5                    | 215.8              | 41672.4                | 0.49                  | 95.40                     |
| 52.0-53.0    | 1923.2                    | 167.3              | 41839.8                | 0.38                  | 95.79                     |
| 53.0-54.0    | 1428.8                    | 126.0              | 41965.7                | 0.29                  | 96.07                     |
| 54.0-55.0    | 1042.4                    | 93.1               | 42058.8                | 0.21                  | 96.29                     |
| 55.0-56.0    | 750.7                     | 67.8               | 42126.6                | 0.16                  | 96.44                     |
| 56.0-57.0    | 557.3                     | 51.0               | 42177.6                | 0.12                  | 96.56                     |
| 57.0-58.0    | 445.7                     | 41.2               | 42218.8                | 0.09                  | 96.65                     |
| 58.0-59.0    | 370.9                     | 34.7               | 42253.5                | 0.08                  | 96.73                     |
| 59.0-60.0    | 312.8                     | 29.6               | 42283.0                | 0.07                  | 96.80                     |
| 60.0-61.0    | 273.7                     | 26.1               | 42309.1                | 0.06                  | 96.86                     |
| 61.0-62.0    | 246.7                     | 23.8               | 42332.9                | 0.05                  | 96.92                     |
| 62.0-63.0    | 226.6                     | 22.0               | 42355.0                | 0.05                  | 96.97                     |
| 63.0-64.0    | 211.4                     | 20.8               | 42375.7                | 0.05                  | 97.01                     |
| 64.0-65.0    | 196.4                     | 19.4               | 42395.1                | 0.04                  | 97.06                     |
| 65.0-66.0    | 178.7                     | 17.8               | 42413.0                | 0.04                  | 97.10                     |
| 66.0-67.0    | 162.0                     | 16.3               | 42429.3                | 0.04                  | 97.14                     |
| 67.0-68.0    | 150.2                     | 15.2               | 42444.5                | 0.03                  | 97.17                     |
| 68.0-69.0    | 141.0                     | 14.4               | 42458.9                | 0.03                  | 97.20                     |
| 69.0-70.0    | 133.4                     | 13.7               | 42472.6                | 0.03                  | 97.23                     |
| 70.0-71.0    | 126.7                     | 13.1               | 42485.7                | 0.03                  | 97.26                     |
| 71.0-72.0    | 120.4                     | 12.5               | 42498.2                | 0.03                  | 97.29                     |

C Plane (°):0.0-360.0: 45.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 8.030 m  
Humidity:  
Inspector:

## Zonal Lumen (Continue 2)

| Gamma<br>[°] | I <sub>mean</sub><br>[cd] | Zonal Flux<br>[lm] | Sum Zonal Flux<br>[lm] | Rel Zonal Flux<br>[%] | Sum Rel Zonal Flux<br>[%] |
|--------------|---------------------------|--------------------|------------------------|-----------------------|---------------------------|
| 72.0-73.0    | 115.6                     | 12.1               | 42510.3                | 0.03                  | 97.32                     |
| 73.0-74.0    | 112.8                     | 11.9               | 42522.1                | 0.03                  | 97.35                     |
| 74.0-75.0    | 111.3                     | 11.8               | 42533.9                | 0.03                  | 97.38                     |
| 75.0-76.0    | 109.6                     | 11.6               | 42545.5                | 0.03                  | 97.40                     |
| 76.0-77.0    | 108.0                     | 11.5               | 42557.0                | 0.03                  | 97.43                     |
| 77.0-78.0    | 107.1                     | 11.5               | 42568.5                | 0.03                  | 97.45                     |
| 78.0-79.0    | 107.1                     | 11.5               | 42580.0                | 0.03                  | 97.48                     |
| 79.0-80.0    | 107.2                     | 11.6               | 42591.6                | 0.03                  | 97.51                     |
| 80.0-81.0    | 106.5                     | 11.5               | 42603.1                | 0.03                  | 97.53                     |
| 81.0-82.0    | 106.0                     | 11.5               | 42614.6                | 0.03                  | 97.56                     |
| 82.0-83.0    | 106.0                     | 11.5               | 42626.1                | 0.03                  | 97.59                     |
| 83.0-84.0    | 105.7                     | 11.5               | 42637.6                | 0.03                  | 97.61                     |
| 84.0-85.0    | 105.4                     | 11.5               | 42649.1                | 0.03                  | 97.64                     |
| 85.0-86.0    | 105.0                     | 11.5               | 42660.6                | 0.03                  | 97.67                     |
| 86.0-87.0    | 104.2                     | 11.4               | 42672.0                | 0.03                  | 97.69                     |
| 87.0-88.0    | 104.0                     | 11.4               | 42683.4                | 0.03                  | 97.72                     |
| 88.0-89.0    | 103.9                     | 11.4               | 42694.8                | 0.03                  | 97.74                     |
| 89.0-90.0    | 103.7                     | 11.4               | 42706.2                | 0.03                  | 97.77                     |
| 90.0-91.0    | 103.7                     | 11.4               | 42717.5                | 0.03                  | 97.80                     |
| 91.0-92.0    | 103.6                     | 11.4               | 42728.9                | 0.03                  | 97.82                     |
| 92.0-93.0    | 103.6                     | 11.4               | 42740.3                | 0.03                  | 97.85                     |
| 93.0-94.0    | 103.8                     | 11.4               | 42751.6                | 0.03                  | 97.87                     |
| 94.0-95.0    | 104.0                     | 11.4               | 42763.0                | 0.03                  | 97.90                     |
| 95.0-96.0    | 104.0                     | 11.3               | 42774.3                | 0.03                  | 97.93                     |
| 96.0-97.0    | 104.0                     | 11.3               | 42785.7                | 0.03                  | 97.95                     |
| 97.0-98.0    | 104.6                     | 11.4               | 42797.0                | 0.03                  | 97.98                     |
| 98.0-99.0    | 105.4                     | 11.4               | 42808.5                | 0.03                  | 98.00                     |
| 99.0-100.0   | 106.0                     | 11.5               | 42819.9                | 0.03                  | 98.03                     |
| 100.0-101.0  | 106.5                     | 11.5               | 42831.4                | 0.03                  | 98.06                     |
| 101.0-102.0  | 107.2                     | 11.5               | 42842.9                | 0.03                  | 98.08                     |
| 102.0-103.0  | 108.2                     | 11.6               | 42854.5                | 0.03                  | 98.11                     |
| 103.0-104.0  | 109.4                     | 11.7               | 42866.2                | 0.03                  | 98.14                     |
| 104.0-105.0  | 110.5                     | 11.7               | 42877.9                | 0.03                  | 98.16                     |
| 105.0-106.0  | 111.7                     | 11.8               | 42889.7                | 0.03                  | 98.19                     |
| 106.0-107.0  | 113.1                     | 11.9               | 42901.6                | 0.03                  | 98.22                     |
| 107.0-108.0  | 114.7                     | 12.0               | 42913.6                | 0.03                  | 98.24                     |

C Plane (°):0.0-360.0: 45.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 8.030 m  
Humidity:  
Inspector:

## Zonal Lumen (Continue 3)

| Gamma<br>[°] | I <sub>mean</sub><br>[cd] | Zonal Flux<br>[lm] | Sum Zonal Flux<br>[lm] | Rel Zonal Flux<br>[%] | Sum Rel Zonal Flux<br>[%] |
|--------------|---------------------------|--------------------|------------------------|-----------------------|---------------------------|
| 108.0-109.0  | 116.3                     | 12.1               | 42925.7                | 0.03                  | 98.27                     |
| 109.0-110.0  | 117.9                     | 12.2               | 42937.9                | 0.03                  | 98.30                     |
| 110.0-111.0  | 119.6                     | 12.3               | 42950.2                | 0.03                  | 98.33                     |
| 111.0-112.0  | 121.3                     | 12.4               | 42962.5                | 0.03                  | 98.36                     |
| 112.0-113.0  | 122.9                     | 12.4               | 42975.0                | 0.03                  | 98.39                     |
| 113.0-114.0  | 124.3                     | 12.5               | 42987.5                | 0.03                  | 98.41                     |
| 114.0-115.0  | 125.7                     | 12.5               | 43000.0                | 0.03                  | 98.44                     |
| 115.0-116.0  | 127.2                     | 12.6               | 43012.6                | 0.03                  | 98.47                     |
| 116.0-117.0  | 128.5                     | 12.6               | 43025.2                | 0.03                  | 98.50                     |
| 117.0-118.0  | 129.5                     | 12.6               | 43037.8                | 0.03                  | 98.53                     |
| 118.0-119.0  | 131.2                     | 12.6               | 43050.5                | 0.03                  | 98.56                     |
| 119.0-120.0  | 133.2                     | 12.7               | 43063.2                | 0.03                  | 98.59                     |
| 120.0-121.0  | 134.5                     | 12.7               | 43075.9                | 0.03                  | 98.62                     |
| 121.0-122.0  | 135.6                     | 12.7               | 43088.6                | 0.03                  | 98.65                     |
| 122.0-123.0  | 136.8                     | 12.7               | 43101.2                | 0.03                  | 98.67                     |
| 123.0-124.0  | 138.0                     | 12.6               | 43113.9                | 0.03                  | 98.70                     |
| 124.0-125.0  | 138.3                     | 12.5               | 43126.4                | 0.03                  | 98.73                     |
| 125.0-126.0  | 137.8                     | 12.3               | 43138.7                | 0.03                  | 98.76                     |
| 126.0-127.0  | 137.4                     | 12.1               | 43150.8                | 0.03                  | 98.79                     |
| 127.0-128.0  | 137.8                     | 12.0               | 43162.8                | 0.03                  | 98.82                     |
| 128.0-129.0  | 138.6                     | 11.9               | 43174.7                | 0.03                  | 98.84                     |
| 129.0-130.0  | 139.8                     | 11.8               | 43186.5                | 0.03                  | 98.87                     |
| 130.0-131.0  | 142.1                     | 11.9               | 43198.3                | 0.03                  | 98.90                     |
| 131.0-132.0  | 145.0                     | 11.9               | 43210.2                | 0.03                  | 98.92                     |
| 132.0-133.0  | 148.0                     | 12.0               | 43222.2                | 0.03                  | 98.95                     |
| 133.0-134.0  | 151.5                     | 12.0               | 43234.3                | 0.03                  | 98.98                     |
| 134.0-135.0  | 154.9                     | 12.1               | 43246.4                | 0.03                  | 99.01                     |
| 135.0-136.0  | 158.9                     | 12.2               | 43258.6                | 0.03                  | 99.03                     |
| 136.0-137.0  | 163.1                     | 12.3               | 43270.9                | 0.03                  | 99.06                     |
| 137.0-138.0  | 167.2                     | 12.4               | 43283.3                | 0.03                  | 99.09                     |
| 138.0-139.0  | 171.8                     | 12.5               | 43295.8                | 0.03                  | 99.12                     |
| 139.0-140.0  | 176.6                     | 12.6               | 43308.3                | 0.03                  | 99.15                     |
| 140.0-141.0  | 181.6                     | 12.7               | 43321.0                | 0.03                  | 99.18                     |
| 141.0-142.0  | 186.8                     | 12.8               | 43333.8                | 0.03                  | 99.21                     |
| 142.0-143.0  | 192.2                     | 12.8               | 43346.6                | 0.03                  | 99.24                     |
| 143.0-144.0  | 198.1                     | 12.9               | 43359.5                | 0.03                  | 99.27                     |

C Plane (°):0.0-360.0: 45.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 8.030 m  
Humidity:  
Inspector:

## Zonal Lumen (Continue 4)

| Gamma<br>[°] | I <sub>mean</sub><br>[cd] | Zonal Flux<br>[lm] | Sum Zonal Flux<br>[lm] | Rel Zonal Flux<br>[%] | Sum Rel Zonal Flux<br>[%] |
|--------------|---------------------------|--------------------|------------------------|-----------------------|---------------------------|
| 144.0-145.0  | 204.7                     | 13.0               | 43372.6                | 0.03                  | 99.30                     |
| 145.0-146.0  | 211.6                     | 13.1               | 43385.7                | 0.03                  | 99.33                     |
| 146.0-147.0  | 218.2                     | 13.2               | 43398.9                | 0.03                  | 99.36                     |
| 147.0-148.0  | 224.7                     | 13.2               | 43412.1                | 0.03                  | 99.39                     |
| 148.0-149.0  | 230.6                     | 13.2               | 43425.4                | 0.03                  | 99.42                     |
| 149.0-150.0  | 236.4                     | 13.2               | 43438.5                | 0.03                  | 99.45                     |
| 150.0-151.0  | 241.7                     | 13.1               | 43451.6                | 0.03                  | 99.48                     |
| 151.0-152.0  | 246.4                     | 12.9               | 43464.5                | 0.03                  | 99.51                     |
| 152.0-153.0  | 251.0                     | 12.7               | 43477.2                | 0.03                  | 99.53                     |
| 153.0-154.0  | 255.1                     | 12.5               | 43489.7                | 0.03                  | 99.56                     |
| 154.0-155.0  | 259.0                     | 12.2               | 43501.9                | 0.03                  | 99.59                     |
| 155.0-156.0  | 263.3                     | 12.0               | 43513.9                | 0.03                  | 99.62                     |
| 156.0-157.0  | 268.0                     | 11.7               | 43525.6                | 0.03                  | 99.65                     |
| 157.0-158.0  | 273.0                     | 11.5               | 43537.0                | 0.03                  | 99.67                     |
| 158.0-159.0  | 278.3                     | 11.2               | 43548.2                | 0.03                  | 99.70                     |
| 159.0-160.0  | 284.1                     | 10.9               | 43559.1                | 0.02                  | 99.72                     |
| 160.0-161.0  | 290.1                     | 10.6               | 43569.8                | 0.02                  | 99.75                     |
| 161.0-162.0  | 296.0                     | 10.3               | 43580.0                | 0.02                  | 99.77                     |
| 162.0-163.0  | 301.8                     | 10.0               | 43590.0                | 0.02                  | 99.79                     |
| 163.0-164.0  | 307.6                     | 9.6                | 43599.6                | 0.02                  | 99.82                     |
| 164.0-165.0  | 313.0                     | 9.2                | 43608.8                | 0.02                  | 99.84                     |
| 165.0-166.0  | 318.2                     | 8.7                | 43617.5                | 0.02                  | 99.86                     |
| 166.0-167.0  | 323.3                     | 8.3                | 43625.8                | 0.02                  | 99.87                     |
| 167.0-168.0  | 328.0                     | 7.8                | 43633.6                | 0.02                  | 99.89                     |
| 168.0-169.0  | 332.3                     | 7.3                | 43640.8                | 0.02                  | 99.91                     |
| 169.0-170.0  | 336.3                     | 6.7                | 43647.5                | 0.02                  | 99.92                     |
| 170.0-171.0  | 339.8                     | 6.2                | 43653.7                | 0.01                  | 99.94                     |
| 171.0-172.0  | 342.3                     | 5.5                | 43659.2                | 0.01                  | 99.95                     |
| 172.0-173.0  | 344.3                     | 4.9                | 43664.2                | 0.01                  | 99.96                     |
| 173.0-174.0  | 346.2                     | 4.3                | 43668.5                | 0.01                  | 99.97                     |
| 174.0-175.0  | 346.8                     | 3.6                | 43672.1                | 0.01                  | 99.98                     |
| 175.0-176.0  | 346.7                     | 3.0                | 43675.1                | 0.01                  | 99.99                     |
| 176.0-177.0  | 346.1                     | 2.3                | 43677.4                | 0.01                  | 99.99                     |
| 177.0-178.0  | 344.9                     | 1.6                | 43679.1                | 0.00                  | 100.00                    |
| 178.0-179.0  | 343.9                     | 1.0                | 43680.0                | 0.00                  | 100.00                    |
| 179.0-180.0  | 343.5                     | 0.3                | 43680.4                | 0.00                  | 100.00                    |

C Plane (°):0.0-360.0: 45.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 8.030 m  
Humidity:  
Inspector:

## Candlepower Table

Unit: cd

| G\C   | C0.0    | C45.0   | C90.0   | C135.0  | C180.0  | C225.0  | C270.0  | C315.0  | C360.0  |  |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--|
| G0.0  | 24078.9 | 24204.3 | 24269.4 | 23882.8 | 24078.9 | 24204.3 | 24269.4 | 23882.8 | 24078.9 |  |
| G1.0  | 24108.2 | 24307.1 | 24303.3 | 23838.5 | 24062.0 | 24115.7 | 24240.2 | 23922.4 | 24108.2 |  |
| G2.0  | 24149.7 | 24419.3 | 24334.5 | 23786.6 | 24074.2 | 24032.7 | 24220.4 | 23951.6 | 24149.7 |  |
| G3.0  | 24207.2 | 24530.6 | 24355.2 | 23735.7 | 24118.5 | 23964.8 | 24210.9 | 23973.3 | 24207.2 |  |
| G4.0  | 24290.1 | 24628.7 | 24366.5 | 23682.0 | 24193.0 | 23913.9 | 24209.1 | 23986.5 | 24290.1 |  |
| G5.0  | 24393.9 | 24700.3 | 24373.1 | 23630.1 | 24293.9 | 23881.9 | 24214.7 | 23996.9 | 24393.9 |  |
| G6.0  | 24517.4 | 24752.2 | 24368.4 | 23580.1 | 24421.2 | 23867.7 | 24229.8 | 23996.9 | 24517.4 |  |
| G7.0  | 24645.6 | 24782.3 | 24357.1 | 23531.1 | 24550.4 | 23865.8 | 24247.7 | 23984.6 | 24645.6 |  |
| G8.0  | 24773.8 | 24791.8 | 24337.3 | 23490.6 | 24678.6 | 23883.8 | 24265.6 | 23962.0 | 24773.8 |  |
| G9.0  | 24904.0 | 24787.1 | 24310.9 | 23467.9 | 24809.7 | 23924.3 | 24276.0 | 23935.6 | 24904.0 |  |
| G10.0 | 25017.1 | 24769.1 | 24278.8 | 23465.1 | 24922.8 | 23990.3 | 24288.3 | 23903.6 | 25017.1 |  |
| G11.0 | 25120.8 | 24736.1 | 24244.9 | 23479.3 | 25020.9 | 24078.9 | 24296.8 | 23870.6 | 25120.8 |  |
| G12.0 | 25207.6 | 24696.5 | 24210.9 | 23503.8 | 25102.9 | 24177.9 | 24310.9 | 23840.4 | 25207.6 |  |
| G13.0 | 25281.1 | 24652.2 | 24179.8 | 23537.7 | 25171.8 | 24279.8 | 24328.8 | 23817.8 | 25281.1 |  |
| G14.0 | 25337.7 | 24604.1 | 24151.5 | 23579.2 | 25228.3 | 24366.5 | 24342.9 | 23799.8 | 25337.7 |  |
| G15.0 | 25385.8 | 24559.8 | 24121.4 | 23632.9 | 25258.5 | 24444.8 | 24351.4 | 23790.4 | 25385.8 |  |
| G16.0 | 25423.5 | 24519.3 | 24095.9 | 23683.9 | 25275.5 | 24510.8 | 24352.4 | 23801.7 | 25423.5 |  |
| G17.0 | 25450.9 | 24487.2 | 24076.1 | 23734.8 | 25274.5 | 24564.5 | 24354.3 | 23819.6 | 25450.9 |  |
| G18.0 | 25459.3 | 24469.3 | 24065.7 | 23783.8 | 25261.3 | 24606.0 | 24358.0 | 23863.9 | 25459.3 |  |
| G19.0 | 25454.6 | 24467.4 | 24060.1 | 23828.1 | 25237.8 | 24637.1 | 24361.8 | 23938.4 | 25454.6 |  |
| G20.0 | 25445.2 | 24484.4 | 24055.4 | 23865.8 | 25211.4 | 24656.0 | 24364.6 | 24042.2 | 25445.2 |  |
| G21.0 | 25432.9 | 24531.5 | 24058.2 | 23901.7 | 25178.4 | 24659.8 | 24371.2 | 24153.4 | 25432.9 |  |
| G22.0 | 25421.6 | 24619.2 | 24067.6 | 23923.4 | 25143.5 | 24655.1 | 24380.7 | 24299.6 | 25421.6 |  |
| G23.0 | 25410.3 | 24740.8 | 24093.1 | 23932.8 | 25114.2 | 24642.8 | 24400.5 | 24460.8 | 25410.3 |  |
| G24.0 | 25404.7 | 24885.1 | 24131.7 | 23927.1 | 25091.6 | 24625.8 | 24428.8 | 24545.7 | 25404.7 |  |
| G25.0 | 25408.4 | 25045.4 | 24177.9 | 23910.2 | 25081.2 | 24607.0 | 24478.7 | 24512.7 | 25408.4 |  |
| G26.0 | 25429.2 | 25147.2 | 24237.3 | 23881.9 | 25081.2 | 24587.2 | 24574.0 | 24311.8 | 25429.2 |  |
| G27.0 | 25469.7 | 25153.8 | 24312.8 | 23847.0 | 25099.2 | 24571.1 | 24699.4 | 23880.0 | 25469.7 |  |
| G28.0 | 25530.1 | 25040.7 | 24402.3 | 23808.3 | 25143.5 | 24556.0 | 24866.3 | 23127.5 | 25530.1 |  |
| G29.0 | 25619.6 | 24751.2 | 24497.6 | 23769.7 | 25208.5 | 24546.6 | 25052.0 | 22110.2 | 25619.6 |  |
| G30.0 | 25750.7 | 24235.5 | 24582.4 | 23735.7 | 25286.8 | 24551.3 | 25147.2 | 20817.4 | 25750.7 |  |
| G31.0 | 25909.1 | 23434.0 | 24611.7 | 23707.4 | 25399.0 | 24569.2 | 25135.9 | 19253.2 | 25909.1 |  |
| G32.0 | 26017.5 | 22415.7 | 24574.0 | 23686.7 | 25501.8 | 24611.7 | 24978.5 | 17593.6 | 26017.5 |  |
| G33.0 | 26074.1 | 21006.9 | 24375.0 | 23682.9 | 25547.0 | 24683.3 | 24607.0 | 15816.3 | 26074.1 |  |
| G34.0 | 25954.4 | 19438.0 | 23996.0 | 23705.5 | 25468.8 | 24777.6 | 24065.7 | 13978.5 | 25954.4 |  |
| G35.0 | 25625.3 | 17708.7 | 23416.1 | 23757.4 | 25153.8 | 24898.3 | 23316.1 | 11936.2 | 25625.3 |  |
| G36.0 | 24997.3 | 15692.8 | 22514.7 | 23836.6 | 24638.1 | 25012.4 | 22374.2 | 9792.1  | 24997.3 |  |

C Plane (°):0.0-360.0: 45.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 8.030 m  
Humidity:  
Inspector:

## Candlepower Table (Continue 1)

Unit: cd

| G\C   | C0.0    | C45.0   | C90.0   | C135.0  | C180.0  | C225.0  | C270.0  | C315.0 | C360.0  |  |
|-------|---------|---------|---------|---------|---------|---------|---------|--------|---------|--|
| G37.0 | 24071.4 | 13696.6 | 21375.6 | 23936.6 | 23851.7 | 25084.1 | 21219.1 | 7502.7 | 24071.4 |  |
| G38.0 | 22886.2 | 11661.8 | 19979.2 | 24051.6 | 22748.5 | 25104.8 | 19766.1 | 5513.2 | 22886.2 |  |
| G39.0 | 21333.2 | 9556.3  | 18451.7 | 24132.7 | 21412.4 | 24962.4 | 18158.4 | 3840.4 | 21333.2 |  |
| G40.0 | 19587.9 | 7636.6  | 16738.4 | 24176.1 | 19835.9 | 24636.2 | 16430.1 | 2601.5 | 19587.9 |  |
| G41.0 | 17560.6 | 5698.9  | 15018.6 | 24098.7 | 18069.8 | 24130.8 | 14574.5 | 1695.3 | 17560.6 |  |
| G42.0 | 15478.7 | 4181.8  | 13117.7 | 23833.8 | 16127.4 | 23356.7 | 12650.9 | 1056.1 | 15478.7 |  |
| G43.0 | 13442.0 | 2519.4  | 11210.2 | 23359.5 | 13988.9 | 22269.5 | 10553.0 | 714.7  | 13442.0 |  |
| G44.0 | 11215.8 | 1518.1  | 9189.5  | 22719.3 | 11932.5 | 20919.3 | 8457.8  | 532.7  | 11215.8 |  |
| G45.0 | 9080.2  | 1004.2  | 7234.0  | 21814.1 | 9793.9  | 19247.5 | 6259.9  | 430.0  | 9080.2  |  |
| G46.0 | 6806.8  | 702.5   | 5304.8  | 20641.1 | 7629.0  | 17481.4 | 4368.5  | 382.8  | 6806.8  |  |
| G47.0 | 4809.8  | 514.8   | 3713.2  | 19230.5 | 5497.1  | 15631.5 | 2786.3  | 342.3  | 4809.8  |  |
| G48.0 | 3222.9  | 425.3   | 2485.5  | 17529.5 | 3721.6  | 13685.3 | 1693.5  | 307.4  | 3222.9  |  |
| G49.0 | 2133.8  | 400.7   | 1661.4  | 15501.3 | 2414.8  | 11530.8 | 1053.2  | 280.0  | 2133.8  |  |
| G50.0 | 1342.7  | 377.2   | 1018.3  | 13529.7 | 1590.7  | 9488.4  | 772.2   | 253.6  | 1342.7  |  |
| G51.0 | 810.0   | 354.5   | 653.4   | 11498.7 | 1057.0  | 7458.4  | 578.0   | 225.4  | 810.0   |  |
| G52.0 | 526.1   | 331.0   | 512.0   | 9336.6  | 745.8   | 5434.0  | 519.5   | 192.4  | 526.1   |  |
| G53.0 | 393.2   | 302.7   | 457.3   | 7097.2  | 536.5   | 3740.5  | 480.9   | 165.0  | 393.2   |  |
| G54.0 | 336.6   | 272.5   | 413.0   | 5141.6  | 438.5   | 2477.9  | 447.9   | 159.4  | 336.6   |  |
| G55.0 | 304.6   | 240.4   | 374.3   | 3508.6  | 397.0   | 1590.7  | 415.8   | 159.4  | 304.6   |  |
| G56.0 | 284.8   | 216.9   | 348.9   | 2261.1  | 367.7   | 1001.4  | 384.7   | 155.6  | 284.8   |  |
| G57.0 | 265.9   | 211.2   | 328.1   | 1568.1  | 350.8   | 676.1   | 351.7   | 143.3  | 265.9   |  |
| G58.0 | 249.9   | 206.5   | 309.3   | 1117.3  | 338.5   | 567.6   | 308.3   | 138.6  | 249.9   |  |
| G59.0 | 227.2   | 195.2   | 286.6   | 750.5   | 328.1   | 510.1   | 271.6   | 128.2  | 227.2   |  |
| G60.0 | 194.2   | 177.3   | 260.2   | 528.0   | 314.9   | 468.6   | 241.4   | 122.6  | 194.2   |  |
| G61.0 | 163.1   | 145.2   | 231.0   | 452.6   | 293.2   | 431.9   | 232.9   | 121.6  | 163.1   |  |
| G62.0 | 128.2   | 119.8   | 214.0   | 403.6   | 262.1   | 400.7   | 226.3   | 120.7  | 128.2   |  |
| G63.0 | 105.6   | 116.9   | 203.7   | 380.0   | 233.8   | 373.4   | 216.9   | 119.8  | 105.6   |  |
| G64.0 | 91.5    | 116.0   | 195.2   | 364.9   | 208.4   | 343.2   | 196.1   | 117.9  | 91.5    |  |
| G65.0 | 74.5    | 116.0   | 179.1   | 348.9   | 189.5   | 315.9   | 166.9   | 117.9  | 74.5    |  |
| G66.0 | 66.0    | 115.0   | 154.6   | 331.0   | 167.8   | 268.7   | 131.1   | 116.9  | 66.0    |  |
| G67.0 | 50.0    | 115.0   | 132.0   | 313.0   | 153.7   | 235.7   | 124.5   | 116.9  | 50.0    |  |
| G68.0 | 39.6    | 115.0   | 123.5   | 285.7   | 139.6   | 219.7   | 123.5   | 116.0  | 39.6    |  |
| G69.0 | 40.5    | 115.0   | 121.6   | 251.8   | 122.6   | 205.6   | 120.7   | 115.0  | 40.5    |  |
| G70.0 | 43.4    | 114.1   | 119.8   | 224.4   | 119.8   | 187.6   | 118.8   | 114.1  | 43.4    |  |
| G71.0 | 45.3    | 114.1   | 118.8   | 191.4   | 118.8   | 164.1   | 118.8   | 114.1  | 45.3    |  |
| G72.0 | 46.2    | 114.1   | 118.8   | 166.9   | 118.8   | 143.3   | 118.8   | 114.1  | 46.2    |  |
| G73.0 | 48.1    | 113.2   | 117.9   | 156.5   | 117.9   | 124.5   | 116.9   | 113.2  | 48.1    |  |

C Plane (°):0.0-360.0: 45.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 8.030 m  
Humidity:  
Inspector:

## Candlepower Table (Continue 2)

Unit: cd

| G\C    | C0.0 | C45.0 | C90.0 | C135.0 | C180.0 | C225.0 | C270.0 | C315.0 | C360.0 |  |
|--------|------|-------|-------|--------|--------|--------|--------|--------|--------|--|
| G74.0  | 50.9 | 113.2 | 116.0 | 147.1  | 116.9  | 121.6  | 117.9  | 113.2  | 50.9   |  |
| G75.0  | 52.8 | 112.2 | 116.0 | 134.8  | 116.9  | 120.7  | 117.9  | 112.2  | 52.8   |  |
| G76.0  | 52.8 | 112.2 | 116.0 | 124.5  | 115.0  | 119.8  | 117.9  | 111.3  | 52.8   |  |
| G77.0  | 53.8 | 111.3 | 114.1 | 120.7  | 114.1  | 118.8  | 115.0  | 110.3  | 53.8   |  |
| G78.0  | 56.6 | 111.3 | 114.1 | 119.8  | 113.2  | 116.9  | 114.1  | 109.4  | 56.6   |  |
| G79.0  | 57.5 | 110.3 | 115.0 | 120.7  | 114.1  | 116.0  | 114.1  | 110.3  | 57.5   |  |
| G80.0  | 57.5 | 110.3 | 114.1 | 119.8  | 114.1  | 116.9  | 115.0  | 109.4  | 57.5   |  |
| G81.0  | 59.4 | 109.4 | 112.2 | 117.9  | 112.2  | 116.0  | 112.2  | 107.5  | 59.4   |  |
| G82.0  | 60.3 | 109.4 | 113.2 | 116.9  | 113.2  | 114.1  | 112.2  | 109.4  | 60.3   |  |
| G83.0  | 60.3 | 108.4 | 112.2 | 117.9  | 112.2  | 113.2  | 113.2  | 109.4  | 60.3   |  |
| G84.0  | 61.3 | 107.5 | 112.2 | 116.9  | 111.3  | 113.2  | 113.2  | 108.4  | 61.3   |  |
| G85.0  | 61.3 | 107.5 | 111.3 | 116.0  | 111.3  | 114.1  | 112.2  | 109.4  | 61.3   |  |
| G86.0  | 63.2 | 107.5 | 109.4 | 114.1  | 109.4  | 113.2  | 111.3  | 108.4  | 63.2   |  |
| G87.0  | 62.2 | 107.5 | 110.3 | 115.0  | 108.4  | 111.3  | 108.4  | 108.4  | 62.2   |  |
| G88.0  | 63.2 | 107.5 | 109.4 | 114.1  | 109.4  | 111.3  | 108.4  | 109.4  | 63.2   |  |
| G89.0  | 63.2 | 107.5 | 107.5 | 113.2  | 109.4  | 110.3  | 109.4  | 109.4  | 63.2   |  |
| G90.0  | 63.2 | 107.5 | 109.4 | 114.1  | 106.6  | 111.3  | 109.4  | 108.4  | 63.2   |  |
| G91.0  | 65.1 | 107.5 | 109.4 | 112.2  | 107.5  | 110.3  | 109.4  | 108.4  | 65.1   |  |
| G92.0  | 65.1 | 108.4 | 109.4 | 112.2  | 107.5  | 108.4  | 108.4  | 108.4  | 65.1   |  |
| G93.0  | 65.1 | 108.4 | 107.5 | 111.3  | 108.4  | 108.4  | 109.4  | 111.3  | 65.1   |  |
| G94.0  | 65.1 | 108.4 | 109.4 | 111.3  | 107.5  | 108.4  | 109.4  | 112.2  | 65.1   |  |
| G95.0  | 66.0 | 109.4 | 109.4 | 110.3  | 107.5  | 108.4  | 110.3  | 111.3  | 66.0   |  |
| G96.0  | 66.9 | 109.4 | 107.5 | 109.4  | 107.5  | 108.4  | 109.4  | 112.2  | 66.9   |  |
| G97.0  | 66.9 | 110.3 | 108.4 | 109.4  | 109.4  | 107.5  | 108.4  | 113.2  | 66.9   |  |
| G98.0  | 66.9 | 111.3 | 110.3 | 109.4  | 109.4  | 107.5  | 108.4  | 116.9  | 66.9   |  |
| G99.0  | 66.9 | 112.2 | 111.3 | 109.4  | 109.4  | 108.4  | 110.3  | 118.8  | 66.9   |  |
| G100.0 | 68.8 | 113.2 | 110.3 | 109.4  | 109.4  | 108.4  | 110.3  | 119.8  | 68.8   |  |
| G101.0 | 67.9 | 114.1 | 113.2 | 109.4  | 110.3  | 108.4  | 111.3  | 120.7  | 67.9   |  |
| G102.0 | 69.8 | 115.0 | 112.2 | 109.4  | 112.2  | 108.4  | 110.3  | 122.6  | 69.8   |  |
| G103.0 | 70.7 | 116.9 | 113.2 | 110.3  | 114.1  | 108.4  | 111.3  | 126.3  | 70.7   |  |
| G104.0 | 69.8 | 118.8 | 116.0 | 109.4  | 114.1  | 109.4  | 114.1  | 128.2  | 69.8   |  |
| G105.0 | 71.7 | 119.8 | 116.9 | 110.3  | 115.0  | 110.3  | 115.0  | 129.2  | 71.7   |  |
| G106.0 | 72.6 | 121.6 | 117.9 | 110.3  | 118.8  | 111.3  | 115.0  | 131.1  | 72.6   |  |
| G107.0 | 72.6 | 123.5 | 121.6 | 110.3  | 120.7  | 110.3  | 116.0  | 135.8  | 72.6   |  |
| G108.0 | 74.5 | 124.5 | 124.5 | 112.2  | 120.7  | 111.3  | 117.9  | 138.6  | 74.5   |  |
| G109.0 | 75.4 | 125.4 | 124.5 | 113.2  | 123.5  | 113.2  | 121.6  | 139.6  | 75.4   |  |
| G110.0 | 76.4 | 126.3 | 126.3 | 114.1  | 127.3  | 114.1  | 123.5  | 141.4  | 76.4   |  |

C Plane (°):0.0-360.0: 45.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 8.030 m  
Humidity:  
Inspector:

## Candlepower Table (Continue 3)

Unit: cd

| G\C    | C0.0  | C45.0 | C90.0 | C135.0 | C180.0 | C225.0 | C270.0 | C315.0 | C360.0 |  |
|--------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--|
| G111.0 | 76.4  | 126.3 | 131.1 | 114.1  | 130.1  | 116.0  | 125.4  | 144.3  | 76.4   |  |
| G112.0 | 77.3  | 125.4 | 132.0 | 116.9  | 132.9  | 117.9  | 126.3  | 149.0  | 77.3   |  |
| G113.0 | 77.3  | 124.5 | 136.7 | 116.9  | 133.9  | 118.8  | 128.2  | 151.8  | 77.3   |  |
| G114.0 | 77.3  | 121.6 | 138.6 | 118.8  | 138.6  | 120.7  | 132.9  | 151.8  | 77.3   |  |
| G115.0 | 75.4  | 119.8 | 139.6 | 121.6  | 141.4  | 123.5  | 134.8  | 154.6  | 75.4   |  |
| G116.0 | 74.5  | 117.9 | 144.3 | 122.6  | 144.3  | 126.3  | 135.8  | 158.4  | 74.5   |  |
| G117.0 | 73.6  | 115.0 | 147.1 | 124.5  | 145.2  | 127.3  | 137.7  | 161.2  | 73.6   |  |
| G118.0 | 71.7  | 115.0 | 148.0 | 127.3  | 148.0  | 129.2  | 140.5  | 161.2  | 71.7   |  |
| G119.0 | 69.8  | 113.2 | 150.9 | 129.2  | 152.8  | 132.9  | 146.1  | 164.1  | 69.8   |  |
| G120.0 | 68.8  | 112.2 | 154.6 | 131.1  | 155.6  | 133.9  | 148.0  | 167.8  | 68.8   |  |
| G121.0 | 66.9  | 112.2 | 156.5 | 134.8  | 155.6  | 135.8  | 149.0  | 169.7  | 66.9   |  |
| G122.0 | 66.0  | 113.2 | 158.4 | 136.7  | 156.5  | 135.8  | 150.9  | 171.6  | 66.0   |  |
| G123.0 | 66.9  | 113.2 | 163.1 | 139.6  | 157.5  | 133.9  | 153.7  | 172.6  | 66.9   |  |
| G124.0 | 66.9  | 113.2 | 165.0 | 143.3  | 160.3  | 126.3  | 157.5  | 175.4  | 66.9   |  |
| G125.0 | 66.9  | 115.0 | 165.9 | 144.3  | 160.3  | 114.1  | 159.4  | 178.2  | 66.9   |  |
| G126.0 | 67.9  | 115.0 | 169.7 | 149.0  | 157.5  | 98.1   | 160.3  | 183.9  | 67.9   |  |
| G127.0 | 68.8  | 117.9 | 170.7 | 149.9  | 155.6  | 84.9   | 162.2  | 187.6  | 68.8   |  |
| G128.0 | 72.6  | 119.8 | 174.4 | 153.7  | 155.6  | 73.6   | 165.9  | 191.4  | 72.6   |  |
| G129.0 | 72.6  | 122.6 | 175.4 | 154.6  | 154.6  | 66.9   | 167.8  | 196.1  | 72.6   |  |
| G130.0 | 74.5  | 127.3 | 177.3 | 157.5  | 152.8  | 64.1   | 167.8  | 204.6  | 74.5   |  |
| G131.0 | 78.3  | 129.2 | 181.0 | 161.2  | 152.8  | 64.1   | 170.7  | 211.2  | 78.3   |  |
| G132.0 | 80.2  | 133.9 | 182.9 | 161.2  | 154.6  | 66.9   | 174.4  | 216.9  | 80.2   |  |
| G133.0 | 83.0  | 139.6 | 186.7 | 165.9  | 152.8  | 69.8   | 176.3  | 223.5  | 83.0   |  |
| G134.0 | 87.7  | 144.3 | 190.5 | 167.8  | 152.8  | 72.6   | 177.3  | 232.9  | 87.7   |  |
| G135.0 | 90.5  | 150.9 | 191.4 | 167.8  | 156.5  | 75.4   | 179.1  | 240.4  | 90.5   |  |
| G136.0 | 96.2  | 159.4 | 197.1 | 172.6  | 157.5  | 80.2   | 181.0  | 246.1  | 96.2   |  |
| G137.0 | 100.9 | 165.9 | 199.9 | 172.6  | 155.6  | 84.9   | 186.7  | 253.6  | 100.9  |  |
| G138.0 | 104.7 | 174.4 | 204.6 | 177.3  | 156.5  | 86.8   | 188.6  | 263.1  | 104.7  |  |
| G139.0 | 112.2 | 182.0 | 207.4 | 180.1  | 159.4  | 88.6   | 192.4  | 271.6  | 112.2  |  |
| G140.0 | 116.0 | 192.4 | 212.1 | 181.0  | 162.2  | 91.5   | 198.9  | 277.2  | 116.0  |  |
| G141.0 | 123.5 | 199.9 | 217.8 | 185.8  | 162.2  | 96.2   | 204.6  | 284.8  | 123.5  |  |
| G142.0 | 129.2 | 207.4 | 222.5 | 187.6  | 164.1  | 101.8  | 208.4  | 293.2  | 129.2  |  |
| G143.0 | 132.9 | 215.9 | 229.1 | 191.4  | 168.8  | 107.5  | 215.0  | 299.8  | 132.9  |  |
| G144.0 | 138.6 | 225.4 | 234.8 | 194.2  | 173.5  | 114.1  | 223.5  | 305.5  | 138.6  |  |
| G145.0 | 145.2 | 231.9 | 241.4 | 200.8  | 181.0  | 123.5  | 231.0  | 311.2  | 145.2  |  |
| G146.0 | 149.0 | 240.4 | 248.9 | 202.7  | 190.5  | 132.0  | 236.7  | 318.7  | 149.0  |  |
| G147.0 | 153.7 | 246.1 | 256.5 | 209.3  | 197.1  | 142.4  | 244.2  | 323.4  | 153.7  |  |

C Plane (°):0.0-360.0: 45.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 8.030 m  
Humidity:  
Inspector:

## Candlepower Table (Continue 4)

Unit: cd

| G\C    | C0.0  | C45.0 | C90.0 | C135.0 | C180.0 | C225.0 | C270.0 | C315.0 | C360.0 |  |
|--------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--|
| G148.0 | 160.3 | 250.8 | 262.1 | 212.1  | 203.7  | 152.8  | 253.6  | 327.2  | 160.3  |  |
| G149.0 | 164.1 | 256.5 | 271.6 | 209.3  | 208.4  | 165.0  | 261.2  | 331.0  | 164.1  |  |
| G150.0 | 167.8 | 263.1 | 277.2 | 206.5  | 215.9  | 180.1  | 269.7  | 335.7  | 167.8  |  |
| G151.0 | 173.5 | 266.8 | 283.8 | 201.8  | 217.8  | 195.2  | 275.3  | 337.6  | 173.5  |  |
| G152.0 | 175.4 | 272.5 | 291.4 | 196.1  | 220.6  | 209.3  | 282.9  | 342.3  | 175.4  |  |
| G153.0 | 180.1 | 276.3 | 297.0 | 190.5  | 225.4  | 221.6  | 289.5  | 346.0  | 180.1  |  |
| G154.0 | 182.9 | 281.0 | 302.7 | 184.8  | 226.3  | 231.9  | 298.0  | 347.9  | 182.9  |  |
| G155.0 | 184.8 | 287.6 | 309.3 | 182.9  | 229.1  | 239.5  | 304.6  | 350.8  | 184.8  |  |
| G156.0 | 189.5 | 293.2 | 314.9 | 184.8  | 231.0  | 247.0  | 309.3  | 354.5  | 189.5  |  |
| G157.0 | 197.1 | 297.0 | 320.6 | 190.5  | 235.7  | 250.8  | 314.0  | 358.3  | 197.1  |  |
| G158.0 | 200.8 | 304.6 | 326.2 | 199.9  | 237.6  | 253.6  | 320.6  | 361.1  | 200.8  |  |
| G159.0 | 205.6 | 310.2 | 331.9 | 213.1  | 240.4  | 257.4  | 325.3  | 364.9  | 205.6  |  |
| G160.0 | 213.1 | 317.8 | 337.6 | 225.4  | 244.2  | 260.2  | 329.1  | 369.6  | 213.1  |  |
| G161.0 | 217.8 | 323.4 | 343.2 | 243.3  | 246.1  | 263.1  | 335.7  | 372.5  | 217.8  |  |
| G162.0 | 224.4 | 329.1 | 347.9 | 260.2  | 247.0  | 267.8  | 338.5  | 375.3  | 224.4  |  |
| G163.0 | 229.1 | 334.7 | 353.6 | 278.2  | 249.9  | 272.5  | 343.2  | 377.2  | 229.1  |  |
| G164.0 | 233.8 | 338.5 | 358.3 | 296.1  | 252.7  | 277.2  | 347.0  | 379.0  | 233.8  |  |
| G165.0 | 239.5 | 344.2 | 362.1 | 311.2  | 254.6  | 283.8  | 350.8  | 379.0  | 239.5  |  |
| G166.0 | 246.1 | 348.9 | 365.9 | 322.5  | 257.4  | 290.4  | 355.5  | 380.0  | 246.1  |  |
| G167.0 | 250.8 | 355.5 | 369.6 | 332.9  | 260.2  | 297.0  | 359.3  | 380.9  | 250.8  |  |
| G168.0 | 255.5 | 359.3 | 372.5 | 342.3  | 263.1  | 304.6  | 364.0  | 380.0  | 255.5  |  |
| G169.0 | 257.4 | 362.1 | 376.2 | 348.9  | 268.7  | 313.0  | 369.6  | 379.0  | 257.4  |  |
| G170.0 | 264.0 | 366.8 | 379.0 | 355.5  | 270.6  | 320.6  | 374.3  | 374.3  | 264.0  |  |
| G171.0 | 267.8 | 369.6 | 381.9 | 362.1  | 273.4  | 329.1  | 378.1  | 369.6  | 267.8  |  |
| G172.0 | 267.8 | 370.6 | 384.7 | 366.8  | 273.4  | 338.5  | 380.9  | 362.1  | 267.8  |  |
| G173.0 | 270.6 | 375.3 | 387.5 | 369.6  | 275.3  | 347.0  | 384.7  | 353.6  | 270.6  |  |
| G174.0 | 273.4 | 378.1 | 389.4 | 370.6  | 277.2  | 352.6  | 388.5  | 346.0  | 273.4  |  |
| G175.0 | 273.4 | 379.0 | 390.4 | 369.6  | 276.3  | 355.5  | 390.4  | 338.5  | 273.4  |  |
| G176.0 | 275.3 | 380.0 | 392.3 | 366.8  | 277.2  | 355.5  | 393.2  | 333.8  | 275.3  |  |
| G177.0 | 272.5 | 381.9 | 394.1 | 360.2  | 275.3  | 354.5  | 395.1  | 330.0  | 272.5  |  |
| G178.0 | 270.6 | 384.7 | 393.2 | 353.6  | 274.4  | 353.6  | 395.1  | 329.1  | 270.6  |  |
| G179.0 | 269.7 | 384.7 | 393.2 | 344.2  | 273.4  | 352.6  | 397.9  | 332.9  | 269.7  |  |
| G180.0 | 268.7 | 381.9 | 392.3 | 335.7  | 276.3  | 350.8  | 400.7  | 340.4  | 268.7  |  |
|        |       |       |       |        |        |        |        |        |        |  |
|        |       |       |       |        |        |        |        |        |        |  |
|        |       |       |       |        |        |        |        |        |        |  |
|        |       |       |       |        |        |        |        |        |        |  |

C Plane (°):0.0-360.0: 45.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 8.030 m  
Humidity:  
Inspector: