

Report No.:

Test Time: 2018-12-25 19:31

## Luminaire Property

Luminaire Manufacturer: ASD Lighting Corp.

Voltage: 276.7 V

Power: 109,53 W

Model: ASD-WHB5-2D11050W-MSR-PRM

Current: 0,3958 A

Power Factor: 0.945

## Photometric Results

CIE Class: Direct

Measurement Flux: 15843,90 lm

Downward Ratio: 100%

Horizontal Diffuse Angle(50%): H101.4

Vertical Diffuse Angle(50%): V104.3

Luminaire Efficacy Rating (LER): 144,65

Max. Intensity: 5763.71 cd

S/MH(C0/C180): 1.21

Total Rated Lamp Lumens:15843,90 lm

Efficiency: 100%

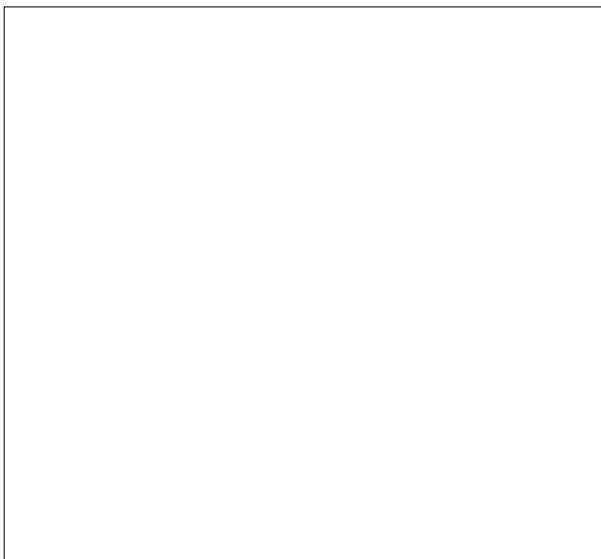
Upward Ratio: 0%

Central Intensity: 5754.18 cd

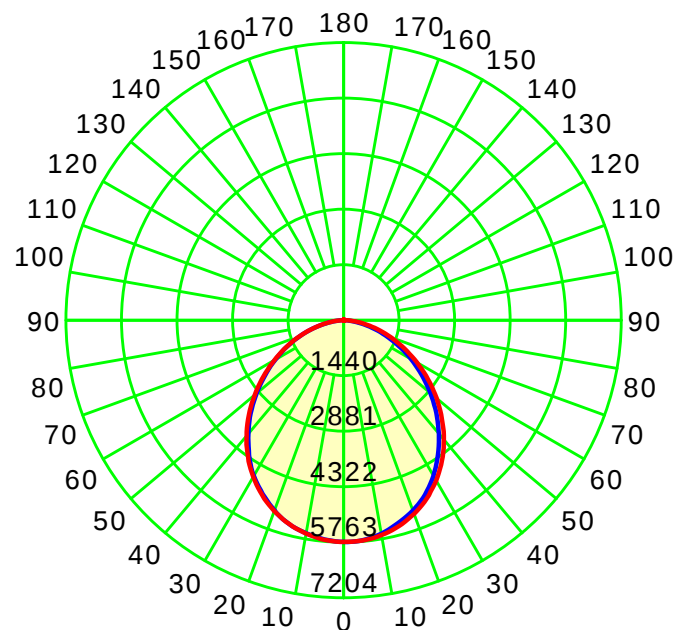
Pos of Max. Intensity: H202.5 V1

S/MH(C90/C270): 1.23

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd

Average Diffuse Angle(50%): 102.8°

— C0-C180 — C90-C270

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

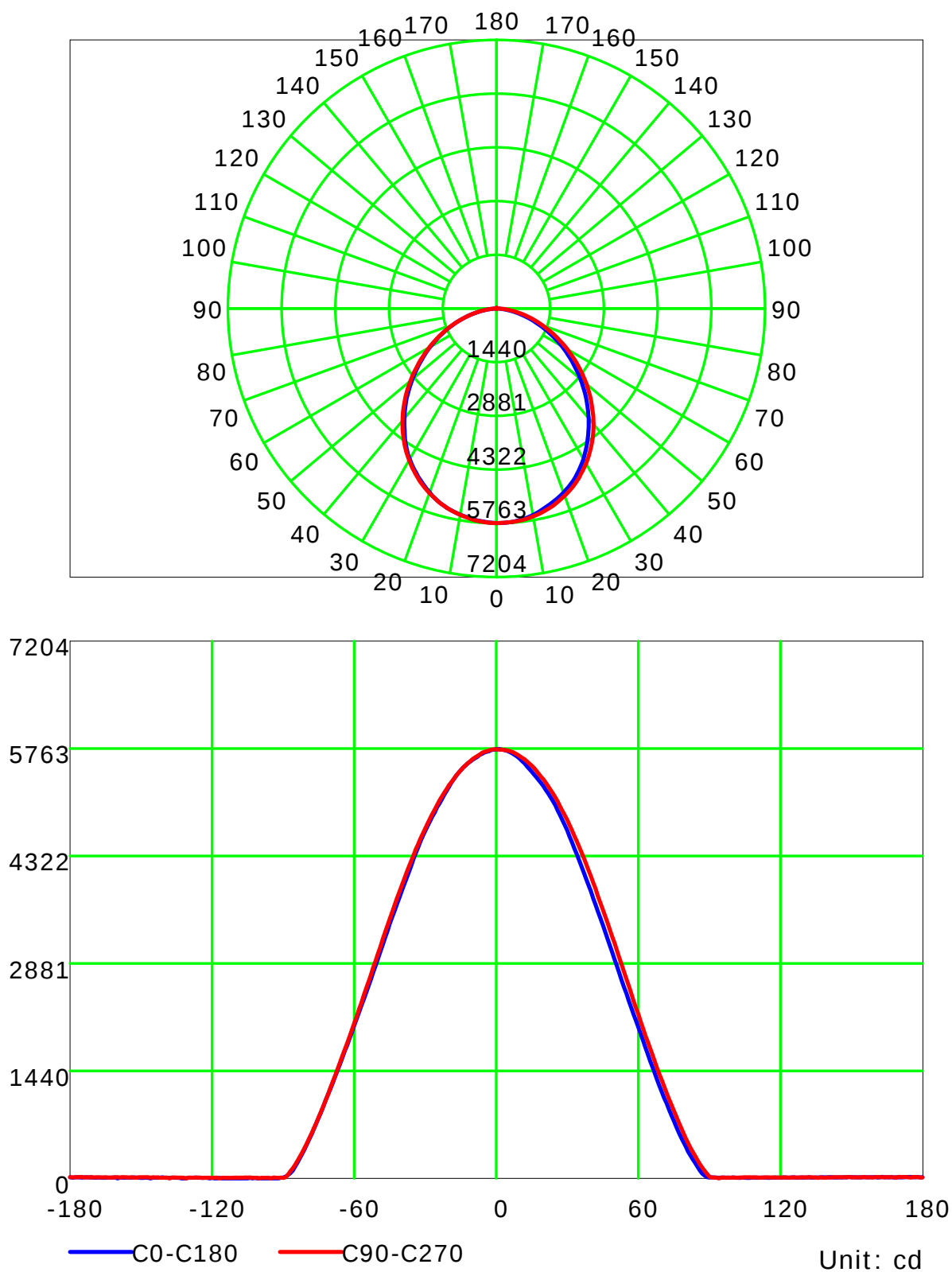
Test Device: GPM-3000

Distance: 14.040 m [K=1.0000]

Humidity:

Inspector:

## Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

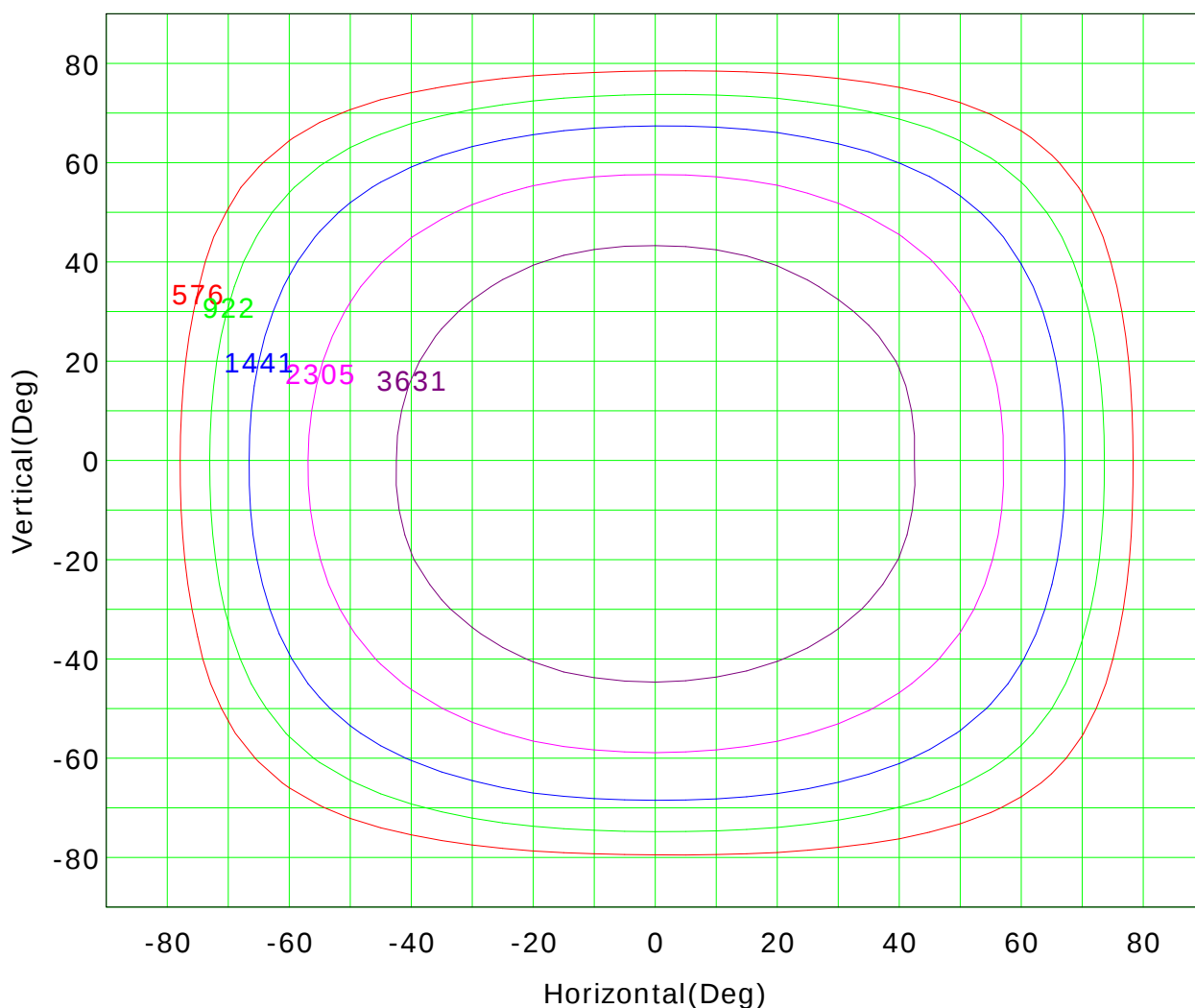
Test Device: GPM-3000

Distance: 14.040 m [K=1.0000]

Humidity:

Inspector:

## Isocandela (rectangle)



I<sub>max</sub> (100%): 5764 cd

|                 |                 |
|-----------------|-----------------|
| ( 10%): 576 cd  | ( 16%): 922 cd  |
| ( 25%): 1441 cd | ( 40%): 2305 cd |
| ( 63%): 3631 cd | (100%): 5764 cd |

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

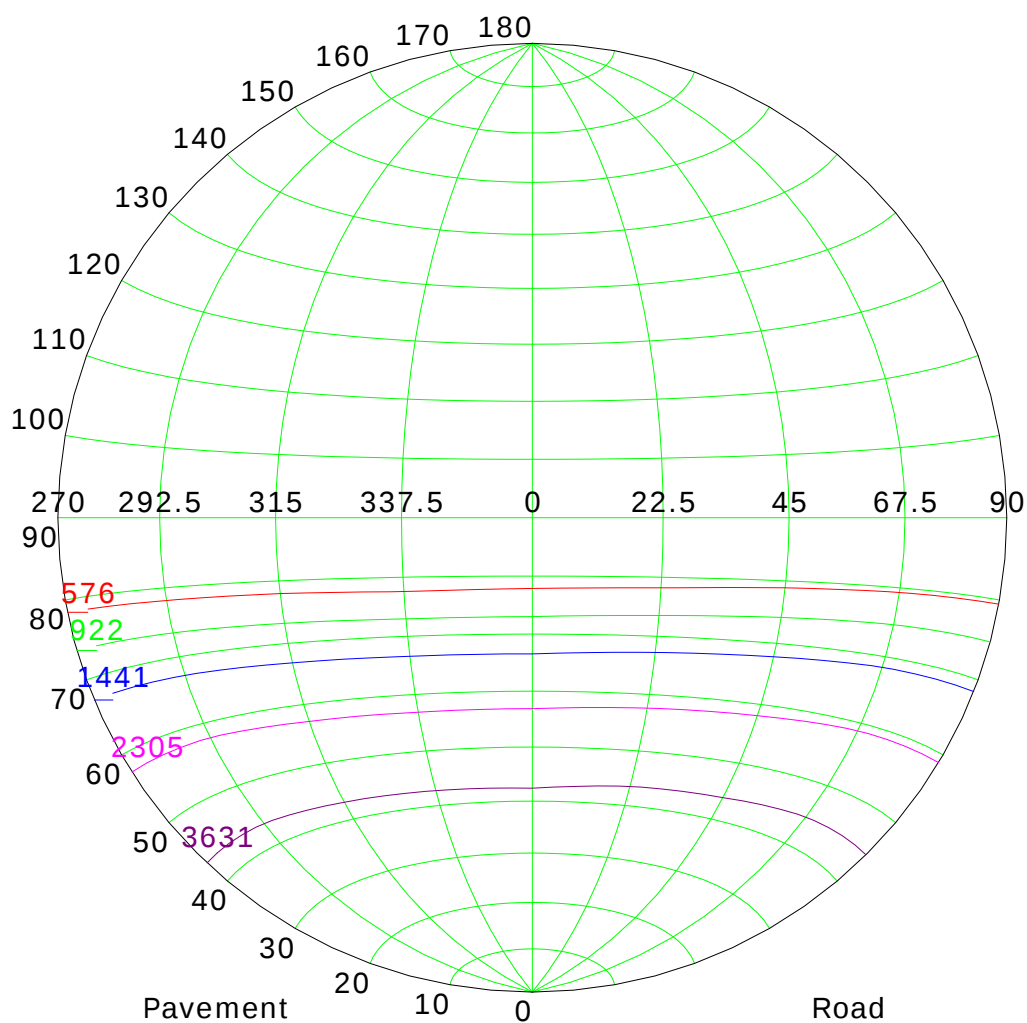
Test Device: GPM-3000

Distance: 14.040 m [K=1.0000]

Humidity:

Inspector:

## Isocandela (sphere)



I<sub>max</sub> (100%): 5764 cd

|                 |                 |
|-----------------|-----------------|
| ( 10%): 576 cd  | ( 16%): 922 cd  |
| ( 25%): 1441 cd | ( 40%): 2305 cd |
| ( 63%): 3631 cd | (100%): 5764 cd |

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

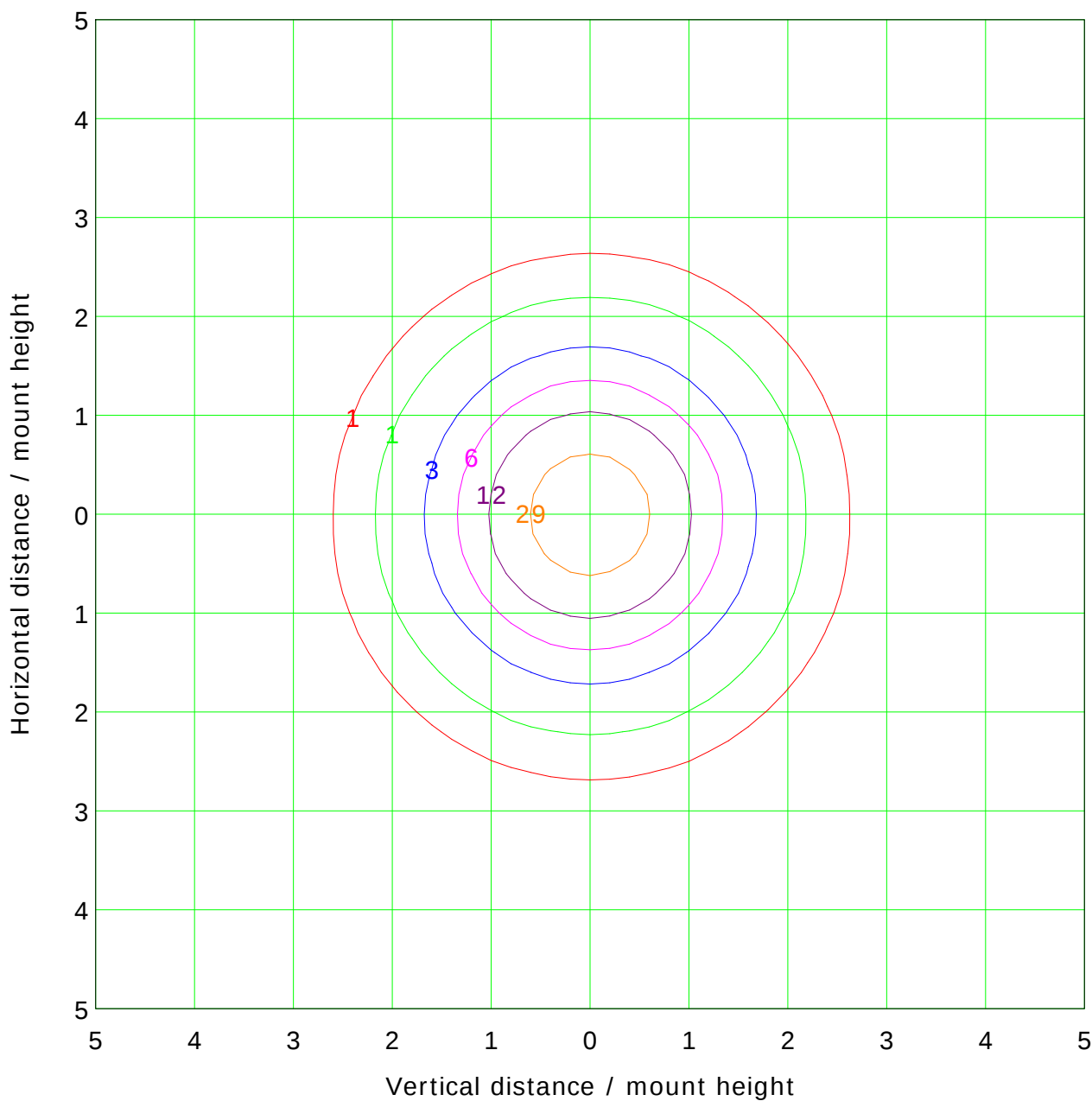
Test Device: GPM-3000

Distance: 14.040 m [K=1.0000]

Humidity:

Inspector:

## IsoLux Plot



|                        |         |                        |         |
|------------------------|---------|------------------------|---------|
| Mounting Height: 10.0m |         | Max Lux(100%): 57.6 lx |         |
| — ( 1%):               | 0.6 lx  | — ( 2%):               | 1.2 lx  |
| — ( 5%):               | 2.9 lx  | — ( 10%):              | 5.8 lx  |
| — ( 20%):              | 11.5 lx | — ( 50%):              | 28.8 lx |
| — (100%):              | 57.6 lx |                        |         |

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

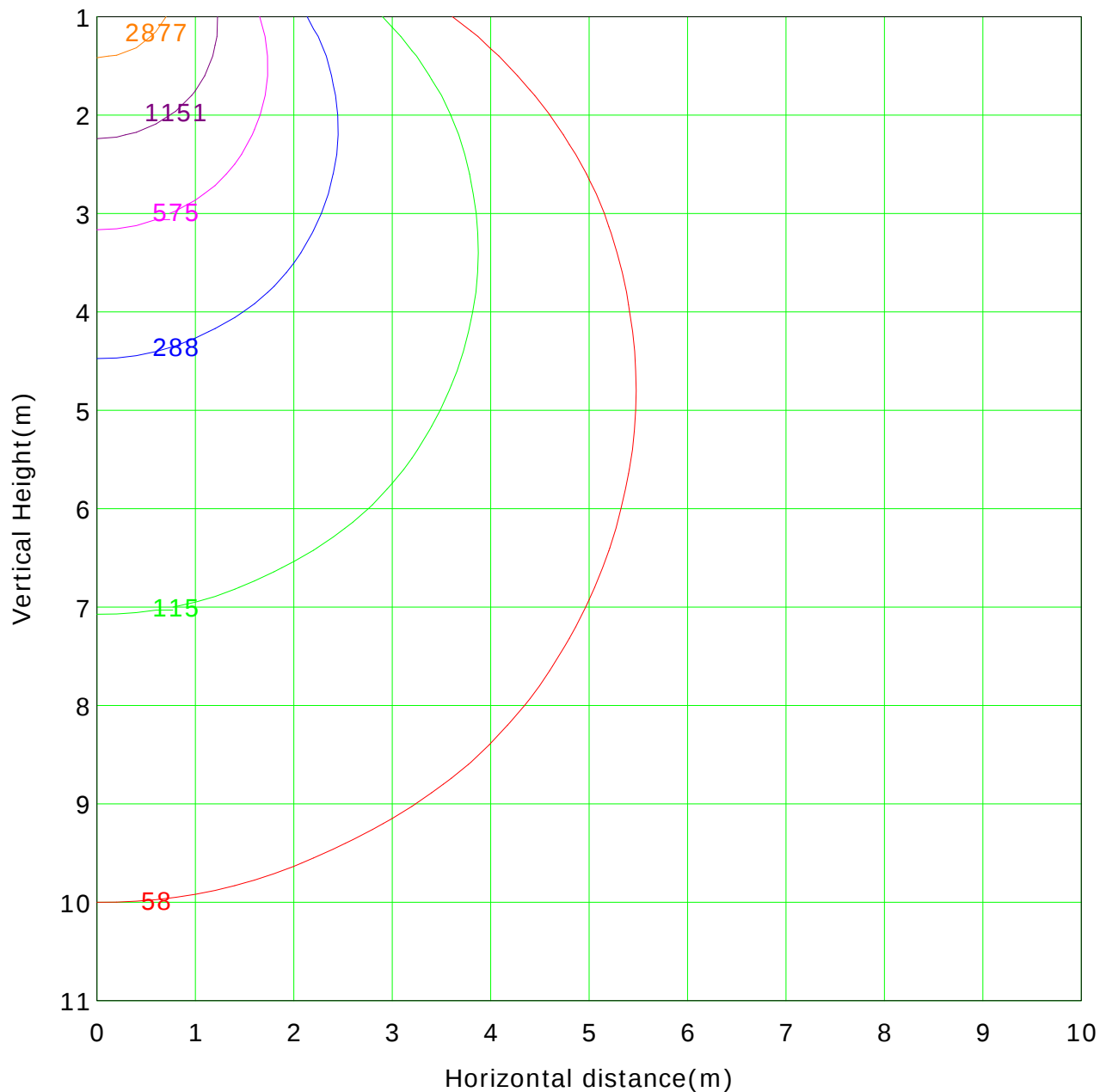
Test Device: GPM-3000

Distance: 14.040 m [K=1.0000]

Humidity:

Inspector:

## Vertical IsoLux Plot



Lowest(m): 1.0m    Highest(m): 11.0m    Max Lux: 5754.2 lx

|                    |                   |
|--------------------|-------------------|
| — ( 1%): 57.5 lx   | — ( 2%): 115.1 lx |
| — ( 5%): 287.7 lx  | — (10%): 575.4 lx |
| — (20%):1150.8 lx  | — (50%):2877.1 lx |
| — (100%):5754.2 lx |                   |

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-3000

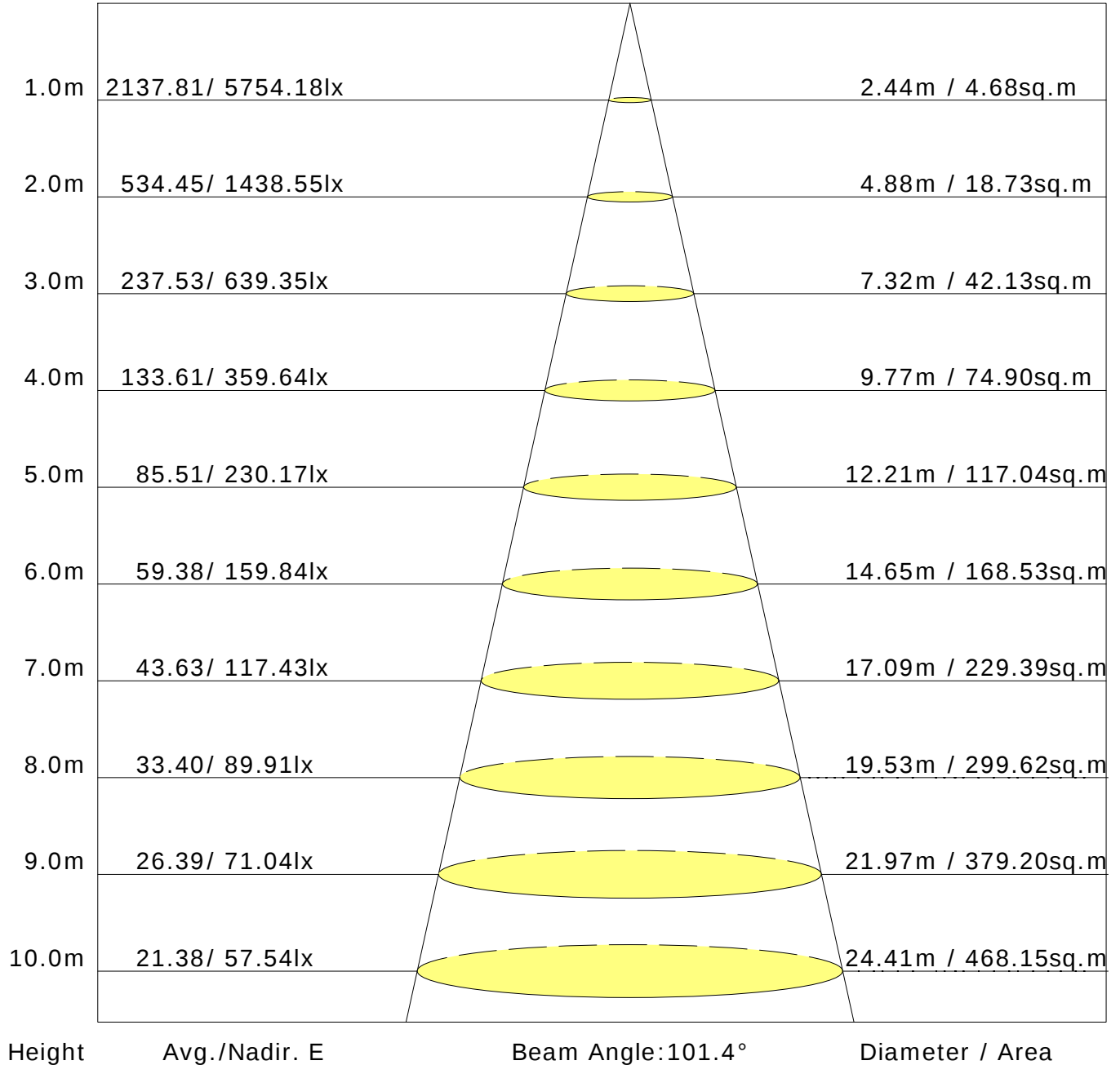
Distance: 14.040 m [K=1.0000]

Humidity:

Inspector:

## The Average Illuminance Effective Figure

Flux Out: 10008.14lm



C Plane (°): 0.0-360.0: 22.5  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°): 0.0-180.0: 1.0  
Test Device: GPM-3000  
Distance: 14.040 m [K=1.0000]  
Humidity:  
Inspector:

## 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.\$ |
| Variations with the observer position at spacings: |                  |       |       |       |       |                |       |       |       |       |
| S=1.0H                                             | -1.\$/-1.\$      |       |       |       |       | -1.\$/-1.\$    |       |       |       |       |
| S=1.5H                                             | -1.\$/-1.\$      |       |       |       |       | -1.\$/-1.\$    |       |       |       |       |
| S=2.0H                                             | -1.\$/-1.\$      |       |       |       |       | -1.\$/-1.\$    |       |       |       |       |

Calculate in accordance with CIE Pub.117. The table is revised with 14955lm ( $8\log(F/F_0) = 9.4$ ).

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

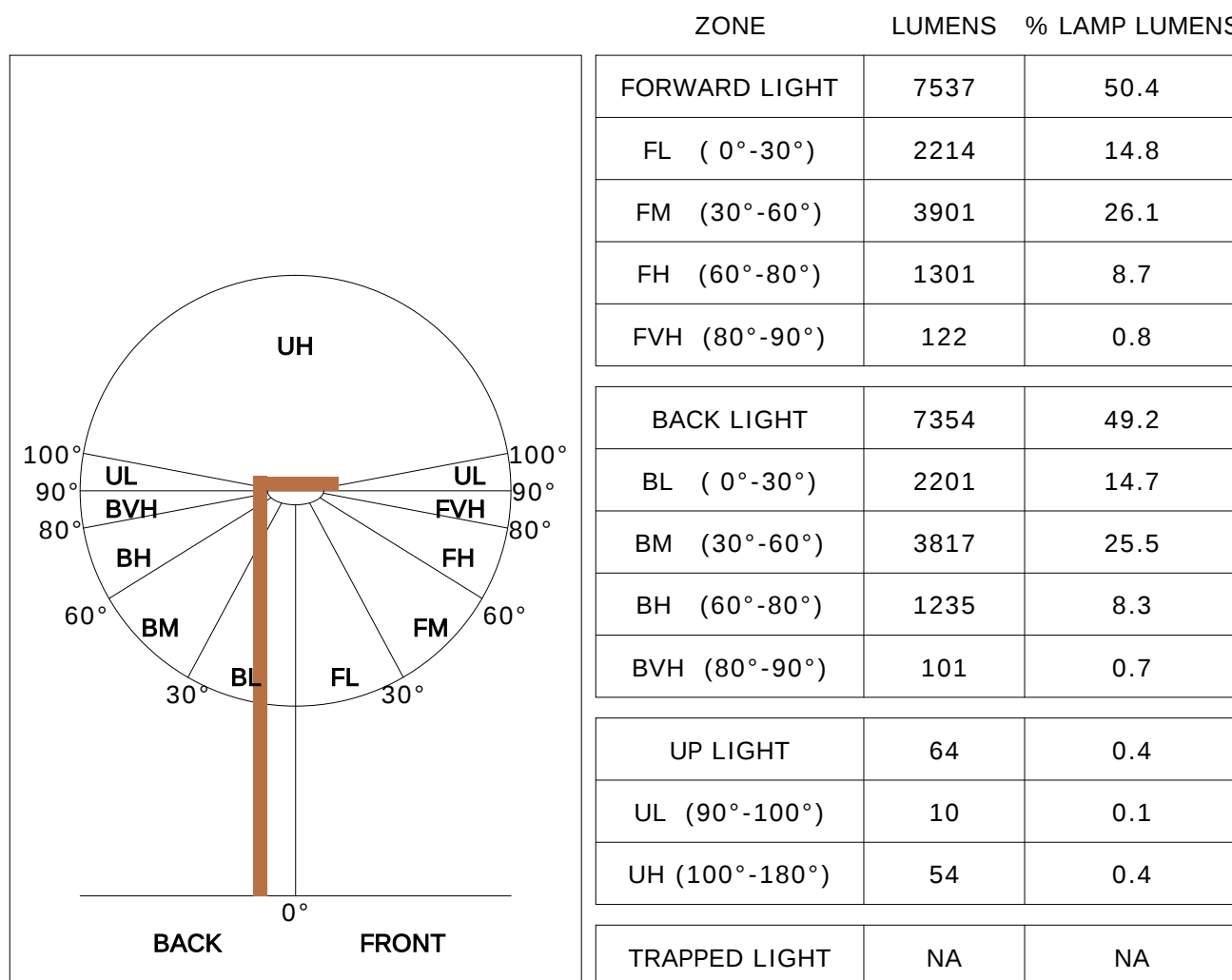
Test Device: GPM-3000

Distance: 14.040 m [K=1.0000]

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)               | B3 U2 G3 |
| Quadrilateral Symmetrical Luminaire Types<br>(Type V,Area Light) | B3 U2 G1 |

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-3000

Distance: 14.040 m [K=1.0000]

Humidity:

Inspector:

## 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      | 5754.2                    | 5.5                | 5.5                    | 0.04                  | 0.04                      |
| 1.0-2.0      | 5752.8                    | 16.5               | 22.0                   | 0.11                  | 0.15                      |
| 2.0-3.0      | 5748.4                    | 27.5               | 49.5                   | 0.18                  | 0.33                      |
| 3.0-4.0      | 5741.2                    | 38.4               | 88.0                   | 0.26                  | 0.59                      |
| 4.0-5.0      | 5732.2                    | 49.3               | 137.3                  | 0.33                  | 0.92                      |
| 5.0-6.0      | 5721.4                    | 60.1               | 197.4                  | 0.40                  | 1.32                      |
| 6.0-7.0      | 5707.6                    | 70.9               | 268.3                  | 0.47                  | 1.79                      |
| 7.0-8.0      | 5691.3                    | 81.5               | 349.7                  | 0.54                  | 2.34                      |
| 8.0-9.0      | 5672.5                    | 91.9               | 441.7                  | 0.61                  | 2.95                      |
| 9.0-10.0     | 5651.4                    | 102.3              | 544.0                  | 0.68                  | 3.64                      |
| 10.0-11.0    | 5627.8                    | 112.5              | 656.4                  | 0.75                  | 4.39                      |
| 11.0-12.0    | 5602.0                    | 122.5              | 778.9                  | 0.82                  | 5.21                      |
| 12.0-13.0    | 5575.1                    | 132.3              | 911.2                  | 0.88                  | 6.09                      |
| 13.0-14.0    | 5545.7                    | 142.0              | 1053.2                 | 0.95                  | 7.04                      |
| 14.0-15.0    | 5513.6                    | 151.4              | 1204.6                 | 1.01                  | 8.05                      |
| 15.0-16.0    | 5480.1                    | 160.6              | 1365.2                 | 1.07                  | 9.13                      |
| 16.0-17.0    | 5444.1                    | 169.6              | 1534.7                 | 1.13                  | 10.26                     |
| 17.0-18.0    | 5405.4                    | 178.2              | 1713.0                 | 1.19                  | 11.45                     |
| 18.0-19.0    | 5364.8                    | 186.7              | 1899.6                 | 1.25                  | 12.70                     |
| 19.0-20.0    | 5321.9                    | 194.8              | 2094.5                 | 1.30                  | 14.01                     |
| 20.0-21.0    | 5276.2                    | 202.6              | 2297.1                 | 1.35                  | 15.36                     |
| 21.0-22.0    | 5227.4                    | 210.1              | 2507.2                 | 1.40                  | 16.76                     |
| 22.0-23.0    | 5176.8                    | 217.2              | 2724.4                 | 1.45                  | 18.22                     |
| 23.0-24.0    | 5124.5                    | 224.1              | 2948.5                 | 1.50                  | 19.72                     |
| 24.0-25.0    | 5069.2                    | 230.5              | 3179.0                 | 1.54                  | 21.26                     |
| 25.0-26.0    | 5011.0                    | 236.6              | 3415.6                 | 1.58                  | 22.84                     |
| 26.0-27.0    | 4950.9                    | 242.3              | 3657.9                 | 1.62                  | 24.46                     |
| 27.0-28.0    | 4888.9                    | 247.6              | 3905.4                 | 1.66                  | 26.11                     |
| 28.0-29.0    | 4825.1                    | 252.5              | 4157.9                 | 1.69                  | 27.80                     |
| 29.0-30.0    | 4759.3                    | 257.0              | 4414.9                 | 1.72                  | 29.52                     |
| 30.0-31.0    | 4690.9                    | 261.1              | 4676.0                 | 1.75                  | 31.27                     |
| 31.0-32.0    | 4621.0                    | 264.8              | 4940.7                 | 1.77                  | 33.04                     |
| 32.0-33.0    | 4548.3                    | 268.0              | 5208.7                 | 1.79                  | 34.83                     |
| 33.0-34.0    | 4473.7                    | 270.8              | 5479.5                 | 1.81                  | 36.64                     |
| 34.0-35.0    | 4397.5                    | 273.1              | 5752.6                 | 1.83                  | 38.47                     |
| 35.0-36.0    | 4318.9                    | 275.0              | 6027.7                 | 1.84                  | 40.31                     |

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-3000

Distance: 14.040 m [K=1.0000]

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    | 4238.6                    | 276.5              | 6304.2                 | 1.85                  | 42.15                     |
| 37.0-38.0    | 4156.4                    | 277.5              | 6581.6                 | 1.86                  | 44.01                     |
| 38.0-39.0    | 4072.3                    | 278.0              | 6859.6                 | 1.86                  | 45.87                     |
| 39.0-40.0    | 3987.9                    | 278.2              | 7137.8                 | 1.86                  | 47.73                     |
| 40.0-41.0    | 3902.0                    | 277.9              | 7415.7                 | 1.86                  | 49.59                     |
| 41.0-42.0    | 3814.8                    | 277.2              | 7692.9                 | 1.85                  | 51.44                     |
| 42.0-43.0    | 3727.6                    | 276.2              | 7969.0                 | 1.85                  | 53.29                     |
| 43.0-44.0    | 3637.8                    | 274.6              | 8243.6                 | 1.84                  | 55.12                     |
| 44.0-45.0    | 3546.7                    | 272.6              | 8516.2                 | 1.82                  | 56.95                     |
| 45.0-46.0    | 3455.6                    | 270.3              | 8786.5                 | 1.81                  | 58.75                     |
| 46.0-47.0    | 3364.1                    | 267.6              | 9054.1                 | 1.79                  | 60.54                     |
| 47.0-48.0    | 3272.0                    | 264.5              | 9318.7                 | 1.77                  | 62.31                     |
| 48.0-49.0    | 3177.9                    | 261.0              | 9579.7                 | 1.75                  | 64.06                     |
| 49.0-50.0    | 3083.2                    | 257.1              | 9836.8                 | 1.72                  | 65.78                     |
| 50.0-51.0    | 2990.1                    | 253.0              | 10089.8                | 1.69                  | 67.47                     |
| 51.0-52.0    | 2896.9                    | 248.6              | 10338.4                | 1.66                  | 69.13                     |
| 52.0-53.0    | 2802.0                    | 243.8              | 10582.2                | 1.63                  | 70.76                     |
| 53.0-54.0    | 2707.4                    | 238.7              | 10820.8                | 1.60                  | 72.36                     |
| 54.0-55.0    | 2614.2                    | 233.4              | 11054.2                | 1.56                  | 73.92                     |
| 55.0-56.0    | 2521.1                    | 227.8              | 11282.1                | 1.52                  | 75.44                     |
| 56.0-57.0    | 2427.6                    | 222.0              | 11504.1                | 1.48                  | 76.92                     |
| 57.0-58.0    | 2334.4                    | 215.9              | 11720.0                | 1.44                  | 78.37                     |
| 58.0-59.0    | 2242.2                    | 209.6              | 11929.6                | 1.40                  | 79.77                     |
| 59.0-60.0    | 2151.0                    | 203.2              | 12132.9                | 1.36                  | 81.13                     |
| 60.0-61.0    | 2061.1                    | 196.7              | 12329.6                | 1.32                  | 82.44                     |
| 61.0-62.0    | 1970.3                    | 189.9              | 12519.5                | 1.27                  | 83.71                     |
| 62.0-63.0    | 1879.3                    | 182.8              | 12702.3                | 1.22                  | 84.94                     |
| 63.0-64.0    | 1790.0                    | 175.7              | 12877.9                | 1.17                  | 86.11                     |
| 64.0-65.0    | 1703.0                    | 168.6              | 13046.5                | 1.13                  | 87.24                     |
| 65.0-66.0    | 1616.9                    | 161.3              | 13207.8                | 1.08                  | 88.32                     |
| 66.0-67.0    | 1530.1                    | 153.9              | 13361.7                | 1.03                  | 89.35                     |
| 67.0-68.0    | 1443.4                    | 146.2              | 13508.0                | 0.98                  | 90.32                     |
| 68.0-69.0    | 1358.8                    | 138.6              | 13646.6                | 0.93                  | 91.25                     |
| 69.0-70.0    | 1276.6                    | 131.1              | 13777.7                | 0.88                  | 92.13                     |
| 70.0-71.0    | 1194.7                    | 123.5              | 13901.2                | 0.83                  | 92.95                     |
| 71.0-72.0    | 1113.0                    | 115.7              | 14017.0                | 0.77                  | 93.73                     |

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-3000

Distance: 14.040 m [K=1.0000]

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    | 1034.0                    | 108.1              | 14125.1                | 0.72                  | 94.45                     |
| 73.0-74.0    | 955.4                     | 100.5              | 14225.6                | 0.67                  | 95.12                     |
| 74.0-75.0    | 876.7                     | 92.6               | 14318.2                | 0.62                  | 95.74                     |
| 75.0-76.0    | 800.8                     | 85.0               | 14403.2                | 0.57                  | 96.31                     |
| 76.0-77.0    | 725.9                     | 77.4               | 14480.6                | 0.52                  | 96.83                     |
| 77.0-78.0    | 653.0                     | 69.9               | 14550.5                | 0.47                  | 97.30                     |
| 78.0-79.0    | 583.2                     | 62.7               | 14613.2                | 0.42                  | 97.72                     |
| 79.0-80.0    | 514.4                     | 55.5               | 14668.7                | 0.37                  | 98.09                     |
| 80.0-81.0    | 447.7                     | 48.4               | 14717.1                | 0.32                  | 98.41                     |
| 81.0-82.0    | 384.2                     | 41.7               | 14758.8                | 0.28                  | 98.69                     |
| 82.0-83.0    | 325.0                     | 35.3               | 14794.1                | 0.24                  | 98.92                     |
| 83.0-84.0    | 268.3                     | 29.2               | 14823.3                | 0.20                  | 99.12                     |
| 84.0-85.0    | 213.3                     | 23.3               | 14846.6                | 0.16                  | 99.28                     |
| 85.0-86.0    | 161.3                     | 17.6               | 14864.3                | 0.12                  | 99.39                     |
| 86.0-87.0    | 112.4                     | 12.3               | 14876.6                | 0.08                  | 99.48                     |
| 87.0-88.0    | 71.2                      | 7.8                | 14884.4                | 0.05                  | 99.53                     |
| 88.0-89.0    | 41.1                      | 4.5                | 14888.9                | 0.03                  | 99.56                     |
| 89.0-90.0    | 21.6                      | 2.4                | 14891.2                | 0.02                  | 99.57                     |
| 90.0-91.0    | 13.2                      | 1.4                | 14892.7                | 0.01                  | 99.58                     |
| 91.0-92.0    | 10.6                      | 1.2                | 14893.8                | 0.01                  | 99.59                     |
| 92.0-93.0    | 9.2                       | 1.0                | 14894.9                | 0.01                  | 99.60                     |
| 93.0-94.0    | 8.5                       | 0.9                | 14895.8                | 0.01                  | 99.60                     |
| 94.0-95.0    | 8.1                       | 0.9                | 14896.7                | 0.01                  | 99.61                     |
| 95.0-96.0    | 8.3                       | 0.9                | 14897.6                | 0.01                  | 99.62                     |
| 96.0-97.0    | 8.2                       | 0.9                | 14898.5                | 0.01                  | 99.62                     |
| 97.0-98.0    | 7.7                       | 0.8                | 14899.3                | 0.01                  | 99.63                     |
| 98.0-99.0    | 7.1                       | 0.8                | 14900.1                | 0.01                  | 99.63                     |
| 99.0-100.0   | 7.2                       | 0.8                | 14900.8                | 0.01                  | 99.64                     |
| 100.0-101.0  | 7.6                       | 0.8                | 14901.7                | 0.01                  | 99.64                     |
| 101.0-102.0  | 8.6                       | 0.9                | 14902.6                | 0.01                  | 99.65                     |
| 102.0-103.0  | 9.1                       | 1.0                | 14903.6                | 0.01                  | 99.66                     |
| 103.0-104.0  | 8.6                       | 0.9                | 14904.5                | 0.01                  | 99.66                     |
| 104.0-105.0  | 8.8                       | 0.9                | 14905.4                | 0.01                  | 99.67                     |
| 105.0-106.0  | 8.6                       | 0.9                | 14906.3                | 0.01                  | 99.67                     |
| 106.0-107.0  | 7.7                       | 0.8                | 14907.1                | 0.01                  | 99.68                     |
| 107.0-108.0  | 8.0                       | 0.8                | 14908.0                | 0.01                  | 99.69                     |

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-3000

Distance: 14.040 m [K=1.0000]

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  | 7.8                       | 0.8                | 14908.8                | 0.01                  | 99.69                     |
| 109.0-110.0  | 7.4                       | 0.8                | 14909.5                | 0.01                  | 99.70                     |
| 110.0-111.0  | 8.0                       | 0.8                | 14910.4                | 0.01                  | 99.70                     |
| 111.0-112.0  | 7.9                       | 0.8                | 14911.2                | 0.01                  | 99.71                     |
| 112.0-113.0  | 8.2                       | 0.8                | 14912.0                | 0.01                  | 99.71                     |
| 113.0-114.0  | 8.3                       | 0.8                | 14912.8                | 0.01                  | 99.72                     |
| 114.0-115.0  | 8.2                       | 0.8                | 14913.6                | 0.01                  | 99.72                     |
| 115.0-116.0  | 8.0                       | 0.8                | 14914.4                | 0.01                  | 99.73                     |
| 116.0-117.0  | 7.6                       | 0.8                | 14915.2                | 0.01                  | 99.73                     |
| 117.0-118.0  | 8.0                       | 0.8                | 14916.0                | 0.01                  | 99.74                     |
| 118.0-119.0  | 8.2                       | 0.8                | 14916.7                | 0.01                  | 99.74                     |
| 119.0-120.0  | 8.7                       | 0.8                | 14917.6                | 0.01                  | 99.75                     |
| 120.0-121.0  | 8.6                       | 0.8                | 14918.4                | 0.01                  | 99.76                     |
| 121.0-122.0  | 8.5                       | 0.8                | 14919.2                | 0.01                  | 99.76                     |
| 122.0-123.0  | 8.8                       | 0.8                | 14920.0                | 0.01                  | 99.77                     |
| 123.0-124.0  | 8.8                       | 0.8                | 14920.8                | 0.01                  | 99.77                     |
| 124.0-125.0  | 9.3                       | 0.8                | 14921.6                | 0.01                  | 99.78                     |
| 125.0-126.0  | 9.3                       | 0.8                | 14922.5                | 0.01                  | 99.78                     |
| 126.0-127.0  | 9.4                       | 0.8                | 14923.3                | 0.01                  | 99.79                     |
| 127.0-128.0  | 10.0                      | 0.9                | 14924.2                | 0.01                  | 99.79                     |
| 128.0-129.0  | 10.3                      | 0.9                | 14925.1                | 0.01                  | 99.80                     |
| 129.0-130.0  | 10.7                      | 0.9                | 14926.0                | 0.01                  | 99.81                     |
| 130.0-131.0  | 10.1                      | 0.8                | 14926.8                | 0.01                  | 99.81                     |
| 131.0-132.0  | 10.2                      | 0.8                | 14927.6                | 0.01                  | 99.82                     |
| 132.0-133.0  | 11.4                      | 0.9                | 14928.6                | 0.01                  | 99.82                     |
| 133.0-134.0  | 11.3                      | 0.9                | 14929.5                | 0.01                  | 99.83                     |
| 134.0-135.0  | 11.2                      | 0.9                | 14930.3                | 0.01                  | 99.84                     |
| 135.0-136.0  | 11.3                      | 0.9                | 14931.2                | 0.01                  | 99.84                     |
| 136.0-137.0  | 11.9                      | 0.9                | 14932.1                | 0.01                  | 99.85                     |
| 137.0-138.0  | 11.3                      | 0.8                | 14932.9                | 0.01                  | 99.85                     |
| 138.0-139.0  | 11.1                      | 0.8                | 14933.8                | 0.01                  | 99.86                     |
| 139.0-140.0  | 11.7                      | 0.8                | 14934.6                | 0.01                  | 99.86                     |
| 140.0-141.0  | 11.9                      | 0.8                | 14935.4                | 0.01                  | 99.87                     |
| 141.0-142.0  | 12.2                      | 0.8                | 14936.2                | 0.01                  | 99.88                     |
| 142.0-143.0  | 12.9                      | 0.9                | 14937.1                | 0.01                  | 99.88                     |
| 143.0-144.0  | 13.0                      | 0.8                | 14938.0                | 0.01                  | 99.89                     |

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-3000

Distance: 14.040 m [K=1.0000]

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  | 12.0                      | 0.8                | 14938.7                | 0.01                  | 99.89                     |
| 145.0-146.0  | 12.1                      | 0.7                | 14939.5                | 0.01                  | 99.90                     |
| 146.0-147.0  | 13.5                      | 0.8                | 14940.3                | 0.01                  | 99.90                     |
| 147.0-148.0  | 14.4                      | 0.8                | 14941.1                | 0.01                  | 99.91                     |
| 148.0-149.0  | 13.9                      | 0.8                | 14941.9                | 0.01                  | 99.91                     |
| 149.0-150.0  | 13.5                      | 0.8                | 14942.7                | 0.01                  | 99.92                     |
| 150.0-151.0  | 13.6                      | 0.7                | 14943.4                | 0.00                  | 99.92                     |
| 151.0-152.0  | 14.0                      | 0.7                | 14944.1                | 0.00                  | 99.93                     |
| 152.0-153.0  | 14.1                      | 0.7                | 14944.9                | 0.00                  | 99.93                     |
| 153.0-154.0  | 13.9                      | 0.7                | 14945.5                | 0.00                  | 99.94                     |
| 154.0-155.0  | 14.4                      | 0.7                | 14946.2                | 0.00                  | 99.94                     |
| 155.0-156.0  | 15.1                      | 0.7                | 14946.9                | 0.00                  | 99.95                     |
| 156.0-157.0  | 14.5                      | 0.6                | 14947.5                | 0.00                  | 99.95                     |
| 157.0-158.0  | 14.2                      | 0.6                | 14948.1                | 0.00                  | 99.95                     |
| 158.0-159.0  | 14.1                      | 0.6                | 14948.7                | 0.00                  | 99.96                     |
| 159.0-160.0  | 14.1                      | 0.5                | 14949.2                | 0.00                  | 99.96                     |
| 160.0-161.0  | 14.5                      | 0.5                | 14949.8                | 0.00                  | 99.97                     |
| 161.0-162.0  | 14.4                      | 0.5                | 14950.3                | 0.00                  | 99.97                     |
| 162.0-163.0  | 14.3                      | 0.5                | 14950.7                | 0.00                  | 99.97                     |
| 163.0-164.0  | 14.3                      | 0.4                | 14951.2                | 0.00                  | 99.97                     |
| 164.0-165.0  | 14.4                      | 0.4                | 14951.6                | 0.00                  | 99.98                     |
| 165.0-166.0  | 14.9                      | 0.4                | 14952.0                | 0.00                  | 99.98                     |
| 166.0-167.0  | 15.7                      | 0.4                | 14952.4                | 0.00                  | 99.98                     |
| 167.0-168.0  | 15.6                      | 0.4                | 14952.8                | 0.00                  | 99.99                     |
| 168.0-169.0  | 14.8                      | 0.3                | 14953.1                | 0.00                  | 99.99                     |
| 169.0-170.0  | 15.1                      | 0.3                | 14953.4                | 0.00                  | 99.99                     |
| 170.0-171.0  | 16.0                      | 0.3                | 14953.7                | 0.00                  | 99.99                     |
| 171.0-172.0  | 16.2                      | 0.3                | 14954.0                | 0.00                  | 99.99                     |
| 172.0-173.0  | 16.1                      | 0.2                | 14954.2                | 0.00                  | 100.00                    |
| 173.0-174.0  | 16.3                      | 0.2                | 14954.4                | 0.00                  | 100.00                    |
| 174.0-175.0  | 16.0                      | 0.2                | 14954.6                | 0.00                  | 100.00                    |
| 175.0-176.0  | 15.6                      | 0.1                | 14954.7                | 0.00                  | 100.00                    |
| 176.0-177.0  | 15.3                      | 0.1                | 14954.8                | 0.00                  | 100.00                    |
| 177.0-178.0  | 14.7                      | 0.1                | 14954.9                | 0.00                  | 100.00                    |
| 178.0-179.0  | 14.1                      | 0.0                | 14954.9                | 0.00                  | 100.00                    |
| 179.0-180.0  | 13.9                      | 0.0                | 14954.9                | 0.00                  | 100.00                    |

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-3000

Distance: 14.040 m [K=1.0000]

Humidity:

Inspector: