

Report No.:

Test Time: 2023/4/23 11:13

## Luminaire Property

Luminaire Manufacturer: ACOLYTE  
Luminaire Category: RIBBONLYTE  
Lamp Catalog: 3000k  
Luminous Width (mm): 20.5  
Voltage: 24.0 V  
Power: 5.86 W

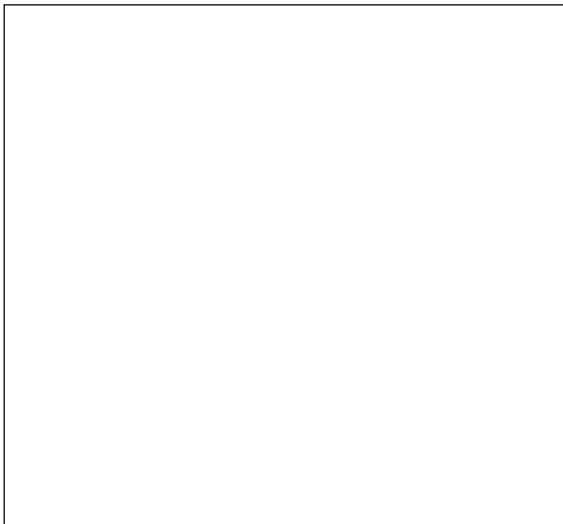
Luminaire Description: RB90SWX675.83010  
Luminous Length (mm): 320  
Luminous Height (mm): 14  
Current: 0.244 A  
Power Factor: 1.000

## Photometric Results

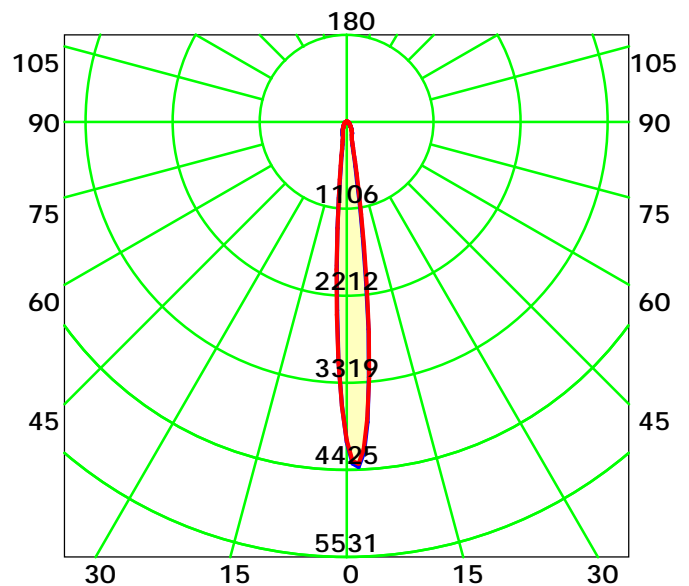
CIE Class: Semi-Direct  
Measurement Flux: 566.1 lm  
Downward Ratio: 89%  
Horizontal Diffuse Angle(10%,50%): H21.4,H10.4  
Vertical Diffuse Angle(10%,50%): V22.3,V10.7  
Luminaire Efficacy Rating (LER): 97  
Max. Intensity: 4389.67 cd

Total Rated Lamp Lumens: 566.1 lm  
Efficiency: 100%  
Upward Ratio: 11%  
Central Intensity: 4069.89 cd  
Pos of Max. Intensity: H0 V2

Picture Of Luminaire



Luminous Intensity Distribution Curve



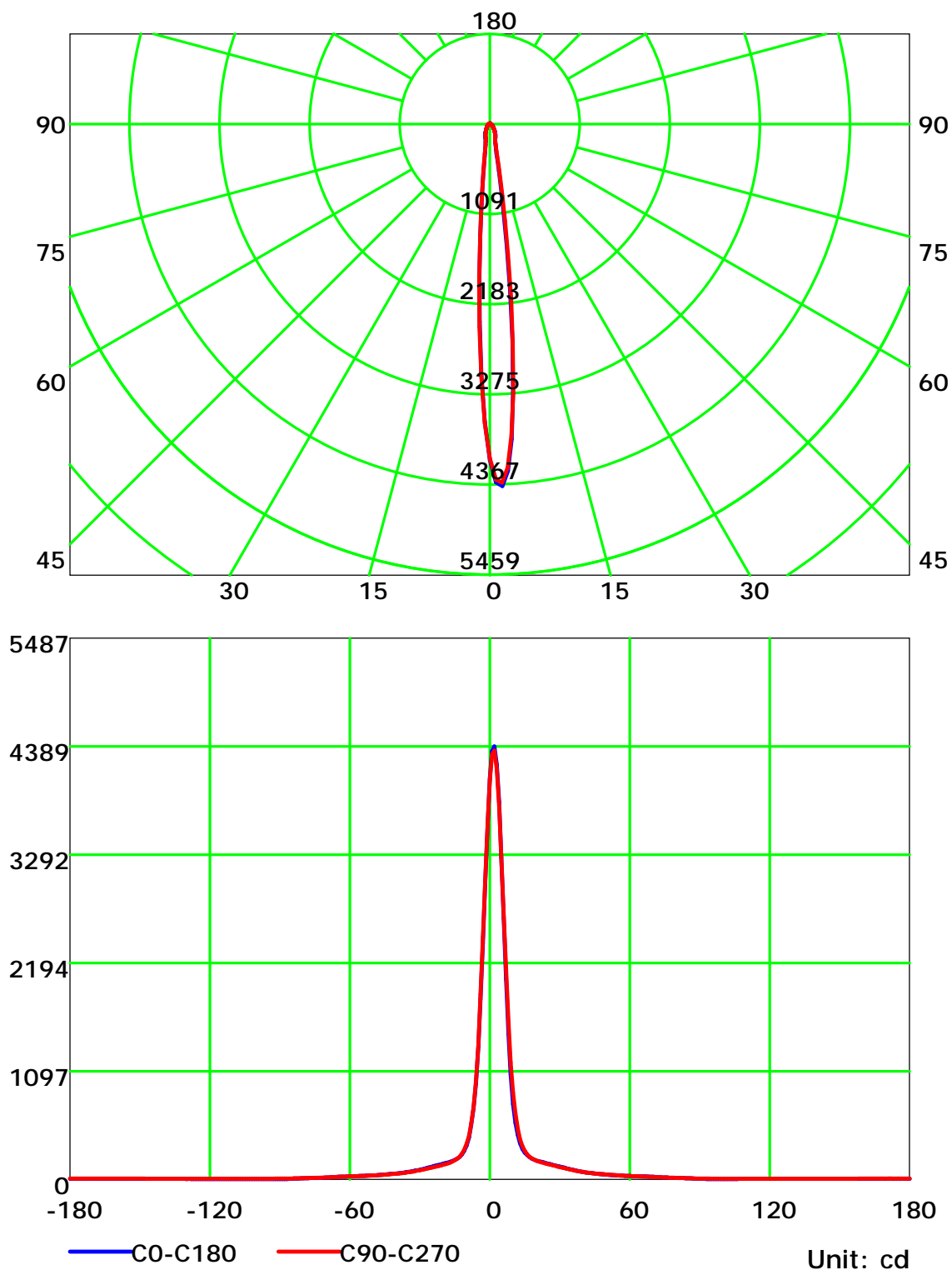
Average Diffuse Angle(50%): 10.5° Unit: cd

— C0-C180 — C90-C270

C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Nick

Gamma Plane (°):0.0-180.0: 1.0  
Test Device: GPM-1800B  
Distance: 9.028 m  
Humidity: 60%  
Inspector:

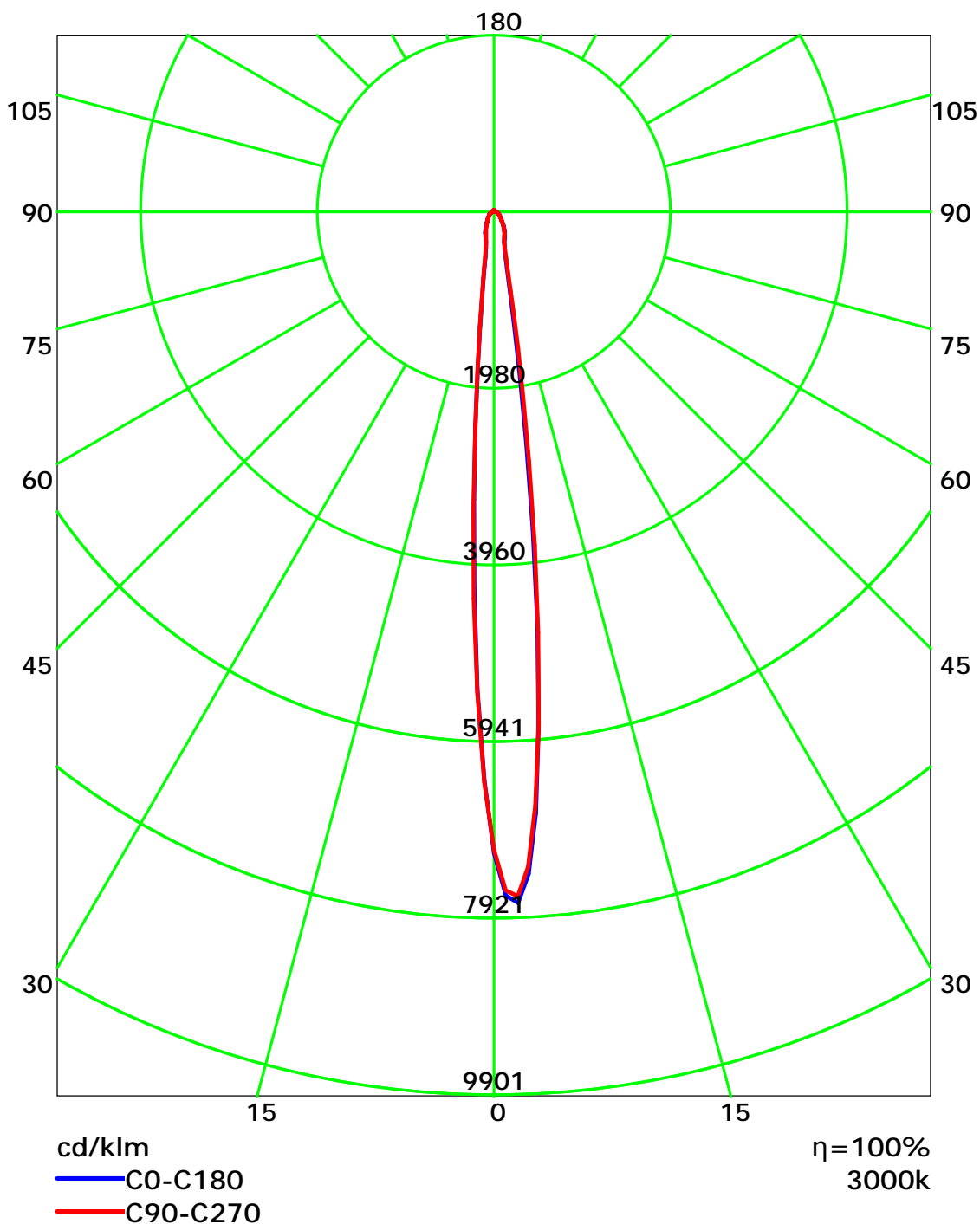
## Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Nick

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 9.028 m  
Humidity: 60%  
Inspector:

## Luminous Intensity Distribution Curve(cd/klm)



C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Nick

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 9.028 m  
Humidity: 60%  
Inspector:

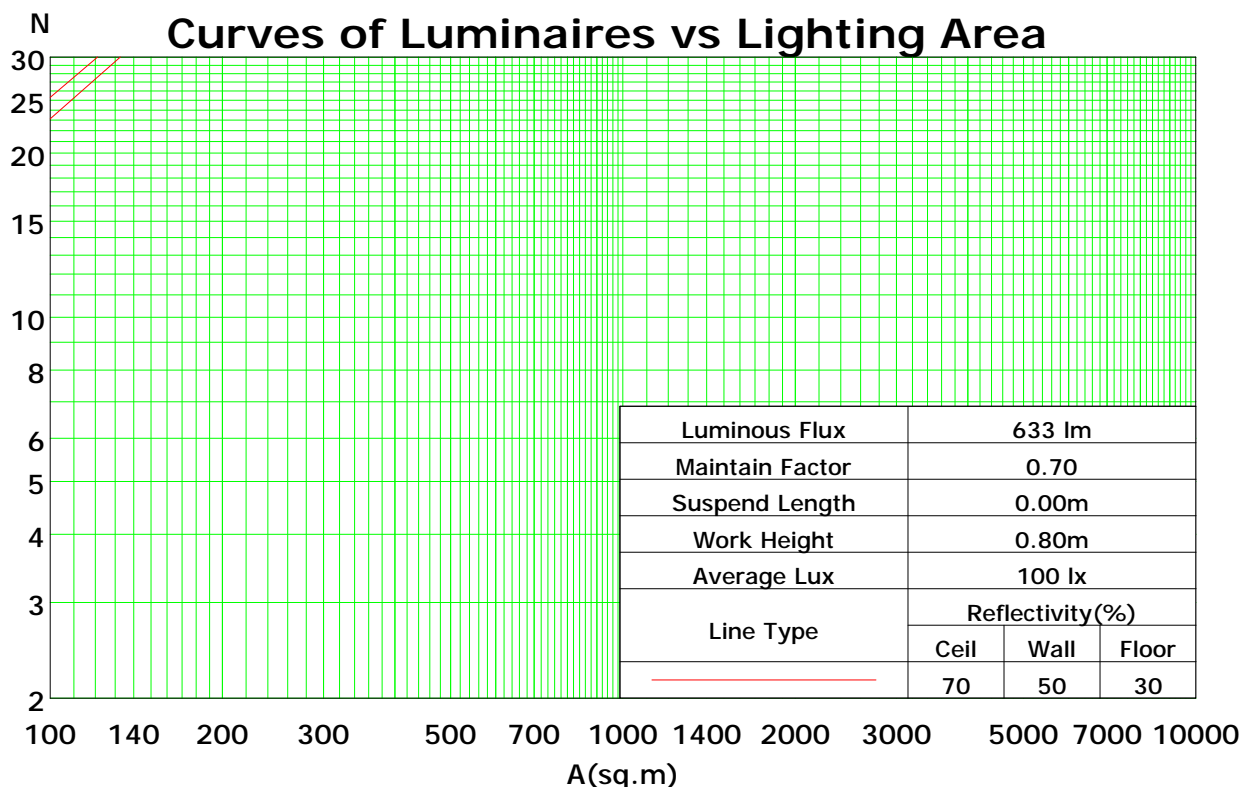
## Coefficients Of Utilization - Zonal Cavity Method

|     |          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |
|-----|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| 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   | 116      | 116 | 116 | 116 | 113 | 113 | 113 | 113 | 105 | 105 | 105 | 98  | 98  | 98  | 92  | 92  | 92  | 89 |
| 1   | 108      | 104 | 101 | 98  | 105 | 101 | 98  | 95  | 95  | 93  | 90  | 89  | 88  | 86  | 84  | 83  | 81  | 79 |
| 2   | 101      | 95  | 90  | 85  | 98  | 92  | 88  | 84  | 87  | 83  | 80  | 83  | 79  | 77  | 78  | 76  | 74  | 71 |
| 3   | 95       | 87  | 81  | 76  | 92  | 85  | 80  | 75  | 81  | 76  | 72  | 77  | 73  | 70  | 73  | 70  | 68  | 65 |
| 4   | 90       | 81  | 75  | 70  | 87  | 79  | 73  | 69  | 76  | 71  | 67  | 72  | 68  | 65  | 69  | 66  | 63  | 61 |
| 5   | 85       | 76  | 69  | 64  | 83  | 74  | 68  | 64  | 71  | 66  | 62  | 68  | 64  | 60  | 66  | 62  | 59  | 57 |
| 6   | 81       | 72  | 65  | 60  | 79  | 70  | 64  | 60  | 67  | 62  | 58  | 65  | 60  | 57  | 63  | 59  | 56  | 54 |
| 7   | 78       | 68  | 61  | 57  | 76  | 67  | 61  | 56  | 64  | 59  | 55  | 62  | 58  | 54  | 60  | 56  | 53  | 52 |
| 8   | 74       | 64  | 58  | 54  | 73  | 63  | 58  | 53  | 61  | 56  | 53  | 60  | 55  | 52  | 58  | 54  | 51  | 49 |
| 9   | 72       | 62  | 56  | 52  | 70  | 61  | 55  | 51  | 59  | 54  | 50  | 57  | 53  | 50  | 56  | 52  | 49  | 48 |
| 10  | 69       | 59  | 53  | 49  | 67  | 58  | 53  | 49  | 57  | 52  | 49  | 55  | 51  | 48  | 54  | 50  | 47  | 46 |

Spacing Criteria (0-180): 0.19

Spacing Criteria (90-270): 0.19

Spacing Criteria (Diagonal): 0.20

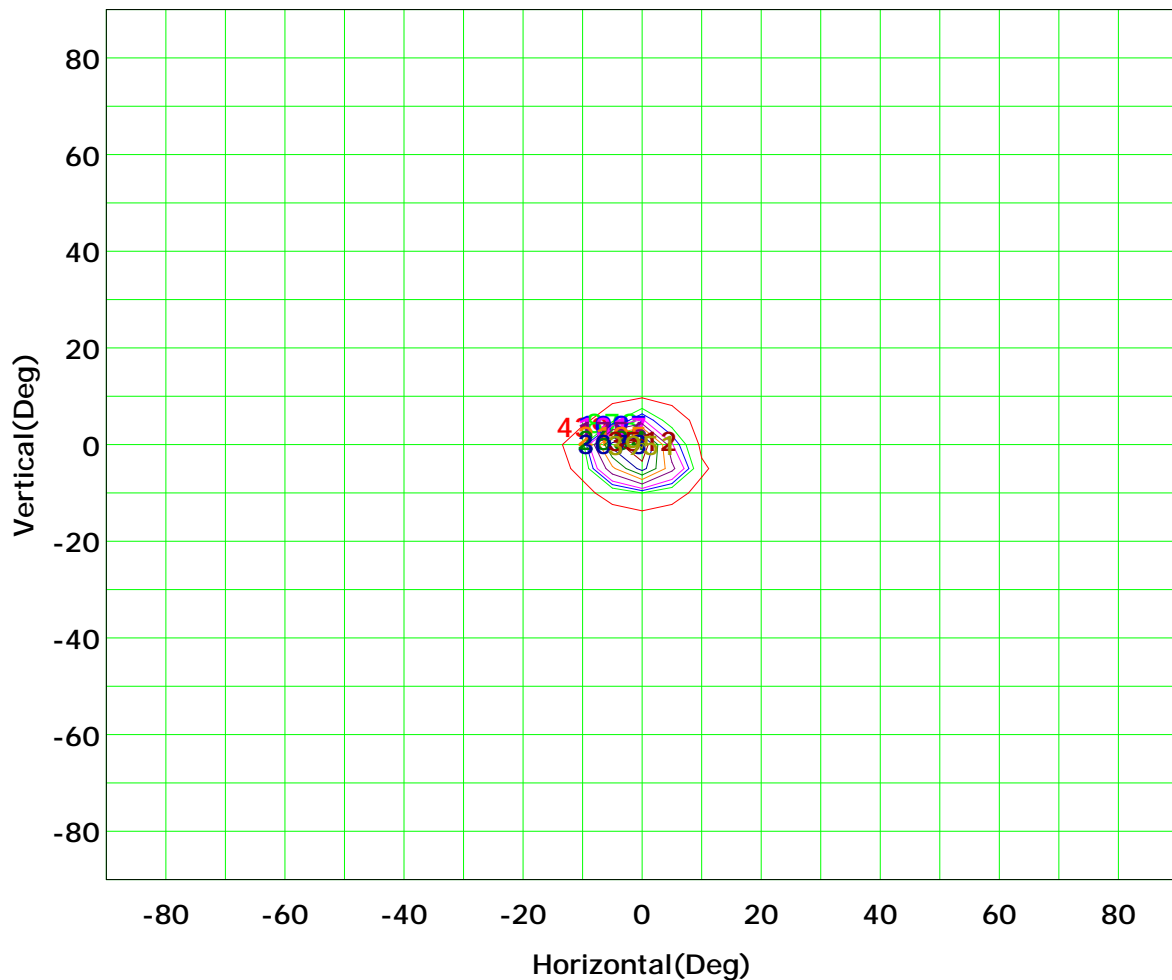


C Plane (°): 0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Nick

Gamma Plane (°): 0.0-180.0: 1.0  
Test Device: GPM-1800B  
Distance: 9.028 m  
Humidity: 60%  
Inspector:



## Isocandela (rectangle)



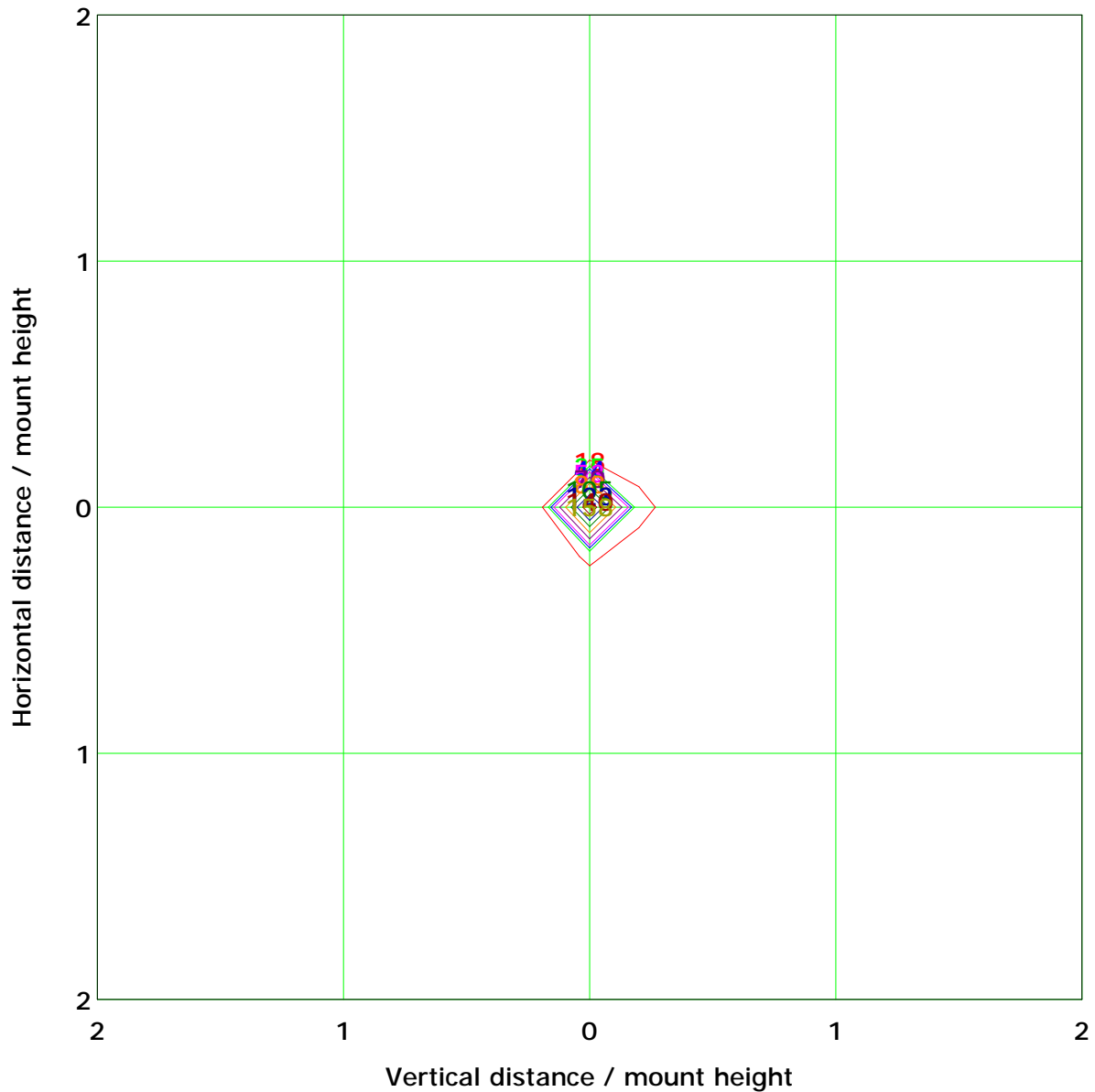
Imax (100%): 4390 cd

|                 |                 |
|-----------------|-----------------|
| ( 10%): 439 cd  | ( 20%): 878 cd  |
| ( 25%): 1097 cd | ( 30%): 1317 cd |
| ( 40%): 1756 cd | ( 50%): 2195 cd |
| ( 60%): 2634 cd | ( 70%): 3073 cd |
| ( 80%): 3512 cd | ( 90%): 3951 cd |

C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Nick

Gamma Plane (°):0.0-180.0: 1.0  
Test Device: GPM-1800B  
Distance: 9.028 m  
Humidity: 60%  
Inspector:

## IsoLux Plot



|  |                  |
|--|------------------|
| Mounting Height: 5.0m    Max Lux(100%): 175.3 lx |                  |
| ( 10%): 17.5 lx                                  | ( 20%): 35.1 lx  |
| ( 25%): 43.8 lx                                  | ( 30%): 52.6 lx  |
| ( 40%): 70.1 lx                                  | ( 50%): 87.6 lx  |
| ( 60%): 105.2 lx                                 | ( 70%): 122.7 lx |
| ( 80%): 140.2 lx                                 | ( 90%): 157.7 lx |

C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Nick

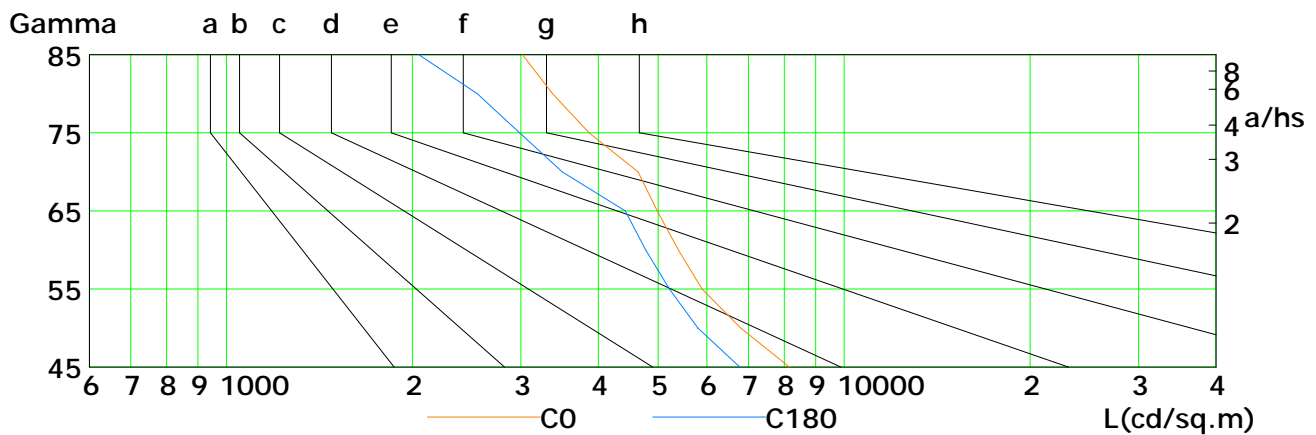
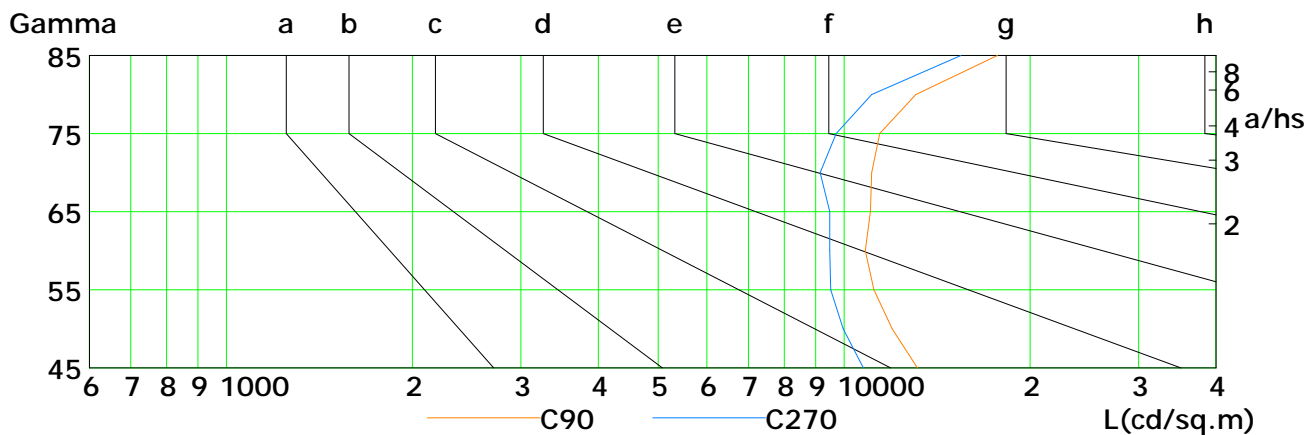
Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 9.028 m  
Humidity: 60%  
Inspector:



## 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

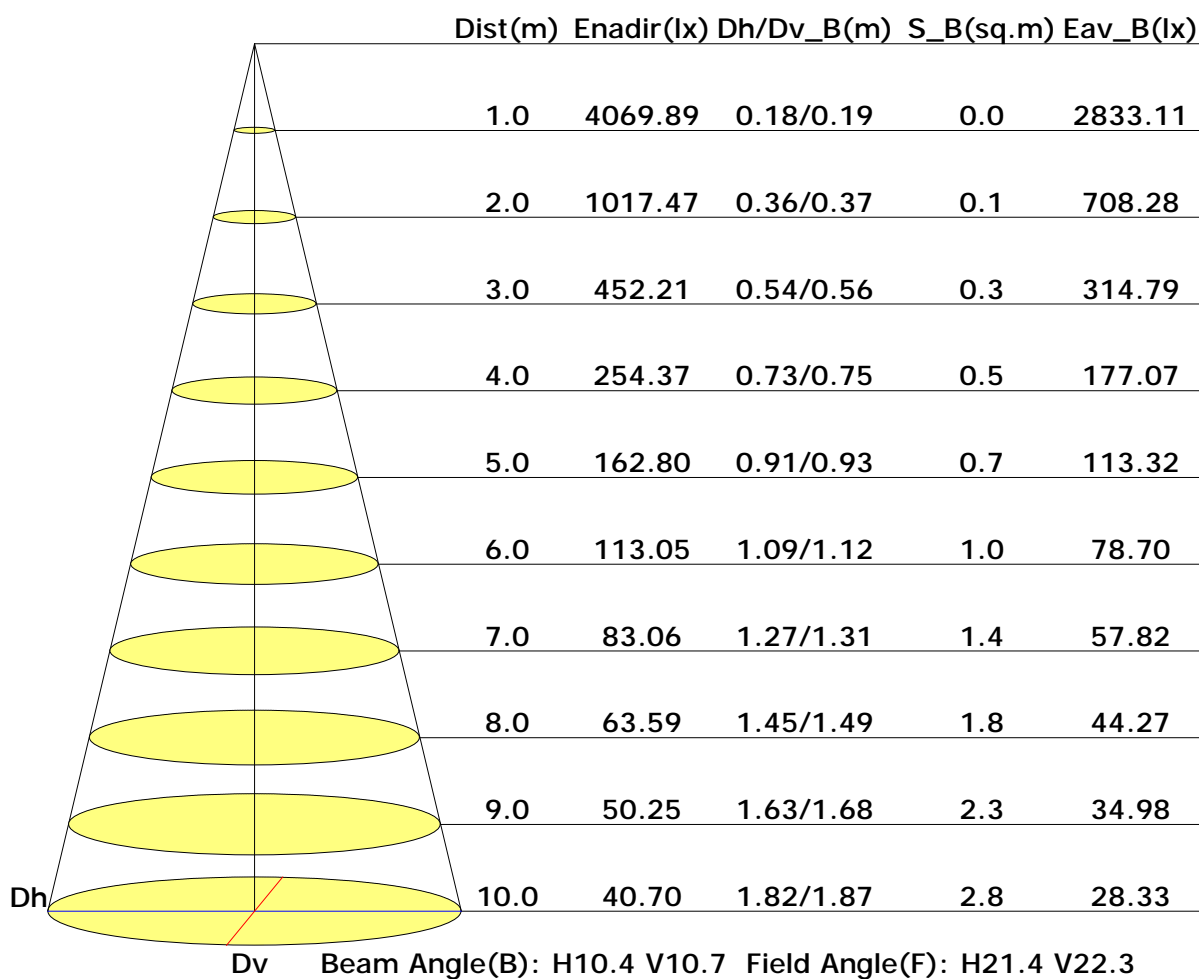


| L(cd/sq.m) | G45   | G50   | G55   | G60   | G65   | G70   | G75   | G80   | G85   |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C0         | 8159  | 6804  | 5892  | 5395  | 4985  | 4638  | 3865  | 3372  | 3017  |
| C90        | 13155 | 11962 | 11174 | 10820 | 11037 | 11085 | 11422 | 13068 | 17711 |
| C180       | 6780  | 5802  | 5216  | 4777  | 4423  | 3496  | 2986  | 2549  | 2050  |
| C270       | 10749 | 9969  | 9515  | 9485  | 9481  | 9151  | 9706  | 11092 | 15473 |

C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Nick

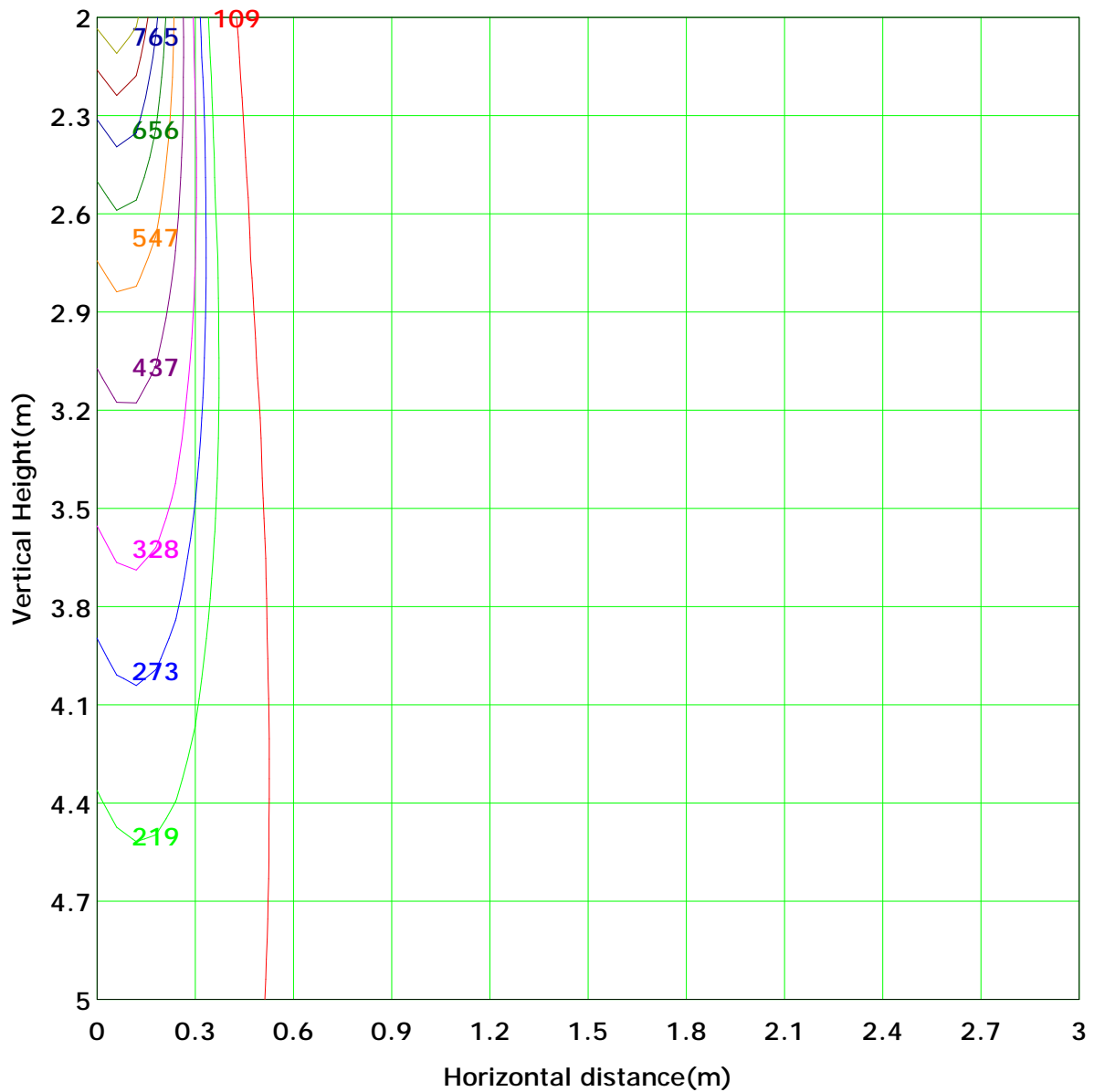
Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 9.028 m  
Humidity: 60%  
Inspector:

## Illuminance at a Distance





## Vertical IsoLux Plot



|                  |                  |                    |
|------------------|------------------|--------------------|
| Lowest(m): 2.0m  | Highest(m): 5.0m | Max Lux: 1093.1 lx |
| ( 10%): 109.3 lx | ( 20%): 218.6 lx |                    |
| ( 25%): 273.3 lx | ( 30%): 327.9 lx |                    |
| ( 40%): 437.2 lx | ( 50%): 546.5 lx |                    |
| ( 60%): 655.9 lx | ( 70%): 765.2 lx |                    |
| ( 80%): 874.5 lx | ( 90%): 983.8 lx |                    |

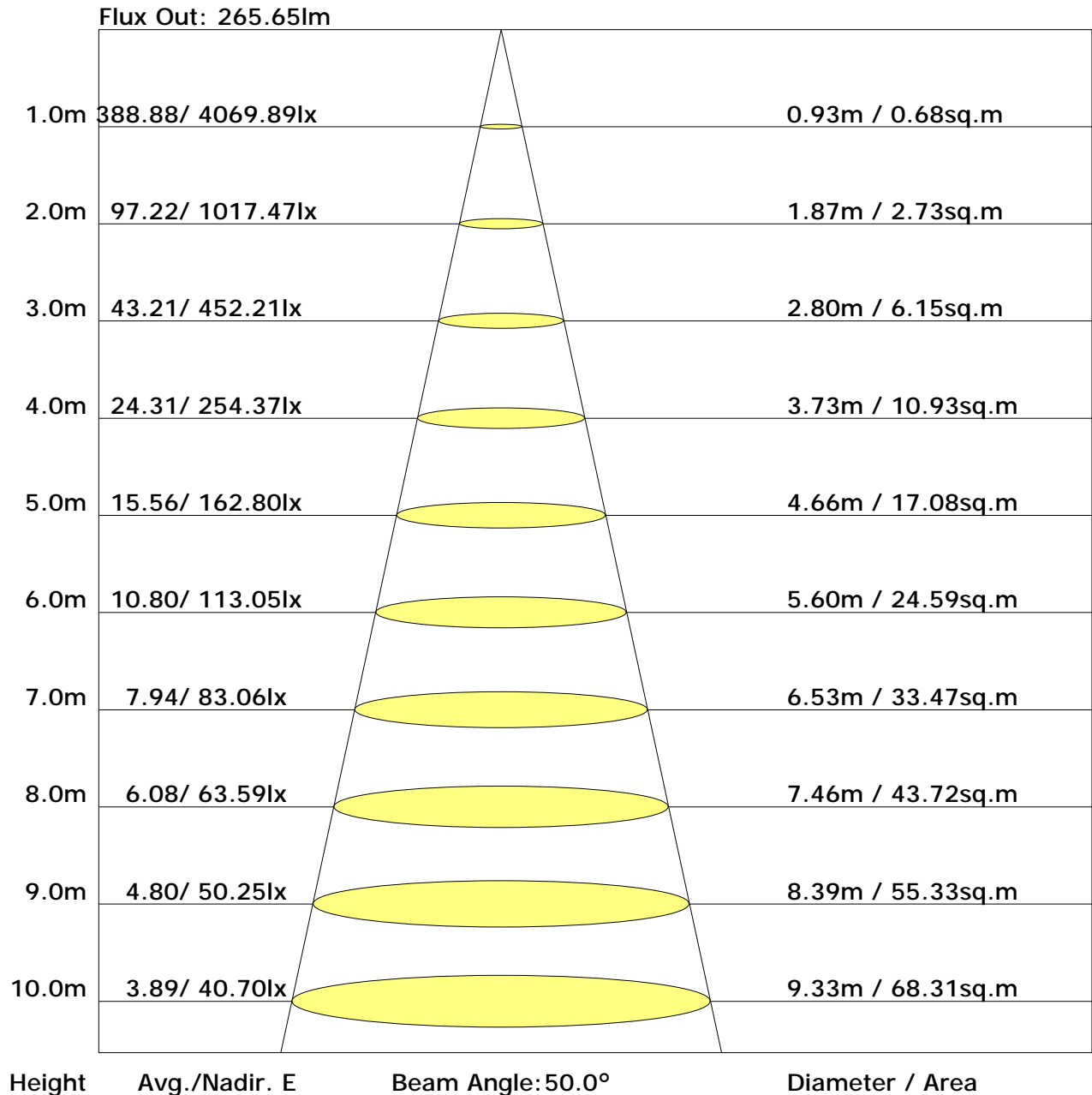
C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Nick

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 9.028 m  
Humidity: 60%  
Inspector:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 9.028 m  
Humidity: 60%  
Inspector:



## The Average Illuminance Effective Figure



C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Nick

Gamma Plane (°):0.0-180.0: 1.0  
Test Device: GPM-1800B  
Distance: 9.028 m  
Humidity: 60%  
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        | 18.3             | 19.4 | 18.8 | 19.9 | 20.5 | 17.1           | 18.3 | 17.7 | 18.8 | 19.4 |
| 3H               | 20.7             | 21.7 | 21.2 | 22.2 | 22.8 | 19.0           | 20.0 | 19.5 | 20.5 | 21.1 |
| 4H               | 21.7             | 22.7 | 22.3 | 23.2 | 23.8 | 19.7           | 20.7 | 20.3 | 21.2 | 21.8 |
| 6H               | 22.7             | 23.6 | 23.3 | 24.1 | 24.8 | 20.4           | 21.3 | 20.9 | 21.8 | 22.4 |
| 8H               | 23.1             | 24.0 | 23.7 | 24.6 | 25.2 | 20.6           | 21.5 | 21.2 | 22.0 | 22.7 |
| 12H              | 23.7             | 24.5 | 24.2 | 25.0 | 25.7 | 20.8           | 21.7 | 21.4 | 22.2 | 22.9 |
| X=4H Y=2H        | 18.7             | 19.7 | 19.3 | 20.2 | 20.8 | 17.8           | 18.8 | 18.4 | 19.3 | 19.9 |
| 3H               | 21.3             | 22.1 | 21.9 | 22.7 | 23.3 | 19.9           | 20.8 | 20.5 | 21.3 | 22.0 |
| 4H               | 22.5             | 23.3 | 23.1 | 23.9 | 24.5 | 20.9           | 21.7 | 21.5 | 22.3 | 22.9 |
| 6H               | 23.6             | 24.3 | 24.3 | 24.9 | 25.6 | 21.7           | 22.4 | 22.4 | 23.0 | 23.7 |
| 8H               | 24.2             | 24.8 | 24.8 | 25.4 | 26.1 | 22.0           | 22.6 | 22.7 | 23.3 | 24.0 |
| 12H              | 24.7             | 25.3 | 25.4 | 25.9 | 26.6 | 22.3           | 22.9 | 23.0 | 23.5 | 24.2 |
| X=8H Y=4H        | 22.8             | 23.4 | 23.4 | 24.0 | 24.7 | 21.5           | 22.1 | 22.2 | 22.7 | 23.4 |
| 6H               | 24.0             | 24.5 | 24.7 | 25.2 | 25.9 | 22.5           | 23.0 | 23.1 | 23.7 | 24.3 |
| 8H               | 24.6             | 25.1 | 25.3 | 25.8 | 26.5 | 22.9           | 23.3 | 23.6 | 24.0 | 24.7 |
| 12H              | 25.4             | 25.8 | 26.0 | 26.4 | 27.2 | 23.3           | 23.7 | 24.0 | 24.4 | 25.1 |
| X=12H Y=4H       | 22.8             | 23.3 | 23.4 | 24.0 | 24.7 | 21.6           | 22.1 | 22.2 | 22.8 | 23.5 |
| 6H               | 24.1             | 24.5 | 24.7 | 25.1 | 25.9 | 22.6           | 23.1 | 23.3 | 23.7 | 24.5 |
| 8H               | 24.7             | 25.1 | 25.4 | 25.8 | 26.6 | 23.1           | 23.5 | 23.8 | 24.2 | 24.9 |

Calculate in accordance with CIE 190:2010

C Plane (°): 0.0-360.0: 30.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature: 25  
 Operator: Nick

Gamma Plane (°): 0.0-180.0: 1.0  
 Test Device: GPM-1800B  
 Distance: 9.028 m  
 Humidity: 60%  
 Inspector:

## Utilisation Factor Table(Floor cavity)

| Utilisation Factors UF(F)   |      |       | SHR NOM = 0.50 |      |      |      |      |      |      |      |      |
|---|------|-------|----------------|------|------|------|------|------|------|------|------|
| 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  | 0.78           | 0.85 | 0.91 | 0.94 | 1.00 | 1.04 | 1.06 | 1.10 | 1.12 |
|   | 0.30 |       | 0.72           | 0.79 | 0.84 | 0.89 | 0.95 | 0.99 | 1.02 | 1.06 | 1.09 |
|   | 0.20 |       | 0.68           | 0.75 | 0.80 | 0.84 | 0.90 | 0.95 | 0.98 | 1.03 | 1.06 |
| 0.50  | 0.50 | 0.20  | 0.76           | 0.82 | 0.87 | 0.90 | 0.95 | 0.98 | 1.01 | 1.04 | 1.06 |
|   | 0.30 |       | 0.71           | 0.77 | 0.82 | 0.85 | 0.91 | 0.94 | 0.97 | 1.01 | 1.03 |
|   | 0.20 |       | 0.67           | 0.73 | 0.78 | 0.82 | 0.87 | 0.91 | 0.94 | 0.98 | 1.01 |
| 0.30  | 0.50 | 0.20  | 0.74           | 0.79 | 0.83 | 0.86 | 0.90 | 0.93 | 0.95 | 0.98 | 1.00 |
|   | 0.30 |       | 0.69           | 0.75 | 0.79 | 0.82 | 0.87 | 0.90 | 0.93 | 0.96 | 0.98 |
|   | 0.20 |       | 0.66           | 0.71 | 0.76 | 0.79 | 0.84 | 0.88 | 0.90 | 0.94 | 0.96 |
| 0.00  | 0.00 | 0.00  | 0.63           | 0.68 | 0.72 | 0.75 | 0.79 | 0.82 | 0.84 | 0.87 | 0.89 |
| Rating: 6W Photometrically tested without ceiling board.<br>Multiply UF values by service correction factors<br>Calculate in accordance with CIBSE Technical Memorandum NO.5 1980 |      |       |                |      |      |      |      |      |      |      |      |

## Utilisation Factor Table(Wall)

| Utilisation Factors UF(W)   |      |       | SHR NOM = 0.50 |      |      |      |      |      |      |      |      |  |
|---|------|-------|----------------|------|------|------|------|------|------|------|------|--|
| 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  | 0.78           | 0.66 | 0.57 | 0.50 | 0.40 | 0.34 | 0.29 | 0.23 | 0.19 |  |
|   | 0.30 |       | 0.65           | 0.56 | 0.49 | 0.44 | 0.37 | 0.31 | 0.27 | 0.22 | 0.18 |  |
|   | 0.20 |       | 0.56           | 0.49 | 0.44 | 0.40 | 0.33 | 0.29 | 0.25 | 0.21 | 0.17 |  |
| 0.50  | 0.50 | 0.20  | 0.72           | 0.61 | 0.52 | 0.46 | 0.37 | 0.35 | 0.27 | 0.21 | 0.18 |  |
|   | 0.30 |       | 0.61           | 0.53 | 0.46 | 0.41 | 0.34 | 0.29 | 0.25 | 0.20 | 0.17 |  |
|   | 0.20 |       | 0.53           | 0.47 | 0.41 | 0.37 | 0.31 | 0.27 | 0.24 | 0.19 | 0.16 |  |
| 0.30  | 0.50 | 0.20  | 0.68           | 0.56 | 0.48 | 0.42 | 0.34 | 0.29 | 0.25 | 0.19 | 0.16 |  |
|   | 0.30 |       | 0.58           | 0.49 | 0.43 | 0.38 | 0.31 | 0.27 | 0.23 | 0.19 | 0.16 |  |
|   | 0.20 |       | 0.51           | 0.44 | 0.39 | 0.35 | 0.29 | 0.25 | 0.22 | 0.18 | 0.15 |  |
| 0.00  | 0.00 | 0.00  | 0.36           | 0.31 | 0.27 | 0.24 | 0.20 | 0.17 | 0.15 | 0.12 | 0.10 |  |
| Rating: 6W Photometrically tested without ceiling board.<br>Multiply UF values by service correction factors<br>Calculate in accordance with CIBSE Technical Memorandum NO.5 1980 |      |       |                |      |      |      |      |      |      |      |      |  |

## Utilisation Factor Table(Ceiling cavity)

| Utilisation Factors UF(C)   |      |       | SHR NOM = 0.50 |      |      |      |      |      |      |      |      |  |
|---|------|-------|----------------|------|------|------|------|------|------|------|------|--|
| 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  | 0.26           | 0.27 | 0.29 | 0.30 | 0.31 | 0.32 | 0.32 | 0.33 | 0.33 |  |
|   | 0.30 |       | 0.20           | 0.22 | 0.24 | 0.25 | 0.27 | 0.28 | 0.29 | 0.30 | 0.31 |  |
|   | 0.20 |       | 0.17           | 0.18 | 0.20 | 0.21 | 0.23 | 0.25 | 0.26 | 0.28 | 0.29 |  |
| 0.50  | 0.50 | 0.20  | 0.25           | 0.26 | 0.28 | 0.28 | 0.30 | 0.30 | 0.31 | 0.32 | 0.32 |  |
|   | 0.30 |       | 0.20           | 0.22 | 0.23 | 0.24 | 0.26 | 0.27 | 0.28 | 0.29 | 0.30 |  |
|   | 0.20 |       | 0.16           | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.27 | 0.28 |  |
| 0.30  | 0.50 | 0.20  | 0.24           | 0.26 | 0.27 | 0.27 | 0.29 | 0.29 | 0.30 | 0.30 | 0.31 |  |
|   | 0.30 |       | 0.20           | 0.21 | 0.23 | 0.24 | 0.25 | 0.26 | 0.27 | 0.28 | 0.29 |  |
|   | 0.20 |       | 0.16           | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.27 |  |
| 0.00  | 0.00 | 0.00  | 0.11           | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |  |
| Rating: 6W Photometrically tested without ceiling board.<br>Multiply UF values by service correction factors<br>Calculate in accordance with CIBSE Technical Memorandum NO.5 1980 |      |       |                |      |      |      |      |      |      |      |      |  |

## 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      | 4018.6                    | 3.8                | 3.8                    | 0.68                  | 0.68                      |
| 1.0-2.0      | 3839.2                    | 11.0               | 14.9                   | 1.95                  | 2.63                      |
| 2.0-3.0      | 3503.2                    | 16.8               | 31.6                   | 2.96                  | 5.59                      |
| 3.0-4.0      | 3058.7                    | 20.5               | 52.1                   | 3.62                  | 9.20                      |
| 4.0-5.0      | 2556.0                    | 22.0               | 74.1                   | 3.88                  | 13.09                     |
| 5.0-6.0      | 2051.5                    | 21.6               | 95.7                   | 3.81                  | 16.90                     |
| 6.0-7.0      | 1593.9                    | 19.8               | 115.4                  | 3.50                  | 20.39                     |
| 7.0-8.0      | 1206.0                    | 17.3               | 132.7                  | 3.05                  | 23.44                     |
| 8.0-9.0      | 899.4                     | 14.6               | 147.3                  | 2.58                  | 26.02                     |
| 9.0-10.0     | 673.7                     | 12.2               | 159.5                  | 2.15                  | 28.17                     |
| 10.0-11.0    | 516.2                     | 10.3               | 169.8                  | 1.82                  | 29.99                     |
| 11.0-12.0    | 409.8                     | 9.0                | 178.8                  | 1.58                  | 31.58                     |
| 12.0-13.0    | 338.4                     | 8.0                | 186.8                  | 1.42                  | 32.99                     |
| 13.0-14.0    | 290.0                     | 7.4                | 194.2                  | 1.31                  | 34.31                     |
| 14.0-15.0    | 255.5                     | 7.0                | 201.2                  | 1.24                  | 35.55                     |
| 15.0-16.0    | 230.5                     | 6.8                | 208.0                  | 1.19                  | 36.74                     |
| 16.0-17.0    | 211.9                     | 6.6                | 214.6                  | 1.17                  | 37.90                     |
| 17.0-18.0    | 197.2                     | 6.5                | 221.1                  | 1.15                  | 39.05                     |
| 18.0-19.0    | 185.2                     | 6.4                | 227.5                  | 1.14                  | 40.19                     |
| 19.0-20.0    | 175.1                     | 6.4                | 233.9                  | 1.13                  | 41.32                     |
| 20.0-21.0    | 166.4                     | 6.4                | 240.3                  | 1.13                  | 42.45                     |
| 21.0-22.0    | 158.7                     | 6.4                | 246.7                  | 1.13                  | 43.58                     |
| 22.0-23.0    | 151.5                     | 6.4                | 253.1                  | 1.12                  | 44.70                     |
| 23.0-24.0    | 144.6                     | 6.3                | 259.4                  | 1.12                  | 45.82                     |
| 24.0-25.0    | 137.9                     | 6.3                | 265.7                  | 1.11                  | 46.93                     |
| 25.0-26.0    | 131.5                     | 6.2                | 271.9                  | 1.10                  | 48.02                     |
| 26.0-27.0    | 125.5                     | 6.1                | 278.0                  | 1.08                  | 49.11                     |
| 27.0-28.0    | 119.8                     | 6.1                | 284.1                  | 1.07                  | 50.18                     |
| 28.0-29.0    | 114.3                     | 6.0                | 290.0                  | 1.06                  | 51.24                     |
| 29.0-30.0    | 109.1                     | 5.9                | 295.9                  | 1.04                  | 52.28                     |
| 30.0-31.0    | 104.1                     | 5.8                | 301.7                  | 1.02                  | 53.30                     |
| 31.0-32.0    | 99.5                      | 5.7                | 307.4                  | 1.01                  | 54.31                     |
| 32.0-33.0    | 95.2                      | 5.6                | 313.0                  | 0.99                  | 55.30                     |
| 33.0-34.0    | 91.0                      | 5.5                | 318.6                  | 0.97                  | 56.27                     |
| 34.0-35.0    | 87.1                      | 5.4                | 324.0                  | 0.96                  | 57.23                     |
| 35.0-36.0    | 83.4                      | 5.3                | 329.3                  | 0.94                  | 58.16                     |

C Plane (°): 0.0-360.0: 30.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature: 25  
 Operator: Nick

Gamma Plane (°): 0.0-180.0: 1.0  
 Test Device: GPM-1800B  
 Distance: 9.028 m  
 Humidity: 60%  
 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    | 79.9                      | 5.2                | 334.5                  | 0.92                  | 59.09                     |
| 37.0-38.0    | 76.5                      | 5.1                | 339.6                  | 0.90                  | 59.99                     |
| 38.0-39.0    | 73.3                      | 5.0                | 344.6                  | 0.88                  | 60.87                     |
| 39.0-40.0    | 70.3                      | 4.9                | 349.5                  | 0.87                  | 61.74                     |
| 40.0-41.0    | 67.5                      | 4.8                | 354.3                  | 0.85                  | 62.59                     |
| 41.0-42.0    | 65.0                      | 4.7                | 359.0                  | 0.83                  | 63.42                     |
| 42.0-43.0    | 62.6                      | 4.6                | 363.7                  | 0.82                  | 64.24                     |
| 43.0-44.0    | 60.4                      | 4.6                | 368.2                  | 0.80                  | 65.04                     |
| 44.0-45.0    | 58.3                      | 4.5                | 372.7                  | 0.79                  | 65.84                     |
| 45.0-46.0    | 56.4                      | 4.4                | 377.1                  | 0.78                  | 66.62                     |
| 46.0-47.0    | 54.5                      | 4.3                | 381.5                  | 0.77                  | 67.38                     |
| 47.0-48.0    | 52.8                      | 4.3                | 385.7                  | 0.75                  | 68.14                     |
| 48.0-49.0    | 51.1                      | 4.2                | 389.9                  | 0.74                  | 68.88                     |
| 49.0-50.0    | 49.4                      | 4.1                | 394.0                  | 0.73                  | 69.60                     |
| 50.0-51.0    | 47.8                      | 4.0                | 398.1                  | 0.72                  | 70.32                     |
| 51.0-52.0    | 46.4                      | 4.0                | 402.1                  | 0.70                  | 71.02                     |
| 52.0-53.0    | 45.0                      | 3.9                | 406.0                  | 0.69                  | 71.71                     |
| 53.0-54.0    | 43.7                      | 3.8                | 409.8                  | 0.68                  | 72.39                     |
| 54.0-55.0    | 42.4                      | 3.8                | 413.6                  | 0.67                  | 73.06                     |
| 55.0-56.0    | 41.2                      | 3.7                | 417.3                  | 0.66                  | 73.72                     |
| 56.0-57.0    | 40.1                      | 3.7                | 421.0                  | 0.65                  | 74.37                     |
| 57.0-58.0    | 39.0                      | 3.6                | 424.6                  | 0.64                  | 75.01                     |
| 58.0-59.0    | 38.0                      | 3.5                | 428.2                  | 0.63                  | 75.63                     |
| 59.0-60.0    | 37.0                      | 3.5                | 431.6                  | 0.62                  | 76.25                     |
| 60.0-61.0    | 36.0                      | 3.4                | 435.1                  | 0.61                  | 76.86                     |
| 61.0-62.0    | 35.1                      | 3.4                | 438.5                  | 0.60                  | 77.45                     |
| 62.0-63.0    | 34.2                      | 3.3                | 441.8                  | 0.59                  | 78.04                     |
| 63.0-64.0    | 33.3                      | 3.3                | 445.1                  | 0.58                  | 78.62                     |
| 64.0-65.0    | 32.5                      | 3.2                | 448.3                  | 0.57                  | 79.19                     |
| 65.0-66.0    | 31.7                      | 3.2                | 451.4                  | 0.56                  | 79.75                     |
| 66.0-67.0    | 30.8                      | 3.1                | 454.5                  | 0.55                  | 80.29                     |
| 67.0-68.0    | 29.8                      | 3.0                | 457.6                  | 0.53                  | 80.83                     |
| 68.0-69.0    | 29.1                      | 3.0                | 460.5                  | 0.52                  | 81.35                     |
| 69.0-70.0    | 28.5                      | 2.9                | 463.5                  | 0.52                  | 81.87                     |
| 70.0-71.0    | 27.9                      | 2.9                | 466.3                  | 0.51                  | 82.38                     |
| 71.0-72.0    | 27.3                      | 2.8                | 469.2                  | 0.50                  | 82.88                     |

C Plane (°): 0.0-360.0: 30.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature: 25  
 Operator: Nick

Gamma Plane (°): 0.0-180.0: 1.0  
 Test Device: GPM-1800B  
 Distance: 9.028 m  
 Humidity: 60%  
 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    | 26.8                      | 2.8                | 472.0                  | 0.49                  | 83.37                     |
| 73.0-74.0    | 26.1                      | 2.7                | 474.7                  | 0.48                  | 83.86                     |
| 74.0-75.0    | 25.3                      | 2.7                | 477.4                  | 0.47                  | 84.33                     |
| 75.0-76.0    | 24.2                      | 2.6                | 480.0                  | 0.45                  | 84.79                     |
| 76.0-77.0    | 22.9                      | 2.4                | 482.4                  | 0.43                  | 85.22                     |
| 77.0-78.0    | 21.5                      | 2.3                | 484.7                  | 0.41                  | 85.62                     |
| 78.0-79.0    | 20.2                      | 2.2                | 486.9                  | 0.38                  | 86.01                     |
| 79.0-80.0    | 18.9                      | 2.0                | 488.9                  | 0.36                  | 86.37                     |
| 80.0-81.0    | 17.9                      | 1.9                | 490.9                  | 0.34                  | 86.71                     |
| 81.0-82.0    | 17.0                      | 1.8                | 492.7                  | 0.33                  | 87.03                     |
| 82.0-83.0    | 16.3                      | 1.8                | 494.5                  | 0.31                  | 87.35                     |
| 83.0-84.0    | 15.5                      | 1.7                | 496.2                  | 0.30                  | 87.65                     |
| 84.0-85.0    | 14.9                      | 1.6                | 497.8                  | 0.29                  | 87.93                     |
| 85.0-86.0    | 14.2                      | 1.6                | 499.3                  | 0.28                  | 88.21                     |
| 86.0-87.0    | 13.6                      | 1.5                | 500.8                  | 0.26                  | 88.47                     |
| 87.0-88.0    | 13.0                      | 1.4                | 502.3                  | 0.25                  | 88.72                     |
| 88.0-89.0    | 12.4                      | 1.4                | 503.6                  | 0.24                  | 88.96                     |
| 89.0-90.0    | 11.9                      | 1.3                | 504.9                  | 0.23                  | 89.19                     |
| 90.0-91.0    | 11.5                      | 1.3                | 506.2                  | 0.22                  | 89.41                     |
| 91.0-92.0    | 11.1                      | 1.2                | 507.4                  | 0.22                  | 89.63                     |
| 92.0-93.0    | 10.8                      | 1.2                | 508.6                  | 0.21                  | 89.84                     |
| 93.0-94.0    | 10.5                      | 1.1                | 509.7                  | 0.20                  | 90.04                     |
| 94.0-95.0    | 10.3                      | 1.1                | 510.8                  | 0.20                  | 90.24                     |
| 95.0-96.0    | 10.1                      | 1.1                | 511.9                  | 0.19                  | 90.43                     |
| 96.0-97.0    | 9.9                       | 1.1                | 513.0                  | 0.19                  | 90.62                     |
| 97.0-98.0    | 9.7                       | 1.1                | 514.1                  | 0.19                  | 90.81                     |
| 98.0-99.0    | 9.5                       | 1.0                | 515.1                  | 0.18                  | 90.99                     |
| 99.0-100.0   | 9.4                       | 1.0                | 516.1                  | 0.18                  | 91.17                     |
| 100.0-101.0  | 9.3                       | 1.0                | 517.1                  | 0.18                  | 91.35                     |
| 101.0-102.0  | 9.2                       | 1.0                | 518.1                  | 0.17                  | 91.52                     |
| 102.0-103.0  | 9.1                       | 1.0                | 519.1                  | 0.17                  | 91.69                     |
| 103.0-104.0  | 9.1                       | 1.0                | 520.1                  | 0.17                  | 91.87                     |
| 104.0-105.0  | 9.0                       | 1.0                | 521.0                  | 0.17                  | 92.04                     |
| 105.0-106.0  | 9.0                       | 1.0                | 522.0                  | 0.17                  | 92.20                     |
| 106.0-107.0  | 9.1                       | 1.0                | 522.9                  | 0.17                  | 92.37                     |
| 107.0-108.0  | 9.0                       | 0.9                | 523.9                  | 0.17                  | 92.54                     |

C Plane (°): 0.0-360.0: 30.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature: 25  
 Operator: Nick

Gamma Plane (°): 0.0-180.0: 1.0  
 Test Device: GPM-1800B  
 Distance: 9.028 m  
 Humidity: 60%  
 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  | 9.0                       | 0.9                | 524.8                  | 0.17                  | 92.70                     |
| 109.0-110.0  | 9.0                       | 0.9                | 525.7                  | 0.17                  | 92.87                     |
| 110.0-111.0  | 9.0                       | 0.9                | 526.7                  | 0.16                  | 93.03                     |
| 111.0-112.0  | 9.0                       | 0.9                | 527.6                  | 0.16                  | 93.20                     |
| 112.0-113.0  | 9.0                       | 0.9                | 528.5                  | 0.16                  | 93.36                     |
| 113.0-114.0  | 9.1                       | 0.9                | 529.4                  | 0.16                  | 93.52                     |
| 114.0-115.0  | 9.1                       | 0.9                | 530.3                  | 0.16                  | 93.68                     |
| 115.0-116.0  | 9.1                       | 0.9                | 531.2                  | 0.16                  | 93.84                     |
| 116.0-117.0  | 9.1                       | 0.9                | 532.1                  | 0.16                  | 94.00                     |
| 117.0-118.0  | 9.1                       | 0.9                | 533.0                  | 0.16                  | 94.15                     |
| 118.0-119.0  | 9.1                       | 0.9                | 533.9                  | 0.15                  | 94.31                     |
| 119.0-120.0  | 9.1                       | 0.9                | 534.7                  | 0.15                  | 94.46                     |
| 120.0-121.0  | 9.2                       | 0.9                | 535.6                  | 0.15                  | 94.61                     |
| 121.0-122.0  | 9.2                       | 0.9                | 536.5                  | 0.15                  | 94.77                     |
| 122.0-123.0  | 9.2                       | 0.8                | 537.3                  | 0.15                  | 94.91                     |
| 123.0-124.0  | 9.2                       | 0.8                | 538.2                  | 0.15                  | 95.06                     |
| 124.0-125.0  | 9.2                       | 0.8                | 539.0                  | 0.15                  | 95.21                     |
| 125.0-126.0  | 9.3                       | 0.8                | 539.8                  | 0.15                  | 95.36                     |
| 126.0-127.0  | 9.3                       | 0.8                | 540.6                  | 0.14                  | 95.50                     |
| 127.0-128.0  | 9.3                       | 0.8                | 541.4                  | 0.14                  | 95.64                     |
| 128.0-129.0  | 9.3                       | 0.8                | 542.2                  | 0.14                  | 95.79                     |
| 129.0-130.0  | 9.3                       | 0.8                | 543.0                  | 0.14                  | 95.92                     |
| 130.0-131.0  | 9.3                       | 0.8                | 543.8                  | 0.14                  | 96.06                     |
| 131.0-132.0  | 9.4                       | 0.8                | 544.6                  | 0.14                  | 96.20                     |
| 132.0-133.0  | 9.4                       | 0.8                | 545.3                  | 0.13                  | 96.33                     |
| 133.0-134.0  | 9.4                       | 0.7                | 546.1                  | 0.13                  | 96.47                     |
| 134.0-135.0  | 9.4                       | 0.7                | 546.8                  | 0.13                  | 96.60                     |
| 135.0-136.0  | 9.5                       | 0.7                | 547.6                  | 0.13                  | 96.72                     |
| 136.0-137.0  | 9.5                       | 0.7                | 548.3                  | 0.13                  | 96.85                     |
| 137.0-138.0  | 9.6                       | 0.7                | 549.0                  | 0.13                  | 96.98                     |
| 138.0-139.0  | 9.7                       | 0.7                | 549.7                  | 0.12                  | 97.10                     |
| 139.0-140.0  | 9.7                       | 0.7                | 550.4                  | 0.12                  | 97.22                     |
| 140.0-141.0  | 9.8                       | 0.7                | 551.1                  | 0.12                  | 97.35                     |
| 141.0-142.0  | 9.9                       | 0.7                | 551.8                  | 0.12                  | 97.47                     |
| 142.0-143.0  | 10.0                      | 0.7                | 552.4                  | 0.12                  | 97.58                     |
| 143.0-144.0  | 10.1                      | 0.7                | 553.1                  | 0.12                  | 97.70                     |

C Plane (°): 0.0-360.0: 30.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature: 25  
 Operator: Nick

Gamma Plane (°): 0.0-180.0: 1.0  
 Test Device: GPM-1800B  
 Distance: 9.028 m  
 Humidity: 60%  
 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  | 10.1                      | 0.6                | 553.7                  | 0.11                  | 97.81                     |
| 145.0-146.0  | 10.2                      | 0.6                | 554.4                  | 0.11                  | 97.92                     |
| 146.0-147.0  | 10.3                      | 0.6                | 555.0                  | 0.11                  | 98.03                     |
| 147.0-148.0  | 10.4                      | 0.6                | 555.6                  | 0.11                  | 98.14                     |
| 148.0-149.0  | 10.4                      | 0.6                | 556.2                  | 0.11                  | 98.25                     |
| 149.0-150.0  | 10.5                      | 0.6                | 556.8                  | 0.10                  | 98.35                     |
| 150.0-151.0  | 10.6                      | 0.6                | 557.3                  | 0.10                  | 98.45                     |
| 151.0-152.0  | 10.7                      | 0.6                | 557.9                  | 0.10                  | 98.55                     |
| 152.0-153.0  | 10.8                      | 0.5                | 558.4                  | 0.10                  | 98.65                     |
| 153.0-154.0  | 10.8                      | 0.5                | 559.0                  | 0.09                  | 98.74                     |
| 154.0-155.0  | 10.9                      | 0.5                | 559.5                  | 0.09                  | 98.83                     |
| 155.0-156.0  | 11.0                      | 0.5                | 560.0                  | 0.09                  | 98.92                     |
| 156.0-157.0  | 11.0                      | 0.5                | 560.5                  | 0.09                  | 99.01                     |
| 157.0-158.0  | 11.1                      | 0.5                | 560.9                  | 0.08                  | 99.09                     |
| 158.0-159.0  | 11.2                      | 0.5                | 561.4                  | 0.08                  | 99.17                     |
| 159.0-160.0  | 11.2                      | 0.4                | 561.8                  | 0.08                  | 99.24                     |
| 160.0-161.0  | 11.3                      | 0.4                | 562.2                  | 0.07                  | 99.32                     |
| 161.0-162.0  | 11.3                      | 0.4                | 562.6                  | 0.07                  | 99.39                     |
| 162.0-163.0  | 11.3                      | 0.4                | 563.0                  | 0.07                  | 99.45                     |
| 163.0-164.0  | 11.3                      | 0.4                | 563.4                  | 0.06                  | 99.51                     |
| 164.0-165.0  | 11.3                      | 0.3                | 563.7                  | 0.06                  | 99.57                     |
| 165.0-166.0  | 11.3                      | 0.3                | 564.0                  | 0.05                  | 99.63                     |
| 166.0-167.0  | 11.3                      | 0.3                | 564.3                  | 0.05                  | 99.68                     |
| 167.0-168.0  | 11.4                      | 0.3                | 564.6                  | 0.05                  | 99.73                     |
| 168.0-169.0  | 11.4                      | 0.2                | 564.8                  | 0.04                  | 99.77                     |
| 169.0-170.0  | 11.3                      | 0.2                | 565.0                  | 0.04                  | 99.81                     |
| 170.0-171.0  | 11.3                      | 0.2                | 565.2                  | 0.04                  | 99.85                     |
| 171.0-172.0  | 11.3                      | 0.2                | 565.4                  | 0.03                  | 99.88                     |
| 172.0-173.0  | 11.3                      | 0.2                | 565.6                  | 0.03                  | 99.91                     |
| 173.0-174.0  | 11.2                      | 0.1                | 565.7                  | 0.02                  | 99.93                     |
| 174.0-175.0  | 11.1                      | 0.1                | 565.8                  | 0.02                  | 99.95                     |
| 175.0-176.0  | 11.1                      | 0.1                | 565.9                  | 0.02                  | 99.97                     |
| 176.0-177.0  | 11.0                      | 0.1                | 566.0                  | 0.01                  | 99.98                     |
| 177.0-178.0  | 11.0                      | 0.1                | 566.1                  | 0.01                  | 99.99                     |
| 178.0-179.0  | 11.0                      | 0.0                | 566.1                  | 0.01                  | 100.00                    |
| 179.0-180.0  | 11.0                      | 0.0                | 566.1                  | 0.00                  | 100.00                    |

C Plane (°): 0.0-360.0: 30.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature: 25  
 Operator: Nick

Gamma Plane (°): 0.0-180.0: 1.0  
 Test Device: GPM-1800B  
 Distance: 9.028 m  
 Humidity: 60%  
 Inspector: