

Report No.:

Test Time: 2023/9/14 17:38

## Luminaire Property

Luminaire Manufacturer: ACOLYTE

Luminaire Category: CHANNEL

Luminaire Description: CHWH35MRB90SWS2203.030

Luminous Length (mm): 500

Luminous Width (mm): 37.5

Luminous Height (mm): 35

Voltage: 24.0 V

Current: 0.204 A

Power: 4.94 W

Power Factor: 1.000

## Photometric Results

CIE Class: Direct

Measurement Flux: 221.1 lm

Downward Ratio: 99%

Horizontal Diffuse Angle(10%,50%): H159.7,H111.4

Vertical Diffuse Angle(10%,50%): V161.3,V111.4

Luminaire Efficacy Rating (LER): 45

Max. Intensity: 78.14 cd

Total Rated Lamp Lumens: 221.1 lm

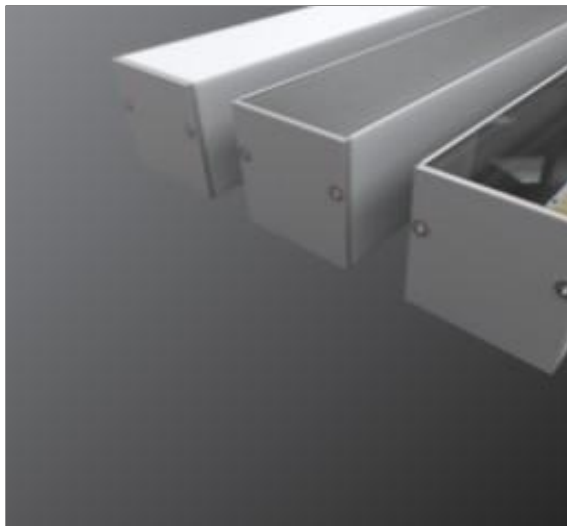
Efficiency: 100%

Upward Ratio: 1%

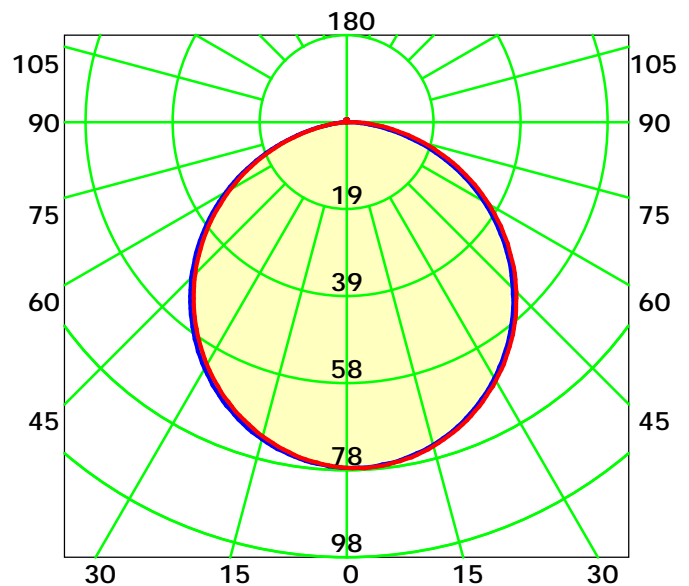
Central Intensity: 77.94 cd

Pos of Max. Intensity: H150 V1

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 111.4° 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

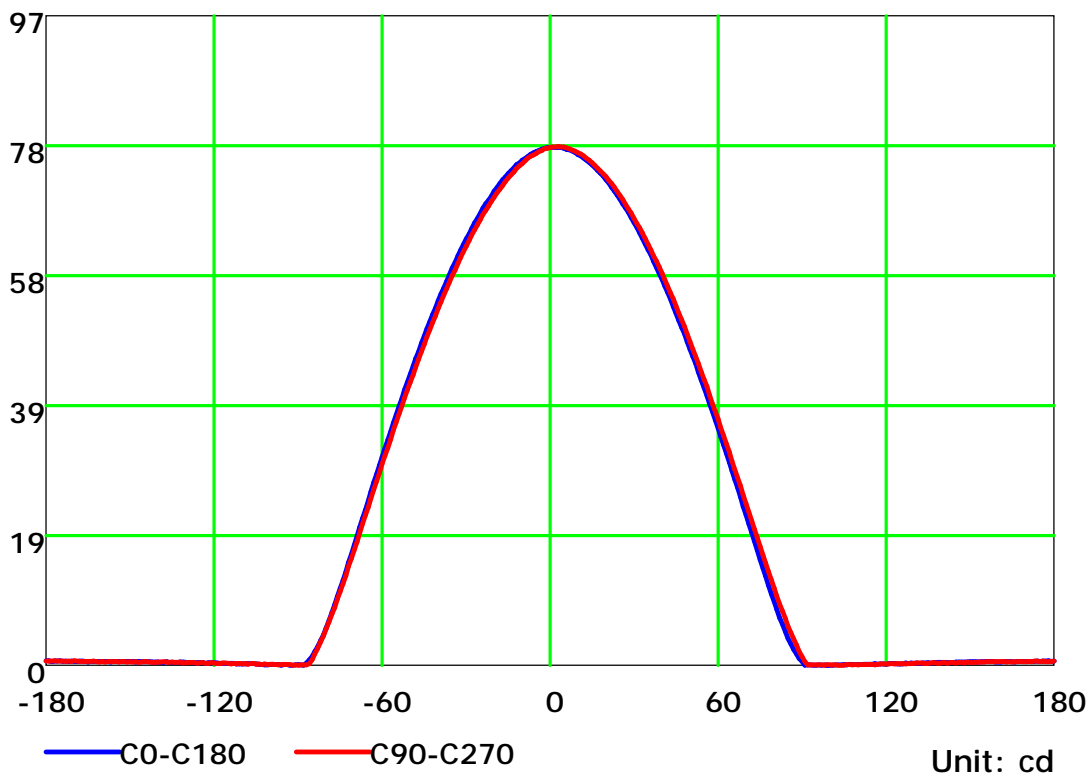
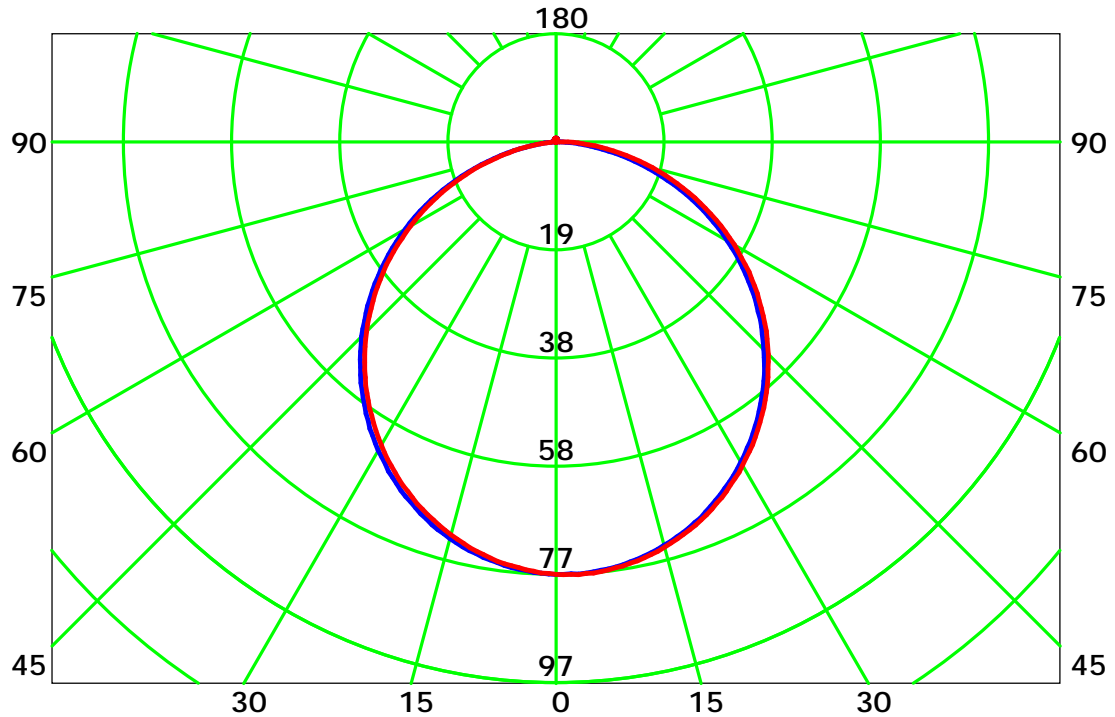
Distance: 9.028 m

Humidity: 60%

Inspector:



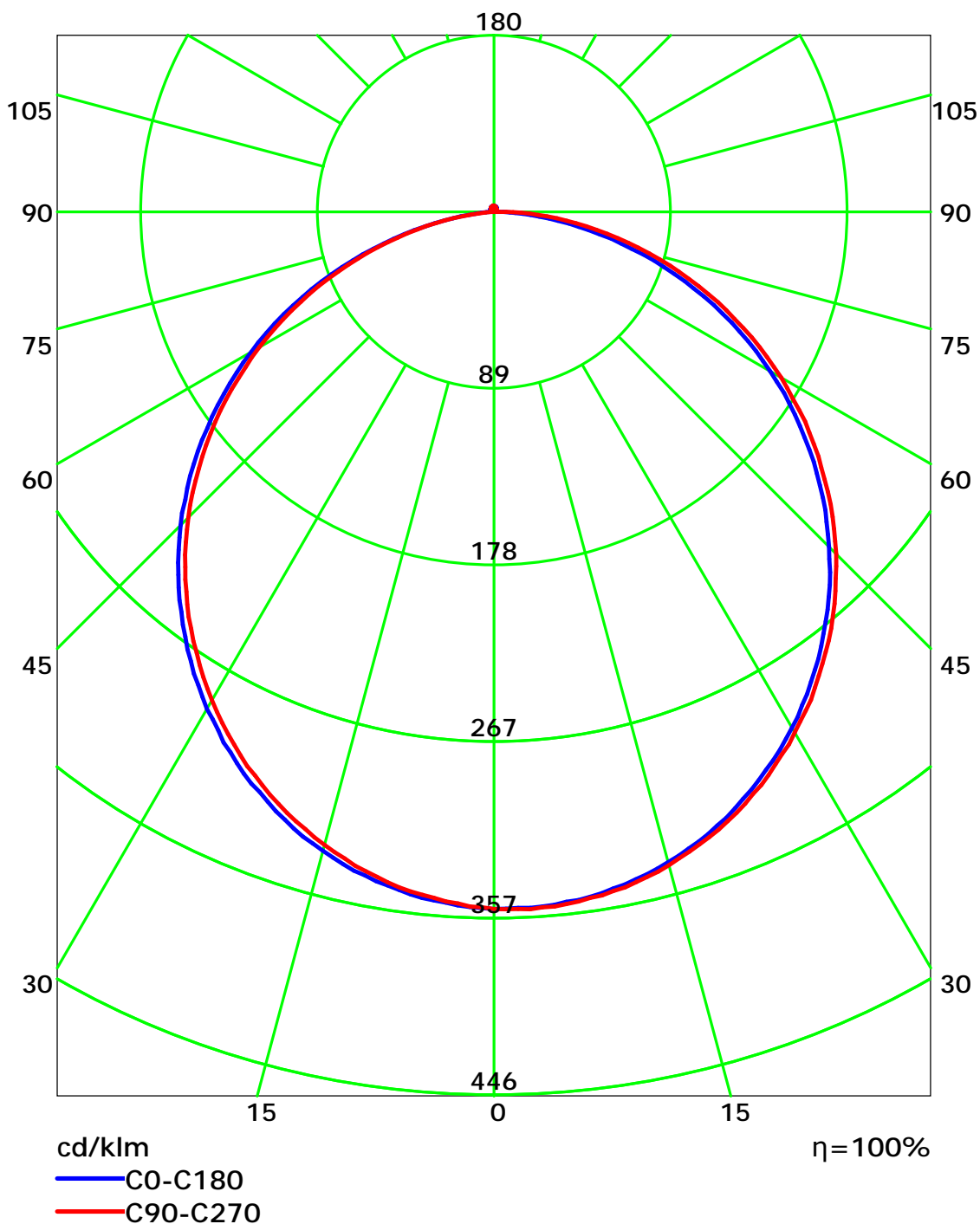
## Luminous Intensity Distribution Curve



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:

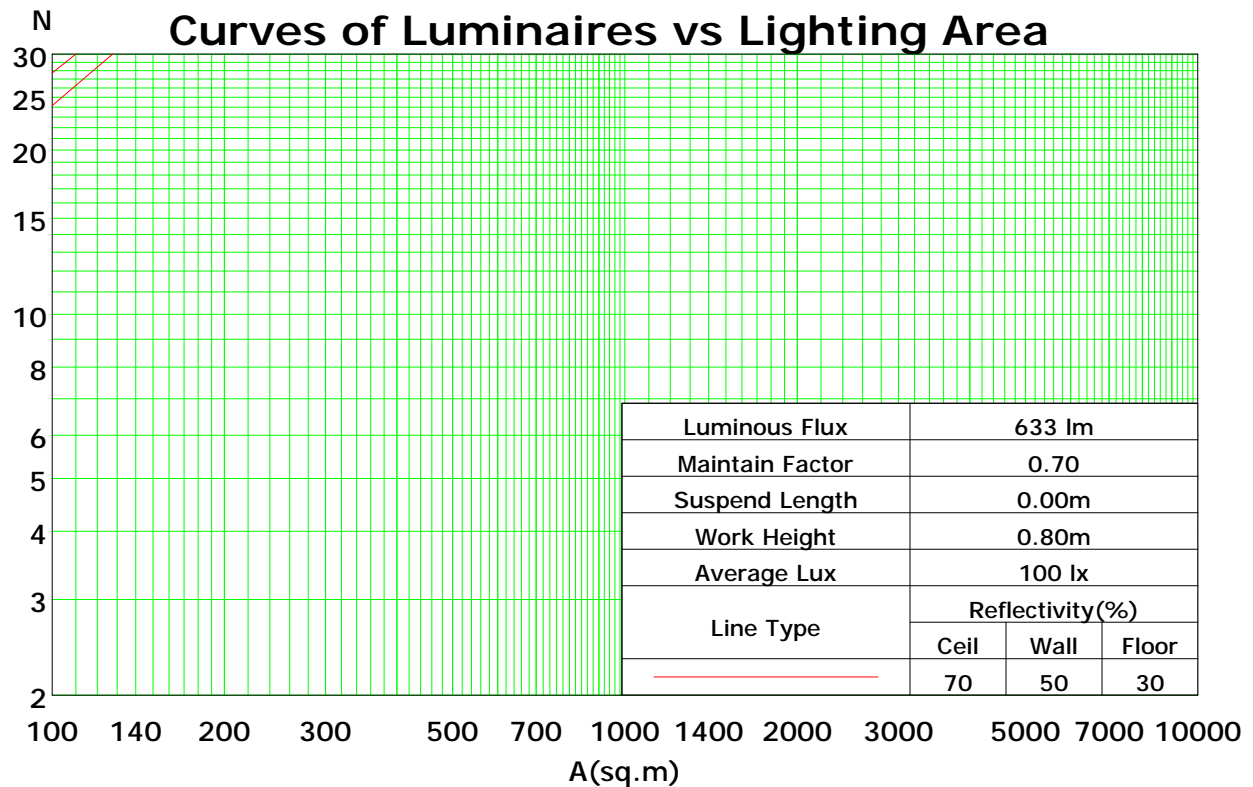
## Coefficients Of Utilization - Zonal Cavity Method

|     |          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |
|-----|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| 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   | 119      | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 101 | 101 | 101 | 99 |
| 1   | 109      | 104 | 99  | 96  | 106 | 101 | 98  | 94  | 97  | 94  | 91  | 93  | 90  | 88  | 89  | 87  | 85  | 83 |
| 2   | 99       | 90  | 84  | 78  | 96  | 88  | 82  | 77  | 85  | 79  | 75  | 81  | 77  | 73  | 78  | 74  | 71  | 69 |
| 3   | 90       | 79  | 71  | 65  | 87  | 78  | 70  | 64  | 75  | 68  | 63  | 72  | 66  | 62  | 69  | 64  | 60  | 58 |
| 4   | 82       | 70  | 61  | 55  | 80  | 69  | 61  | 54  | 66  | 59  | 53  | 64  | 58  | 53  | 61  | 56  | 52  | 50 |
| 5   | 76       | 63  | 54  | 47  | 73  | 62  | 53  | 47  | 59  | 52  | 46  | 57  | 51  | 46  | 55  | 50  | 45  | 43 |
| 6   | 70       | 57  | 48  | 41  | 68  | 55  | 47  | 41  | 54  | 46  | 40  | 52  | 45  | 40  | 50  | 44  | 40  | 37 |
| 7   | 65       | 51  | 42  | 36  | 63  | 50  | 42  | 36  | 49  | 41  | 36  | 47  | 40  | 35  | 46  | 40  | 35  | 33 |
| 8   | 60       | 47  | 38  | 32  | 59  | 46  | 38  | 32  | 45  | 37  | 32  | 43  | 37  | 32  | 42  | 36  | 31  | 29 |
| 9   | 56       | 43  | 35  | 29  | 55  | 42  | 34  | 29  | 41  | 34  | 29  | 40  | 33  | 29  | 39  | 33  | 28  | 27 |
| 10  | 53       | 40  | 32  | 26  | 51  | 39  | 31  | 26  | 38  | 31  | 26  | 37  | 30  | 26  | 36  | 30  | 26  | 24 |

Spacing Criteria (0-180): 1.25

Spacing Criteria (90-270): 1.24

Spacing Criteria (Diagonal): 1.36

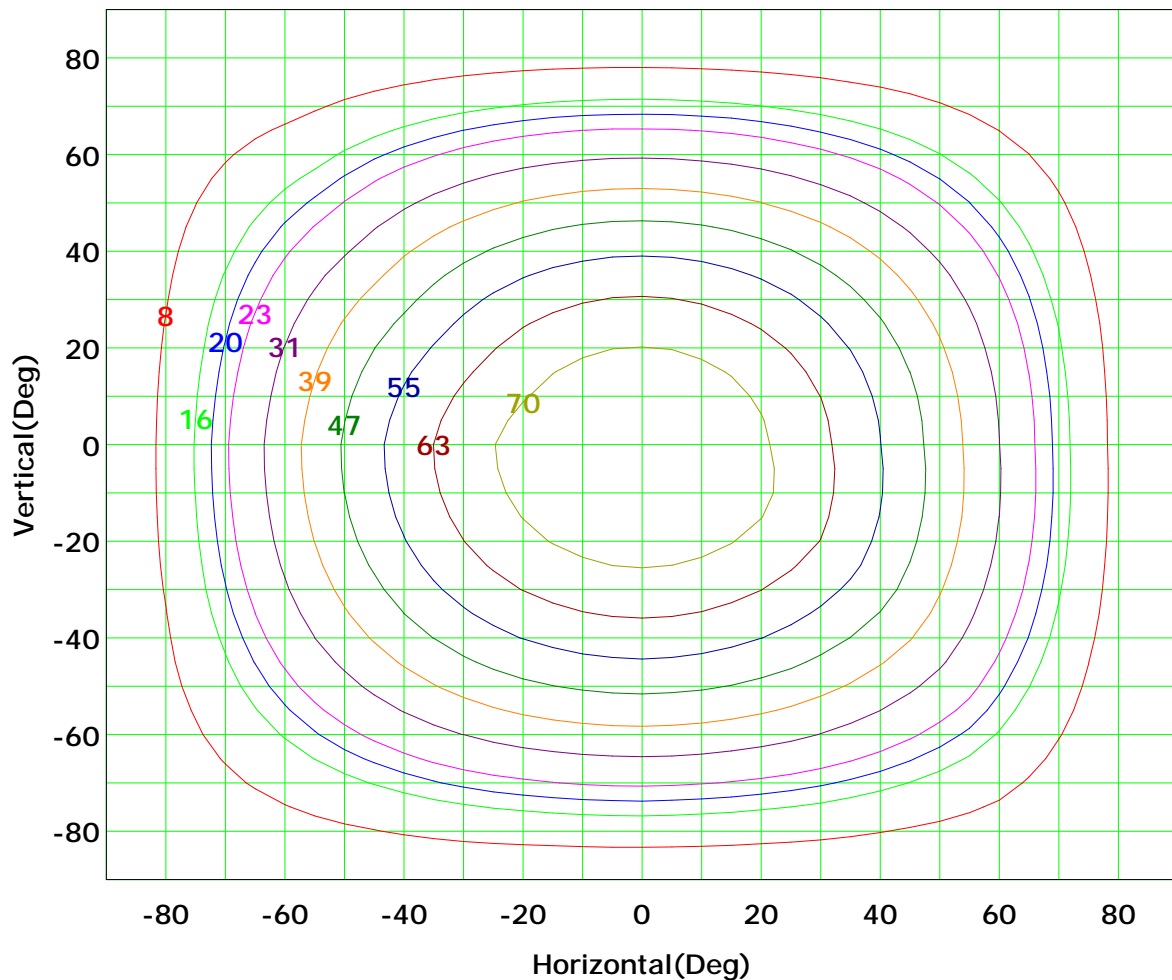


C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Nick

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



## Isocandela (rectangle)



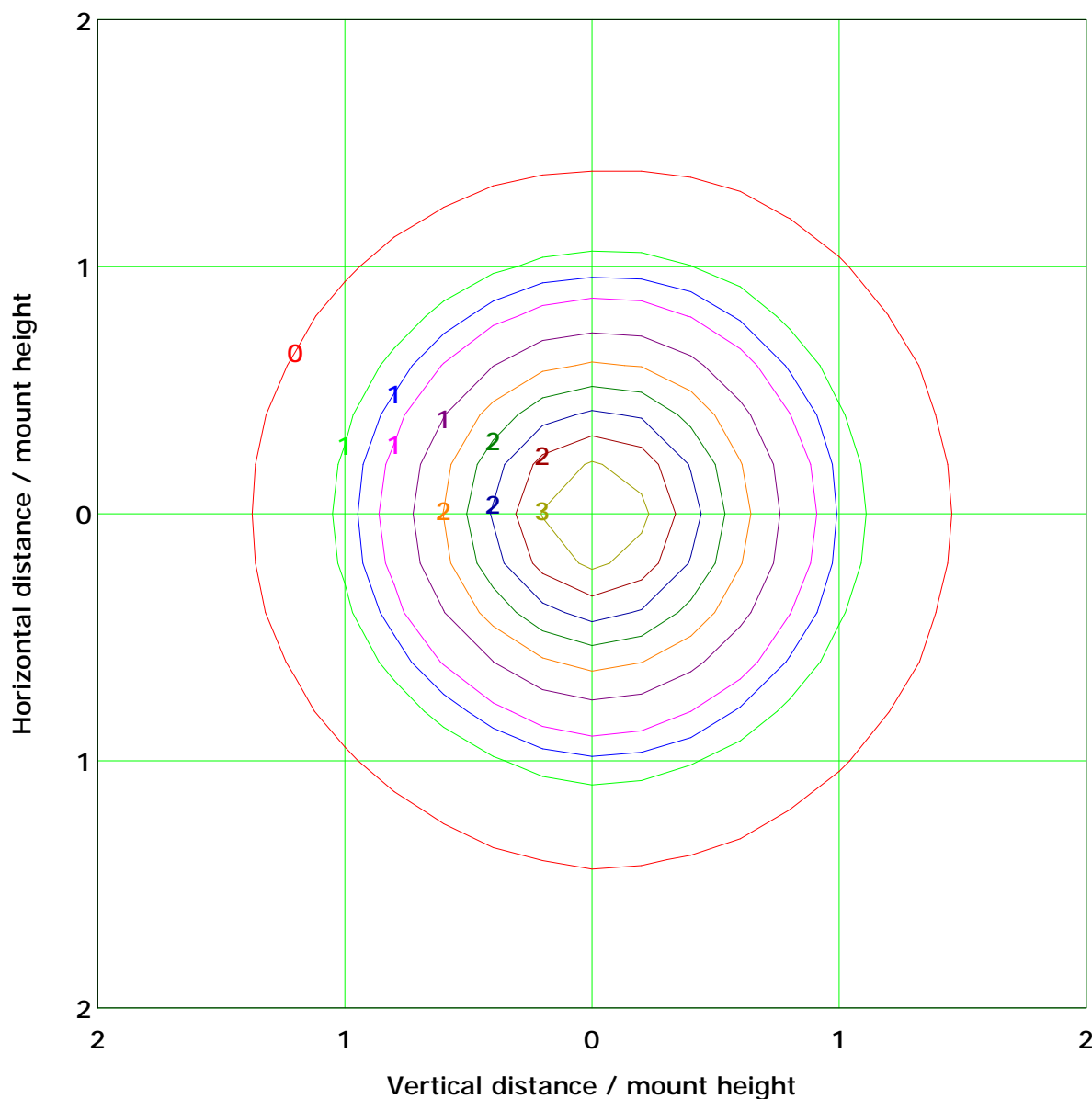
I<sub>max</sub> (100%): 78 cd

|         |       |         |       |
|---------|-------|---------|-------|
| ( 10%): | 8 cd  | ( 20%): | 16 cd |
| ( 25%): | 20 cd | ( 30%): | 23 cd |
| ( 40%): | 31 cd | ( 50%): | 39 cd |
| ( 60%): | 47 cd | ( 70%): | 55 cd |
| ( 80%): | 63 cd | ( 90%): | 70 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%): 3.1 lx

|                |                |
|----------------|----------------|
| ( 10%): 0.3 lx | ( 20%): 0.6 lx |
| ( 25%): 0.8 lx | ( 30%): 0.9 lx |
| ( 40%): 1.2 lx | ( 50%): 1.6 lx |
| ( 60%): 1.9 lx | ( 70%): 2.2 lx |
| ( 80%): 2.5 lx | ( 90%): 2.8 lx |

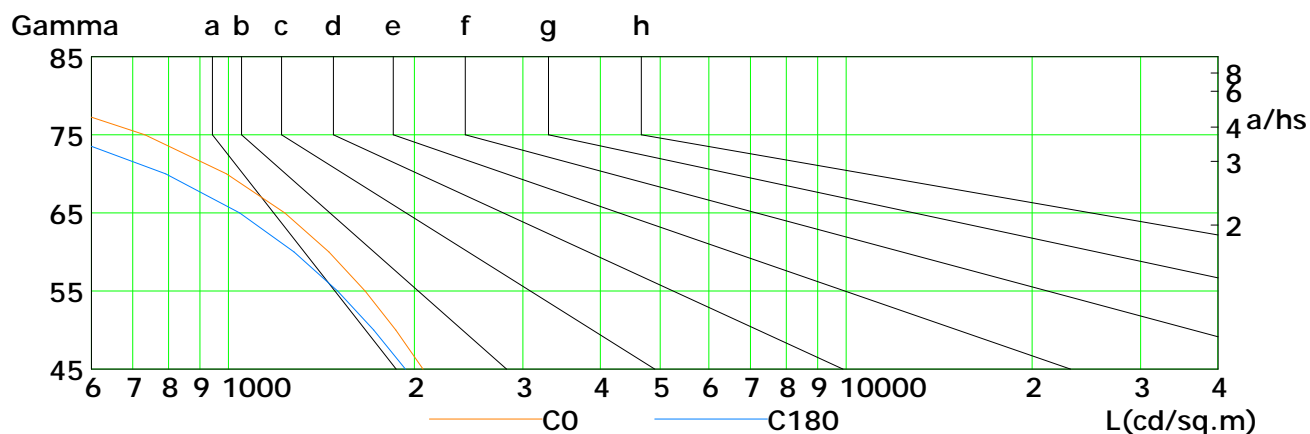
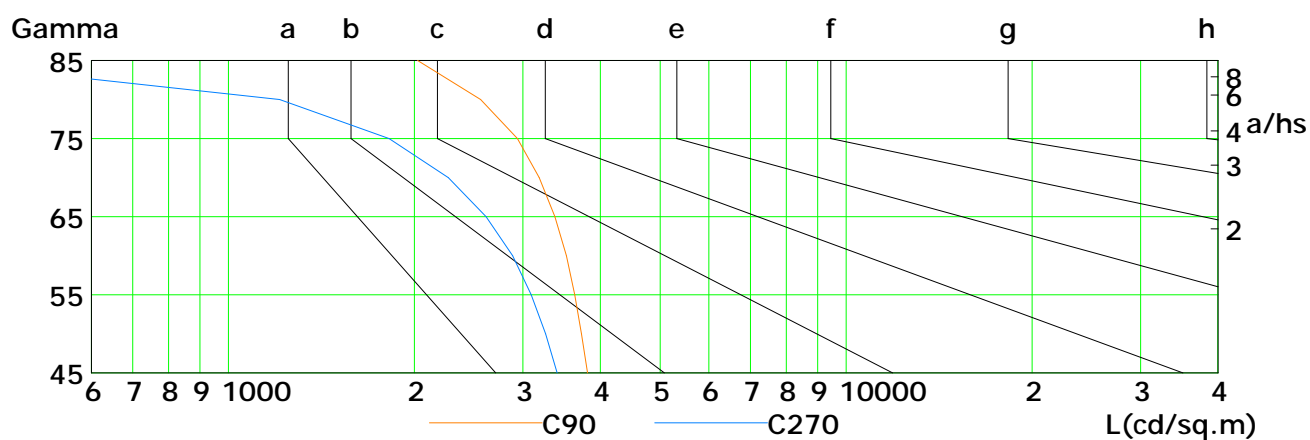
C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Nick

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

## 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



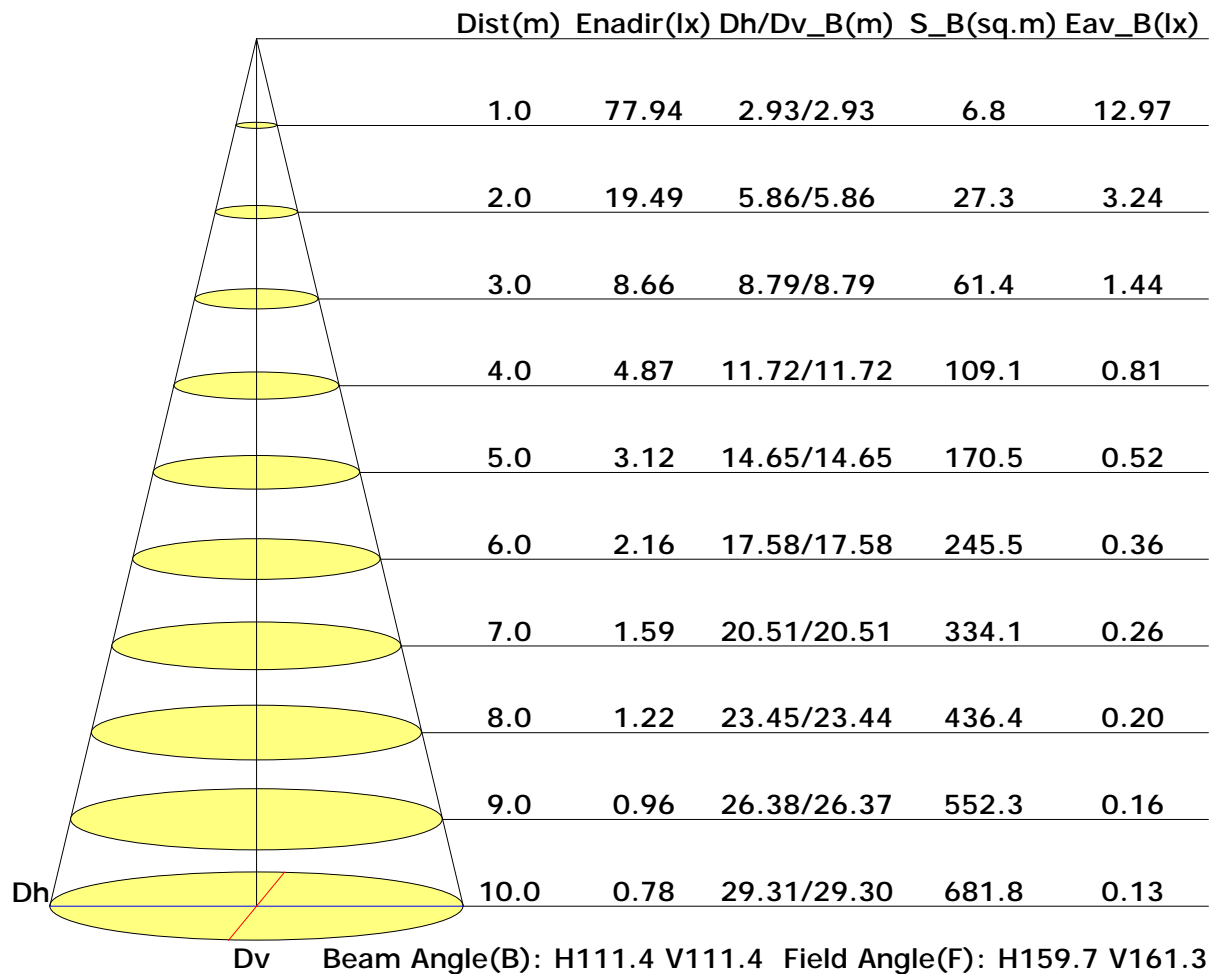
| L(cd/sq.m) | G45  | G50  | G55  | G60  | G65  | G70  | G75  | G80  | G85  |
|------------|------|------|------|------|------|------|------|------|------|
| C0         | 2067 | 1868 | 1665 | 1455 | 1234 | 993  | 733  | 470  | 217  |
| C90        | 3814 | 3731 | 3637 | 3528 | 3377 | 3185 | 2938 | 2561 | 2026 |
| C180       | 1934 | 1720 | 1503 | 1277 | 1043 | 792  | 534  | 276  | 74   |
| C270       | 3407 | 3262 | 3092 | 2885 | 2614 | 2272 | 1822 | 1211 | 323  |

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



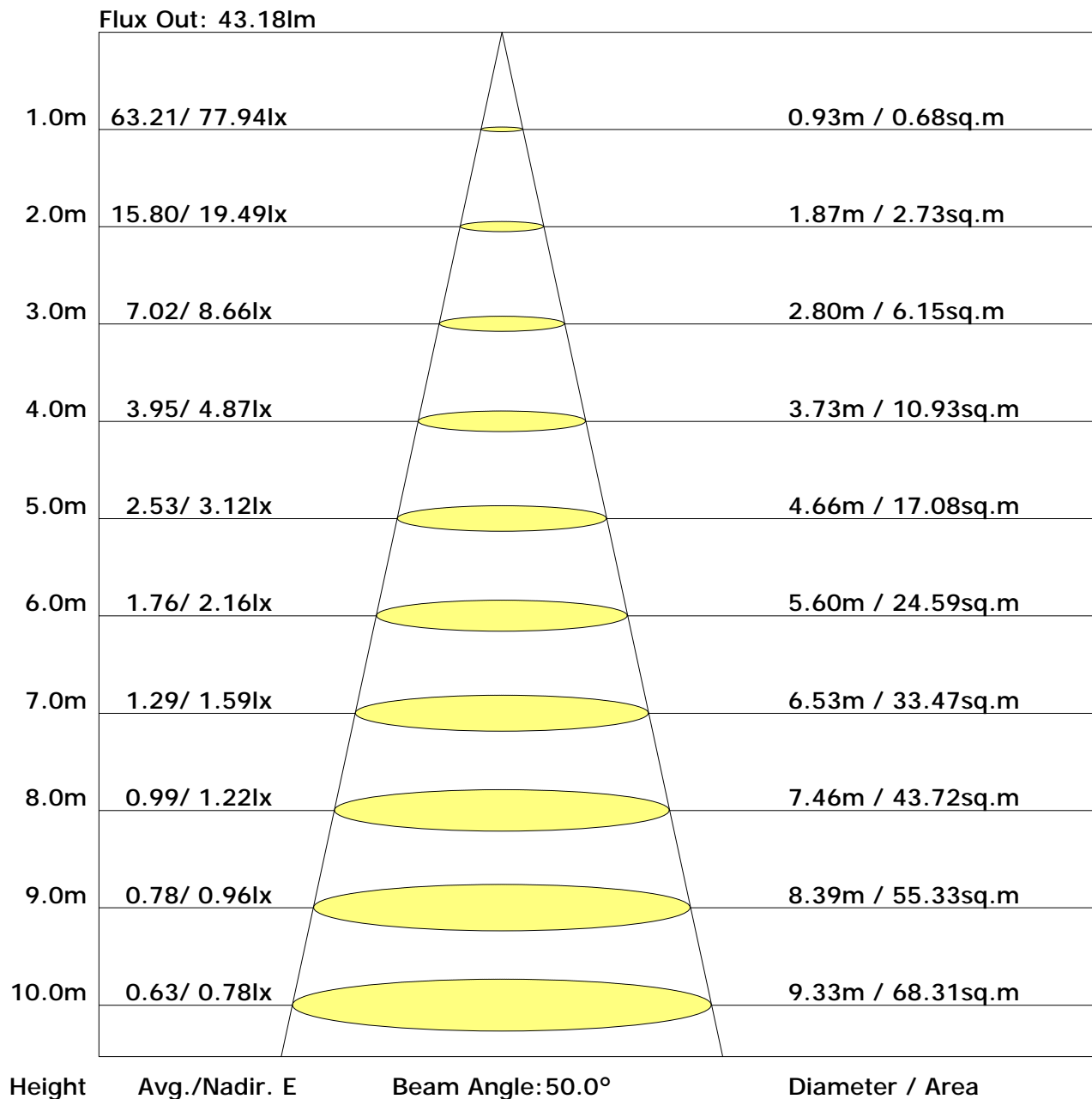




Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 9.028 m  
Humidity: 60%  
Inspector:



## 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        | 20.5             | 22.1 | 20.9 | 22.4 | 22.8 | 19.4           | 21.0 | 19.8 | 21.3 | 21.7 |
| 3H               | 22.3             | 23.7 | 22.7 | 24.1 | 24.5 | 20.9           | 22.3 | 21.3 | 22.7 | 23.1 |
| 4H               | 23.0             | 24.3 | 23.4 | 24.7 | 25.1 | 21.4           | 22.8 | 21.8 | 23.1 | 23.5 |
| 6H               | 23.4             | 24.7 | 23.8 | 25.1 | 25.5 | 21.7           | 23.0 | 22.2 | 23.4 | 23.8 |
| 8H               | 23.6             | 24.8 | 24.0 | 25.2 | 25.6 | 21.8           | 23.0 | 22.3 | 23.4 | 23.9 |
| 12H              | 23.6             | 24.8 | 24.1 | 25.2 | 25.7 | 21.9           | 23.0 | 22.3 | 23.4 | 23.9 |
| X=4H Y=2H        | 20.8             | 22.2 | 21.2 | 22.5 | 22.9 | 20.0           | 21.4 | 20.4 | 21.8 | 22.2 |
| 3H               | 22.8             | 23.9 | 23.2 | 24.3 | 24.7 | 21.7           | 22.9 | 22.1 | 23.3 | 23.7 |
| 4H               | 23.5             | 24.5 | 23.9 | 25.0 | 25.4 | 22.3           | 23.4 | 22.8 | 23.8 | 24.3 |
| 6H               | 24.1             | 25.0 | 24.5 | 25.4 | 25.9 | 22.8           | 23.7 | 23.2 | 24.1 | 24.6 |
| 8H               | 24.2             | 25.1 | 24.7 | 25.5 | 26.0 | 22.9           | 23.7 | 23.3 | 24.2 | 24.7 |
| 12H              | 24.3             | 25.1 | 24.8 | 25.6 | 26.1 | 22.9           | 23.7 | 23.4 | 24.2 | 24.7 |
| X=8H Y=4H        | 23.6             | 24.4 | 24.1 | 24.9 | 25.4 | 22.6           | 23.4 | 23.1 | 23.9 | 24.4 |
| 6H               | 24.2             | 24.9 | 24.7 | 25.4 | 25.9 | 23.1           | 23.8 | 23.6 | 24.3 | 24.8 |
| 8H               | 24.4             | 25.0 | 24.9 | 25.6 | 26.1 | 23.3           | 23.9 | 23.8 | 24.4 | 24.9 |
| 12H              | 24.5             | 25.1 | 25.1 | 25.6 | 26.2 | 23.4           | 24.0 | 23.9 | 24.5 | 25.1 |
| X=12H Y=4H       | 23.6             | 24.4 | 24.1 | 24.8 | 25.3 | 22.6           | 23.4 | 23.1 | 23.9 | 24.4 |
| 6H               | 24.2             | 24.8 | 24.7 | 25.3 | 25.9 | 23.2           | 23.8 | 23.7 | 24.3 | 24.8 |
| 8H               | 24.4             | 25.0 | 24.9 | 25.5 | 26.1 | 23.4           | 23.9 | 23.9 | 24.4 | 25.0 |

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 = 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  | 0.56           | 0.67 | 0.74 | 0.80 | 0.87 | 0.92 | 0.95 | 1.00 | 1.03 |
|  | 0.30 |       | 0.49           | 0.59 | 0.67 | 0.72 | 0.81 | 0.86 | 0.90 | 0.96 | 1.00 |
|  | 0.20 |       | 0.43           | 0.53 | 0.61 | 0.67 | 0.76 | 0.82 | 0.86 | 0.92 | 0.96 |
| 0.50   | 0.50 | 0.20  | 0.55           | 0.65 | 0.72 | 0.77 | 0.84 | 0.88 | 0.92 | 0.96 | 0.99 |
|  | 0.30 |       | 0.48           | 0.58 | 0.65 | 0.71 | 0.78 | 0.84 | 0.87 | 0.93 | 0.96 |
|  | 0.20 |       | 0.42           | 0.53 | 0.60 | 0.66 | 0.74 | 0.80 | 0.84 | 0.89 | 0.93 |
| 0.30   | 0.50 | 0.20  | 0.53           | 0.63 | 0.69 | 0.74 | 0.81 | 0.85 | 0.88 | 0.92 | 0.95 |
|  | 0.30 |       | 0.47           | 0.57 | 0.64 | 0.69 | 0.76 | 0.81 | 0.85 | 0.89 | 0.92 |
|  | 0.20 |       | 0.42           | 0.52 | 0.59 | 0.65 | 0.72 | 0.78 | 0.82 | 0.87 | 0.90 |
| 0.00   | 0.00 | 0.00  | 0.40           | 0.49 | 0.56 | 0.61 | 0.69 | 0.74 | 0.77 | 0.82 | 0.85 |
| Rating:5W 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 = 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  | 1.00           | 0.82 | 0.70 | 0.61 | 0.49 | 0.40 | 0.34 | 0.27 | 0.22 |  |
|  | 0.30 |       | 0.83           | 0.70 | 0.61 | 0.54 | 0.44 | 0.37 | 0.32 | 0.25 | 0.21 |  |
|  | 0.20 |       | 0.71           | 0.61 | 0.54 | 0.48 | 0.40 | 0.34 | 0.30 | 0.24 | 0.20 |  |
| 0.50   | 0.50 | 0.20  | 0.96           | 0.79 | 0.67 | 0.58 | 0.46 | 0.42 | 0.33 | 0.25 | 0.21 |  |
|  | 0.30 |       | 0.81           | 0.68 | 0.59 | 0.52 | 0.42 | 0.36 | 0.31 | 0.24 | 0.20 |  |
|  | 0.20 |       | 0.70           | 0.60 | 0.53 | 0.47 | 0.39 | 0.33 | 0.29 | 0.23 | 0.19 |  |
| 0.30   | 0.50 | 0.20  | 0.93           | 0.76 | 0.64 | 0.56 | 0.44 | 0.37 | 0.31 | 0.24 | 0.20 |  |
|  | 0.30 |       | 0.79           | 0.67 | 0.58 | 0.51 | 0.41 | 0.34 | 0.29 | 0.23 | 0.19 |  |
|  | 0.20 |       | 0.70           | 0.60 | 0.52 | 0.46 | 0.38 | 0.32 | 0.28 | 0.22 | 0.18 |  |
| 0.00   | 0.00 | 0.00  | 0.59           | 0.50 | 0.43 | 0.38 | 0.30 | 0.25 | 0.22 | 0.17 | 0.14 |  |
| Rating:5W 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 = 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  | 0.17           | 0.19 | 0.19 | 0.20 | 0.21 | 0.21 | 0.22 | 0.22 | 0.23 |  |
|  | 0.30 |       | 0.10           | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 |  |
|  | 0.20 |       | 0.06           | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 |  |
| 0.50   | 0.50 | 0.20  | 0.17           | 0.18 | 0.19 | 0.19 | 0.20 | 0.21 | 0.21 | 0.21 | 0.22 |  |
|  | 0.30 |       | 0.10           | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.17 | 0.19 | 0.19 |  |
|  | 0.20 |       | 0.05           | 0.07 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 |  |
| 0.30   | 0.50 | 0.20  | 0.16           | 0.17 | 0.18 | 0.19 | 0.19 | 0.20 | 0.20 | 0.21 | 0.21 |  |
|  | 0.30 |       | 0.10           | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 |  |
|  | 0.20 |       | 0.05           | 0.07 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 |  |
| 0.00   | 0.00 | 0.00  | 0.01           | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |  |
| Rating:5W 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      | 77.9                      | 0.1                | 0.1                    | 0.03                  | 0.03                      |
| 1.0-2.0      | 77.9                      | 0.2                | 0.3                    | 0.10                  | 0.13                      |
| 2.0-3.0      | 77.8                      | 0.4                | 0.7                    | 0.17                  | 0.30                      |
| 3.0-4.0      | 77.7                      | 0.5                | 1.2                    | 0.24                  | 0.54                      |
| 4.0-5.0      | 77.6                      | 0.7                | 1.9                    | 0.30                  | 0.84                      |
| 5.0-6.0      | 77.4                      | 0.8                | 2.7                    | 0.37                  | 1.21                      |
| 6.0-7.0      | 77.3                      | 1.0                | 3.6                    | 0.43                  | 1.64                      |
| 7.0-8.0      | 77.0                      | 1.1                | 4.7                    | 0.50                  | 2.14                      |
| 8.0-9.0      | 76.8                      | 1.2                | 6.0                    | 0.56                  | 2.70                      |
| 9.0-10.0     | 76.5                      | 1.4                | 7.4                    | 0.63                  | 3.33                      |
| 10.0-11.0    | 76.2                      | 1.5                | 8.9                    | 0.69                  | 4.02                      |
| 11.0-12.0    | 75.9                      | 1.7                | 10.5                   | 0.75                  | 4.77                      |
| 12.0-13.0    | 75.5                      | 1.8                | 12.3                   | 0.81                  | 5.58                      |
| 13.0-14.0    | 75.2                      | 1.9                | 14.3                   | 0.87                  | 6.45                      |
| 14.0-15.0    | 74.8                      | 2.1                | 16.3                   | 0.93                  | 7.38                      |
| 15.0-16.0    | 74.3                      | 2.2                | 18.5                   | 0.98                  | 8.36                      |
| 16.0-17.0    | 73.8                      | 2.3                | 20.8                   | 1.04                  | 9.40                      |
| 17.0-18.0    | 73.4                      | 2.4                | 23.2                   | 1.09                  | 10.50                     |
| 18.0-19.0    | 72.9                      | 2.5                | 25.7                   | 1.15                  | 11.64                     |
| 19.0-20.0    | 72.3                      | 2.6                | 28.4                   | 1.20                  | 12.84                     |
| 20.0-21.0    | 71.7                      | 2.8                | 31.2                   | 1.25                  | 14.09                     |
| 21.0-22.0    | 71.2                      | 2.9                | 34.0                   | 1.29                  | 15.38                     |
| 22.0-23.0    | 70.5                      | 3.0                | 37.0                   | 1.34                  | 16.72                     |
| 23.0-24.0    | 69.9                      | 3.1                | 40.0                   | 1.38                  | 18.10                     |
| 24.0-25.0    | 69.2                      | 3.1                | 43.2                   | 1.42                  | 19.53                     |
| 25.0-26.0    | 68.6                      | 3.2                | 46.4                   | 1.46                  | 20.99                     |
| 26.0-27.0    | 67.9                      | 3.3                | 49.7                   | 1.50                  | 22.49                     |
| 27.0-28.0    | 67.1                      | 3.4                | 53.1                   | 1.54                  | 24.03                     |
| 28.0-29.0    | 66.4                      | 3.5                | 56.6                   | 1.57                  | 25.60                     |
| 29.0-30.0    | 65.6                      | 3.5                | 60.1                   | 1.60                  | 27.20                     |
| 30.0-31.0    | 64.8                      | 3.6                | 63.8                   | 1.63                  | 28.83                     |
| 31.0-32.0    | 64.0                      | 3.7                | 67.4                   | 1.66                  | 30.49                     |
| 32.0-33.0    | 63.2                      | 3.7                | 71.1                   | 1.68                  | 32.17                     |
| 33.0-34.0    | 62.3                      | 3.8                | 74.9                   | 1.71                  | 33.88                     |
| 34.0-35.0    | 61.4                      | 3.8                | 78.7                   | 1.73                  | 35.60                     |
| 35.0-36.0    | 60.5                      | 3.9                | 82.6                   | 1.74                  | 37.35                     |

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    | 59.6                      | 3.9                | 86.5                   | 1.76                  | 39.11                     |
| 37.0-38.0    | 58.7                      | 3.9                | 90.4                   | 1.77                  | 40.88                     |
| 38.0-39.0    | 57.7                      | 3.9                | 94.3                   | 1.78                  | 42.66                     |
| 39.0-40.0    | 56.8                      | 4.0                | 98.3                   | 1.79                  | 44.45                     |
| 40.0-41.0    | 55.8                      | 4.0                | 102.3                  | 1.80                  | 46.25                     |
| 41.0-42.0    | 54.8                      | 4.0                | 106.2                  | 1.80                  | 48.05                     |
| 42.0-43.0    | 53.8                      | 4.0                | 110.2                  | 1.80                  | 49.85                     |
| 43.0-44.0    | 52.7                      | 4.0                | 114.2                  | 1.80                  | 51.65                     |
| 44.0-45.0    | 51.7                      | 4.0                | 118.2                  | 1.80                  | 53.44                     |
| 45.0-46.0    | 50.6                      | 4.0                | 122.1                  | 1.79                  | 55.23                     |
| 46.0-47.0    | 49.5                      | 3.9                | 126.1                  | 1.78                  | 57.01                     |
| 47.0-48.0    | 48.4                      | 3.9                | 130.0                  | 1.77                  | 58.78                     |
| 48.0-49.0    | 47.3                      | 3.9                | 133.9                  | 1.76                  | 60.54                     |
| 49.0-50.0    | 46.2                      | 3.8                | 137.7                  | 1.74                  | 62.28                     |
| 50.0-51.0    | 45.0                      | 3.8                | 141.5                  | 1.72                  | 64.00                     |
| 51.0-52.0    | 43.9                      | 3.8                | 145.3                  | 1.70                  | 65.70                     |
| 52.0-53.0    | 42.7                      | 3.7                | 149.0                  | 1.68                  | 67.38                     |
| 53.0-54.0    | 41.5                      | 3.7                | 152.7                  | 1.65                  | 69.04                     |
| 54.0-55.0    | 40.3                      | 3.6                | 156.3                  | 1.63                  | 70.66                     |
| 55.0-56.0    | 39.1                      | 3.5                | 159.8                  | 1.60                  | 72.26                     |
| 56.0-57.0    | 37.9                      | 3.5                | 163.3                  | 1.57                  | 73.83                     |
| 57.0-58.0    | 36.6                      | 3.4                | 166.6                  | 1.53                  | 75.36                     |
| 58.0-59.0    | 35.4                      | 3.3                | 170.0                  | 1.50                  | 76.86                     |
| 59.0-60.0    | 34.1                      | 3.2                | 173.2                  | 1.46                  | 78.32                     |
| 60.0-61.0    | 32.9                      | 3.1                | 176.3                  | 1.42                  | 79.74                     |
| 61.0-62.0    | 31.6                      | 3.0                | 179.4                  | 1.38                  | 81.11                     |
| 62.0-63.0    | 30.4                      | 3.0                | 182.3                  | 1.34                  | 82.45                     |
| 63.0-64.0    | 29.1                      | 2.9                | 185.2                  | 1.29                  | 83.74                     |
| 64.0-65.0    | 27.8                      | 2.7                | 187.9                  | 1.24                  | 84.98                     |
| 65.0-66.0    | 26.5                      | 2.6                | 190.6                  | 1.19                  | 86.18                     |
| 66.0-67.0    | 25.2                      | 2.5                | 193.1                  | 1.14                  | 87.32                     |
| 67.0-68.0    | 23.9                      | 2.4                | 195.5                  | 1.09                  | 88.41                     |
| 68.0-69.0    | 22.6                      | 2.3                | 197.8                  | 1.04                  | 89.46                     |
| 69.0-70.0    | 21.2                      | 2.2                | 200.0                  | 0.99                  | 90.44                     |
| 70.0-71.0    | 19.9                      | 2.1                | 202.1                  | 0.93                  | 91.37                     |
| 71.0-72.0    | 18.7                      | 1.9                | 204.0                  | 0.88                  | 92.25                     |

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    | 17.4                      | 1.8                | 205.8                  | 0.82                  | 93.07                     |
| 73.0-74.0    | 16.1                      | 1.7                | 207.5                  | 0.76                  | 93.84                     |
| 74.0-75.0    | 14.8                      | 1.6                | 209.1                  | 0.71                  | 94.54                     |
| 75.0-76.0    | 13.5                      | 1.4                | 210.5                  | 0.65                  | 95.19                     |
| 76.0-77.0    | 12.3                      | 1.3                | 211.8                  | 0.59                  | 95.79                     |
| 77.0-78.0    | 11.1                      | 1.2                | 213.0                  | 0.54                  | 96.32                     |
| 78.0-79.0    | 9.9                       | 1.1                | 214.1                  | 0.48                  | 96.81                     |
| 79.0-80.0    | 8.7                       | 0.9                | 215.0                  | 0.43                  | 97.23                     |
| 80.0-81.0    | 7.6                       | 0.8                | 215.8                  | 0.37                  | 97.60                     |
| 81.0-82.0    | 6.5                       | 0.7                | 216.5                  | 0.32                  | 97.92                     |
| 82.0-83.0    | 5.5                       | 0.6                | 217.1                  | 0.27                  | 98.20                     |
| 83.0-84.0    | 4.5                       | 0.5                | 217.6                  | 0.22                  | 98.42                     |
| 84.0-85.0    | 3.6                       | 0.4                | 218.0                  | 0.18                  | 98.60                     |
| 85.0-86.0    | 2.8                       | 0.3                | 218.3                  | 0.14                  | 98.74                     |
| 86.0-87.0    | 2.1                       | 0.2                | 218.6                  | 0.10                  | 98.84                     |
| 87.0-88.0    | 1.5                       | 0.2                | 218.7                  | 0.07                  | 98.91                     |
| 88.0-89.0    | 1.1                       | 0.1                | 218.8                  | 0.05                  | 98.97                     |
| 89.0-90.0    | 0.7                       | 0.1                | 218.9                  | 0.04                  | 99.00                     |
| 90.0-91.0    | 0.4                       | 0.0                | 219.0                  | 0.02                  | 99.02                     |
| 91.0-92.0    | 0.2                       | 0.0                | 219.0                  | 0.01                  | 99.03                     |
| 92.0-93.0    | 0.1                       | 0.0                | 219.0                  | 0.01                  | 99.03                     |
| 93.0-94.0    | 0.1                       | 0.0                | 219.0                  | 0.01                  | 99.04                     |
| 94.0-95.0    | 0.1                       | 0.0                | 219.0                  | 0.01                  | 99.05                     |
| 95.0-96.0    | 0.1                       | 0.0                | 219.0                  | 0.01                  | 99.05                     |
| 96.0-97.0    | 0.1                       | 0.0                | 219.0                  | 0.01                  | 99.06                     |
| 97.0-98.0    | 0.1                       | 0.0                | 219.1                  | 0.01                  | 99.07                     |
| 98.0-99.0    | 0.2                       | 0.0                | 219.1                  | 0.01                  | 99.07                     |
| 99.0-100.0   | 0.2                       | 0.0                | 219.1                  | 0.01                  | 99.08                     |
| 100.0-101.0  | 0.1                       | 0.0                | 219.1                  | 0.01                  | 99.09                     |
| 101.0-102.0  | 0.2                       | 0.0                | 219.1                  | 0.01                  | 99.10                     |
| 102.0-103.0  | 0.2                       | 0.0                | 219.1                  | 0.01                  | 99.10                     |
| 103.0-104.0  | 0.2                       | 0.0                | 219.2                  | 0.01                  | 99.11                     |
| 104.0-105.0  | 0.2                       | 0.0                | 219.2                  | 0.01                  | 99.12                     |
| 105.0-106.0  | 0.2                       | 0.0                | 219.2                  | 0.01                  | 99.13                     |
| 106.0-107.0  | 0.2                       | 0.0                | 219.2                  | 0.01                  | 99.14                     |
| 107.0-108.0  | 0.2                       | 0.0                | 219.3                  | 0.01                  | 99.15                     |

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  | 0.2                       | 0.0                | 219.3                  | 0.01                  | 99.16                     |
| 109.0-110.0  | 0.2                       | 0.0                | 219.3                  | 0.01                  | 99.17                     |
| 110.0-111.0  | 0.2                       | 0.0                | 219.3                  | 0.01                  | 99.18                     |
| 111.0-112.0  | 0.3                       | 0.0                | 219.3                  | 0.01                  | 99.20                     |
| 112.0-113.0  | 0.3                       | 0.0                | 219.4                  | 0.01                  | 99.21                     |
| 113.0-114.0  | 0.3                       | 0.0                | 219.4                  | 0.01                  | 99.22                     |
| 114.0-115.0  | 0.3                       | 0.0                | 219.4                  | 0.01                  | 99.23                     |
| 115.0-116.0  | 0.3                       | 0.0                | 219.5                  | 0.01                  | 99.25                     |
| 116.0-117.0  | 0.3                       | 0.0                | 219.5                  | 0.01                  | 99.26                     |
| 117.0-118.0  | 0.3                       | 0.0                | 219.5                  | 0.01                  | 99.27                     |
| 118.0-119.0  | 0.3                       | 0.0                | 219.5                  | 0.01                  | 99.29                     |
| 119.0-120.0  | 0.3                       | 0.0                | 219.6                  | 0.01                  | 99.30                     |
| 120.0-121.0  | 0.3                       | 0.0                | 219.6                  | 0.01                  | 99.31                     |
| 121.0-122.0  | 0.4                       | 0.0                | 219.6                  | 0.01                  | 99.33                     |
| 122.0-123.0  | 0.3                       | 0.0                | 219.7                  | 0.01                  | 99.34                     |
| 123.0-124.0  | 0.4                       | 0.0                | 219.7                  | 0.02                  | 99.36                     |
| 124.0-125.0  | 0.4                       | 0.0                | 219.7                  | 0.02                  | 99.37                     |
| 125.0-126.0  | 0.4                       | 0.0                | 219.8                  | 0.02                  | 99.39                     |
| 126.0-127.0  | 0.4                       | 0.0                | 219.8                  | 0.02                  | 99.40                     |
| 127.0-128.0  | 0.4                       | 0.0                | 219.8                  | 0.02                  | 99.42                     |
| 128.0-129.0  | 0.4                       | 0.0                | 219.9                  | 0.02                  | 99.44                     |
| 129.0-130.0  | 0.4                       | 0.0                | 219.9                  | 0.02                  | 99.45                     |
| 130.0-131.0  | 0.4                       | 0.0                | 220.0                  | 0.02                  | 99.47                     |
| 131.0-132.0  | 0.4                       | 0.0                | 220.0                  | 0.02                  | 99.48                     |
| 132.0-133.0  | 0.5                       | 0.0                | 220.0                  | 0.02                  | 99.50                     |
| 133.0-134.0  | 0.5                       | 0.0                | 220.1                  | 0.02                  | 99.52                     |
| 134.0-135.0  | 0.5                       | 0.0                | 220.1                  | 0.02                  | 99.53                     |
| 135.0-136.0  | 0.5                       | 0.0                | 220.1                  | 0.02                  | 99.55                     |
| 136.0-137.0  | 0.5                       | 0.0                | 220.2                  | 0.02                  | 99.57                     |
| 137.0-138.0  | 0.5                       | 0.0                | 220.2                  | 0.02                  | 99.58                     |
| 138.0-139.0  | 0.5                       | 0.0                | 220.2                  | 0.02                  | 99.60                     |
| 139.0-140.0  | 0.5                       | 0.0                | 220.3                  | 0.02                  | 99.61                     |
| 140.0-141.0  | 0.5                       | 0.0                | 220.3                  | 0.02                  | 99.63                     |
| 141.0-142.0  | 0.5                       | 0.0                | 220.3                  | 0.02                  | 99.65                     |
| 142.0-143.0  | 0.5                       | 0.0                | 220.4                  | 0.02                  | 99.66                     |
| 143.0-144.0  | 0.5                       | 0.0                | 220.4                  | 0.02                  | 99.68                     |

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  | 0.5                       | 0.0                | 220.4                  | 0.02                  | 99.69                     |
| 145.0-146.0  | 0.5                       | 0.0                | 220.5                  | 0.01                  | 99.71                     |
| 146.0-147.0  | 0.5                       | 0.0                | 220.5                  | 0.01                  | 99.72                     |
| 147.0-148.0  | 0.5                       | 0.0                | 220.5                  | 0.01                  | 99.74                     |
| 148.0-149.0  | 0.6                       | 0.0                | 220.6                  | 0.01                  | 99.75                     |
| 149.0-150.0  | 0.6                       | 0.0                | 220.6                  | 0.01                  | 99.77                     |
| 150.0-151.0  | 0.6                       | 0.0                | 220.6                  | 0.01                  | 99.78                     |
| 151.0-152.0  | 0.6                       | 0.0                | 220.7                  | 0.01                  | 99.79                     |
| 152.0-153.0  | 0.6                       | 0.0                | 220.7                  | 0.01                  | 99.81                     |
| 153.0-154.0  | 0.6                       | 0.0                | 220.7                  | 0.01                  | 99.82                     |
| 154.0-155.0  | 0.6                       | 0.0                | 220.8                  | 0.01                  | 99.83                     |
| 155.0-156.0  | 0.6                       | 0.0                | 220.8                  | 0.01                  | 99.85                     |
| 156.0-157.0  | 0.6                       | 0.0                | 220.8                  | 0.01                  | 99.86                     |
| 157.0-158.0  | 0.6                       | 0.0                | 220.8                  | 0.01                  | 99.87                     |
| 158.0-159.0  | 0.6                       | 0.0                | 220.9                  | 0.01                  | 99.88                     |
| 159.0-160.0  | 0.6                       | 0.0                | 220.9                  | 0.01                  | 99.89                     |
| 160.0-161.0  | 0.6                       | 0.0                | 220.9                  | 0.01                  | 99.90                     |
| 161.0-162.0  | 0.6                       | 0.0                | 220.9                  | 0.01                  | 99.91                     |
| 162.0-163.0  | 0.6                       | 0.0                | 220.9                  | 0.01                  | 99.92                     |
| 163.0-164.0  | 0.6                       | 0.0                | 221.0                  | 0.01                  | 99.93                     |
| 164.0-165.0  | 0.6                       | 0.0                | 221.0                  | 0.01                  | 99.94                     |
| 165.0-166.0  | 0.6                       | 0.0                | 221.0                  | 0.01                  | 99.94                     |
| 166.0-167.0  | 0.6                       | 0.0                | 221.0                  | 0.01                  | 99.95                     |
| 167.0-168.0  | 0.6                       | 0.0                | 221.0                  | 0.01                  | 99.96                     |
| 168.0-169.0  | 0.6                       | 0.0                | 221.0                  | 0.01                  | 99.96                     |
| 169.0-170.0  | 0.7                       | 0.0                | 221.1                  | 0.01                  | 99.97                     |
| 170.0-171.0  | 0.7                       | 0.0                | 221.1                  | 0.01                  | 99.98                     |
| 171.0-172.0  | 0.7                       | 0.0                | 221.1                  | 0.00                  | 99.98                     |
| 172.0-173.0  | 0.7                       | 0.0                | 221.1                  | 0.00                  | 99.99                     |
| 173.0-174.0  | 0.7                       | 0.0                | 221.1                  | 0.00                  | 99.99                     |
| 174.0-175.0  | 0.7                       | 0.0                | 221.1                  | 0.00                  | 99.99                     |
| 175.0-176.0  | 0.7                       | 0.0                | 221.1                  | 0.00                  | 100.00                    |
| 176.0-177.0  | 0.7                       | 0.0                | 221.1                  | 0.00                  | 100.00                    |
| 177.0-178.0  | 0.7                       | 0.0                | 221.1                  | 0.00                  | 100.00                    |
| 178.0-179.0  | 0.7                       | 0.0                | 221.1                  | 0.00                  | 100.00                    |
| 179.0-180.0  | 0.7                       | 0.0                | 221.1                  | 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: