



Acolyte

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Report No.:

Test Time: 2018/10/25 10:33

## Luminaire Property

Luminaire Manufacturer:

Luminaire Category: RIBBONLYTE

Luminous Length (mm): 250

Luminous Height (mm): 1

Current: 0.347 A

Power Factor: 1.000

Luminaire Description: RBS220245.0R

Luminous Width (mm): 10

Voltage: 24.0 V

Power: 8.33 W

## Photometric Results

CIE Class: Direct

Measurement Flux: 305.9 lm

Downward Ratio: 99%

Horizontal Diffuse Angle(10%,50%): H166.9,H125

Vertical Diffuse Angle(10%,50%): V162.5,V123.3

Luminaire Efficacy Rating (LER): 37

Max. Intensity: 93.53 cd

Total Rated Lamp Lumens: 305.9 lm

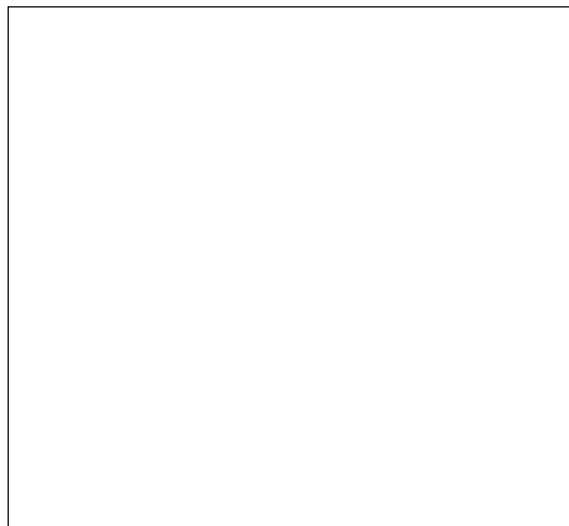
Efficiency: 100%

Upward Ratio: 1%

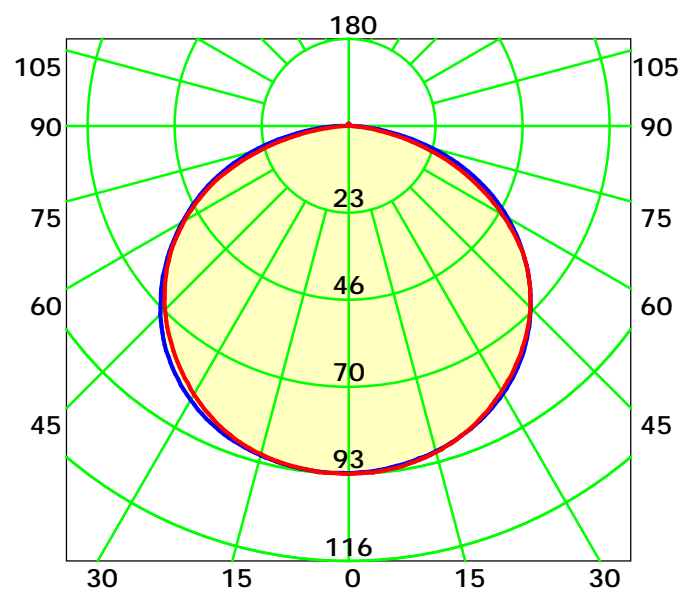
Central Intensity: 93.29 cd

Pos of Max. Intensity: H90 V0

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 124.2° Unit: cd

— C0-C180 — C90-C270

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator: Aaron

Gamma Plane (°):0.0-180.0: 1.0

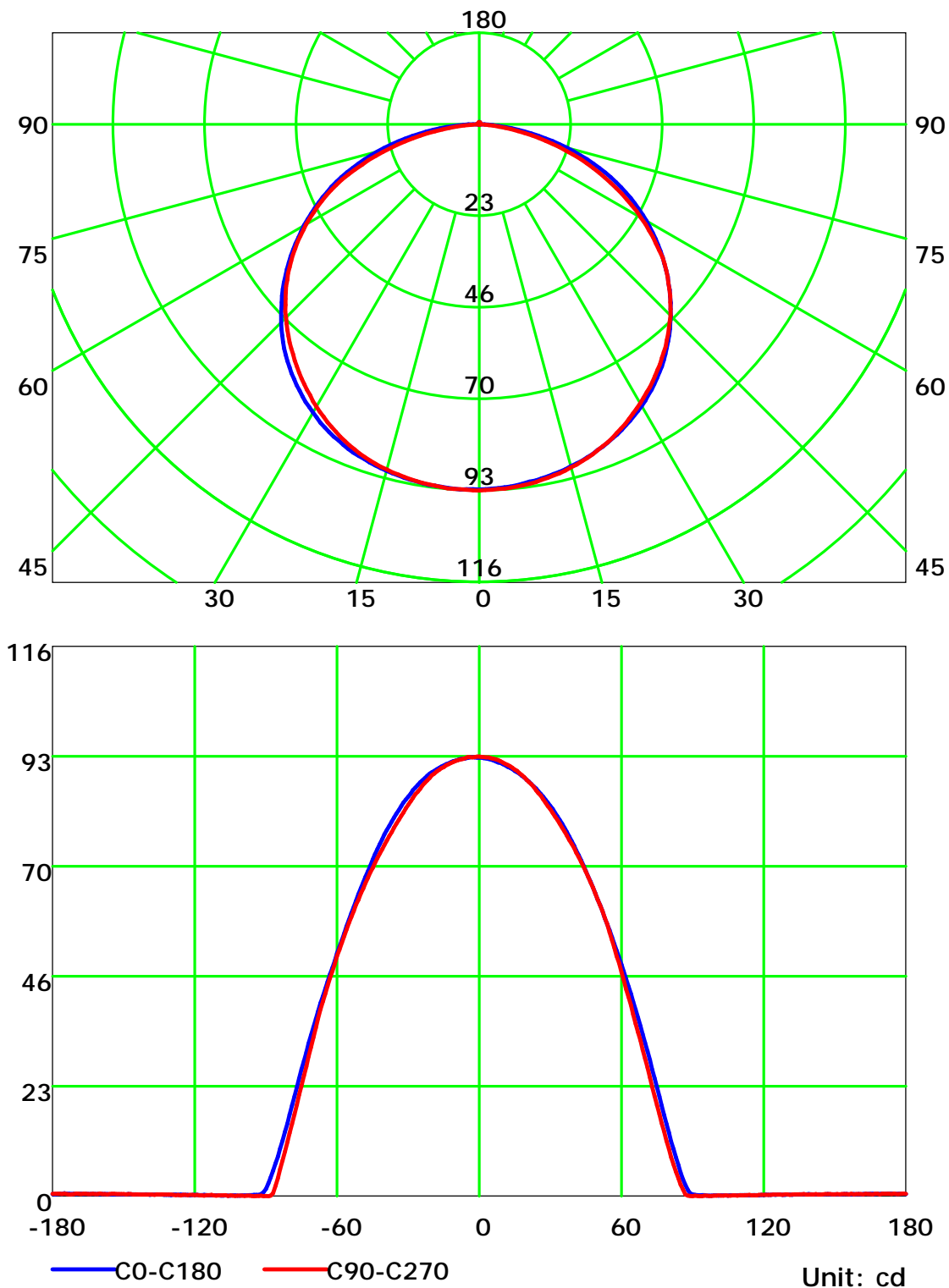
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

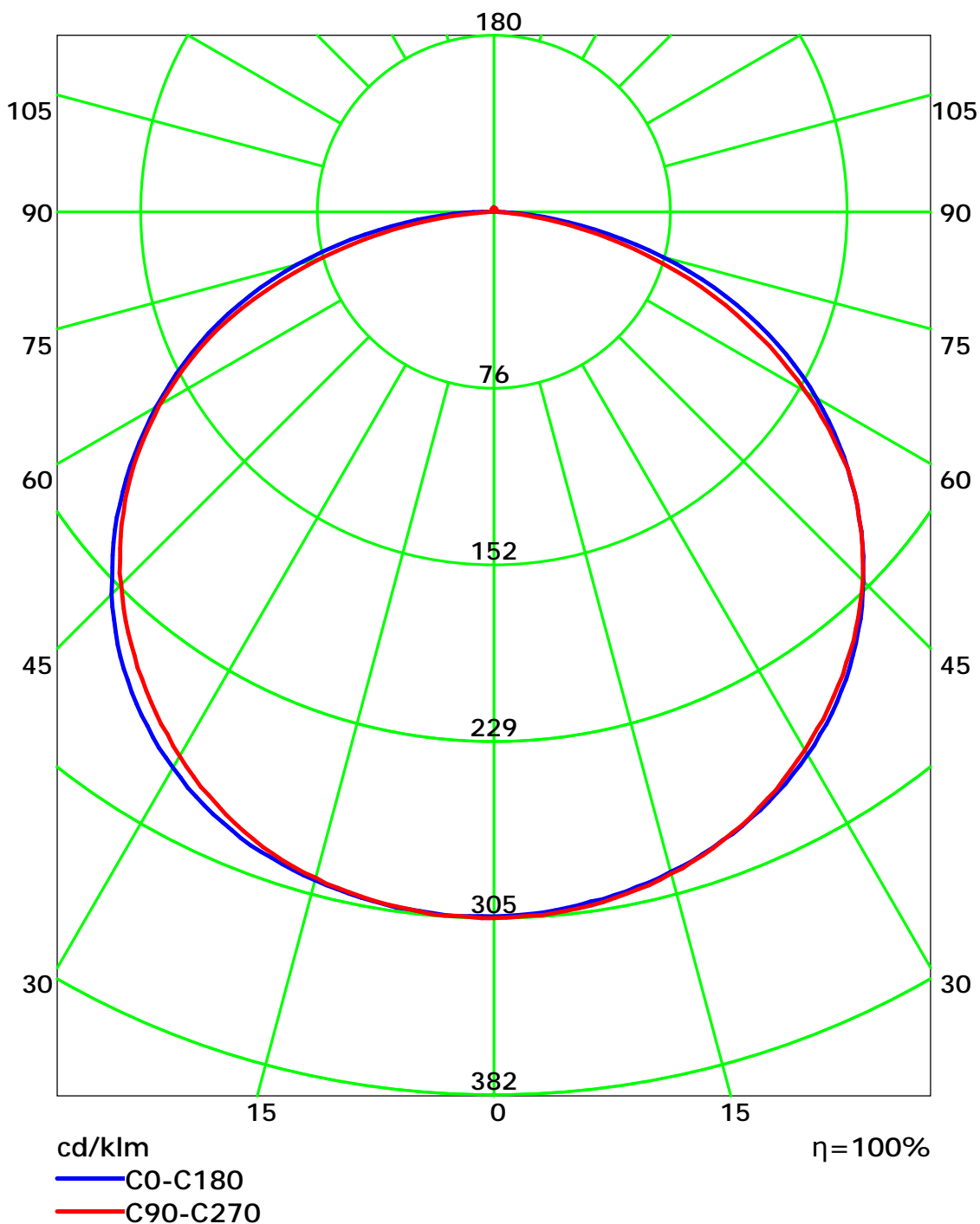
## Luminous Intensity Distribution Curve



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

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: Aaron

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



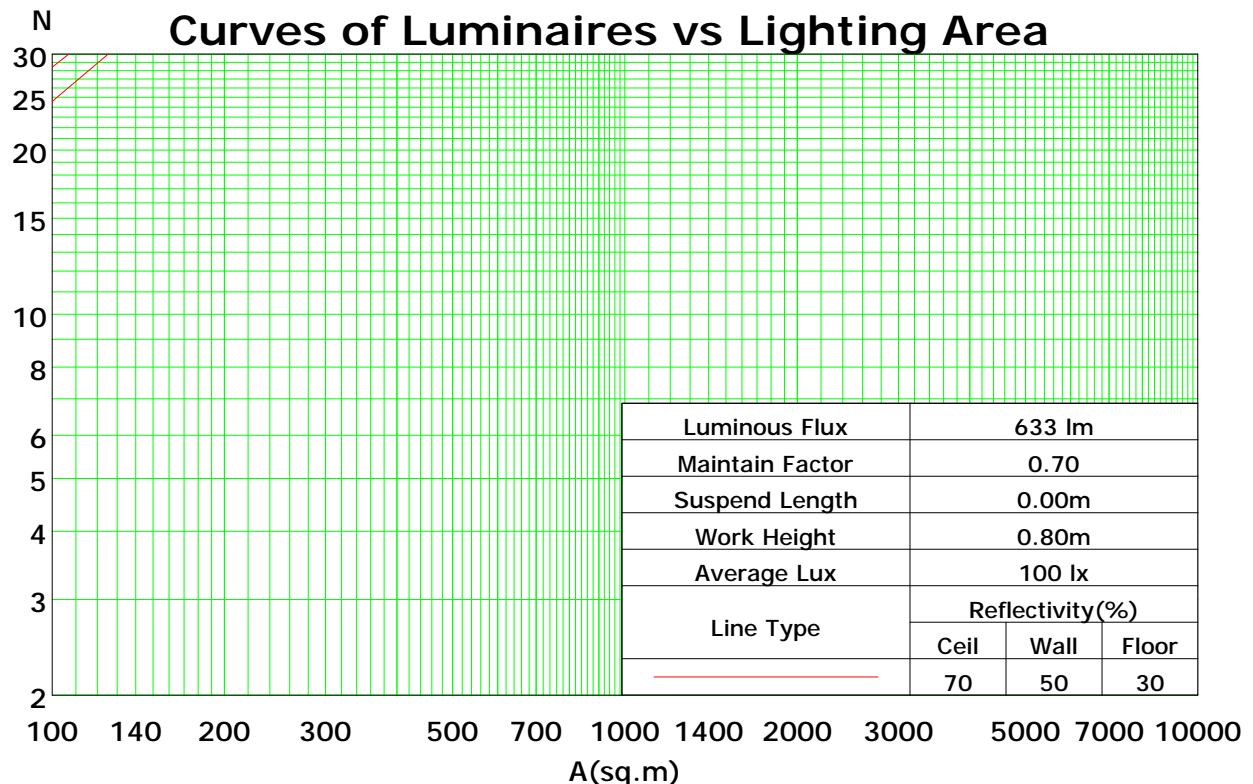
## Coefficients Of Utilization - Zonal Cavity Method

|     |          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |
|-----|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| 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   | 108      | 103 | 98  | 94  | 105 | 100 | 96  | 93  | 96  | 93  | 89  | 92  | 89  | 87  | 88  | 86  | 84  | 82 |
| 2   | 98       | 89  | 82  | 76  | 95  | 87  | 80  | 75  | 83  | 78  | 73  | 80  | 75  | 71  | 77  | 73  | 69  | 67 |
| 3   | 89       | 77  | 69  | 62  | 86  | 76  | 68  | 62  | 73  | 66  | 60  | 70  | 64  | 59  | 67  | 62  | 58  | 56 |
| 4   | 81       | 68  | 59  | 52  | 78  | 67  | 58  | 52  | 64  | 57  | 51  | 62  | 55  | 50  | 59  | 54  | 49  | 47 |
| 5   | 74       | 61  | 51  | 45  | 72  | 60  | 51  | 44  | 57  | 50  | 44  | 55  | 48  | 43  | 53  | 47  | 43  | 40 |
| 6   | 68       | 54  | 45  | 39  | 66  | 53  | 45  | 38  | 52  | 44  | 38  | 50  | 43  | 38  | 48  | 42  | 37  | 35 |
| 7   | 63       | 49  | 40  | 34  | 61  | 48  | 40  | 34  | 47  | 39  | 33  | 45  | 38  | 33  | 44  | 38  | 33  | 31 |
| 8   | 59       | 45  | 36  | 30  | 57  | 44  | 36  | 30  | 43  | 35  | 30  | 41  | 34  | 29  | 40  | 34  | 29  | 27 |
| 9   | 55       | 41  | 33  | 27  | 53  | 40  | 32  | 27  | 39  | 32  | 27  | 38  | 31  | 26  | 37  | 31  | 26  | 24 |
| 10  | 51       | 38  | 30  | 24  | 50  | 37  | 29  | 24  | 36  | 29  | 24  | 35  | 29  | 24  | 34  | 28  | 24  | 22 |

Spacing Criteria (0-180): 1.34

Spacing Criteria (90-270): 1.32

Spacing Criteria (Diagonal): 1.45



C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator: Aaron

Gamma Plane (°):0.0-180.0:1.0

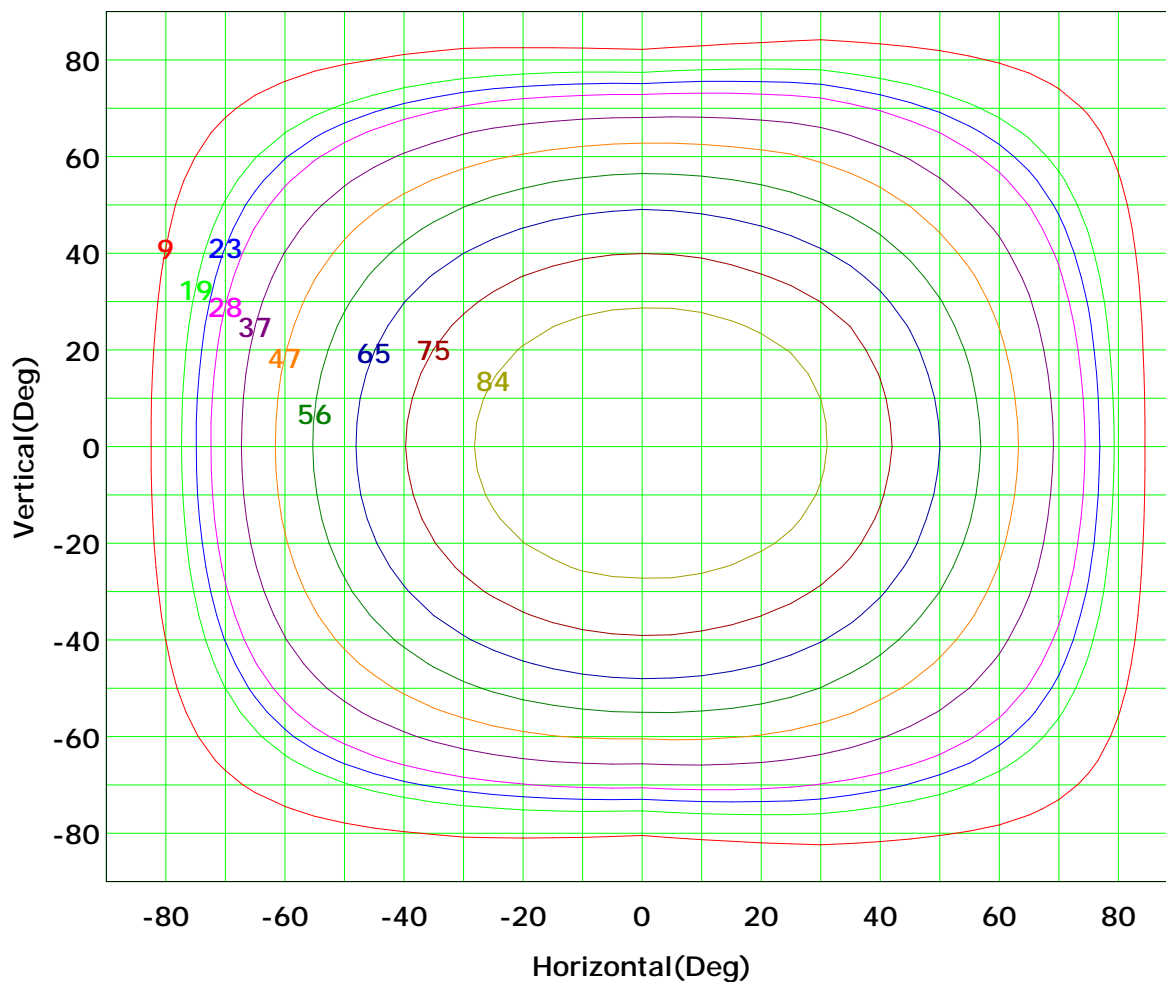
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

## Isocandela (rectangle)



Imax (100%): 94 cd

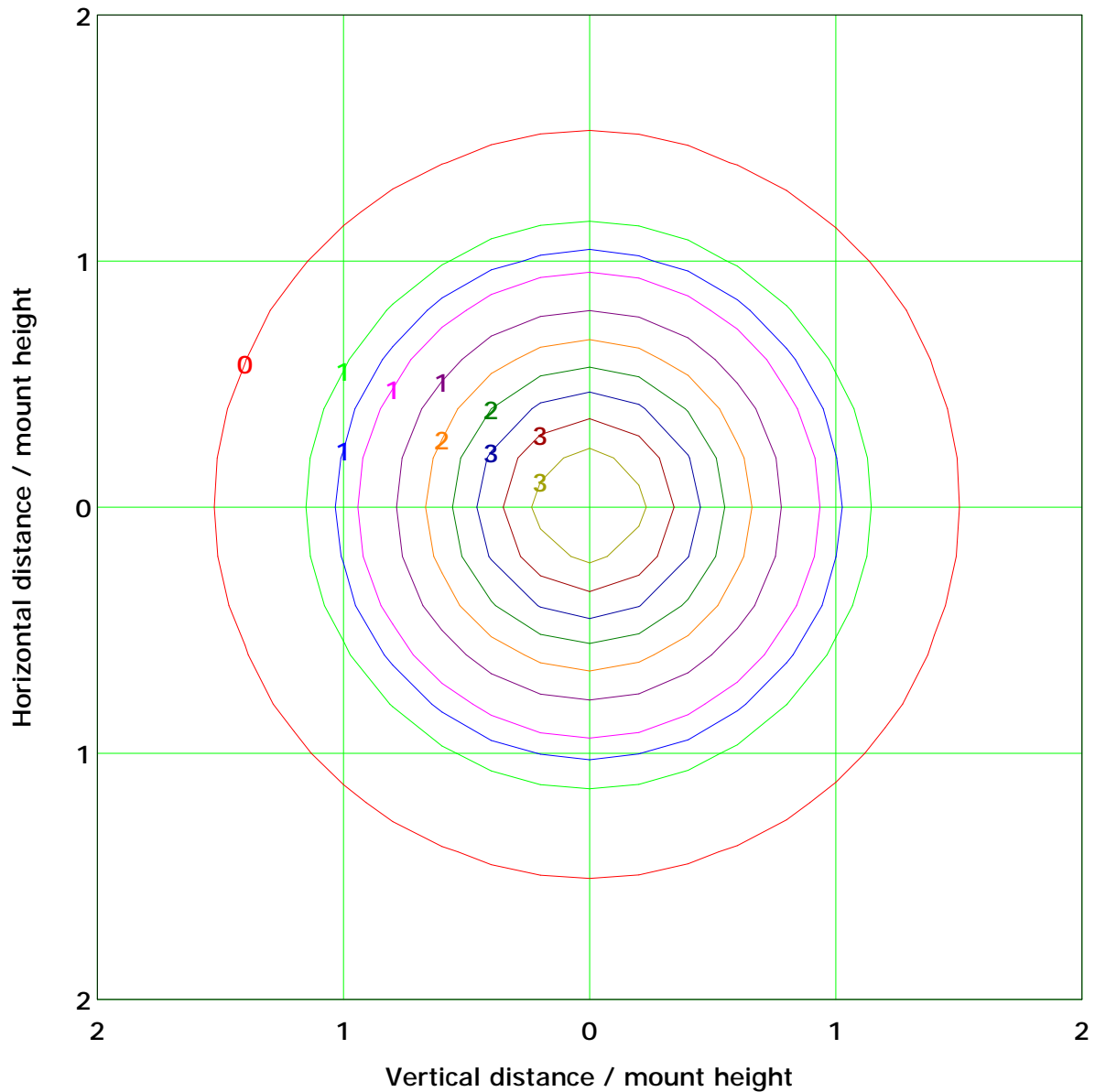
|         |       |         |       |
|---------|-------|---------|-------|
| ( 10%): | 9 cd  | ( 20%): | 19 cd |
| ( 25%): | 23 cd | ( 30%): | 28 cd |
| ( 40%): | 37 cd | ( 50%): | 47 cd |
| ( 60%): | 56 cd | ( 70%): | 65 cd |
| ( 80%): | 75 cd | ( 90%): | 84 cd |

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

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%): 3.7 lx

|                |                |
|----------------|----------------|
| ( 10%): 0.4 lx | ( 20%): 0.7 lx |
| ( 25%): 0.9 lx | ( 30%): 1.1 lx |
| ( 40%): 1.5 lx | ( 50%): 1.9 lx |
| ( 60%): 2.2 lx | ( 70%): 2.6 lx |
| ( 80%): 3.0 lx | ( 90%): 3.4 lx |

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator: Aaron

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

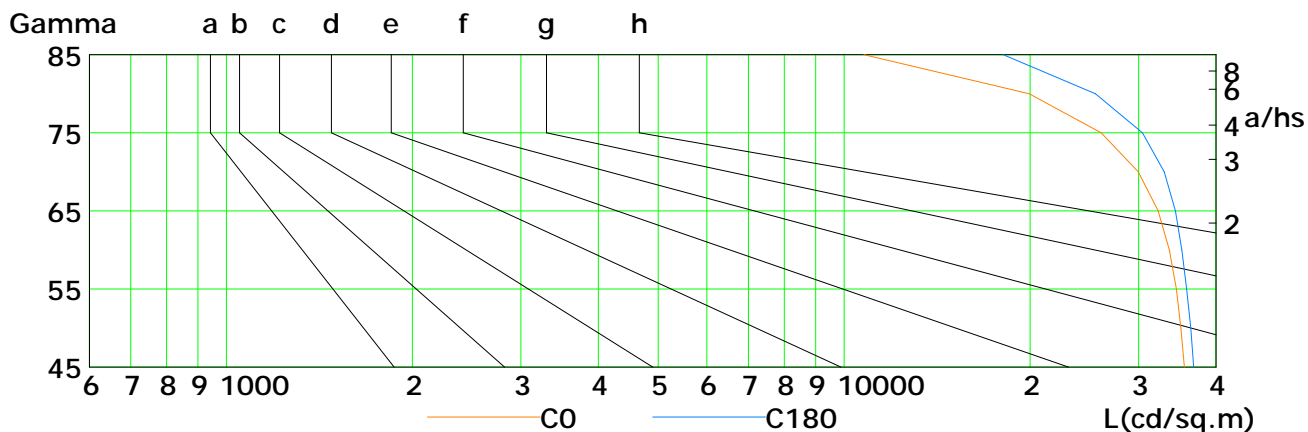
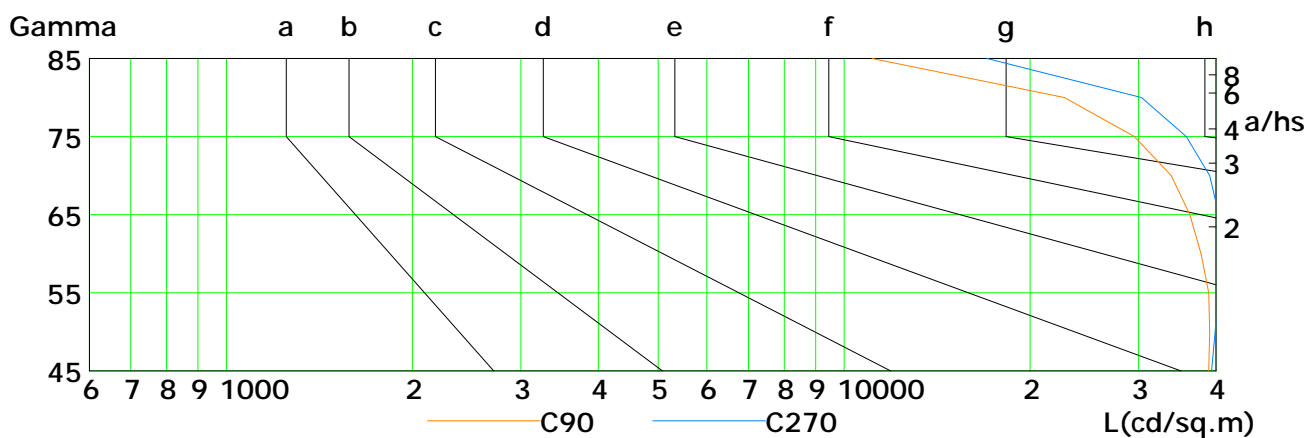
Inspector:



## 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         | 35576 | 35085 | 34515 | 33610 | 32242 | 29955 | 26066 | 19946 | 10772 |
| C90        | 38927 | 39080 | 38928 | 37850 | 36280 | 33883 | 29541 | 22727 | 11104 |
| C180       | 36826 | 36425 | 35881 | 35247 | 34393 | 32992 | 30421 | 25532 | 18097 |
| C270       | 39339 | 39885 | 40315 | 40615 | 40475 | 39100 | 35830 | 30317 | 17029 |

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator: Aaron

Gamma Plane (°):0.0-180.0:1.0

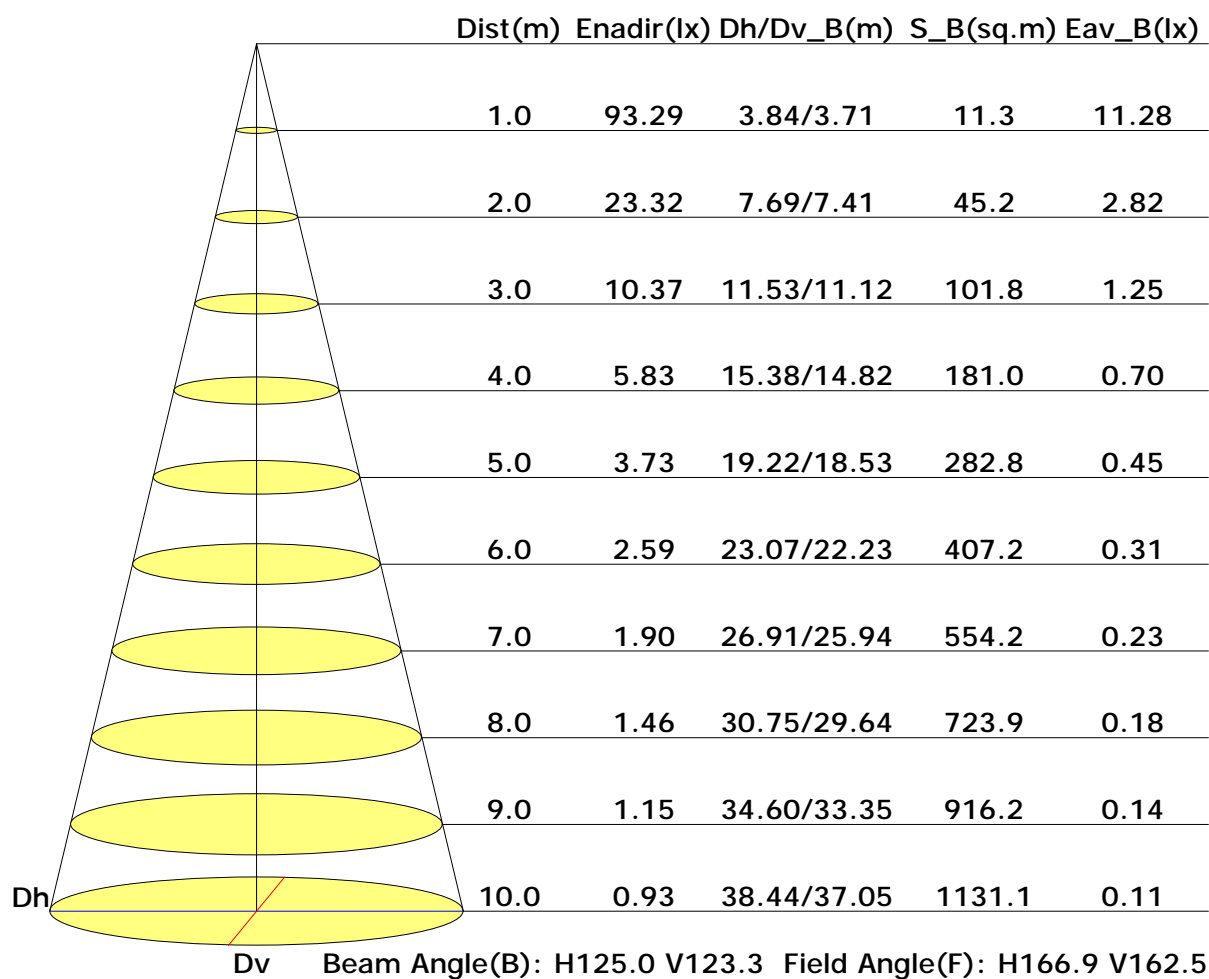
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

## Illuminance at a Distance



C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator: Aaron

Gamma Plane (°):0.0-180.0: 1.0

Test Device: GPM-1800B

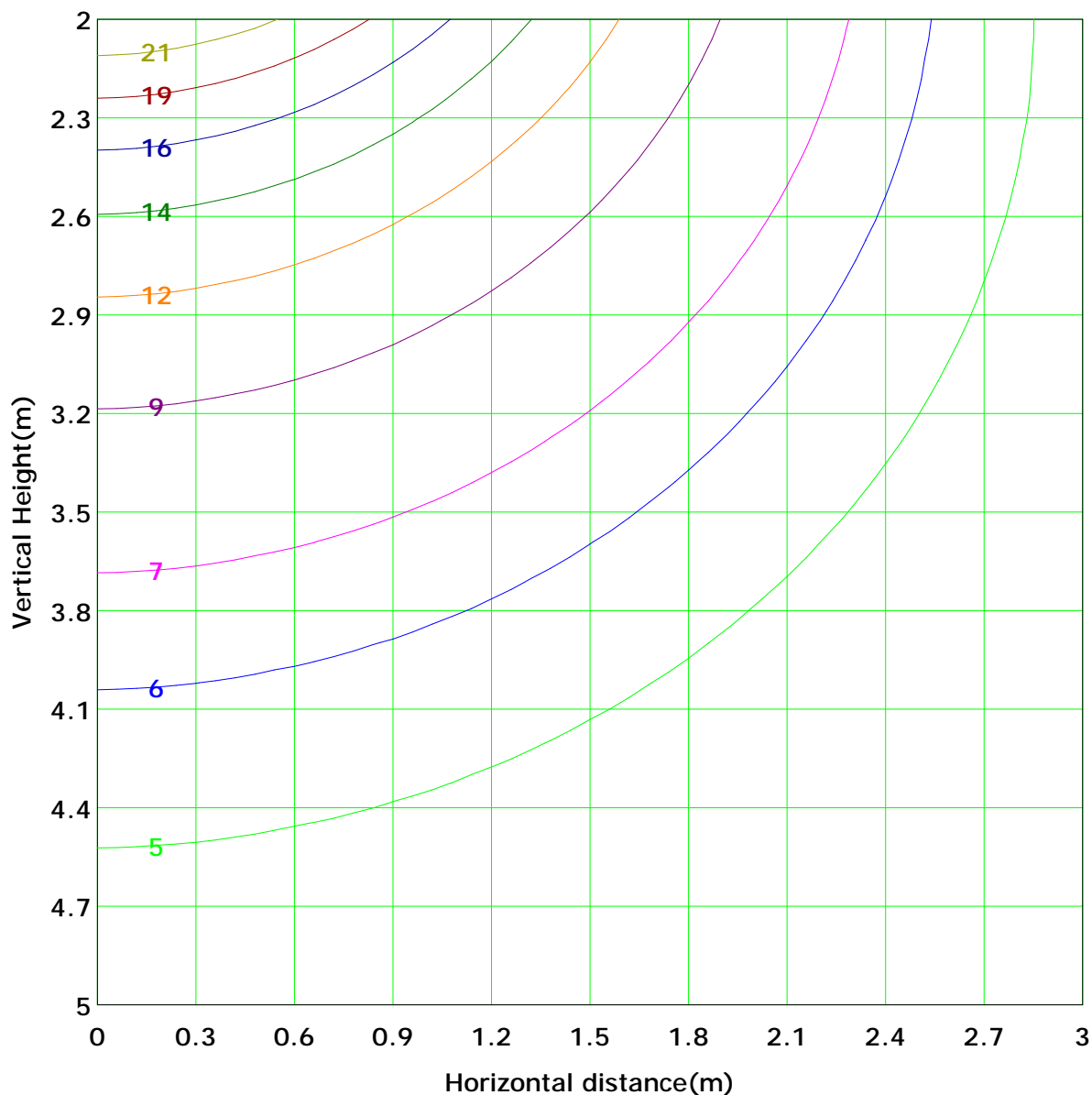
Distance: 9.028 m

Humidity: 60%

Inspector:



## Vertical IsoLux Plot



|                 |                  |                  |
|-----------------|------------------|------------------|
| Lowest(m): 2.0m | Highest(m): 5.0m | Max Lux: 23.3 lx |
| ( 10%): 2.3 lx  | ( 20%): 4.7 lx   |                  |
| ( 25%): 5.8 lx  | ( 30%): 7.0 lx   |                  |
| ( 40%): 9.3 lx  | ( 50%): 11.7 lx  |                  |
| ( 60%): 14.0 lx | ( 70%): 16.3 lx  |                  |
| ( 80%): 18.7 lx | ( 90%): 21.0 lx  |                  |

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator: Aaron

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:



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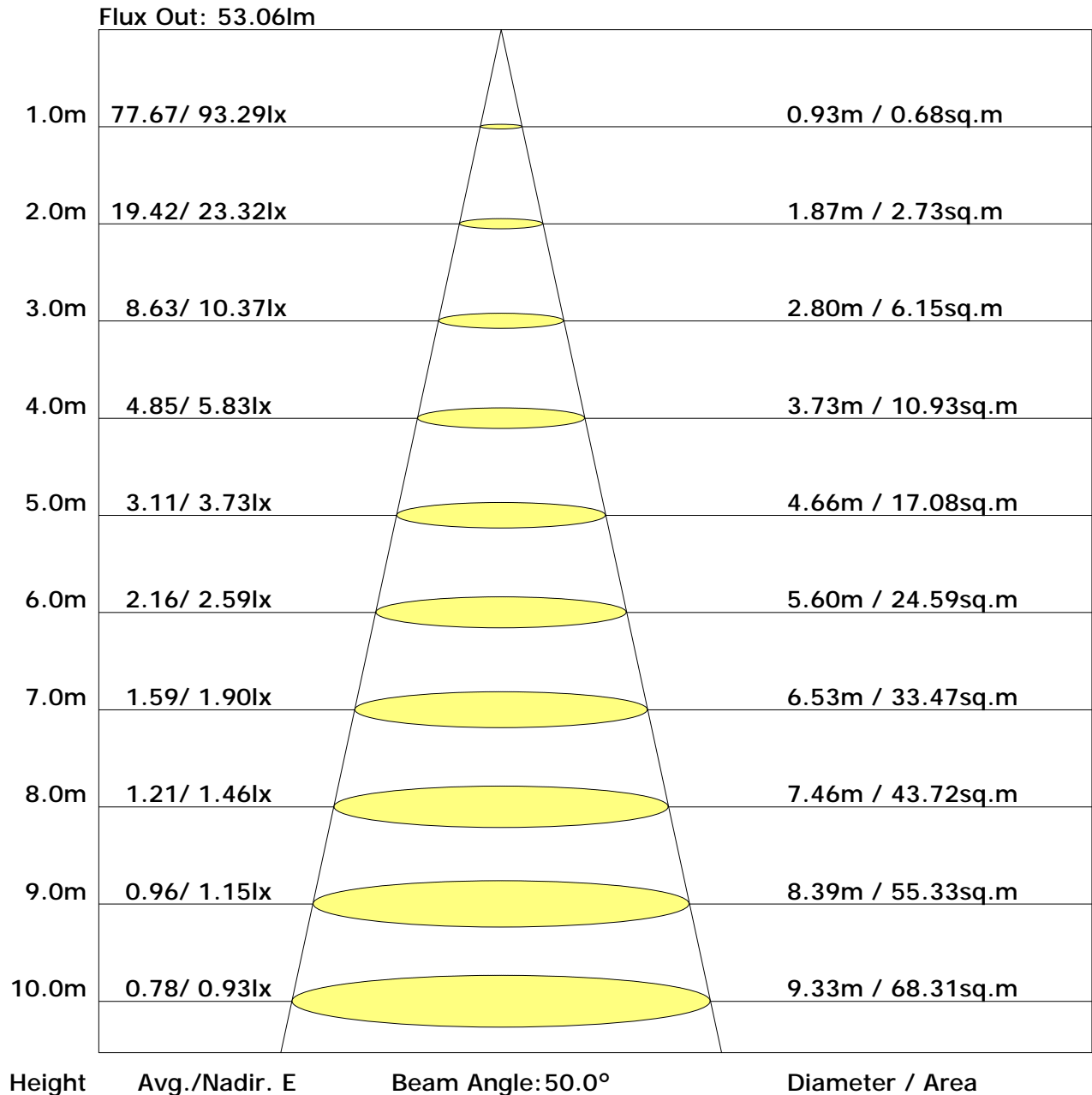
## Unit: lm

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

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



## The Average Illuminance Effective Figure





## UGR Table

|                  |                  |      |      |      |      |                |      |      |      |      |
|------------------|------------------|------|------|------|------|----------------|------|------|------|------|
| Reflectance:     |                  |      |      |      |      |                |      |      |      |      |
| Ceiling (cavity) | 0.7              | 0.7  | 0.5  | 0.5  | 0.3  | 0.7            | 0.7  | 0.5  | 0.5  | 0.3  |
| Wall             | 0.5              | 0.3  | 0.5  | 0.3  | 0.3  | 0.5            | 0.3  | 0.5  | 0.3  | 0.3  |
| Reference plane  | 0.2              | 0.2  | 0.2  | 0.2  | 0.2  | 0.2            | 0.2  | 0.2  | 0.2  | 0.2  |
| Room dimensions  | Viewed crosswise |      |      |      |      | Viewed endwise |      |      |      |      |
| X=2H Y=2H        | 28.9             | 30.6 | 29.3 | 30.9 | 31.3 | 28.6           | 30.3 | 29.0 | 30.6 | 31.0 |
| 3H               | 31.0             | 32.5 | 31.4 | 32.8 | 33.2 | 30.3           | 31.8 | 30.7 | 32.2 | 32.6 |
| 4H               | 31.7             | 33.2 | 32.1 | 33.5 | 33.9 | 30.9           | 32.3 | 31.3 | 32.7 | 33.1 |
| 6H               | 32.3             | 33.6 | 32.7 | 34.0 | 34.4 | 31.2           | 32.5 | 31.6 | 32.9 | 33.3 |
| 8H               | 32.4             | 33.7 | 32.8 | 34.1 | 34.5 | 31.2           | 32.5 | 31.7 | 32.9 | 33.3 |
| 12H              | 32.5             | 33.7 | 32.9 | 34.1 | 34.6 | 31.3           | 32.5 | 31.7 | 32.9 | 33.3 |
| X=4H Y=2H        | 29.6             | 31.0 | 30.0 | 31.4 | 31.8 | 29.3           | 30.8 | 29.7 | 31.1 | 31.5 |
| 3H               | 31.8             | 33.0 | 32.2 | 33.4 | 33.9 | 31.3           | 32.5 | 31.7 | 32.9 | 33.3 |
| 4H               | 32.7             | 33.8 | 33.1 | 34.2 | 34.7 | 31.9           | 33.0 | 32.4 | 33.5 | 33.9 |
| 6H               | 33.4             | 34.3 | 33.8 | 34.8 | 35.2 | 32.4           | 33.3 | 32.8 | 33.8 | 34.3 |
| 8H               | 33.5             | 34.4 | 34.0 | 34.9 | 35.4 | 32.5           | 33.4 | 32.9 | 33.8 | 34.3 |
| 12H              | 33.7             | 34.5 | 34.2 | 35.0 | 35.5 | 32.5           | 33.3 | 33.0 | 33.8 | 34.3 |
| X=8H Y=4H        | 33.0             | 33.9 | 33.5 | 34.3 | 34.8 | 32.3           | 33.2 | 32.8 | 33.7 | 34.2 |
| 6H               | 33.7             | 34.5 | 34.2 | 35.0 | 35.5 | 32.9           | 33.6 | 33.4 | 34.1 | 34.6 |
| 8H               | 34.0             | 34.7 | 34.5 | 35.2 | 35.7 | 33.0           | 33.7 | 33.6 | 34.2 | 34.7 |
| 12H              | 34.2             | 34.8 | 34.7 | 35.3 | 35.8 | 33.1           | 33.7 | 33.6 | 34.2 | 34.8 |
| X=12H Y=4H       | 33.0             | 33.8 | 33.5 | 34.3 | 34.8 | 32.4           | 33.2 | 32.9 | 33.7 | 34.2 |
| 6H               | 33.8             | 34.5 | 34.3 | 34.9 | 35.5 | 33.0           | 33.7 | 33.5 | 34.1 | 34.7 |
| 8H               | 34.1             | 34.7 | 34.6 | 35.2 | 35.8 | 33.2           | 33.8 | 33.7 | 34.3 | 34.8 |

Calculate in accordance with CIE 190:2010

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator: Aaron

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 = 1.50 |      |      |      |      |      |      |      |      |
|---|------|-------|----------------|------|------|------|------|------|------|------|------|
| 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  | 0.57           | 0.65 | 0.73 | 0.79 | 0.86 | 0.91 | 0.95 | 0.99 | 1.03 |
|   | 0.30 |       | 0.49           | 0.58 | 0.66 | 0.71 | 0.80 | 0.85 | 0.89 | 0.95 | 0.99 |
|   | 0.20 |       | 0.44           | 0.52 | 0.60 | 0.66 | 0.74 | 0.80 | 0.85 | 0.91 | 0.96 |
| 0.50  | 0.50 | 0.20  | 0.55           | 0.63 | 0.71 | 0.76 | 0.83 | 0.88 | 0.91 | 0.95 | 0.98 |
|   | 0.30 |       | 0.48           | 0.56 | 0.64 | 0.70 | 0.77 | 0.83 | 0.86 | 0.92 | 0.95 |
|   | 0.20 |       | 0.43           | 0.51 | 0.59 | 0.65 | 0.73 | 0.78 | 0.83 | 0.89 | 0.92 |
| 0.30  | 0.50 | 0.20  | 0.54           | 0.61 | 0.68 | 0.73 | 0.80 | 0.84 | 0.87 | 0.91 | 0.94 |
|   | 0.30 |       | 0.48           | 0.55 | 0.63 | 0.68 | 0.75 | 0.80 | 0.84 | 0.89 | 0.92 |
|   | 0.20 |       | 0.43           | 0.50 | 0.58 | 0.64 | 0.71 | 0.77 | 0.81 | 0.86 | 0.89 |
| 0.00  | 0.00 | 0.00  | 0.41           | 0.48 | 0.55 | 0.60 | 0.68 | 0.73 | 0.76 | 0.81 | 0.85 |
| <p>Rating:8W Photometrically tested without ceiling board.</p> <p>Multiply UF values by service correction factors</p> <p>Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p> |      |       |                |      |      |      |      |      |      |      |      |



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## Utilisation Factor Table(Wall)

| Utilisation Factors UF(W)  |      |       | SHR NOM = 1.50 |      |      |      |      |      |      |      |      |  |
|--|------|-------|----------------|------|------|------|------|------|------|------|------|--|
| 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  | 0.99           | 0.84 | 0.72 | 0.63 | 0.50 | 0.42 | 0.36 | 0.28 | 0.23 |  |
|  | 0.30 |       | 0.83           | 0.72 | 0.62 | 0.55 | 0.45 | 0.38 | 0.33 | 0.26 | 0.22 |  |
|  | 0.20 |       | 0.71           | 0.63 | 0.55 | 0.50 | 0.41 | 0.35 | 0.31 | 0.25 | 0.21 |  |
| 0.50   | 0.50 | 0.20  | 0.95           | 0.81 | 0.69 | 0.60 | 0.48 | 0.43 | 0.34 | 0.27 | 0.22 |  |
|  | 0.30 |       | 0.81           | 0.70 | 0.61 | 0.54 | 0.44 | 0.37 | 0.32 | 0.25 | 0.21 |  |
|  | 0.20 |       | 0.70           | 0.62 | 0.54 | 0.49 | 0.40 | 0.34 | 0.30 | 0.24 | 0.20 |  |
| 0.30   | 0.50 | 0.20  | 0.93           | 0.78 | 0.66 | 0.58 | 0.46 | 0.38 | 0.33 | 0.25 | 0.21 |  |
|  | 0.30 |       | 0.79           | 0.69 | 0.59 | 0.52 | 0.42 | 0.36 | 0.31 | 0.24 | 0.20 |  |
|  | 0.20 |       | 0.69           | 0.61 | 0.53 | 0.48 | 0.39 | 0.33 | 0.29 | 0.23 | 0.19 |  |
| 0.00   | 0.00 | 0.00  | 0.59           | 0.52 | 0.44 | 0.39 | 0.32 | 0.27 | 0.23 | 0.18 | 0.15 |  |
| Rating:8W Photometrically tested without ceiling board.<br>Multiply UF values by service correction factors<br>Calculate in accordance with CIBSE Technical Memorandum NO.5 1980 |      |       |                |      |      |      |      |      |      |      |      |  |

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator: Aaron

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:



## Utilisation Factor Table(Ceiling cavity)

| Utilisation Factors UF(C)   |      |       | SHR NOM = 1.50 |      |      |      |      |      |      |      |      |
|---|------|-------|----------------|------|------|------|------|------|------|------|------|
| 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  | 0.17           | 0.18 | 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 |       | 0.05           | 0.07 | 0.08 | 0.10 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 |
| 0.50  | 0.50 | 0.20  | 0.16           | 0.18 | 0.19 | 0.19 | 0.20 | 0.20 | 0.21 | 0.21 | 0.22 |
|   | 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 | 0.09 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 |
| 0.30  | 0.50 | 0.20  | 0.16           | 0.17 | 0.18 | 0.18 | 0.19 | 0.20 | 0.20 | 0.20 | 0.21 |
|   | 0.30 |       | 0.10           | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 |
|   | 0.20 |       | 0.05           | 0.07 | 0.08 | 0.09 | 0.11 | 0.13 | 0.14 | 0.15 | 0.16 |
| 0.00  | 0.00 | 0.00  | 0.01           | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| <p>Rating:8W Photometrically tested without ceiling board.</p> <p>Multiply UF values by service correction factors</p> <p>Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p> |      |       |                |      |      |      |      |      |      |      |      |