

Report No.:

Test Time: 2018/8/31 17:35

## Luminaire Property

Luminaire Manufacturer:

Luminaire Category: RIBBONLYTE

Luminaire Description: RBS2245.040PH 1FT(320mm)

Luminous Length (mm): 320

Luminous Width (mm): 10

Luminous Height (mm): 1

Voltage: 24.0 V

Current: 0.218 A

Power: 5.24 W

Power Factor: 1.000

## Photometric Results

CIE Class: Direct

Measurement Flux: 704.2 lm

Downward Ratio: 99%

Horizontal Diffuse Angle(50%): H117.8

Vertical Diffuse Angle(50%): V117.2

Luminaire Efficacy Rating (LER): 134

Max. Intensity: 233.39 cd

Total Rated Lamp Lumens: 704.2 lm

Efficiency: 100%

Upward Ratio: 1%

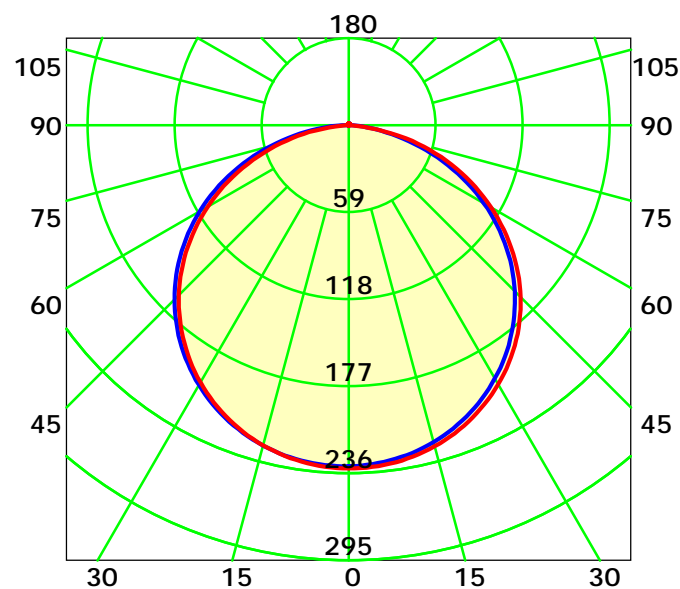
Central Intensity: 231.44 cd

Pos of Max. Intensity: H150 V3

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 117.5° 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

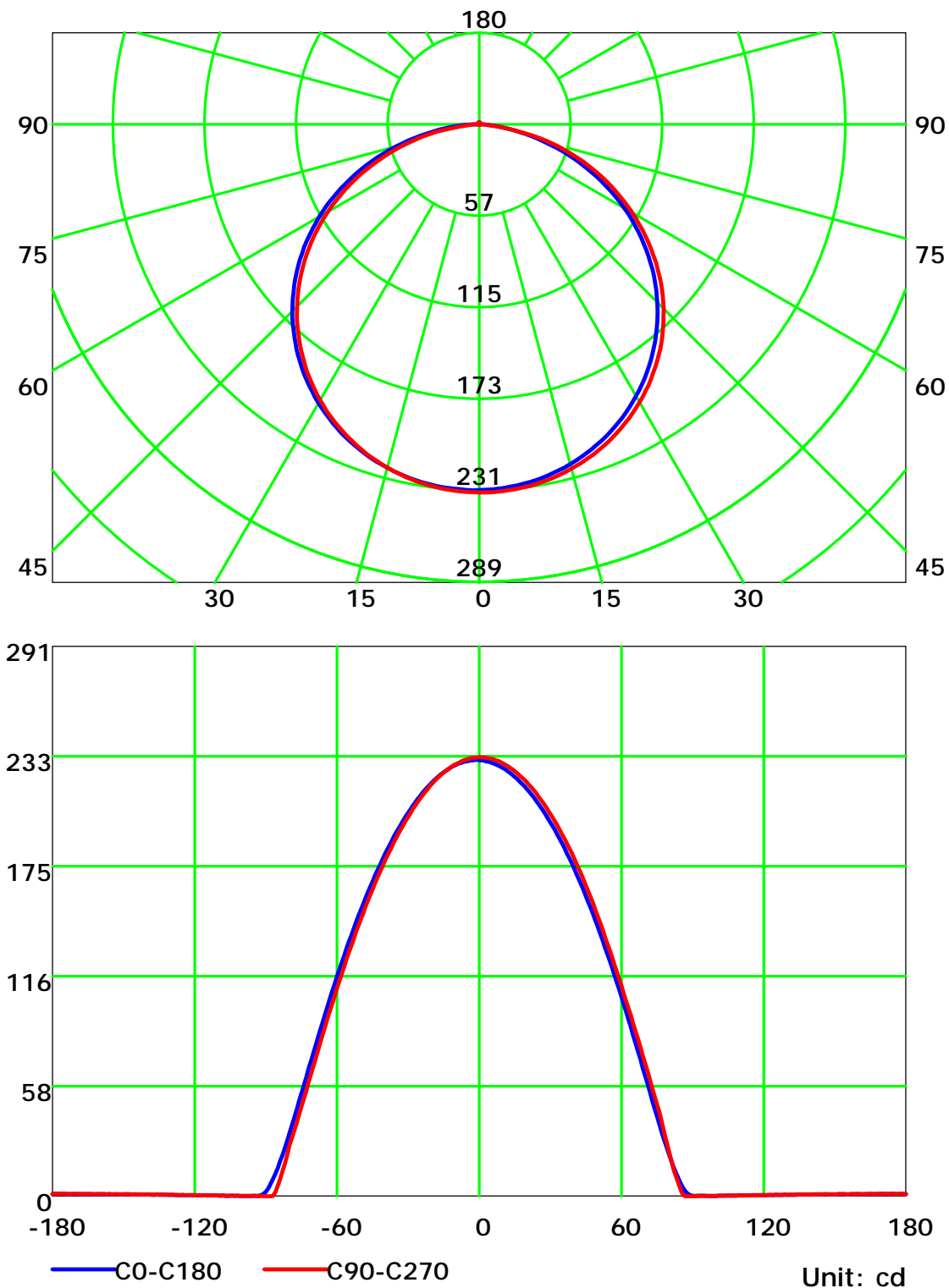
Test Device: GPM-1800B

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

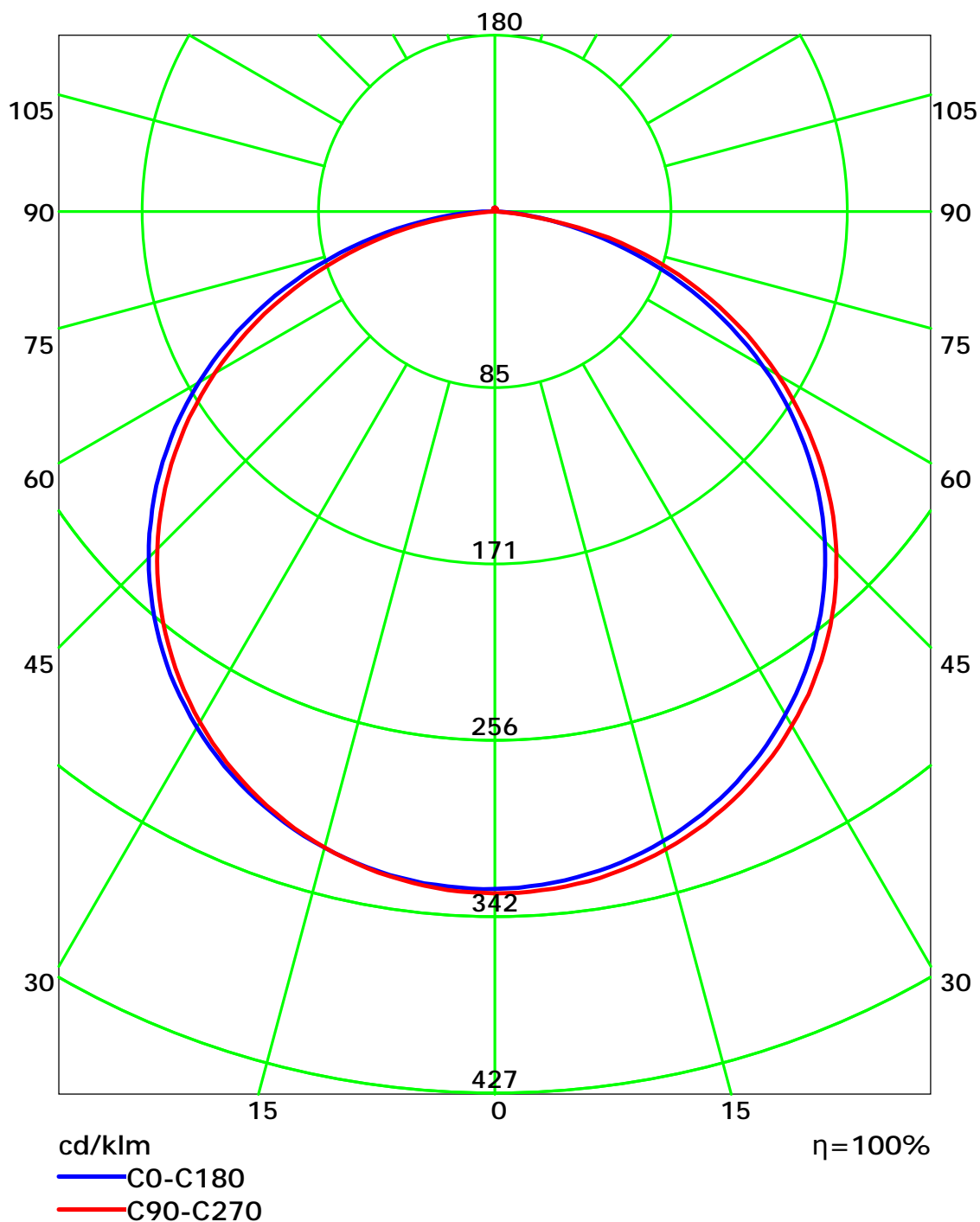
Test Device: GPM-1800B

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:

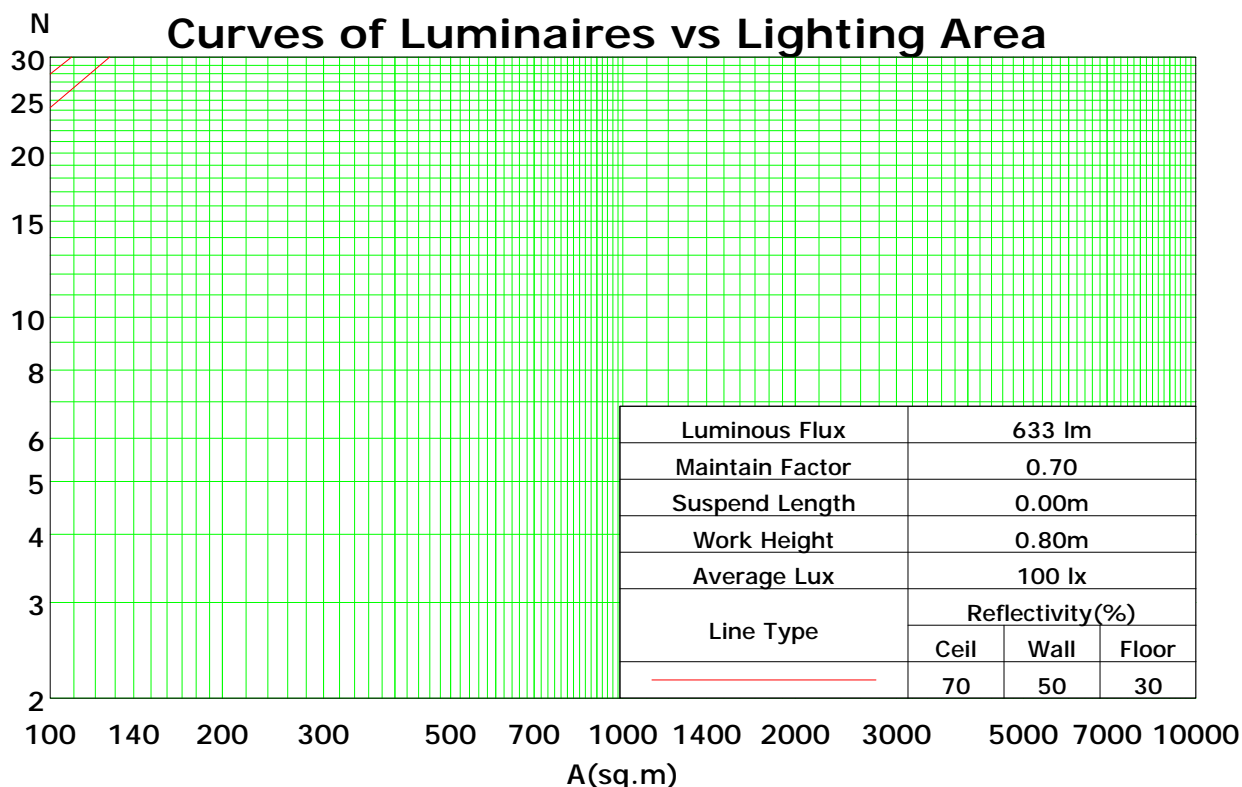
## Coefficients Of Utilization - Zonal Cavity Method

|     |          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |
|-----|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| 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      | 104 | 99  | 95  | 106 | 101 | 97  | 94  | 97  | 94  | 91  | 93  | 90  | 88  | 89  | 87  | 85  | 83 |
| 2   | 98       | 90  | 83  | 77  | 96  | 88  | 82  | 76  | 84  | 79  | 74  | 81  | 76  | 72  | 78  | 74  | 71  | 69 |
| 3   | 89       | 79  | 70  | 64  | 87  | 77  | 69  | 63  | 74  | 67  | 62  | 71  | 66  | 61  | 68  | 64  | 60  | 57 |
| 4   | 82       | 70  | 61  | 54  | 79  | 68  | 60  | 53  | 66  | 58  | 53  | 63  | 57  | 52  | 61  | 55  | 51  | 49 |
| 5   | 75       | 62  | 53  | 46  | 73  | 61  | 52  | 46  | 59  | 51  | 45  | 57  | 50  | 45  | 55  | 49  | 44  | 42 |
| 6   | 69       | 56  | 47  | 40  | 67  | 55  | 46  | 40  | 53  | 45  | 39  | 51  | 44  | 39  | 49  | 43  | 39  | 37 |
| 7   | 64       | 50  | 42  | 35  | 62  | 50  | 41  | 35  | 48  | 40  | 35  | 46  | 40  | 35  | 45  | 39  | 34  | 32 |
| 8   | 60       | 46  | 37  | 31  | 58  | 45  | 37  | 31  | 44  | 36  | 31  | 43  | 36  | 31  | 41  | 35  | 31  | 29 |
| 9   | 56       | 42  | 34  | 28  | 54  | 42  | 34  | 28  | 40  | 33  | 28  | 39  | 33  | 28  | 38  | 32  | 28  | 26 |
| 10  | 52       | 39  | 31  | 26  | 51  | 38  | 31  | 25  | 37  | 30  | 25  | 36  | 30  | 25  | 35  | 29  | 25  | 23 |

Spacing Criteria (0-180): 1.29

Spacing Criteria (90-270): 1.29

Spacing Criteria (Diagonal): 1.42



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

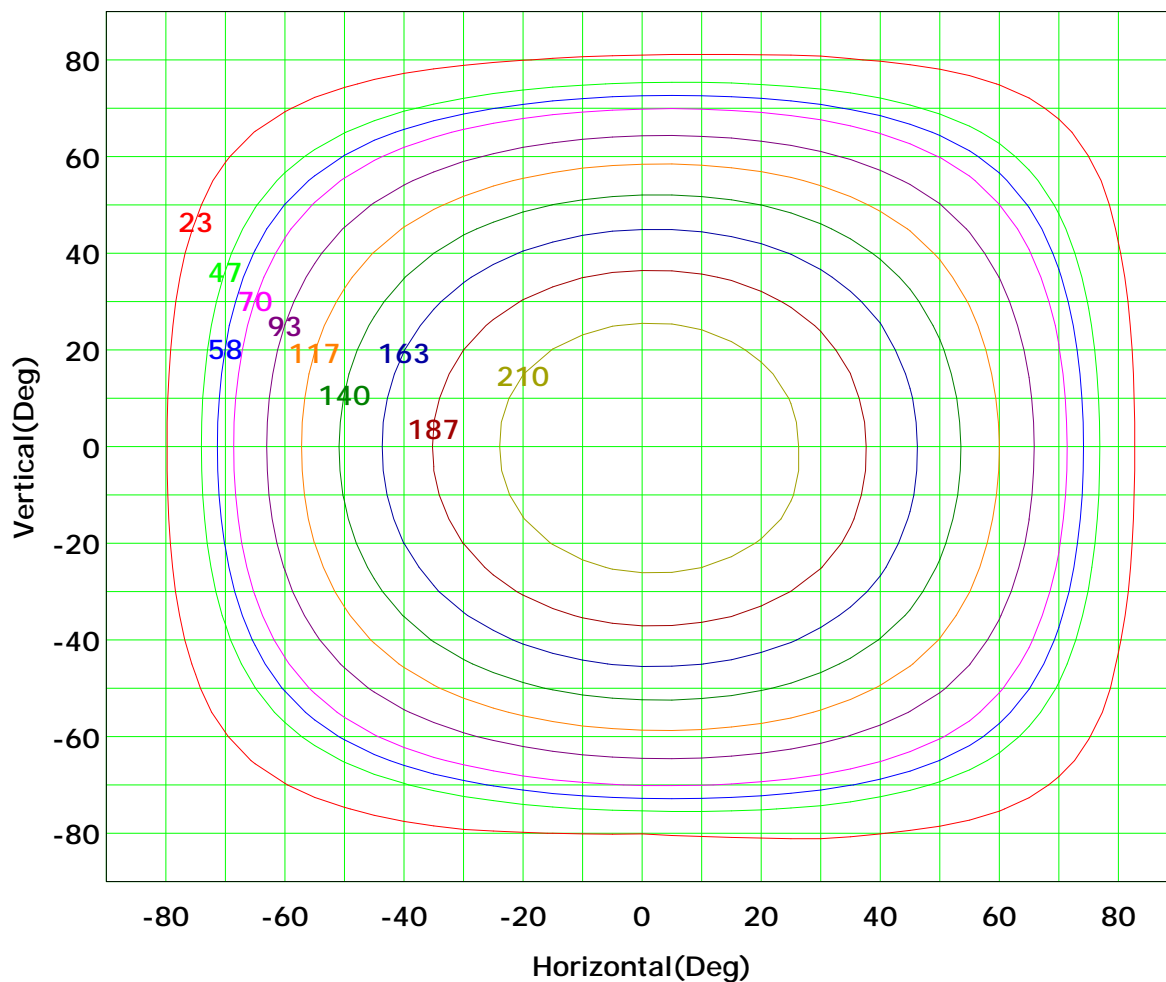
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

## Isocandela (rectangle)



I<sub>max</sub> (100%): 233 cd

|                |                |
|----------------|----------------|
| ( 10%): 23 cd  | ( 20%): 47 cd  |
| ( 25%): 58 cd  | ( 30%): 70 cd  |
| ( 40%): 93 cd  | ( 50%): 117 cd |
| ( 60%): 140 cd | ( 70%): 163 cd |
| ( 80%): 187 cd | ( 90%): 210 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

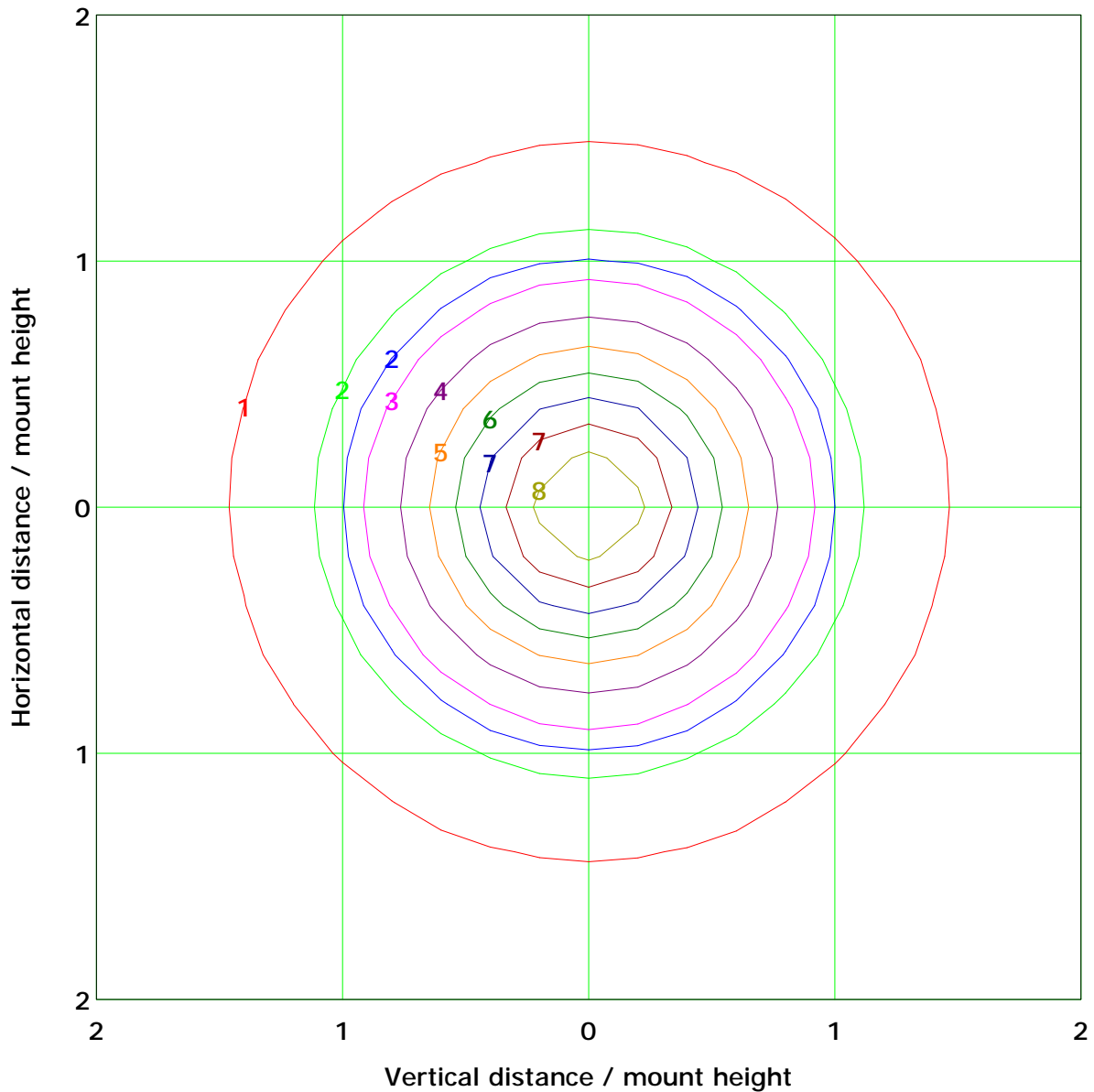
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

## IsoLux Plot



Mounting Height: 5.0m Max Lux(100%): 9.3 lx

|                |                |
|----------------|----------------|
| ( 10%): 0.9 lx | ( 20%): 1.9 lx |
| ( 25%): 2.3 lx | ( 30%): 2.8 lx |
| ( 40%): 3.7 lx | ( 50%): 4.7 lx |
| ( 60%): 5.6 lx | ( 70%): 6.5 lx |
| ( 80%): 7.5 lx | ( 90%): 8.4 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

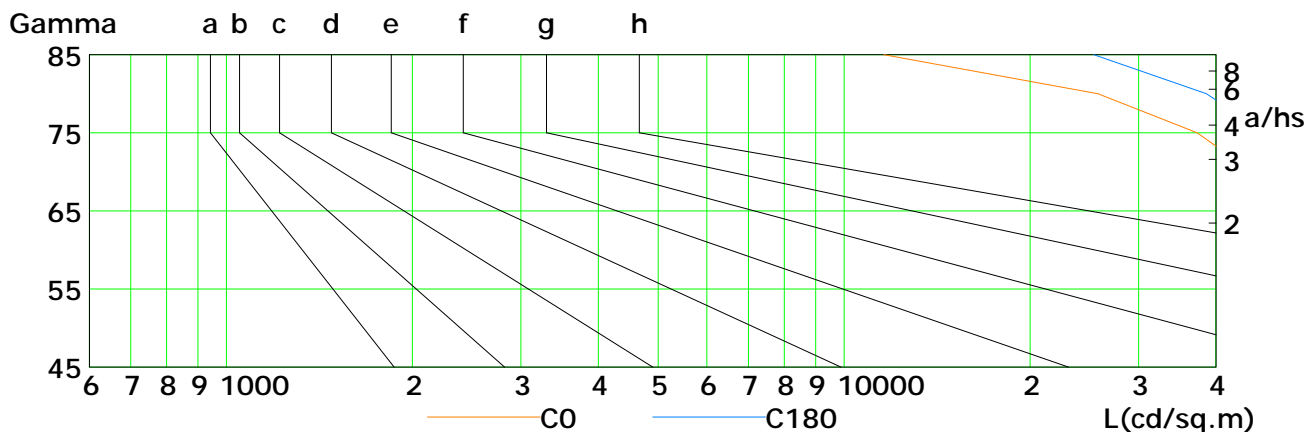
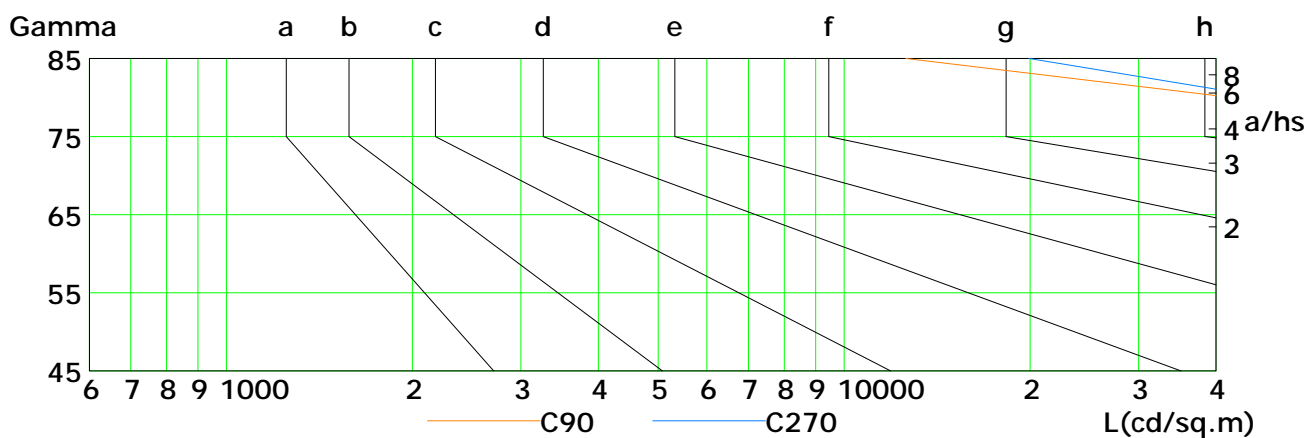
Humidity: 60%

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         | 64049 | 62188 | 59707 | 56352 | 51948 | 45880 | 37298 | 25758 | 11595 |
| C90        | 72733 | 72039 | 70979 | 69424 | 67267 | 63957 | 58159 | 42545 | 12601 |
| C180       | 67203 | 66045 | 64436 | 62217 | 59084 | 54538 | 48157 | 38619 | 25381 |
| C270       | 71839 | 71215 | 70258 | 68728 | 66422 | 62662 | 57013 | 48486 | 19940 |

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

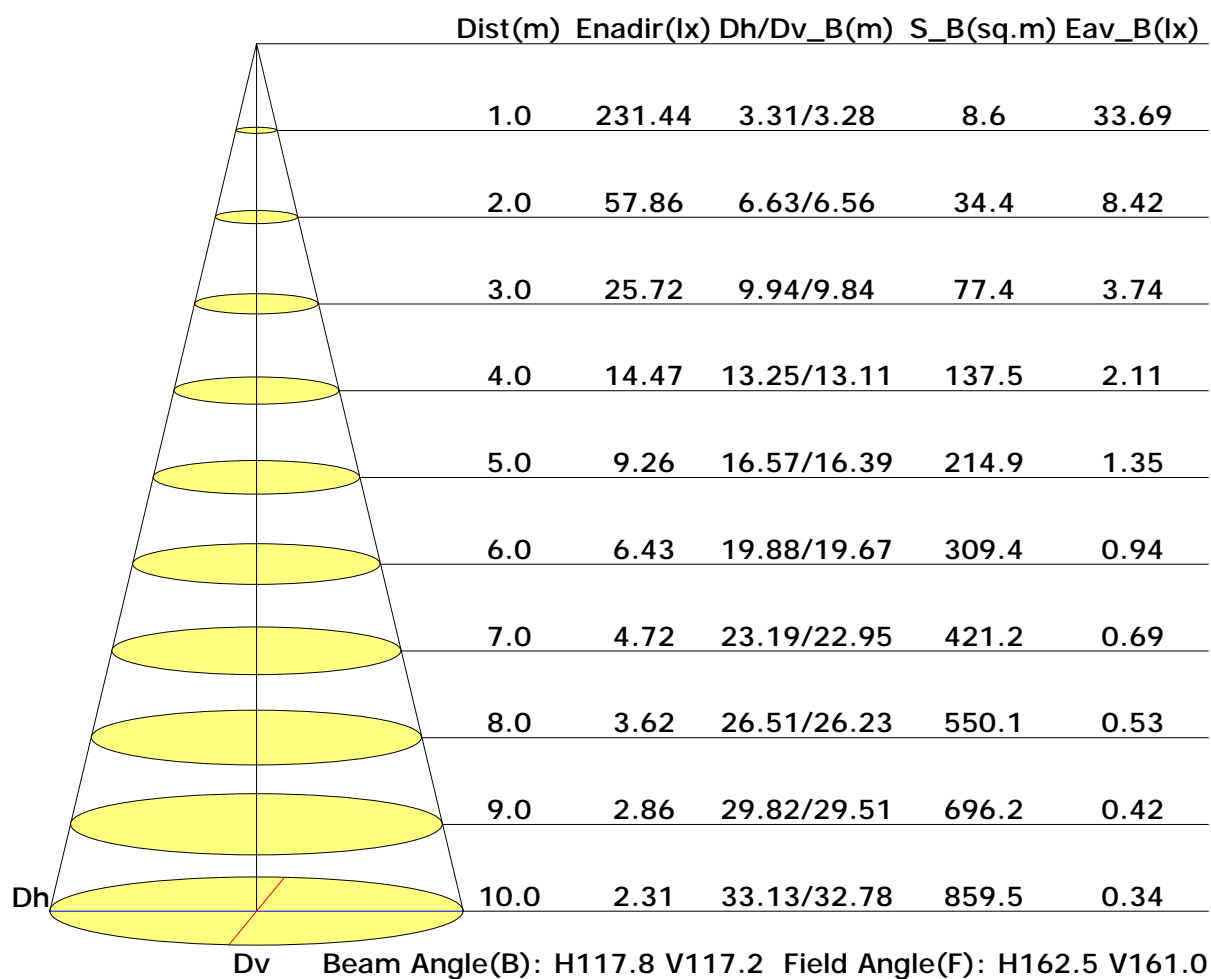
Test Device: GPM-1800B

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

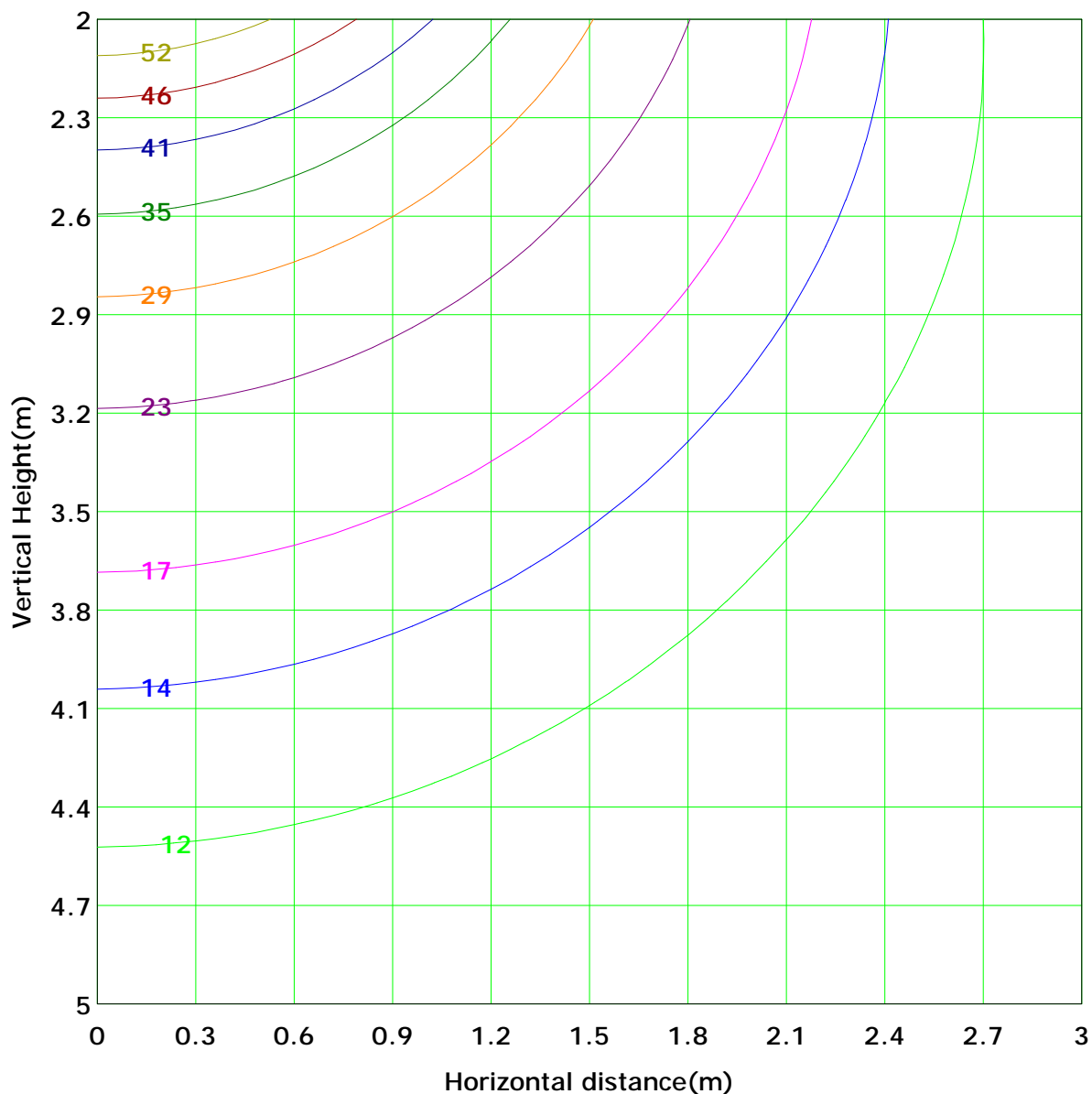
Distance: 9.028 m

Humidity: 60%

Inspector:



## Vertical IsoLux Plot



|                 |                  |                  |
|-----------------|------------------|------------------|
| Lowest(m): 2.0m | Highest(m): 5.0m | Max Lux: 57.9 lx |
| ( 10%): 5.8 lx  | ( 20%): 11.6 lx  |                  |
| ( 25%): 14.5 lx | ( 30%): 17.4 lx  |                  |
| ( 40%): 23.1 lx | ( 50%): 28.9 lx  |                  |
| ( 60%): 34.7 lx | ( 70%): 40.5 lx  |                  |
| ( 80%): 46.3 lx | ( 90%): 52.1 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:

## Area Flux Table

Unit: lm

| Vertical plane |  | -90 | -80 | -70 | -60 | -50 | -40 | -30 | -20 | -10 | 0   | 10  | 20  | 30  | 40  | 50  | 60  | 70  | 80  | 90  | Flux(T) | Flux(E) |
|----------------|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------|---------|
|                |  | 0.0 | 0.0 | 0.1 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.2 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7     | 0.2     |
|                |  | 0.0 | 0.1 | 0.2 | 0.5 | 0.7 | 1.0 | 1.2 | 1.4 | 1.5 | 1.4 | 1.3 | 1.1 | 0.8 | 0.6 | 0.3 | 0.1 | 0.0 | 0.0 | 0.0 | 4.9     | 4.3     |
|                |  | 0.0 | 0.2 | 0.4 | 0.9 | 1.4 | 1.9 | 2.3 | 2.6 | 2.7 | 2.7 | 2.5 | 2.1 | 1.7 | 1.2 | 0.7 | 0.3 | 0.1 | 0.0 | 0.0 | 13.8    | 13.3    |
|                |  | 0.0 | 0.2 | 0.7 | 1.3 | 2.0 | 2.7 | 3.3 | 3.7 | 3.9 | 3.9 | 3.6 | 3.1 | 2.5 | 1.8 | 1.1 | 0.5 | 0.1 | 0.0 | 0.0 | 26.2    | 25.7    |
|                |  | 0.0 | 0.3 | 0.8 | 1.6 | 2.5 | 3.4 | 4.1 | 4.7 | 4.9 | 4.9 | 4.6 | 4.0 | 3.4 | 2.7 | 2.0 | 1.4 | 0.8 | 0.2 | 0.0 | 40.3    | 39.7    |
|                |  | 0.0 | 0.4 | 1.0 | 1.9 | 2.9 | 3.9 | 4.8 | 5.4 | 5.7 | 5.7 | 5.3 | 4.7 | 4.0 | 3.3 | 2.7 | 1.9 | 1.0 | 0.3 | 0.0 | 54.1    | 53.6    |
|                |  | 0.1 | 0.4 | 1.1 | 2.1 | 3.3 | 4.4 | 5.3 | 6.0 | 6.4 | 6.4 | 6.3 | 5.9 | 5.2 | 4.2 | 3.8 | 2.8 | 1.9 | 0.9 | 0.0 | 66.0    | 65.5    |
|                |  | 0.1 | 0.4 | 1.2 | 2.3 | 3.5 | 4.6 | 5.7 | 6.4 | 6.8 | 6.8 | 6.8 | 6.3 | 5.6 | 4.5 | 3.8 | 2.8 | 1.9 | 0.9 | 0.0 | 74.5    | 74.0    |
|                |  | 0.1 | 0.4 | 1.3 | 2.4 | 3.6 | 4.8 | 5.8 | 6.6 | 7.0 | 7.0 | 7.0 | 6.5 | 5.7 | 4.6 | 3.9 | 2.9 | 2.0 | 1.0 | 0.0 | 78.7    | 78.2    |
|                |  | 0.1 | 0.4 | 1.3 | 2.4 | 3.6 | 4.8 | 5.8 | 6.6 | 7.0 | 7.0 | 7.0 | 6.5 | 5.7 | 4.6 | 3.9 | 2.9 | 2.0 | 1.0 | 0.0 | 78.1    | 77.7    |
|                |  | 0.1 | 0.4 | 1.3 | 2.4 | 3.6 | 4.8 | 5.8 | 6.6 | 7.0 | 7.0 | 7.0 | 6.5 | 5.7 | 4.6 | 3.9 | 2.9 | 2.0 | 1.0 | 0.0 | 72.9    | 72.4    |
|                |  | 0.1 | 0.4 | 1.2 | 2.3 | 3.5 | 4.7 | 5.7 | 6.4 | 6.8 | 6.8 | 6.8 | 6.3 | 5.6 | 4.5 | 3.8 | 2.8 | 1.9 | 0.9 | 0.0 | 63.5    | 62.9    |
|                |  | 0.1 | 0.4 | 1.1 | 2.1 | 3.3 | 4.4 | 5.4 | 6.1 | 6.4 | 6.4 | 6.4 | 6.0 | 5.2 | 4.2 | 3.5 | 2.5 | 1.7 | 1.2 | 0.0 | 51.0    | 50.4    |
|                |  | 0.0 | 0.4 | 1.0 | 1.9 | 3.0 | 4.0 | 4.9 | 5.5 | 5.8 | 5.8 | 5.8 | 5.4 | 4.7 | 3.8 | 3.1 | 2.2 | 1.7 | 1.2 | 0.0 | 36.9    | 36.4    |
|                |  | 0.0 | 0.3 | 0.9 | 1.6 | 2.5 | 3.4 | 4.2 | 4.7 | 5.0 | 4.9 | 4.9 | 4.6 | 4.0 | 3.2 | 2.3 | 1.4 | 0.7 | 0.2 | 0.0 | 23.1    | 22.5    |
|                |  | 0.0 | 0.2 | 0.7 | 1.3 | 2.0 | 2.7 | 3.3 | 3.8 | 4.0 | 3.9 | 3.6 | 3.1 | 2.5 | 1.8 | 1.1 | 0.5 | 0.1 | 0.0 | 0.0 | 11.4    | 10.8    |
|                |  | 0.0 | 0.2 | 0.5 | 0.9 | 1.4 | 1.9 | 2.3 | 2.6 | 2.8 | 2.7 | 2.5 | 2.2 | 1.7 | 1.2 | 0.7 | 0.3 | 0.1 | 0.0 | 0.0 | 3.5     | 2.8     |
|                |  | 0.0 | 0.1 | 0.3 | 0.5 | 0.8 | 1.0 | 1.3 | 1.4 | 1.5 | 1.4 | 1.3 | 1.1 | 0.9 | 0.6 | 0.3 | 0.1 | 0.0 | 0.0 | 0.0 | 0.3     | 0.0     |
|                |  | 0.0 | 0.0 | 0.1 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 700     | 691     |
|                |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |         |         |

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

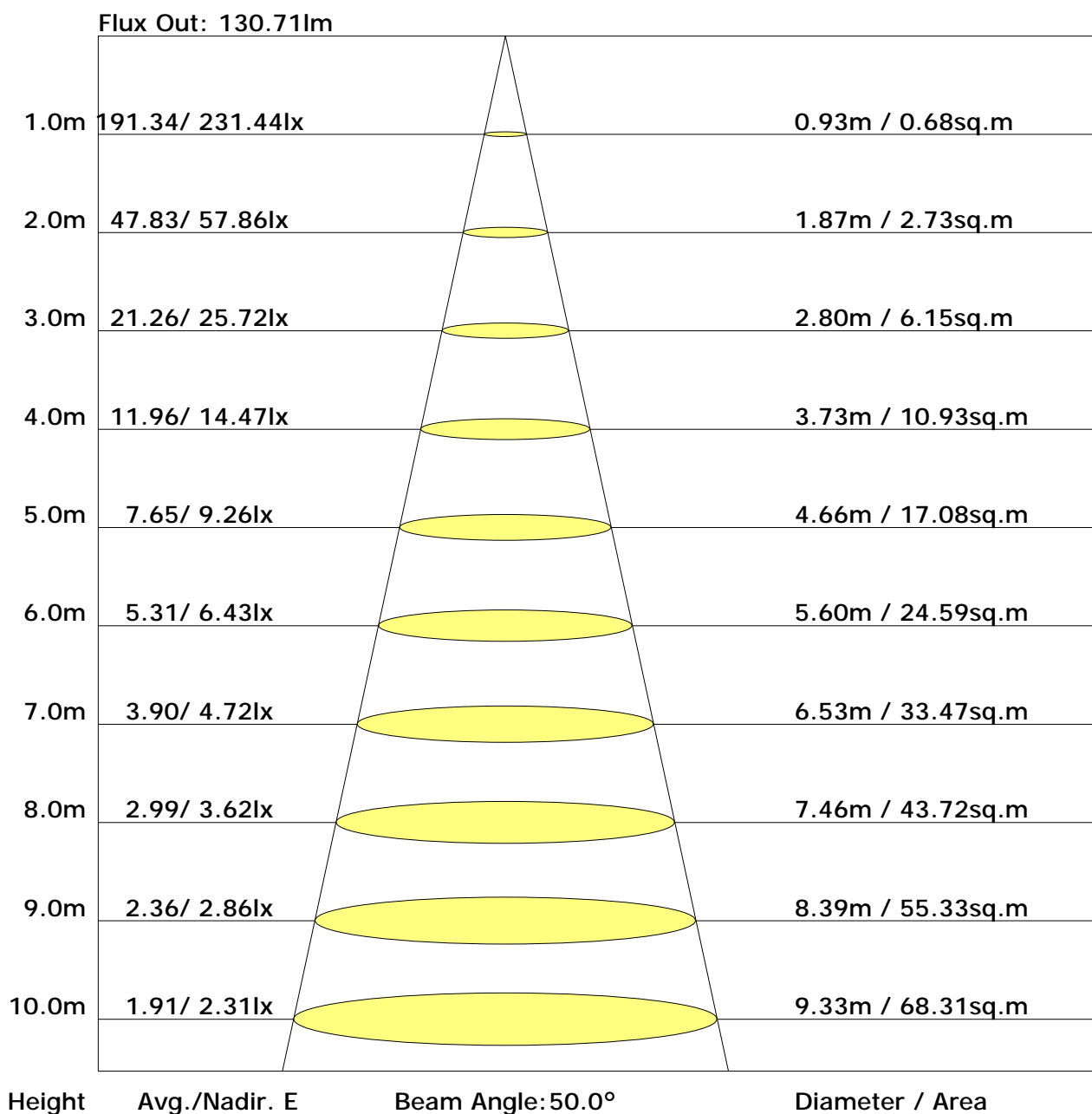
Test Device: GPM-1800B

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        | 27.8             | 29.4 | 28.2 | 29.8 | 30.1 | 27.8           | 29.4 | 28.2 | 29.8 | 30.1 |
| 3H               | 29.5             | 31.0 | 29.9 | 31.4 | 31.7 | 29.5           | 31.0 | 29.9 | 31.4 | 31.7 |
| 4H               | 30.1             | 31.5 | 30.5 | 31.9 | 32.3 | 30.1           | 31.5 | 30.5 | 31.9 | 32.3 |
| 6H               | 30.5             | 31.8 | 30.9 | 32.2 | 32.6 | 30.5           | 31.8 | 30.9 | 32.2 | 32.6 |
| 8H               | 30.6             | 31.8 | 31.0 | 32.2 | 32.6 | 30.5           | 31.8 | 31.0 | 32.2 | 32.6 |
| 12H              | 30.6             | 31.8 | 31.0 | 32.2 | 32.6 | 30.5           | 31.7 | 31.0 | 32.1 | 32.5 |
| X=4H Y=2H        | 28.4             | 29.8 | 28.8 | 30.1 | 30.5 | 28.5           | 29.9 | 28.9 | 30.2 | 30.6 |
| 3H               | 30.3             | 31.5 | 30.7 | 31.9 | 32.3 | 30.4           | 31.6 | 30.8 | 32.0 | 32.4 |
| 4H               | 31.0             | 32.1 | 31.4 | 32.5 | 32.9 | 31.1           | 32.2 | 31.6 | 32.6 | 33.1 |
| 6H               | 31.5             | 32.4 | 31.9 | 32.8 | 33.3 | 31.6           | 32.5 | 32.0 | 32.9 | 33.4 |
| 8H               | 31.6             | 32.4 | 32.0 | 32.9 | 33.4 | 31.6           | 32.5 | 32.1 | 33.0 | 33.4 |
| 12H              | 31.6             | 32.4 | 32.1 | 32.9 | 33.4 | 31.7           | 32.4 | 32.1 | 32.9 | 33.4 |
| X=8H Y=4H        | 31.2             | 32.1 | 31.7 | 32.6 | 33.0 | 31.4           | 32.3 | 31.9 | 32.8 | 33.2 |
| 6H               | 31.7             | 32.5 | 32.3 | 33.0 | 33.5 | 32.0           | 32.7 | 32.5 | 33.2 | 33.7 |
| 8H               | 31.9             | 32.6 | 32.4 | 33.1 | 33.6 | 32.1           | 32.7 | 32.6 | 33.3 | 33.8 |
| 12H              | 32.0             | 32.6 | 32.5 | 33.1 | 33.7 | 32.1           | 32.7 | 32.7 | 33.2 | 33.8 |
| X=12H Y=4H       | 31.2             | 32.0 | 31.7 | 32.5 | 33.0 | 31.5           | 32.3 | 32.0 | 32.7 | 33.2 |
| 6H               | 31.8             | 32.5 | 32.3 | 32.9 | 33.5 | 32.0           | 32.7 | 32.6 | 33.2 | 33.7 |
| 8H               | 32.0             | 32.5 | 32.5 | 33.0 | 33.6 | 32.2           | 32.8 | 32.7 | 33.3 | 33.8 |

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  | 0.59           | 0.67 | 0.75 | 0.80 | 0.88 | 0.92 | 0.96 | 1.00 | 1.03 |
|   | 0.30 |       | 0.51           | 0.60 | 0.68 | 0.73 | 0.81 | 0.87 | 0.91 | 0.96 | 1.00 |
|   | 0.20 |       | 0.46           | 0.54 | 0.62 | 0.68 | 0.76 | 0.82 | 0.87 | 0.93 | 0.97 |
| 0.50  | 0.50 | 0.20  | 0.57           | 0.65 | 0.72 | 0.77 | 0.84 | 0.89 | 0.92 | 0.96 | 0.99 |
|   | 0.30 |       | 0.50           | 0.58 | 0.66 | 0.72 | 0.79 | 0.84 | 0.88 | 0.93 | 0.96 |
|   | 0.20 |       | 0.45           | 0.53 | 0.61 | 0.67 | 0.75 | 0.80 | 0.84 | 0.90 | 0.94 |
| 0.30  | 0.50 | 0.20  | 0.56           | 0.63 | 0.70 | 0.75 | 0.81 | 0.86 | 0.89 | 0.93 | 0.95 |
|   | 0.30 |       | 0.50           | 0.57 | 0.65 | 0.70 | 0.77 | 0.82 | 0.85 | 0.90 | 0.93 |
|   | 0.20 |       | 0.45           | 0.53 | 0.60 | 0.66 | 0.73 | 0.78 | 0.82 | 0.87 | 0.91 |
| 0.00  | 0.00 | 0.00  | 0.43           | 0.50 | 0.57 | 0.63 | 0.70 | 0.75 | 0.78 | 0.83 | 0.86 |
| <p>Rating:5W Photometrically tested without ceiling board.</p> <p>Multiply UF values by service correction factors</p> <p>Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p> |      |       |                |      |      |      |      |      |      |      |      |

## Utilisation Factor Table(Wall)

| Utilisation Factors UF(W)   |      |       | SHR NOM = 1.50 |      |      |      |      |      |      |      |      |  |
|---|------|-------|----------------|------|------|------|------|------|------|------|------|--|
| 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  | 0.96           | 0.82 | 0.69 | 0.60 | 0.48 | 0.40 | 0.34 | 0.26 | 0.21 |  |
|   | 0.30 |       | 0.80           | 0.70 | 0.60 | 0.53 | 0.43 | 0.37 | 0.32 | 0.25 | 0.20 |  |
|   | 0.20 |       | 0.69           | 0.61 | 0.53 | 0.48 | 0.40 | 0.34 | 0.29 | 0.23 | 0.19 |  |
| 0.50  | 0.50 | 0.20  | 0.93           | 0.78 | 0.66 | 0.57 | 0.46 | 0.41 | 0.32 | 0.25 | 0.20 |  |
|   | 0.30 |       | 0.78           | 0.68 | 0.58 | 0.52 | 0.42 | 0.35 | 0.30 | 0.24 | 0.19 |  |
|   | 0.20 |       | 0.68           | 0.60 | 0.52 | 0.47 | 0.39 | 0.33 | 0.28 | 0.23 | 0.19 |  |
| 0.30  | 0.50 | 0.20  | 0.90           | 0.75 | 0.63 | 0.55 | 0.44 | 0.36 | 0.31 | 0.24 | 0.19 |  |
|   | 0.30 |       | 0.77           | 0.66 | 0.57 | 0.50 | 0.40 | 0.34 | 0.29 | 0.23 | 0.19 |  |
|   | 0.20 |       | 0.67           | 0.59 | 0.51 | 0.46 | 0.38 | 0.32 | 0.28 | 0.22 | 0.18 |  |
| 0.00  | 0.00 | 0.00  | 0.57           | 0.49 | 0.42 | 0.37 | 0.30 | 0.25 | 0.21 | 0.17 | 0.14 |  |
| <p>Rating:5W Photometrically tested without ceiling board.</p> <p>Multiply UF values by service correction factors</p> <p>Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p> |      |       |                |      |      |      |      |      |      |      |      |  |

## Utilisation Factor Table(Ceiling cavity)

| Utilisation Factors UF(C)  |      |       | SHR NOM = 1.50 |      |      |      |      |      |      |      |      |  |
|--|------|-------|----------------|------|------|------|------|------|------|------|------|--|
| 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 | 0.20 | 0.21 | 0.21 | 0.22 | 0.22 |  |
|  | 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           | 0.17 | 0.18 | 0.19 | 0.20 | 0.20 | 0.21 | 0.21 | 0.21 |  |
|  | 0.30 |       | 0.10           | 0.11 | 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 |  |
| 0.30   | 0.50 | 0.20  | 0.16           | 0.17 | 0.18 | 0.18 | 0.19 | 0.19 | 0.20 | 0.20 | 0.20 |  |
|  | 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 |  |
| 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 |      |       |                |      |      |      |      |      |      |      |      |  |