

Report No.:

Test Time: 2021/1/5 11:22

## Luminaire Property

Luminaire Manufacturer:

Luminaire Category: CHANNEL

Lamp Catalog: RIBBONLYTE

Number of Lamps: 1 ROW

Luminous Width (mm): 20

Voltage: 24.0 V

Power: 5.22 W

Luminaire Description: B2

Lamp Description: RB90SWS2203.030

Luminous Length (mm): 500

Luminous Height (mm): 5.8

Current: 0.217 A

Power Factor: 1.000

## Photometric Results

CIE Class: Direct

Measurement Flux: 463.8 lm

Downward Ratio: 95%

Horizontal Diffuse Angle(10%,50%): H156.6,H101.5

Vertical Diffuse Angle(10%,50%): V175.9,V111.1

Luminaire Efficacy Rating (LER): 89

Max. Intensity: 159.53 cd

Total Rated Lamp Lumens: 463.8 lm

Efficiency: 100%

Upward Ratio: 5%

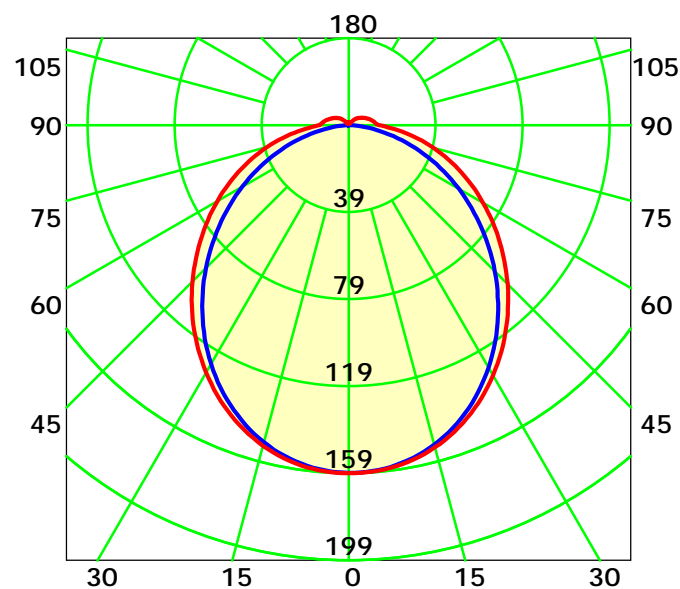
Central Intensity: 159.31 cd

Pos of Max. Intensity: H150 V0

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 106.3° 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

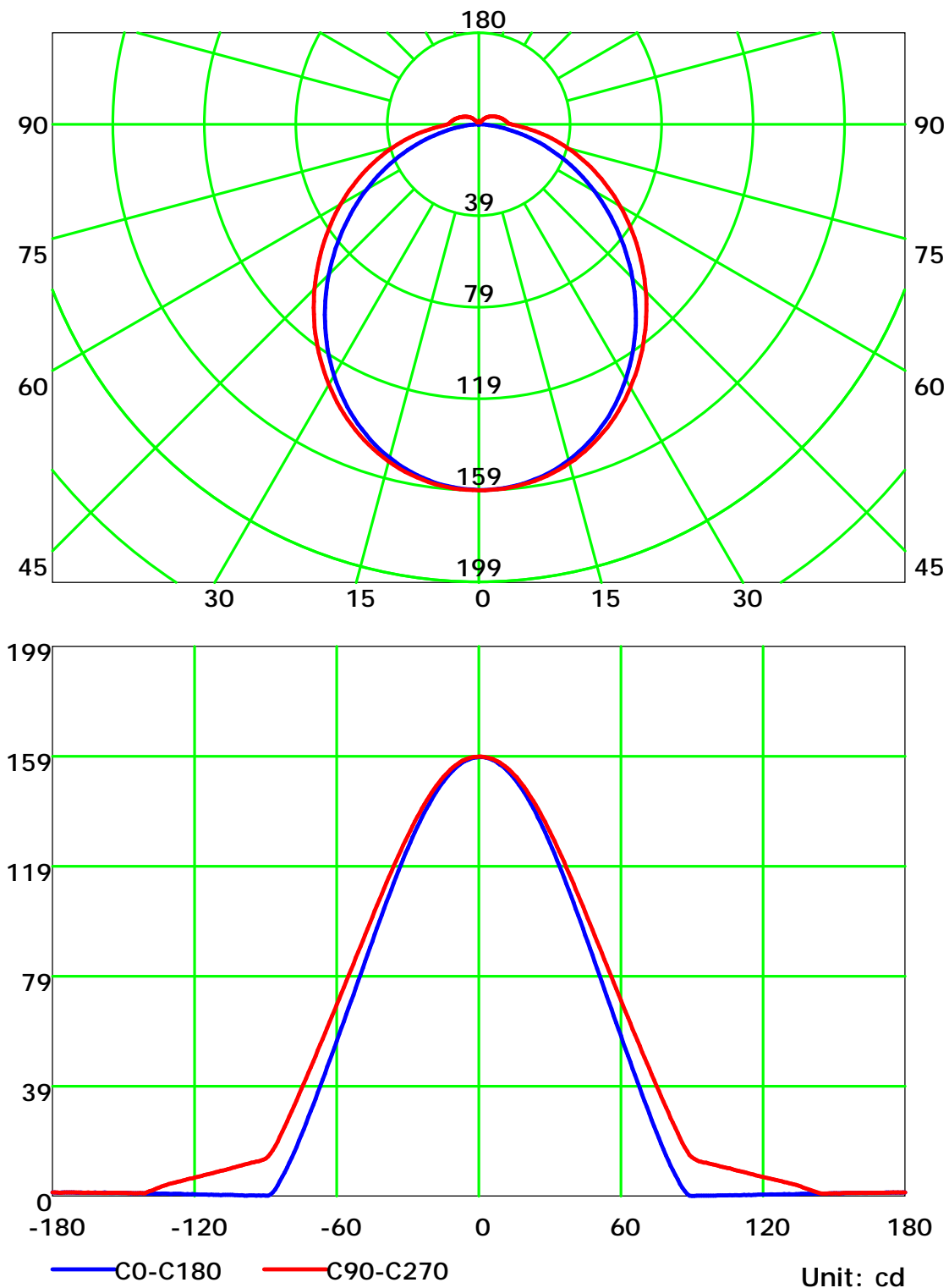
Test Device: GPM-1800B

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

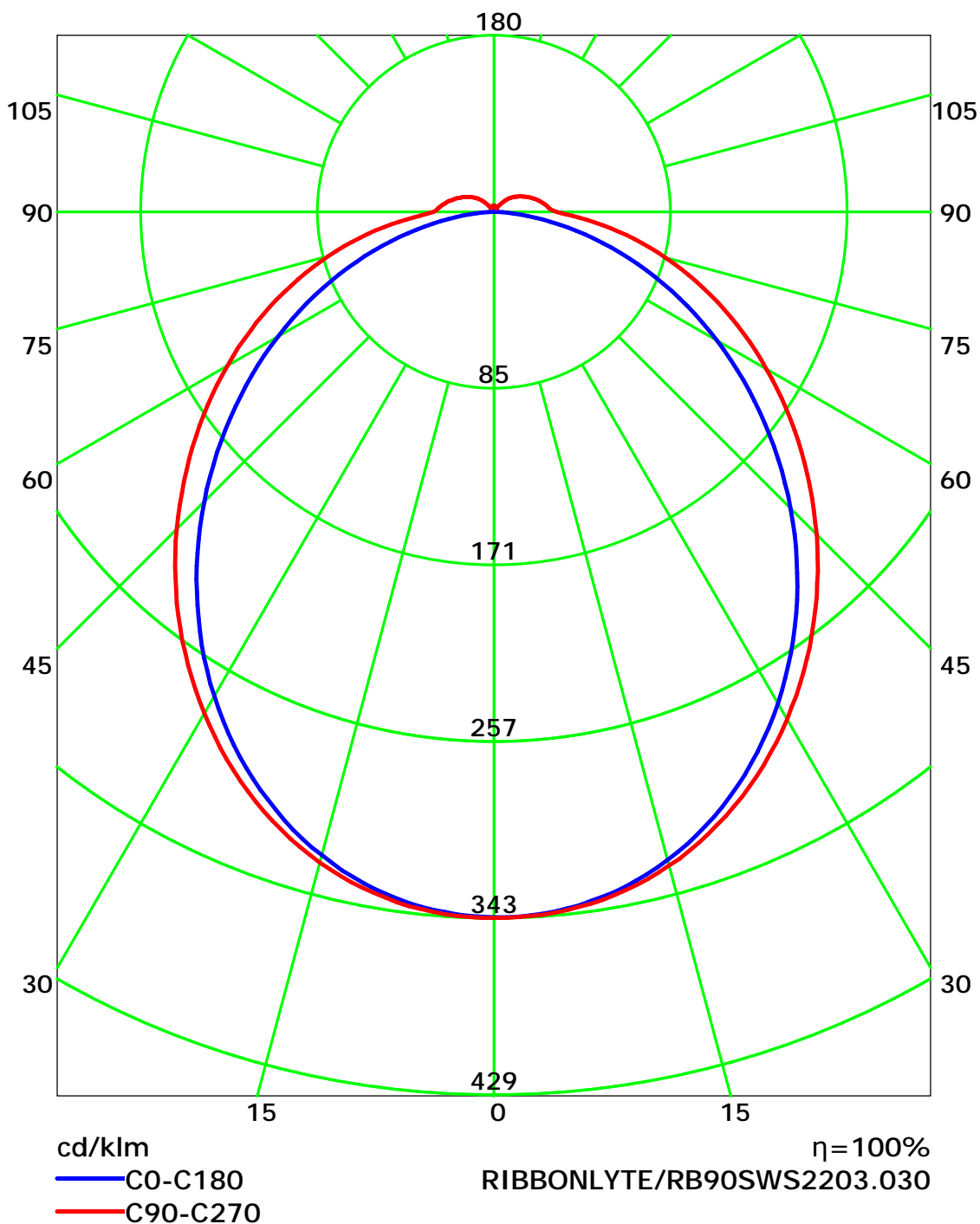
Test Device: GPM-1800B

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:

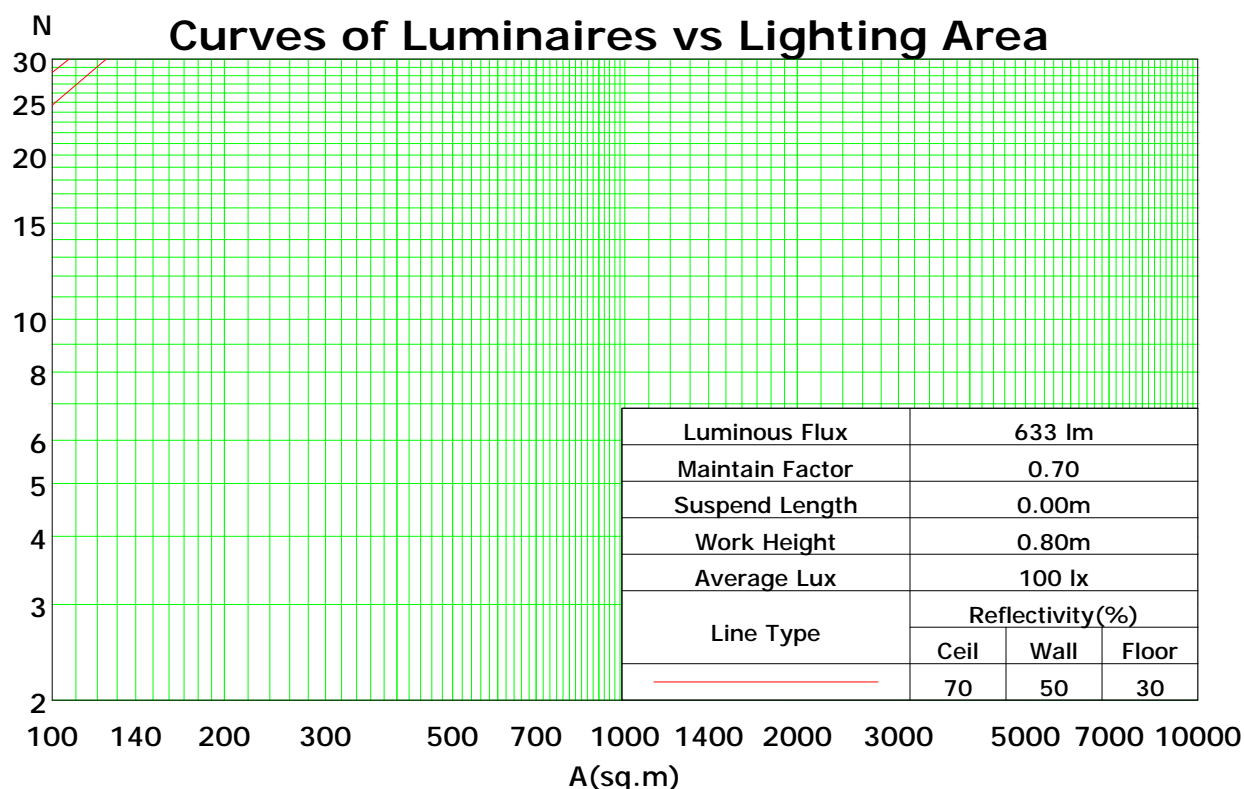
## Coefficients Of Utilization - Zonal Cavity Method

|     |          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |
|-----|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| 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   | 118      | 118 | 118 | 118 | 115 | 115 | 115 | 115 | 108 | 108 | 108 | 103 | 103 | 103 | 98  | 98  | 98  | 95 |
| 1   | 107      | 102 | 98  | 94  | 104 | 99  | 95  | 92  | 94  | 91  | 88  | 89  | 87  | 84  | 85  | 83  | 81  | 78 |
| 2   | 97       | 89  | 82  | 76  | 94  | 86  | 80  | 75  | 82  | 77  | 72  | 78  | 74  | 70  | 74  | 71  | 67  | 65 |
| 3   | 89       | 78  | 70  | 63  | 86  | 76  | 68  | 62  | 72  | 66  | 60  | 69  | 63  | 59  | 66  | 61  | 57  | 55 |
| 4   | 81       | 69  | 60  | 53  | 78  | 67  | 59  | 53  | 64  | 57  | 51  | 61  | 55  | 50  | 59  | 53  | 49  | 47 |
| 5   | 75       | 62  | 53  | 46  | 72  | 60  | 52  | 46  | 58  | 50  | 45  | 55  | 49  | 44  | 53  | 47  | 43  | 40 |
| 6   | 69       | 56  | 47  | 40  | 67  | 54  | 46  | 40  | 52  | 45  | 39  | 50  | 43  | 38  | 48  | 42  | 38  | 35 |
| 7   | 64       | 50  | 42  | 35  | 62  | 49  | 41  | 35  | 47  | 40  | 35  | 46  | 39  | 34  | 44  | 38  | 33  | 31 |
| 8   | 60       | 46  | 38  | 32  | 58  | 45  | 37  | 31  | 43  | 36  | 31  | 42  | 35  | 30  | 40  | 34  | 30  | 28 |
| 9   | 56       | 42  | 34  | 28  | 54  | 41  | 34  | 28  | 40  | 33  | 28  | 39  | 32  | 28  | 37  | 31  | 27  | 25 |
| 10  | 52       | 39  | 31  | 26  | 51  | 38  | 31  | 26  | 37  | 30  | 25  | 36  | 29  | 25  | 35  | 29  | 25  | 23 |

Spacing Criteria (0-180): 1.19

Spacing Criteria (90-270): 1.23

Spacing Criteria (Diagonal): 1.33



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

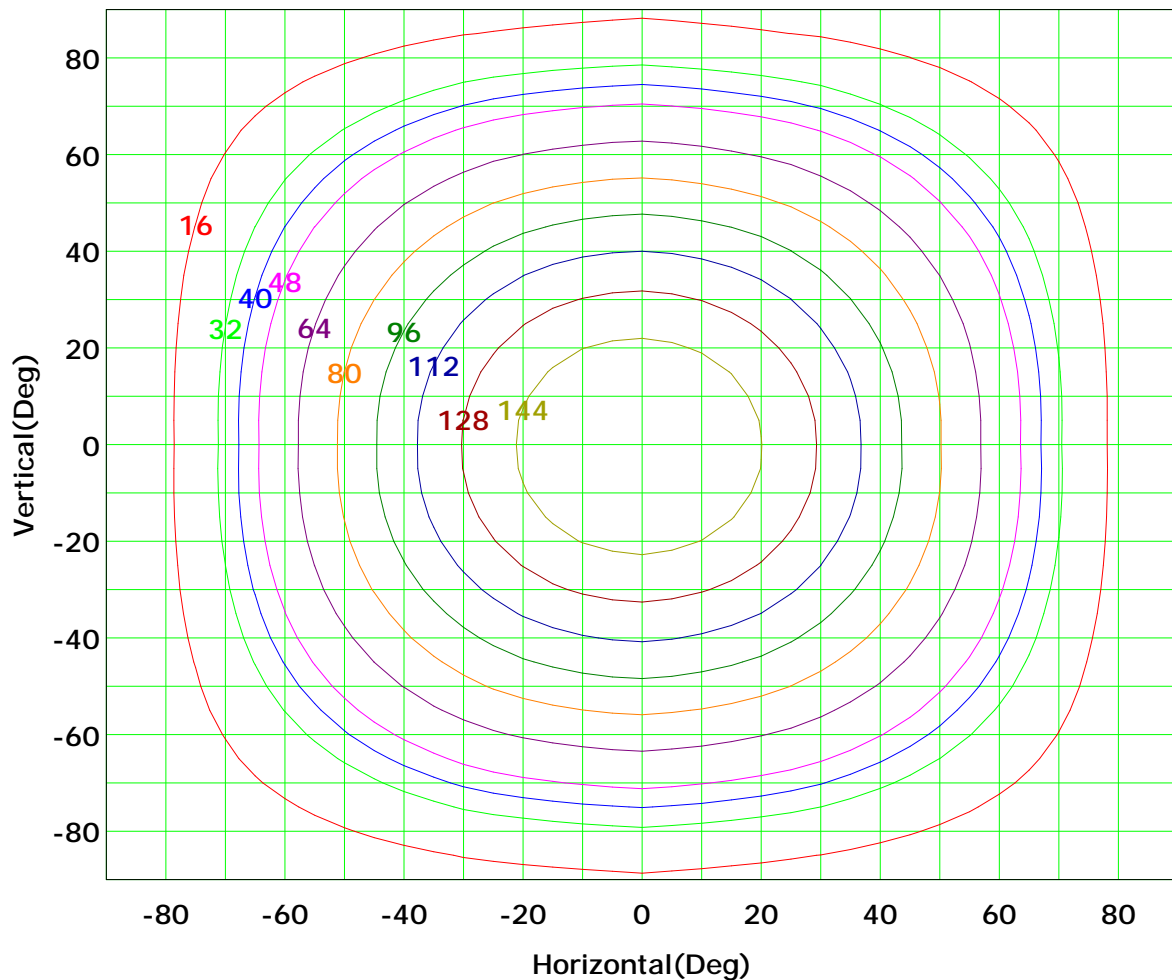
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

## Isocandela (rectangle)



I<sub>max</sub> (100%): 160 cd

|         |        |         |        |
|---------|--------|---------|--------|
| ( 10%): | 16 cd  | ( 20%): | 32 cd  |
| ( 25%): | 40 cd  | ( 30%): | 48 cd  |
| ( 40%): | 64 cd  | ( 50%): | 80 cd  |
| ( 60%): | 96 cd  | ( 70%): | 112 cd |
| ( 80%): | 128 cd | ( 90%): | 144 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

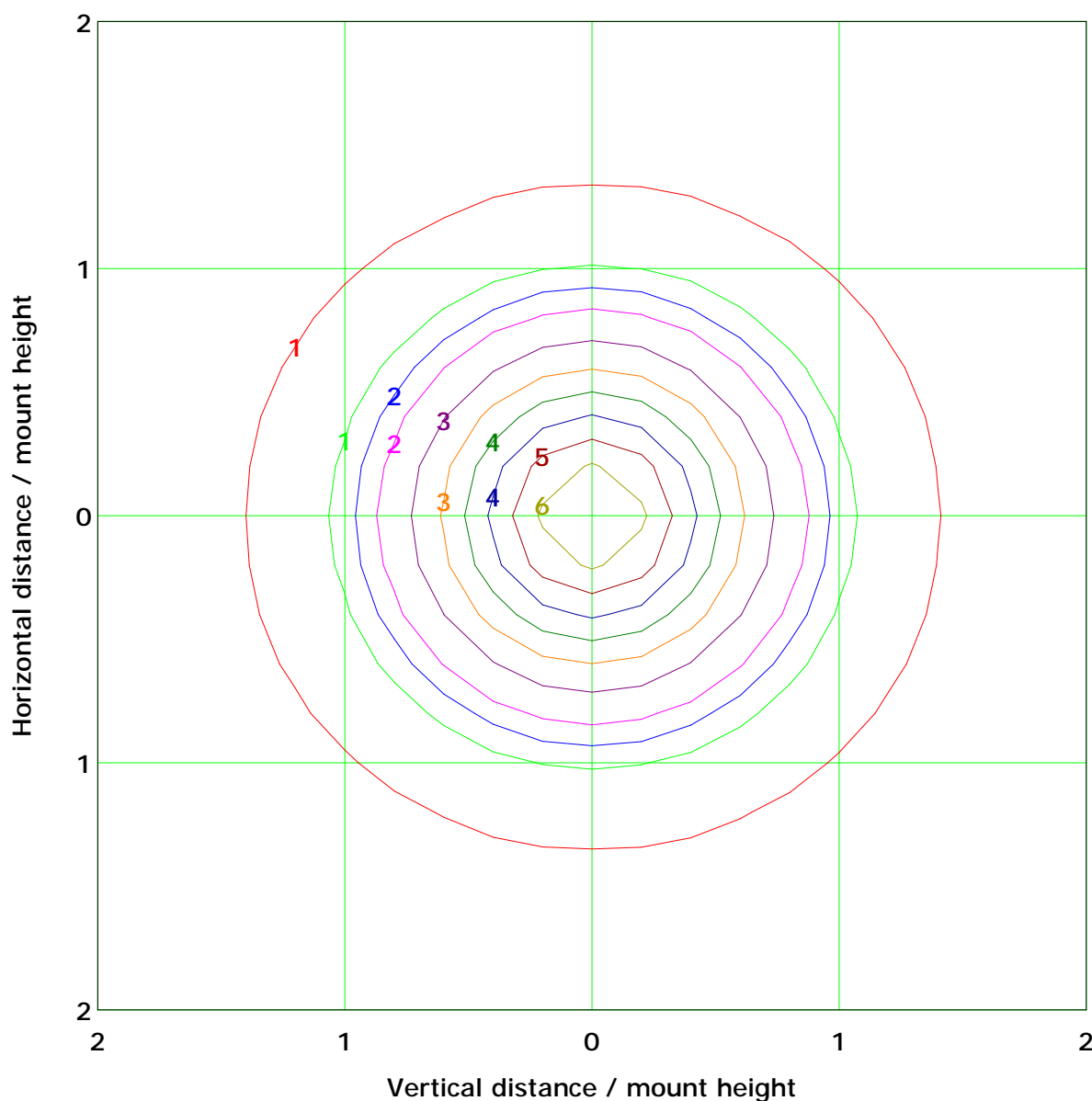
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

## IsoLux Plot



Mounting Height: 5.0m Max Lux(100%): 6.4 lx

|                |                |
|----------------|----------------|
| ( 10%): 0.6 lx | ( 20%): 1.3 lx |
| ( 25%): 1.6 lx | ( 30%): 1.9 lx |
| ( 40%): 2.6 lx | ( 50%): 3.2 lx |
| ( 60%): 3.8 lx | ( 70%): 4.5 lx |
| ( 80%): 5.1 lx | ( 90%): 5.7 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

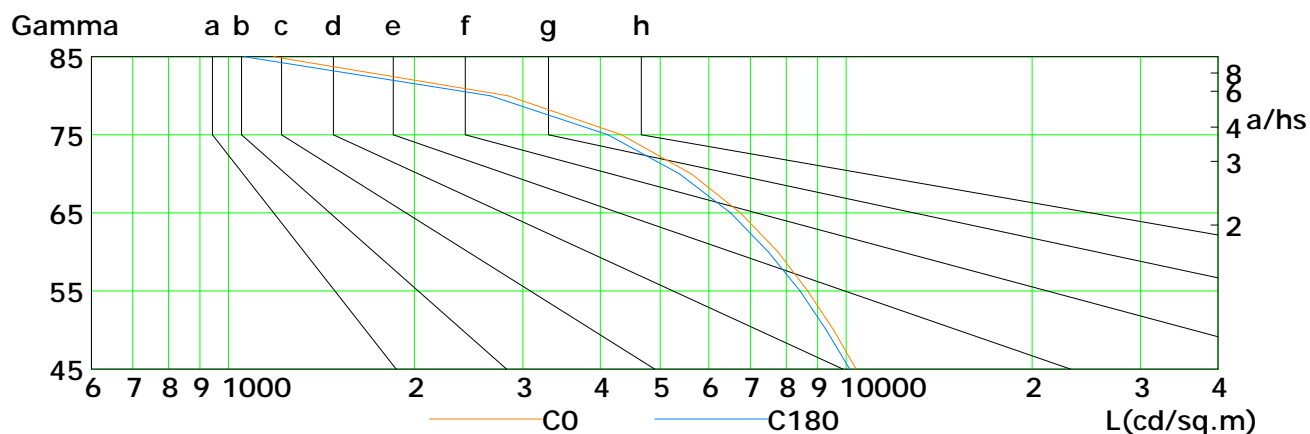
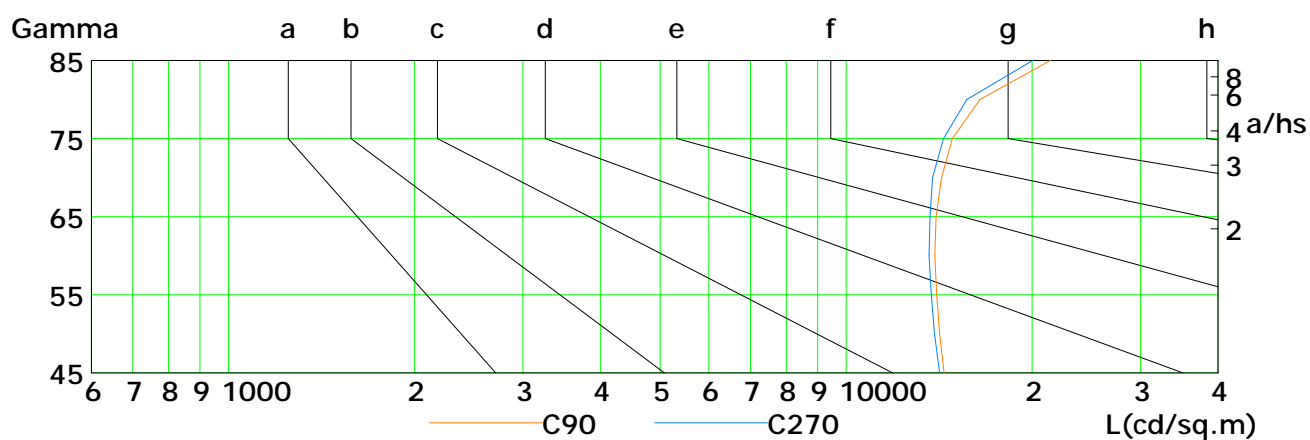
Humidity: 60%

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         | 10381 | 9547  | 8671  | 7757  | 6747  | 5619  | 4331  | 2835  | 1183  |
| C90        | 14415 | 14177 | 14015 | 13928 | 13989 | 14272 | 14873 | 16469 | 21416 |
| C180       | 10142 | 9292  | 8429  | 7491  | 6501  | 5376  | 4119  | 2654  | 1061  |
| C270       | 14167 | 13906 | 13734 | 13632 | 13670 | 13813 | 14377 | 15686 | 20048 |

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

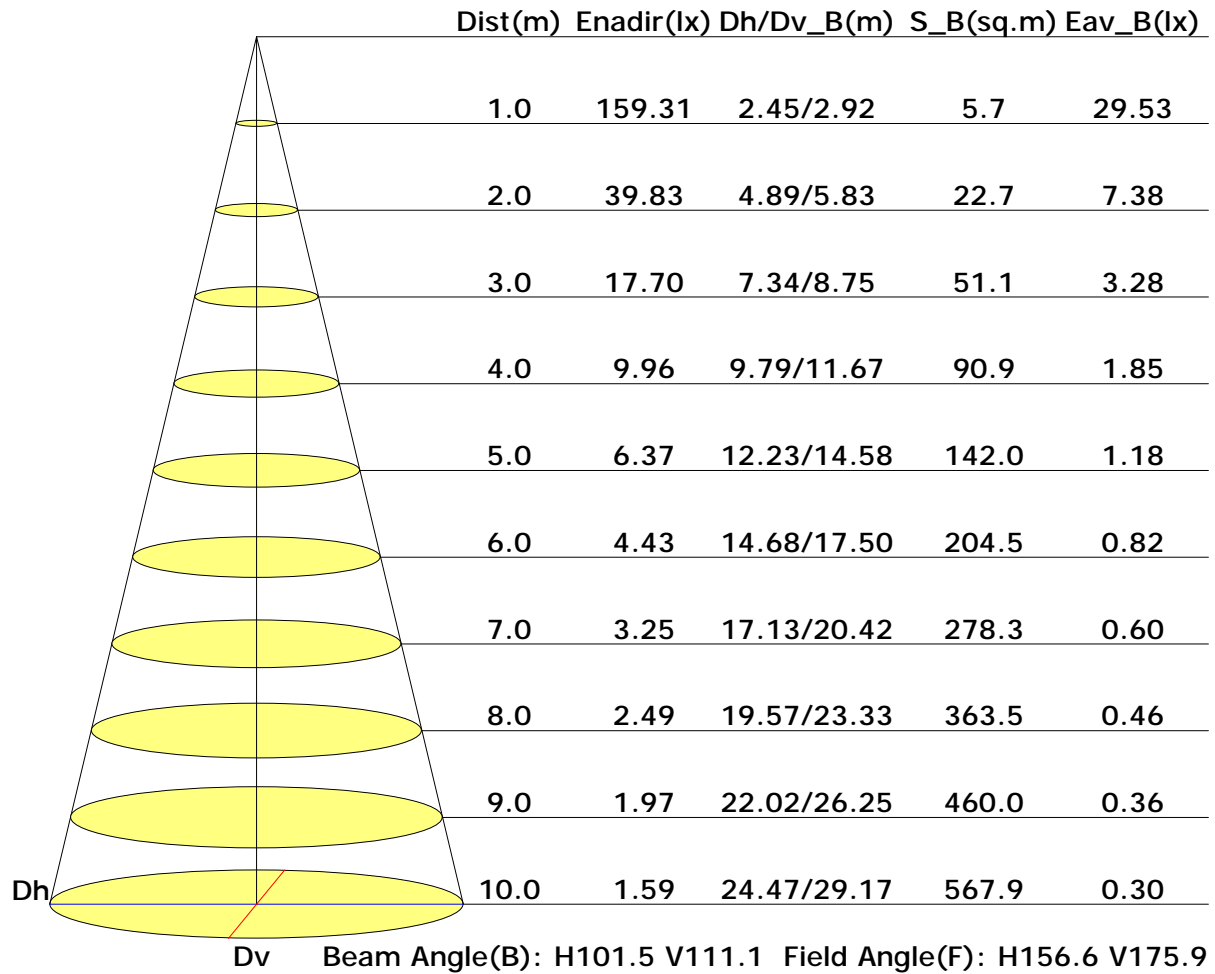
Distance: 9.028 m

Humidity: 60%

Inspector:



## Illuminance at a Distance



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

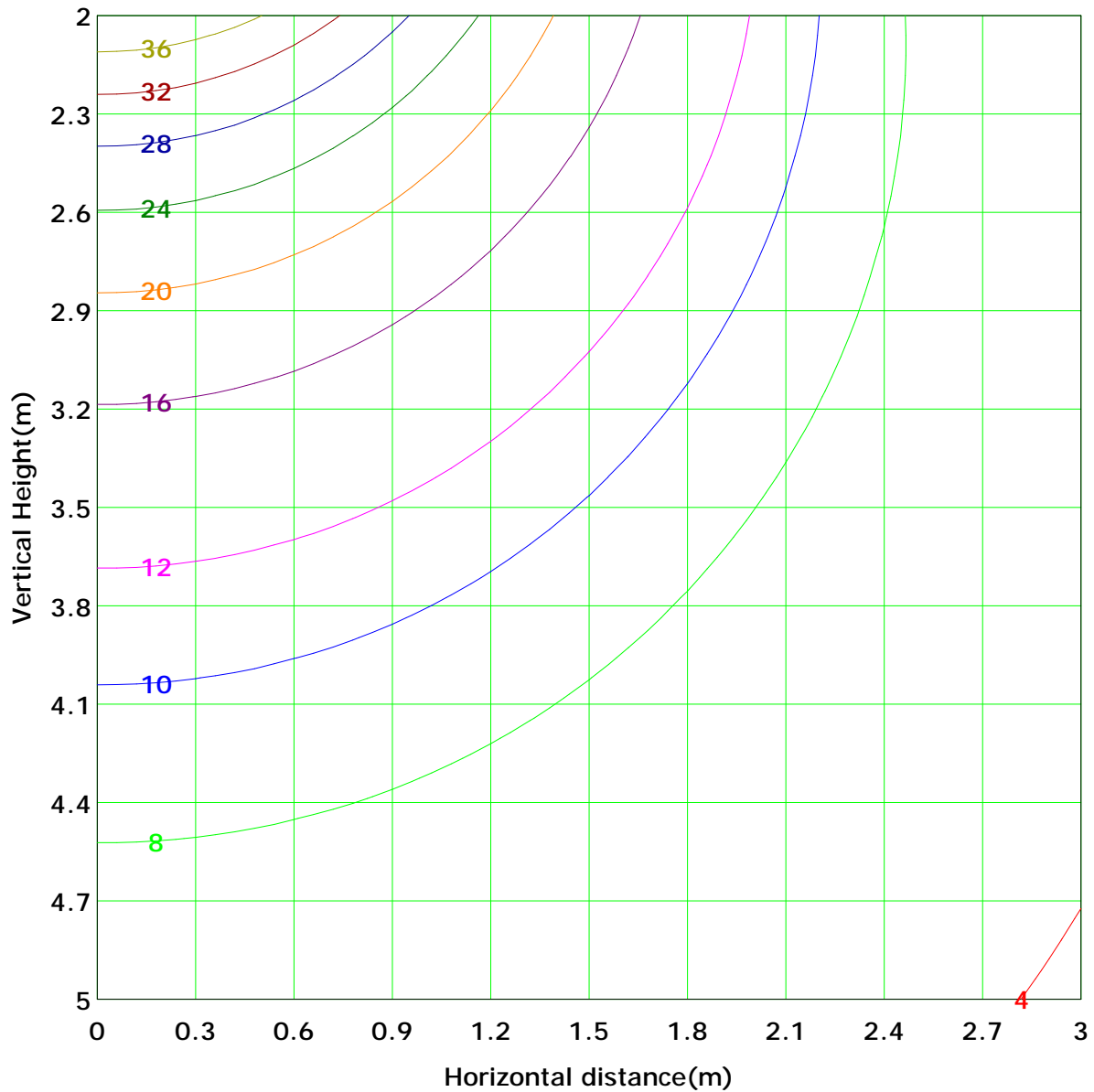
Distance: 9.028 m

Humidity: 60%

Inspector:



## Vertical IsoLux Plot



|                 |                  |                  |
|-----------------|------------------|------------------|
| Lowest(m): 2.0m | Highest(m): 5.0m | Max Lux: 39.8 lx |
| ( 10%): 4.0 lx  | ( 20%): 8.0 lx   |                  |
| ( 25%): 10.0 lx | ( 30%): 11.9 lx  |                  |
| ( 40%): 15.9 lx | ( 50%): 19.9 lx  |                  |
| ( 60%): 23.9 lx | ( 70%): 27.9 lx  |                  |
| ( 80%): 31.9 lx | ( 90%): 35.8 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:

## 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) |
|------------------|---------|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|---------|---------|
| Horizontal plane | -90     | 0.0 | 0.0 | 0.1 | 0.1  | 0.2  | 0.3  | 0.5  | 0.5  | 0.6  | 0.6  | 0.5  | 0.5  | 0.4  | 0.3  | 0.2  | 0.1 | 0.1 | 0.0 | 0.0 |         |         |
|                  | -80     | 0.0 | 0.0 | 0.1 | 0.3  | 0.5  | 0.7  | 0.9  | 1.1  | 1.2  | 1.2  | 1.1  | 0.9  | 0.7  | 0.5  | 0.3  | 0.1 | 0.0 | 0.0 | 0.0 | 4.9     | 2.7     |
|                  | -70     | 0.0 | 0.1 | 0.2 | 0.5  | 0.8  | 1.1  | 1.4  | 1.6  | 1.8  | 1.8  | 1.6  | 1.4  | 1.1  | 0.8  | 0.5  | 0.2 | 0.1 | 0.0 | 0.0 | 9.6     | 9.1     |
|                  | -60     | 0.0 | 0.1 | 0.3 | 0.6  | 1.0  | 1.5  | 1.9  | 2.2  | 2.4  | 2.4  | 2.2  | 1.9  | 1.5  | 1.1  | 0.7  | 0.3 | 0.1 | 0.0 | 0.0 | 15.0    | 14.7    |
|                  | -50     | 0.0 | 0.1 | 0.4 | 0.8  | 1.3  | 1.9  | 2.4  | 2.8  | 3.0  | 3.0  | 2.8  | 2.4  | 1.9  | 1.4  | 0.8  | 0.4 | 0.1 | 0.0 | 0.0 | 20.4    | 20.2    |
|                  | -40     | 0.0 | 0.1 | 0.5 | 1.0  | 1.6  | 2.2  | 2.9  | 3.4  | 3.6  | 3.7  | 3.4  | 2.9  | 2.3  | 1.6  | 1.0  | 0.5 | 0.2 | 0.0 | 0.0 | 25.8    | 25.7    |
|                  | -30     | 0.0 | 0.2 | 0.5 | 1.1  | 1.8  | 2.5  | 3.3  | 3.8  | 4.2  | 4.2  | 3.9  | 3.3  | 2.6  | 1.8  | 1.1  | 0.6 | 0.2 | 0.0 | 0.0 | 35.0    | 34.9    |
|                  | -20     | 0.0 | 0.2 | 0.6 | 1.2  | 1.9  | 2.8  | 3.6  | 4.2  | 4.6  | 4.6  | 4.2  | 3.6  | 2.8  | 2.0  | 1.2  | 0.6 | 0.2 | 0.0 | 0.0 | 38.1    | 38.0    |
|                  | -10     | 0.0 | 0.2 | 0.6 | 1.2  | 2.0  | 2.9  | 3.7  | 4.4  | 4.8  | 4.8  | 4.4  | 3.8  | 2.9  | 2.0  | 1.2  | 0.6 | 0.2 | 0.0 | 0.0 | 39.7    | 39.6    |
|                  | 0       | 0.0 | 0.2 | 0.6 | 1.2  | 2.0  | 2.9  | 3.7  | 4.4  | 4.8  | 4.8  | 4.4  | 3.8  | 2.9  | 2.0  | 1.2  | 0.6 | 0.2 | 0.0 | 0.0 | 39.7    | 39.7    |
|                  | 10      | 0.0 | 0.2 | 0.6 | 1.2  | 1.9  | 2.8  | 3.6  | 4.2  | 4.6  | 4.6  | 4.2  | 3.6  | 2.8  | 2.0  | 1.2  | 0.6 | 0.2 | 0.0 | 0.0 | 38.3    | 38.2    |
|                  | 20      | 0.0 | 0.2 | 0.5 | 1.1  | 1.8  | 2.6  | 3.3  | 3.9  | 4.2  | 4.2  | 3.9  | 3.3  | 2.6  | 1.8  | 1.1  | 0.6 | 0.2 | 0.0 | 0.0 | 35.3    | 35.2    |
|                  | 30      | 0.0 | 0.2 | 0.5 | 1.0  | 1.6  | 2.3  | 2.9  | 3.4  | 3.7  | 3.7  | 3.4  | 2.9  | 2.3  | 1.6  | 1.0  | 0.5 | 0.2 | 0.0 | 0.0 | 31.1    | 31.1    |
|                  | 40      | 0.0 | 0.1 | 0.4 | 0.8  | 1.3  | 1.9  | 2.4  | 2.8  | 3.1  | 3.1  | 2.9  | 2.5  | 1.9  | 1.4  | 0.8  | 0.4 | 0.1 | 0.0 | 0.0 | 26.2    | 26.1    |
|                  | 50      | 0.0 | 0.1 | 0.3 | 0.7  | 1.1  | 1.5  | 1.9  | 2.3  | 2.4  | 2.5  | 2.3  | 2.0  | 1.6  | 1.1  | 0.7  | 0.3 | 0.1 | 0.0 | 0.0 | 20.8    | 20.7    |
|                  | 60      | 0.0 | 0.1 | 0.2 | 0.5  | 0.8  | 1.1  | 1.4  | 1.7  | 1.8  | 1.8  | 1.7  | 1.5  | 1.1  | 0.8  | 0.5  | 0.2 | 0.1 | 0.0 | 0.0 | 15.4    | 15.1    |
|                  | 70      | 0.0 | 0.0 | 0.1 | 0.3  | 0.5  | 0.7  | 0.9  | 1.1  | 1.2  | 1.2  | 1.1  | 1.0  | 0.8  | 0.5  | 0.3  | 0.1 | 0.0 | 0.0 | 0.0 | 10.0    | 9.4     |
|                  | 80      | 0.0 | 0.0 | 0.1 | 0.1  | 0.2  | 0.4  | 0.5  | 0.6  | 0.6  | 0.6  | 0.6  | 0.5  | 0.4  | 0.3  | 0.1  | 0.1 | 0.0 | 0.0 | 0.0 | 5.1     | 3.1     |
|                  | 90      | 0.2 | 2.1 | 6.6 | 13.6 | 22.3 | 32.0 | 41.2 | 48.3 | 52.5 | 52.6 | 48.8 | 41.8 | 32.7 | 22.9 | 14.0 | 6.9 | 2.2 | 0.2 | 0.2 | 441     |         |
|                  | Flux(E) | 0.0 | 1.4 | 6.1 | 13.1 | 21.9 | 31.6 | 40.9 | 48.1 | 52.2 | 52.4 | 48.5 | 41.5 | 32.3 | 22.5 | 13.5 | 6.4 | 1.6 | 0.0 | 0.0 |         | 434     |

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

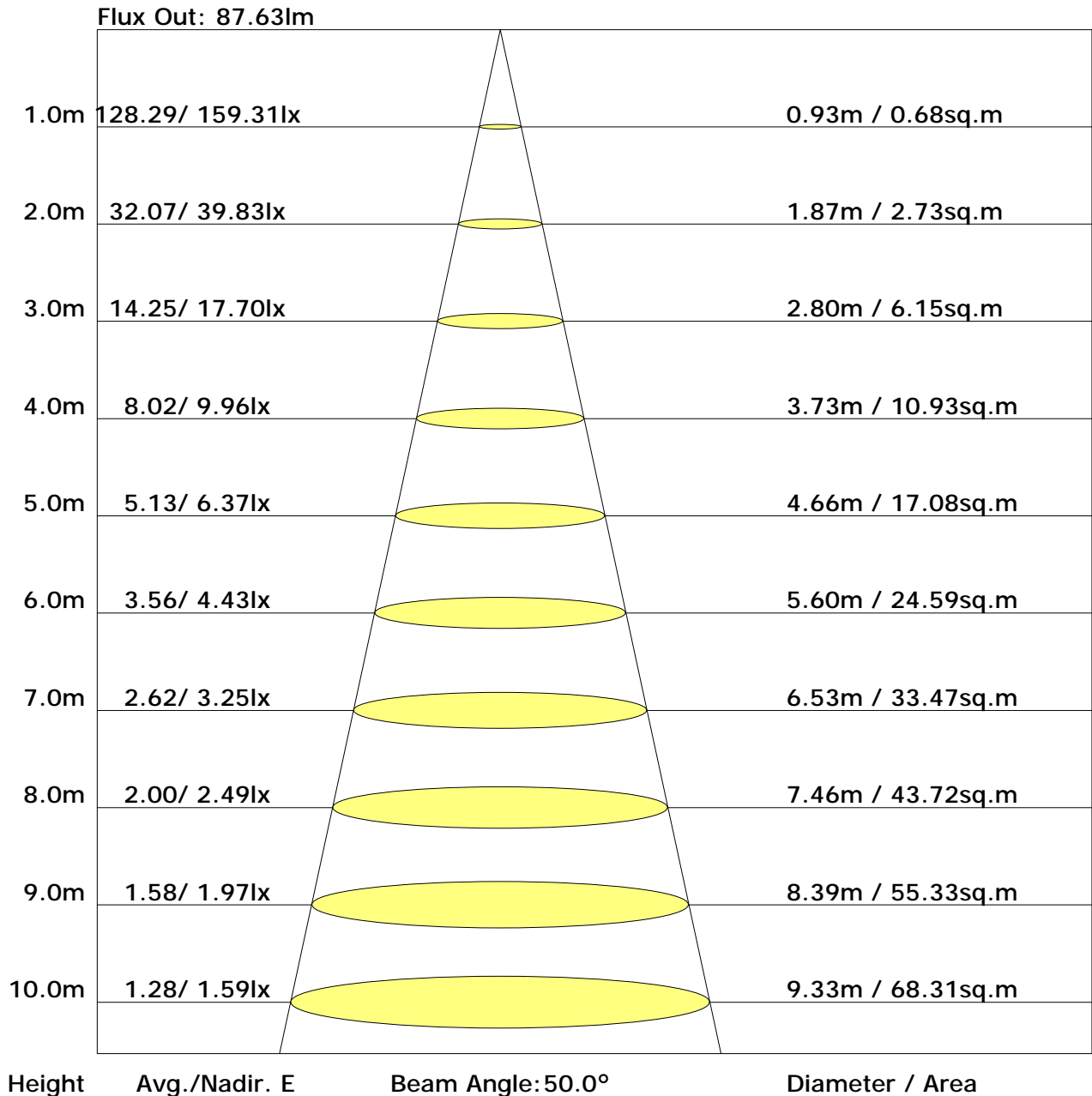
Distance: 9.028 m

Humidity: 60%

Inspector:



## 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        | 22.4             | 23.9 | 22.8 | 24.3 | 24.8 | 22.5           | 24.0 | 22.9 | 24.4 | 24.8 |
| 3H               | 24.1             | 25.5 | 24.5 | 25.9 | 26.4 | 24.3           | 25.7 | 24.8 | 26.1 | 26.6 |
| 4H               | 24.7             | 26.0 | 25.2 | 26.4 | 26.9 | 25.1           | 26.4 | 25.6 | 26.8 | 27.3 |
| 6H               | 25.1             | 26.3 | 25.6 | 26.8 | 27.3 | 25.7           | 27.0 | 26.2 | 27.4 | 27.9 |
| 8H               | 25.2             | 26.3 | 25.7 | 26.8 | 27.3 | 26.0           | 27.2 | 26.5 | 27.6 | 28.2 |
| 12H              | 25.2             | 26.4 | 25.7 | 26.8 | 27.4 | 26.2           | 27.3 | 26.7 | 27.8 | 28.3 |
| X=4H Y=2H        | 23.0             | 24.3 | 23.5 | 24.7 | 25.2 | 23.0           | 24.3 | 23.5 | 24.8 | 25.3 |
| 3H               | 24.9             | 26.0 | 25.4 | 26.5 | 27.0 | 25.1           | 26.2 | 25.6 | 26.7 | 27.2 |
| 4H               | 25.6             | 26.6 | 26.1 | 27.1 | 27.7 | 26.0           | 27.0 | 26.5 | 27.5 | 28.1 |
| 6H               | 26.1             | 27.0 | 26.7 | 27.5 | 28.1 | 26.8           | 27.7 | 27.4 | 28.2 | 28.8 |
| 8H               | 26.3             | 27.1 | 26.8 | 27.6 | 28.2 | 27.2           | 28.0 | 27.7 | 28.5 | 29.1 |
| 12H              | 26.4             | 27.1 | 26.9 | 27.7 | 28.2 | 27.4           | 28.2 | 28.0 | 28.7 | 29.3 |
| X=8H Y=4H        | 25.9             | 26.8 | 26.5 | 27.3 | 27.9 | 26.3           | 27.1 | 26.9 | 27.7 | 28.3 |
| 6H               | 26.6             | 27.3 | 27.1 | 27.8 | 28.4 | 27.2           | 28.0 | 27.8 | 28.5 | 29.1 |
| 8H               | 26.8             | 27.4 | 27.4 | 28.0 | 28.6 | 27.7           | 28.3 | 28.3 | 28.9 | 29.5 |
| 12H              | 26.9             | 27.5 | 27.5 | 28.1 | 28.7 | 28.1           | 28.6 | 28.7 | 29.2 | 29.9 |
| X=12H Y=4H       | 26.0             | 26.7 | 26.5 | 27.3 | 27.9 | 26.3           | 27.1 | 26.9 | 27.6 | 28.2 |
| 6H               | 26.7             | 27.3 | 27.3 | 27.8 | 28.5 | 27.3           | 27.9 | 27.9 | 28.5 | 29.1 |
| 8H               | 26.9             | 27.5 | 27.5 | 28.1 | 28.7 | 27.8           | 28.3 | 28.4 | 28.9 | 29.6 |

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  | 0.55           | 0.65 | 0.72 | 0.78 | 0.85 | 0.90 | 0.93 | 0.98 | 1.01 |
|  | 0.30 |       | 0.47           | 0.58 | 0.65 | 0.70 | 0.78 | 0.84 | 0.88 | 0.93 | 0.97 |
|  | 0.20 |       | 0.42           | 0.52 | 0.59 | 0.65 | 0.73 | 0.79 | 0.84 | 0.90 | 0.94 |
| 0.50   | 0.50 | 0.20  | 0.53           | 0.63 | 0.69 | 0.74 | 0.81 | 0.85 | 0.89 | 0.93 | 0.96 |
|  | 0.30 |       | 0.46           | 0.56 | 0.63 | 0.68 | 0.76 | 0.81 | 0.84 | 0.89 | 0.93 |
|  | 0.20 |       | 0.41           | 0.51 | 0.58 | 0.63 | 0.71 | 0.77 | 0.81 | 0.86 | 0.90 |
| 0.30   | 0.50 | 0.20  | 0.51           | 0.60 | 0.66 | 0.71 | 0.77 | 0.81 | 0.84 | 0.88 | 0.91 |
|  | 0.30 |       | 0.45           | 0.54 | 0.61 | 0.66 | 0.73 | 0.78 | 0.81 | 0.86 | 0.89 |
|  | 0.20 |       | 0.41           | 0.50 | 0.57 | 0.62 | 0.69 | 0.74 | 0.78 | 0.83 | 0.86 |
| 0.00   | 0.00 | 0.00  | 0.38           | 0.47 | 0.53 | 0.58 | 0.65 | 0.69 | 0.73 | 0.78 | 0.80 |
| 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  | 0.99           | 0.82 | 0.71 | 0.62 | 0.50 | 0.42 | 0.36 | 0.28 | 0.23 |  |
|   | 0.30 |       | 0.83           | 0.71 | 0.62 | 0.55 | 0.45 | 0.38 | 0.33 | 0.26 | 0.22 |  |
|   | 0.20 |       | 0.71           | 0.62 | 0.55 | 0.49 | 0.41 | 0.35 | 0.31 | 0.25 | 0.21 |  |
| 0.50  | 0.50 | 0.20  | 0.95           | 0.78 | 0.67 | 0.59 | 0.47 | 0.42 | 0.34 | 0.26 | 0.22 |  |
|   | 0.30 |       | 0.80           | 0.68 | 0.59 | 0.53 | 0.43 | 0.36 | 0.32 | 0.25 | 0.21 |  |
|   | 0.20 |       | 0.70           | 0.60 | 0.53 | 0.48 | 0.40 | 0.34 | 0.30 | 0.24 | 0.20 |  |
| 0.30  | 0.50 | 0.20  | 0.91           | 0.75 | 0.64 | 0.56 | 0.45 | 0.37 | 0.32 | 0.25 | 0.21 |  |
|   | 0.30 |       | 0.78           | 0.66 | 0.57 | 0.51 | 0.41 | 0.35 | 0.30 | 0.24 | 0.20 |  |
|   | 0.20 |       | 0.68           | 0.59 | 0.52 | 0.46 | 0.38 | 0.33 | 0.29 | 0.23 | 0.19 |  |
| 0.00  | 0.00 | 0.00  | 0.57           | 0.49 | 0.42 | 0.37 | 0.31 | 0.26 | 0.22 | 0.18 | 0.15 |  |
| <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 = 1.25 |      |      |      |      |      |      |      |      |
|--|------|-------|----------------|------|------|------|------|------|------|------|------|
| 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  | 0.21           | 0.22 | 0.23 | 0.24 | 0.25 | 0.25 | 0.26 | 0.26 | 0.27 |
|  | 0.30 |       | 0.14           | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.23 | 0.24 |
|  | 0.20 |       | 0.09           | 0.11 | 0.12 | 0.14 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 |
| 0.50   | 0.50 | 0.20  | 0.20           | 0.22 | 0.22 | 0.23 | 0.24 | 0.24 | 0.25 | 0.25 | 0.25 |
|  | 0.30 |       | 0.14           | 0.15 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 |
|  | 0.20 |       | 0.09           | 0.11 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 |
| 0.30   | 0.50 | 0.20  | 0.20           | 0.21 | 0.22 | 0.22 | 0.23 | 0.23 | 0.24 | 0.24 | 0.24 |
|  | 0.30 |       | 0.14           | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.20 | 0.21 | 0.22 |
|  | 0.20 |       | 0.09           | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 |
| 0.00   | 0.00 | 0.00  | 0.05           | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 |
| 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      | 159.4                     | 0.2                | 0.2                    | 0.03                  | 0.03                      |
| 1.0-2.0      | 159.3                     | 0.5                | 0.6                    | 0.10                  | 0.13                      |
| 2.0-3.0      | 159.2                     | 0.8                | 1.4                    | 0.16                  | 0.30                      |
| 3.0-4.0      | 159.0                     | 1.1                | 2.4                    | 0.23                  | 0.53                      |
| 4.0-5.0      | 158.8                     | 1.4                | 3.8                    | 0.29                  | 0.82                      |
| 5.0-6.0      | 158.4                     | 1.7                | 5.5                    | 0.36                  | 1.18                      |
| 6.0-7.0      | 158.0                     | 2.0                | 7.4                    | 0.42                  | 1.60                      |
| 7.0-8.0      | 157.6                     | 2.3                | 9.7                    | 0.49                  | 2.09                      |
| 8.0-9.0      | 157.0                     | 2.5                | 12.2                   | 0.55                  | 2.64                      |
| 9.0-10.0     | 156.4                     | 2.8                | 15.1                   | 0.61                  | 3.25                      |
| 10.0-11.0    | 155.7                     | 3.1                | 18.2                   | 0.67                  | 3.92                      |
| 11.0-12.0    | 154.9                     | 3.4                | 21.6                   | 0.73                  | 4.65                      |
| 12.0-13.0    | 154.1                     | 3.7                | 25.2                   | 0.79                  | 5.44                      |
| 13.0-14.0    | 153.2                     | 3.9                | 29.1                   | 0.85                  | 6.28                      |
| 14.0-15.0    | 152.2                     | 4.2                | 33.3                   | 0.90                  | 7.18                      |
| 15.0-16.0    | 151.2                     | 4.4                | 37.8                   | 0.96                  | 8.14                      |
| 16.0-17.0    | 150.1                     | 4.7                | 42.4                   | 1.01                  | 9.15                      |
| 17.0-18.0    | 149.0                     | 4.9                | 47.3                   | 1.06                  | 10.21                     |
| 18.0-19.0    | 147.7                     | 5.1                | 52.5                   | 1.11                  | 11.31                     |
| 19.0-20.0    | 146.5                     | 5.4                | 57.8                   | 1.16                  | 12.47                     |
| 20.0-21.0    | 145.1                     | 5.6                | 63.4                   | 1.20                  | 13.67                     |
| 21.0-22.0    | 143.7                     | 5.8                | 69.2                   | 1.25                  | 14.92                     |
| 22.0-23.0    | 142.2                     | 6.0                | 75.2                   | 1.29                  | 16.20                     |
| 23.0-24.0    | 140.7                     | 6.2                | 81.3                   | 1.33                  | 17.53                     |
| 24.0-25.0    | 139.1                     | 6.3                | 87.6                   | 1.36                  | 18.89                     |
| 25.0-26.0    | 137.5                     | 6.5                | 94.1                   | 1.40                  | 20.29                     |
| 26.0-27.0    | 135.8                     | 6.6                | 100.8                  | 1.43                  | 21.73                     |
| 27.0-28.0    | 134.1                     | 6.8                | 107.6                  | 1.46                  | 23.19                     |
| 28.0-29.0    | 132.3                     | 6.9                | 114.5                  | 1.49                  | 24.68                     |
| 29.0-30.0    | 130.5                     | 7.0                | 121.5                  | 1.52                  | 26.20                     |
| 30.0-31.0    | 128.6                     | 7.2                | 128.7                  | 1.54                  | 27.75                     |
| 31.0-32.0    | 126.7                     | 7.3                | 135.9                  | 1.57                  | 29.31                     |
| 32.0-33.0    | 124.8                     | 7.4                | 143.3                  | 1.59                  | 30.90                     |
| 33.0-34.0    | 122.8                     | 7.4                | 150.7                  | 1.60                  | 32.50                     |
| 34.0-35.0    | 120.8                     | 7.5                | 158.2                  | 1.62                  | 34.12                     |
| 35.0-36.0    | 118.8                     | 7.6                | 165.8                  | 1.63                  | 35.75                     |

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    | 116.7                     | 7.6                | 173.4                  | 1.64                  | 37.39                     |
| 37.0-38.0    | 114.6                     | 7.6                | 181.1                  | 1.65                  | 39.04                     |
| 38.0-39.0    | 112.5                     | 7.7                | 188.7                  | 1.66                  | 40.69                     |
| 39.0-40.0    | 110.3                     | 7.7                | 196.4                  | 1.66                  | 42.35                     |
| 40.0-41.0    | 108.1                     | 7.7                | 204.1                  | 1.66                  | 44.01                     |
| 41.0-42.0    | 106.0                     | 7.7                | 211.8                  | 1.66                  | 45.67                     |
| 42.0-43.0    | 103.8                     | 7.7                | 219.5                  | 1.66                  | 47.33                     |
| 43.0-44.0    | 101.6                     | 7.7                | 227.2                  | 1.65                  | 48.98                     |
| 44.0-45.0    | 99.3                      | 7.6                | 234.8                  | 1.65                  | 50.63                     |
| 45.0-46.0    | 97.1                      | 7.6                | 242.4                  | 1.64                  | 52.26                     |
| 46.0-47.0    | 94.8                      | 7.5                | 250.0                  | 1.63                  | 53.89                     |
| 47.0-48.0    | 92.6                      | 7.5                | 257.4                  | 1.61                  | 55.50                     |
| 48.0-49.0    | 90.3                      | 7.4                | 264.9                  | 1.60                  | 57.10                     |
| 49.0-50.0    | 88.0                      | 7.3                | 272.2                  | 1.58                  | 58.69                     |
| 50.0-51.0    | 85.8                      | 7.3                | 279.5                  | 1.56                  | 60.25                     |
| 51.0-52.0    | 83.5                      | 7.2                | 286.6                  | 1.55                  | 61.80                     |
| 52.0-53.0    | 81.2                      | 7.1                | 293.7                  | 1.52                  | 63.32                     |
| 53.0-54.0    | 79.0                      | 7.0                | 300.6                  | 1.50                  | 64.82                     |
| 54.0-55.0    | 76.7                      | 6.8                | 307.5                  | 1.48                  | 66.30                     |
| 55.0-56.0    | 74.5                      | 6.7                | 314.2                  | 1.45                  | 67.75                     |
| 56.0-57.0    | 72.2                      | 6.6                | 320.8                  | 1.42                  | 69.17                     |
| 57.0-58.0    | 70.0                      | 6.5                | 327.3                  | 1.39                  | 70.57                     |
| 58.0-59.0    | 67.7                      | 6.3                | 333.6                  | 1.36                  | 71.93                     |
| 59.0-60.0    | 65.4                      | 6.2                | 339.8                  | 1.33                  | 73.26                     |
| 60.0-61.0    | 63.2                      | 6.0                | 345.8                  | 1.30                  | 74.56                     |
| 61.0-62.0    | 61.0                      | 5.9                | 351.7                  | 1.27                  | 75.83                     |
| 62.0-63.0    | 58.8                      | 5.7                | 357.4                  | 1.23                  | 77.07                     |
| 63.0-64.0    | 56.6                      | 5.6                | 363.0                  | 1.20                  | 78.26                     |
| 64.0-65.0    | 54.4                      | 5.4                | 368.4                  | 1.16                  | 79.42                     |
| 65.0-66.0    | 52.2                      | 5.2                | 373.6                  | 1.12                  | 80.54                     |
| 66.0-67.0    | 50.0                      | 5.0                | 378.6                  | 1.08                  | 81.63                     |
| 67.0-68.0    | 47.8                      | 4.8                | 383.5                  | 1.04                  | 82.67                     |
| 68.0-69.0    | 45.6                      | 4.7                | 388.1                  | 1.00                  | 83.68                     |
| 69.0-70.0    | 43.5                      | 4.5                | 392.6                  | 0.96                  | 84.64                     |
| 70.0-71.0    | 41.3                      | 4.3                | 396.8                  | 0.92                  | 85.56                     |
| 71.0-72.0    | 39.2                      | 4.1                | 400.9                  | 0.88                  | 86.44                     |

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    | 37.1                      | 3.9                | 404.8                  | 0.84                  | 87.28                     |
| 73.0-74.0    | 35.0                      | 3.7                | 408.5                  | 0.79                  | 88.07                     |
| 74.0-75.0    | 33.0                      | 3.5                | 412.0                  | 0.75                  | 88.82                     |
| 75.0-76.0    | 30.9                      | 3.3                | 415.3                  | 0.71                  | 89.53                     |
| 76.0-77.0    | 28.9                      | 3.1                | 418.3                  | 0.66                  | 90.20                     |
| 77.0-78.0    | 26.9                      | 2.9                | 421.2                  | 0.62                  | 90.82                     |
| 78.0-79.0    | 24.9                      | 2.7                | 423.9                  | 0.58                  | 91.40                     |
| 79.0-80.0    | 23.0                      | 2.5                | 426.4                  | 0.53                  | 91.93                     |
| 80.0-81.0    | 21.1                      | 2.3                | 428.7                  | 0.49                  | 92.42                     |
| 81.0-82.0    | 19.2                      | 2.1                | 430.7                  | 0.45                  | 92.87                     |
| 82.0-83.0    | 17.4                      | 1.9                | 432.6                  | 0.41                  | 93.28                     |
| 83.0-84.0    | 15.6                      | 1.7                | 434.3                  | 0.37                  | 93.64                     |
| 84.0-85.0    | 13.8                      | 1.5                | 435.9                  | 0.33                  | 93.97                     |
| 85.0-86.0    | 12.2                      | 1.3                | 437.2                  | 0.29                  | 94.26                     |
| 86.0-87.0    | 10.6                      | 1.2                | 438.3                  | 0.25                  | 94.51                     |
| 87.0-88.0    | 9.3                       | 1.0                | 439.4                  | 0.22                  | 94.73                     |
| 88.0-89.0    | 8.3                       | 0.9                | 440.3                  | 0.20                  | 94.93                     |
| 89.0-90.0    | 7.7                       | 0.8                | 441.1                  | 0.18                  | 95.11                     |
| 90.0-91.0    | 7.3                       | 0.8                | 441.9                  | 0.17                  | 95.28                     |
| 91.0-92.0    | 7.1                       | 0.8                | 442.7                  | 0.17                  | 95.45                     |
| 92.0-93.0    | 6.9                       | 0.8                | 443.5                  | 0.16                  | 95.61                     |
| 93.0-94.0    | 6.8                       | 0.7                | 444.2                  | 0.16                  | 95.77                     |
| 94.0-95.0    | 6.7                       | 0.7                | 444.9                  | 0.16                  | 95.93                     |
| 95.0-96.0    | 6.5                       | 0.7                | 445.6                  | 0.15                  | 96.08                     |
| 96.0-97.0    | 6.4                       | 0.7                | 446.3                  | 0.15                  | 96.23                     |
| 97.0-98.0    | 6.3                       | 0.7                | 447.0                  | 0.15                  | 96.38                     |
| 98.0-99.0    | 6.2                       | 0.7                | 447.7                  | 0.14                  | 96.52                     |
| 99.0-100.0   | 6.0                       | 0.7                | 448.4                  | 0.14                  | 96.67                     |
| 100.0-101.0  | 5.9                       | 0.6                | 449.0                  | 0.14                  | 96.80                     |
| 101.0-102.0  | 5.8                       | 0.6                | 449.6                  | 0.13                  | 96.94                     |
| 102.0-103.0  | 5.7                       | 0.6                | 450.2                  | 0.13                  | 97.07                     |
| 103.0-104.0  | 5.6                       | 0.6                | 450.8                  | 0.13                  | 97.20                     |
| 104.0-105.0  | 5.4                       | 0.6                | 451.4                  | 0.12                  | 97.32                     |
| 105.0-106.0  | 5.3                       | 0.6                | 452.0                  | 0.12                  | 97.44                     |
| 106.0-107.0  | 5.2                       | 0.5                | 452.5                  | 0.12                  | 97.56                     |
| 107.0-108.0  | 5.1                       | 0.5                | 453.0                  | 0.11                  | 97.67                     |

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  | 4.9                       | 0.5                | 453.5                  | 0.11                  | 97.79                     |
| 109.0-110.0  | 4.8                       | 0.5                | 454.0                  | 0.11                  | 97.89                     |
| 110.0-111.0  | 4.7                       | 0.5                | 454.5                  | 0.10                  | 98.00                     |
| 111.0-112.0  | 4.6                       | 0.5                | 455.0                  | 0.10                  | 98.10                     |
| 112.0-113.0  | 4.5                       | 0.5                | 455.4                  | 0.10                  | 98.20                     |
| 113.0-114.0  | 4.3                       | 0.4                | 455.9                  | 0.09                  | 98.29                     |
| 114.0-115.0  | 4.2                       | 0.4                | 456.3                  | 0.09                  | 98.38                     |
| 115.0-116.0  | 4.1                       | 0.4                | 456.7                  | 0.09                  | 98.47                     |
| 116.0-117.0  | 3.9                       | 0.4                | 457.1                  | 0.08                  | 98.55                     |
| 117.0-118.0  | 3.8                       | 0.4                | 457.5                  | 0.08                  | 98.63                     |
| 118.0-119.0  | 3.6                       | 0.3                | 457.8                  | 0.08                  | 98.70                     |
| 119.0-120.0  | 3.5                       | 0.3                | 458.1                  | 0.07                  | 98.77                     |
| 120.0-121.0  | 3.4                       | 0.3                | 458.4                  | 0.07                  | 98.84                     |
| 121.0-122.0  | 3.2                       | 0.3                | 458.7                  | 0.06                  | 98.91                     |
| 122.0-123.0  | 3.1                       | 0.3                | 459.0                  | 0.06                  | 98.97                     |
| 123.0-124.0  | 3.0                       | 0.3                | 459.3                  | 0.06                  | 99.03                     |
| 124.0-125.0  | 2.9                       | 0.3                | 459.6                  | 0.06                  | 99.08                     |
| 125.0-126.0  | 2.8                       | 0.2                | 459.8                  | 0.05                  | 99.14                     |
| 126.0-127.0  | 2.7                       | 0.2                | 460.1                  | 0.05                  | 99.19                     |
| 127.0-128.0  | 2.6                       | 0.2                | 460.3                  | 0.05                  | 99.24                     |
| 128.0-129.0  | 2.5                       | 0.2                | 460.5                  | 0.05                  | 99.28                     |
| 129.0-130.0  | 2.4                       | 0.2                | 460.7                  | 0.04                  | 99.33                     |
| 130.0-131.0  | 2.3                       | 0.2                | 460.9                  | 0.04                  | 99.37                     |
| 131.0-132.0  | 2.2                       | 0.2                | 461.1                  | 0.04                  | 99.41                     |
| 132.0-133.0  | 2.0                       | 0.2                | 461.2                  | 0.04                  | 99.44                     |
| 133.0-134.0  | 1.9                       | 0.2                | 461.4                  | 0.03                  | 99.48                     |
| 134.0-135.0  | 1.8                       | 0.1                | 461.5                  | 0.03                  | 99.51                     |
| 135.0-136.0  | 1.7                       | 0.1                | 461.7                  | 0.03                  | 99.53                     |
| 136.0-137.0  | 1.5                       | 0.1                | 461.8                  | 0.02                  | 99.56                     |
| 137.0-138.0  | 1.4                       | 0.1                | 461.9                  | 0.02                  | 99.58                     |
| 138.0-139.0  | 1.3                       | 0.1                | 462.0                  | 0.02                  | 99.60                     |
| 139.0-140.0  | 1.2                       | 0.1                | 462.1                  | 0.02                  | 99.62                     |
| 140.0-141.0  | 1.2                       | 0.1                | 462.1                  | 0.02                  | 99.64                     |
| 141.0-142.0  | 1.1                       | 0.1                | 462.2                  | 0.02                  | 99.65                     |
| 142.0-143.0  | 1.1                       | 0.1                | 462.3                  | 0.02                  | 99.67                     |
| 143.0-144.0  | 1.1                       | 0.1                | 462.4                  | 0.02                  | 99.69                     |

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  | 1.1                       | 0.1                | 462.4                  | 0.01                  | 99.70                     |
| 145.0-146.0  | 1.1                       | 0.1                | 462.5                  | 0.01                  | 99.71                     |
| 146.0-147.0  | 1.1                       | 0.1                | 462.6                  | 0.01                  | 99.73                     |
| 147.0-148.0  | 1.1                       | 0.1                | 462.6                  | 0.01                  | 99.74                     |
| 148.0-149.0  | 1.1                       | 0.1                | 462.7                  | 0.01                  | 99.76                     |
| 149.0-150.0  | 1.2                       | 0.1                | 462.8                  | 0.01                  | 99.77                     |
| 150.0-151.0  | 1.2                       | 0.1                | 462.8                  | 0.01                  | 99.78                     |
| 151.0-152.0  | 1.2                       | 0.1                | 462.9                  | 0.01                  | 99.80                     |
| 152.0-153.0  | 1.2                       | 0.1                | 462.9                  | 0.01                  | 99.81                     |
| 153.0-154.0  | 1.2                       | 0.1                | 463.0                  | 0.01                  | 99.82                     |
| 154.0-155.0  | 1.2                       | 0.1                | 463.1                  | 0.01                  | 99.84                     |
| 155.0-156.0  | 1.2                       | 0.1                | 463.1                  | 0.01                  | 99.85                     |
| 156.0-157.0  | 1.2                       | 0.1                | 463.2                  | 0.01                  | 99.86                     |
| 157.0-158.0  | 1.2                       | 0.1                | 463.2                  | 0.01                  | 99.87                     |
| 158.0-159.0  | 1.3                       | 0.1                | 463.3                  | 0.01                  | 99.88                     |
| 159.0-160.0  | 1.3                       | 0.0                | 463.3                  | 0.01                  | 99.89                     |
| 160.0-161.0  | 1.3                       | 0.0                | 463.4                  | 0.01                  | 99.90                     |
| 161.0-162.0  | 1.3                       | 0.0                | 463.4                  | 0.01                  | 99.91                     |
| 162.0-163.0  | 1.3                       | 0.0                | 463.4                  | 0.01                  | 99.92                     |
| 163.0-164.0  | 1.3                       | 0.0                | 463.5                  | 0.01                  | 99.93                     |
| 164.0-165.0  | 1.3                       | 0.0                | 463.5                  | 0.01                  | 99.94                     |
| 165.0-166.0  | 1.3                       | 0.0                | 463.6                  | 0.01                  | 99.95                     |
| 166.0-167.0  | 1.3                       | 0.0                | 463.6                  | 0.01                  | 99.95                     |
| 167.0-168.0  | 1.3                       | 0.0                | 463.6                  | 0.01                  | 99.96                     |
| 168.0-169.0  | 1.3                       | 0.0                | 463.7                  | 0.01                  | 99.97                     |
| 169.0-170.0  | 1.3                       | 0.0                | 463.7                  | 0.01                  | 99.97                     |
| 170.0-171.0  | 1.4                       | 0.0                | 463.7                  | 0.01                  | 99.98                     |
| 171.0-172.0  | 1.4                       | 0.0                | 463.7                  | 0.00                  | 99.98                     |
| 172.0-173.0  | 1.4                       | 0.0                | 463.8                  | 0.00                  | 99.99                     |
| 173.0-174.0  | 1.4                       | 0.0                | 463.8                  | 0.00                  | 99.99                     |
| 174.0-175.0  | 1.4                       | 0.0                | 463.8                  | 0.00                  | 99.99                     |
| 175.0-176.0  | 1.4                       | 0.0                | 463.8                  | 0.00                  | 100.00                    |
| 176.0-177.0  | 1.4                       | 0.0                | 463.8                  | 0.00                  | 100.00                    |
| 177.0-178.0  | 1.4                       | 0.0                | 463.8                  | 0.00                  | 100.00                    |
| 178.0-179.0  | 1.4                       | 0.0                | 463.8                  | 0.00                  | 100.00                    |
| 179.0-180.0  | 1.4                       | 0.0                | 463.8                  | 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: