



交通车辆灯具和信号灯分布式光度 计 (LSG-1950)

Brochure

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Lead in CFL & LED Test Instruments

Rev. 1/29/2019

1. 系统配置

报价包括以下项目：

A. 角光度系统：

- 测角旋转控制台：采用日本三菱电机和德国角度解码器系统，使得角度能精确到 0.01° 以及角度分辨率在 0.001°
- 光度计旋转控制器：与电脑连接，由软件控制。
- 放置在暗室中的旋转控制器：方便客户在暗室装光源时控制旋转，而无需电脑控制。
- 双通道，高精度光度计
- A 级恒温探头（L 级可选）
- 十字激光对准系统用于校准
- 中英文软件

B. SLS-150W 直流光强标准光源

C. LS2012 数字电参数测量仪：高精度测量交直流电压，电流，功率，功率因素，谐波。

D. DC6010 直流稳压稳流电源：60V/10A 恒流恒压直流输出

E. CASE-19IN 19 英寸标准机柜

F. 自动可调光阑：根据不同的光源尺寸可远程控制调节光阑尺寸

G. 两套夹具：两套多功能夹具

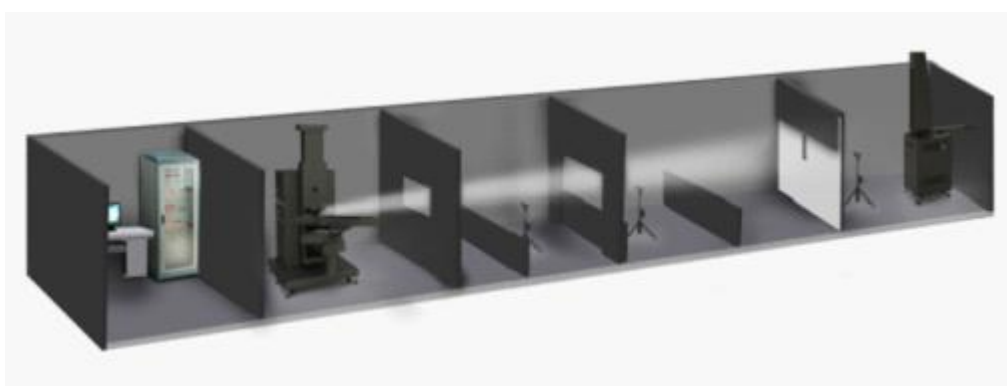
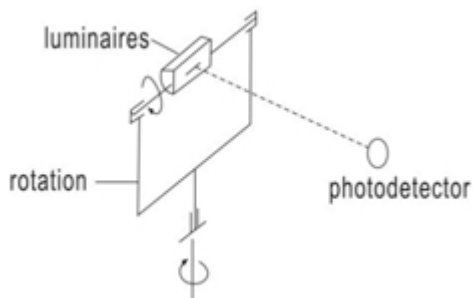
H. 木质包装箱



注意：电脑及打印机需客户自行准备，要求至少有一个 USB 接口。

2. 测试原理

LSG-1950 是 CIE A- α 推荐使用的分布式光度计。当测试样品绕水平轴和垂直轴旋转时光度探头保持静止并面向被测物，以便测试被测灯的光线强度和照度值。



3. 技术参数

- 1) A 轴旋转角度: $-180^{\circ}\sim 180^{\circ}$
- 2) 角度精度: 0.01° ; 角度分辨率: 0.001°
- 3) 光度测试范围: 照度 $0.001\text{lx}\sim 99,999\text{lx}$; 光强 $1.0\text{cd}\sim 10^7\text{cd}$ (探头)
- 4) 光度精度: CIE A 级 (L 级可选)
- 5) 测试精度: 2% (在标准灯下); 杂散光: 小于 0.1%
- 6) 最大测试灯具重量 35kg
- 7) 软件可运行在 WinXP 或 Win7 系统下

4. 实验室要求

- 1) 根据 CIE 要求房间尺寸
 - A. 暗室: 放置分布光度计
尺寸: $W5.0\text{m}\times L5.0\text{m}\times H5.9\text{m}$
 - B. 暗室: 光路
尺寸: $W1.5\text{m}\times H1.5\text{m}\times L(15\text{m} - 30\text{m})$
 - C. 操作室
尺寸: 不小于 $W3\text{m}\times L3\text{m}$

*暗室的墙壁，天花板及地板必须用哑光漆喷涂，或者用黑布和黑地毯。

*空调：放置在暗室中以控制灯具周围的温度以达到CIE要求。

注意：客户在下单之后，LISUN GROUP 的工程部门会根据客户实际的实验室空间出一份实验室设计图。

2) 杂光消除要求

在 LSG-1950 系统中，探头只能接收反光镜直接发射的光。灯具直接发射的光以及墙壁和地板反射的光应该用挡光板挡掉。暗室内表面及光通道中的挡光板应该用哑光漆涂黑或是用黑布，黑地毯盖住。

3) 环境温度

T 在测试时，灯具周围的温度必须控制在 $25^{\circ}\text{C}\pm 1^{\circ}\text{C}$ ，特殊情况可做以下调整：

- a. 钨丝白炽灯： $25^{\circ}\text{C}\pm 5^{\circ}\text{C}$
- b. 双端荧光灯： $25^{\circ}\text{C}\pm 1^{\circ}\text{C}$
- c. 高压汞灯： $25^{\circ}\text{C}\pm 2^{\circ}\text{C}$
- d. 金卤灯： $25^{\circ}\text{C}\pm 2^{\circ}\text{C}$
- e. 高压钠灯： $25^{\circ}\text{C}\pm 2^{\circ}\text{C}$
- f. 低压钠灯： $25^{\circ}\text{C}\pm 2$

4) 空气流动

自然风，空调或是光源转动会引起光度计周围的空气流动，但是空气流动速度不能超过 0.2m/s 。

5) 振动和冲击

当点亮灯具的时候，振动不应该超过 $10\text{m/s}^2(4-3000\text{Hz})$ ，或者灯具移动范围不能超过 30mm (至少 4Hz)。

6) 烟雾，灰尘及湿度

测试环境应保持无烟，无尘及干燥的环境中。同时，测试中，烟雾，灰尘及潮湿都会影响反光镜反射及减少杂散光。所以，实验室必须保持整洁干净，无烟无尘，干燥。湿度不应超过 $60\%RH$ 。

5. 服务

1) 安装与培训

LISUN GROUP 工程师负责安装仪器及培训使用人员。

2) 质保期：24 个月

保修期内免费保修，如需上门服务，需要支付差旅费用。

3) 免费升级软件

6. 仪器设计标准

LSG-1950 设计结构, 技术参数, 测试操作步骤及软件可满足以下标准要求 GB、ECE、SAE、JIS、KS 和 FMVSS108 等。

7. 典型海外买家资料:

请联系 LISUN 销售部门索取资料。

8. 应用软件

LSG-1950 操作可完全由软件实现, 包括光度计的运转, 数据的采集及处理, 实时显示在电脑屏幕上。可直接打印测试报告, 操作更方面, 数据更安全。

系统可导出以下格式文件:

IESNA Files (*.ies)
EULUMDAT Files (*.ldt)
CIEBSE TM14 Files (*.cib)
CIEBSE TM14 Files (*.tm4)
CIE Files (*.cie)
DIN CEN Files (*.cen)
Excel File (*.csv)

以上格式可直接导入相关的照明测试软件, 如 DiaLux

应用软件可以实现照明设计要求的基本计算, 如在一个工作平面上的等照度分布曲线, 亮度限制曲线, 光效, 有效光束角, 上射光通量比, 下射光通量比, 有效光通量, 利用系数曲线等。

The Next Page is the Test Report by software

Report No.:

Test Time: 2013-06-18 12:03

Luminaire Property

Luminaire Manufacturer: UL
 Luminous Length (mm): 500
 Luminous Height (mm): 400
 Current: 0.893 A
 Power Factor: 0.973

Luminous Width (mm): 500
 Voltage: 220.1 V
 Power: 191.50 W

Photometric Results

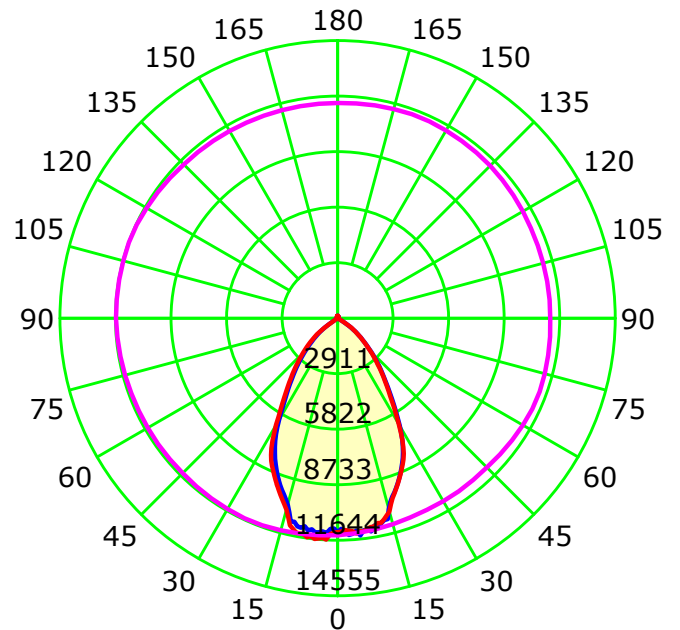
CIE Class: Direct
 Measurement Flux: 13418.9 lm
 Downward Ratio: 98%
 Field Angle: H105.6 V106.2
 Luminaire Efficacy Rating (LER): 70
 Max. Intensity: 11644.15 cd

Total Rated Lamp Lumens: 13418.9 lm
 Efficiency: 100%
 Upward Ratio: 2%
 Beam Angle: H63.4 V63.5
 Central Intensity: 11218.59 cd
 Pos of Max. Intensity: H247.5 V3

Picture Of Luminaire



Luminous Intensity Distribution Curve



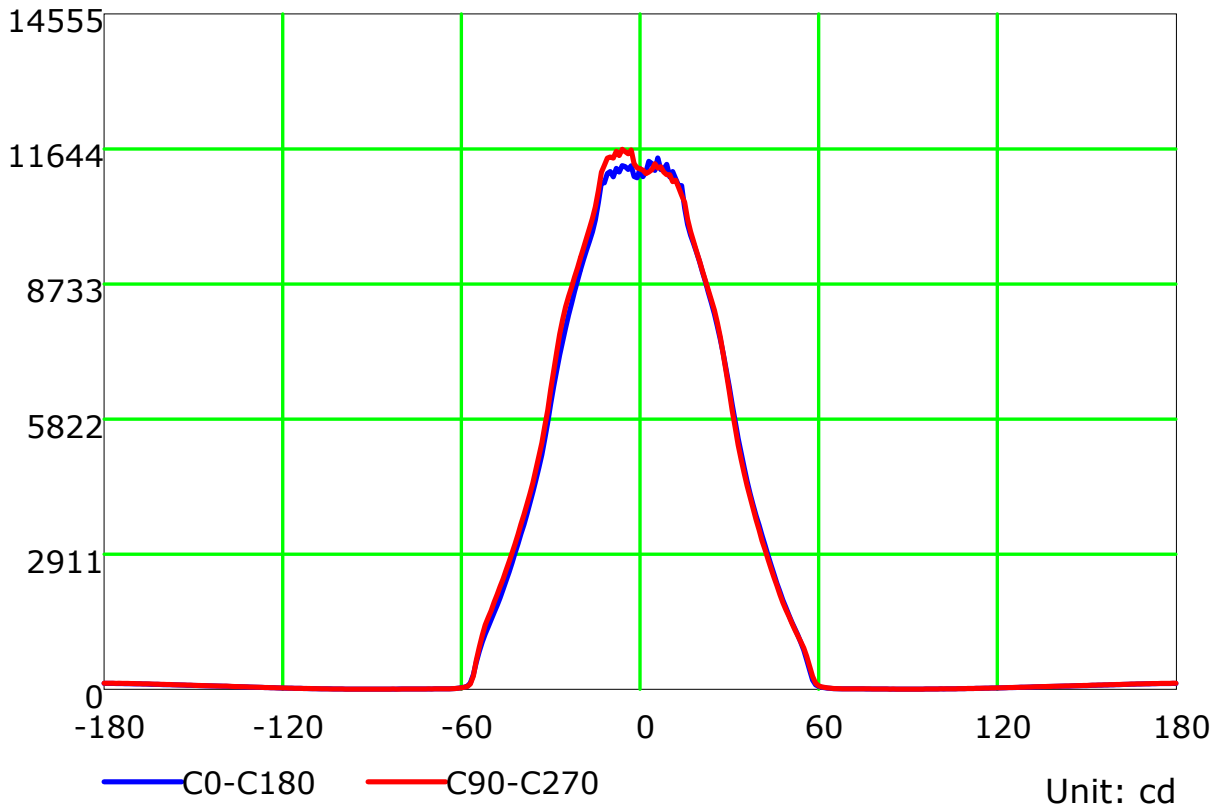
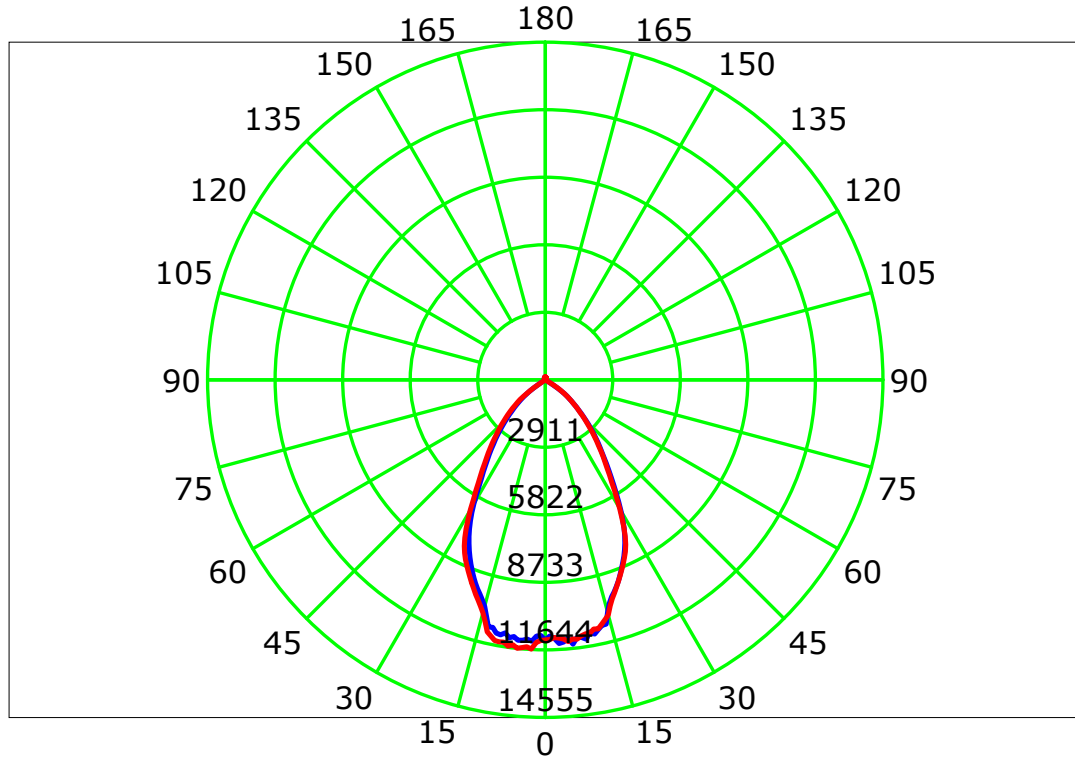
Unit: cd

— C0-C180 — C90-C270 — G3

C Plane (°):0.0-360.0: 22.5
 Test Lab: Lisun
 Test Type: TYPE C
 Temperature: 25 °C
 Operator: Ben

Gamma Plane (°):0.0-180.0:1.0
 Test Device: LSG-1900B Goniophotometer
 Distance: 2 m
 Humidity: 65 %
 Inspector:

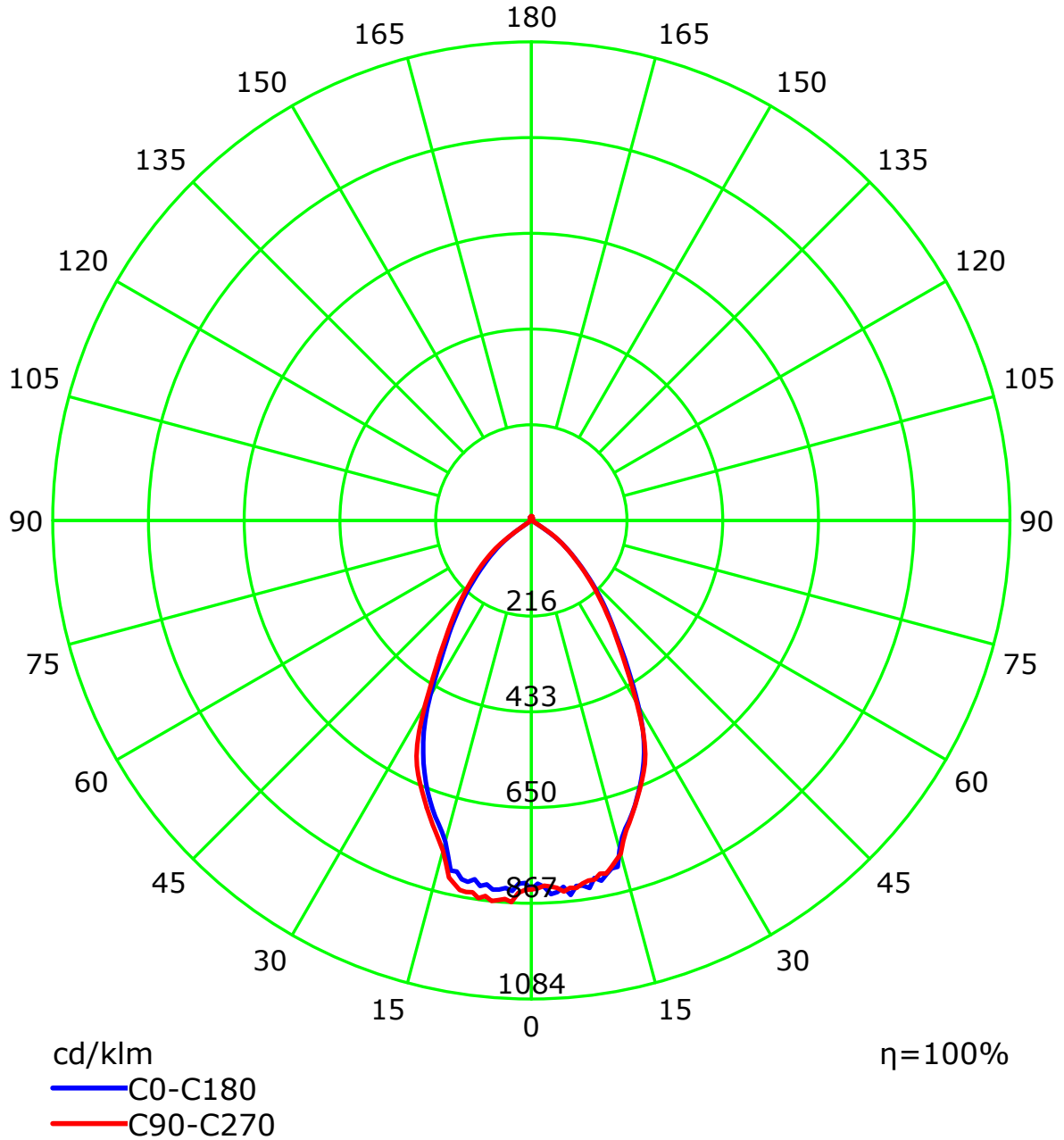
Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 22.5
 Test Lab: Lisun
 Test Type: TYPE C
 Temperature: 25 °C
 Operator: Ben

Gamma Plane (°):0.0-180.0:1.0
 Test Device: LSG-1900B Goniophotometer
 Distance: 2 m
 Humidity: 65 %
 Inspector:

Luminous Intensity Distribution Curve(cd/klm)



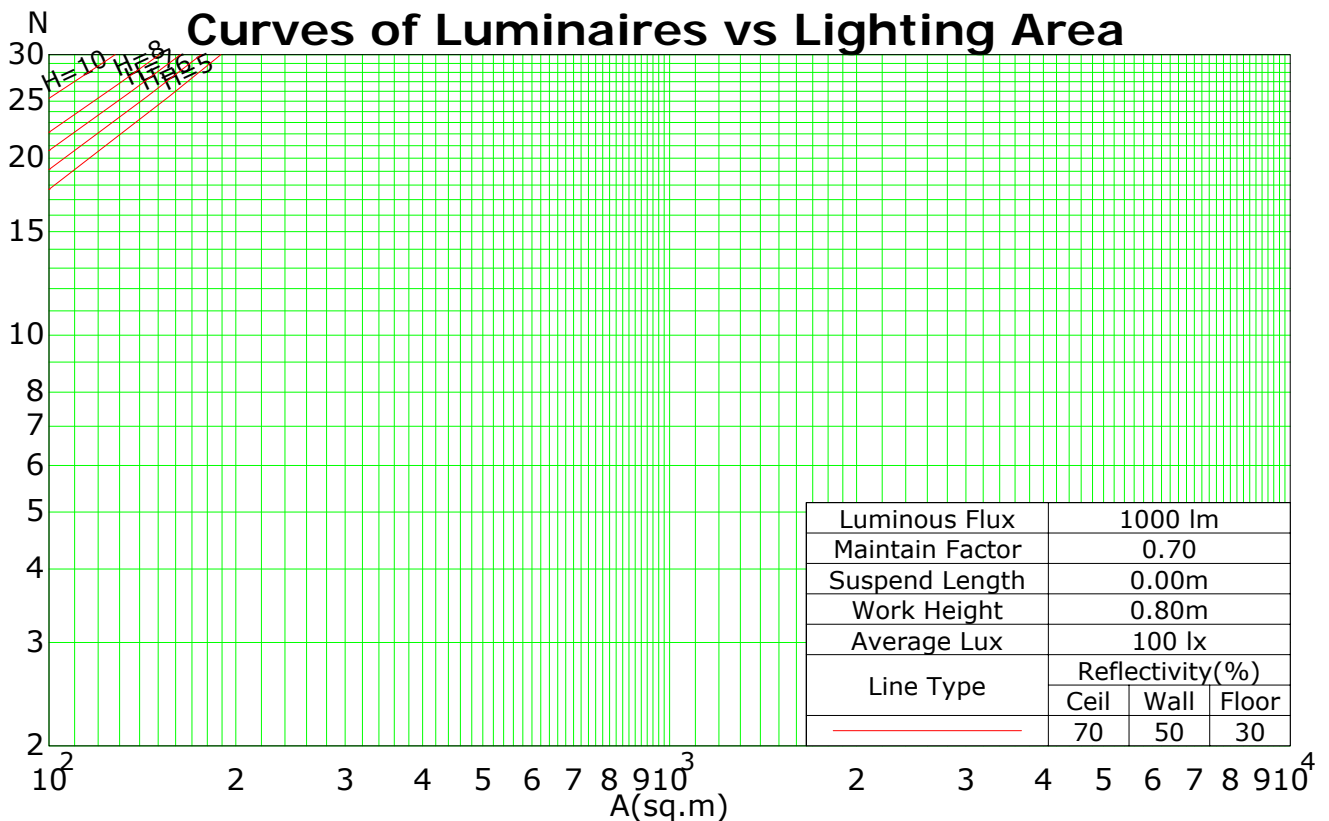
C Plane (°):0.0-360.0: 22.5
 Test Lab: Lisun
 Test Type: TYPE C
 Temperature: 25 °C
 Operator: Ben

Gamma Plane (°):0.0-180.0:1.0
 Test Device: LSG-1900B Goniophotometer
 Distance: 2 m
 Humidity: 65 %
 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 |
| RCCR | RF = 0.2 | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 110 | 110 | 110 | 105 | 105 | 105 | 100 | 100 | 100 | 98 |
| 1 | 112 | 109 | 107 | 104 | 110 | 107 | 105 | 102 | 103 | 101 | 99 | 99 | 97 | 96 | 95 | 94 | 92 | 91 |
| 2 | 106 | 101 | 96 | 92 | 104 | 99 | 95 | 91 | 95 | 92 | 89 | 92 | 89 | 87 | 89 | 87 | 85 | 83 |
| 3 | 100 | 93 | 87 | 83 | 98 | 91 | 86 | 82 | 88 | 84 | 80 | 85 | 82 | 79 | 83 | 80 | 77 | 76 |
| 4 | 94 | 86 | 79 | 75 | 92 | 84 | 79 | 74 | 82 | 77 | 73 | 79 | 75 | 72 | 77 | 74 | 71 | 69 |
| 5 | 88 | 79 | 73 | 68 | 87 | 78 | 72 | 67 | 76 | 71 | 67 | 74 | 69 | 66 | 72 | 68 | 65 | 63 |
| 6 | 83 | 73 | 67 | 62 | 82 | 72 | 66 | 62 | 71 | 65 | 61 | 69 | 64 | 60 | 67 | 63 | 60 | 58 |
| 7 | 79 | 68 | 62 | 57 | 77 | 67 | 61 | 57 | 66 | 60 | 56 | 65 | 60 | 56 | 63 | 59 | 55 | 54 |
| 8 | 74 | 64 | 57 | 53 | 73 | 63 | 57 | 52 | 62 | 56 | 52 | 60 | 55 | 52 | 59 | 55 | 51 | 50 |
| 9 | 70 | 60 | 53 | 49 | 69 | 59 | 53 | 49 | 58 | 52 | 48 | 57 | 52 | 48 | 56 | 51 | 48 | 46 |
| 10 | 67 | 56 | 50 | 45 | 65 | 55 | 49 | 45 | 54 | 49 | 45 | 53 | 48 | 45 | 53 | 48 | 45 | 43 |

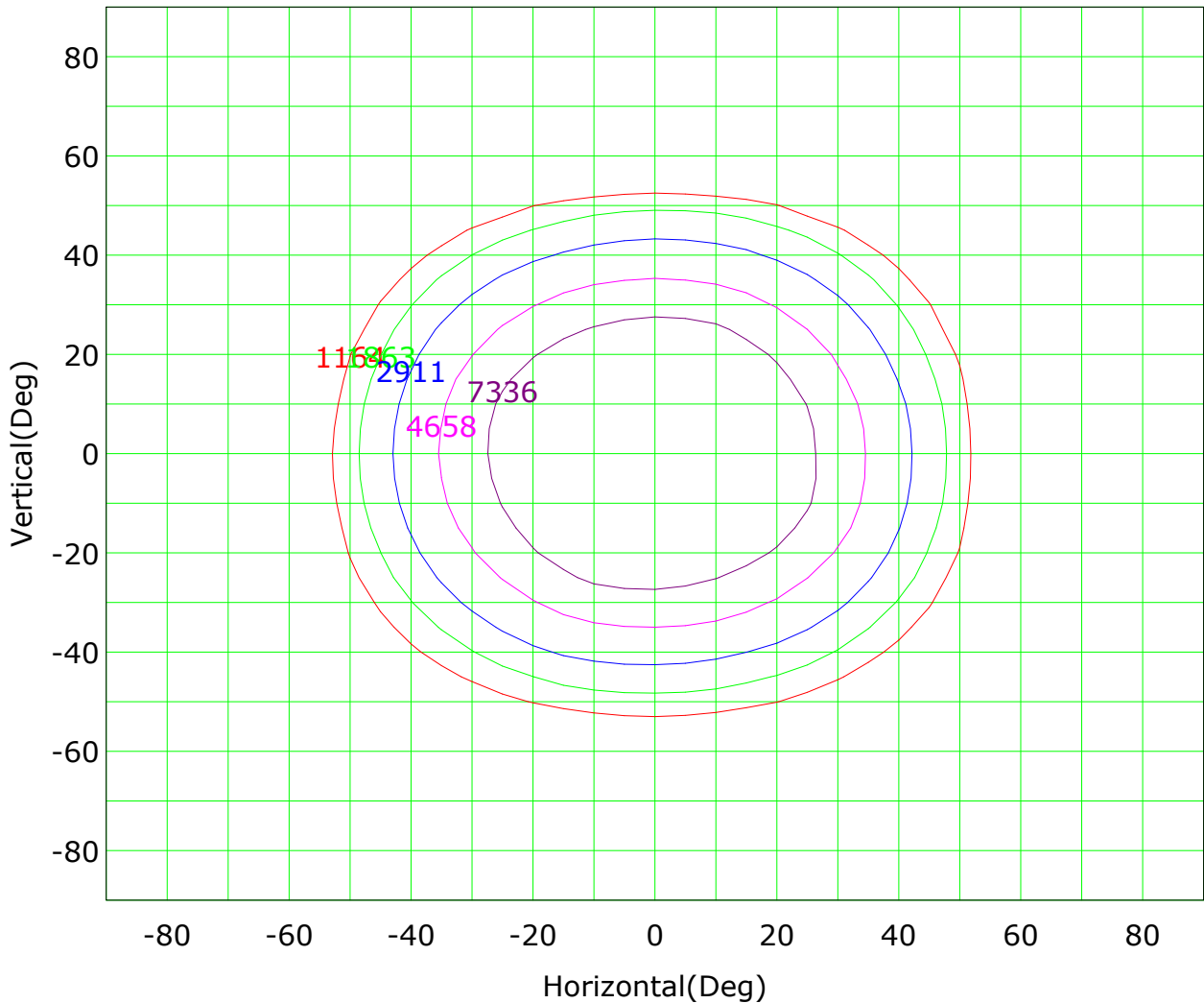
Spacing Criteria (0-180): 0.97
 Spacing Criteria (90-270): 0.99
 Spacing Criteria (Diagonal): 0.96



C Plane (°):0.0-360.0: 22.5
 Test Lab: Lisun
 Test Type: TYPE C
 Temperature: 25 °C
 Operator: Ben

Gamma Plane (°):0.0-180.0:1.0
 Test Device: LSG-1900B Goniophotometer
 Distance: 2 m
 Humidity: 65 %
 Inspector:

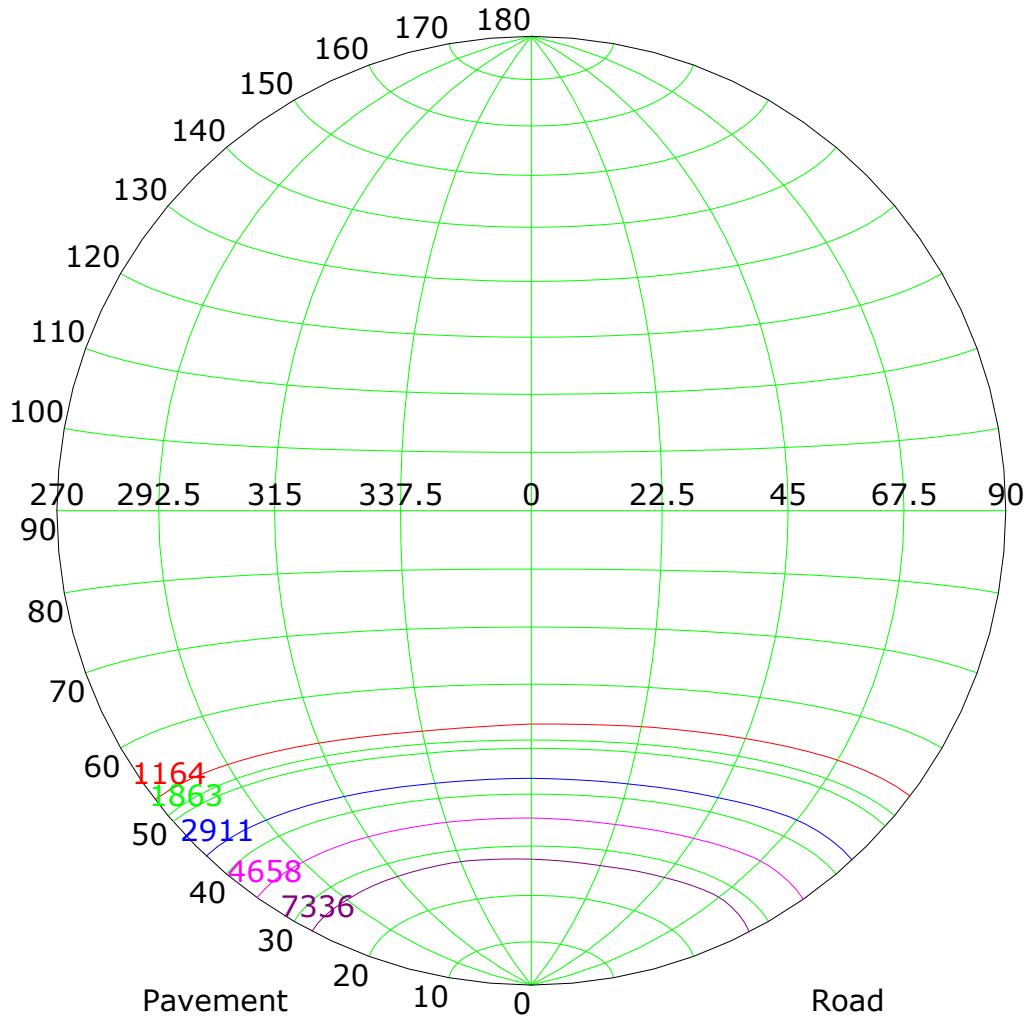
Isocandela (rectangle)



Imax (100%): 11644 cd

- | | |
|-------------------|--------------------|
| — (10%): 1164 cd | — (16%): 1863 cd |
| — (25%): 2911 cd | — (40%): 4658 cd |
| — (63%): 7336 cd | — (100%): 11644 cd |

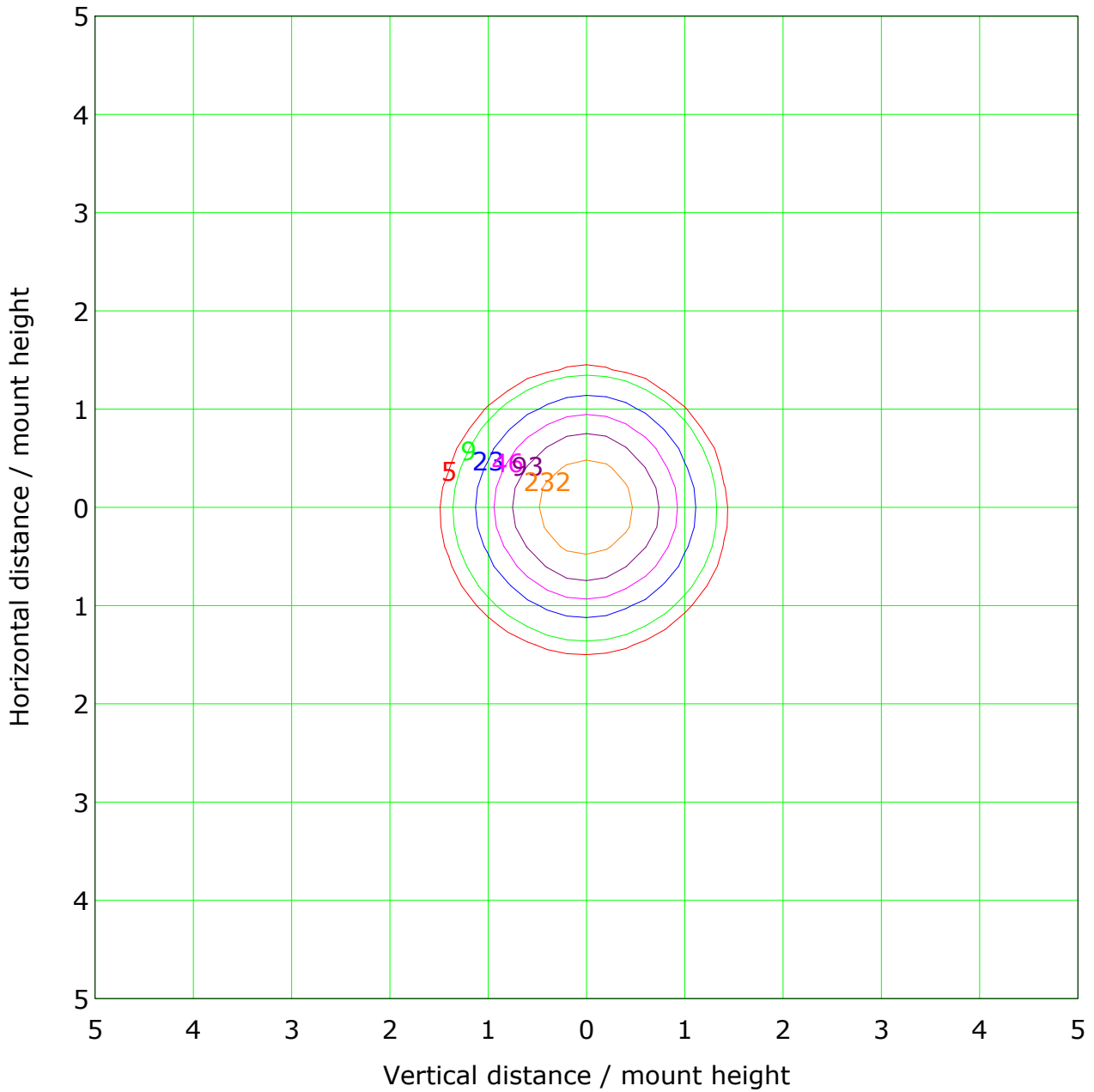
Isocandela (sphere)



Imax (100%): 11644 cd

- | | |
|-------------------|--------------------|
| — (10%): 1164 cd | — (16%): 1863 cd |
| — (25%): 2911 cd | — (40%): 4658 cd |
| — (63%): 7336 cd | — (100%): 11644 cd |

IsoLux Plot



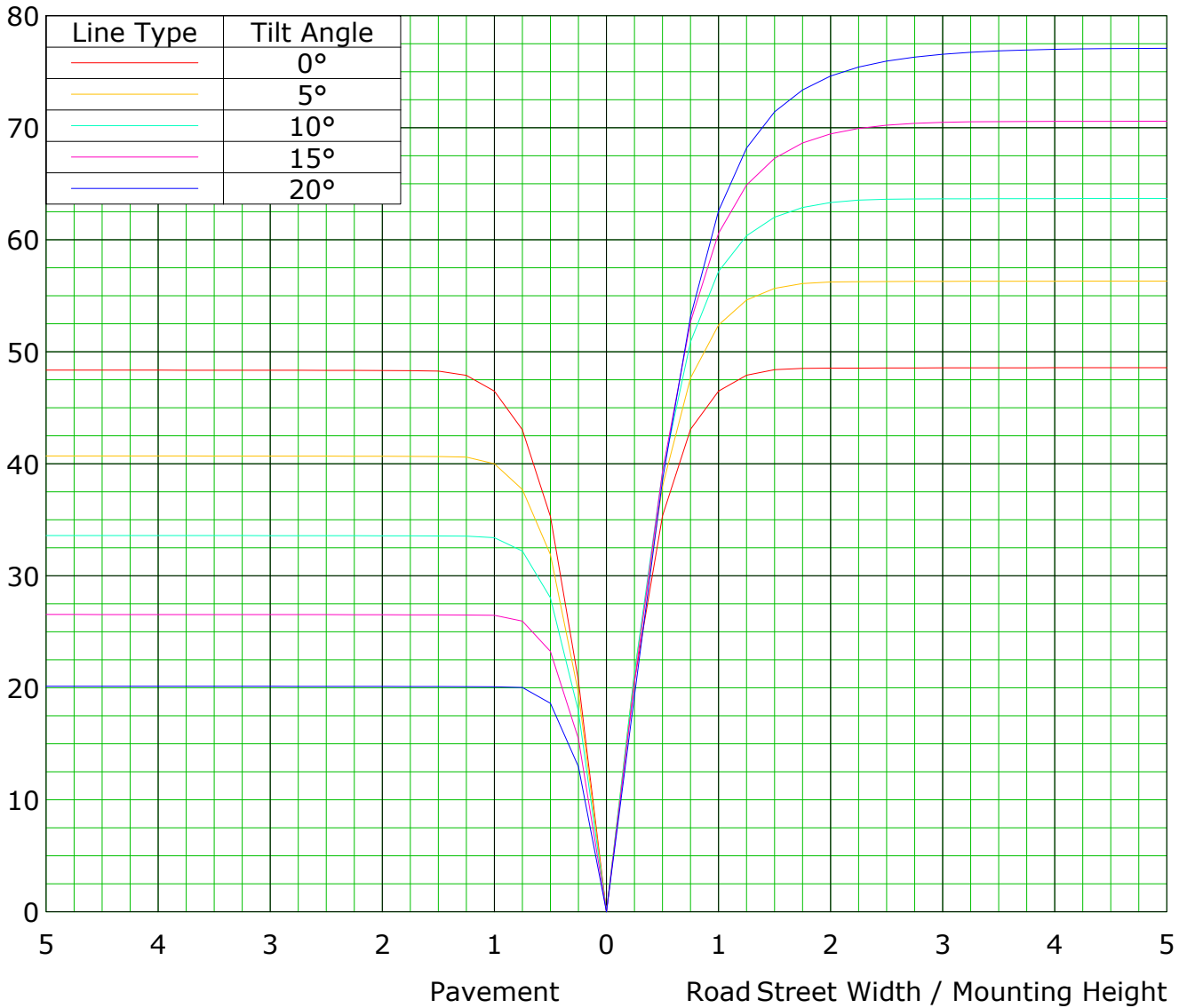
| | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|--|
| Mounting Height: 5.0m | | Max Lux(100%): 463.9 lx | |
| <ul style="list-style-type: none"> — (1%): 4.6 lx — (5%): 23.2 lx — (20%): 92.8 lx — (100%): 463.9 lx | <ul style="list-style-type: none"> — (2%): 9.3 lx — (10%): 46.4 lx — (50%): 231.9 lx | | |

C Plane (°):0.0-360.0: 22.5
 Test Lab: Lisun
 Test Type: TYPE C
 Temperature: 25 °C
 Operator: Ben

Gamma Plane (°):0.0-180.0:1.0
 Test Device: LSG-1900B Goniophotometer
 Distance: 2 m
 Humidity: 65 %
 Inspector:

Roadway CU Curve

Efficiency(%)



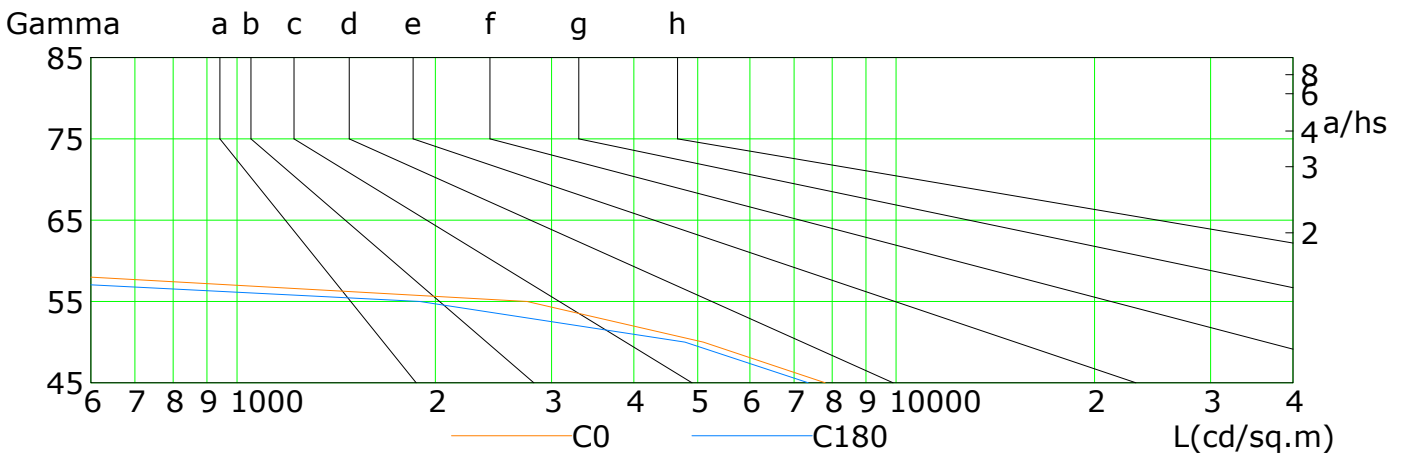
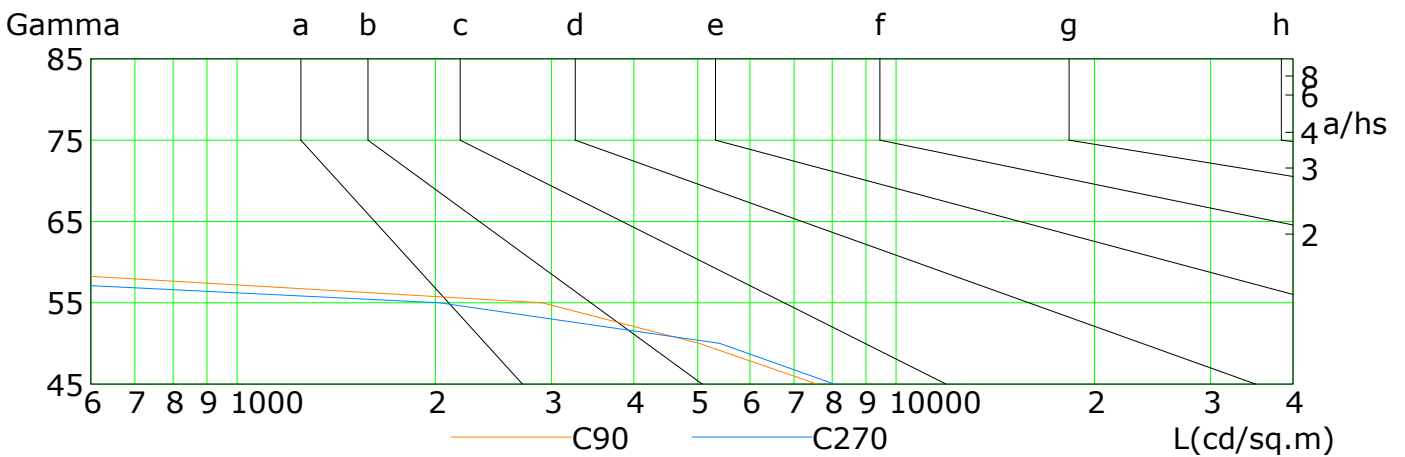
C Plane (°):0.0-360.0: 22.5
 Test Lab: Lisun
 Test Type: TYPE C
 Temperature: 25 °C
 Operator: Ben

Gamma Plane (°):0.0-180.0:1.0
 Test Device: LSG-1900B Goniophotometer
 Distance: 2 m
 Humidity: 65 %
 Inspector:

Lum Limit Curve

| Dazzle | Quality | Illuminance (lx) | | | | | | | |
|--------|---------|------------------|------|-----|-------|--|--|--|--|
| | | 2000 | 1000 | 500 | <=300 | | | | |
| 1.15 | A | | | | | | | | |
| 1.50 | B | | | | | | | | |
| 1.85 | C | | | | | | | | |
| 2.20 | D | | | | | | | | |
| 2.55 | E | | | | | | | | |

a b c d e f g h

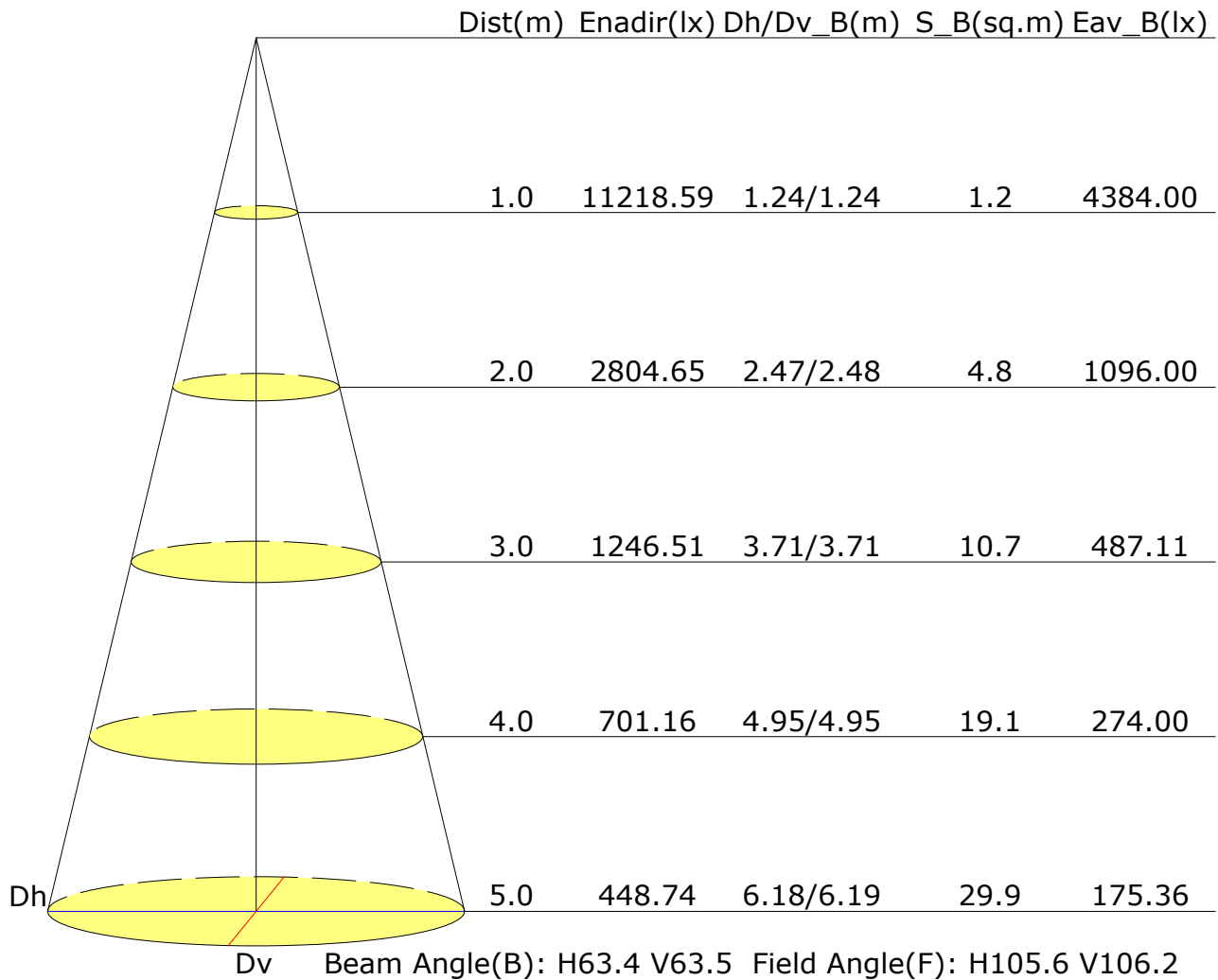


| L(cd/sq.m) | G45 | G50 | G55 | G60 | G65 | G70 | G75 | G80 | G85 |
|------------|------|------|------|-----|-----|-----|-----|-----|-----|
| C0 | 7803 | 5099 | 2753 | 218 | 59 | 46 | 41 | 36 | 29 |
| C90 | 7584 | 5027 | 2903 | 257 | 69 | 47 | 41 | 35 | 33 |
| C180 | 7353 | 4782 | 1894 | 117 | 39 | 37 | 33 | 33 | 28 |
| C270 | 8057 | 5403 | 2029 | 113 | 38 | 36 | 33 | 33 | 24 |

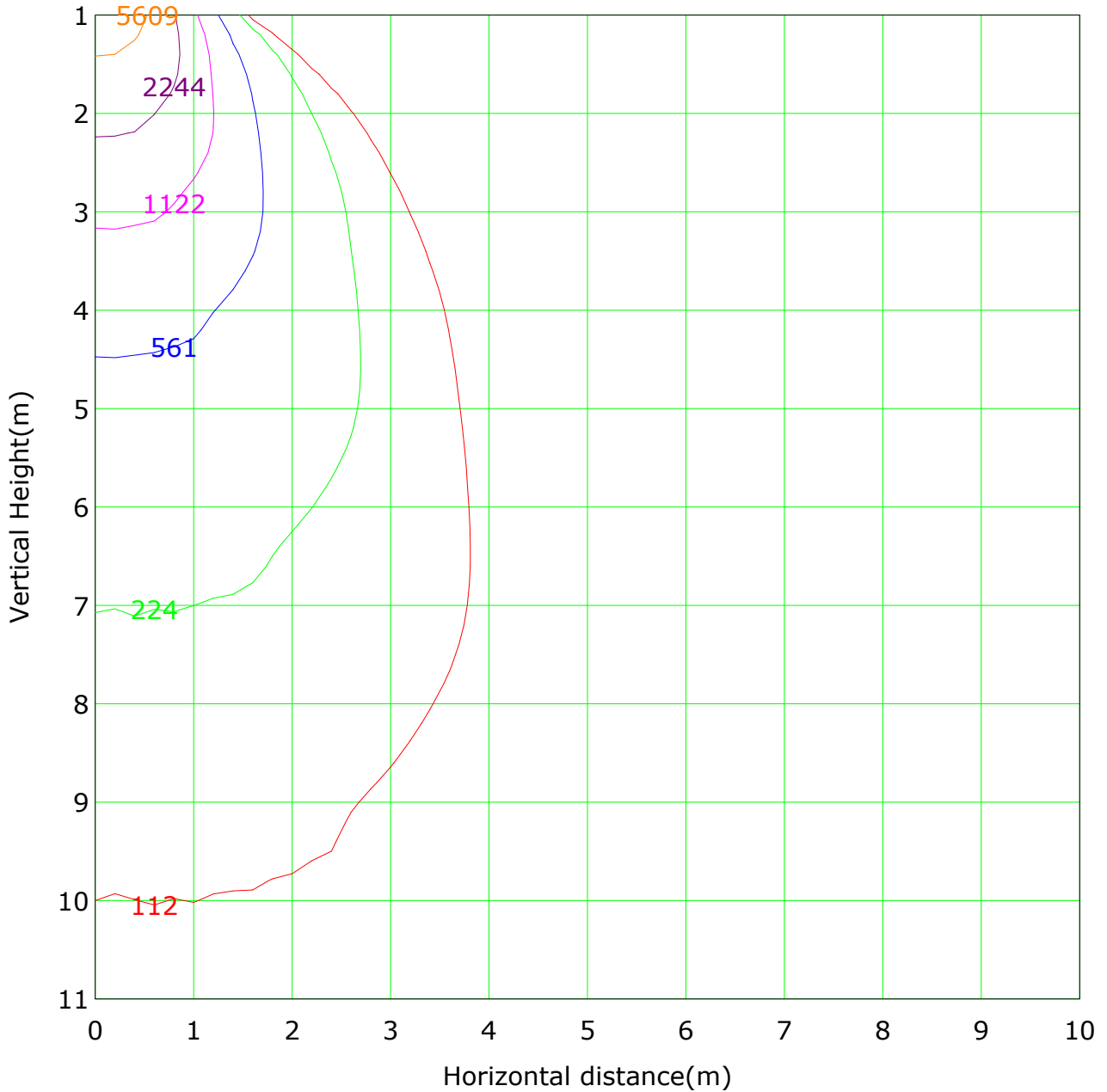
C Plane (°):0.0-360.0: 22.5
 Test Lab: Lisun
 Test Type: TYPE C
 Temperature: 25 °C
 Operator: Ben

Gamma Plane (°):0.0-180.0:1.0
 Test Device: LSG-1900B Goniophotometer
 Distance: 2m
 Humidity: 65 %
 Inspector:

Illuminance at a Distance



Vertical IsoLux Plot



Lowest(m): 1.0m Highest(m): 11.0m Max Lux: 11218.6 lx

| | |
|---------------------|-------------------|
| — (1%): 112.2 lx | — (2%): 224.4 lx |
| — (5%): 560.9 lx | — (10%):1121.9 lx |
| — (20%):2243.7 lx | — (50%):5609.3 lx |
| — (100%):11218.6 lx | |

C Plane (°):0.0-360.0: 22.5
 Test Lab: Lisun
 Test Type: TYPE C
 Temperature: 25 °C
 Operator: Ben

Gamma Plane (°):0.0-180.0:1.0
 Test Device: LSG-1900B Goniophotometer
 Distance: 2 m
 Humidity: 65 %
 Inspector:



Area Flux Table

Unit: lm

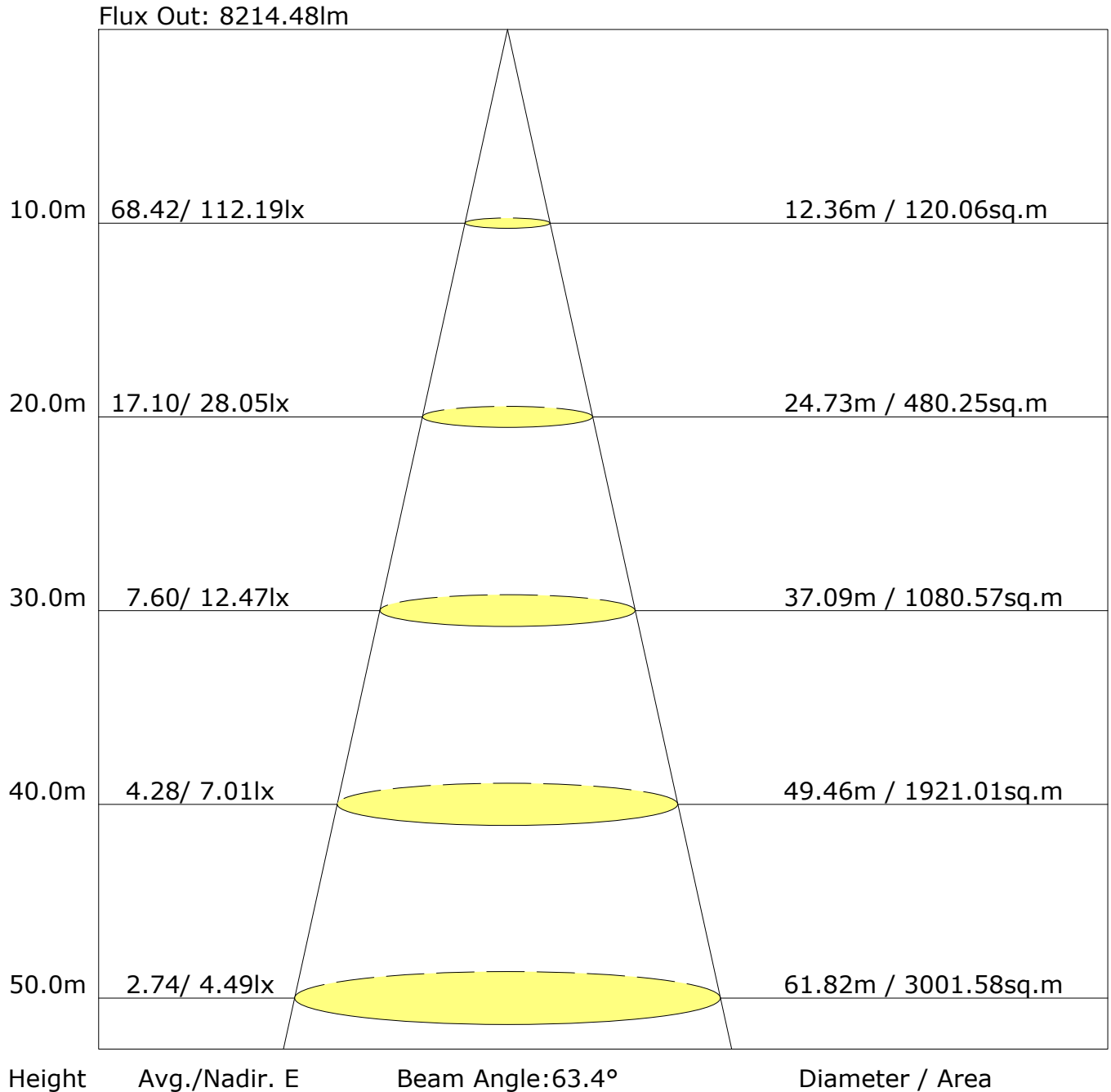
| | | | | | | | | | | | | | | | | | | | | | |
|---------|----------------|-----|-----|------|-------|-------|--------|-------|--------|--------|--------|-------|-------|--------|------|-----|-----|-----|-------|-------|--|
| | Vertical plane | | | | | | | | | | | | | | | | | | | | |
| | -90 | -80 | -70 | -60 | -50 | -40 | -30 | -20 | -10 | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | | |
| Flux(E) | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | |
| Flux(T) | 0.3 | 1.0 | 2.3 | 49.4 | 294.2 | 709.0 | 1316.0 | 898.2 | 2250.0 | 2259.1 | 1919.2 | 345.7 | 35.6 | 311.0 | 62.9 | 2.9 | 1.2 | 0.3 | 13158 | | |
| Flux(E) | 0.0 | 0.0 | 0.0 | 13.5 | 261.2 | 683.1 | 1292.8 | 875.0 | 2227.2 | 2236.3 | 1894.7 | 318.9 | 707.2 | 2276.5 | 21.1 | 0.0 | 0.0 | 0.0 | 0.0 | 12808 | |

Horizontal plane

C Plane (°):0.0-360.0: 22.5
Test Lab: Lisun
Test Type: TYPE C
Temperature: 25 °C
Operator: Ben

Gamma Plane (°):0.0-180.0:1.0
Test Device: LSG-1900B Goniophotometer
Distance: 2 m
Humidity: 65 %
Inspector:

The Average Illuminance Effective Figure



UGR Table

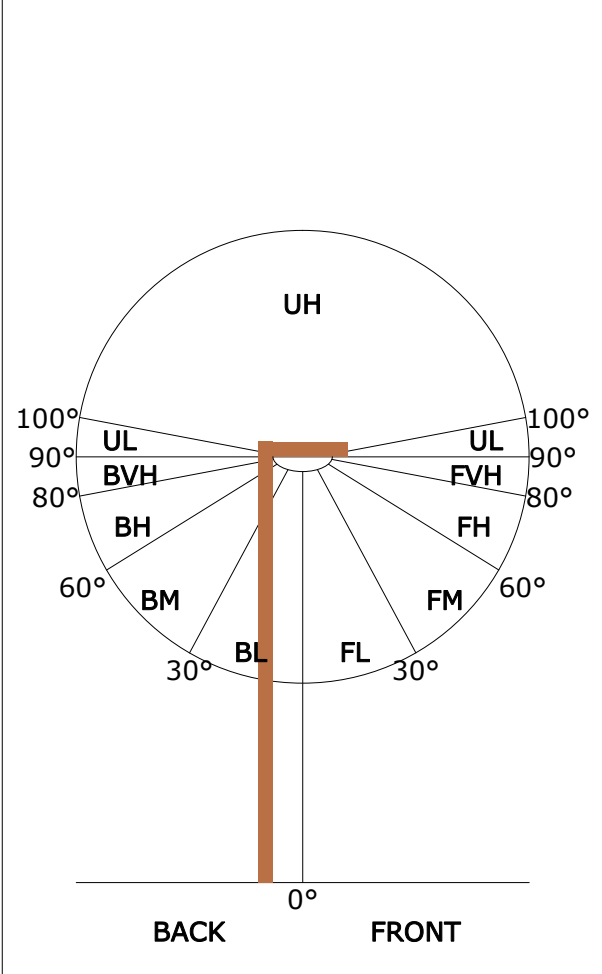
| | | | | | | | | | | | |
|------------------|------------------|------|------|------|------|----------------|------|------|------|------|--|
| Reflectance: | | | | | | | | | | | |
| Ceiling (cavity) | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 | |
| Wall | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 | 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 | -4.9 | -3.8 | -4.5 | -3.4 | -3.1 | -2.9 | -1.8 | -2.5 | -1.4 | -1.0 | |
| 3H | -5.1 | -4.1 | -4.6 | -3.7 | -3.3 | -3.0 | -2.0 | -2.6 | -1.7 | -1.3 | |
| 4H | -5.1 | -4.2 | -4.7 | -3.8 | -3.4 | -3.1 | -2.2 | -2.7 | -1.8 | -1.4 | |
| 6H | -5.2 | -4.4 | -4.8 | -4.0 | -3.5 | -3.2 | -2.4 | -2.7 | -2.0 | -1.5 | |
| 8H | -5.3 | -4.5 | -4.8 | -4.1 | -3.6 | -3.2 | -2.5 | -2.8 | -2.0 | -1.6 | |
| 12H | -5.3 | -4.6 | -4.8 | -4.2 | -3.7 | -3.3 | -2.6 | -2.8 | -2.1 | -1.7 | |
| X=4H Y=2H | -5.1 | -4.2 | -4.7 | -3.9 | -3.4 | -3.1 | -2.2 | -2.7 | -1.8 | -1.4 | |
| 3H | -5.3 | -4.6 | -4.9 | -4.1 | -3.7 | -3.3 | -2.6 | -2.8 | -2.1 | -1.7 | |
| 4H | -5.4 | -4.8 | -4.9 | -4.3 | -3.8 | -3.4 | -2.7 | -2.9 | -2.3 | -1.8 | |
| 6H | -5.5 | -4.9 | -5.0 | -4.5 | -3.9 | -3.5 | -2.9 | -3.0 | -2.4 | -1.9 | |
| 8H | -5.5 | -5.0 | -5.0 | -4.5 | -4.0 | -3.5 | -3.0 | -3.0 | -2.5 | -2.0 | |
| 12H | -5.6 | -5.2 | -5.1 | -4.6 | -4.1 | -3.6 | -3.1 | -3.1 | -2.6 | -2.1 | |
| X=8H Y=4H | -5.6 | -5.1 | -5.1 | -4.6 | -4.0 | -3.5 | -3.0 | -3.0 | -2.5 | -2.0 | |
| 6H | -5.7 | -5.2 | -5.1 | -4.7 | -4.2 | -3.7 | -3.2 | -3.1 | -2.7 | -2.2 | |
| 8H | -5.7 | -5.4 | -5.2 | -4.8 | -4.3 | -3.7 | -3.3 | -3.2 | -2.8 | -2.2 | |
| 12H | -5.8 | -5.4 | -5.2 | -4.9 | -4.3 | -3.8 | -3.4 | -3.2 | -2.9 | -2.3 | |
| X=12H Y=4H | -5.6 | -5.2 | -5.1 | -4.7 | -4.1 | -3.6 | -3.2 | -3.1 | -2.6 | -2.1 | |
| 6H | -5.7 | -5.4 | -5.2 | -4.9 | -4.3 | -3.7 | -3.3 | -3.2 | -2.8 | -2.2 | |
| 8H | -5.8 | -5.4 | -5.2 | -4.9 | -4.3 | -3.8 | -3.4 | -3.2 | -2.9 | -2.3 | |

Calculate in accordance with CIE 190:2010

C Plane (°):0.0-360.0: 22.5
 Test Lab: Lisun
 Test Type: TYPE C
 Temperature: 25 °C
 Operator: Ben

Gamma Plane (°):0.0-180.0:1.0
 Test Device: LSG-1900B Goniophotometer
 Distance:2 m
 Humidity: 65 %
 Inspector:

FLUX DISTRIBUTION TABLE BASED ON THE IESNA LUMINAIRE CLASSIFICATION SYSTEM

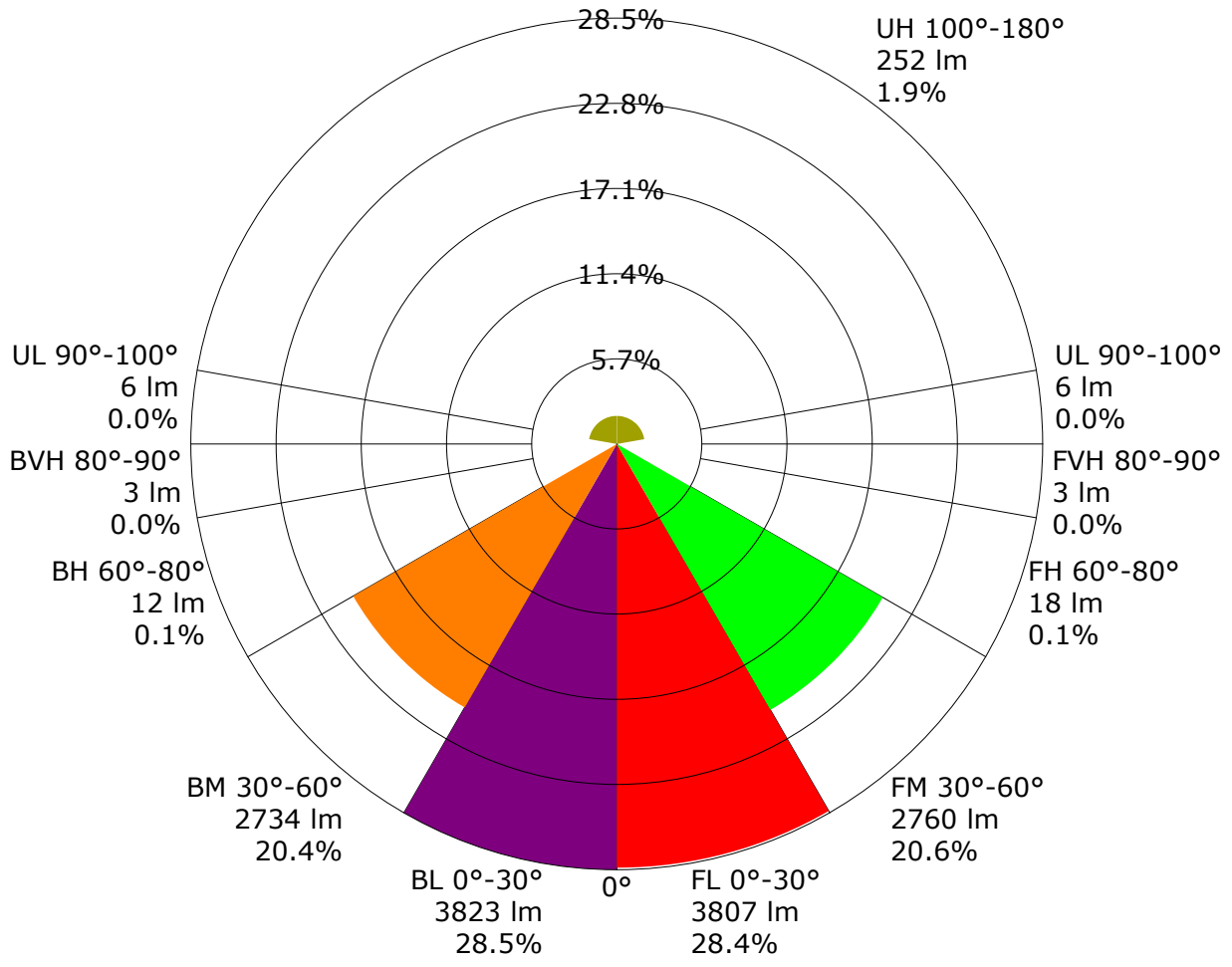
| | ZONE | LUMENS | % LAMP LUMENS |
|------------------------------------------------------------------------------------|----------------|--------|---------------|
|  | FORWARD LIGHT | 6587 | 49.1 |
| | FL (0°-30°) | 3807 | 28.4 |
| | FM (30°-60°) | 2760 | 20.6 |
| | FH (60°-80°) | 18 | 0.1 |
| | FVH (80°-90°) | 3 | 0.0 |
| | BACK LIGHT | 6573 | 49.0 |
| | BL (0°-30°) | 3823 | 28.5 |
| | BM (30°-60°) | 2734 | 20.4 |
| | BH (60°-80°) | 12 | 0.1 |
| | BVH (80°-90°) | 3 | 0.0 |
| | UP LIGHT | 259 | 1.9 |
| | UL (90°-100°) | 6 | 0.0 |
| | UH (100°-180°) | 252 | 1.9 |
| | TRAPPED LIGHT | NA | NA |

| BUG(Backlight,Uplight,Glare) Rating Base On TM-15-07 | |
|------------------------------------------------------------------|----------|
| Asymmetrical Luminaire Types (Type I,II,III,IV) | B4 U3 G0 |
| Quadrilateral Symmetrical Luminaire Types (Type V,Area Light) | B4 U3 G0 |

C Plane (°):0.0-360.0: 22.5
 Test Lab: Lisun
 Test Type: TYPE C
 Temperature: 25 °C
 Operator: Ben

Gamma Plane (°):0.0-180.0:1.0
 Test Device: LSG-1900B Goniophotometer
 Distance: 2 m
 Humidity: 65 %
 Inspector:

LCS Graph



Forward Light

Back Light

Scale= MAX LCS%

Trapped Light:NA,NA

Utilisation Factor Table(Floor cavity)

| Utilisation Factors UF(F) | | | SHR NOM = 0.75 | | | | | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|----------------|------|------|------|------|------|------|------|------|--|
| 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 | 0.75 | 0.84 | 0.89 | 0.93 | 0.98 | 1.02 | 1.04 | 1.07 | 1.09 | |
| | 0.30 | | 0.69 | 0.78 | 0.84 | 0.89 | 0.94 | 0.98 | 1.01 | 1.04 | 1.07 | |
| | 0.20 | | 0.65 | 0.74 | 0.80 | 0.85 | 0.91 | 0.95 | 0.98 | 1.02 | 1.05 | |
| 0.50 | 0.50 | 0.20 | 0.73 | 0.82 | 0.87 | 0.91 | 0.95 | 0.98 | 1.00 | 1.03 | 1.04 | |
| | 0.30 | | 0.68 | 0.77 | 0.83 | 0.87 | 0.92 | 0.95 | 0.98 | 1.01 | 1.03 | |
| | 0.20 | | 0.64 | 0.73 | 0.79 | 0.83 | 0.89 | 0.93 | 0.95 | 0.99 | 1.01 | |
| 0.30 | 0.50 | 0.20 | 0.72 | 0.80 | 0.85 | 0.88 | 0.92 | 0.95 | 0.97 | 0.99 | 1.00 | |
| | 0.30 | | 0.67 | 0.76 | 0.81 | 0.85 | 0.90 | 0.93 | 0.95 | 0.97 | 0.99 | |
| | 0.20 | | 0.64 | 0.72 | 0.78 | 0.82 | 0.87 | 0.91 | 0.93 | 0.96 | 0.98 | |
| 0.00 | 0.00 | 0.00 | 0.62 | 0.70 | 0.75 | 0.79 | 0.84 | 0.87 | 0.89 | 0.91 | 0.93 | |
| Rating:192W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980 | | | | | | | | | | | | |

Utilisation Factor Table(Wall)

| Utilisation Factors UF(W) | | | SHR NOM = 0.75 | | | | | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|----------------|------|------|------|------|------|------|------|------|--|
| 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 | 0.73 | 0.58 | 0.48 | 0.41 | 0.32 | 0.26 | 0.22 | 0.17 | 0.14 | |
| | 0.30 | | 0.61 | 0.49 | 0.42 | 0.36 | 0.29 | 0.24 | 0.20 | 0.16 | 0.13 | |
| | 0.20 | | 0.52 | 0.43 | 0.37 | 0.32 | 0.26 | 0.22 | 0.19 | 0.15 | 0.12 | |
| 0.50 | 0.50 | 0.20 | 0.69 | 0.54 | 0.45 | 0.38 | 0.30 | 0.28 | 0.20 | 0.16 | 0.13 | |
| | 0.30 | | 0.59 | 0.47 | 0.40 | 0.34 | 0.27 | 0.22 | 0.19 | 0.15 | 0.12 | |
| | 0.20 | | 0.51 | 0.42 | 0.36 | 0.31 | 0.25 | 0.21 | 0.18 | 0.14 | 0.12 | |
| 0.30 | 0.50 | 0.20 | 0.66 | 0.52 | 0.42 | 0.36 | 0.28 | 0.22 | 0.19 | 0.14 | 0.12 | |
| | 0.30 | | 0.57 | 0.45 | 0.38 | 0.33 | 0.26 | 0.21 | 0.18 | 0.14 | 0.11 | |
| | 0.20 | | 0.50 | 0.41 | 0.34 | 0.30 | 0.24 | 0.20 | 0.17 | 0.13 | 0.11 | |
| 0.00 | 0.00 | 0.00 | 0.37 | 0.29 | 0.23 | 0.20 | 0.15 | 0.12 | 0.10 | 0.08 | 0.06 | |
| <p>Rating:192W 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 = 0.75 | | | | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|----------------|------|------|------|------|------|------|------|------|
| 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 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.22 | 0.23 |
| | 0.30 | | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 |
| | 0.20 | | 0.07 | 0.09 | 0.11 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 |
| 0.50 | 0.50 | 0.20 | 0.15 | 0.17 | 0.18 | 0.18 | 0.19 | 0.20 | 0.21 | 0.21 | 0.22 |
| | 0.30 | | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 |
| | 0.20 | | 0.07 | 0.09 | 0.11 | 0.12 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 |
| 0.30 | 0.50 | 0.20 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.20 | 0.21 | 0.21 |
| | 0.30 | | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 |
| | 0.20 | | 0.07 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 |
| 0.00 | 0.00 | 0.00 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| Rating:192W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980 | | | | | | | | | | | |

Zonal Lumen

| Gamma [°] | I _{mean} [cd] | Zonal Flux [lm] | Sum Zonal Flux [lm] | Rel Zonal Flux [%] | Sum Rel Zonal Flux [%] |
|--------------|---------------------------|--------------------|------------------------|-----------------------|---------------------------|
| 0.0-1.0 | 11206.5 | 10.7 | 10.7 | 0.08 | 0.08 |
| 1.0-2.0 | 11190.0 | 32.1 | 42.8 | 0.24 | 0.32 |
| 2.0-3.0 | 11270.1 | 53.9 | 96.8 | 0.40 | 0.72 |
| 3.0-4.0 | 11351.4 | 76.0 | 172.7 | 0.57 | 1.29 |
| 4.0-5.0 | 11361.4 | 97.8 | 270.5 | 0.73 | 2.02 |
| 5.0-6.0 | 11382.0 | 119.6 | 390.1 | 0.89 | 2.91 |
| 6.0-7.0 | 11349.7 | 140.9 | 531.0 | 1.05 | 3.96 |
| 7.0-8.0 | 11313.2 | 161.9 | 693.0 | 1.21 | 5.16 |
| 8.0-9.0 | 11274.9 | 182.8 | 875.7 | 1.36 | 6.53 |
| 9.0-10.0 | 11228.9 | 203.2 | 1078.9 | 1.51 | 8.04 |
| 10.0-11.0 | 11202.5 | 223.9 | 1302.8 | 1.67 | 9.71 |
| 11.0-12.0 | 11125.9 | 243.2 | 1546.1 | 1.81 | 11.52 |
| 12.0-13.0 | 11019.3 | 261.5 | 1807.6 | 1.95 | 13.47 |
| 13.0-14.0 | 10833.3 | 277.3 | 2084.9 | 2.07 | 15.54 |
| 14.0-15.0 | 10535.6 | 289.3 | 2374.2 | 2.16 | 17.69 |
| 15.0-16.0 | 10221.9 | 299.6 | 2673.8 | 2.23 | 19.93 |
| 16.0-17.0 | 9951.9 | 310.0 | 2983.7 | 2.31 | 22.24 |
| 17.0-18.0 | 9728.8 | 320.8 | 3304.5 | 2.39 | 24.63 |
| 18.0-19.0 | 9521.3 | 331.3 | 3635.8 | 2.47 | 27.09 |
| 19.0-20.0 | 9314.5 | 341.0 | 3976.8 | 2.54 | 29.64 |
| 20.0-21.0 | 9104.0 | 349.6 | 4326.4 | 2.61 | 32.24 |
| 21.0-22.0 | 8890.6 | 357.3 | 4683.8 | 2.66 | 34.90 |
| 22.0-23.0 | 8676.0 | 364.1 | 5047.8 | 2.71 | 37.62 |
| 23.0-24.0 | 8455.4 | 369.7 | 5417.6 | 2.76 | 40.37 |
| 24.0-25.0 | 8218.0 | 373.7 | 5791.3 | 2.79 | 43.16 |
| 25.0-26.0 | 7952.1 | 375.4 | 6166.7 | 2.80 | 45.96 |
| 26.0-27.0 | 7653.5 | 374.5 | 6541.2 | 2.79 | 48.75 |
| 27.0-28.0 | 7318.2 | 370.6 | 6911.8 | 2.76 | 51.51 |
| 28.0-29.0 | 6948.5 | 363.6 | 7275.4 | 2.71 | 54.22 |
| 29.0-30.0 | 6561.0 | 354.3 | 7629.6 | 2.64 | 56.86 |
| 30.0-31.0 | 6167.9 | 343.3 | 7972.9 | 2.56 | 59.42 |
| 31.0-32.0 | 5786.8 | 331.6 | 8304.5 | 2.47 | 61.89 |
| 32.0-33.0 | 5430.5 | 320.0 | 8624.5 | 2.38 | 64.27 |
| 33.0-34.0 | 5104.2 | 308.9 | 8933.4 | 2.30 | 66.57 |
| 34.0-35.0 | 4807.2 | 298.6 | 9232.0 | 2.23 | 68.80 |
| 35.0-36.0 | 4531.4 | 288.6 | 9520.6 | 2.15 | 70.95 |

C Plane (°):0.0-360.0: 22.5
 Test Lab: Lisun
 Test Type: TYPE C
 Temperature: 25 °C
 Operator: Ben

Gamma Plane (°):0.0-180.0:1.0
 Test Device: LSG-1900B Goniophotometer
 Distance: 2 m
 Humidity: 65 %
 Inspector:

Zonal Lumen (Continue 1)

| Gamma [°] | I _{mean} [cd] | Zonal Flux [lm] | Sum Zonal Flux [lm] | Rel Zonal Flux [%] | Sum Rel Zonal Flux [%] |
|--------------|---------------------------|--------------------|------------------------|-----------------------|---------------------------|
| 36.0-37.0 | 4275.5 | 278.9 | 9799.5 | 2.08 | 73.03 |
| 37.0-38.0 | 4034.6 | 269.3 | 10068.8 | 2.01 | 75.03 |
| 38.0-39.0 | 3802.2 | 259.6 | 10328.4 | 1.93 | 76.97 |
| 39.0-40.0 | 3578.3 | 249.6 | 10577.9 | 1.86 | 78.83 |
| 40.0-41.0 | 3362.8 | 239.5 | 10817.4 | 1.78 | 80.61 |
| 41.0-42.0 | 3150.5 | 228.9 | 11046.4 | 1.71 | 82.32 |
| 42.0-43.0 | 2943.0 | 218.0 | 11264.4 | 1.62 | 83.94 |
| 43.0-44.0 | 2738.5 | 206.7 | 11471.1 | 1.54 | 85.48 |
| 44.0-45.0 | 2538.4 | 195.1 | 11666.2 | 1.45 | 86.94 |
| 45.0-46.0 | 2348.5 | 183.7 | 11849.9 | 1.37 | 88.31 |
| 46.0-47.0 | 2168.3 | 172.5 | 12022.4 | 1.29 | 89.59 |
| 47.0-48.0 | 1997.5 | 161.5 | 12183.9 | 1.20 | 90.80 |
| 48.0-49.0 | 1836.4 | 150.8 | 12334.7 | 1.12 | 91.92 |
| 49.0-50.0 | 1679.5 | 140.0 | 12474.8 | 1.04 | 92.96 |
| 50.0-51.0 | 1527.2 | 129.2 | 12604.0 | 0.96 | 93.93 |
| 51.0-52.0 | 1376.4 | 118.1 | 12722.1 | 0.88 | 94.81 |
| 52.0-53.0 | 1218.5 | 106.0 | 12828.1 | 0.79 | 95.60 |
| 53.0-54.0 | 1041.4 | 91.8 | 12919.9 | 0.68 | 96.28 |
| 54.0-55.0 | 837.5 | 74.8 | 12994.7 | 0.56 | 96.84 |
| 55.0-56.0 | 609.3 | 55.1 | 13049.8 | 0.41 | 97.25 |
| 56.0-57.0 | 388.5 | 35.5 | 13085.3 | 0.26 | 97.51 |
| 57.0-58.0 | 221.4 | 20.5 | 13105.8 | 0.15 | 97.67 |
| 58.0-59.0 | 119.6 | 11.2 | 13116.9 | 0.08 | 97.75 |
| 59.0-60.0 | 68.5 | 6.5 | 13123.4 | 0.05 | 97.80 |
| 60.0-61.0 | 45.4 | 4.3 | 13127.7 | 0.03 | 97.83 |
| 61.0-62.0 | 33.4 | 3.2 | 13131.0 | 0.02 | 97.85 |
| 62.0-63.0 | 25.4 | 2.5 | 13133.4 | 0.02 | 97.87 |
| 63.0-64.0 | 19.8 | 1.9 | 13135.4 | 0.01 | 97.89 |
| 64.0-65.0 | 16.1 | 1.6 | 13137.0 | 0.01 | 97.90 |
| 65.0-66.0 | 14.0 | 1.4 | 13138.4 | 0.01 | 97.91 |
| 66.0-67.0 | 12.8 | 1.3 | 13139.7 | 0.01 | 97.92 |
| 67.0-68.0 | 12.1 | 1.2 | 13140.9 | 0.01 | 97.93 |
| 68.0-69.0 | 11.8 | 1.2 | 13142.1 | 0.01 | 97.94 |
| 69.0-70.0 | 11.5 | 1.2 | 13143.3 | 0.01 | 97.95 |
| 70.0-71.0 | 11.3 | 1.2 | 13144.4 | 0.01 | 97.95 |
| 71.0-72.0 | 10.9 | 1.1 | 13145.6 | 0.01 | 97.96 |

C Plane (°):0.0-360.0: 22.5
 Test Lab: Lisun
 Test Type: TYPE C
 Temperature: 25 °C
 Operator: Ben

Gamma Plane (°):0.0-180.0:1.0
 Test Device: LSG-1900B Goniophotometer
 Distance: 2 m
 Humidity: 65 %
 Inspector:

Zonal Lumen (Continue 2)

| Gamma [°] | I _{mean} [cd] | Zonal Flux [lm] | Sum Zonal Flux [lm] | Rel Zonal Flux [%] | Sum Rel Zonal Flux [%] |
|--------------|---------------------------|--------------------|------------------------|-----------------------|---------------------------|
| 72.0-73.0 | 10.5 | 1.1 | 13146.7 | 0.01 | 97.97 |
| 73.0-74.0 | 10.3 | 1.1 | 13147.8 | 0.01 | 97.98 |
| 74.0-75.0 | 10.0 | 1.1 | 13148.8 | 0.01 | 97.99 |
| 75.0-76.0 | 9.7 | 1.0 | 13149.8 | 0.01 | 98.00 |
| 76.0-77.0 | 9.2 | 1.0 | 13150.8 | 0.01 | 98.00 |
| 77.0-78.0 | 8.8 | 0.9 | 13151.8 | 0.01 | 98.01 |
| 78.0-79.0 | 8.6 | 0.9 | 13152.7 | 0.01 | 98.02 |
| 79.0-80.0 | 8.3 | 0.9 | 13153.6 | 0.01 | 98.02 |
| 80.0-81.0 | 7.9 | 0.9 | 13154.4 | 0.01 | 98.03 |
| 81.0-82.0 | 7.5 | 0.8 | 13155.3 | 0.01 | 98.04 |
| 82.0-83.0 | 7.1 | 0.8 | 13156.0 | 0.01 | 98.04 |
| 83.0-84.0 | 6.7 | 0.7 | 13156.8 | 0.01 | 98.05 |
| 84.0-85.0 | 6.2 | 0.7 | 13157.4 | 0.01 | 98.05 |
| 85.0-86.0 | 5.7 | 0.6 | 13158.0 | 0.00 | 98.06 |
| 86.0-87.0 | 5.2 | 0.6 | 13158.6 | 0.00 | 98.06 |
| 87.0-88.0 | 4.7 | 0.5 | 13159.1 | 0.00 | 98.06 |
| 88.0-89.0 | 4.4 | 0.5 | 13159.6 | 0.00 | 98.07 |
| 89.0-90.0 | 4.3 | 0.5 | 13160.1 | 0.00 | 98.07 |
| 90.0-91.0 | 4.3 | 0.5 | 13160.6 | 0.00 | 98.07 |
| 91.0-92.0 | 4.4 | 0.5 | 13161.0 | 0.00 | 98.08 |
| 92.0-93.0 | 4.7 | 0.5 | 13161.6 | 0.00 | 98.08 |
| 93.0-94.0 | 5.0 | 0.5 | 13162.1 | 0.00 | 98.09 |
| 94.0-95.0 | 5.4 | 0.6 | 13162.7 | 0.00 | 98.09 |
| 95.0-96.0 | 6.0 | 0.7 | 13163.3 | 0.00 | 98.10 |
| 96.0-97.0 | 6.4 | 0.7 | 13164.0 | 0.01 | 98.10 |
| 97.0-98.0 | 6.9 | 0.8 | 13164.8 | 0.01 | 98.11 |
| 98.0-99.0 | 7.5 | 0.8 | 13165.6 | 0.01 | 98.11 |
| 99.0-100.0 | 8.1 | 0.9 | 13166.5 | 0.01 | 98.12 |
| 100.0-101.0 | 8.8 | 0.9 | 13167.4 | 0.01 | 98.13 |
| 101.0-102.0 | 9.3 | 1.0 | 13168.4 | 0.01 | 98.13 |
| 102.0-103.0 | 10.0 | 1.1 | 13169.5 | 0.01 | 98.14 |
| 103.0-104.0 | 10.7 | 1.1 | 13170.6 | 0.01 | 98.15 |
| 104.0-105.0 | 11.4 | 1.2 | 13171.9 | 0.01 | 98.16 |
| 105.0-106.0 | 12.3 | 1.3 | 13173.2 | 0.01 | 98.17 |
| 106.0-107.0 | 13.3 | 1.4 | 13174.6 | 0.01 | 98.18 |
| 107.0-108.0 | 14.2 | 1.5 | 13176.0 | 0.01 | 98.19 |

C Plane (°):0.0-360.0: 22.5

Test Lab: Lisun

Test Type: TYPE C

Temperature: 25 °C

Operator: Ben

Gamma Plane (°):0.0-180.0:1.0

Test Device: LSG-1900B Goniophotometer

Distance: 2 m

Humidity: 65 %

Inspector:

Zonal Lumen (Continue 3)

| Gamma [°] | I _{mean} [cd] | Zonal Flux [lm] | Sum Zonal Flux [lm] | Rel Zonal Flux [%] | Sum Rel Zonal Flux [%] |
|--------------|---------------------------|--------------------|------------------------|-----------------------|---------------------------|
| 108.0-109.0 | 15.1 | 1.6 | 13177.6 | 0.01 | 98.20 |
| 109.0-110.0 | 16.2 | 1.7 | 13179.3 | 0.01 | 98.21 |
| 110.0-111.0 | 17.4 | 1.8 | 13181.1 | 0.01 | 98.23 |
| 111.0-112.0 | 18.6 | 1.9 | 13183.0 | 0.01 | 98.24 |
| 112.0-113.0 | 19.8 | 2.0 | 13185.0 | 0.01 | 98.26 |
| 113.0-114.0 | 21.1 | 2.1 | 13187.1 | 0.02 | 98.27 |
| 114.0-115.0 | 22.5 | 2.3 | 13189.3 | 0.02 | 98.29 |
| 115.0-116.0 | 23.9 | 2.4 | 13191.7 | 0.02 | 98.31 |
| 116.0-117.0 | 25.3 | 2.5 | 13194.2 | 0.02 | 98.33 |
| 117.0-118.0 | 26.8 | 2.6 | 13196.8 | 0.02 | 98.35 |
| 118.0-119.0 | 28.3 | 2.7 | 13199.5 | 0.02 | 98.37 |
| 119.0-120.0 | 29.9 | 2.9 | 13202.4 | 0.02 | 98.39 |
| 120.0-121.0 | 31.5 | 3.0 | 13205.4 | 0.02 | 98.41 |
| 121.0-122.0 | 33.1 | 3.1 | 13208.5 | 0.02 | 98.43 |
| 122.0-123.0 | 34.8 | 3.2 | 13211.7 | 0.02 | 98.46 |
| 123.0-124.0 | 36.7 | 3.4 | 13215.0 | 0.02 | 98.48 |
| 124.0-125.0 | 38.5 | 3.5 | 13218.5 | 0.03 | 98.51 |
| 125.0-126.0 | 40.3 | 3.6 | 13222.1 | 0.03 | 98.53 |
| 126.0-127.0 | 42.2 | 3.7 | 13225.8 | 0.03 | 98.56 |
| 127.0-128.0 | 44.1 | 3.8 | 13229.7 | 0.03 | 98.59 |
| 128.0-129.0 | 46.0 | 3.9 | 13233.6 | 0.03 | 98.62 |
| 129.0-130.0 | 48.0 | 4.1 | 13237.7 | 0.03 | 98.65 |
| 130.0-131.0 | 49.8 | 4.2 | 13241.8 | 0.03 | 98.68 |
| 131.0-132.0 | 51.7 | 4.2 | 13246.1 | 0.03 | 98.71 |
| 132.0-133.0 | 53.7 | 4.3 | 13250.4 | 0.03 | 98.74 |
| 133.0-134.0 | 55.8 | 4.4 | 13254.9 | 0.03 | 98.78 |
| 134.0-135.0 | 57.7 | 4.5 | 13259.4 | 0.03 | 98.81 |
| 135.0-136.0 | 59.6 | 4.6 | 13263.9 | 0.03 | 98.85 |
| 136.0-137.0 | 61.5 | 4.6 | 13268.6 | 0.03 | 98.88 |
| 137.0-138.0 | 63.5 | 4.7 | 13273.3 | 0.04 | 98.92 |
| 138.0-139.0 | 65.4 | 4.8 | 13278.0 | 0.04 | 98.95 |
| 139.0-140.0 | 67.4 | 4.8 | 13282.8 | 0.04 | 98.99 |
| 140.0-141.0 | 69.2 | 4.8 | 13287.7 | 0.04 | 99.02 |
| 141.0-142.0 | 70.9 | 4.8 | 13292.5 | 0.04 | 99.06 |
| 142.0-143.0 | 72.5 | 4.8 | 13297.4 | 0.04 | 99.09 |
| 143.0-144.0 | 74.1 | 4.8 | 13302.2 | 0.04 | 99.13 |

C Plane (°):0.0-360.0: 22.5
 Test Lab: Lisun
 Test Type: TYPE C
 Temperature: 25 °C
 Operator: Ben

Gamma Plane (°):0.0-180.0:1.0
 Test Device: LSG-1900B Goniophotometer
 Distance: 2 m
 Humidity: 65 %
 Inspector:

Zonal Lumen (Continue 4)

| Gamma [°] | I _{mean} [cd] | Zonal Flux [lm] | Sum Zonal Flux [lm] | Rel Zonal Flux [%] | Sum Rel Zonal Flux [%] |
|--------------|---------------------------|--------------------|------------------------|-----------------------|---------------------------|
| 144.0-145.0 | 75.8 | 4.8 | 13307.0 | 0.04 | 99.17 |
| 145.0-146.0 | 77.7 | 4.8 | 13311.8 | 0.04 | 99.20 |
| 146.0-147.0 | 79.6 | 4.8 | 13316.7 | 0.04 | 99.24 |
| 147.0-148.0 | 81.5 | 4.8 | 13321.5 | 0.04 | 99.27 |
| 148.0-149.0 | 83.3 | 4.8 | 13326.2 | 0.04 | 99.31 |
| 149.0-150.0 | 85.2 | 4.7 | 13331.0 | 0.04 | 99.34 |
| 150.0-151.0 | 87.1 | 4.7 | 13335.7 | 0.04 | 99.38 |
| 151.0-152.0 | 89.1 | 4.7 | 13340.3 | 0.03 | 99.41 |
| 152.0-153.0 | 91.0 | 4.6 | 13344.9 | 0.03 | 99.45 |
| 153.0-154.0 | 92.9 | 4.5 | 13349.5 | 0.03 | 99.48 |
| 154.0-155.0 | 94.8 | 4.5 | 13354.0 | 0.03 | 99.52 |
| 155.0-156.0 | 96.5 | 4.4 | 13358.4 | 0.03 | 99.55 |
| 156.0-157.0 | 98.4 | 4.3 | 13362.7 | 0.03 | 99.58 |
| 157.0-158.0 | 100.3 | 4.2 | 13366.9 | 0.03 | 99.61 |
| 158.0-159.0 | 102.1 | 4.1 | 13371.0 | 0.03 | 99.64 |
| 159.0-160.0 | 103.8 | 4.0 | 13375.0 | 0.03 | 99.67 |
| 160.0-161.0 | 105.5 | 3.9 | 13378.8 | 0.03 | 99.70 |
| 161.0-162.0 | 107.6 | 3.7 | 13382.6 | 0.03 | 99.73 |
| 162.0-163.0 | 109.5 | 3.6 | 13386.2 | 0.03 | 99.76 |
| 163.0-164.0 | 111.1 | 3.5 | 13389.6 | 0.03 | 99.78 |
| 164.0-165.0 | 112.9 | 3.3 | 13392.9 | 0.02 | 99.81 |
| 165.0-166.0 | 114.8 | 3.2 | 13396.1 | 0.02 | 99.83 |
| 166.0-167.0 | 116.5 | 3.0 | 13399.1 | 0.02 | 99.85 |
| 167.0-168.0 | 118.1 | 2.8 | 13401.9 | 0.02 | 99.87 |
| 168.0-169.0 | 119.5 | 2.6 | 13404.5 | 0.02 | 99.89 |
| 169.0-170.0 | 121.0 | 2.4 | 13406.9 | 0.02 | 99.91 |
| 170.0-171.0 | 122.4 | 2.2 | 13409.1 | 0.02 | 99.93 |
| 171.0-172.0 | 123.6 | 2.0 | 13411.1 | 0.01 | 99.94 |
| 172.0-173.0 | 124.8 | 1.8 | 13412.9 | 0.01 | 99.96 |
| 173.0-174.0 | 125.8 | 1.6 | 13414.5 | 0.01 | 99.97 |
| 174.0-175.0 | 126.8 | 1.3 | 13415.8 | 0.01 | 99.98 |
| 175.0-176.0 | 127.7 | 1.1 | 13416.9 | 0.01 | 99.99 |
| 176.0-177.0 | 128.4 | 0.9 | 13417.8 | 0.01 | 99.99 |
| 177.0-178.0 | 128.9 | 0.6 | 13418.4 | 0.00 | 100.00 |
| 178.0-179.0 | 129.3 | 0.4 | 13418.8 | 0.00 | 100.00 |
| 179.0-180.0 | 129.6 | 0.1 | 13418.9 | 0.00 | 100.00 |

C Plane (°):0.0-360.0: 22.5
 Test Lab: Lisun
 Test Type: TYPE C
 Temperature: 25 °C
 Operator: Ben

Gamma Plane (°):0.0-180.0:1.0
 Test Device: LSG-1900B Goniophotometer
 Distance: 2 m
 Humidity: 65 %
 Inspector:

Candlepower Table

Unit: cd

| G\C | C0.0 | C22.5 | C45.0 | C67.5 | C90.0 | C112.5 | C135.0 | C157.5 | C180.0 | C202.5 |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| G0.0 | 11218.6 | 11218.6 | 11218.6 | 11218.6 | 11218.6 | 11218.6 | 11218.6 | 11218.6 | 11218.6 | 11218.6 |
| G1.0 | 11050.2 | 11242.4 | 11373.7 | 11268.1 | 11191.6 | 11161.7 | 11134.4 | 11136.1 | 11025.5 | 11099.8 |
| G2.0 | 11148.5 | 11072.1 | 11087.0 | 11113.2 | 11116.4 | 11101.2 | 11088.5 | 11122.1 | 11053.8 | 11169.4 |
| G3.0 | 11380.8 | 11084.6 | 11062.2 | 11285.9 | 11148.8 | 11165.0 | 11310.9 | 11395.7 | 11284.0 | 11305.7 |
| G4.0 | 11331.0 | 11438.9 | 11280.7 | 11318.9 | 11198.5 | 11310.3 | 11423.5 | 11394.9 | 11202.8 | 11202.1 |
| G5.0 | 11183.3 | 11278.0 | 11267.2 | 11242.3 | 11328.5 | 11296.3 | 11238.2 | 11323.9 | 11266.9 | 11301.3 |
| G6.0 | 11453.2 | 11178.8 | 11251.1 | 11287.0 | 11235.4 | 11227.2 | 11455.7 | 11444.0 | 11287.6 | 11338.9 |
| G7.0 | 11200.9 | 11386.0 | 11264.0 | 11229.2 | 11262.4 | 11233.1 | 11204.6 | 11237.4 | 11149.8 | 11180.9 |
| G8.0 | 11211.1 | 11116.8 | 11194.3 | 11149.4 | 11150.9 | 11147.8 | 11214.0 | 11326.9 | 11226.9 | 11259.4 |
| G9.0 | 11315.1 | 11171.2 | 11174.5 | 11173.1 | 11089.4 | 11064.2 | 11217.3 | 11189.0 | 11046.0 | 11179.3 |
| G10.0 | 11040.8 | 11124.7 | 11088.9 | 11053.6 | 11091.0 | 11097.9 | 11007.5 | 11137.7 | 11158.9 | 11146.6 |
| G11.0 | 11160.5 | 10998.0 | 11071.7 | 11055.2 | 10943.9 | 10996.1 | 11169.2 | 11209.2 | 11117.9 | 11206.0 |
| G12.0 | 11002.1 | 11089.6 | 10994.3 | 11022.7 | 10974.9 | 10974.6 | 10897.5 | 10956.9 | 10915.5 | 11007.5 |
| G13.0 | 10861.0 | 10820.6 | 10953.9 | 10865.9 | 10817.6 | 10846.5 | 10855.6 | 10989.9 | 10928.4 | 10887.9 |
| G14.0 | 10854.7 | 10783.0 | 10801.7 | 10796.2 | 10650.7 | 10646.0 | 10734.9 | 10737.6 | 10494.8 | 10510.6 |
| G15.0 | 10369.9 | 10582.3 | 10568.2 | 10515.7 | 10495.3 | 10417.3 | 10304.4 | 10365.4 | 10116.9 | 10127.3 |
| G16.0 | 10022.9 | 10101.2 | 10194.3 | 10201.1 | 10136.7 | 10050.8 | 10009.6 | 10107.7 | 9864.1 | 9850.5 |
| G17.0 | 9787.8 | 9769.4 | 9843.0 | 9974.6 | 9866.0 | 9778.2 | 9796.6 | 9898.1 | 9655.2 | 9619.5 |
| G18.0 | 9612.6 | 9539.2 | 9599.1 | 9761.7 | 9657.9 | 9549.8 | 9598.1 | 9710.8 | 9468.6 | 9400.8 |
| G19.0 | 9420.6 | 9336.7 | 9380.9 | 9582.4 | 9438.3 | 9331.8 | 9400.4 | 9520.0 | 9261.2 | 9165.3 |
| G20.0 | 9218.7 | 9144.6 | 9169.3 | 9415.8 | 9232.1 | 9125.1 | 9180.9 | 9317.7 | 9041.9 | 8952.3 |
| G21.0 | 8995.5 | 8919.4 | 8936.0 | 9212.7 | 9018.1 | 8916.5 | 8958.8 | 9101.1 | 8814.8 | 8723.7 |
| G22.0 | 8783.2 | 8691.5 | 8728.9 | 8999.0 | 8805.5 | 8704.2 | 8736.2 | 8881.3 | 8576.6 | 8521.1 |
| G23.0 | 8551.2 | 8453.6 | 8514.9 | 8791.1 | 8599.5 | 8479.6 | 8509.2 | 8659.3 | 8323.8 | 8321.8 |
| G24.0 | 8327.5 | 8200.1 | 8316.3 | 8585.1 | 8386.1 | 8237.5 | 8268.1 | 8429.1 | 8072.3 | 8119.3 |
| G25.0 | 8089.0 | 7943.7 | 8083.5 | 8356.3 | 8168.1 | 7958.4 | 8002.0 | 8159.3 | 7790.2 | 7868.9 |
| G26.0 | 7826.6 | 7669.5 | 7814.0 | 8086.1 | 7904.3 | 7660.0 | 7719.2 | 7860.7 | 7506.3 | 7570.9 |
| G27.0 | 7538.2 | 7372.0 | 7505.5 | 7767.6 | 7587.4 | 7346.1 | 7414.8 | 7526.7 | 7208.4 | 7219.3 |
| G28.0 | 7235.9 | 7046.1 | 7154.4 | 7402.4 | 7220.4 | 6990.6 | 7078.1 | 7164.0 | 6882.7 | 6819.7 |
| G29.0 | 6876.7 | 6701.0 | 6756.2 | 6962.8 | 6824.3 | 6611.3 | 6703.6 | 6778.9 | 6534.1 | 6429.1 |
| G30.0 | 6516.0 | 6361.6 | 6358.4 | 6528.7 | 6416.7 | 6224.7 | 6324.6 | 6397.6 | 6155.7 | 6048.4 |
| G31.0 | 6136.8 | 5962.6 | 5948.4 | 6100.7 | 6006.4 | 5855.0 | 5936.4 | 6006.6 | 5763.8 | 5674.1 |
| G32.0 | 5770.3 | 5595.0 | 5583.0 | 5707.1 | 5638.0 | 5512.1 | 5564.1 | 5633.9 | 5397.4 | 5340.2 |
| G33.0 | 5409.9 | 5244.2 | 5242.7 | 5360.3 | 5268.4 | 5175.1 | 5216.2 | 5270.9 | 5060.3 | 5024.1 |
| G34.0 | 5092.2 | 4942.0 | 4943.7 | 5033.8 | 4950.1 | 4876.2 | 4900.2 | 4959.7 | 4775.0 | 4760.4 |
| G35.0 | 4774.8 | 4663.6 | 4657.3 | 4738.1 | 4653.7 | 4598.5 | 4611.8 | 4640.7 | 4504.9 | 4497.0 |
| G36.0 | 4484.4 | 4414.3 | 4401.0 | 4462.4 | 4389.2 | 4357.5 | 4365.5 | 4365.5 | 4258.6 | 4247.6 |

C Plane (°):0.0-360.0: 22.5

Test Lab: Lisun

Test Type: TYPE C

Temperature: 25 °C

Operator: Ben

Gamma Plane (°):0.0-180.0:1.0

Test Device: LSG-1900B Goniophotometer

Distance: 2 m

Humidity: 65 %

Inspector:

Candlepower Table (Continue 1)

Unit: cd

| G\C | C0.0 | C22.5 | C45.0 | C67.5 | C90.0 | C112.5 | C135.0 | C157.5 | C180.0 | C202.5 |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| G37.0 | 4212.9 | 4162.6 | 4150.3 | 4204.2 | 4139.7 | 4112.4 | 4119.3 | 4110.0 | 4014.6 | 4008.5 |
| G38.0 | 3977.5 | 3934.5 | 3927.1 | 3969.7 | 3906.4 | 3875.4 | 3887.8 | 3874.9 | 3780.8 | 3768.6 |
| G39.0 | 3742.9 | 3699.8 | 3689.9 | 3738.5 | 3657.9 | 3635.8 | 3655.8 | 3649.4 | 3549.3 | 3542.5 |
| G40.0 | 3536.3 | 3477.4 | 3462.7 | 3512.3 | 3436.2 | 3407.9 | 3436.9 | 3440.1 | 3350.2 | 3333.7 |
| G41.0 | 3319.1 | 3268.3 | 3242.9 | 3300.4 | 3207.5 | 3186.7 | 3227.6 | 3227.8 | 3139.2 | 3130.4 |
| G42.0 | 3107.6 | 3051.7 | 3037.3 | 3099.5 | 3011.2 | 2971.5 | 3012.2 | 3013.4 | 2935.5 | 2910.4 |
| G43.0 | 2896.3 | 2848.4 | 2809.3 | 2902.3 | 2811.7 | 2780.3 | 2800.6 | 2810.2 | 2728.4 | 2705.8 |
| G44.0 | 2684.6 | 2636.7 | 2603.8 | 2704.0 | 2610.5 | 2579.0 | 2589.4 | 2595.5 | 2525.5 | 2516.1 |
| G45.0 | 2482.9 | 2435.5 | 2407.8 | 2493.7 | 2413.1 | 2384.1 | 2402.7 | 2396.9 | 2339.6 | 2336.1 |
| G46.0 | 2285.7 | 2240.6 | 2221.0 | 2289.6 | 2238.5 | 2188.7 | 2220.6 | 2211.5 | 2160.0 | 2171.0 |
| G47.0 | 2106.1 | 2066.1 | 2047.7 | 2106.8 | 2044.6 | 2013.6 | 2039.8 | 2036.1 | 1975.5 | 1997.3 |
| G48.0 | 1928.0 | 1904.2 | 1887.3 | 1920.7 | 1875.8 | 1871.8 | 1870.3 | 1866.0 | 1814.4 | 1836.4 |
| G49.0 | 1767.4 | 1755.0 | 1739.7 | 1750.9 | 1720.7 | 1734.2 | 1720.3 | 1712.8 | 1660.7 | 1678.6 |
| G50.0 | 1600.5 | 1607.2 | 1588.8 | 1599.5 | 1578.1 | 1589.2 | 1560.7 | 1565.3 | 1501.1 | 1534.2 |
| G51.0 | 1455.4 | 1452.6 | 1438.5 | 1458.4 | 1432.0 | 1444.7 | 1406.7 | 1427.4 | 1350.6 | 1399.2 |
| G52.0 | 1312.9 | 1320.2 | 1306.7 | 1317.9 | 1287.3 | 1300.7 | 1265.9 | 1283.7 | 1194.6 | 1236.2 |
| G53.0 | 1176.7 | 1198.3 | 1175.9 | 1174.7 | 1160.8 | 1164.0 | 1133.6 | 1132.6 | 1027.2 | 1041.3 |
| G54.0 | 1015.5 | 1055.4 | 1042.7 | 1042.2 | 1029.8 | 1018.2 | 963.8 | 956.4 | 820.9 | 826.0 |
| G55.0 | 845.8 | 895.1 | 894.0 | 884.9 | 891.7 | 852.5 | 776.1 | 751.1 | 581.9 | 564.3 |
| G56.0 | 640.3 | 706.9 | 724.1 | 712.7 | 714.4 | 656.0 | 564.9 | 524.5 | 319.5 | 279.2 |
| G57.0 | 411.1 | 498.9 | 543.4 | 520.8 | 490.0 | 426.0 | 338.5 | 279.5 | 136.8 | 120.6 |
| G58.0 | 200.6 | 270.0 | 327.3 | 331.6 | 282.2 | 221.2 | 153.7 | 124.7 | 69.8 | 64.9 |
| G59.0 | 98.9 | 130.0 | 164.6 | 167.1 | 134.0 | 110.7 | 86.1 | 72.6 | 47.2 | 44.5 |
| G60.0 | 64.9 | 76.7 | 85.3 | 86.5 | 76.8 | 64.6 | 54.7 | 48.9 | 34.8 | 32.7 |
| G61.0 | 48.3 | 53.9 | 57.9 | 59.3 | 53.5 | 48.0 | 41.9 | 38.2 | 25.2 | 24.3 |
| G62.0 | 37.1 | 41.1 | 44.9 | 44.7 | 41.7 | 37.3 | 32.7 | 29.8 | 18.4 | 17.5 |
| G63.0 | 27.0 | 31.1 | 34.6 | 34.9 | 32.9 | 29.2 | 24.9 | 23.1 | 14.5 | 13.9 |
| G64.0 | 20.8 | 23.3 | 26.2 | 26.1 | 24.9 | 23.1 | 20.1 | 18.0 | 12.2 | 11.8 |
| G65.0 | 16.9 | 19.1 | 20.6 | 20.8 | 19.8 | 18.8 | 16.9 | 15.6 | 11.2 | 11.0 |
| G66.0 | 14.3 | 15.4 | 16.9 | 17.0 | 16.8 | 16.1 | 14.8 | 14.0 | 10.6 | 10.7 |
| G67.0 | 13.2 | 13.6 | 14.5 | 14.4 | 14.4 | 14.5 | 14.0 | 13.2 | 10.4 | 10.2 |
| G68.0 | 12.7 | 13.3 | 13.5 | 14.1 | 13.6 | 13.7 | 13.4 | 12.9 | 10.4 | 9.9 |
| G69.0 | 13.0 | 13.1 | 12.7 | 13.6 | 13.1 | 12.9 | 12.9 | 13.2 | 10.4 | 9.9 |
| G70.0 | 12.5 | 12.8 | 12.7 | 12.2 | 12.8 | 12.9 | 12.6 | 12.6 | 10.1 | 10.2 |
| G71.0 | 12.2 | 12.3 | 12.1 | 13.0 | 12.3 | 12.3 | 12.3 | 11.6 | 9.6 | 9.4 |
| G72.0 | 11.4 | 11.3 | 11.9 | 11.4 | 12.3 | 12.1 | 11.5 | 12.1 | 9.9 | 9.2 |
| G73.0 | 11.4 | 11.8 | 11.4 | 11.2 | 12.0 | 11.5 | 11.5 | 11.0 | 9.6 | 9.7 |

C Plane (°):0.0-360.0: 22.5

Test Lab: Lisun

Test Type: TYPE C

Temperature: 25 °C

Operator: Ben

Gamma Plane (°):0.0-180.0:1.0

Test Device: LSG-1900B Goniophotometer

Distance: 2 m

Humidity: 65 %

Inspector:

Candlepower Table (Continue 2)

Unit: cd

| G\C | C0.0 | C22.5 | C45.0 | C67.5 | C90.0 | C112.5 | C135.0 | C157.5 | C180.0 | C202.5 |
|--------|------|-------|-------|-------|-------|--------|--------|--------|--------|--------|
| G74.0 | 10.9 | 11.3 | 11.1 | 11.7 | 11.5 | 11.3 | 10.7 | 11.3 | 9.3 | 9.4 |
| G75.0 | 10.6 | 11.0 | 10.6 | 10.4 | 10.7 | 10.7 | 10.2 | 10.2 | 8.6 | 8.4 |
| G76.0 | 10.1 | 9.7 | 10.3 | 11.2 | 11.0 | 10.5 | 9.9 | 9.7 | 9.1 | 8.9 |
| G77.0 | 9.6 | 10.2 | 9.8 | 10.6 | 10.4 | 9.6 | 9.4 | 9.1 | 7.8 | 7.8 |
| G78.0 | 9.3 | 8.9 | 9.5 | 10.4 | 9.1 | 9.4 | 9.7 | 9.7 | 7.5 | 7.6 |
| G79.0 | 9.1 | 8.6 | 9.0 | 8.8 | 9.6 | 8.8 | 8.6 | 9.1 | 8.3 | 8.1 |
| G80.0 | 8.6 | 8.9 | 9.0 | 8.3 | 8.3 | 8.3 | 8.9 | 8.1 | 8.0 | 7.8 |
| G81.0 | 8.0 | 8.6 | 8.2 | 8.0 | 9.1 | 8.0 | 7.8 | 7.5 | 7.5 | 6.5 |
| G82.0 | 7.5 | 8.1 | 7.7 | 7.4 | 8.6 | 8.3 | 7.2 | 8.1 | 6.2 | 6.0 |
| G83.0 | 7.5 | 7.8 | 7.9 | 8.3 | 7.2 | 7.8 | 6.7 | 7.5 | 6.0 | 5.8 |
| G84.0 | 6.5 | 6.5 | 7.4 | 7.7 | 6.7 | 6.4 | 6.2 | 5.9 | 6.5 | 6.5 |
| G85.0 | 6.5 | 6.8 | 6.1 | 6.1 | 7.2 | 5.9 | 5.6 | 5.4 | 6.2 | 6.0 |
| G86.0 | 6.0 | 6.3 | 6.3 | 6.7 | 5.3 | 5.4 | 5.1 | 5.9 | 4.7 | 5.5 |
| G87.0 | 4.7 | 5.8 | 5.3 | 6.1 | 4.8 | 4.8 | 4.6 | 4.3 | 5.2 | 5.0 |
| G88.0 | 4.4 | 4.5 | 4.8 | 5.6 | 5.6 | 5.4 | 4.3 | 4.8 | 3.6 | 3.4 |
| G89.0 | 3.9 | 4.2 | 4.2 | 4.3 | 5.3 | 5.1 | 4.6 | 4.6 | 4.7 | 3.4 |
| G90.0 | 4.7 | 4.2 | 4.0 | 5.1 | 5.1 | 4.6 | 4.3 | 4.3 | 4.7 | 3.4 |
| G91.0 | 4.9 | 4.7 | 4.8 | 3.7 | 4.8 | 4.8 | 3.8 | 3.8 | 3.6 | 3.7 |
| G92.0 | 5.2 | 4.2 | 4.2 | 4.3 | 5.3 | 4.0 | 4.0 | 5.1 | 4.7 | 4.7 |
| G93.0 | 5.7 | 5.5 | 4.8 | 5.9 | 4.6 | 4.6 | 5.6 | 4.6 | 4.9 | 5.0 |
| G94.0 | 5.2 | 6.0 | 6.3 | 5.3 | 5.1 | 6.2 | 5.9 | 5.9 | 4.2 | 4.2 |
| G95.0 | 6.7 | 6.0 | 6.9 | 6.9 | 5.9 | 6.7 | 5.6 | 6.7 | 4.4 | 4.5 |
| G96.0 | 7.5 | 6.5 | 7.4 | 6.7 | 7.5 | 7.5 | 6.2 | 5.9 | 5.7 | 5.8 |
| G97.0 | 8.0 | 7.8 | 7.1 | 7.2 | 7.2 | 7.0 | 7.8 | 6.7 | 6.2 | 6.0 |
| G98.0 | 8.6 | 8.4 | 7.7 | 8.0 | 8.8 | 7.5 | 7.5 | 8.3 | 6.7 | 6.5 |
| G99.0 | 8.3 | 8.4 | 9.5 | 9.6 | 9.6 | 9.4 | 9.1 | 8.9 | 6.2 | 6.3 |
| G100.0 | 9.9 | 9.2 | 10.0 | 10.1 | 10.2 | 9.9 | 9.7 | 9.7 | 7.5 | 6.8 |
| G101.0 | 10.4 | 10.2 | 9.8 | 10.9 | 10.7 | 9.4 | 10.2 | 9.1 | 8.3 | 7.6 |
| G102.0 | 10.1 | 10.5 | 10.3 | 10.6 | 11.5 | 10.2 | 9.9 | 10.7 | 8.0 | 8.6 |
| G103.0 | 11.7 | 11.3 | 12.1 | 11.2 | 12.0 | 11.8 | 10.7 | 11.6 | 9.6 | 9.4 |
| G104.0 | 12.2 | 11.8 | 11.6 | 12.0 | 12.0 | 12.6 | 11.5 | 12.4 | 10.4 | 9.9 |
| G105.0 | 12.5 | 12.8 | 13.5 | 13.6 | 12.8 | 13.4 | 12.9 | 12.9 | 11.2 | 10.7 |
| G106.0 | 13.8 | 13.6 | 14.3 | 14.1 | 13.6 | 14.2 | 13.7 | 14.0 | 11.9 | 11.8 |
| G107.0 | 14.3 | 14.4 | 15.3 | 15.2 | 14.4 | 15.0 | 14.8 | 13.7 | 13.0 | 12.6 |
| G108.0 | 15.3 | 15.4 | 16.1 | 16.0 | 15.5 | 15.0 | 15.6 | 14.5 | 13.2 | 13.6 |
| G109.0 | 16.3 | 16.5 | 16.1 | 16.5 | 16.6 | 16.1 | 16.6 | 15.6 | 14.3 | 14.7 |
| G110.0 | 17.4 | 17.5 | 18.2 | 18.1 | 17.7 | 18.0 | 17.2 | 17.7 | 15.3 | 15.7 |

C Plane (°):0.0-360.0: 22.5

Test Lab: Lisun

Test Type: TYPE C

Temperature: 25 °C

Operator: Ben

Gamma Plane (°):0.0-180.0:1.0

Test Device: LSG-1900B Goniophotometer

Distance: 2 m

Humidity: 65 %

Inspector:

Candlepower Table (Continue 3)

Unit: cd

| G\C | C0.0 | C22.5 | C45.0 | C67.5 | C90.0 | C112.5 | C135.0 | C157.5 | C180.0 | C202.5 |
|--------|------|-------|-------|-------|-------|--------|--------|--------|--------|--------|
| G111.0 | 18.4 | 18.6 | 19.3 | 18.9 | 19.3 | 18.5 | 18.2 | 19.1 | 16.6 | 17.0 |
| G112.0 | 20.0 | 19.9 | 20.6 | 20.5 | 20.3 | 19.8 | 19.6 | 19.1 | 18.4 | 18.0 |
| G113.0 | 20.8 | 21.2 | 21.9 | 21.6 | 21.9 | 21.7 | 20.9 | 21.5 | 19.2 | 19.4 |
| G114.0 | 22.8 | 22.5 | 22.5 | 22.9 | 23.0 | 22.5 | 22.8 | 21.8 | 21.0 | 20.7 |
| G115.0 | 23.6 | 23.8 | 24.6 | 24.2 | 24.6 | 24.4 | 23.6 | 24.2 | 21.8 | 22.0 |
| G116.0 | 24.9 | 25.6 | 25.9 | 25.5 | 25.7 | 25.5 | 24.9 | 25.5 | 23.6 | 23.0 |
| G117.0 | 27.3 | 26.7 | 26.9 | 27.7 | 27.3 | 27.1 | 26.8 | 25.8 | 24.4 | 24.3 |
| G118.0 | 27.8 | 28.5 | 28.3 | 28.7 | 28.9 | 28.4 | 28.2 | 28.5 | 26.5 | 25.9 |
| G119.0 | 29.3 | 29.6 | 30.4 | 30.3 | 30.5 | 30.0 | 29.5 | 30.1 | 27.5 | 27.7 |
| G120.0 | 30.9 | 31.1 | 31.7 | 32.2 | 32.1 | 31.6 | 31.4 | 31.4 | 29.6 | 29.3 |
| G121.0 | 33.5 | 32.7 | 33.3 | 33.5 | 33.7 | 33.5 | 33.0 | 33.1 | 30.6 | 30.3 |
| G122.0 | 34.0 | 34.3 | 35.1 | 35.1 | 35.3 | 35.1 | 34.6 | 33.6 | 32.4 | 32.7 |
| G123.0 | 35.8 | 36.1 | 37.0 | 37.3 | 37.2 | 37.0 | 36.2 | 35.5 | 34.8 | 34.3 |
| G124.0 | 38.7 | 37.9 | 38.8 | 38.6 | 39.1 | 38.3 | 38.1 | 37.1 | 36.1 | 36.1 |
| G125.0 | 40.5 | 40.3 | 40.2 | 40.7 | 40.7 | 40.2 | 40.0 | 38.7 | 38.4 | 38.2 |
| G126.0 | 41.0 | 41.3 | 42.3 | 42.1 | 42.5 | 42.6 | 41.6 | 41.6 | 39.7 | 40.0 |
| G127.0 | 43.9 | 44.0 | 43.6 | 43.9 | 44.4 | 43.7 | 43.5 | 42.5 | 41.8 | 41.3 |
| G128.0 | 45.7 | 45.8 | 45.2 | 45.8 | 46.0 | 45.6 | 45.1 | 44.1 | 44.4 | 43.4 |
| G129.0 | 46.5 | 47.6 | 47.0 | 47.4 | 47.9 | 48.0 | 46.9 | 46.8 | 46.2 | 46.0 |
| G130.0 | 48.3 | 49.5 | 48.6 | 49.2 | 49.8 | 49.9 | 48.8 | 48.6 | 48.3 | 48.1 |
| G131.0 | 50.1 | 50.2 | 50.5 | 51.1 | 51.6 | 50.7 | 50.7 | 50.2 | 50.3 | 49.5 |
| G132.0 | 51.9 | 52.1 | 52.3 | 52.7 | 53.5 | 52.5 | 52.3 | 52.1 | 51.9 | 51.5 |
| G133.0 | 54.2 | 54.7 | 54.2 | 54.6 | 55.4 | 54.4 | 53.4 | 53.2 | 54.0 | 54.4 |
| G134.0 | 55.3 | 56.5 | 56.8 | 56.4 | 57.2 | 57.1 | 55.3 | 55.1 | 56.3 | 55.7 |
| G135.0 | 57.4 | 57.3 | 58.6 | 58.3 | 58.8 | 57.9 | 57.9 | 56.7 | 57.9 | 58.6 |
| G136.0 | 58.9 | 59.1 | 60.5 | 60.1 | 60.7 | 60.9 | 58.7 | 59.1 | 60.2 | 59.6 |
| G137.0 | 60.7 | 61.8 | 61.3 | 62.0 | 62.6 | 61.4 | 60.6 | 60.7 | 61.8 | 62.0 |
| G138.0 | 62.3 | 63.6 | 63.1 | 63.9 | 64.2 | 64.3 | 62.2 | 62.1 | 64.4 | 63.8 |
| G139.0 | 64.1 | 64.4 | 65.0 | 66.0 | 66.1 | 65.1 | 65.2 | 63.7 | 65.7 | 65.9 |
| G140.0 | 65.9 | 67.0 | 66.6 | 67.3 | 67.9 | 68.1 | 67.1 | 65.6 | 67.7 | 68.6 |
| G141.0 | 67.5 | 68.6 | 69.5 | 69.2 | 69.5 | 69.7 | 68.7 | 67.4 | 69.6 | 69.6 |
| G142.0 | 69.3 | 69.3 | 71.3 | 71.1 | 71.1 | 70.2 | 69.2 | 69.1 | 71.6 | 71.2 |
| G143.0 | 70.8 | 70.9 | 71.9 | 72.7 | 72.8 | 71.8 | 70.8 | 70.7 | 73.5 | 73.0 |
| G144.0 | 71.9 | 72.5 | 73.7 | 74.0 | 74.6 | 74.5 | 72.7 | 72.0 | 74.5 | 74.6 |
| G145.0 | 73.5 | 75.1 | 75.3 | 76.1 | 76.2 | 76.4 | 74.3 | 73.6 | 76.0 | 77.2 |
| G146.0 | 76.0 | 76.9 | 78.2 | 77.7 | 78.1 | 78.3 | 77.3 | 75.5 | 78.4 | 78.0 |
| G147.0 | 78.1 | 78.0 | 80.1 | 80.1 | 80.2 | 80.2 | 79.1 | 77.4 | 80.2 | 80.6 |

C Plane (°):0.0-360.0: 22.5

Test Lab: Lisun

Test Type: TYPE C

Temperature: 25 °C

Operator: Ben

Gamma Plane (°):0.0-180.0:1.0

Test Device: LSG-1900B Goniophotometer

Distance: 2 m

Humidity: 65 %

Inspector:

Candlepower Table (Continue 4)

Unit: cd

| G\C | C0.0 | C22.5 | C45.0 | C67.5 | C90.0 | C112.5 | C135.0 | C157.5 | C180.0 | C202.5 |
|--------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|
| G148.0 | 79.9 | 79.8 | 82.2 | 82.2 | 82.1 | 82.0 | 80.2 | 79.3 | 81.2 | 81.6 |
| G149.0 | 81.8 | 81.6 | 84.0 | 83.6 | 84.0 | 83.9 | 82.9 | 81.2 | 83.6 | 83.5 |
| G150.0 | 82.5 | 84.5 | 85.1 | 85.7 | 85.9 | 86.1 | 84.8 | 83.0 | 85.6 | 86.1 |
| G151.0 | 85.6 | 85.6 | 88.0 | 87.8 | 88.0 | 87.9 | 86.6 | 84.9 | 86.4 | 87.1 |
| G152.0 | 87.5 | 87.4 | 89.0 | 90.5 | 89.9 | 88.7 | 88.5 | 87.1 | 88.5 | 90.0 |
| G153.0 | 88.0 | 90.0 | 91.7 | 92.3 | 91.7 | 90.6 | 90.4 | 88.9 | 91.1 | 91.8 |
| G154.0 | 90.1 | 91.8 | 93.3 | 94.2 | 93.9 | 93.6 | 92.0 | 91.1 | 93.2 | 93.1 |
| G155.0 | 91.6 | 92.6 | 94.3 | 95.5 | 95.5 | 95.2 | 93.9 | 92.4 | 95.0 | 96.0 |
| G156.0 | 93.4 | 95.2 | 96.2 | 97.4 | 97.4 | 96.2 | 95.8 | 94.6 | 96.8 | 97.9 |
| G157.0 | 95.2 | 96.3 | 98.0 | 99.8 | 99.2 | 98.9 | 97.4 | 96.2 | 98.9 | 99.7 |
| G158.0 | 97.3 | 98.1 | 100.4 | 100.9 | 101.1 | 100.5 | 99.8 | 98.6 | 100.4 | 101.5 |
| G159.0 | 99.1 | 99.9 | 102.0 | 102.7 | 102.7 | 101.6 | 101.7 | 100.8 | 102.3 | 103.3 |
| G160.0 | 102.3 | 101.8 | 103.8 | 105.4 | 104.6 | 103.5 | 103.0 | 102.4 | 103.0 | 104.4 |
| G161.0 | 103.0 | 103.9 | 105.4 | 107.3 | 106.5 | 105.4 | 104.6 | 104.3 | 104.8 | 106.0 |
| G162.0 | 105.1 | 105.4 | 107.3 | 109.4 | 108.3 | 108.0 | 107.3 | 107.2 | 108.0 | 108.6 |
| G163.0 | 106.9 | 107.5 | 109.1 | 110.2 | 110.2 | 109.9 | 109.4 | 109.4 | 109.8 | 109.6 |
| G164.0 | 108.7 | 109.4 | 111.0 | 113.1 | 111.8 | 111.0 | 110.3 | 111.0 | 110.3 | 112.0 |
| G165.0 | 110.6 | 111.2 | 112.5 | 115.0 | 113.9 | 113.1 | 113.2 | 113.7 | 112.1 | 112.8 |
| G166.0 | 113.2 | 113.0 | 114.4 | 115.5 | 115.8 | 114.7 | 115.1 | 115.6 | 115.0 | 115.1 |
| G167.0 | 114.2 | 114.6 | 116.0 | 118.2 | 117.4 | 116.6 | 115.6 | 117.4 | 116.8 | 115.9 |
| G168.0 | 116.3 | 116.4 | 117.8 | 118.7 | 118.8 | 119.0 | 117.2 | 118.2 | 118.3 | 118.0 |
| G169.0 | 117.8 | 117.7 | 118.9 | 121.1 | 120.4 | 120.1 | 118.8 | 119.6 | 119.9 | 118.8 |
| G170.0 | 119.1 | 119.6 | 121.0 | 122.4 | 122.0 | 122.2 | 121.8 | 122.0 | 120.4 | 120.6 |
| G171.0 | 120.7 | 120.6 | 121.8 | 123.8 | 123.3 | 123.9 | 122.1 | 122.3 | 122.5 | 121.7 |
| G172.0 | 122.0 | 122.4 | 123.9 | 123.8 | 124.6 | 124.9 | 124.5 | 124.4 | 122.8 | 122.4 |
| G173.0 | 123.3 | 123.0 | 124.2 | 125.9 | 126.5 | 126.3 | 125.5 | 124.4 | 124.1 | 123.8 |
| G174.0 | 124.3 | 124.8 | 125.0 | 126.7 | 127.1 | 126.8 | 126.6 | 125.2 | 125.6 | 124.5 |
| G175.0 | 125.4 | 124.8 | 125.8 | 127.5 | 128.1 | 128.4 | 127.7 | 127.4 | 126.4 | 125.6 |
| G176.0 | 126.1 | 125.6 | 127.6 | 127.0 | 130.0 | 128.4 | 128.5 | 128.2 | 127.2 | 126.6 |
| G177.0 | 126.9 | 127.2 | 127.1 | 128.8 | 130.0 | 129.2 | 129.3 | 127.6 | 127.7 | 127.2 |
| G178.0 | 127.4 | 127.7 | 127.3 | 129.3 | 130.5 | 130.6 | 129.8 | 128.2 | 128.2 | 127.7 |
| G179.0 | 128.2 | 126.9 | 128.9 | 128.5 | 132.4 | 130.0 | 129.3 | 128.7 | 128.7 | 128.2 |
| G180.0 | 127.2 | 127.9 | 128.4 | 129.3 | 132.7 | 131.4 | 129.6 | 129.8 | 128.2 | 127.7 |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

C Plane (°):0.0-360.0: 22.5

Test Lab: Lisun

Test Type: TYPE C

Temperature: 25 °C

Operator: Ben

Gamma Plane (°):0.0-180.0:1.0

Test Device: LSG-1900B Goniophotometer

Distance: 2 m

Humidity: 65 %

Inspector:

Candlepower Table (Continue 5)

Unit: cd

| | | | | | | | | | | |
|-------|---------|---------|---------|---------|---------|---------|---------|--|--|--|
| G\C | C225.0 | C247.5 | C270.0 | C292.5 | C315.0 | C337.5 | C360.0 | | | |
| G0.0 | 11218.6 | 11218.6 | 11218.6 | 11218.6 | 11218.6 | 11218.6 | 11218.6 | | | |
| G1.0 | 11245.0 | 11299.2 | 11237.6 | 11184.3 | 11173.0 | 11287.1 | 11050.2 | | | |
| G2.0 | 11332.7 | 11357.0 | 11330.1 | 11330.6 | 11258.3 | 11288.2 | 11148.5 | | | |
| G3.0 | 11408.3 | 11644.1 | 11623.8 | 11497.9 | 11494.9 | 11581.1 | 11380.8 | | | |
| G4.0 | 11286.2 | 11432.3 | 11540.9 | 11447.3 | 11346.8 | 11417.2 | 11331.0 | | | |
| G5.0 | 11552.3 | 11606.4 | 11590.1 | 11589.9 | 11488.5 | 11439.2 | 11183.3 | | | |
| G6.0 | 11305.0 | 11527.6 | 11638.0 | 11495.8 | 11481.5 | 11624.1 | 11453.2 | | | |
| G7.0 | 11376.3 | 11468.8 | 11505.8 | 11504.4 | 11432.7 | 11323.9 | 11200.9 | | | |
| G8.0 | 11368.1 | 11543.5 | 11597.1 | 11537.9 | 11479.9 | 11537.6 | 11211.1 | | | |
| G9.0 | 11184.5 | 11368.2 | 11450.5 | 11418.0 | 11375.8 | 11319.9 | 11315.1 | | | |
| G10.0 | 11371.0 | 11491.1 | 11472.2 | 11533.3 | 11452.8 | 11321.8 | 11040.8 | | | |
| G11.0 | 11094.2 | 11339.7 | 11449.4 | 11384.8 | 11295.8 | 11400.0 | 11160.5 | | | |
| G12.0 | 11088.3 | 11240.9 | 11292.1 | 11342.2 | 11249.7 | 11087.5 | 11002.1 | | | |
| G13.0 | 10930.9 | 11088.7 | 11147.2 | 11177.6 | 11124.7 | 11183.9 | 10861.0 | | | |
| G14.0 | 10510.8 | 10683.6 | 10746.0 | 10714.6 | 10715.9 | 10804.0 | 10854.7 | | | |
| G15.0 | 10234.8 | 10361.3 | 10395.8 | 10351.1 | 10370.6 | 10376.2 | 10369.9 | | | |
| G16.0 | 9996.7 | 10126.1 | 10151.9 | 10095.6 | 10104.3 | 10134.9 | 10022.9 | | | |
| G17.0 | 9785.7 | 9933.9 | 9931.5 | 9877.4 | 9874.9 | 9920.4 | 9787.8 | | | |
| G18.0 | 9564.8 | 9752.7 | 9727.7 | 9656.7 | 9659.5 | 9747.9 | 9612.6 | | | |
| G19.0 | 9332.6 | 9559.7 | 9510.0 | 9416.5 | 9444.9 | 9571.4 | 9420.6 | | | |
| G20.0 | 9105.6 | 9375.3 | 9300.0 | 9194.3 | 9238.9 | 9379.8 | 9218.7 | | | |
| G21.0 | 8879.0 | 9185.5 | 9087.4 | 8969.3 | 9028.6 | 9189.5 | 8995.5 | | | |
| G22.0 | 8663.1 | 9005.9 | 8883.0 | 8758.1 | 8832.2 | 8994.4 | 8783.2 | | | |
| G23.0 | 8434.4 | 8809.5 | 8673.6 | 8535.0 | 8634.8 | 8777.9 | 8551.2 | | | |
| G24.0 | 8221.4 | 8601.1 | 8469.2 | 8303.2 | 8421.8 | 8544.6 | 8327.5 | | | |
| G25.0 | 7981.3 | 8353.1 | 8240.5 | 8045.8 | 8155.7 | 8279.4 | 8089.0 | | | |
| G26.0 | 7729.0 | 8062.7 | 7973.9 | 7768.6 | 7847.7 | 7992.7 | 7826.6 | | | |
| G27.0 | 7410.1 | 7712.7 | 7650.5 | 7470.5 | 7512.7 | 7677.2 | 7538.2 | | | |
| G28.0 | 7025.5 | 7303.1 | 7275.8 | 7145.3 | 7167.4 | 7352.6 | 7235.9 | | | |
| G29.0 | 6616.0 | 6866.7 | 6866.5 | 6775.3 | 6809.6 | 6976.7 | 6876.7 | | | |
| G30.0 | 6218.6 | 6431.5 | 6461.1 | 6394.7 | 6434.6 | 6590.2 | 6516.0 | | | |
| G31.0 | 5836.9 | 6019.0 | 6024.8 | 5993.6 | 6063.8 | 6180.5 | 6136.8 | | | |
| G32.0 | 5485.3 | 5658.7 | 5667.2 | 5634.6 | 5694.5 | 5788.1 | 5770.3 | | | |
| G33.0 | 5176.2 | 5326.5 | 5314.7 | 5279.9 | 5335.8 | 5402.8 | 5409.9 | | | |
| G34.0 | 4889.3 | 5014.3 | 5020.5 | 4964.4 | 5023.6 | 5082.5 | 5092.2 | | | |
| G35.0 | 4617.1 | 4723.2 | 4731.6 | 4683.5 | 4731.2 | 4775.9 | 4774.8 | | | |
| G36.0 | 4364.3 | 4458.6 | 4454.5 | 4421.5 | 4464.8 | 4493.2 | 4484.4 | | | |

C Plane (°):0.0-360.0: 22.5

Test Lab: Lisun

Test Type: TYPE C

Temperature: 25 °C

Operator: Ben

Gamma Plane (°):0.0-180.0:1.0

Test Device: LSG-1900B Goniophotometer

Distance: 2 m

Humidity: 65 %

Inspector:

Candlepower Table (Continue 6)

Unit: cd

| | | | | | | | | | | |
|-------|--------|--------|--------|--------|--------|--------|--------|--|--|--|
| G\C | C225.0 | C247.5 | C270.0 | C292.5 | C315.0 | C337.5 | C360.0 | | | |
| G37.0 | 4129.5 | 4215.1 | 4210.5 | 4183.5 | 4201.4 | 4239.8 | 4212.9 | | | |
| G38.0 | 3906.8 | 3985.7 | 3992.3 | 3948.6 | 3970.7 | 3984.5 | 3977.5 | | | |
| G39.0 | 3680.3 | 3757.6 | 3763.6 | 3724.5 | 3740.5 | 3749.9 | 3742.9 | | | |
| G40.0 | 3477.2 | 3552.7 | 3559.3 | 3509.0 | 3519.2 | 3514.8 | 3536.3 | | | |
| G41.0 | 3264.3 | 3352.6 | 3340.7 | 3280.3 | 3298.7 | 3296.6 | 3319.1 | | | |
| G42.0 | 3056.6 | 3152.2 | 3130.0 | 3074.7 | 3086.0 | 3083.0 | 3107.6 | | | |
| G43.0 | 2844.5 | 2951.0 | 2943.8 | 2871.2 | 2870.8 | 2869.9 | 2896.3 | | | |
| G44.0 | 2653.7 | 2757.2 | 2751.5 | 2672.5 | 2647.7 | 2659.2 | 2684.6 | | | |
| G45.0 | 2457.7 | 2578.1 | 2563.7 | 2463.7 | 2442.4 | 2444.5 | 2482.9 | | | |
| G46.0 | 2295.5 | 2401.1 | 2382.1 | 2279.5 | 2271.6 | 2251.8 | 2285.7 | | | |
| G47.0 | 2129.6 | 2230.3 | 2217.1 | 2102.9 | 2098.3 | 2066.4 | 2106.1 | | | |
| G48.0 | 1972.4 | 2064.7 | 2047.8 | 1944.4 | 1941.1 | 1895.5 | 1928.0 | | | |
| G49.0 | 1805.7 | 1905.6 | 1880.3 | 1793.0 | 1769.9 | 1729.7 | 1767.4 | | | |
| G50.0 | 1648.5 | 1750.4 | 1696.0 | 1634.5 | 1595.0 | 1570.9 | 1600.5 | | | |
| G51.0 | 1499.8 | 1594.4 | 1548.7 | 1475.5 | 1444.5 | 1420.7 | 1455.4 | | | |
| G52.0 | 1324.9 | 1401.2 | 1389.2 | 1304.2 | 1288.1 | 1262.7 | 1312.9 | | | |
| G53.0 | 1130.2 | 1166.5 | 1171.5 | 1121.1 | 1120.2 | 1100.9 | 1176.7 | | | |
| G54.0 | 892.7 | 891.0 | 907.5 | 886.3 | 884.2 | 895.1 | 1015.5 | | | |
| G55.0 | 585.2 | 588.4 | 623.2 | 623.0 | 642.5 | 673.1 | 845.8 | | | |
| G56.0 | 283.5 | 290.1 | 289.1 | 309.4 | 389.8 | 419.5 | 640.3 | | | |
| G57.0 | 115.4 | 113.4 | 115.8 | 132.2 | 159.1 | 205.6 | 411.1 | | | |
| G58.0 | 62.1 | 64.7 | 65.0 | 69.4 | 79.9 | 90.3 | 200.6 | | | |
| G59.0 | 43.6 | 43.9 | 45.5 | 48.5 | 52.8 | 58.6 | 98.9 | | | |
| G60.0 | 32.5 | 32.2 | 33.7 | 36.5 | 39.7 | 41.9 | 64.9 | | | |
| G61.0 | 23.0 | 23.1 | 24.9 | 25.7 | 29.0 | 32.8 | 48.3 | | | |
| G62.0 | 17.2 | 16.8 | 17.7 | 18.5 | 21.2 | 22.6 | 37.1 | | | |
| G63.0 | 13.5 | 13.3 | 14.4 | 14.5 | 16.4 | 16.7 | 27.0 | | | |
| G64.0 | 11.9 | 11.7 | 11.8 | 12.1 | 12.9 | 13.2 | 20.8 | | | |
| G65.0 | 10.6 | 11.2 | 11.0 | 10.7 | 11.3 | 11.3 | 16.9 | | | |
| G66.0 | 10.8 | 10.6 | 11.2 | 11.5 | 11.3 | 10.5 | 14.3 | | | |
| G67.0 | 10.6 | 10.4 | 11.2 | 10.2 | 11.3 | 10.2 | 13.2 | | | |
| G68.0 | 10.0 | 10.4 | 11.0 | 11.3 | 11.0 | 11.3 | 12.7 | | | |
| G69.0 | 9.8 | 10.4 | 11.0 | 9.9 | 11.0 | 9.9 | 13.0 | | | |
| G70.0 | 10.3 | 10.1 | 9.9 | 9.6 | 9.7 | 11.0 | 12.5 | | | |
| G71.0 | 10.0 | 9.8 | 10.7 | 10.7 | 9.7 | 10.7 | 12.2 | | | |
| G72.0 | 9.2 | 9.6 | 9.4 | 9.4 | 9.4 | 9.4 | 11.4 | | | |
| G73.0 | 9.0 | 9.3 | 9.1 | 9.1 | 9.1 | 10.2 | 11.4 | | | |

C Plane (°):0.0-360.0: 22.5

Test Lab: Lisun

Test Type: TYPE C

Temperature: 25 °C

Operator: Ben

Gamma Plane (°):0.0-180.0:1.0

Test Device: LSG-1900B Goniophotometer

Distance: 2 m

Humidity: 65 %

Inspector:

Candlepower Table (Continue 7)

Unit: cd

| G\C | C225.0 | C247.5 | C270.0 | C292.5 | C315.0 | C337.5 | C360.0 | | | |
|--------|--------|--------|--------|--------|--------|--------|--------|--|--|--|
| G74.0 | 8.7 | 9.0 | 9.9 | 8.8 | 8.9 | 8.9 | 10.9 | | | |
| G75.0 | 9.0 | 8.8 | 8.6 | 9.6 | 9.7 | 9.9 | 10.6 | | | |
| G76.0 | 8.2 | 8.3 | 9.4 | 8.3 | 8.3 | 9.4 | 10.1 | | | |
| G77.0 | 7.9 | 8.0 | 9.1 | 8.0 | 8.0 | 8.1 | 9.6 | | | |
| G78.0 | 8.2 | 7.7 | 7.8 | 8.8 | 7.8 | 7.8 | 9.3 | | | |
| G79.0 | 7.9 | 8.0 | 7.5 | 8.6 | 7.5 | 7.5 | 9.1 | | | |
| G80.0 | 7.1 | 7.2 | 8.0 | 7.2 | 8.3 | 8.3 | 8.6 | | | |
| G81.0 | 6.6 | 6.7 | 6.7 | 7.8 | 8.0 | 7.0 | 8.0 | | | |
| G82.0 | 6.3 | 6.4 | 6.4 | 7.5 | 7.5 | 7.8 | 7.5 | | | |
| G83.0 | 6.6 | 5.9 | 7.0 | 6.2 | 7.0 | 6.2 | 7.5 | | | |
| G84.0 | 6.1 | 5.3 | 5.6 | 5.6 | 5.9 | 7.0 | 6.5 | | | |
| G85.0 | 5.0 | 5.9 | 5.3 | 5.1 | 5.4 | 6.4 | 6.5 | | | |
| G86.0 | 4.5 | 5.3 | 4.8 | 5.6 | 5.1 | 4.8 | 6.0 | | | |
| G87.0 | 4.8 | 3.7 | 4.3 | 5.1 | 5.1 | 4.6 | 4.7 | | | |
| G88.0 | 3.4 | 4.5 | 4.3 | 4.6 | 4.6 | 5.1 | 4.4 | | | |
| G89.0 | 3.4 | 3.5 | 4.3 | 4.3 | 4.3 | 4.6 | 3.9 | | | |
| G90.0 | 4.5 | 4.5 | 4.0 | 4.3 | 4.3 | 3.5 | 4.7 | | | |
| G91.0 | 4.5 | 4.8 | 4.3 | 3.8 | 4.3 | 3.5 | 4.9 | | | |
| G92.0 | 4.8 | 5.1 | 4.3 | 4.6 | 4.3 | 3.8 | 5.2 | | | |
| G93.0 | 4.0 | 4.0 | 4.6 | 4.8 | 4.3 | 5.1 | 5.7 | | | |
| G94.0 | 5.3 | 4.3 | 5.1 | 5.1 | 4.8 | 4.0 | 5.2 | | | |
| G95.0 | 5.6 | 4.5 | 5.3 | 4.8 | 5.1 | 5.6 | 6.7 | | | |
| G96.0 | 6.1 | 6.1 | 5.3 | 5.4 | 5.4 | 4.6 | 7.5 | | | |
| G97.0 | 5.3 | 6.4 | 6.2 | 5.6 | 5.9 | 6.2 | 8.0 | | | |
| G98.0 | 5.8 | 5.9 | 5.9 | 6.2 | 6.2 | 6.7 | 8.6 | | | |
| G99.0 | 6.1 | 6.1 | 6.4 | 7.0 | 6.4 | 7.3 | 8.3 | | | |
| G100.0 | 7.9 | 6.9 | 7.0 | 7.2 | 7.5 | 6.7 | 9.9 | | | |
| G101.0 | 8.5 | 8.5 | 7.5 | 8.0 | 8.0 | 7.3 | 10.4 | | | |
| G102.0 | 9.2 | 8.3 | 9.1 | 8.6 | 8.3 | 9.1 | 10.1 | | | |
| G103.0 | 8.7 | 9.8 | 8.8 | 9.4 | 9.4 | 8.6 | 11.7 | | | |
| G104.0 | 9.5 | 9.6 | 9.6 | 10.2 | 10.2 | 10.5 | 12.2 | | | |
| G105.0 | 10.3 | 10.6 | 10.4 | 10.7 | 10.5 | 10.2 | 12.5 | | | |
| G106.0 | 11.1 | 11.4 | 11.5 | 12.1 | 11.5 | 12.4 | 13.8 | | | |
| G107.0 | 13.2 | 12.5 | 12.3 | 12.6 | 13.1 | 13.4 | 14.3 | | | |
| G108.0 | 14.3 | 14.4 | 14.4 | 13.4 | 13.4 | 13.2 | 15.3 | | | |
| G109.0 | 15.3 | 14.6 | 15.5 | 15.3 | 14.5 | 14.5 | 16.3 | | | |
| G110.0 | 16.4 | 16.5 | 15.8 | 16.4 | 15.6 | 15.6 | 17.4 | | | |

 C Plane (°):0.0-360.0: 22.5
 Test Lab: Lisun
 Test Type: TYPE C
 Temperature: 25 °C
 Operator: Ben

 Gamma Plane (°):0.0-180.0:1.0
 Test Device: LSG-1900B Goniophotometer
 Distance: 2 m
 Humidity: 65 %
 Inspector:

Candlepower Table (Continue 8)

Unit: cd

| G\C | C225.0 | C247.5 | C270.0 | C292.5 | C315.0 | C337.5 | C360.0 | | | |
|--------|--------|--------|--------|--------|--------|--------|--------|--|--|--|
| G111.0 | 17.7 | 17.3 | 17.9 | 17.7 | 16.9 | 18.0 | 18.4 | | | |
| G112.0 | 17.7 | 18.4 | 18.2 | 19.0 | 18.8 | 18.0 | 20.0 | | | |
| G113.0 | 19.0 | 20.0 | 20.3 | 19.3 | 19.3 | 19.6 | 20.8 | | | |
| G114.0 | 20.3 | 21.0 | 21.7 | 20.6 | 20.7 | 21.8 | 22.8 | | | |
| G115.0 | 21.7 | 22.4 | 23.0 | 23.1 | 22.8 | 23.4 | 23.6 | | | |
| G116.0 | 24.0 | 23.7 | 23.5 | 23.3 | 23.3 | 23.6 | 24.9 | | | |
| G117.0 | 24.3 | 25.3 | 25.7 | 25.7 | 25.8 | 26.1 | 27.3 | | | |
| G118.0 | 25.9 | 26.6 | 27.0 | 27.3 | 27.4 | 27.7 | 27.8 | | | |
| G119.0 | 28.3 | 27.9 | 28.1 | 27.6 | 28.7 | 29.0 | 29.3 | | | |
| G120.0 | 29.9 | 29.8 | 29.7 | 29.2 | 30.6 | 30.6 | 30.9 | | | |
| G121.0 | 30.6 | 31.7 | 31.8 | 32.2 | 32.2 | 31.4 | 33.5 | | | |
| G122.0 | 32.2 | 33.5 | 33.7 | 33.8 | 33.0 | 33.3 | 34.0 | | | |
| G123.0 | 35.1 | 35.4 | 35.3 | 34.6 | 34.9 | 36.0 | 35.8 | | | |
| G124.0 | 35.9 | 37.3 | 37.2 | 36.5 | 37.5 | 37.9 | 38.7 | | | |
| G125.0 | 38.8 | 38.6 | 39.1 | 38.6 | 38.6 | 39.0 | 40.5 | | | |
| G126.0 | 40.7 | 41.0 | 41.2 | 40.5 | 40.8 | 41.1 | 41.0 | | | |
| G127.0 | 42.5 | 42.6 | 43.1 | 43.7 | 42.7 | 43.8 | 43.9 | | | |
| G128.0 | 43.6 | 44.4 | 45.5 | 45.6 | 45.3 | 45.1 | 45.7 | | | |
| G129.0 | 45.7 | 46.3 | 47.6 | 46.9 | 46.9 | 47.8 | 46.5 | | | |
| G130.0 | 47.8 | 48.4 | 49.8 | 49.1 | 48.8 | 50.0 | 48.3 | | | |
| G131.0 | 50.7 | 50.6 | 51.4 | 51.2 | 51.2 | 51.3 | 50.1 | | | |
| G132.0 | 52.6 | 52.4 | 54.0 | 54.2 | 53.4 | 53.5 | 51.9 | | | |
| G133.0 | 54.2 | 55.6 | 56.2 | 55.8 | 55.5 | 56.2 | 54.2 | | | |
| G134.0 | 56.3 | 57.8 | 58.3 | 58.4 | 57.7 | 58.3 | 55.3 | | | |
| G135.0 | 58.4 | 59.9 | 60.7 | 60.3 | 59.8 | 60.2 | 57.4 | | | |
| G136.0 | 60.5 | 60.9 | 62.0 | 62.5 | 62.5 | 62.3 | 58.9 | | | |
| G137.0 | 63.1 | 63.1 | 65.0 | 64.9 | 64.4 | 64.5 | 60.7 | | | |
| G138.0 | 65.3 | 66.0 | 66.1 | 67.0 | 66.5 | 66.4 | 62.3 | | | |
| G139.0 | 67.4 | 68.1 | 69.0 | 69.2 | 68.7 | 68.3 | 64.1 | | | |
| G140.0 | 69.2 | 70.0 | 70.1 | 71.3 | 70.8 | 70.4 | 65.9 | | | |
| G141.0 | 71.1 | 71.9 | 71.9 | 73.2 | 72.7 | 72.0 | 67.5 | | | |
| G142.0 | 72.6 | 72.4 | 74.9 | 75.1 | 74.6 | 73.9 | 69.3 | | | |
| G143.0 | 74.5 | 74.2 | 75.4 | 76.7 | 76.2 | 75.8 | 70.8 | | | |
| G144.0 | 76.1 | 76.9 | 77.3 | 78.6 | 78.1 | 77.4 | 71.9 | | | |
| G145.0 | 77.9 | 77.7 | 78.9 | 80.2 | 79.9 | 78.7 | 73.5 | | | |
| G146.0 | 79.5 | 79.3 | 80.8 | 82.0 | 81.5 | 80.6 | 76.0 | | | |
| G147.0 | 81.4 | 81.4 | 82.7 | 84.4 | 83.4 | 82.8 | 78.1 | | | |

C Plane (°):0.0-360.0: 22.5

Test Lab: Lisun

Test Type: TYPE C

Temperature: 25 °C

Operator: Ben

Gamma Plane (°):0.0-180.0:1.0

Test Device: LSG-1900B Goniophotometer

Distance: 2 m

Humidity: 65 %

Inspector:

Candlepower Table (Continue 9)

Unit: cd

| G\C | C225.0 | C247.5 | C270.0 | C292.5 | C315.0 | C337.5 | C360.0 | | | |
|--------|--------|--------|--------|--------|--------|--------|--------|--|--|--|
| G148.0 | 83.0 | 84.4 | 84.3 | 85.8 | 85.3 | 84.6 | 79.9 | | | |
| G149.0 | 84.8 | 85.2 | 86.1 | 88.2 | 86.6 | 86.5 | 81.8 | | | |
| G150.0 | 86.9 | 88.1 | 89.3 | 89.5 | 88.5 | 87.9 | 82.5 | | | |
| G151.0 | 88.2 | 90.0 | 91.2 | 91.4 | 90.1 | 89.8 | 85.6 | | | |
| G152.0 | 90.1 | 92.1 | 93.1 | 94.1 | 92.8 | 91.6 | 87.5 | | | |
| G153.0 | 91.9 | 93.9 | 95.2 | 96.2 | 93.9 | 93.5 | 88.0 | | | |
| G154.0 | 93.8 | 95.8 | 96.0 | 98.1 | 96.0 | 96.5 | 90.1 | | | |
| G155.0 | 96.4 | 97.7 | 99.0 | 100.0 | 97.9 | 97.5 | 91.6 | | | |
| G156.0 | 98.3 | 98.7 | 99.8 | 101.1 | 100.6 | 99.4 | 93.4 | | | |
| G157.0 | 100.1 | 100.6 | 103.0 | 102.9 | 101.4 | 102.4 | 95.2 | | | |
| G158.0 | 100.9 | 103.3 | 103.5 | 105.6 | 104.4 | 102.9 | 97.3 | | | |
| G159.0 | 102.8 | 104.3 | 105.4 | 107.5 | 106.0 | 105.9 | 99.1 | | | |
| G160.0 | 104.4 | 105.9 | 108.3 | 108.3 | 106.8 | 106.7 | 102.3 | | | |
| G161.0 | 105.9 | 107.8 | 108.9 | 111.0 | 108.4 | 109.6 | 103.0 | | | |
| G162.0 | 108.8 | 110.2 | 112.1 | 111.8 | 111.3 | 110.2 | 105.1 | | | |
| G163.0 | 110.7 | 111.2 | 112.6 | 114.5 | 111.9 | 111.8 | 106.9 | | | |
| G164.0 | 112.5 | 113.4 | 114.5 | 115.0 | 113.5 | 114.5 | 108.7 | | | |
| G165.0 | 112.8 | 115.2 | 117.4 | 116.4 | 115.1 | 115.0 | 110.6 | | | |
| G166.0 | 115.7 | 116.8 | 119.3 | 119.0 | 117.8 | 116.6 | 113.2 | | | |
| G167.0 | 117.3 | 118.2 | 119.8 | 120.4 | 119.4 | 119.0 | 114.2 | | | |
| G168.0 | 117.8 | 119.8 | 122.5 | 122.0 | 121.0 | 119.6 | 116.3 | | | |
| G169.0 | 119.1 | 120.8 | 122.8 | 123.3 | 122.3 | 120.9 | 117.8 | | | |
| G170.0 | 120.7 | 122.2 | 125.4 | 124.4 | 122.6 | 123.1 | 119.1 | | | |
| G171.0 | 121.8 | 123.5 | 127.1 | 124.4 | 125.0 | 123.6 | 120.7 | | | |
| G172.0 | 123.1 | 124.3 | 128.1 | 125.5 | 126.1 | 125.5 | 122.0 | | | |
| G173.0 | 125.2 | 125.3 | 128.4 | 126.5 | 126.9 | 125.8 | 123.3 | | | |
| G174.0 | 125.0 | 126.2 | 130.5 | 127.6 | 127.7 | 127.1 | 124.3 | | | |
| G175.0 | 126.8 | 127.5 | 131.3 | 128.4 | 127.7 | 127.6 | 125.4 | | | |
| G176.0 | 126.8 | 128.3 | 131.1 | 130.3 | 129.0 | 128.4 | 126.1 | | | |
| G177.0 | 127.6 | 129.1 | 132.7 | 130.8 | 129.3 | 129.0 | 126.9 | | | |
| G178.0 | 128.1 | 128.5 | 133.2 | 130.0 | 129.8 | 129.3 | 127.4 | | | |
| G179.0 | 128.7 | 129.9 | 133.2 | 131.6 | 130.1 | 129.5 | 128.2 | | | |
| G180.0 | 128.9 | 128.8 | 132.9 | 131.4 | 130.4 | 129.8 | 127.2 | | | |
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C Plane (°):0.0-360.0: 22.5
 Test Lab: Lisun
 Test Type: TYPE C
 Temperature: 25 °C
 Operator: Ben

Gamma Plane (°):0.0-180.0:1.0
 Test Device: LSG-1900B Goniophotometer
 Distance: 2 m
 Humidity: 65 %
 Inspector: