LISUN GROUP

近场分布式光度计

(LSG-1900B)

Brochure

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Leader in Lighting & Electrical Test Instruments

Rev. 1/14/2020

1. 系统配置

报价包括以下项目:

A. **角光度系统:**

- 旋转控制台:
  1) LSG-1900B 采用日本电机使得旋转角度精度达到 0.10 度
- 双通道&高精度光度计
- A 级恒温探头（L 级可选）
- 十字激光系统对准校量
- 中英文软件
- 两套夹具：两套多功能夹具。
- 包装：木质包装费用

B. **SLS-150W DC 直流光强标准灯**

C. **数字电参数测量仪：** LSG-1900B 配备 LS2010 电参数表：高精度测量 AC 电压，电流，功率，功率因素和谐波。

D. **DC3010 精密数显直流稳压稳流电源：**30V/10A 恒流恒压源输出；可选 DC6010(输出 60V/10A)和 DC12010(输出 120V/10A)

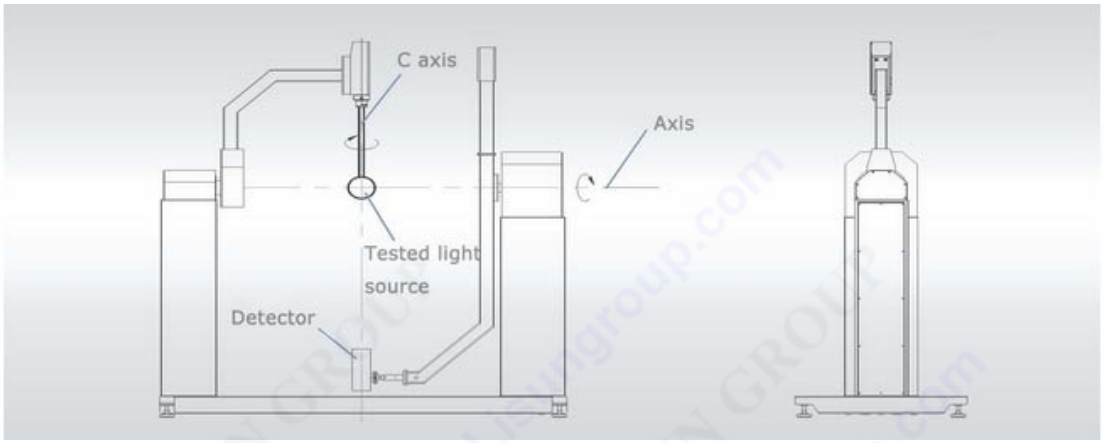
E. **交流电源：**LSG-1900B 配备 LSP-500VAS RS232 通讯交流电源(可选 LSP-1KVAS)

F. **CASE-19IN 19 英寸机柜**

LSG-1900B 近场分布式光度计全景图

注：电脑及打印机客户自行准备（电脑至少有一个 USB 接口）

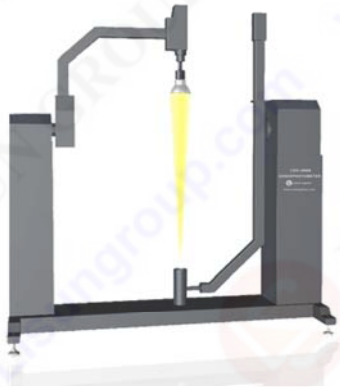
2. 工作原理



测试原理

LSG-1900B 高精度绝对测量分布光度计系统（C 类型）没有反光镜，分布光度计配置满足美国 NIST。可直接测量绝对空间光强分布。LSG-1900B 测试过程中，被测灯具保持静止，探测器围绕灯具以水平轴转动和灯具以垂直轴自转，从而得到整个空间的光强分布。LSG-1900B 可以测试在规定燃烧位置和垂直轴周围旋转的灯具，并且检测器围绕水平轴旋转，同时同步轴将沿相反方向同步旋转。 光源和检测器的组合运动允许在任何水平或垂直角度的方向进行发光测量，而不倾斜被测灯，因此，发光强度将不会变化。

3. 系统功能



LSG-1900B 近场分布式光度计

LSG-1900B 分布光度计是高精度自动光度测量仪用于光强分布的测量，具有转向光源的功能。LSG-1900B 采用恒温探头，日本三菱电机保持高精度测量。LSG-1900B 应用于工业实验室灯具光参数测量。

此套系统被用于测试 LED 路灯，室内灯具以及工程用灯具的空间光强分布，等光强曲线，区域光强分布曲线（用直角坐标系和极坐标系表示），亮度限制曲线，光效，眩光等级，有效光束角，上射光通量，下设光通量，总光通量，有效光通量，利用系数及电参数（电压，电流，功率，功率因素）。测试数据可保存为 IES 格式文件，可直接被照明设计软件调用。这套系统完全满足照明设计工作的要求。

4. 技术参数：

- 满足 CIE、IEC、IES LM-79 和 GB 标准要求
- 测量过程中，被测灯具在整个测试过程中保持燃点不动
- 满足 B-β 和 C-γ 测试方案
- 灯具旋转角度范围：（γ）±180°（或 0-360°），灯具绕自身旋转角度范围：(C)±180°（或 0-360°）
- 被测灯最大允许尺寸：Φ300mm*550mm(直径*高度)；最大重量：20KG.
- 被测灯具发光口面到探测器距离：1250 mm
- 角度精度：0.1°，角度分辨率：0.01°
- 光度测试范围：照度范围 0.001lx~99,999lx；光强范围：1.0cd～10^7cd(探头)
- 光度精度：CIE A 级探头(L 级探头可选)
- 测试精度：2%(标准光源下)；杂散光：小于 0.1%
- 中英文软件，可在 Win7，Win8 或 Win10 下运行

5. 实验室要求：

- 暗室最小尺寸要求：W3.5m*H2.5m*L4m（其他尺寸请与上海力汕工程师确认）
- 操作室尺寸用于放置机柜，电脑及打印机：房间尺寸不小于 W3.0m*L3.0m
- 墙壁，天花板及地板需用哑光漆涂黑，也可用黑绒布覆盖。
- 放置一台空调在暗室中控制灯具周围的温度以达到 CIE 标准要求的温度。
- 确认采购订单后，LISUN 工程部将会根据客户的实验室尺寸给出暗室设计图纸。

6. 典型海外买家：

请向 LISUN 销售部索要买家信息。

7. 设计标准：

LSG-1900B 仪器结构，技术参数，测试，操作步骤以及软件可以满足一下标准要求：

3.1 CIE Pub. NO.70,"The Measurement of Absolute Luminous Intensity Distributions"

3.2 CIE DIV.Ⅱ-TC10,"Photometry of Luminaires"

3.3 IES LM-35-1989,"IES Approved Method for Photometric Testing of Floodlights"

3.4 IES LM-31,"IES Approved Method for Photometric Testing of Roadway Luminaires"

3.5 IES-LM-79, "Electrical and Photometric Measurements of Solid-State Lighting"

3.6 GB/T 7002-1986,"Luminosity Test of Flood Luminaires"

3.7 GB/T 9467-1988, "Luminosity Test of Indoor Luminaires"

3.8 GB/T 9468-1988, "Luminosity Test of Street Luminaires"

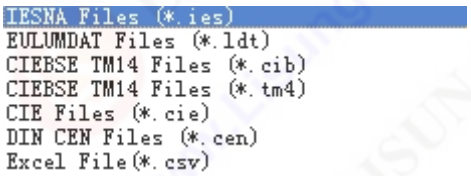
3.9 IES 61341 "Method of Measurement of Center Beam Intensity and Beam Angle(s) of Reflector Lamp"

3.10 CIE Pub.NO.76, "Photometry-the CIE System of Physical Photometry"

8. 应用软件：

LSG-1900B 分布光度计完全由软件控制，包括仪器的旋转，数据采集出路，实时屏幕显示，测试报告打印等，都可由软件操作实现，使用操作非常方便。

系统可导出如下格式:



这些格式文件可以直接被相关照明设计软件调用，如 DIALUX。

应用软件还可以实现对照明设计要求作为一个工作平面等照度分布曲线，亮度限制曲线，灯具效率，有效光束角，向上的光通量比，向下的光通量比，有效光通量，利用系数曲线等必要的计算。

下面是由测试软件导出的测试报告：

Lisun Electronics Inc
http://www.Lisungroup.com
Tel:+86(21)51083341
Fax:+86(21)51083342

Report No.:

Test Time: 2013-06-18 12:03

Luminaire Property

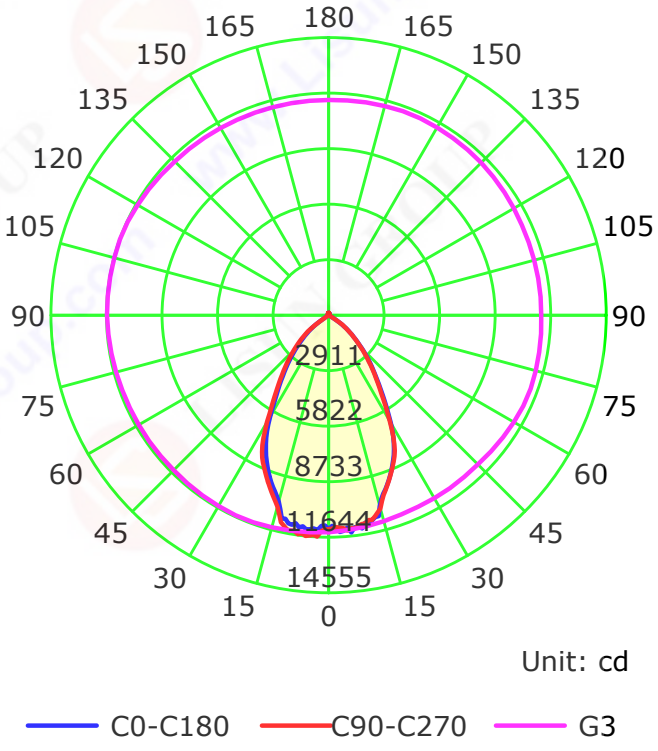
Luminaire Manufacturer: UL
Luminous Length (mm): 500
Luminous Width (mm): 500
Luminous Height (mm): 400
Voltage: 220.1 V
Current: 0.893 A
Power: 191.50 W
Power Factor: 0.973

Photometric Results

CIE Class: Direct
Total Rated Lamp Lumens: 13418.9 lm
Measurement Flux: 13418.9 lm
Efficiency: 100%
Downward Ratio: 98%
Upward Ratio: 2%
Field Angle: H105.6 V106.2
Beam Angle: H63.4 V63.5
Luminaire Efficacy Rating (LER): 70
Central Intensity: 11218.59 cd
Max. Intensity: 11644.15 cd
Pos of Max. Intensity: H247.5 V3

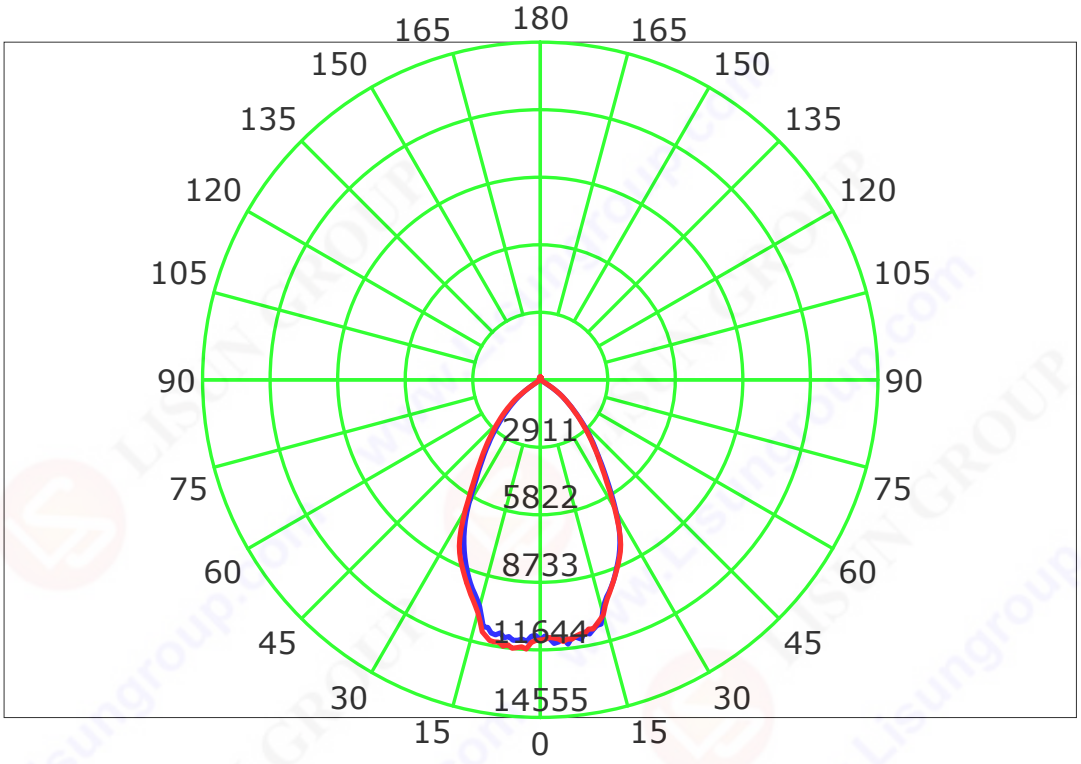
Picture Of Luminaire

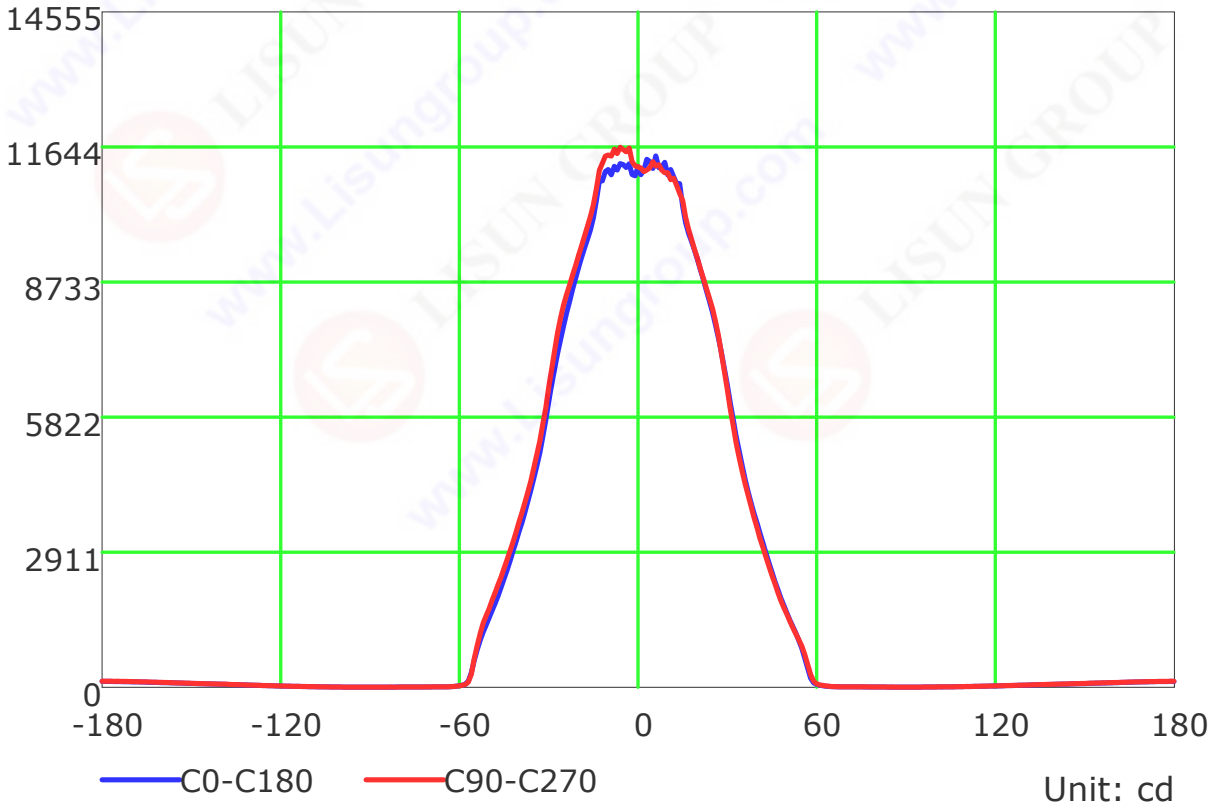
Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 22.5
Gamma Plane (°):0.0-180.0:1.0
Test Lab: Lisun
Test Device: LSG-1900B Goniophotometer
Test Type: TYPE C
Distance: 2 m
Temperature: 25 ℃
Humidity: 65 %
Operator: Ben
Inspector:

Luminous Intensity Distribution Curve





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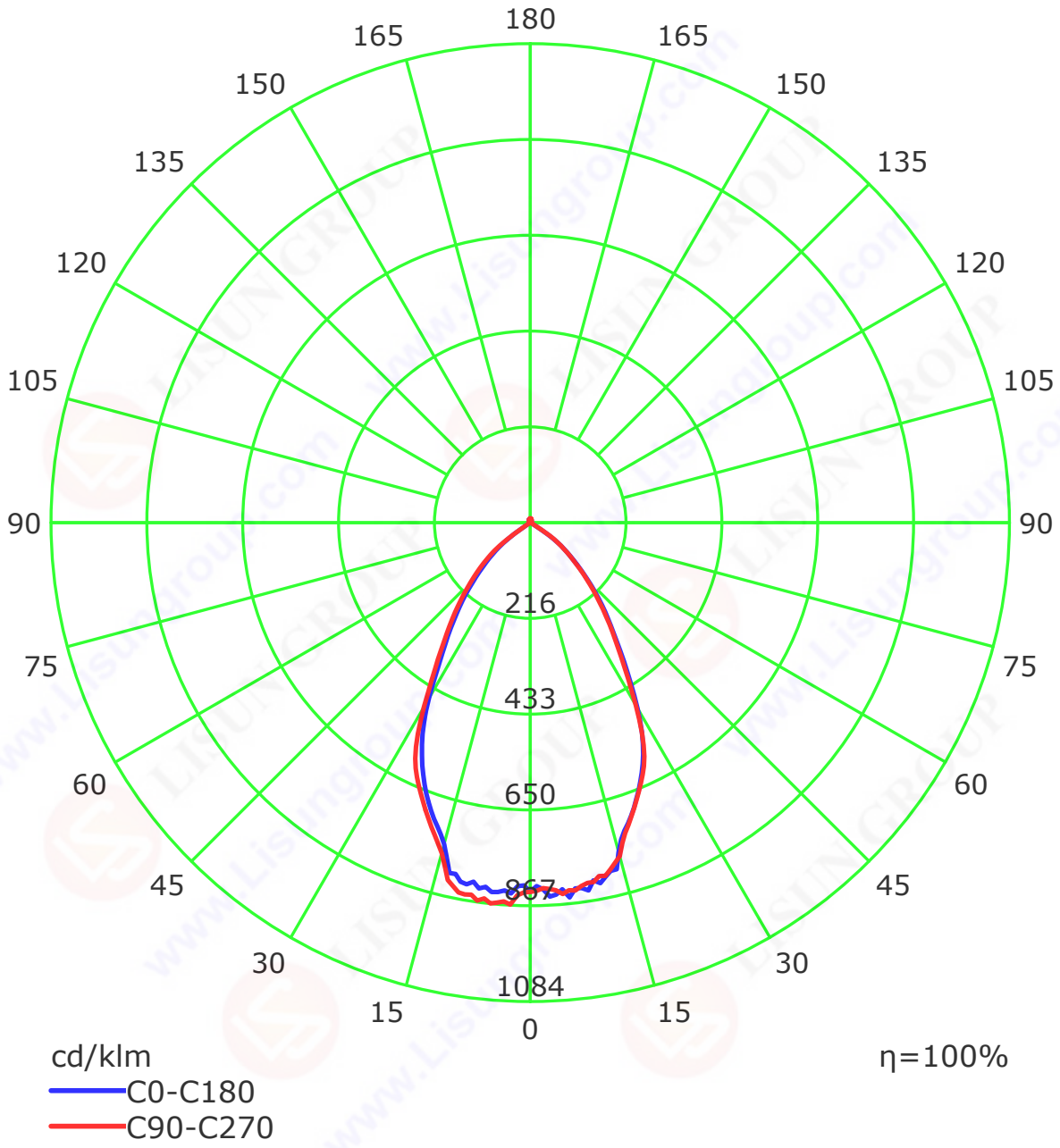
Test Lab: Lisun
Test Type: TYPE C
Temperature: 25 ℃
Operator: Ben

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)



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Test Type: TYPE C
Temperature: 25 ℃
Operator: Ben

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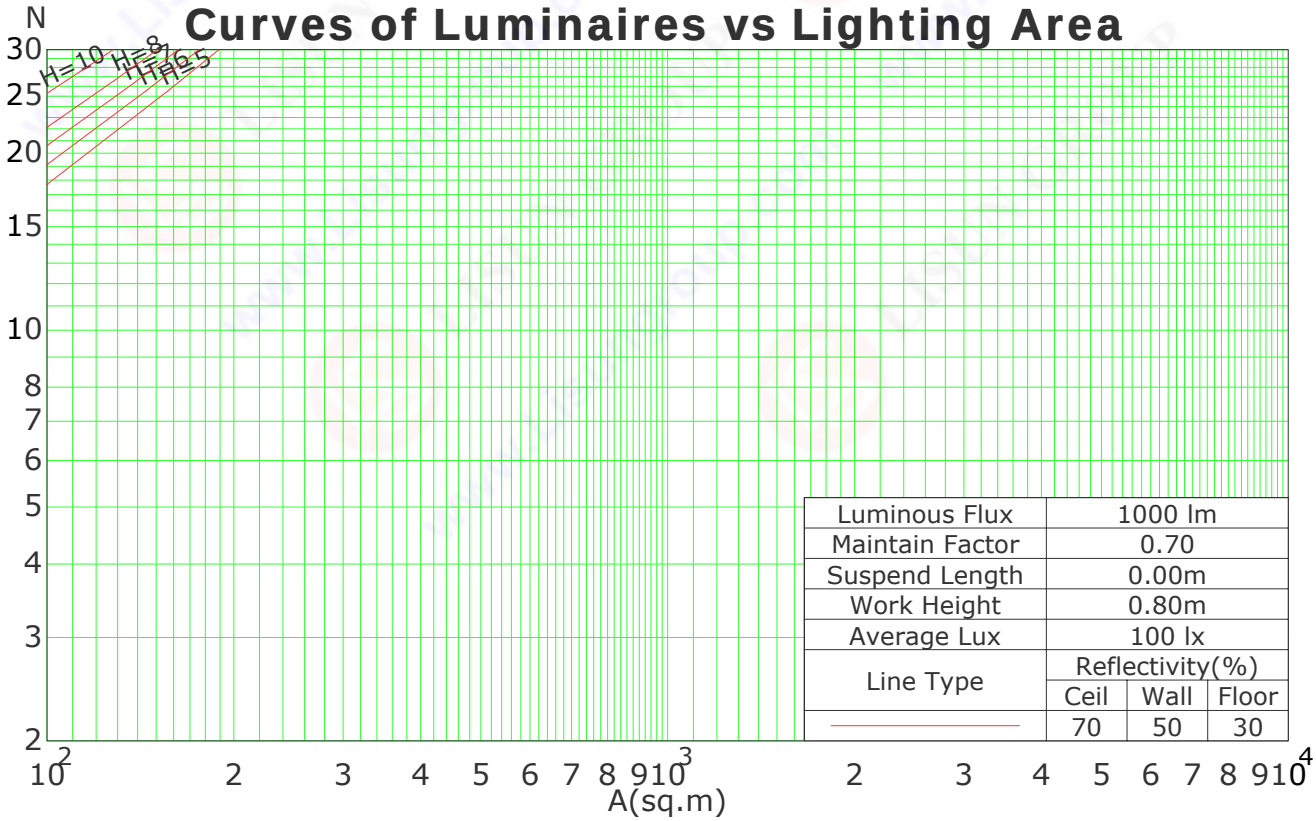
Test Device: LSG-1900B Goniophotometer
Distance: 2 m
Humidity: 65 %
Inspector:

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
RCR	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

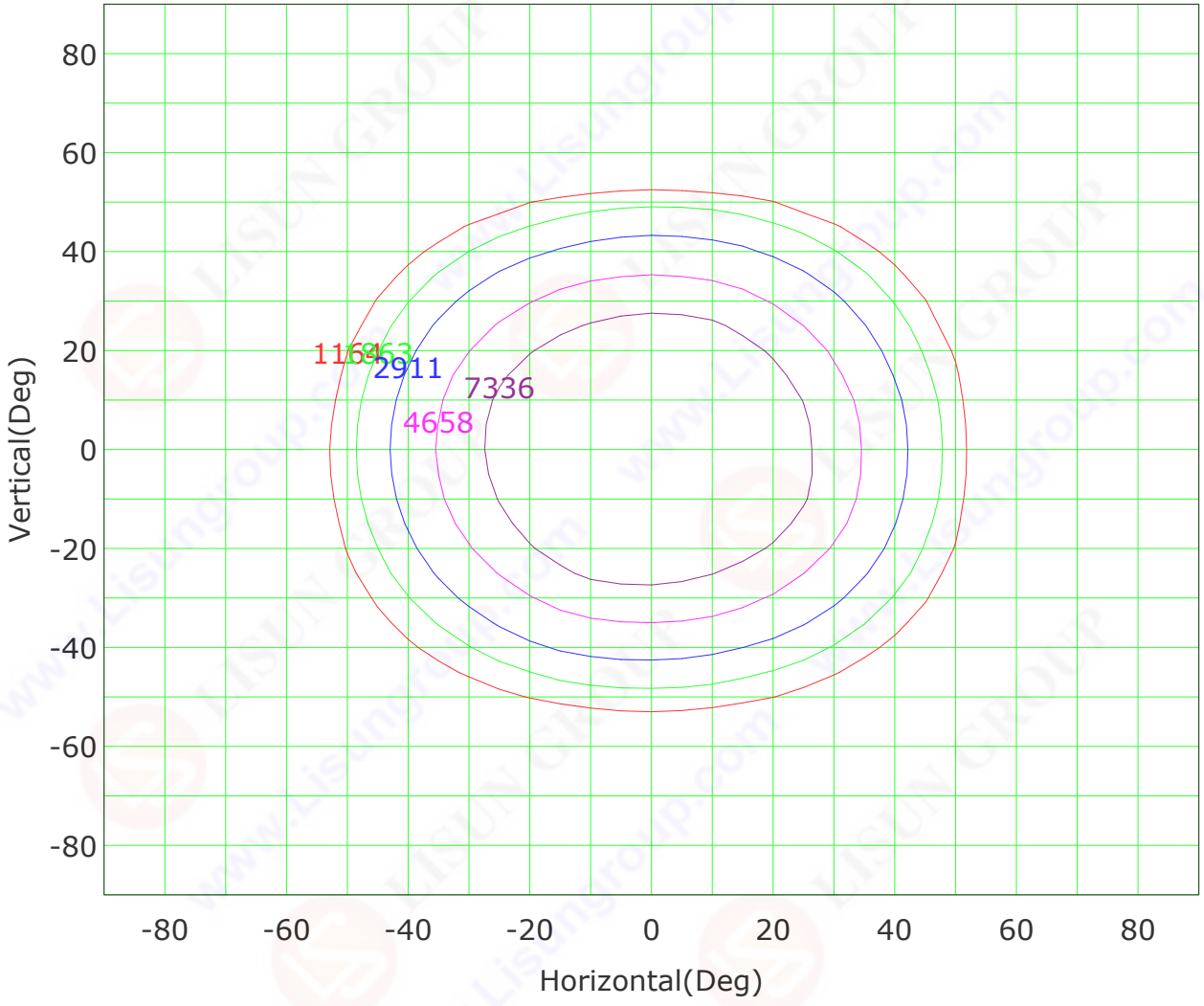
Curves of Luminaires vs Lighting Area



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

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

Isocandela (rectangle)



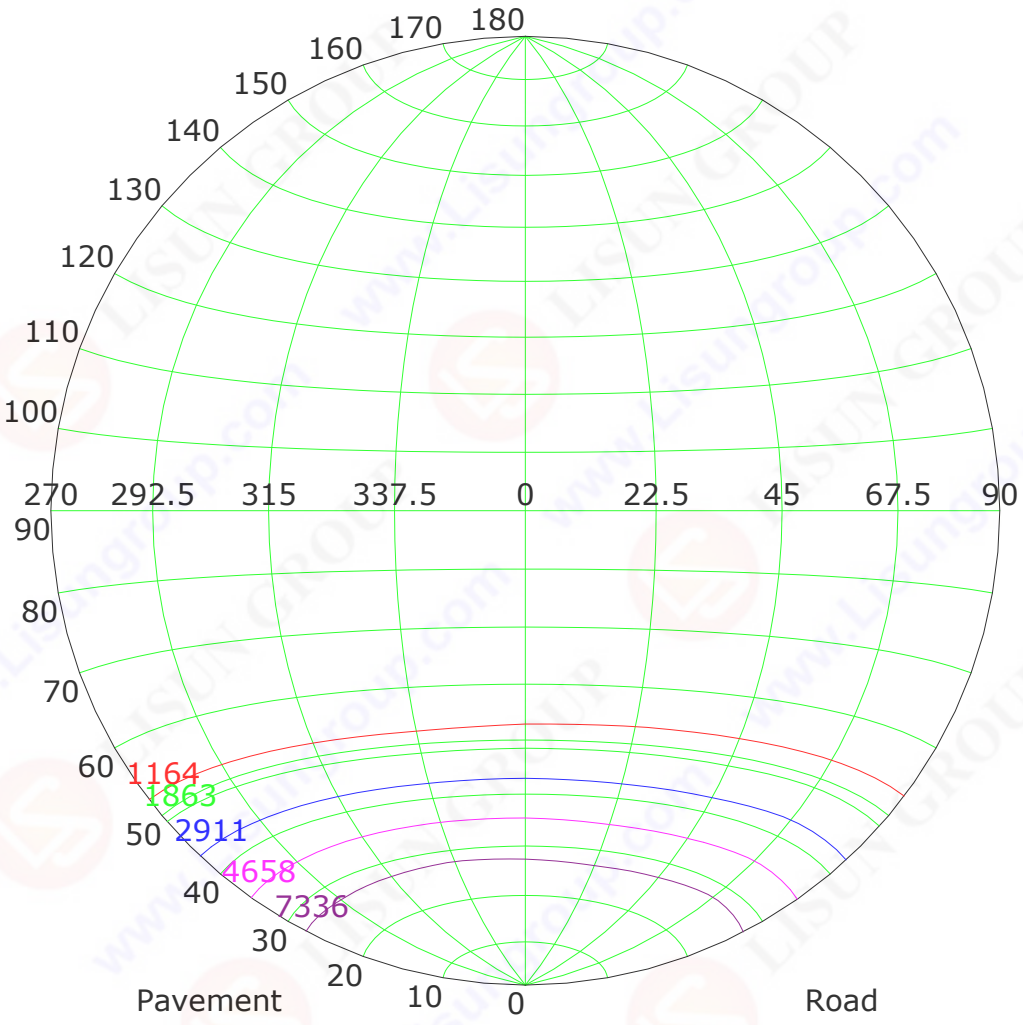
Imax (100%): 11644 cd

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

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

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

Isocandela (sphere)



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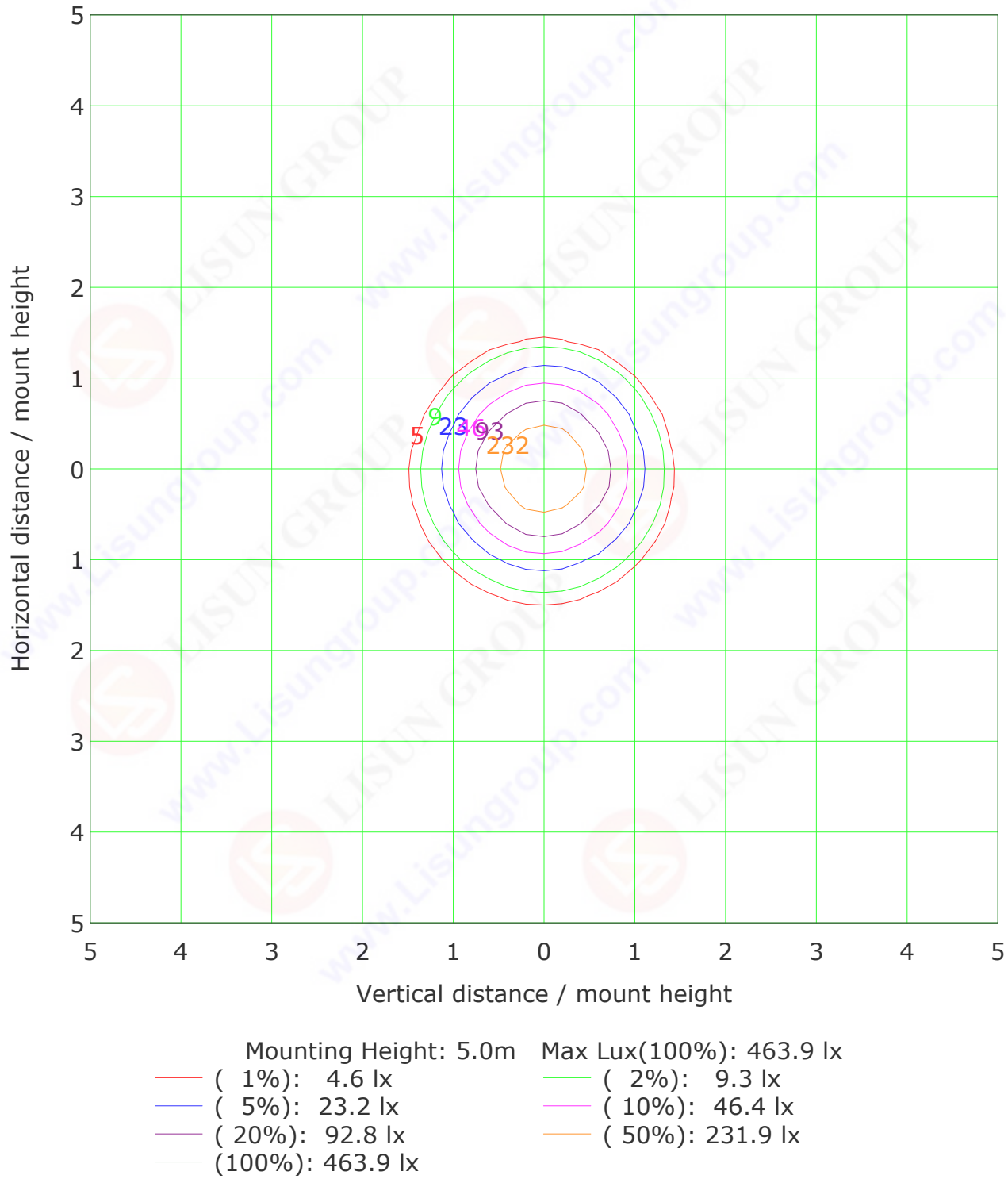
Gamma Plane (°):0.0-180.0:1.0
Test Device: LSG-1900B Goniophotometer
Distance: 2 m
Humidity: 65 %
Inspector:

IsoLux Plot



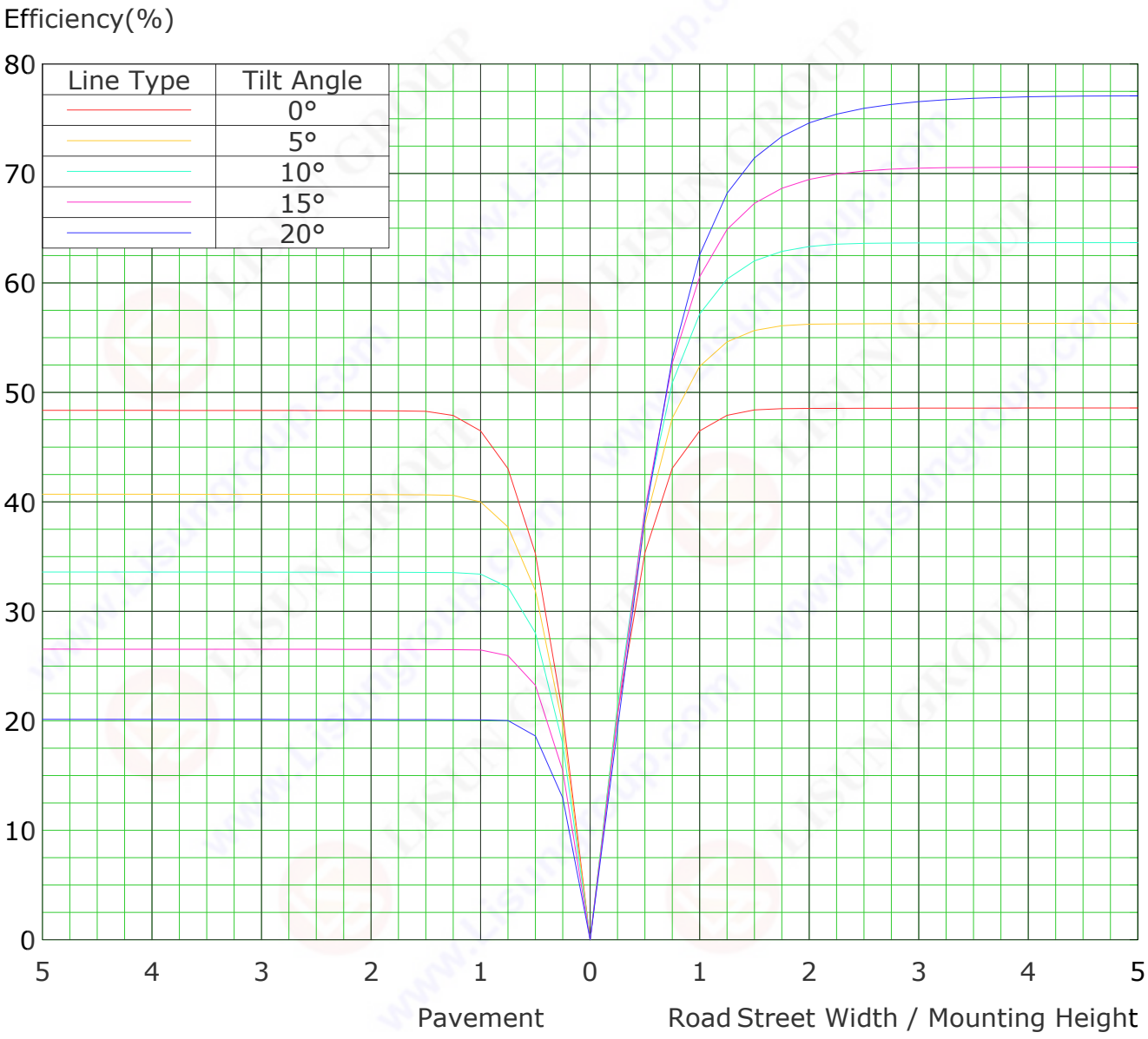
Mounting Height: 5.0m
Max Lux(100%): 463.9 lx

(1%): 4.6 lx
(2%): 9.3 lx
(5%): 23.2 lx
(10%): 46.4 lx
(20%): 92.8 lx
(50%): 231.9 lx
(100%): 463.9 lx

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

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

Roadway CU Curve



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

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

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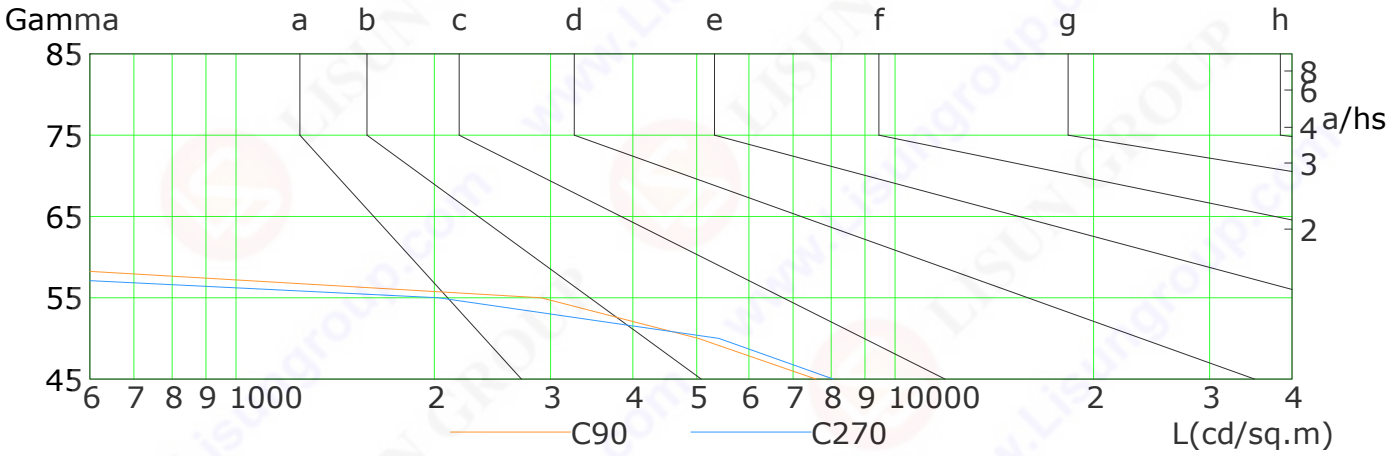
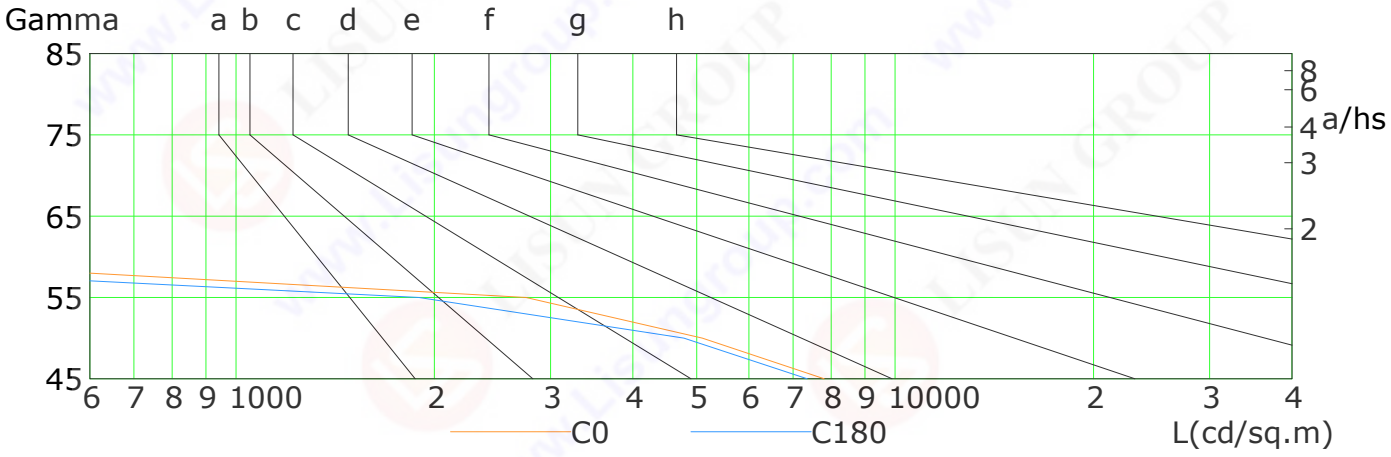
Lum Limit Curve

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



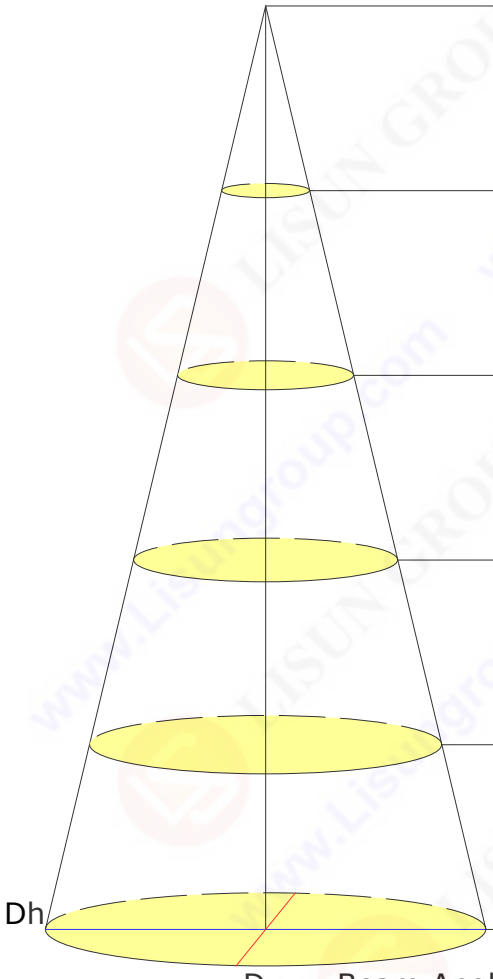


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	7803	5099	2753	218	59	46	41	36	29
C90	7584	5027	2903	257	69	47	41	35	33
C180	7353	4782	1894	117	39	37	33	33	28
C270	8057	5403	2029	113	38	36	33	33	24

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

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

Illuminance at a Distance



Dist(m)	Enadir(lx)	Dh/Dv_B(m)	S_B(sq.m)	Eav_B(lx)
1.0	11218.59	1.24/1.24	1.2	4384.00
2.0	2804.65	2.47/2.48	4.8	1096.00
3.0	1246.51	3.71/3.71	10.7	487.11
4.0	701.16	4.95/4.95	19.1	274.00
5.0	448.74	6.18/6.19	29.9	175.36

Beam Angle(B): H63.4 V63.5 Field Angle(F): H105.6 V106.2

C Plane (°):0.0-360.0: 22.5
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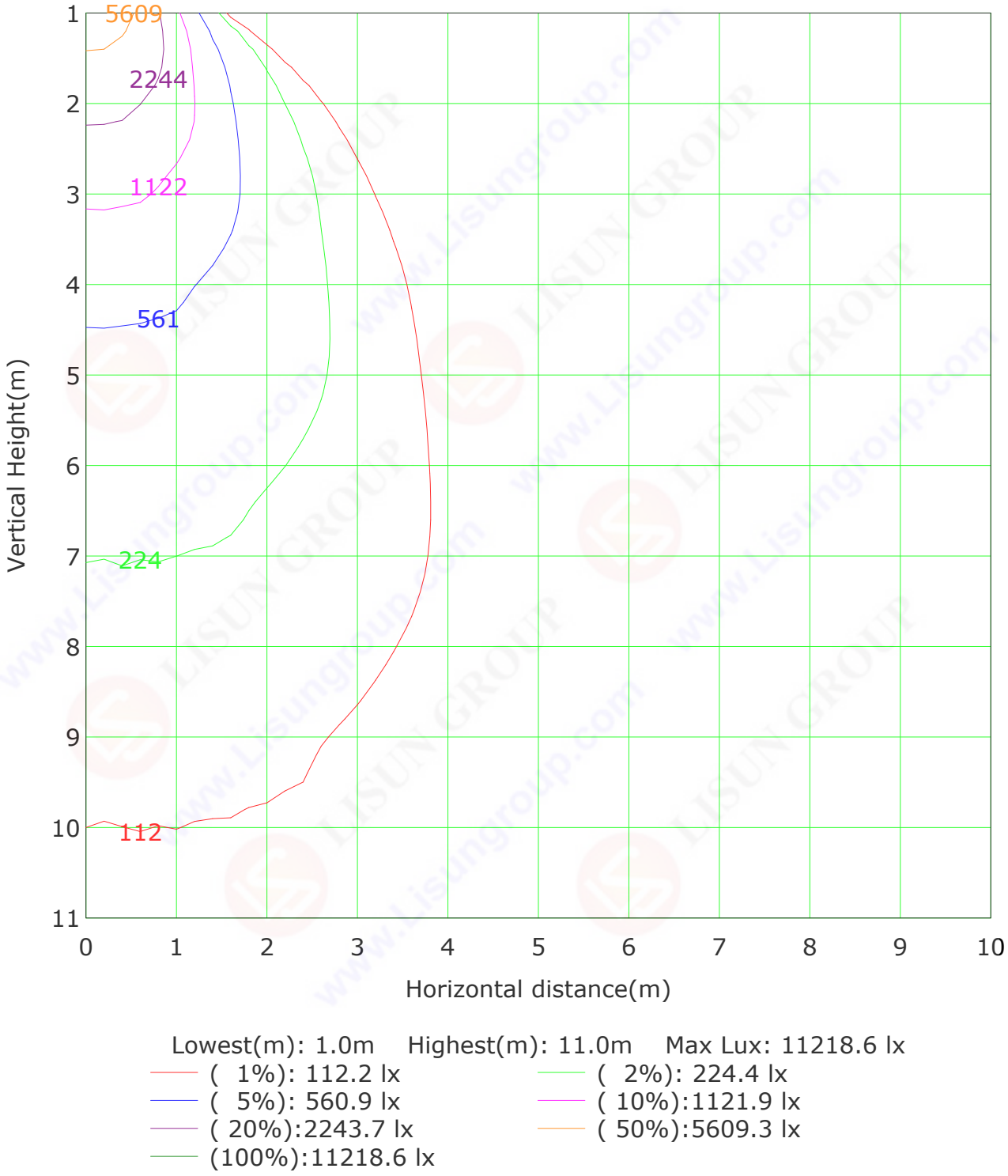
Operator: Ben

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

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
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Test Type: TYPE C
Temperature: 25 ℃
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

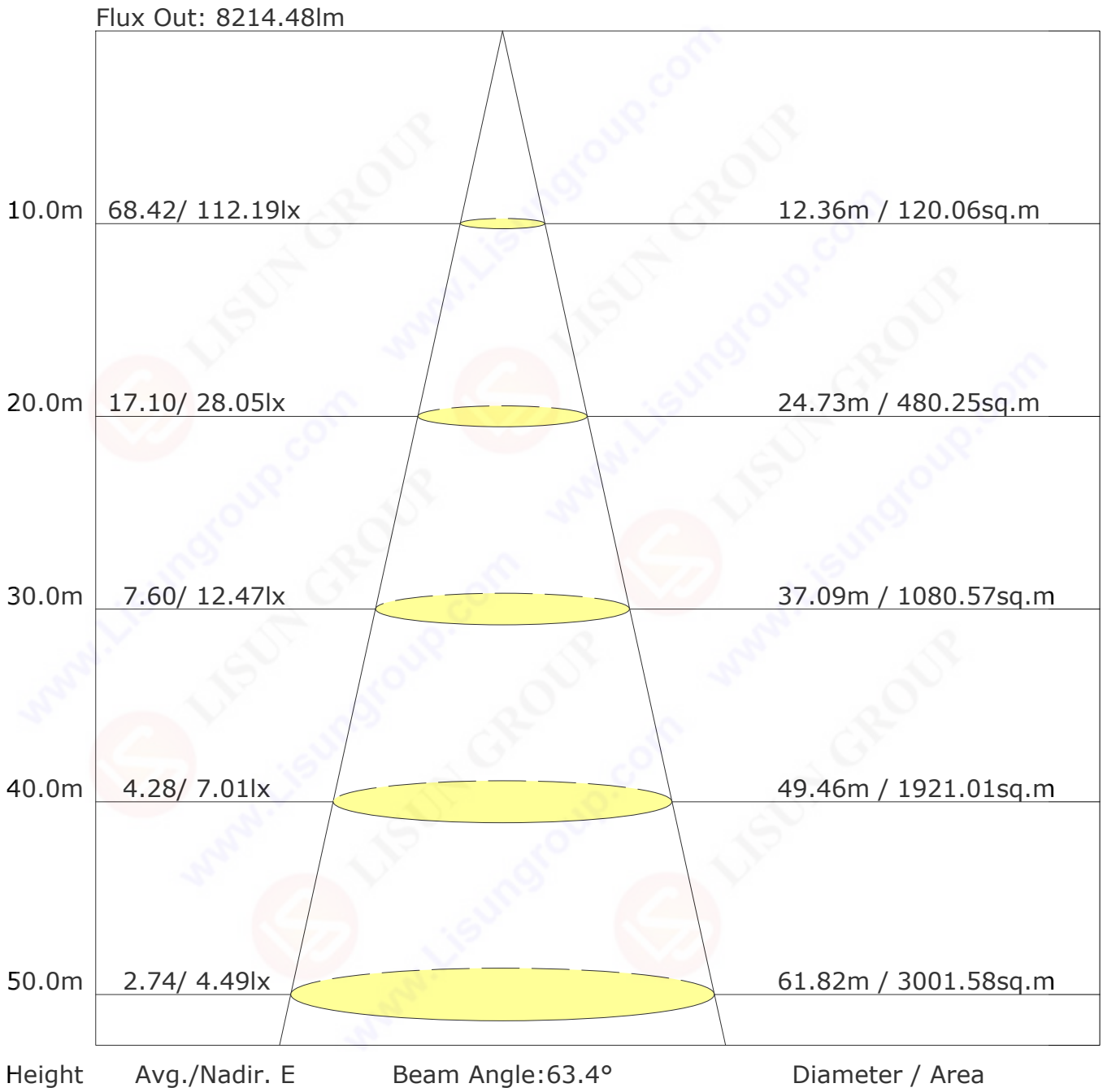
Vertical plane	-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90	Flux(T)	Flux(E)
-90	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0
-80	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
-70	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.0	2.3	0.0
-60	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.0	49.4	13.5
-50	0.0	0.1	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.2	0.2	0.1	0.1	0.0	294.2	261.2
-40	0.0	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.6	0.7	0.8	0.8	0.8	0.8	0.7	0.7	0.6	0.5	0.3	709.0	683.1
-30	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.0	1.0	0.9	0.8	0.7	0.6	0.4	0.2	1316.0	1292.8
-20	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	1.0	1.1	1.1	1.1	1.0	0.9	0.8	0.6	0.4	0.2	1898.2	1875.6
-10	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	1.0	1.1	1.1	1.1	1.0	0.9	0.8	0.6	0.4	0.2	2250.0	2227.2
0	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	1.0	1.1	1.1	1.1	1.0	0.9	0.8	0.6	0.4	0.2	2259.1	2236.3
10	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	1.0	1.1	1.1	1.1	1.0	0.9	0.8	0.6	0.4	0.2	1919.2	1894.7
20	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	1.0	1.1	1.1	1.1	1.0	0.9	0.8	0.6	0.4	0.2	1345.2	1318.9
30	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	1.0	1.1	1.1	1.1	1.0	0.9	0.8	0.6	0.4	0.2	735.6	707.2
40	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	1.0	1.1	1.1	1.1	1.0	0.9	0.8	0.6	0.4	0.2	311.0	276.5
50	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	1.0	1.1	1.1	1.1	1.0	0.9	0.8	0.6	0.4	0.2	62.9	21.1
60	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	1.0	1.1	1.1	1.1	1.0	0.9	0.8	0.6	0.4	0.2	2.9	0.0
70	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	1.0	1.1	1.1	1.1	1.0	0.9	0.8	0.6	0.4	0.2	1.2	0.0
80	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	1.0	1.1	1.1	1.1	1.0	0.9	0.8	0.6	0.4	0.2	0.3	0.0
90	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	1.0	1.1	1.1	1.1	1.0	0.9	0.8	0.6	0.4	0.2	13158	12808
Flux(T)	1.8	2.8	3.7	80.0	411.4	823.3	1363.5	1817.6	2067.2	2060.2	1818.1	1363.3	819.1	407.0	107.6	5.7	3.3	2.1	0.0		
Flux(E)	0.0	0.0	0.0	34.3	378.5	802.7	1347.6	1803.5	2054.3	2046.5	1802.9	1345.6	794.3	364.1	33.8	0.0	0.0	0.0	0.0		

Horizontal plane

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



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

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

UGR Table

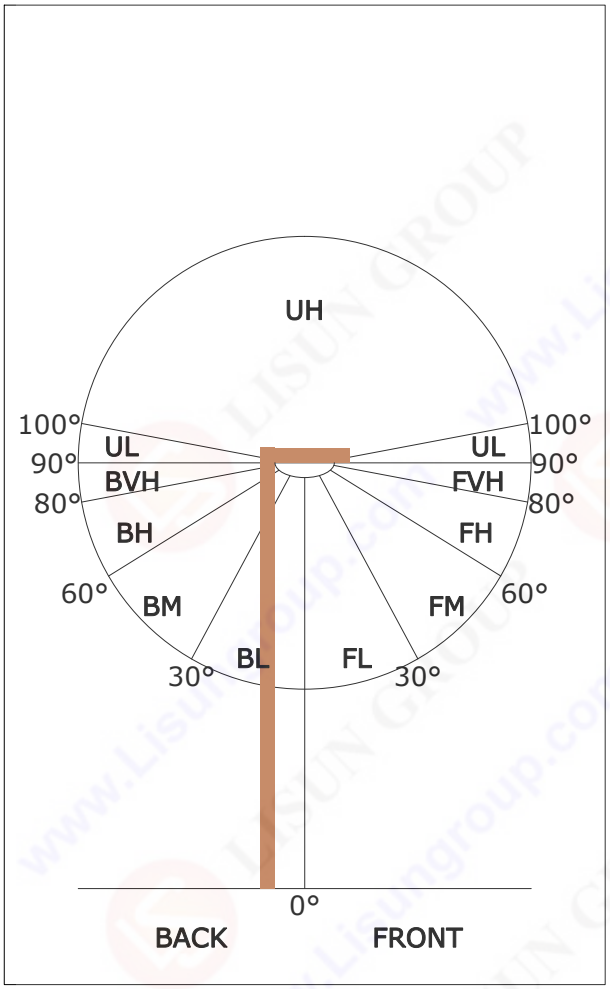
Reflectance:										
Ceiling (cavity)	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
X=2H Y=2H	-4.9	-3.8	-4.5	-3.4	-3.1	-2.9	-1.8	-2.5	-1.4	-1.0
3H	-5.1	-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 ℃
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



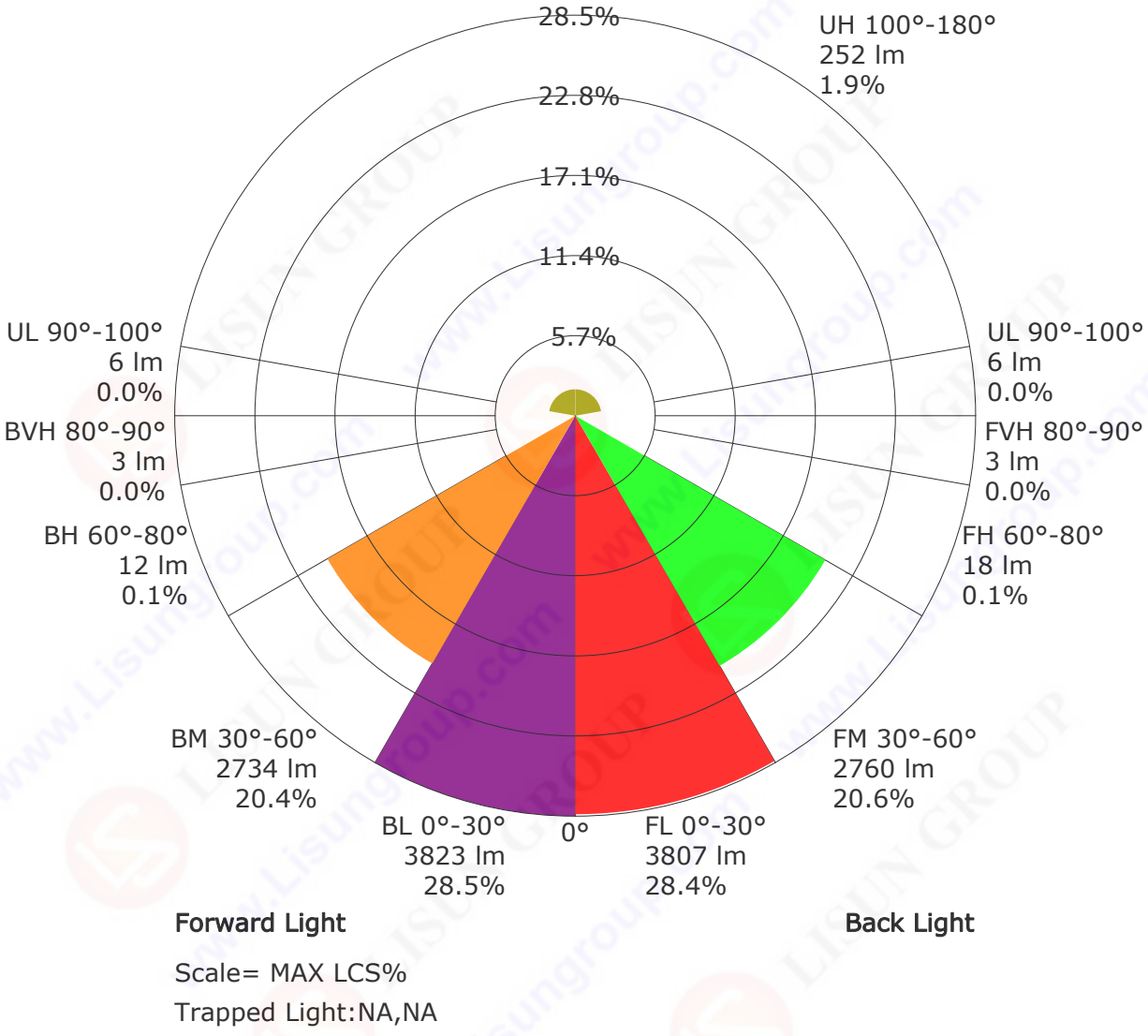
ZONE	LUMENS	% LAMP LUMENS
FORWARD LIGHT	6587	49.1
FL (0°-30°)	3807	28.4
FM (30°-60°)	2760	20.6
FH (60°-80°)	18	0.1
FVH (80°-90°)	3	0.0
BACK LIGHT	6573	49.0
BL (0°-30°)	3823	28.5
BM (30°-60°)	2734	20.4
BH (60°-80°)	12	0.1
BVH (80°-90°)	3	0.0
UP LIGHT	259	1.9
UL (90°-100°)	6	0.0
UH (100°-180°)	252	1.9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

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

LCS Graph



Scale= MAX LCS%

Trapped Light:NA,NA

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

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

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

Rating:192W Photometrically tested without ceiling board.
Multiply UF values by service correction factors
Calculate in accordance with CIBSE Technical Memorandum NO.5 1980

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

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

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 [°]	Imean [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 ℃
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 [°]	Imean [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 ℃
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 [°]	Imean [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 ℃
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 [°]	Imean [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 ℃
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 [°]	Imean [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 ℃
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 ℃
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 ℃
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 ℃
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 ℃
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 ℃
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 ℃
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 ℃
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 ℃
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 ℃
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			

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

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