



ACCREDITED
Testing Laboratory

TL-1235

Report No.: AOC250916009ER

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Test Report

Applicant : Euro Lighting Ltd.
Address : Room 2607, 26/F, CC Wu Building, No. 302-308 Hennessy Road, Wan Chai, Hong Kong

Description of the submitted sample(s):

Sample Name : LED Dimmable Bulkhead
Model/Type : MG1212 9W
Trademark : EURO
Ratings : 220-240VAC, 50/60Hz, 9W
Test Item : LM-79-19
State of Sample(s) : Normal
Sample Quantity : 15 PCS
Up-shine Lighting Co., Ltd.
Factory : 2-5 Floor, 2nd Building, Runheng Industrial Zone, Fuyuan 1st Road,
West Fuyong Sub-district, Bao'an, Shenzhen, 518103 China
Sample Received Date : 2025-09-09
Sample tested Date : 2025-09-09
Test Standard : LM-79-19
Test Laboratory : Shenzhen AOCE Electronic Technology Service Co., Ltd
Room 202, 2nd Floor, No.12th Building of Xinhe Tongfuyu Industrial
Testing location : Park, Fuhai Street, Baoan District, Shenzhen, Guangdong, China
Remark : The tested sample(s) and the sample information are provided by the client.

Compiled by:

Bill Hu

Approved by:

Robin Liu

Robin Liu
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2025-09-26

Date :

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Summary of Result

Test Item	Test Result	
	Luminous Flux (lm)	Luminous Efficacy (lm/W)
Integrating Sphere Test (Sample No: S01)	1066.423	115.916
Integrating Sphere Test (Sample No: S02)	1059.111	115.121
Integrating Sphere Test (Sample No: S03)	1048.306	112.721
Integrating Sphere Test (Sample No: S04)	1064.969	114.513
Integrating Sphere Test (Sample No: S05)	1029.805	110.732
Integrating Sphere Test (Sample No: S06)	1017.289	110.575
Integrating Sphere Test (Sample No: S07)	1010.890	111.087
Integrating Sphere Test (Sample No: S08)	1011.788	109.977
Integrating Sphere Test (Sample No: S09)	1013.634	111.388
Integrating Sphere Test (Sample No: S10)	1043.880	113.465
Integrating Sphere Test (Sample No: S11)	1018.594	109.526
Integrating Sphere Test (Sample No: S12)	1033.859	116.164
Integrating Sphere Test (Sample No: S13)	1040.150	111.844
Integrating Sphere Test (Sample No: S14)	1048.810	114.001
Integrating Sphere Test (Sample No: S15)	1053.506	115.77
Goniophotometer Test (Sample No: S01)	1088.22	120.91
Goniophotometer Test (Sample No: S02)	1086.49	119.39
Goniophotometer Test (Sample No: S03)	1083.70	117.79
Goniophotometer Test (Sample No: S04)	1093.57	120.17

Goniophotometer Test (Sample No: S05)	1081.80	118.88
Goniophotometer Test (Sample No: S06)	1073.23	117.94
Goniophotometer Test (Sample No: S07)	1070.02	118.89
Goniophotometer Test (Sample No: S08)	1068.43	117.41
Goniophotometer Test (Sample No: S09)	1064.75	118.31
Goniophotometer Test (Sample No: S10)	1072.61	119.18
Goniophotometer Test (Sample No: S11)	1070.76	117.67
Goniophotometer Test (Sample No: S12)	1053.03	118.32
Goniophotometer Test (Sample No: S13)	1091.93	118.69
Goniophotometer Test (Sample No: S14)	1061.27	116.62
Goniophotometer Test (Sample No: S15)	1048.94	116.55

1 Test Condition

1.1 Air Temperature

The ambient temperature in which measurements are being taken shall be maintained at $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$, measured at a point not more than 1 m from the SSL product and at the same height as the SSL product. The temperature sensor shall be shielded from direct optical radiation from the SSL product and optical radiation from any other source. If measurements are performed at other than this recommended temperature, this is a non-standard condition and shall be noted in the test report.

1.2 Thermal Conditions for Mounting SSL Products

The method of mounting can be the primary path for heat flow away from the device and can affect measurement results significantly. The SSL product under test shall be mounted to the measuring instrument so that heat conduction through supporting objects causes negligible cooling effects. If the SSL product under test is provided with a support structure that is designated to be used as a component of the luminaire thermal management system, the product shall be tested with the support structure attached. Any such support structure included in the measurement shall be reported.

1.3 Air Movement

The incidence of air movements on the surface of a SSL product under test may substantially affect electrical and photometric values. Air flow around the SSL product being tested should be such that normal convective air flow induced by device under test is not affected.

1.4 Waveshape of AC Power Supply

The AC power supply, while operating the SSL product, shall have a sinusoidal voltage waveshape at the prescribed frequency typically 50/60 Hz or 50 Hz) such that the RMS summation of the harmonic components does not exceed 3 percent of the fundamental during operation of the test item.

1.5 Voltage Regulation

The voltage of an AC power supply (RMS voltage) or DC power supply (instantaneous voltage) applied to the device under test shall be regulated to within ± 0.2 percent under load.

1.6 Seasoning

For the purpose of rating new SSL products, SSL products shall be tested with no seasoning.

1.7 Stabilization

Before measurements are taken, the SSL product under test shall be operated long enough to reach stabilization and temperature equilibrium. The time required for stabilization depends on the type of SSL products under test. The stabilization time typically ranges from 30 min to 2 or more hours for large SSL products.

1.8 Operating Orientation

The SSL product under test shall be evaluated in the operating orientation recommended by the manufacturer for an intended use of the SSL product. Stabilization and photometric measurements of SSL products shall be done in such operating orientation.

2 Test Method

2.1 Integrating Sphere Measurement

The integrating sphere system includes AC power source, digital power meter, DC power supply, spectrophotometer, and integrating sphere. The system is calibrated by standard lamp before measurement weekly. The standard lamp has been calibrated regularly and traced to the National Primary Standard.

The 4π geometry was used to measure total luminous, luminous efficacy, chromaticity coordinates, correlated color temperature, and color rendering index, the spectral radiant flux measurements taken at 1 nm intervals over the range of 380 to 780 nm. The product was operated in its intended orientation and was recorded in the report.

2.2 Goniophotometer Measurement

The goniophotometer system is calibrated by standard lamp before measurement weekly. The standard lamp has been calibrated regularly and traced to National Primary Standards.

Type C goniophotometer was used for measuring total luminous flux, luminous efficacy, luminous intensity distribution, and color angular uniformity, which were calculated from the software taken at 1° vertical intervals and 22.5° horizontal intervals. The product was operated in its intended orientation and was recorded in the report.

2.3 Electrical Measurement

According to ANSI C82.77-2002, the measurement was made using a digital power meter and power supply, the SSL product under test was operated at rated voltage and stabilized enough before measurement. The total harmonic distortion of current and power factor can be calculated from the digital power meter. The digital power meter was calibrated regularly and traced to National Primary Standard

3 Test Result

3.1 Integrating Sphere

Sample No: S01					
Temperature (°C)	Test Humidity	Orientation	Stabilization Time(min)	Test Time(min)	Number of hours operated prior to measurement
24.5	49.0%	Face down	10	3	0

Input Voltage (V)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
230.1	50	0.042	0.953	9.2

Luminous Flux (lm)	Radiant Flux (W)	CCT (K)	Duv	Luminous Efficacy (lm/W)
1066.423	3.253	4151	+0.00126	115.916

Ra	SDCM	X	y	u'	v'
84.9	2.42	0.3748	0.3758	0.2218	0.5003

R1	R2	R3	R4	R5
83	91	96	84	84
R6	R7	R8	R9	R10
87	87	67	14	78
R11	R12	R13	R14	R15
84	65	86	98	77

Sample No: S02					
Temperature (°C)	Test Humidity	Orientation	Stabilization Time(min)	Test Time(min)	Number of hours operated prior to measurement
24.5	49.0%	Face down	10	3	0

Input Voltage (V)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
230.1	50	0.042	0.952	9.2

Luminous Flux (lm)	Radiant Flux (W)	CCT (K)	Duv	Luminous Efficacy (lm/W)
1059.111	3.226	4152	+0.00141	115.121

Ra	SDCM	X	y	u'	v'
84.8	2.39	0.3749	0.3762	0.2217	0.5005

R1	R2	R3	R4	R5
83	90	96	84	83
R6	R7	R8	R9	R10
87	86	66	12	79
R11	R12	R13	R14	R15
83	65	86	98	77

Sample No: S03					
Temperature (°C)	Test Humidity	Orientation	Stabilization Time(min)	Test Time(min)	Number of hours operated prior to measurement
24.5	49.0%	Face down	10	3	0

Input Voltage (V)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
230.1	50	0.042	0.953	9.3

Luminous Flux (lm)	Radiant Flux (W)	CCT (K)	Duv	Luminous Efficacy (lm/W)
1048.306	3.208	4173	+0.00078	112.721

Ra	SDCM	X	y	u'	v'
85.0	3.0	0.3736	0.3740	0.2217	0.4994

R1	R2	R3	R4	R5
84	91	96	84	84
R6	R7	R8	R9	R10
87	87	67	14	79
R11	R12	R13	R14	R15
85	65	86	98	77

Sample No: S04					
Temperature (°C)	Test Humidity	Orientation	Stabilization Time(min)	Test Time(min)	Number of hours operated prior to measurement
24.5	49.0%	Face down	10	3	0

Input Voltage (V)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
230.1	50	0.042	0.954	9.3

Luminous Flux (lm)	Radiant Flux (W)	CCT (K)	Duv	Luminous Efficacy (lm/W)
865.990	2.676	4104	+0.00103	98.408

Ra	SDCM	X	y	u'	v'
84.9	2.33	0.3750	0.3757	0.2219	0.5003

R1	R2	R3	R4	R5
83	91	96	84	84
R6	R7	R8	R9	R10
87	87	67	14	78
R11	R12	R13	R14	R15
84	65	86	98	77

Sample No: S05					
Temperature (°C)	Test Humidity	Orientation	Stabilization Time(min)	Test Time(min)	Number of hours operated prior to measurement
24.5	49.0%	Face down	10	3	0

Input Voltage (V)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
230.1	50	0.042	0.955	9.3

Luminous Flux (lm)	Radiant Flux (W)	CCT (K)	Duv	Luminous Efficacy (lm/W)
1029.805	3.144	4147	+0.00108	110.732

Ra	SDCM	X	y	u'	v'
84.9	2.43	0.3748	0.3755	0.2219	0.5002

R1	R2	R3	R4	R5
83	91	96	84	84
R6	R7	R8	R9	R10
87	87	67	14	78
R11	R12	R13	R14	R15
84	65	86	98	77

Sample No: S06					
Temperature (°C)	Test Humidity	Orientation	Stabilization Time(min)	Test Time(min)	Number of hours operated prior to measurement
24.5	49.0%	Face down	10	3	0

Input Voltage (V)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
230.1	50	0.042	0.953	9.2

Luminous Flux (lm)	Radiant Flux (W)	CCT (K)	Duv	Luminous Efficacy (lm/W)
1017.289	3.111	4157	+0.00084	110.575

Ra	SDCM	X	y	u'	v'
85.1	2.68	0.3743	0.3746	0.2219	0.4997

R1	R2	R3	R4	R5
84	91	96	84	84
R6	R7	R8	R9	R10
87	87	67	15	79
R11	R12	R13	R14	R15
84	65	86	98	77

Sample No: S07					
Temperature (°C)	Test Humidity	Orientation	Stabilization Time(min)	Test Time(min)	Number of hours operated prior to measurement
24.5	49.0%	Face down	10	3	0

Input Voltage (V)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
230.1	50	0.041	0.951	9.1

Luminous Flux (lm)	Radiant Flux (W)	CCT (K)	Duv	Luminous Efficacy (lm/W)
1010.890	3.09	4161	+0.00105	111.087

Ra	SDCM	X	y	u'	v'
85.1	2.66	0.3743	0.3750	0.2217	0.4999

R1	R2	R3	R4	R5
84	91	96	84	84
R6	R7	R8	R9	R10
88	87	67	15	79
R11	R12	R13	R14	R15
84	65	86	98	77

Sample No: S08					
Temperature (°C)	Test Humidity	Orientation	Stabilization Time(min)	Test Time(min)	Number of hours operated prior to measurement
24.5	49.0%	Face down	10	3	0

Input Voltage (V)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
230.1	50	0.042	0.956	9.2

Luminous Flux (lm)	Radiant Flux (W)	CCT (K)	Duv	Luminous Efficacy (lm/W)
1011.788	3.085	4153	+0.00132	109.977

Ra	SDCM	X	y	u'	v'
84.8	2.47	0.3747	0.3759	0.2217	0.5004

R1	R2	R3	R4	R5
83	91	96	84	84
R6	R7	R8	R9	R10
87	87	67	14	78
R11	R12	R13	R14	R15
84	65	86	98	77

Sample No: S09					
Temperature (°C)	Test Humidity	Orientation	Stabilization Time(min)	Test Time(min)	Number of hours operated prior to measurement
24.5	49.0%	Face down	10	3	0

Input Voltage (V)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
230.1	50	0.041	0.954	9.1

Luminous Flux (lm)	Radiant Flux (W)	CCT (K)	Duv	Luminous Efficacy (lm/W)
1013.634	3.092	4154	+0.00118	111.388

Ra	SDCM	X	y	u'	v'
84.8	2.52	0.3746	0.3755	0.2218	0.5002

R1	R2	R3	R4	R5
83	91	96	84	84
R6	R7	R8	R9	R10
87	87	67	14	78
R11	R12	R13	R14	R15
84	65	86	98	77

Sample No: S10					
Temperature (°C)	Test Humidity	Orientation	Stabilization Time(min)	Test Time(min)	Number of hours operated prior to measurement
24.5	49.0%	Face down	10	3	0

Input Voltage (V)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
230.1	50	0.041	0.954	9.2

Luminous Flux (lm)	Radiant Flux (W)	CCT (K)	Duv	Luminous Efficacy (lm/W)
1043.880	3.182	4150	+0.00136	113.465

Ra	SDCM	X	y	u'	v'
84.8	2.38	0.3749	0.3761	0.2217	0.5005

R1	R2	R3	R4	R5
83	91	96	84	84
R6	R7	R8	R9	R10
87	87	67	13	78
R11	R12	R13	R14	R15
84	65	86	98	77

Sample No: S11					
Temperature (°C)	Test Humidity	Orientation	Stabilization Time(min)	Test Time(min)	Number of hours operated prior to measurement
24.5	49.0%	Face down	10	3	0

Input Voltage (V)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
230.1	50	0.042	0.954	9.3

Luminous Flux (lm)	Radiant Flux (W)	CCT (K)	Duv	Luminous Efficacy (lm/W)
1018.594	3.102	4157	+0.00151	109.526

Ra	SDCM	X	y	u'	v'
84.7	2.49	0.3747	0.3763	0.2215	0.5005

R1	R2	R3	R4	R5
83	90	96	84	83
R6	R7	R8	R9	R10
87	87	67	13	78
R11	R12	R13	R14	R15
84	65	86	98	77

Sample No: S12					
Temperature (°C)	Test Humidity	Orientation	Stabilization Time(min)	Test Time(min)	Number of hours operated prior to measurement
24.5	49.0%	Face down	10	3	0

Input Voltage (V)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
230.1	50	0.041	0.948	8.9

Luminous Flux (lm)	Radiant Flux (W)	CCT (K)	Duv	Luminous Efficacy (lm/W)
1033.859	3.153	4151	+0.0013	116.164

Ra	SDCM	X	y	u'	v'
84.9	2.43	0.3748	0.3759	0.2217	0.5004

R1	R2	R3	R4	R5
83	91	96	84	84
R6	R7	R8	R9	R10
87	87	67	14	78
R11	R12	R13	R14	R15
84	65	86	98	77

Sample No: S13					
Temperature (°C)	Test Humidity	Orientation	Stabilization Time(min)	Test Time(min)	Number of hours operated prior to measurement
24.5	49.0%	Face down	10	3	0

Input Voltage (V)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
230.1	50	0.042	0.957	9.3

Luminous Flux (lm)	Radiant Flux (W)	CCT (K)	Duv	Luminous Efficacy (lm/W)
1040.150	3.162	4154	+0.00179	111.844

Ra	SDCM	X	y	u'	v'
84.5	2.41	0.3750	0.3771	0.2214	0.5009

R1	R2	R3	R4	R5
83	90	96	84	83
R6	R7	R8	R9	R10
87	87	66	12	77
R11	R12	R13	R14	R15
84	65	85	98	76

Sample No: S14					
Temperature (°C)	Test Humidity	Orientation	Stabilization Time(min)	Test Time(min)	Number of hours operated prior to measurement
24.5	49.0%	Face down	10	3	0

Input Voltage (V)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
230.1	50	0.042	0.955	9.2

Luminous Flux (lm)	Radiant Flux (W)	CCT (K)	Duv	Luminous Efficacy (lm/W)
1048.810	3.205	4156	+0.0009	114.001

Ra	SDCM	X	y	u'	v'
84.9	2.63	0.3744	0.3748	0.2219	0.4998

R1	R2	R3	R4	R5
83	91	96	84	84
R6	R7	R8	R9	R10
87	87	67	14	79
R11	R12	R13	R14	R15
84	65	86	98	77

Sample No: S15					
Temperature (°C)	Test Humidity	Orientation	Stabilization Time(min)	Test Time(min)	Number of hours operated prior to measurement
24.5	49.0%	Face down	10	3	0

Input Voltage (V)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
230.1	50	0.041	0.953	9.1

Luminous Flux (lm)	Radiant Flux (W)	CCT (K)	Duv	Luminous Efficacy (lm/W)
1053.506	3.211	4155	+0.00108	115.77

Ra	SDCM	X	y	u'	v'
84.7	2.48	0.3747	0.3761	0.2216	0.5004

R1	R2	R3	R4	R5
83	91	96	84	83
R6	R7	R8	R9	R10
87	87	66	13	78
R11	R12	R13	R14	R15
84	65	86	98	77

Spectral Distribution & Chromaticity Diagram

Tel: (86)755-85277785

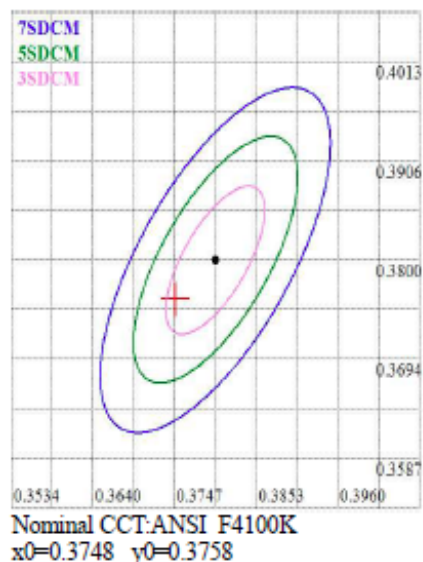
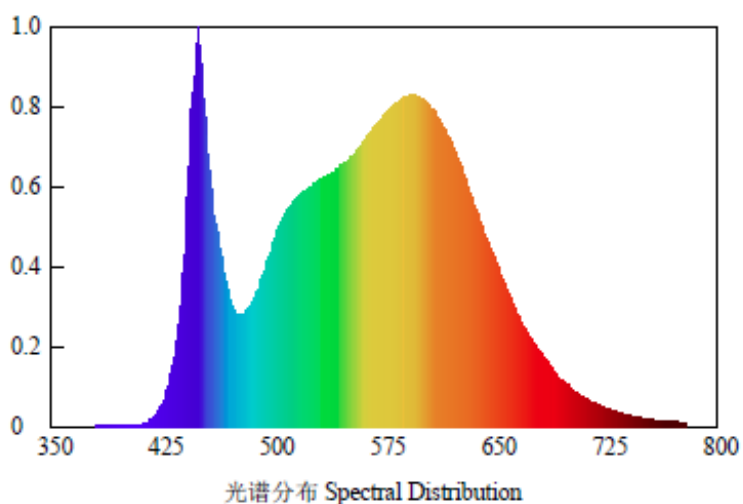
Fax: (86)755-23705230

E-mail: postmaster@aoc-cert.com

Website: [Http://www.aoc-cert.com](http://www.aoc-cert.com)

Sample No: S01

光色参数 Spectroradiometric Parameters

色品坐标 Chromaticity Coordinates: $x=0.3748$ $y=0.3758$ $u'=0.2218$ $v'=0.5003$

相关色温 Correlated Color Temperature: 4151 K

主波长 Dominant Wavelength: 576.0 nm(E)

显色指数 Rendering Index: $R_a=84.9$

峰值波长 Peak Wavelength: 449.9 nm

色纯度 Purity: 0.2525

谱线带宽 Bandwidth: 21nm

光通量 Luminous Flux: 1066.423 lm

辐射通量 Radiant Flux: 3.253 W

色比 Color Ratio: $K_r=37.5\%$ $K_g=52.1\%$ $K_b=10.4\%$

色容差 Color Tolerance(SDCM): 2.424

色偏差 Chromaticity Difference: +0.00126Duv

R1=83 R2=91 R3=96 R4=84 R5=84 R6=87 R7=87 R8=67

R9=14 R10=78 R11=84 R12=65 R13=86 R14=98 R15=77

电参数 Electric Parameters

电压 Voltage: 230.1 V

电流 Current: 0.042 A

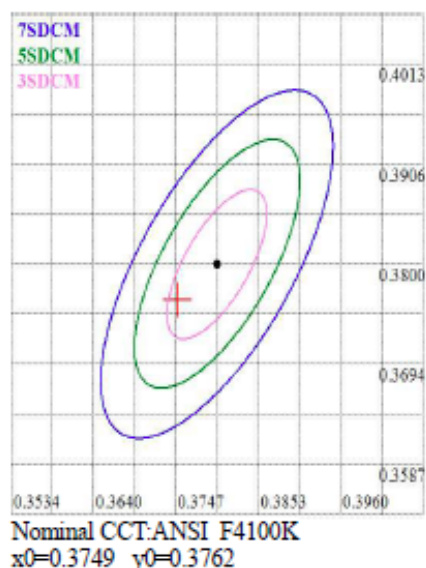
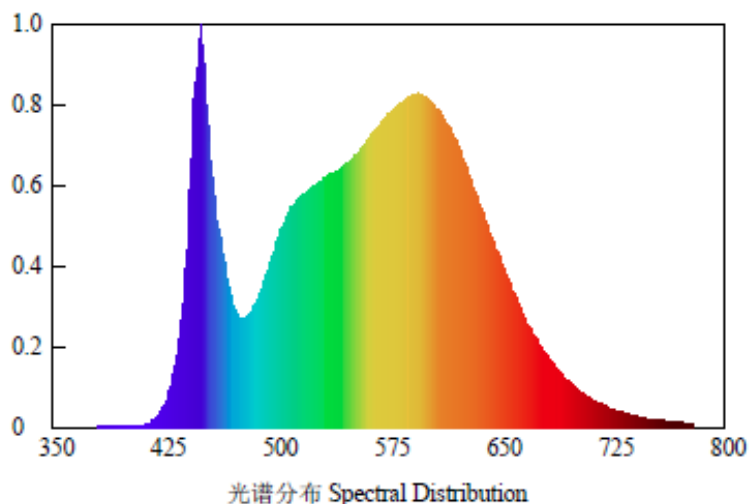
功率因数 Power Factor: 0.953

功率 Power: 9.2 W

发光效率 Luminous Efficacy: 115.916 lm/W

Sample No: S02

光色参数 Spectroradiometric Parameters

色品坐标 Chromaticity Coordinates: $x=0.3749$ $y=0.3762$ $u'=0.2217$ $v'=0.5005$

相关色温 Correlated Color Temperature: 4152 K

主波长 Dominant Wavelength: 576.0 nm(E)

显色指数 Rendering Index: $R_a=84.8$

峰值波长 Peak Wavelength: 449.6 nm

色纯度 Purity: 0.2540

谱线带宽 Bandwidth: 21.2nm

光通量 Luminous Flux: 1059.111 lm

辐射通量 Radiant Flux: 3.226 W

色比 Color Ratio: $K_r=37.4\%$ $K_g=52.2\%$ $K_b=10.4\%$

色容差 Color Tolerance(SDCM): 2.3864

色偏差 Chromaticity Difference: +0.00141Duv

R1=83 R2=90 R3=96 R4=84 R5=83 R6=87 R7=87 R8=67

R9=13 R10=78 R11=84 R12=65 R13=86 R14=98 R15=77

电参数 Electric Parameters

电压 Voltage: 230.1 V

电流 Current: 0.042 A

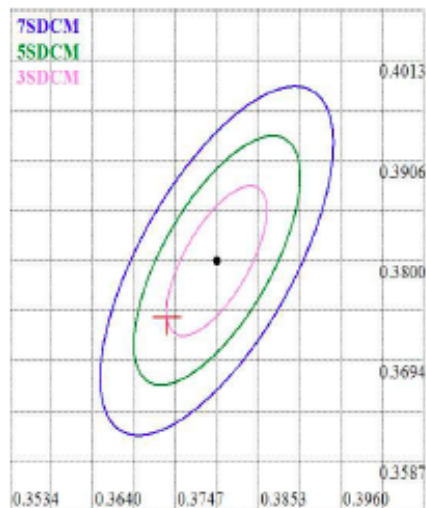
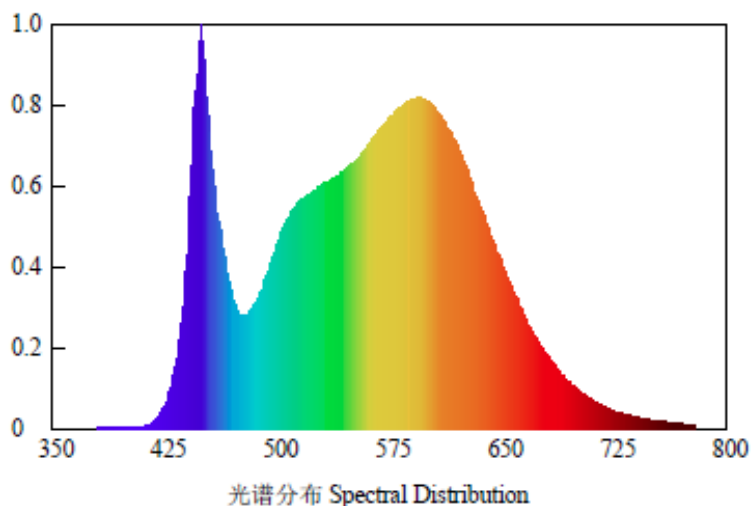
功率因数 Power Factor: 0.952

功率 Power: 9.2 W

发光效率 Luminous Efficacy: 115.121 lm/W

Sample No: S03

光色参数 Spectroradiometric Parameters

色品坐标 Chromaticity Coordinates: $x=0.3736$ $y=0.3740$ $u'=0.2217$ $v'=0.4994$

相关色温 Correlated Color Temperature: 4173 K

主波长 Dominant Wavelength: 576.0 nm(E)

显色指数 Rendering Index: $R_a=85.0$

峰值波长 Peak Wavelength: 449.9 nm

色纯度 Purity: 0.2434

谱线带宽 Bandwidth: 21nm

光通量 Luminous Flux: 1048.306 lm

辐射通量 Radiant Flux: 3.208 W

色比 Color Ratio: $K_r=37.5\%$ $K_g=52.0\%$ $K_b=10.5\%$

色容差 Color Tolerance(SDCM): 3.0045

色偏差 Chromaticity Difference: +0.00078Duv

R1=84 R2=91 R3=96 R4=84 R5=84 R6=87 R7=87 R8=67

R9=14 R10=79 R11=85 R12=65 R13=86 R14=98 R15=77

电参数 Electric Parameters

电压 Voltage: 230.1 V

电流 Current: 0.042 A

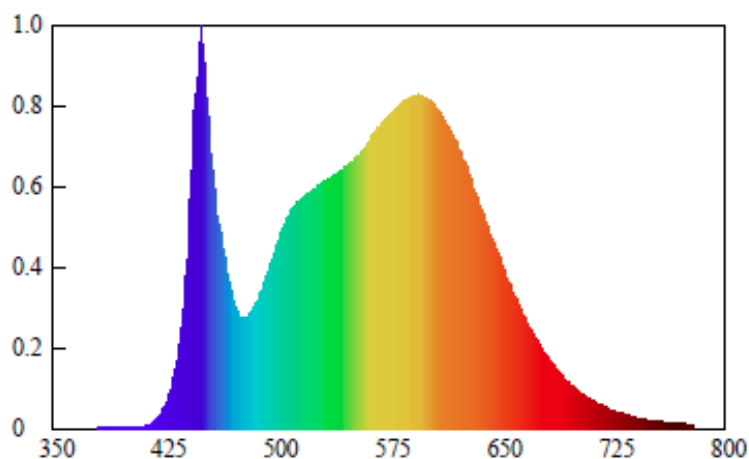
功率因数 Power Factor: 0.953

功率 Power: 9.3 W

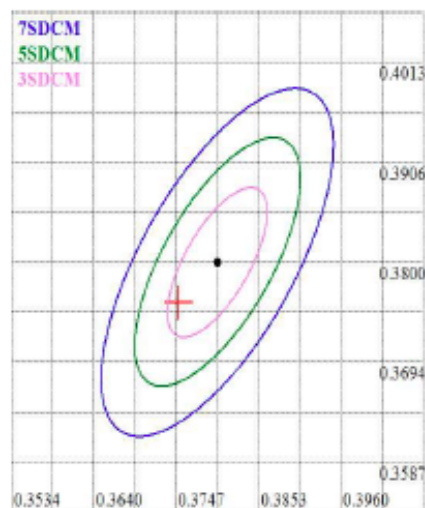
发光效率 Luminous Efficacy: 112.721 lm/W

Sample No: S04

光色参数 Spectroradiometric Parameters



光谱分布 Spectral Distribution



Nominal CCT:ANSI F4100K

x0=0.3750 y0=0.3757

色品坐标 Chromaticity Coordinates: $x=0.3750$ $y=0.3757$ $u'=0.2219$ $v'=0.5003$

相关色温 Correlated Color Temperature: 4145 K

主波长 Dominant Wavelength: 576.0 nm(E)

显色指数 Rendering Index: $R_a=84.9$

峰值波长 Peak Wavelength: 449.9 nm

色纯度 Purity: 0.2528

谱线带宽 Bandwidth: 20.9nm

光通量 Luminous Flux: 1064.969 lm

辐射通量 Radiant Flux: 3.249 W

色比 Color Ratio: $K_r=37.5\%$ $K_g=52.1\%$ $K_b=10.4\%$

色容差 Color Tolerance(SDCM): 2.3318

色偏差 Chromaticity Difference: +0.00115Duv

R1=83 R2=91 R3=96 R4=84 R5=84 R6=87 R7=87 R8=67

R9=14 R10=78 R11=84 R12=65 R13=86 R14=98 R15=77

电参数 Electric Parameters

电压 Voltage: 230.1 V

电流 Current: 0.042 A

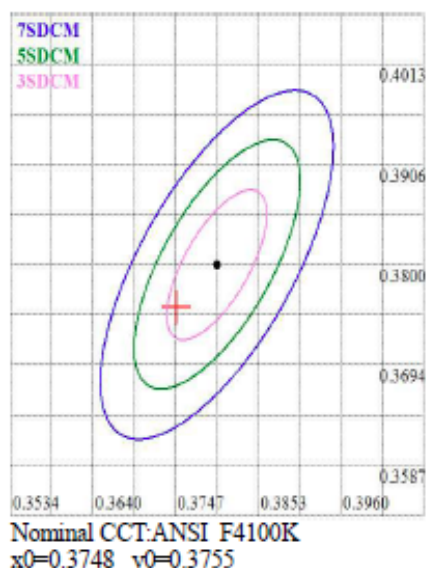
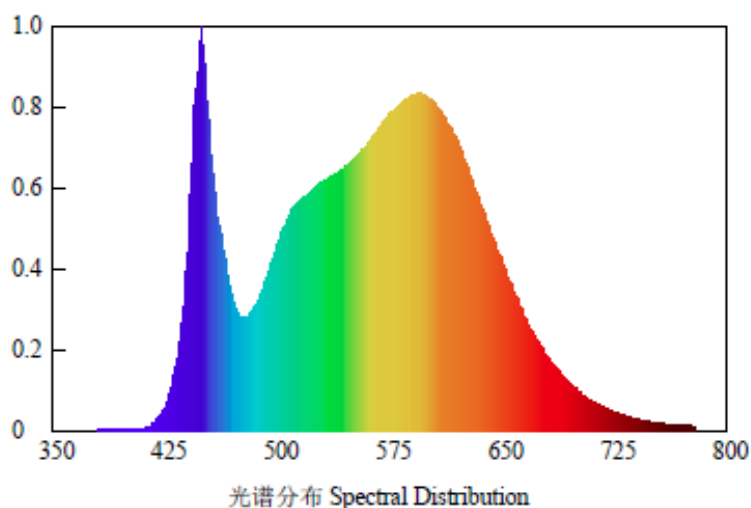
功率因数 Power Factor: 0.954

功率 Power: 9.3 W

发光效率 Luminous Efficacy: 114.513 lm/W

Sample No: S05

光色参数 Spectroradiometric Parameters

色品坐标 Chromaticity Coordinates: $x=0.3748$ $y=0.3755$ $u'=0.2219$ $v'=0.5002$

相关色温 Correlated Color Temperature: 4147 K

主波长 Dominant Wavelength: 576.0 nm(E)

显色指数 Rendering Index: $R_a=84.9$

峰值波长 Peak Wavelength: 449.8 nm

色纯度 Purity: 0.2516

谱线带宽 Bandwidth: 21.2nm

光通量 Luminous Flux: 1029.805 lm

辐射通量 Radiant Flux: 3.144 W

色比 Color Ratio: $K_r=37.5\%$ $K_g=52.1\%$ $K_b=10.4\%$

色容差 Color Tolerance(SDCM): 2.4257

色偏差 Chromaticity Difference: +0.00108Duv

R1=83 R2=91 R3=96 R4=84 R5=84 R6=87 R7=87 R8=67

R9=14 R10=78 R11=84 R12=65 R13=86 R14=98 R15=77

电参数 Electric Parameters

电压 Voltage: 230.1 V

电流 Current: 0.042 A

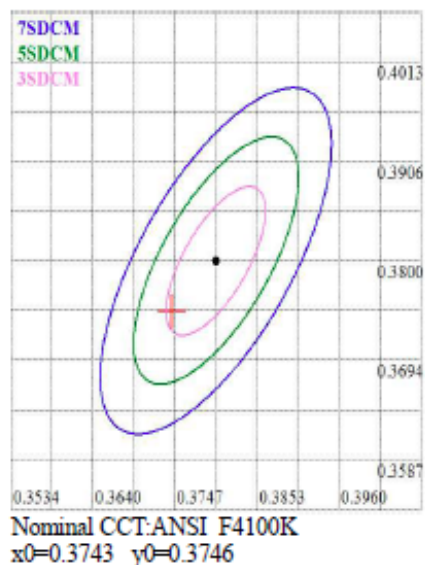
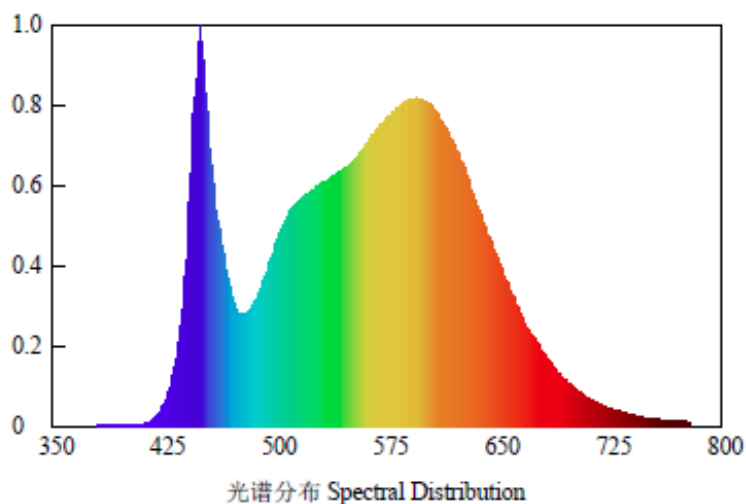
功率因数 Power Factor: 0.955

功率 Power: 9.3 W

发光效率 Luminous Efficacy: 110.732 lm/W

Sample No: S06

光色参数 Spectroradiometric Parameters

色品坐标 Chromaticity Coordinates: $x=0.3743$ $y=0.3746$ $u'=0.2219$ $v'=0.4997$

相关色温 Correlated Color Temperature: 4157 K

主波长 Dominant Wavelength: 576.0 nm(E)

显色指数 Rendering Index: $R_a=85.1$

峰值波长 Peak Wavelength: 450.0 nm

色纯度 Purity: 0.2474

谱线带宽 Bandwidth: 21.8nm

光通量 Luminous Flux: 1017.289 lm

辐射通量 Radiant Flux: 3.111 W

色比 Color Ratio: $K_r=37.5\%$ $K_g=52.0\%$ $K_b=10.4\%$

色容差 Color Tolerance(SDCM): 2.6795

色偏差 Chromaticity Difference: +0.00084Duv

R1=84 R2=91 R3=96 R4=84 R5=84 R6=87 R7=87 R8=67

R9=15 R10=79 R11=84 R12=65 R13=86 R14=98 R15=77

电参数 Electric Parameters

电压 Voltage: 230.1 V

电流 Current: 0.042 A

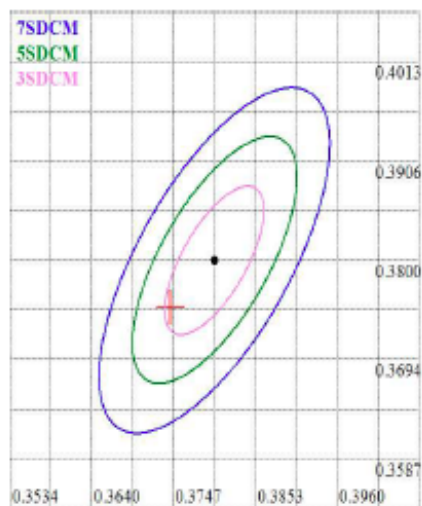
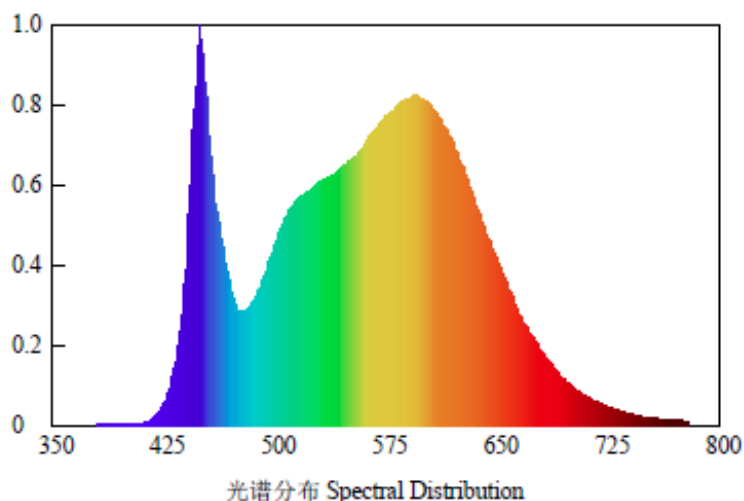
功率因数 Power Factor: 0.953

功率 Power: 9.2 W

发光效率 Luminous Efficacy: 110.575 lm/W

Sample No: S07

光色参数 Spectroradiometric Parameters

色品坐标 Chromaticity Coordinates: $x=0.3743$ $y=0.3750$ $u'=0.2217$ $v'=0.4999$

相关色温 Correlated Color Temperature: 4161 K

主波长 Dominant Wavelength: 576.0 nm(E)

显色指数 Rendering Index: $R_a=85.1$

峰值波长 Peak Wavelength: 450.4 nm

色纯度 Purity: 0.2486

谱线带宽 Bandwidth: 21.4nm

光通量 Luminous Flux: 1010.890 lm

辐射通量 Radiant Flux: 3.09 W

色比 Color Ratio: $K_r=37.5\%$ $K_g=52.1\%$ $K_b=10.4\%$

色容差 Color Tolerance(SDCM): 2.6606

色偏差 Chromaticity Difference: +0.00105Duv

R1=84 R2=91 R3=96 R4=84 R5=84 R6=88 R7=87 R8=67

R9=15 R10=79 R11=84 R12=65 R13=86 R14=98 R15=77

电参数 Electric Parameters

电压 Voltage: 230.1 V

电流 Current: 0.041 A

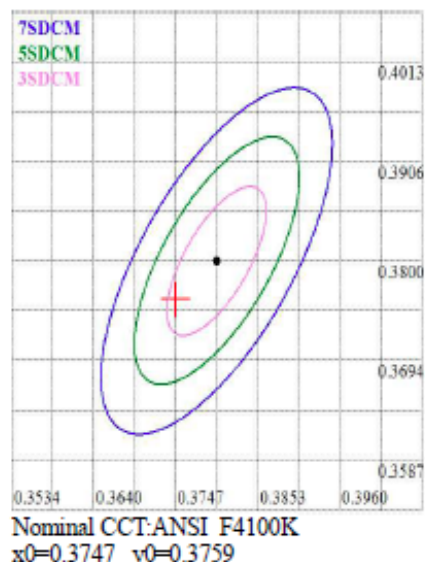
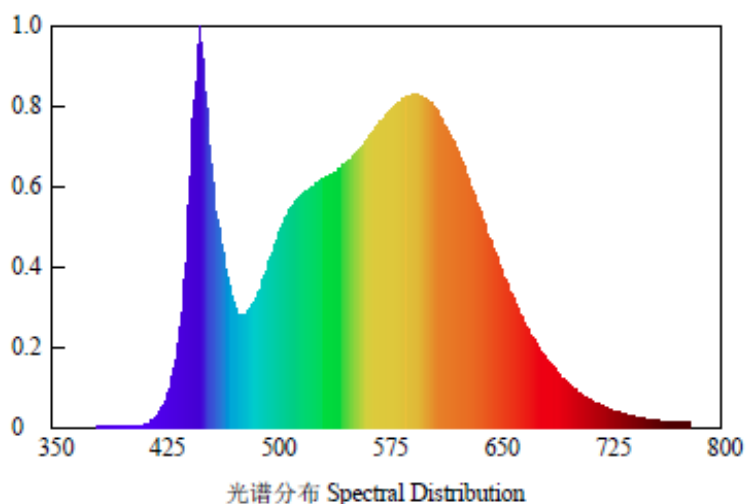
功率因数 Power Factor: 0.951

功率 Power: 9.1 W

发光效率 Luminous Efficacy: 111.087 lm/W

Sample No: S08

光色参数 Spectroradiometric Parameters

色品坐标 Chromaticity Coordinates: $x=0.3747$ $y=0.3759$ $u'=0.2217$ $v'=0.5004$

相关色温 Correlated Color Temperature: 4153 K

主波长 Dominant Wavelength: 576.0 nm(E)

显色指数 Rendering Index: $R_a=84.8$

峰值波长 Peak Wavelength: 450.2 nm

色纯度 Purity: 0.2525

谱线带宽 Bandwidth: 21.7nm

光通量 Luminous Flux: 1011.788 lm

辐射通量 Radiant Flux: 3.085 W

色比 Color Ratio: $K_r=37.5\%$ $K_g=52.1\%$ $K_b=10.4\%$

色容差 Color Tolerance(SDCM): 2.4743

色偏差 Chromaticity Difference: +0.00132Duv

R1=83 R2=91 R3=96 R4=84 R5=84 R6=87 R7=87 R8=67

R9=14 R10=78 R11=84 R12=65 R13=86 R14=98 R15=77

电参数 Electric Parameters

电压 Voltage: 230.1 V

电流 Current: 0.042 A

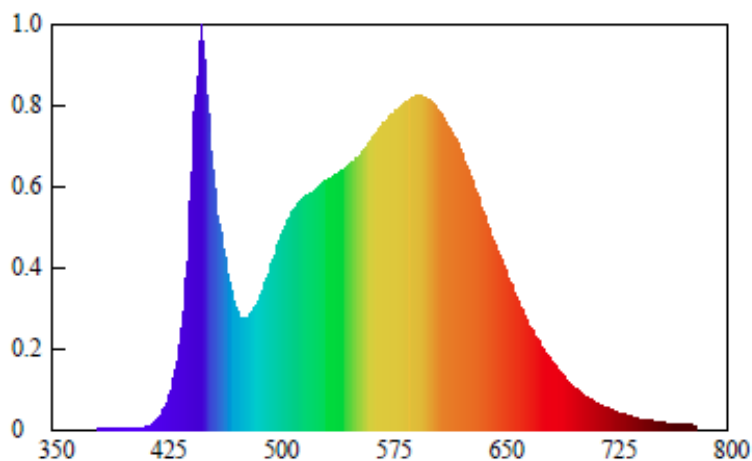
功率因数 Power Factor: 0.956

功率 Power: 9.2 W

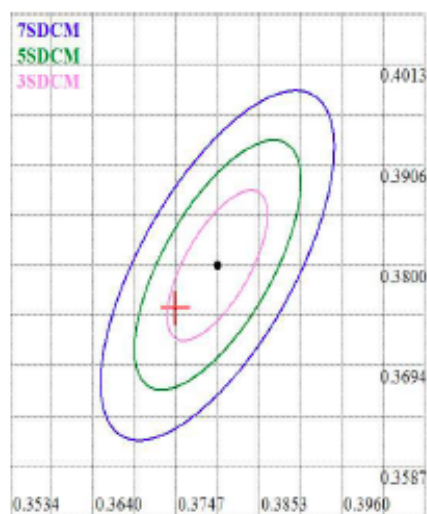
发光效率 Luminous Efficacy: 109.977 lm/W

Sample No: S09

光色参数 Spectroradiometric Parameters



光谱分布 Spectral Distribution



Nominal CCT: ANSI F4100K

x0=0.3746 y0=0.3755

色品坐标 Chromaticity Coordinates: $x=0.3746$ $y=0.3755$ $u'=0.2218$ $v'=0.5002$

相关色温 Correlated Color Temperature: 4154 K

主波长 Dominant Wavelength: 576.0 nm(E)

显色指数 Rendering Index: $R_a=84.8$

峰值波长 Peak Wavelength: 450.0 nm

色纯度 Purity: 0.2510

谱线带宽 Bandwidth: 20.9nm

光通量 Luminous Flux: 1013.634 lm

辐射通量 Radiant Flux: 3.092 W

色比 Color Ratio: $K_r=37.5\%$ $K_g=52.1\%$ $K_b=10.4\%$

色容差 Color Tolerance(SDCM): 2.5168

色偏差 Chromaticity Difference: +0.00118Duv

R1=83 R2=91 R3=96 R4=84 R5=84 R6=87 R7=87 R8=67

R9=14 R10=78 R11=84 R12=65 R13=86 R14=98 R15=77

电参数 Electric Parameters

电压 Voltage: 230.1 V

电流 Current: 0.041 A

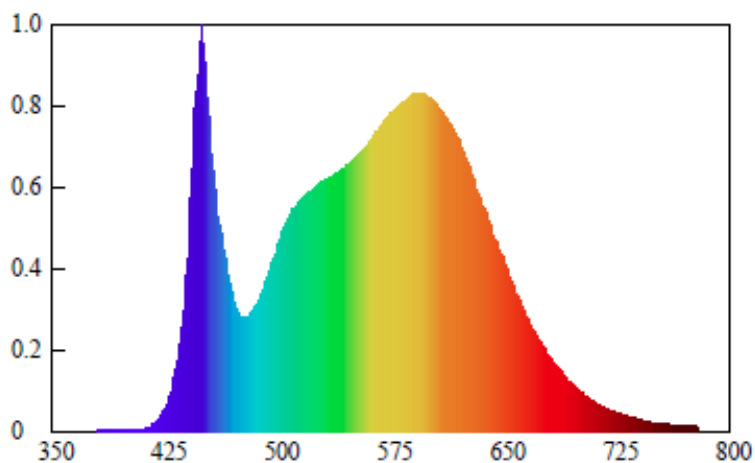
功率因数 Power Factor: 0.954

功率 Power: 9.1 W

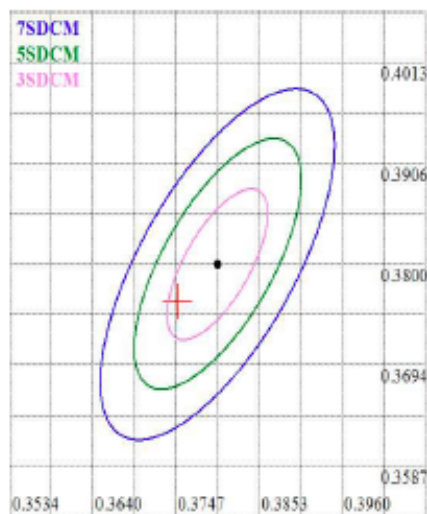
发光效率 Luminous Efficacy: 111.388 lm/W

Sample No: S10

光色参数 Spectroradiometric Parameters



光谱分布 Spectral Distribution



Nominal CCT: ANSI F4100K

x0=0.3749 y0=0.3761

色品坐标 Chromaticity Coordinates: $x=0.3749$ $y=0.3761$ $u'=0.2217$ $v'=0.5005$

相关色温 Correlated Color Temperature: 4150 K

主波长 Dominant Wavelength: 576.0 nm(E)

显色指数 Rendering Index: $R_a=84.8$

峰值波长 Peak Wavelength: 449.9 nm

色纯度 Purity: 0.2537

谱线带宽 Bandwidth: 21nm

光通量 Luminous Flux: 1043.880 lm

辐射通量 Radiant Flux: 3.182 W

色比 Color Ratio: $K_r=37.5\%$ $K_g=52.1\%$ $K_b=10.4\%$

色容差 Color Tolerance(SDCM): 2.3824

色偏差 Chromaticity Difference: +0.00136Duv

R1=83 R2=91 R3=96 R4=84 R5=84 R6=87 R7=87 R8=67

R9=13 R10=78 R11=84 R12=65 R13=86 R14=98 R15=77

电参数 Electric Parameters

电压 Voltage: 230.1 V

电流 Current: 0.041 A

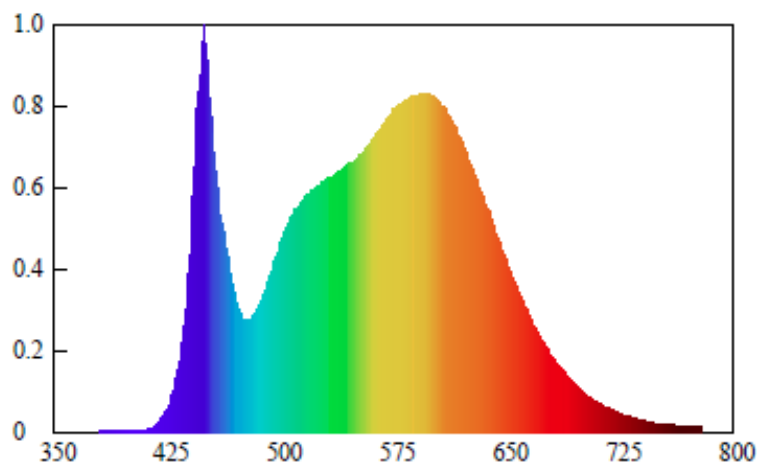
功率因数 Power Factor: 0.954

功率 Power: 9.2 W

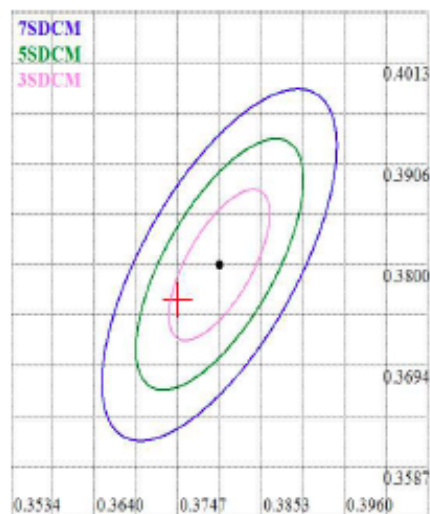
发光效率 Luminous Efficacy: 113.465 lm/W

Sample No: S11

光色参数 Spectroradiometric Parameters



光谱分布 Spectral Distribution



Nominal CCT: ANSI F4100K

x0=0.3747 y0=0.3763

色品坐标 Chromaticity Coordinates: $x=0.3747$ $y=0.3763$ $u'=0.2215$ $v'=0.5005$

相关色温 Correlated Color Temperature: 4157 K

主波长 Dominant Wavelength: 576.0 nm(E)

显色指数 Rendering Index: $R_a=84.7$

峰值波长 Peak Wavelength: 449.9 nm

色纯度 Purity: 0.2537

谱线带宽 Bandwidth: 22.1nm

光通量 Luminous Flux: 1018.594 lm

辐射通量 Radiant Flux: 3.102 W

色比 Color Ratio: $K_r=37.4\%$ $K_g=52.2\%$ $K_b=10.4\%$

色容差 Color Tolerance(SDCM): 2.4945

色偏差 Chromaticity Difference: +0.00151Duv

R1=83 R2=90 R3=96 R4=84 R5=83 R6=87 R7=87 R8=67

R9=13 R10=78 R11=84 R12=65 R13=86 R14=98 R15=77

电参数 Electric Parameters

电压 Voltage: 230.1 V

电流 Current: 0.042 A

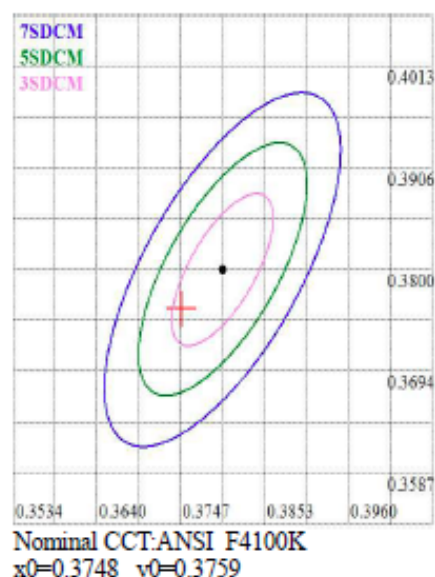
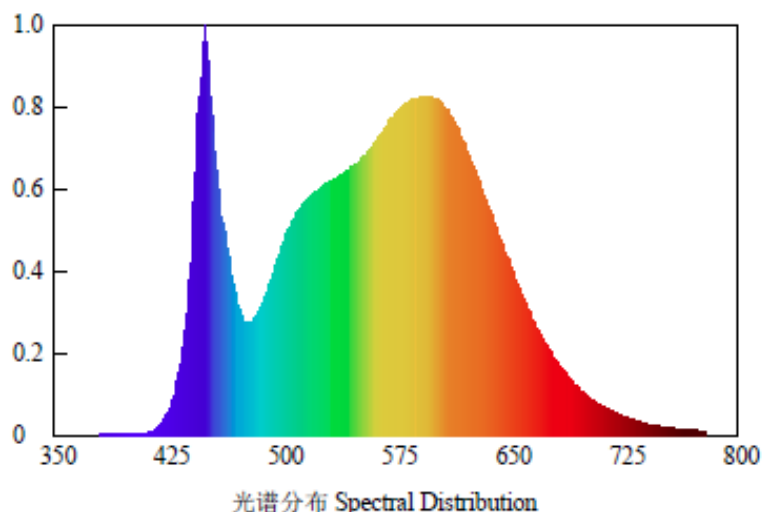
功率因数 Power Factor: 0.954

功率 Power: 9.3 W

发光效率 Luminous Efficacy: 109.526 lm/W

Sample No: S12

光色参数 Spectroradiometric Parameters

色品坐标 Chromaticity Coordinates: $x=0.3748$ $y=0.3759$ $u'=0.2217$ $v'=0.5004$

相关色温 Correlated Color Temperature: 4151 K

主波长 Dominant Wavelength: 576.0 nm(E)

显色指数 Rendering Index: $R_a=84.9$

峰值波长 Peak Wavelength: 450.0 nm

色纯度 Purity: 0.2528

谱线带宽 Bandwidth: 21.9nm

光通量 Luminous Flux: 1033.859 lm

辐射通量 Radiant Flux: 3.153 W

色比 Color Ratio: $K_r=37.5\%$ $K_g=52.1\%$ $K_b=10.4\%$

色容差 Color Tolerance(SDCM): 2.4257

色偏差 Chromaticity Difference: +0.0013Duv

R1=83 R2=91 R3=96 R4=84 R5=84 R6=87 R7=87 R8=67

R9=14 R10=78 R11=84 R12=65 R13=86 R14=98 R15=77

电参数 Electric Parameters

电压 Voltage: 230.1 V

电流 Current: 0.041 A

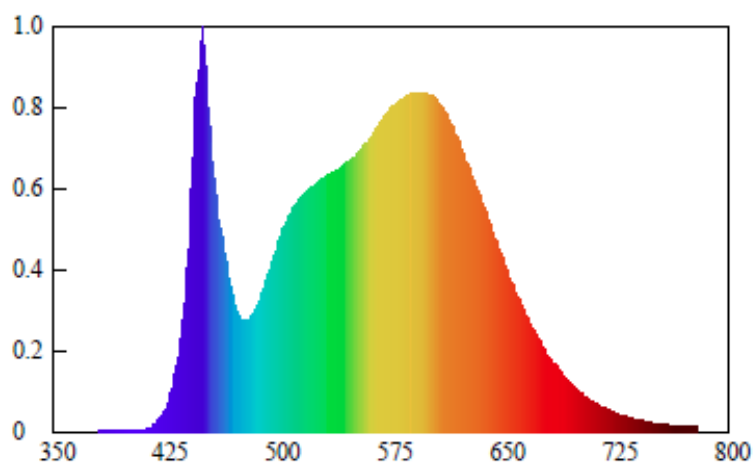
功率因数 Power Factor: 0.948

功率 Power: 8.9 W

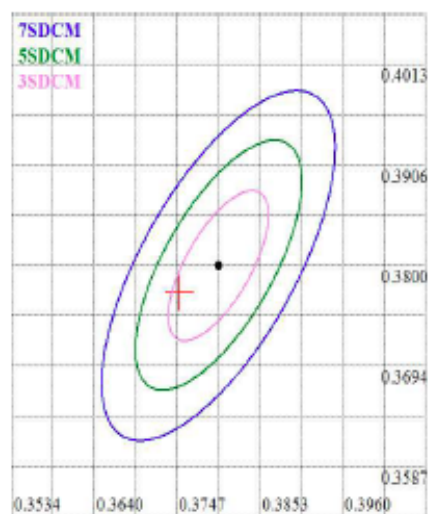
发光效率 Luminous Efficacy: 116.164 lm/W

Sample No: S13

光色参数 Spectroradiometric Parameters



光谱分布 Spectral Distribution



Nominal CCT: ANSI F4100K

x0=0.3750 y0=0.3771

色品坐标 Chromaticity Coordinates: $x=0.3750$ $y=0.3771$ $u'=0.2214$ $v'=0.5009$

相关色温 Correlated Color Temperature: 4154 K

主波长 Dominant Wavelength: 576.0 nm(E)

显色指数 Rendering Index: $R_a=84.5$

峰值波长 Peak Wavelength: 449.6 nm

色纯度 Purity: 0.2570

谱线带宽 Bandwidth: 21.3nm

光通量 Luminous Flux: 1040.150 lm

辐射通量 Radiant Flux: 3.162 W

色比 Color Ratio: $K_r=37.3\%$ $K_g=52.3\%$ $K_b=10.4\%$

色容差 Color Tolerance(SDCM): 2.4138

色偏差 Chromaticity Difference: +0.00179Duv

R1=83 R2=90 R3=96 R4=84 R5=83 R6=87 R7=87 R8=66

R9=12 R10=77 R11=84 R12=65 R13=85 R14=98 R15=76

电参数 Electric Parameters

电压 Voltage: 230.1 V

电流 Current: 0.042 A

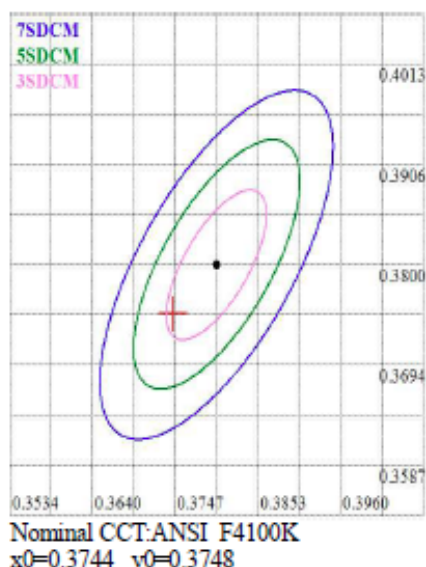
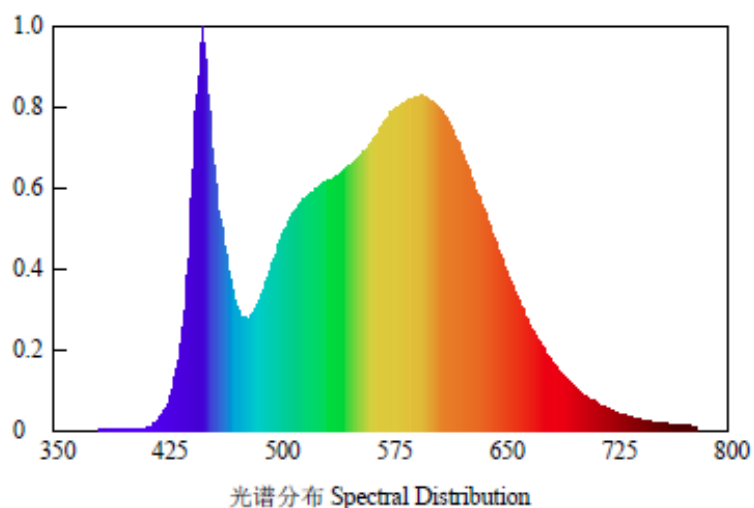
功率因数 Power Factor: 0.957

功率 Power: 9.3 W

发光效率 Luminous Efficacy: 111.844 lm/W

Sample No: S14

光色参数 Spectroradiometric Parameters

色品坐标 Chromaticity Coordinates: $x=0.3744$ $y=0.3748$ $u'=0.2219$ $v'=0.4998$

相关色温 Correlated Color Temperature: 4156 K

主波长 Dominant Wavelength: 576.0 nm(E)

显色指数 Rendering Index: $R_a=84.9$

峰值波长 Peak Wavelength: 450.0 nm

色纯度 Purity: 0.2483

谱线带宽 Bandwidth: 22nm

光通量 Luminous Flux: 1048.810 lm

辐射通量 Radiant Flux: 3.205 W

色比 Color Ratio: $K_r=37.5\%$ $K_g=52.1\%$ $K_b=10.4\%$

色容差 Color Tolerance(SDCM): 2.626

色偏差 Chromaticity Difference: +0.0009Duv

R1=83 R2=91 R3=96 R4=84 R5=84 R6=87 R7=87 R8=67

R9=14 R10=79 R11=84 R12=65 R13=86 R14=98 R15=77

电参数 Electric Parameters

电压 Voltage: 230.1 V

电流 Current: 0.042 A

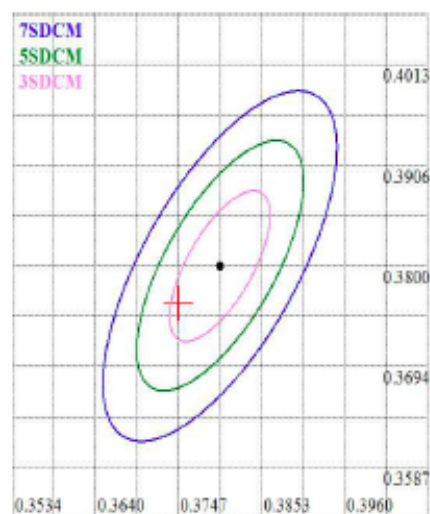
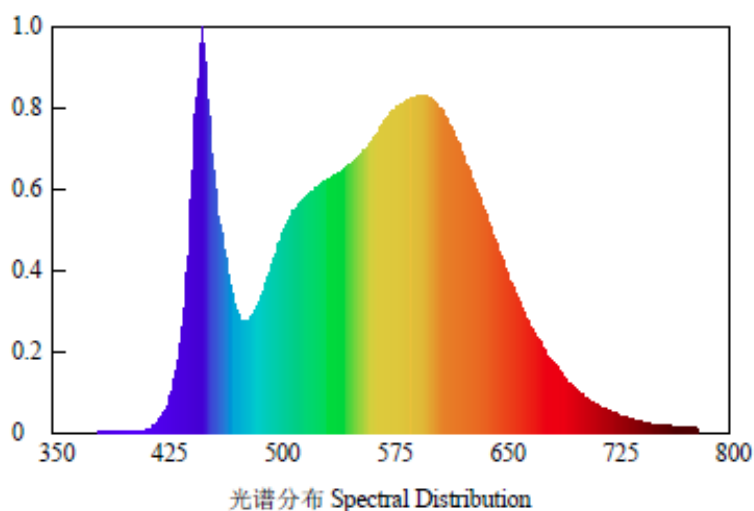
功率因数 Power Factor: 0.955

功率 Power: 9.2 W

发光效率 Luminous Efficacy: 114.001 lm/W

Sample No: S15

光色参数 Spectroradiometric Parameters

色品坐标 Chromaticity Coordinates: $x=0.3747$ $y=0.3761$ $u'=0.2216$ $v'=0.5004$

相关色温 Correlated Color Temperature: 4155 K

主波长 Dominant Wavelength: 576.0 nm(E)

显色指数 Rendering Index: $R_a=84.7$

峰值波长 Peak Wavelength: 450.0 nm

色纯度 Purity: 0.2531

谱线带宽 Bandwidth: 22.1nm

光通量 Luminous Flux: 1053.506 lm

辐射通量 Radiant Flux: 3.211 W

色比 Color Ratio: $K_r=37.4\%$ $K_g=52.2\%$ $K_b=10.4\%$

色容差 Color Tolerance(SDCM): 2.4823

色偏差 Chromaticity Difference: +0.00139Duv

R1=83 R2=91 R3=96 R4=84 R5=83 R6=87 R7=87 R8=66

R9=13 R10=78 R11=84 R12=65 R13=86 R14=98 R15=77

电参数 Electric Parameters

电压 Voltage: 230.1 V

电流 Current: 0.041 A

功率因数 Power Factor: 0.953

功率 Power: 9.1 W

发光效率 Luminous Efficacy: 115.77 lm/W

3.2. Goniophotometer

Sample No: S01					
Temperature (°C)	Test Humidity	Orientation	Stabilization Time(min)	Test Time(min)	Number of hours operated prior to measurement
24.7	48.2%	Face forward	15	35	0

Input Voltage (V)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
230.1	50	0.041	0.948	9.0

Luminous Flux (lm)	CBCP (cd)	Field Angle (10%)	Beam Angle (50%)	Luminous Efficacy (lm/W)
1088.22	241.902	168.8*279.7	117.6*155.0	120.91

Photometric Results

Lumens(lm): 1088.22
 Efficiency(%): 109.92%
 Lumens(lm)/Power(W): 120.91
 Central intensity(cd): 239.210
 Maximum intensity(cd): 241.902
 Angle of maximum intensity: C=270.0 γ =10.0
 Beam Angle(50%Imax): [C0/180]Total=117.6
 [C90/270]Total=155.0
 Field angle(10%Imax): [C0/180]Total=168.8
 [C90/270]Total=279.7
 Maximum s/h(1/2): C0_180=1.28 C90_270=1.39
 Maximum s/h(1/4): C0_180=1.40 C90_270=1.54
 Up flux rate of lamp(%): 16.07%
 Down flux rate of lamp(%): 93.85%
 Up flux rate of LUM(%): 14.62%
 Down flux rate of LUM(%): 85.38%
 CIE Type : Semidirect lighting
 Output flux ratio in π solid angle : 56.487%

Sample No: S02					
Temperature (°C)	Test Humidity	Orientation	Stabilization Time(min)	Test Time(min)	Number of hours operated prior to measurement
24.7	48.2%	Face forward	15	35	0

Input Voltage (V)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
230.1	50	0.041	0.949	9.1

Luminous Flux (lm)	CBCP (cd)	Field Angle (10%)	Beam Angle (50%)	Luminous Efficacy (lm/W)
1086.49	242.238	167.8*279.1	117.6*154.9	119.39

Photometric Results

Lumens(lm): 1086.49
 Efficiency(%): 109.75%
 Lumens(lm)/Power(W): 119.39
 Central intensity(cd): 238.369
 Maximum intensity(cd): 242.238
 Angle of maximum intensity: $C=270.0$ $\gamma=15.0$
 Beam Angle(50%Imax): [C0/180]Total=117.6
 [C90/270]Total=154.9
 Field angle(10%Imax): [C0/180]Total=167.8
 [C90/270]Total=279.1
 Maximum s/h(1/2): C0_180=1.28 C90_270=1.37
 Maximum s/h(1/4): C0_180=1.40 C90_270=1.53
 Up flux rate of lamp(%): 16.09%
 Down flux rate of lamp(%): 93.65%
 Up flux rate of LUM(%): 14.67%
 Down flux rate of LUM(%): 85.33%
 CIE Type : Semidirect lighting
 Output flux ratio in π solid angle : 56.455%

Sample No: S03					
Temperature (°C)	Test Humidity	Orientation	Stabilization Time(min)	Test Time(min)	Number of hours operated prior to measurement
24.7	48.2%	Face forward	15	35	0

Input Voltage (V)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
230.1	50	0.042	0.951	9.2

Luminous Flux (lm)	CBCP (cd)	Field Angle (10%)	Beam Angle (50%)	Luminous Efficacy (lm/W)
1083.70	239.547	168.3*280.3	117.6*155.8	117.79

Photometric Results

Lumens(lm): 1083.70
 Efficiency(%): 109.46%
 Lumens(lm)/Power(W): 117.79
 Central intensity(cd): 236.014
 Maximum intensity(cd): 239.547
 Angle of maximum intensity: C=270.0 γ =10.0
 Beam Angle(50%Imax): [C0/180]Total=117.6
 [C90/270]Total=155.8
 Field angle(10%Imax): [C0/180]Total=168.3
 [C90/270]Total=280.3
 Maximum s/h(1/2): C0_180=1.28 C90_270=1.39
 Maximum s/h(1/4): C0_180=1.40 C90_270=1.55
 Up flux rate of lamp(%): 16.17%
 Down flux rate of lamp(%): 93.29%
 Up flux rate of LUM(%): 14.77%
 Down flux rate of LUM(%): 85.23%
 CIE Type : Semidirect lighting
 Output flux ratio in π solid angle : 56.281%

Sample No: S04					
Temperature (°C)	Test Humidity	Orientation	Stabilization Time(min)	Test Time(min)	Number of hours operated prior to measurement
24.7	48.2%	Face forward	15	35	0

Input Voltage (V)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
230.0	50	0.042	0.950	9.1

Luminous Flux (lm)	CBCP (cd)	Field Angle (10%)	Beam Angle (50%)	Luminous Efficacy (lm/W)
1093.57	240.219	168.6*279.9	117.5*157.8	120.17

Photometric Results

Lumens(lm): 1093.57
 Efficiency(%): 110.46%
 Lumens(lm)/Power(W): 120.17
 Central intensity(cd): 233.995
 Maximum intensity(cd): 240.219
 Angle of maximum intensity: C=270.0 γ =10.0
 Beam Angle(50%Imax): [C0/180]Total=117.5
 [C90/270]Total=157.8
 Field angle(10%Imax): [C0/180]Total=168.6
 [C90/270]Total=279.9
 Maximum s/h(1/2): C0_180=1.29 C90_270=1.39
 Maximum s/h(1/4): C0_180=1.41 C90_270=1.55
 Up flux rate of lamp(%): 16.69%
 Down flux rate of lamp(%): 93.77%
 Up flux rate of LUM(%): 15.11%
 Down flux rate of LUM(%): 84.89%
 CIE Type : Semidirect lighting
 Output flux ratio in π solid angle : 55.844%

Sample No: S05					
Temperature (°C)	Test Humidity	Orientation	Stabilization Time(min)	Test Time(min)	Number of hours operated prior to measurement
24.7	48.2%	Face forward	15	35	0

Input Voltage (V)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
230.1	50	0.042	0.95	9.1

Luminous Flux (lm)	CBCP (cd)	Field Angle (10%)	Beam Angle (50%)	Luminous Efficacy (lm/W)
1081.80	239.378	276.7*168.7	117.5*156.1	118.88

Photometric Results

Lumens(lm): 1081.80
 Efficiency(%): 109.27%
 Lumens(lm)/Power(W): 118.88
 Central intensity(cd): 237.528
 Maximum intensity(cd): 239.378
 Angle of maximum intensity: C=90.0 γ =15.0
 Beam Angle(50%Imax): [C0/180]Total=117.5
 [C90/270]Total=156.1
 Field angle(10%Imax): [C0/180]Total=168.7
 [C90/270]Total=276.7
 Maximum s/h(1/2): C0_180=1.31 C90_270=1.47
 Maximum s/h(1/4): C0_180=1.43 C90_270=1.62
 Up flux rate of lamp(%): 16.11%
 Down flux rate of lamp(%): 93.17%
 Up flux rate of LUM(%): 14.74%
 Down flux rate of LUM(%): 85.26%
 CIE Type : Semidirect lighting
 Output flux ratio in π solid angle : 56.235%

Sample No: S06					
Temperature (°C)	Test Humidity	Orientation	Stabilization Time(min)	Test Time(min)	Number of hours operated prior to measurement
24.7	48.2%	Face forward	15	35	0

Input Voltage (V)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
230.1	50	0.042	0.95	9.1

Luminous Flux (lm)	CBCP (cd)	Field Angle (10%)	Beam Angle (50%)	Luminous Efficacy (lm/W)
1073.23	236.855	168.4*279.9	117.8*156.1	117.94

Photometric Results

Lumens(lm): 1073.23
 Efficiency(%): 108.41%
 Lumens(lm)/Power(W): 117.94
 Central intensity(cd): 233.995
 Maximum intensity(cd): 236.855
 Angle of maximum intensity: $C=270.0$ $\gamma=10.0$
 Beam Angle(50%Imax): [C0/180]Total=117.8
 [C90/270]Total=156.1
 Field angle(10%Imax): [C0/180]Total=168.4
 [C90/270]Total=279.9
 Maximum s/h(1/2): C0_180=1.28 C90_270=1.39
 Maximum s/h(1/4): C0_180=1.40 C90_270=1.55
 Up flux rate of lamp(%): 16.03%
 Down flux rate of lamp(%): 92.38%
 Up flux rate of LUM(%): 14.79%
 Down flux rate of LUM(%): 85.21%
 CIE Type : Semidirect lighting
 Output flux ratio in π solid angle : 56.253%

Sample No: S07					
Temperature (°C)	Test Humidity	Orientation	Stabilization Time(min)	Test Time(min)	Number of hours operated prior to measurement
24.7	48.2%	Face forward	15	35	0

Input Voltage (V)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
230.1	50	0.041	0.948	9.0

Luminous Flux (lm)	CBCP (cd)	Field Angle (10%)	Beam Angle (50%)	Luminous Efficacy (lm/W)
1070.02	237.528	168.4*279.0	117.6*155.5	118.89

Photometric Results

Lumens(lm): 1070.02
 Efficiency(%): 108.08%
 Lumens(lm)/Power(W): 118.89
 Central intensity(cd): 233.827
 Maximum intensity(cd): 237.528
 Angle of maximum intensity: C=270.0 γ =10.0
 Beam Angle(50%Imax): [C0/180]Total=117.6
 [C90/270]Total=155.5
 Field angle(10%Imax): [C0/180]Total=168.4
 [C90/270]Total=279.0
 Maximum s/h(1/2): C0_180=1.28 C90_270=1.38
 Maximum s/h(1/4): C0_180=1.40 C90_270=1.54
 Up flux rate of lamp(%): 15.86%
 Down flux rate of lamp(%): 92.22%
 Up flux rate of LUM(%): 14.67%
 Down flux rate of LUM(%): 85.33%
 CIE Type : Semidirect lighting
 Output flux ratio in π solid angle : 56.391%

Sample No: S08					
Temperature (°C)	Test Humidity	Orientation	Stabilization Time(min)	Test Time(min)	Number of hours operated prior to measurement
24.7	48.2%	Face forward	15	35	0

Input Voltage (V)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
230.1	50	0.042	0.951	9.1

Luminous Flux (lm)	CBCP (cd)	Field Angle (10%)	Beam Angle (50%)	Luminous Efficacy (lm/W)
1068.43	236.35	169.6*279.7	117.9*155.6	117.41

Photometric Results

Lumens(lm): 1068.43
 Efficiency(%): 107.92%
 Lumens(lm)/Power(W): 117.41
 Central intensity(cd): 233.322
 Maximum intensity(cd): 236.350
 Angle of maximum intensity: C=270.0 γ =10.0
 Beam Angle(50%Imax): [C0/180]Total=117.9
 [C90/270]Total=155.6
 Field angle(10%Imax): [C0/180]Total=169.6
 [C90/270]Total=279.7
 Maximum s/h(1/2): C0_180=1.28 C90_270=1.38
 Maximum s/h(1/4): C0_180=1.40 C90_270=1.54
 Up flux rate of lamp(%): 15.94%
 Down flux rate of lamp(%): 91.98%
 Up flux rate of LUM(%): 14.77%
 Down flux rate of LUM(%): 85.23%
 CIE Type : Semidirect lighting
 Output flux ratio in π solid angle : 56.264%

Sample No: S09					
Temperature (°C)	Test Humidity	Orientation	Stabilization Time(min)	Test Time(min)	Number of hours operated prior to measurement
24.7	48.2%	Face forward	15	35	0

Input Voltage (V)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
229.9	50	0.041	0.949	9.0

Luminous Flux (lm)	CBCP (cd)	Field Angle (10%)	Beam Angle (50%)	Luminous Efficacy (lm/W)
1064.75	236.35	168.9*279.4	117.8*155.6	118.31

Photometric Results

Lumens(lm): 1064.75
 Efficiency(%): 107.55%
 Lumens(lm)/Power(W): 118.31
 Central intensity(cd): 232.986
 Maximum intensity(cd): 236.350
 Angle of maximum intensity: C=270.0 γ =15.0
 Beam Angle(50%Imax): [C0/180]Total=117.8
 [C90/270]Total=155.6
 Field angle(10%Imax): [C0/180]Total=168.9
 [C90/270]Total=279.4
 Maximum s/h(1/2): C0_180=1.28 C90_270=1.37
 Maximum s/h(1/4): C0_180=1.40 C90_270=1.53
 Up flux rate of lamp(%): 15.86%
 Down flux rate of lamp(%): 91.69%
 Up flux rate of LUM(%): 14.75%
 Down flux rate of LUM(%): 85.25%
 CIE Type : Semidirect lighting
 Output flux ratio in π solid angle : 56.307%

Sample No: S10					
Temperature (°C)	Test Humidity	Orientation	Stabilization Time(min)	Test Time(min)	Number of hours operated prior to measurement
24.7	48.2%	Face forward	15	35	0

Input Voltage (V)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
230.0	50	0.041	0.948	9.0

Luminous Flux (lm)	CBCP (cd)	Field Angle (10%)	Beam Angle (50%)	Luminous Efficacy (lm/W)
1072.61	237.192	168.6*279.8	117.5*155.8	119.18

Photometric Results

Lumens(lm): 1072.61
 Efficiency(%): 108.34%
 Lumens(lm)/Power(W): 119.18
 Central intensity(cd): 234.836
 Maximum intensity(cd): 237.192
 Angle of maximum intensity: C=270.0 γ =10.0
 Beam Angle(50%Imax): [C0/180]Total=117.5
 [C90/270]Total=155.8
 Field angle(10%Imax): [C0/180]Total=168.6
 [C90/270]Total=279.8
 Maximum s/h(1/2): C0_180=1.28 C90_270=1.39
 Maximum s/h(1/4): C0_180=1.40 C90_270=1.55
 Up flux rate of lamp(%): 15.94%
 Down flux rate of lamp(%): 92.41%
 Up flux rate of LUM(%): 14.71%
 Down flux rate of LUM(%): 85.29%
 CIE Type : Semidirect lighting
 Output flux ratio in π solid angle : 56.345%

Sample No: S11					
Temperature (°C)	Test Humidity	Orientation	Stabilization Time(min)	Test Time(min)	Number of hours operated prior to measurement
24.7	48.2%	Face forward	15	35	0

Input Voltage (V)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
230.0	50	0.042	0.95	9.1

Luminous Flux (lm)	CBCP (cd)	Field Angle (10%)	Beam Angle (50%)	Luminous Efficacy (lm/W)
1070.76	238.033	168.5*279.1	117.7*155.3	117.67

Photometric Results

Lumens(lm): 1070.76
 Efficiency(%): 108.16%
 Lumens(lm)/Power(W): 117.67
 Central intensity(cd): 234.164
 Maximum intensity(cd): 238.033
 Angle of maximum intensity: C=270.0 γ =15.0
 Beam Angle(50%Imax): [C0/180]Total=117.7
 [C90/270]Total=155.3
 Field angle(10%Imax): [C0/180]Total=168.5
 [C90/270]Total=279.1
 Maximum s/h(1/2): C0_180=1.28 C90_270=1.38
 Maximum s/h(1/4): C0_180=1.40 C90_270=1.53
 Up flux rate of lamp(%): 15.90%
 Down flux rate of lamp(%): 92.26%
 Up flux rate of LUM(%): 14.70%
 Down flux rate of LUM(%): 85.30%
 CIE Type : Semidirect lighting
 Output flux ratio in π solid angle : 56.367%

Sample No: S12					
Temperature (°C)	Test Humidity	Orientation	Stabilization Time(min)	Test Time(min)	Number of hours operated prior to measurement
24.7	48.2%	Face forward	15	35	0

Input Voltage (V)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
230.0	50	0.041	0.947	8.9

Luminous Flux (lm)	CBCP (cd)	Field Angle (10%)	Beam Angle (50%)	Luminous Efficacy (lm/W)
1053.03	233.995	279.0*167.9	117.5*155.3	118.32

Photometric Results

Lumens(lm): 1053.03
 Efficiency(%): 106.37%
 Lumens(lm)/Power(W): 118.32
 Central intensity(cd): 230.967
 Maximum intensity(cd): 233.995
 Angle of maximum intensity: C=270.0 γ =10.0
 Beam Angle(50%Imax): [C0/180]Total=117.5
 [C90/270]Total=155.3
 Field angle(10%Imax): [C0/180]Total=167.9
 [C90/270]Total=279.0
 Maximum s/h(1/2): C0_180=1.28 C90_270=1.38
 Maximum s/h(1/4): C0_180=1.40 C90_270=1.54
 Up flux rate of lamp(%): 15.62%
 Down flux rate of lamp(%): 90.75%
 Up flux rate of LUM(%): 14.69%
 Down flux rate of LUM(%): 85.31%
 CIE Type : Semidirect lighting
 Output flux ratio in π solid angle : 56.402%

Sample No: S13					
Temperature (°C)	Test Humidity	Orientation	Stabilization Time(min)	Test Time(min)	Number of hours operated prior to measurement
24.7	48.2%	Face forward	15	35	0

Input Voltage (V)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
230.1	50	0.042	0.951	9.2

Luminous Flux (lm)	CBCP (cd)	Field Angle (10%)	Beam Angle (50%)	Luminous Efficacy (lm/W)
1091.93	240.892	279.1*168.5	117.6*156.3	118.69

Photometric Results

Lumens(lm): 1091.93
 Efficiency(%): 110.30%
 Lumens(lm)/Power(W): 118.69
 Central intensity(cd): 238.033
 Maximum intensity(cd): 240.892
 Angle of maximum intensity: C=270.0 γ =10.0
 Beam Angle(50%Imax): [C0/180]Total=117.6
 [C90/270]Total=156.3
 Field angle(10%Imax): [C0/180]Total=168.5
 [C90/270]Total=279.1
 Maximum s/h(1/2): C0_180=1.28 C90_270=1.40
 Maximum s/h(1/4): C0_180=1.40 C90_270=1.56
 Up flux rate of lamp(%): 16.27%
 Down flux rate of lamp(%): 94.03%
 Up flux rate of LUM(%): 14.75%
 Down flux rate of LUM(%): 85.25%
 CIE Type : Semidirect lighting
 Output flux ratio in π solid angle : 56.256%

Sample No: S14					
Temperature (°C)	Test Humidity	Orientation	Stabilization Time(min)	Test Time(min)	Number of hours operated prior to measurement
24.7	48.2%	Face forward	15	35	0

Input Voltage (V)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
230.0	50	0.041	0.949	9.1

Luminous Flux (lm)	CBCP (cd)	Field Angle (10%)	Beam Angle (50%)	Luminous Efficacy (lm/W)
1061.27	235.173	168.4*280.1	117.5*155.8	116.62

Photometric Results

Lumens(lm): 1061.27
 Efficiency(%): 107.20%
 Lumens(lm)/Power(W): 116.62
 Central intensity(cd): 231.808
 Maximum intensity(cd): 235.173
 Angle of maximum intensity: C=270.0 γ =15.0
 Beam Angle(50%Imax): [C0/180]Total=117.5
 [C90/270]Total=155.8
 Field angle(10%Imax): [C0/180]Total=168.4
 [C90/270]Total=280.1
 Maximum s/h(1/2): C0_180=1.28 C90_270=1.38
 Maximum s/h(1/4): C0_180=1.40 C90_270=1.54
 Up flux rate of lamp(%): 15.88%
 Down flux rate of lamp(%): 91.32%
 Up flux rate of LUM(%): 14.81%
 Down flux rate of LUM(%): 85.19%
 CIE Type : Semidirect lighting
 Output flux ratio in π solid angle : 56.237%

Sample No: S15					
Temperature (°C)	Test Humidity	Orientation	Stabilization Time(min)	Test Time(min)	Number of hours operated prior to measurement
24.7	48.2%	Face forward	15	35	0

Input Voltage (V)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
229.9	50	0.041	0.952	9.0

Luminous Flux (lm)	CBCP (cd)	Field Angle (10%)	Beam Angle (50%)	Luminous Efficacy (lm/W)
1048.94	232.65	168.1*276.8	117.6*155.9	116.55

Photometric Results

Lumens(lm): 1048.94
 Efficiency(%): 105.95%
 Lumens(lm)/Power(W): 116.55
 Central intensity(cd): 228.949
 Maximum intensity(cd): 232.650
 Angle of maximum intensity: C=270.0 γ =10.0
 Beam Angle(50%Imax): [C0/180]Total=117.6
 [C90/270]Total=155.9
 Field angle(10%Imax): [C0/180]Total=168.1
 [C90/270]Total=276.8
 Maximum s/h(1/2): C0_180=1.28 C90_270=1.38
 Maximum s/h(1/4): C0_180=1.40 C90_270=1.53
 Up flux rate of lamp(%): 15.56%
 Down flux rate of lamp(%): 90.40%
 Up flux rate of LUM(%): 14.68%
 Down flux rate of LUM(%): 85.32%
 CIE Type : Semidirect lighting
 Output flux ratio in π solid angle : 56.304%

4.1. Zonal flux distribution table

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	235.089	.000	.000	.000%	.000%
5.0	234.612	5.615	5.615	.567%	.567%
10.0	233.084	16.731	22.346	1.690%	2.257%
15.0	230.561	27.503	49.849	2.778%	5.035%
20.0	226.608	37.677	87.526	3.806%	8.841%
25.0	221.168	46.963	134.490	4.744%	13.585%
30.0	214.243	55.102	189.591	5.566%	19.151%
35.0	205.804	61.855	251.446	6.248%	25.399%
40.0	196.132	67.060	318.506	6.774%	32.172%
45.0	184.777	70.528	389.035	7.124%	39.296%
50.0	172.651	72.223	461.258	7.295%	46.592%
55.0	159.221	72.160	533.418	7.289%	53.881%
60.0	144.922	70.302	603.720	7.101%	60.982%
65.0	129.951	66.822	670.542	6.750%	67.732%
70.0	114.278	61.840	732.382	6.246%	73.978%
75.0	98.662	55.659	788.041	5.622%	79.600%
80.0	83.494	48.740	836.781	4.923%	84.523%
85.0	70.246	41.775	878.556	4.220%	88.743%
90.0	61.148	35.977	914.533	3.634%	92.377%
95.0	55.597	31.966	946.498	3.229%	95.606%
100.0	49.639	28.595	975.094	2.888%	98.494%
105.0	38.186	23.500	998.593	2.374%	100.868%
110.0	29.663	17.735	1016.328	1.791%	102.659%
115.0	19.920	12.555	1028.883	1.268%	103.928%
120.0	13.163	8.043	1036.925	.812%	104.740%
125.0	17.719	7.138	1044.064	.721%	105.461%
130.0	19.051	7.995	1052.059	.808%	106.269%
135.0	15.953	7.073	1059.132	.714%	106.983%
140.0	12.504	5.269	1064.401	.532%	107.515%
145.0	8.705	3.539	1067.940	.357%	107.873%
150.0	5.327	2.066	1070.006	.209%	108.081%
155.0	3.841	1.160	1071.167	.117%	108.199%
160.0	3.463	.766	1071.932	.077%	108.276%
165.0	3.392	.565	1072.497	.057%	108.333%
170.0	3.364	.401	1072.898	.040%	108.374%
175.0	3.449	.244	1073.142	.025%	108.398%
180.0	3.477	.083	1073.225	.008%	108.407%

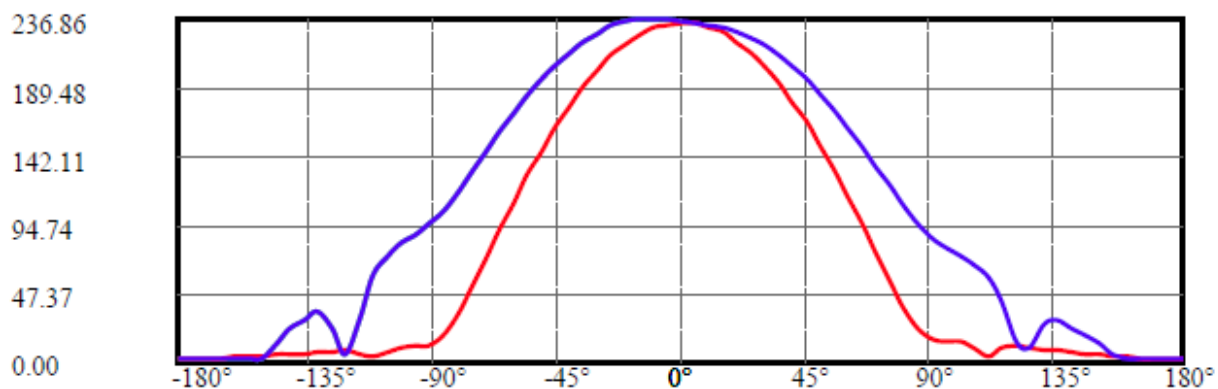
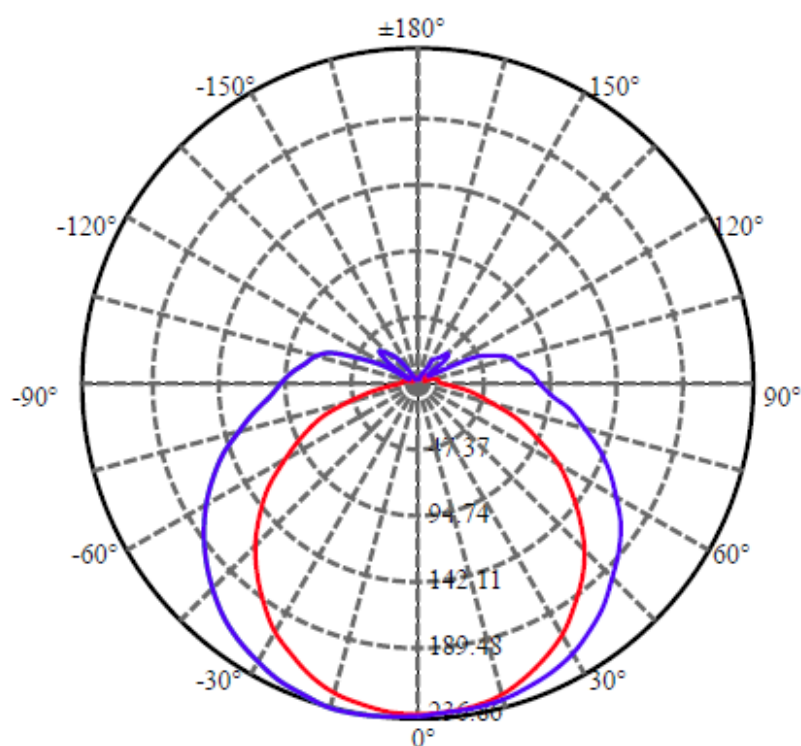
4.2. Zonal flux distribution table**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-30	189.59	19.15%	17.67%
0-40	318.51	32.17%	29.68%
0-60	603.72	60.98%	56.25%
0-90	914.53	92.38%	85.21%
0-120	1036.93	104.74%	96.62%
0-180	1073.23	108.41%	100.00%
60-90	381.11	38.50%	35.51%
90-120	158.37	16.00%	14.76%
90-130	173.50	17.53%	16.17%
90-150	191.45	19.34%	17.84%
90-180	194.59	19.66%	18.13%
0-82.61	858.58	86.73%	80.00%

ZONAL LUMEN SUMMARY

0-10	22.35
10-20	65.18
20-30	102.07
30-40	128.91
40-50	142.75
50-60	142.46
60-70	128.66
70-80	104.40
80-90	77.75
90-100	60.56
100-110	41.23
110-120	20.60
120-130	15.13
130-140	12.34
140-150	5.61
150-160	1.93
160-170	0.97
170-180	0.24

4.3. Light Distribution Curve

C270(Max): —C0/C180: —C90/C270: —

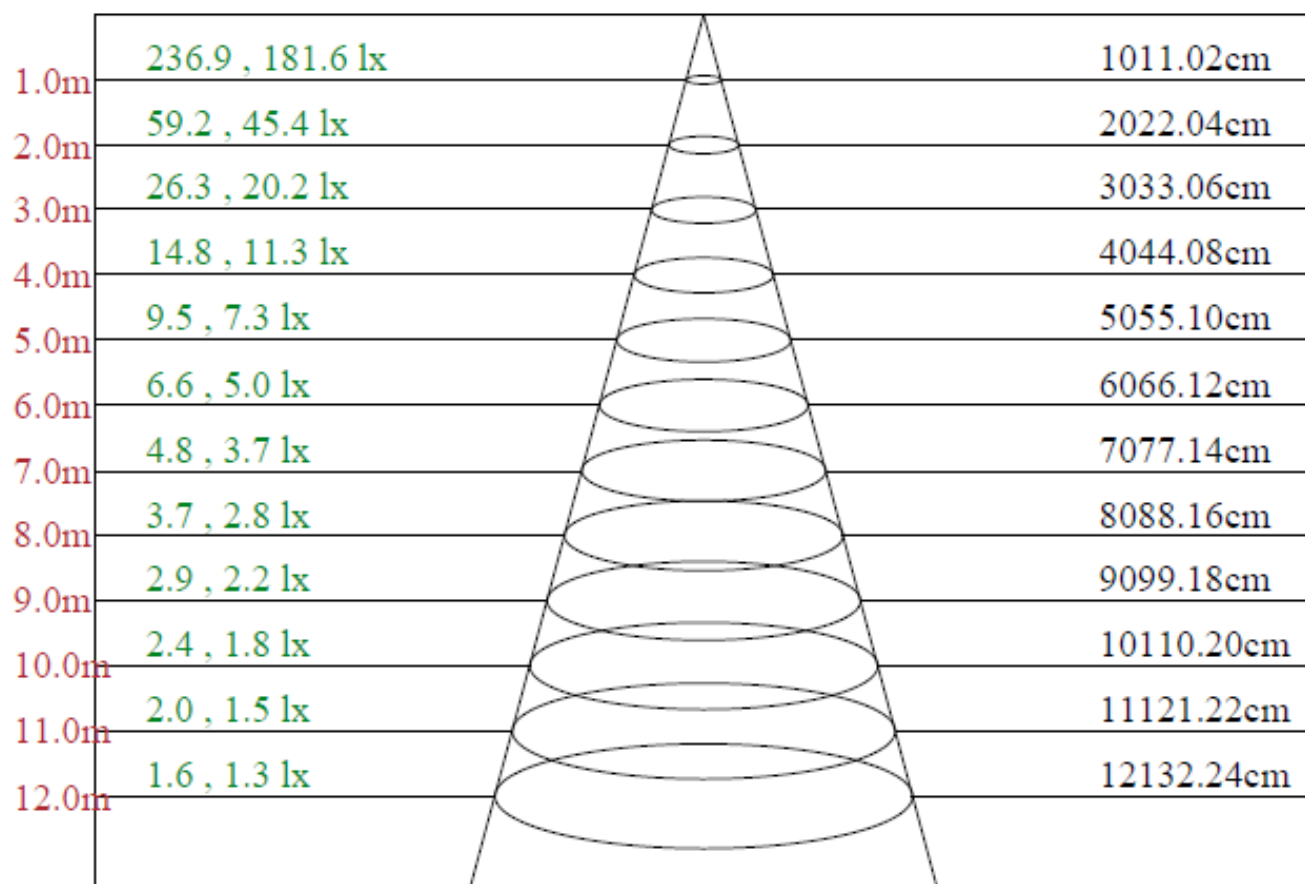
Field angle(10%Imax):C0/180Left:83.4 Right:84.9

:C90/270Left:129.5 Right:150.4

Beam Angle(50%Imax):C0/180Left:58.2 Right:59.5

:C90/270Left:69.6 Right:86.4

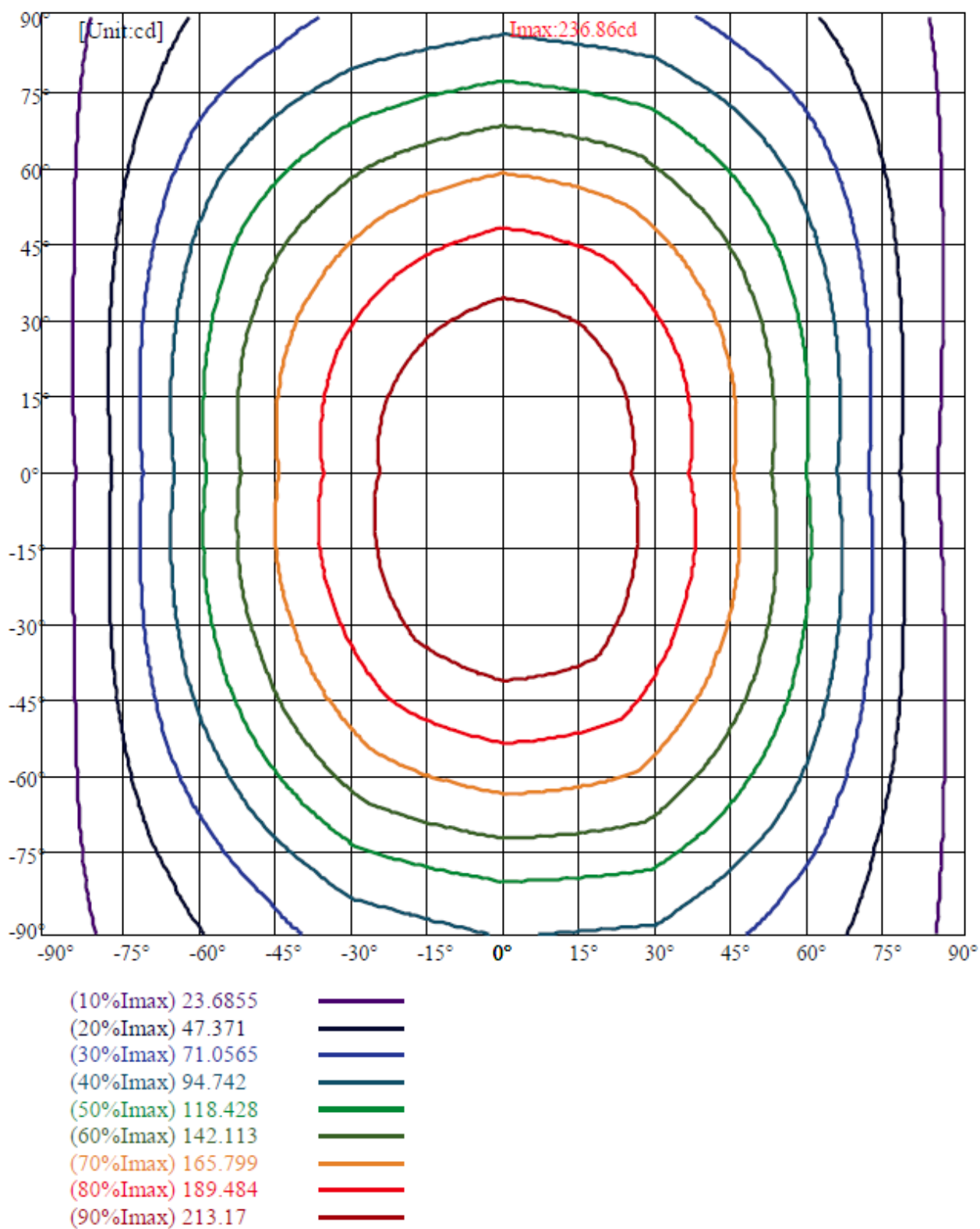
4.4. Lux distance Curve



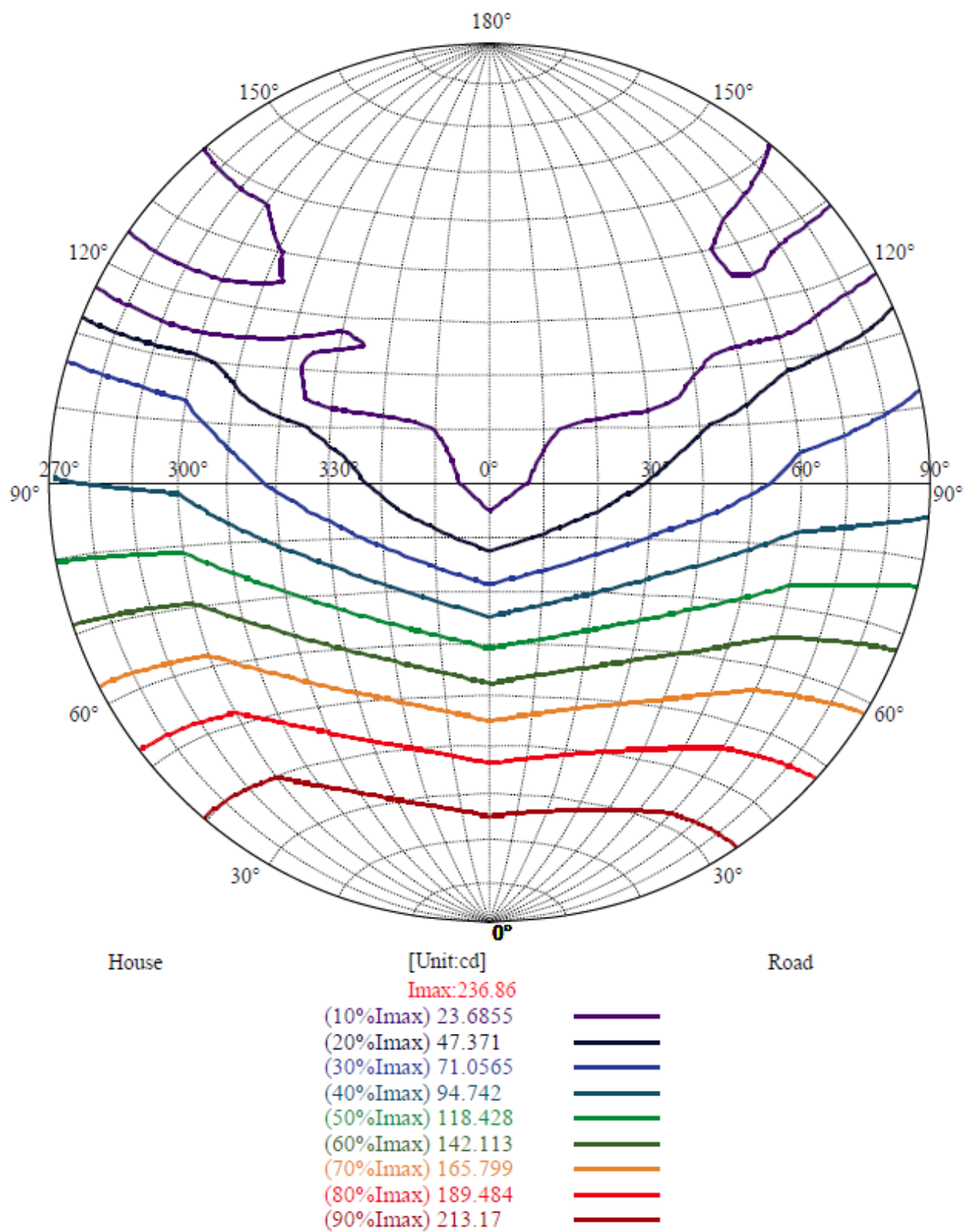
Max , Ave

Beam angle of C270plane157.17

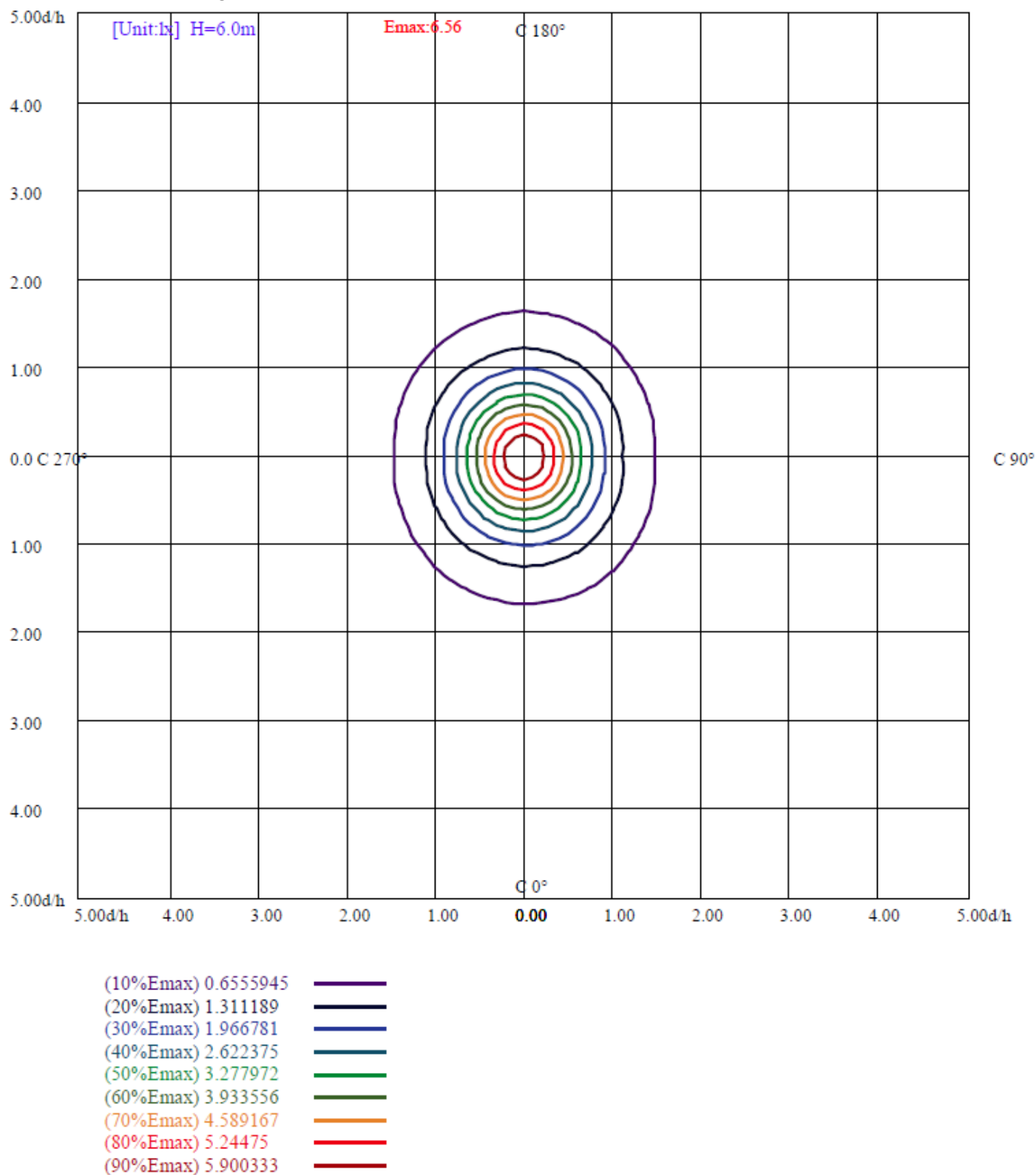
4.5. ISO-Intensity(V-H)



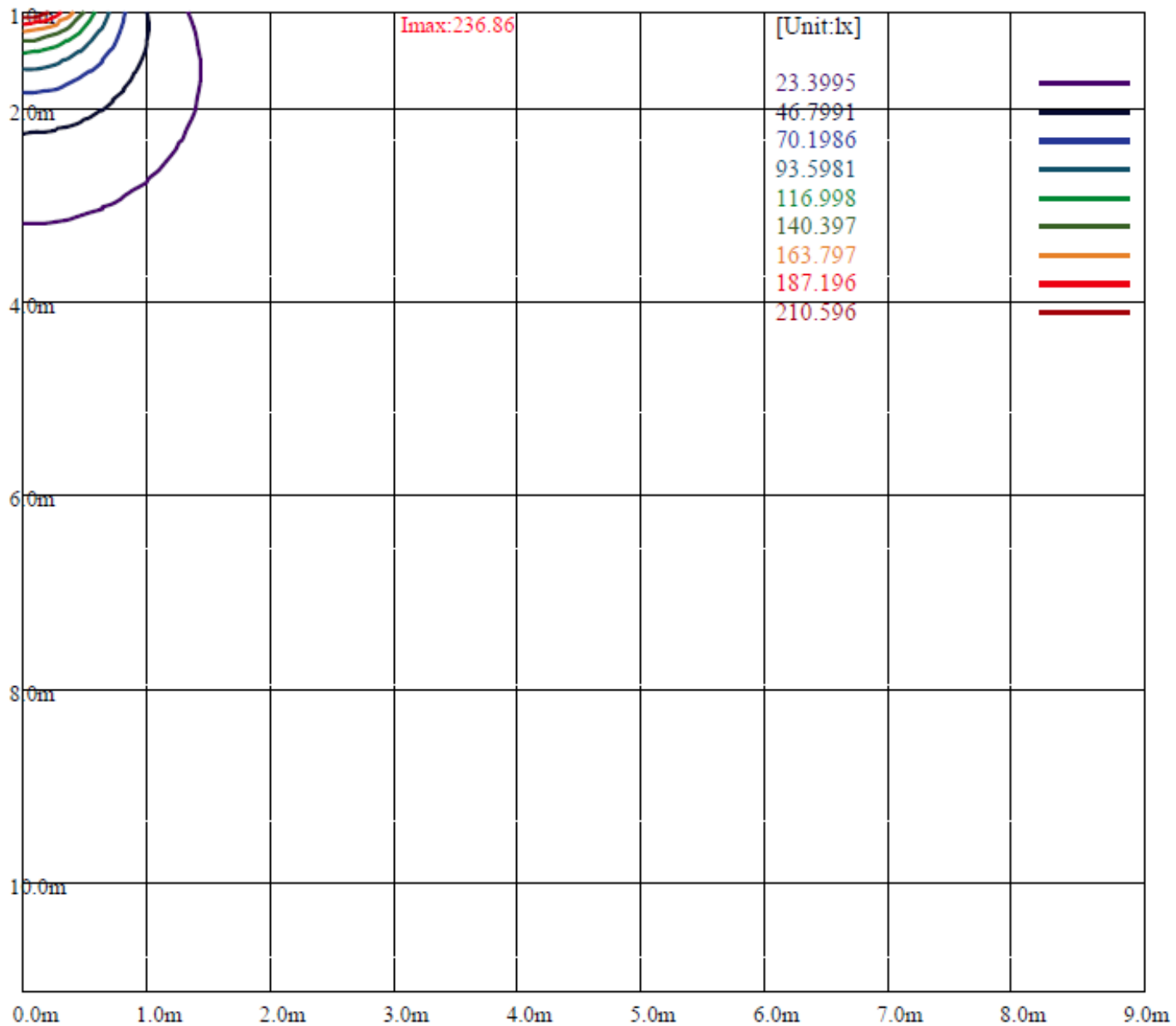
4.6. ISO candela diagram on circular web



4.7. ISO illuminance diagram



4.8. Space ISO Lux diagram



4.9. Luminance Limiting Curve(no luminous side)

Luminance Table

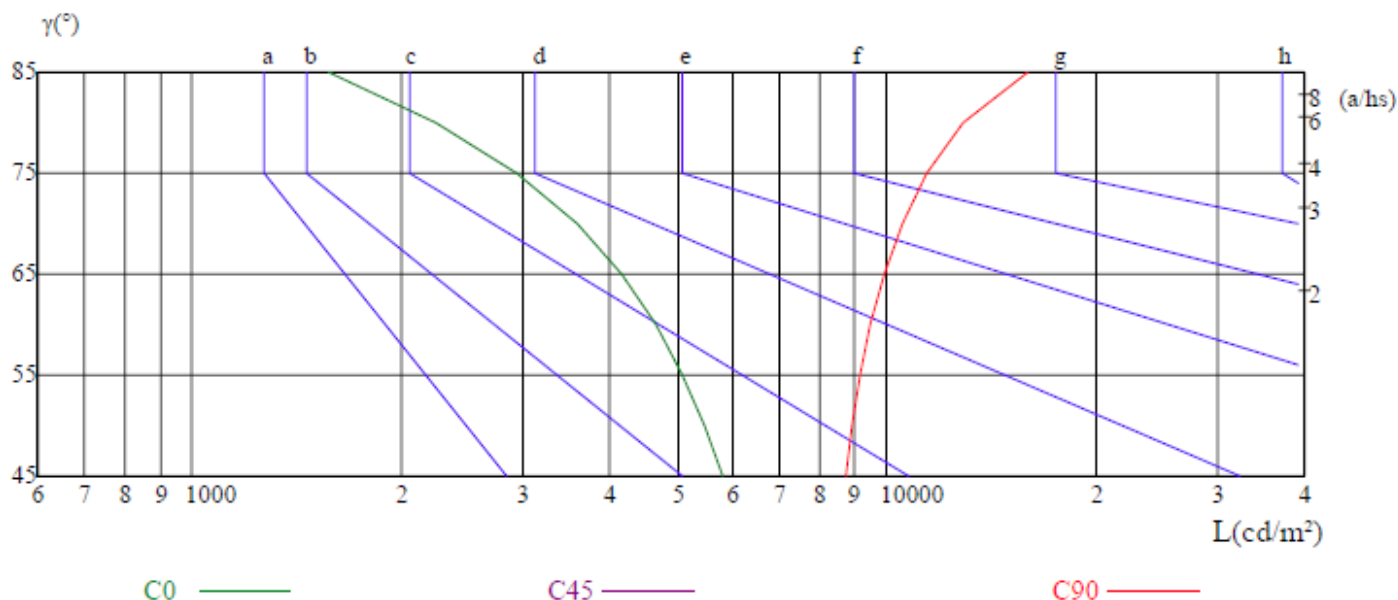
γ	45	50	55	60	65	70	75	80	85
C0	5821	5482	5086	4674	4149	3595	2927	2239	1570
C45	0	0	0	0	0	0	0	0	0
C90	8761	8943	9187	9491	9912	10516	11447	12912	15933

L _横 (65)	L _纵 (65)	L45(65)	L _横 (75)	L _纵 (75)	L45(75)	L _横 (85)	L _纵 (85)	L45(85)
7925	13090	0	7490	17577	0	8613	41300	0

Glare Table

Glare	Quality	Service Values Illuminance(Ix)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

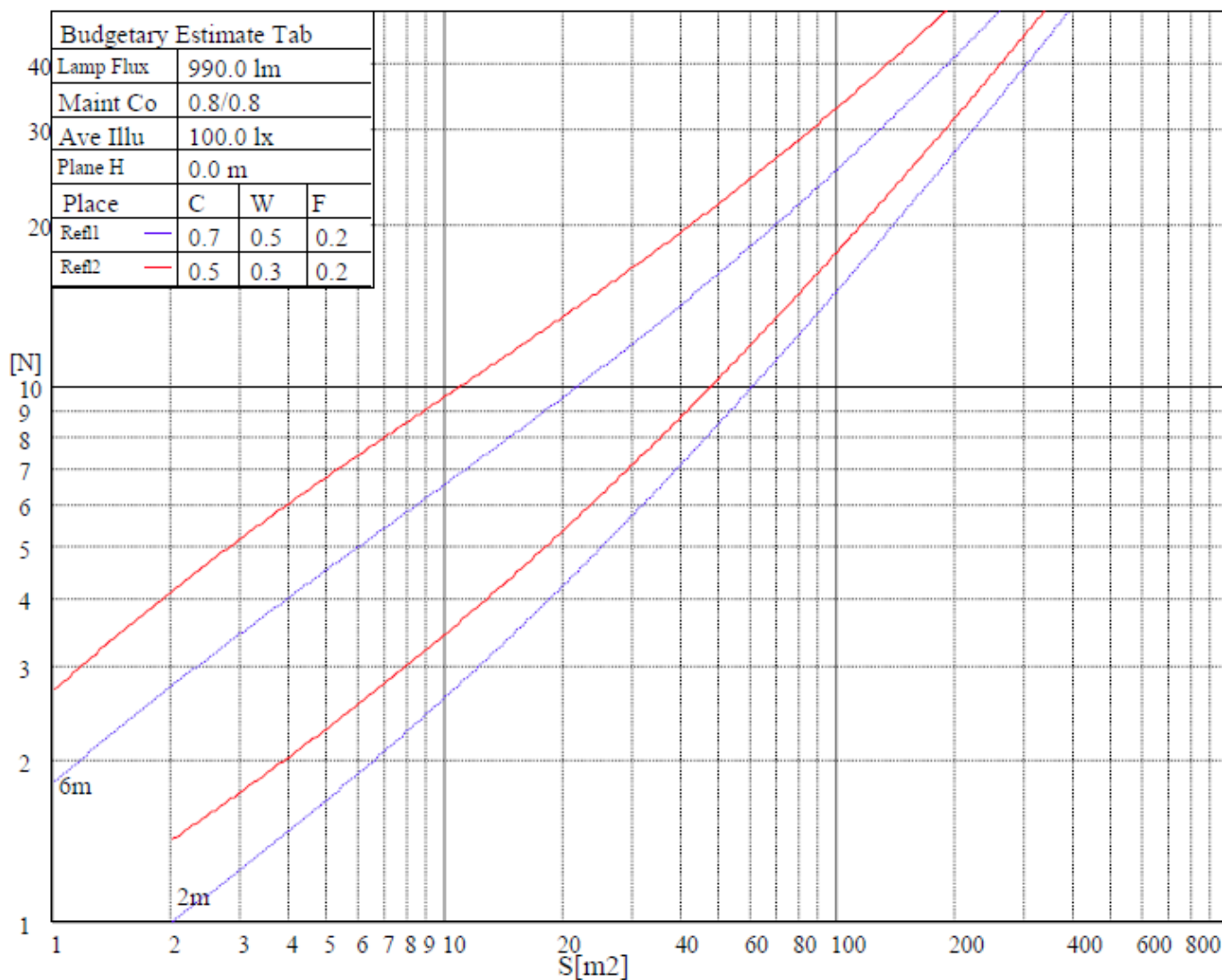
Luminance Limiting Curve



4.10. UGR Glare

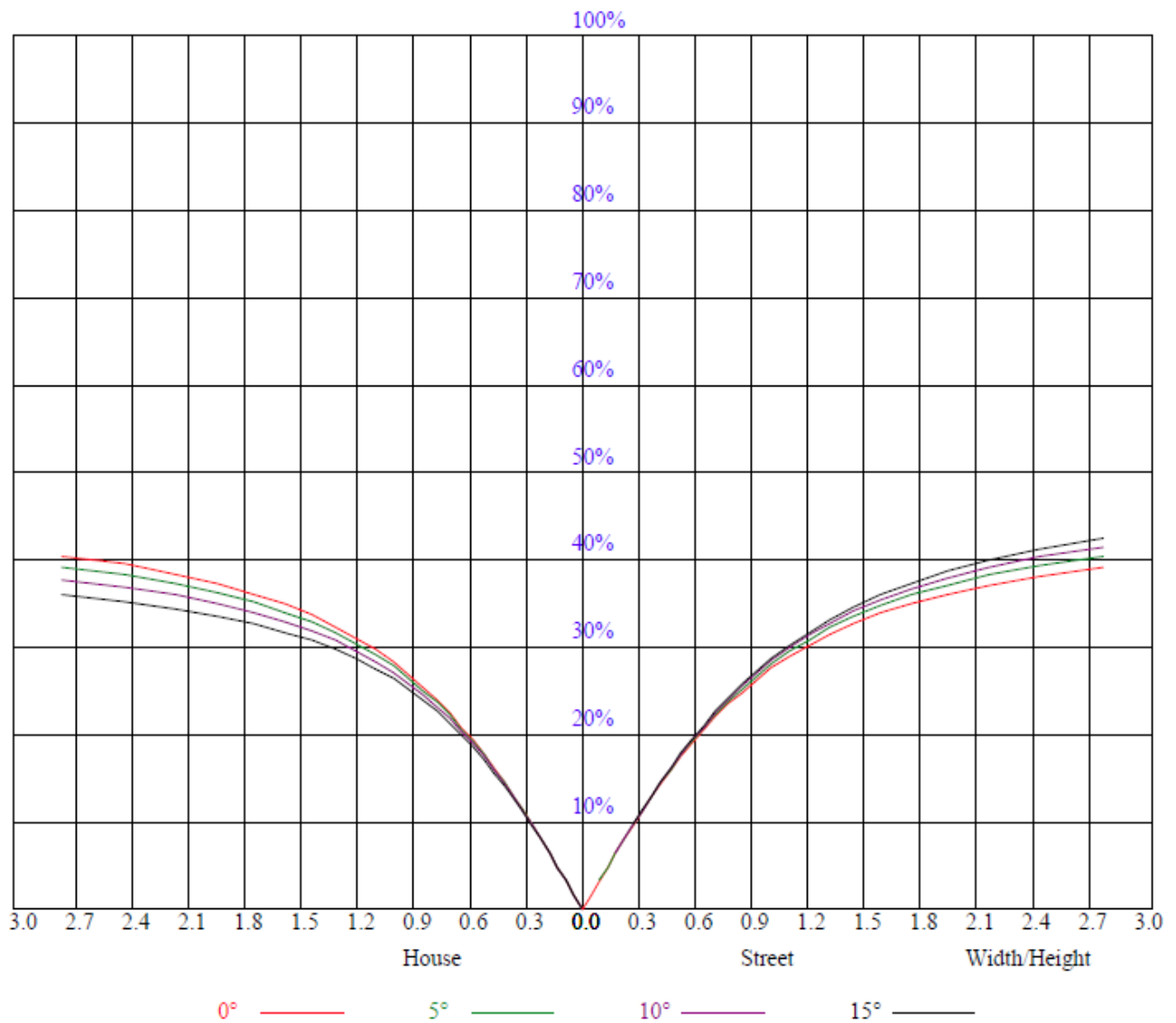
Illumination assessment according UGR											
Rf of Ceiling	70	70	50	50	30	70	70	50	50	30	
Rf of Wall	50	30	50	30	30	50	30	50	30	30	
Rf of Floor	20	20	20	20	20	20	20	20	20	20	
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	16.9	18.6	17.4	19.0	19.5	17.2	18.9	17.7	19.3	19.8
	3H	18.3	19.8	18.7	20.3	20.8	19.0	20.5	19.4	21.0	21.5
	4H	18.8	20.3	19.3	20.8	21.3	19.7	21.2	20.1	21.6	22.2
	6H	19.1	20.6	19.7	21.1	21.6	20.2	21.6	20.7	22.1	22.7
	8H	19.3	20.6	19.8	21.2	21.7	20.4	21.8	20.9	22.3	22.8
	12H	19.4	20.7	19.9	21.3	21.9	20.6	22.0	21.2	22.5	23.1
4H	2H	17.7	19.2	18.2	19.7	20.2	17.9	19.5	18.4	19.9	20.5
	3H	19.4	20.7	19.9	21.2	21.8	20.0	21.4	20.5	21.9	22.4
	4H	16.9	18.6	17.4	19.0	19.5	17.2	18.9	17.7	19.3	19.8
	6H	20.5	21.6	21.0	22.2	22.8	21.4	22.6	22.0	23.1	23.7
	8H	20.7	21.8	21.2	22.3	22.9	21.7	22.8	22.3	23.4	24.0
	12H	20.9	21.9	21.4	22.5	23.1	22.0	23.0	22.6	23.6	24.2
8H	4H	20.8	21.9	21.3	22.4	23.0	21.5	22.6	22.0	23.1	23.8
	6H	21.5	23.0	22.0	23.0	23.6	22.3	23.8	22.9	23.9	24.5
	8H	21.8	22.7	22.3	23.3	23.9	22.7	23.6	23.3	24.2	24.9
	12H	22.2	23.0	22.7	24.0	24.3	23.3	24.1	23.9	25.1	25.4
12H	4H	21.0	22.0	21.6	22.6	23.2	21.6	22.7	22.2	23.2	23.9
	6H	23.6	22.7	22.4	23.3	24.0	24.4	23.5	23.2	24.0	24.7
	8H	22.2	23.0	22.8	23.6	24.3	23.1	23.9	23.7	24.5	25.2
Variation with the observer position at spacings:											
S = 1.0H		0.2/-1.1					0.2/-0.6				
S = 1.5H		0.4/-1.0					0.4/-0.6				
S = 2.0H		0.3/-0.7					0.4/-0.8				
Standard tables:		BKBF					BKBF				
Uncorrected UGR		10.1					7.1				

4.11. Budgetary Estimate Table



4.12. Utilization factor table for indoor luminaire

RHOC	80			70			50			30			10			0
RHOW	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR	COEFFICIENTS OF UTILIZATION RHOFC=20 CU															
0	1.25	1.25	1.25	1.20	1.20	1.20	1.12	1.12	1.12	1.03	1.03	1.03	0.96	0.96	0.96	0.92
1	1.05	0.99	0.93	1.00	0.95	0.90	0.93	0.88	0.85	0.86	0.82	0.79	0.79	0.77	0.74	0.70
2	0.89	0.81	0.74	0.86	0.78	0.71	0.79	0.73	0.67	0.73	0.68	0.63	0.68	0.63	0.60	0.56
3	0.77	0.68	0.60	0.74	0.65	0.58	0.69	0.61	0.55	0.64	0.57	0.52	0.59	0.54	0.49	0.46
4	0.68	0.58	0.50	0.65	0.56	0.48	0.61	0.52	0.46	0.56	0.49	0.44	0.52	0.46	0.41	0.38
5	0.60	0.50	0.42	0.58	0.48	0.41	0.54	0.46	0.39	0.50	0.43	0.37	0.46	0.40	0.35	0.33
6	0.54	0.44	0.36	0.52	0.42	0.36	0.48	0.40	0.34	0.45	0.38	0.32	0.42	0.36	0.31	0.28
7	0.49	0.39	0.32	0.47	0.38	0.31	0.44	0.36	0.30	0.41	0.34	0.28	0.38	0.32	0.27	0.25
8	0.44	0.35	0.28	0.43	0.34	0.27	0.40	0.32	0.26	0.37	0.30	0.25	0.35	0.29	0.24	0.22
9	0.40	0.31	0.25	0.39	0.30	0.24	0.37	0.29	0.23	0.34	0.27	0.23	0.32	0.26	0.22	0.19
10	0.37	0.28	0.22	0.36	0.28	0.22	0.34	0.26	0.21	0.32	0.25	0.20	0.30	0.24	0.20	0.17

4.13. Coefficient Utilization Curve

4.13. Intensity data(cd)

C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	C/γ(°)	180.0
0.0	234.00	233.49	231.30	227.43	221.38	213.47	204.05	192.95	180.16	0.0	3.36
30.0	236.35	235.34	233.15	229.62	224.24	217.68	210.11	200.52	190.26	30.0	3.53
60.0	235.68	234.50	232.48	230.13	226.93	222.39	216.50	209.27	200.52	60.0	3.36
90.0	235.34	233.83	232.48	230.63	227.94	224.07	218.86	211.96	204.22	90.0	3.53
120.0	234.67	232.99	230.80	228.44	224.74	219.53	213.14	205.40	196.31	120.0	3.53
150.0	234.50	233.32	230.63	226.93	221.72	215.49	207.25	197.83	187.06	150.0	3.53
180.0	234.00	233.15	230.46	225.75	219.70	211.45	201.36	189.58	176.80	180.0	3.36
210.0	236.35	235.85	233.83	230.46	225.42	218.86	210.61	201.02	189.92	210.0	3.53
240.0	235.68	236.35	236.18	235.00	232.31	227.94	222.22	215.15	206.91	240.0	3.36
270.0	235.34	236.52	236.86	236.86	235.00	231.81	227.10	221.04	213.81	270.0	3.53
300.0	234.67	235.51	235.85	235.34	233.83	230.63	226.09	220.03	212.80	300.0	3.53
330.0	234.50	234.50	232.99	230.13	226.09	220.71	213.64	204.89	194.80	330.0	3.53
360.0	234.00	233.49	231.30	227.43	221.38	213.47	204.05	192.95	180.16	360.0	3.36
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	165.87	150.39	133.06	115.40	95.55	76.20	56.19	38.19	23.21		
30.0	178.48	165.02	150.89	135.42	119.27	103.46	87.81	72.17	58.37		
60.0	190.43	179.83	168.22	155.27	142.31	128.18	114.39	100.60	87.31		
90.0	195.14	185.04	174.11	162.00	149.21	135.92	122.46	108.33	95.89		
120.0	185.72	174.78	163.01	150.05	136.93	122.63	108.84	95.55	83.27		
150.0	174.78	161.66	147.70	132.39	117.08	101.27	85.46	69.98	57.03		
180.0	161.66	146.02	129.03	110.35	91.34	72.00	51.98	33.81	18.67		
210.0	176.80	163.34	147.87	132.39	116.41	99.08	82.93	66.95	54.00		
240.0	196.65	185.88	173.77	160.99	147.70	132.89	118.09	104.13	91.85		
270.0	205.06	195.30	184.03	172.26	159.47	145.34	131.38	117.42	104.97		
300.0	203.72	193.79	182.52	170.58	157.96	143.83	129.36	115.23	102.11		
330.0	183.02	170.74	156.45	141.98	126.17	110.52	95.04	79.57	66.28		
360.0	165.87	150.39	133.06	115.40	95.55	76.20	56.19	38.19	23.21		
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0		
0.0	16.15	15.14	14.13	9.76	4.21	10.09	11.10	10.26	9.42		
30.0	48.28	42.22	36.00	14.64	11.61	22.71	18.17	15.48	13.12		
60.0	76.88	70.82	64.60	56.69	41.55	16.65	10.77	25.40	27.08		
90.0	85.96	79.57	73.68	67.79	58.88	42.90	15.31	9.59	26.58		
120.0	75.19	68.80	62.91	55.85	42.56	18.17	8.58	22.37	25.57		
150.0	47.94	42.06	36.84	21.36	5.89	22.04	18.00	14.64	11.94		
180.0	11.94	11.27	10.60	8.07	3.87	5.89	8.24	7.57	6.90		
210.0	45.25	39.20	29.10	8.24	19.51	18.17	13.29	5.89	4.21		
240.0	82.43	75.36	68.13	59.55	40.20	5.55	16.99	30.78	26.07		
270.0	95.89	88.99	81.76	74.19	60.39	30.45	6.56	24.06	35.66		
300.0	91.01	83.44	76.20	68.47	52.65	20.02	9.93	29.94	31.29		
330.0	56.86	50.30	41.72	13.63	14.64	26.41	21.03	16.65	10.77		
360.0	16.15	15.14	14.13	9.76	4.21	10.09	11.10	10.26	9.42		
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0		
0.0	8.58	7.57	6.39	5.55	4.71	3.87	3.53	3.36	3.20		
30.0	9.42	5.72	5.38	5.05	4.54	4.04	3.87	3.53	3.53		
60.0	23.21	19.51	14.80	8.07	3.53	3.53	3.53	3.53	3.53		
90.0	28.93	24.06	19.51	13.96	5.21	3.36	3.53	3.53	3.53		
120.0	21.70	17.83	12.95	5.05	3.36	3.36	3.36	3.36	3.53		
150.0	7.74	4.54	4.54	4.21	4.04	3.70	3.53	3.53	3.36		
180.0	6.06	5.89	5.38	4.88	4.37	3.87	3.53	3.53	3.36		
210.0	3.87	3.87	3.87	3.70	3.36	3.36	3.20	3.20	3.36		
240.0	20.69	12.62	3.03	3.03	3.03	3.03	3.03	3.20	3.53		
270.0	29.78	23.05	12.95	2.86	2.86	2.86	3.20	3.20	3.53		
300.0	26.41	20.35	10.77	3.20	3.03	3.03	3.20	3.20	3.53		
330.0	5.05	5.05	4.88	4.37	4.04	3.53	3.20	3.20	3.36		
360.0	8.58	7.57	6.39	5.55	4.71	3.87	3.53	3.36	3.20		

5.Test Equipment

Equipment Name	Manufacturer	Model No.	Equipment No.	Calibration Due Date
2m Integrating Sphere	SENSING	SL-300	AOC-S-126	2026-04-13
Horizontal Distribution Photometer	SENSING	GMS1800D	AOC-S-124	2026-04-13
Standard Lamp	SENSING	220V/150W	AOC-S-156	2026-06-05
Digital power meter	HENGHE	WT310E	AOC-S-012	2026-04-13
Digital power meter	SENSING	UI2008	AOC-S-123	2026-04-13
Digital power meter	SENSING	UI2021	AOC-S-123	2026-04-13
DC source	OYHS	OYHS-Z120V-50A	AOC-S-062	2026-04-13
Variable frequency power supply	WOSEN	BP6005	AOC-S-129	2026-04-13
Variable frequency power supply	AIPUSI	KDF-500	AOC-S-130	2026-04-13
Oscilloscope	TEKTRONIX	MDO3012	AOC-S-028	2026-04-13

Photo Document

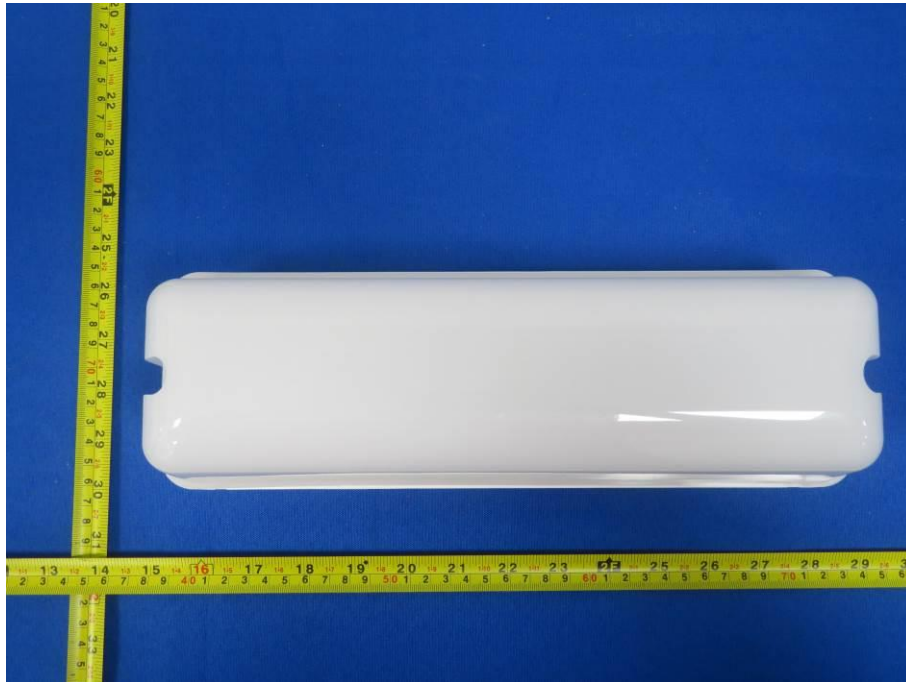


Fig.1



Fig.2



Fig.3



Fig.4



Fig.5



Fig.6

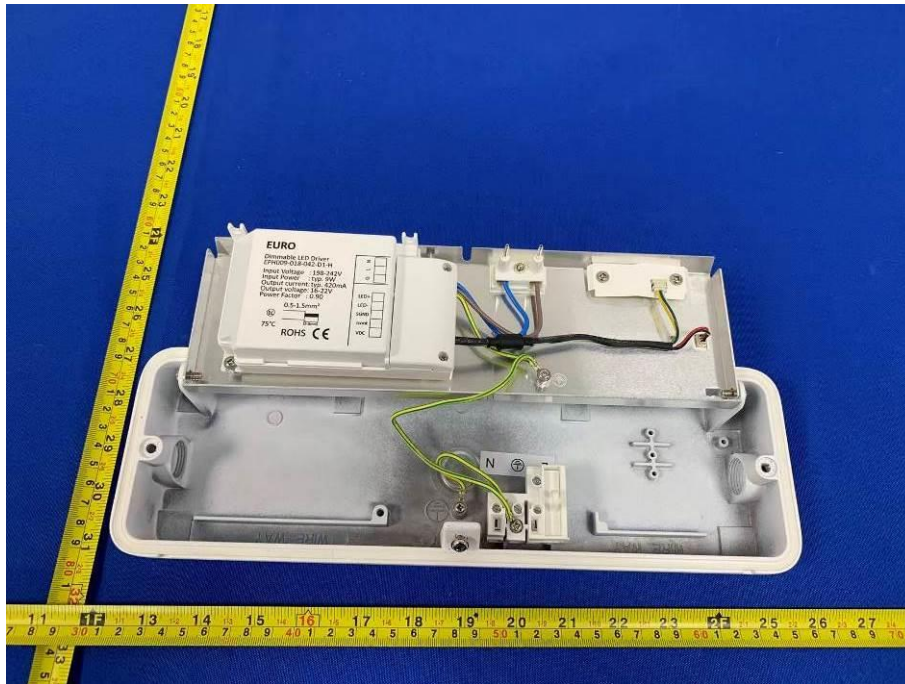


Fig.7



Fig.8

-- End of Report --

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