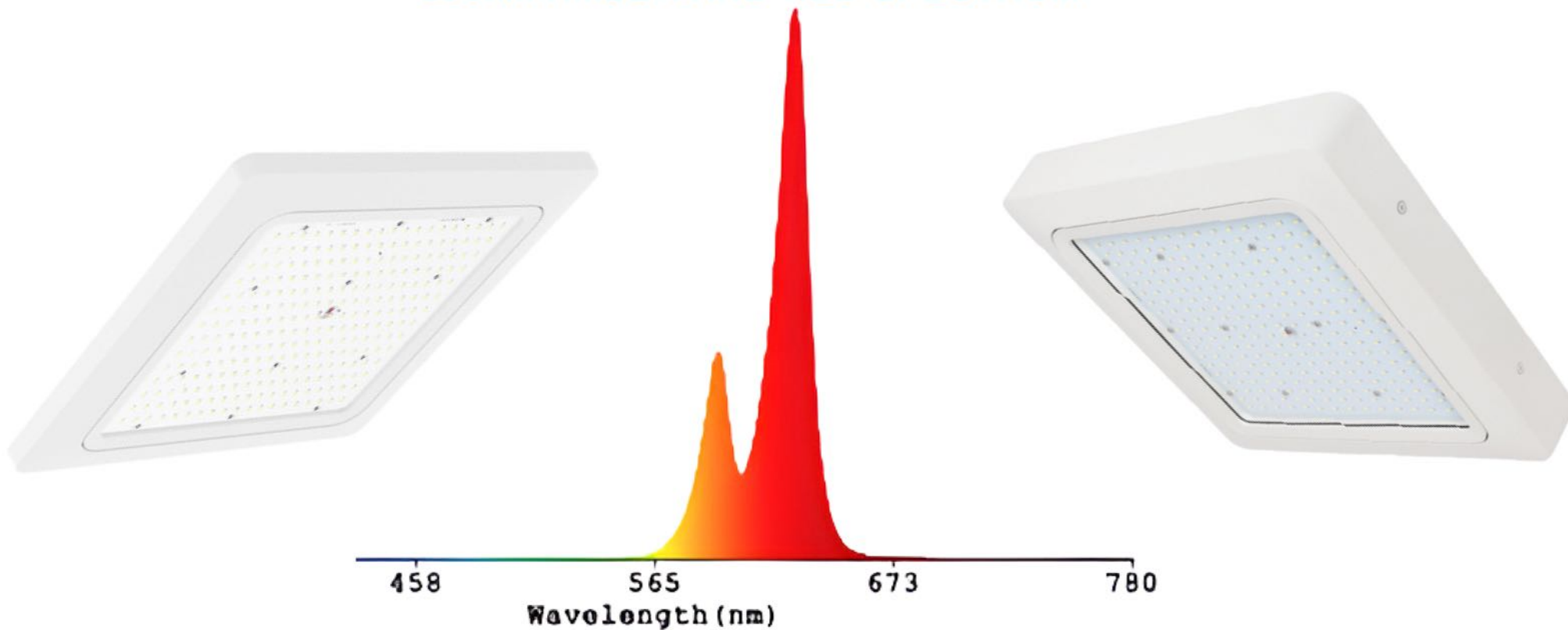


FLAT & FLYT 120

590nm AMBER AND RED SPECTRUM



590nm Amber Red LEDs increases the spectrum on the high end of the spectrum

- **Spectral Coverage** - By combining red and amber LEDs, you cover a broader range of wavelengths in the yellow to red part of the spectrum. This combination helps fill in the spectrum between red and yellow, providing a more even distribution of light across the visible spectrum.
- **Color Mixing and Perception** - Combining red and amber light can create a warm, natural-looking light that may be visually pleasing. The human eye perceives the combined light as a mixture of red and yellow, which can be aesthetically appealing in various applications.
- **Energy Efficiency** - Red and amber LEDs are often more energy-efficient than broad-spectrum white LEDs, as they emit light at specific wavelengths without wasting energy on unused parts of the spectrum.

- The combined spectrum of amber and red LEDs enhances color differentiation, making it well-suited for applications where accurate color perception is crucial. In environments such as production facilities, Pharmaceuticals and Facilities that needs OSHA compliant light levels and where subtle color variations need to be distinguished, this spectrum can contribute to improved visual acuity.
- Optimal for Specific Wavelength Considerations - Certain tasks and processes require light at specific wavelengths for optimal performance. For example, in medical procedures, manufacturing, or scientific research, where precise wavelength considerations are critical, the combined spectrum can be tailored to meet these requirements.
- Tailored Light for Specialized Environments - Environments such as laboratories, clean rooms, or manufacturing facilities may have specific requirements for lighting that goes beyond general illumination. The combination of amber and red LEDs allows for the customization of light to meet these specific needs, providing a solution that enhances visibility and precision.

FLAT & FLYT 120 590NM AMBER AND RED - FIXTURE TEST REPORT - CLEAR GLASS LENS



Light Output Ratio:	100.0%
Luminaire Power:	118.6 W
90% Beam Spread	51.5V x 50.4H
50% Beam Lumens	787.1 lumens per klm.

Floodlight Summary:

Report based on lamp delivering 1000 lumens.

Maximum Intensity (Luminaire orientation as tested.)		343.2 cd per klm. 0.0 degrees vertical 0.0 degrees horizontal
Beam Spread	At 10% of Imax At 50% of Imax At 90% of Imax	156.1V x 155.6H 118.0V x 116.2H 51.5V x 50.4H
Beam Flux	Total To 10% of Imax To 50% of Imax To 90% of Imax	999.9 lumens per klm. 985.8 lumens per klm. 787.1 lumens per klm. 200.1 lumens per klm.
Upward LOR		0.0 %
Downward LOR		100.0 %
Luminaire Efficiency (Light Output Ratio)		100.0 %

H(□) Range:-90 - 90DEG
H(□) Interval:1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Guohong
Test Date:2024-01-02

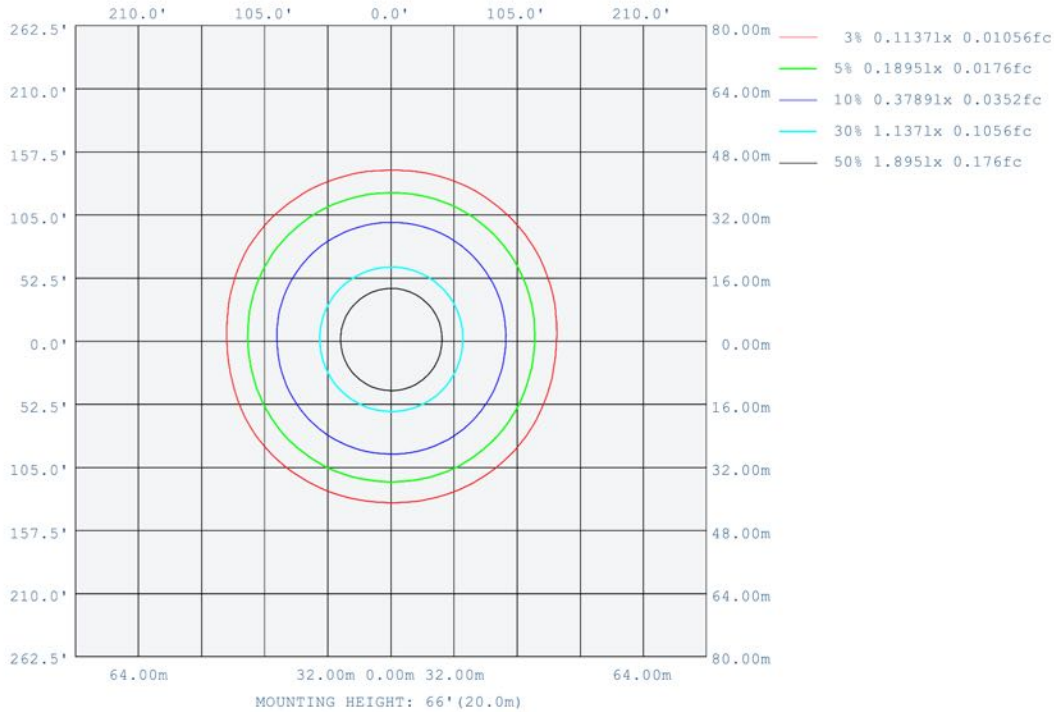
V(B) Range:-90 - 90DEG
V(B) Interval: 2.0DEG
TestSystem:EVERFINEGO-2000B_V1 SYSTEM V2.0.404.7
Humidity:65.0%
TestDistance:8.365m [K=1.0000]
Remarks:

H(□) Range:-90 - 90DEG
H(□) Interval:1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Guohong
Test Date:2024-01-02

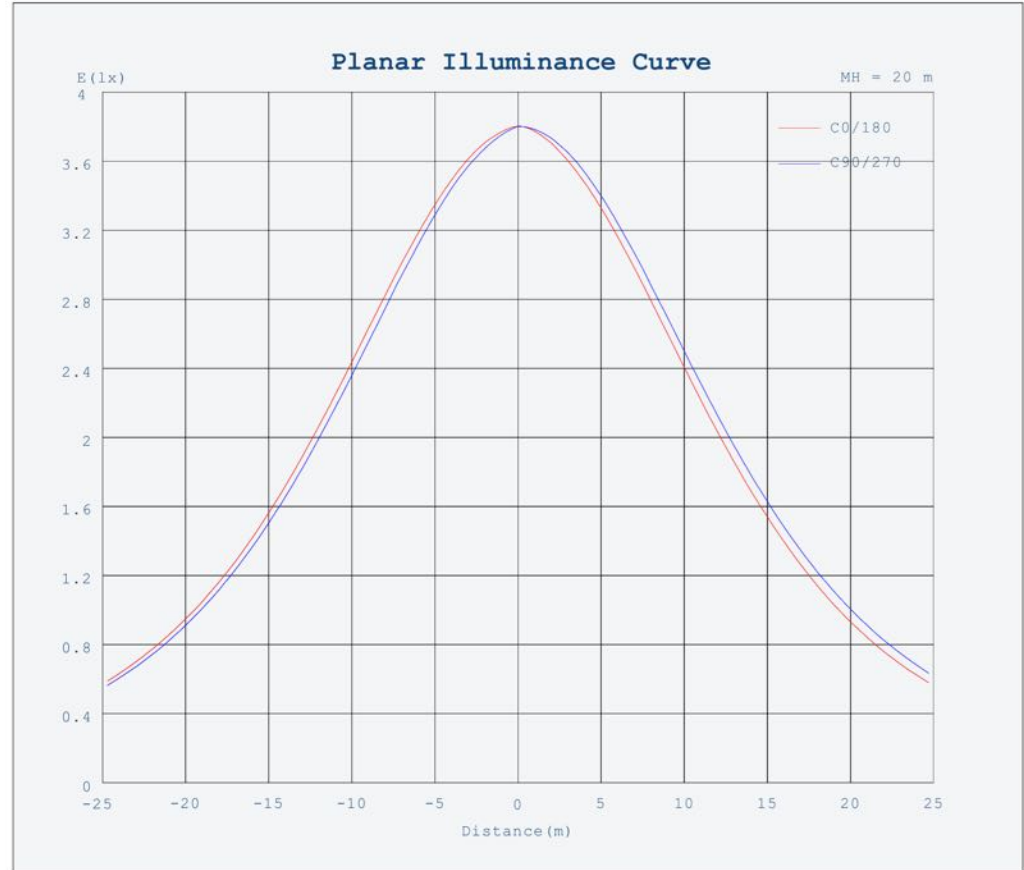
V(B) Range:-90 - 90DEG
V(B) Interval: 2.0DEG
TestSystem:EVERFINEGO-2000B_V1 SYSTEM V2.0.404.7
Humidity:65.0%
TestDistance:8.365m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:237.0V I:0.5176A P:118.6W PF:0.967 Freq:49.99Hz Lamp Flux:4433.36x1 lm		
NAME: AF88X120-amber 590nm-red-clear glass	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



Planar Illuminance Curve



H(□) Range:-90 - 90DEG
H(□) Interval:1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Guohong
Test Date:2024-01-02

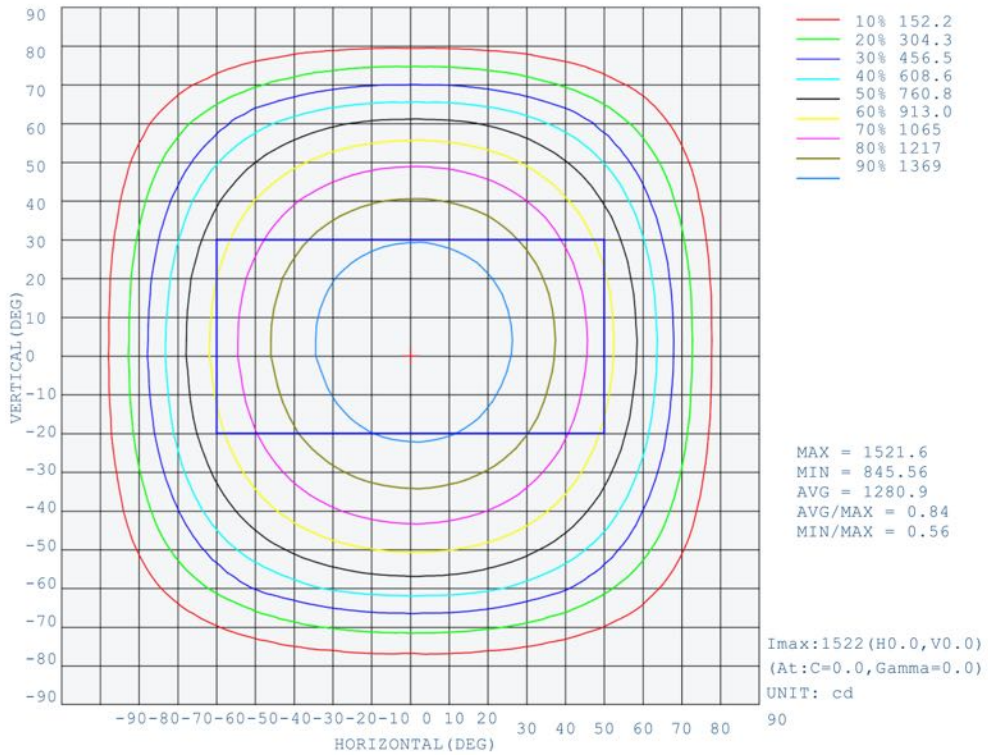
V(B) Range:-90 - 90DEG
V(B) Interval: 2.0DEG
TestSystem:EVERFINEGO-2000B_V1 SYSTEM V2.0.404.7
Humidity:65.0%
TestDistance:8.365m [K=1.0000]
Remarks:

H(□) Range:-90 - 90DEG
H(□) Interval:1.0DEG Test
Speed: HIGH
Temperature:25.3DEG
Operators:Guohong
Test Date:2024-01-02

V(B) Range:-90 - 90DEG
V(B) Interval: 2.0DEG
TestSystem:EVERFINEGO-2000B_V1 SYSTEM V2.0.404.7
Humidity:65.0%
TestDistance:8.365m [K=1.0000]
Remarks:

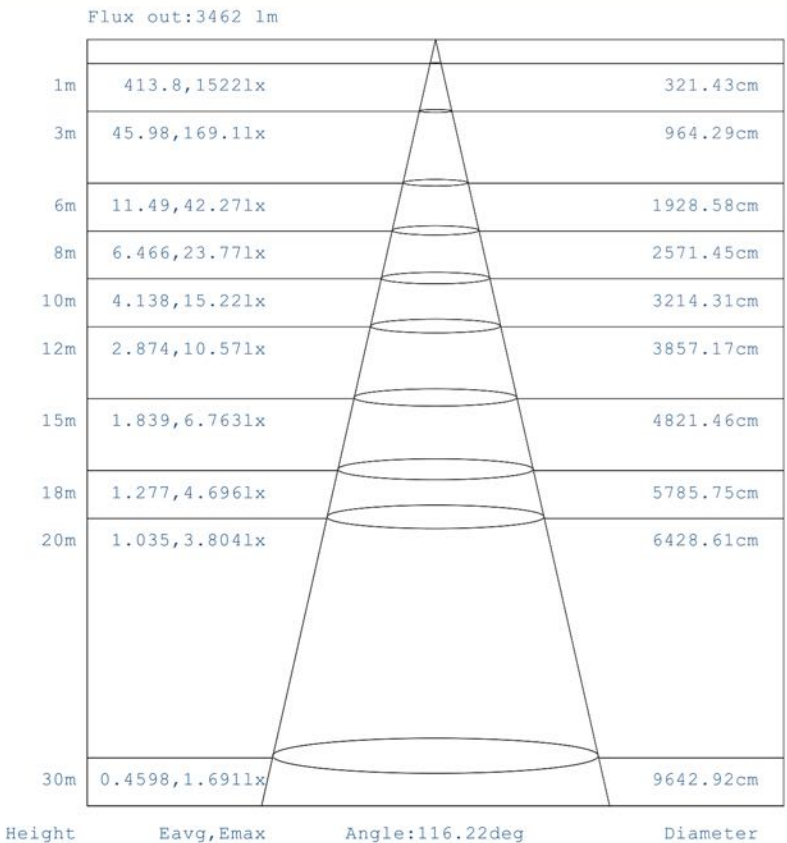
ISOCANDELA DIAGRAM

Test:U:237.0V I:0.5176A P:118.6W PF:0.967 Freq:49.99Hz Lamp Flux:4433.36x1 lm		
NAME: AF88X120-amber 590nm-red-clear glass	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



AAI Figure

Test:U:237.0V I:0.5176A P:118.6W PF:0.967 Freq:49.99Hz Lamp Flux:4433.36x1 lm		
NAME: AF88X120-amber 590nm-red-clear glass	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

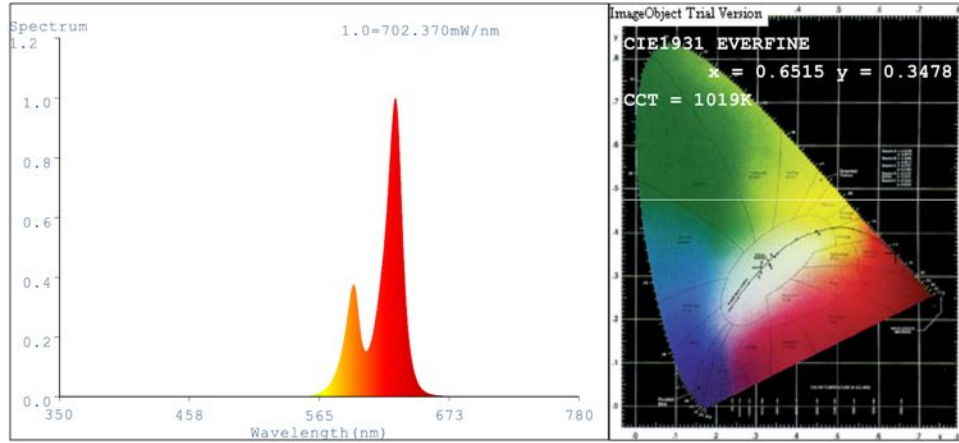
H(□) Range:-90 - 90DEG
H(□) Interval:1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Guohong
Test Date:2024-01-02

V(B) Range:-90 - 90DEG
V(B) Interval: 2.0DEG
TestSystem:EVERFINEGO-2000B_V1 SYSTEM V2.0.404.7
Humidity:65.0%
TestDistance:8.365m [K=1.0000]
Remarks:

H(□) Range:-90 - 90DEG
H(□) Interval:1.0DEG Test
Speed: HIGH
Temperature:25.3DEG
Operators:Guohong
Test Date:2024-01-02

V(B) Range:-90 - 90DEG
V(B) Interval: 2.0DEG
TestSystem:EVERFINEGO-2000B_V1 SYSTEM V2.0.404.7
Humidity:65.0%
TestDistance:8.365m [K=1.0000]
Remarks:

SPECTRUM TEST REPORT - FLAT & FLYT 120 590NM AMBER AND RED - Clear Glass



Color Parameters:

Chromaticity Coordinate:x=0.6515 y=0.3478/u'=0.4439
v'=0.5332 CCT=1019K(Duv=-0.0005) Dominant WL:Ld =605.9nm
Purity=99.9% Ratio:R=60.7% G=39.3% B=0.0% Peak
WL:Lp=628.2nm FWHM=16.2nm Render Index:Ra=41.1 CRI=42.8
AvgR=41.3
R1=33 R2=79 R3=53 R4=6 R5=27 R6=8 R7=41 R8=0 R9=0 R10=71
R11=4 R12=79 R13=41 R14=76 R15=21

Photo Parameters:

Flux = 5223 lm Eff. : 42.87 lm/W Fe = 17.99 W

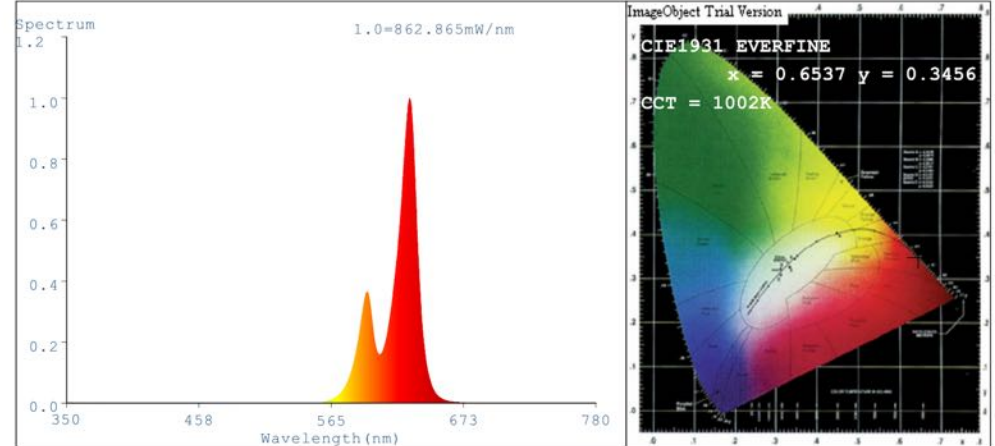
Electrical parameters:

V = 219.64 V I = 0.5648 A P = 121.8 W PF = 0.9822

LEVEL:OUT WHITE:OUT

Status: Integral T = 10 ms Ip = 43901 (67%)

SPECTRUM TEST REPORT - FLAT & FLYT 160 590NM AMBER AND RED - Clear Glass



Color Parameters:

Chromaticity Coordinate:x=0.6537 y=0.3456/u'=0.4477 v'=0.5326
CCT=1002K(Duv=-0.0004) Dominant WL:Ld =606.5nm Purity=99.9%
Ratio:R=62.1% G=37.9% B=0.0% Peak WL:Lp=628.5nm FWHM=16.9nm
Render Index:Ra=42.2 CRI=44.0 AvgR=42.5
R1=35 R2=80 R3=55 R4=8 R5=29 R6=90 R7=41 R8=0 R9=0 R10=72
R11=8 R12=78 R13=43 R14=77 R15=21

Photo Parameters:

Flux = 6396 lm Eff. : 39.36 lm/W Fe = 22.55 W

Electrical parameters:

V = 219.69 V I = 0.7483 A P = 162.5 W PF = 0.9885

LEVEL:OUT WHITE:OUT

Status: Integral T = 10 ms Ip = 54056 (82%)

Model:LIGHT
Tester:DAMIN
Temperature:25.3Deg
Manufacturer:EVERFINE

Number:N-00006
Date:2024-01-03 10:41
Humidity:65.0%
Remarks:---

Model:LIGHT
Tester:DAMIN
Temperature:25.3Deg
Manufacturer:EVERFINE

Number:N-00007
Date:2024-01-03 10:42
Humidity:65.0%
Remarks:---

FLAT & FLYT 120 590NM AMBER AND RED - FIXTURE TEST REPORT - CLEAR POLYCARBONATE LENS



Floodlight Summary:

Report based on lamp delivering 1000 lumens.

Maximum Intensity (Luminaire orientation as tested.)		349.7 cd per klm. 0.0 degrees vertical 0.0 degrees horizontal
Beam Spread	At 10% of Imax At 50% of Imax At 90% of Imax	155.6V x 155.6H 116.7V x 115.7H 49.5V x 49.1H
Beam Flux	Total To 10% of Imax To 50% of Imax To 90% of Imax	999.9 lumens per klm. 985.4 lumens per klm. 779.0 lumens per klm. 190.1 lumens per klm.
Upward LOR		0.0 %
Downward LOR		100.0 %
Luminaire Efficiency(Light Output Ratio)		100.0 %

Light Output Ratio:	100.0%
Luminaire Power:	118.5 W
90% Beam Spread	49.5V x 49.1H
50% Beam Lumens	779 lumens per klm.

H(□) Range:-90 - 90DEG
H(□) Interval:1.0DEG Test
Speed: HIGH
Temperature:25.3DEG
Operators:Guohong
Test Date:2024-01-02

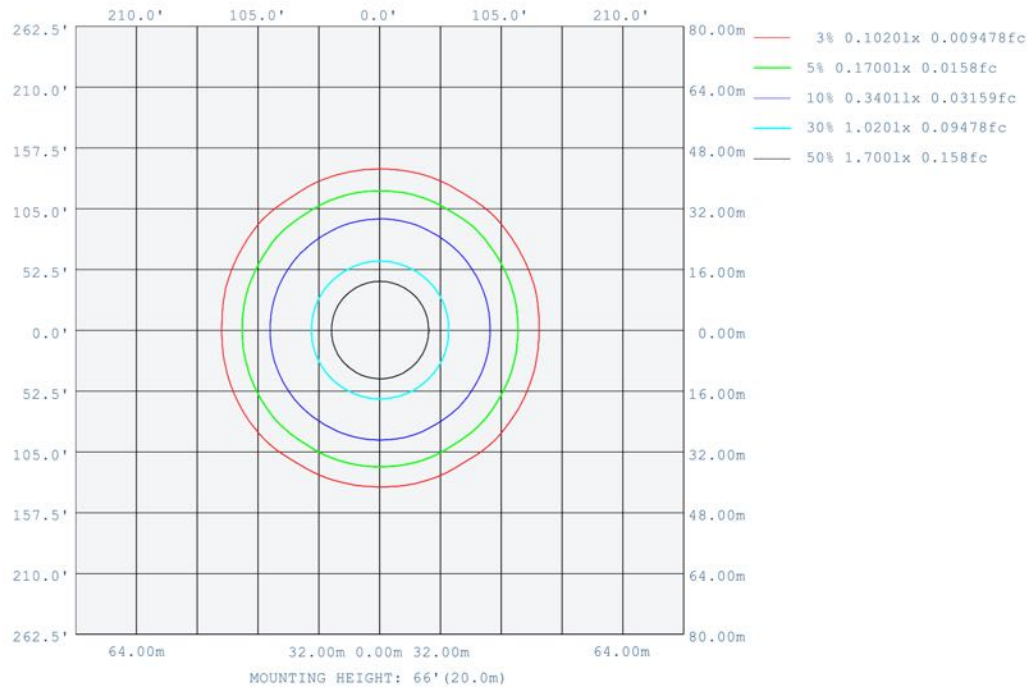
V(B) Range:-90 - 90DEG
V(B) Interval: 2.0DEG
TestSystem:EVERFINEGO-2000B_V1 SYSTEM V2.0.404.7
Humidity:65.0%
TestDistance:8.365m [K=1.0000]
Remarks:

H(□) Range:-90 - 90DEG
H(□) Interval:1.0DEG Test
Speed: HIGH
Temperature:25.3DEG
Operators:Guohong
Test Date:2024-01-02

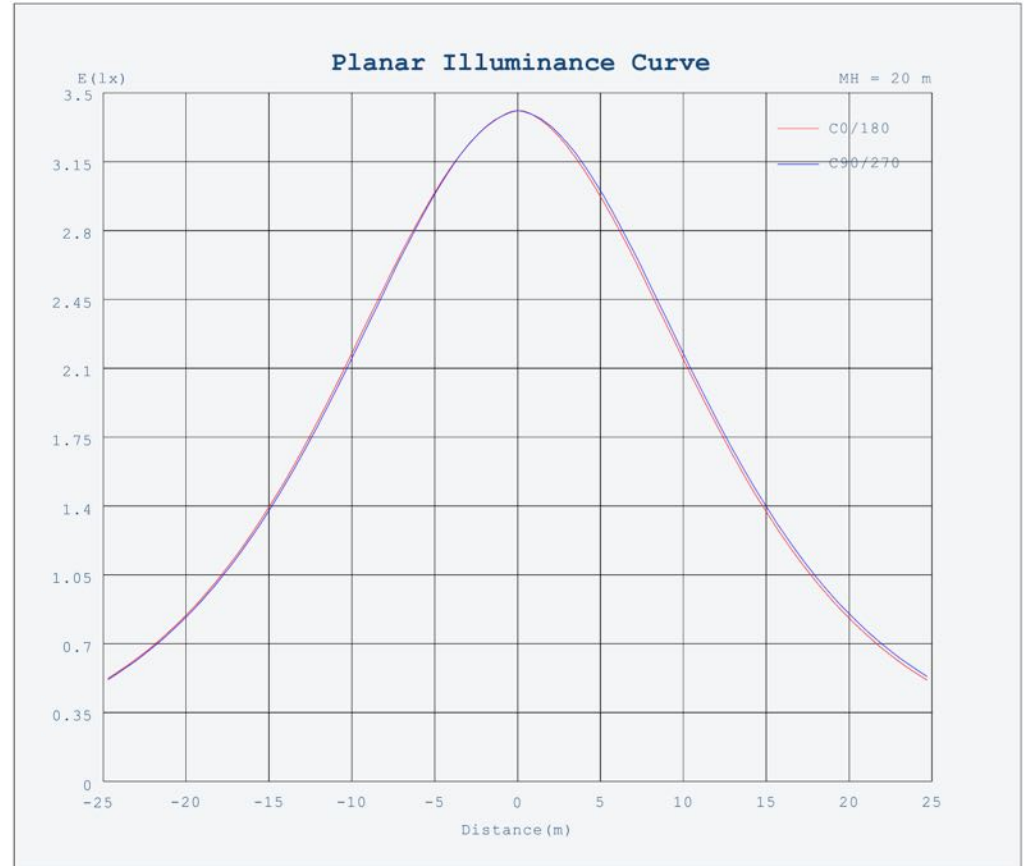
V(B) Range:-90 - 90DEG
V(B) Interval: 2.0DEG
TestSystem:EVERFINEGO-2000B_V1 SYSTEM V2.0.404.7
Humidity:65.0%
TestDistance:8.365m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:234.3V I:0.5217A P:118.5W PF:0.969 Freq:49.99Hz Lamp Flux:3902.01x1 lm		
NAME: AF88X120-amber 590nm-red-clear PC	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



Planar Illuminance Curve



H(□) Range:-90 - 90DEG
H(□) Interval:1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Guohong
Test Date:2024-01-02

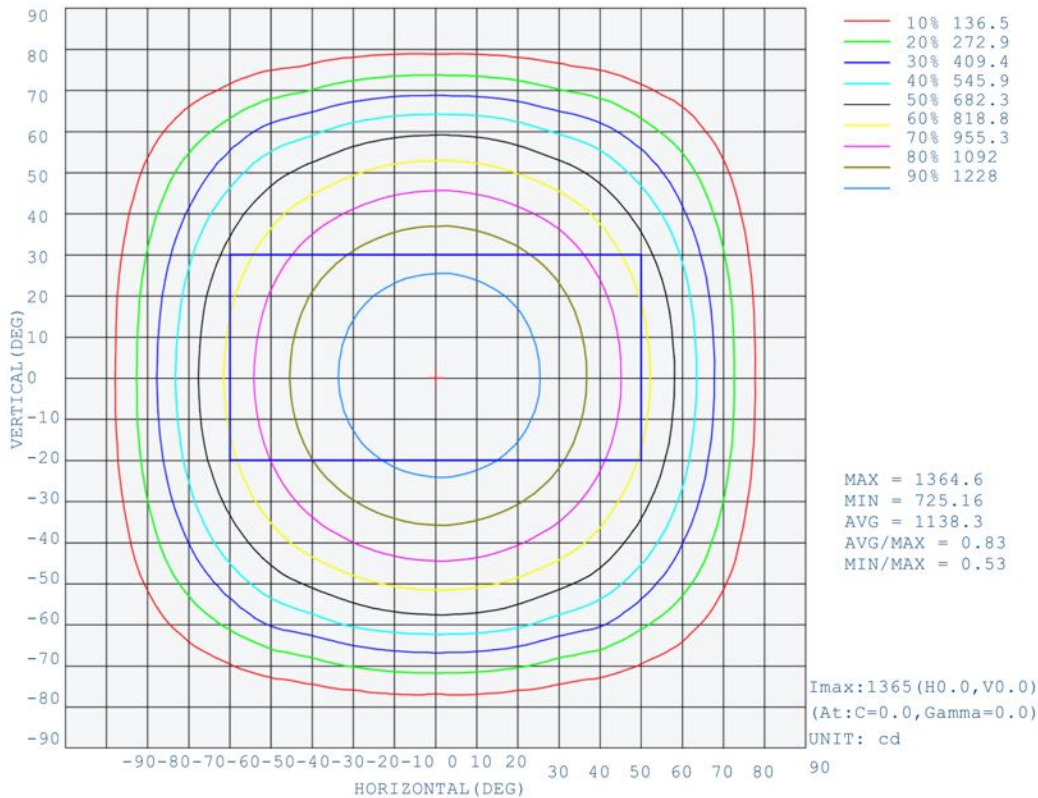
V(B) Range:-90 - 90DEG
V(B) Interval: 2.0DEG
TestSystem:EVERFINEGO-2000B_V1 SYSTEM V2.0.404.7
Humidity:65.0%
TestDistance:8.365m [K=1.0000]
Remarks:

H(□) Range:-90 - 90DEG
H(□) Interval:1.0DEG Test
Speed: HIGH
Temperature:25.3DEG
Operators:Guohong
Test Date:2024-01-02

V(B) Range:-90 - 90DEG
V(B) Interval: 2.0DEG
TestSystem:EVERFINEGO-2000B_V1 SYSTEM V2.0.404.7
Humidity:65.0%
TestDistance:8.365m [K=1.0000]
Remarks:

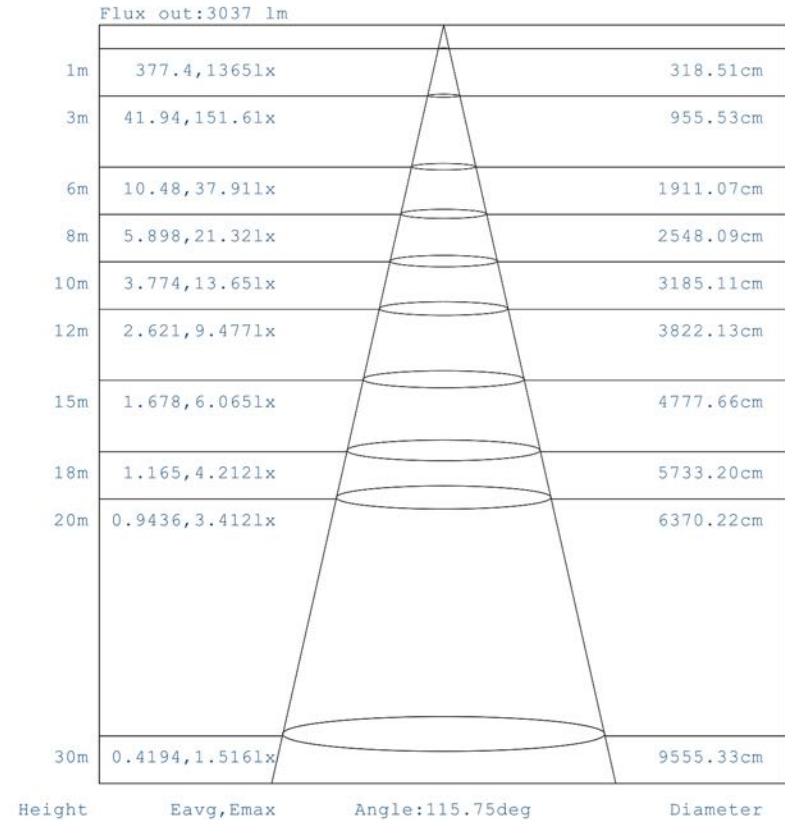
ISOCANDELA DIAGRAM

Test:U:234.3V I:0.5217A P:118.5W PF:0.969 Freq:49.99Hz Lamp Flux:3902.01x1 lm		
NAME: AF88X120-amber 590nm-red-clear PC	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



AAI Figure

Test:U:234.3V I:0.5217A P:118.5W PF:0.969 Freq:49.99Hz Lamp Flux:3902.01x1 lm		
NAME: AF88X120-amber 590nm-red-clear PC	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

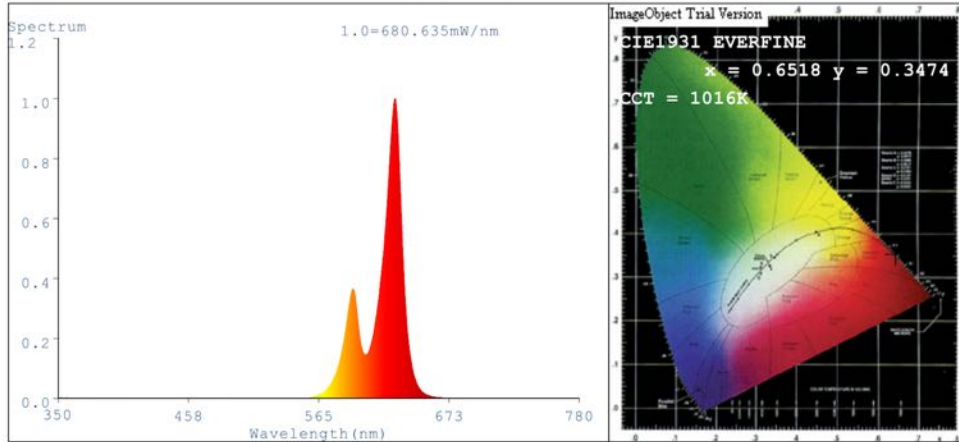
H(□) Range:-90 - 90DEG
 H(□) Interval:1.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Guohong
 Test Date:2024-01-02

V(B) Range:-90 - 90DEG
 V(B) Interval: 2.0DEG
 TestSystem:EVERFINEGO-2000B_V1 SYSTEM V2.0.404.7
 Humidity:65.0%
 TestDistance:8.365m [K=1.0000]
 Remarks:

H(□) Range:-90 - 90DEG
 H(□) Interval:1.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Guohong
 Test Date:2024-01-02

V(B) Range:-90 - 90DEG
 V(B) Interval: 2.0DEG
 TestSystem:EVERFINEGO-2000B_V1 SYSTEM V2.0.404.7
 Humidity:65.0%
 TestDistance:8.365m [K=1.0000]
 Remarks:

**SPECTRUM TEST REPORT - FLAT & FLYT 120 590NM AMBER AND RED -
Clear POLYCARBONATE LENS**



Color Parameters:

Chromaticity Coordinate: $x=0.6518$ $y=0.3474$ / $u'=0.4445$ $v'=0.5331$
 CCT=1016K (Duv=-0.0005) Dominant WL:Ld =606.0nm Purity=99.9%
 Ratio:R=60.9% G=39.1% B=0.0% Peak WL:Lp=627.6nm FWHM=16.0nm
 Render Index:Ra=41.5 CRI=43.3 AvgR=41.8
 R1=34 R2=79 R3=54 R4=7 R5=28 R6=89 R7=41 R8=0 R9=0 R10=71 R11=5
 R12=79 R13=42 R14=76 R15=21

Photo Parameters:

Flux = 4980 lm Eff. : 40.79 lm/W Fe = 17.21 W

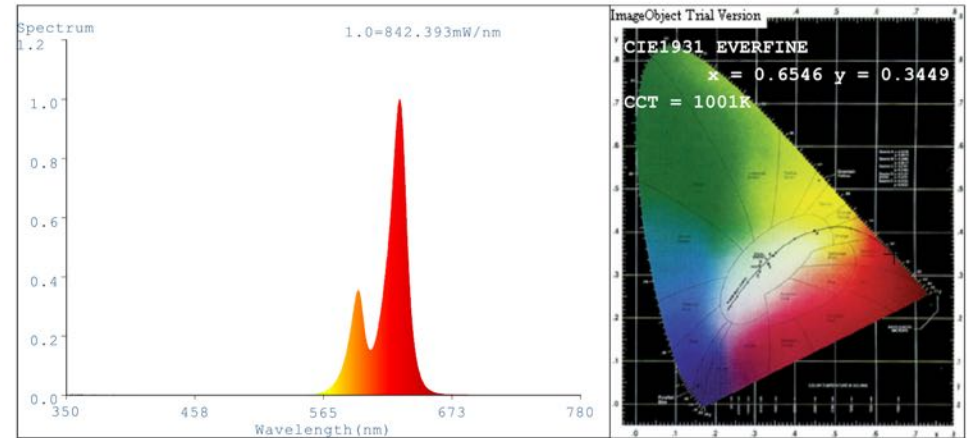
Electrical parameters:

V = 219.73 V I = 0.5656 A P = 122.1 W PF = 0.9822

LEVEL:OUT WHITE:OUT

Status: Integral T = 11 ms Ip = 46787 (71%)

**SPECTRUM TEST REPORT - FLAT & FLYT 160 590NM AMBER AND RED -
Clear POLYCARBONATE LENS**



Color Parameters:

Chromaticity Coordinate: $x=0.6546$ $y=0.3449$ / $u'=0.4491$ $v'=0.5325$
 CCT=1001K (Duv=-0.0013) Dominant WL:Ld =606.8nm Purity=99.9%
 Ratio:R=62.6% G=37.4% B=0.0% Peak WL:Lp=628.5nm FWHM=16.7nm
 Render Index:Ra=42.2 CRI=44.0 AvgR=42.5
 R1=35 R2=80 R3=55 R4=9 R5=29 R6=89 R7=42 R8=0 R9=0 R10=72 R11=8
 R12=78 R13=43 R14=77 R15=21

Photo Parameters:

Flux = 6119 lm Eff. : 37.64 lm/W Fe = 21.68 W

Electrical parameters:

V = 219.68 V I = 0.7486 A P = 162.6 W PF = 0.9885

LEVEL:OUT WHITE:OUT

Status: Integral T = 8 ms Ip = 42286 (65%)

Model:LIGHT
 Tester:DAMIN
 Temperature:25.3Deg
 Manufacturer:EVERFINE

Number:3
 Date:2024-01-03 11:17
 Humidity:65.0%
 Remarks:---

Model:LIGHT
 Tester:DAMIN
 Temperature:25.3Deg
 Manufacturer:EVERFINE

Number:4
 Date:2024-01-03 11:19
 Humidity:65.0%
 Remarks:---

FLAT & FLYT 120 590NM AMBER AND RED - FIXTURE TEST REPORT - FROSTED POLYCARBONATE LENS



Floodlight Summary:

Report based on lamp delivering 1000 lumens.

Maximum Intensity (Luminaire orientation as tested.) 369.2 cd per klm.
0.0 degrees vertical
0.0 degrees horizontal

Beam Spread

At 10% of Imax	158.1V x 157.6H
At 50% of Imax	109.1V x 108.0H
At 90% of Imax	44.7V x 44.2H

Beam Flux

Total	999.9 lumens per klm.
To 10% of Imax	983.6 lumens per klm.
To 50% of Imax	714.9 lumens per klm.
To 90% of Imax	163.4 lumens per klm.

Upward LOR 0.0 %
Downward LOR 100.0 %
Luminaire Efficiency (Light Output Ratio) 100.0 %

Light Output Ratio:	100.0%
Luminaire Power:	118.5 W
90% Beam Spread	44.7V x 44.2H
50% Beam Lumens	714.9 lumens per klm.

H(□) Range:-90 - 90DEG
H(□) Interval:1.0DEG Test
Speed: HIGH
Temperature:25.3DEG
Operators:Guohong
Test Date:2024-01-02

V(B) Range:-90 - 90DEG
V(B) Interval: 2.0DEG
TestSystem:EVERFINEGO-2000B_V1
Humidity:65.0%
TestDistance:8.365m [K=1.0000]
Remarks:

SYSTEM V2.0.404.7

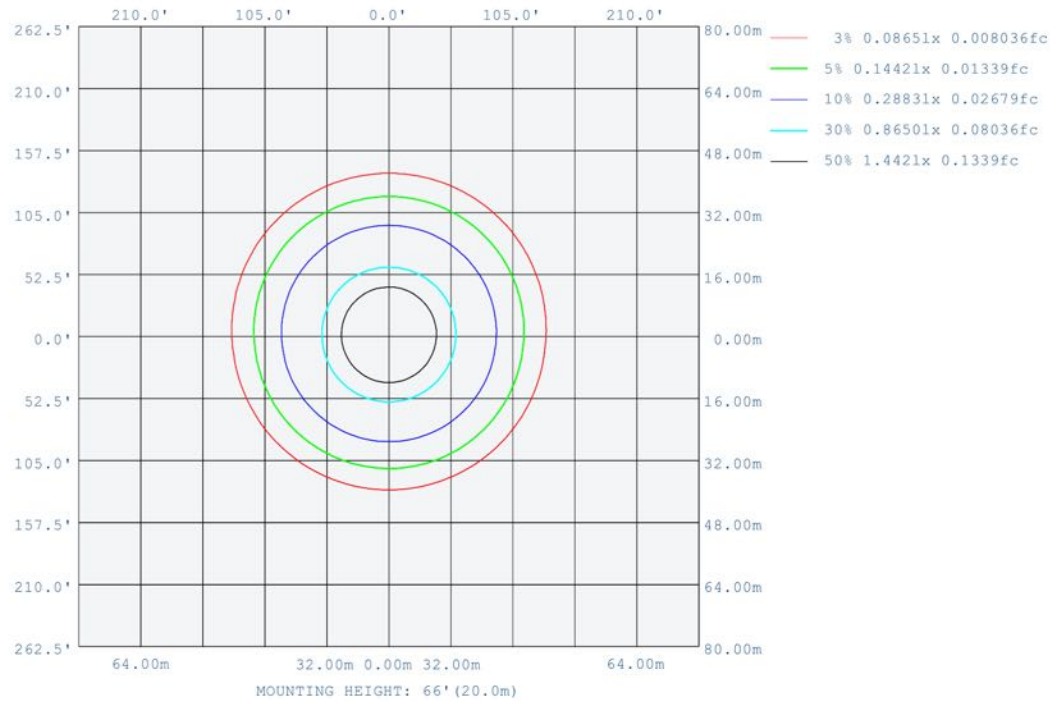
H(□) Range:-90 - 90DEG
H(□) Interval:1.0DEG Test
Speed: HIGH
Temperature:25.3DEG
Operators:Guohong
Test Date:2024-01-02

V(B) Range:-90 - 90DEG
V(B) Interval: 2.0DEG
TestSystem:EVERFINEGO-2000B_V1
Humidity:65.0%
TestDistance:8.365m [K=1.0000]
Remarks:

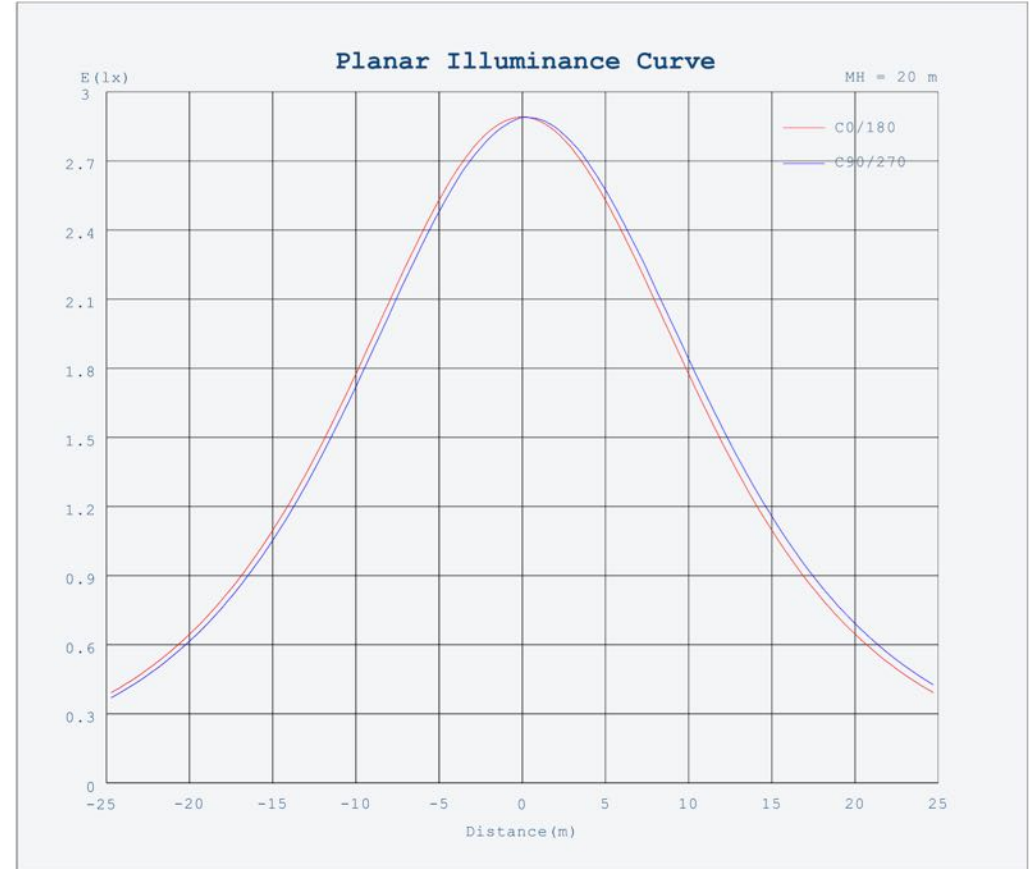
SYSTEM V2.0.404.7

ISOLUX DIAGRAM

Test:U:233.5V I:0.5308A P:118.5W PF:0.956 Freq:49.99Hz Lamp Flux:3134.09x1 lm		
NAME: AF88X120-amber 590nm-red-frosted PC	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



Planar Illuminance Curve



H(□) Range:-90 - 90DEG
H(□) Interval:1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Guohong
Test Date:2024-01-02

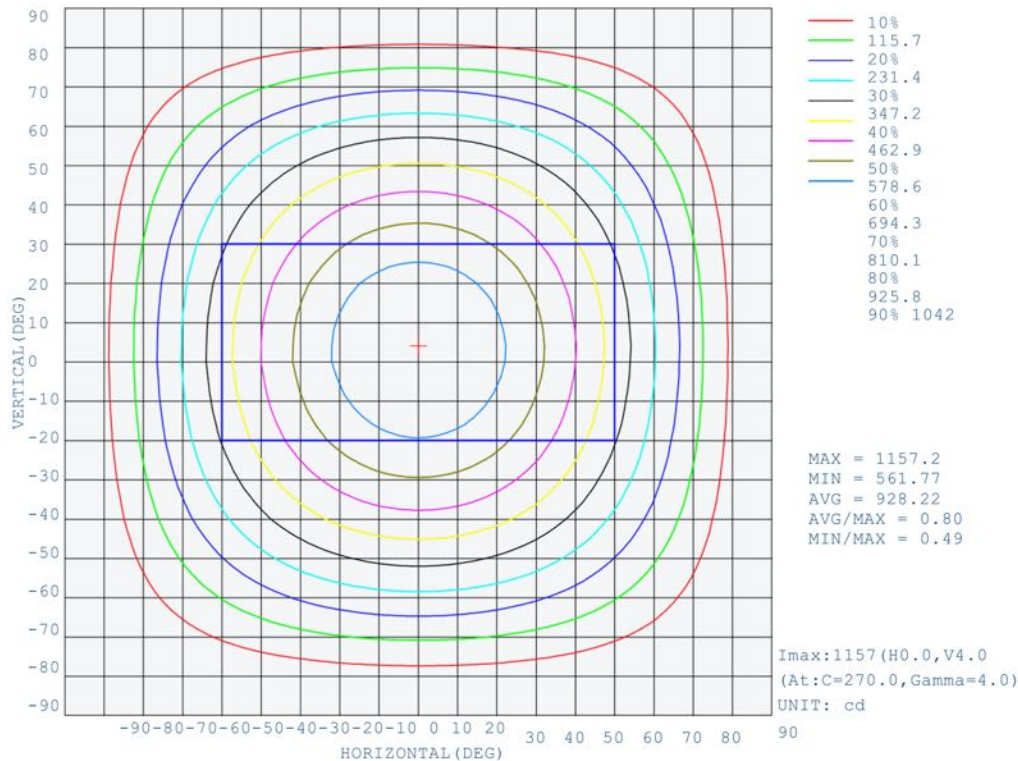
V(B) Range:-90 - 90DEG
V(B) Interval: 2.0DEG
TestSystem:EVERFINEGO-2000B_V1 SYSTEM V2.0.404.7
Humidity:65.0%
TestDistance:8.365m [K=1.0000]
Remarks:

H(□) Range:-90 - 90DEG
H(□) Interval:1.0DEG Test
Speed: HIGH
Temperature:25.3DEG
Operators:Guohong
Test Date:2024-01-02

V(B) Range:-90 - 90DEG
V(B) Interval: 2.0DEG
TestSystem:EVERFINEGO-2000B_V1 SYSTEM V2.0.404.7
Humidity:65.0%
TestDistance:8.365m [K=1.0000]
Remarks:

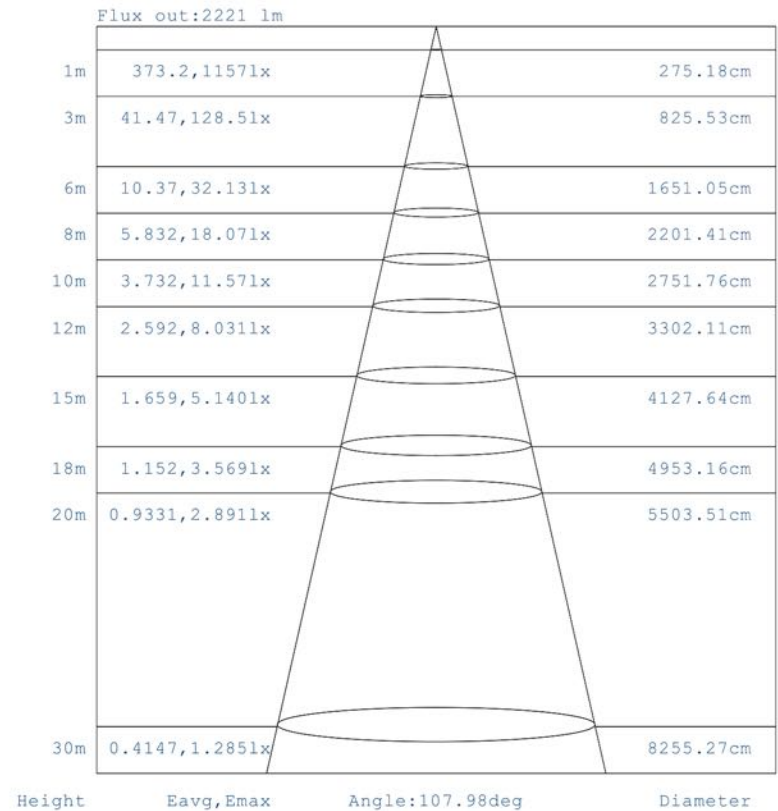
ISOCANDELA DIAGRAM

Test:U:233.5V I:0.5308A P:118.5W PF:0.956 Freq:49.99Hz Lamp Flux:3134.09x1 lm		
NAME: AF88X120-amber 590nm-red-frosted PC	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



AAI Figure

Test:U:233.5V I:0.5308A P:118.5W PF:0.956 Freq:49.99Hz Lamp Flux:3134.09x1 lm		
NAME: AF88X120-amber 590nm-red-frosted PC	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

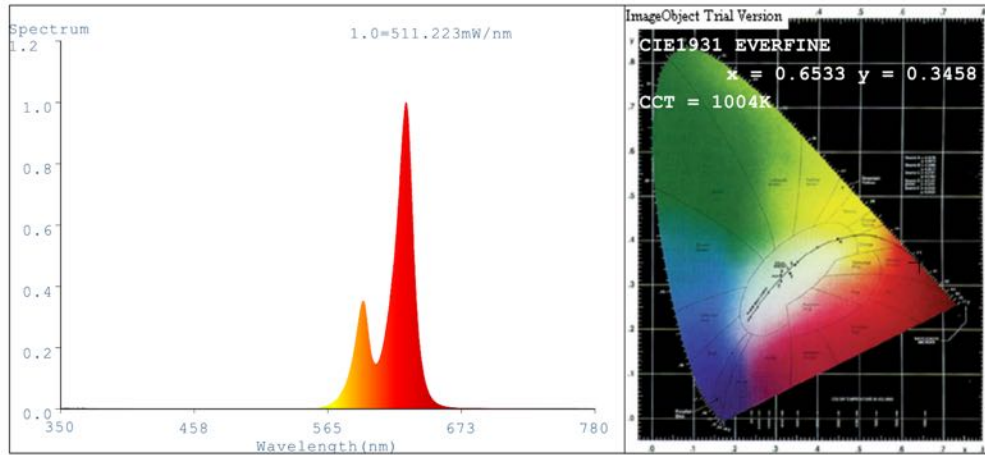
H(□) Range:-90 - 90DEG
 H(□) Interval:1.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Guohong
 Test Date:2024-01-02

V(B) Range:-90 - 90DEG
 V(B) Interval: 2.0DEG
 TestSystem:EVERFINEGO-2000B_V1 SYSTEM V2.0.404.7
 Humidity:65.0%
 TestDistance:8.365m [K=1.0000]
 Remarks:

H(□) Range:-90 - 90DEG
 H(□) Interval:1.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Guohong
 Test Date:2024-01-02

V(B) Range:-90 - 90DEG
 V(B) Interval: 2.0DEG
 TestSystem:EVERFINEGO-2000B_V1 SYSTEM V2.0.404.7
 Humidity:65.0%
 TestDistance:8.365m [K=1.0000]
 Remarks:

SPECTRUM TEST REPORT - FLAT & FLYT 120 590NM AMBER AND RED - FROSTED POLYCARBONATE LENS



Color Parameters:

Chromaticity Coordinate:x=0.6533 y=0.3458/u'=0.4472 v'=0.5327
CCT=1004K(Duv=-0.0004) Dominant WL:Ld =606.5nm Purity=99.8%
Ratio:R=62.2% G=37.8% B=0.0% Peak WL:Lp=628.2nm FWHM=16.2nm
Render Index:Ra=42.3 CRI=44.1 AvgR=42.6
R1=35 R2=80 R3=55 R4=9 R5=29 R6=90 R7=41 R8=0 R9=0 R10=7 R11=8
R12=78 R13=43 R14=77 R15=22

Photo Parameters:

Flux = 3696 lm Eff. : 30.28 lm/W Fe = 12.97 W

Electrical parameters:

V = 219.61 V I = 0.5659 A P = 122.1 W PF = 0.9823

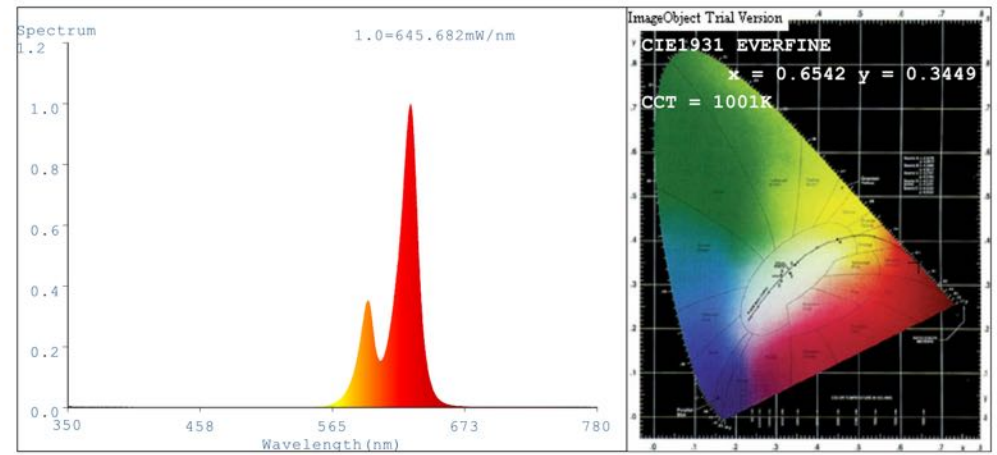
LEVEL:OUT WHITE:OUT

Status: Integral T = 11 ms Ip = 35150 (54%)

Model:LIGHT
Tester:DAMIN
Temperature:25.3Deg
Manufacturer:EVERFINE

Number:2
Date:2024-01-03 11:15
Humidity:65.0%
Remarks:---

SPECTRUM TEST REPORT - FLAT & FLYT 160 590NM AMBER AND RED - FROSTED POLYCARBONATE LENS



Color Parameters:

Chromaticity Coordinate:x=0.6542 y=0.3449/u'=0.4488 v'=0.5324
CCT=1001K(Duv=-0.0010) Dominant WL:Ld =606.7nm Purity=99.8%
Ratio:R=62.7% G=37.2% B=0.0% Peak WL:Lp=628.5nm FWHM=16.7nm
Render Index:Ra=42.4 CRI=44.2 AvgR=42.7
R1=35 R2=8 R3=5 R4=9 R5=30 R6=90 R7=41 R8=0 R9=0 R10=73 R11=9
R12=78 R13=43 R14=77 R15=21

Photo Parameters:

Flux = 4702 lm Eff. : 28.84 lm/W Fe = 16.69 W

Electrical parameters:

V = 219.67 V I = 0.7507 A P = 163.0 W PF = 0.9886

LEVEL:OUT WHITE:OUT

Status: Integral T = 11 ms Ip = 44375 (68%)

Model:LIGHT
Tester:DAMIN
Temperature:25.3Deg
Manufacturer:EVERFINE

Number:1
Date:2024-01-03 11:12
Humidity:65.0%
Remarks:---