

ZHONGSHAN Y-CHEN LIGHTING TECHNOLOGY CO.LTD

TEST REPORT

Prepared For :	ZHONGSHAN Y-CHEN LIGHTING TECHNOLOGY CO.LTD 6F,01B,No.28, Kanglong N0.3Rd, Xinmao Industrial, Henglan Town, Zhongshan City
Product Name:	LED STREET LIGHT
Model :	YC-S005 50W
Prepared By :	Guangdong KEYS Testing Technology Co., Ltd. Building 1, No.18, Shihuan Road, Dongcheng Subdistrict, Dongguan, Guangdong, China
Test Date:	August 28, 2024- September 3, 2024
Date of Report :	September 3, 2024
Report No.:	KEYS240828013001LD-01

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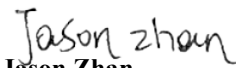
TEST REPORT ELECTRICAL AND PHOTOMETRIC MEASUREMENTS OF SOLID-STATE LIGHTING PRODUCTS ACCODING TO LM-79-08 APPROVED METHOD	
Testing laboratory	: Guangdong KEYS Testing Technology Co., Ltd.
Address	: Building 1, No.18, Shihuan Road, Dongcheng Subdistrict, Dongguan, Guangdong, China
Testing location	: Guangdong KEYS Testing Technology Co., Ltd.
Applicant	: ZHONGSHAN Y-CHEN LIGHTING TECHNOLOGY CO.LTD
Address	: 6F,01B,No.28, Kanglong N0.3Rd, Xinmao Industrial, Henglan Town, Zhongshan City
Test Procedure	: Electrical And Photometric Measurements of Solid-State Lighting Products Accoding to LM-79-08 Approved Method.
Non-standard test method	: N/A
Type of test object	: LED STREET LIGHT
Trademark	: N/A
Model/type reference	: YC-S005-50W
Manufacturer of LED driver	: TMX-50W 80-450V
LED driver surge protection	: 8KV
LED type	: LM3030
Model Number of LED chip	: LM3030WW-6V-1W
Manufacturer	: SHENZHEN LVMING PHOTOELECTRIC CO., LTD
Rating	: AC85-375V, 50/60Hz,50W
Manufacturer	: ZHONGSHAN Y-CHEN LIGHTING TECHNOLOGY CO.LTD
Address	: 6F,01B,No.28, Kanglong N0.3Rd, Xinmao Industrial, Henglan Town, Zhongshan City
Particulars: test item vs. test requirements	

Name and address of the testing laboratory: Guangdong KEYS Testing Technology Co., Ltd.
Building 1, No.18, Shihuan Road, Dongcheng Subdistrict,
Dongguan, Guangdong, China

Tested by (name + signature): Sunny Li

A handwritten signature in black ink that reads 'Sunny Li'.

Approved by (name + signature): Jason Zhan

A handwritten signature in black ink that reads 'Jason Zhan'.

1.0 TEST METHOD

Test methods according to IESNA LM-79-08 following chapter:

4.0 SEASONING OF SSL PRODUCT

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

5.0 STABILIZATION OF SSL PRODUCT

Before measurements are taken, the SSL product under test shall be operated long enough to reach stabilization and temperature equilibrium. The time required first stabilization depends on the type of SSL products under test. The stabilization time typically ranges from 30 min (small integrated LED lamps) to 2 or more hours for large SSL luminaries. The SSL product during stabilization shall be operated in the ambient temperature as specified in section 2.2 and in the operating orientation as specified in 6. It can be judged that stability is reached when the variation (maximum-minimum) of at least 3 readings of the light output and electrical power over a period of 30 min, taken 15 minutes apart, is less than 0.5%. The stabilization time used for each SSL product shall be reported.

9.0 TEST METHODS FOR TOTAL LUMINOUS FLUX MEASUREMENT

10.0 LUMINOUS INTENSITY DISTRIBUTION

11.0 LUMINOUS EFFICACY

13.0 UNCERTAINTY STATEMENT

The uncertainty of the light output measurements is $U=1.50\%$ ($K=2$), the uncertainty of the Correlated Color Temperature measurements is $U=14K$ ($K=2$), at the 95% confidence level. This calibration results are traceable to the NATIONAL INSTITUTE OF METROLOGY (NIM).

Remark:

1. 0 hour season, pre-heating the lamp for 45 minutes at least;
2. Ambient: 65%RH, 25°C.

SUMMARY OF TEST RESULT:

SPECTRORADIOMETRIC TESTING IN INTEGRATING SPHERE	
PHOTOMETRIC	--
Total integrated flux	5884
SPECTRORADIOMETRIC	--
Chromaticity ordinate x	0.3480
Chromaticity ordinate y	0.3616
Chromaticity ordinate u'	0.2095
Chromaticity ordinate v'	0.3266
Correlates color temp CCT(K)	4929
Color rendering index(CRI)	79.5
Total radiant flux(W)	--
ELECTRICAL	--
Input voltage(Volts)	219V
Input current(A)	0.228
Input power(Watts)	48.89
Power factor	0.98
Off state power(watts)	0.0
EFFICACY	--
Lumens/watt	120.36

LUMINOUS INTENSITY DISTRIBUTION	
Maximum intensity (if applicable)(cd)	508.4
Beam angle(50%Imax)(°)	106.6
Zonal lumens in the 0°-60°zone (%)	85.85
Zonal lumens in the 0°-90°zone (%)	100.00
Zonal lumens in the 0°-120°zone (%)	100.00
Zonal lumens in the 0°-180°zone (%)	100.00

Note: The test data was only good for the test sample. It may have deviation for other test sample.

Lightsource Test Report

Product Information

Product Type: NSL1805S-50W

CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3480$ $y=0.3616$ $u(u')=0.2095$ $v=0.3266$ $v'=0.4899$

CCT: $T_c=4929K$ ($duv=0.00380$)

Color Ratio: $R=0.145$ $G=0.823$ $B=0.032$

Peak Wavelength: 451.8nm

Half Bandwidth: 24.1nm

Dominant Wavelength: 570.4nm

Color Purity: 0.129

CRI: $R_a=79.5$

TM30: $R_f=75$, $R_g=93$

GAI: $GAI_BB_8=85.7$, $GAI_BB_15=93.2$, $GAI_EES=77.5$

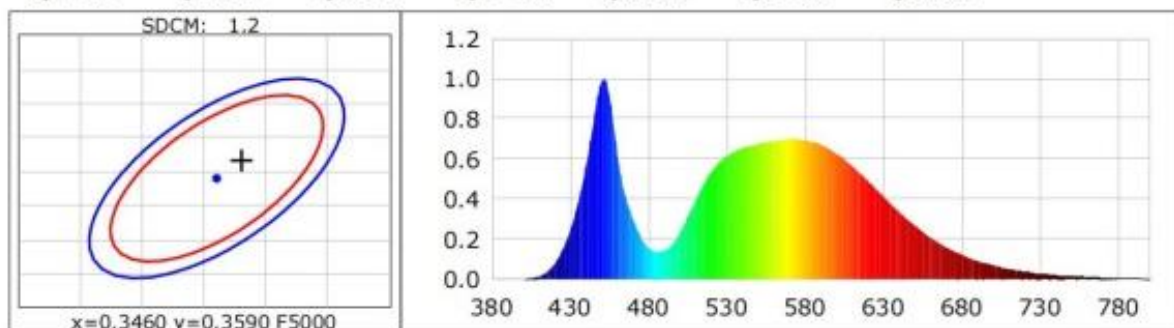
$R1=71$ $R2=79$ $R3=84$ $R4=73$ $R5=70$ $R6=70$ $R7=84$ $R8=58$

$R9=-25$ $R10=48$ $R11=69$ $R12=40$ $R13=72$ $R14=91$ $R15=65$

Color Quality Scale: $Q_a=73.7$, $Q_f=73.6$, $Q_p=74.7$, $Q_g=89.0$

$Q1=80$ $Q2=97$ $Q3=67$ $Q4=61$ $Q5=69$ $Q6=72$ $Q7=76$ $Q8=85$

$Q9=93$ $Q10=78$ $Q11=74$ $Q12=75$ $Q13=76$ $Q14=62$ $Q15=69$





Report No: KEYS240828013001LD-01

11/25/2024

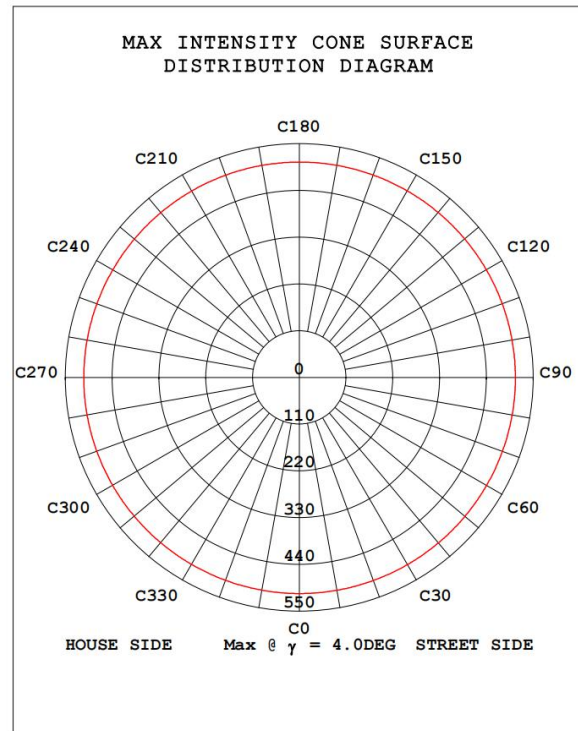
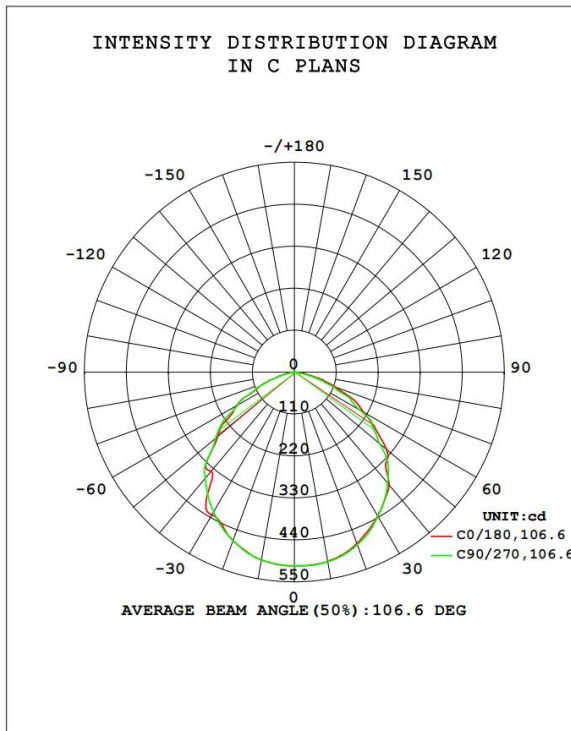
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

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STREETLIGHT PHOTOMETRIC TEST REPORT

Test:U:0V I:0A P:0W PF:0.0000 Freq:0Hz Lamp Flux:5884.4 x1 lm		
SPEC.:	TYPE:	WEIGHT:
MFR.: EVERFINE	DIM.:	SERIAL No.:
	SUR.:360*145mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	--	Imax(cd)	508.4	η street_up(%)	0.0
NOMINAL POWER(W)	--	LOR(%)	100.0	η street_down(%)	52.6
RATED VOLTAGE(V)	--	TOTAL FLUX(lm)	5884	η house_up(%)	0.0
NOMINAL FLUX(lm)	5884.4	MAXIMUM @ (C, γ)	0,4.0	η house_down(%)	47.4
LAMPS INSIDE	1	η up(%)	0.0	76 FLASHAREA(m2)	0.00100
TEST VOLTAGE(V)	--	η down(%)	100.0	SLI	16.152

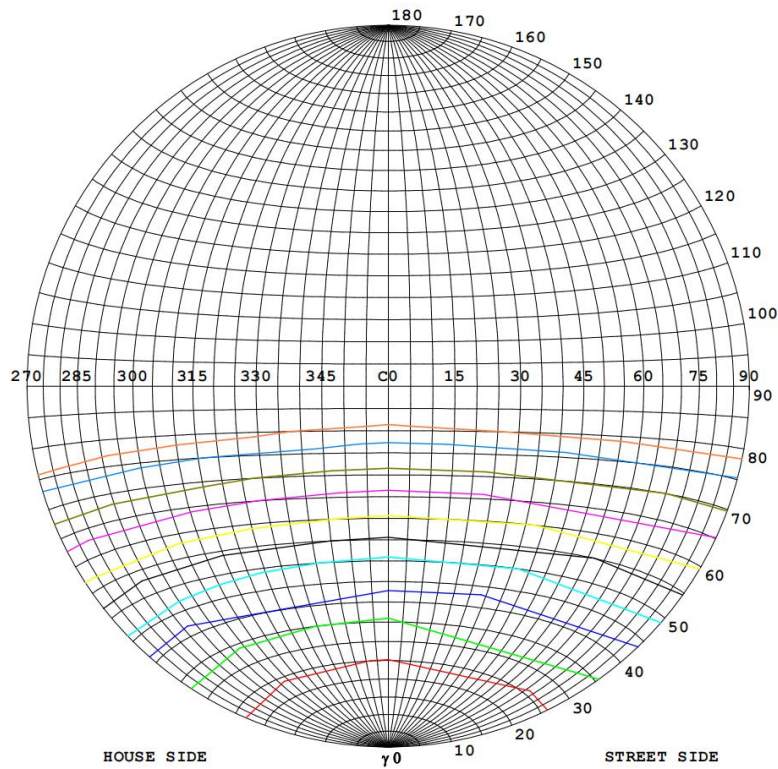


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-08-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:10.200m [K=1.0000]
Remarks:

STREETLIGHT ISOCANDELA DIAGRAM

Test:U:0V I:0A P:0W PF:0.0000 Freq:0Hz Lamp Flux:5884.4 x1 lm		
SPEC.:	TYPE:	WEIGHT:
MFR.: EVERFINE	DIM.:	SERIAL No.:
	SUR.:360*145mm	Shielding Angle:



Classification:

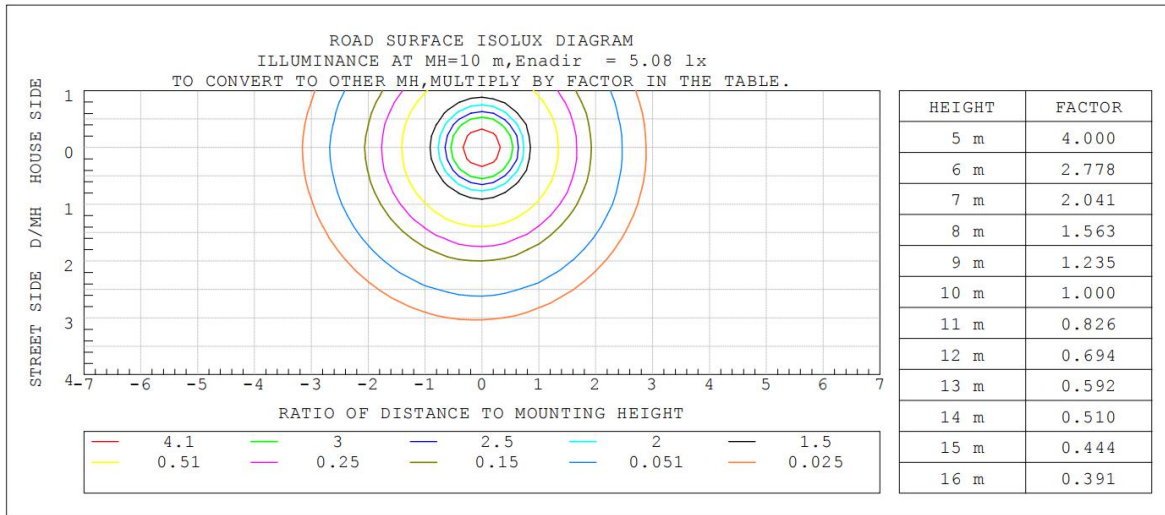
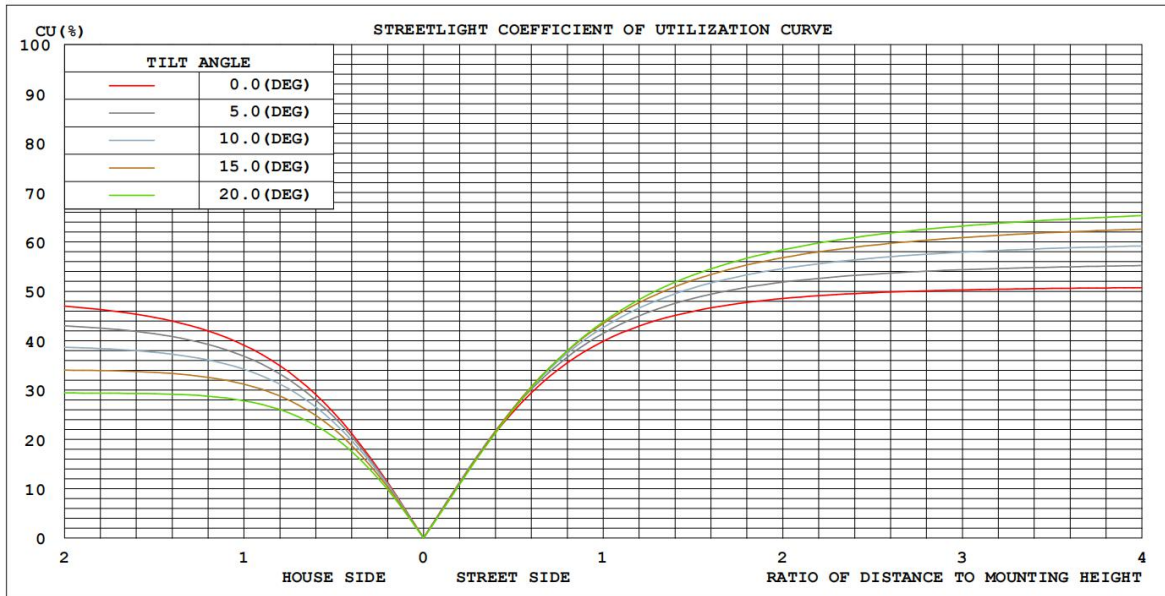
IES:Type V - Very Short
 CIE:Narrow - Short
 IES:Cut-off
 CIE:Full cut-off
 Max.At80:24.36cd/klm
 Max.At90:1.694cd/klm
 Max.80-90:24.36cd/klm

ISOCANDELA DIAGRAM	
UNIT	cd
Imax=100%	508
90%	458
80%	407
70%	356
60%	305
50%	254
40%	203
30%	153
20%	102
10%	51
5%	25

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2024-08-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.411
 Humidity:65.0%
 Test Distance:10.200m [K=1.0000]
 Remarks:

COEFFICIENT OF UTILIZATION CURVE AND ISOLUX DIAGRAM

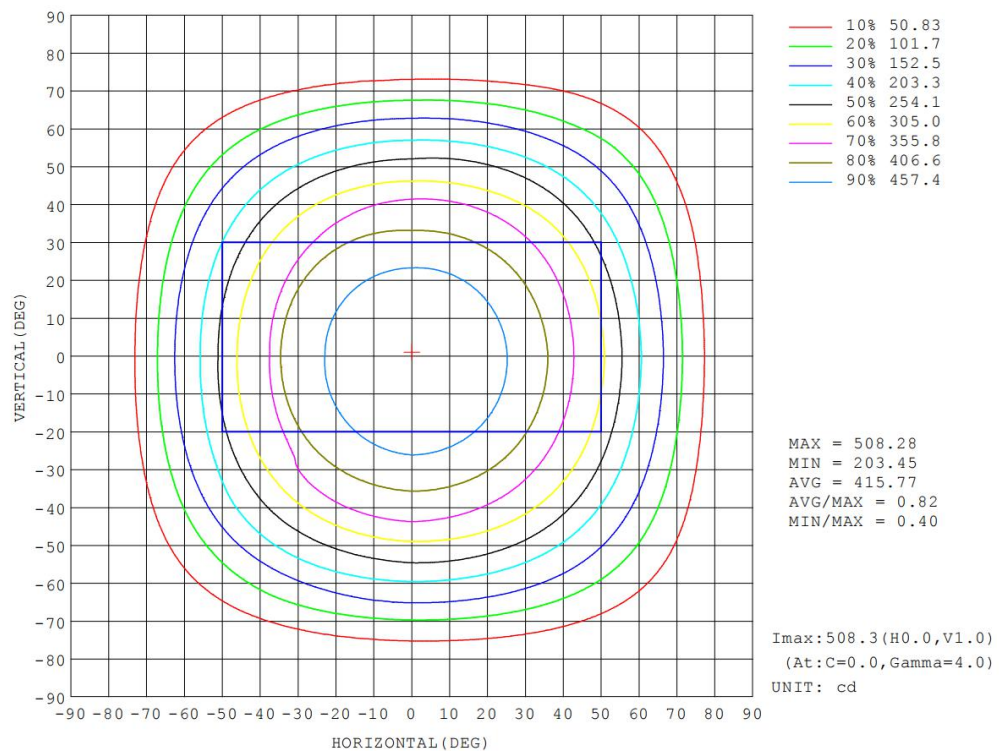


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2024-08-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.411
Humidity: 65.0%
Test Distance: 10.200m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

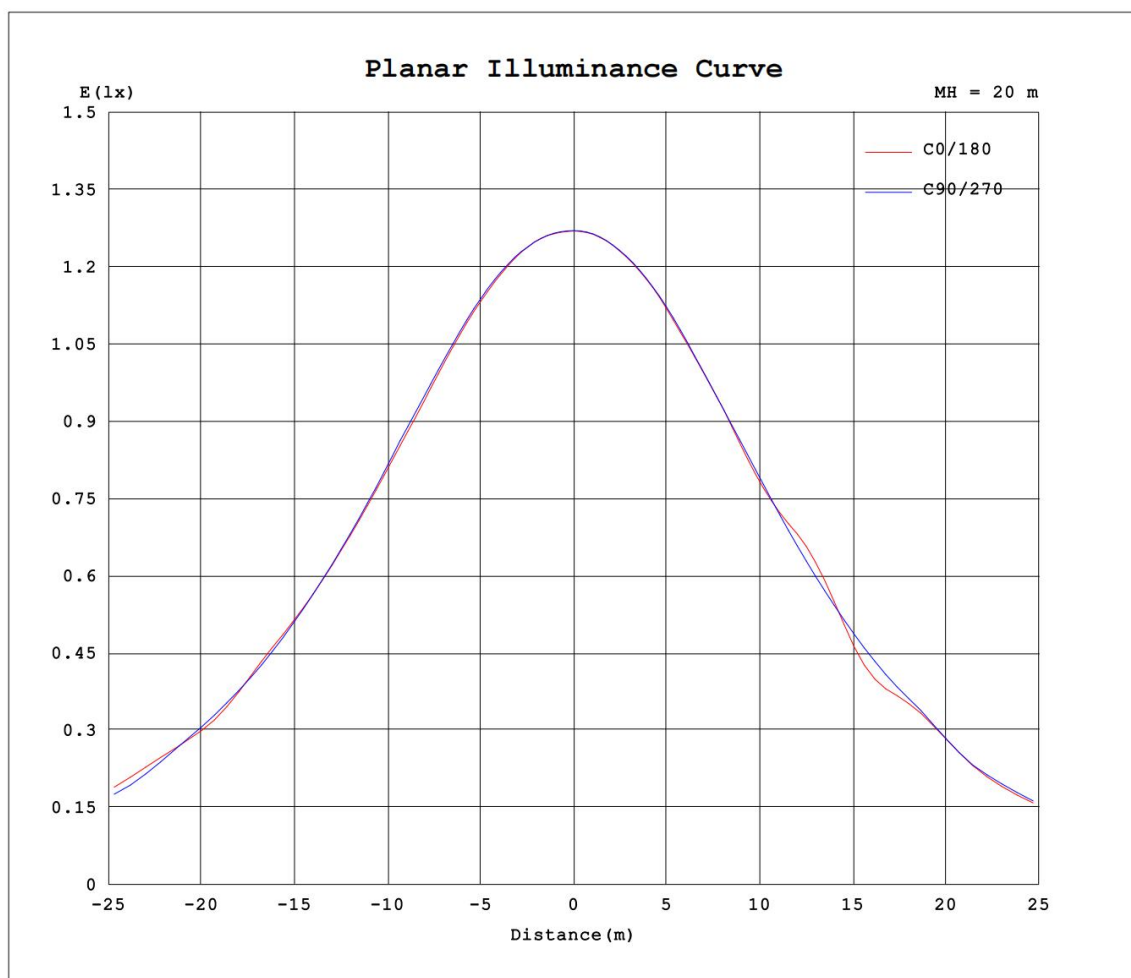
Test:U:0V I:0A P:0W PF:0.0000 Freq:0Hz Lamp Flux:5884.4 x1 lm		
SPEC.:	TYPE:	WEIGHT:
MFR.: EVERFINE	DIM.:	SERIAL No.:
	SUR.:360*145mm	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-08-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:10.200m [K=1.0000]
Remarks:

Planar Illuminance Curve



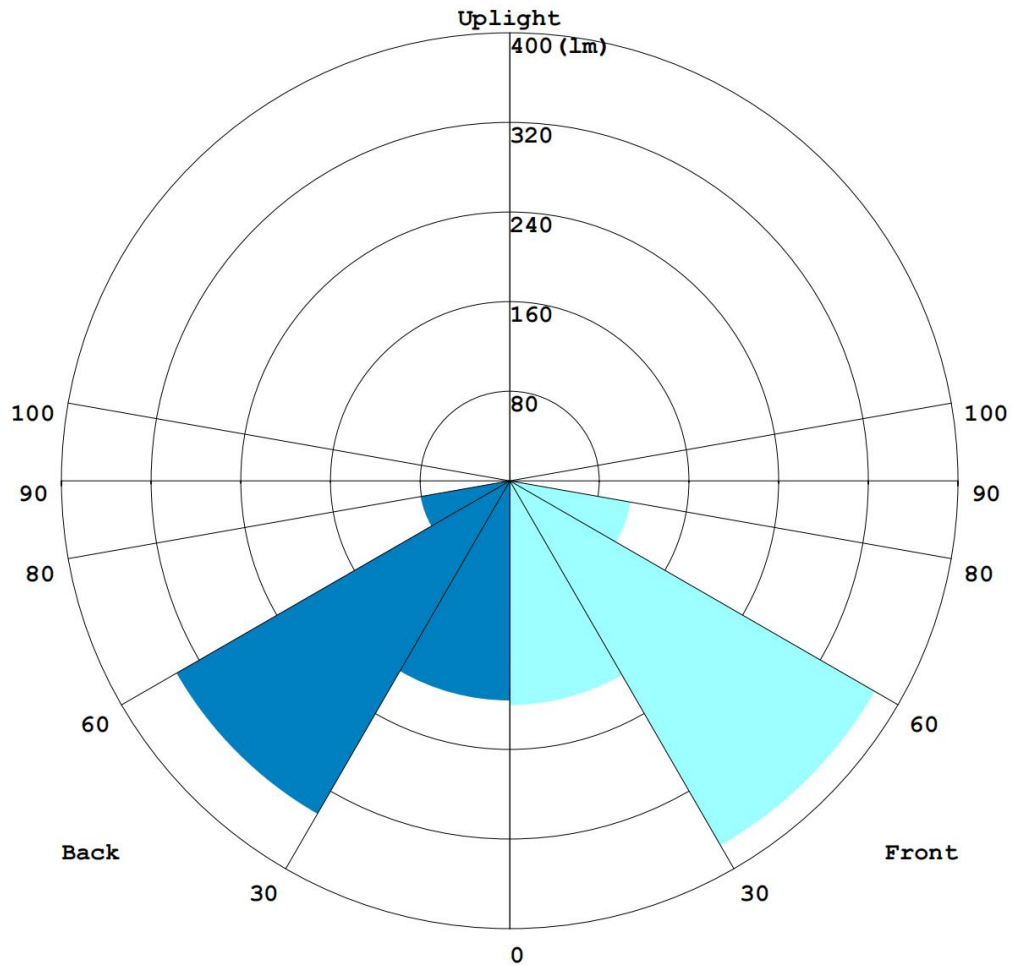
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2024-08-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.411
Humidity: 65.0%
Test Distance: 10.200m [K=1.0000]
Remarks:

LCS REPORT

Test:U:0V I:0A P:0W PF:0.0000 Freq:0Hz Lamp Flux:5884.4 x1 lm		
SPEC.:	TYPE:	WEIGHT:
MFR.: EVERFINE	DIM.:	SERIAL No.:
	SUR.:360*145mm	Shielding Angle:

LUMINAIRE CLASSIFICATION SYSTEM(LCS) GRAPH



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-08-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:10.200m [K=1.0000]
Remarks:



BUG REPORT

Test:U:0V I:0A P:0W PF:0.0000 Freq:0Hz Lamp Flux:5884.4 x1 lm		
SPEC.:	TYPE:	WEIGHT:
MFR.: EVERFINE	DIM.:	SERIAL No.:
	SUR.:360*145mm	Shielding Angle:

IESNA Luminaire Flux Distribution Table:

Zone	Lumens	Luminaire %
FL - Front-Low (0-30)	200.17	15.2
FM - Front-Medium (30-60)	376.08	28.7
FH - Front-High (60-80)	109.79	8.4
FVH - Front-Very High (80-90)	4.3028	0.3
Total Forward Light	690.34	52.6

BL - Back-Low (0-30)	196.17	14.9
BM - Back-Medium (30-60)	343.44	26.2
BH - Back-High (60-80)	80.874	6.2
BVH - Back-Very High (80-90)	1.8365	0.1
Total Back Light	622.32	47.4

UL - Uplight-Low (90-100)	0	0.0
UH - Uplight-High (100-180)	0	0.0
Total Up Light	0	0.0

BUG (Back,Up,Glare) Rating	B1-U0-G0
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Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	622.32	0	622.32
Street Side	690.34	0	690.34

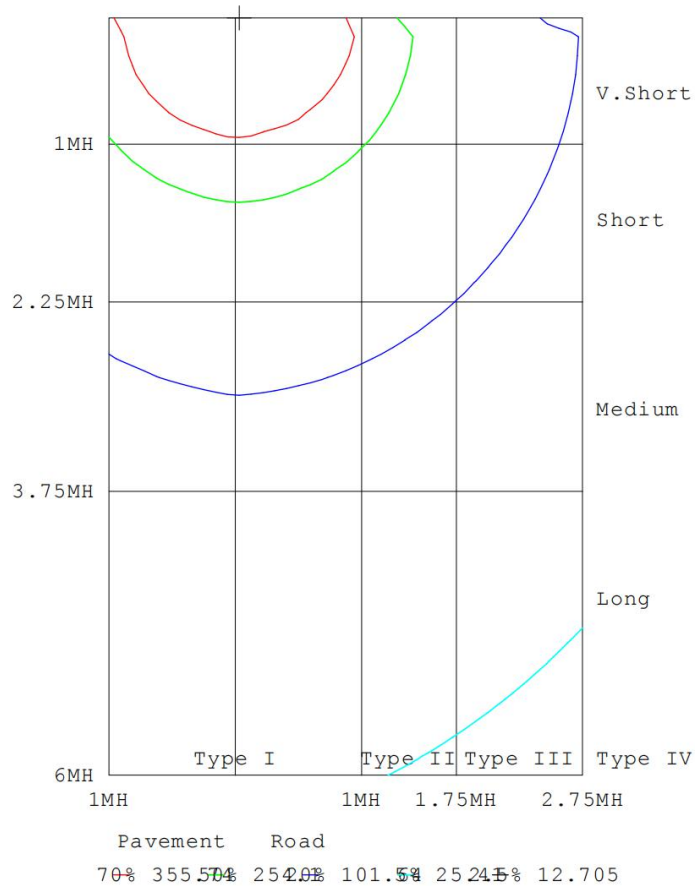
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2024-08-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.411
Humidity: 65.0%
Test Distance: 10.200m [K=1.0000]
Remarks:

ROAD ISOCANDELA REPORT

Test:U:0V I:0A P:0W PF:0.0000 Freq:0Hz Lamp Flux:5884.4 x1 lm		
SPEC.:	TYPE:	WEIGHT:
MFR.: EVERFINE	DIM.:	SERIAL No.:
	SUR.:360*145mm	Shielding Angle:

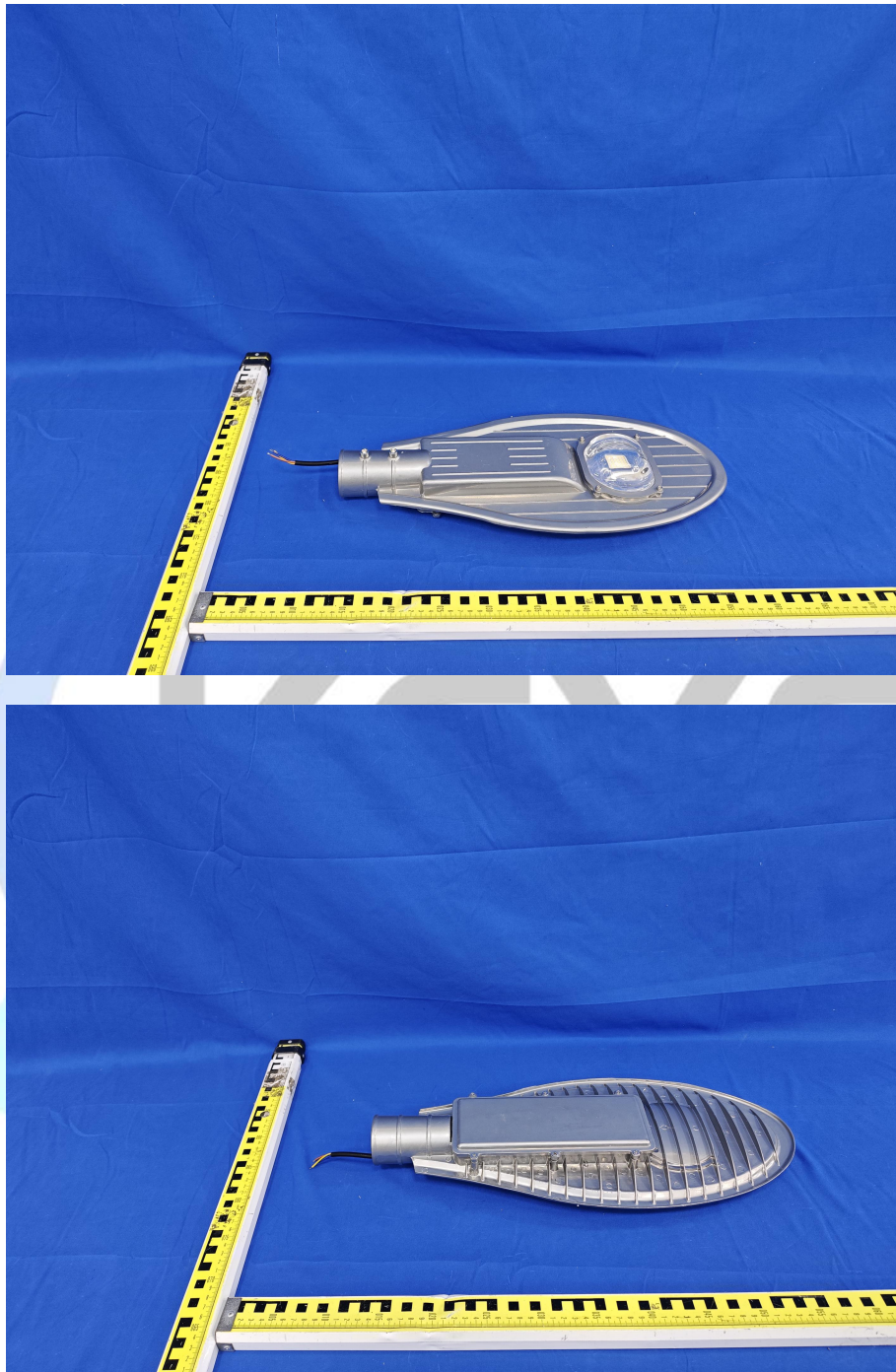
ROAD SURFACE ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-08-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:10.200m [K=1.0000]
Remarks:

Photo-documentation



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