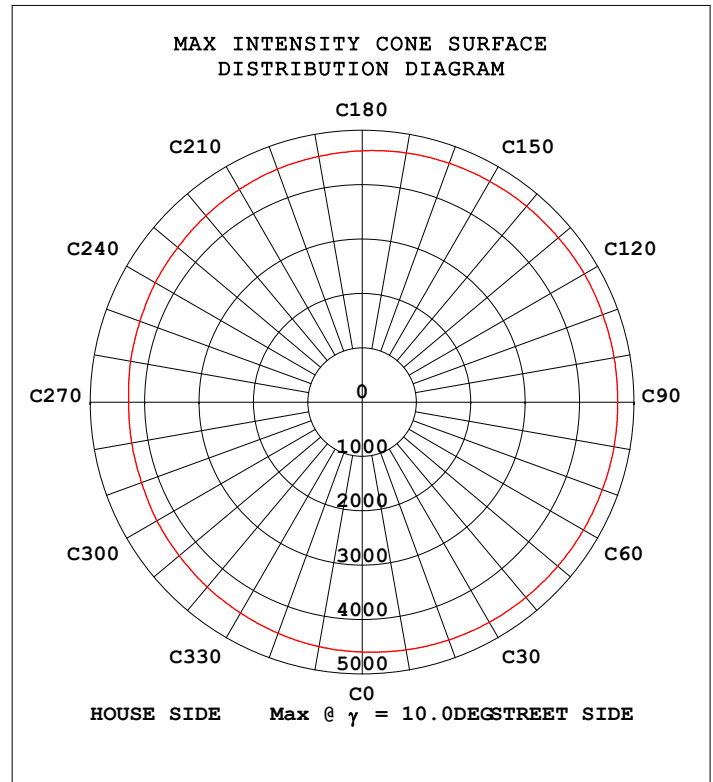
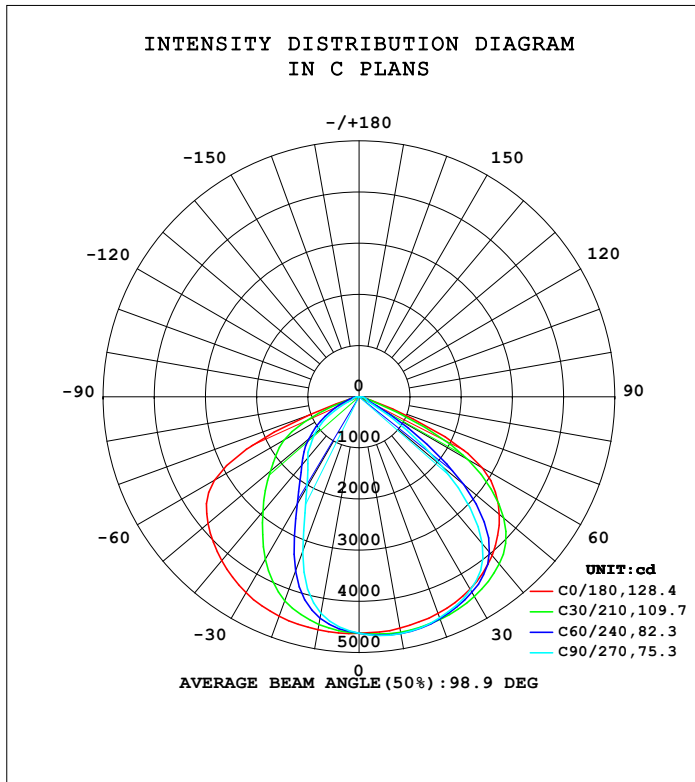


STREETLIGHT PHOTOMETRIC TEST REPORT

NAME: 98Tivoli1100SMD	TYPE: 98Tivoli1100SMD	WEIGHT: 1
SPEC.:	DIM.: 488 x 165 x 80	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: Rectangular	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	98Tivoli1100SMD	Imax (cd)	4719	$\eta$ street_up (%)	0.0
NOMINAL POWER (W)	100	LOR (%)	90.6	$\eta$ street_down (%)	52.6
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	11059	$\eta$ house_up (%)	0.0
NOMINAL FLUX (lm)	12200	MAXIMUM @ (C, $\gamma$ )	120, 10.0	$\eta$ house_down (%)	38.0
LAMPS INSIDE	1	$\eta$ up (%)	0.0	76 FLASHAREA (m2)	0.00100
TEST VOLTAGE (V)	230	$\eta$ down (%)	90.6	SLI	16.227

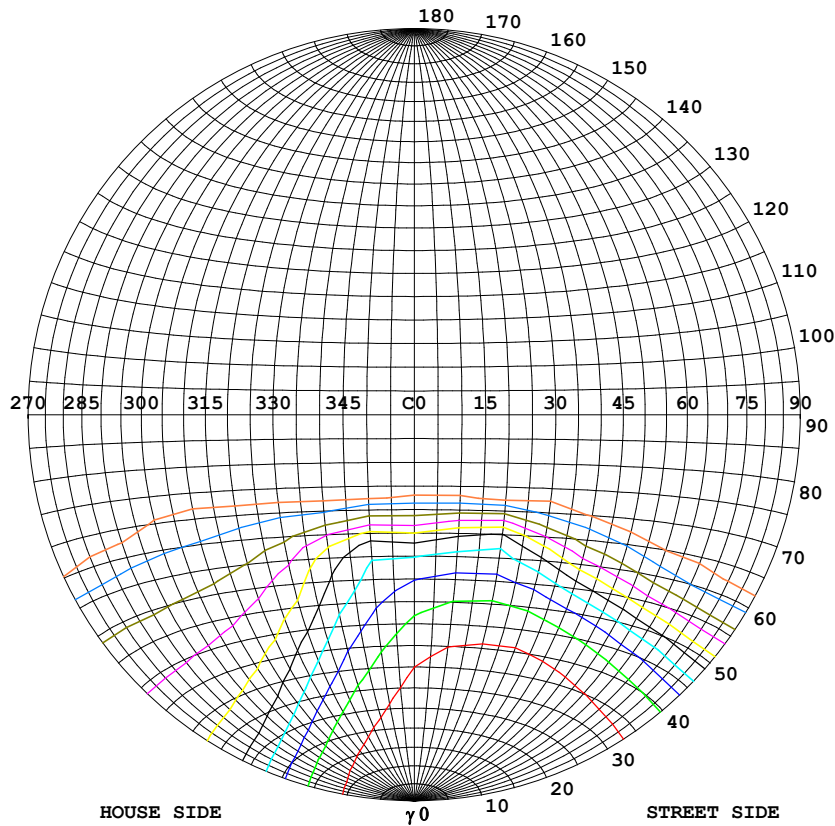


C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators:  
Test Date: 22 August 2022

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 2.5DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
Humidity: 65.0%  
Test Distance: 6.265m [K=1.0000]  
Remarks:

# STREETLIGHT ISOCANDELA DIAGRAM

NAME: 98Tivoli1100SMD	TYPE: 98Tivoli1100SMD	WEIGHT: 1
SPEC.:	DIM.: 488 x 165 x 80	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: Rectangular	Shielding Angle:



## Classification:

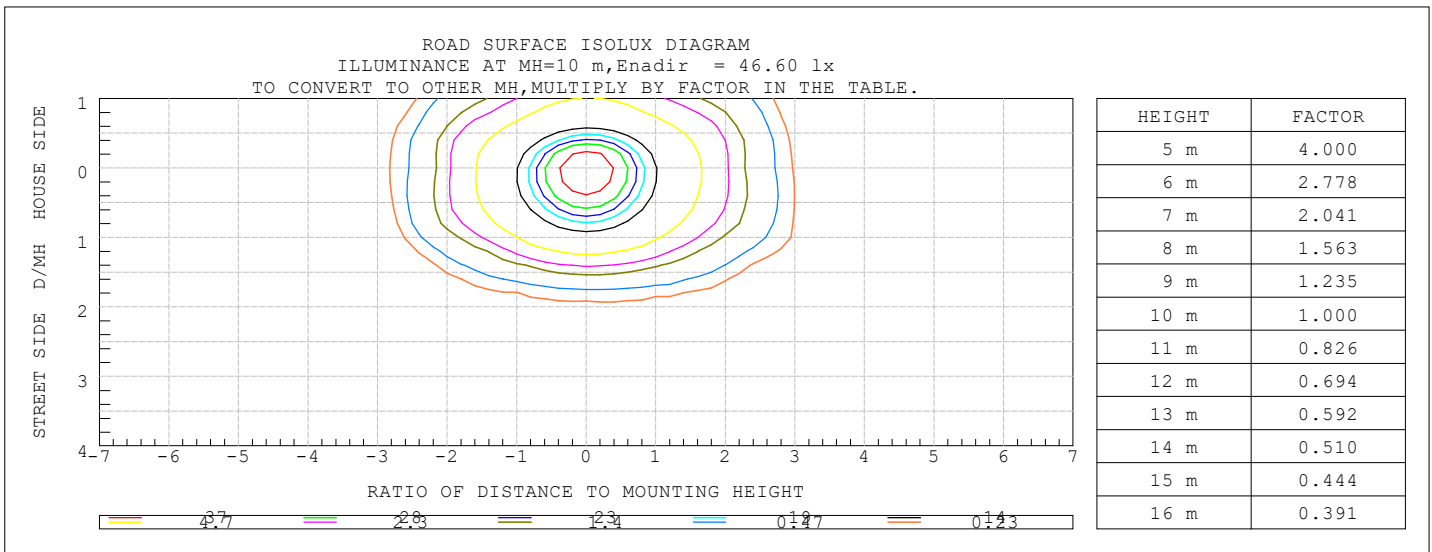
IES:Type II - Very Short  
 CIE:Narrow - Short  
 IES:Cut-off  
 CIE:Full cut-off  
 Max.At80:9.496cd/klm  
 Max.At90:2.542cd/klm  
 Max.80-90:9.496cd/klm

ISOCANDELA DIAGRAM	
UNIT	cd
Imax=100%	4719
90%	4247
80%	3776
70%	3304
60%	2832
50%	2360
40%	1888
30%	1416
20%	944
10%	472
5%	236

C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:  
 Test Date:22 August 2022

γ Range: 0 - 90DEG  
 γ Interval: 2.5DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
 Humidity:65.0%  
 Test Distance:6.265m [K=1.0000]  
 Remarks:

# COEFFICIENT OF UTILIZATION CURVE AND ISOLUX DIAGRAM



C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators:  
Test Date: 22 August 2022

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 2.5DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
Humidity: 65.0%  
Test Distance: 6.265m [K=1.0000]  
Remarks:

## ZONAL FLUX DIAGRAM

NAME: 98Tivoli100SMD	TYPE: 98Tivoli100SMD	WEIGHT: 1
SPEC.:	DIM.: 488 x 165 x 80	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: Rectangular	Shielding Angle:

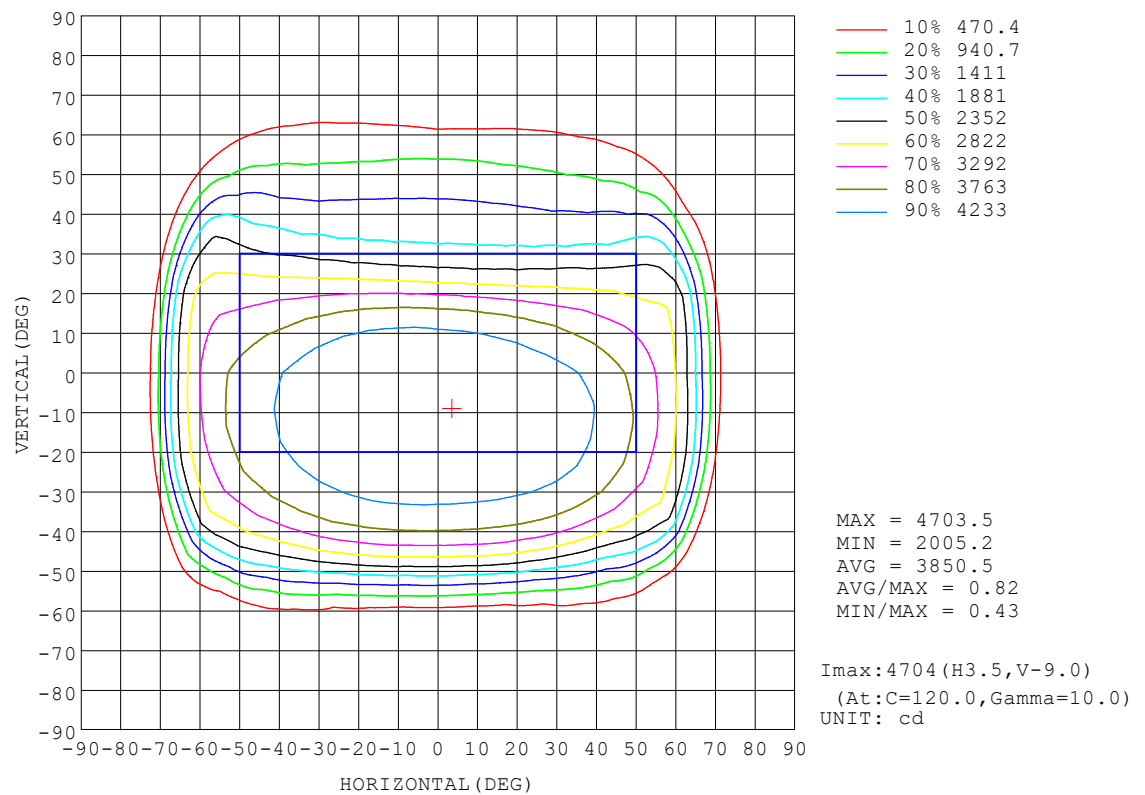
$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum,lamp
10	4595	4691	4698	4708	4625	4453	4299	4417	0- 10	438.9	438.9	3.97,3.6
20	4508	4632	4599	4659	4567	3949	3234	3824	10- 20	1251	1690	15.3,13.9
30	4339	4466	4357	4496	4420	2998	2045	2794	20- 30	1842	3532	31.9,29
40	4049	4148	3745	4180	4178	2150	1561	1987	30- 40	2196	5728	51.8,47
50	3579	3219	2119	3350	3853	1590	1137	1447	40- 50	2261	7989	72.2,65.5
60	2781	1395	343.5	1697	3265	1048	569.5	865.5	50- 60	1835	9824	88.8,80.5
70	702.7	191.6	144.6	230.0	1028	427.0	137.7	311.1	60- 70	995.3	10819	97.8,88.7
80	51.75	79.74	98.42	98.85	71.14	106.1	64.89	85.51	70- 80	193.3	11012	99.6,90.3
90	31.02	10.73	2.264	12.66	22.79	7.792	1.926	7.073	80- 90	46.93	11059	100,90.6
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:22 August 2022

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 2.5DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
Humidity:65.0%  
Test Distance:6.265m [K=1.0000]  
Remarks:

# ISOCANDELA DIAGRAM

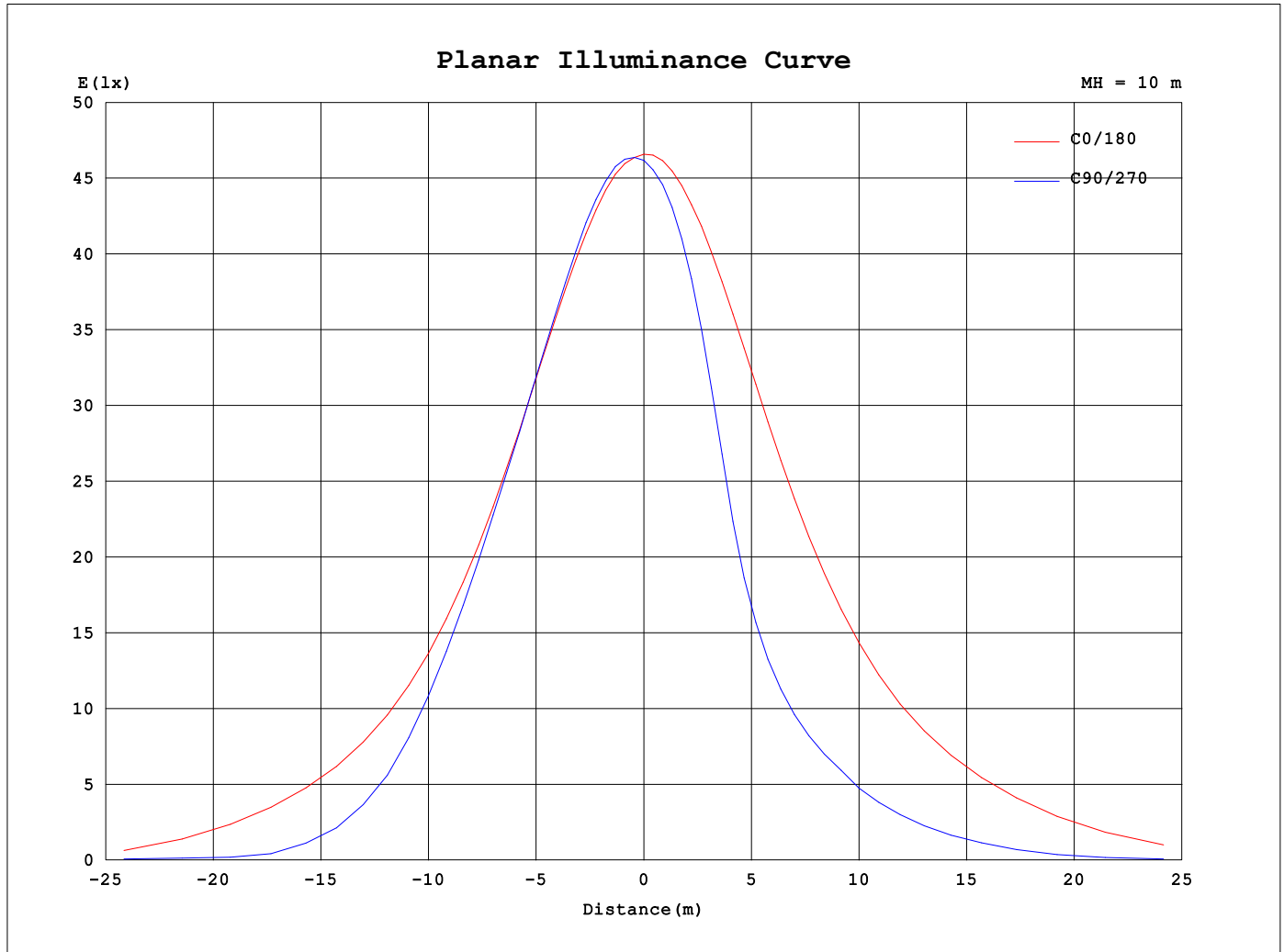
NAME: 98Tivoli100SMD	TYPE: 98Tivoli100SMD	WEIGHT: 1
SPEC.:	DIM.: 488 x 165 x 80	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: Rectangular	Shielding Angle:



C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3°C  
 Operators:  
 Test Date: 22 August 2022

γ Range: 0 - 90DEG  
 γ Interval: 2.5DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
 Humidity: 65.0%  
 Test Distance: 6.265m [K=1.0000]  
 Remarks:

### Planar Illuminance Curve



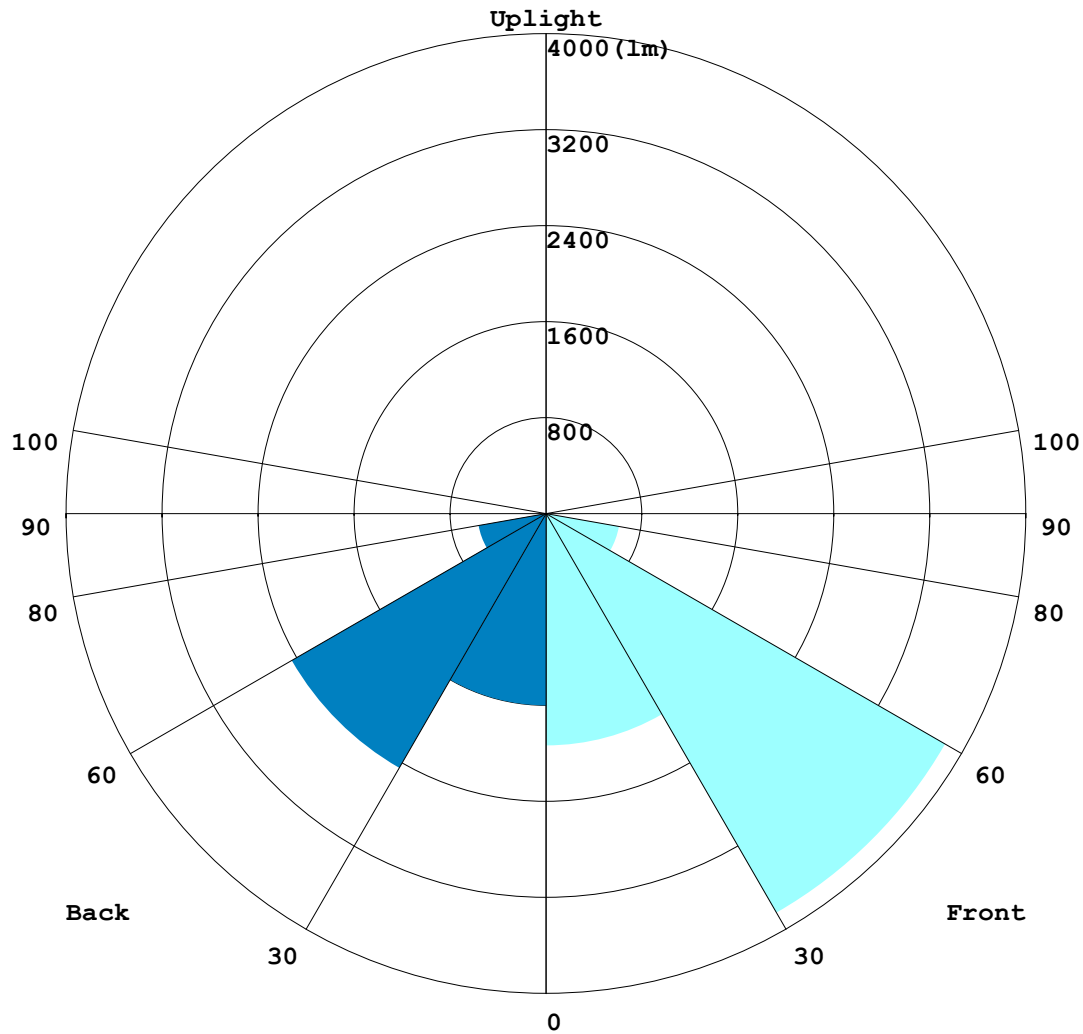
C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3°C  
 Operators:  
 Test Date: 22 August 2022

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 2.5DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
 Humidity: 65.0%  
 Test Distance: 6.265m [K=1.0000]  
 Remarks:

**LCS REPORT**

NAME: 98Tivoli100SMD	TYPE: 98Tivoli100SMD	WEIGHT: 1
SPEC.:	DIM.: 488 x 165 x 80	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: Rectangular	Shielding Angle:

**LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH**



C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3°C  
 Operators:  
 Test Date: 22 August 2022

γ Range: 0 - 90DEG  
 γ Interval: 2.5DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
 Humidity: 65.0%  
 Test Distance: 6.265m [K=1.0000]  
 Remarks:

### BUG REPORT

NAME: 98Tivoli1100SMD	TYPE: 98Tivoli1100SMD	WEIGHT: 1
SPEC.:	DIM.: 488 x 165 x 80	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: Rectangular	Shielding Angle:

#### IESNA Luminaire Flux Distribution Table:

Zone	Lumens	Luminaire %
FL - Front-Low(0-30)	1933.1	17.5
FM - Front-Medium(30-60)	3842.4	34.7
FH - Front-High(60-80)	618.3	5.6
FVH - Front-Very High(80-90)	26.81	0.2
Total Forward Light	6420.7	58.1

BL - Back-Low(0-30)	1599.3	14.5
BM - Back-Medium(30-60)	2448.8	22.1
BH - Back-High(60-80)	570.28	5.2
BVH - Back-Very High(80-90)	20.115	0.2
Total Back Light	4638.5	41.9

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	B3-U0-G2
---------------------------	----------

Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	4638.5	0	4638.5
Street Side	6420.7	0	6420.7

C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:22 August 2022

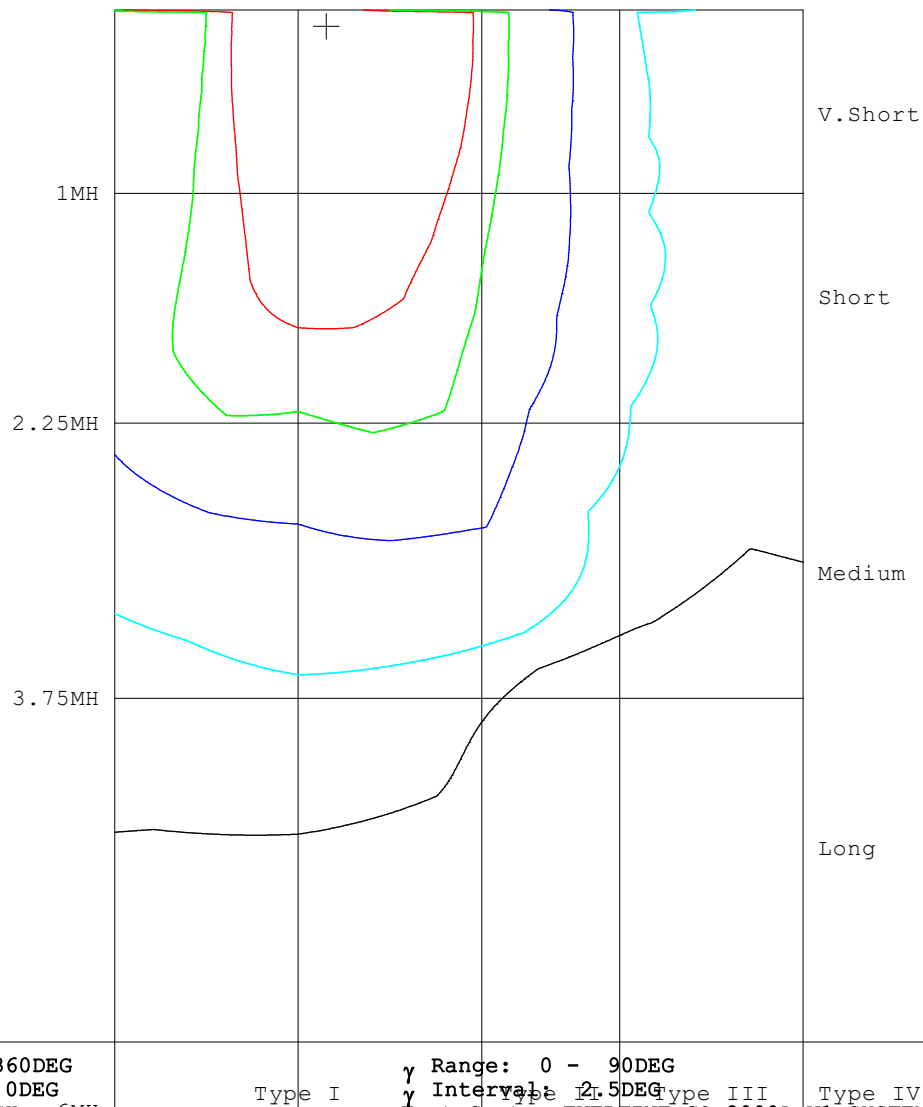
γ Range: 0 - 90DEG  
γ Interval: 2.5DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.456  
Humidity:65.0%  
Test Distance:6.265m [K=1.0000]  
Remarks:



ROAD ISOCANDELA REPORT

NAME: 98Tivoli100SMD	TYPE: 98Tivoli100SMD	WEIGHT: 1
SPEC.:	DIM.: 488 x 165 x 80	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: Rectangular	Shielding Angle:

ROAD SURFACE ISOCANDELA DIAGRAM



C Range: 0 - 360DEG

C Interval: 10.0DEG

Test Speed: HIGH 6MH

Temperature: 25.3°C 1MH

Operators:

Test Date: 22 August 2022

γ Range: 0 - 90DEG

γ Interval: 2.5DEG

Test System: EVERFINE GO-2000A-V1 SYSTEM V2.00.456

Humidity: 65.0% 75MH

Test Distance: 6.265m [K=1.0000] 17.56

Remarks:

70% 3291.8 Road 20% 940.54 2.9% 117.56  
50% 2351.3 5% 235.13

```

γ Range: 0 - 90DEG
γ Interval: 2.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity:65.0%
Test Distance:6.265m [K=1.0000]
Remarks:

```

```

γ Range: 0 - 90DEG
γ Interval: 2.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity:65.0%
Test Distance:6.265m [K=1.0000]
Remarks:

```