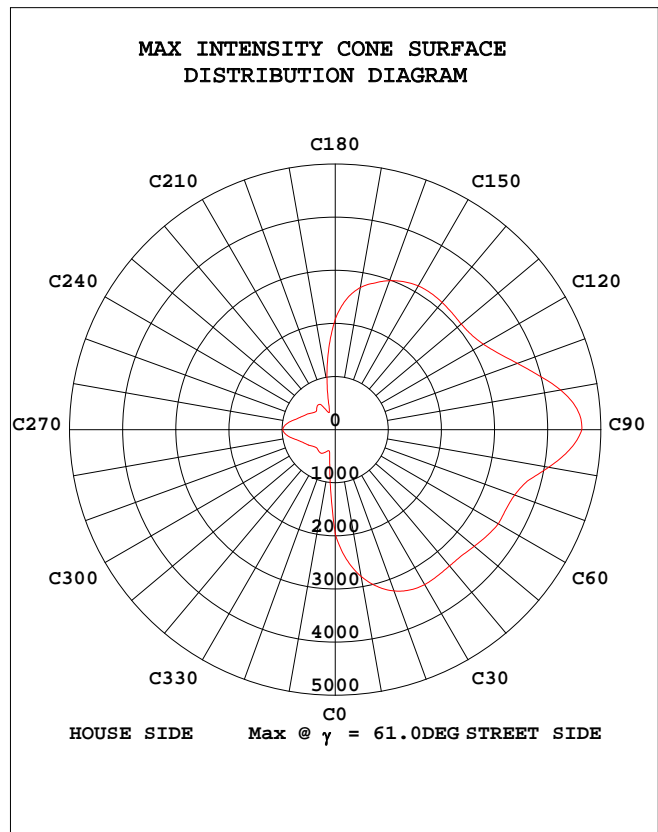
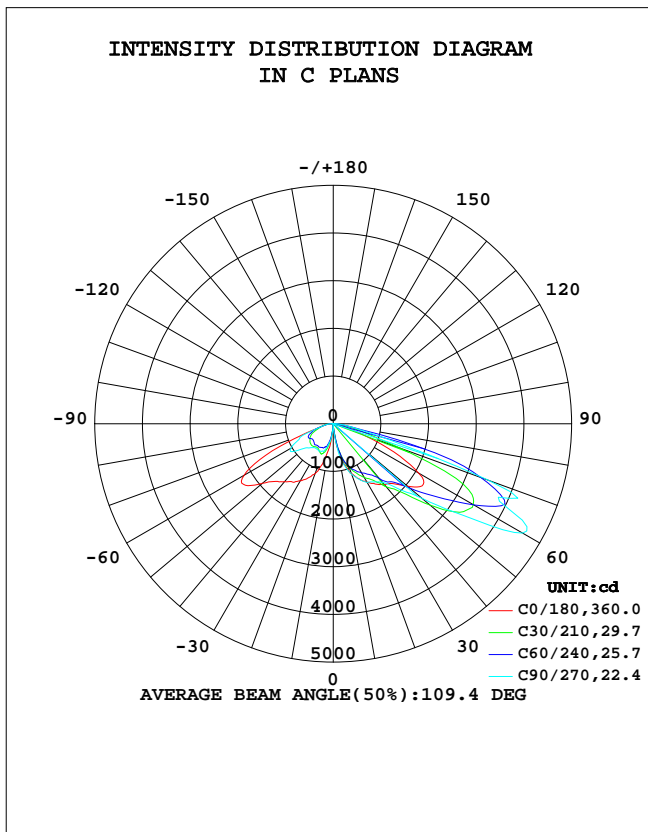


# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## STREETLIGHT PHOTOMETRIC TEST REPORT

Test:U:220.12V I:0.2650A P:57.708W PF:0.9892 Freq:50.01Hz Lamp Flux:6526.25x1 lm		
NAME: T-221LED60-24	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 113.09 lm/W			
MODEL: 5050	40K RA70 TYPE IV L	Imax(cd)	4640	$\eta$ street_up(%)	0.4
NOMINAL POWER(W)	60	LOR(%)	100.0	$\eta$ street_down(%)	74.9
RATED VOLTAGE(V)	220.0	TOTAL FLUX(lm)	6526	$\eta$ house_up(%)	0.5
NOMINAL FLUX(lm)	6526.25	MAXIMUM @ (C, $\gamma$ )	90, 61.0	$\eta$ house_down(%)	24.2
LAMPS INSIDE	1	$\eta$ up(%)	0.9	76 FLASHAREA(m2)	0.00100
TEST VOLTAGE(V)	220.0	$\eta$ down(%)	99.1	SLI	18.306



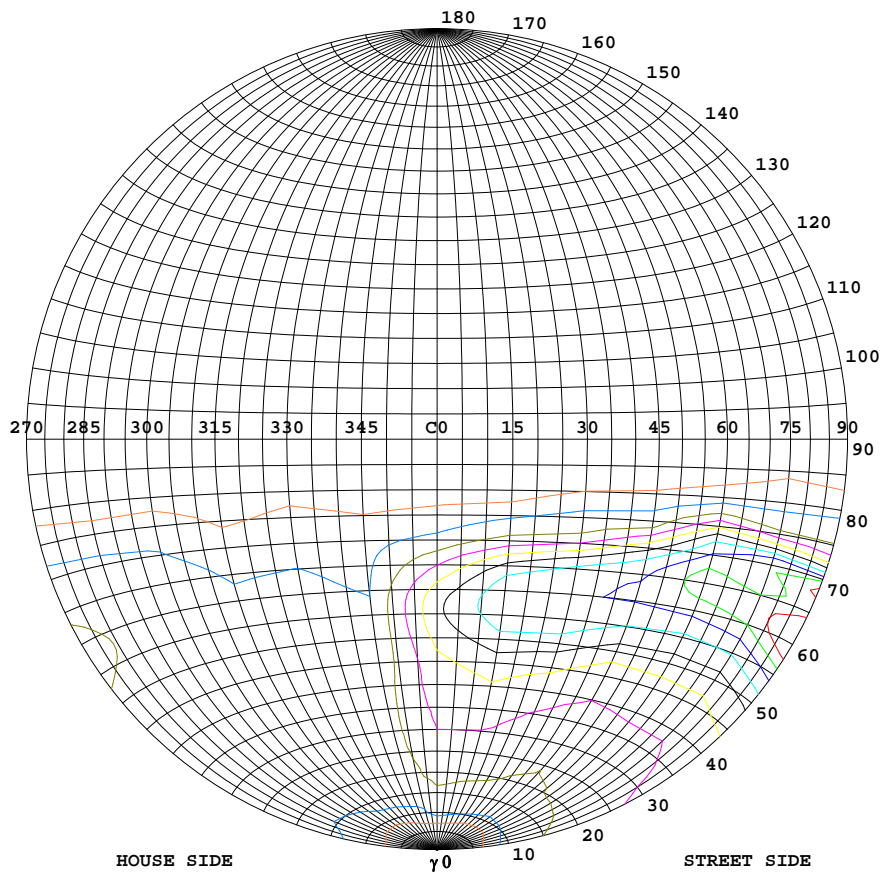
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 13.9DEG  
Operators: CS01  
Test Date: 2022-09-26

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.0.404.7  
Humidity: 38.0%  
Test Distance: 26.000m [K=1.0000]  
Remarks: T-221LED60-24(5050 40K RA70 TYPE IV)L

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## STREETLIGHT ISOCANDELA DIAGRAM

Test:U:220.12V I:0.2650A P:57.708W PF:0.9892 Freq:50.01Hz Lamp Flux:6526.25x1 lm		
NAME: T-221LED60-24	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:



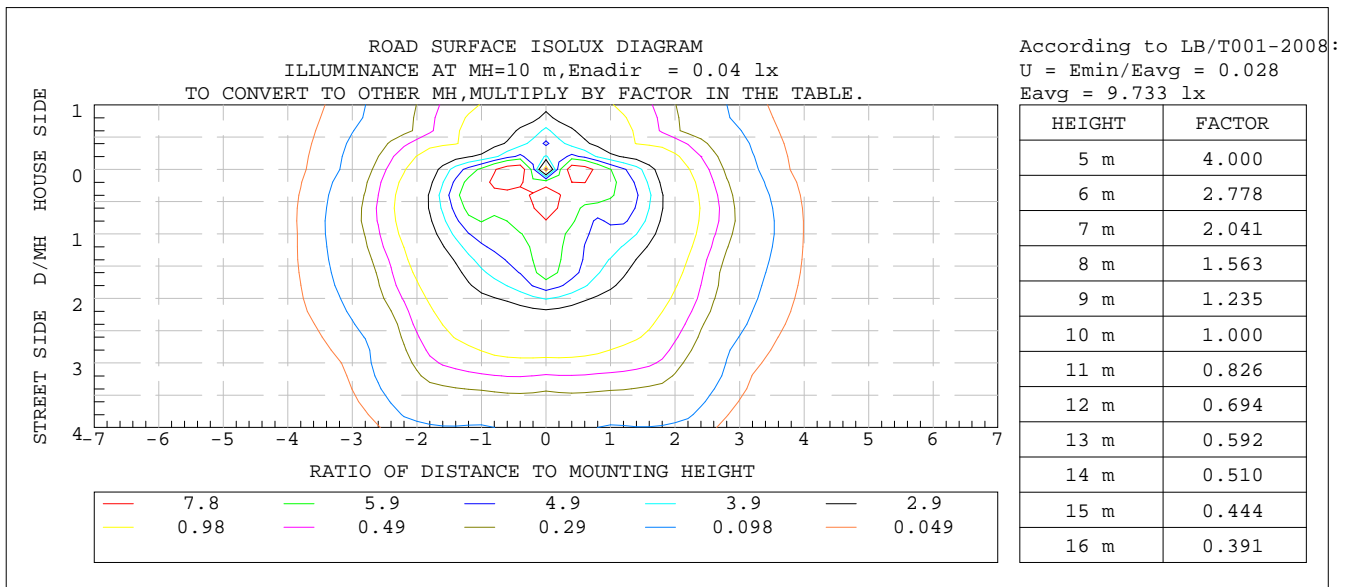
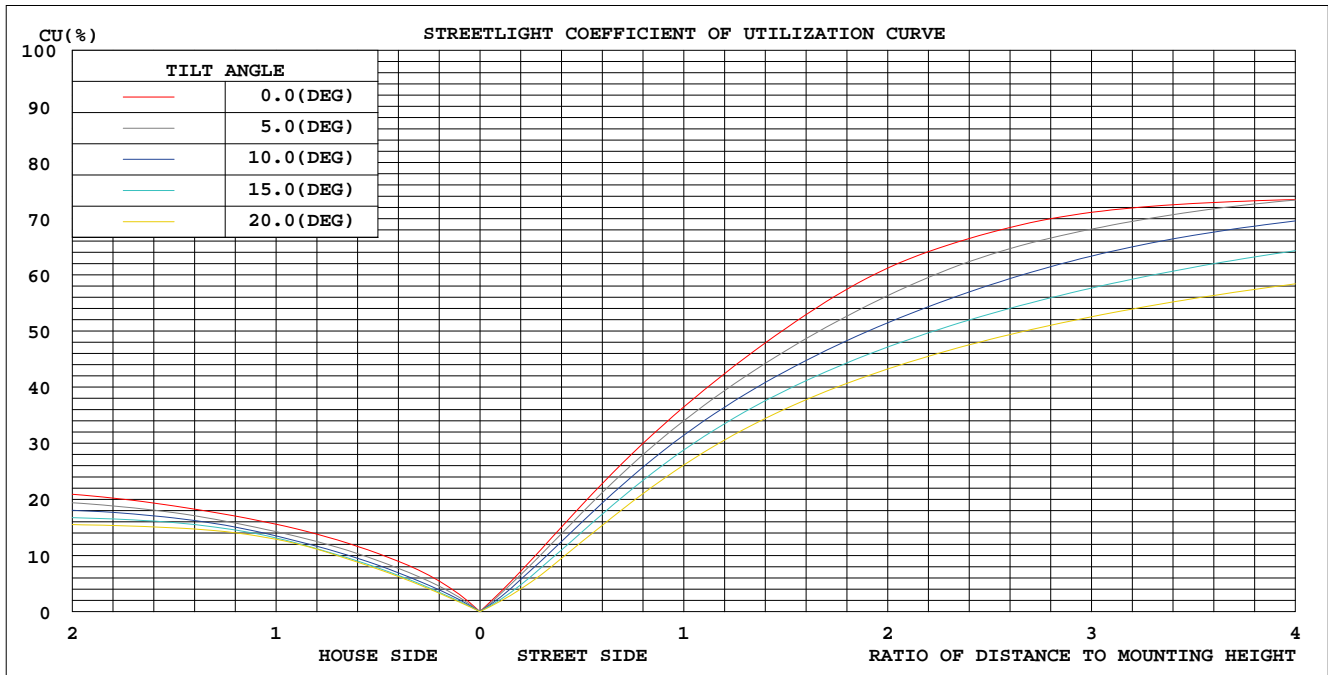
### Classification:

IES:Type V - Very Short  
 CIE:Broad - Intermediate  
 IES:Cut-off  
 CIE:Semi-cut-off  
 Max.At80:59.05cd/klm  
 Max.At90:8.974cd/klm  
 Max.80-90:59.05cd/klm

ISOCANDELA DIAGRAM	
UNIT	cd
Imax=100%	4640
90%	4176
80%	3712
70%	3248
60%	2784
50%	2320
40%	1856
30%	1392
20%	928
10%	464
5%	232

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:13.9DEG  
 Operators:CS01  
 Test Date:2022-09-26

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.404.7  
 Humidity:38.0%  
 Test Distance:26.000m [K=1.0000]  
 Remarks: T-221LED60-24(5050 40K RA70 TYPEIV)L

COEFFICIENT OF UTILIZATION CURVE  
AND ISOLUX DIAGRAM

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 13.9DEG  
Operators: CS01  
Test Date: 2022-09-26

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.0.404.7  
Humidity: 38.0%  
Test Distance: 26.000m [K=1.0000]  
Remarks: T-221LED60-24(5050 40K RA70 TYPE IV)L

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## ZONAL FLUX DIAGRAM

Test:U:220.12V I:0.2650A P:57.708W PF:0.9892 Freq:50.01Hz Lamp Flux:6526.25x1 lm		
NAME: T-221LED60-24	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	$\Phi$ lum, lamp
10	531.4	366.6	584.4	359.2	530.7	309.7	366.7	316.3	0- 10	19.35	19.35	0.30,0.30
20	1118	880.3	1132	831.2	1108	581.2	615.1	547.3	10- 20	185.8	205.1	3.14,3.14
30	1420	1093	1424	1028	1383	560.3	637.8	551.8	20- 30	413.5	618.7	9.48,9.48
40	1672	1433	1607	1274	1585	597.1	654.8	586.4	30- 40	644.0	1263	19.3,19.3
50	2036	2164	2442	1786	1946	587.9	804.6	569.3	40- 50	969.8	2232	34.2,34.2
60	2068	3352	4587	3027	2162	508.8	1025	500.5	50- 60	1584	3817	58.5,58.5
70	627.4	2246	3467	2553	727.1	350.6	612.1	345.2	60- 70	1809	5626	86.2,86.2
80	177.3	266.7	358.9	306.2	186.8	152.2	181.9	148.3	70- 80	706.8	6333	97,97
90	29.79	39.20	43.97	42.95	31.13	44.92	38.00	44.06	80- 90	134.9	6468	99.1,99.1
100	4.504	4.810	5.800	5.182	3.854	6.720	7.983	6.908	90-100	22.72	6491	99.5,99.5
110	4.667	4.098	3.052	4.426	4.724	7.871	7.914	8.096	100-110	7.380	6498	99.6,99.6
120	6.016	4.042	3.517	4.318	5.972	8.357	7.914	8.149	110-120	6.678	6505	99.7,99.7
130	6.565	4.749	3.930	4.641	7.163	8.356	7.397	7.556	120-130	5.957	6511	99.8,99.8
140	6.729	5.457	4.655	5.612	7.708	8.084	7.449	7.665	130-140	5.089	6516	99.8,99.8
150	7.325	6.390	5.842	6.368	8.302	8.742	7.810	8.421	140-150	4.399	6520	99.9,99.9
160	7.761	7.590	6.982	7.395	8.248	9.009	7.759	8.365	150-160	3.490	6524	100,100
170	6.195	5.467	5.488	5.296	5.806	5.568	5.578	5.384	160-170	2.044	6526	100,100
180	3.310	3.223	3.005	3.022	3.310	3.223	3.000	3.076	170-180	0.4064	6526	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

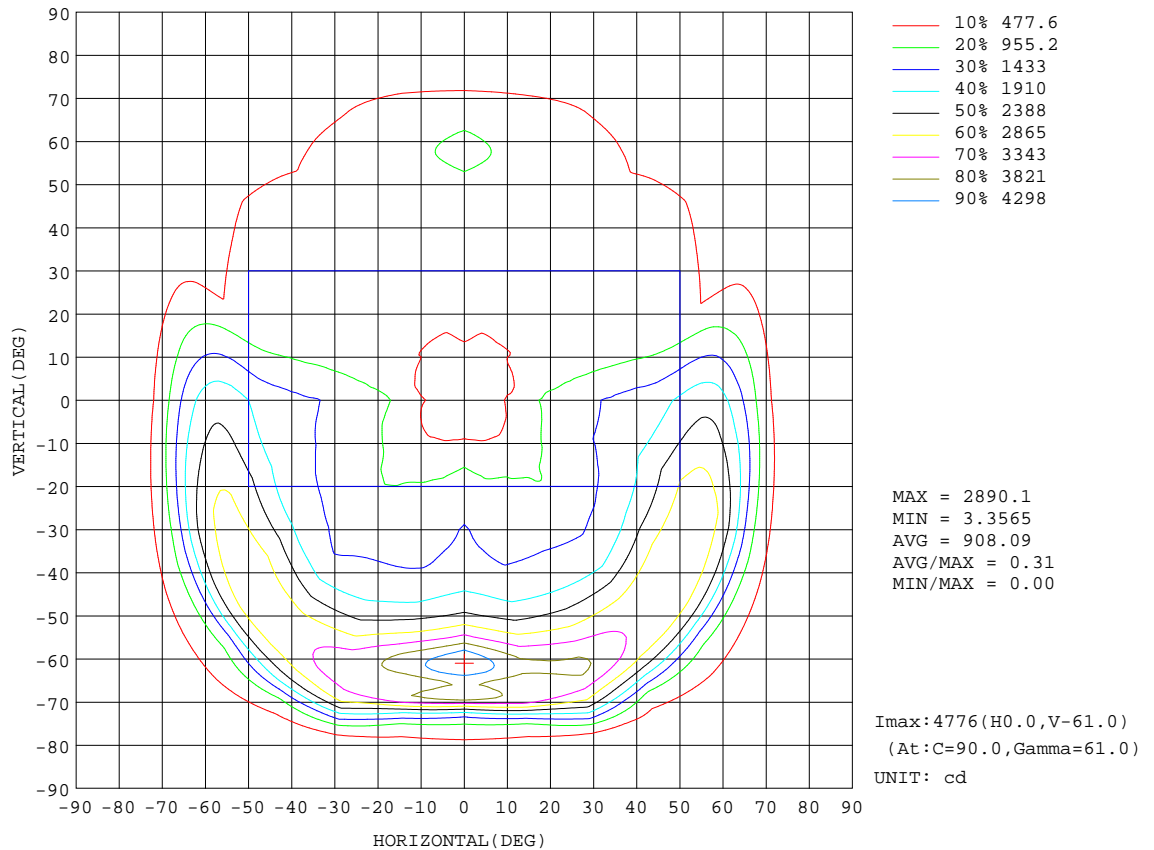
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:13.9DEG  
 Operators:CS01  
 Test Date:2022-09-26

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.404.7  
 Humidity:38.0%  
 Test Distance:26.000m [K=1.0000]  
 Remarks: T-221LED60-24(5050 40K RA70 TYPEIV)L

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## ISOCANDELA DIAGRAM

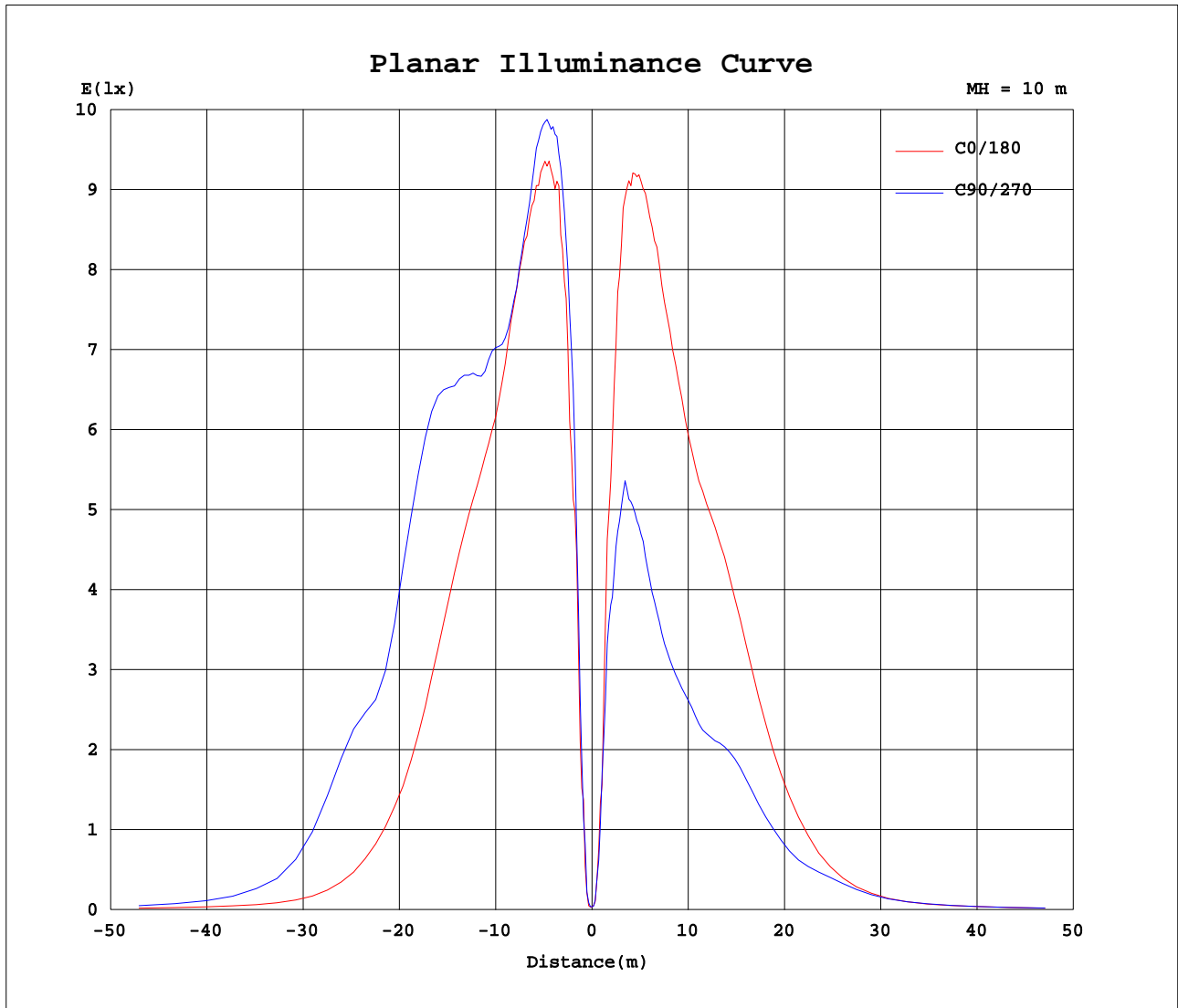
Test:U:220.12V I:0.2650A P:57.708W PF:0.9892 Freq:50.01Hz Lamp Flux:6526.25x1 lm		
NAME: T-221LED60-24	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 13.9DEG  
Operators: CS01  
Test Date: 2022-09-26

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.0.404.7  
Humidity: 38.0%  
Test Distance: 26.000m [K=1.0000]  
Remarks: T-221LED60-24(5050 40K RA70 TYPEIV)L

## Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:13.9DEG  
Operators:CS01  
Test Date:2022-09-26

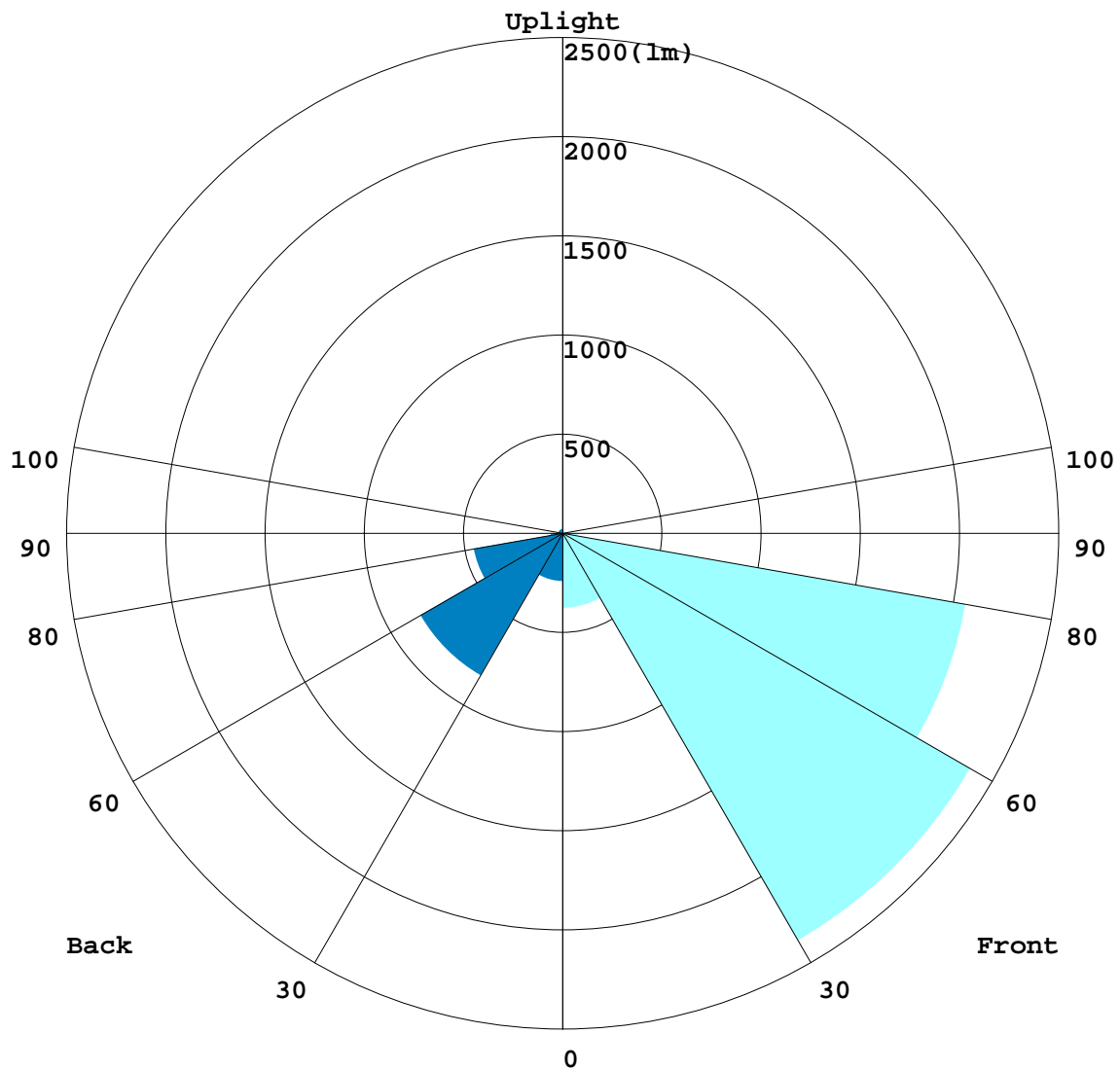
$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.404.7  
Humidity:38.0%  
Test Distance:26.000m [K=1.0000]  
Remarks: T-221LED60-24(5050 40K RA70 TYPEIV)L

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## LCS REPORT

Test:U:220.12V I:0.2650A P:57.708W PF:0.9892 Freq:50.01Hz Lamp Flux:6526.25x1 lm		
NAME: T-221LED60-24	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:

## LUMINAIRE CLASSIFICATION SYSTEM(LCS) GRAPH



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:13.9DEG  
Operators:CS01  
Test Date:2022-09-26

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.404.7  
Humidity:38.0%  
Test Distance:26.000m [K=1.0000]  
Remarks: T-221LED60-24(5050 40K RA70 TYPEIV)L

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## BUG REPORT

Test:U:220.12V I:0.2650A P:57.708W PF:0.9892 Freq:50.01Hz Lamp Flux:6526.25x1 lm		
NAME: T-221LED60-24	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:

### IESNA Luminaire Flux Distribution Table:

Zone	Lumens	Luminaire %
FL - Front-Low(0-30)	377.14	5.8
FM - Front-Medium(30-60)	2371.2	36.3
FH - Front-High(60-80)	2062	31.6
FVH - Front-Very High(80-90)	75.175	1.2
Total Forward Light	4910.2	75.2

BL - Back-Low(0-30)	241.52	3.7
BM - Back-Medium(30-60)	827.07	12.7
BH - Back-High(60-80)	454.23	7.0
BVH - Back-Very High(80-90)	59.735	0.9
Total Back Light	1616.1	24.8

UL - Uplight-Low(90-100)	22.72	0.3
UH - Uplight-High(100-180)	35.443	0.5
Total Up Light	58.163	0.9

BUG(Back,Up,Glare) Rating	B1-U2-G2
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Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	1582.6	33.518	1616.1
Street Side	4885.5	24.645	4910.2

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:13.9DEG  
 Operators:CS01  
 Test Date:2022-09-26

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.404.7  
 Humidity:38.0%  
 Test Distance:26.000m [K=1.0000]  
 Remarks: T-221LED60-24(5050 40K RA70 TYPEIV)L

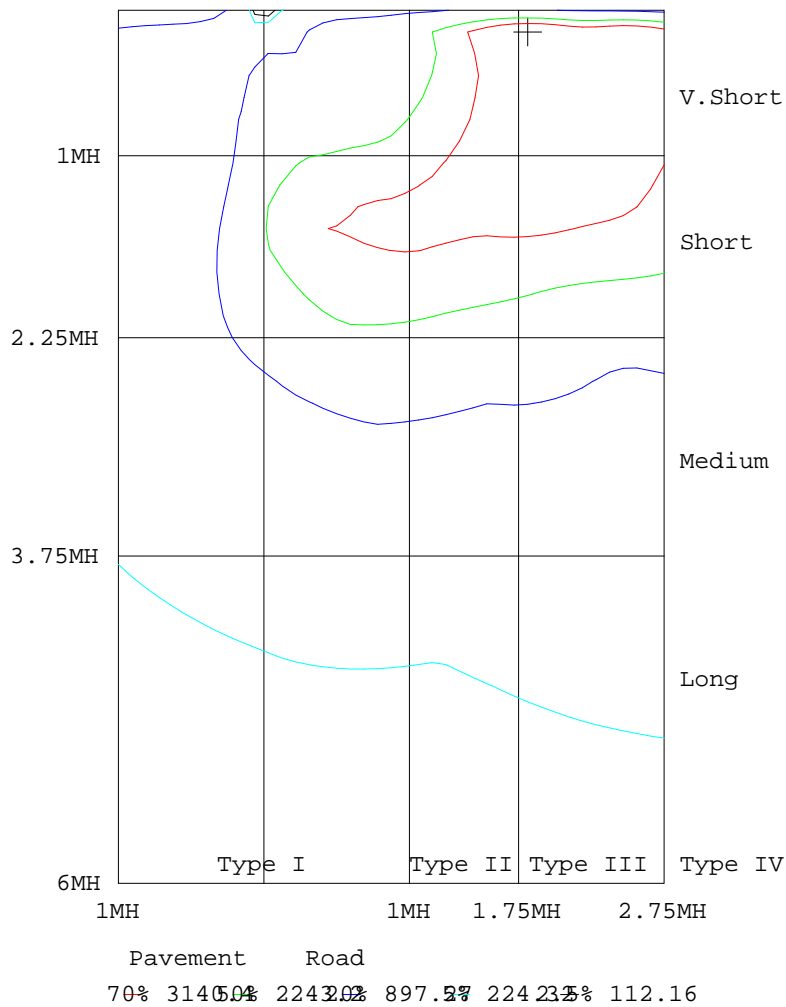


# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## ROAD ISOCANDELA REPORT

Test:U:220.12V I:0.2650A P:57.708W PF:0.9892 Freq:50.01Hz Lamp Flux:6526.25x1 lm		
NAME: T-221LED60-24	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:

### ROAD SURFACE ISOCANDELA DIAGRAM



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:13.9DEG  
 Operators:CS01  
 Test Date:2022-09-26

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.404.7  
 Humidity:38.0%  
 Test Distance:26.000m [K=1.0000]  
 Remarks: T-221LED60-24(5050 40K RA70 TYPEIV)L

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.12V I:0.2650A P:57.708W PF:0.9892 Freq:50.01Hz Lamp Flux:6526.25x1 lm																			
NAME: T-221LED60-24										TYPE:					WEIGHT:				
SPEC.:										DIM.:					SERIAL No.:				
MFR.: KLED										SUR.:					Shielding Angle:				

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53
5	142	126	87.1	64.5	101	96.4	112	95.9	88.6	68.8	71.5	108	139	114	96.2	75.1	77.1	103	106
10	531	489	445	367	403	511	584	521	396	359	387	448	531	412	391	310	307	322	367
15	864	785	752	670	764	781	901	780	724	683	643	714	874	644	571	488	458	438	510
20	1118	1043	982	880	952	976	1132	983	892	831	885	953	1108	783	664	581	521	532	615
25	1273	1230	1135	960	1076	1125	1289	1128	1021	920	1003	1116	1254	823	663	565	551	545	634
30	1420	1405	1295	1093	1193	1216	1424	1222	1116	1028	1138	1249	1383	847	616	560	571	553	638
35	1548	1599	1438	1229	1296	1299	1492	1302	1196	1135	1252	1391	1493	834	602	575	568	551	636
40	1672	1846	1722	1433	1497	1427	1607	1401	1328	1274	1452	1577	1585	776	627	597	582	561	655
45	1776	2167	2037	1654	1721	1704	1931	1675	1541	1439	1641	1785	1711	695	642	611	567	592	719
50	2036	2678	2662	2164	2107	2072	2442	2088	1843	1786	2162	2207	1946	599	629	588	546	626	805
55	2274	3109	3239	2838	2690	2759	3371	2836	2365	2395	2773	2685	2250	535	598	543	552	752	1015
60	2068	3107	3390	3352	3406	3626	4587	3847	3066	3027	3120	2897	2162	470	558	509	597	791	1025
65	1405	2494	3014	3252	3973	3621	3847	3567	3688	3148	2915	2497	1566	391	492	451	563	651	801
70	627	1167	1478	2246	3289	3519	3467	3568	3274	2553	1547	1285	727	320	370	351	460	562	612
75	280	418	601	691	1792	1126	945	1117	1809	915	620	500	304	240	281	212	316	298	303
80	177	151	245	267	367	365	359	362	385	306	261	173	187	164	204	152	182	178	182
85	98.3	79.4	95.4	106	136	194	142	195	149	123	101	78.1	105	100	134	104	114	112	99.6
90	29.8	35.9	39.9	39.2	46.8	58.4	44.0	58.4	50.4	42.9	40.3	37.1	31.1	42.4	58.6	44.9	55.1	54.6	38.0
95	12.3	15.9	15.1	13.0	17.2	25.2	19.2	23.6	17.9	14.7	16.1	17.2	12.4	18.8	20.4	15.8	24.2	30.0	20.1
100	4.50	6.40	6.82	4.81	6.16	7.34	5.80	7.80	6.36	5.18	6.94	6.56	3.85	9.16	10.12	6.72	12.0	13.8	7.98
105	4.45	5.80	6.15	4.32	5.22	4.77	3.05	4.98	5.25	4.59	6.15	6.04	4.18	8.40	9.45	7.43	10.7	11.2	7.55
110	4.67	5.59	5.70	4.10	4.90	4.57	3.05	4.72	4.89	4.43	5.73	5.88	4.72	8.40	9.39	7.87	10.3	10.4	7.91
115	4.99	5.58	5.48	4.04	4.69	4.46	3.05	4.61	4.78	4.32	5.52	5.77	5.37	8.40	9.39	8.36	10.0	10.3	7.91
120	6.02	5.58	5.48	4.04	4.69	4.56	3.52	4.61	4.78	4.32	5.57	5.77	5.97	8.40	9.34	8.36	9.69	9.39	7.91
125	6.46	5.58	5.59	4.15	4.69	4.57	3.72	4.61	4.78	4.59	5.57	6.24	6.62	8.40	9.10	8.36	8.89	8.61	7.86
130	6.57	5.58	5.64	4.75	4.69	4.62	3.93	4.61	4.78	4.64	5.57	6.25	7.16	8.40	8.61	8.36	8.41	7.94	7.40
135	6.62	5.85	5.70	4.81	4.74	4.72	4.50	4.67	4.88	4.96	5.57	6.30	7.38	8.40	8.61	8.03	8.15	7.73	7.40
140	6.73	6.50	6.09	5.46	5.32	4.98	4.65	5.08	5.25	5.61	5.94	6.35	7.71	8.24	8.50	8.08	8.15	7.73	7.45
145	7.32	6.72	6.60	5.79	5.54	5.29	5.28	5.34	5.56	5.82	6.25	6.56	8.09	8.24	8.61	8.36	8.26	7.78	7.71
150	7.33	6.99	7.04	6.39	6.23	5.96	5.84	5.96	6.19	6.37	6.62	7.03	8.30	8.24	8.61	8.74	8.31	7.78	7.81
155	7.54	7.32	7.49	7.37	6.87	6.38	6.36	6.22	6.61	7.17	7.04	7.09	8.30	8.13	8.61	8.96	8.31	7.78	7.81
160	7.76	7.32	7.60	7.59	7.14	6.90	6.98	6.69	7.14	7.39	7.20	7.14	8.25	8.13	8.55	9.01	8.31	7.78	7.76
165	7.81	7.37	7.66	7.48	7.19	6.85	6.93	6.69	6.99	7.34	7.15	7.14	7.59	7.59	7.87	7.86	7.92	7.52	7.29
170	6.19	5.97	5.72	5.47	5.39	5.35	5.49	5.45	5.31	5.30	5.20	5.52	5.81	5.84	5.86	5.57	5.32	5.34	5.58
175	4.13	3.96	3.81	3.61	3.58	3.53	3.62	3.59	3.42	3.45	3.42	3.73	3.80	3.74	3.74	3.44	3.20	3.37	3.46
180	3.31	3.36	3.19	3.22	3.09	2.91	3.00	3.11	2.99	3.02	2.94	2.94	3.31	3.25	3.41	3.22	3.14	3.06	3.00

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:13.9DEG  
Operators:CS01  
Test Date:2022-09-26

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.404.7  
Humidity:38.0%  
Test Distance:26.000m [K=1.0000]  
Remarks: T-221LED60-24(5050 40K RA70 TYPEIV)L

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.12V I:0.2650A P:57.708W PF:0.9892 Freq:50.01Hz Lamp Flux:6526.25x1 lm		
NAME: T-221LED60-24	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:

Table--2

UNIT: cd

C(DEG) γ (DEG)	285	300	315	330	345													
0	3.53	3.53	3.53	3.53	3.53													
5	103	69.6	64.6	106	119													
10	326	304	316	372	413													
15	438	466	479	545	621													
20	523	513	547	627	743													
25	544	541	559	629	782													
30	554	566	552	562	800													
35	549	571	554	551	774													
40	558	574	586	591	722													
45	582	554	598	609	633													
50	622	538	569	599	551													
55	744	553	529	571	493													
60	768	586	501	525	441													
65	635	563	446	461	372													
70	542	466	345	345	307													
75	281	330	210	264	232													
80	176	178	148	187	157													
85	111	109	101	124	95.4													
90	50.8	49.5	44.1	49.3	37.4													
95	25.7	21.5	14.2	17.1	16.1													
100	12.5	11.4	6.91	9.61	8.44													
105	10.7	10.6	7.51	8.72	7.98													
110	10.3	10.4	8.10	8.51	7.98													
115	9.95	9.87	8.15	8.14	7.98													
120	9.54	9.55	8.15	8.09	8.08													
125	8.71	8.66	7.61	7.93	8.08													
130	7.83	7.98	7.56	7.93	7.77													
135	7.52	7.61	7.56	7.67	7.66													
140	7.52	7.77	7.67	7.67	7.66													
145	7.57	7.87	7.88	7.83	7.82													
150	7.88	7.93	8.42	8.04	8.03													
155	7.88	7.87	8.47	8.04	7.98													
160	7.88	7.87	8.37	8.09	7.98													
165	7.36	7.29	7.60	7.55	7.29													
170	5.60	5.39	5.38	5.25	5.35													
175	3.62	3.51	3.29	3.10	3.20													
180	3.11	3.04	3.08	3.00	2.99													

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:13.9DEG  
Operators:CS01  
Test Date:2022-09-26

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
γ Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.404.7  
Humidity:38.0%  
Test Distance:26.000m [K=1.0000]  
Remarks: T-221LED60-24(5050 40K RA70 TYPEIV)L