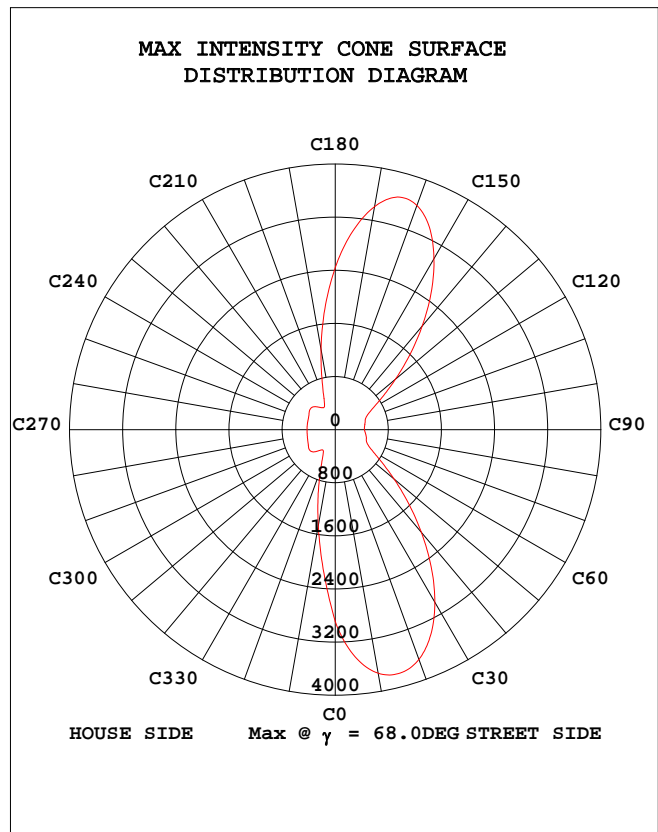
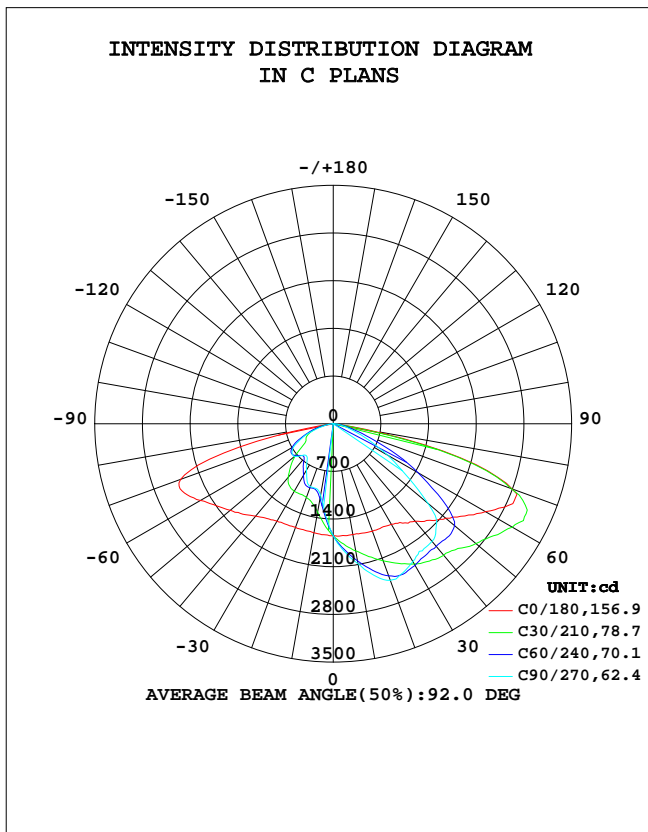


# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## STREETLIGHT PHOTOMETRIC TEST REPORT

Test:U:230.15V I:0.2645A P:59.921W PF:0.9844 Freq:50.01Hz Lamp Flux:7330.97x1 lm					
NAME: D-20HLED60-24		TYPE:		WEIGHT:	
SPEC.:		DIM.:		SERIAL No.:	
MFR.: KLED		SUR.:		Shielding Angle:	

DATA OF LAMP		PHOTOMETRIC DATA Eff: 122.34 lm/W			
MODEL	5050 RA70 40K T3N	I <sub>max</sub> (cd)	3792	η street_up(%)	0.1
NOMINAL POWER(W)	60	LOR(%)	100.0	η street_down(%)	70.1
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	7331	η house_up(%)	0.2
NOMINAL FLUX(lm)	7330.97	MAXIMUM @(C,γ )	15,68.0	η house_down(%)	29.6
LAMPS INSIDE	1	η up(%)	0.3	76 FLASHAREA(m2)	0.00100
TEST VOLTAGE(V)	230.0	η down(%)	99.7	SLI	20.571



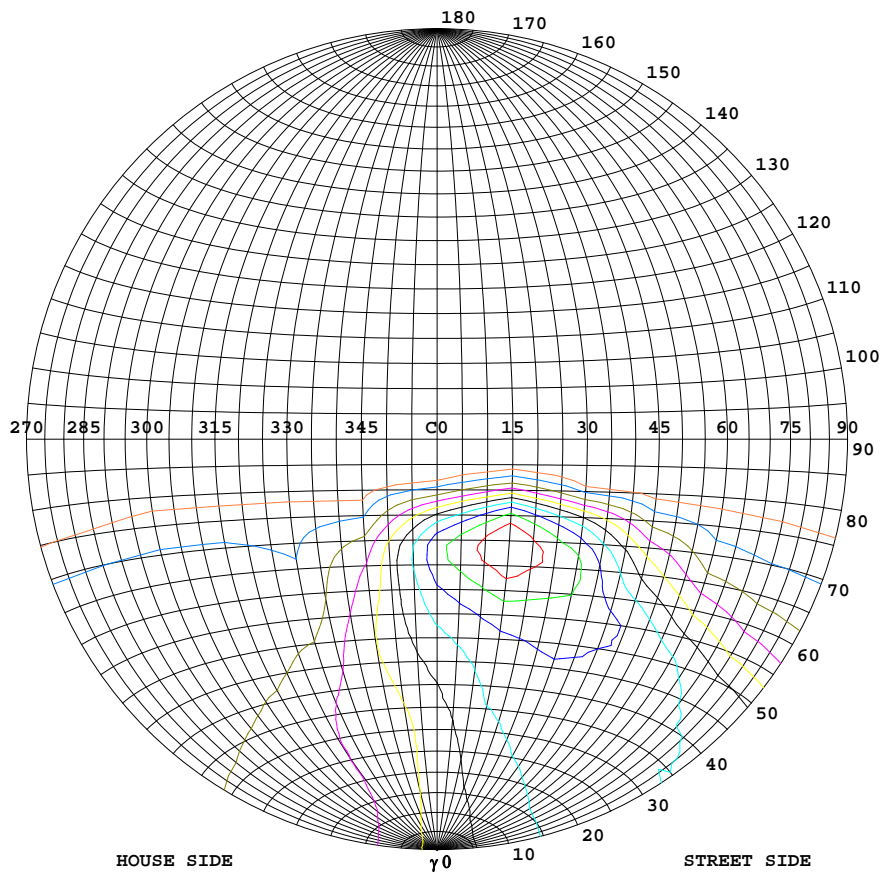
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 33.1DEG  
Operators:CS01  
Test Date:2021-07-20

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.404.7  
Humidity: 44.6%  
Test Distance:26.000m [K=1.0000]  
Remarks: D-20HLED60-24(5050 RA70 40K T3N)L

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## STREETLIGHT ISOCANDELA DIAGRAM

Test:U:230.15V I:0.2645A P:59.921W PF:0.9844 Freq:50.01Hz Lamp Flux:7330.97x1 lm		
NAME: D-20HLED60-24	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:



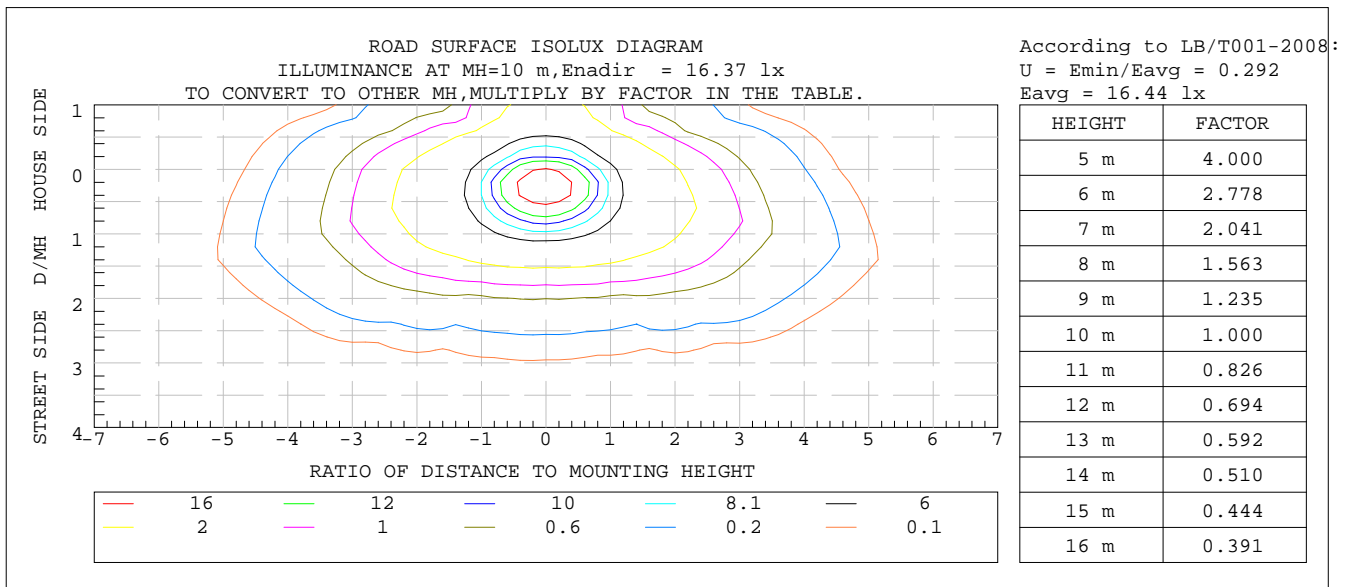
### Classification:

IES:Type III - Medium  
 CIE:Narrow - Intermediate  
 IES:Semi cut-off  
 CIE:Non-cut-off  
 Max.At80:187.0cd/klm  
 Max.At90:0.3649cd/klm  
 Max.80-90:187.0cd/klm

ISOCANDELA DIAGRAM	
UNIT	cd
Imax=100%	3792
90%	3413
80%	3034
70%	2654
60%	2275
50%	1896
40%	1517
30%	1138
20%	758
10%	379
5%	190

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 33.1DEG  
 Operators:CS01  
 Test Date:2021-07-20

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.404.7  
 Humidity: 44.6%  
 Test Distance:26.000m [K=1.0000]  
 Remarks: D-20HLED60-24(5050 RA70 40K T3N)L

COEFFICIENT OF UTILIZATION CURVE  
AND ISOLUX DIAGRAM

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 33.1DEG  
Operators:CS01  
Test Date:2021-07-20

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.404.7  
Humidity: 44.6%  
Test Distance:26.000m [K=1.0000]  
Remarks: D-20HLED60-24(5050 RA70 40K T3N)L

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## ZONAL FLUX DIAGRAM

Test:U:230.15V I:0.2645A P:59.921W PF:0.9844 Freq:50.01Hz Lamp Flux:7330.97x1 lm		
NAME: D-20HLED60-24	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	1651	1985	2083	1948	1626	1200	1071	1223	0- 10	153.9	153.9	2.1,2.1
20	1680	2279	2446	2246	1619	1050	983.0	1079	10- 20	461.4	615.3	8.39,8.39
30	1705	2465	2337	2405	1651	1016	785.1	1050	20- 30	777.1	1392	19,19
40	1870	2481	2255	2406	1770	796.0	614.7	816.5	30- 40	1036	2428	33.1,33.1
50	2158	2609	1815	2515	1976	633.0	746.8	619.8	40- 50	1267	3695	50.4,50.4
60	2580	2285	920.2	2291	2254	662.9	666.8	647.1	50- 60	1402	5096	69.5,69.5
70	2792	1309	351.4	1366	2384	417.6	351.1	414.8	60- 70	1335	6432	87.7,87.7
80	484.7	146.9	105.1	133.2	406.6	131.7	74.08	132.3	70- 80	805.5	7237	98.7,98.7
90	1.815	0.9463	0.7960	0.9550	1.913	0.7904	0.4977	0.7976	80- 90	73.92	7311	99.7,99.7
100	3.477	1.001	0.6478	0.7979	3.681	2.227	0.7952	2.096	90-100	1.543	7313	99.8,99.8
110	5.196	1.063	1.082	1.096	4.690	3.952	1.590	3.587	100-110	2.390	7315	99.8,99.8
120	5.199	1.136	1.241	1.218	4.735	4.696	3.035	4.237	110-120	2.944	7318	99.8,99.8
130	4.718	1.886	1.367	1.494	4.712	4.991	4.967	5.231	120-130	3.140	7321	99.9,99.9
140	4.610	2.106	2.035	2.297	4.365	5.486	5.740	5.731	130-140	3.195	7324	99.9,99.9
150	4.164	2.732	2.086	2.718	4.293	6.321	5.878	5.978	140-150	2.778	7327	99.9,99.9
160	4.364	2.963	2.731	2.888	4.904	5.928	5.811	5.730	150-160	2.027	7329	100,100
170	4.849	4.786	4.113	4.433	5.191	5.876	5.861	5.948	160-170	1.332	7330	100,100
180	5.002	5.334	5.116	5.081	5.296	5.334	5.215	5.078	170-180	0.5005	7331	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

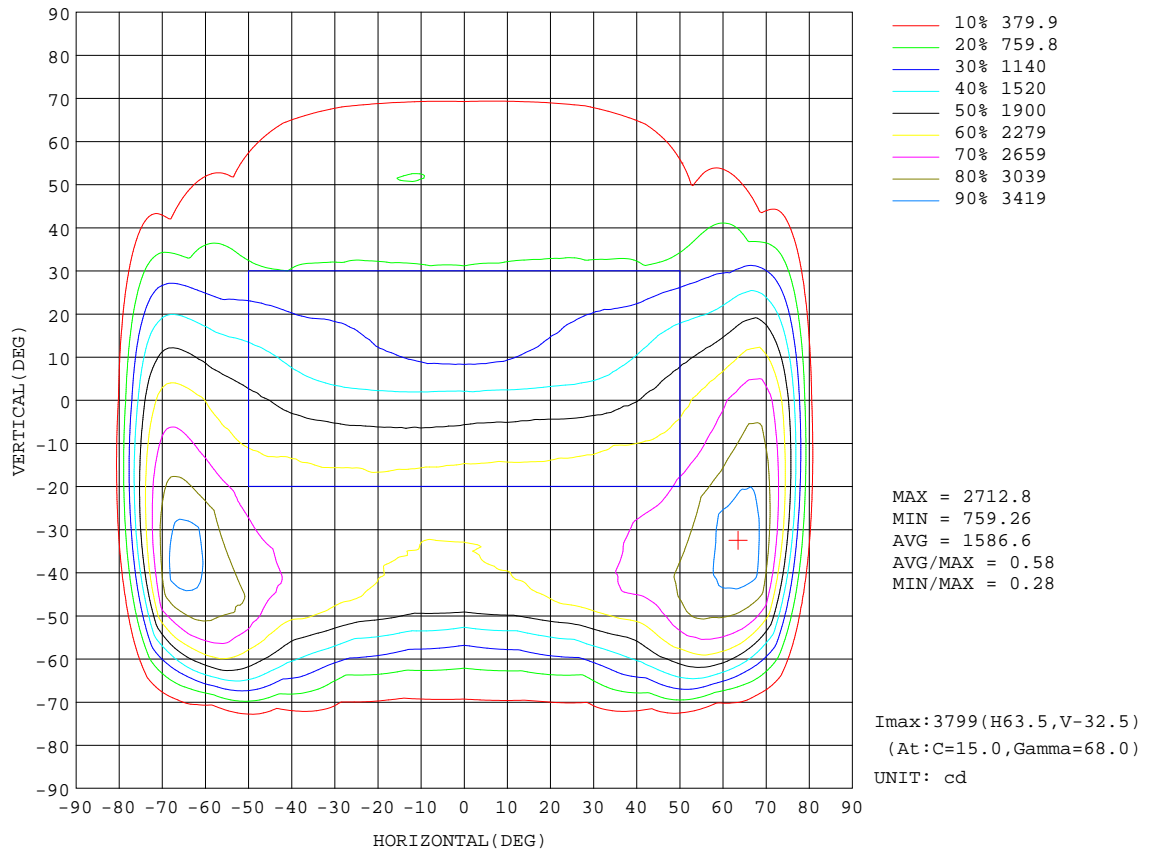
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 33.1DEG  
 Operators:CS01  
 Test Date:2021-07-20

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.404.7  
 Humidity: 44.6%  
 Test Distance:26.000m [K=1.0000]  
 Remarks: D-20HLED60-24(5050 RA70 40K T3N)L

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## ISOCANDELA DIAGRAM

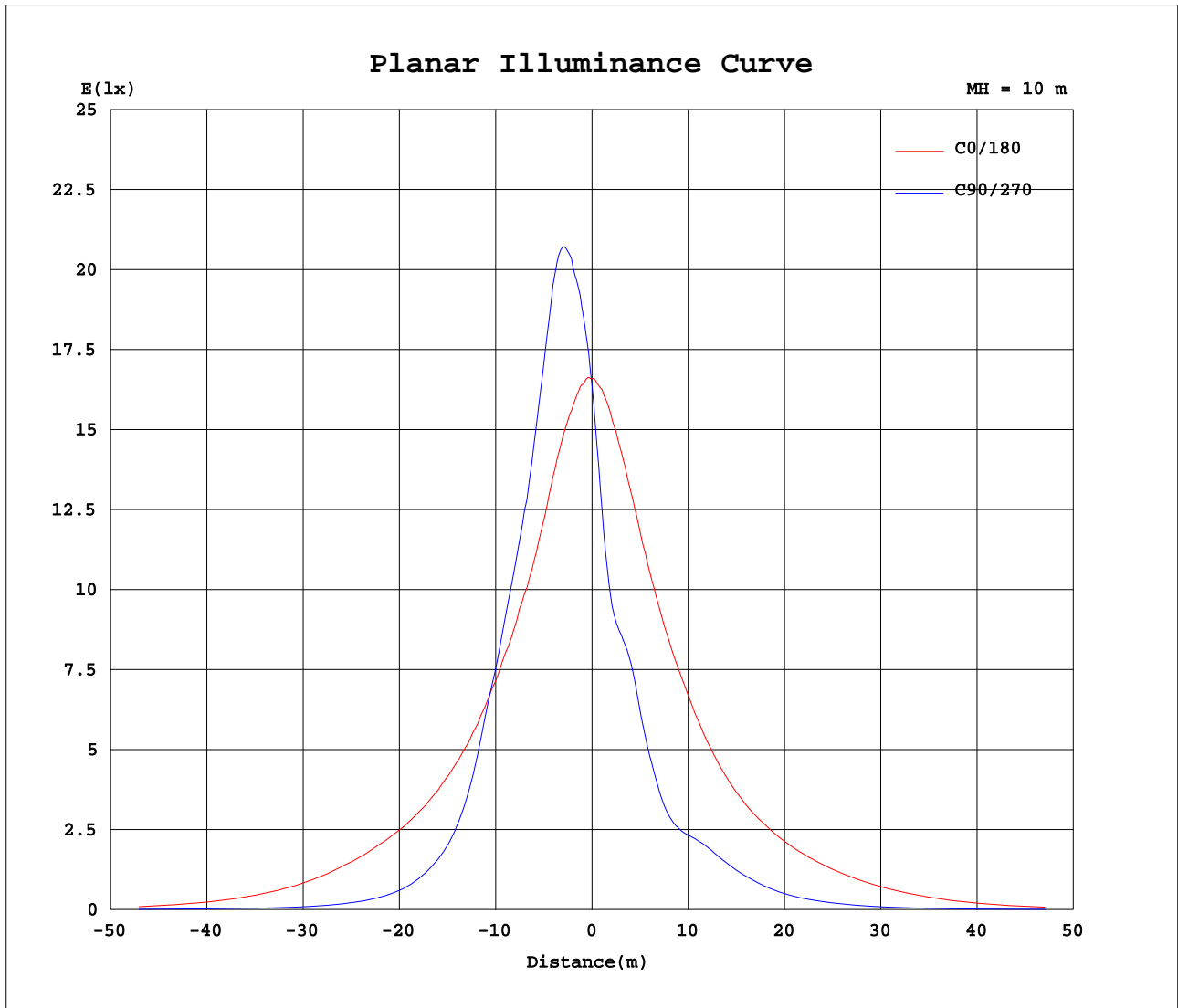
Test:U:230.15V I:0.2645A P:59.921W PF:0.9844 Freq:50.01Hz Lamp Flux:7330.97x1 lm		
NAME: D-20HLED60-24	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 33.1DEG  
Operators:CS01  
Test Date:2021-07-20

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.404.7  
Humidity: 44.6%  
Test Distance:26.000m [K=1.0000]  
Remarks: D-20HLED60-24(5050 RA70 40K T3N)L

## Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 33.1DEG  
Operators: CS01  
Test Date: 2021-07-20

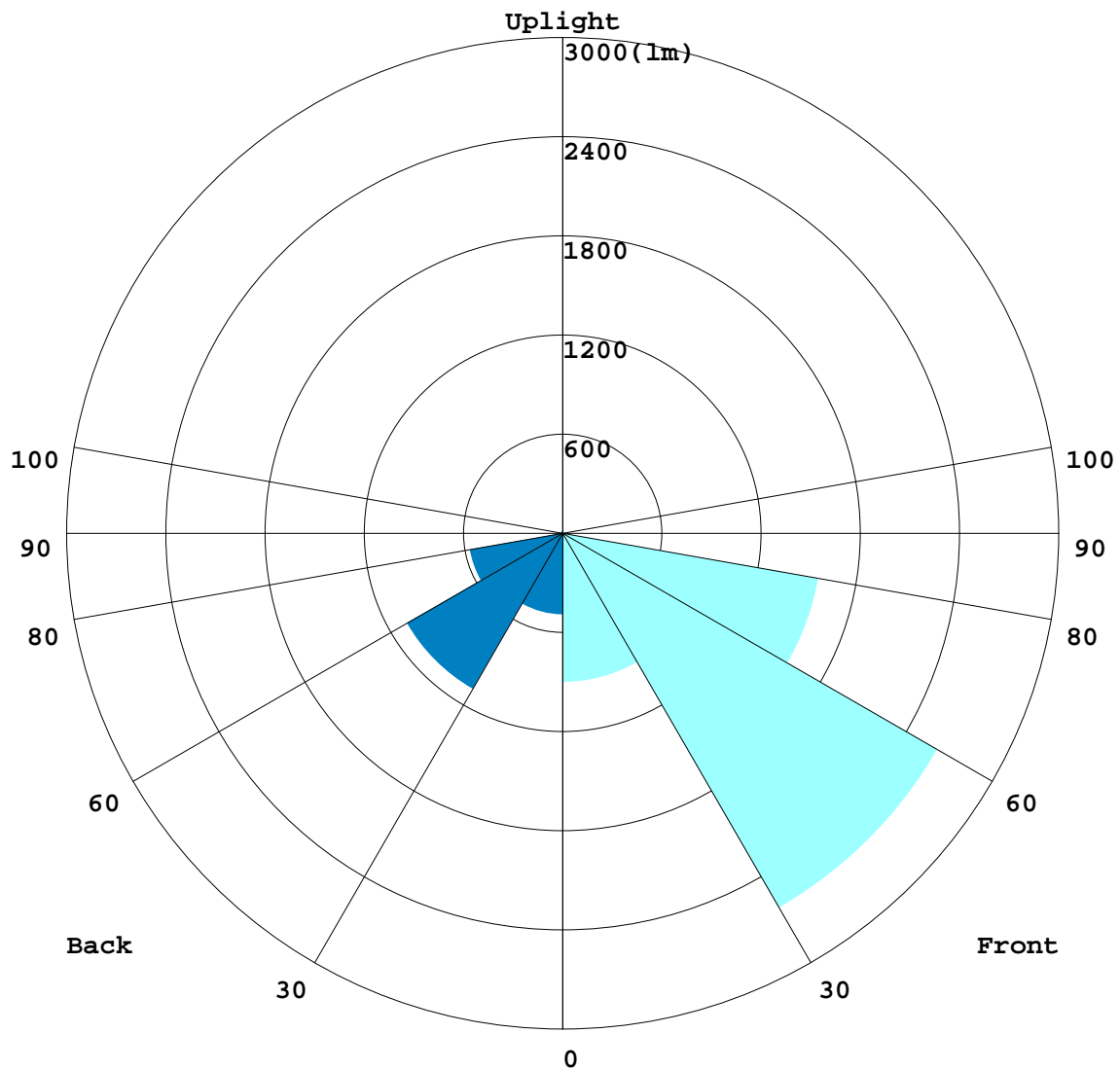
$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.0.404.7  
Humidity: 44.6%  
Test Distance: 26.000m [K=1.0000]  
Remarks: D-20HLED60-24(5050 RA70 40K T3N)L

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## LCS REPORT

Test:U:230.15V I:0.2645A P:59.921W PF:0.9844 Freq:50.01Hz Lamp Flux:7330.97x1 lm		
NAME: D-20HLED60-24	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: 33.1DEG  
Operators:CS01  
Test Date:2021-07-20

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.404.7  
Humidity: 44.6%  
Test Distance:26.000m [K=1.0000]  
Remarks: D-20HLED60-24(5050 RA70 40K T3N)L

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## BUG REPORT

Test:U:230.15V I:0.2645A P:59.921W PF:0.9844 Freq:50.01Hz Lamp Flux:7330.97x1 lm		
NAME: D-20HLED60-24	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:

### IESNA Luminaire Flux Distribution Table:

Zone	Lumens	Luminaire %
FL - Front-Low(0-30)	900.46	12.3
FM - Front-Medium(30-60)	2616.3	35.7
FH - Front-High(60-80)	1570.2	21.4
FVH - Front-Very High(80-90)	51.146	0.7
Total Forward Light	5144.9	70.2

BL - Back-Low(0-30)	491.98	6.7
BM - Back-Medium(30-60)	1087.5	14.8
BH - Back-High(60-80)	570.75	7.8
BVH - Back-Very High(80-90)	22.773	0.3
Total Back Light	2186.1	29.8

UL - Uplight-Low(90-100)	1.5435	0.0
UH - Uplight-High(100-180)	18.307	0.2
Total Up Light	19.85	0.3

BUG(Back,Up,Glare) Rating	B2-U2-G2
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Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	2173	13.077	2186.1
Street Side	5138.1	6.773	5144.9

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 33.1DEG  
 Operators:CS01  
 Test Date:2021-07-20

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.404.7  
 Humidity: 44.6%  
 Test Distance:26.000m [K=1.0000]  
 Remarks: D-20HLED60-24(5050 RA70 40K T3N)L

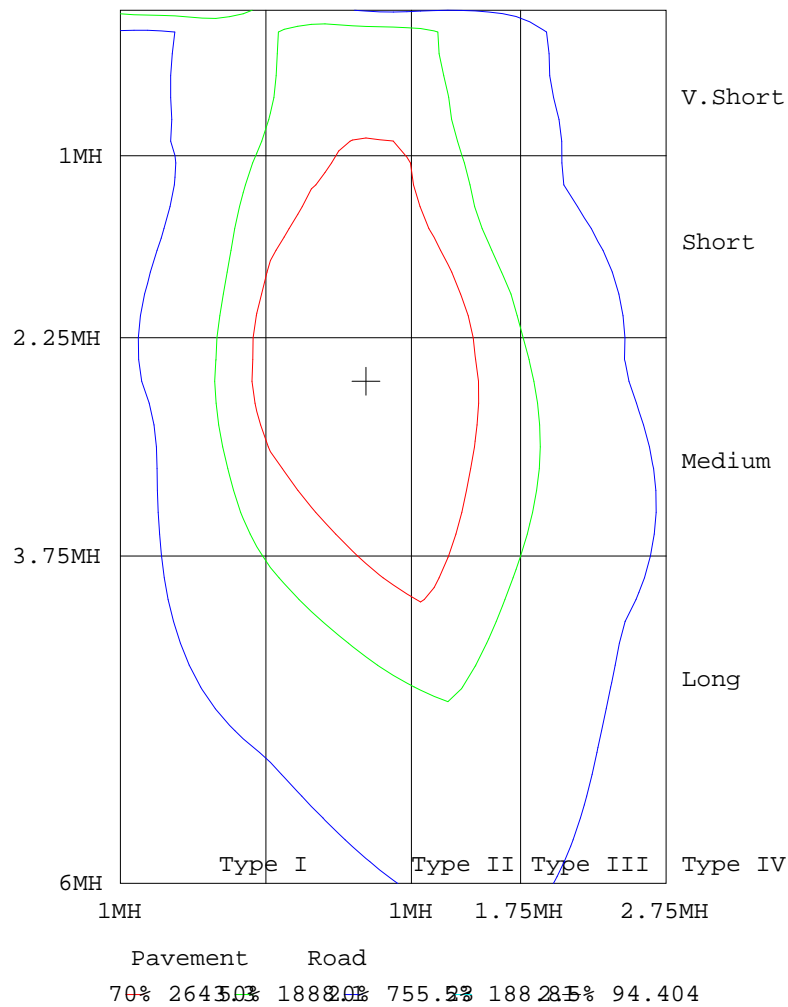


# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## ROAD ISOCANDELA REPORT

Test:U:230.15V I:0.2645A P:59.921W PF:0.9844 Freq:50.01Hz Lamp Flux:7330.97x1 lm		
NAME: D-20HLED60-24	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: 33.1DEG  
 Operators:CS01  
 Test Date:2021-07-20

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.404.7  
 Humidity: 44.6%  
 Test Distance:26.000m [K=1.0000]  
 Remarks: D-20HLED60-24(5050 RA70 40K T3N)L

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.15V I:0.2645A P:59.921W PF:0.9844 Freq:50.01Hz Lamp Flux:7330.97x1 lm																		
NAME: D-20HLED60-24									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	1644	1644	1644	1644	1644	1644	1644	1644	1644	1644	1644	1644	1644	1644	1644	1644	1644	1644	1644
5	1646	1717	1773	1819	1849	1869	1880	1864	1839	1801	1756	1700	1634	1561	1489	1417	1368	1336	1334
10	1651	1785	1895	1985	2042	2076	2083	2065	2011	1948	1851	1747	1626	1471	1321	1200	1120	1078	1071
15	1662	1859	2019	2137	2226	2273	2301	2267	2188	2097	1952	1797	1618	1395	1206	1071	1002	981	984
20	1680	1939	2140	2279	2375	2426	2446	2416	2351	2246	2055	1867	1619	1345	1153	1050	1001	982	983
25	1680	2021	2262	2401	2436	2426	2417	2415	2404	2353	2176	1943	1632	1308	1141	1057	979	925	914
30	1705	2142	2376	2465	2402	2343	2337	2333	2376	2405	2297	2038	1651	1288	1145	1016	874	802	785
35	1781	2244	2462	2468	2361	2315	2277	2281	2325	2406	2389	2142	1698	1287	1117	904	771	695	675
40	1870	2351	2522	2481	2351	2285	2255	2262	2301	2406	2434	2244	1770	1315	1028	796	666	624	615
45	2005	2447	2591	2547	2365	2214	2138	2191	2297	2445	2480	2318	1879	1358	885	659	659	660	661
50	2158	2578	2735	2609	2326	1975	1815	1940	2262	2515	2592	2424	1976	1342	722	633	723	748	747
55	2361	2816	2870	2627	1959	1454	1296	1458	1932	2557	2694	2631	2098	1256	525	679	752	754	742
60	2580	3197	3036	2285	1435	1042	920	1038	1436	2291	2913	2923	2254	1109	461	663	699	672	667
65	2838	3592	3124	1822	934	655	587	642	947	1844	3069	3366	2409	927	430	571	561	518	514
70	2792	3748	2778	1309	517	389	351	370	513	1366	2807	3744	2384	636	348	418	399	371	351
75	1929	3130	1892	595	271	232	212	222	267	615	2023	3215	1660	312	255	268	258	204	183
80	485	1286	331	147	144	125	105	121	141	133	386	1371	407	136	148	132	122	87.3	74.1
85	55.7	112	46.0	34.1	33.7	25.4	19.1	25.0	33.8	31.4	42.9	97.6	44.9	39.4	35.1	26.6	20.3	12.7	10.2
90	1.82	1.29	1.14	0.95	0.79	0.74	0.80	0.80	0.85	0.95	1.19	1.39	1.91	2.32	1.39	0.79	0.54	0.83	0.50
95	2.01	1.26	0.90	0.97	0.70	0.73	0.61	0.60	0.72	0.80	0.90	1.28	2.51	3.45	2.57	1.44	0.79	0.64	0.60
100	3.48	1.38	0.96	1.00	0.72	0.71	0.65	0.62	0.75	0.80	0.92	1.68	3.68	4.68	4.11	2.23	1.18	0.84	0.80
105	4.51	2.36	1.02	1.03	0.74	0.70	0.68	0.64	0.78	0.80	0.94	2.32	4.56	5.24	4.50	3.26	1.78	1.29	1.14
110	5.20	2.96	1.18	1.06	1.18	1.04	1.08	1.04	1.11	1.10	1.14	2.92	4.69	5.57	5.05	3.95	2.47	1.73	1.59
115	5.32	3.42	1.67	1.10	1.20	1.14	1.24	1.14	1.18	1.17	1.54	3.41	4.73	5.93	5.19	4.30	3.26	2.47	2.14
120	5.20	3.46	1.98	1.14	1.22	1.24	1.24	1.24	1.22	1.22	1.88	3.46	4.74	5.75	5.33	4.70	3.89	3.26	3.03
125	5.08	3.45	1.98	1.63	1.41	1.83	1.27	1.35	1.26	1.30	2.03	3.51	4.72	5.87	5.44	4.96	4.73	4.21	4.23
130	4.72	3.35	2.03	1.89	1.51	1.87	1.37	1.54	1.34	1.49	2.07	3.53	4.71	5.81	5.54	4.99	5.67	5.04	4.97
135	4.68	3.29	2.16	1.96	1.94	1.69	1.91	1.91	1.89	2.11	3.55	4.51	5.27	5.63	5.03	5.98	5.74	5.51	
140	4.61	3.37	2.52	2.11	6.65	2.04	2.04	2.02	5.63	2.30	2.23	3.56	4.36	5.10	5.68	5.49	6.02	6.25	5.74
145	4.32	3.45	2.68	2.51	3.95	2.32	2.04	2.14	3.84	2.65	2.68	3.58	4.29	5.07	5.84	6.08	6.05	6.46	5.81
150	4.16	3.50	2.96	2.73	3.01	2.77	2.09	2.64	2.98	2.72	2.83	3.60	4.29	5.03	5.83	6.32	5.89	6.47	5.88
155	4.36	3.79	3.28	2.76	3.03	2.81	2.23	2.76	3.04	2.79	3.03	3.66	4.61	4.88	5.83	6.27	5.83	5.96	5.81
160	4.36	4.34	3.51	2.96	3.05	2.86	2.73	2.78	3.10	2.89	3.45	3.86	4.90	4.88	5.38	5.93	5.76	5.75	5.81
165	4.51	4.39	4.24	3.80	3.55	3.26	3.12	3.03	3.48	3.59	3.97	4.30	5.12	5.18	5.43	5.83	5.52	5.79	5.86
170	4.85	5.03	4.82	4.79	4.43	4.30	4.11	4.07	4.42	4.43	4.57	4.99	5.19	5.30	5.37	5.88	6.33	5.79	5.86
175	4.96	5.86	5.28	5.38	4.99	4.80	5.01	4.97	4.92	4.92	5.06	4.99	5.27	5.42	5.31	5.40	5.91	5.67	5.83
180	5.00	5.27	5.38	5.33	5.03	5.14	5.12	5.17	5.07	5.08	4.91	4.90	5.30	5.03	5.34	5.33	5.32	5.09	5.22

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 33.1DEG  
Operators:CS01  
Test Date:2021-07-20

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.404.7  
Humidity: 44.6%  
Test Distance:26.000m [K=1.0000]  
Remarks: D-20HLED60-24(5050 RA70 40K T3N)L

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.15V I:0.2645A P:59.921W PF:0.9844 Freq:50.01Hz Lamp Flux:7330.97x1 lm		
NAME: D-20HLED60-24	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	1644	1644	1644	1644	1644														
5	1346	1372	1431	1502	1579														
10	1087	1133	1223	1348	1505														
15	992	1026	1101	1234	1438														
20	995	1024	1079	1182	1392														
25	941	1005	1089	1171	1355														
30	817	900	1050	1178	1332														
35	711	793	937	1164	1356														
40	630	681	817	1090	1415														
45	661	661	673	937	1480														
50	738	719	620	777	1503														
55	747	747	661	562	1445														
60	672	698	647	448	1312														
65	522	567	556	407	1157														
70	378	408	415	333	846														
75	214	265	267	247	351														
80	92.4	127	132	143	130														
85	14.2	22.2	29.9	44.2	50.0														
90	0.50	0.60	0.80	1.59	2.68														
95	0.67	0.75	1.35	2.54	3.66														
100	0.90	1.09	2.10	3.87	4.80														
105	1.24	1.69	2.94	4.71	5.19														
110	1.69	2.34	3.59	5.09	5.66														
115	2.34	2.78	3.84	5.16	5.77														
120	3.13	3.53	4.24	5.23	5.79														
125	4.08	4.37	5.08	5.39	5.75														
130	4.73	4.92	5.23	5.65	5.29														
135	5.87	6.06	5.48	5.54	5.14														
140	6.62	6.49	5.73	5.51	5.14														
145	6.67	6.56	5.90	5.76	5.14														
150	6.16	6.16	5.98	5.73	5.14														
155	5.93	5.86	5.73	5.40	5.14														
160	5.92	5.86	5.73	5.38	5.14														
165	5.93	5.97	5.73	6.01	5.19														
170	6.01	6.11	5.95	5.56	5.09														
175	5.97	6.11	5.83	5.39	5.06														
180	5.12	5.11	5.08	5.06	4.90														

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 33.1DEG  
Operators:CS01  
Test Date:2021-07-20

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.404.7  
Humidity: 44.6%  
Test Distance:26.000m [K=1.0000]  
Remarks: D-20HLED60-24(5050 RA70 40K T3N)L