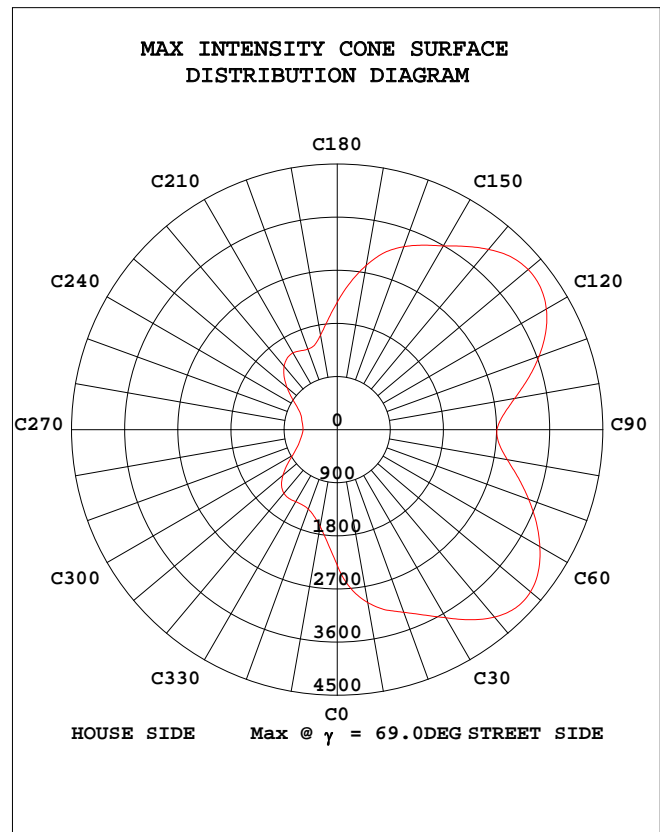
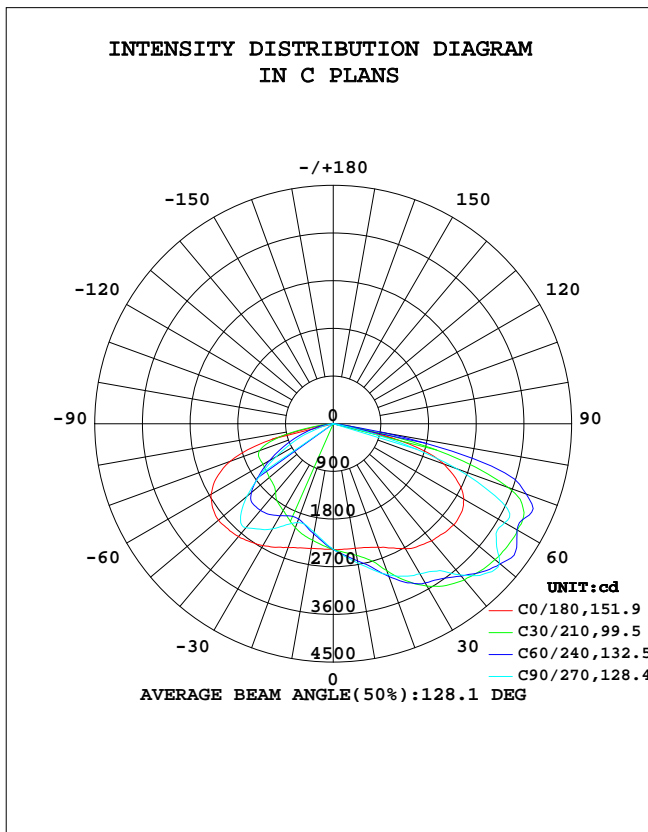


# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## STREETLIGHT PHOTOMETRIC TEST REPORT

Test:U:230.10V I:0.4559A P:100.76W PF:0.9606 Freq:50.01Hz Lamp Flux:12882.2x1 lm		
NAME: D-20HLED100-48	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 127.85 lm/W			
MODEL	5050 40K RA70 T4D L	I <sub>max</sub> (cd)	4272	η street_up(%)	0.1
NOMINAL POWER(W)	100	LOR(%)	100.0	η street_down(%)	66.3
RATED VOLTAGE(V)	220.0	TOTAL FLUX(lm)	12882	η house_up(%)	0.2
NOMINAL FLUX(lm)	12882.2	MAXIMUM @(C,γ )	45,69.0	η house_down(%)	33.5
LAMPS INSIDE	1	η up(%)	0.3	76 FLASHAREA(m2)	0.00100
TEST VOLTAGE(V)	230.0	η down(%)	99.7	SLI	20.318



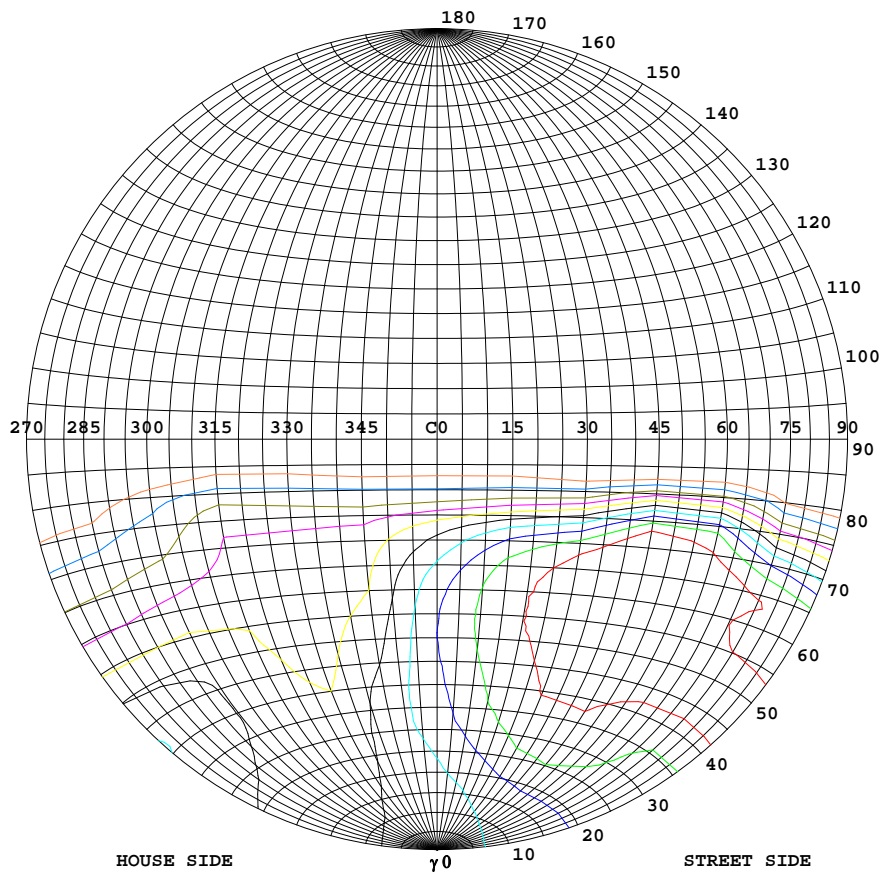
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 33.1DEG  
Operators:CS01  
Test Date:2021-07-20

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.404.7  
Humidity: 29.8%  
Test Distance:26.000m [K=1.0000]  
Remarks: D-20HLED100-48(5050 40K RA70 T4D)L

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## STREETLIGHT ISOCANDELA DIAGRAM

Test:U:230.10V I:0.4559A P:100.76W PF:0.9606 Freq:50.01Hz Lamp Flux:12882.2x1 lm		
NAME: D-20HLED100-48	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:



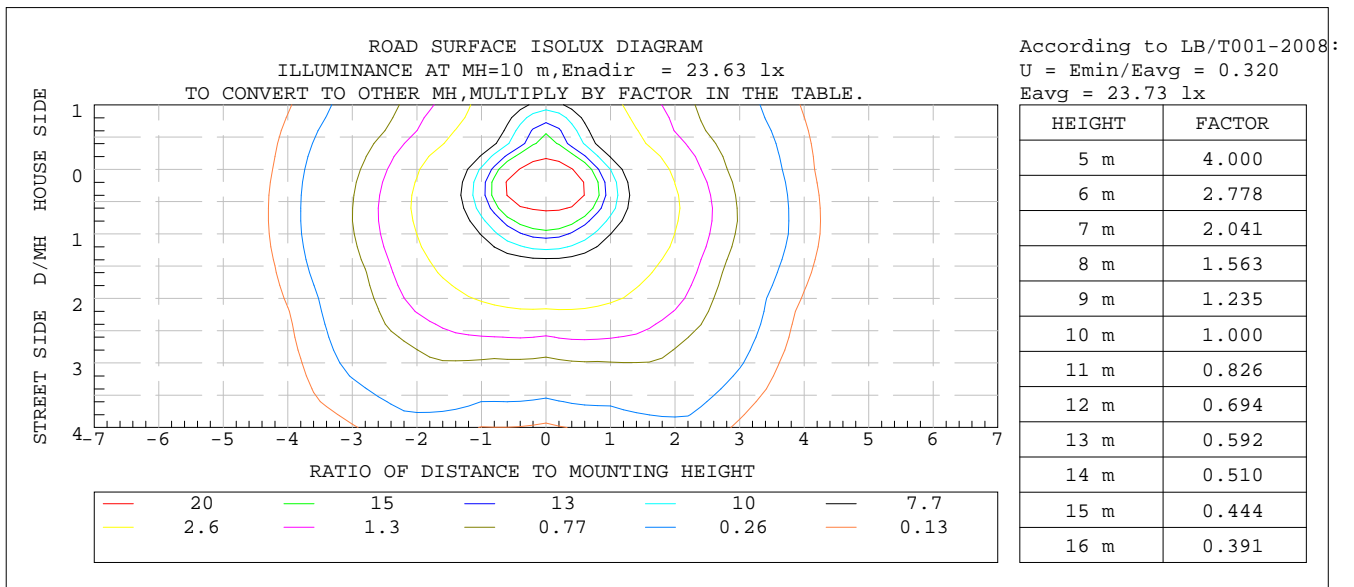
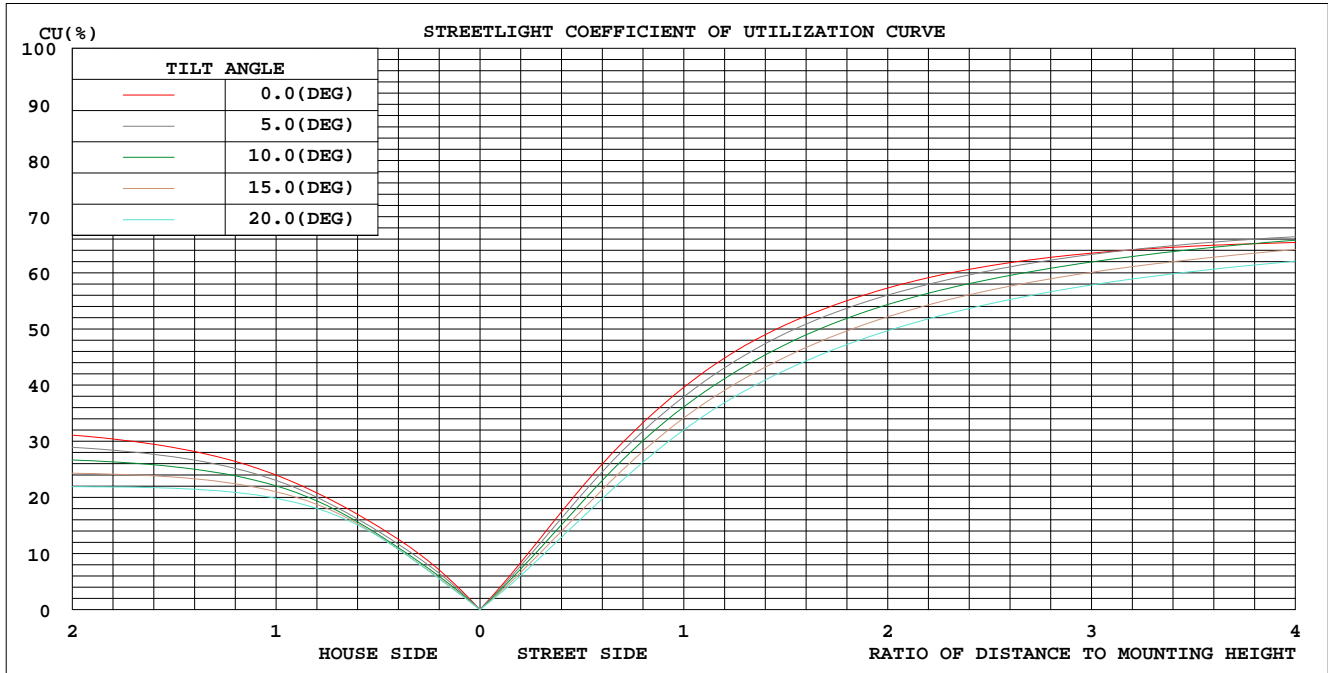
### Classification:

IES:Type IV - Short  
 CIE:Broad - Intermediate  
 IES:Cut-off  
 CIE:Semi-cut-off  
 Max.At80:87.69cd/klm  
 Max.At90:0.2039cd/klm  
 Max.80-90:87.69cd/klm

ISOCANDELA DIAGRAM	
UNIT	cd
Imax=100%	4272
90%	3845
80%	3418
70%	2990
60%	2563
50%	2136
40%	1709
30%	1282
20%	854
10%	427
5%	214

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: 29.8%  
 Test Distance:26.000m [K=1.0000]  
 Remarks: D-20HLED100-48(5050 40K RA70 T4D)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: 29.8%  
Test Distance:26.000m [K=1.0000]  
Remarks: D-20HLED100-48(5050 40K RA70 T4D)L

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## ZONAL FLUX DIAGRAM

Test:U:230.10V I:0.4559A P:100.76W PF:0.9606 Freq:50.01Hz Lamp Flux:12882.2x1 lm		
NAME: D-20HLED100-48	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	2388	2589	2671	2610	2389	2166	2079	2161	0- 10	226.6	226.6	1.76,1.76
20	2480	3084	3033	3086	2487	1933	1987	1957	10- 20	690.4	917.0	7.12,7.12
30	2723	3616	3271	3612	2657	1826	2290	1837	20- 30	1217	2134	16.6,16.6
40	2886	3880	3723	3857	2779	1903	2562	1871	30- 40	1775	3909	30.3,30.3
50	2971	3999	4095	3974	2828	1816	2125	1768	40- 50	2278	6187	48,48
60	2848	4133	3736	4079	2662	1583	1251	1576	50- 60	2525	8712	67.6,67.6
70	2226	4264	2483	4125	2069	1255	496.3	1322	60- 70	2506	11219	87.1,87.1
80	436.5	1130	130.4	854.7	375.6	552.3	79.85	562.4	70- 80	1511	12730	98.8,98.8
90	1.710	2.272	1.333	2.493	1.710	2.626	0.9638	2.442	80- 90	118.1	12848	99.7,99.7
100	3.821	2.059	0.9113	2.016	4.073	5.093	3.298	5.586	90-100	2.700	12850	99.8,99.8
110	6.078	2.925	1.874	2.690	5.983	6.759	6.232	7.715	100-110	4.379	12855	99.8,99.8
120	6.637	3.530	3.087	3.091	6.546	7.817	8.471	8.275	110-120	5.458	12860	99.8,99.8
130	6.655	4.235	4.558	3.602	7.139	7.816	9.001	8.729	120-130	5.751	12866	99.9,99.9
140	6.552	4.556	5.469	4.373	6.859	8.321	9.207	8.729	130-140	5.440	12871	99.9,99.9
150	6.336	5.445	5.785	5.227	6.537	9.210	8.560	8.729	140-150	4.616	12876	100,100
160	7.138	5.742	5.784	5.783	7.342	7.562	7.925	7.967	150-160	3.330	12879	100,100
170	7.941	7.761	6.935	7.558	8.029	8.916	8.513	9.294	160-170	2.096	12881	100,100
180	7.743	8.119	7.750	7.917	8.095	7.816	7.647	7.915	170-180	0.7790	12882	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

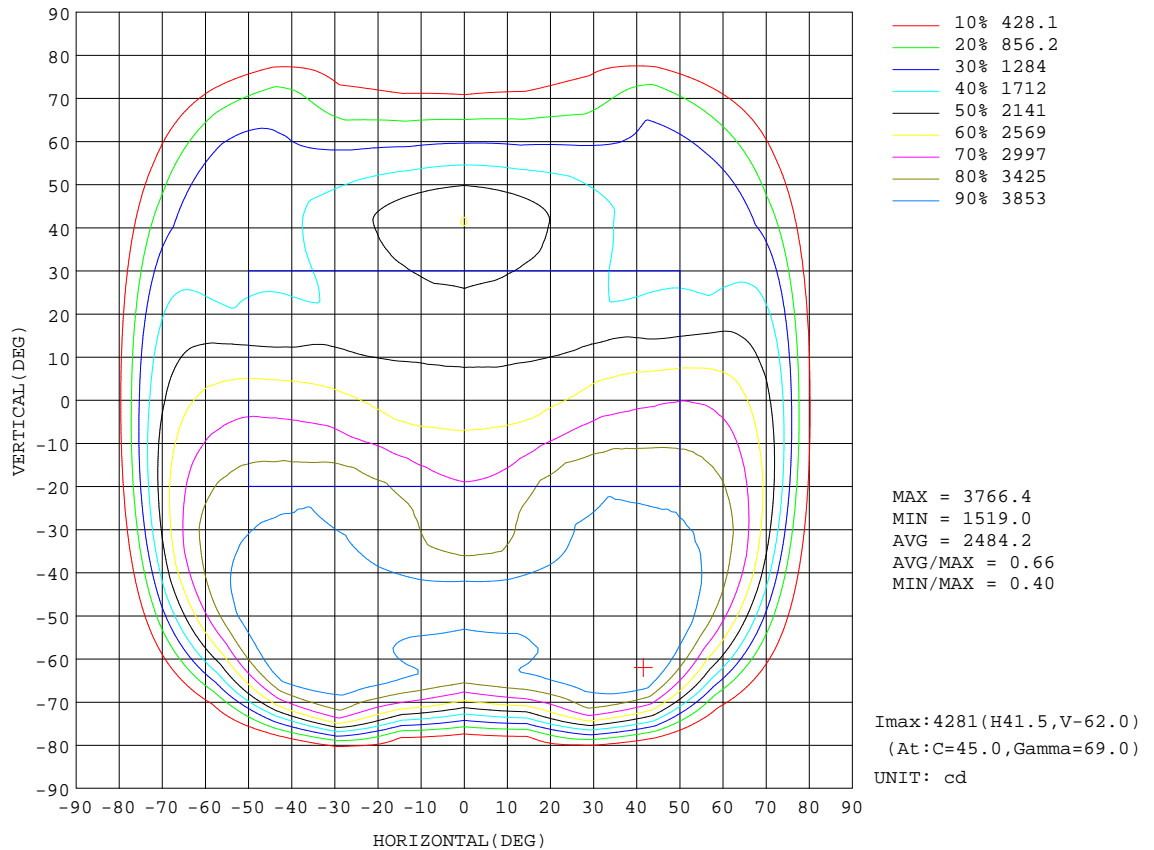
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 33.1DEG  
 Operators:CS01  
 Test Date:2021-07-20

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 $\gamma$  Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.404.7  
 Humidity: 29.8%  
 Test Distance:26.000m [K=1.0000]  
 Remarks: D-20HLED100-48(5050 40K RA70 T4D)L

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## ISOCANDELA DIAGRAM

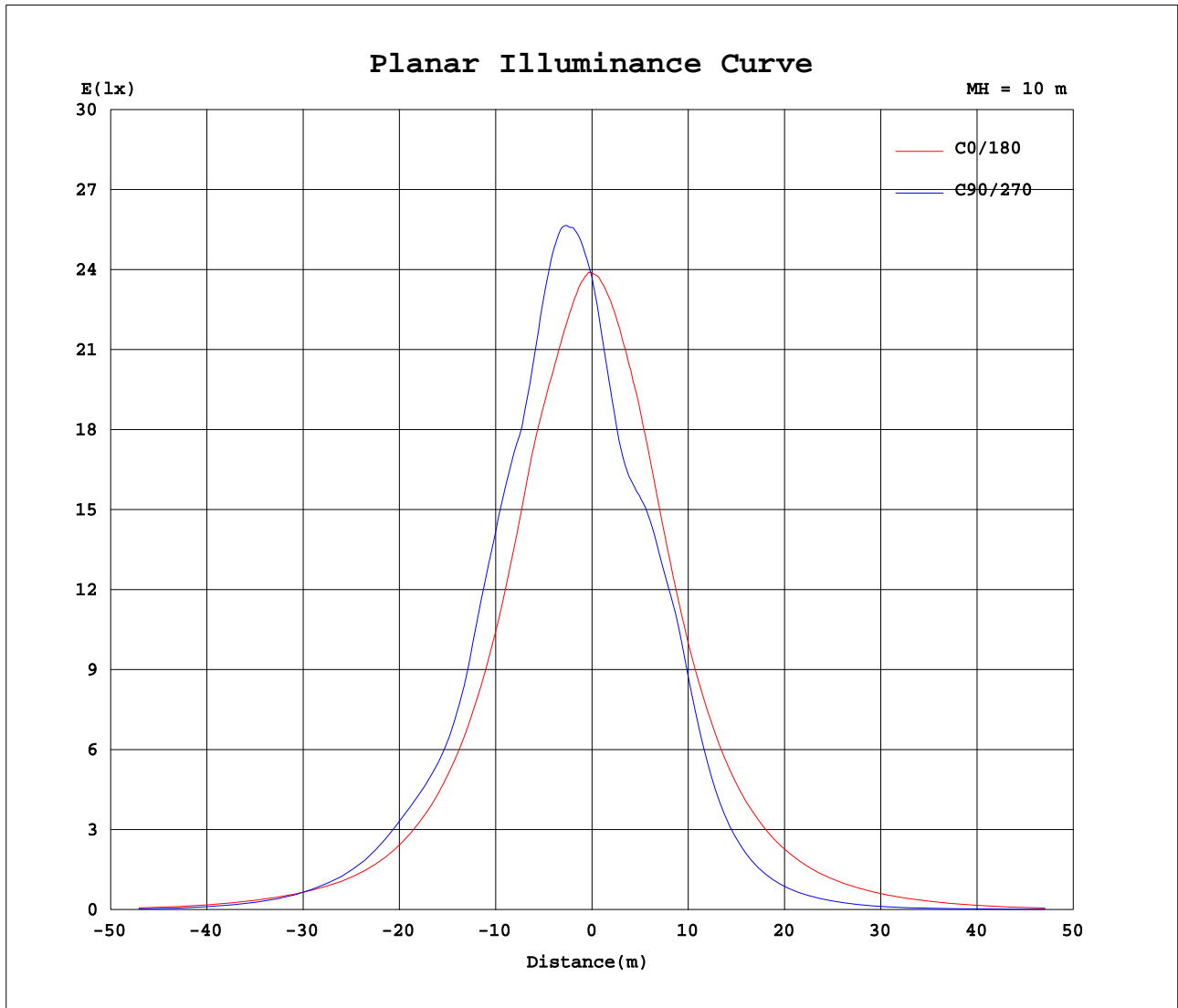
Test:U:230.10V I:0.4559A P:100.76W PF:0.9606 Freq:50.01Hz Lamp Flux:12882.2x1 lm		
NAME: D-20HLED100-48	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:



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: 29.8%  
Test Distance: 26.000m [K=1.0000]  
Remarks: D-20HLED100-48(5050 40K RA70 T4D)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

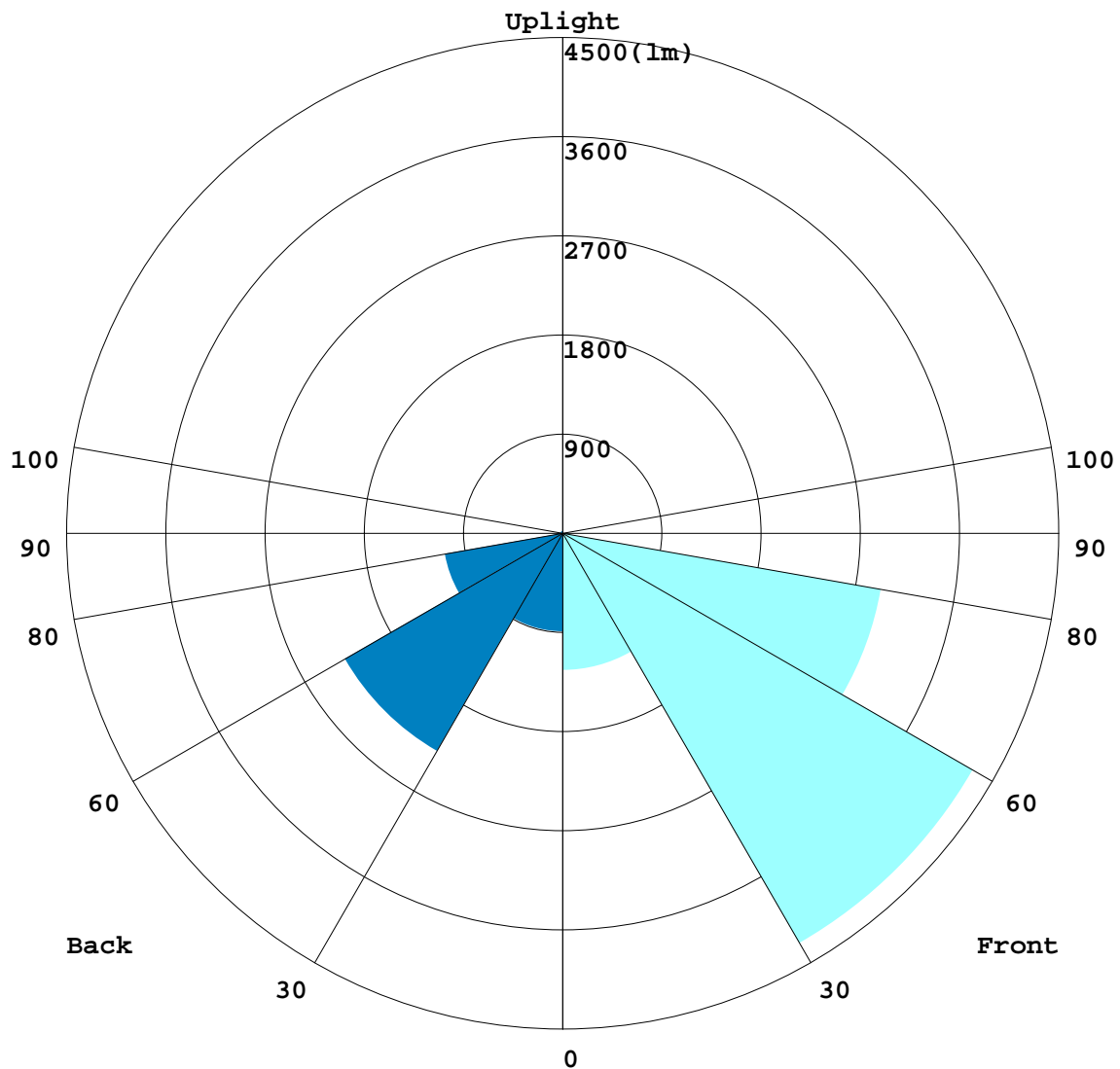
$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.0.404.7  
 Humidity: 29.8%  
 Test Distance: 26.000m [K=1.0000]  
 Remarks: D-20HLED100-48(5050 40K RA70 T4D)L

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## LCS REPORT

Test:U:230.10V I:0.4559A P:100.76W PF:0.9606 Freq:50.01Hz Lamp Flux:12882.2x1 lm		
NAME: D-20HLED100-48	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: 29.8%  
Test Distance:26.000m [K=1.0000]  
Remarks: D-20HLED100-48(5050 40K RA70 T4D)L

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## BUG REPORT

Test:U:230.10V I:0.4559A P:100.76W PF:0.9606 Freq:50.01Hz Lamp Flux:12882.2x1 lm		
NAME: D-20HLED100-48	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:

### IESNA Luminaire Flux Distribution Table:

Zone	Lumens	Luminaire %
FL - Front-Low(0-30)	1242.2	9.6
FM - Front-Medium(30-60)	4296.8	33.4
FH - Front-High(60-80)	2931.6	22.8
FVH - Front-Very High(80-90)	65.096	0.5
Total Forward Light	8548.3	66.4

BL - Back-Low(0-30)	891.63	6.9
BM - Back-Medium(30-60)	2281.7	17.7
BH - Back-High(60-80)	1085.7	8.4
BVH - Back-Very High(80-90)	52.962	0.4
Total Back Light	4333.9	33.6

UL - Uplight-Low(90-100)	2.6997	0.0
UH - Uplight-High(100-180)	31.848	0.2
Total Up Light	34.548	0.3

BUG(Back,Up,Glare) Rating	B3-U2-G3
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Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	4312	21.869	4333.9
Street Side	8535.6	12.679	8548.3

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: 29.8%  
 Test Distance:26.000m [K=1.0000]  
 Remarks: D-20HLED100-48(5050 40K RA70 T4D)L

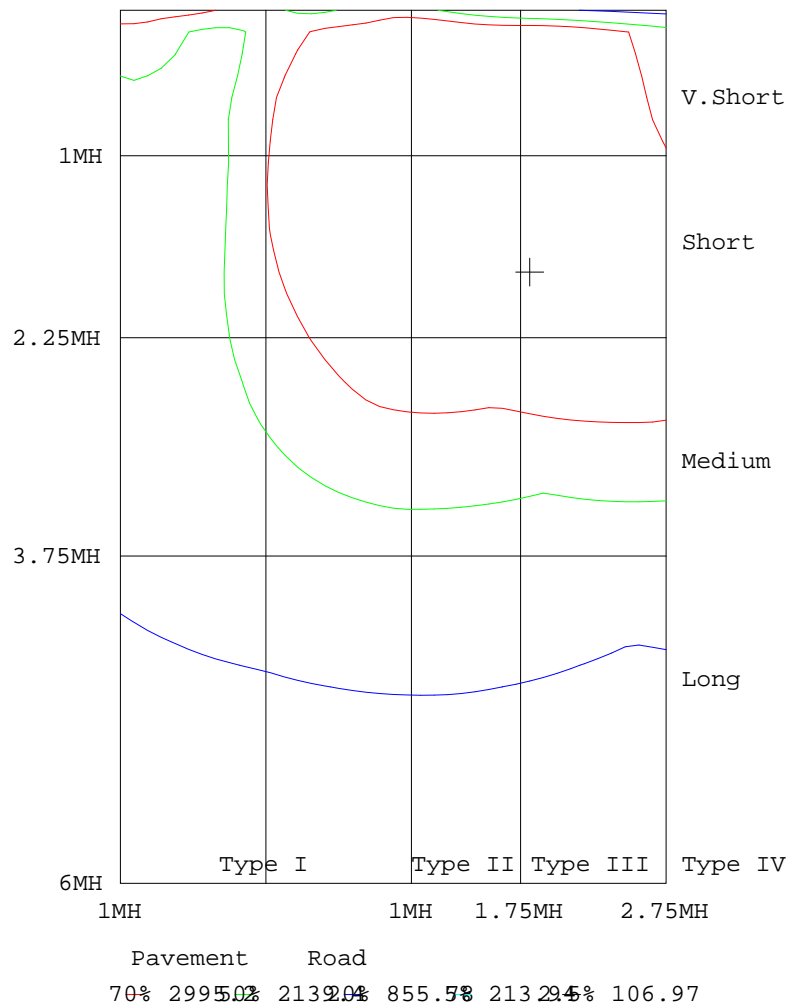


# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## ROAD ISOCANDELA REPORT

Test:U:230.10V I:0.4559A P:100.76W PF:0.9606 Freq:50.01Hz Lamp Flux:12882.2x1 lm		
NAME: D-20HLED100-48	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: 29.8%  
 Test Distance:26.000m [K=1.0000]  
 Remarks: D-20HLED100-48(5050 40K RA70 T4D)L

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.10V I:0.4559A P:100.76W PF:0.9606 Freq:50.01Hz Lamp Flux:12882.2x1 lm																			
NAME: D-20HLED100-48										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	2373	2373	2373	2373	2373	2373	2373	2373	2373	2373	2373	2373	2373	2373	2373	2373	2373	2373	2373
5	2375	2409	2439	2464	2490	2505	2510	2503	2497	2475	2441	2409	2373	2343	2306	2267	2240	2225	2217
10	2388	2459	2523	2589	2626	2657	2671	2664	2656	2610	2536	2470	2389	2314	2235	2166	2115	2087	2079
15	2419	2536	2662	2768	2802	2836	2850	2862	2858	2785	2674	2550	2426	2307	2171	2063	1998	1983	1984
20	2480	2699	2950	3084	3066	3048	3033	3077	3135	3086	2918	2682	2487	2300	2092	1933	1914	1959	1987
25	2587	2949	3270	3393	3315	3197	3175	3238	3362	3371	3207	2874	2575	2295	1985	1841	1920	2051	2106
30	2723	3175	3537	3616	3470	3299	3271	3354	3535	3612	3471	3091	2657	2296	1893	1826	2006	2201	2290
35	2817	3353	3727	3759	3570	3396	3398	3443	3649	3779	3698	3255	2724	2249	1820	1860	2094	2312	2426
40	2886	3459	3852	3880	3757	3671	3723	3694	3793	3857	3816	3360	2779	2136	1693	1903	2136	2407	2562
45	2934	3565	3929	3912	3959	3994	4015	4001	3948	3904	3928	3459	2809	2000	1607	1877	2144	2370	2474
50	2971	3659	3989	3999	4115	4119	4095	4131	4100	3974	4001	3567	2828	1859	1577	1816	2017	2056	2125
55	2946	3709	4021	4070	4201	3851	3758	3897	4180	4032	4058	3623	2777	1734	1548	1732	1717	1653	1673
60	2848	3690	4011	4133	4005	3773	3736	3796	4063	4079	4062	3619	2662	1637	1531	1583	1391	1257	1251
65	2592	3527	3973	4118	4081	3782	3523	3866	4228	4061	3983	3472	2439	1568	1538	1384	1050	886	861
70	2226	3027	3516	4264	3873	2964	2483	3155	4012	4125	3397	2962	2069	1458	1480	1255	728	552	496
75	1490	1914	2243	3290	3091	1448	1067	1625	3258	3001	2020	1846	1349	1085	1156	1109	441	258	226
80	437	509	504	1130	935	203	130	225	1051	855	410	393	376	404	532	552	226	99.7	79.9
85	70.3	74.7	75.8	62.9	63.4	35.1	26.9	36.6	72.4	63.7	68.7	64.3	54.9	55.8	68.5	74.5	28.9	14.9	12.8
90	1.71	1.72	2.07	2.27	1.93	1.53	1.33	1.63	2.15	2.49	2.15	1.75	1.71	1.86	2.07	2.63	2.12	1.17	0.96
95	1.91	1.66	2.05	2.17	1.36	0.96	0.91	1.00	1.69	1.99	1.89	1.65	2.32	2.77	3.29	4.34	3.64	2.38	1.93
100	3.82	2.97	2.27	2.06	1.36	1.01	0.91	0.96	1.77	2.02	2.08	2.80	4.07	4.84	5.14	5.09	4.64	3.90	3.30
105	4.97	3.67	2.92	2.42	1.91	1.43	1.23	1.32	1.91	2.28	2.65	3.56	4.98	6.09	5.74	6.26	5.61	5.27	4.86
110	6.08	4.53	3.73	2.92	2.27	1.97	1.87	1.93	2.39	2.69	3.35	4.28	5.98	6.80	7.31	6.76	6.36	6.42	6.23
115	6.30	5.05	4.18	3.48	2.88	2.27	2.33	2.28	2.78	2.88	3.61	4.68	6.24	7.32	7.72	7.24	7.57	7.69	7.40
120	6.64	5.14	4.25	3.53	3.18	2.98	3.09	3.04	3.00	3.09	3.61	5.19	6.55	7.59	7.81	7.82	7.77	8.34	8.47
125	6.71	5.34	4.35	4.13	3.68	4.10	4.19	4.96	3.63	3.60	4.17	5.31	6.74	8.01	8.46	7.82	8.94	9.16	8.90
130	6.65	5.34	4.38	4.23	4.34	4.65	4.56	4.94	4.12	3.60	4.48	5.38	7.14	8.09	8.38	7.82	9.51	9.45	9.00
135	6.60	5.42	4.42	4.24	8.27	5.11	5.11	5.87	5.34	3.76	4.52	5.45	7.04	7.98	8.41	7.82	9.49	9.71	9.10
140	6.55	5.52	4.68	4.56	8.43	5.61	5.47	8.51	7.68	4.37	4.52	5.47	6.86	7.94	8.41	8.32	9.34	9.71	9.21
145	6.50	5.99	5.24	5.08	6.47	6.01	5.86	7.71	6.92	5.07	5.18	5.55	6.69	7.96	8.43	9.05	9.18	9.70	9.15
150	6.34	6.09	5.79	5.44	5.96	6.02	5.78	6.49	5.85	5.23	5.54	6.01	6.54	8.01	8.46	9.21	8.68	9.30	8.56
155	6.84	6.59	6.10	5.52	5.92	6.00	5.63	5.94	5.85	5.43	5.95	6.36	6.94	7.40	8.49	9.29	8.58	9.01	8.08
160	7.14	6.72	6.17	5.74	6.02	5.96	5.78	5.79	5.85	5.78	6.17	6.67	7.34	7.07	7.46	7.56	8.39	7.89	7.93
165	7.55	7.34	6.80	6.15	6.66	5.97	5.94	5.93	6.36	6.63	6.81	7.18	7.69	7.61	8.31	8.64	7.74	8.05	8.16
170	7.94	8.25	7.90	7.76	7.37	7.53	6.93	6.69	7.53	7.56	7.57	8.40	8.03	8.14	7.81	8.92	8.46	9.10	8.51
175	8.01	9.06	8.54	8.66	8.33	7.64	7.65	7.70	7.66	7.83	8.13	8.50	8.11	8.36	7.81	8.17	8.38	8.63	8.56
180	7.74	7.60	7.61	8.12	7.97	7.63	7.75	7.96	8.04	7.92	7.52	7.48	8.10	7.86	7.86	7.82	8.18	8.04	7.65

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: 29.8%  
Test Distance:26.000m [K=1.0000]  
Remarks: D-20HLED100-48(5050 40K RA70 T4D)L

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.10V I:0.4559A P:100.76W PF:0.9606 Freq:50.01Hz Lamp Flux:12882.2x1 lm		
NAME: D-20HLED100-48	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:

Table--2

UNIT: cd

C(DEC) γ (DEC)	285	300	315	330	345														
0	2373	2373	2373	2373	2373														
5	2229	2250	2271	2308	2345														
10	2092	2123	2161	2237	2320														
15	1981	2009	2068	2182	2306														
20	1955	1920	1957	2118	2309														
25	2044	1919	1868	2034	2328														
30	2192	2007	1837	1939	2360														
35	2316	2097	1847	1831	2332														
40	2384	2137	1871	1717	2271														
45	2351	2132	1837	1580	2133														
50	2068	2035	1768	1511	1992														
55	1681	1774	1697	1463	1848														
60	1288	1469	1576	1445	1722														
65	918	1128	1431	1445	1630														
70	584	814	1322	1382	1481														
75	283	537	1159	1106	1111														
80	112	289	562	505	441														
85	16.6	39.0	96.3	65.7	68.1														
90	1.32	2.35	2.44	1.98	1.94														
95	2.49	3.72	4.23	3.15	2.80														
100	3.91	4.94	5.59	5.40	4.99														
105	4.97	5.71	6.60	6.77	6.06														
110	5.98	6.67	7.72	8.03	7.23														
115	7.26	7.28	7.86	8.31	7.88														
120	8.58	8.40	8.27	8.20	8.11														
125	9.10	9.11	8.73	8.53	8.45														
130	9.33	9.47	8.73	8.75	8.29														
135	9.83	10.04	8.73	8.54	8.16														
140	9.95	10.1	8.73	8.42	8.03														
145	10.1	10.1	8.73	8.75	7.90														
150	9.43	9.32	8.73	8.84	7.77														
155	9.28	9.01	8.73	8.79	7.69														
160	8.29	8.40	7.97	8.29	7.69														
165	8.32	8.36	8.13	8.14	7.73														
170	9.08	9.03	9.29	8.38	7.77														
175	8.77	9.20	8.37	8.28	7.64														
180	7.80	7.98	7.91	7.93	7.53														

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: 29.8%  
Test Distance:26.000m [K=1.0000]  
Remarks: D-20HLED100-48(5050 40K RA70 T4D)L