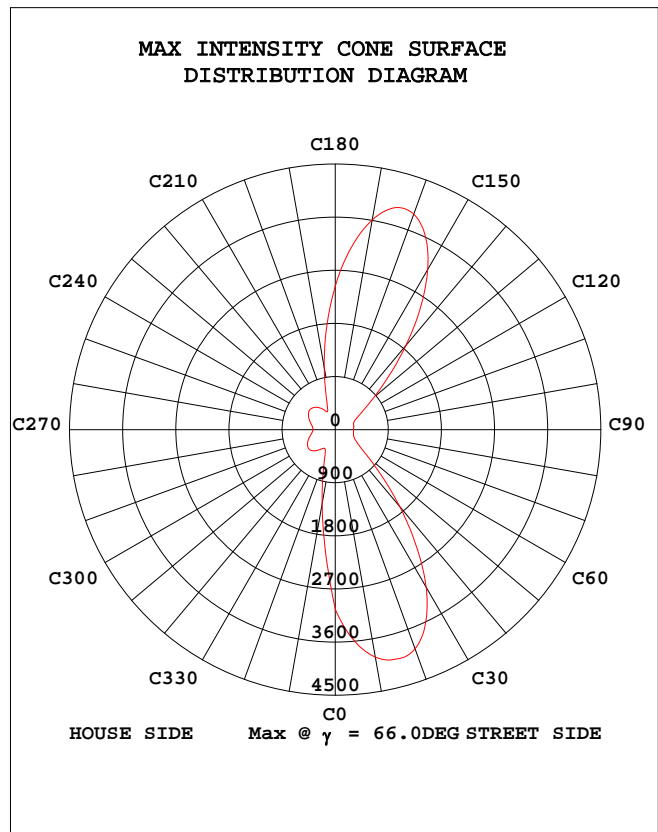
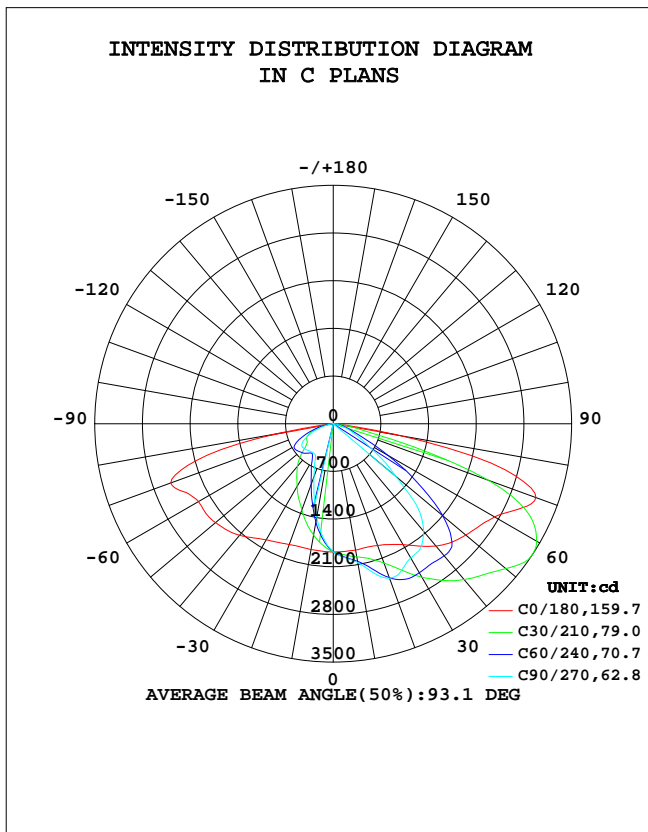


EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

STREETLIGHT PHOTOMETRIC TEST REPORT

Test:U:230.20V I:0.2645A P:59.900W PF:0.9840 Freq:50.01Hz Lamp Flux:7333.11x1 lm					
NAME: D-20HLED60-24		TYPE:		WEIGHT:	
SPEC.:		DIM.:		SERIAL No.:	
MFR.: KLED		SUR.:		Shielding Angle:	

DATA OF LAMP		PHOTOMETRIC DATA Eff: 122.42 lm/W			
MODEL	5050 RA70 40K T2D	I _{max} (cd)	4021	η street_up(%)	0.1
NOMINAL POWER(W)	60	LOR(%)	100.0	η street_down(%)	71.3
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	7333	η house_up(%)	0.2
NOMINAL FLUX(lm)	7333.11	MAXIMUM @(C,γ)	15,66.0	η house_down(%)	28.4
LAMPS INSIDE	1	η up(%)	0.3	76 FLASHAREA(m2)	0.00100
TEST VOLTAGE(V)	230.0	η down(%)	99.7	SLI	21.647



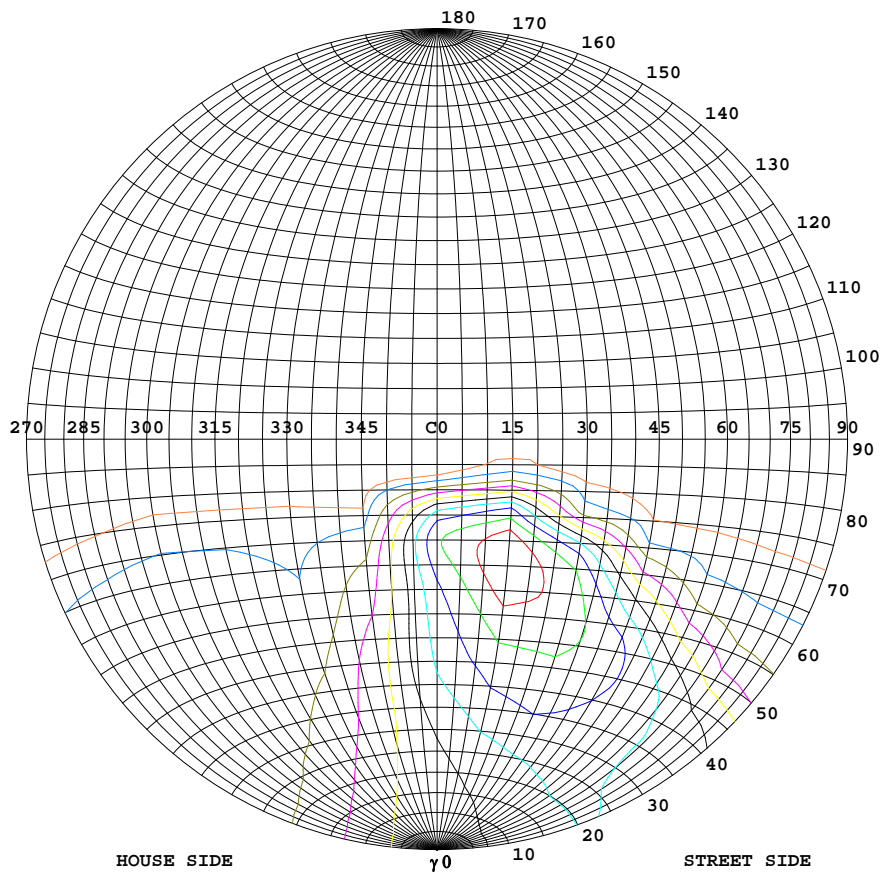
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 33.4DEG
Operators:CS01
Test Date:2021-07-19

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 33.0%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED60-24(5050 RA70 40K T2D)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

STREETLIGHT ISOCANDELA DIAGRAM

Test:U:230.20V I:0.2645A P:59.900W PF:0.9840 Freq:50.01Hz Lamp Flux:7333.11x1 lm		
NAME: D-20HLED60-24	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:



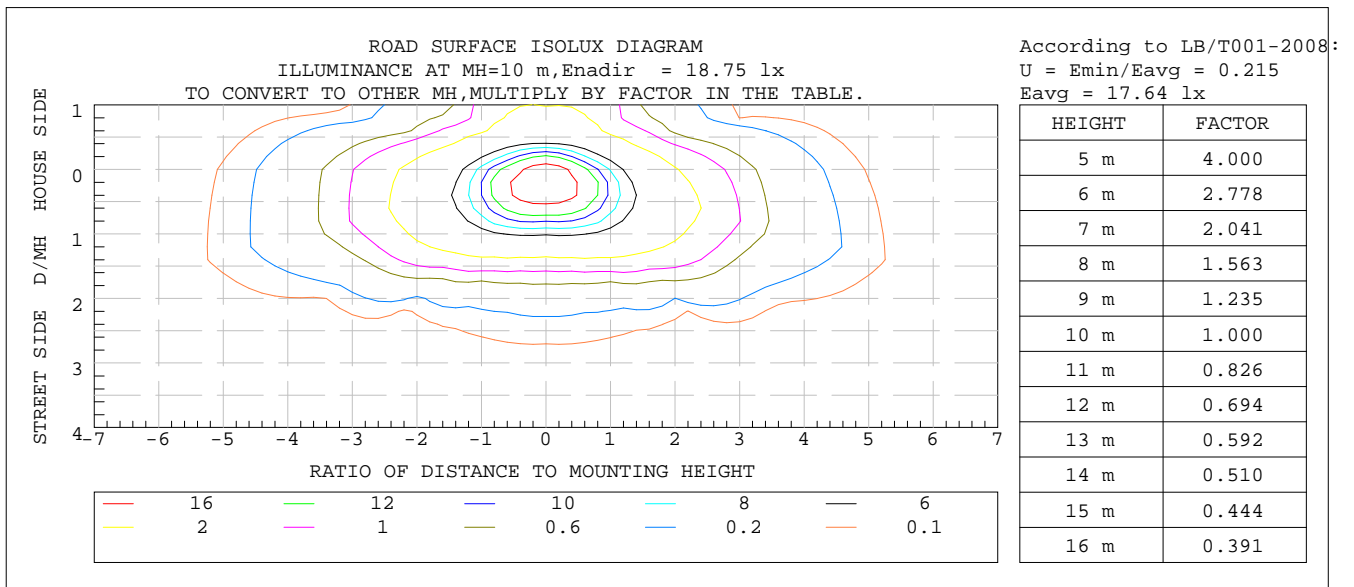
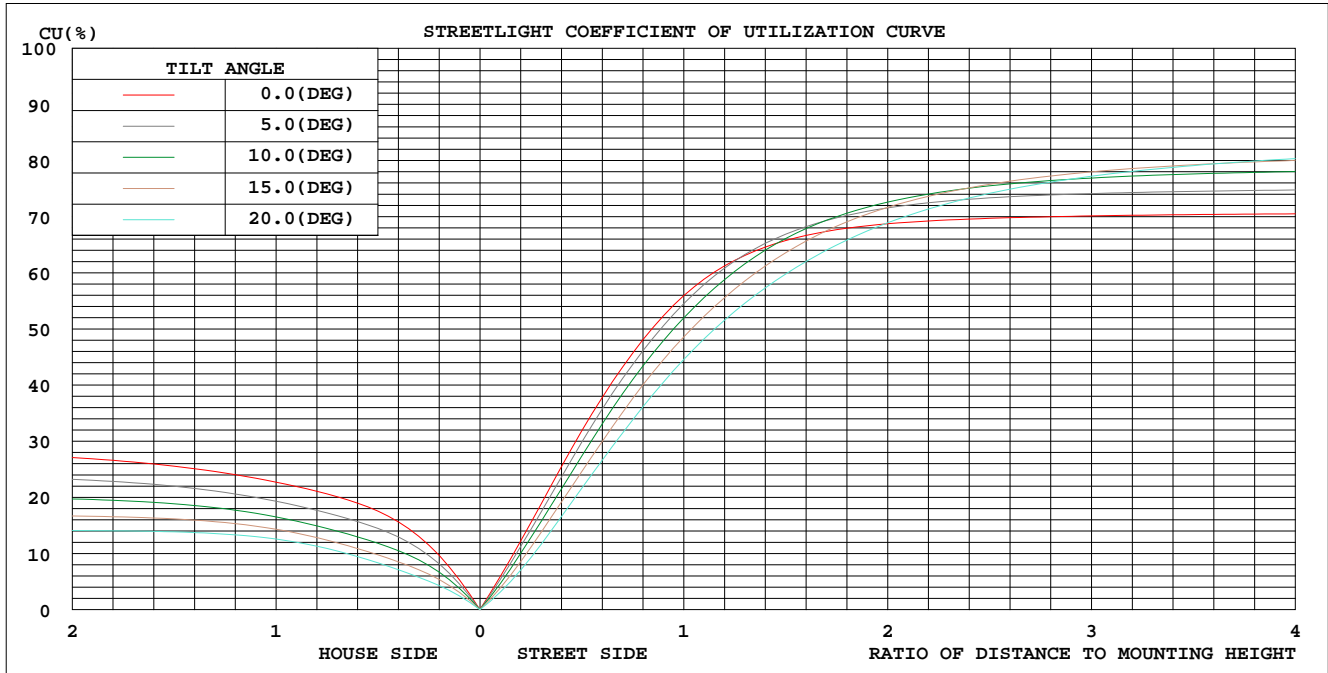
Classification:

IES:Type II - Short
 CIE:Narrow - Intermediate
 IES:None cut-off
 CIE:Non-cut-off
 Max.At80:208.2cd/klm
 Max.At90:0.3913cd/klm
 Max.80-90:208.2cd/klm

ISOCANDELA DIAGRAM	
UNIT	cd
I _{max} =100%	4021
90%	3619
80%	3217
70%	2814
60%	2412
50%	2010
40%	1608
30%	1206
20%	804
10%	402
5%	201

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 33.4DEG
 Operators:CS01
 Test Date:2021-07-19

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
 Humidity: 33.0%
 Test Distance:26.000m [K=1.0000]
 Remarks: D-20HLED60-24(5050 RA70 40K T2D)L

COEFFICIENT OF UTILIZATION CURVE
AND ISOLUX DIAGRAM

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 33.4DEG
Operators:CS01
Test Date:2021-07-19

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 33.0%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED60-24(5050 RA70 40K T2D)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ZONAL FLUX DIAGRAM

Test:U:230.20V I:0.2645A P:59.900W PF:0.9840 Freq:50.01Hz Lamp Flux:7333.11x1 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	1883	2021	2070	2015	1875	1554	1394	1584	0- 10	175.0	175.0	2.39,2.39
20	1902	2302	2412	2270	1889	1116	829.9	1159	10- 20	497.1	672.1	9.17,9.17
30	2050	2643	2276	2593	1968	791.3	530.4	832.6	20- 30	794.4	1467	20,20
40	2343	2808	2065	2758	2139	564.7	528.4	597.4	30- 40	1077	2544	34.7,34.7
50	2541	2945	1200	2907	2257	599.8	562.8	595.3	40- 50	1324	3868	52.7,52.7
60	2736	2038	522.7	2105	2286	627.7	507.2	613.1	50- 60	1383	5251	71.6,71.6
70	3165	513.1	230.4	636.3	2538	410.3	274.8	396.0	60- 70	1242	6493	88.5,88.5
80	988.5	108.8	64.92	113.0	806.5	132.9	58.33	127.4	70- 80	727.0	7220	98.5,98.5
90	2.313	0.8542	0.7094	0.9754	2.466	0.6526	0.6094	0.7112	80- 90	92.80	7313	99.7,99.7
100	4.474	0.8850	0.5788	0.8656	4.526	1.661	0.6753	1.680	90-100	1.562	7314	99.7,99.7
110	6.034	1.159	0.6042	1.015	5.587	3.715	1.059	3.408	100-110	2.431	7317	99.8,99.8
120	6.071	1.255	1.258	1.251	5.632	4.825	2.069	4.269	110-120	3.029	7320	99.8,99.8
130	5.582	1.536	1.321	1.364	5.678	5.348	4.280	5.538	120-130	3.240	7323	99.9,99.9
140	5.331	1.980	1.411	1.981	5.092	5.879	5.793	6.060	130-140	3.203	7326	99.9,99.9
150	4.578	2.792	1.942	3.206	4.728	6.297	6.050	6.118	140-150	2.854	7329	99.9,99.9
160	4.677	3.464	2.819	3.449	5.389	5.824	6.162	6.115	150-160	2.137	7331	100,100
170	5.380	5.020	4.428	4.767	5.991	6.025	6.621	6.390	160-170	1.437	7333	100,100
180	5.833	5.926	5.640	5.532	5.984	5.824	5.475	5.789	170-180	0.5447	7333	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

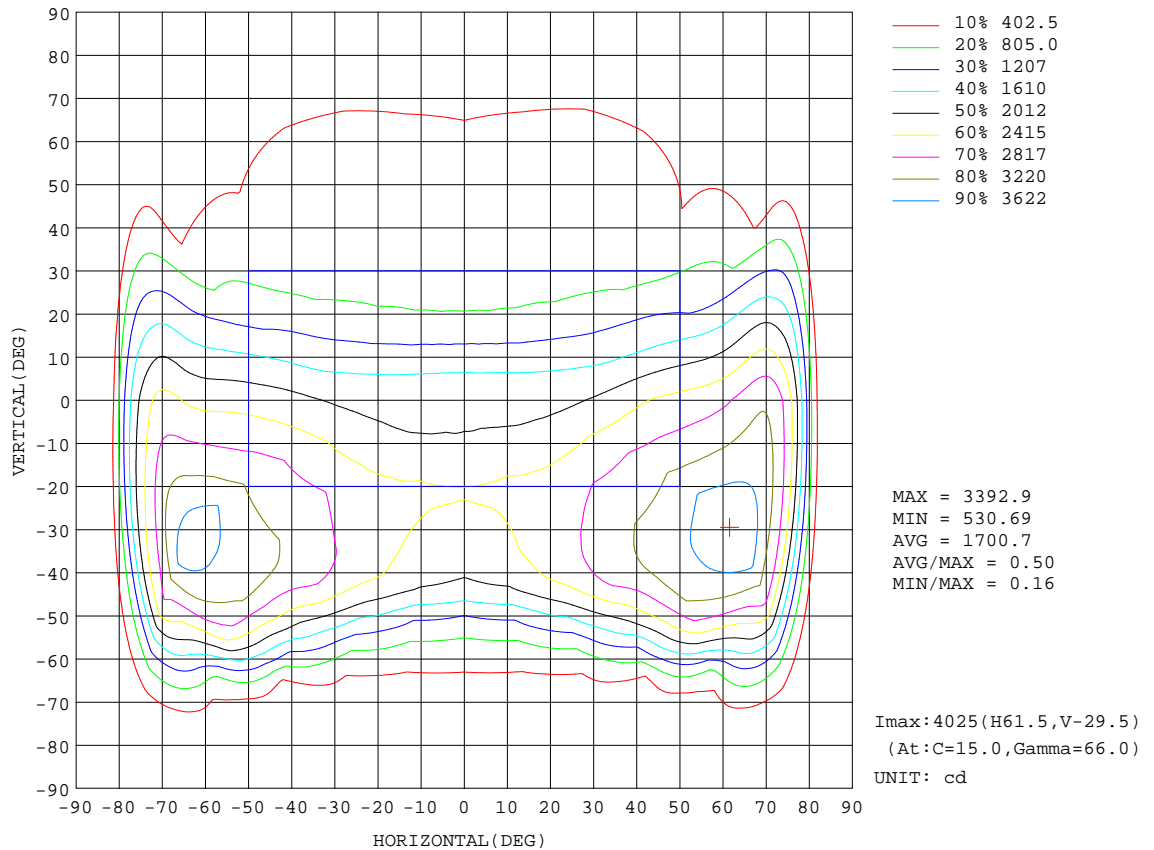
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 33.4DEG
 Operators:CS01
 Test Date:2021-07-19

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
 Humidity: 33.0%
 Test Distance:26.000m [K=1.0000]
 Remarks: D-20HLED60-24(5050 RA70 40K T2D)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

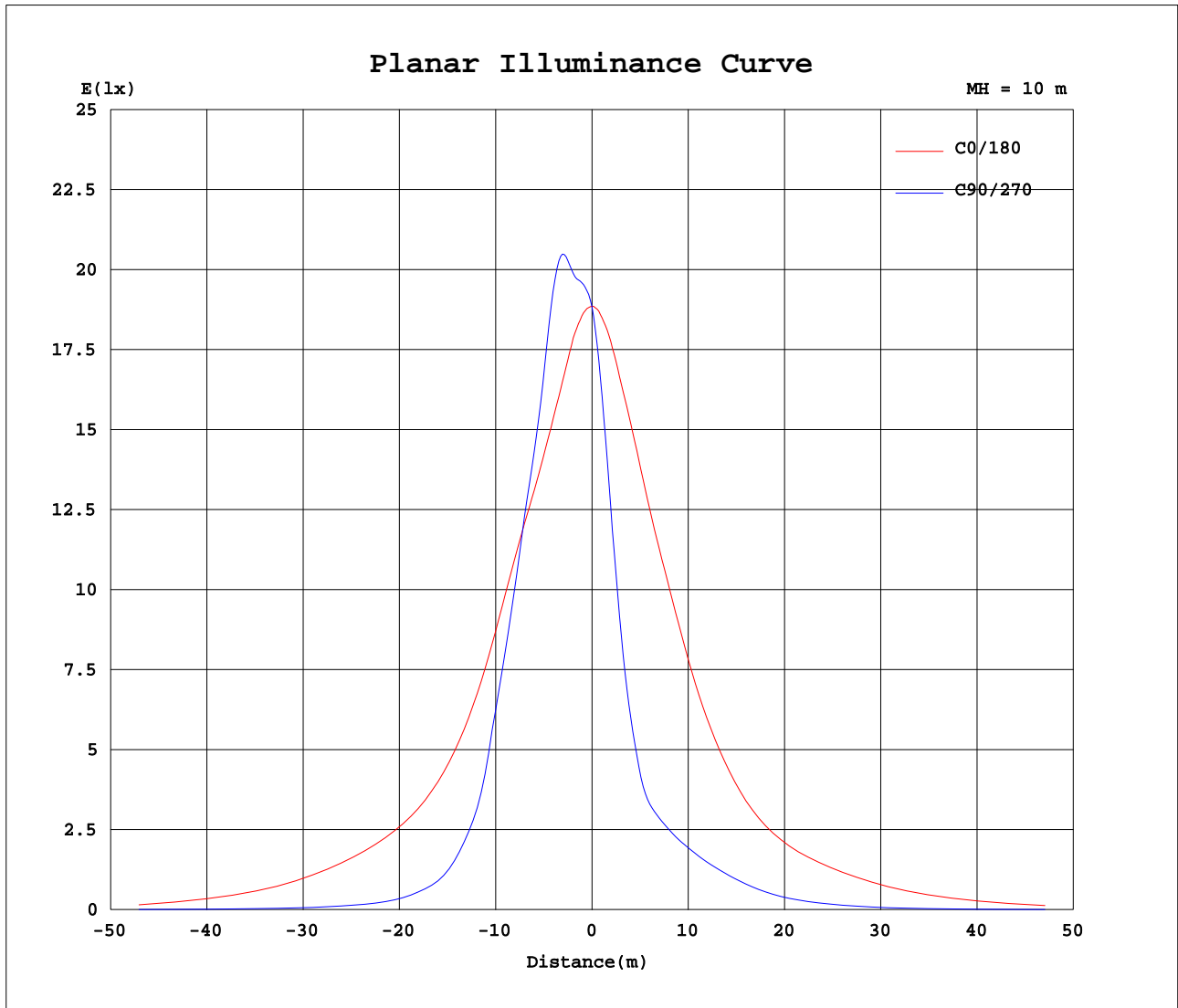
Test:U:230.20V I:0.2645A P:59.900W PF:0.9840 Freq:50.01Hz Lamp Flux:7333.11x1 lm		
NAME: D-20HLED60-24	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 33.4DEG
Operators: CS01
Test Date: 2021-07-19

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 33.0%
Test Distance: 26.000m [K=1.0000]
Remarks: D-20HLED60-24(5050 RA70 40K T2D)L

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 33.4DEG
Operators: CS01
Test Date: 2021-07-19

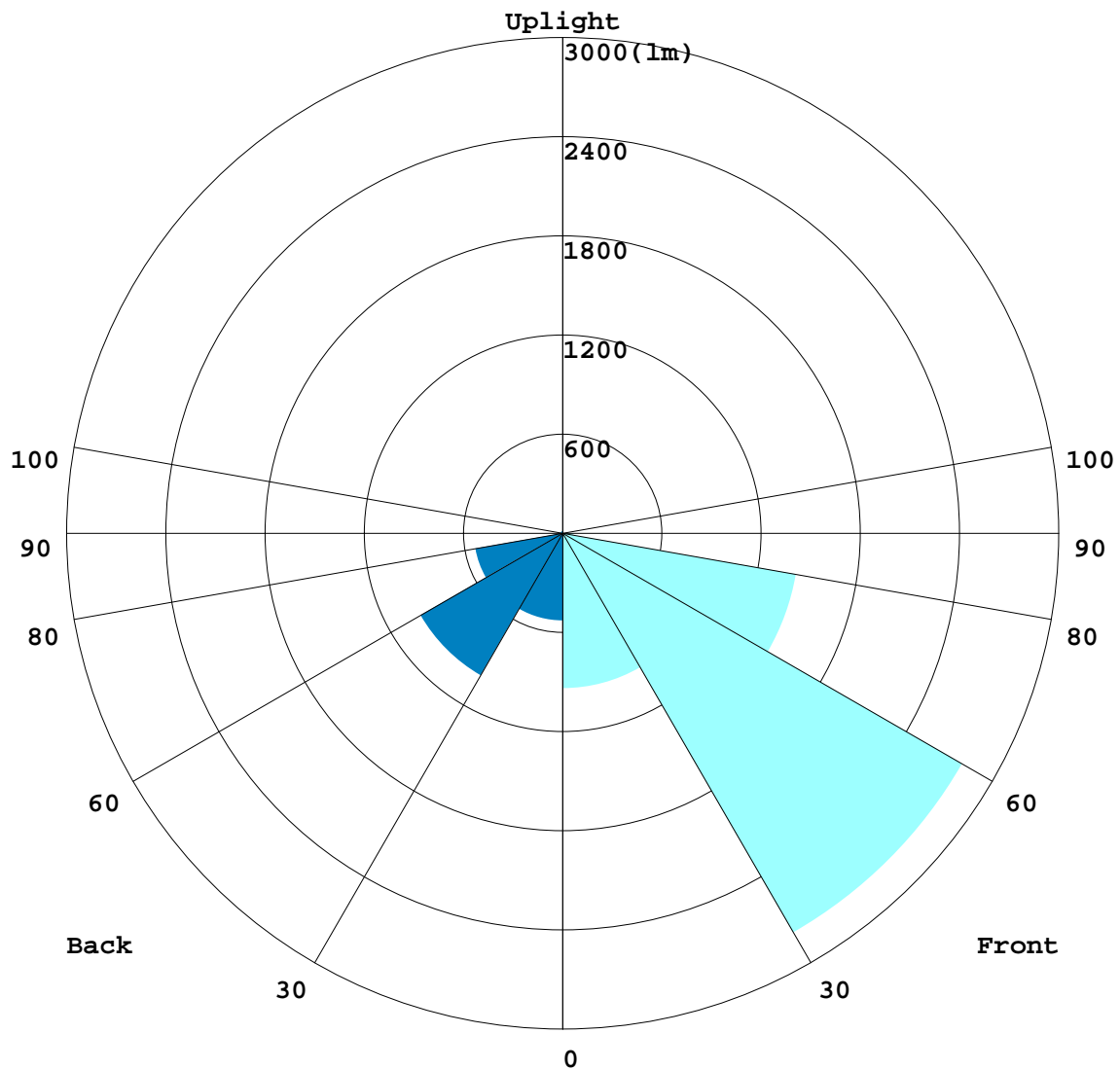
γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 33.0%
Test Distance: 26.000m [K=1.0000]
Remarks: D-20HLED60-24(5050 RA70 40K T2D)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LCS REPORT

Test:U:230.20V I:0.2645A P:59.900W PF:0.9840 Freq:50.01Hz Lamp Flux:7333.11x1 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: 33.4DEG
Operators:CS01
Test Date:2021-07-19

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 33.0%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED60-24(5050 RA70 40K T2D)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

BUG REPORT

Test:U:230.20V I:0.2645A P:59.900W PF:0.9840 Freq:50.01Hz Lamp Flux:7333.11x1 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)	937.99	12.8
FM - Front-Medium(30-60)	2791	38.1
FH - Front-High(60-80)	1433.2	19.5
FVH - Front-Very High(80-90)	66.932	0.9
Total Forward Light	5236	71.4

BL - Back-Low(0-30)	528.52	7.2
BM - Back-Medium(30-60)	993.24	13.5
BH - Back-High(60-80)	535.92	7.3
BVH - Back-Very High(80-90)	25.866	0.4
Total Back Light	2097.1	28.6

UL - Uplight-Low(90-100)	1.5616	0.0
UH - Uplight-High(100-180)	18.876	0.3
Total Up Light	20.437	0.3

BUG(Back,Up,Glare) Rating	B2-U2-G2
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Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	2083.5	13.538	2097.1
Street Side	5229.1	6.8988	5236

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 33.4DEG
 Operators:CS01
 Test Date:2021-07-19

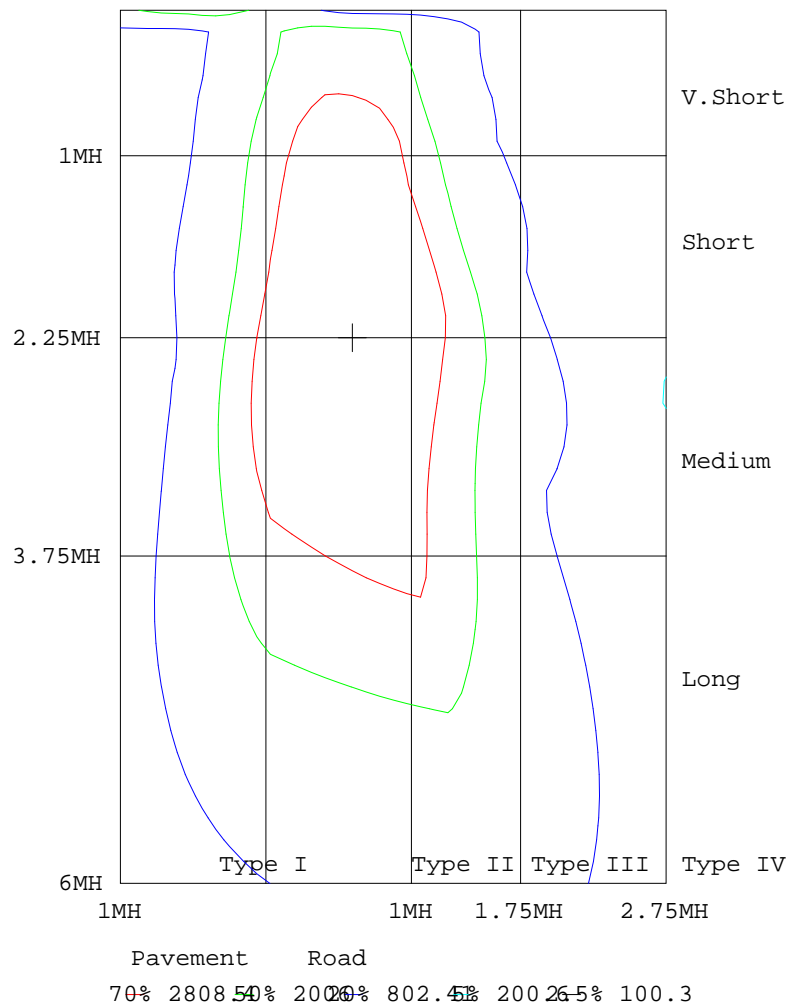
γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
 Humidity: 33.0%
 Test Distance:26.000m [K=1.0000]
 Remarks: D-20HLED60-24(5050 RA70 40K T2D)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ROAD ISOCANDELA REPORT

Test:U:230.20V I:0.2645A P:59.900W PF:0.9840 Freq:50.01Hz Lamp Flux:7333.1lx1 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: 33.4DEG
 Operators:CS01
 Test Date:2021-07-19

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
 Humidity: 33.0%
 Test Distance:26.000m [K=1.0000]
 Remarks: D-20HLED60-24(5050 RA70 40K T2D)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.20V I:0.2645A P:59.900W PF:0.9840 Freq:50.01Hz Lamp Flux:7333.11x1 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	1882	1882	1882	1882	1882	1882	1882	1882	1882	1882	1882	1882	1882	1882	1882	1882	1882	1882	1882
5	1883	1912	1933	1954	1966	1971	1974	1966	1968	1950	1932	1910	1878	1837	1788	1742	1708	1683	1680
10	1883	1937	1985	2021	2051	2065	2070	2058	2051	2015	1972	1930	1875	1775	1662	1554	1470	1411	1394
15	1880	1981	2050	2125	2203	2246	2263	2240	2191	2108	2024	1958	1872	1706	1511	1323	1194	1110	1091
20	1902	2062	2175	2302	2405	2412	2412	2412	2390	2270	2129	2020	1889	1637	1349	1116	949	854	830
25	1957	2213	2370	2486	2519	2422	2376	2428	2506	2452	2299	2131	1923	1565	1203	932	766	675	646
30	2050	2415	2602	2643	2527	2347	2276	2348	2513	2593	2505	2290	1968	1488	1062	791	625	547	530
35	2192	2623	2807	2730	2510	2329	2235	2318	2485	2692	2719	2488	2045	1403	934	665	540	531	520
40	2343	2821	2986	2808	2532	2223	2065	2216	2500	2758	2897	2684	2139	1349	818	565	564	552	528
45	2459	3030	3133	2916	2468	1955	1765	1982	2456	2856	3037	2862	2207	1283	689	560	611	578	546
50	2541	3241	3308	2945	2096	1408	1200	1423	2105	2907	3177	3075	2257	1172	540	600	640	604	563
55	2620	3496	3486	2615	1513	949	812	971	1544	2673	3379	3278	2286	1024	467	630	671	615	563
60	2736	3803	3449	2038	926	574	523	584	981	2105	3423	3598	2286	862	453	628	664	574	507
65	2980	4014	3181	1283	480	352	334	357	505	1451	3206	3855	2387	647	411	553	555	458	399
70	3165	3869	2417	513	280	249	230	251	293	636	2657	3808	2538	420	327	410	396	322	275
75	2615	3135	913	204	177	150	138	154	183	214	1203	2957	2079	232	238	262	247	177	143
80	989	1517	292	109	90.9	73.5	64.9	75.5	95.6	113	359	1527	806	124	151	133	115	74.2	58.3
85	84.8	267	68.7	30.5	21.7	15.6	12.5	16.2	24.0	32.6	86.9	259	89.8	50.9	45.2	29.6	19.1	11.6	9.02
90	2.31	1.41	1.06	0.85	0.71	0.70	0.71	0.71	0.82	0.98	1.35	1.71	2.47	2.56	1.16	0.65	0.55	0.45	0.61
95	2.81	1.06	0.95	0.87	0.69	0.59	0.57	0.52	0.73	0.84	0.86	1.38	3.12	3.72	2.12	1.00	0.60	0.56	0.50
100	4.47	1.91	1.05	0.88	0.75	0.58	0.58	0.56	0.76	0.87	0.94	1.91	4.53	5.38	4.07	1.66	0.81	0.72	0.68
105	5.03	2.71	1.15	0.90	0.81	0.56	0.59	0.59	0.79	0.89	1.03	2.66	5.08	6.13	4.82	2.81	1.26	0.86	0.81
110	6.03	3.46	1.40	1.16	1.10	0.65	0.60	1.01	1.01	1.01	1.21	3.47	5.59	6.38	5.70	3.72	1.76	1.21	1.06
115	6.08	3.57	1.80	1.18	1.05	0.91	0.81	1.11	1.18	1.22	1.57	3.58	5.61	6.68	5.83	4.37	2.76	1.76	1.51
120	6.07	3.56	1.95	1.25	1.15	1.16	1.26	1.27	1.20	1.25	2.02	3.68	5.63	6.76	5.95	4.82	3.57	2.51	2.07
125	6.03	3.55	2.00	1.47	1.20	1.46	1.29	1.32	1.23	1.33	2.12	3.70	5.66	6.80	6.03	5.26	4.53	3.53	3.37
130	5.58	3.53	2.13	1.54	1.30	1.66	1.32	1.37	1.26	1.36	2.14	3.71	5.68	6.87	6.11	5.35	5.68	4.53	4.28
135	5.46	3.55	2.15	1.79	1.70	1.68	1.35	1.41	3.65	1.88	2.22	3.73	5.38	6.33	6.01	5.44	5.96	5.43	5.09
140	5.33	3.63	2.66	1.98	3.35	1.70	1.41	1.72	5.22	1.98	2.52	3.74	5.09	5.82	6.00	5.88	6.09	6.14	5.79
145	4.98	3.82	2.91	2.31	4.07	1.86	1.83	1.92	2.69	3.45	2.88	3.76	4.88	5.46	5.99	6.35	6.22	6.69	6.02
150	4.58	4.12	3.48	2.79	3.29	2.16	1.94	2.07	2.68	3.21	3.19	3.79	4.73	5.38	5.98	6.30	6.07	6.44	6.05
155	4.58	4.29	3.61	2.96	3.40	2.66	2.26	2.57	2.79	3.23	3.54	3.94	5.18	5.32	5.97	6.07	6.04	6.15	6.08
160	4.68	4.35	3.81	3.46	3.51	3.07	2.82	2.93	3.39	3.45	3.74	4.15	5.39	5.29	5.63	5.82	5.91	6.09	6.16
165	5.08	4.62	4.37	4.22	4.21	3.57	3.43	3.43	3.85	3.91	4.24	4.43	5.59	5.68	5.87	5.86	5.93	6.14	6.24
170	5.38	5.42	5.12	5.02	4.96	4.58	4.43	4.49	4.61	4.77	4.95	5.28	5.99	5.99	5.83	6.03	6.17	6.26	6.62
175	5.78	5.98	5.92	5.82	5.57	5.33	5.23	5.30	5.12	5.27	5.08	5.37	6.02	5.98	5.79	5.92	6.04	6.16	6.44
180	5.83	5.73	5.73	5.93	5.62	5.38	5.64	6.00	5.67	5.53	5.10	5.48	5.98	5.83	5.77	5.82	5.97	5.63	5.47

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 33.4DEG
Operators:CS01
Test Date:2021-07-19

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 33.0%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED60-24(5050 RA70 40K T2D)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.20V I:0.2645A P:59.900W PF:0.9840 Freq:50.01Hz Lamp Flux:7333.11x1 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	1882	1882	1882	1882	1882													
5	1692	1715	1759	1800	1844													
10	1418	1480	1584	1687	1793													
15	1126	1213	1360	1545	1738													
20	866	975	1159	1396	1682													
25	687	789	978	1269	1624													
30	559	653	833	1139	1571													
35	538	560	710	1017	1522													
40	563	573	597	900	1492													
45	594	625	562	772	1444													
50	616	656	595	602	1350													
55	629	682	624	469	1198													
60	587	673	613	428	1034													
65	473	573	535	380	858													
70	336	413	396	305	583													
75	191	260	254	232	260													
80	81.1	120	127	149	114													
85	12.3	19.7	28.0	44.2	46.7													
90	0.45	0.88	0.71	1.42	2.87													
95	0.56	0.61	1.07	2.27	3.88													
100	0.74	0.76	1.68	3.89	5.48													
105	0.86	1.22	2.54	4.91	5.94													
110	1.26	1.88	3.41	5.71	6.52													
115	1.67	2.28	3.81	5.91	6.89													
120	2.38	3.30	4.27	5.89	6.69													
125	3.43	3.95	5.28	6.03	6.69													
130	4.14	4.82	5.54	6.31	6.44													
135	5.35	5.93	5.99	6.10	6.01													
140	6.41	6.70	6.06	6.06	5.95													
145	6.74	6.78	6.09	6.02	5.79													
150	6.64	6.23	6.12	5.99	5.63													
155	6.56	6.25	6.15	5.82	5.51													
160	6.47	6.27	6.12	5.73	5.46													
165	6.41	6.39	6.25	6.12	5.41													
170	6.76	6.84	6.39	6.44	5.36													
175	6.76	6.79	6.09	6.06	5.38													
180	5.59	6.03	5.79	5.41	5.08													

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 33.4DEG
Operators:CS01
Test Date:2021-07-19

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
γ Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 33.0%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED60-24(5050 RA70 40K T2D)L