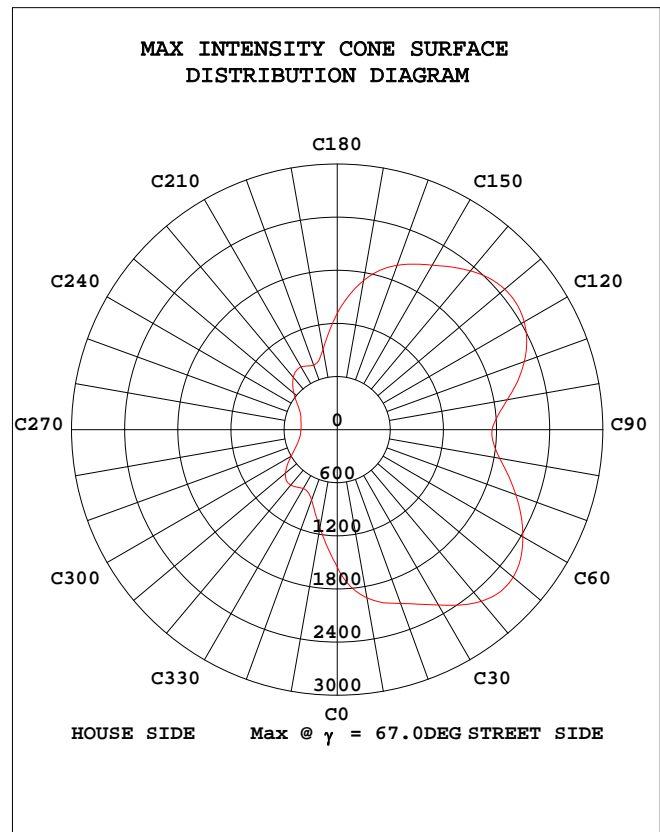
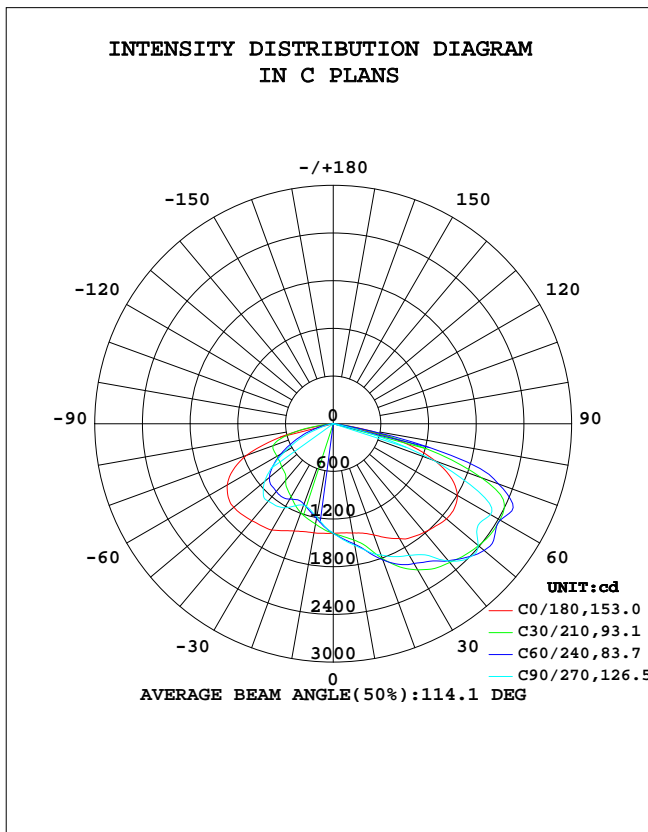


EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

STREETLIGHT PHOTOMETRIC TEST REPORT

Test:U:230.18V I:0.2645A P:59.911W PF:0.9841 Freq:50.01Hz Lamp Flux:7408.11x1 lm					
NAME: D-20HLED60-24		TYPE:		WEIGHT:	
SPEC.:		DIM.:		SERIAL No.:	
MFR.: KLED		SUR.:		Shielding Angle:	

DATA OF LAMP		PHOTOMETRIC DATA Eff: 123.65 lm/W			
MODEL	5050 RA70 40K T4D	I _{max} (cd)	2595	η street_up(%)	0.1
NOMINAL POWER(W)	60	LOR(%)	100.0	η street_down(%)	67.3
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	7408	η house_up(%)	0.2
NOMINAL FLUX(lm)	7408.11	MAXIMUM @(C,γ)	45,67.0	η house_down(%)	32.4
LAMPS INSIDE	1	η up(%)	0.3	76 FLASHAREA(m2)	0.00100
TEST VOLTAGE(V)	230.0	η down(%)	99.7	SLI	20.045



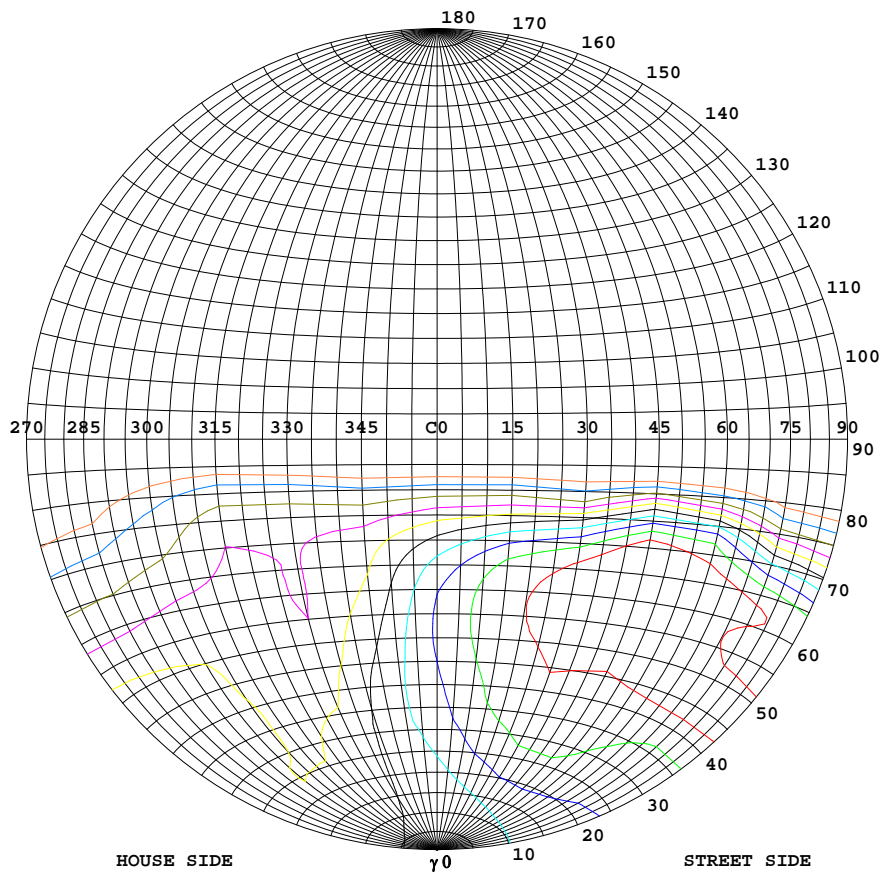
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 0.0DEG
Operators:CS01
Test Date:2021-07-19

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 0.0%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED60-24(5050 RA70 40K T4D)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

STREETLIGHT ISOCANDELA DIAGRAM

Test:U:230.18V I:0.2645A P:59.911W PF:0.9841 Freq:50.01Hz Lamp Flux:7408.11x1 lm		
NAME: D-20HLED60-24	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:



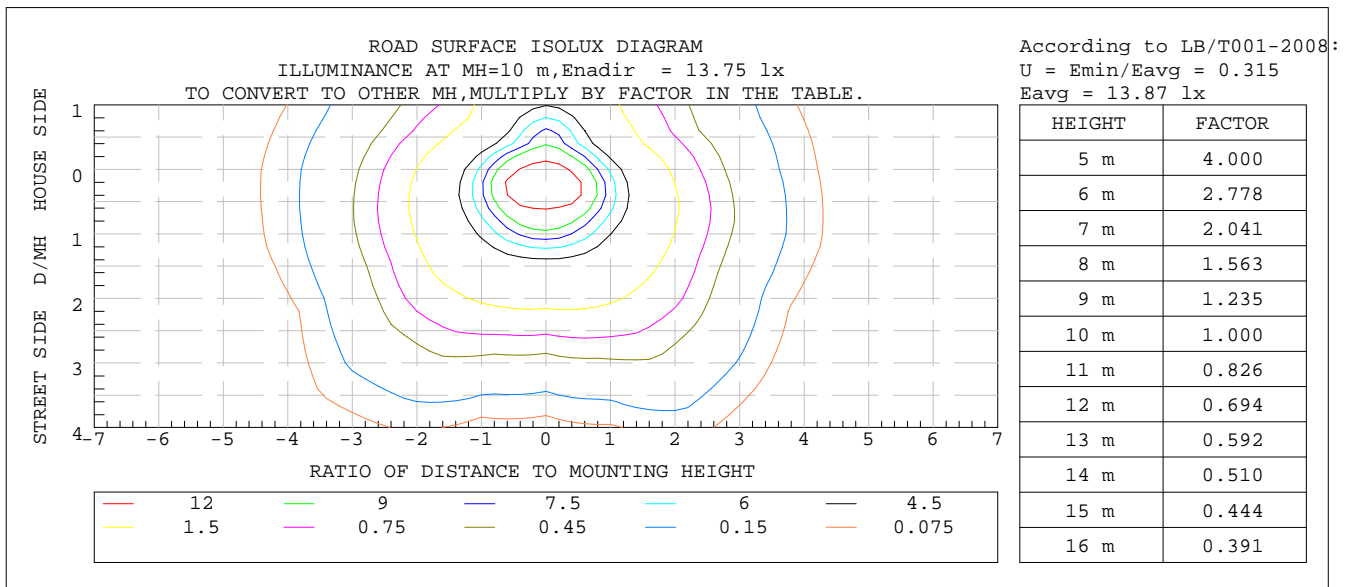
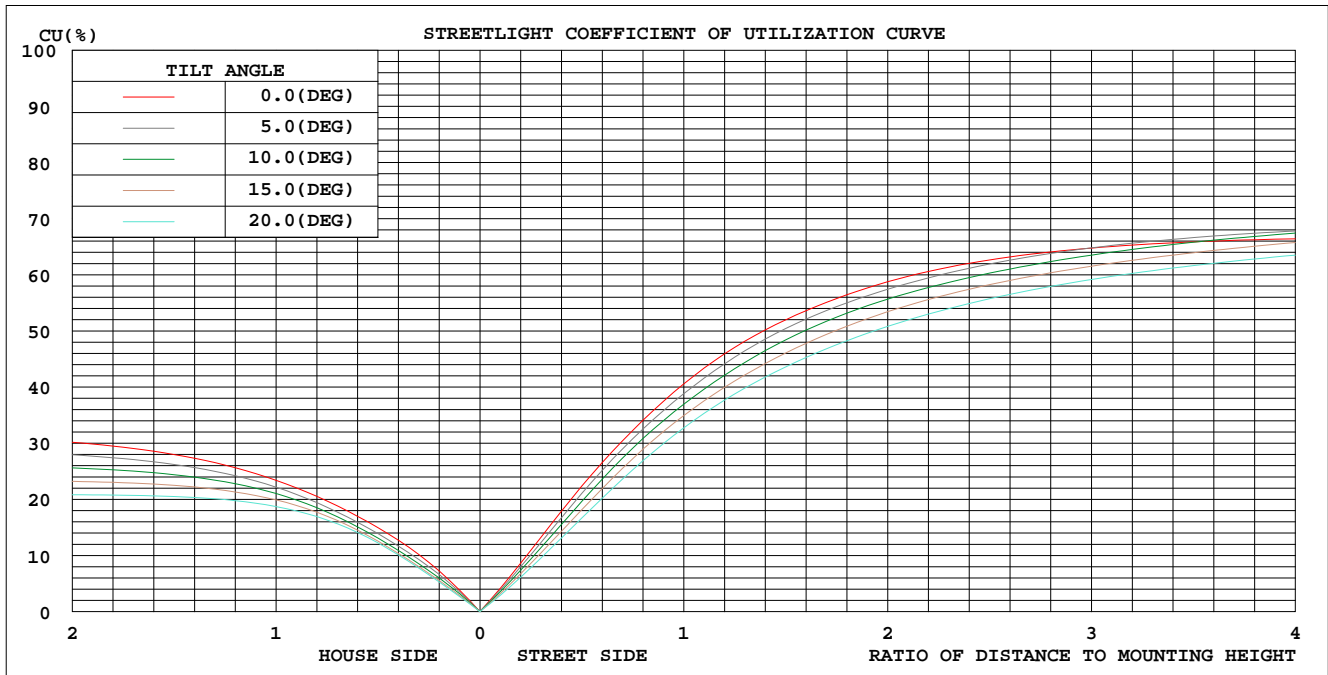
Classification:

IES:Type IV - Short
 CIE:Broad - Intermediate
 IES:Cut-off
 CIE:Semi-cut-off
 Max.At80:73.92cd/klm
 Max.At90:0.2144cd/klm
 Max.80-90:73.92cd/klm

ISOCANDELA DIAGRAM	
UNIT	cd
Imax=100%	2595
90%	2336
80%	2076
70%	1817
60%	1557
50%	1298
40%	1038
30%	779
20%	519
10%	260
5%	130

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 0.0DEG
 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: 0.0%
 Test Distance:26.000m [K=1.0000]
 Remarks: D-20HLED60-24(5050 RA70 40K T4D)L

COEFFICIENT OF UTILIZATION CURVE
AND ISOLUX DIAGRAM

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 0.0DEG
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: 0.0%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED60-24(5050 RA70 40K T4D)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ZONAL FLUX DIAGRAM

Test:U:230.18V I:0.2645A P:59.911W PF:0.9841 Freq:50.01Hz Lamp Flux:7408.11x1 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	Φ lum,lamp
10	1396	1515	1554	1511	1394	1239	1192	1262	0- 10	131.7	131.7	1.78,1.78
20	1489	1846	1759	1781	1436	1100	1091	1128	10- 20	401.0	532.7	7.19,7.19
30	1668	2128	1913	2073	1546	997.4	1221	1003	20- 30	702.9	1236	16.7,16.7
40	1784	2265	2255	2209	1594	1012	1273	956.6	30- 40	1018	2254	30.4,30.4
50	1861	2392	2381	2315	1634	962.3	1127	921.7	40- 50	1306	3560	48.1,48.1
60	1804	2547	2286	2392	1540	849.3	708.0	864.8	50- 60	1471	5030	67.9,67.9
70	1363	2506	1343	2356	1158	664.7	275.6	784.1	60- 70	1461	6491	87.6,87.6
80	364.9	547.6	74.49	359.1	276.9	290.6	46.17	375.7	70- 80	825.5	7317	98.8,98.8
90	1.216	1.477	0.9281	1.588	1.218	1.515	0.6619	1.426	80- 90	70.53	7387	99.7,99.7
100	2.792	1.222	0.6578	1.239	2.518	3.072	1.928	3.402	90-100	1.677	7389	99.7,99.7
110	3.702	1.758	1.159	1.522	3.805	4.129	3.750	4.601	100-110	2.664	7392	99.8,99.8
120	4.153	1.993	1.616	1.724	4.256	4.529	5.172	5.025	110-120	3.264	7395	99.8,99.8
130	4.296	2.265	2.379	2.030	4.402	4.688	5.469	5.305	120-130	3.426	7398	99.9,99.9
140	4.310	2.667	2.776	2.384	4.413	5.236	5.361	5.337	130-140	3.337	7402	99.9,99.9
150	3.823	3.169	2.904	2.988	4.109	5.205	5.059	5.103	140-150	2.737	7405	100,100
160	3.912	3.325	2.964	3.096	4.414	4.971	4.781	4.869	150-160	1.931	7406	100,100
170	4.564	4.380	3.897	4.312	4.591	4.927	5.140	4.892	160-170	1.210	7408	100,100
180	4.616	4.789	4.355	4.466	4.667	4.682	4.456	4.466	170-180	0.4472	7408	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

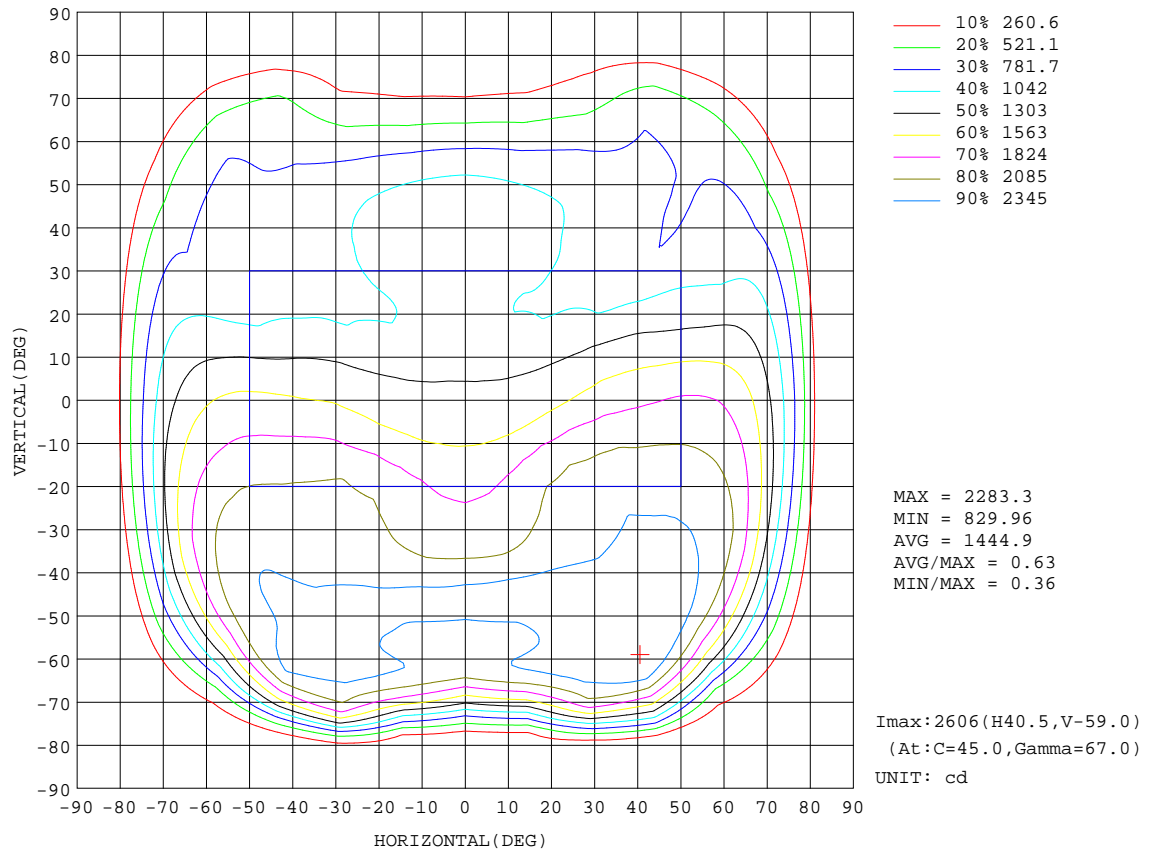
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 0.0DEG
 Operators:CS01
 Test Date:2021-07-19

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 γ Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
 Humidity: 0.0%
 Test Distance:26.000m [K=1.0000]
 Remarks: D-20HLED60-24(5050 RA70 40K T4D)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

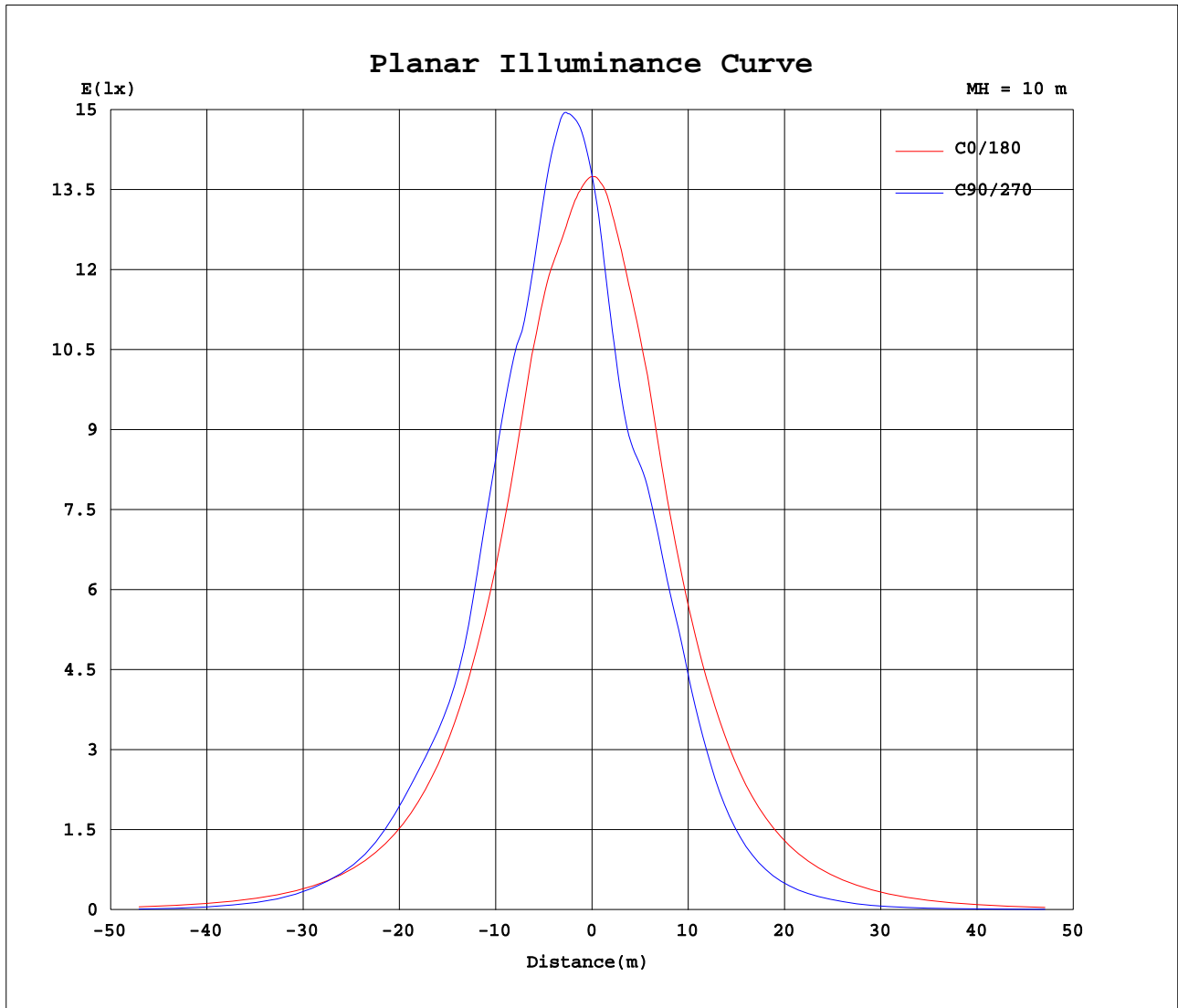
Test:U:230.18V I:0.2645A P:59.911W PF:0.9841 Freq:50.01Hz Lamp Flux:7408.11x1 lm		
NAME: D-20HLED60-24	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 0.0DEG
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: 0.0%
Test Distance: 26.000m [K=1.0000]
Remarks: D-20HLED60-24(5050 RA70 40K T4D)L

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 0.0DEG
Operators: CS01
Test Date: 2021-07-19

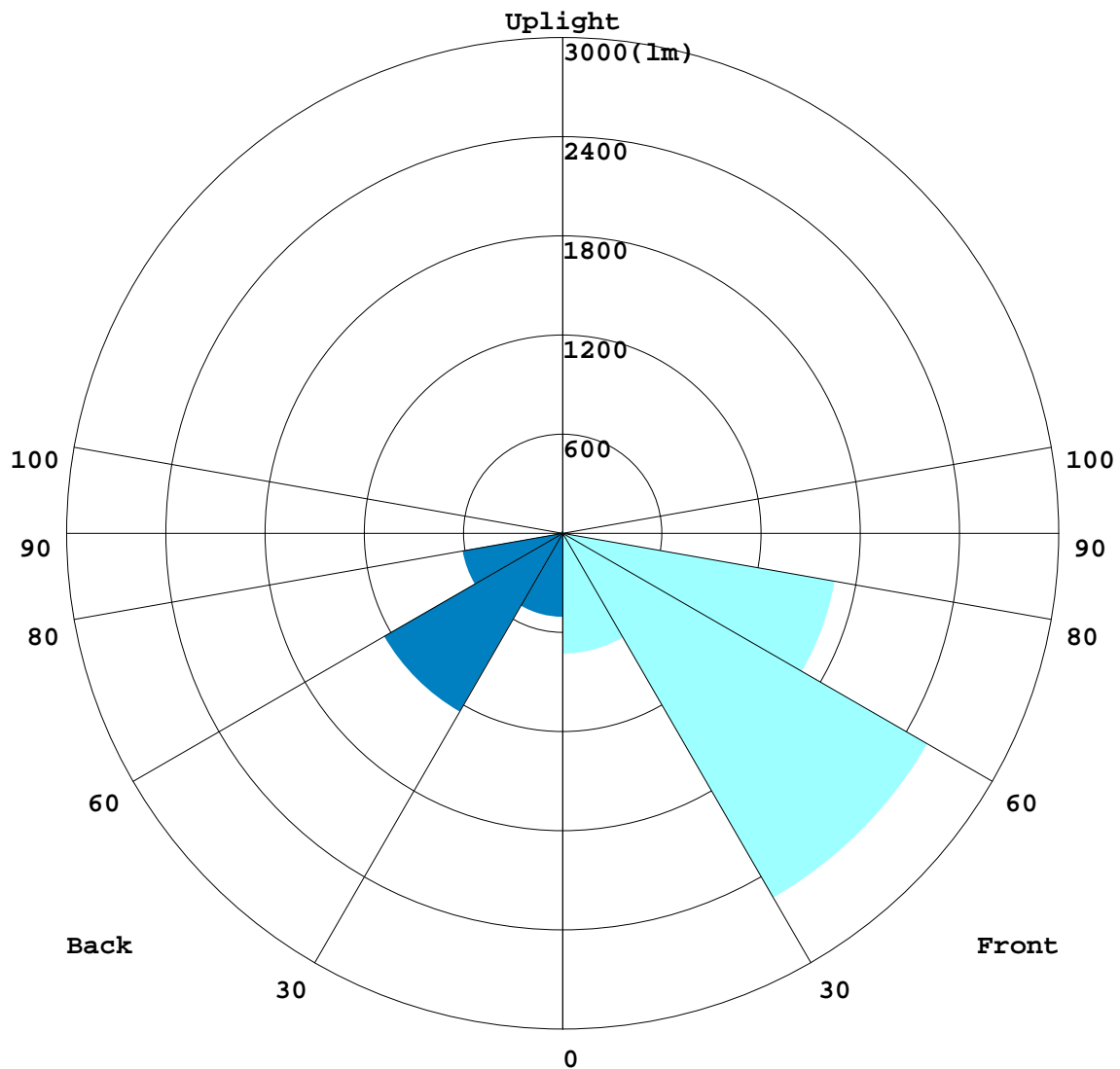
γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 0.0%
Test Distance: 26.000m [K=1.0000]
Remarks: D-20HLED60-24(5050 RA70 40K T4D)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LCS REPORT

Test:U:230.18V I:0.2645A P:59.911W PF:0.9841 Freq:50.01Hz Lamp Flux:7408.11x1 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: 0.0DEG
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: 0.0%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED60-24(5050 RA70 40K T4D)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

BUG REPORT

Test:U:230.18V I:0.2645A P:59.911W PF:0.9841 Freq:50.01Hz Lamp Flux:7408.11x1 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)	729.38	9.8
FM - Front-Medium(30-60)	2548	34.4
FH - Front-High(60-80)	1672.1	22.6
FVH - Front-Very High(80-90)	35.88	0.5
Total Forward Light	4992.9	67.4

BL - Back-Low(0-30)	506.29	6.8
BM - Back-Medium(30-60)	1246.6	16.8
BH - Back-High(60-80)	614.43	8.3
BVH - Back-Very High(80-90)	34.646	0.5
Total Back Light	2415.2	32.6

UL - Uplight-Low(90-100)	1.6765	0.0
UH - Uplight-High(100-180)	19.016	0.3
Total Up Light	20.693	0.3

BUG(Back,Up,Glare) Rating	B2-U2-G2
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Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	2402	13.168	2415.2
Street Side	4985.4	7.5248	4992.9

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 0.0DEG
 Operators:CS01
 Test Date:2021-07-19

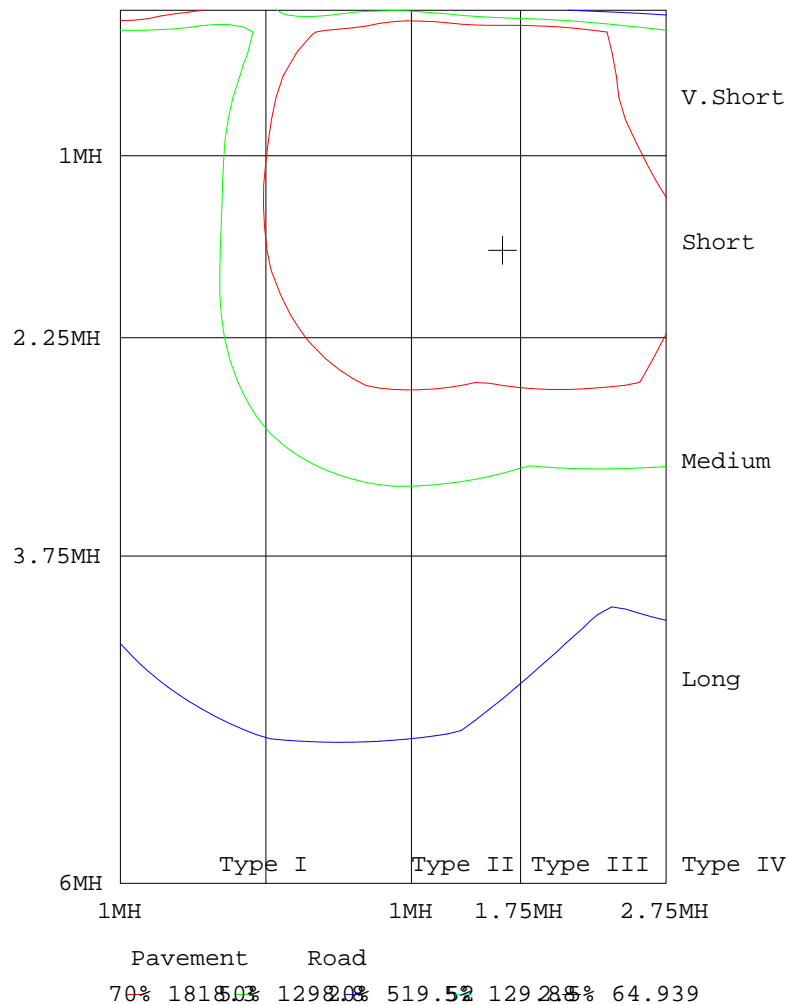
γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
 Humidity: 0.0%
 Test Distance:26.000m [K=1.0000]
 Remarks: D-20HLED60-24(5050 RA70 40K T4D)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ROAD ISOCANDELA REPORT

Test:U:230.18V I:0.2645A P:59.911W PF:0.9841 Freq:50.01Hz Lamp Flux:7408.11x1 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: 0.0DEG
 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: 0.0%
 Test Distance:26.000m [K=1.0000]
 Remarks: D-20HLED60-24(5050 RA70 40K T4D)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.18V I:0.2645A P:59.911W PF:0.9841 Freq:50.01Hz Lamp Flux:7408.11x1 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	1379	1379	1379	1379	1379	1379	1379	1379	1379	1379	1379	1379	1379	1379	1379	1379	1379	1379	1379
5	1379	1399	1424	1443	1454	1464	1466	1459	1456	1437	1421	1401	1384	1356	1336	1315	1301	1293	1292
10	1396	1435	1485	1515	1538	1550	1554	1548	1541	1511	1478	1432	1394	1331	1283	1239	1212	1195	1192
15	1425	1508	1594	1647	1666	1669	1661	1663	1655	1614	1554	1475	1407	1314	1238	1174	1140	1125	1120
20	1489	1653	1803	1846	1823	1781	1759	1776	1803	1781	1699	1551	1436	1307	1193	1100	1078	1089	1091
25	1583	1815	1989	2017	1952	1875	1845	1862	1926	1942	1855	1669	1486	1303	1132	1031	1057	1127	1140
30	1668	1947	2123	2128	2032	1937	1913	1920	2011	2073	2003	1785	1546	1302	1062	997	1097	1190	1221
35	1739	2048	2224	2205	2113	2023	2013	1998	2083	2165	2118	1875	1569	1276	1006	1008	1125	1225	1259
40	1784	2111	2279	2265	2252	2246	2255	2202	2194	2209	2184	1937	1594	1220	932	1012	1115	1227	1273
45	1822	2184	2339	2310	2375	2417	2395	2372	2297	2252	2246	1992	1618	1127	866	994	1101	1207	1246
50	1861	2238	2386	2392	2479	2428	2381	2416	2410	2315	2298	2047	1634	1039	847	962	1048	1097	1127
55	1860	2269	2421	2482	2477	2287	2226	2296	2450	2362	2338	2079	1613	956	825	919	925	918	930
60	1804	2262	2421	2547	2426	2342	2286	2307	2401	2392	2347	2066	1540	890	819	849	762	706	708
65	1647	2141	2374	2582	2499	2228	2017	2265	2488	2397	2254	1965	1396	833	821	746	577	500	490
70	1363	1759	1982	2506	2211	1583	1343	1754	2257	2356	1832	1634	1158	762	804	665	399	307	276
75	929	1069	1203	1735	1533	666	507	796	1748	1586	1042	1002	751	578	649	564	226	140	123
80	365	384	267	548	295	96.1	74.5	117	410	359	241	307	277	259	356	291	102	55.2	46.2
85	75.5	62.5	43.5	41.3	34.3	20.8	17.6	24.1	37.8	40.5	48.0	57.6	49.3	60.0	94.6	42.2	19.3	10.4	9.35
90	1.22	1.21	1.38	1.48	1.21	0.96	0.93	1.07	1.42	1.59	1.44	1.27	1.22	1.31	1.31	1.51	1.16	0.76	0.66
95	1.27	1.11	1.21	1.21	0.90	0.75	0.66	0.74	1.00	1.26	1.36	1.25	1.52	1.81	2.02	2.47	2.07	1.32	1.12
100	2.79	1.86	1.26	1.22	0.88	0.73	0.66	0.81	0.98	1.24	1.28	1.77	2.52	3.07	3.23	3.07	2.79	2.28	1.93
105	3.09	2.47	1.86	1.25	1.01	0.71	0.66	0.88	1.08	1.22	1.72	2.12	3.30	3.73	3.63	3.78	3.38	3.14	2.89
110	3.70	2.92	2.12	1.76	1.23	1.21	1.16	1.10	1.18	1.52	2.01	2.75	3.80	4.13	4.44	4.13	3.79	3.84	3.75
115	3.83	3.05	2.37	1.94	1.31	1.28	1.23	1.19	1.27	1.64	2.10	2.93	4.07	4.80	4.67	4.33	4.43	4.56	4.51
120	4.15	3.16	2.53	1.99	1.76	1.51	1.62	1.47	1.52	1.72	2.20	3.43	4.26	4.85	4.79	4.53	4.72	5.06	5.17
125	4.31	3.42	2.74	2.26	2.02	2.63	2.01	2.03	1.98	1.85	2.48	3.49	4.36	4.92	4.90	4.61	5.05	5.40	5.39
130	4.30	3.42	2.81	2.26	2.27	2.72	2.38	2.45	2.16	2.03	2.70	3.49	4.40	4.98	5.00	4.69	5.17	5.77	5.47
135	4.28	3.34	2.85	2.27	6.19	2.72	2.69	2.68	6.99	2.08	2.74	3.59	4.44	4.96	5.09	4.77	5.30	5.90	5.41
140	4.31	3.45	2.89	2.67	7.25	2.88	2.78	3.09	6.76	2.38	2.77	3.59	4.41	4.94	5.20	5.24	5.25	5.94	5.36
145	4.06	3.54	2.98	2.87	4.85	3.39	2.87	3.19	3.81	2.84	2.89	3.59	4.23	4.91	5.12	5.22	5.09	5.92	5.32
150	3.82	3.57	3.08	3.17	3.63	3.64	2.90	3.44	3.54	2.99	3.14	3.62	4.11	4.89	4.96	5.20	4.74	5.41	5.06
155	3.87	3.57	3.43	3.25	3.63	3.66	2.93	3.47	3.53	3.05	3.39	3.68	4.16	4.38	4.80	5.19	4.71	5.13	4.83
160	3.91	3.61	3.48	3.32	3.63	3.67	2.96	3.50	3.51	3.10	3.55	3.81	4.41	4.13	4.59	4.97	4.68	4.90	4.78
165	3.96	3.82	3.73	3.62	3.63	3.68	3.19	3.53	3.55	3.60	3.85	4.34	4.54	4.35	5.06	4.71	4.65	4.76	4.92
170	4.56	4.53	4.49	4.38	4.33	4.35	3.90	3.75	4.36	4.31	4.41	5.00	4.59	4.45	4.88	4.93	5.01	4.76	5.14
175	4.60	5.18	5.09	5.08	4.89	4.42	4.33	4.36	4.44	4.45	4.57	4.76	4.65	4.54	4.71	4.75	4.93	4.75	5.06
180	4.62	4.48	4.44	4.79	4.74	4.45	4.36	4.56	4.42	4.47	4.41	4.50	4.67	4.58	4.64	4.68	4.94	4.75	4.46

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 0.0DEG
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: 0.0%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED60-24(5050 RA70 40K T4D)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.18V I:0.2645A P:59.911W PF:0.9841 Freq:50.01Hz Lamp Flux:7408.11x1 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	1379	1379	1379	1379	1379														
5	1296	1307	1324	1340	1363														
10	1199	1224	1262	1302	1351														
15	1121	1148	1199	1271	1348														
20	1073	1077	1128	1241	1359														
25	1096	1037	1056	1204	1381														
30	1163	1060	1003	1147	1408														
35	1194	1094	970	1066	1419														
40	1188	1097	957	981	1400														
45	1173	1072	941	890	1346														
50	1081	1039	922	821	1269														
55	928	959	896	781	1176														
60	731	835	865	760	1083														
65	527	670	829	765	1007														
70	340	498	784	755	898														
75	168	339	674	643	655														
80	67.6	188	376	370	289														
85	11.9	31.6	54.6	74.4	51.2														
90	0.86	1.37	1.43	1.27	1.32														
95	1.42	2.13	2.45	1.78	1.72														
100	2.29	2.95	3.40	3.45	3.34														
105	2.89	3.50	4.06	4.16	3.89														
110	3.60	4.01	4.60	4.97	4.51														
115	4.41	4.47	4.76	5.12	4.92														
120	5.17	5.08	5.03	5.08	4.95														
125	5.48	5.45	5.29	5.37	5.00														
130	5.63	5.69	5.31	5.27	5.06														
135	6.07	6.03	5.32	5.18	4.75														
140	6.06	6.01	5.34	5.20	4.73														
145	6.04	5.96	5.22	5.24	4.72														
150	5.62	5.53	5.10	5.33	4.71														
155	5.39	5.42	4.99	5.02	4.54														
160	5.18	5.27	4.87	4.55	4.47														
165	5.07	5.13	4.92	4.87	4.42														
170	5.15	5.20	4.89	4.56	4.50														
175	5.16	5.26	4.75	4.52	4.47														
180	4.41	4.41	4.47	4.46	4.40														

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 0.0DEG
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: 0.0%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED60-24(5050 RA70 40K T4D)L