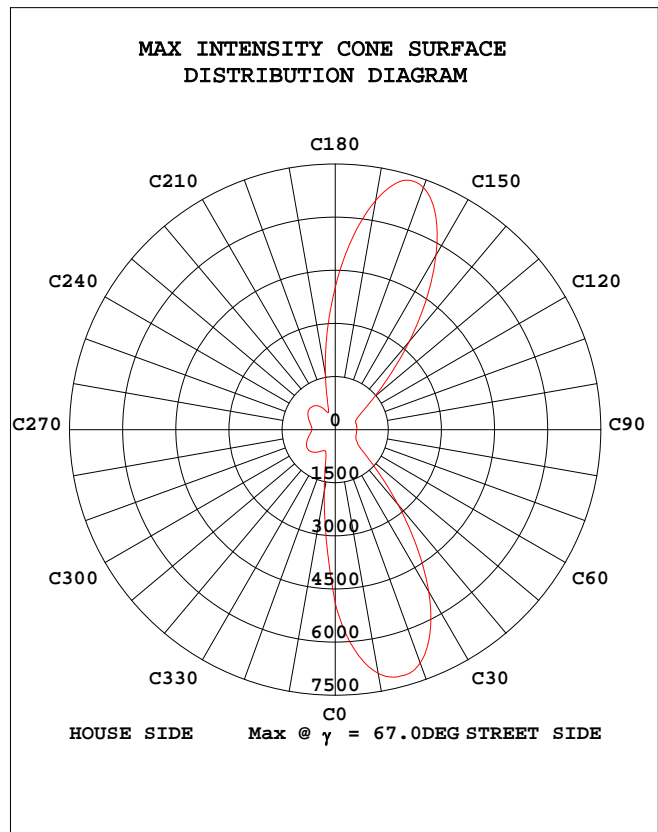
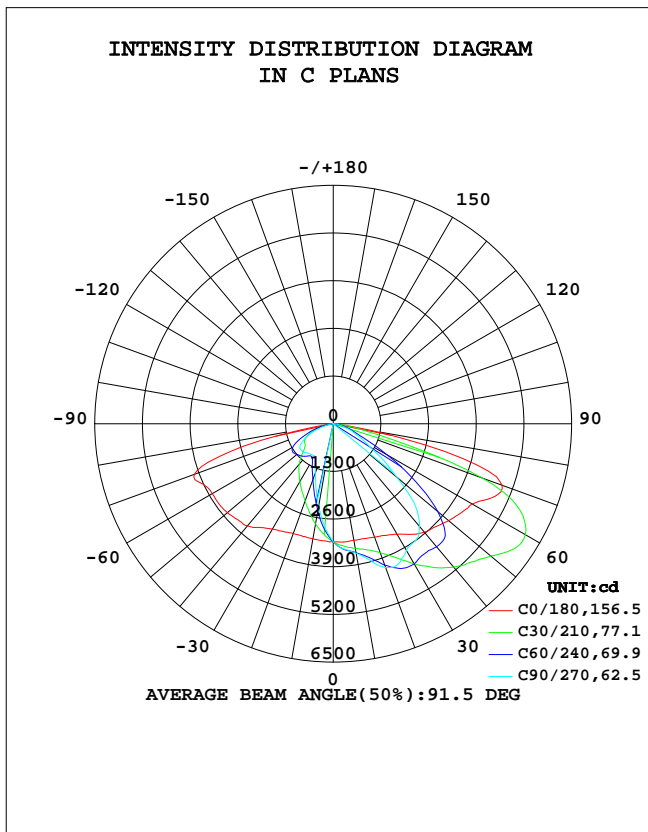


EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

STREETLIGHT PHOTOMETRIC TEST REPORT

Test:U:230.14V I:0.4536A P:100.26W PF:0.9605 Freq:50.01Hz Lamp Flux:12790.6x1 lm		
NAME: D-20HLED100-48	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 127.57 lm/W			
MODEL	5050 40K RA70 T2D L	I _{max} (cd)	7277	η street_up(%)	0.1
NOMINAL POWER(W)	100	LOR(%)	100.0	η street_down(%)	71.3
RATED VOLTAGE(V)	220.0	TOTAL FLUX(lm)	12791	η house_up(%)	0.2
NOMINAL FLUX(lm)	12790.6	MAXIMUM @(C,γ)	165,67.0	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	21.622



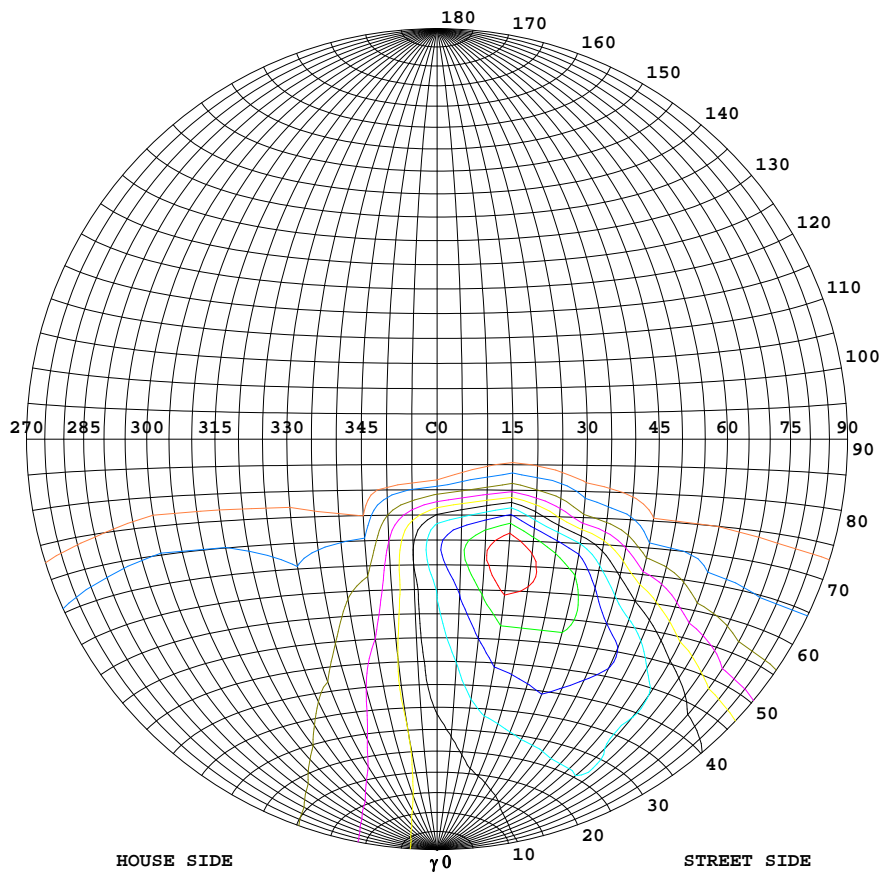
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 0.0DEG
Operators:CS01
Test Date:2021-07-20

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 39.2%
Test Distance:10.000m [K=1.0000]
Remarks: D-20HLED100-48(5050 40K RA70 T2D)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

STREETLIGHT ISOCANDELA DIAGRAM

Test:U:230.14V I:0.4536A P:100.26W PF:0.9605 Freq:50.01Hz Lamp Flux:12790.6x1 lm		
NAME: D-20HLED100-48	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:



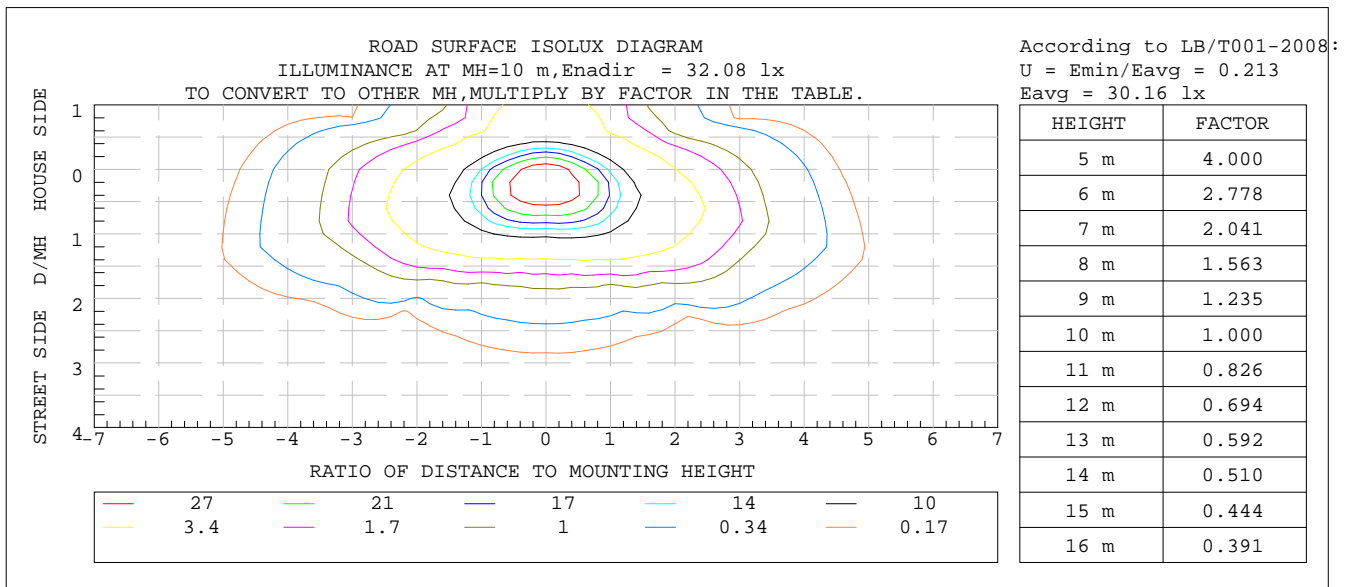
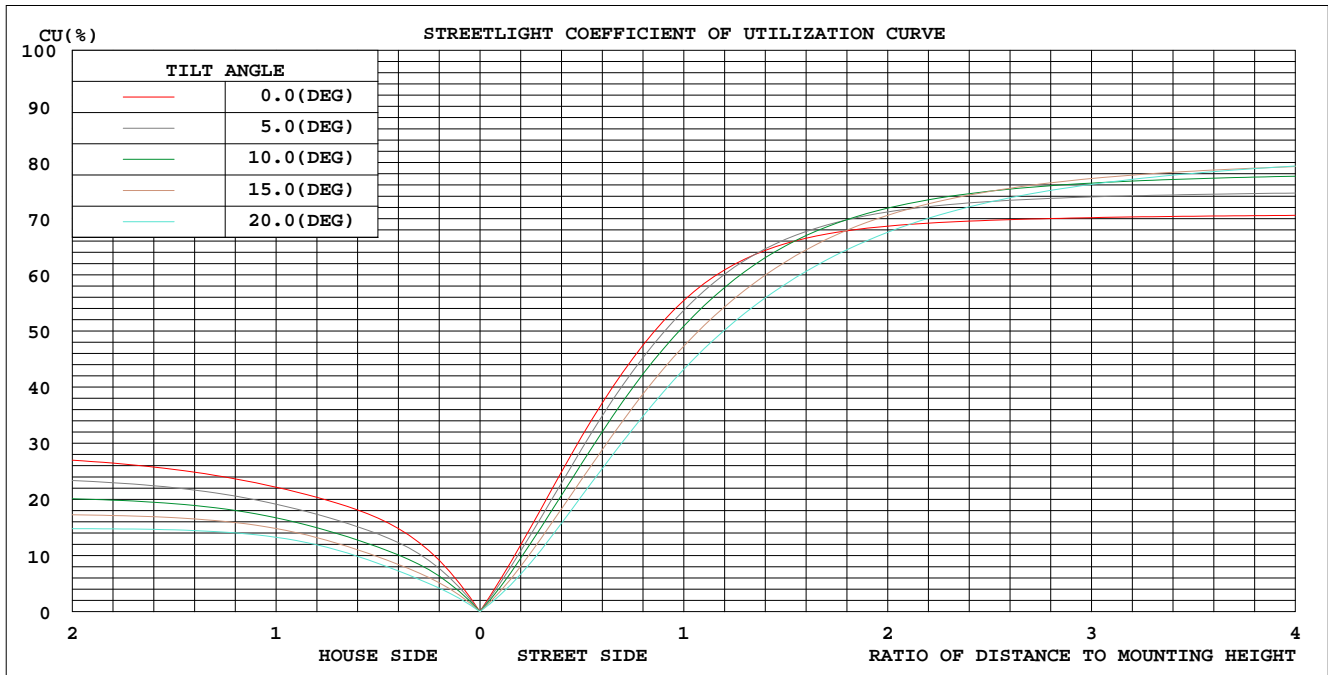
Classification:

IES:Type II - Medium
 CIE:Narrow - Intermediate
 IES:Semi cut-off
 CIE:Non-cut-off
 Max.At80:154.1cd/klm
 Max.At90:0.3285cd/klm
 Max.80-90:154.1cd/klm

ISOCANDELA DIAGRAM	
UNIT	cd
Imax=100%	7277
90%	6549
80%	5821
70%	5094
60%	4366
50%	3638
40%	2911
30%	2183
20%	1455
10%	728
5%	364

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 0.0DEG
 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: 39.2%
 Test Distance:10.000m [K=1.0000]
 Remarks: D-20HLED100-48(5050 40K RA70 T2D)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:2021-07-20

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 39.2%
Test Distance:10.000m [K=1.0000]
Remarks: D-20HLED100-48(5050 40K RA70 T2D)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ZONAL FLUX DIAGRAM

Test:U:230.14V I:0.4536A P:100.26W PF:0.9605 Freq:50.01Hz Lamp Flux:12790.6x1 lm		
NAME: D-20HLED100-48	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	3225	3520	3584	3492	3187	2571	2293	2599	0- 10	299.1	299.1	2.34,2.34
20	3293	3892	4170	3832	3189	1871	1432	1918	10- 20	846.4	1145	8.96,8.96
30	3484	4529	3993	4483	3318	1401	1020	1448	20- 30	1367	2512	19.6,19.6
40	3859	4834	3654	4873	3639	1107	1057	1130	30- 40	1881	4393	34.3,34.3
50	4112	5094	2260	5234	3769	1236	1140	1232	40- 50	2341	6734	52.6,52.6
60	4374	3607	1018	3961	3809	1215	972.0	1193	50- 60	2480	9214	72,72
70	4899	932.6	487.9	1258	4025	735.7	502.4	733.3	60- 70	2217	11431	89.4,89.4
80	1037	196.4	140.4	194.1	551.9	203.4	99.45	210.4	70- 80	1195	12626	98.7,98.7
90	3.021	1.327	1.017	1.394	3.223	0.8577	0.6609	0.9141	80- 90	130.4	12756	99.7,99.7
100	6.586	1.277	0.7211	1.166	6.347	2.481	1.014	2.746	90-100	2.306	12759	99.7,99.7
110	9.464	1.965	1.467	1.980	8.361	6.153	1.730	6.048	100-110	3.892	12763	99.8,99.8
120	9.920	2.366	2.138	2.081	9.065	8.167	3.713	7.466	110-120	5.069	12768	99.8,99.8
130	8.962	2.690	2.760	2.906	9.230	9.076	7.455	9.602	120-130	5.643	12773	99.9,99.9
140	8.611	3.125	2.826	3.244	8.609	9.932	9.994	10.45	130-140	5.518	12779	99.9,99.9
150	7.302	4.485	3.548	4.671	8.055	10.84	10.49	10.27	140-150	4.893	12784	99.9,99.9
160	8.428	5.999	4.814	6.037	8.881	9.870	10.24	10.33	150-160	3.615	12787	100,100
170	9.567	8.519	7.645	7.920	10.12	9.920	11.10	10.74	160-170	2.420	12790	100,100
180	9.619	9.677	9.735	9.243	10.07	9.427	9.479	9.846	170-180	0.9273	12791	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

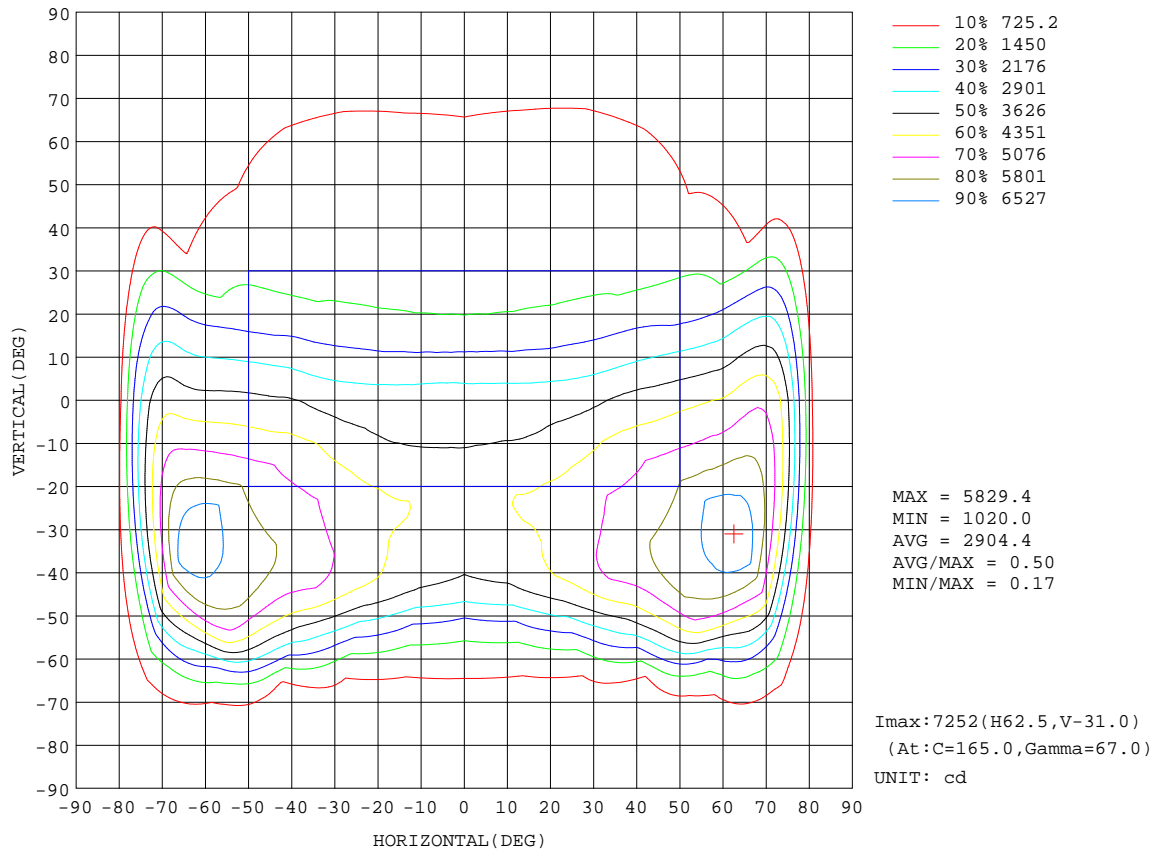
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 0.0DEG
 Operators:CS01
 Test Date:2021-07-20

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
 Humidity: 39.2%
 Test Distance:10.000m [K=1.0000]
 Remarks: D-20HLED100-48(5050 40K RA70 T2D)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

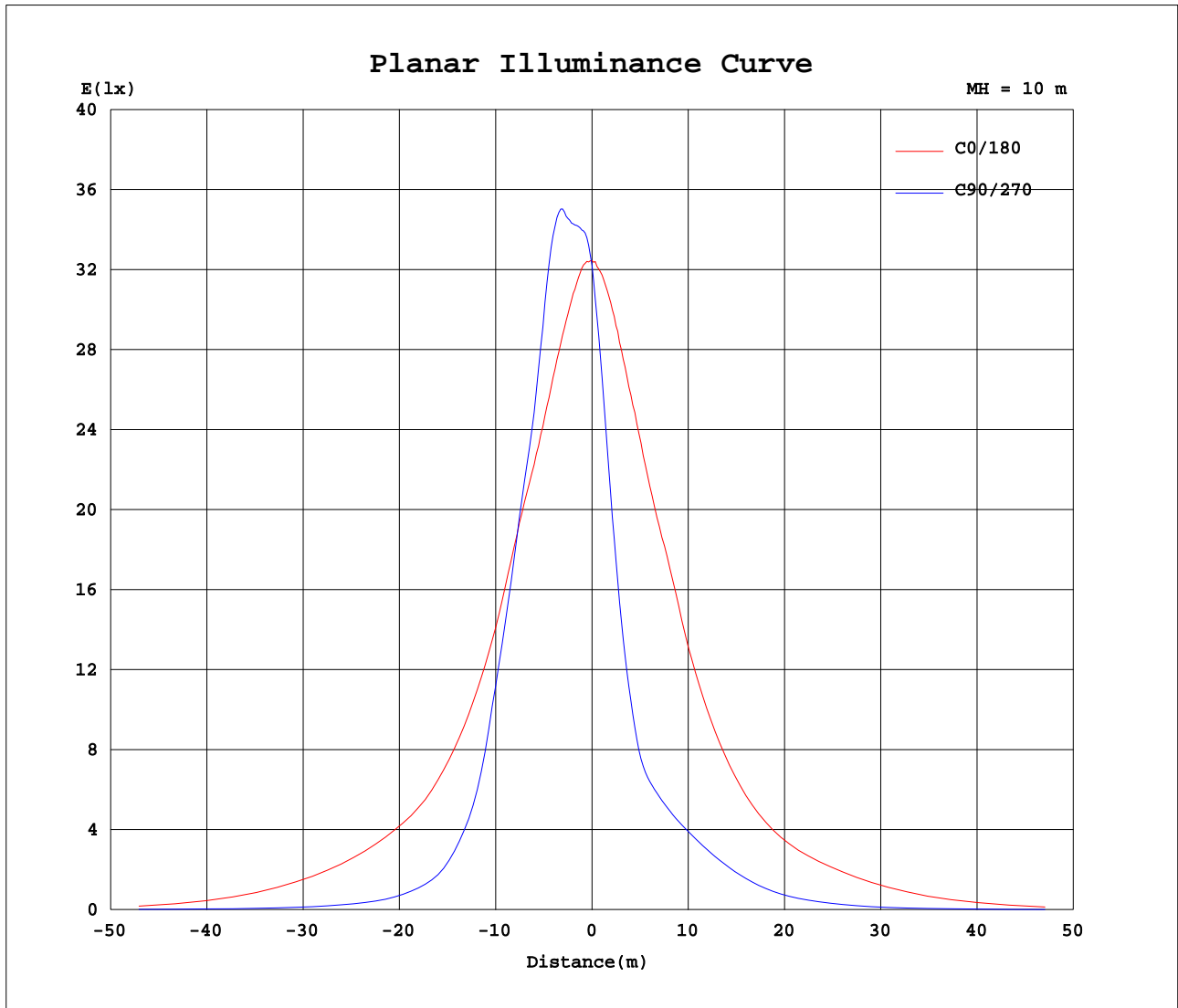
Test:U:230.14V I:0.4536A P:100.26W PF:0.9605 Freq:50.01Hz Lamp Flux:12790.6x1 lm		
NAME: D-20HLED100-48	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 0.0DEG
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: 39.2%
Test Distance:10.000m [K=1.0000]
Remarks: D-20HLED100-48(5050 40K RA70 T2D)L

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 0.0DEG
Operators: CS01
Test Date: 2021-07-20

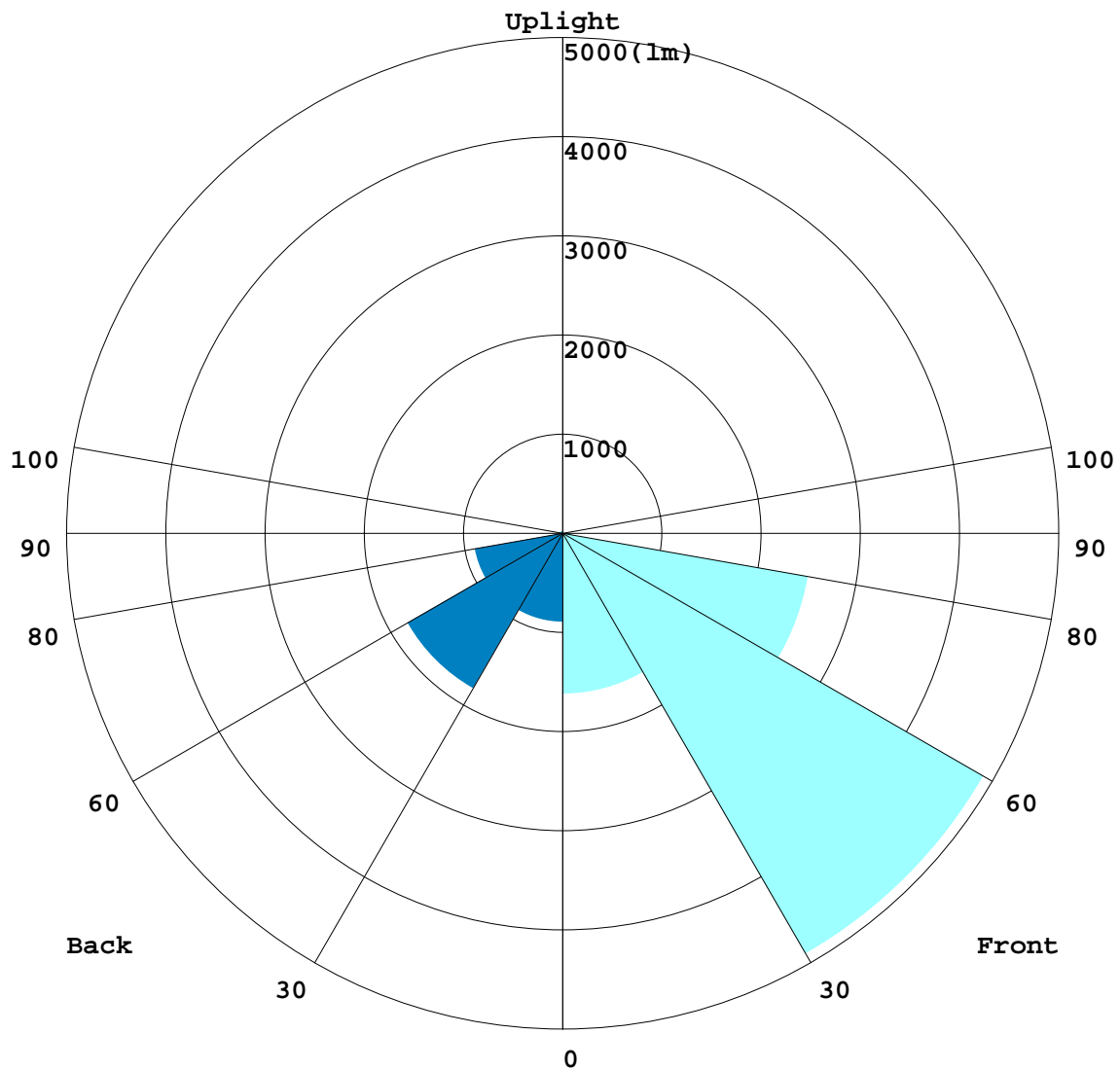
γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 39.2%
Test Distance: 10.000m [K=1.0000]
Remarks: D-20HLED100-48(5050 40K RA70 T2D)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LCS REPORT

Test:U:230.14V I:0.4536A P:100.26W PF:0.9605 Freq:50.01Hz Lamp Flux:12790.6x1 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: 0.0DEG
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: 39.2%
Test Distance:10.000m [K=1.0000]
Remarks: D-20HLED100-48(5050 40K RA70 T2D)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

BUG REPORT

Test:U:230.14V I:0.4536A P:100.26W PF:0.9605 Freq:50.01Hz Lamp Flux:12790.6x1 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)	1619	12.7
FM - Front-Medium(30-60)	4895.6	38.3
FH - Front-High(60-80)	2511.7	19.6
FVH - Front-Very High(80-90)	96.08	0.8
Total Forward Light	9134	71.4

BL - Back-Low(0-30)	892.99	7.0
BM - Back-Medium(30-60)	1806.4	14.1
BH - Back-High(60-80)	900.13	7.0
BVH - Back-Very High(80-90)	34.364	0.3
Total Back Light	3656.6	28.6

UL - Uplight-Low(90-100)	2.3061	0.0
UH - Uplight-High(100-180)	31.978	0.3
Total Up Light	34.284	0.3

BUG(Back,Up,Glare) Rating	B2-U2-G2
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Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	3633.8	22.759	3656.6
Street Side	9122.5	11.525	9134

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 0.0DEG
 Operators:CS01
 Test Date:2021-07-20

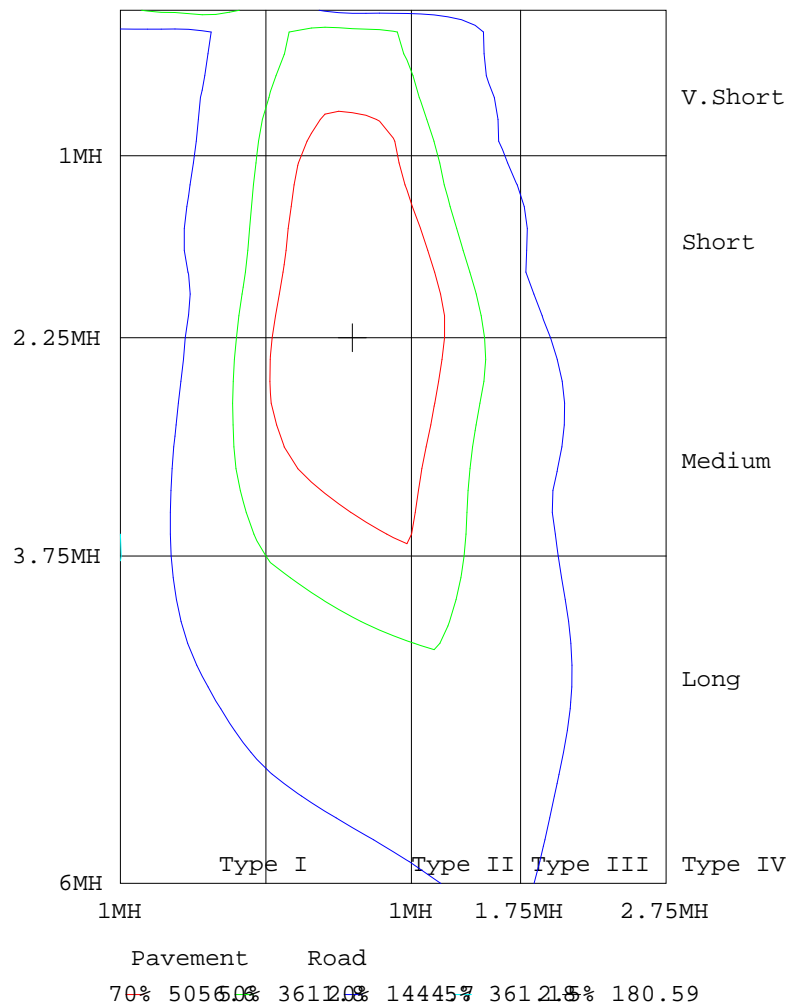
γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
 Humidity: 39.2%
 Test Distance:10.000m [K=1.0000]
 Remarks: D-20HLED100-48(5050 40K RA70 T2D)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ROAD ISOCANDELA REPORT

Test:U:230.14V I:0.4536A P:100.26W PF:0.9605 Freq:50.01Hz Lamp Flux:12790.6x1 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: 0.0DEG
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: 39.2%
Test Distance:10.000m [K=1.0000]
Remarks: D-20HLED100-48(5050 40K RA70 T2D)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.14V I:0.4536A P:100.26W PF:0.9605 Freq:50.01Hz Lamp Flux:12790.6x1 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	3222	3222	3222	3222	3222	3222	3222	3222	3222	3222	3222	3222	3222	3222	3222	3222	3222	3222	3222
5	3238	3303	3346	3399	3443	3432	3432	3437	3420	3389	3357	3298	3204	3113	3021	2924	2876	2816	2799
10	3225	3362	3450	3520	3570	3593	3584	3598	3552	3492	3434	3355	3187	2979	2777	2571	2418	2318	2293
15	3246	3442	3559	3657	3773	3835	3847	3834	3732	3629	3527	3416	3186	2846	2510	2193	1990	1855	1823
20	3293	3573	3744	3892	4102	4156	4170	4164	4045	3832	3689	3534	3189	2726	2243	1871	1626	1477	1432
25	3360	3776	4020	4213	4356	4252	4214	4284	4319	4153	3955	3708	3239	2602	2025	1602	1359	1194	1143
30	3484	4080	4407	4529	4413	4111	3993	4154	4419	4483	4327	3993	3318	2480	1822	1401	1137	1039	1020
35	3683	4468	4786	4724	4330	4015	3900	4065	4359	4713	4751	4378	3458	2381	1631	1200	1071	1056	1027
40	3859	4802	5103	4834	4380	3907	3654	3987	4408	4873	5102	4759	3639	2316	1445	1107	1157	1105	1057
45	3963	5118	5333	5019	4322	3448	3167	3599	4421	5076	5387	5056	3691	2197	1221	1158	1241	1168	1107
50	4112	5532	5609	5094	3724	2598	2260	2733	3927	5234	5650	5435	3769	1994	1023	1236	1302	1220	1140
55	4245	6005	5975	4618	2728	1760	1556	1867	2969	4898	6013	5952	3803	1742	946	1271	1351	1214	1112
60	4374	6640	6049	3607	1701	1085	1018	1138	1909	3961	6150	6567	3809	1408	900	1215	1272	1088	972
65	4771	7119	5636	2335	907	703	696	722	985	2790	5915	7175	3907	1015	779	1028	1017	842	754
70	4899	6894	4325	933	553	510	488	518	571	1258	4990	6971	4025	639	594	736	710	585	502
75	3658	5155	1646	382	361	310	291	322	375	395	2289	4915	2859	345	423	467	439	314	259
80	1037	1972	547	196	183	154	140	161	190	194	678	1787	552	184	234	203	188	126	99.5
85	92.2	442	132	58.3	43.4	35.3	29.2	36.2	44.9	55.0	159	374	67.1	60.7	49.8	32.5	23.2	14.5	11.6
90	3.02	2.02	1.76	1.33	1.17	1.07	1.02	1.12	1.28	1.39	1.86	2.12	3.22	3.68	1.82	0.86	0.71	0.66	0.66
95	3.72	1.51	1.32	1.19	1.00	0.91	0.75	0.84	0.89	0.95	1.28	1.82	4.39	5.90	3.46	1.51	0.92	0.86	0.81
100	6.59	2.51	1.32	1.28	1.16	1.09	0.72	0.87	1.12	1.17	1.30	2.56	6.35	8.46	6.57	2.48	1.27	1.06	1.01
105	7.96	3.72	1.61	1.46	1.32	1.16	1.11	1.07	1.27	1.37	1.48	3.63	7.30	9.48	7.87	4.44	2.03	1.47	1.32
110	9.46	5.13	2.22	1.97	1.73	1.57	1.47	1.73	2.03	1.98	2.04	5.01	8.36	10.1	9.13	6.15	3.09	2.03	1.73
115	9.97	5.33	2.72	2.14	1.90	1.89	1.93	2.04	2.06	2.01	2.69	5.42	8.81	10.8	9.48	7.36	4.62	2.89	2.59
120	9.92	5.44	2.92	2.37	2.28	2.12	2.14	2.09	2.09	2.08	2.91	6.14	9.06	10.9	9.84	8.17	6.04	4.26	3.71
125	9.67	5.94	3.33	2.65	2.77	2.93	2.63	2.80	2.87	2.84	3.63	6.16	9.02	11.0	10.9	9.07	8.02	6.18	5.94
130	8.96	5.79	3.62	2.69	2.93	3.29	2.76	3.07	3.05	2.91	3.73	6.18	9.23	11.2	10.7	9.08	9.79	7.80	7.46
135	8.76	5.74	3.85	2.77	4.36	3.09	2.79	3.01	4.26	2.97	3.80	6.20	9.27	10.9	10.3	9.02	10.5	9.32	8.82
140	8.61	5.99	4.34	3.12	7.60	3.09	2.83	3.62	7.73	3.24	4.34	6.22	8.61	9.92	10.2	9.93	10.8	10.4	9.99
145	7.96	6.67	5.19	3.88	6.46	3.64	3.14	3.92	6.92	4.11	5.06	6.24	8.36	9.50	10.1	10.7	10.5	10.8	10.6
150	7.30	6.84	5.70	4.48	5.13	4.37	3.55	4.48	5.20	4.67	5.42	6.65	8.05	9.47	9.98	10.8	10.1	10.8	10.5
155	8.31	7.04	6.03	5.09	5.12	4.55	4.00	4.55	5.04	5.13	5.97	6.94	8.36	9.26	9.69	10.2	9.98	10.2	10.2
160	8.43	7.50	6.50	6.00	5.63	5.21	4.81	5.04	5.50	6.04	6.33	7.08	8.88	8.66	9.54	9.87	9.96	10.2	10.2
165	8.65	7.84	7.41	6.91	6.94	6.07	5.98	5.96	6.71	6.85	7.25	7.73	9.32	9.31	9.59	9.68	9.95	10.3	10.5
170	9.57	9.00	8.61	8.52	8.01	7.84	7.65	7.59	8.34	7.92	8.27	8.91	10.1	9.88	9.61	9.92	10.9	10.8	11.1
175	9.89	9.86	9.43	9.53	9.18	9.05	9.12	9.17	9.11	9.19	8.88	9.27	10.3	10.2	9.63	9.96	10.8	10.9	11.1
180	9.62	9.51	9.43	9.68	9.48	9.41	9.73	9.98	9.52	9.24	8.89	8.96	10.1	9.81	9.63	9.43	9.68	9.56	9.48

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 0.0DEG
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: 39.2%
Test Distance:10.000m [K=1.0000]
Remarks: D-20HLED100-48(5050 40K RA70 T2D)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.14V I:0.4536A P:100.26W PF:0.9605 Freq:50.01Hz Lamp Flux:12790.6x1 lm		
NAME: D-20HLED100-48	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	3222	3222	3222	3222	3222													
5	2822	2868	2937	3036	3145													
10	2339	2444	2599	2825	3044													
15	1881	2020	2230	2574	2926													
20	1494	1652	1918	2320	2822													
25	1216	1385	1650	2116	2716													
30	1059	1173	1448	1920	2637													
35	1075	1090	1253	1732	2574													
40	1138	1175	1130	1549	2514													
45	1201	1268	1153	1319	2408													
50	1255	1325	1232	1071	2208													
55	1257	1368	1260	922	1949													
60	1133	1300	1193	859	1667													
65	885	1060	1004	747	1290													
70	620	749	733	586	786													
75	343	470	467	436	363													
80	140	203	210	250	192													
85	17.6	28.8	40.9	65.3	69.5													
90	0.76	0.82	0.91	2.31	4.20													
95	0.87	0.97	1.63	3.95	6.30													
100	1.12	1.38	2.75	6.49	8.86													
105	1.48	2.09	4.43	8.38	9.88													
110	2.04	3.16	6.05	9.86	11.1													
115	2.91	4.33	6.81	10.6	11.7													
120	4.24	5.76	7.47	10.3	11.6													
125	6.07	7.23	9.10	11.2	11.7													
130	7.39	8.36	9.60	11.6	11.4													
135	9.53	10.2	10.1	10.7	10.3													
140	10.9	11.6	10.4	10.6	10.06													
145	11.4	11.5	10.5	10.9	9.83													
150	11.1	10.8	10.3	10.9	9.74													
155	10.8	10.4	10.3	10.1	9.48													
160	10.7	10.3	10.3	9.79	9.52													
165	10.7	10.7	10.4	10.3	9.53													
170	11.8	11.5	10.7	10.5	9.56													
175	11.5	11.5	10.8	10.3	9.42													
180	9.88	10.1	9.85	9.45	8.96													

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 0.0DEG
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: 39.2%
Test Distance:10.000m [K=1.0000]
Remarks: D-20HLED100-48(5050 40K RA70 T2D)L