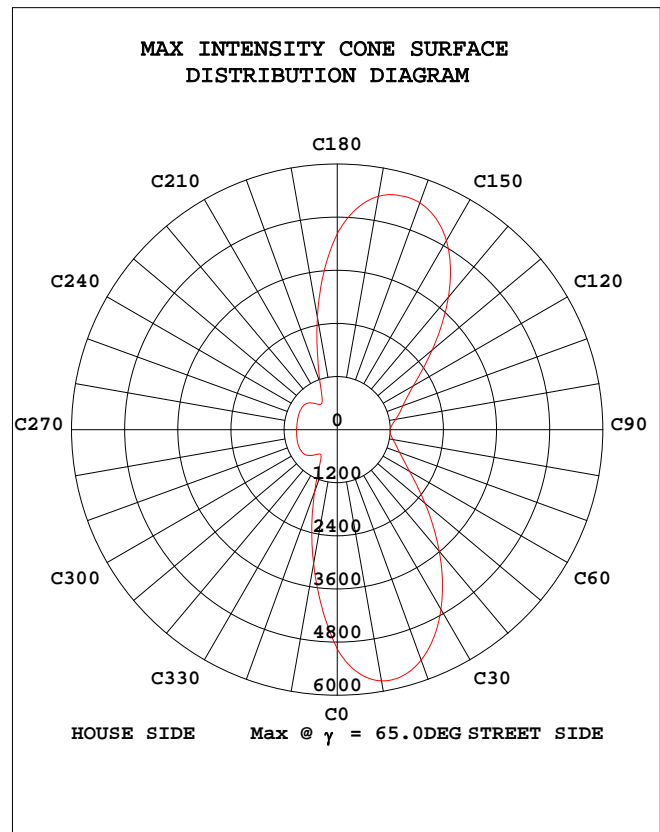
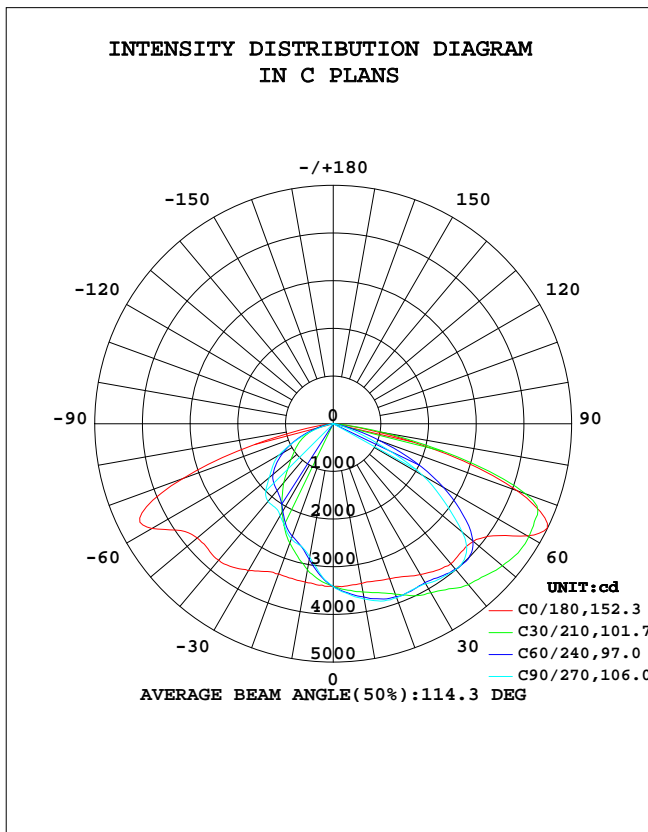


EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

STREETLIGHT PHOTOMETRIC TEST REPORT

Test:U:230.13V I:0.4534A P:100.20W PF:0.9604 Freq:50.01Hz Lamp Flux:13088.1x1 lm					
NAME: D-20HLED100-48		TYPE:		WEIGHT:	
SPEC.:		DIM.:		SERIAL No.:	
MFR.: KLED		SUR.:		Shielding Angle:	

DATA OF LAMP		PHOTOMETRIC DATA Eff: 130.62 lm/W			
MODEL	5050 40K RA70 T3D L	I _{max} (cd)	5750	η street_up(%)	0.1
NOMINAL POWER(W)	100	LOR(%)	100.0	η street_down(%)	66.7
RATED VOLTAGE(V)	220.0	TOTAL FLUX(lm)	13088	η house_up(%)	0.2
NOMINAL FLUX(lm)	13088.1	MAXIMUM @(C,γ)	15,65.0	η house_down(%)	33.0
LAMPS INSIDE	1	η up(%)	0.3	76 FLASHAREA(m2)	0.00100
TEST VOLTAGE(V)	230.0	η down(%)	99.7	SLI	21.249



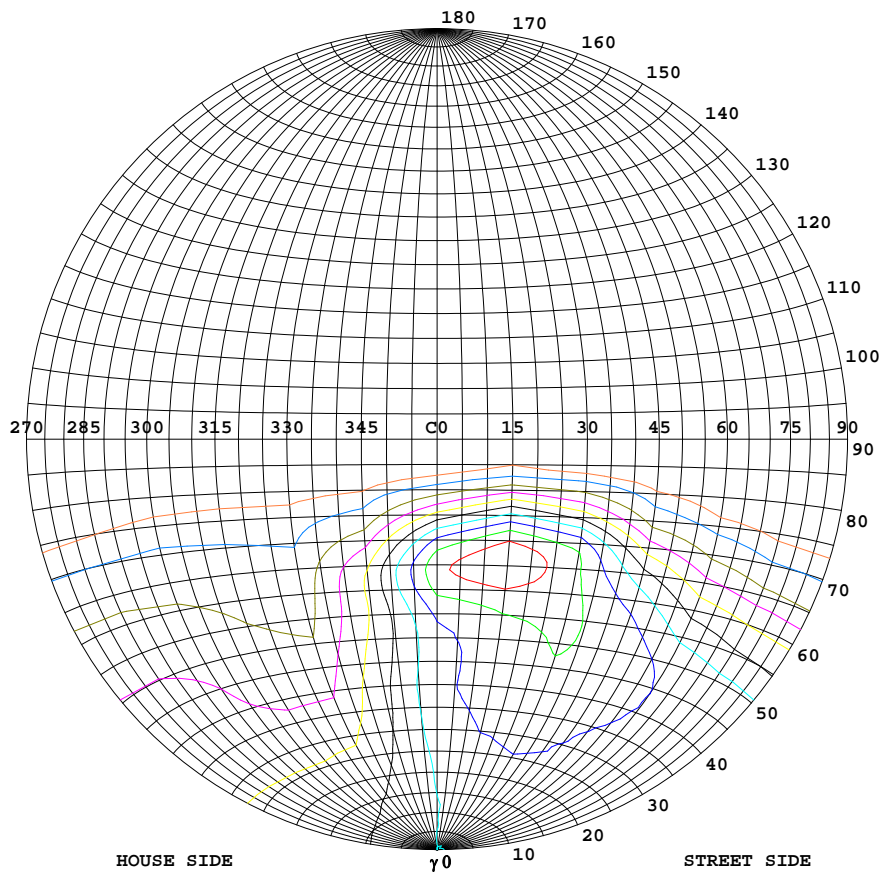
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 33.3DEG
Operators:CS01
Test Date:2021-07-20

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 32.5%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED100-48(5050 40K RA70 T3D)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

STREETLIGHT ISOCANDELA DIAGRAM

Test:U:230.13V I:0.4534A P:100.20W PF:0.9604 Freq:50.01Hz Lamp Flux:13088.1x1 lm		
NAME: D-20HLED100-48	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:



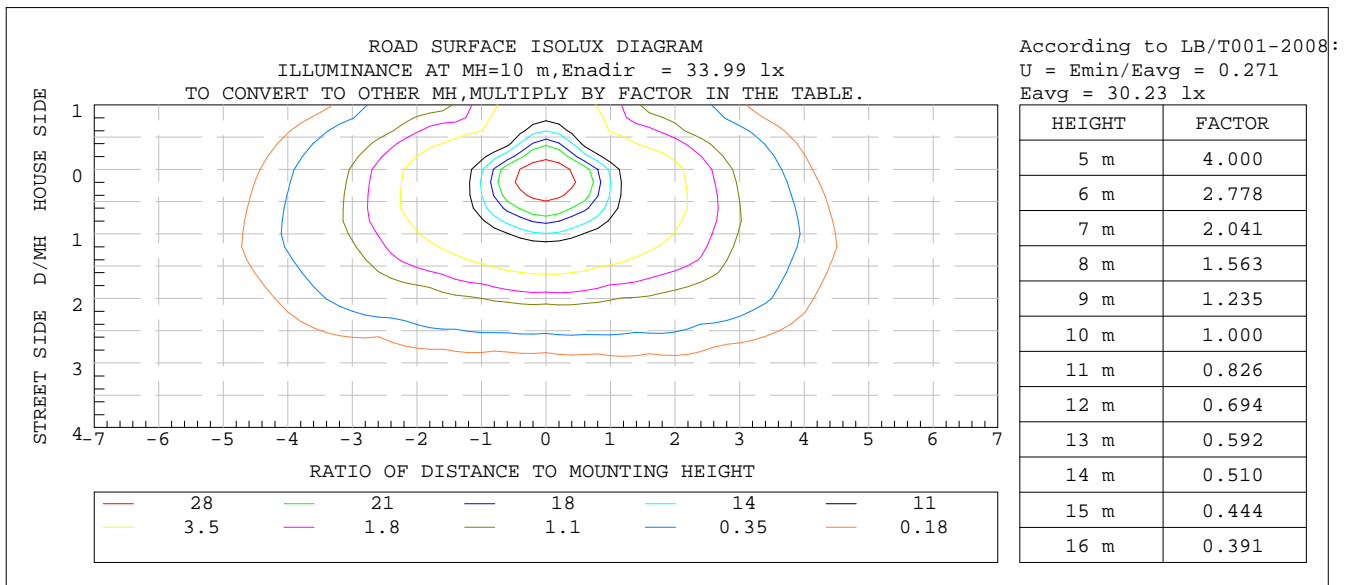
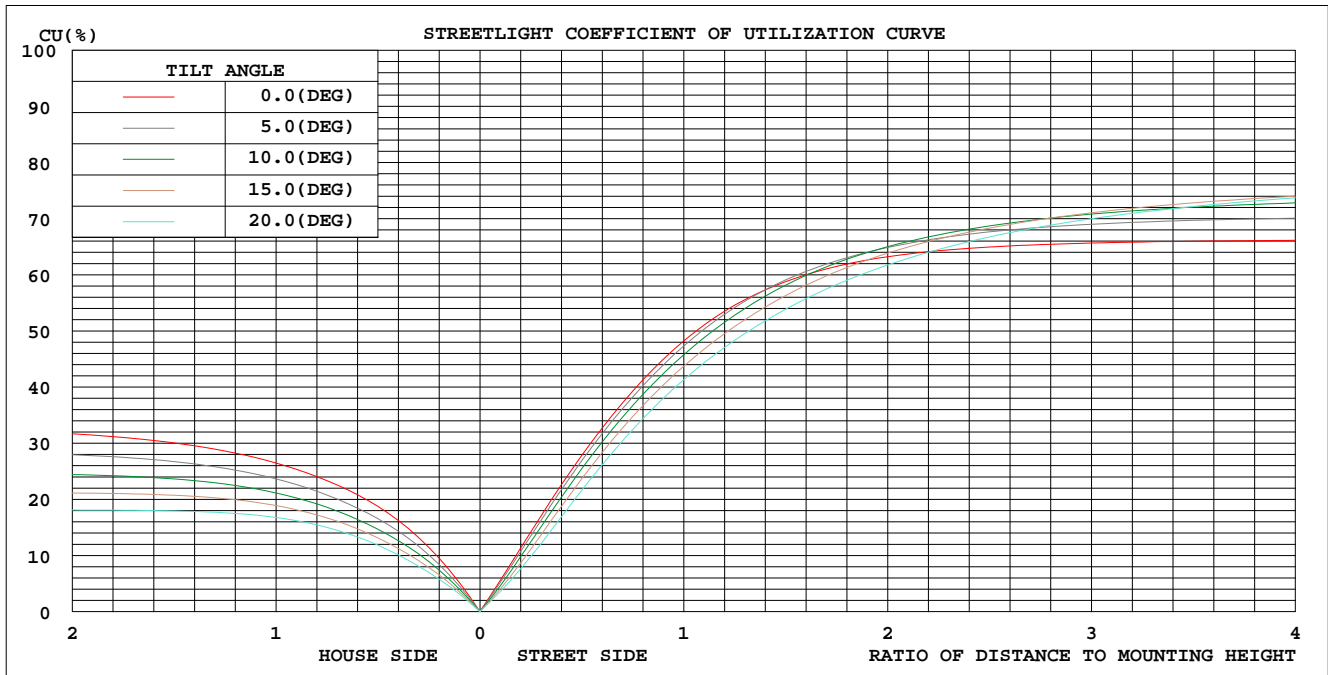
Classification:

IES:Type III - Short
 CIE:Narrow - Intermediate
 IES:Semi cut-off
 CIE:Non-cut-off
 Max.At80:117.3cd/klm
 Max.At90:0.2297cd/klm
 Max.80-90:117.3cd/klm

ISOCANDELA DIAGRAM	
UNIT	cd
Imax=100%	5750
90%	5175
80%	4600
70%	4025
60%	3450
50%	2875
40%	2300
30%	1725
20%	1150
10%	575
5%	287

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 33.3DEG
 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: 32.5%
 Test Distance:26.000m [K=1.0000]
 Remarks: D-20HLED100-48(5050 40K RA70 T3D)L

COEFFICIENT OF UTILIZATION CURVE
AND ISOLUX DIAGRAM

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 33.3DEG
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: 32.5%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED100-48(5050 40K RA70 T3D)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ZONAL FLUX DIAGRAM

Test:U:230.13V I:0.4534A P:100.20W PF:0.9604 Freq:50.01Hz Lamp Flux:13088.1x1 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	%lum,lamp
10	3402	3652	3734	3627	3371	2978	2841	3005	0- 10	321.4	321.4	2.46,2.46
20	3457	3848	3885	3821	3352	2516	2568	2559	10- 20	929.2	1251	9.56,9.56
30	3653	3995	3876	3995	3557	2115	2229	2145	20- 30	1482	2733	20.9,20.9
40	3836	4255	3991	4273	3734	1645	2127	1639	30- 40	1966	4699	35.9,35.9
50	3840	4375	3529	4512	3725	1343	1755	1303	40- 50	2367	7066	54.54
60	4704	3749	2166	3980	4395	1071	1312	1021	50- 60	2500	9565	73.1,73.1
70	4098	2012	542.6	2429	3347	619.5	558.5	607.3	60- 70	2273	11839	90.5,90.5
80	812.9	323.7	81.83	344.7	558.6	154.1	73.83	174.8	70- 80	1098	12937	98.8,98.8
90	2.338	1.344	0.8324	1.436	2.441	1.129	0.6184	1.297	80- 90	116.3	13053	99.7,99.7
100	5.688	1.114	0.8202	1.089	5.545	3.326	1.191	3.687	90-100	2.186	13055	99.7,99.7
110	8.684	1.890	2.010	1.503	7.777	5.936	3.041	6.273	100-110	3.832	13059	99.8,99.8
120	8.921	2.748	2.834	2.174	8.272	7.569	5.774	7.470	110-120	5.054	13064	99.8,99.8
130	8.858	3.527	4.122	2.954	8.561	8.183	8.816	9.124	120-130	5.702	13070	99.9,99.9
140	8.740	4.396	5.202	4.347	8.486	9.051	10.31	9.901	130-140	5.708	13075	99.9,99.9
150	7.988	6.032	6.235	6.116	8.072	10.38	10.20	9.981	140-150	5.176	13081	99.9,99.9
160	8.688	7.054	6.390	7.202	9.352	10.01	10.00	10.06	150-160	3.891	13084	100,100
170	10.21	9.661	9.270	9.329	10.62	10.58	11.53	10.97	160-170	2.610	13087	100,100
180	10.37	10.89	10.93	10.37	10.77	10.33	10.36	10.73	170-180	1.004	13088	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

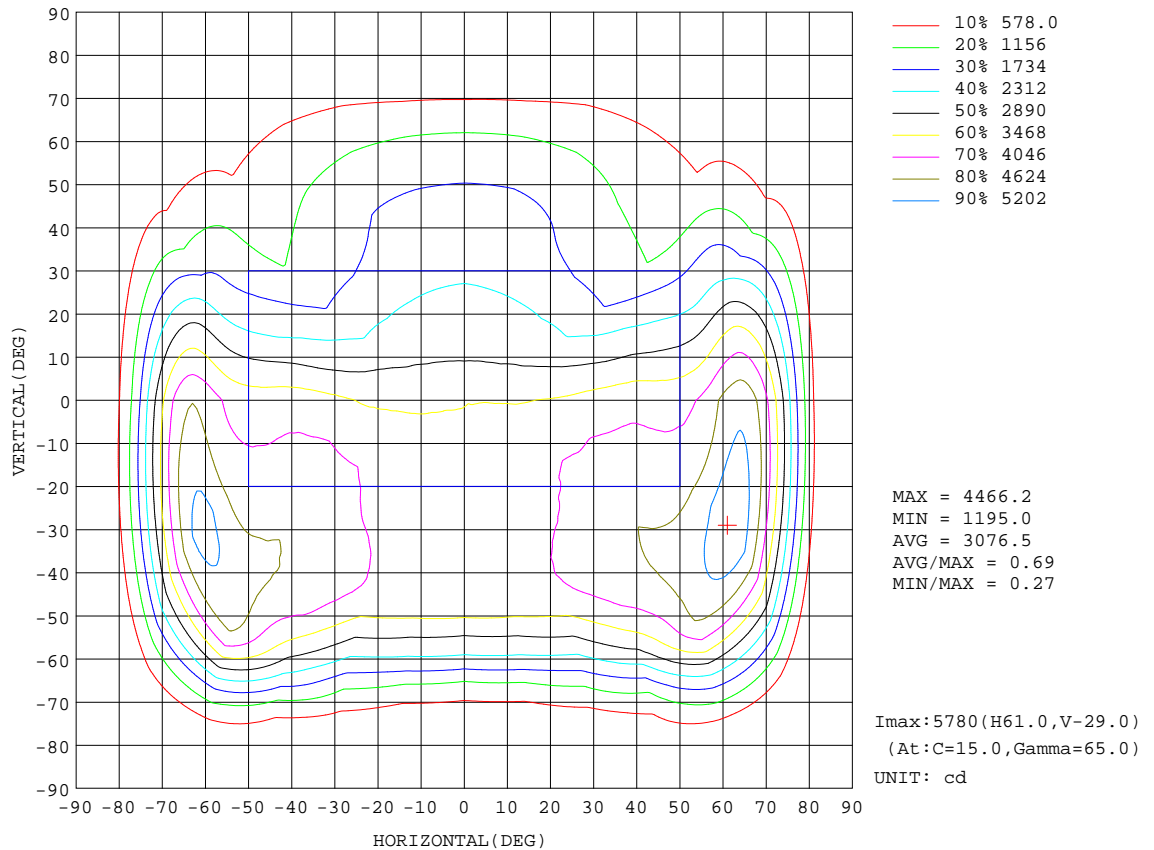
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 33.3DEG
 Operators:CS01
 Test Date:2021-07-20

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
 Humidity: 32.5%
 Test Distance:26.000m [K=1.0000]
 Remarks: D-20HLED100-48(5050 40K RA70 T3D)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

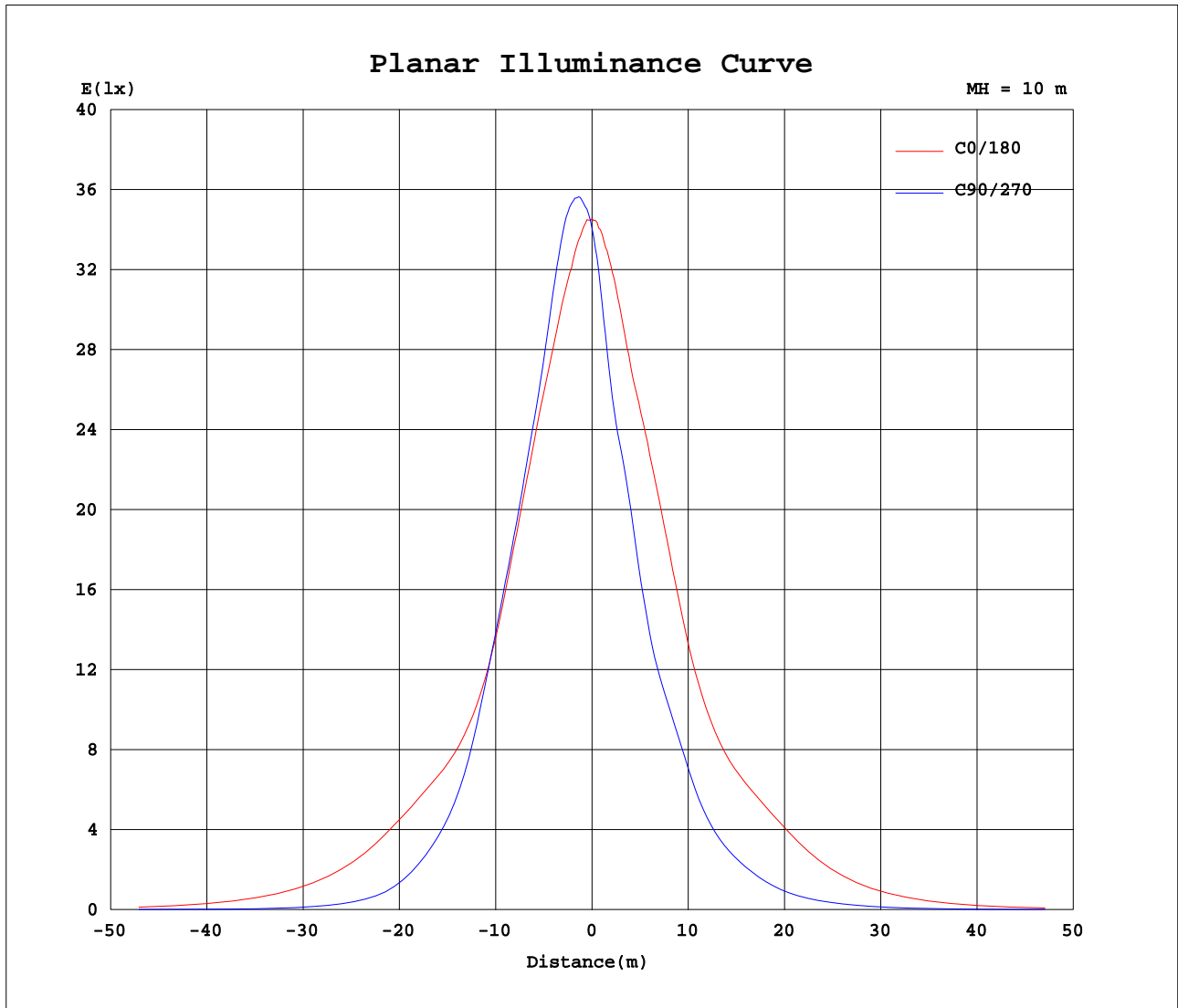
Test:U:230.13V I:0.4534A P:100.20W PF:0.9604 Freq:50.01Hz Lamp Flux:13088.1x1 lm		
NAME: D-20HLED100-48	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 33.3DEG
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: 32.5%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED100-48(5050 40K RA70 T3D)L

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 33.3DEG
 Operators: CS01
 Test Date: 2021-07-20

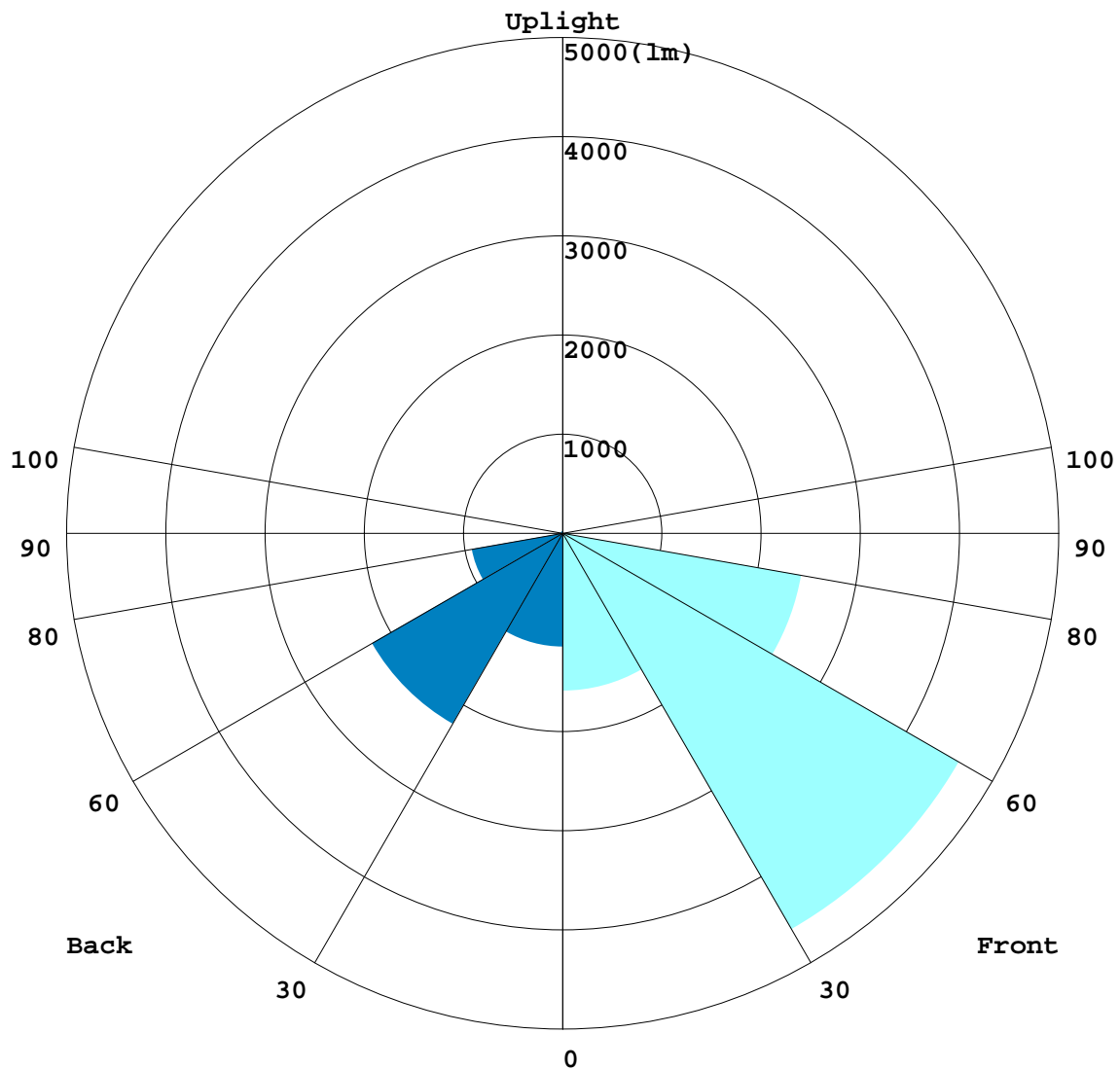
γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
 Humidity: 32.5%
 Test Distance: 26.000m [K=1.0000]
 Remarks: D-20HLED100-48(5050 40K RA70 T3D)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LCS REPORT

Test:U:230.13V I:0.4534A P:100.20W PF:0.9604 Freq:50.01Hz Lamp Flux:13088.1x1 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: 33.3DEG
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: 32.5%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED100-48(5050 40K RA70 T3D)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

BUG REPORT

Test:U:230.13V I:0.4534A P:100.20W PF:0.9604 Freq:50.01Hz Lamp Flux:13088.1x1 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)	1588.2	12.1
FM - Front-Medium(30-60)	4612.3	35.2
FH - Front-High(60-80)	2442.4	18.7
FVH - Front-Very High(80-90)	84.886	0.6
Total Forward Light	8740.7	66.8

BL - Back-Low(0-30)	1144.5	8.7
BM - Back-Medium(30-60)	2220.2	17.0
BH - Back-High(60-80)	928.99	7.1
BVH - Back-Very High(80-90)	31.455	0.2
Total Back Light	4347.4	33.2

UL - Uplight-Low(90-100)	2.1863	0.0
UH - Uplight-High(100-180)	32.977	0.3
Total Up Light	35.164	0.3

BUG(Back,Up,Glare) Rating	B3-U2-G2
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Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	4325.2	22.265	4347.4
Street Side	8727.8	12.899	8740.7

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 33.3DEG
 Operators:CS01
 Test Date:2021-07-20

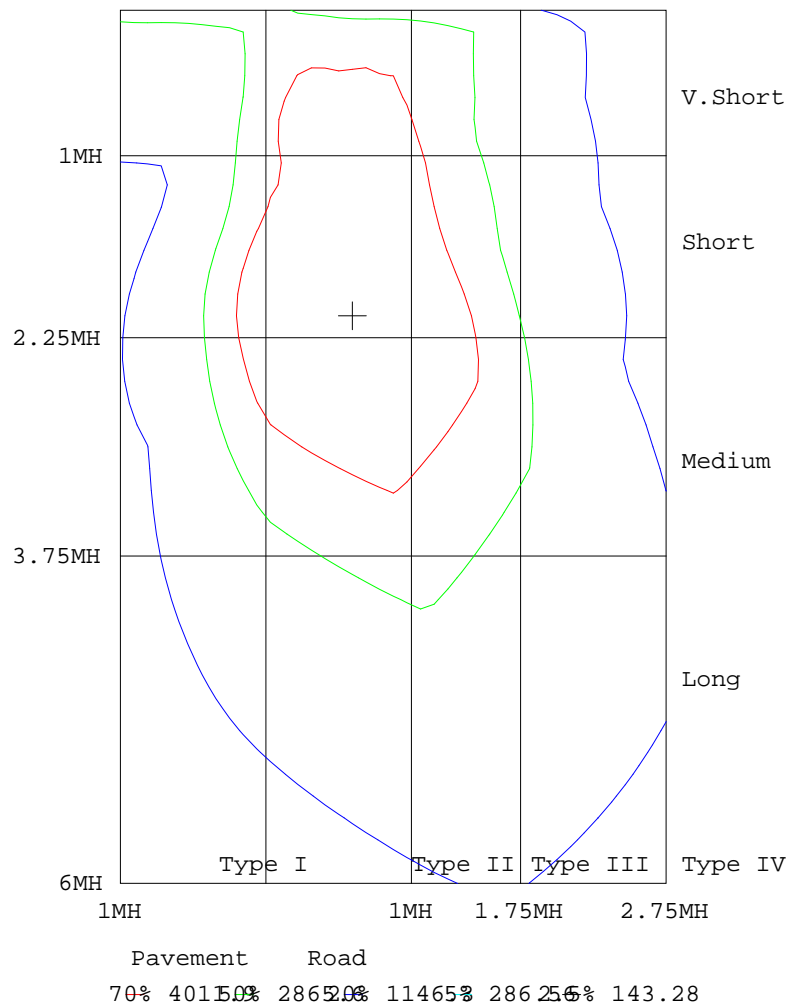
γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
 Humidity: 32.5%
 Test Distance:26.000m [K=1.0000]
 Remarks: D-20HLED100-48(5050 40K RA70 T3D)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ROAD ISOCANDELA REPORT

Test:U:230.13V I:0.4534A P:100.20W PF:0.9604 Freq:50.01Hz Lamp Flux:13088.1x1 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: 33.3DEG
 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: 32.5%
 Test Distance:26.000m [K=1.0000]
 Remarks: D-20HLED100-48(5050 40K RA70 T3D)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.13V I:0.4534A P:100.20W PF:0.9604 Freq:50.01Hz Lamp Flux:13088.1x1 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	3415	3415	3415	3415	3415	3415	3415	3415	3415	3415	3415	3415	3415	3415	3415	3415	3415	3415	3415
5	3414	3468	3506	3537	3562	3587	3582	3576	3558	3543	3496	3443	3400	3352	3292	3229	3190	3173	3158
10	3402	3510	3584	3652	3688	3738	3734	3721	3682	3627	3554	3472	3371	3266	3113	2978	2895	2851	2841
15	3415	3570	3667	3756	3802	3850	3851	3830	3785	3717	3625	3527	3357	3137	2882	2716	2645	2639	2648
20	3457	3698	3804	3848	3857	3889	3885	3873	3853	3821	3753	3622	3352	2992	2662	2516	2511	2537	2568
25	3536	3873	3981	3923	3870	3857	3858	3847	3847	3916	3965	3801	3419	2844	2421	2335	2348	2377	2395
30	3653	4011	4093	3995	3847	3880	3876	3853	3825	3995	4102	3981	3557	2700	2150	2115	2116	2186	2229
35	3760	4129	4226	4080	3913	3924	3953	3905	3877	4082	4284	4139	3674	2563	1868	1851	1932	2064	2137
40	3836	4243	4407	4255	3981	3992	3991	3965	3963	4273	4451	4242	3734	2461	1615	1645	1832	2043	2127
45	3800	4250	4504	4361	4007	3934	3923	3951	3998	4424	4524	4230	3716	2305	1352	1472	1762	1940	2002
50	3840	4328	4631	4375	3827	3605	3529	3652	3872	4512	4615	4244	3725	2138	1152	1343	1650	1724	1755
55	4097	4551	4728	4178	3318	2958	2840	3010	3376	4393	4749	4405	3908	1993	991	1228	1455	1517	1551
60	4704	5099	4736	3749	2669	2293	2166	2358	2741	3980	4825	4947	4395	1921	852	1071	1216	1290	1312
65	4954	5750	4687	3058	1888	1380	1192	1457	1985	3331	4935	5474	4426	1717	701	860	942	926	920
70	4098	5125	4283	2012	1039	626	543	686	1133	2429	4610	4596	3347	1118	525	619	634	575	559
75	2476	3563	2707	946	417	228	198	248	516	1214	2944	3022	1756	574	341	380	343	266	231
80	813	1535	1089	324	127	93.6	81.8	96.2	135	345	1103	1219	559	216	167	154	136	88.6	73.8
85	139	280	166	50.7	31.4	21.4	17.5	21.8	32.3	57.5	190	227	101	64.8	44.0	26.0	17.1	11.0	9.37
90	2.34	1.90	1.69	1.34	1.08	0.98	0.83	1.03	1.14	1.44	1.80	1.97	2.44	2.87	2.25	1.13	1.79	0.62	0.62
95	2.64	1.80	1.28	1.09	0.93	0.75	0.61	0.82	0.99	1.09	1.24	2.22	3.46	4.40	3.81	2.20	1.18	0.82	0.77
100	5.69	2.91	1.45	1.11	1.01	0.72	0.82	0.91	1.07	1.09	1.34	2.79	5.54	6.49	5.78	3.33	1.95	1.39	1.19
105	7.36	3.88	1.89	1.32	1.23	1.18	1.24	1.14	1.24	1.24	1.45	4.03	7.02	7.87	6.44	5.01	2.98	2.21	2.01
110	8.68	5.16	2.60	1.89	1.84	1.95	2.01	1.84	2.02	1.50	2.27	5.26	7.78	8.33	8.18	5.94	4.05	3.14	3.04
115	8.80	5.77	2.96	2.10	2.10	2.00	2.06	2.09	2.13	2.05	2.84	5.48	8.03	9.13	8.51	6.70	5.23	4.43	4.23
120	8.92	6.00	3.27	2.75	2.77	2.83	2.83	2.73	2.27	2.17	3.20	6.21	8.27	9.39	8.58	7.57	6.35	5.76	5.77
125	8.97	6.12	3.53	3.12	3.07	3.64	3.55	3.61	2.86	2.82	3.72	6.26	8.34	9.42	9.15	8.09	8.11	7.45	7.79
130	8.86	6.00	4.14	3.53	3.58	3.92	4.12	4.39	3.41	2.95	4.08	6.26	8.56	9.81	9.36	8.18	9.63	8.74	8.82
135	8.77	5.77	4.45	3.68	5.99	4.67	4.54	5.04	4.54	3.58	4.24	6.26	8.69	9.55	9.26	8.28	9.96	9.92	9.53
140	8.74	6.18	5.21	4.40	6.48	5.24	5.20	8.46	8.46	4.35	4.76	6.36	8.49	9.47	9.77	9.05	10.1	10.4	10.3
145	8.08	7.10	5.98	5.11	6.31	6.01	5.46	8.17	7.87	5.23	5.99	6.87	8.28	9.39	10.0	10.4	10.2	10.6	10.3
150	7.99	7.73	6.75	6.03	6.35	6.17	6.24	7.13	6.51	6.12	6.46	7.29	8.07	9.32	9.92	10.4	9.78	10.3	10.2
155	8.32	7.81	7.06	6.75	6.39	6.32	6.29	6.86	6.64	6.63	6.93	7.67	8.60	9.23	9.66	10.3	9.76	10.2	9.94
160	8.69	7.97	7.52	7.05	7.02	6.81	6.39	6.86	6.98	7.20	7.70	7.92	9.35	9.09	9.71	10.0	9.75	10.2	10.00
165	9.24	8.63	8.38	8.08	8.39	7.55	7.57	7.27	8.11	8.13	8.53	8.69	9.91	9.86	9.97	10.2	9.90	10.2	10.4
170	10.2	9.65	9.46	9.66	9.27	9.60	9.27	9.08	9.56	9.33	9.36	10.1	10.6	10.6	10.3	10.6	11.0	10.9	11.5
175	10.4	10.9	10.3	10.7	10.2	10.3	10.4	10.3	10.2	10.2	9.83	10.2	10.8	10.9	10.3	10.5	11.2	11.1	11.7
180	10.4	10.4	10.3	10.9	10.2	10.3	10.9	11.1	10.8	10.4	9.83	10.1	10.8	10.4	10.4	10.3	11.0	10.3	10.4

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 33.3DEG
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: 32.5%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED100-48(5050 40K RA70 T3D)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.13V I:0.4534A P:100.20W PF:0.9604 Freq:50.01Hz Lamp Flux:13088.1x1 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	3415	3415	3415	3415	3415													
5	3165	3200	3236	3295	3353													
10	2867	2915	3005	3143	3272													
15	2657	2688	2773	2931	3182													
20	2546	2536	2559	2711	3087													
25	2373	2364	2363	2469	2983													
30	2189	2143	2145	2199	2901													
35	2057	1940	1873	1901	2804													
40	2022	1818	1639	1671	2741													
45	1938	1733	1444	1435	2608													
50	1742	1620	1303	1210	2482													
55	1527	1451	1176	1018	2378													
60	1292	1222	1021	870	2415													
65	938	945	827	733	2229													
70	584	647	607	548	1512													
75	284	364	392	371	732													
80	102	153	175	203	271													
85	12.9	21.5	36.5	54.2	78.1													
90	0.62	0.83	1.30	2.54	3.01													
95	0.83	1.25	2.35	3.95	4.35													
100	1.50	2.07	3.69	6.11	7.04													
105	2.27	3.00	4.98	7.19	8.17													
110	3.10	4.14	6.27	8.54	9.27													
115	4.34	4.91	6.79	9.36	9.78													
120	5.85	6.31	7.47	9.25	10.04													
125	7.38	7.81	8.97	9.99	10.2													
130	8.52	8.80	9.12	10.2	10.3													
135	10.2	10.1	9.54	9.84	9.80													
140	10.9	11.0	9.90	9.88	9.72													
145	11.1	11.0	9.96	10.1	9.62													
150	10.4	10.4	9.98	10.3	9.62													
155	10.4	10.3	10.00	10.05	9.62													
160	10.4	10.2	10.06	9.82	9.62													
165	10.5	10.7	10.5	10.4	9.78													
170	11.6	12.0	11.0	11.0	10.3													
175	11.8	12.0	11.1	11.2	10.2													
180	10.9	11.1	10.7	10.2	9.83													

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 33.3DEG
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: 32.5%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED100-48(5050 40K RA70 T3D)L