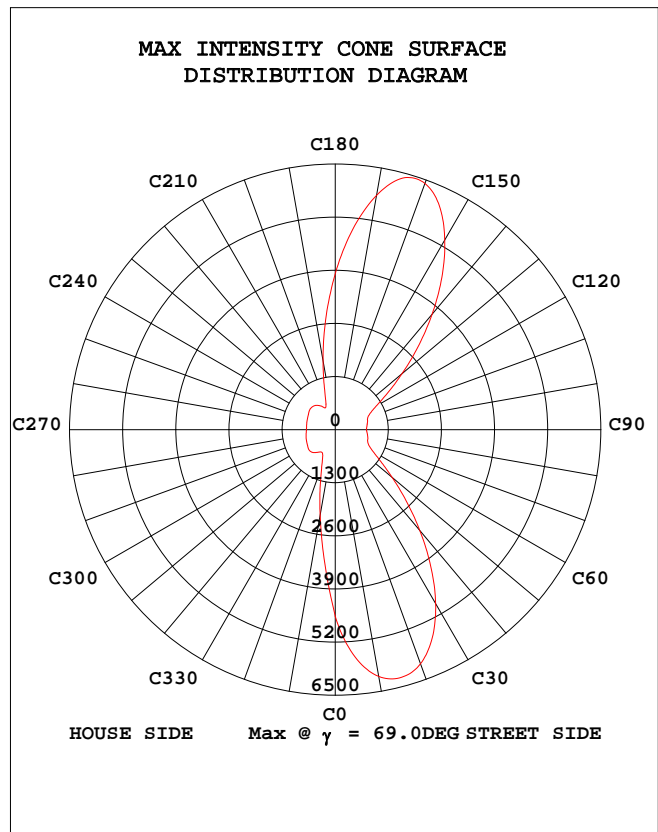
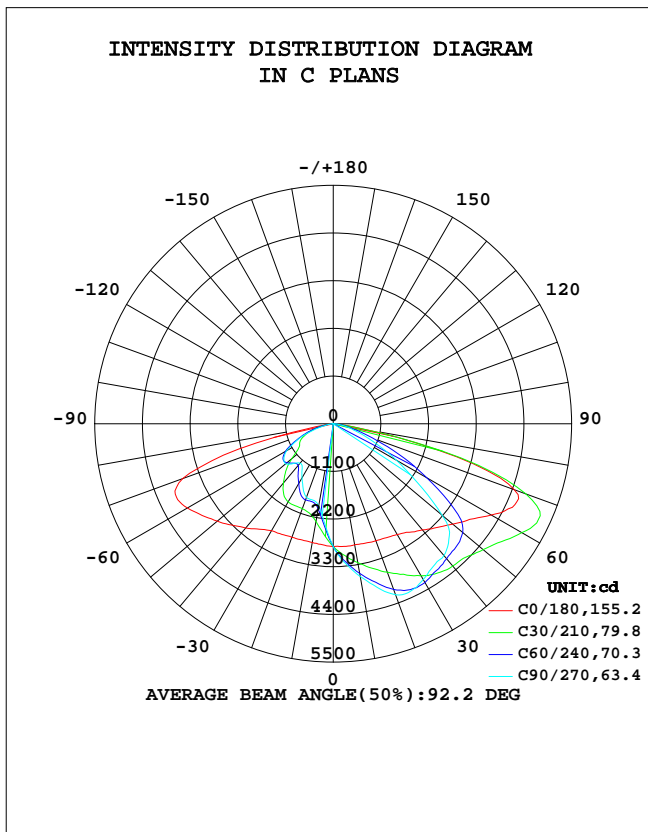


EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

STREETLIGHT PHOTOMETRIC TEST REPORT

Test:U:230.17V I:0.4549A P:100.56W PF:0.9605 Freq:50.01Hz Lamp Flux:12744.9x1 lm		
NAME: D-20HLED100-48	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 126.73 lm/W			
MODEL	5050 40K RA70 T3N L	I _{max} (cd)	6376	η street_up(%)	0.1
NOMINAL POWER(W)	100	LOR(%)	100.0	η street_down(%)	69.6
RATED VOLTAGE(V)	220.0	TOTAL FLUX(lm)	12745	η house_up(%)	0.2
NOMINAL FLUX(lm)	12744.9	MAXIMUM @(C,γ)	165,69.0	η house_down(%)	30.1
LAMPS INSIDE	1	η up(%)	0.3	76 FLASHAREA(m2)	0.00100
TEST VOLTAGE(V)	230.0	η down(%)	99.7	SLI	21.024



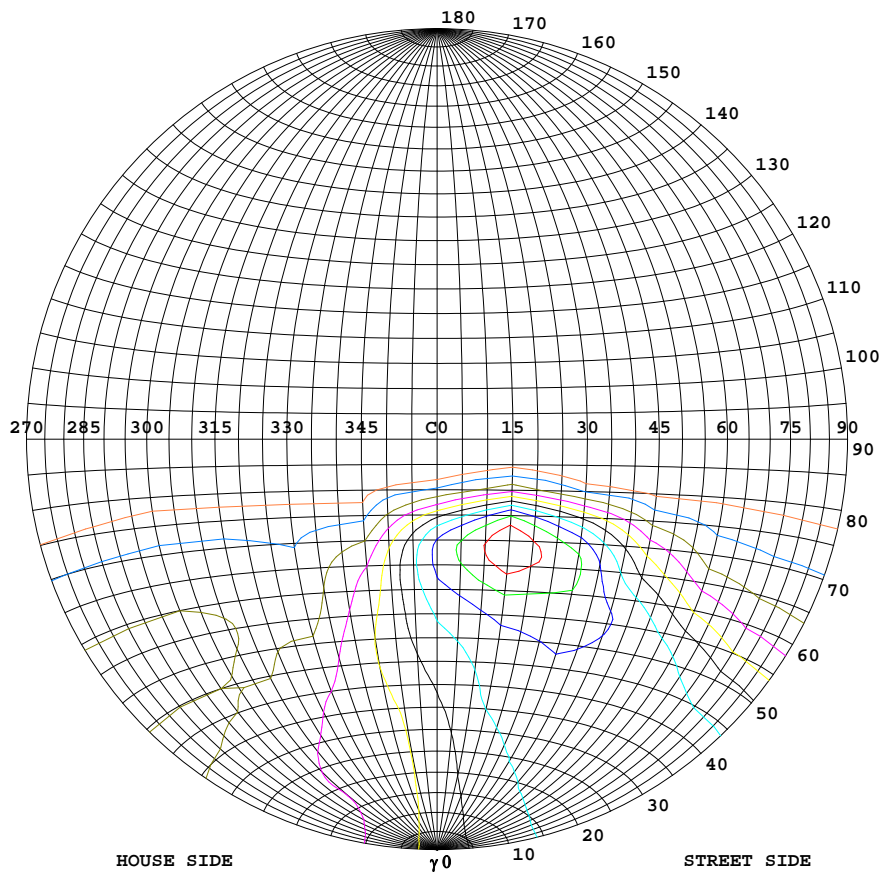
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 32.9DEG
Operators:CS01
Test Date:2021-07-20

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 29.6%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED100-48(5050 40K RA70 T3N)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

STREETLIGHT ISOCANDELA DIAGRAM

Test:U:230.17V I:0.4549A P:100.56W PF:0.9605 Freq:50.01Hz Lamp Flux:12744.9x1 lm		
NAME: D-20HLED100-48	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:



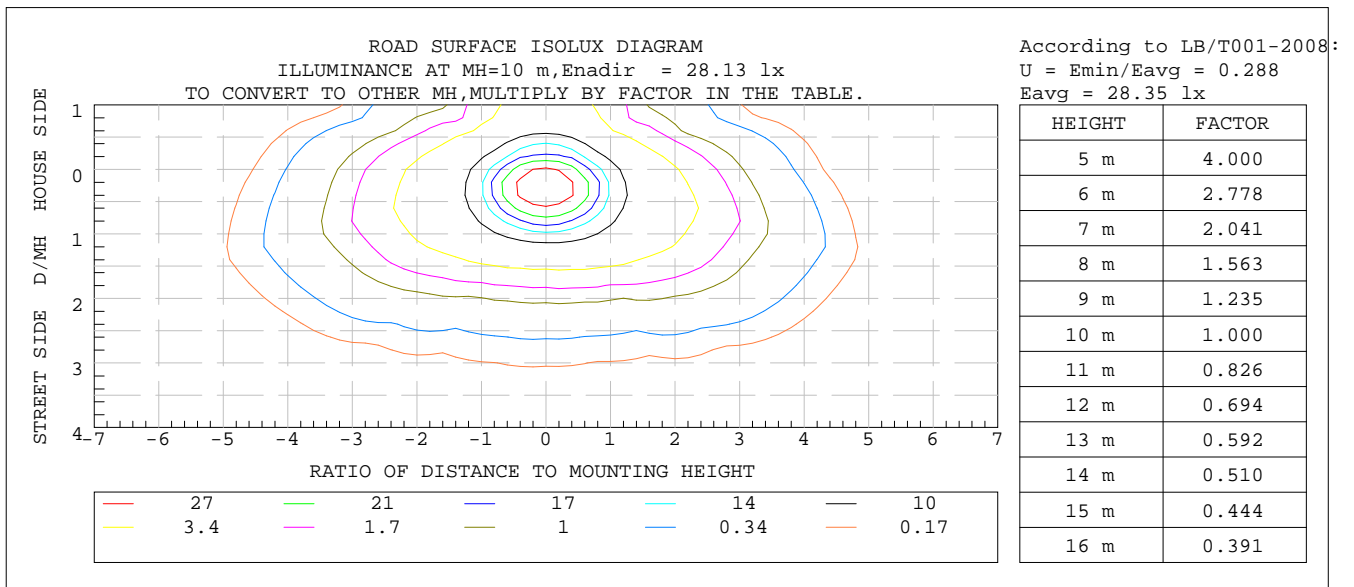
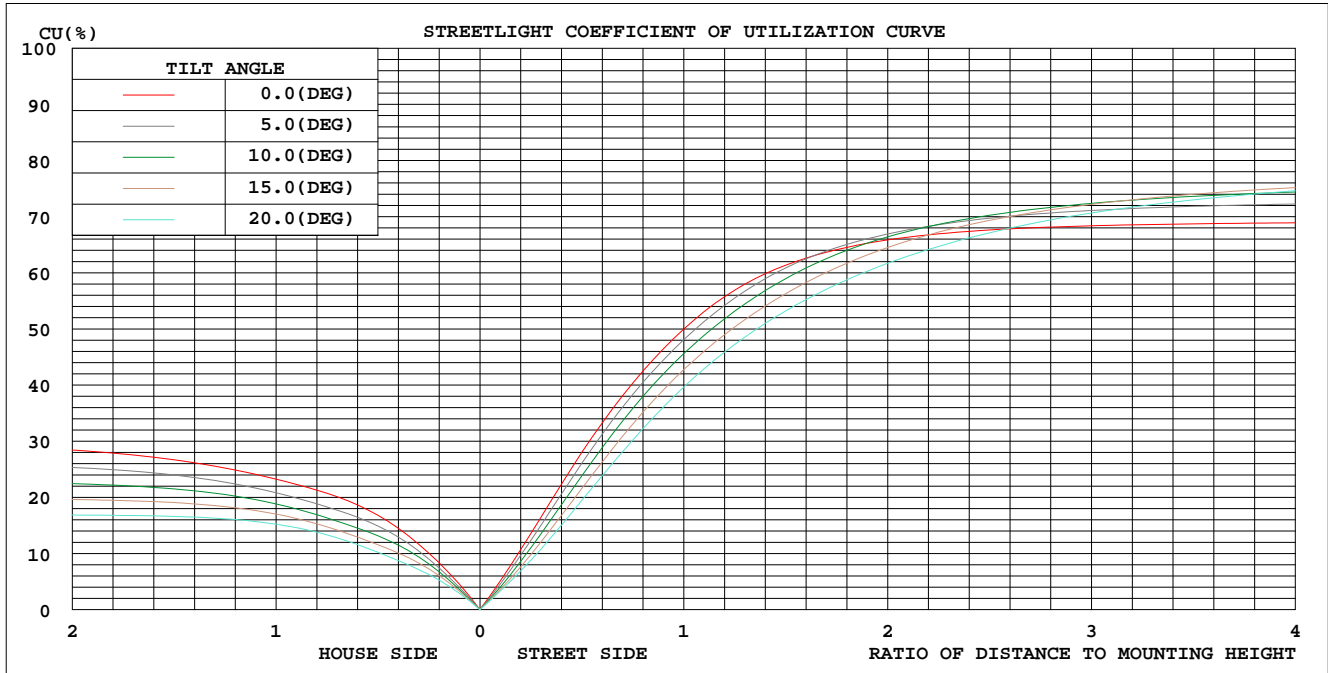
Classification:

IES:Type III - Medium
 CIE:Narrow - Intermediate
 IES:Semi cut-off
 CIE:Non-cut-off
 Max.At80:134.0cd/klm
 Max.At90:0.3035cd/klm
 Max.80-90:134.0cd/klm

ISOCANDELA DIAGRAM	
UNIT	cd
Imax=100%	6376
90%	5739
80%	5101
70%	4464
60%	3826
50%	3188
40%	2551
30%	1913
20%	1275
10%	638
5%	319

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 32.9DEG
 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: 29.6%
 Test Distance:26.000m [K=1.0000]
 Remarks: D-20HLED100-48(5050 40K RA70 T3N)L

COEFFICIENT OF UTILIZATION CURVE
AND ISOLUX DIAGRAM

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 32.9DEG
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: 29.6%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED100-48(5050 40K RA70 T3N)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ZONAL FLUX DIAGRAM

Test:U:230.17V I:0.4549A P:100.56W PF:0.9605 Freq:50.01Hz Lamp Flux:12744.9x1 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	2835	3400	3579	3353	2783	2111	1928	2127	0- 10	265.5	265.5	2.08,2.08
20	2872	3882	4198	3803	2792	1939	1807	1953	10- 20	801.8	1067	8.37,8.37
30	2954	4236	4151	4198	2851	1819	1446	1875	20- 30	1362	2429	19.1,19.1
40	3198	4253	3972	4287	3141	1423	1190	1486	30- 40	1826	4255	33.4,33.4
50	3603	4344	3276	4462	3497	1250	1436	1208	40- 50	2226	6482	50.9,50.9
60	4209	3918	1687	4290	3884	1222	1232	1183	50- 60	2467	8948	70.2,70.2
70	4436	2239	688.4	2639	3689	732.8	623.3	733.3	60- 70	2327	11275	88.5,88.5
80	706.9	282.5	213.4	261.4	401.9	199.6	126.1	199.4	70- 80	1317	12591	98.8,98.8
90	2.502	1.430	1.227	1.594	2.652	1.216	0.8437	1.323	80- 90	119.2	12710	99.7,99.7
100	5.951	1.307	0.9661	1.291	6.158	3.687	1.375	3.923	90-100	2.461	12713	99.7,99.7
110	9.005	1.968	1.881	1.932	8.100	6.516	2.746	6.518	100-110	4.119	12717	99.8,99.8
120	9.155	2.572	2.636	2.285	8.254	7.827	5.250	7.485	110-120	5.164	12722	99.8,99.8
130	8.206	3.280	2.997	2.854	8.256	8.475	8.595	9.260	120-130	5.593	12728	99.9,99.9
140	7.967	3.630	3.618	3.663	7.656	9.238	10.43	9.924	130-140	5.509	12733	99.9,99.9
150	6.855	4.994	4.423	4.781	7.255	10.88	10.37	10.11	140-150	4.887	12738	99.9,99.9
160	7.805	5.846	5.135	5.747	8.407	9.182	9.974	9.668	150-160	3.594	12742	100,100
170	9.206	8.477	7.515	8.237	9.319	9.990	10.61	10.68	160-170	2.346	12744	100,100
180	9.008	9.386	9.786	8.907	9.356	9.131	9.051	9.260	170-180	0.8899	12745	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

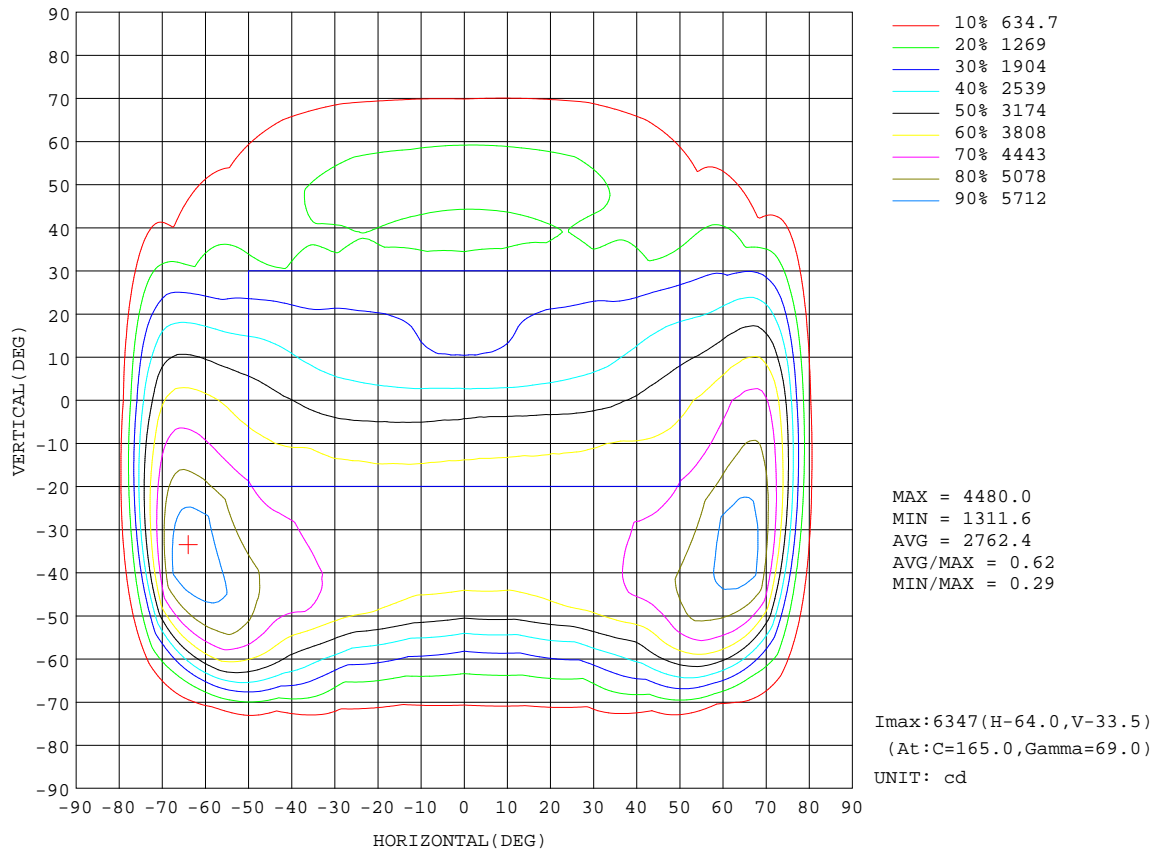
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 32.9DEG
 Operators:CS01
 Test Date:2021-07-20

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
 Humidity: 29.6%
 Test Distance:26.000m [K=1.0000]
 Remarks: D-20HLED100-48(5050 40K RA70 T3N)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

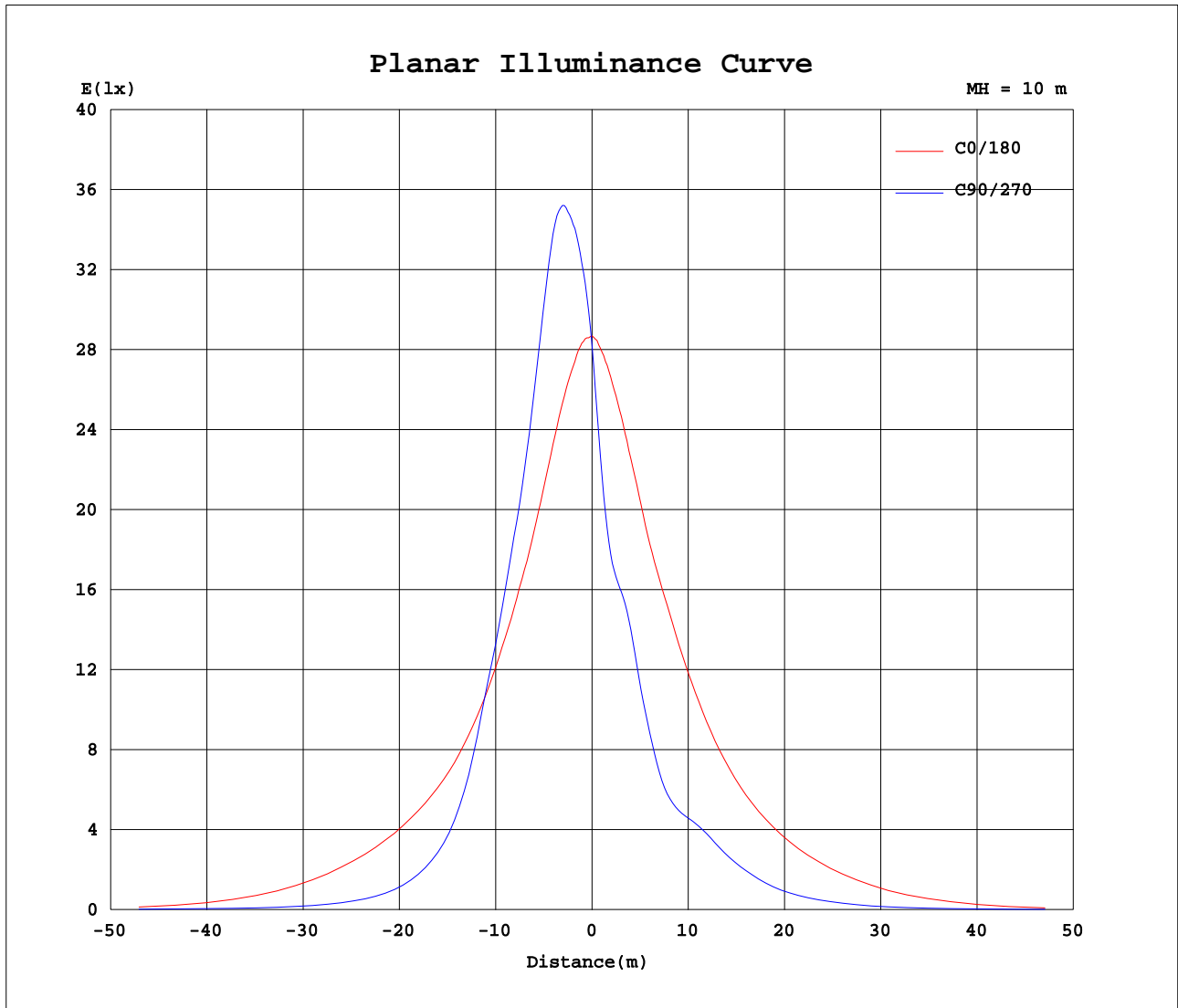
Test:U:230.17V I:0.4549A P:100.56W PF:0.9605 Freq:50.01Hz Lamp Flux:12744.9x1 lm		
NAME: D-20HLED100-48	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 32.9DEG
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: 29.6%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED100-48(5050 40K RA70 T3N)L

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 32.9DEG
Operators: CS01
Test Date: 2021-07-20

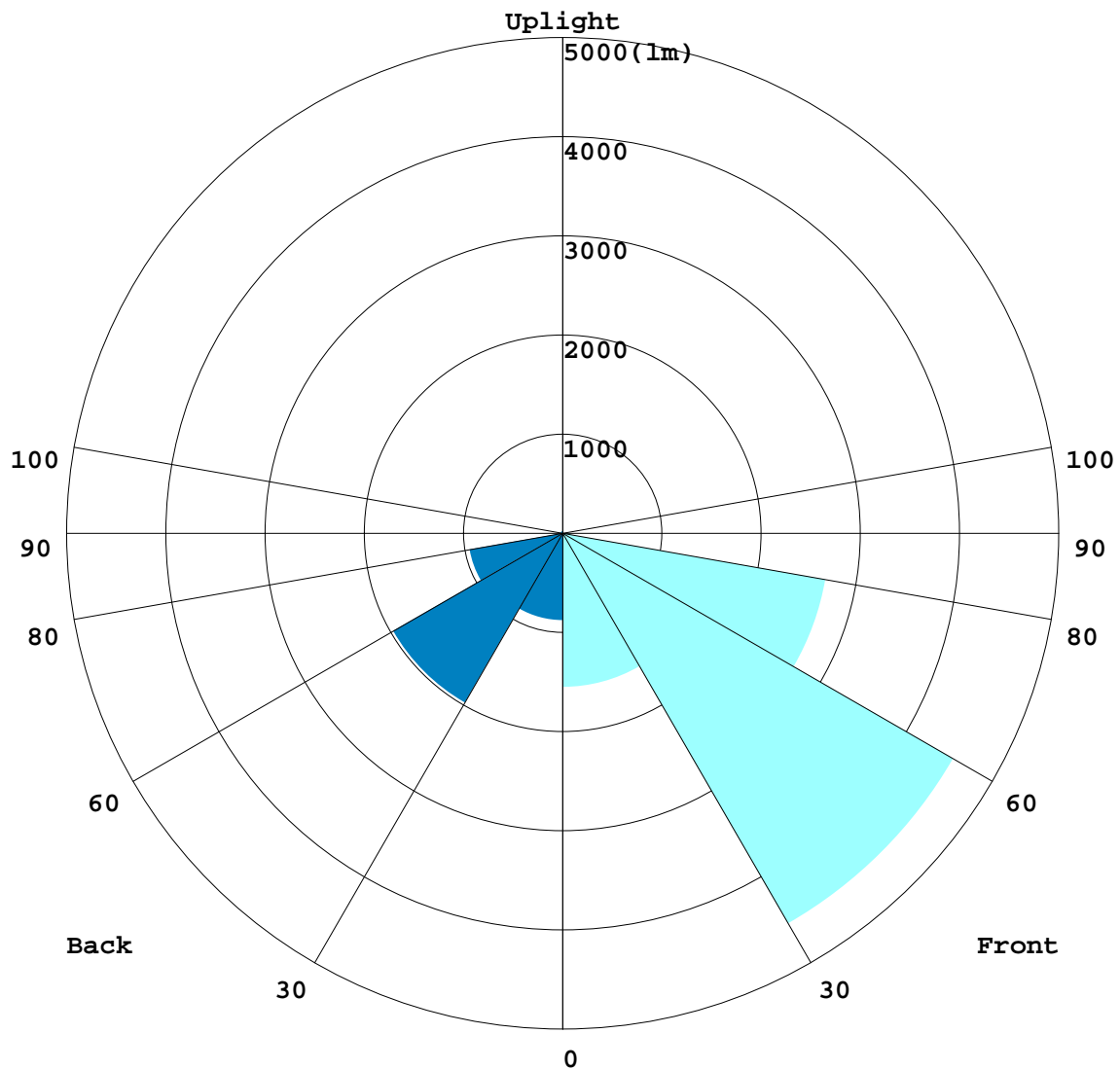
γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 29.6%
Test Distance: 26.000m [K=1.0000]
Remarks: D-20HLED100-48(5050 40K RA70 T3N)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LCS REPORT

Test:U:230.17V I:0.4549A P:100.56W PF:0.9605 Freq:50.01Hz Lamp Flux:12744.9x1 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: 32.9DEG
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: 29.6%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED100-48(5050 40K RA70 T3N)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

BUG REPORT

Test:U:230.17V I:0.4549A P:100.56W PF:0.9605 Freq:50.01Hz Lamp Flux:12744.9x1 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)	1550.7	12.2
FM - Front-Medium(30-60)	4546.6	35.7
FH - Front-High(60-80)	2690.7	21.1
FVH - Front-Very High(80-90)	84.839	0.7
Total Forward Light	8884.9	69.7

BL - Back-Low(0-30)	878.09	6.9
BM - Back-Medium(30-60)	1972.7	15.5
BH - Back-High(60-80)	952.3	7.5
BVH - Back-Very High(80-90)	34.343	0.3
Total Back Light	3860	30.3

UL - Uplight-Low(90-100)	2.4606	0.0
UH - Uplight-High(100-180)	32.103	0.3
Total Up Light	34.563	0.3

BUG(Back,Up,Glare) Rating	B2-U2-G2
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Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	3837.4	22.585	3860
Street Side	8872.9	11.978	8884.9

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 32.9DEG
 Operators:CS01
 Test Date:2021-07-20

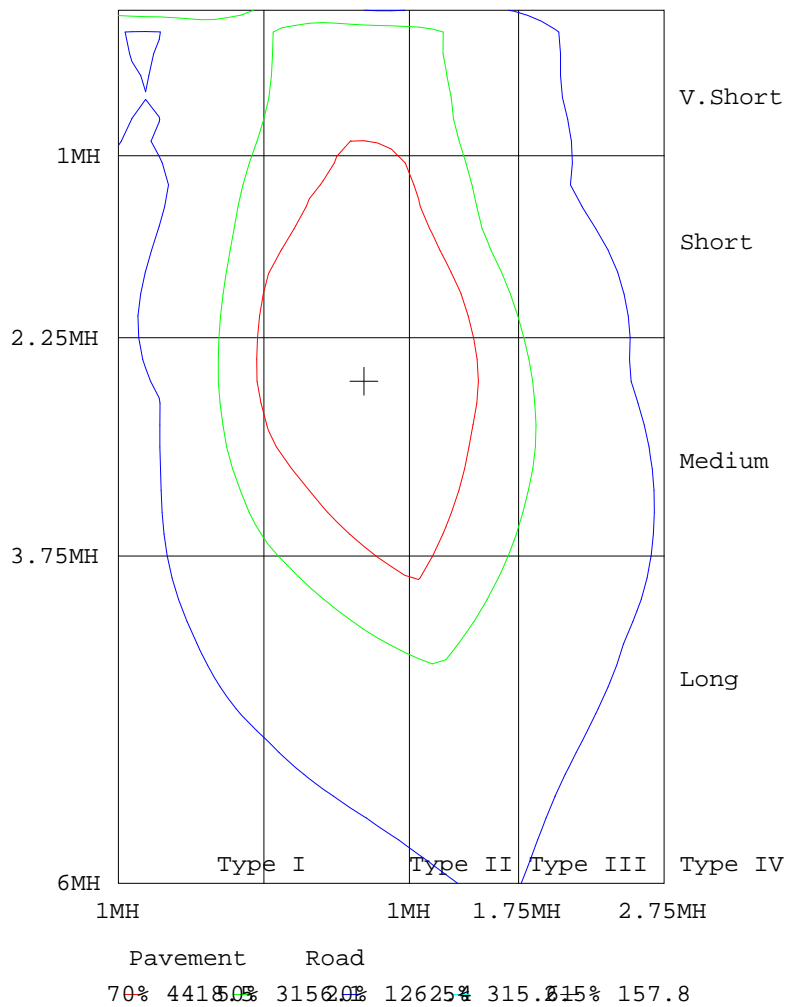
γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
 Humidity: 29.6%
 Test Distance:26.000m [K=1.0000]
 Remarks: D-20HLED100-48(5050 40K RA70 T3N)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ROAD ISOCANDELA REPORT

Test:U:230.17V I:0.4549A P:100.56W PF:0.9605 Freq:50.01Hz Lamp Flux:12744.9x1 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: 32.9DEG
 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: 29.6%
 Test Distance:26.000m [K=1.0000]
 Remarks: D-20HLED100-48(5050 40K RA70 T3N)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.17V I:0.4549A P:100.56W PF:0.9605 Freq:50.01Hz Lamp Flux:12744.9x1 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	2833	2833	2833	2833	2833	2833	2833	2833	2833	2833	2833	2833	2833	2833	2833	2833	2833	2833	2833
5	2839	2952	3053	3145	3190	3222	3234	3214	3187	3119	3039	2928	2805	2681	2553	2439	2370	2321	2305
10	2835	3059	3250	3400	3502	3549	3579	3541	3474	3353	3193	3007	2783	2520	2294	2111	2002	1940	1928
15	2854	3169	3449	3645	3785	3886	3908	3863	3749	3582	3365	3110	2777	2416	2135	1955	1866	1826	1824
20	2872	3305	3644	3882	4069	4165	4198	4153	4014	3803	3547	3213	2792	2354	2088	1939	1870	1811	1807
25	2901	3429	3830	4107	4220	4242	4253	4243	4206	4035	3745	3336	2816	2320	2085	1936	1786	1672	1647
30	2954	3594	4050	4236	4231	4170	4151	4168	4220	4198	3973	3508	2851	2310	2081	1819	1591	1475	1446
35	3057	3792	4204	4270	4141	4064	4021	4075	4180	4248	4174	3723	2971	2328	1993	1609	1414	1284	1254
40	3198	3944	4288	4253	4070	3973	3972	4009	4121	4287	4296	3898	3141	2373	1787	1423	1259	1207	1190
45	3385	4064	4343	4265	4014	3810	3773	3885	4107	4332	4381	4049	3308	2406	1551	1232	1289	1299	1299
50	3603	4245	4518	4344	3900	3435	3276	3545	4089	4462	4601	4296	3497	2327	1239	1250	1399	1434	1436
55	3847	4590	4742	4341	3392	2584	2382	2762	3653	4572	4825	4677	3692	2101	974	1304	1418	1396	1391
60	4209	5184	5023	3918	2491	1832	1687	1957	2725	4290	5210	5301	3884	1822	897	1222	1271	1224	1232
65	4561	5914	5223	3087	1670	1211	1101	1238	1848	3521	5577	6030	3994	1428	800	1017	990	935	944
70	4436	6201	4724	2239	959	749	688	737	1029	2639	5177	6336	3689	907	630	733	707	658	623
75	2945	5014	3047	1067	514	442	413	431	542	1222	3448	4949	2261	457	444	462	443	354	323
80	707	1708	603	282	271	240	213	242	272	261	707	1574	402	204	220	200	195	145	126
85	89.0	252	97.7	71.7	66.9	55.7	44.9	57.4	67.1	67.9	97.0	198	66.1	61.7	50.1	35.0	26.7	18.3	15.4
90	2.50	1.91	1.77	1.43	1.32	1.22	1.23	1.28	1.38	1.59	1.86	2.05	2.65	3.52	2.23	1.22	0.91	0.76	0.84
95	3.05	1.78	1.43	1.24	1.06	0.89	0.86	0.92	1.04	1.24	1.37	1.73	3.86	5.43	4.20	2.43	1.22	1.01	1.02
100	5.95	2.86	1.47	1.31	1.20	0.93	0.97	1.17	1.07	1.29	1.45	2.90	6.16	7.78	6.81	3.69	1.93	1.47	1.38
105	7.70	4.01	1.81	1.46	1.37	1.27	1.32	1.38	1.33	1.37	1.78	4.26	7.46	8.58	7.37	5.50	3.09	2.18	1.88
110	9.01	5.22	2.72	1.97	1.97	1.90	1.88	1.67	2.05	1.93	2.44	5.34	8.10	9.18	8.35	6.52	4.21	3.04	2.75
115	9.12	6.02	2.92	2.22	2.07	1.96	1.98	1.89	2.10	2.03	3.00	6.00	8.25	9.72	8.53	7.07	5.57	4.21	3.77
120	9.16	5.97	3.47	2.57	2.68	2.62	2.64	2.59	2.20	2.29	3.57	6.25	8.25	9.57	8.72	7.83	6.53	5.58	5.25
125	8.85	5.92	3.68	3.03	2.74	3.00	2.80	3.16	2.91	2.62	3.97	6.33	8.11	9.54	9.48	8.37	8.07	7.20	7.38
130	8.21	5.87	4.33	3.28	2.94	3.06	3.00	3.52	2.96	2.85	4.47	6.41	8.26	9.53	9.43	8.47	9.67	8.66	8.60
135	8.12	5.75	4.44	3.57	6.22	3.29	3.20	3.81	3.67	3.46	4.65	6.49	8.25	9.08	9.43	8.59	10.3	9.83	9.61
140	7.97	5.89	4.54	3.63	6.37	3.80	3.62	6.82	6.64	3.66	4.83	6.57	7.66	8.93	9.68	9.24	10.6	10.6	10.4
145	7.36	6.22	5.14	4.44	5.32	4.37	3.92	7.24	6.75	4.37	5.24	6.65	7.46	8.93	9.83	10.7	10.6	11.1	10.9
150	6.85	6.57	5.54	4.99	5.11	4.61	4.42	5.76	5.32	4.78	5.45	6.73	7.26	9.06	9.97	10.9	10.3	10.9	10.4
155	7.51	6.77	6.10	5.16	5.24	4.86	4.42	5.40	5.36	5.12	5.96	6.84	7.76	8.28	10.0	10.7	9.99	10.6	10.0
160	7.81	7.22	6.25	5.85	5.52	5.31	5.14	5.40	5.41	5.75	6.26	7.01	8.41	8.18	9.15	9.18	9.77	10.1	9.97
165	8.30	7.77	7.41	6.86	6.78	5.97	5.84	5.81	6.58	6.86	7.28	7.77	8.86	8.79	9.37	9.25	9.58	9.93	10.1
170	9.21	8.97	8.56	8.48	7.90	8.09	7.51	7.39	8.17	8.24	8.40	9.04	9.32	9.36	9.19	9.99	10.0	10.5	10.6
175	9.31	9.83	9.42	9.59	9.17	8.71	8.69	8.61	8.58	8.58	8.71	8.90	9.48	9.41	9.21	9.45	9.89	10.2	10.4
180	9.01	8.93	8.82	9.39	9.17	8.82	9.79	9.99	9.28	8.91	8.26	7.61	9.36	9.08	9.07	9.13	9.57	9.17	9.05

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 32.9DEG
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: 29.6%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED100-48(5050 40K RA70 T3N)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.17V I:0.4549A P:100.56W PF:0.9605 Freq:50.01Hz Lamp Flux:12744.9x1 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	2833	2833	2833	2833	2833													
5	2324	2382	2460	2574	2706													
10	1950	2022	2127	2330	2576													
15	1837	1881	1972	2165	2477													
20	1829	1880	1953	2115	2415													
25	1697	1821	1964	2115	2390													
30	1497	1636	1875	2123	2380													
35	1314	1461	1673	2083	2415													
40	1221	1289	1486	1923	2501													
45	1288	1286	1263	1678	2568													
50	1429	1388	1208	1393	2566													
55	1416	1412	1248	1040	2441													
60	1250	1285	1183	855	2213													
65	960	1032	993	758	1905													
70	680	730	733	614	1274													
75	379	459	459	431	516													
80	156	202	199	229	222													
85	20.7	30.6	42.0	64.8	74.7													
90	0.98	0.92	1.32	2.61	3.87													
95	1.07	1.28	2.56	4.45	5.80													
100	1.48	2.05	3.92	6.78	8.19													
105	2.14	3.07	5.35	8.20	8.95													
110	3.01	4.24	6.52	9.43	10.1													
115	4.13	5.06	6.85	10.03	10.5													
120	5.56	6.39	7.49	9.34	10.2													
125	7.14	7.67	9.01	10.03	10.03													
130	8.27	8.79	9.26	9.98	9.76													
135	10.1	10.5	9.62	9.89	9.19													
140	11.4	11.2	9.92	9.67	9.13													
145	11.6	11.2	10.2	9.81	9.06													
150	11.2	11.0	10.1	9.92	9.03													
155	10.8	10.8	10.1	10.03	8.90													
160	10.1	10.1	9.67	8.96	8.88													
165	10.3	10.3	9.82	10.2	8.87													
170	10.9	10.4	10.7	10.7	8.85													
175	10.8	10.6	10.1	9.71	8.69													
180	9.27	9.35	9.26	8.86	8.59													

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 32.9DEG
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: 29.6%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED100-48(5050 40K RA70 T3N)L