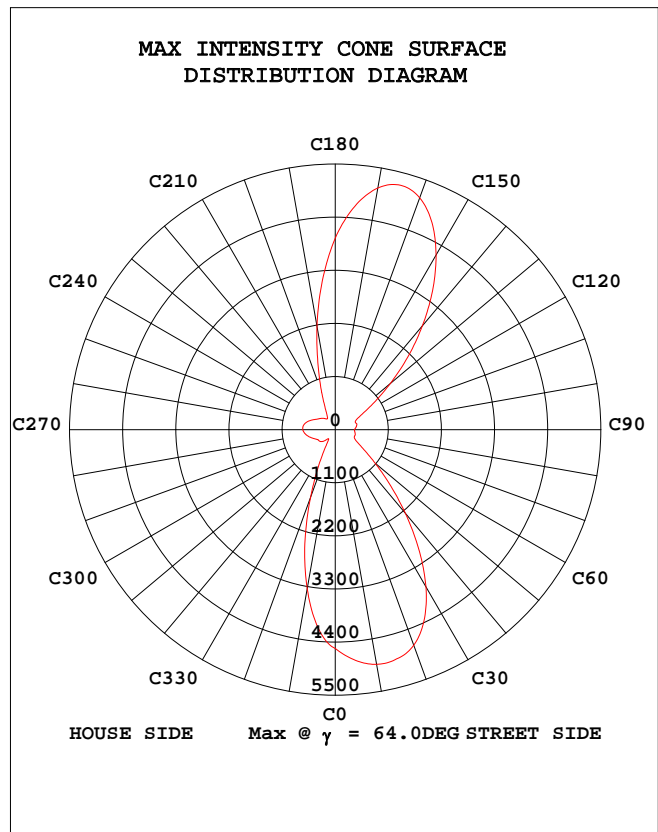
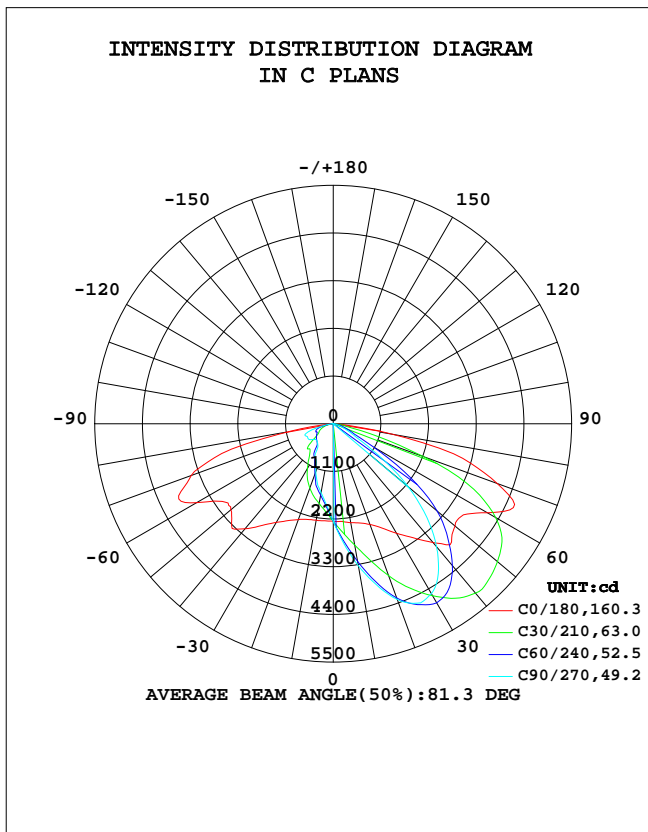


EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

STREETLIGHT PHOTOMETRIC TEST REPORT

Test:U:230.24V I:0.3652A P:79.724W PF:0.9482 Freq:50.01Hz Lamp Flux:10418.1x1 lm		
NAME: D-20HLED80-32	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 130.68 lm/W			
MODEL	5050 30K RA70 T2A	I _{max} (cd)	5240	η street_up(%)	0.1
NOMINAL POWER(W)	80	LOR(%)	100.0	η street_down(%)	74.4
RATED VOLTAGE(V)	220.0	TOTAL FLUX(lm)	10418	η house_up(%)	0.2
NOMINAL FLUX(lm)	10418.1	MAXIMUM @(C,γ)	165,64.0	η house_down(%)	25.3
LAMPS INSIDE	1	η up(%)	0.3	76 FLASHAREA(m2)	0.00100
TEST VOLTAGE(V)	230.0	η down(%)	99.7	SLI	22.128



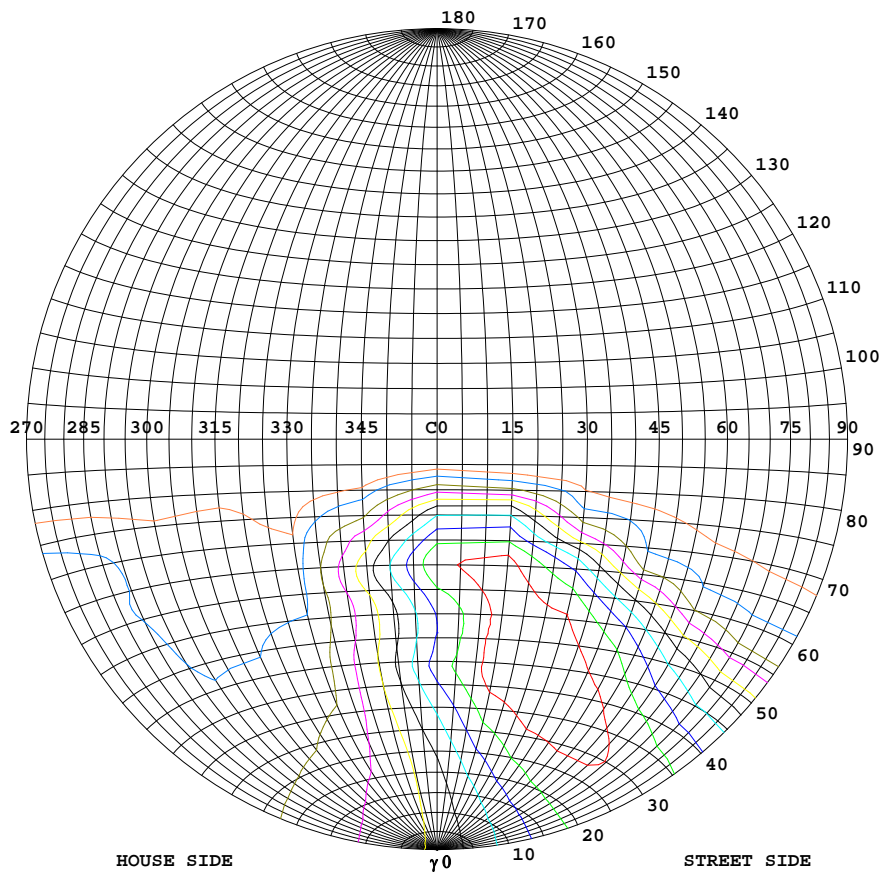
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 0.0DEG
Operators:CS01
Test Date:2021-07-16

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 30.3%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED80-32(5050 30K RA70 T2A)

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

STREETLIGHT ISOCANDELA DIAGRAM

Test:U:230.24V I:0.3652A P:79.724W PF:0.9482 Freq:50.01Hz Lamp Flux:10418.1x1 lm		
NAME: D-20HLED80-32	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:



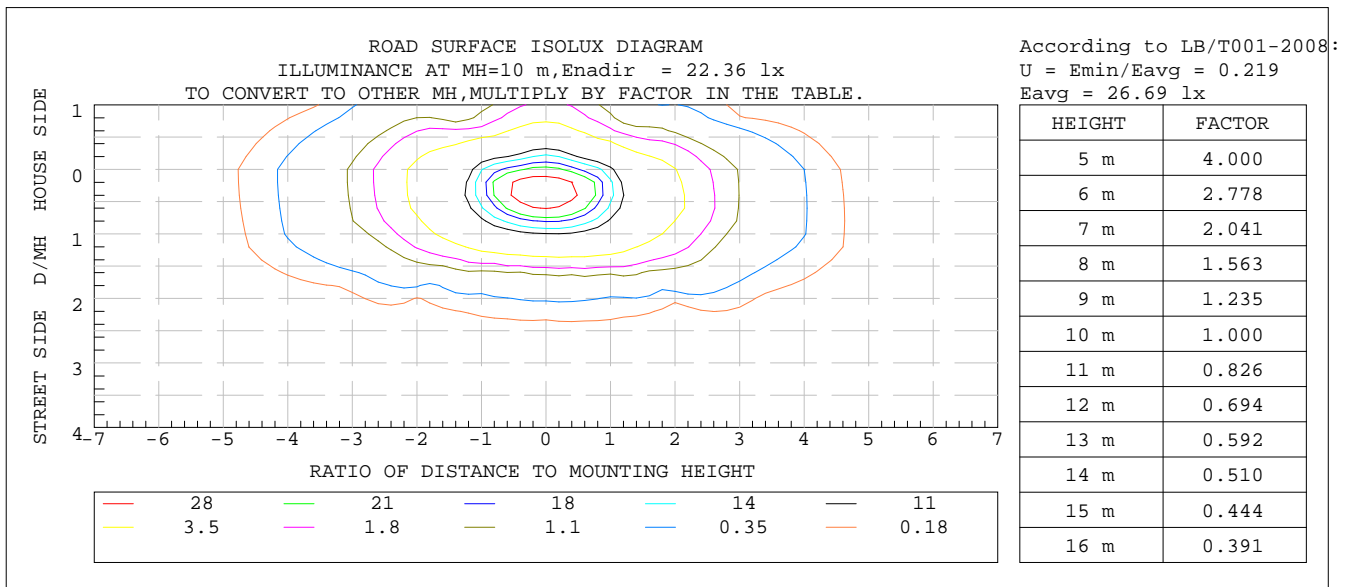
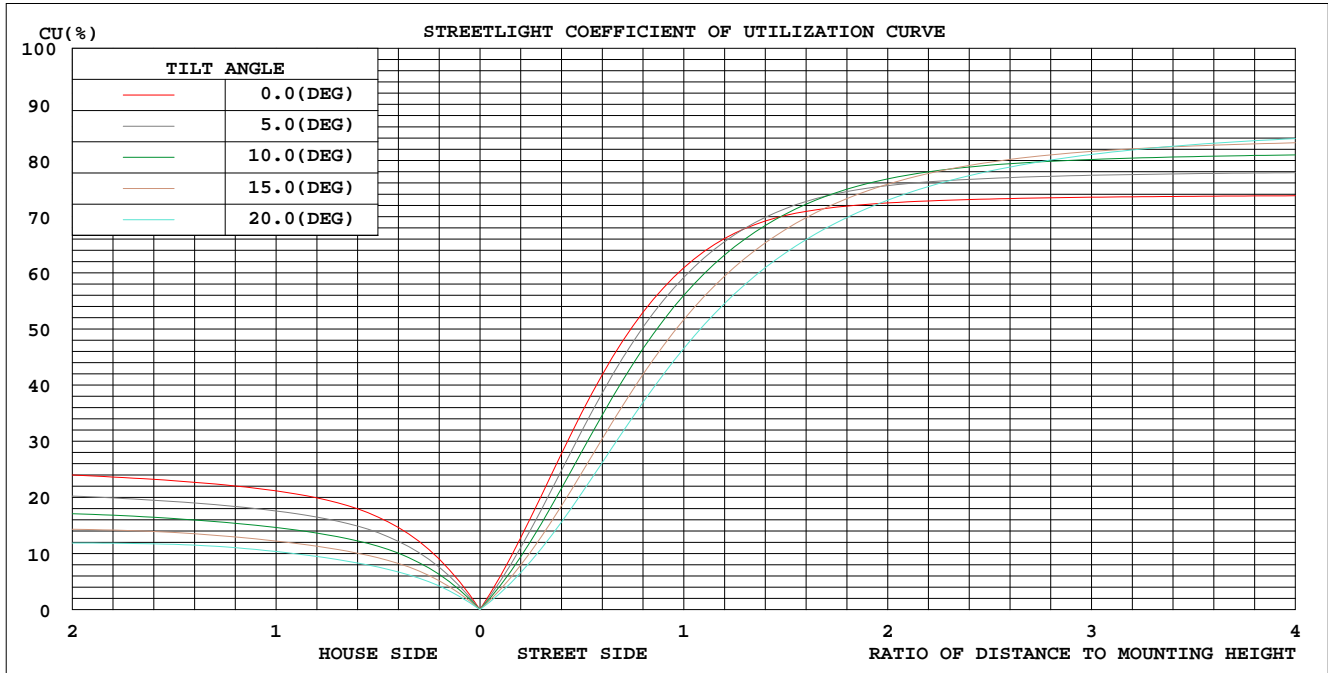
Classification:

IES:Type II - Short
 CIE:Narrow - Intermediate
 IES:Semi cut-off
 CIE:Non-cut-off
 Max.At80:132.7cd/klm
 Max.At90:0.2493cd/klm
 Max.80-90:132.7cd/klm

ISOCANDELA DIAGRAM	
UNIT	cd
Imax=100%	5240
90%	4716
80%	4192
70%	3668
60%	3144
50%	2620
40%	2096
30%	1572
20%	1048
10%	524
5%	262

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 0.0DEG
 Operators:CS01
 Test Date:2021-07-16

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
 Humidity: 30.3%
 Test Distance:26.000m [K=1.0000]
 Remarks: D-20HLED80-32(5050 30K RA70 T2A)

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:2021-07-16

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 30.3%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED80-32(5050 30K RA70 T2A)

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ZONAL FLUX DIAGRAM

Test:U:230.24V I:0.3652A P:79.724W PF:0.9482 Freq:50.01Hz Lamp Flux:10418.1x1 lm		
NAME: D-20HLED80-32	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	2317	3063	3323	3015	2259	1757	1616	1756	0- 10	221.6	221.6	2.13,2.13
20	2473	4070	4313	3855	2354	1376	1177	1435	10- 20	717.2	938.8	9.01,9.01
30	2918	4775	4528	4591	2629	938.7	843.6	1006	20- 30	1265	2203	21.2,21.2
40	3576	4820	3708	4817	3165	734.8	570.0	781.0	30- 40	1750	3953	37.9,37.9
50	3672	4209	2252	4431	3088	496.6	564.7	512.6	40- 50	2004	5957	57.2,57.2
60	4106	2652	598.1	3109	3646	386.6	673.6	381.7	50- 60	1888	7846	75.3,75.3
70	4026	483.3	204.2	583.5	3487	384.6	678.9	331.6	60- 70	1595	9440	90.6,90.6
80	1382	163.5	50.67	185.4	1014	120.7	162.5	153.0	70- 80	852.9	10293	98.8,98.8
90	2.343	0.9284	1.145	0.9979	2.597	1.903	0.5403	0.5681	80- 90	89.27	10382	99.7,99.7
100	5.907	1.133	0.7092	0.7147	7.901	1.949	0.7722	2.121	90-100	1.769	10384	99.7,99.7
110	9.267	1.742	1.223	1.911	9.327	5.491	1.443	5.373	100-110	3.597	10388	99.7,99.7
120	11.14	2.305	1.750	2.785	11.36	8.049	3.564	7.655	110-120	5.252	10393	99.8,99.8
130	10.95	3.380	2.271	3.511	11.64	10.10	7.675	10.23	120-130	6.074	10399	99.8,99.8
140	10.19	3.893	3.035	4.620	11.14	12.30	11.07	12.14	130-140	6.174	10405	99.9,99.9
150	8.452	5.176	3.964	5.834	9.573	13.01	12.39	12.02	140-150	5.501	10411	99.9,99.9
160	9.369	5.331	4.629	5.266	9.521	9.970	11.85	10.33	150-160	3.988	10415	100,100
170	9.417	7.839	6.784	7.281	9.883	10.35	12.09	11.10	160-170	2.420	10417	100,100
180	9.115	9.735	9.060	8.830	9.726	8.856	9.317	9.399	170-180	0.8811	10418	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

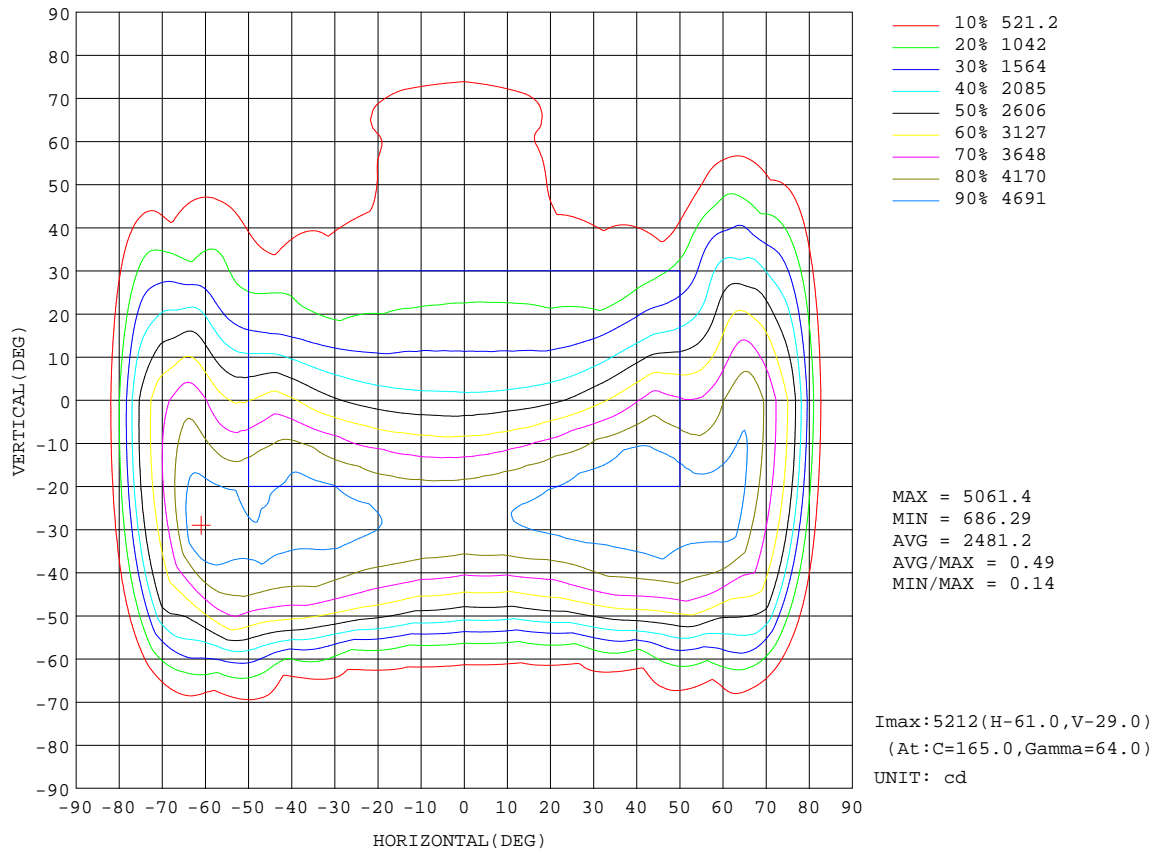
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 0.0DEG
 Operators:CS01
 Test Date:2021-07-16

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
 Humidity: 30.3%
 Test Distance:26.000m [K=1.0000]
 Remarks: D-20HLED80-32(5050 30K RA70 T2A)

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

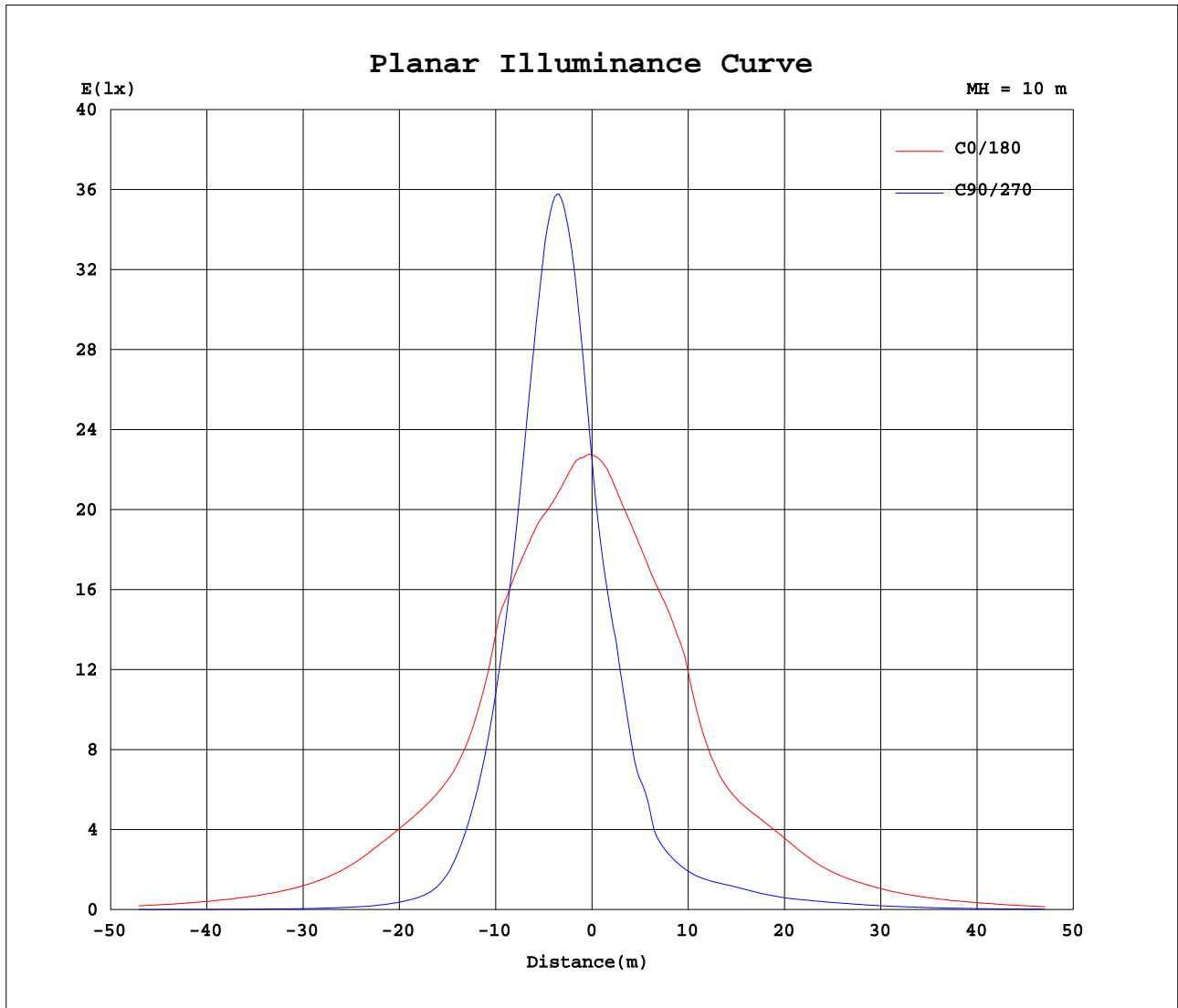
Test:U:230.24V I:0.3652A P:79.724W PF:0.9482 Freq:50.01Hz Lamp Flux:10418.1x1 lm		
NAME: D-20HLED80-32	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 0.0DEG
Operators:CS01
Test Date:2021-07-16

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 30.3%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED80-32(5050 30K RA70 T2A)

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 0.0DEG
 Operators: CS01
 Test Date: 2021-07-16

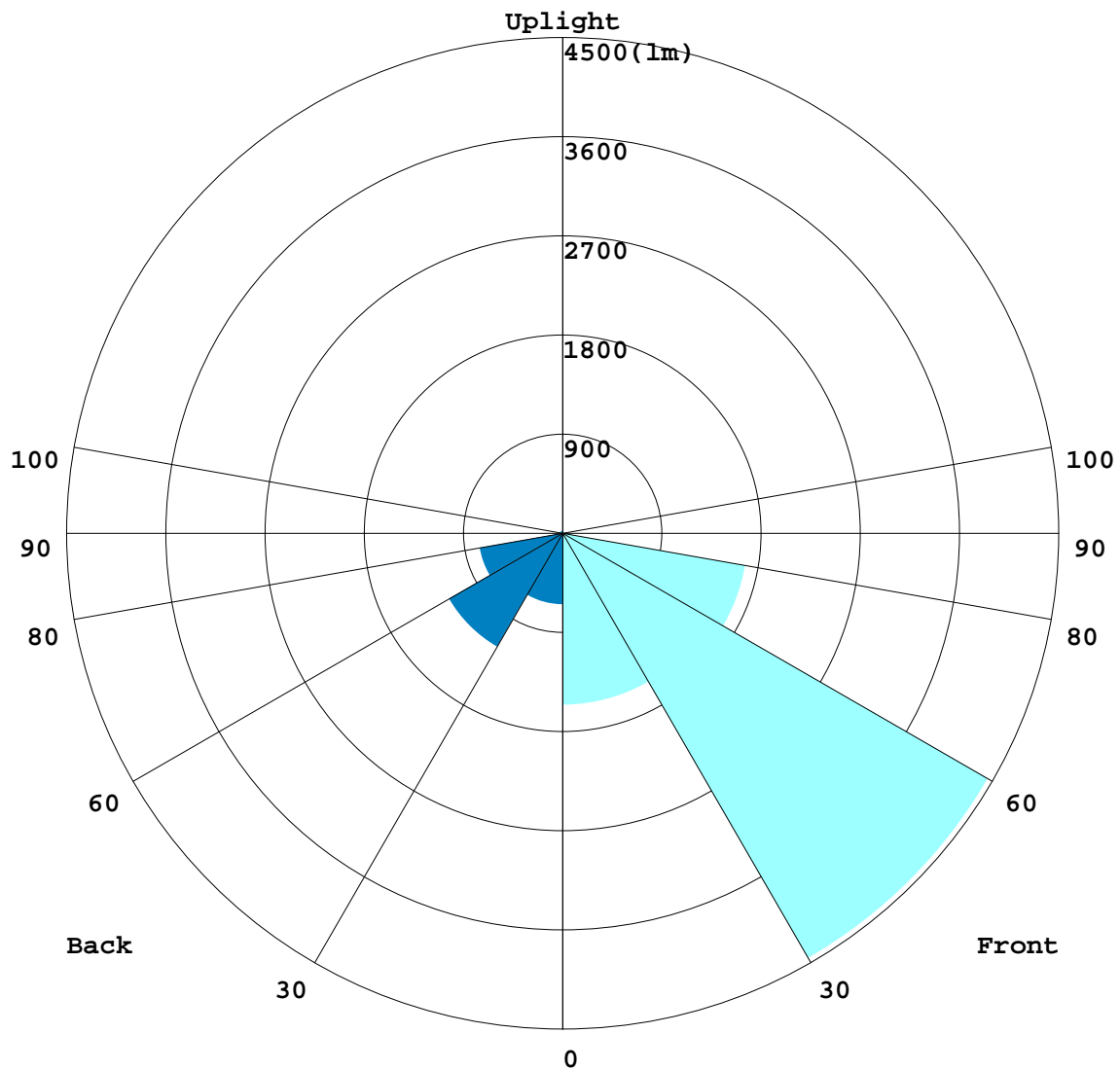
γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
 Humidity: 30.3%
 Test Distance: 26.000m [K=1.0000]
 Remarks: D-20HLED80-32(5050 30K RA70 T2A)

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LCS REPORT

Test:U:230.24V I:0.3652A P:79.724W PF:0.9482 Freq:50.01Hz Lamp Flux:10418.1x1 lm		
NAME: D-20HLED80-32	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:2021-07-16

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 30.3%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED80-32(5050 30K RA70 T2A)

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

BUG REPORT

Test:U:230.24V I:0.3652A P:79.724W PF:0.9482 Freq:50.01Hz Lamp Flux:10418.1x1 lm		
NAME: D-20HLED80-32	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:

IESNA Luminaire Flux Distribution Table:

Zone	Lumens	Luminaire %
FL - Front-Low(0-30)	1557.6	15.0
FM - Front-Medium(30-60)	4453	42.7
FH - Front-High(60-80)	1683.3	16.2
FVH - Front-Very High(80-90)	57.949	0.6
Total Forward Light	7763.9	74.5

BL - Back-Low(0-30)	645.85	6.2
BM - Back-Medium(30-60)	1189.2	11.4
BH - Back-High(60-80)	764.32	7.3
BVH - Back-Very High(80-90)	31.32	0.3
Total Back Light	2654.2	25.5

UL - Uplight-Low(90-100)	1.7686	0.0
UH - Uplight-High(100-180)	33.886	0.3
Total Up Light	35.655	0.3

BUG(Back,Up,Glare) Rating	B2-U2-G2
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Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	2630.6	23.578	2654.2
Street Side	7751.8	12.077	7763.9

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 0.0DEG
 Operators:CS01
 Test Date:2021-07-16

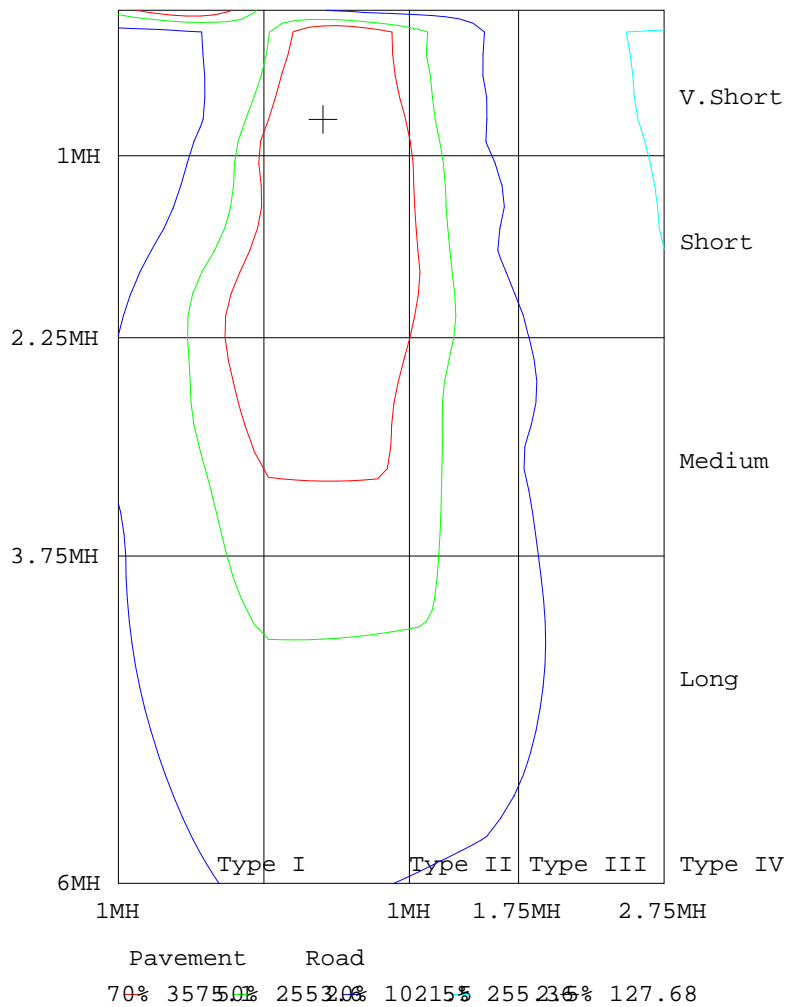
γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
 Humidity: 30.3%
 Test Distance:26.000m [K=1.0000]
 Remarks: D-20HLED80-32(5050 30K RA70 T2A)

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ROAD ISOCANDELA REPORT

Test:U:230.24V I:0.3652A P:79.724W PF:0.9482 Freq:50.01Hz Lamp Flux:10418.1x1 lm		
NAME: D-20HLED80-32	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:2021-07-16

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 30.3%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED80-32(5050 30K RA70 T2A)

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.24V I:0.3652A P:79.724W PF:0.9482 Freq:50.01Hz Lamp Flux:10418.1x1 lm																			
NAME: D-20HLED80-32										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	2249	2249	2249	2249	2249	2249	2249	2249	2249	2249	2249	2249	2249	2249	2249	2249	2249	2249	2249
5	2264	2394	2515	2626	2704	2755	2767	2741	2689	2604	2504	2375	2248	2130	2037	1956	1908	1878	1865
10	2317	2588	2838	3063	3216	3302	3323	3281	3174	3015	2804	2536	2259	2028	1870	1757	1679	1633	1616
15	2369	2815	3248	3567	3768	3846	3842	3796	3659	3437	3139	2719	2286	1955	1737	1586	1499	1446	1426
20	2473	3162	3725	4070	4275	4335	4313	4255	4115	3855	3523	2972	2354	1887	1582	1376	1235	1176	1177
25	2653	3559	4182	4468	4603	4616	4569	4537	4465	4254	3914	3292	2467	1838	1408	1128	1019	952	938
30	2918	3981	4579	4775	4772	4608	4528	4590	4692	4591	4304	3659	2629	1794	1197	939	873	856	844
35	3212	4379	4913	4927	4649	4335	4224	4381	4645	4818	4688	4052	2863	1744	983	815	729	630	622
40	3576	4774	5101	4820	4277	3836	3708	3950	4406	4817	4956	4483	3165	1692	836	735	579	579	570
45	3863	4893	5075	4541	3740	3181	3055	3349	3985	4677	4978	4572	3318	1597	825	549	540	564	543
50	3672	4942	4948	4209	3125	2390	2252	2585	3441	4431	4871	4588	3088	1427	678	497	509	589	565
55	3665	4865	4751	3628	2188	1405	1297	1592	2579	3974	4777	4668	3128	1280	449	453	471	619	643
60	4106	4967	4325	2652	1068	632	598	712	1374	3109	4596	4993	3646	1332	381	387	432	613	674
65	4584	4879	3576	1302	495	390	352	421	556	1824	4045	5234	3936	1299	331	330	446	620	683
70	4026	4115	2205	483	320	236	204	252	359	583	2993	4213	3487	813	262	385	416	604	679
75	3093	3130	875	327	196	135	114	142	228	365	1292	3011	2666	387	182	261	318	415	437
80	1382	1169	269	164	92.6	60.3	50.7	64.1	106	185	269	1321	1014	125	91.3	121	150	162	163
85	152	107	61.7	33.9	20.9	13.9	11.4	14.5	22.9	36.8	52.9	112	87.6	20.8	13.1	17.3	16.4	12.8	10.4
90	2.34	1.43	1.03	0.93	0.98	1.09	1.14	1.04	1.00	1.00	1.10	1.71	2.60	2.05	0.87	1.90	1.68	1.27	0.54
95	2.85	1.73	0.87	1.03	0.62	1.02	0.68	0.75	0.74	0.68	0.88	1.69	3.58	3.58	1.91	0.88	0.67	0.51	0.59
100	5.91	2.70	1.18	1.13	0.62	0.96	0.71	0.85	0.84	0.71	1.28	3.72	7.90	6.33	4.36	1.95	1.14	0.82	0.77
105	7.68	4.33	1.64	1.27	1.13	1.03	1.18	1.13	1.18	1.14	2.02	5.57	9.01	7.81	6.15	3.55	1.91	1.34	1.13
110	9.27	5.91	2.40	1.74	1.34	1.34	1.22	1.29	1.40	1.91	3.26	6.87	9.33	9.77	8.61	5.49	2.94	1.86	1.44
115	10.0	6.65	3.43	2.05	1.80	1.69	1.36	1.45	1.97	2.22	3.88	7.85	10.6	11.6	9.73	6.87	4.13	2.79	2.48
120	11.1	7.19	3.94	2.31	1.93	2.06	1.75	1.91	2.10	2.79	4.50	8.06	11.4	12.1	10.1	8.05	5.68	3.71	3.56
125	11.2	7.75	4.56	2.85	2.06	2.11	2.01	2.07	2.12	2.89	5.18	8.28	11.6	12.7	11.3	9.22	8.00	5.26	5.67
130	10.9	7.19	4.80	3.38	2.27	1.84	2.27	1.91	2.38	3.51	5.43	8.31	11.6	12.8	12.1	10.1	10.00	7.47	7.67
135	10.7	6.93	5.03	3.69	3.50	2.19	2.62	1.88	3.46	4.49	5.51	8.31	11.5	12.7	12.4	10.6	11.2	9.95	9.58
140	10.2	7.04	5.17	3.89	3.87	3.50	3.03	3.20	4.35	4.62	6.06	8.31	11.1	12.1	12.5	12.3	11.3	11.0	11.1
145	8.76	7.40	5.48	4.57	4.03	4.01	3.60	4.29	4.25	5.27	6.24	8.34	10.3	11.9	12.6	13.5	11.4	12.9	12.1
150	8.45	7.40	6.15	5.18	4.22	4.42	3.96	4.45	4.01	5.83	6.73	8.39	9.57	11.7	12.4	13.0	11.3	12.8	12.4
155	8.86	7.60	6.60	5.29	4.38	4.62	4.12	4.50	4.55	5.28	6.61	8.44	10.0	10.9	11.1	11.0	11.3	12.4	11.9
160	9.37	7.65	6.61	5.33	5.57	5.20	4.63	5.01	5.69	5.27	6.06	8.01	9.52	8.93	9.82	9.97	11.2	11.7	11.8
165	8.40	6.99	6.76	6.75	6.45	5.46	5.35	5.49	6.47	6.92	6.83	7.44	9.08	8.52	9.48	10.2	11.1	11.5	11.9
170	9.42	8.62	7.94	7.84	7.01	6.84	6.78	6.76	7.09	7.28	7.72	8.62	9.88	9.76	9.71	10.3	11.3	11.8	12.1
175	9.23	8.83	8.50	8.41	8.04	8.03	7.77	7.95	8.02	7.95	7.75	8.41	9.88	9.90	9.37	9.68	10.8	10.9	11.1
180	9.11	9.53	8.80	9.74	9.33	9.06	9.06	9.56	9.47	8.83	8.18	8.31	9.73	9.28	9.27	8.86	9.43	9.26	9.32

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 0.0DEG
Operators:CS01
Test Date:2021-07-16

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 30.3%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED80-32(5050 30K RA70 T2A)

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.24V I:0.3652A P:79.724W PF:0.9482 Freq:50.01Hz Lamp Flux:10418.1x1 lm		
NAME: D-20HLED80-32	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	2249	2249	2249	2249	2249														
5	1875	1908	1965	2040	2147														
10	1634	1678	1756	1878	2067														
15	1458	1505	1595	1744	1999														
20	1210	1285	1435	1621	1948														
25	972	1066	1204	1492	1927														
30	862	874	1006	1333	1958														
35	636	775	839	1128	2023														
40	580	579	781	961	2099														
45	561	537	608	849	2125														
50	580	505	513	732	1982														
55	594	466	452	555	1931														
60	570	428	382	420	2183														
65	569	425	331	364	2417														
70	563	377	332	289	1908														
75	401	290	313	203	985														
80	172	145	153	108	310														
85	14.8	20.8	21.8	18.3	32.3														
90	0.26	2.17	0.57	1.35	2.53														
95	0.57	0.67	1.04	2.25	3.72														
100	0.88	1.25	2.12	4.56	6.30														
105	1.29	1.92	3.72	6.27	8.16														
110	1.91	3.11	5.37	8.24	9.88														
115	2.79	4.36	6.77	9.74	11.6														
120	4.46	5.75	7.66	10.3	12.6														
125	5.90	7.26	9.35	11.9	12.8														
130	7.56	9.17	10.2	12.0	12.6														
135	9.21	11.3	11.6	12.0	11.9														
140	11.2	13.2	12.1	12.1	11.7														
145	12.6	13.0	12.2	12.1	10.6														
150	12.9	11.9	12.0	11.9	10.6														
155	12.8	11.7	11.0	10.9	10.3														
160	12.1	11.6	10.3	8.85	8.88														
165	11.9	11.7	10.8	9.80	8.68														
170	12.0	11.9	11.1	10.4	9.23														
175	10.9	11.2	10.3	9.78	8.83														
180	9.20	9.41	9.40	8.80	8.00														

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 0.0DEG
Operators:CS01
Test Date:2021-07-16

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
γ Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 30.3%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED80-32(5050 30K RA70 T2A)