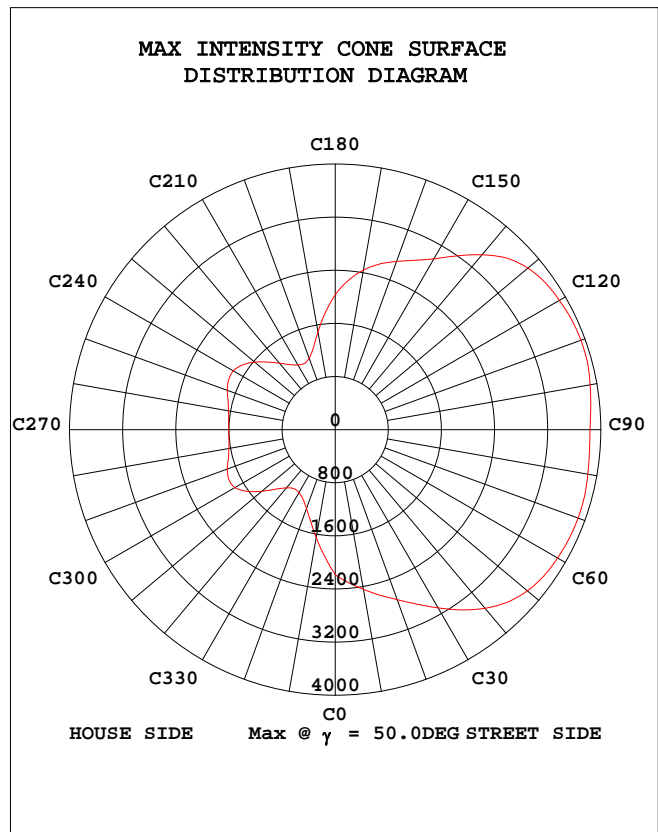
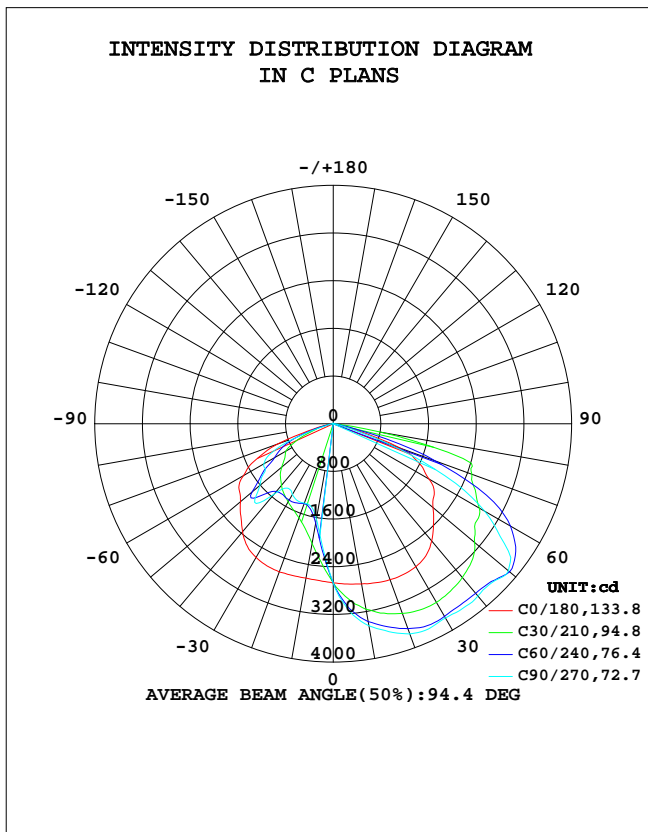


EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

STREETLIGHT PHOTOMETRIC TEST REPORT

Test:U:230.15V I:0.3629A P:79.310W PF:0.9496 Freq:50.01Hz Lamp Flux:10178.8x1 lm		
NAME: D-20HLED80-32	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 128.34 lm/W			
MODEL	5050 30K RA70 T4A	I _{max} (cd)	3931	η street_up(%)	0.1
NOMINAL POWER(W)	80	LOR(%)	100.0	η street_down(%)	69.5
RATED VOLTAGE(V)	220.0	TOTAL FLUX(lm)	10179	η house_up(%)	0.2
NOMINAL FLUX(lm)	10178.8	MAXIMUM @(C,γ)	105,50.0	η house_down(%)	30.2
LAMPS INSIDE	1	η up(%)	0.3	76 FLASHAREA(m2)	0.00100
TEST VOLTAGE(V)	230.0	η down(%)	99.7	SLI	17.390



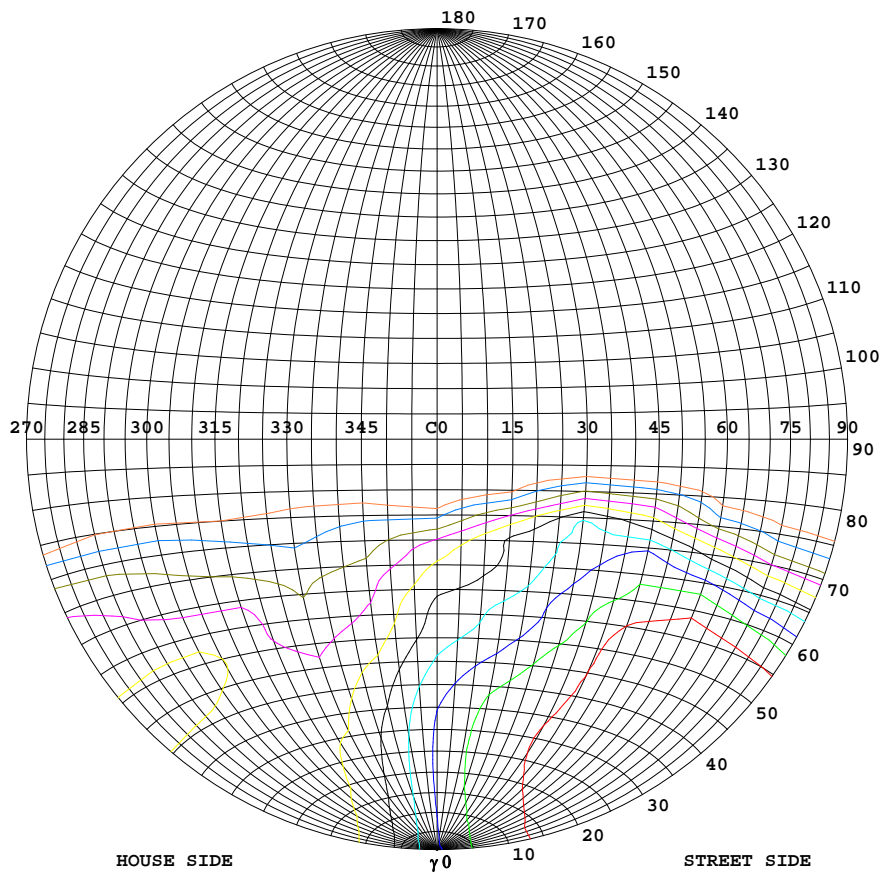
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 34.2DEG
Operators:CS01
Test Date:2021-07-17

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 43.2%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED80-32(5050 30K RA70 T4A)

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

STREETLIGHT ISOCANDELA DIAGRAM

Test:U:230.15V I:0.3629A P:79.310W PF:0.9496 Freq:50.01Hz Lamp Flux:10178.8x1 lm		
NAME: D-20HLED80-32	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:



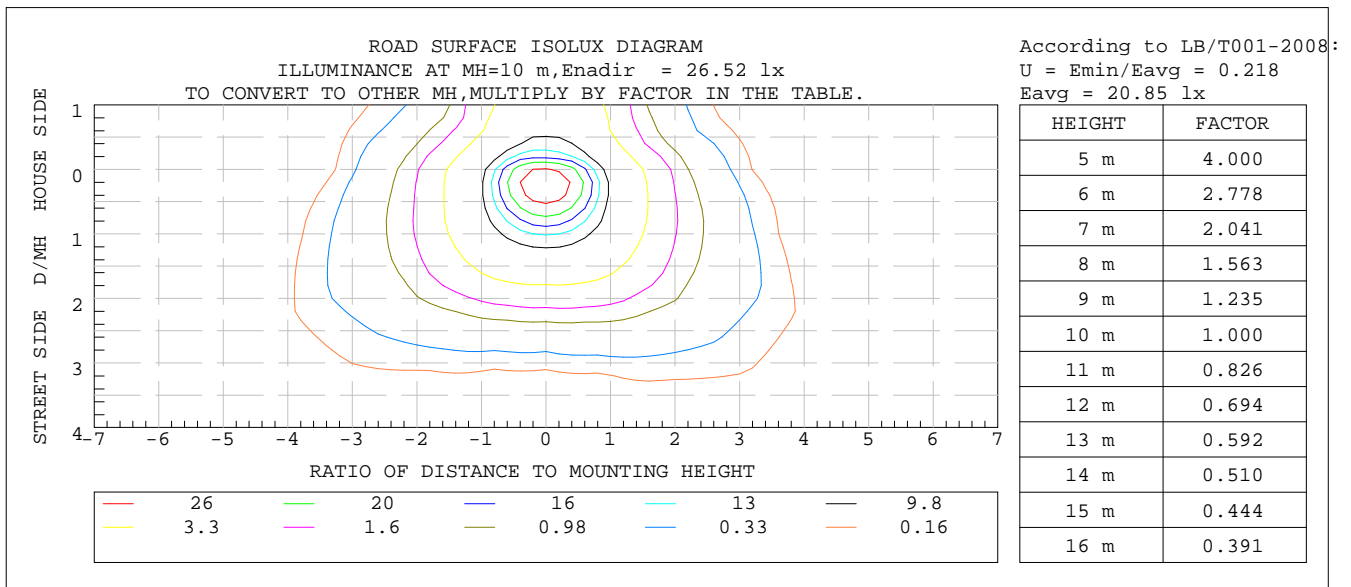
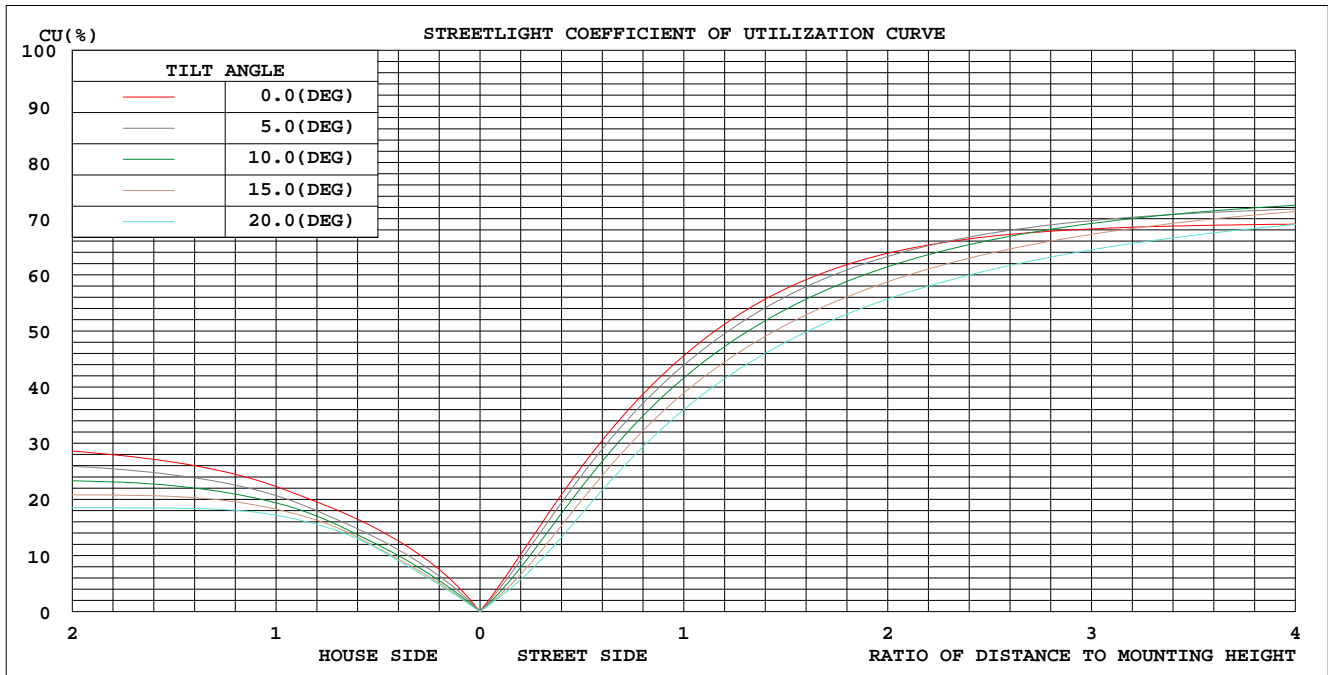
Classification:

IES:Type III - Very Short
 CIE:Broad - Short
 IES:Cut-off
 CIE:Semi-cut-off
 Max.At80:80.63cd/klm
 Max.At90:0.2627cd/klm
 Max.80-90:80.63cd/klm

ISOCANDELA DIAGRAM	
UNIT	cd
Imax=100%	3931
90%	3538
80%	3145
70%	2752
60%	2359
50%	1965
40%	1572
30%	1179
20%	786
10%	393
5%	197

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 34.2DEG
 Operators:CS01
 Test Date:2021-07-17

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
 Humidity: 43.2%
 Test Distance:26.000m [K=1.0000]
 Remarks: D-20HLED80-32(5050 30K RA70 T4A)

COEFFICIENT OF UTILIZATION CURVE
AND ISOLUX DIAGRAM

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 34.2DEG
Operators:CS01
Test Date:2021-07-17

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 43.2%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED80-32(5050 30K RA70 T4A)

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ZONAL FLUX DIAGRAM

Test:U:230.15V I:0.3629A P:79.310W PF:0.9496 Freq:50.01Hz Lamp Flux:10178.8x1 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	Φ lum,lamp
10	2729	3287	3441	3251	2630	1830	1629	1933	0- 10	250.3	250.3	2.46,2.46
20	2785	3547	3754	3498	2646	1491	1417	1561	10- 20	730.8	981.2	9.64,9.64
30	2771	3657	3764	3638	2589	1492	1370	1467	20- 30	1202	2183	21.4,21.4
40	2570	3633	3775	3639	2366	1472	1536	1402	30- 40	1602	3786	37.2,37.2
50	2184	3671	3837	3656	2032	1441	1607	1266	40- 50	1933	5719	56.2,56.2
60	1858	3241	2933	3298	1738	1217	1343	1101	50- 60	2015	7734	76,76
70	1189	2651	990.9	2801	997.3	557.0	598.0	455.2	60- 70	1655	9389	92.2,92.2
80	63.87	548.8	81.22	820.7	66.04	48.09	41.46	45.09	70- 80	709.3	10098	99.2,99.2
90	0.8957	1.257	1.213	1.179	2.674	1.204	0.8461	1.414	80- 90	48.37	10147	99.7,99.7
100	2.434	1.140	0.9475	1.106	2.489	3.516	1.618	3.832	90-100	1.521	10148	99.7,99.7
110	5.021	2.656	1.864	1.915	4.630	5.567	3.931	6.355	100-110	3.134	10151	99.7,99.7
120	6.214	3.457	2.818	2.822	6.364	7.117	7.265	7.864	110-120	4.729	10156	99.8,99.8
130	6.809	3.908	3.875	3.679	7.611	8.318	9.924	9.731	120-130	5.548	10161	99.8,99.8
140	7.482	4.610	4.537	4.536	7.830	9.724	10.76	10.39	130-140	5.580	10167	99.9,99.9
150	7.599	5.830	4.969	5.190	7.657	10.67	10.78	10.38	140-150	4.906	10172	99.9,99.9
160	8.551	5.912	5.217	5.490	8.537	9.060	10.58	9.619	150-160	3.654	10176	100,100
170	9.095	7.767	7.401	7.509	9.646	9.669	11.28	10.68	160-170	2.351	10178	100,100
180	9.198	9.020	9.269	9.127	9.595	8.818	9.216	9.320	170-180	0.8685	10179	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

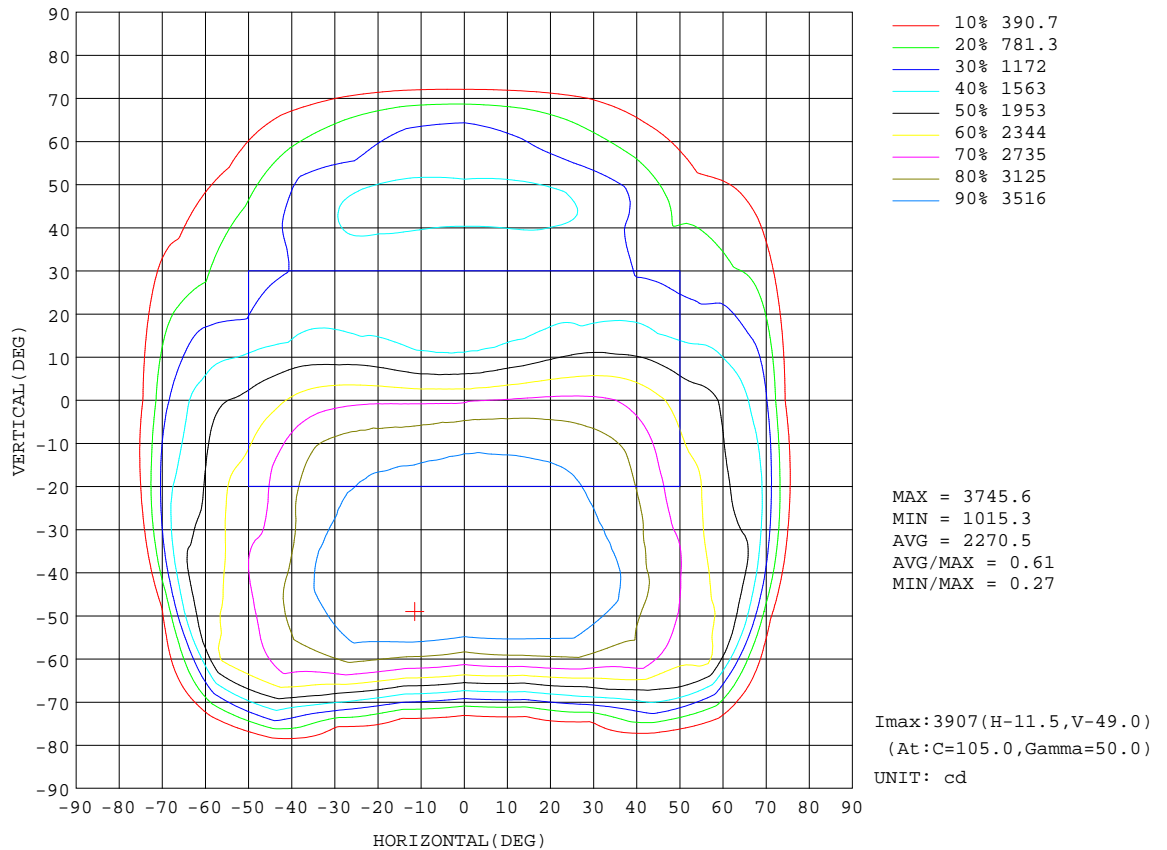
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 34.2DEG
 Operators:CS01
 Test Date:2021-07-17

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 γ Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
 Humidity: 43.2%
 Test Distance:26.000m [K=1.0000]
 Remarks: D-20HLED80-32(5050 30K RA70 T4A)

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

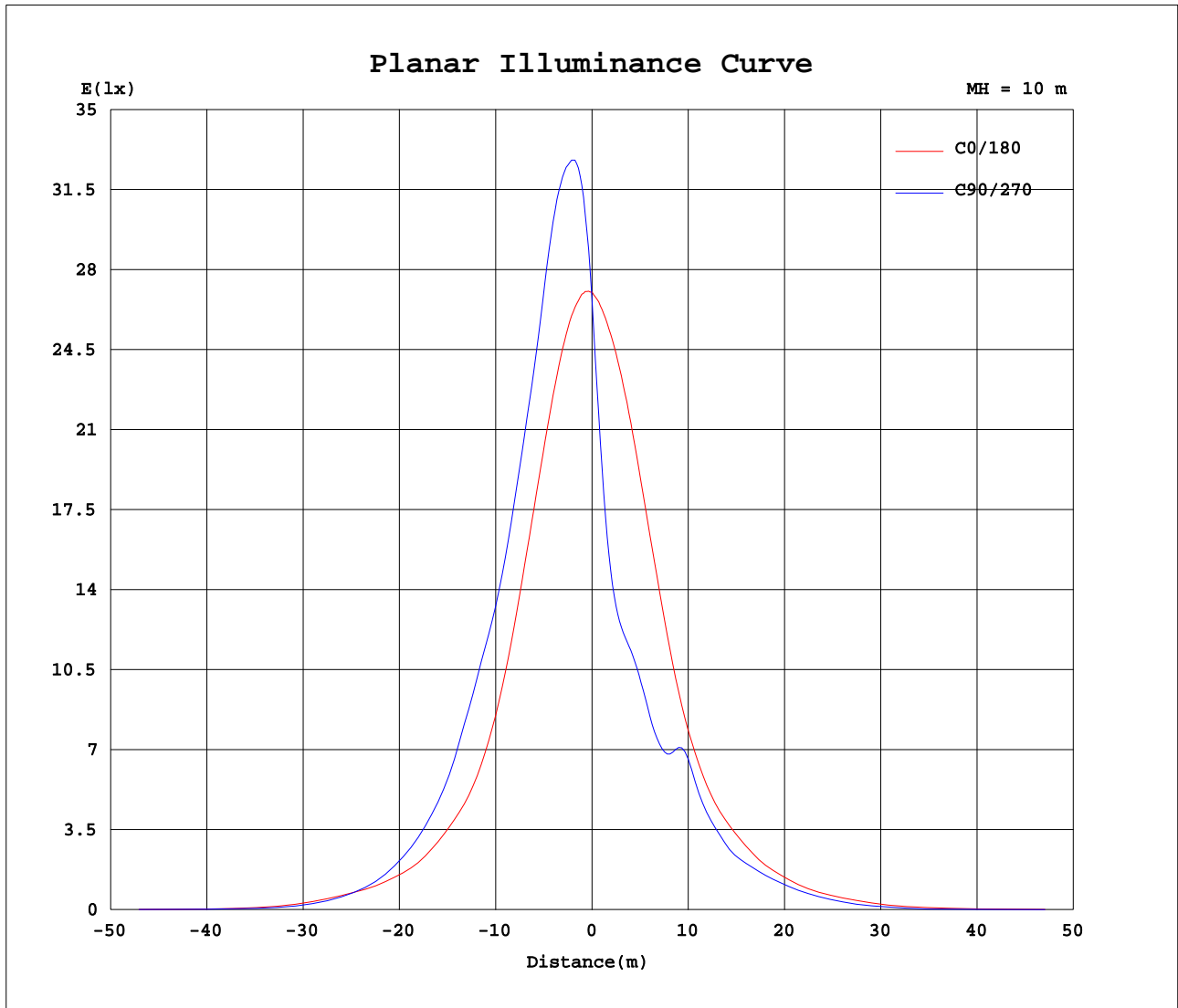
Test:U:230.15V I:0.3629A P:79.310W PF:0.9496 Freq:50.01Hz Lamp Flux:10178.8x1 lm		
NAME: D-20HLED80-32	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 34.2DEG
Operators: CS01
Test Date: 2021-07-17

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 43.2%
Test Distance: 26.000m [K=1.0000]
Remarks: D-20HLED80-32(5050 30K RA70 T4A)

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 34.2DEG
Operators:CS01
Test Date:2021-07-17

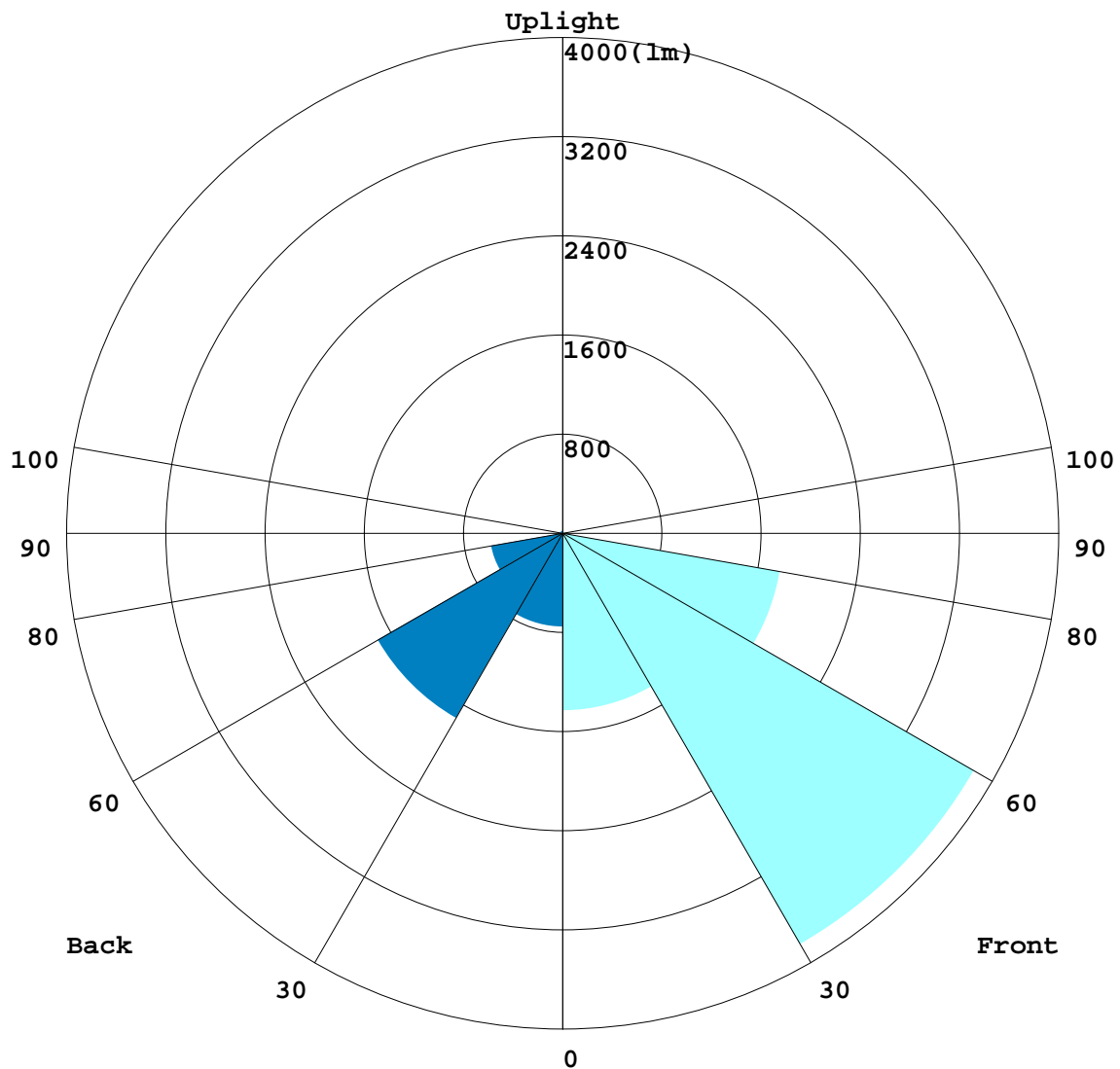
γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 43.2%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED80-32(5050 30K RA70 T4A)

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LCS REPORT

Test:U:230.15V I:0.3629A P:79.310W PF:0.9496 Freq:50.01Hz Lamp Flux:10178.8x1 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: 34.2DEG
Operators:CS01
Test Date:2021-07-17

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 43.2%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED80-32(5050 30K RA70 T4A)

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

BUG REPORT

Test:U:230.15V I:0.3629A P:79.310W PF:0.9496 Freq:50.01Hz Lamp Flux:10178.8x1 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)	1429.7	14.0
FM - Front-Medium(30-60)	3829.7	37.6
FH - Front-High(60-80)	1778.7	17.5
FVH - Front-Very High(80-90)	38.206	0.4
Total Forward Light	7087.7	69.6

BL - Back-Low(0-30)	753.35	7.4
BM - Back-Medium(30-60)	1721.2	16.9
BH - Back-High(60-80)	585.42	5.8
BVH - Back-Very High(80-90)	10.168	0.1
Total Back Light	3091.1	30.4

UL - Uplight-Low(90-100)	1.5213	0.0
UH - Uplight-High(100-180)	30.771	0.3
Total Up Light	32.292	0.3

BUG(Back,Up,Glare) Rating	B2-U2-G2
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Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	3070.2	20.912	3091.1
Street Side	7076.3	11.38	7087.7

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 34.2DEG
 Operators:CS01
 Test Date:2021-07-17

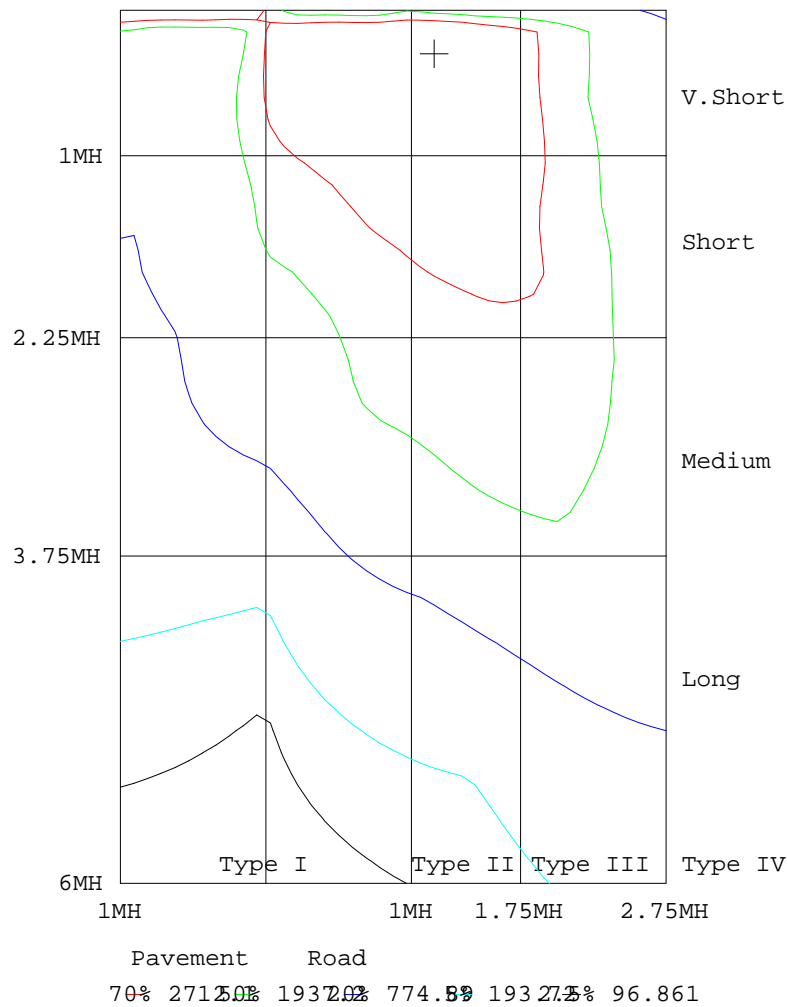
γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
 Humidity: 43.2%
 Test Distance:26.000m [K=1.0000]
 Remarks: D-20HLED80-32(5050 30K RA70 T4A)

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ROAD ISOCANDELA REPORT

Test:U:230.15V I:0.3629A P:79.310W PF:0.9496 Freq:50.01Hz Lamp Flux:10178.8x1 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: 34.2DEG
 Operators:CS01
 Test Date:2021-07-17

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
 Humidity: 43.2%
 Test Distance:26.000m [K=1.0000]
 Remarks: D-20HLED80-32(5050 30K RA70 T4A)

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.15V I:0.3629A P:79.310W PF:0.9496 Freq:50.01Hz Lamp Flux:10178.8x1 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	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673
5	2698	2842	2950	3038	3110	3153	3160	3140	3095	3015	2920	2790	2643	2490	2332	2214	2131	2080	2071
10	2729	2980	3162	3287	3371	3426	3441	3419	3357	3251	3101	2906	2630	2319	2042	1830	1698	1637	1629
15	2762	3088	3289	3441	3525	3603	3612	3584	3516	3396	3239	3008	2635	2205	1823	1589	1483	1441	1438
20	2785	3162	3386	3547	3658	3742	3754	3731	3648	3498	3333	3087	2646	2112	1683	1491	1428	1417	1417
25	2790	3212	3446	3620	3738	3796	3796	3792	3741	3591	3426	3136	2631	2017	1589	1466	1465	1435	1424
30	2771	3210	3462	3657	3732	3774	3764	3778	3768	3638	3463	3164	2589	1911	1516	1492	1479	1400	1370
35	2708	3175	3430	3646	3714	3781	3783	3775	3762	3641	3457	3145	2511	1788	1440	1504	1461	1366	1324
40	2570	3063	3370	3633	3715	3779	3775	3781	3773	3639	3383	3024	2366	1643	1352	1472	1483	1521	1536
45	2380	2833	3279	3641	3747	3792	3767	3813	3797	3667	3230	2807	2194	1464	1256	1432	1700	1913	1867
50	2184	2580	3097	3671	3864	3885	3837	3931	3895	3656	2969	2584	2032	1277	1128	1441	1774	1671	1607
55	2070	2433	2909	3531	3739	3656	3503	3752	3815	3476	2865	2466	1929	1086	991	1514	1451	1442	1399
60	1858	2188	2831	3241	3433	3133	2933	3190	3553	3298	2842	2230	1738	914	918	1217	1139	1317	1343
65	1609	2005	2629	3097	2837	2257	2070	2401	3053	3094	2580	2004	1435	688	695	875	944	1104	1128
70	1189	1998	2475	2651	1815	1190	991	1322	2104	2801	2454	1908	997	435	390	557	638	644	598
75	309	1188	2256	1690	673	275	224	303	974	1957	2184	901	344	339	225	231	237	153	114
80	63.9	162	806	549	127	95.3	81.2	102	153	821	757	114	66.0	149	67.5	48.1	56.1	45.6	41.5
85	14.2	23.0	52.7	35.3	26.7	19.0	15.0	21.3	29.9	48.1	49.3	24.2	14.7	20.2	11.3	9.57	7.88	6.14	5.48
90	0.90	1.10	1.25	1.26	1.26	1.22	1.21	1.27	1.37	1.18	1.06	0.86	2.67	0.85	1.40	1.20	0.75	0.55	0.85
95	0.94	1.17	0.95	1.01	1.21	0.79	0.92	0.85	0.95	0.89	0.87	0.73	0.90	1.55	2.39	2.26	1.36	0.81	0.76
100	2.43	1.84	1.05	1.14	1.16	0.76	0.95	0.90	1.00	1.11	1.03	1.16	2.49	3.09	3.59	3.52	2.66	1.76	1.62
105	3.82	2.83	2.64	1.75	1.50	1.36	1.26	1.16	1.22	1.31	1.36	2.07	3.68	4.09	4.24	4.71	4.01	3.08	2.72
110	5.02	3.74	3.04	2.66	2.15	1.96	1.86	1.87	1.88	1.92	2.17	3.12	4.63	5.33	5.84	5.57	4.97	4.14	3.93
115	5.47	4.43	3.64	2.96	2.75	2.56	2.21	2.33	2.58	2.62	2.93	4.29	5.67	6.78	6.73	6.26	5.72	5.80	5.75
120	6.21	4.93	3.78	3.46	3.30	3.02	2.82	2.73	2.77	2.82	3.54	5.10	6.36	7.33	7.33	7.12	6.57	7.00	7.27
125	6.66	5.28	4.38	3.71	3.66	3.45	3.53	3.49	3.14	3.47	4.19	5.35	6.91	8.02	8.43	7.92	8.28	8.11	8.92
130	6.81	5.38	4.74	3.91	4.26	3.63	3.88	3.67	3.59	3.68	5.01	5.75	7.61	8.62	8.87	8.32	9.33	8.97	9.92
135	7.41	5.53	4.86	4.51	4.71	4.18	4.44	3.75	4.36	3.83	5.07	6.04	7.72	8.82	9.13	8.67	10.3	10.4	10.5
140	7.48	6.22	5.09	4.61	5.16	4.93	4.54	4.19	4.57	4.54	5.11	6.09	7.83	8.96	9.48	9.72	10.4	10.9	10.8
145	7.41	6.60	5.88	5.26	5.16	5.27	4.88	4.99	4.92	4.74	5.66	6.20	7.62	9.09	9.45	10.6	10.1	11.4	11.1
150	7.60	6.88	6.38	5.83	4.87	5.35	4.97	5.16	4.81	5.19	5.93	6.56	7.66	9.03	9.39	10.7	10.0	10.9	10.8
155	8.45	7.38	6.63	5.73	5.06	5.43	5.05	5.26	4.99	5.19	6.19	6.81	8.35	8.82	9.02	9.92	9.97	10.8	10.6
160	8.55	7.16	6.48	5.91	5.91	5.51	5.22	5.26	5.82	5.49	6.30	7.13	8.54	8.18	8.85	9.06	9.72	10.4	10.6
165	8.67	7.48	6.88	7.31	6.92	5.99	5.84	5.96	6.79	6.85	6.97	7.45	9.00	8.53	8.89	9.33	9.78	10.2	10.7
170	9.09	8.37	7.98	7.77	7.57	7.50	7.40	7.27	7.56	7.51	7.84	8.26	9.65	9.50	9.23	9.67	10.5	10.8	11.3
175	9.10	8.91	8.33	8.57	8.27	8.46	8.41	8.29	8.37	8.31	8.24	8.42	9.79	9.58	9.11	9.12	9.92	10.2	10.6
180	9.20	9.02	8.83	9.02	9.26	9.02	9.27	9.84	10.07	9.13	8.49	8.48	9.60	9.17	9.08	8.82	9.22	9.07	9.22

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 34.2DEG
Operators:CS01
Test Date:2021-07-17

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 43.2%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED80-32(5050 30K RA70 T4A)

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.15V I:0.3629A P:79.310W PF:0.9496 Freq:50.01Hz Lamp Flux:10178.8x1 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	2673	2673	2673	2673	2673													
5	2102	2173	2271	2399	2548													
10	1672	1768	1933	2171	2440													
15	1469	1548	1696	1983	2359													
20	1430	1463	1561	1835	2285													
25	1447	1479	1488	1716	2209													
30	1437	1496	1467	1611	2119													
35	1417	1491	1459	1490	1994													
40	1522	1500	1402	1363	1841													
45	1869	1602	1343	1239	1652													
50	1665	1746	1266	1096	1433													
55	1434	1416	1269	927	1246													
60	1227	1087	1101	772	1112													
65	1022	864	756	585	885													
70	627	592	455	357	603													
75	188	219	198	240	340													
80	46.7	50.9	45.1	104	94.0													
85	6.35	7.45	8.65	10.6	15.1													
90	0.46	0.76	1.41	1.47	0.86													
95	0.96	1.52	2.47	2.44	1.52													
100	1.97	2.95	3.83	4.15	3.48													
105	3.24	4.22	4.95	4.91	4.75													
110	4.20	5.23	6.36	6.68	6.11													
115	5.77	5.99	6.96	7.53	7.12													
120	7.44	7.36	7.86	8.20	7.77													
125	8.30	8.58	8.97	9.02	8.27													
130	9.26	9.59	9.73	9.15	8.50													
135	10.6	11.2	10.02	9.56	8.78													
140	11.3	11.5	10.4	9.91	9.03													
145	11.6	11.3	10.4	10.01	9.14													
150	11.5	11.0	10.4	9.97	9.14													
155	11.0	10.8	9.58	9.30	9.14													
160	10.8	10.4	9.62	8.45	8.88													
165	10.6	10.7	10.2	9.67	8.94													
170	11.2	11.1	10.7	10.01	9.19													
175	10.5	10.8	9.98	9.35	8.68													
180	9.15	9.48	9.32	9.15	8.38													

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 34.2DEG
Operators:CS01
Test Date:2021-07-17

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 43.2%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED80-32(5050 30K RA70 T4A)