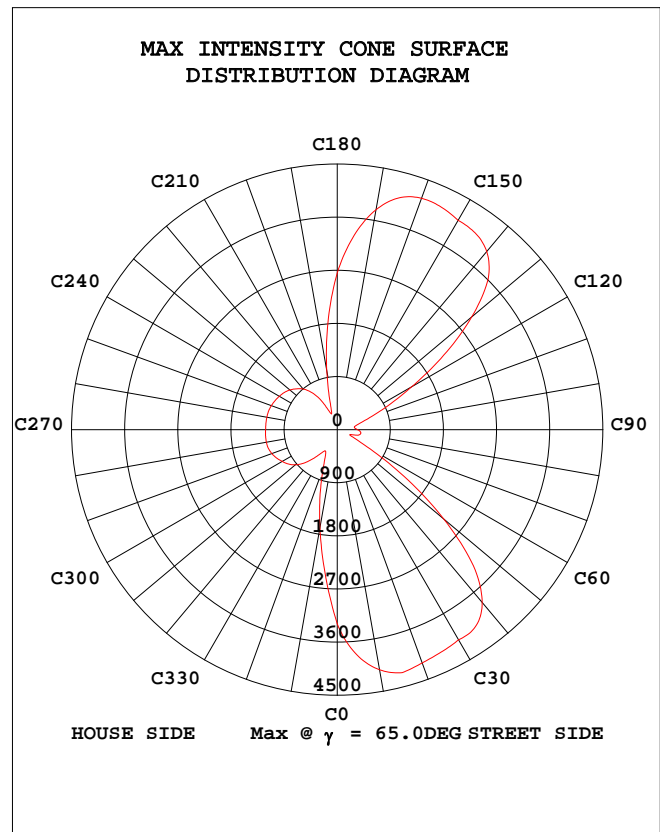
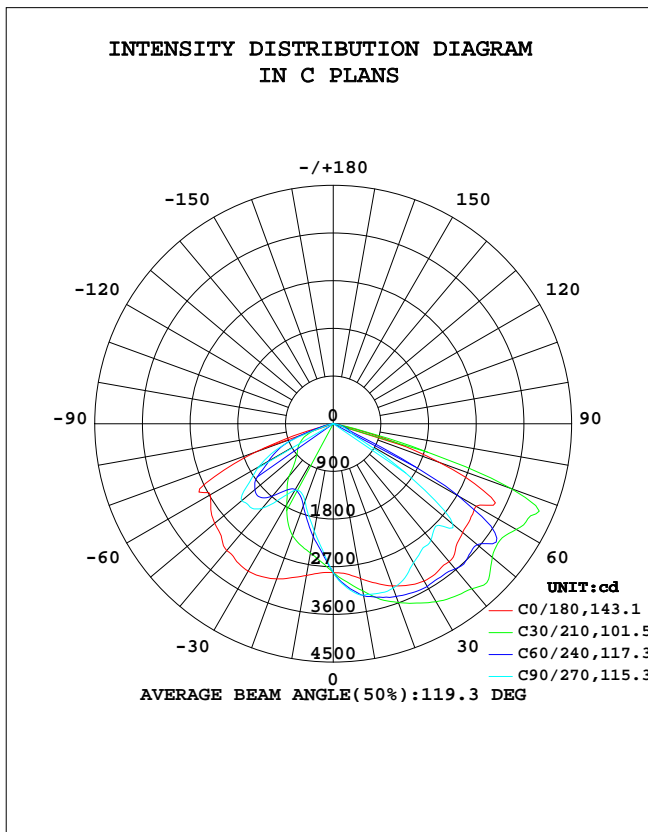


EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

STREETLIGHT PHOTOMETRIC TEST REPORT

Test:U:230.24V I:0.3652A P:79.678W PF:0.9478 Freq:50.01Hz Lamp Flux:10670.8x1 lm		
NAME: D-20HLED80-32	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 133.92 lm/W			
MODEL	5050 30K RA70 T3A	I _{max} (cd)	4263	η street_up(%)	0.1
NOMINAL POWER(W)	80	LOR(%)	100.0	η street_down(%)	66.2
RATED VOLTAGE(V)	220.0	TOTAL FLUX(lm)	10671	η house_up(%)	0.2
NOMINAL FLUX(lm)	10670.8	MAXIMUM @(C,γ)	15,65.0	η house_down(%)	33.5
LAMPS INSIDE	1	η up(%)	0.3	76 FLASHAREA(m2)	0.00100
TEST VOLTAGE(V)	230.0	η down(%)	99.7	SLI	17.604



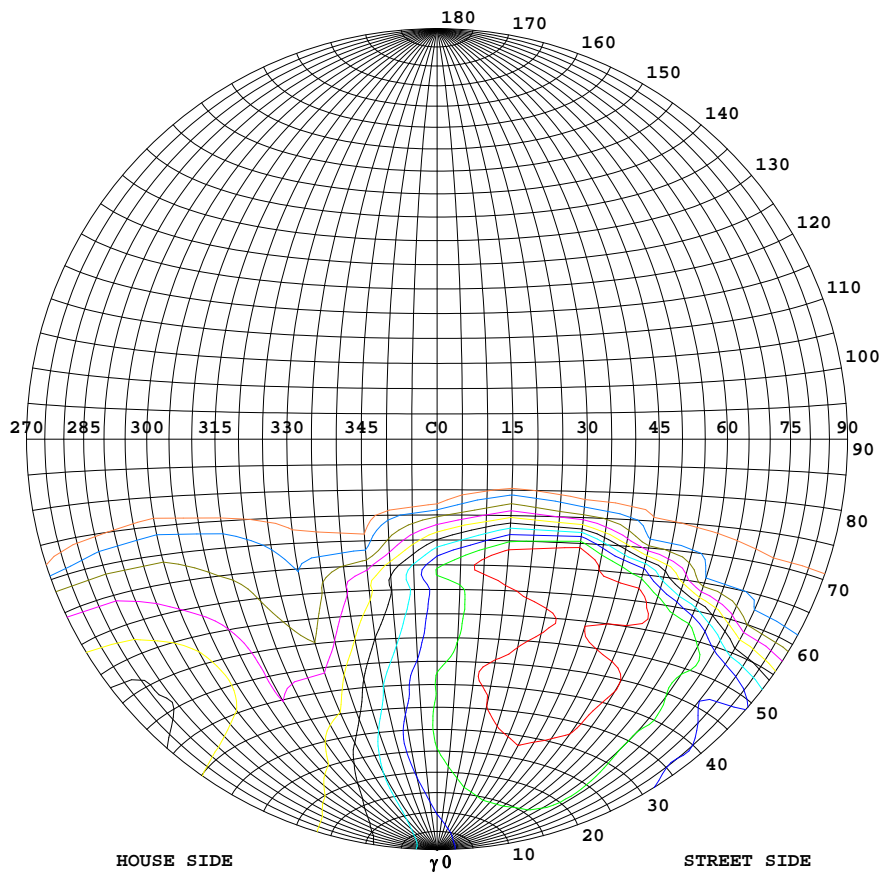
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 34.1DEG
Operators:CS01
Test Date:2021-07-16

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 30.9%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED80-32(5050 30K RA70 T3A)

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

STREETLIGHT ISOCANDELA DIAGRAM

Test:U:230.24V I:0.3652A P:79.678W PF:0.9478 Freq:50.01Hz Lamp Flux:10670.8x1 lm		
NAME: D-20HLED80-32	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:



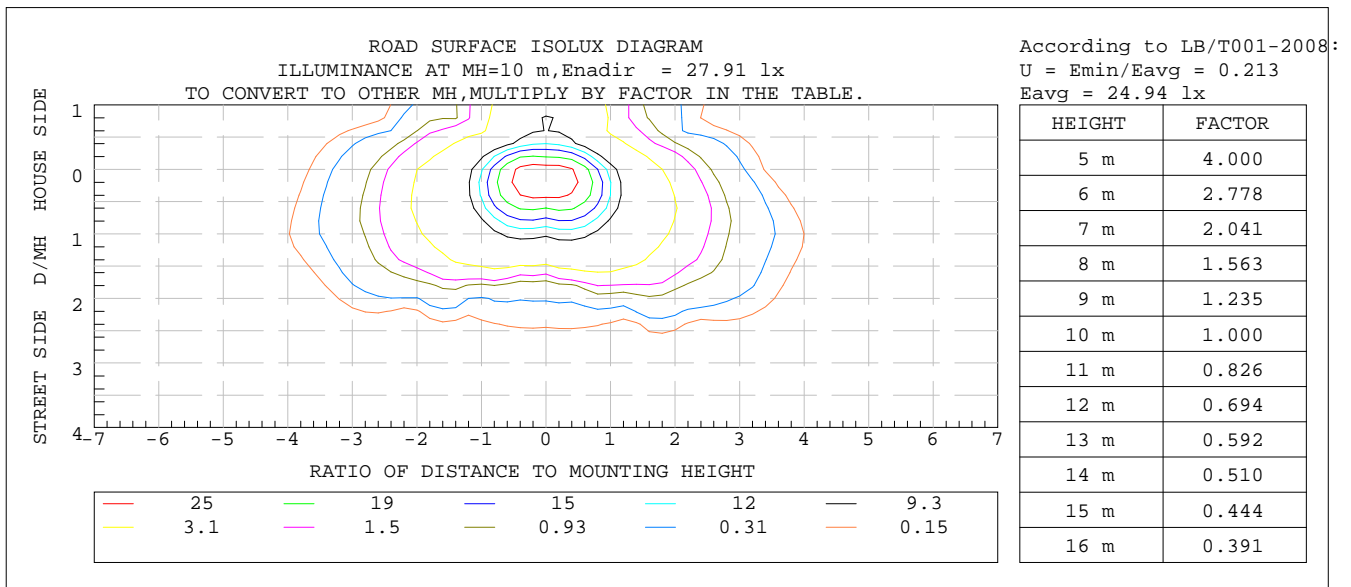
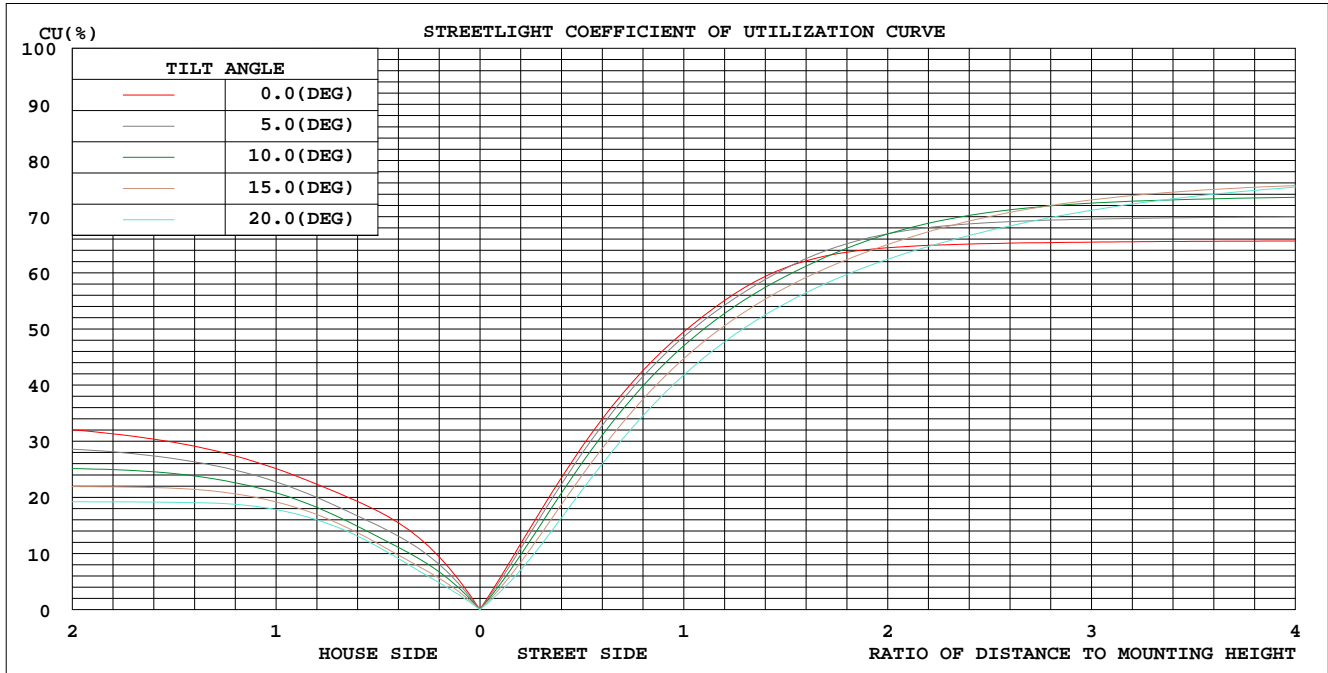
Classification:

IES:Type II - Short
 CIE:Average - Intermediate
 IES:Cut-off
 CIE:Full cut-off
 Max.At80:24.69cd/klm
 Max.At90:0.2945cd/klm
 Max.80-90:24.69cd/klm

ISOCANDELA DIAGRAM	
UNIT	cd
Imax=100%	4263
90%	3836
80%	3410
70%	2984
60%	2558
50%	2131
40%	1705
30%	1279
20%	853
10%	426
5%	213

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 34.1DEG
 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: 30.9%
 Test Distance:26.000m [K=1.0000]
 Remarks: D-20HLED80-32(5050 30K RA70 T3A)

COEFFICIENT OF UTILIZATION CURVE
AND ISOLUX DIAGRAM

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 34.1DEG
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: 30.9%
Test Distance: 26.000m [K=1.0000]
Remarks: D-20HLED80-32(5050 30K RA70 T3A)

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ZONAL FLUX DIAGRAM

Test:U:230.24V I:0.3652A P:79.678W PF:0.9478 Freq:50.01Hz Lamp Flux:10670.8x1 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	2968	3267	3283	3244	2907	2312	2061	2368	0- 10	267.0	267.0	2.5,2.5
20	3257	3558	3304	3499	3117	1860	1558	1978	10- 20	791.4	1058	9.92,9.92
30	3429	3778	3031	3742	3213	1488	1454	1542	20- 30	1271	2330	21.8,21.8
40	3401	3901	2869	3924	3127	1416	2082	1280	30- 40	1715	4044	37.9,37.9
50	3190	3769	2944	3819	2922	1486	2258	1220	40- 50	2115	6159	57.7,57.7
60	3111	4080	593.5	4072	2682	1168	1622	1001	50- 60	2201	8359	78.3,78.3
70	2128	1033	226.6	1964	1544	763.5	521.2	599.7	60- 70	1719	10078	94.4,94.4
80	74.86	99.79	59.93	101.7	65.63	49.33	48.97	43.28	70- 80	530.1	10609	99.4,99.4
90	0.7120	0.9820	1.043	1.001	0.7635	0.5642	1.667	1.292	80- 90	27.09	10636	99.7,99.7
100	3.047	1.077	0.4629	1.082	3.618	2.422	0.7212	3.158	90-100	1.345	10637	99.7,99.7
110	6.655	2.769	2.160	2.165	6.359	5.954	1.647	6.044	100-110	3.144	10640	99.7,99.7
120	8.536	3.743	3.601	3.511	9.003	7.438	4.476	7.760	110-120	5.088	10645	99.8,99.8
130	9.403	4.514	4.679	4.562	10.58	9.099	7.718	10.44	120-130	6.236	10651	99.8,99.8
140	9.928	5.588	5.416	5.473	10.54	10.67	9.721	11.00	130-140	6.270	10658	99.9,99.9
150	9.402	6.922	5.774	6.661	9.568	11.02	10.56	11.05	140-150	5.507	10663	99.9,99.9
160	9.446	6.851	5.876	6.664	9.423	9.027	10.74	9.681	150-160	4.060	10667	100,100
170	10.01	8.716	8.424	8.574	10.37	10.31	11.55	11.57	160-170	2.546	10670	100,100
180	9.913	10.00	10.18	10.18	10.42	9.641	10.18	10.22	170-180	0.9509	10671	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

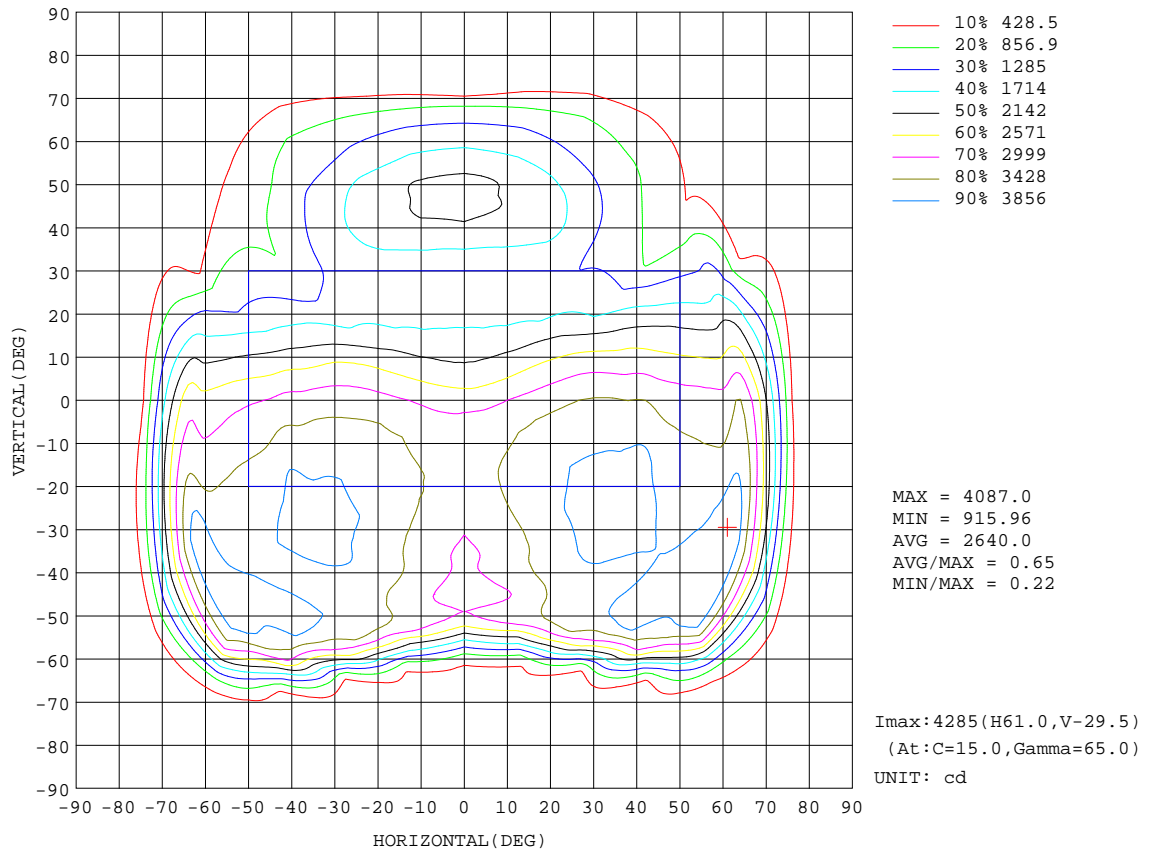
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 34.1DEG
 Operators:CS01
 Test Date:2021-07-16

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
 Humidity: 30.9%
 Test Distance:26.000m [K=1.0000]
 Remarks: D-20HLED80-32(5050 30K RA70 T3A)

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

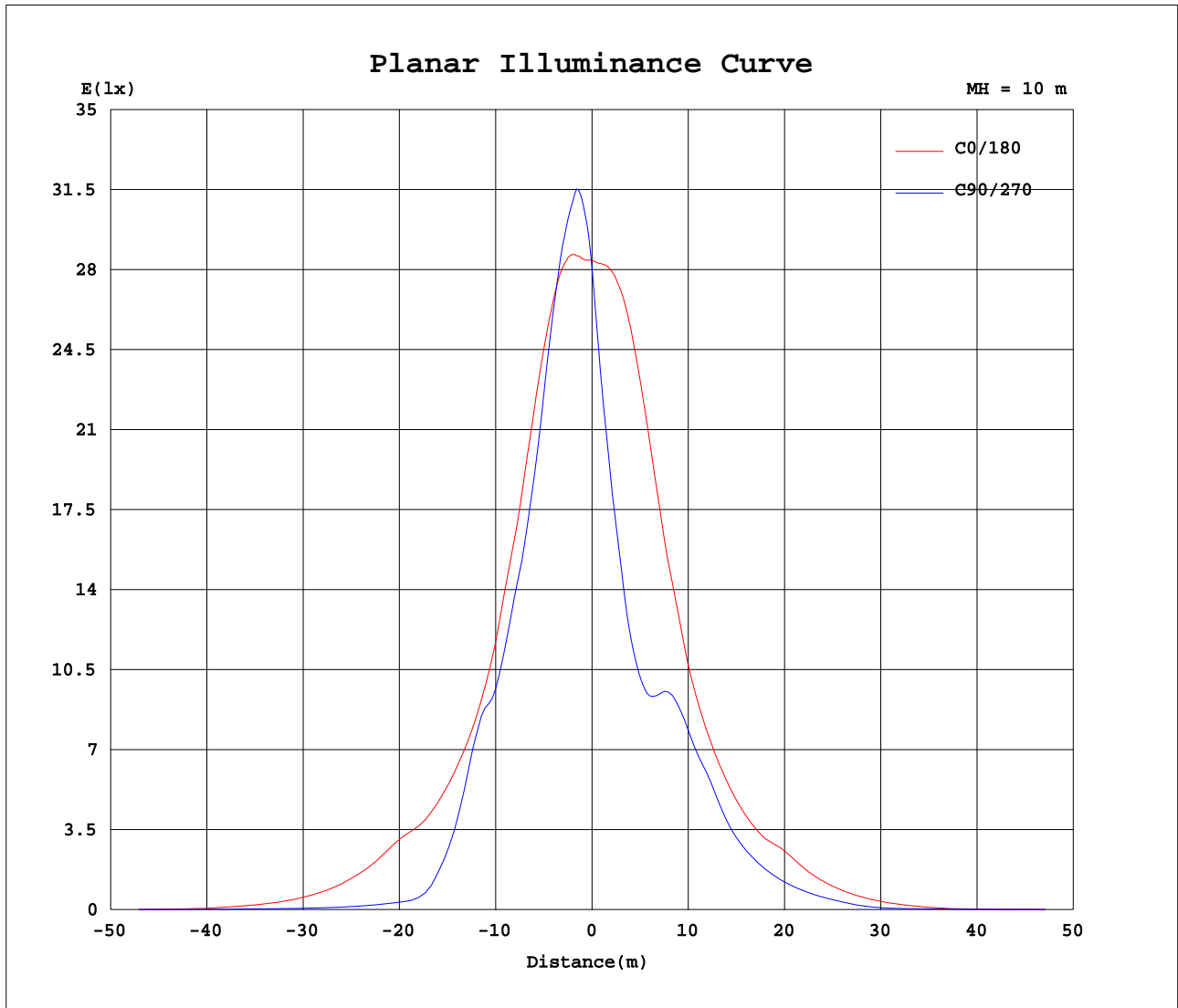
Test:U:230.24V I:0.3652A P:79.678W PF:0.9478 Freq:50.01Hz Lamp Flux:10670.8x1 lm		
NAME: D-20HLED80-32	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 34.1DEG
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: 30.9%
Test Distance: 26.000m [K=1.0000]
Remarks: D-20HLED80-32(5050 30K RA70 T3A)

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 34.1DEG
Operators: CS01
Test Date: 2021-07-16

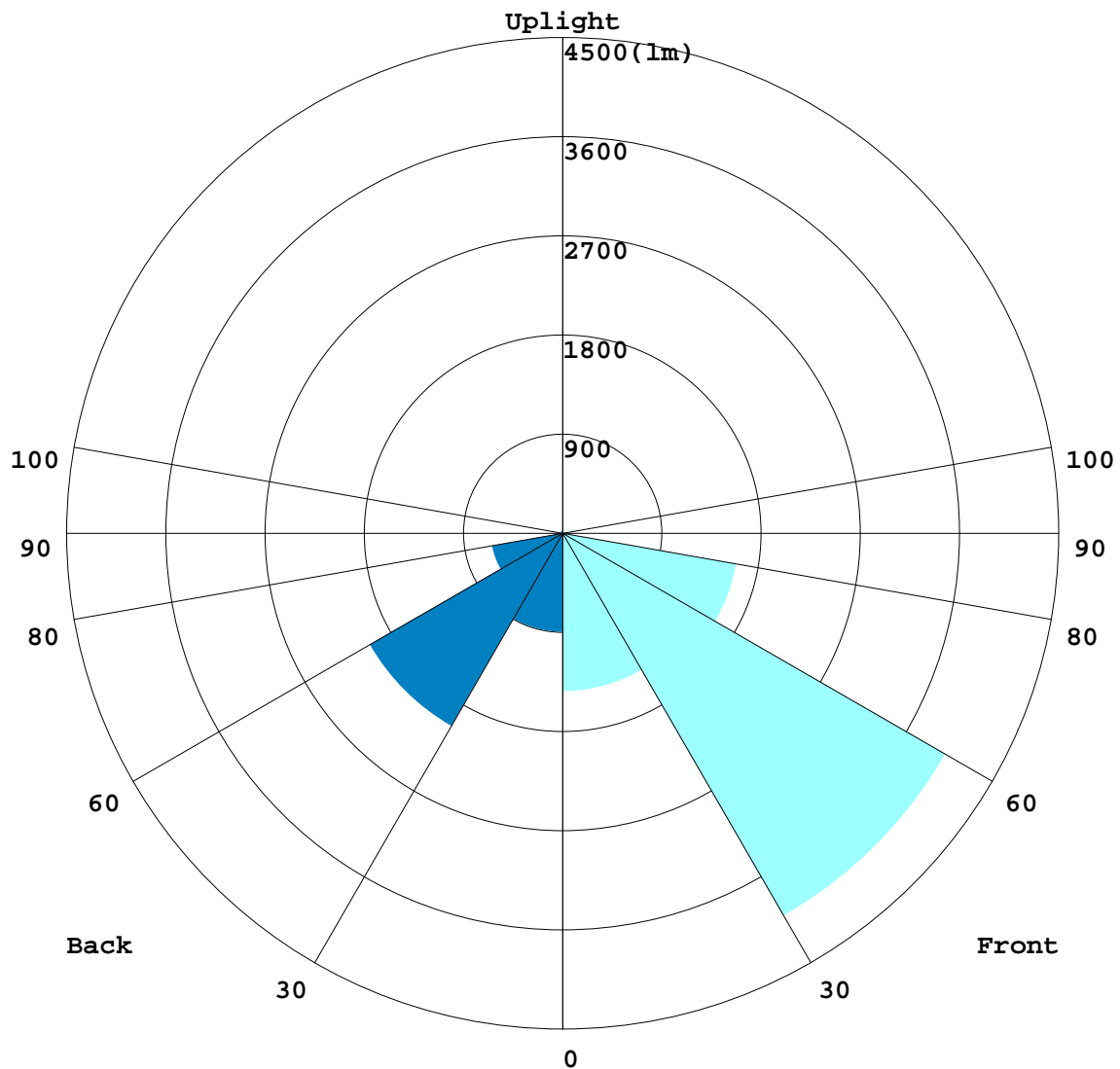
γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 30.9%
Test Distance: 26.000m [K=1.0000]
Remarks: D-20HLED80-32(5050 30K RA70 T3A)

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LCS REPORT

Test:U:230.24V I:0.3652A P:79.678W PF:0.9478 Freq:50.01Hz Lamp Flux:10670.8x1 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: 34.1DEG
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: 30.9%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED80-32(5050 30K RA70 T3A)

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

BUG REPORT

Test:U:230.24V I:0.3652A P:79.678W PF:0.9478 Freq:50.01Hz Lamp Flux:10670.8x1 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)	1434.3	13.4
FM - Front-Medium(30-60)	4009.9	37.6
FH - Front-High(60-80)	1599.8	15.0
FVH - Front-Very High(80-90)	18.107	0.2
Total Forward Light	7075.5	66.3

BL - Back-Low(0-30)	895.5	8.4
BM - Back-Medium(30-60)	2019.8	18.9
BH - Back-High(60-80)	649.34	6.1
BVH - Back-Very High(80-90)	8.9812	0.1
Total Back Light	3595.3	33.7

UL - Uplight-Low(90-100)	1.3446	0.0
UH - Uplight-High(100-180)	33.801	0.3
Total Up Light	35.146	0.3

BUG(Back,Up,Glare) Rating	B2-U2-G2
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Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	3573.6	21.673	3595.3
Street Side	7062.1	13.473	7075.5

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 34.1DEG
 Operators:CS01
 Test Date:2021-07-16

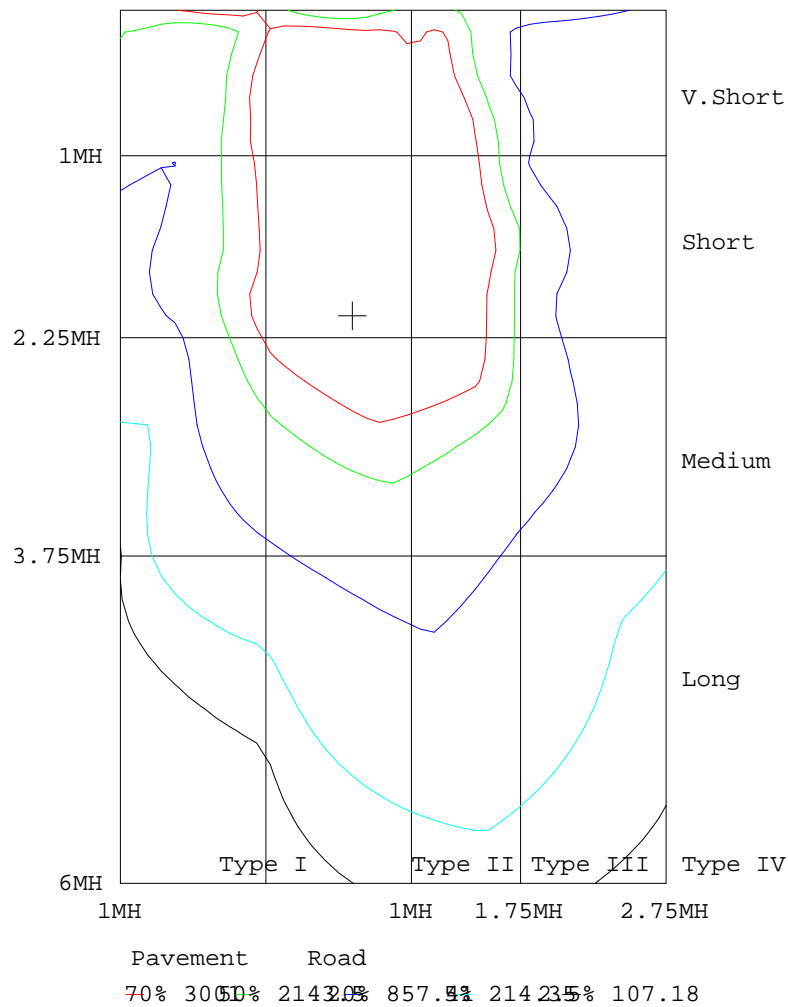
γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
 Humidity: 30.9%
 Test Distance:26.000m [K=1.0000]
 Remarks: D-20HLED80-32(5050 30K RA70 T3A)

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ROAD ISOCANDELA REPORT

Test:U:230.24V I:0.3652A P:79.678W PF:0.9478 Freq:50.01Hz Lamp Flux:10670.8x1 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: 34.1DEG
 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: 30.9%
 Test Distance:26.000m [K=1.0000]
 Remarks: D-20HLED80-32(5050 30K RA70 T3A)

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.24V I:0.3652A P:79.678W PF:0.9478 Freq:50.01Hz Lamp Flux:10670.8x1 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	2809	2809	2809	2809	2809	2809	2809	2809	2809	2809	2809	2809	2809	2809	2809	2809	2809	2809	2809
5	2846	2931	2998	3054	3088	3111	3114	3113	3078	3041	2988	2918	2828	2725	2617	2524	2443	2404	2386
10	2968	3124	3202	3267	3294	3295	3283	3296	3277	3244	3191	3083	2907	2695	2481	2312	2169	2087	2061
15	3114	3329	3432	3416	3389	3353	3312	3340	3368	3395	3377	3264	3006	2688	2376	2089	1892	1819	1799
20	3257	3510	3590	3558	3470	3366	3304	3362	3463	3499	3532	3433	3117	2700	2247	1860	1653	1579	1558
25	3360	3657	3734	3671	3520	3319	3208	3333	3502	3616	3646	3560	3185	2698	2034	1618	1489	1448	1435
30	3429	3742	3879	3778	3547	3214	3031	3262	3558	3742	3770	3646	3213	2588	1757	1488	1434	1445	1454
35	3421	3808	3983	3855	3536	3158	2911	3223	3587	3866	3898	3721	3176	2351	1519	1407	1530	1667	1717
40	3401	3887	4069	3901	3578	3219	2869	3283	3644	3924	3974	3743	3127	2121	1305	1416	1777	2018	2082
45	3278	3858	4151	3944	3584	3016	2737	3164	3697	3987	4106	3723	2991	1862	1027	1485	1959	2183	2223
50	3190	3722	3919	3769	3550	3240	2944	3249	3591	3819	3939	3601	2922	1592	897	1486	1931	2182	2258
55	3155	3706	3839	3818	3770	2390	1853	2899	3861	3805	3817	3598	2821	1289	818	1364	1754	1899	1939
60	3111	3777	3988	4080	2728	834	593	1372	3282	4072	3867	3581	2682	1003	728	1168	1407	1597	1622
65	3290	4263	4111	3265	584	368	343	374	1456	3619	4097	4069	2655	447	619	979	1134	1207	1214
70	2128	3338	3563	1033	290	241	227	253	303	1964	3712	3306	1544	214	422	764	719	617	521
75	729	1575	1092	230	188	145	139	156	211	246	1667	1664	280	114	206	342	257	145	133
80	74.9	255	110	99.8	89.7	67.0	59.9	75.0	100	102	192	263	65.6	54.2	56.0	49.3	77.6	55.4	49.0
85	16.7	26.1	25.7	23.7	20.7	16.5	13.5	17.4	23.4	24.7	33.4	28.0	16.3	11.7	8.60	7.00	7.67	5.33	4.68
90	0.71	0.72	0.92	0.98	0.98	1.04	1.04	1.14	1.09	1.00	0.99	0.88	0.76	1.03	1.84	0.56	0.83	3.14	1.67
95	0.96	0.51	0.74	1.00	0.64	0.67	0.50	0.50	0.67	0.76	0.84	0.81	1.43	2.26	2.11	0.98	0.57	0.95	0.71
100	3.05	1.52	1.17	1.08	0.92	0.92	0.46	0.67	0.86	1.08	1.03	1.44	3.62	4.50	4.41	2.42	1.13	0.73	0.72
105	5.08	2.50	1.84	1.89	1.69	1.44	1.28	1.45	1.50	1.55	1.39	2.78	5.19	5.52	5.54	4.47	2.16	1.29	1.13
110	6.66	4.08	2.76	2.77	2.52	2.32	2.16	2.17	2.22	2.16	2.26	4.58	6.36	7.17	6.86	5.95	3.81	2.07	1.65
115	7.62	5.41	3.47	3.08	3.08	2.88	2.83	2.74	2.84	2.84	3.49	6.08	8.08	9.25	7.99	6.62	5.08	3.51	2.78
120	8.54	6.08	3.84	3.74	3.64	3.71	3.60	3.62	3.62	3.51	4.42	6.80	9.00	10.3	9.01	7.44	6.37	4.54	4.48
125	9.18	6.81	5.12	4.51	4.36	4.25	4.46	4.19	3.87	4.33	5.46	7.37	9.77	10.7	10.4	8.72	7.96	6.09	6.28
130	9.40	6.89	5.88	4.51	4.77	4.38	4.68	4.32	4.34	4.56	6.10	7.94	10.6	11.1	10.9	9.10	9.19	7.58	7.72
135	10.1	7.15	5.94	5.23	5.34	4.64	5.27	4.41	4.71	5.17	6.21	8.25	10.6	11.0	11.0	9.55	10.1	9.07	8.64
140	9.93	8.07	6.40	5.59	5.64	5.36	5.42	4.81	5.43	5.47	6.90	8.45	10.5	11.0	10.9	10.7	10.1	9.69	9.72
145	9.36	8.59	7.11	6.36	5.62	6.08	5.61	5.59	5.42	6.09	7.05	8.57	9.96	10.5	10.9	11.0	10.1	10.3	10.5
150	9.40	8.63	7.83	6.92	5.65	6.18	5.77	5.81	5.31	6.66	7.67	8.64	9.57	10.5	10.7	11.0	10.1	10.5	10.6
155	9.82	9.20	8.44	6.97	5.90	6.13	5.71	5.97	5.48	6.62	7.62	8.67	9.51	10.2	9.62	10.2	10.1	10.4	10.6
160	9.45	9.00	7.74	6.85	6.98	6.13	5.88	6.12	6.83	6.66	7.50	8.46	9.42	8.79	9.11	9.03	10.2	10.4	10.7
165	9.20	8.31	7.83	8.10	7.96	6.91	6.73	6.67	7.76	8.05	7.98	8.14	9.68	9.21	9.93	9.86	10.1	10.4	10.8
170	10.0	9.29	8.75	8.72	8.62	8.45	8.42	8.02	8.54	8.57	8.81	9.43	10.4	10.3	10.2	10.3	10.9	11.1	11.6
175	10.00	9.50	9.42	9.43	9.14	9.38	9.31	9.31	9.41	9.34	9.27	9.52	10.4	10.4	9.93	10.2	10.9	11.0	11.3
180	9.91	9.71	9.62	10.0	10.3	10.2	10.2	10.3	10.5	10.2	9.42	9.64	10.4	10.1	9.83	9.64	10.2	10.2	10.2

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 34.1DEG
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: 30.9%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED80-32(5050 30K RA70 T3A)

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.24V I:0.3652A P:79.678W PF:0.9478 Freq:50.01Hz Lamp Flux:10670.8x1 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	2809	2809	2809	2809	2809														
5	2412	2463	2545	2642	2747														
10	2109	2219	2368	2548	2765														
15	1831	1952	2192	2491	2810														
20	1598	1710	1978	2427	2860														
25	1474	1518	1723	2287	2888														
30	1462	1443	1542	2035	2850														
35	1637	1501	1389	1727	2694														
40	1951	1696	1280	1477	2564														
45	2131	1858	1246	1212	2376														
50	2110	1794	1220	865	2149														
55	1896	1611	1130	665	1878														
60	1566	1301	1001	523	1635														
65	1211	1077	804	415	1121														
70	672	760	600	290	271														
75	187	312	255	158	110														
80	62.4	73.5	43.3	59.8	48.7														
85	6.24	6.55	6.81	8.80	11.5														
90	2.15	0.70	1.29	1.14	1.24														
95	0.57	0.62	1.40	2.33	2.33														
100	0.88	1.45	3.16	4.59	4.65														
105	1.51	2.79	4.60	5.87	6.29														
110	2.38	4.35	6.04	7.31	7.74														
115	3.68	5.12	6.67	8.92	9.54														
120	5.49	6.00	7.76	9.95	10.5														
125	6.16	7.55	9.56	10.8	11.0														
130	7.76	9.11	10.4	10.9	11.0														
135	9.16	10.7	10.7	11.2	10.8														
140	10.3	11.7	11.0	11.3	11.1														
145	11.2	11.3	11.1	11.4	11.0														
150	11.2	10.8	11.1	11.1	10.9														
155	11.2	10.8	10.3	10.2	10.7														
160	11.0	10.7	9.68	8.81	9.73														
165	11.0	11.0	10.8	9.95	9.39														
170	11.9	12.0	11.6	11.0	10.3														
175	11.3	11.7	11.0	10.4	9.69														
180	10.2	10.3	10.2	10.0	9.43														

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 34.1DEG
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: 30.9%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED80-32(5050 30K RA70 T3A)