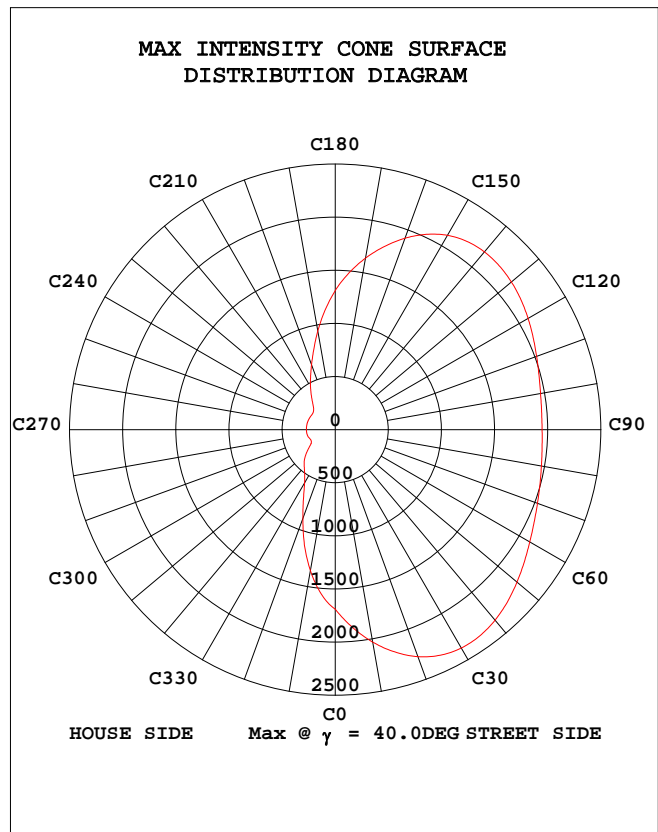
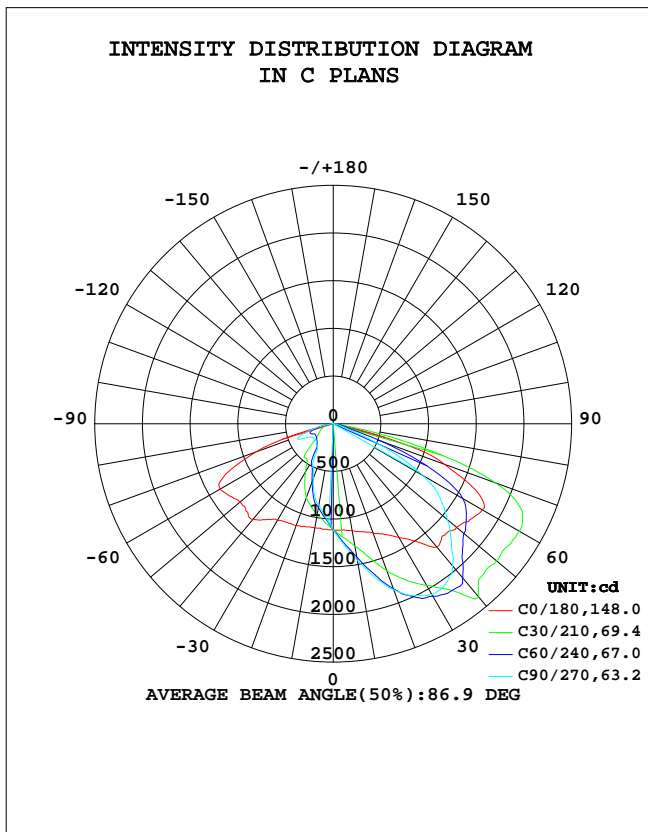


EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

STREETLIGHT PHOTOMETRIC TEST REPORT

Test:U:230.16V I:0.2140A P:39.568W PF:0.8036 Freq:50.01Hz Lamp Flux:5101.1x1 lm		
NAME: D-20HLED40-16	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 128.92 lm/W			
MODEL	5050 40K RA70 T3M L	I _{max} (cd)	2373	η street_up(%)	0.1
NOMINAL POWER(W)	40	LOR(%)	100.0	η street_down(%)	77.2
RATED VOLTAGE(V)	220.0	TOTAL FLUX(lm)	5101	η house_up(%)	0.2
NOMINAL FLUX(lm)	5101.1	MAXIMUM @(C,γ)	30,40.0	η house_down(%)	22.6
LAMPS INSIDE	1	η up(%)	0.3	76 FLASHAREA(m2)	0.00100
TEST VOLTAGE(V)	230.0	η down(%)	99.7	SLI	17.304



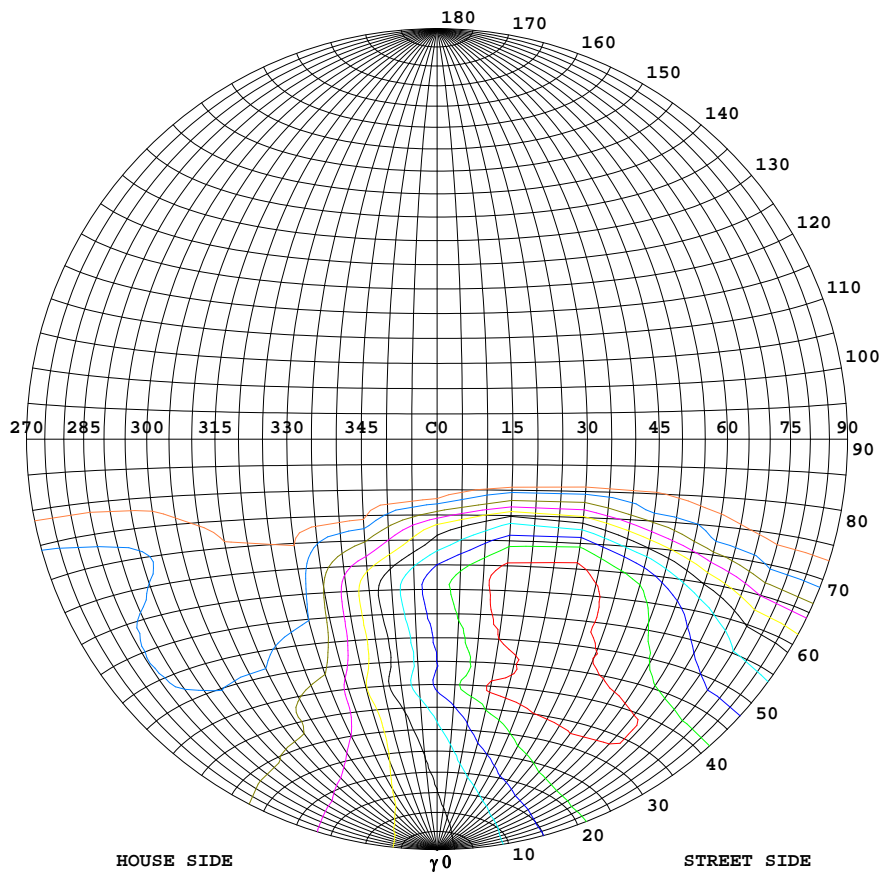
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 32.8DEG
Operators:CS01
Test Date:2021-07-19

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 44.1%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED40-16(5050 40K RA70 T3M)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

STREETLIGHT ISOCANDELA DIAGRAM

Test:U:230.16V I:0.2140A P:39.568W PF:0.8036 Freq:50.01Hz Lamp Flux:5101.1x1 lm		
NAME: D-20HLED40-16	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:



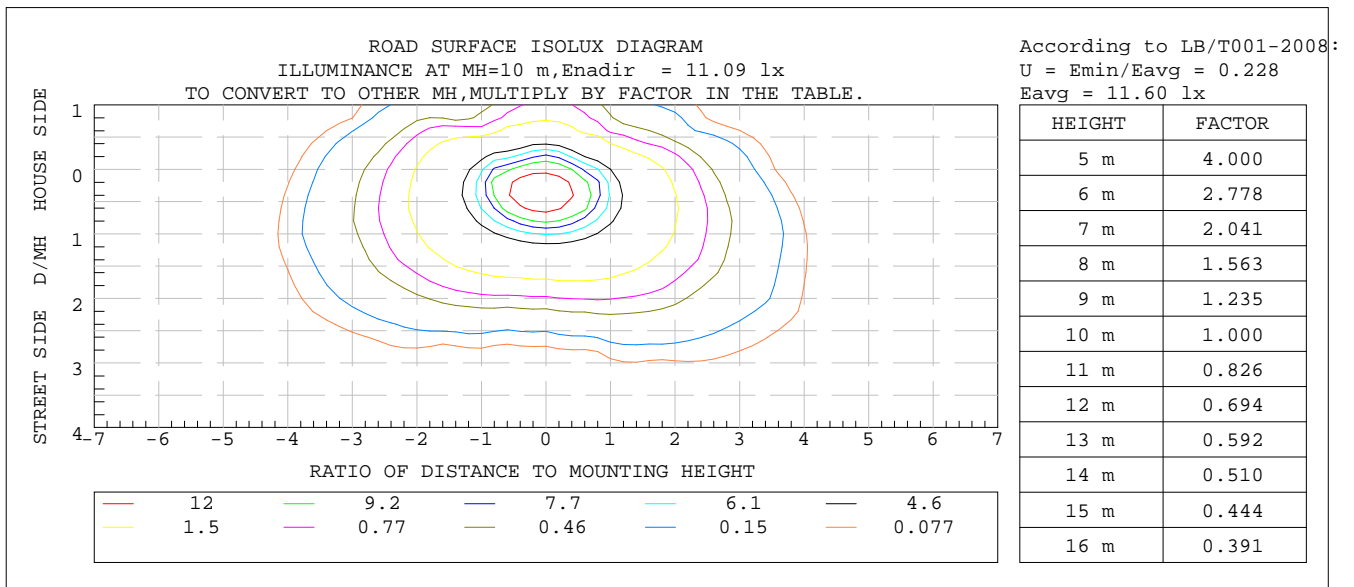
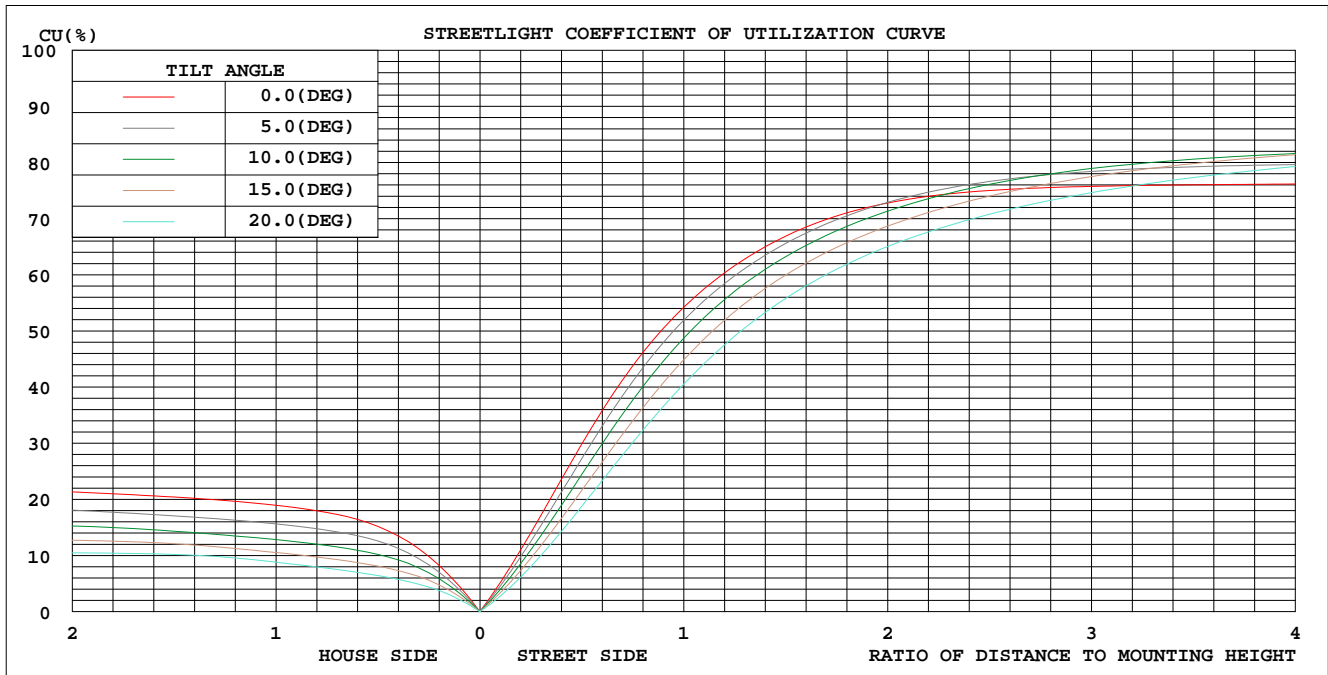
Classification:

IES:Type III - Very Short
 CIE:Average - Short
 IES:Cut-off
 CIE:Semi-cut-off
 Max.At80:49.22cd/klm
 Max.At90:0.7210cd/klm
 Max.80-90:49.22cd/klm

ISOCANDELA DIAGRAM	
UNIT	cd
Imax=100%	2373
90%	2136
80%	1899
70%	1661
60%	1424
50%	1187
40%	949
30%	712
20%	475
10%	237
5%	119

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 32.8DEG
 Operators:CS01
 Test Date:2021-07-19

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
 Humidity: 44.1%
 Test Distance:26.000m [K=1.0000]
 Remarks: D-20HLED40-16(5050 40K RA70 T3M)L

COEFFICIENT OF UTILIZATION CURVE
AND ISOLUX DIAGRAM

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 32.8DEG
Operators:CS01
Test Date:2021-07-19

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 44.1%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED40-16(5050 40K RA70 T3M)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ZONAL FLUX DIAGRAM

Test:U:230.16V I:0.2140A P:39.568W PF:0.8036 Freq:50.01Hz Lamp Flux:5101.1x1 lm		
NAME: D-20HLED40-16	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	1139	1371	1449	1337	1107	917.5	872.1	930.9	0- 10	107.4	107.4	2.11,2.11
20	1219	1762	1852	1611	1137	709.7	615.8	757.1	10- 20	335.0	442.4	8.67,8.67
30	1378	2077	2068	1873	1173	477.9	379.4	519.0	20- 30	571.1	1014	19.9,19.9
40	1689	2292	1947	2183	1310	289.5	271.3	413.0	30- 40	795.3	1809	35.5,35.5
50	1690	2070	1563	2037	1280	212.9	252.4	210.8	40- 50	930.6	2739	53.7,53.7
60	1804	1974	1089	2042	1373	178.1	277.1	167.0	50- 60	1007	3747	73.5,73.5
70	1240	1179	183.5	1524	863.5	158.4	369.9	125.5	60- 70	926.9	4674	91.6,91.6
80	64.60	124.2	36.99	135.0	62.10	91.95	88.42	49.94	70- 80	384.0	5058	99.1,99.1
90	0.8331	0.6487	0.8397	0.7610	3.678	0.6397	0.5405	0.8395	80- 90	29.06	5087	99.7,99.7
100	1.416	0.4916	0.5409	0.4944	2.103	1.918	0.7880	2.173	90-100	1.040	5088	99.7,99.7
110	2.680	0.4916	0.5409	0.4941	3.274	3.029	1.624	3.358	100-110	1.671	5089	99.8,99.8
120	2.837	0.4916	0.5409	0.4939	3.598	3.935	2.951	3.852	110-120	2.133	5092	99.8,99.8
130	3.183	0.6391	0.5409	0.8887	3.748	4.358	4.475	4.418	120-130	2.413	5094	99.9,99.9
140	3.115	1.248	0.8325	1.355	3.528	4.898	5.003	4.395	130-140	2.343	5096	99.9,99.9
150	3.066	1.475	1.255	1.818	3.554	5.113	4.958	4.393	140-150	1.978	5098	99.9,99.9
160	3.037	2.050	1.886	2.052	3.766	4.130	4.606	4.422	150-160	1.464	5100	100,100
170	3.423	2.949	2.702	2.912	4.124	4.042	4.537	4.334	160-170	0.9472	5101	100,100
180	3.618	3.638	3.589	3.457	4.058	3.490	3.637	3.604	170-180	0.3517	5101	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

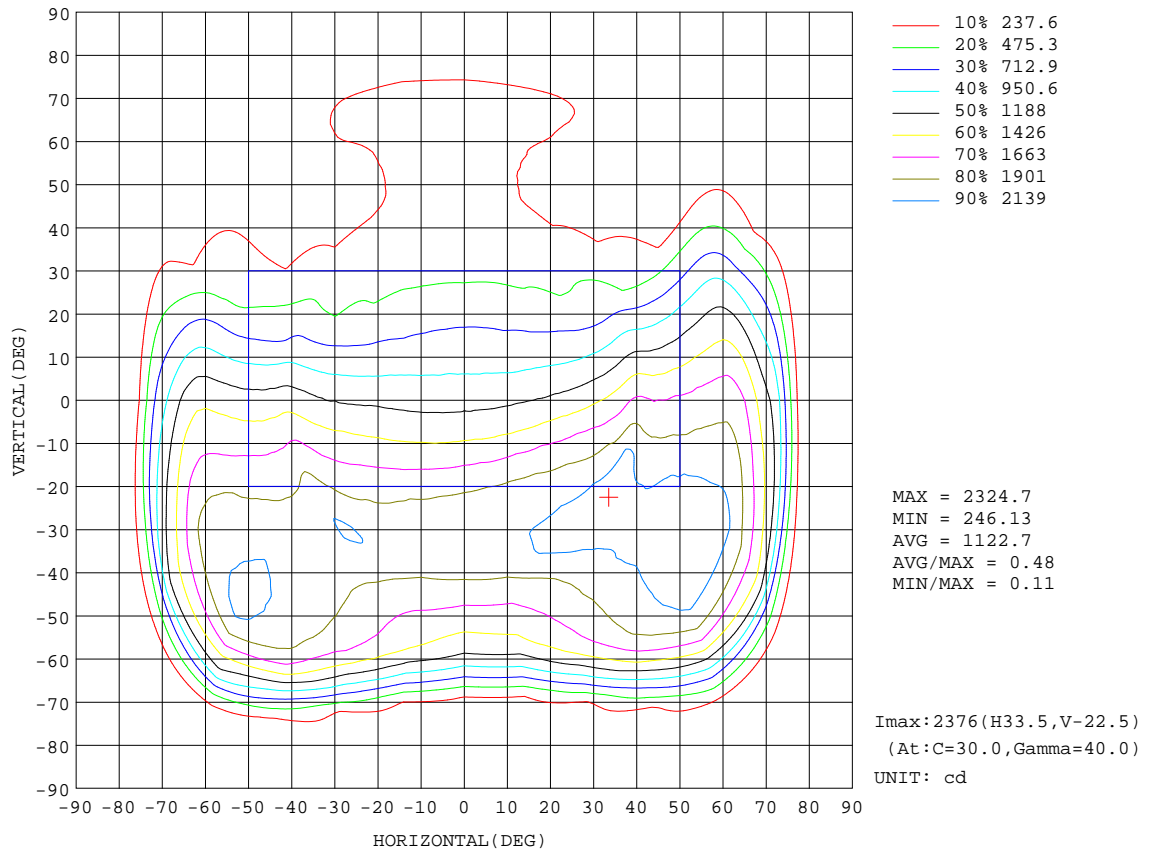
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 32.8DEG
 Operators:CS01
 Test Date:2021-07-19

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
 Humidity: 44.1%
 Test Distance:26.000m [K=1.0000]
 Remarks: D-20HLED40-16(5050 40K RA70 T3M)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

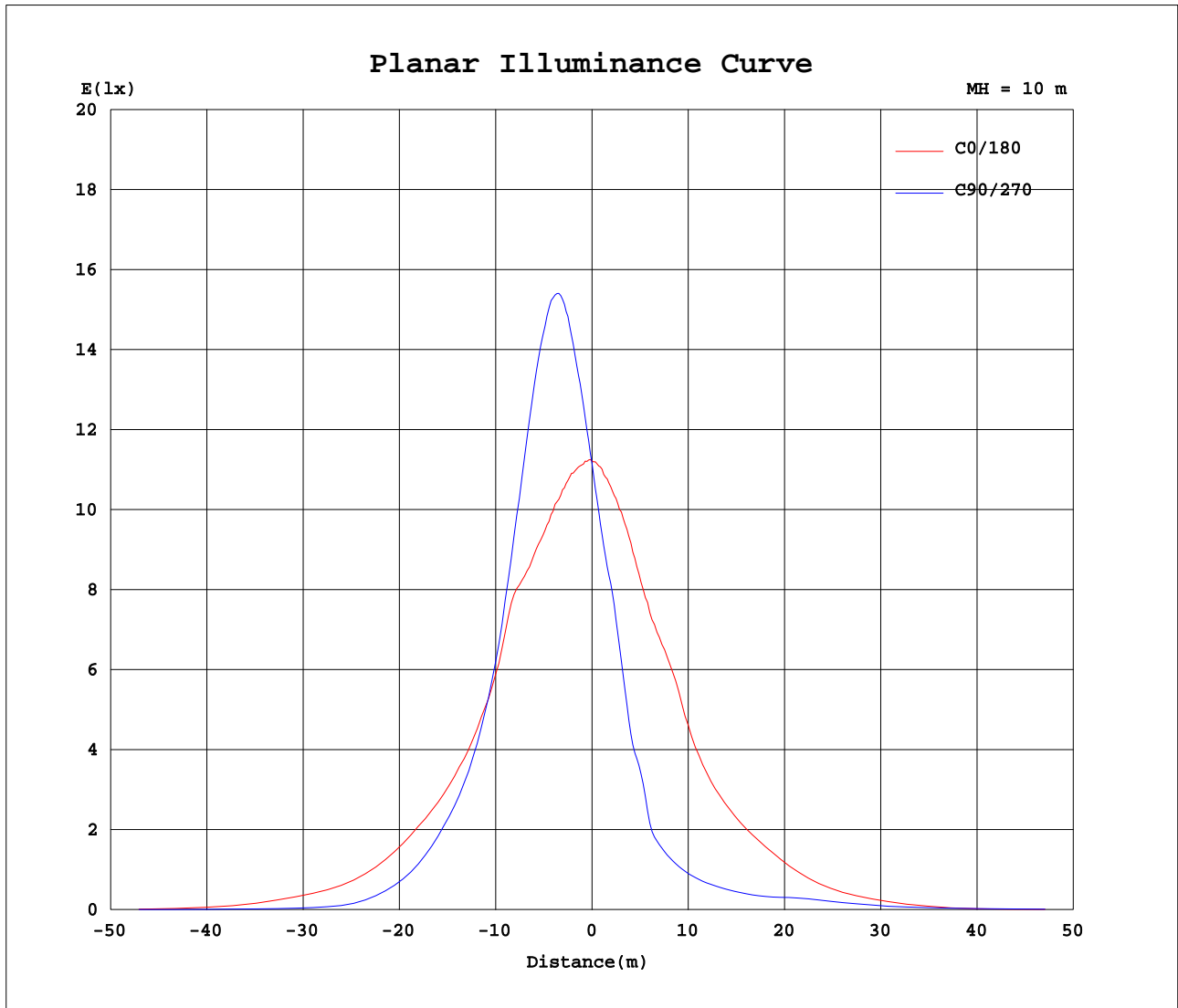
Test:U:230.16V I:0.2140A P:39.568W PF:0.8036 Freq:50.01Hz Lamp Flux:5101.1x1 lm		
NAME: D-20HLED40-16	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 32.8DEG
Operators: CS01
Test Date: 2021-07-19

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 44.1%
Test Distance: 26.000m [K=1.0000]
Remarks: D-20HLED40-16(5050 40K RA70 T3M)L

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 32.8DEG
Operators:CS01
Test Date:2021-07-19

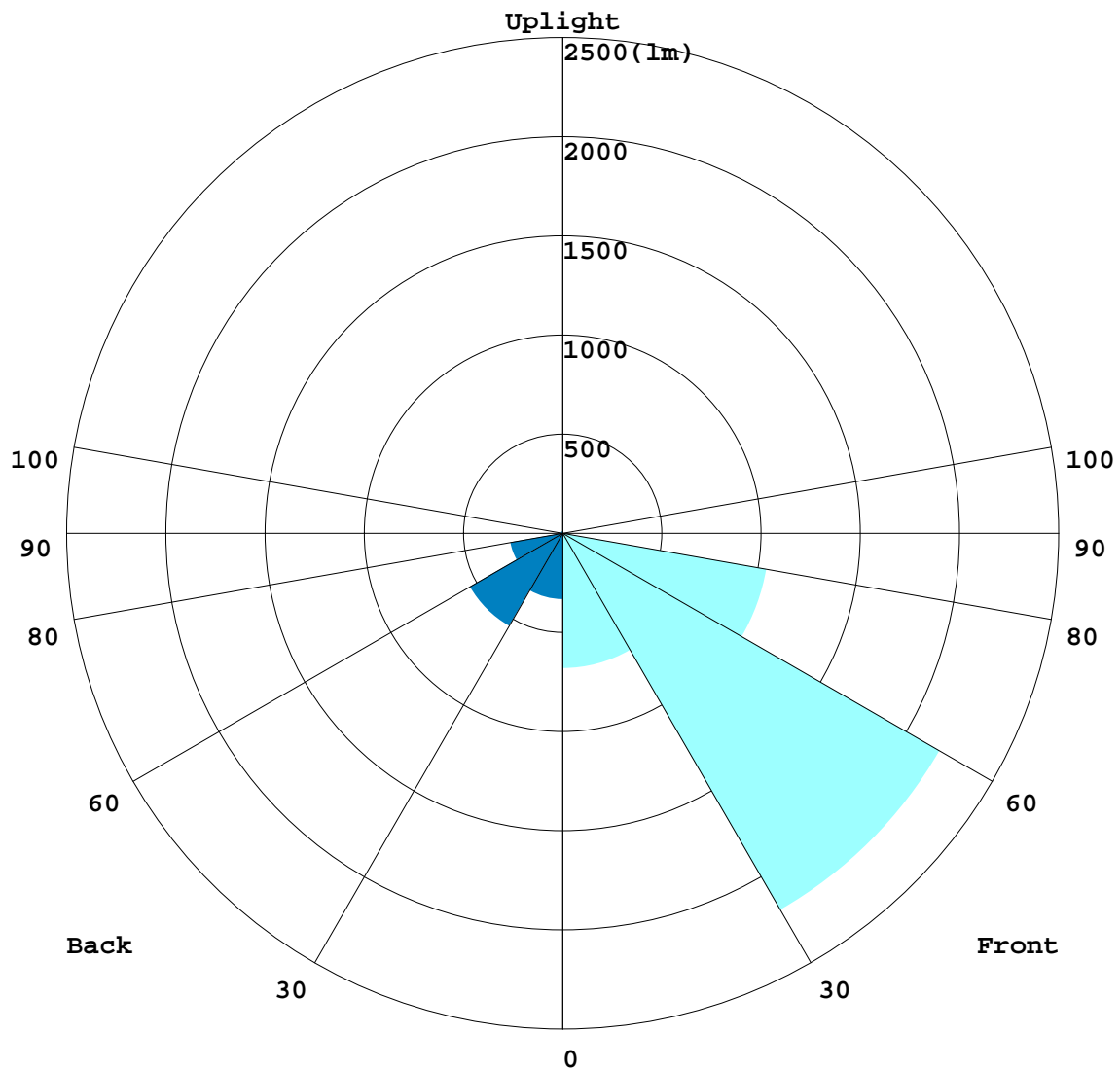
γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 44.1%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED40-16(5050 40K RA70 T3M)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LCS REPORT

Test:U:230.16V I:0.2140A P:39.568W PF:0.8036 Freq:50.01Hz Lamp Flux:5101.1x1 lm		
NAME: D-20HLED40-16	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: 32.8DEG
Operators:CS01
Test Date:2021-07-19

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 44.1%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED40-16(5050 40K RA70 T3M)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

BUG REPORT

Test:U:230.16V I:0.2140A P:39.568W PF:0.8036 Freq:50.01Hz Lamp Flux:5101.1x1 lm		
NAME: D-20HLED40-16	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:

IESNA Luminaire Flux Distribution Table:

Zone	Lumens	Luminaire %
FL - Front-Low(0-30)	680.87	13.3
FM - Front-Medium(30-60)	2193.6	43.0
FH - Front-High(60-80)	1043.3	20.5
FVH - Front-Very High(80-90)	17.961	0.4
Total Forward Light	3939.8	77.2

BL - Back-Low(0-30)	332.66	6.5
BM - Back-Medium(30-60)	539.66	10.6
BH - Back-High(60-80)	267.54	5.2
BVH - Back-Very High(80-90)	11.101	0.2
Total Back Light	1161.3	22.8

UL - Uplight-Low(90-100)	1.04	0.0
UH - Uplight-High(100-180)	13.302	0.3
Total Up Light	14.342	0.3

BUG(Back,Up,Glare) Rating	B1-U2-G1
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Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	1151	10.388	1161.3
Street Side	3935.8	3.9534	3939.8

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 32.8DEG
 Operators:CS01
 Test Date:2021-07-19

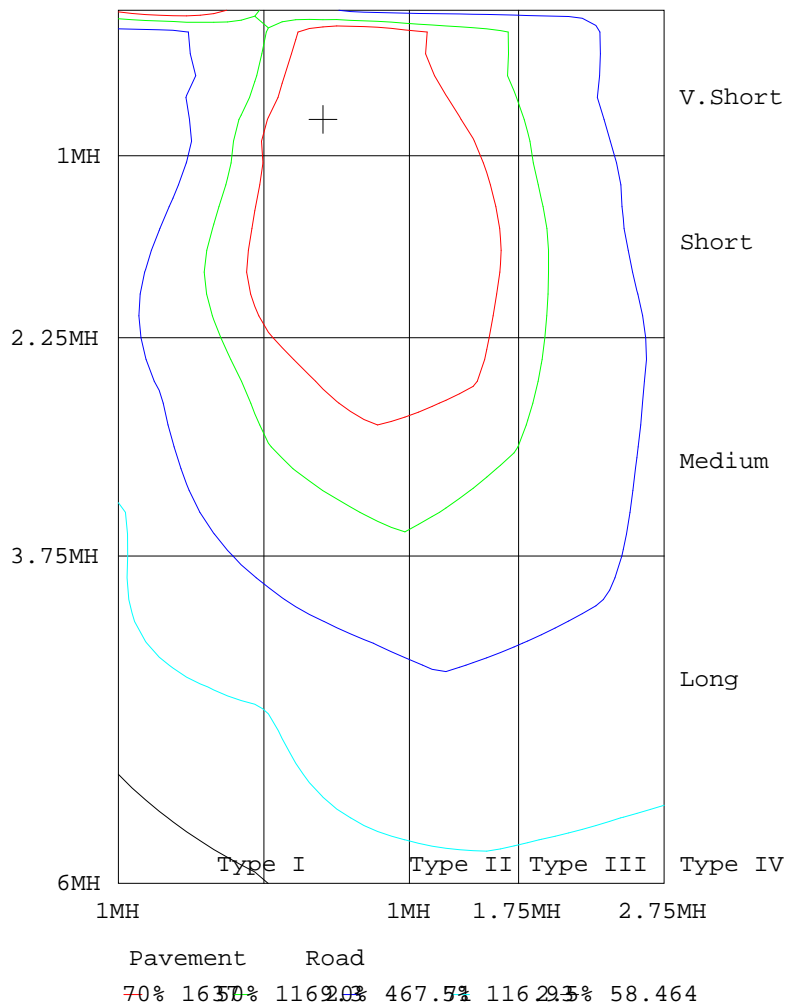
γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
 Humidity: 44.1%
 Test Distance:26.000m [K=1.0000]
 Remarks: D-20HLED40-16(5050 40K RA70 T3M)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ROAD ISOCANDELA REPORT

Test:U:230.16V I:0.2140A P:39.568W PF:0.8036 Freq:50.01Hz Lamp Flux:5101.1x1 lm		
NAME: D-20HLED40-16	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: 32.8DEG
 Operators:CS01
 Test Date:2021-07-19

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
 Humidity: 44.1%
 Test Distance:26.000m [K=1.0000]
 Remarks: D-20HLED40-16(5050 40K RA70 T3M)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.16V I:0.2140A P:39.568W PF:0.8036 Freq:50.01Hz Lamp Flux:5101.1x1 lm																			
NAME: D-20HLED40-16										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	1113	1113	1113	1113	1113	1113	1113	1113	1113	1113	1113	1113	1113	1113	1113	1113	1113	1113	1113
5	1118	1161	1195	1229	1253	1269	1271	1258	1241	1217	1184	1144	1111	1072	1039	1011	993	978	974
10	1139	1224	1304	1371	1416	1453	1449	1431	1392	1337	1269	1183	1107	1029	965	918	894	877	872
15	1173	1313	1450	1564	1621	1667	1656	1622	1559	1466	1363	1238	1118	995	899	844	800	774	766
20	1219	1440	1637	1762	1839	1873	1852	1816	1730	1611	1478	1308	1137	953	823	710	650	620	616
25	1282	1588	1809	1941	2004	2026	1990	1948	1885	1754	1602	1389	1142	899	709	582	523	507	505
30	1378	1738	1957	2077	2087	2099	2068	2024	1972	1873	1716	1478	1173	846	583	478	459	398	379
35	1505	1902	2125	2200	2146	2095	2052	2042	2057	2009	1865	1597	1229	802	476	426	300	295	295
40	1689	2166	2373	2292	2114	1995	1947	1985	2096	2183	2113	1785	1310	782	468	290	264	271	271
45	1653	2069	2231	2120	1916	1774	1752	1815	1935	2047	2011	1748	1294	669	351	238	243	255	256
50	1690	2129	2237	2070	1789	1602	1563	1656	1838	2037	2072	1803	1280	580	230	213	229	251	252
55	1753	2195	2235	2016	1703	1435	1373	1517	1803	2047	2135	1874	1324	496	191	194	222	256	260
60	1804	2221	2255	1974	1568	1166	1089	1325	1714	2042	2215	1963	1373	464	166	178	220	270	277
65	1650	2168	2190	1785	1161	705	623	857	1373	1947	2226	1944	1238	317	141	165	254	346	385
70	1240	1784	1808	1179	544	200	184	279	815	1524	1927	1558	864	149	115	158	257	350	370
75	581	1152	985	437	142	96.7	87.3	115	189	721	1238	987	271	86.5	82.1	147	185	221	216
80	64.6	168	168	124	80.6	42.0	37.0	55.4	101	135	251	124	62.1	44.1	41.7	92.0	84.3	89.7	88.4
85	26.7	29.2	35.1	32.2	22.5	10.5	8.58	14.5	26.7	35.8	29.9	29.3	23.8	13.3	9.29	13.0	12.5	8.86	8.00
90	0.83	0.79	0.79	0.65	0.79	0.84	0.84	0.84	0.85	0.76	0.83	0.79	3.68	0.94	0.89	0.64	0.79	0.75	0.54
95	0.87	0.68	0.59	0.49	0.59	0.54	0.54	0.60	0.54	0.44	0.60	0.76	1.18	1.62	1.68	1.18	0.79	0.59	0.58
100	1.42	0.66	0.60	0.49	0.59	0.54	0.54	0.61	0.54	0.49	0.64	1.13	2.10	2.56	2.61	1.92	1.23	0.84	0.79
105	1.96	0.88	0.61	0.49	0.59	0.54	0.54	0.61	0.54	0.49	0.68	1.38	2.74	3.24	2.95	2.71	1.82	1.33	1.18
110	2.68	1.18	0.62	0.49	0.59	0.54	0.54	0.62	0.54	0.49	0.72	1.87	3.27	3.74	3.74	3.03	2.27	1.78	1.62
115	2.65	1.47	0.63	0.49	0.59	0.54	0.54	0.63	0.54	0.49	1.19	2.10	3.52	4.42	4.13	3.34	2.71	2.47	2.31
120	2.84	1.81	0.75	0.49	0.59	0.54	0.54	0.63	0.54	0.49	1.22	2.67	3.60	4.35	4.28	3.94	3.35	3.16	2.95
125	3.22	1.92	1.08	0.49	0.59	0.54	0.54	0.93	0.54	0.59	1.19	2.75	3.67	4.32	4.32	4.34	4.53	4.00	3.98
130	3.18	1.92	1.10	0.64	0.64	0.54	0.54	3.25	0.54	0.89	1.32	2.84	3.75	4.29	4.32	4.36	4.97	4.49	4.48
135	3.15	1.92	1.12	1.03	2.33	0.59	0.54	1.98	0.79	1.28	1.30	2.81	3.62	4.29	4.32	4.43	4.97	4.93	4.97
140	3.11	1.92	1.28	1.25	1.55	1.13	0.83	1.43	1.16	1.36	1.49	2.81	3.53	4.31	4.32	4.90	4.97	5.11	5.00
145	3.08	2.21	1.86	1.28	1.62	1.23	1.15	1.43	1.19	1.38	1.84	2.81	3.54	4.32	4.32	5.11	4.96	5.09	4.98
150	3.07	2.50	1.91	1.47	1.70	1.32	1.25	1.43	1.23	1.82	1.99	2.81	3.55	4.23	4.32	5.11	4.82	5.00	4.96
155	3.05	2.75	1.97	1.98	1.77	1.48	1.38	1.63	1.63	2.00	2.04	2.81	3.57	3.73	4.23	4.42	4.43	4.54	4.64
160	3.04	2.79	2.11	2.05	1.99	1.98	1.89	1.90	1.90	2.05	2.23	2.81	3.77	3.62	3.81	4.13	4.34	4.46	4.61
165	3.37	2.84	2.69	2.75	2.51	2.01	2.06	2.00	2.38	2.61	2.63	2.81	4.01	3.79	3.74	4.09	4.25	4.43	4.57
170	3.42	3.29	3.00	2.95	2.81	2.81	2.70	2.57	2.77	2.91	2.93	3.32	4.12	4.25	3.68	4.04	4.31	4.39	4.54
175	3.49	3.49	3.33	3.44	3.49	3.50	3.44	3.50	3.41	3.45	3.47	3.51	4.15	4.27	3.68	3.93	4.37	4.23	4.28
180	3.62	3.49	3.39	3.64	3.59	3.65	3.59	3.61	3.71	3.46	3.47	3.51	4.06	3.58	3.49	3.49	3.64	3.65	3.64

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 32.8DEG
Operators:CS01
Test Date:2021-07-19

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 44.1%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED40-16(5050 40K RA70 T3M)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.16V I:0.2140A P:39.568W PF:0.8036 Freq:50.01Hz Lamp Flux:5101.1x1 lm		
NAME: D-20HLED40-16	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	1113	1113	1113	1113	1113													
5	983	998	1020	1049	1084													
10	877	898	931	988	1059													
15	775	809	853	931	1043													
20	642	679	757	874	1027													
25	514	558	634	798	1010													
30	426	474	519	718	1015													
35	290	356	455	627	1051													
40	264	263	413	577	1123													
45	248	237	261	433	1065													
50	241	217	211	312	1051													
55	240	206	189	237	1079													
60	248	199	167	188	1089													
65	296	204	148	150	873													
70	296	225	125	117	457													
75	198	152	92.1	79.9	96.7													
80	86.5	82.8	49.9	42.1	46.5													
85	9.98	13.3	8.55	13.4	22.4													
90	0.65	0.55	0.84	1.14	0.99													
95	0.59	0.84	1.43	1.79	1.58													
100	0.94	1.44	2.17	2.68	2.62													
105	1.38	2.03	2.87	3.38	3.16													
110	1.78	2.47	3.36	3.97	3.71													
115	2.27	2.72	3.56	4.39	4.13													
120	3.07	3.37	3.85	4.45	4.27													
125	4.00	4.16	4.44	4.41	4.44													
130	4.40	4.55	4.42	4.38	4.30													
135	5.00	5.00	4.39	4.34	3.76													
140	5.06	5.03	4.39	4.31	3.60													
145	5.12	5.01	4.39	4.28	3.54													
150	5.04	4.80	4.39	4.30	3.52													
155	4.49	4.55	4.40	4.25	3.51													
160	4.52	4.53	4.42	4.08	3.49													
165	4.54	4.52	4.42	4.07	3.48													
170	4.54	4.51	4.33	4.05	3.47													
175	4.35	4.30	4.25	3.97	3.46													
180	3.70	3.66	3.60	3.52	3.46													

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 32.8DEG
Operators:CS01
Test Date:2021-07-19

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 44.1%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED40-16(5050 40K RA70 T3M)L