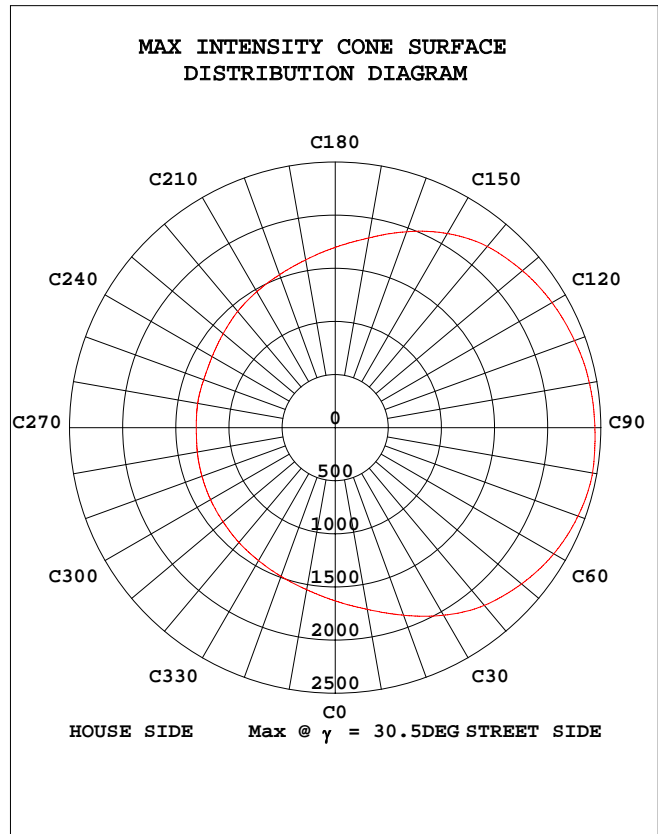
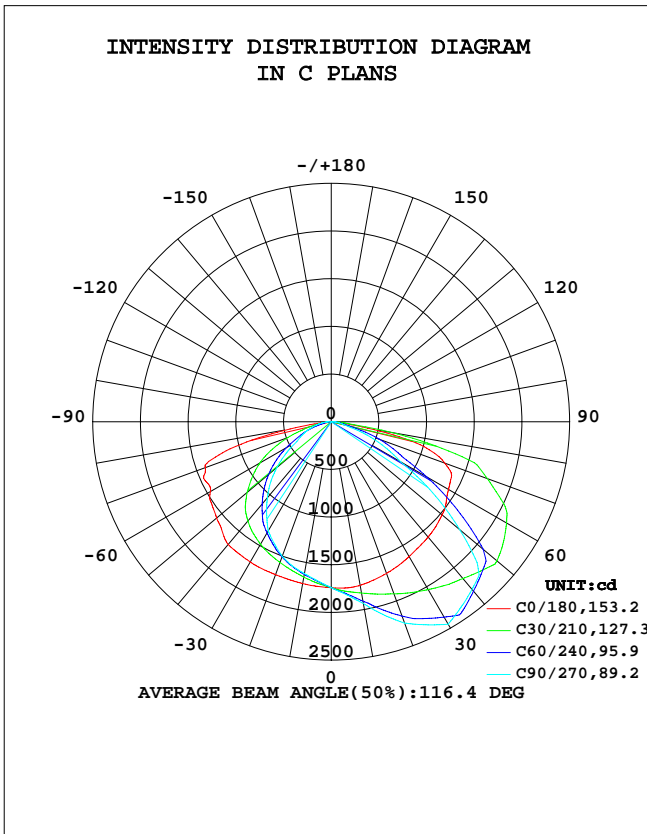


**EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT**

**STREETLIGHT PHOTOMETRIC TEST REPORT**

Test:U:120.4V I:0.4523A P:54.16W PF:0.9948 Lamp Flux:6696.84x1 lm		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 123.65 lm/W			
MODEL	ASD-LED-SBRR-54N50-EX39	I <sub>max</sub> (cd)	2458	η street_up(%)	0.0
NOMINAL POWER(W)	54	LOR(%)	100.0	η street_down(%)	63.8
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	6697	η house_up(%)	0.0
NOMINAL FLUX(lm)	6696.84	MAXIMUM @(C,γ )	80,30.5	η house_down(%)	36.2
LAMPS INSIDE	1	η up(%)	0.0	76 FLASHAREA(m2)	0.05000
TEST VOLTAGE(V)	120	η down(%)	100.0	SLI	22.175



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25DEG  
 Operators:  
 Test Date:2016-08-03

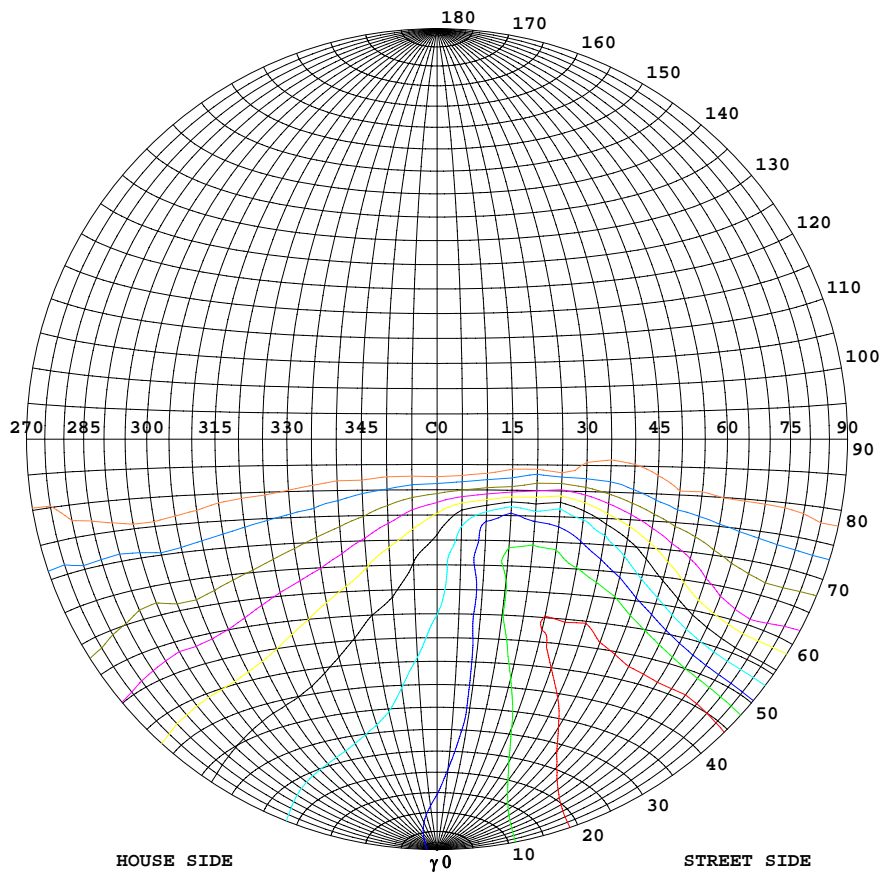
γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.350  
 Humidity:65.0%  
 Test Distance:7.850m [K=1.0000]  
 Remarks:

Note: SLI:Specific Luminaire Index

**EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT**

**STREETLIGHT ISOCANDELA DIAGRAM**

Test:U:120.4V I:0.4523A P:54.16W PF:0.9948 Lamp Flux:6696.84x1 lm		



**Classification:**

IES:Type III - Very Short  
 CIE:Narrow - Short  
 IES:Semi cut-off  
 CIE:Non-cut-off  
 Max.At80:116.5cd/klm  
 Max.At90:1.954cd/klm  
 Max.80-90:116.5cd/klm

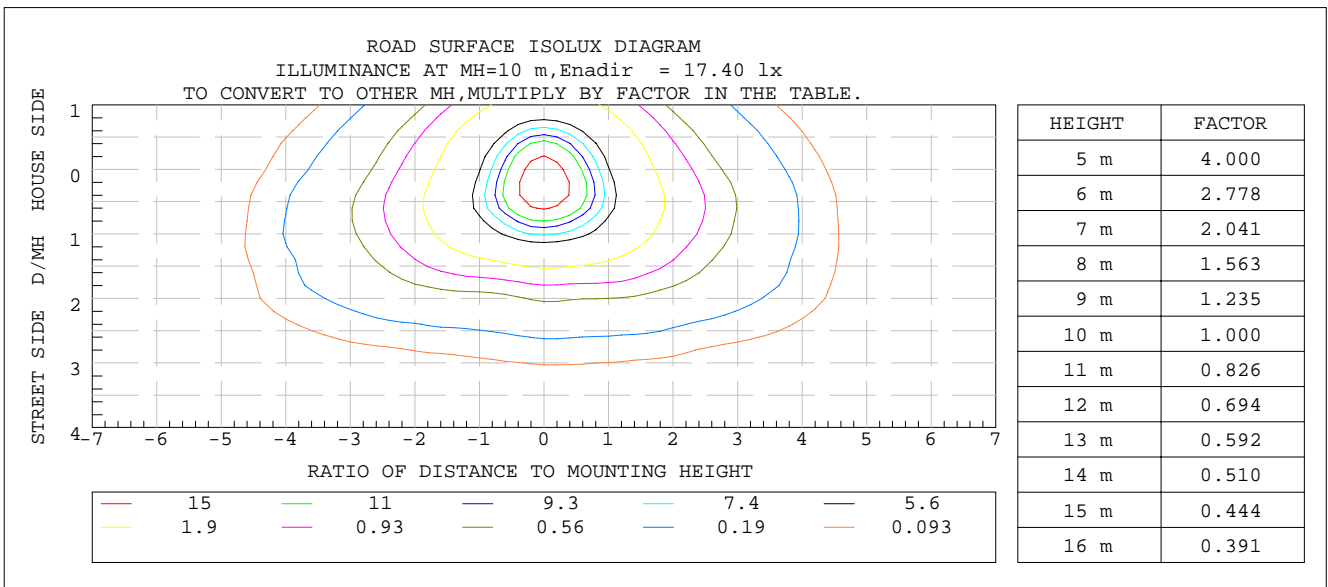
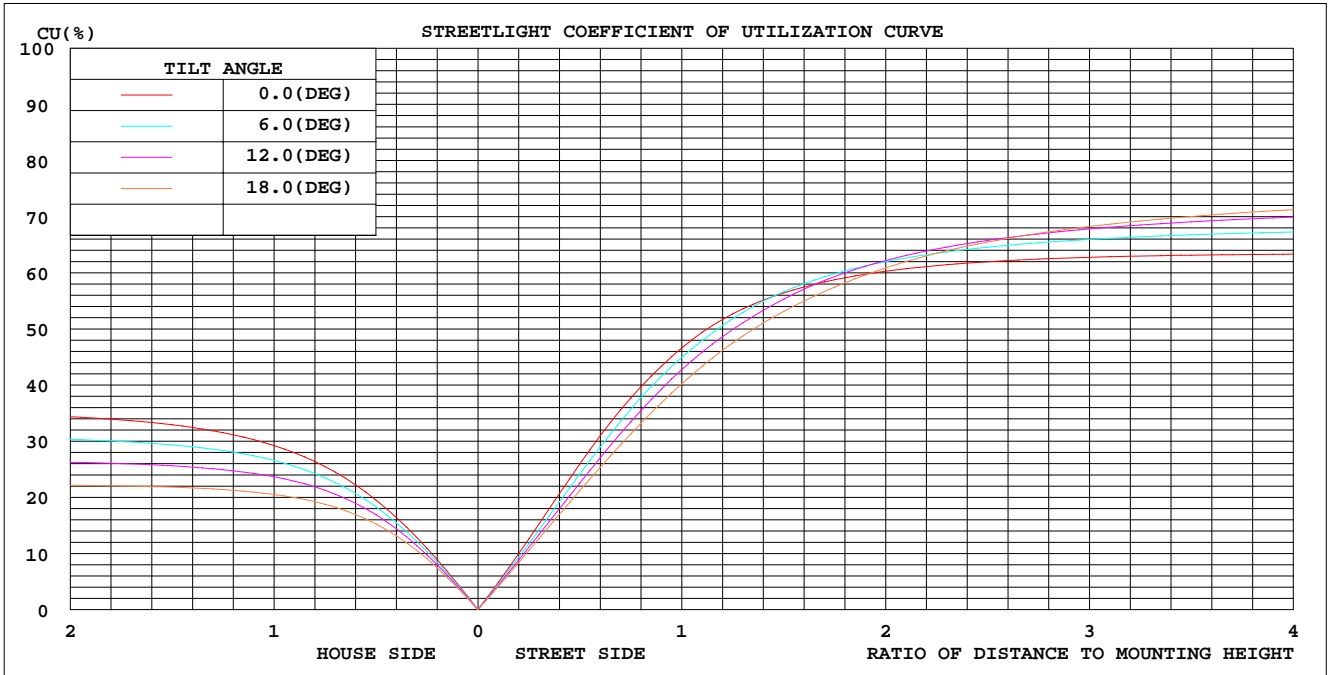
ISOCANDELA DIAGRAM	
UNIT	cd
Imax=100%	2458
90%	2213
80%	1967
70%	1721
60%	1475
50%	1229
40%	983
30%	738
20%	492
10%	246
5%	123

C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25DEG  
 Operators:  
 Test Date:2016-08-03

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.350  
 Humidity:65.0%  
 Test Distance:7.850m [K=1.0000]  
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

COEFFICIENT OF UTILIZATION CURVE  
AND ISOLUX DIAGRAM



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature: 25DEG  
Operators:  
Test Date: 2016-08-03

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.350  
Humidity: 65.0%  
Test Distance: 7.850m [K=1.0000]  
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ZONAL FLUX DIAGRAM

Test:U:120.4V I:0.4523A P:54.16W PF:0.9948 Lamp Flux:6696.84x1 lm		

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	*lum,lamp
5	1750	1799	1819	1787	1732	1686	1674	1698	0- 5	41.65	41.65	0.62,0.62
10	1742	1872	1934	1853	1723	1635	1618	1654	5- 10	125.1	166.7	2.49,2.49
15	1718	1959	2091	1941	1713	1583	1567	1607	10- 15	209.2	375.9	5.61,5.61
20	1693	2057	2247	2052	1707	1533	1503	1549	15- 20	293.9	669.8	10,10
25	1665	2153	2349	2164	1705	1476	1412	1481	20- 25	376.9	1047	15.6,15.6
30	1633	2232	2451	2257	1699	1409	1322	1402	25- 30	455.6	1502	22.4,22.4
35	1603	2293	2374	2333	1690	1333	1182	1308	30- 35	526.0	2028	30.3,30.3
40	1580	2336	2296	2389	1681	1243	1043	1198	35- 40	581.3	2610	39,39
45	1552	2265	2180	2336	1619	1113	900.8	1065	40- 45	622.7	3232	48.3,48.3
50	1518	2206	1758	2265	1570	977.6	741.1	928.4	45- 50	640.3	3873	57.8,57.8
55	1472	2106	1298	2140	1526	818.0	579.2	789.6	50- 55	623.0	4496	67.1,67.1
60	1420	1763	838.0	1820	1462	645.0	417.3	628.1	55- 60	576.5	5072	75.7,75.7
65	1389	1420	608.6	1511	1460	478.4	341.0	453.7	60- 65	513.4	5586	83.4,83.4
70	1266	1067	379.3	1136	1406	321.2	264.7	302.2	65- 70	450.6	6036	90.1,90.1
75	1007	614.4	168.0	620.5	1099	198.3	189.9	193.7	70- 75	358.3	6394	95.5,95.5
80	390.0	176.5	101.0	139.8	438.3	88.95	126.9	96.84	75- 80	211.3	6606	98.6,98.6
85	47.27	95.11	51.99	75.13	58.59	48.37	65.27	53.52	80- 85	72.99	6679	99.7,99.7
90	9.329	6.203	3.013	3.943	6.256	7.709	3.686	9.074	85- 90	18.13	6697	100,100
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:cd								UNIT:lm			

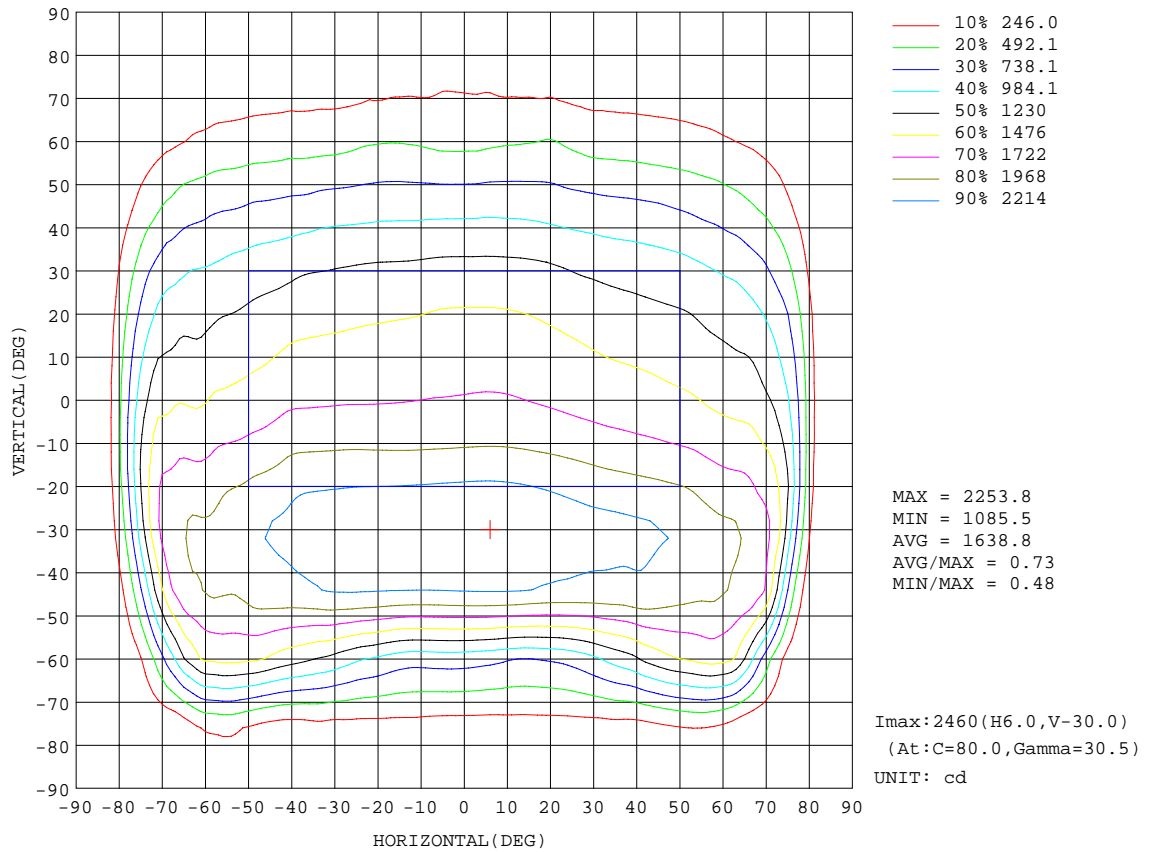
C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25DEG  
 Operators:  
 Test Date:2016-08-03

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.350  
 Humidity:65.0%  
 Test Distance:7.850m [K=1.0000]  
 Remarks:

**EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT**

**ISOCANDELA DIAGRAM**

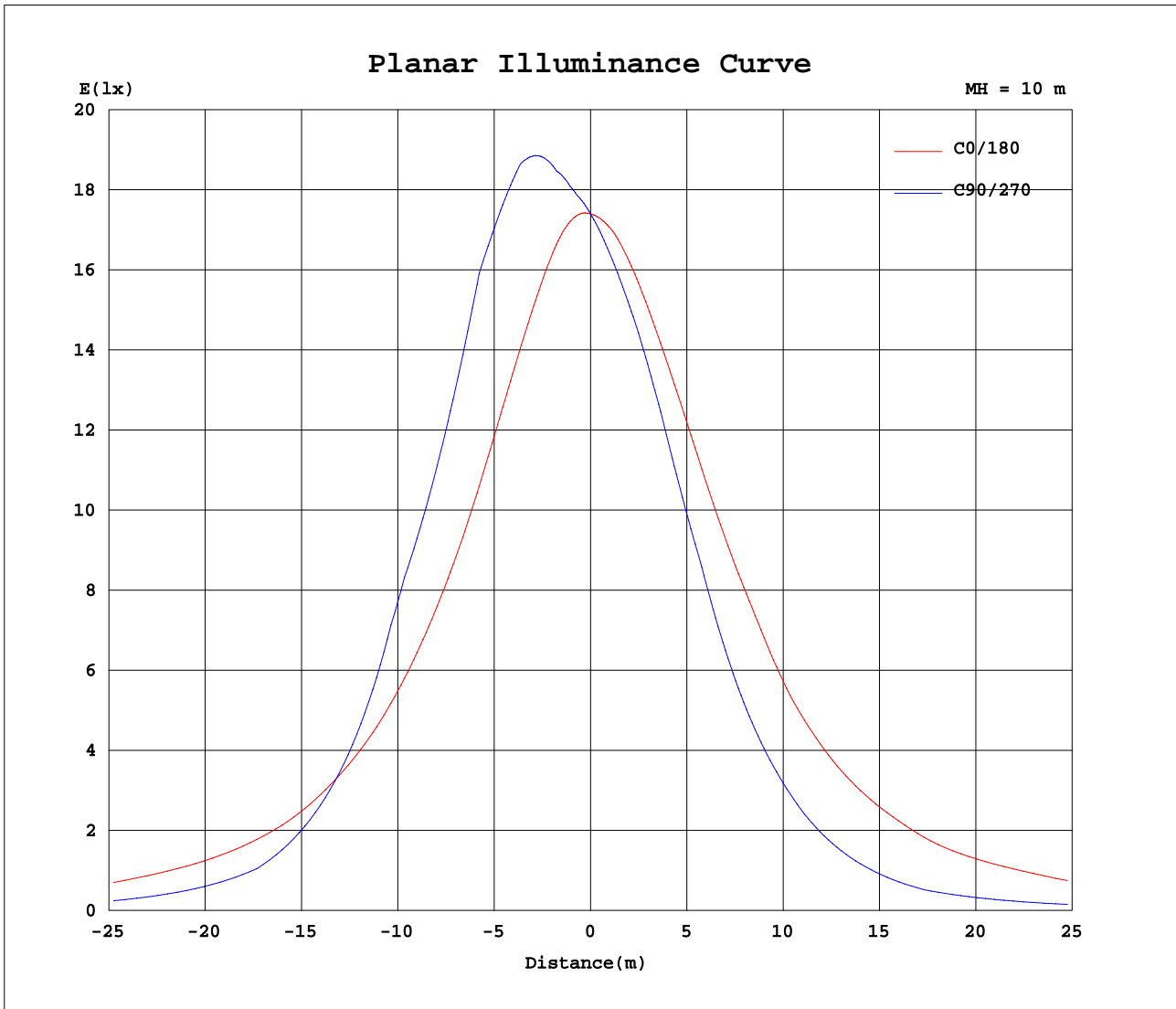
Test:U:120.4V I:0.4523A P:54.16W PF:0.9948 Lamp Flux:6696.84x1 lm		



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature: 25DEG  
 Operators:  
 Test Date: 2016-08-03

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.350  
 Humidity: 65.0%  
 Test Distance: 7.850m [K=1.0000]  
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature: 25DEG  
 Operators:  
 Test Date: 2016-08-03

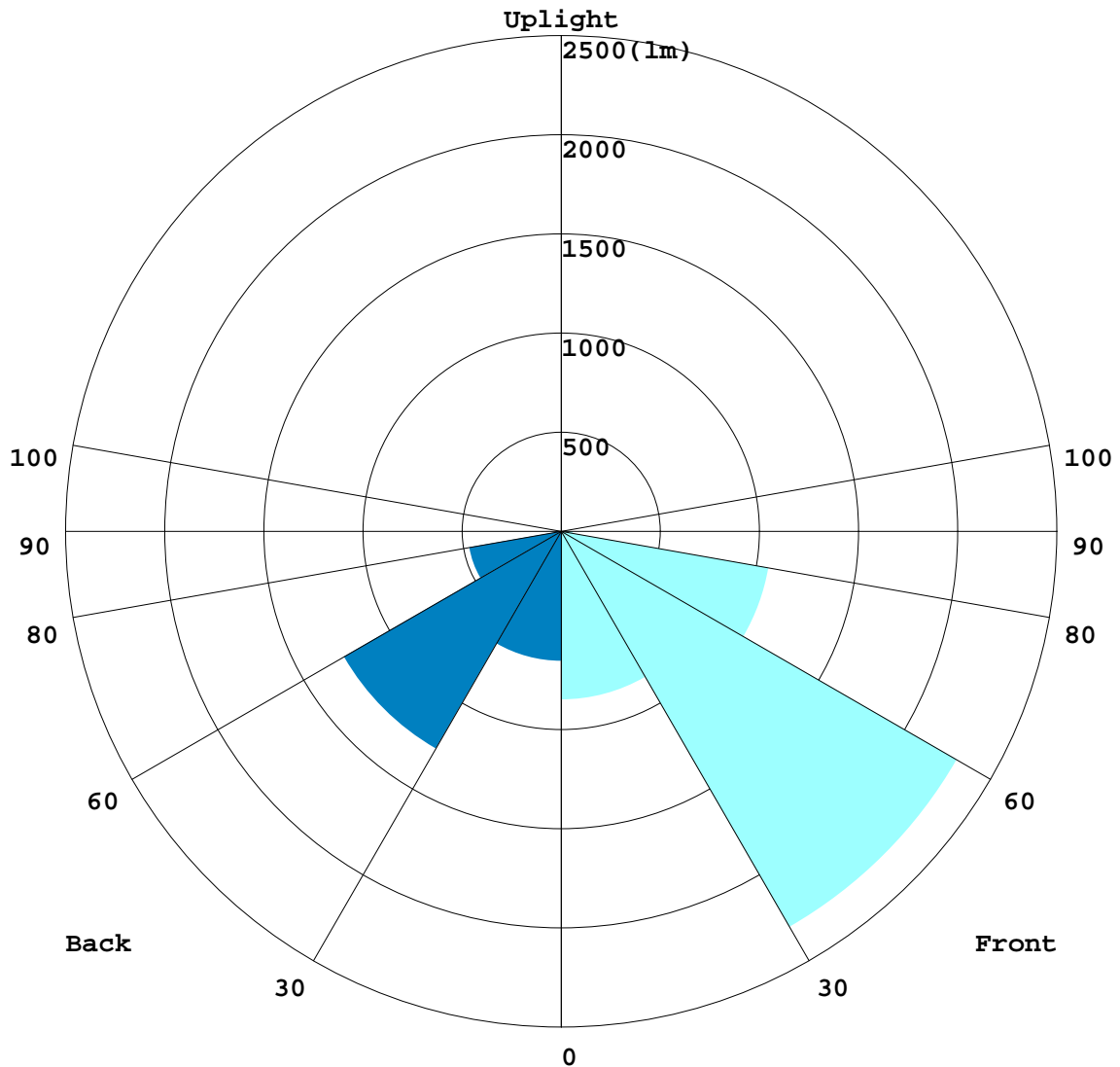
$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.350  
 Humidity: 65.0%  
 Test Distance: 7.850m [K=1.0000]  
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LCS REPORT

Test:U:120.4V I:0.4523A P:54.16W PF:0.9948 Lamp Flux:6696.84x1 lm		

LUMINAIRE CLASSIFICATION SYSTEM(LCS) GRAPH



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25DEG  
 Operators:  
 Test Date:2016-08-03

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.350  
 Humidity:65.0%  
 Test Distance:7.850m [K=1.0000]  
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

BUG REPORT

Test:U:120.4V I:0.4523A P:54.16W PF:0.9948 Lamp Flux:6696.84x1 lm		

IESNA Luminaire Flux Distribution Table:

Zone	Lumens	Luminaire %
FL - Front-Low(0-30)	848.64	12.7
FM - Front-Medium(30-60)	2304.9	34.4
FH - Front-High(60-80)	1062.4	15.9
FVH - Front-Very High(80-90)	59.376	0.9
Total Forward Light	4275.3	63.8

BL - Back-Low(0-30)	653.69	9.8
BM - Back-Medium(30-60)	1264.9	18.9
BH - Back-High(60-80)	471.11	7.0
BVH - Back-Very High(80-90)	31.744	0.5
Total Back Light	2421.5	36.2

UL - Uplight-Low(90-100)	0	0.0
UH - Uplight-High(100-180)	0	0.0
Total Up Light	0	0.0

BUG(Back,Up,Glare) Rating	B2-U0-G1
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Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	2421.5	0	2421.5
Street Side	4275.3	0	4275.3

C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25DEG  
 Operators:  
 Test Date:2016-08-03

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.350  
 Humidity:65.0%  
 Test Distance:7.850m [K=1.0000]  
 Remarks:

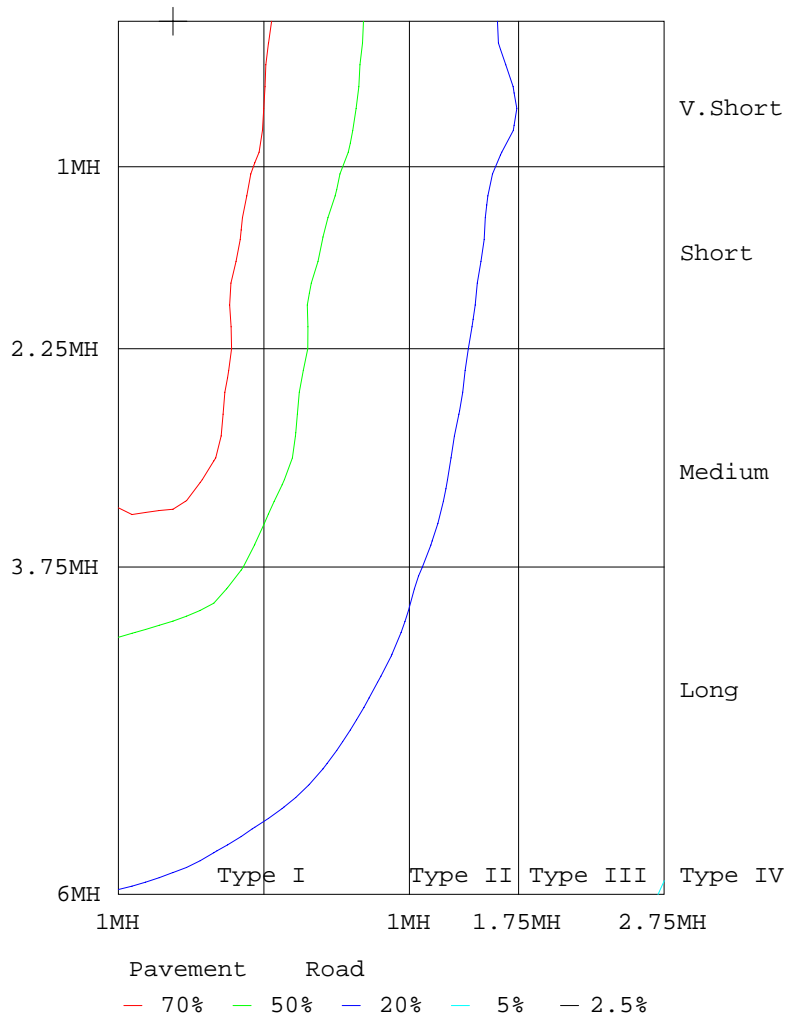


EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ROAD ISOCANDELA REPORT

Test:U:120.4V I:0.4523A P:54.16W PF:0.9948 Lamp Flux:6696.84x1 lm		

ROAD SURFACE ISOCANDELA DIAGRAM



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25DEG  
 Operators:  
 Test Date:2016-08-03

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.350  
 Humidity:65.0%  
 Test Distance:7.850m [K=1.0000]  
 Remarks:

**EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT**

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**LUMINOUS DISTRIBUTION INTENSITY DATA**

Test:U:120.4V I:0.4523A P:54.16W PF:0.9948 Lamp Flux:6696.84x1 lm		

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
0	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740
5	1750	1756	1762	1768	1774	1779	1785	1790	1794	1799	1803	1806	1811	1814	1816	1818	1819	1820	1819
10	1742	1755	1769	1782	1795	1809	1824	1839	1856	1872	1886	1898	1909	1918	1925	1930	1933	1935	1934
15	1718	1740	1762	1784	1811	1840	1871	1901	1929	1959	1988	2014	2036	2055	2070	2082	2089	2092	2091
20	1693	1723	1754	1791	1833	1876	1920	1968	2014	2057	2098	2135	2168	2196	2218	2234	2244	2248	2247
25	1665	1704	1746	1797	1853	1914	1978	2039	2098	2153	2204	2245	2278	2304	2326	2341	2350	2352	2349
30	1633	1682	1737	1804	1876	1955	2033	2109	2178	2232	2281	2327	2366	2397	2422	2441	2452	2455	2451
35	1603	1663	1733	1811	1903	1997	2092	2167	2232	2293	2352	2408	2441	2455	2399	2394	2389	2382	2374
40	1580	1650	1737	1837	1946	2059	2147	2225	2293	2336	2329	2324	2320	2320	2320	2317	2312	2304	2296
45	1552	1637	1742	1869	2002	2114	2214	2304	2289	2265	2251	2243	2234	2231	2237	2239	2212	2192	2180
50	1518	1622	1756	1911	2057	2178	2267	2253	2227	2206	2182	2156	2080	1969	1885	1826	1788	1765	1758
55	1472	1605	1774	1959	2110	2217	2204	2208	2186	2106	1952	1775	1616	1486	1389	1325	1302	1294	1298
60	1420	1577	1771	1958	2112	2125	2122	2115	1989	1763	1561	1351	1157	1005	896	821	810	820	838
65	1389	1587	1817	2005	2037	2041	1980	1838	1662	1420	1183	955	777	667	608	572	578	593	609
70	1266	1538	1790	1936	1952	1894	1741	1574	1362	1067	826	668	535	450	405	376	370	372	379
75	1007	1326	1578	1785	1597	1603	1419	1096	843	614	436	343	268	223	198	187	178	167	168
80	390	481	573	649	726	780	623	440	288	177	132	133	122	119	117	115	110	101	101
85	47.3	44.9	44.4	74.5	50.4	60.9	139	155	130	95.1	68.9	68.8	63.0	62.0	64.2	63.6	59.7	53.2	52.0
90	9.33	10.5	9.38	8.38	7.39	6.54	5.84	5.91	6.47	6.20	4.62	4.08	4.39	5.21	11.1	12.4	9.47	5.31	3.01

C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25DEG  
 Operators:  
 Test Date:2016-08-03

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.350  
 Humidity:65.0%  
 Test Distance:7.850m [K=1.0000]  
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.4V I:0.4523A P:54.16W PF:0.9948 Lamp Flux:6696.84x1 lm																		

Table--2

UNIT: cd

C (DEG) \ γ (DEG)	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185
0	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740
5	1818	1816	1814	1810	1807	1802	1797	1792	1787	1782	1776	1770	1764	1758	1751	1745	1738	1732	1726
10	1932	1928	1922	1914	1905	1894	1882	1868	1853	1837	1820	1805	1789	1775	1762	1749	1736	1723	1710
15	2088	2080	2070	2056	2039	2019	1996	1970	1941	1912	1886	1859	1830	1803	1777	1756	1735	1713	1693
20	2241	2232	2218	2199	2177	2151	2121	2088	2052	2014	1972	1928	1888	1846	1805	1769	1738	1707	1679
25	2343	2329	2316	2300	2281	2260	2237	2207	2164	2118	2068	2015	1957	1899	1843	1790	1746	1705	1667
30	2442	2423	2408	2388	2369	2347	2322	2291	2257	2220	2165	2102	2032	1957	1883	1811	1752	1699	1652
35	2366	2360	2362	2368	2381	2398	2410	2373	2333	2290	2242	2183	2102	2015	1923	1835	1756	1690	1632
40	2288	2285	2289	2299	2315	2335	2354	2371	2389	2361	2308	2247	2175	2077	1970	1861	1762	1681	1610
45	2178	2188	2217	2232	2251	2274	2296	2317	2336	2357	2383	2300	2203	2089	1960	1828	1714	1619	1542
50	1764	1787	1835	1917	2027	2151	2236	2260	2265	2277	2285	2281	2198	2088	1966	1819	1681	1570	1477
55	1309	1328	1372	1468	1601	1738	1895	2041	2140	2176	2188	2196	2195	2099	1976	1821	1661	1526	1413
60	854	867	910	1026	1177	1333	1517	1672	1820	1974	2104	2118	2095	2111	1975	1814	1626	1462	1339
65	617	623	648	727	829	967	1155	1332	1511	1697	1867	1951	2010	2018	2002	1861	1660	1460	1290
70	385	398	422	476	542	647	784	932	1136	1426	1611	1726	1872	1952	1923	1864	1664	1406	1188
75	171	187	200	214	243	299	388	470	620	859	1124	1393	1554	1558	1611	1508	1356	1099	885
80	102	113	118	119	120	121	138	118	140	275	476	655	773	769	680	582	517	438	372
85	52.5	59.0	62.4	62.2	61.9	62.2	69.5	60.4	75.1	124	179	189	105	64.2	86.8	62.6	57.4	58.6	59.2
90	3.02	4.74	6.72	5.87	3.87	3.56	3.68	3.87	3.94	4.16	4.12	4.17	4.36	4.78	5.39	6.17	6.71	6.26	7.49

C Range: 0 - 360DEG      γ Range: 0 - 90DEG  
 C Interval: 5.0DEG      γ Interval: 0.5DEG  
 Test Speed: HIGH      Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.350  
 Temperature:25DEG      Humidity:65.0%  
 Operators:      Test Distance:7.850m [K=1.0000]  
 Test Date:2016-08-03      Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.4V I:0.4523A P:54.16W PF:0.9948 Lamp Flux:6696.84x1 lm		

Table--3

UNIT: cd

C( DEG) γ (DEG)	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280
0	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740
5	1720	1714	1709	1703	1699	1694	1690	1686	1683	1680	1678	1676	1675	1674	1674	1673	1674	1675	1676
10	1697	1685	1674	1663	1654	1646	1640	1635	1631	1628	1626	1624	1622	1620	1619	1618	1618	1618	1620
15	1673	1654	1638	1624	1612	1601	1591	1583	1578	1574	1572	1571	1570	1568	1567	1566	1567	1568	1571
20	1651	1626	1605	1587	1571	1557	1545	1533	1523	1514	1507	1505	1505	1505	1505	1503	1503	1504	1507
25	1632	1601	1574	1551	1530	1511	1493	1476	1461	1444	1431	1421	1418	1417	1416	1413	1412	1414	1419
30	1608	1570	1537	1509	1483	1459	1436	1409	1385	1364	1347	1334	1327	1326	1325	1324	1322	1323	1329
35	1580	1534	1497	1461	1428	1392	1360	1333	1308	1285	1253	1226	1206	1196	1190	1185	1182	1186	1197
40	1549	1498	1453	1409	1359	1314	1279	1243	1198	1160	1127	1097	1073	1059	1051	1045	1043	1048	1061
45	1476	1423	1370	1320	1274	1231	1166	1113	1066	1026	996	967	942	922	912	903	901	909	923
50	1402	1336	1270	1209	1150	1085	1025	978	932	889	856	833	807	780	760	744	741	752	772
55	1320	1240	1169	1102	1011	935	873	818	779	731	704	687	666	638	608	584	579	592	620
60	1239	1140	1055	946	864	782	711	645	600	559	541	538	525	497	459	423	417	434	470
65	1147	1018	884	779	681	606	529	478	420	384	382	400	395	383	356	346	341	351	364
70	1000	834	689	584	483	408	348	321	292	273	260	268	266	269	255	272	265	269	258
75	707	546	443	341	288	248	224	198	176	163	141	136	138	156	155	197	190	188	155
80	282	224	176	161	134	110	96.0	89.0	83.0	83.9	75.1	74.9	82.2	97.5	99.8	132	127	125	99.6
85	54.3	52.5	42.5	40.4	41.9	46.1	47.0	48.4	45.2	44.1	40.3	39.5	42.9	50.3	51.5	67.9	65.3	64.6	51.4
90	8.09	8.45	8.67	8.84	8.68	8.46	8.24	7.71	6.92	6.15	5.08	4.36	3.81	3.42	3.33	3.76	3.69	3.66	3.59

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25DEG  
Operators:  
Test Date:2016-08-03

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.350  
Humidity:65.0%  
Test Distance:7.850m [K=1.0000]  
Remarks:

**EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT**

**LUMINOUS DISTRIBUTION INTENSITY DATA**

Test:U:120.4V I:0.4523A P:54.16W PF:0.9948 Lamp Flux:6696.84x1 lm		

Table--4

UNIT: cd

C( DEG) γ (DEG)	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355				
0	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740				
5	1678	1680	1683	1686	1689	1693	1698	1703	1708	1713	1719	1725	1731	1737	1744				
10	1623	1627	1631	1637	1642	1648	1654	1660	1667	1675	1684	1694	1706	1717	1730				
15	1575	1580	1585	1590	1595	1601	1607	1614	1621	1630	1640	1652	1665	1682	1700				
20	1512	1518	1524	1530	1536	1542	1549	1556	1566	1577	1591	1606	1623	1644	1668				
25	1426	1434	1443	1452	1462	1473	1481	1491	1503	1517	1534	1554	1576	1602	1632				
30	1336	1344	1354	1364	1375	1388	1402	1420	1434	1452	1473	1497	1524	1554	1591				
35	1208	1223	1242	1264	1286	1296	1308	1325	1350	1378	1404	1435	1469	1508	1552				
40	1071	1087	1105	1123	1144	1169	1198	1227	1257	1294	1337	1378	1422	1470	1521				
45	934	948	962	977	998	1027	1065	1110	1166	1210	1259	1312	1366	1426	1483				
50	789	807	822	832	857	891	928	980	1044	1115	1173	1237	1303	1369	1437				
55	642	667	690	686	703	738	790	848	909	983	1072	1149	1228	1297	1374				
60	497	533	553	531	536	574	628	690	762	829	916	1019	1108	1204	1304				
65	380	407	408	378	371	406	454	507	574	650	731	842	976	1104	1235				
70	266	277	270	254	265	282	302	323	383	451	534	627	764	921	1074				
75	153	147	139	141	155	172	194	215	236	263	312	390	480	625	814				
80	96.2	90.5	77.1	76.6	80.0	84.7	96.8	102	108	129	153	174	210	255	338				
85	50.0	48.2	40.6	41.2	43.3	46.6	53.5	52.3	48.1	47.2	47.2	51.2	55.9	50.8	49.1				
90	3.87	4.37	4.98	5.77	6.63	7.68	9.07	10.8	12.3	13.1	12.9	11.7	10.6	9.34	7.65				

C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25DEG  
 Operators:  
 Test Date:2016-08-03

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.350  
 Humidity:65.0%  
 Test Distance:7.850m [K=1.0000]  
 Remarks: