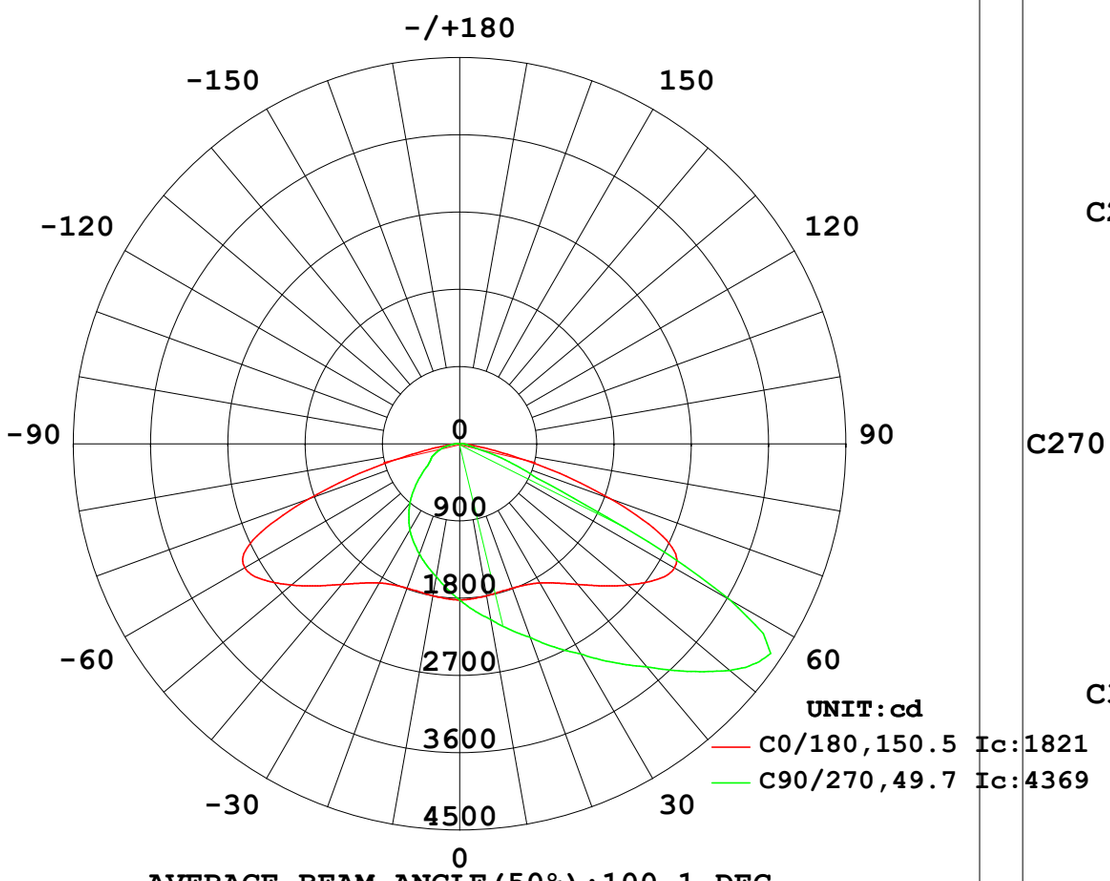
STREETLIGHT PHOTOMETRIC TEST REPORT

Test:U:230.1V I:0.3035A P:67.58W PF:0.9681 Lamp Flux:9235.59x1 lm		
NAME: WP01-070	TYPE:70W	WEIGHT:
SPEC.:5000K Ra70 R08401	DIM.: 0.296*0.15*0.223	SERIAL No.:
MFR.:	SUR.:0.265*0.085	Shielding Angle:

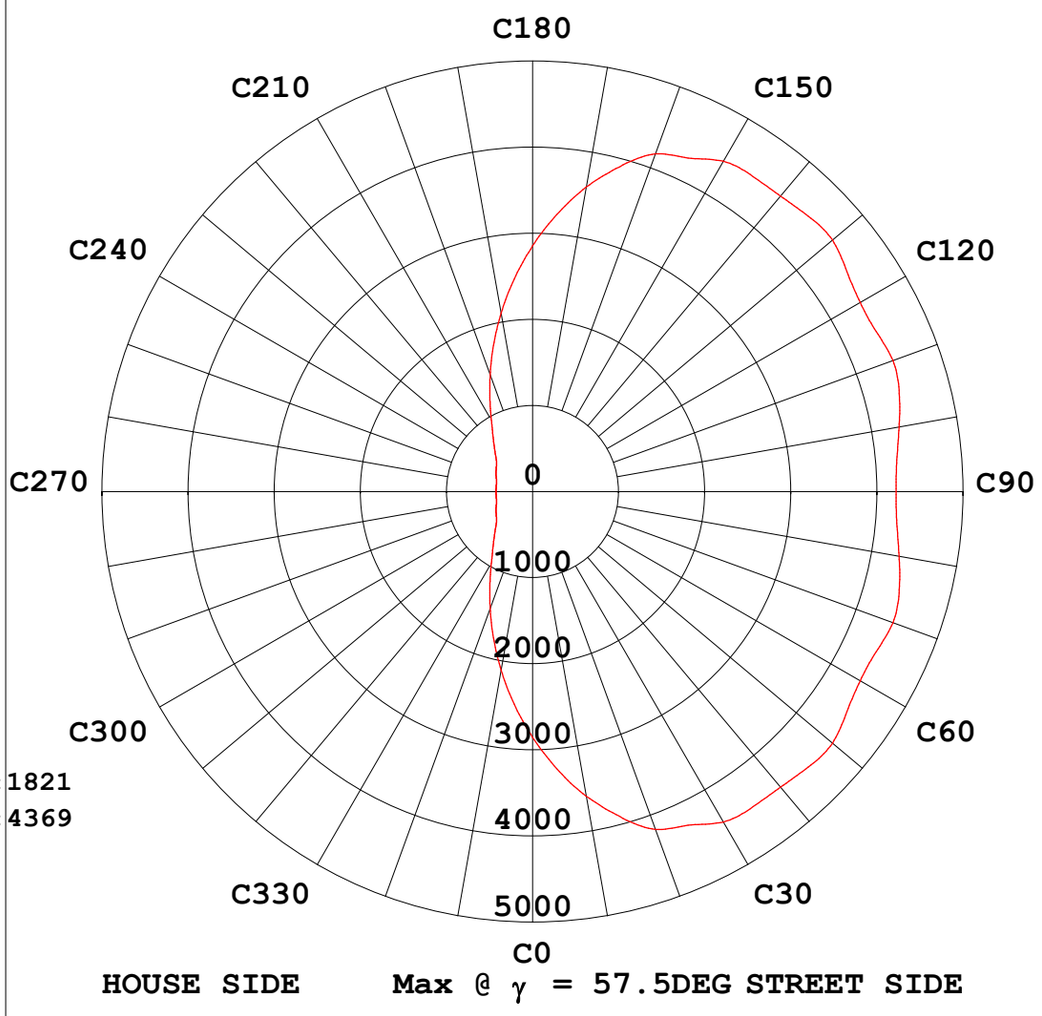
DATA OF LAMP		PHOTOMETRIC DATA Eff: 136.66 lm/W			
MODEL	WP01-070	Imax(cd)	4546	η street_up(%)	0.0
NOMINAL POWER(W)	70	LOR(%)	100.0	η street_down(%)	71.9
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	9236	η house_up(%)	0.0
NOMINAL FLUX(lm)	9235.59	MAXIMUM @(C,γ)	50,57.5	η house_down(%)	28.1
LAMPS INSIDE	1	η up(%)	0.0	76 FLASHAREA(m2)	
TEST VOLTAGE(V)	230	η down(%)	100.0	SLI	

INTENSITY DISTRIBUTION DIAGRAM
IN C PLANS



AVERAGE BEAM ANGLE(50%):100.1 DEG

MAX INTENSITY CONE SURFACE
DISTRIBUTION DIAGRAM



HOUSE SIDE Max @ γ = 57.5DEG STREET SIDE

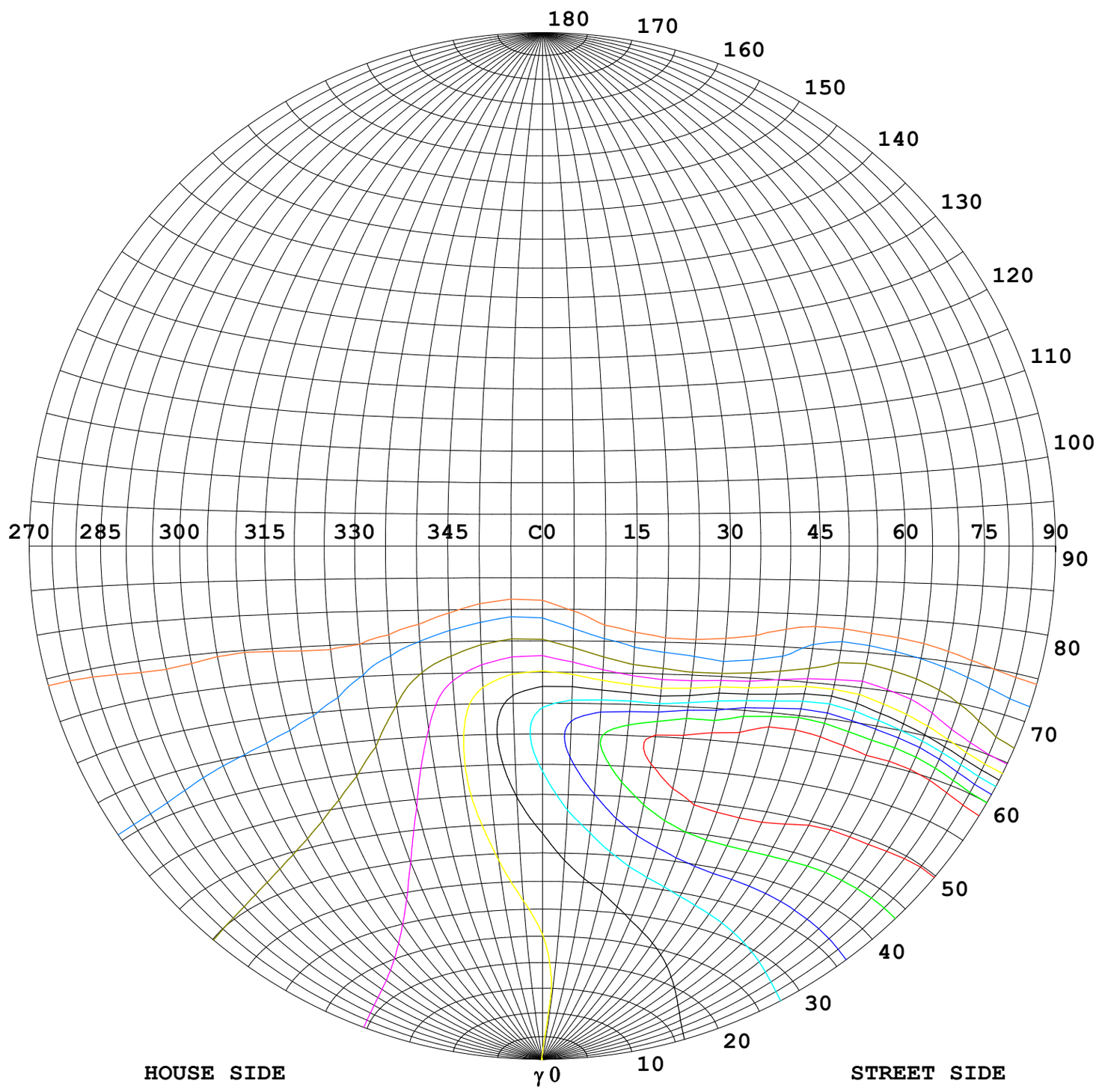
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2017-10-26

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks:

Checker:
Note: SLI:Specific Luminaire Index

Assessor:

STREETLIGHT ISOCANDELA DIAGRAM



Classification:

IES:Type III - Short
CIE:Broad - Short
IES:Cut-off
CIE:Semi-cut-off
Max.At80:37.00cd/klm
Max.At90:1.315cd/klm
Max.80-90:37.00cd/klm

ISOCANDELA DIAGRAM	
UNIT	cd
Imax=100%	4546
90%	4091
80%	3637
70%	3182
60%	2727
50%	2273
40%	1818
30%	1364
20%	909
10%	455
5%	227

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2017-10-26

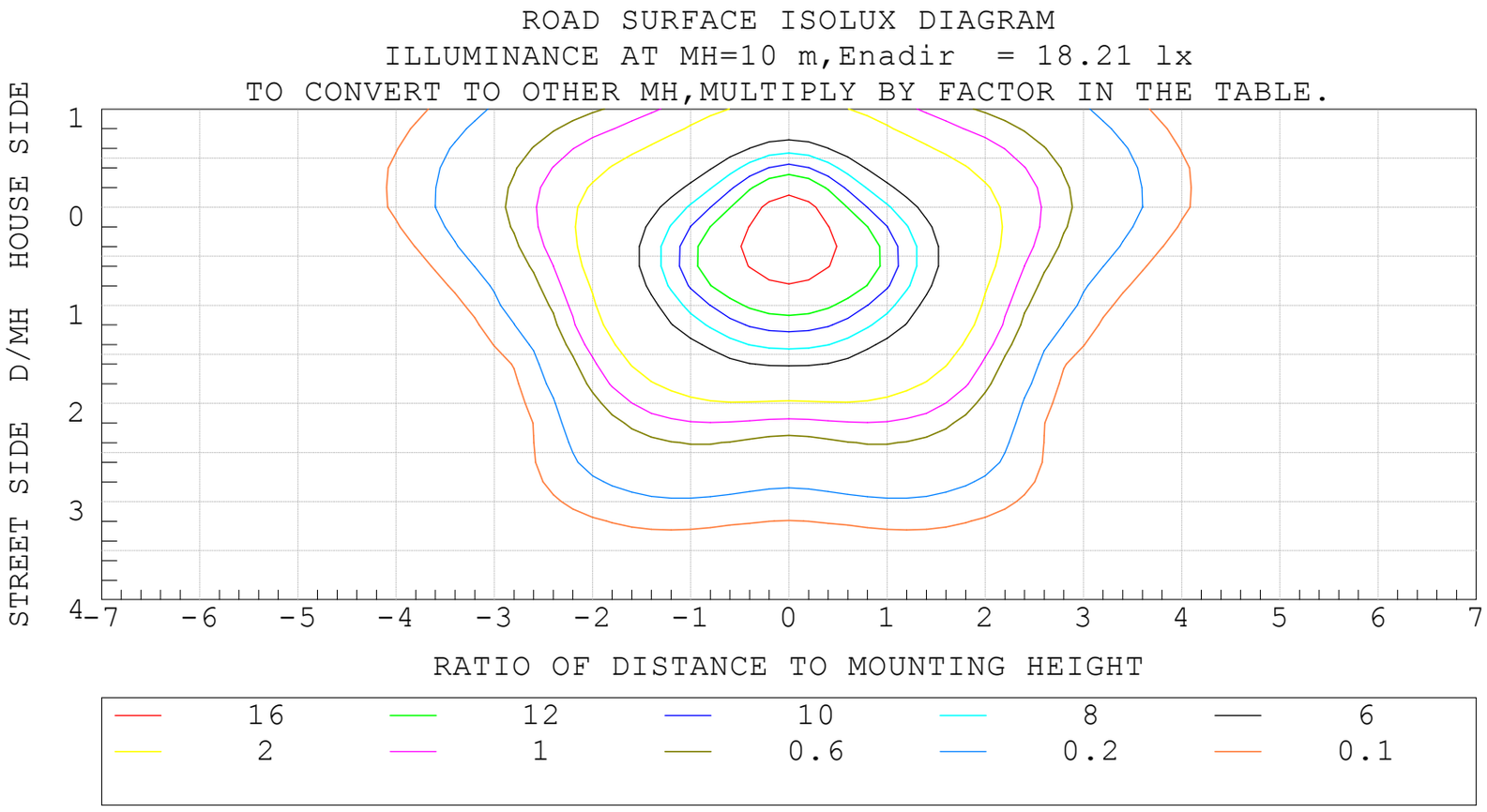
Checker:

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks:

Assessor:

COEFFICIENT OF UTILIZATION CURVE AND ISOLUX DIAGRAM





HEIGHT	FACTOR
5 m	4.000
6 m	2.778
7 m	2.041
8 m	1.563
9 m	1.235
10 m	1.000
11 m	0.826
12 m	0.694
13 m	0.592
14 m	0.510
15 m	0.444
16 m	0.391

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2017-10-26

Checker:

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks:

Assessor:

ZONAL FLUX DIAGRAM

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
5	1811	1906	1949	1906	1811	1728	1697	1728	0- 5	43.48	43.48	0.47,0.47
10	1799	1990	2078	1990	1799	1634	1574	1634	5- 10	129.8	173.3	1.88,1.88
15	1788	2079	2239	2079	1788	1545	1473	1545	10- 15	215.3	388.6	4.21,4.21
20	1792	2199	2400	2199	1792	1469	1371	1469	15- 20	301.0	689.6	7.47,7.47
25	1815	2343	2614	2343	1815	1395	1268	1395	20- 25	388.7	1078	11.7,11.7
30	1873	2568	2828	2568	1873	1318	1165	1318	25- 30	482.5	1561	16.9,16.9
35	1982	2892	3109	2892	1982	1233	1035	1233	30- 35	586.8	2148	23.3,23.3
40	2140	3295	3390	3295	2140	1136	905.3	1136	35- 40	706.1	2854	30.9,30.9
45	2341	3770	3749	3770	2341	1008	756.3	1008	40- 45	840.5	3694	40,40
50	2561	4252	4107	4252	2561	865.4	607.3	865.4	45- 50	984.2	4678	50.7,50.7
55	2772	4476	4343	4476	2772	700.7	474.5	700.7	50- 55	1116	5795	62.7,62.7
60	2892	4475	3635	4475	2892	527.6	397.7	527.6	55- 60	1190	6985	75.6,75.6
65	2658	3522	1310	3522	2658	399.8	353.7	399.8	60- 65	1056	8041	87.1,87.1
70	1856	1557	614.7	1557	1856	314.5	286.2	314.5	65- 70	673.7	8714	94.4,94.4
75	950.7	509.8	195.2	509.8	950.7	217.4	215.9	217.4	70- 75	323.9	9038	97.9,97.9
80	324.9	139.9	105.3	139.9	324.9	115.1	145.5	115.1	75- 80	127.9	9166	99.2,99.2
85	66.89	74.10	56.58	74.10	66.89	59.40	75.07	59.40	80- 85	52.67	9219	99.8,99.8
90	5.518	8.122	7.875	8.122	5.518	6.439	4.625	6.439	85- 90	16.82	9236	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		

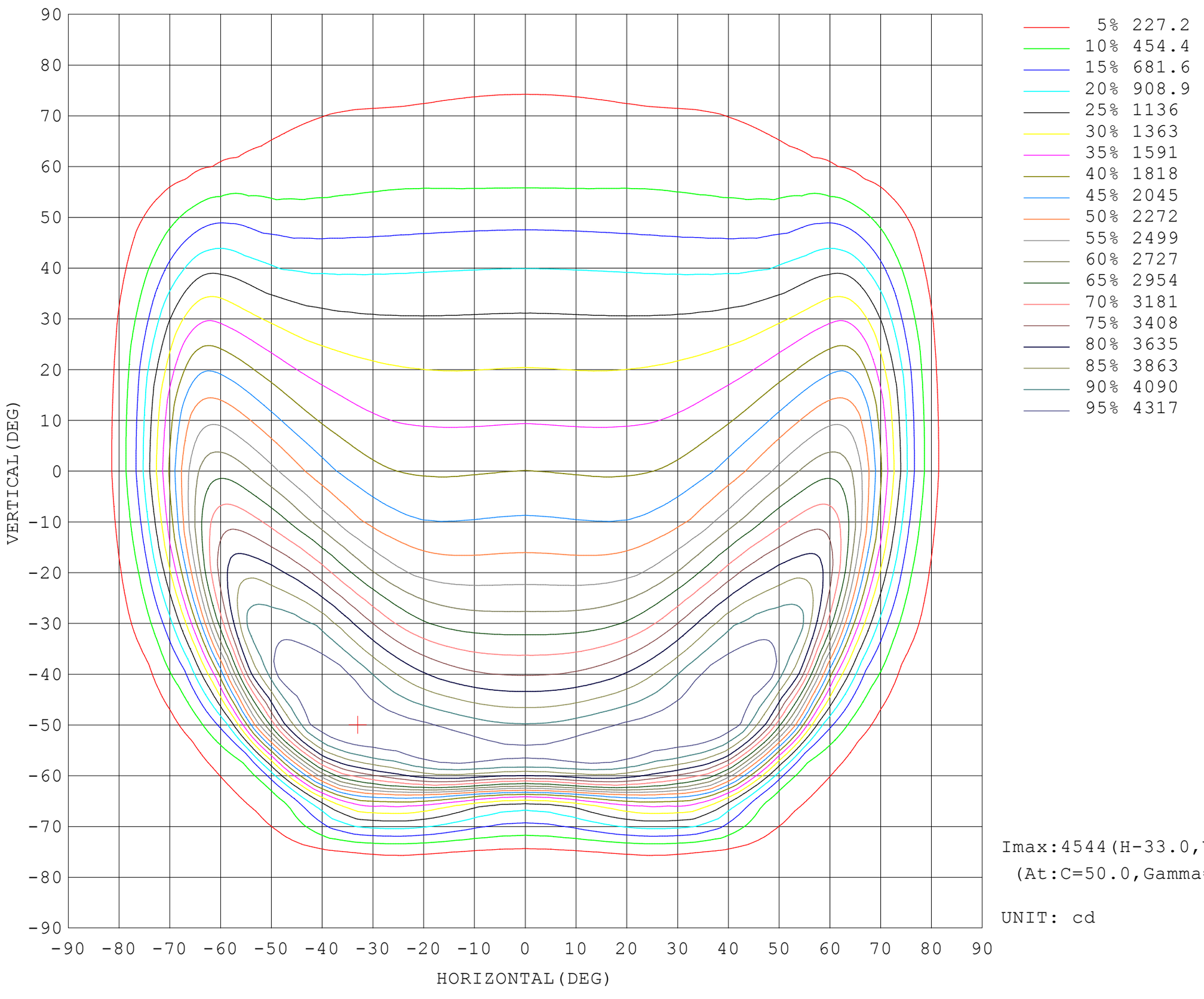
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2017-10-26

Checker:

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks:

Assessor:

ISOCANDELA DIAGRAM



Imax:4544(H-33.0,V-50.0)
(At:C=50.0,Gamma=57.5)

UNIT: cd

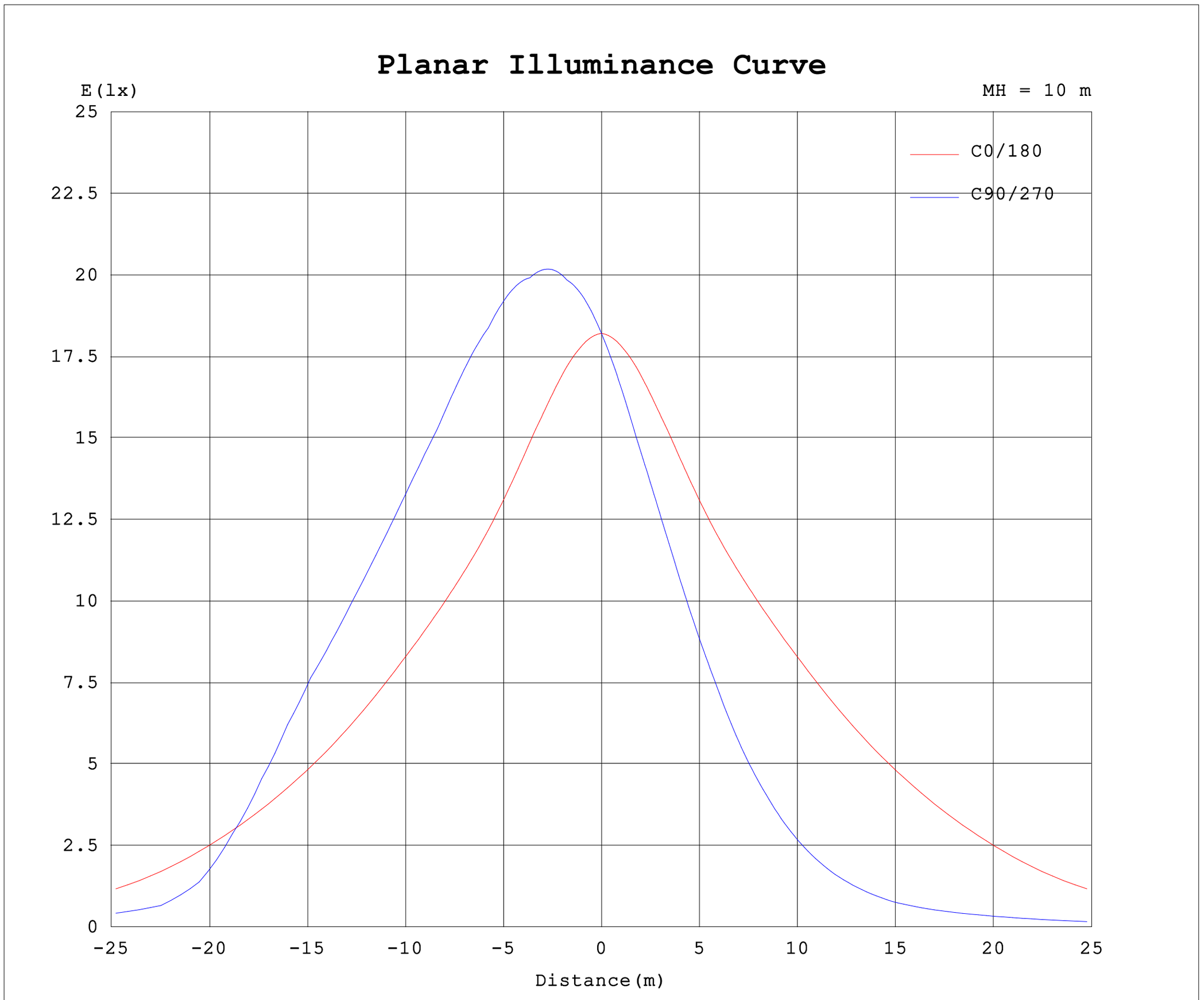
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2017-10-26

Checker:

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks:

Assessor:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2017-10-26

Checker:

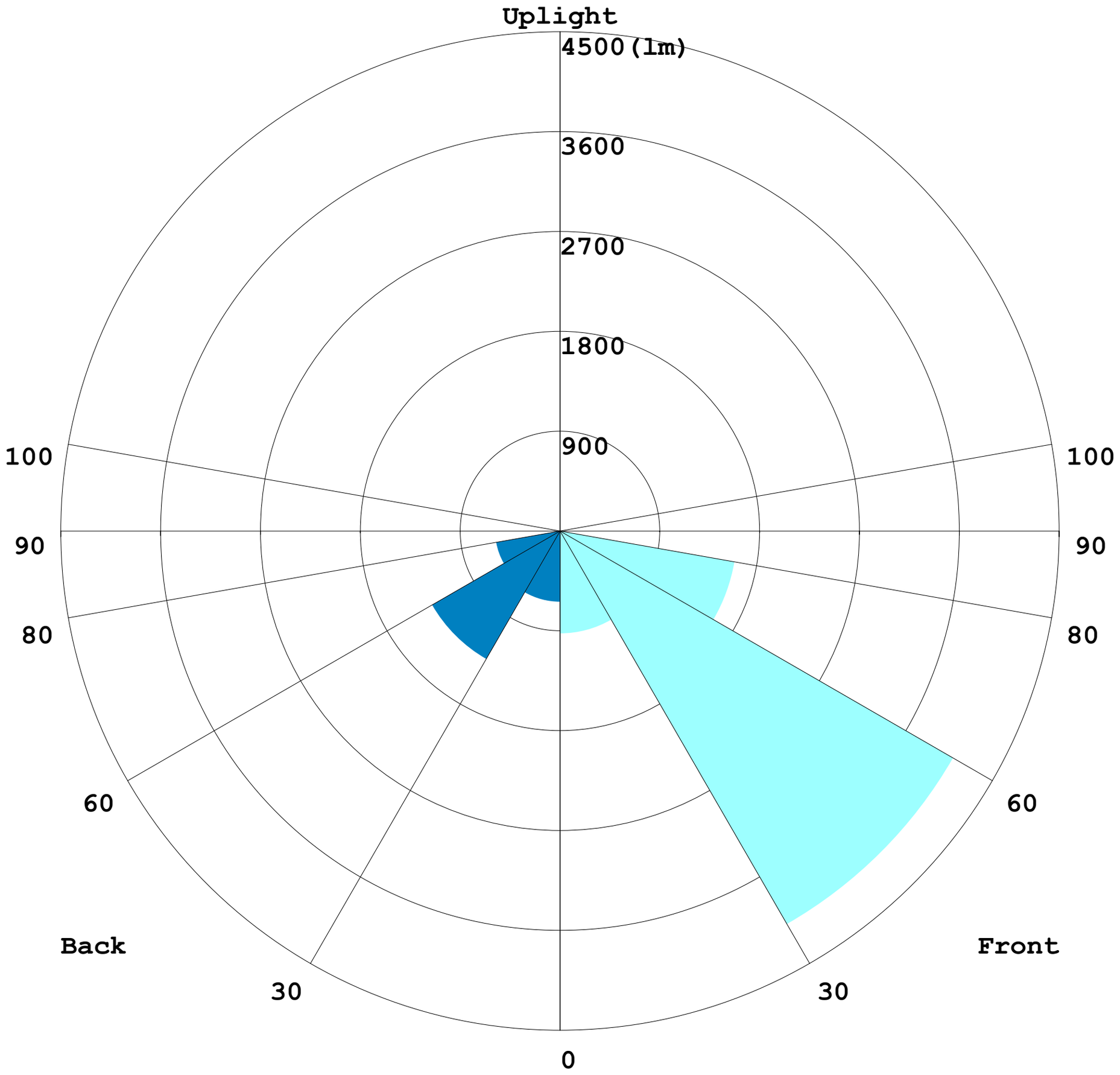
γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks:

Assessor:

LCS REPORT

Test:U:230.1V I:0.3035A P:67.58W PF:0.9681 Lamp Flux:9235.59x1 lm		
NAME: WP01-070	TYPE:70W	WEIGHT:
SPEC.:5000K Ra70 R08401	DIM.: 0.296*0.15*0.223	SERIAL No.:
MFR.:	SUR.:0.265*0.085	Shielding Angle:

LUMINAIRE CLASSIFICATION SYSTEM(LCS) GRAPH



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2017-10-26

Checker:

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks:

Assessor:

BUG REPORT

Test:U:230.1V I:0.3035A P:67.58W PF:0.9681 Lamp Flux:9235.59x1 lm		
NAME: WP01-070	TYPE:70W	WEIGHT:
SPEC.:5000K Ra70 R08401	DIM.: 0.296*0.15*0.223	SERIAL No.:
MFR.:	SUR.:0.265*0.085	Shielding Angle:

IESNA Luminaire Flux Distribution Table:

Zone	Lumens	Luminaire %
FL - Front-Low(0-30)	922.8	10.0
FM - Front-Medium(30-60)	4092	44.3
FH - Front-High(60-80)	1597.3	17.3
FVH - Front-Very High(80-90)	32.774	0.4
Total Forward Light	6644.9	71.9

BL - Back-Low(0-30)	637.97	6.9
BM - Back-Medium(30-60)	1332.1	14.4
BH - Back-High(60-80)	583.93	6.3
BVH - Back-Very High(80-90)	36.72	0.4
Total Back Light	2590.7	28.1

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-G2

Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	2590.7	0	2590.7
Street Side	6644.9	0	6644.9

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2017-10-26

Checker:

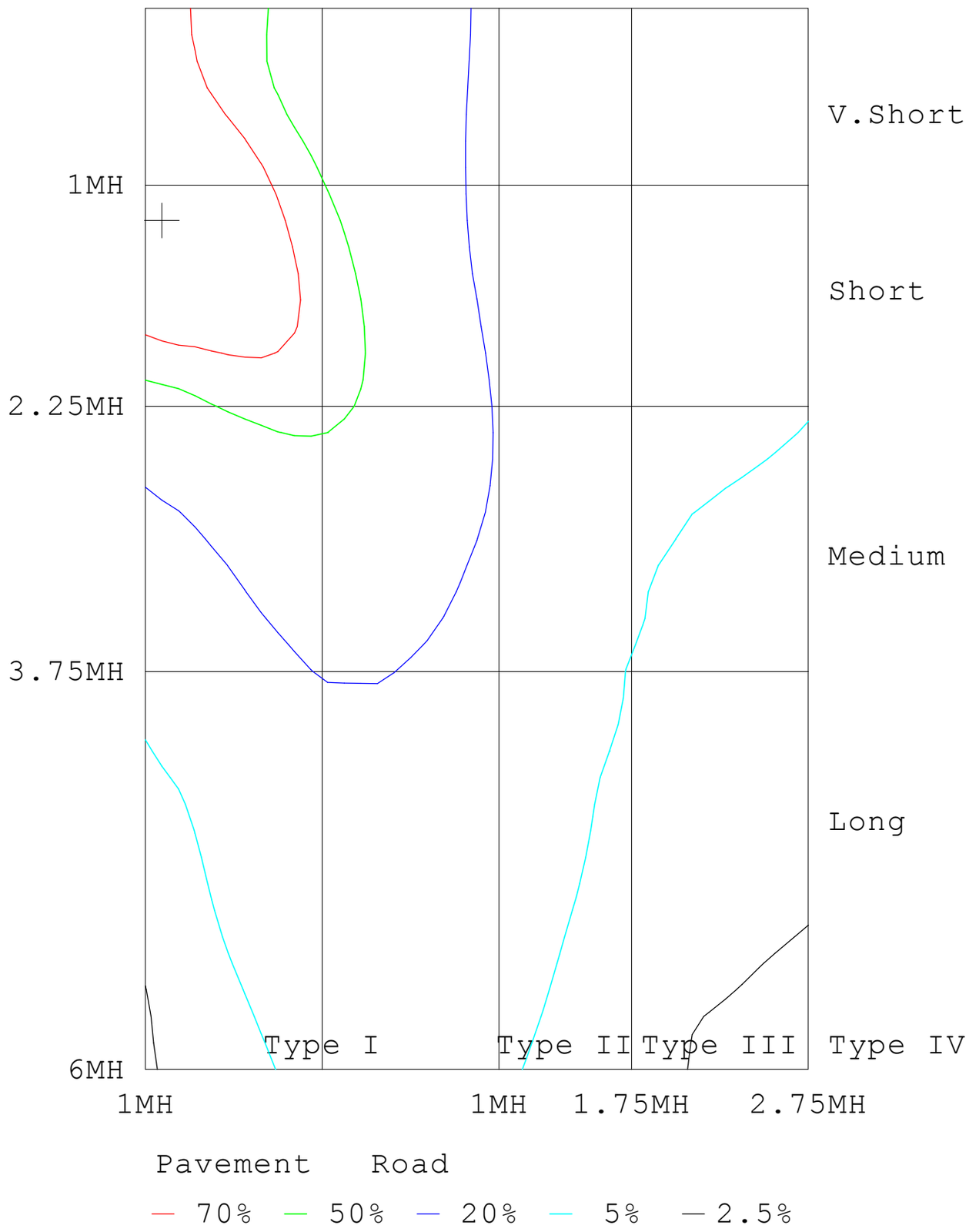
γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks:

Assessor:

ROAD ISOCANDELA REPORT

Test:U:230.1V I:0.3035A P:67.58W PF:0.9681 Lamp Flux:9235.59x1 lm		
NAME: WP01-070	TYPE:70W	WEIGHT:
SPEC.:5000K Ra70 R08401	DIM.: 0.296*0.15*0.223	SERIAL No.:
MFR.:	SUR.:0.265*0.085	Shielding Angle:

ROAD SURFACE ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2017-10-26

Checker:

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks:

Assessor:

LUMINOUS DISTRIBUTION INTENSITY DATA

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	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821
5	1811	1823	1834	1845	1856	1867	1878	1888	1897	1906	1914	1922	1928	1934	1939	1943	1946	1948	1949
10	1799	1822	1844	1867	1889	1911	1932	1952	1972	1990	2007	2022	2036	2048	2058	2066	2072	2076	2078
15	1788	1823	1857	1891	1925	1957	1989	2019	2047	2079	2110	2138	2163	2185	2203	2218	2229	2236	2239
20	1792	1840	1886	1931	1974	2015	2058	2109	2156	2199	2238	2272	2302	2330	2353	2373	2387	2396	2400
25	1815	1882	1946	2005	2058	2121	2188	2247	2298	2343	2384	2432	2479	2518	2551	2577	2597	2609	2614
30	1873	1969	2057	2134	2220	2316	2393	2452	2503	2568	2624	2671	2711	2745	2772	2795	2813	2823	2828
35	1982	2119	2242	2350	2492	2606	2691	2776	2844	2892	2925	2950	2990	3025	3054	3076	3093	3105	3109
40	2140	2332	2503	2687	2865	3000	3124	3215	3269	3295	3318	3335	3350	3364	3371	3378	3383	3388	3390
45	2341	2593	2817	3080	3304	3492	3639	3731	3761	3770	3767	3755	3741	3740	3747	3748	3746	3746	3749
50	2561	2871	3167	3470	3729	3951	4125	4193	4244	4252	4176	4138	4129	4140	4147	4137	4119	4107	4107
55	2772	3127	3475	3808	4061	4268	4376	4505	4497	4476	4458	4458	4428	4416	4422	4420	4384	4352	4343
60	2892	3263	3597	3849	4124	4134	4298	4277	4408	4475	4390	4284	4212	4190	4155	4020	3841	3690	3635
65	2658	2819	2890	2875	2819	2974	3094	3334	3456	3522	3432	3241	3048	2732	2325	1908	1586	1377	1310
70	1856	1737	1479	1244	1122	1045	1086	1166	1378	1557	1589	1530	1394	1258	1080	894	738	644	615
75	951	719	505	362	278	261	254	280	342	510	638	631	540	437	334	267	225	203	195
80	325	208	108	88.2	81.4	84.3	109	131	146	140	138	138	156	158	142	122	112	108	105
85	66.9	33.6	24.9	23.0	19.7	25.0	33.6	57.0	71.3	74.1	72.9	73.0	80.8	83.2	75.7	65.4	60.2	57.8	56.6
90	5.52	8.22	12.1	11.4	10.5	9.79	9.29	8.76	8.39	8.12	7.88	7.90	7.91	7.94	8.03	8.03	8.02	7.95	7.88

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2017-10-26

Checker:

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks:

Assessor:

LUMINOUS DISTRIBUTION INTENSITY DATA

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	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821
5	1948	1946	1943	1939	1934	1928	1922	1914	1906	1897	1888	1878	1867	1856	1845	1834	1823	1811	1801
10	2076	2072	2066	2058	2048	2036	2022	2007	1990	1972	1952	1932	1911	1889	1867	1844	1822	1799	1778
15	2236	2229	2218	2203	2185	2163	2138	2110	2079	2047	2019	1989	1957	1925	1891	1857	1823	1788	1758
20	2396	2387	2373	2353	2330	2302	2272	2238	2199	2156	2109	2058	2015	1974	1931	1886	1840	1792	1751
25	2609	2597	2577	2551	2518	2479	2432	2384	2343	2298	2247	2188	2121	2058	2005	1946	1882	1815	1760
30	2823	2813	2795	2772	2745	2711	2671	2624	2568	2503	2452	2393	2316	2220	2134	2057	1969	1873	1799
35	3105	3093	3076	3054	3025	2990	2950	2925	2892	2844	2776	2691	2606	2492	2350	2242	2119	1982	1876
40	3388	3383	3378	3371	3364	3350	3335	3318	3295	3269	3215	3124	3000	2865	2687	2503	2332	2140	1988
45	3746	3746	3748	3747	3740	3741	3755	3767	3770	3761	3731	3639	3492	3304	3080	2817	2593	2341	2129
50	4107	4119	4137	4147	4140	4129	4138	4176	4252	4244	4193	4125	3951	3729	3470	3167	2871	2561	2284
55	4352	4384	4420	4422	4416	4428	4458	4458	4476	4497	4505	4376	4268	4061	3808	3475	3127	2772	2423
60	3690	3841	4020	4155	4190	4212	4284	4390	4475	4408	4277	4298	4134	4124	3849	3597	3263	2892	2508
65	1377	1586	1908	2325	2732	3048	3241	3432	3522	3456	3334	3094	2974	2819	2875	2890	2819	2658	2377
70	644	738	894	1080	1258	1394	1530	1589	1557	1378	1166	1086	1045	1122	1244	1479	1737	1856	1765
75	203	225	267	334	437	540	631	638	510	342	280	254	261	278	362	505	719	951	960
80	108	112	122	142	158	156	138	138	140	146	131	109	84.3	81.4	88.2	108	208	325	342
85	57.8	60.2	65.4	75.7	83.2	80.8	73.0	72.9	74.1	71.3	57.0	33.6	25.0	19.7	23.0	24.9	33.6	66.9	73.7
90	7.95	8.02	8.03	8.03	7.94	7.91	7.90	7.88	8.12	8.39	8.76	9.29	9.79	10.5	11.4	12.1	8.22	5.52	5.92

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2017-10-26

Checker:

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks:

Assessor:

LUMINOUS DISTRIBUTION INTENSITY DATA

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	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821
5	1790	1780	1770	1761	1752	1743	1735	1728	1721	1716	1710	1706	1703	1700	1698	1697	1697	1697	1698
10	1757	1737	1718	1699	1681	1664	1649	1634	1621	1610	1600	1592	1585	1580	1576	1574	1574	1574	1576
15	1727	1698	1668	1640	1614	1588	1564	1545	1529	1514	1502	1492	1485	1479	1475	1473	1473	1473	1475
20	1709	1668	1628	1590	1553	1523	1495	1469	1446	1427	1410	1397	1387	1379	1374	1371	1371	1371	1374
25	1704	1648	1594	1546	1504	1465	1428	1395	1365	1339	1318	1301	1288	1278	1272	1269	1268	1269	1272
30	1722	1646	1577	1516	1460	1408	1362	1318	1280	1249	1223	1203	1188	1177	1170	1166	1165	1166	1170
35	1767	1661	1573	1491	1417	1347	1286	1233	1190	1155	1120	1091	1069	1053	1043	1037	1035	1037	1043
40	1832	1693	1571	1462	1361	1273	1199	1136	1078	1031	993	963	940	924	913	908	905	908	913
45	1910	1726	1560	1412	1285	1181	1086	1008	946	898	857	823	797	778	765	758	756	758	765
50	2007	1760	1534	1344	1186	1051	948	865	798	744	702	670	645	627	615	609	607	609	615
55	2085	1770	1486	1244	1045	894	785	701	633	582	551	529	510	494	482	476	474	476	482
60	2113	1734	1392	1101	872	716	605	528	485	458	438	421	408	400	397	397	398	397	397
65	2010	1610	1228	918	677	520	440	400	382	372	362	352	348	349	351	353	354	353	351
70	1536	1234	926	660	461	359	322	315	312	303	291	282	279	281	284	286	286	286	284
75	824	644	464	306	224	210	213	217	221	217	208	202	205	209	213	215	216	215	213
80	290	196	128	119	115	110	108	115	134	140	136	134	137	141	143	145	146	145	143
85	38.6	31.2	30.2	40.4	47.4	51.6	54.3	59.4	69.0	72.9	70.8	69.7	71.0	72.7	74.0	74.9	75.1	74.9	74.0
90	6.32	6.61	6.80	6.87	6.84	6.73	6.59	6.44	6.28	6.09	5.86	5.60	5.32	5.03	4.80	4.63	4.63	4.63	4.80

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2017-10-26

Checker:

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks:

Assessor:

LUMINOUS DISTRIBUTION INTENSITY DATA

Table--4 UNIT: cd

C (DEG) / γ (DEG)	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355				
0	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821				
5	1700	1703	1706	1710	1716	1721	1728	1735	1743	1752	1761	1770	1780	1790	1801				
10	1580	1585	1592	1600	1610	1621	1634	1649	1664	1681	1699	1718	1737	1757	1778				
15	1479	1485	1492	1502	1514	1529	1545	1564	1588	1614	1640	1668	1698	1727	1758				
20	1379	1387	1397	1410	1427	1446	1469	1495	1523	1553	1590	1628	1668	1709	1751				
25	1278	1288	1301	1318	1339	1365	1395	1428	1465	1504	1546	1594	1648	1704	1760				
30	1177	1188	1203	1223	1249	1280	1318	1362	1408	1460	1516	1577	1646	1722	1799				
35	1053	1069	1091	1120	1155	1190	1233	1286	1347	1417	1491	1573	1661	1767	1876				
40	924	940	963	993	1031	1078	1136	1199	1273	1361	1462	1571	1693	1832	1988				
45	778	797	823	857	898	946	1008	1086	1181	1285	1412	1560	1726	1910	2129				
50	627	645	670	702	744	798	865	948	1051	1186	1344	1534	1760	2007	2284				
55	494	510	529	551	582	633	701	785	894	1045	1244	1486	1770	2085	2423				
60	400	408	421	438	458	485	528	605	716	872	1101	1392	1734	2113	2508				
65	349	348	352	362	372	382	400	440	520	677	918	1228	1610	2010	2377				
70	281	279	282	291	303	312	315	322	359	461	660	926	1234	1536	1765				
75	209	205	202	208	217	221	217	213	210	224	306	464	644	824	960				
80	141	137	134	136	140	134	115	108	110	115	119	128	196	290	342				
85	72.7	71.0	69.7	70.8	72.9	69.0	59.4	54.3	51.6	47.4	40.4	30.2	31.2	38.6	73.7				
90	5.03	5.32	5.60	5.86	6.09	6.28	6.44	6.59	6.73	6.84	6.87	6.80	6.61	6.32	5.92				

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2017-10-26

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks:

Checker:

Assessor: