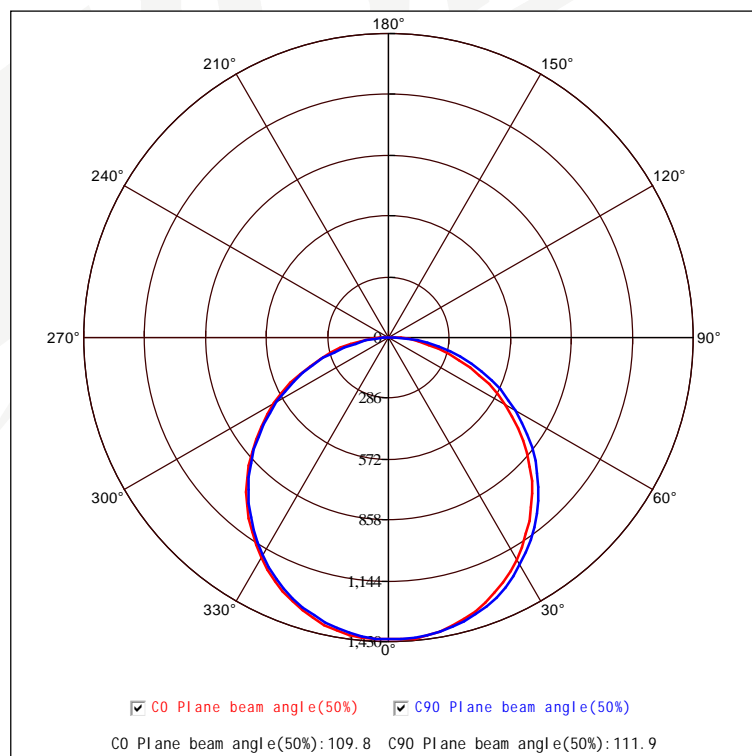


## Goniophotometer Test Report

Measured Para   U: 230.9V   I: 180.0mA   P: 41.04W   PF: 0.984   Test LM: 3988.01lm						
Lamp Name: D600 3000k			Lamp Type:		Weight(kg):	
Lamp ID:			Lamp Spec:		Shape Size: 600	
Manufactory:			Sur(m^2): 0.241		Protect Angle(Deg):	
Light Source Data			Photometric Data			
Model			Peak Value(cd)	1424.5	Efficiency(lm/w)	97.2
Nominal P(w)	1.0		Position	0.0, 2.5	UP(C0-C180)	0.0
Rated Volt(v)	230.0		Total Flux(lm)	3988.010	Down(C0-C180)	52.2
Rated Flux(lm)	1.0		Up Flux Rate(%)	0.0	UP(C180-C360)	0.0
Illuminant QTY	1		Dw Flux Rate(%)	100.0	Down(C180-C360)	47.8

## Planar Intensity Distribution Curve



Gama Angle Range: -90 - 90(Deg)

Gama interval(Deg): 2.5

Temperature(Deg): 26

Tester: 01

Distance(m): 8.970

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval(Deg): 45

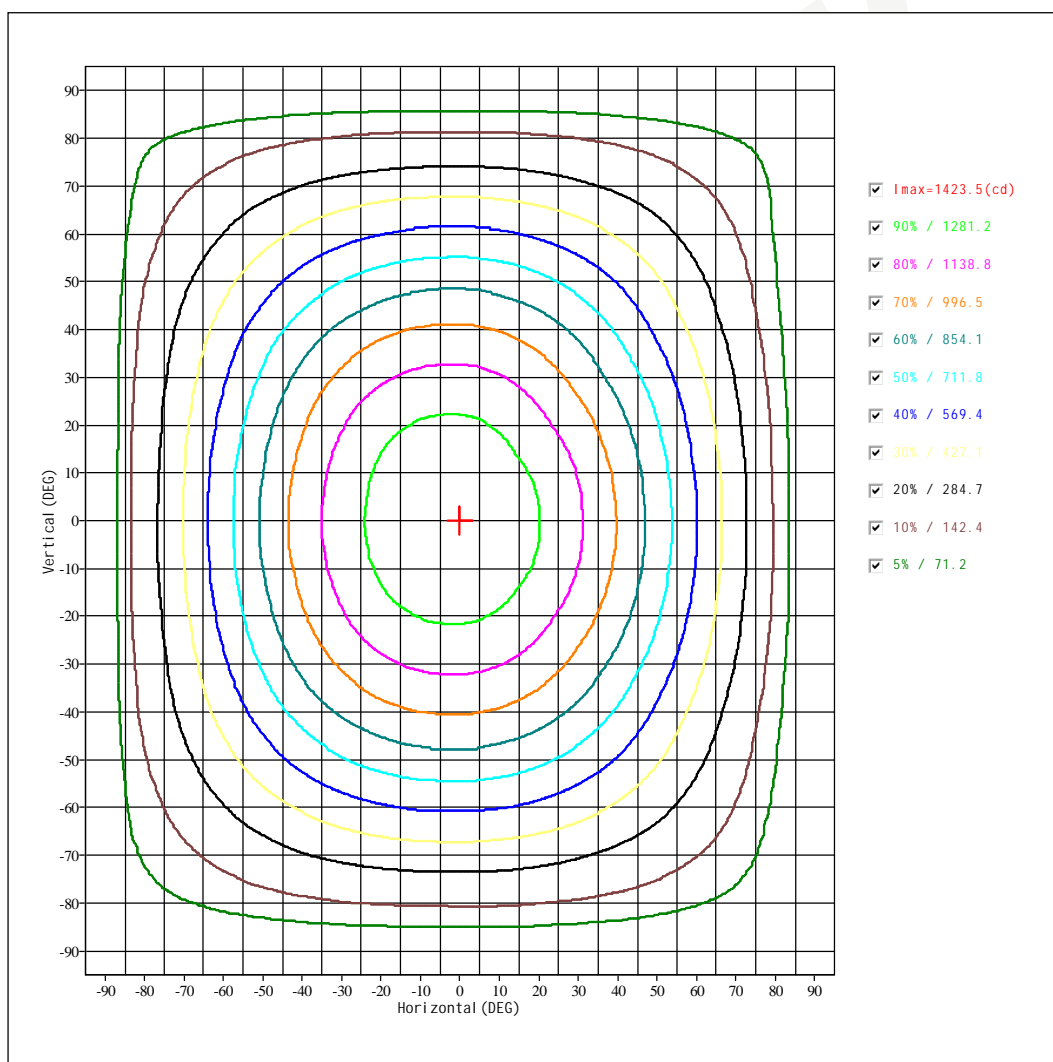
Humidity(%): 60

Date: 2020-04-15

Remark:

Measured Para U: 230.9V I: 180.0mA P: 41.04W PF: 0.984 Test LM: 3988.01lm		
Lamp Name: D600 3000k	Lamp Type:	Weight(kg):
Lamp ID:	Lamp Spec:	Shape Size: 600
Manufactory:	Sur(m <sup>2</sup> ): 0.241	Protect Angle(Deg):

Planar IsoCandela Curve



Gama Angle Range: -90 - 90(Deg)

Gama interval (Deg): 2.5

Temperature(Deg): 26

Tester: 01

Distance(m): 8.970

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval (Deg): 45

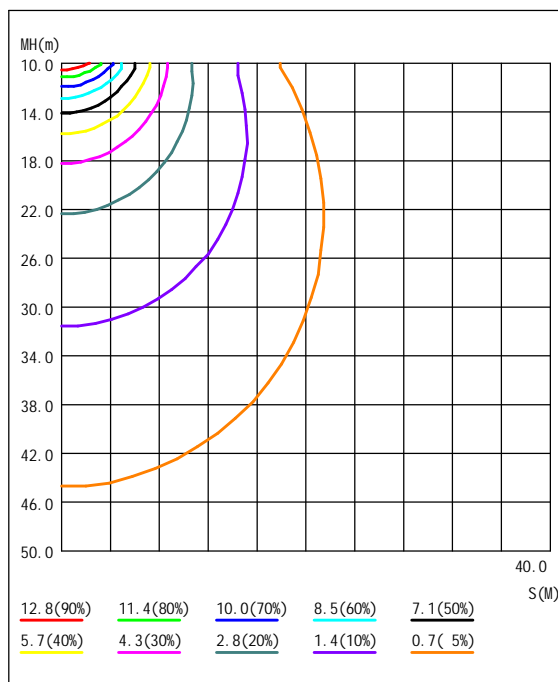
Humidity(%): 60

Date: 2020-04-15

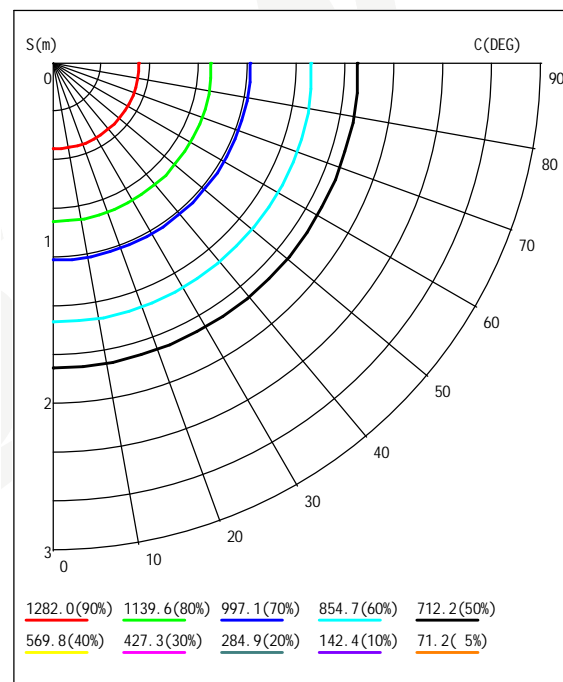
Remark:

Measured Para U: 230.9V I: 180.0mA P: 41.04W PF: 0.984 Test LM: 3988.01lm		
Lamp Name: D600 3000k	Lamp Type:	Weight(kg):
Lamp ID:	Lamp Spec:	Shape Si ze: 600
Manufactory:	Sur(m^2): 0.241	Protect Angle(Deg):

Spacial ISOLUX Curve



Planar ISOLUX Curve



Gama Angle Range: -90 - 90(Deg)

Gama interval(Deg): 2.5

Temperature(Deg): 26

Tester: 01

Distance(m): 8.970

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2020-04-15

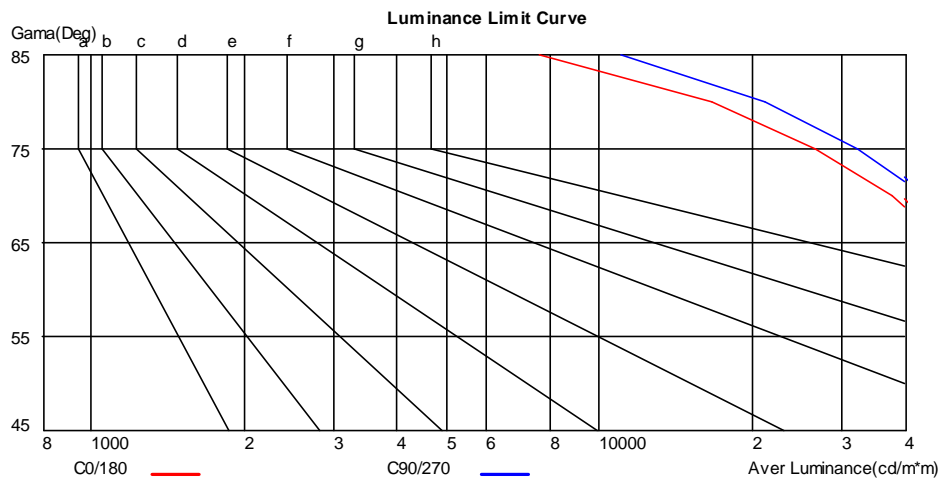
Remark:

Measured Para U: 230.9V I: 180.0mA P: 41.04W PF: 0.984 Test LM: 3988.01lm		
Lamp Name: D600 3000k	Lamp Type:	Weight(kg):
Lamp ID:	Lamp Spec:	Shape Si ze: 600
Manufactory:	Sur(m^2): 0.241	Protect Angle(Deg):

## Luminance Limit Curve

Aver Luminance(cd/m²)									
Gm(Deg)	45	50	55	60	65	70	75	80	85
C0	92520.0	82484.0	71669.0	60469.0	48919.0	37763.0	26684.0	16647.0	7645.0
C90	97163.0	87397.0	77120.0	66153.0	55003.0	43723.0	32285.0	21314.0	11055.0

Glare									
Glare	Class	Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h



Gamma Angle Range: -90 - 90(Deg)

Gamma interval (Deg): 2.5

Temperature(Deg): 26

Tester: 01

Distance(m): 8.970

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval (Deg): 45

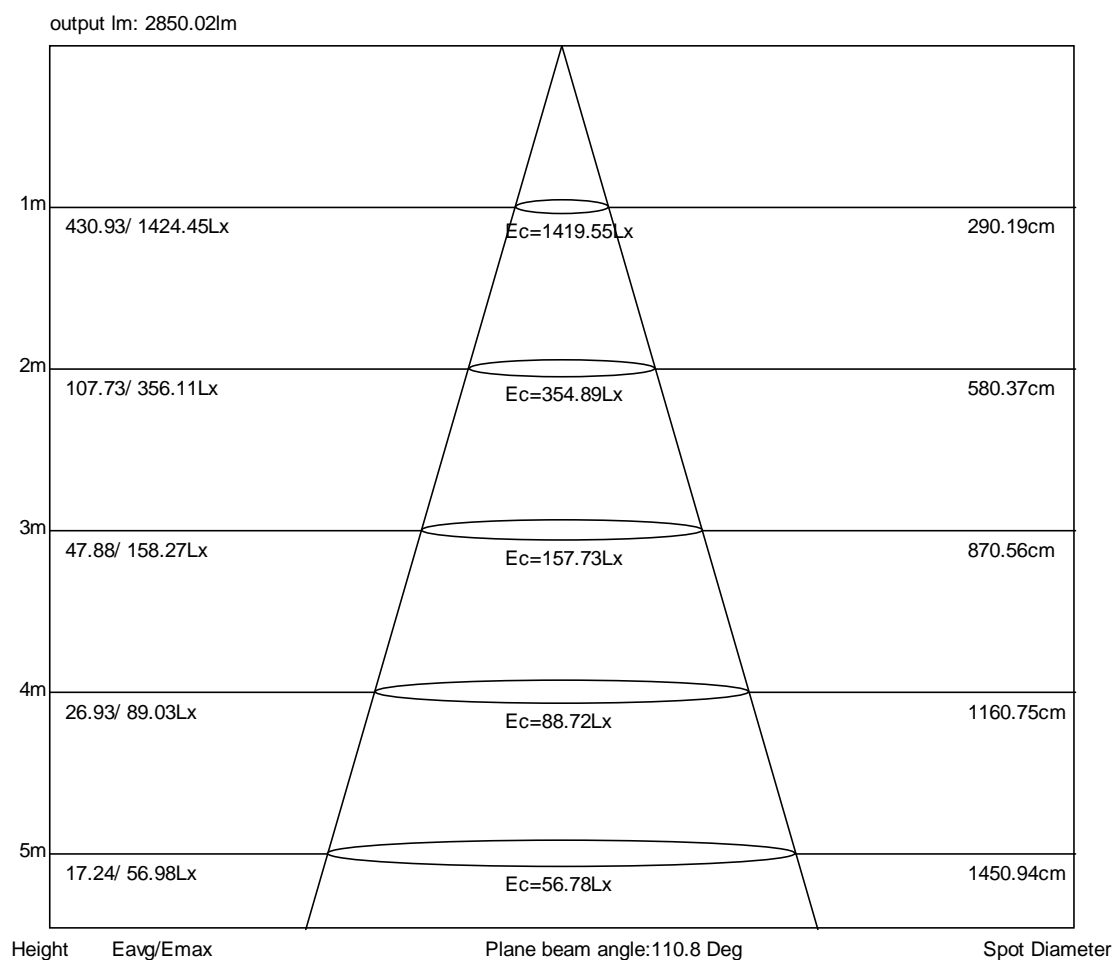
Humidity(%): 60

Date: 2020-04-15

Remark:

Measured Para U: 230.9V I: 180.0mA P: 41.04W PF: 0.984 Test LM: 3988.01lm		
Lamp Name: D600 3000k	Lamp Type:	Weight(kg):
Lamp ID:	Lamp Spec:	Shape Si ze: 600
Manufactory:	Sur(m^2): 0.241	Protect Angle(Deg):

## Average Illumination



Gama Angle Range: -90 - 90(Deg)

Gama interval (Deg): 2.5

Temperature(Deg): 26

Tester: 01

Distance(m): 8.970

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval (Deg): 45

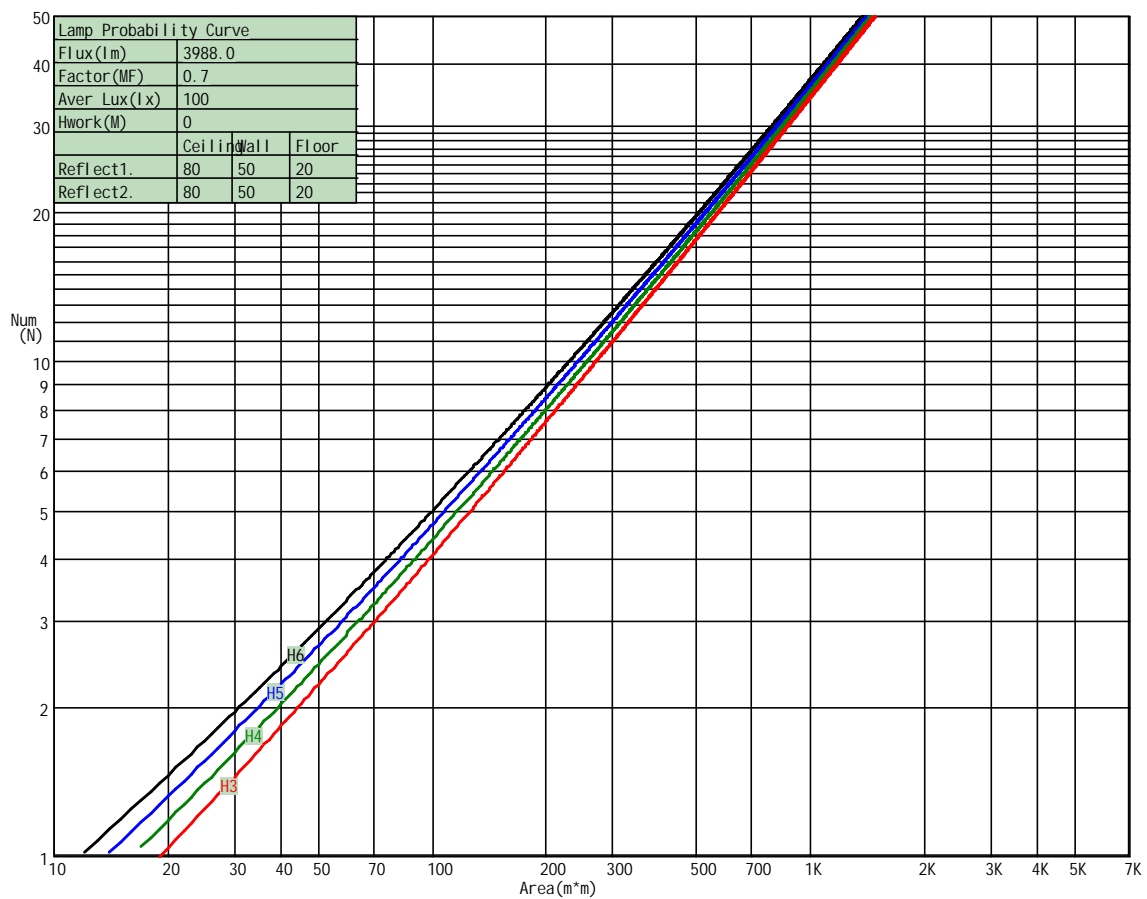
Humidity(%): 60

Date: 2020-04-15

Remark:

Measured Para U: 230.9V I: 180.0mA P: 41.04W PF: 0.984 Test LM: 3988.0lm		
Lamp Name: D600 3000k	Lamp Type:	Weight(kg):
Lamp ID:	Lamp Spec:	Shape Size: 600
Manufactory:	Sur(m <sup>2</sup> ): 0.241	Protect Angle(Deg):

Lamp Probability Curve



Gama Angle Range: -90 - 90(Deg)

Gama interval (Deg): 2.5

Temperature(Deg): 26

Tester: 01

Distance(m): 8.970

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval (Deg): 45

Humidity(%): 60

Date: 2020-04-15

Remark:

Measured Para U: 230.9V I: 180.0mA P: 41.04W PF: 0.984 Test LM: 3988.01lm		
Lamp Name: D600 3000k	Lamp Type:	Weight(kg):
Lamp ID:	Lamp Spec:	Shape Si ze: 600
Manufactory:	Sur(m^2): 0.241	Protect Angle(Deg):

UF Table

Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5
Wall	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3
Floor	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
0.60	53	38	29	51	37	28	48	36	28
0.80	57	41	30	55	40	29	51	38	29
1.00	60	43	31	58	42	31	53	39	29
1.25	63	45	32	60	43	31	55	41	30
1.50	65	47	32	62	45	32	56	41	30
2.00	68	49	33	64	46	32	57	42	30
2.50	69	49	33	65	47	32	57	42	30
3.00	70	50	33	66	48	32	58	43	29
4.00	71	51	34	67	48	32	58	43	29
5.00	72	52	34	67	49	32	59	43	29

CoEfficients Utilization

Ceiling(%)		0			0			0			0			0	
Wall (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Floor (%)		0			0			0			0			0	
0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02
1	1.04	0.99	0.95	1.01	0.98	0.94	0.97	0.94	0.91	0.93	0.91	0.88	0.9	0.88	0.86
2	0.9	0.83	0.78	0.88	0.82	0.77	0.85	0.8	0.75	0.82	0.77	0.73	0.79	0.75	0.72
3	0.79	0.71	0.64	0.78	0.7	0.64	0.75	0.68	0.63	0.72	0.66	0.62	0.69	0.65	0.61
4	0.7	0.61	0.55	0.69	0.61	0.54	0.66	0.59	0.53	0.64	0.58	0.53	0.62	0.56	0.52
5	0.63	0.54	0.47	0.62	0.53	0.47	0.59	0.52	0.46	0.57	0.51	0.46	0.56	0.5	0.45
6	0.56	0.47	0.41	0.56	0.47	0.41	0.54	0.46	0.4	0.52	0.45	0.4	0.5	0.44	0.4
7	0.51	0.42	0.36	0.5	0.42	0.36	0.49	0.41	0.36	0.47	0.41	0.36	0.46	0.4	0.35
8	0.47	0.38	0.32	0.46	0.38	0.32	0.45	0.37	0.32	0.43	0.37	0.32	0.42	0.36	0.32
9	0.43	0.35	0.29	0.42	0.34	0.29	0.41	0.34	0.29	0.4	0.33	0.29	0.39	0.33	0.29
10	0.4	0.32	0.26	0.39	0.31	0.26	0.38	0.31	0.26	0.37	0.31	0.26	0.36	0.3	0.26

Gama Angle Range: -90 - 90(Deg)

Gama interval (Deg): 2.5

Temperature(Deg): 26

Tester: 01

Distance(m): 8.970

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval (Deg): 45

Humidity(%): 60

Date: 2020-04-15

Remark:

Measured Para U: 230.9V I: 180.0mA P: 41.04W PF: 0.984 Test LM: 3988.01lm		
Lamp Name: D600 3000k	Lamp Type:	Weight(kg):
Lamp ID:	Lamp Spec:	Shape Size: 600
Manufactory:	Sur(m <sup>2</sup> ): 0.241	Protect Angle(Deg):

Wall Exitance CoEfficients

Ceiling(%)		0			0			0			0			0	
Wall (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Floor (%)		0			0			0			0			0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0.31	0.18	0.06	0.31	0.17	0.06	0.29	0.17	0.05	0.28	0.16	0.05	0.27	0.16	0.05
2	0.29	0.16	0.05	0.29	0.16	0.05	0.27	0.15	0.05	0.26	0.15	0.05	0.25	0.14	0.05
3	0.27	0.14	0.04	0.27	0.14	0.04	0.25	0.14	0.04	0.25	0.13	0.04	0.24	0.13	0.04
4	0.25	0.13	0.04	0.24	0.13	0.04	0.24	0.12	0.04	0.23	0.12	0.04	0.22	0.12	0.04
5	0.23	0.12	0.03	0.23	0.12	0.03	0.22	0.11	0.03	0.21	0.11	0.03	0.2	0.11	0.03
6	0.21	0.11	0.03	0.21	0.11	0.03	0.2	0.1	0.03	0.2	0.1	0.03	0.19	0.1	0.03
7	0.2	0.1	0.03	0.2	0.1	0.03	0.19	0.1	0.03	0.18	0.09	0.03	0.18	0.09	0.03
8	0.19	0.09	0.03	0.18	0.09	0.03	0.18	0.09	0.03	0.17	0.09	0.03	0.17	0.09	0.02
9	0.17	0.08	0.02	0.17	0.08	0.02	0.17	0.08	0.02	0.16	0.08	0.02	0.16	0.08	0.02
10	0.16	0.08	0.02	0.16	0.08	0.02	0.16	0.08	0.02	0.15	0.08	0.02	0.15	0.07	0.02

Ceiling Cavity Exitance CoEfficients

Ceiling(%)		0			0			0			0			0	
Wall (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Floor (%)		0			0			0			0			0	
0	0.19	0.19	0.19	0.16	0.16	0.16	0.11	0.11	0.11	0.06	0.06	0.06	0.02	0.02	0.02
1	0.18	0.16	0.13	0.15	0.13	0.12	0.11	0.09	0.08	0.06	0.05	0.05	0.02	0.02	0.02
2	0.17	0.13	0.1	0.15	0.11	0.08	0.1	0.08	0.06	0.06	0.05	0.03	0.02	0.01	0.01
3	0.16	0.11	0.07	0.14	0.1	0.06	0.1	0.07	0.05	0.06	0.04	0.03	0.02	0.01	0.01
4	0.16	0.1	0.06	0.13	0.09	0.05	0.09	0.06	0.04	0.05	0.04	0.02	0.02	0.01	0.01
5	0.15	0.09	0.05	0.13	0.08	0.04	0.09	0.05	0.03	0.05	0.03	0.02	0.02	0.01	0.01
6	0.14	0.08	0.04	0.12	0.07	0.03	0.08	0.05	0.02	0.05	0.03	0.01	0.02	0.01	0
7	0.14	0.08	0.03	0.12	0.07	0.03	0.08	0.05	0.02	0.05	0.03	0.01	0.02	0.01	0
8	0.13	0.07	0.03	0.11	0.06	0.03	0.08	0.04	0.02	0.04	0.02	0.01	0.01	0.01	0
9	0.12	0.06	0.03	0.11	0.06	0.02	0.07	0.04	0.02	0.04	0.02	0.01	0.01	0.01	0
10	0.12	0.06	0.02	0.1	0.05	0.02	0.07	0.04	0.01	0.04	0.02	0.01	0.01	0.01	0

Gama Angle Range: -90 - 90(Deg)

Gama interval (Deg): 2.5

Temperature(Deg): 26

Tester: 01

Distance(m): 8.970

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval (Deg): 45

Humidity(%): 60

Date: 2020-04-15

Remark:



Measured Para U: 230.9V I: 180.0mA P: 41.04W PF: 0.984 Test LM: 3988.01lm		
Lamp Name: D600 3000k	Lamp Type:	Weight (kg):
Lamp ID:	Lamp Spec:	Shape Size: 600
Manufactory:	Sur(m^2): 0.241	Protect Angle(Deg):

Ring-shaped Flux Data Table

Gm\C(Deg)	0	45	90	135	180	225	270	315	Range	Ring	T(lm)
5	1420	1420	1417	1412	1416	1407	1406	1401	0-5	33.8	33.8
10	1396	1404	1402	1397	1391	1380	1380	1374	5-10	100	134
15	1360	1373	1373	1367	1356	1339	1345	1334	10-15	163	297
20	1314	1331	1333	1323	1307	1289	1295	1283	15-20	220	517
25	1257	1278	1281	1270	1247	1226	1234	1219	20-25	269	785
30	1187	1213	1218	1205	1177	1153	1165	1147	25-30	308	1093
35	1108	1138	1145	1130	1097	1070	1085	1064	30-35	337	1430
40	1018	1053	1062	1046	1009	979	995	973	35-40	354	1784
45	925	961	972	952	913	881	900	873	40-45	359	2142
50	825	862	874	853	809	776	796	772	45-50	352	2495
55	717	758	771	747	702	667	687	665	50-55	334	2828
60	605	647	662	638	591	553	576	552	55-60	304	3132
65	489	536	550	526	477	441	463	440	60-65	266	3398
70	378	425	437	415	363	330	349	330	65-70	220	3618
75	267	315	323	310	254	223	237	224	70-75	169	3787
80	166	211	213	206	154	122	132	123	75-80	116	3903
85	76.5	113	111	108	63.4	36.2	36.2	37.4	80-85	64.1	3967
90	10.4	26.8	28.9	25	5.44	5.67	5.81	5.6	85-90	21.2	3988
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		

Gama Angle Range: -90 - 90(Deg)

Gama interval (Deg): 2.5

Temperature(Deg): 26

Tester: 01

Distance(m): 8.970

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval (Deg): 45

Humidity(%): 60

Date: 2020-04-15

Remark:

Measured Para U: 230.9V I: 180.0mA P: 41.04W PF: 0.984 Test LM: 3988.01lm		
Lamp Name: D600 3000k	Lamp Type:	Weight (kg):
Lamp ID:	Lamp Spec:	Shape Size: 600
Manufactory:	Sur(m <sup>2</sup> ): 0.241	Protect Angle(Deg):

CD Table

Gm\C(Deg)	0	20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340
5.0	1420	1420	1420	1419	1417	1416	1414	1412	1414	1416	1412	1408	1407	1406	1405	1403	1403	1412
10.0	1396	1400	1403	1403	1402	1401	1398	1396	1393	1391	1386	1381	1380	1380	1379	1376	1377	1387
15.0	1360	1366	1372	1373	1373	1372	1369	1365	1360	1356	1349	1341	1341	1344	1342	1338	1337	1349
20.0	1314	1322	1330	1332	1333	1331	1327	1322	1314	1307	1299	1291	1291	1294	1292	1287	1286	1300
25.0	1257	1266	1276	1279	1280	1278	1274	1268	1257	1247	1238	1229	1229	1232	1231	1224	1223	1240
30.0	1187	1198	1210	1215	1217	1215	1210	1202	1190	1177	1167	1155	1157	1162	1161	1153	1151	1169
35.0	1108	1121	1135	1140	1143	1141	1135	1127	1112	1097	1085	1073	1075	1081	1080	1071	1069	1089
40.0	1018	1033	1049	1056	1060	1058	1051	1041	1025	1009	996	982	984	991	990	980	978	998
45.0	925	941	957	964	969	967	959	948	930	913	899	884	887	896	894	882	879	902
50.0	825	841	858	866	871	869	860	848	828	809	795	779	782	791	790	780	778	802
55.0	717	735	753	762	768	766	755	742	722	702	687	671	674	682	682	672	670	694
60.0	605	623	642	652	658	656	646	633	612	591	574	557	561	571	571	560	558	582
65.0	489	510	531	541	547	545	534	521	499	477	461	445	448	458	458	447	445	468
70.0	378	398	419	429	434	432	422	409	386	363	349	334	336	345	345	336	335	357
75.0	267	288	310	317	321	320	314	304	278	254	240	226	227	234	234	228	229	248
80.0	166	186	206	212	213	211	208	200	177	154	140	125	125	129	130	126	128	147
85.0	76.5	92.3	109	112	111	110	109	103	83.1	63.4	51.5	39.2	36.2	36.2	36.5	37	41.6	59.4
90.0	10.4	17.5	25	27.5	28.4	28	26.3	22.8	14	5.44	5.54	5.64	5.72	5.78	5.76	5.67	6.12	8.28
95.0																		
100.0																		
105.0																		
110.0																		
115.0																		
120.0																		
125.0																		
130.0																		
135.0																		
140.0																		
145.0																		
150.0																		
155.0																		
160.0																		
165.0																		
170.0																		
175.0																		
180.0																		

Gama Angle Range: -90 - 90(Deg)

Gama interval (Deg): 2.5

Temperature(Deg): 26

Tester: 01

Distance(m): 8.970

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval (Deg): 45

Humidity(%): 60

Date: 2020-04-15

Remark:

Measured Para U: 230.9V I: 180.0mA P: 41.04W PF: 0.984 Test LM: 3988.01lm		
Lamp Name: D600 3000k	Lamp Type:	Weight(kg):
Lamp ID:	Lamp Spec:	Shape Size: 600
Manufactory:	Sur(m <sup>2</sup> ): 0.241	Protect Angle(Deg):

## UGR

ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
X = 2H Y = 2H	18.5	19.9	18.7	20.0	20.2	18.7	20.1	18.9	20.2	20.4
3H	19.3	20.6	19.6	20.8	21.0	19.6	20.9	19.9	21.1	21.3
4H	19.7	20.9	20.0	21.1	21.3	20.1	21.3	20.4	21.5	21.8
6H	20.0	21.1	20.3	21.3	21.6	20.5	21.6	20.8	21.9	22.1
8H	20.1	21.2	20.4	21.4	21.7	20.7	21.8	21.0	22.0	22.3
12H	20.1	21.2	20.4	21.4	21.7	20.8	21.8	21.1	22.1	22.4
4H 2H	18.9	20.0	19.2	20.2	20.5	19.0	20.1	19.3	20.4	20.6
3H	19.9	20.9	20.2	21.2	21.5	20.2	21.1	20.5	21.4	21.7
4H	20.4	21.3	20.8	21.6	21.9	20.8	21.7	21.1	22.0	22.3
6H	20.9	21.7	21.2	22.0	22.3	21.3	22.1	21.7	22.5	22.8
8H	21.0	21.8	21.4	22.1	22.5	21.6	22.3	22.0	22.7	23.0
12H	21.1	21.8	21.5	22.2	22.6	21.8	22.5	22.1	22.8	23.2
8H 4H	21.8	22.5	22.2	22.9	23.3	22.1	22.8	22.6	23.2	23.6
6H	22.4	23.0	22.9	23.4	23.9	22.9	23.5	23.3	23.9	24.3
8H	22.7	23.2	23.1	23.6	24.1	23.2	23.8	23.7	24.2	24.7
12H	22.9	23.4	23.4	23.8	24.3	23.5	24.0	24.0	24.5	24.9
12H 4H	21.8	22.4	22.2	22.8	23.2	22.1	22.7	22.6	23.1	23.6
6H	22.5	23.0	23.0	23.4	23.9	23.0	23.4	23.4	23.9	24.3
8H	22.8	23.2	23.3	23.7	24.2	23.4	23.8	23.8	24.2	24.7
Variations with the observer position at spacings:										
S = 1.0H	0.4/-0.4					0.3/-0.4				
1.5H	0.5/-0.5					0.4/-0.4				
2.0H	0.1/-0.3					0.1/-0.3				

Gama Angle Range: -90 - 90(Deg)

Gama interval (Deg): 2.5

Temperature(Deg): 26

Tester: 01

Distance(m): 8.970

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval (Deg): 45

Humidity(%): 60

Date: 2020-04-15

Remark: