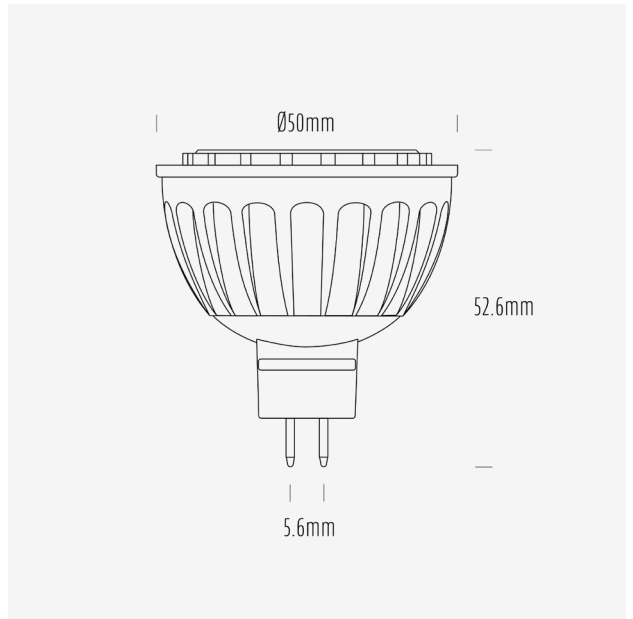


# AGL 300 Series

MR16 LED Globes



## AGL-300-22X40 / 2200K / MR16 / 40°



### Product Data

Product Code	AGL-300-22X40			
Description	Aqualux 300 Series LED Lamp			
Type	MR16 GU5.6			
Construction	Aluminium Heatsink + PMMA Optic			
Warranty	3 Years			

### Electrical Data

Input Voltage Range	12~24V AC/DC			
Nominal Voltage	24VDC			
Nominal Power	3W			
Nominal Current	125mA			
Input Voltage	12VDC	12VAC	<b>24VDC</b>	24VAC
Rated Power	3.4	2.8	<b>3.3</b>	3.4
Operating Frequency	-	50Hz	-	50Hz

Max. no. of lamps on AQD24-040	9	-	<b>9</b>	-
Max. no. of lamps on AQD24-100	>22	-	<b>&gt;22</b>	-
Max. no. of lamps on AQD24-240	-	-	-	-

Dimming Compatibility	Non dimming
Wiring Scheme	Parallel
Startup Time	< 0.5s

### Mechanical & Thermal Data

Overall Length	52.6mm
Max Diameter	50mm
Lamp Base	GU5.6
Weight	55g
Operating Temp Range	-20° - 45°
IP Rating	IP20

### Photometric Data

Nominal Flux (lm)	300			
Input Voltage	12VDC	12VAC	<b>24VDC</b>	24VAC
Input Power (W)	3.4	2.8	<b>3.3</b>	3.4
Rated Flux (lm)	357	293	<b>363</b>	364
Efficacy (lm/W)	105	103	<b>110</b>	105

CCT	2200K
CCT Description	Ultra Warm White
CRI (Ra)	82
CRI (R9)	11
TM-30 (Rf)	85
TM-30 (Rg)	91
SDCM	-
Peak Intensity (cd)	419
Nominal Beam Angle	40°
Measured Beam Angle (FWHM)	43°

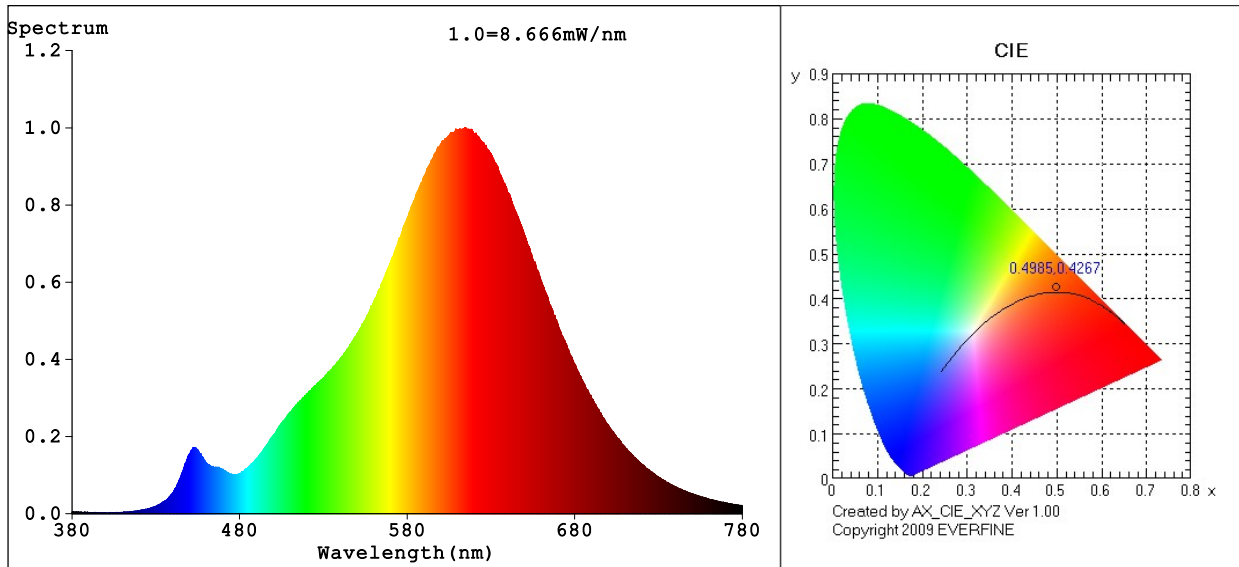
### Lifespan Data

L70	15,000h
Switching Cycles	15,000

### Compliance Data

EMI	Yes
RCM	N/A
Mercury Content	0mg

### Spectrum Test Report



**Color Parameters:**

Chromaticity Coordinate:  $x=0.4985$   $y=0.4267$  /  $u'=0.2799$   $v'=0.5391$   
 CCT=2350K (Duv=0.0037) Dominant WL:Ld =585.2nm WL:Lc = --nm Purity=77.7%  
 Ratio:R=28.2% G=70.2% B=1.5%; Peak WL:Lp=614.5nm FWHM=114.6nm  
 Render Index:Ra=82.0 AvgR=76.7 TM30:Rf=85 Rg=91

R1 =80 R2 =90 R3 =97 R4 =79 R5 =80 R6 =90 R7 =82  
 R8 =58 R9 =11 R10=79 R11=78 R12=74 R13=82 R14=99 R15=72

**Photo Parameters:**

Flux = 363.4 lm Eff. : 109.64 lm/W Fe = 1.178 W

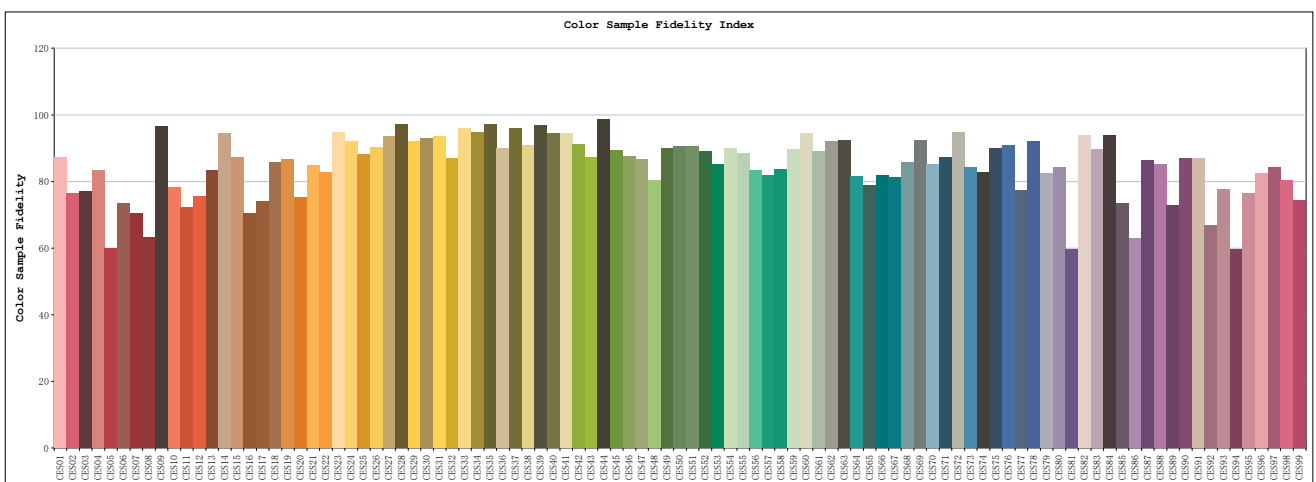
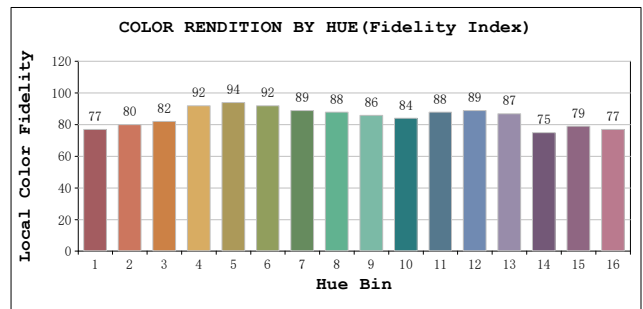
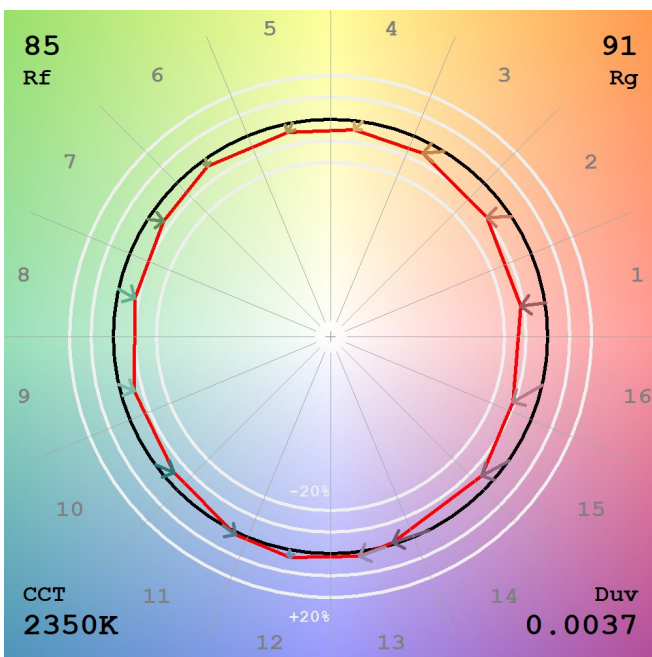
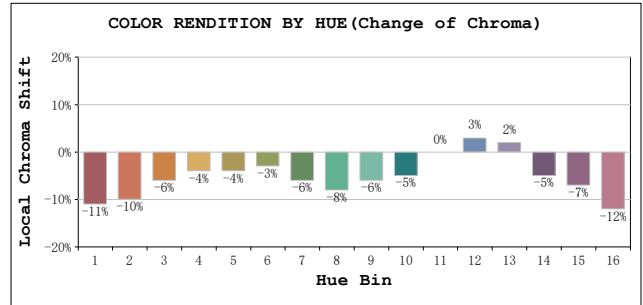
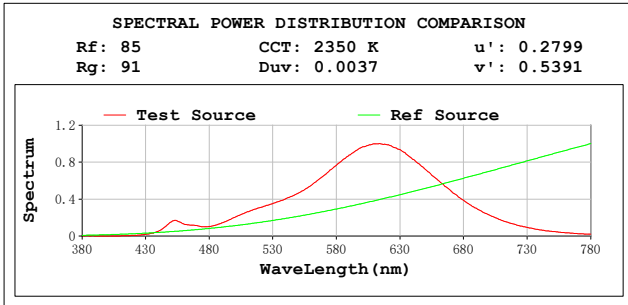
**Electrical parameters:**

V = 23.980 V I = 0.1382 A P = 3.314 W PF = 1.0000  
 LEVEL:OUT WHITE:EXT\_2500K  
 Status: Integral T = 351 ms Ip = 50727 (77%)

**GBT5702**

# TM30

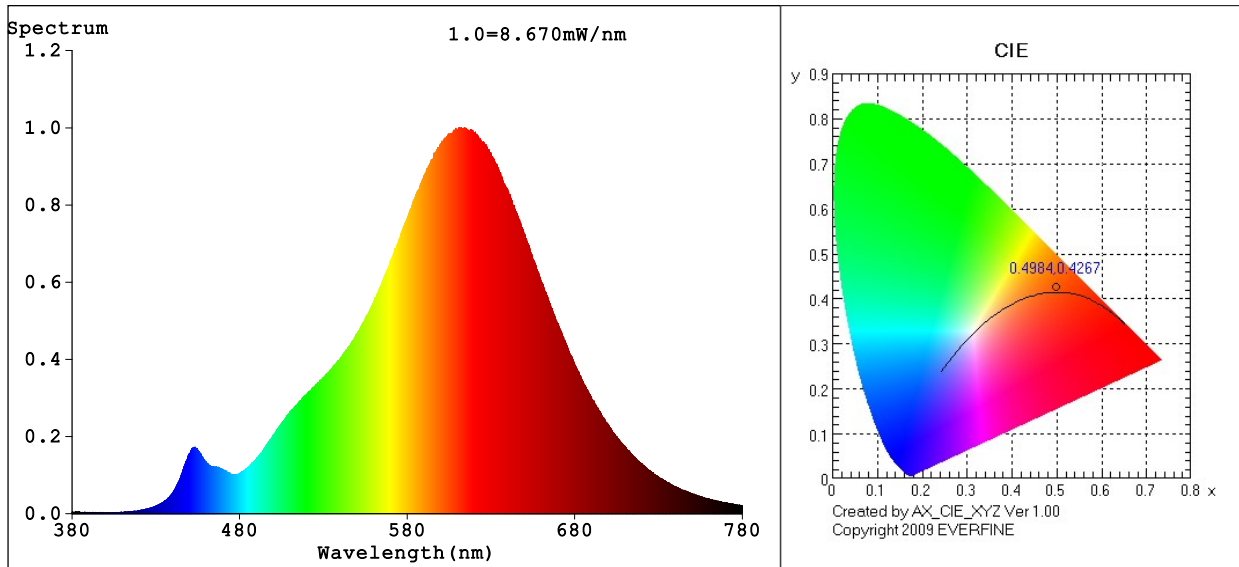
View Angle: 2 Deg



Model:AGL-300-22X40  
 Tester:NC  
 Temperature:25.3Deg  
 Manufacturer:AQUALUX

Number:AGL-300-22X40 24VDC  
 Date:2023-10-16 15:31  
 Humidity:65.0%  
 Remarks:24V DC

### Spectrum Test Report



**Color Parameters:**

Chromaticity Coordinate:  $x=0.4984$   $y=0.4267$  /  $u'=0.2799$   $v'=0.5391$   
 CCT=2351K (Duv=0.0037) Dominant WL:Ld =585.2nm WL:Lc = --nm Purity=77.7%  
 Ratio:R=28.2% G=70.2% B=1.5%; Peak WL:Lp=611.0nm FWHM=114.5nm  
 Render Index:Ra=82.0 AvgR=76.7 TM30:Rf=85 Rg=91

R1 =80 R2 =90 R3 =97 R4 =79 R5 =80 R6 =90 R7 =82  
 R8 =58 R9 =11 R10=79 R11=78 R12=74 R13=82 R14=99 R15=72

**Photo Parameters:**

Flux = 363.7 lm Eff. : 105.49 lm/W Fe = 1.179 W

**Electrical parameters:**

V = 23.975 V I = 0.2332 A P = 3.448 W PF = 0.6168

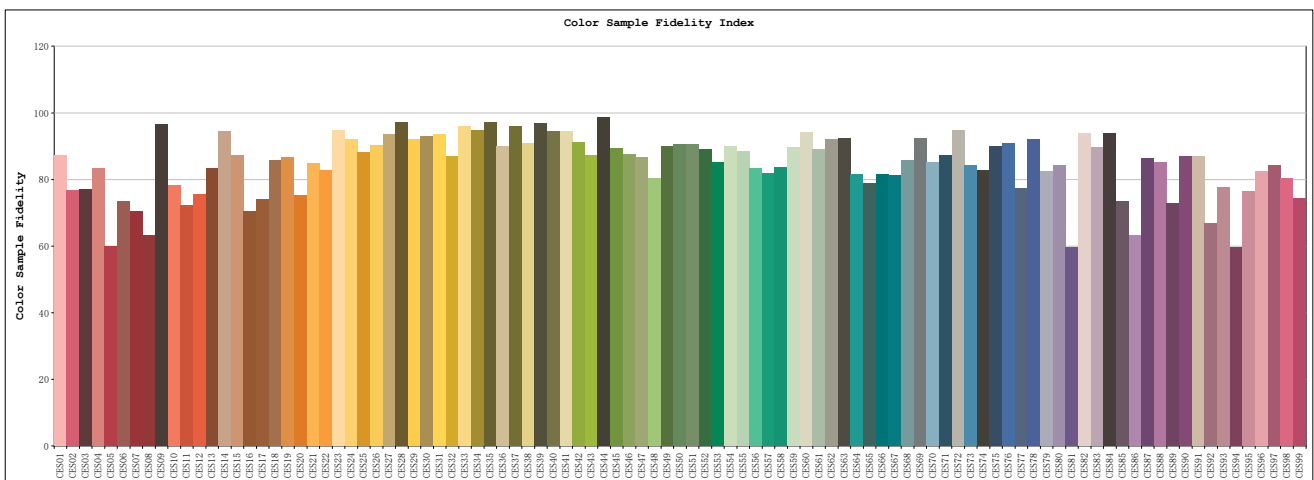
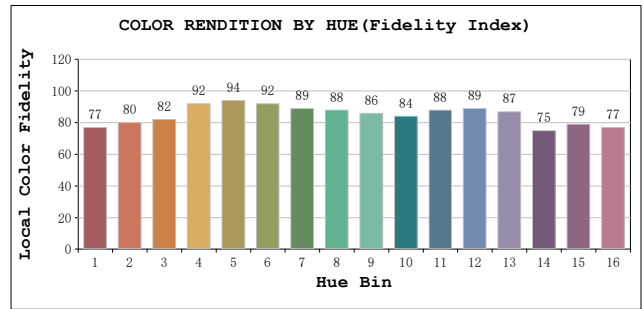
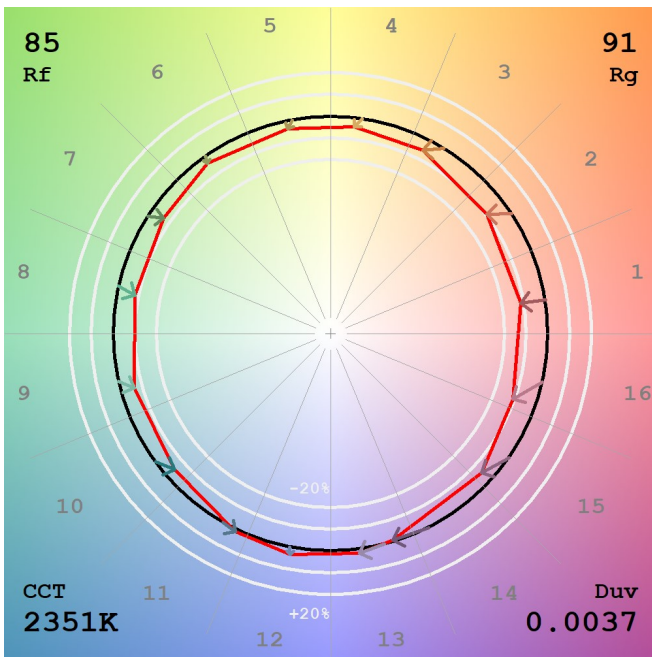
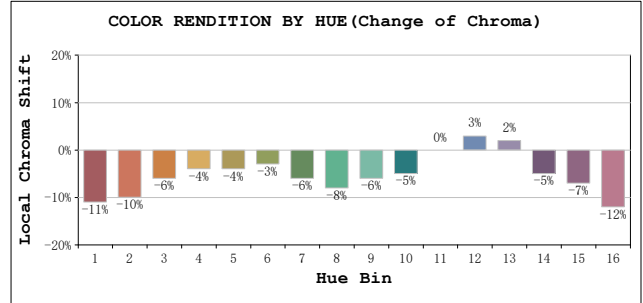
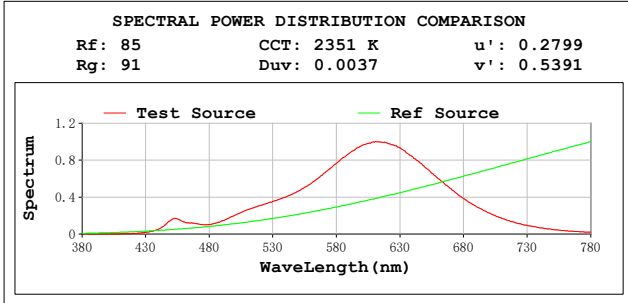
LEVEL:OUT WHITE:EXT\_2500K

Status: Integral T = 351 ms Ip = 50790 (78%)

**GBT5702**

# TM30

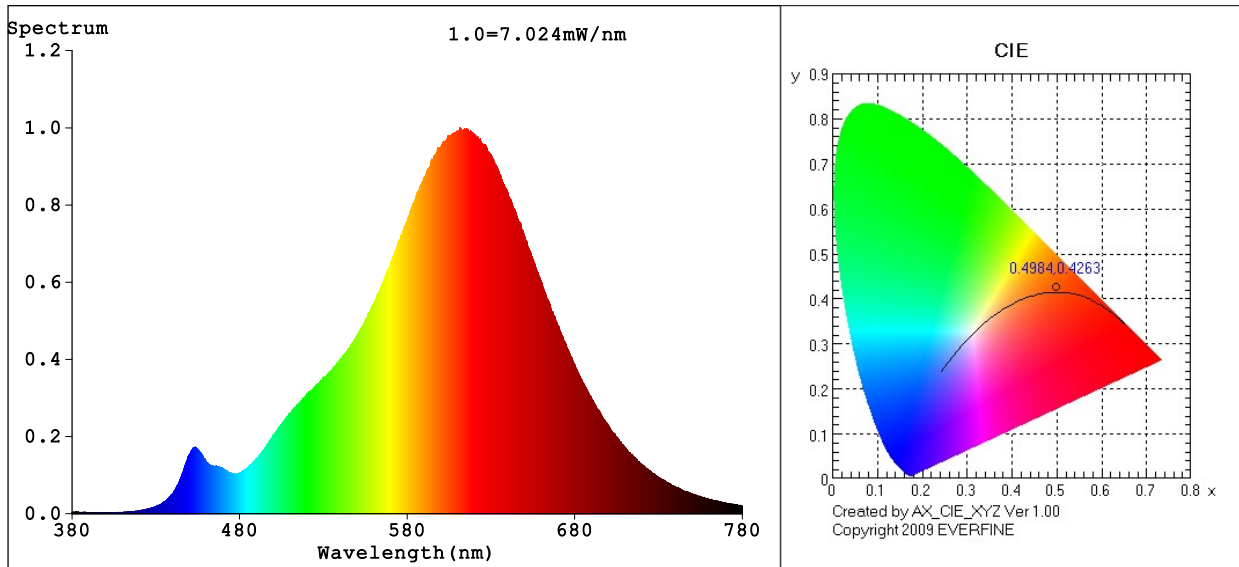
View Angle: 2 Deg



Model: AGL-300-22X40  
 Tester: NC  
 Temperature: 25.3Deg  
 Manufacturer: AQUALUX

Number: AGL-300-22X40 24VAC  
 Date: 2023-10-16 15:31:17  
 Humidity: 65.0%  
 Remarks: 24V AC

### Spectrum Test Report



**Color Parameters:**

Chromaticity Coordinate:  $x=0.4984$   $y=0.4263$  /  $u'=0.2801$   $v'=0.5390$   
 CCT=2348K (Duv=0.0035) Dominant WL:Ld =585.2nm WL:Lc = --nm Purity=77.6%  
 Ratio:R=28.3% G=70.2% B=1.6%; Peak WL:Lp=611.6nm FWHM=114.5nm  
 Render Index:Ra=82.0 AvgR=76.8 TM30:Rf=85 Rg=91

R1 =80 R2 =91 R3 =97 R4 =79 R5 =80 R6 =90 R7 =82  
 R8 =58 R9 =11 R10=80 R11=78 R12=74 R13=82 R14=99 R15=72

**Photo Parameters:**

Flux = 292.8 lm Eff. : 103.17 lm/W Fe = 949.9 mW

**Electrical parameters:**

V = 11.996 V I = 0.3333 A P = 2.838 W PF = 0.7098

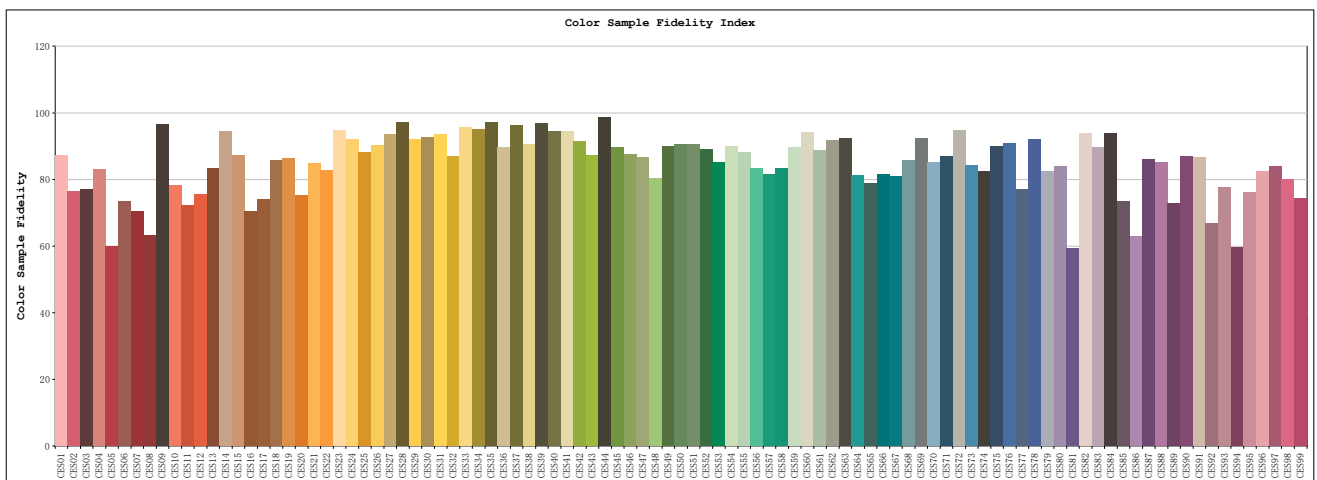
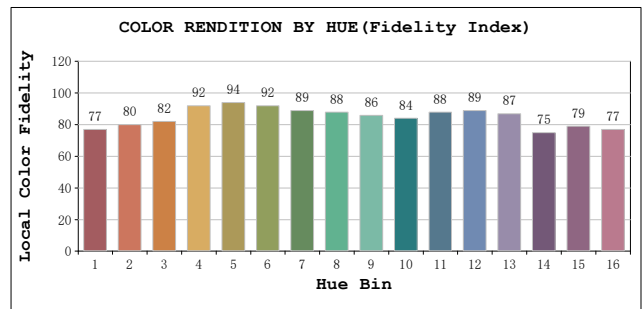
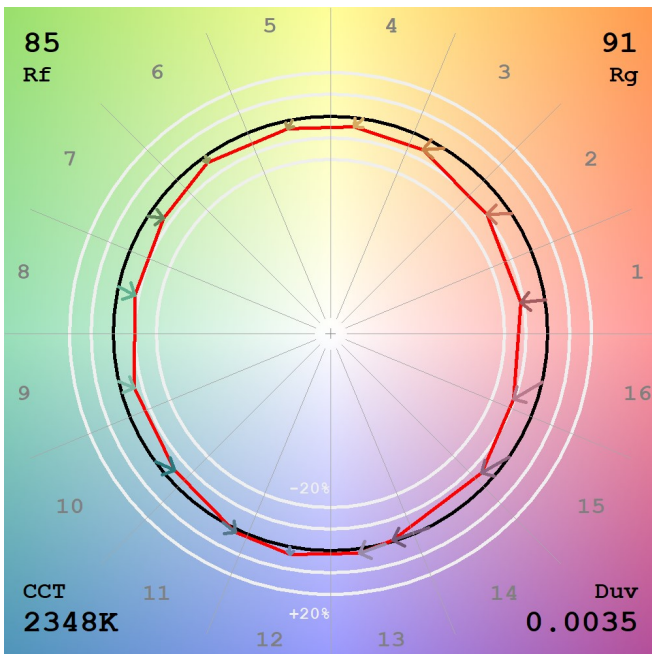
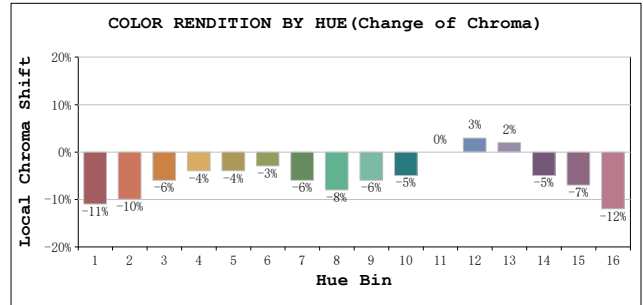
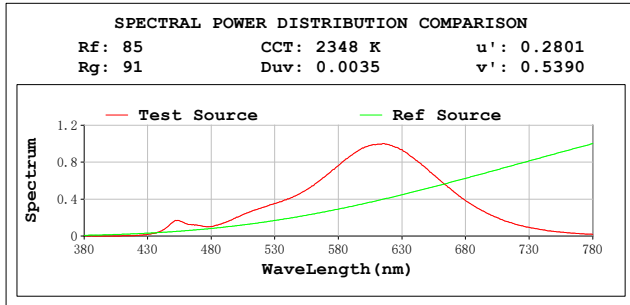
LEVEL:OUT WHITE:EXT\_2500K

Status: Integral T = 351 ms Ip = 41035 (63%)

**GBT5702**

# TM30

View Angle: 2 Deg

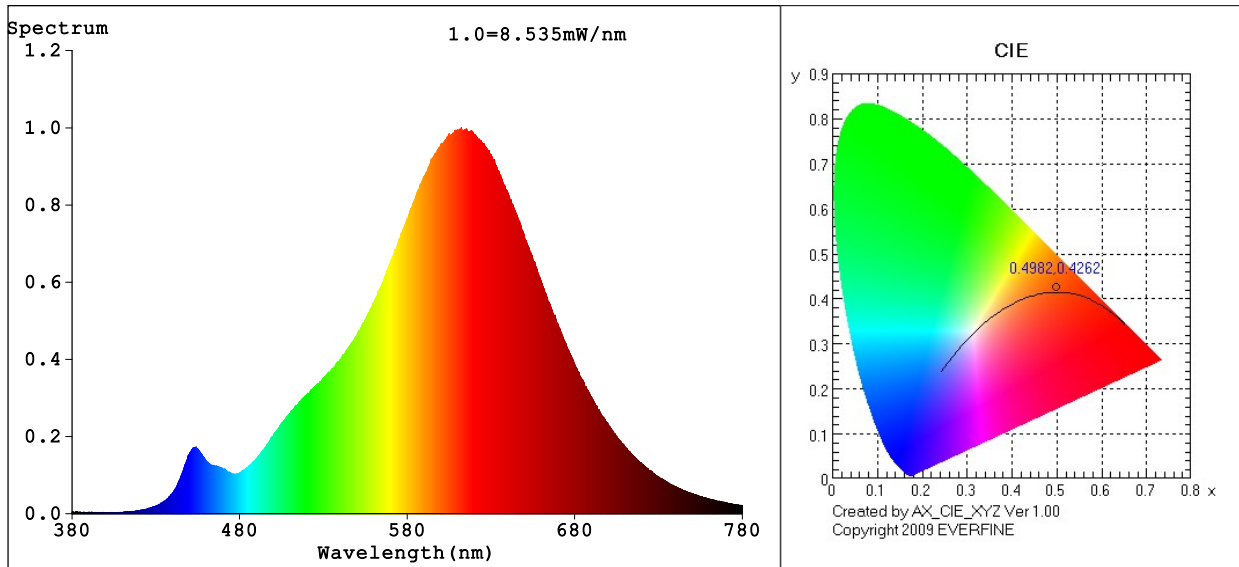


Model:AGL-300-22X40  
 Tester:NC  
 Temperature:25.3Deg  
 Manufacturer:AQUALUX

Number:AGL-300-22X40 12VAC  
 Date:2023-10-16 15:33:18  
 Humidity:65.0%  
 Remarks:12VAC



### Spectrum Test Report



**Color Parameters:**

Chromaticity Coordinate:  $x=0.4982$   $y=0.4262$  /  $u'=0.2799$   $v'=0.5389$   
 CCT=2350K (Duv=0.0035) Dominant WL:Ld =585.2nm WL:Lc = --nm Purity=77.5%  
 Ratio:R=28.2% G=70.2% B=1.6%; Peak WL:Lp=612.3nm FWHM=114.9nm  
 Render Index:Ra=81.9 AvgR=76.7 TM30:Rf=85 Rg=91

R1 =80 R2 =91 R3 =96 R4 =79 R5 =79 R6 =90 R7 =82  
 R8 =58 R9 =11 R10=80 R11=78 R12=74 R13=82 R14=99 R15=72

**Photo Parameters:**

Flux = 356.6 lm Eff. : 105.27 lm/W Fe = 1.157 W

**Electrical parameters:**

V = 11.963 V I = 0.2832 A P = 3.388 W PF = 1.000

LEVEL:OUT WHITE:EXT\_2500K

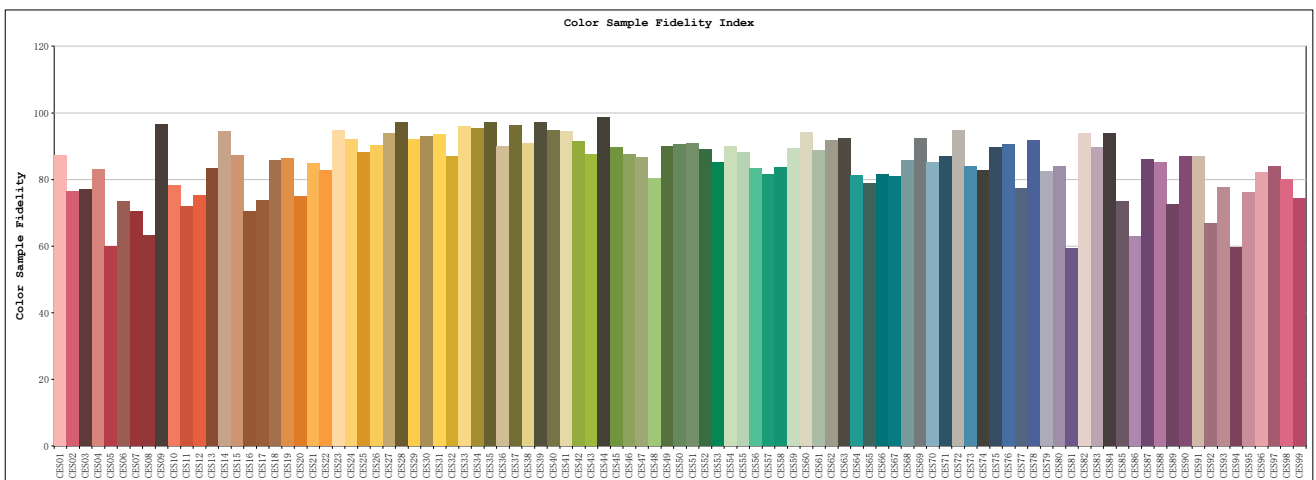
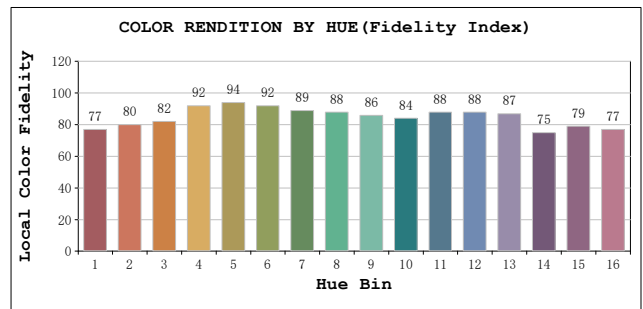
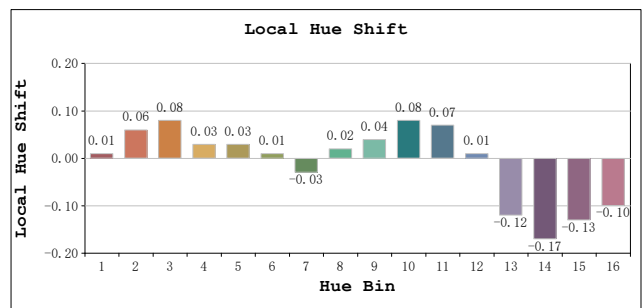
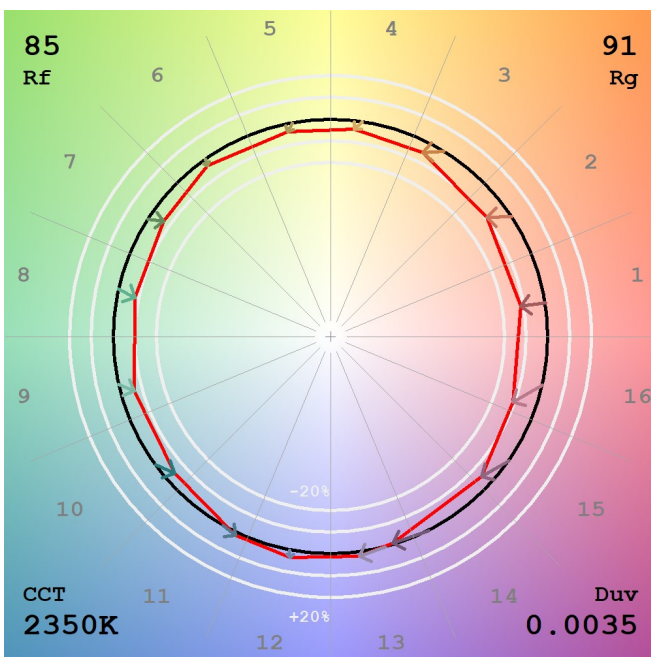
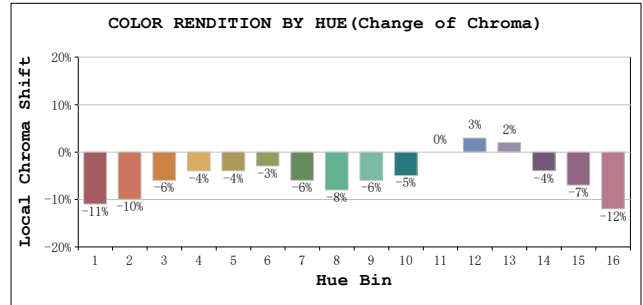
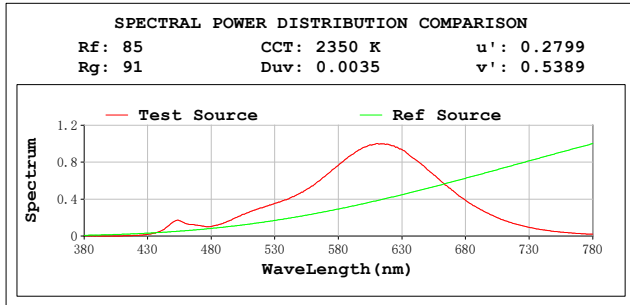
Status: Integral T = 351 ms Ip = 49907 (76%)

**GBT5702**



# TM30

View Angle: 2 Deg



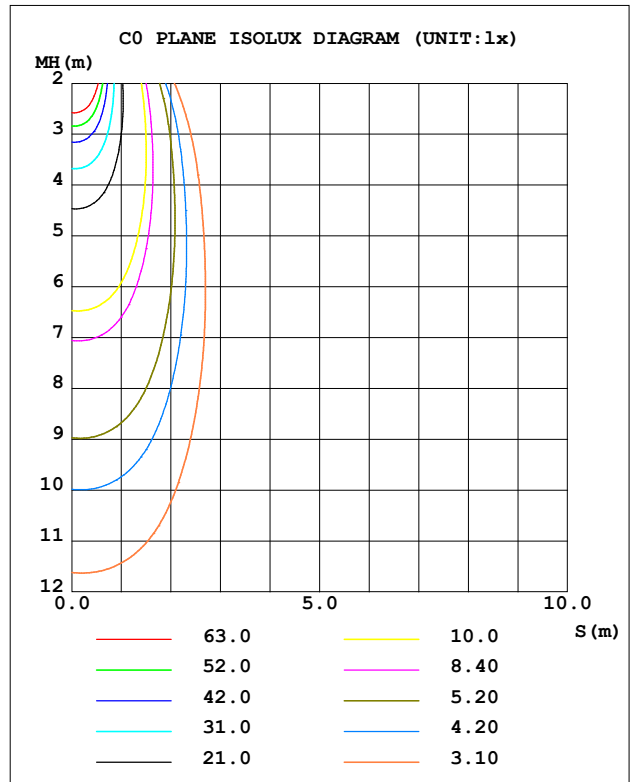
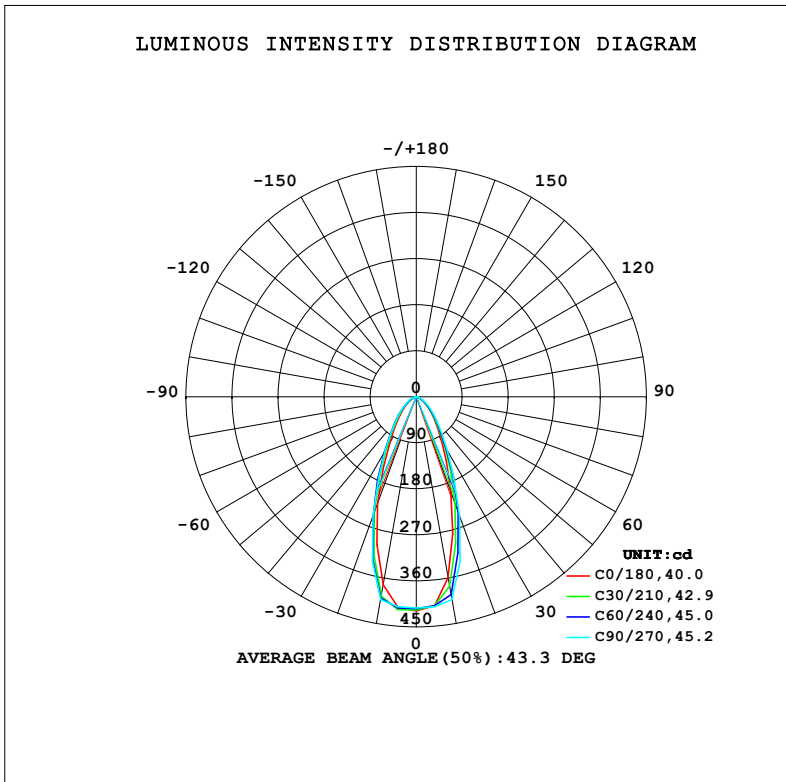
Model:AGL-300-22X40  
 Tester:NC  
 Temperature:25.3Deg  
 Manufacturer:AQUALUX

Number:AGL-300-22X40 12VDC  
 Date:2023-10-16 15:34:16  
 Humidity:65.0%  
 Remarks:12VDC

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:23.872V I:0.1346A P:3.2132W PF:1.0000 Freq:0Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:325.55x1 lm		
NAME: AGL-300-22X40	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: AQUALUX	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	-	Imax (cd)	418.5	S/MH (C0/180)	0.68
NOMINAL POWER (W)	3	LOR (%)	100.0	S/MH (C90/270)	0.73
RATED VOLTAGE (V)	24	TOTAL FLUX (lm)	325.55	$\eta$ UP, DN (C0-180)	0.0, 49.9
NOMINAL FLUX (lm)	325.55	CIE CLASS	DIRECT	$\eta$ UP, DN (C180-360)	0.0, 50.1
LAMPS INSIDE	1	$\eta$ up (%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE (V)	24	$\eta$ down (%)	100.0	CIBSE SHR MAX	0.75



C Range: 0 - 180DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 20°C  
 Operators: NICK  
 Test Date: 11 October 2023

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 5.0DEG  
 Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.473  
 Humidity: 65.0%  
 Test Distance: 3.100m [K=1.0000]  
 Remarks: AGL-300-22X40  
 3W / 2200K / 40D / 300LM

**ZONAL FLUX DIAGRAM**

ZONAL FLUX DIAGRAM:

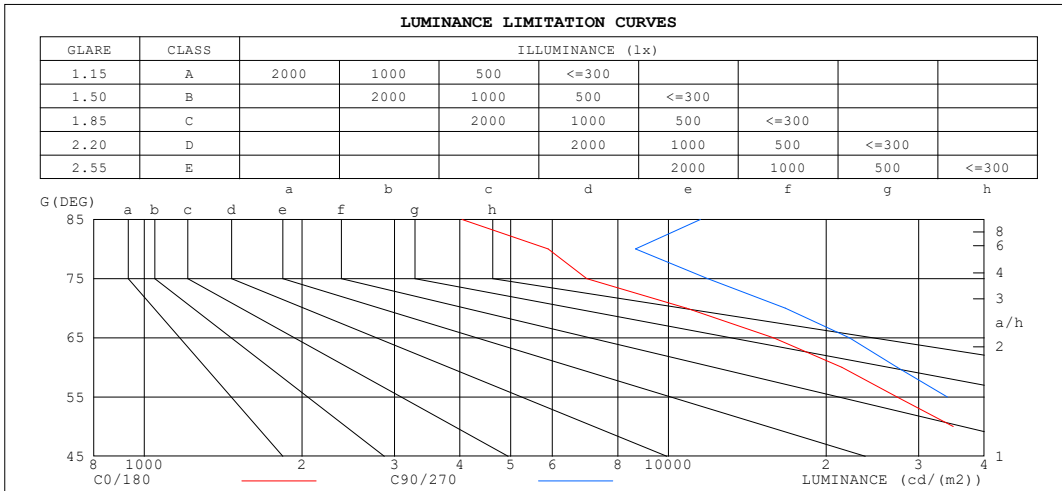
$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	∅ zone	∅ total	%lum,lamp
10	359.5	385.4	402.9	400.6	373.3	400.6	402.9	385.4	0- 10	38.56	38.56	11.8,11.8
20	198.2	232.4	247.1	245.1	221.6	245.1	247.1	232.4	10- 20	87.07	125.6	38.6,38.6
30	99.24	114.5	121.4	121.9	104.9	121.9	121.4	114.5	20- 30	77.84	203.5	62.5,62.5
40	54.21	59.54	64.02	63.77	54.35	63.77	64.02	59.54	30- 40	52.83	256.3	78.7,78.7
50	28.18	29.42	34.49	32.93	27.92	32.93	34.49	29.42	40- 50	34.52	290.8	89.3,89.3
60	13.45	13.37	17.15	15.35	13.24	15.35	17.15	13.37	50- 60	19.99	310.8	95.5,95.5
70	4.646	5.223	7.169	6.345	5.075	6.345	7.169	5.223	60- 70	10.03	320.8	98.6,98.6
80	1.284	1.500	1.887	1.883	1.449	1.883	1.887	1.500	70- 80	3.660	324.5	99.7,99.7
90	0	0	0.1927	0.1190	0	0.1190	0.1927	0	80- 90	1.040	325.5	100,100
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 180DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:20°C  
 Operators:NICK  
 Test Date:11 October 2023

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 5.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.473  
 Humidity:65.0%  
 Test Distance:3.100m [K=1.0000]  
 Remarks: AGL-300-22X40  
 3W / 2200K / 40D / 300LM

**LUMINANCE LIMITATION CURVES**

<b>Test:U:23.872V I:0.1346A P:3.2132W PF:1.0000 Freq:0Hz</b> <b>UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:325.55x1 lm</b>		
<b>NAME: AGL-300-22X40</b>	<b>TYPE:</b>	<b>WEIGHT:</b>
<b>SPEC.:</b>	<b>DIM.:</b>	<b>SERIAL No.:</b>
<b>MFR.: AQUALUX</b>	<b>SUR.:</b>	<b>Shielding Angle:</b>



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	4038	11504
80	5888	8651
75	6980	11881
70	10816	16689
65	15865	22148
60	21412	27310
55	27305	34067
50	34902	42718
45	44520	53349

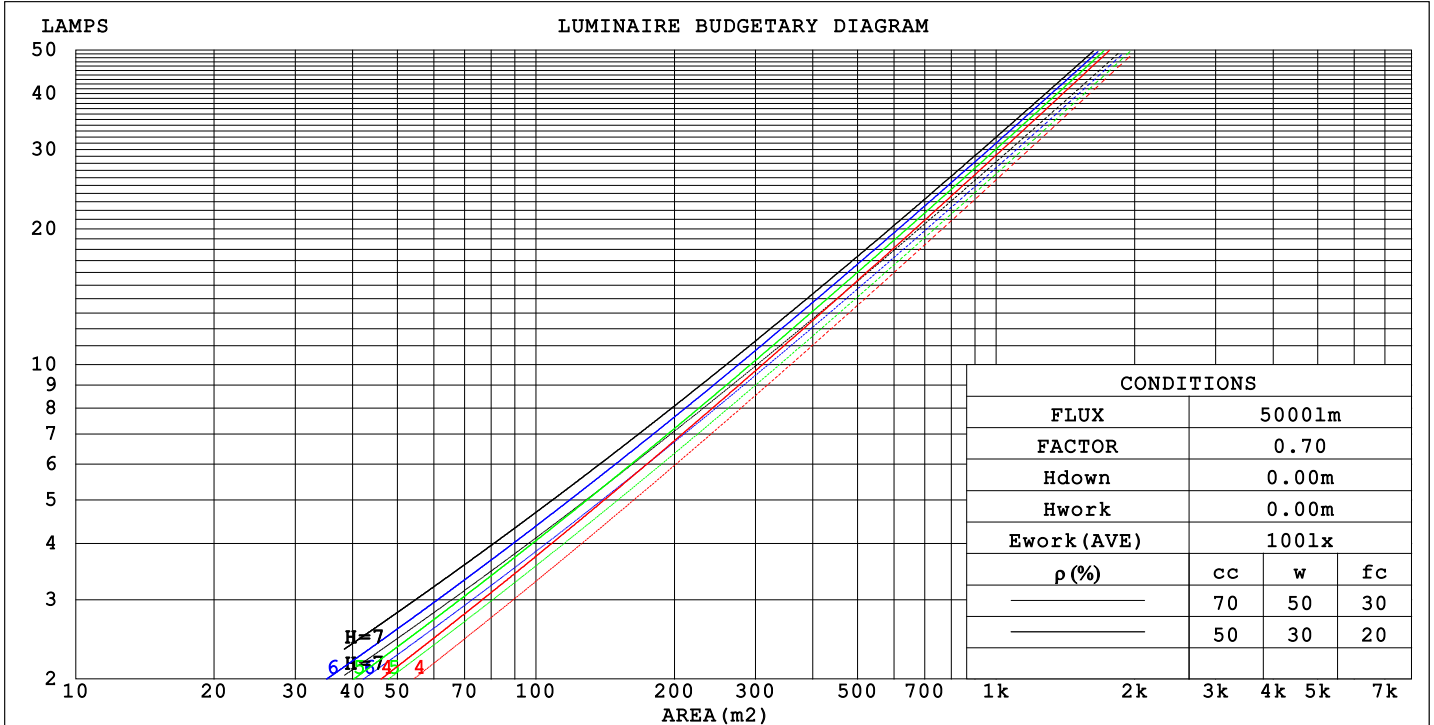
C Range: 0 - 180DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:20°C  
 Operator:NICK  
 Test Date:11 October 2023

γ Range: 0 - 90DEG  
 γ Interval: 5.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.473  
 Humidity:65.0%  
 Test Distance:3.100m [K=1.0000]  
 Remarks: AGL-300-22X40  
 3W / 2200K / 40D / 300LM

**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

Test:U:23.872V I:0.1346A P:3.2132W PF:1.0000 Freq:0Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:325.55x1 lm		
NAME: AGL-300-22X40	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: AQUALUX	SUR.:	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization (CU)									
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	1.00
1.0	1.09	1.07	1.04	1.07	1.05	1.02	1.03	1.01	.99	.99	.98	.96	.96	.95	.94	.92
2.0	1.01	.96	.92	.99	.95	.91	.96	.92	.89	.93	.90	.87	.90	.87	.85	.84
3.0	.93	.87	.83	.91	.86	.82	.89	.84	.81	.86	.83	.80	.84	.81	.78	.77
4.0	.86	.80	.75	.85	.79	.75	.83	.78	.74	.81	.76	.73	.79	.75	.72	.70
5.0	.80	.74	.69	.79	.73	.69	.77	.72	.68	.76	.71	.67	.74	.70	.67	.65
6.0	.75	.68	.64	.74	.68	.63	.72	.67	.63	.71	.66	.63	.70	.65	.62	.61
7.0	.70	.64	.59	.69	.63	.59	.68	.63	.59	.67	.62	.58	.66	.61	.58	.56
8.0	.66	.60	.55	.65	.59	.55	.64	.59	.55	.63	.58	.55	.62	.58	.54	.53
9.0	.62	.56	.52	.62	.56	.52	.61	.55	.51	.60	.55	.51	.59	.54	.51	.50
10.0	.59	.53	.49	.58	.53	.49	.58	.52	.49	.57	.52	.48	.56	.52	.48	.47



C Range: 0 - 180DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:20°C  
 Operators:NICK  
 Test Date:11 October 2023

γ Range: 0 - 90DEG  
 γ Interval: 5.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.473  
 Humidity:65.0%  
 Test Distance:3.100m [K=1.0000]  
 Remarks: AGL-300-22X40  
 3W / 2200K / 40D / 300LM

**WEC AND CCEC**

Test:U:23.872V I:0.1346A P:3.2132W PF:1.0000 Freq:0Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:325.55x1 lm		
NAME: AGL-300-22X40	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: AQUALUX	SUR.:	Shielding Angle:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)									
0.0																
1.0	.202	.115	.036	.195	.111	.035	.182	.105	.033	.171	.099	.032	.160	.093	.030	
2.0	.193	.106	.033	.188	.103	.032	.177	.098	.031	.167	.094	.029	.158	.089	.028	
3.0	.183	.097	.029	.178	.095	.029	.169	.092	.028	.160	.088	.027	.152	.084	.026	
4.0	.173	.090	.026	.169	.088	.026	.161	.085	.025	.153	.082	.025	.146	.079	.024	
5.0	.163	.083	.024	.160	.082	.024	.153	.079	.023	.146	.077	.023	.140	.075	.022	
6.0	.155	.077	.022	.151	.076	.022	.145	.074	.022	.139	.072	.021	.134	.070	.021	
7.0	.146	.072	.021	.143	.071	.020	.138	.070	.020	.133	.068	.020	.128	.066	.020	
8.0	.139	.068	.019	.136	.067	.019	.131	.066	.019	.127	.064	.019	.122	.063	.018	
9.0	.132	.064	.018	.130	.063	.018	.125	.062	.018	.121	.061	.017	.117	.060	.017	
10.0	.126	.060	.017	.124	.060	.017	.120	.059	.017	.116	.058	.016	.113	.057	.016	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients (CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.173	.157	.143	.148	.135	.123	.101	.093	.085	.058	.054	.049	.019	.017	.016	
2.0	.159	.132	.110	.136	.114	.095	.093	.079	.066	.054	.046	.039	.017	.015	.013	
3.0	.148	.114	.087	.127	.098	.075	.087	.068	.053	.050	.040	.031	.016	.013	.010	
4.0	.138	.099	.070	.118	.086	.061	.081	.060	.043	.047	.035	.025	.015	.011	.008	
5.0	.130	.088	.057	.111	.076	.050	.077	.053	.035	.044	.031	.021	.014	.010	.007	
6.0	.122	.079	.048	.105	.068	.041	.072	.048	.029	.042	.028	.017	.014	.009	.006	
7.0	.116	.071	.040	.099	.062	.035	.069	.043	.025	.040	.026	.015	.013	.008	.005	
8.0	.110	.065	.035	.094	.057	.030	.065	.040	.021	.038	.023	.013	.012	.008	.004	
9.0	.104	.060	.030	.090	.052	.026	.062	.037	.019	.036	.022	.011	.012	.007	.004	
10.0	.099	.056	.027	.086	.048	.023	.059	.034	.016	.035	.020	.010	.011	.007	.003	

C Range: 0 - 180DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:20°C  
 Operators:NICK  
 Test Date:11 October 2023

γ Range: 0 - 90DEG  
 γ Interval: 5.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.473  
 Humidity:65.0%  
 Test Distance:3.100m [K=1.0000]  
 Remarks: AGL-300-22X40  
 3W / 2200K / 40D / 300LM

**UGR(Unified Glare Rating) Table**

Test:U:23.872V I:0.1346A P:3.2132W PF:1.0000 Freq:0Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:325.55x1 lm		
NAME: AGL-300-22X40	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: AQUALUX	SUR.:	Shielding Angle:

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	25.3	26.4	25.6	26.6	26.8	26.4	27.4	26.6	27.6	27.8
	3H	25.5	26.5	25.8	26.7	26.9	26.8	27.7	27.0	27.9	28.1
	4H	25.5	26.4	25.8	26.7	26.9	26.8	27.7	27.1	28.0	28.2
	6H	25.5	26.4	25.8	26.6	26.9	26.8	27.7	27.1	27.9	28.2
	8H	25.5	26.3	25.8	26.6	26.8	26.8	27.7	27.2	27.9	28.2
	12H	25.5	26.3	25.9	26.6	26.9	26.8	27.6	27.2	27.9	28.2
4H	2H	25.5	26.4	25.8	26.6	26.9	26.4	27.3	26.7	27.6	27.8
	3H	25.7	26.5	26.1	26.8	27.1	26.9	27.7	27.2	27.9	28.2
	4H	25.8	26.5	26.1	26.8	27.1	27.0	27.7	27.3	28.0	28.3
	6H	25.8	26.4	26.1	26.7	27.1	27.0	27.6	27.4	28.0	28.3
	8H	25.7	26.3	26.1	26.7	27.1	27.1	27.7	27.5	28.0	28.4
	12H	25.9	26.5	26.4	26.9	27.3	27.1	27.6	27.5	28.0	28.4
8H	4H	25.7	26.3	26.1	26.7	27.0	26.9	27.5	27.3	27.8	28.2
	6H	25.8	26.3	26.2	26.6	27.1	27.0	27.5	27.4	27.9	28.3
	8H	25.8	26.2	26.2	26.6	27.1	27.1	27.5	27.5	27.9	28.4
	12H	26.3	26.7	26.8	27.1	27.6	27.2	27.5	27.6	28.0	28.5
12H	4H	25.7	26.2	26.1	26.6	27.0	26.8	27.4	27.2	27.8	28.1
	6H	25.8	26.2	26.2	26.6	27.0	27.0	27.4	27.4	27.8	28.2
	8H	25.8	26.2	26.3	26.6	27.1	27.1	27.5	27.6	27.9	28.4

Variations with the observer position at spacings(CIE Pub.117):		
S = 1.0H	+ 1.0 / - 1.5	+ 0.8 / - 1.1
1.5H	+ 1.2 / - 1.4	+ 1.1 / - 1.3
2.0H	+ 2.2 / - 1.8	+ 2.2 / - 1.7

CIE Pub.117, 325.5 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -3.9)  
 Area: 0.001256 m2

C Range: 0 - 180DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:20°C  
 Operators:NICK  
 Test Date:11 October 2023

γ Range: 0 - 90DEG  
 γ Interval: 5.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.473  
 Humidity:65.0%  
 Test Distance:3.100m [K=1.0000]  
 Remarks: AGL-300-22X40  
 3W / 2200K / 40D / 300LM



**UTILIZATION FACTORS TABLE**

Test:U:23.872V I:0.1346A P:3.2132W PF:1.0000 Freq:0Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:325.55x1 lm		
NAME: AGL-300-22X40	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: AQUALUX	SUR.:	Shielding Angle:

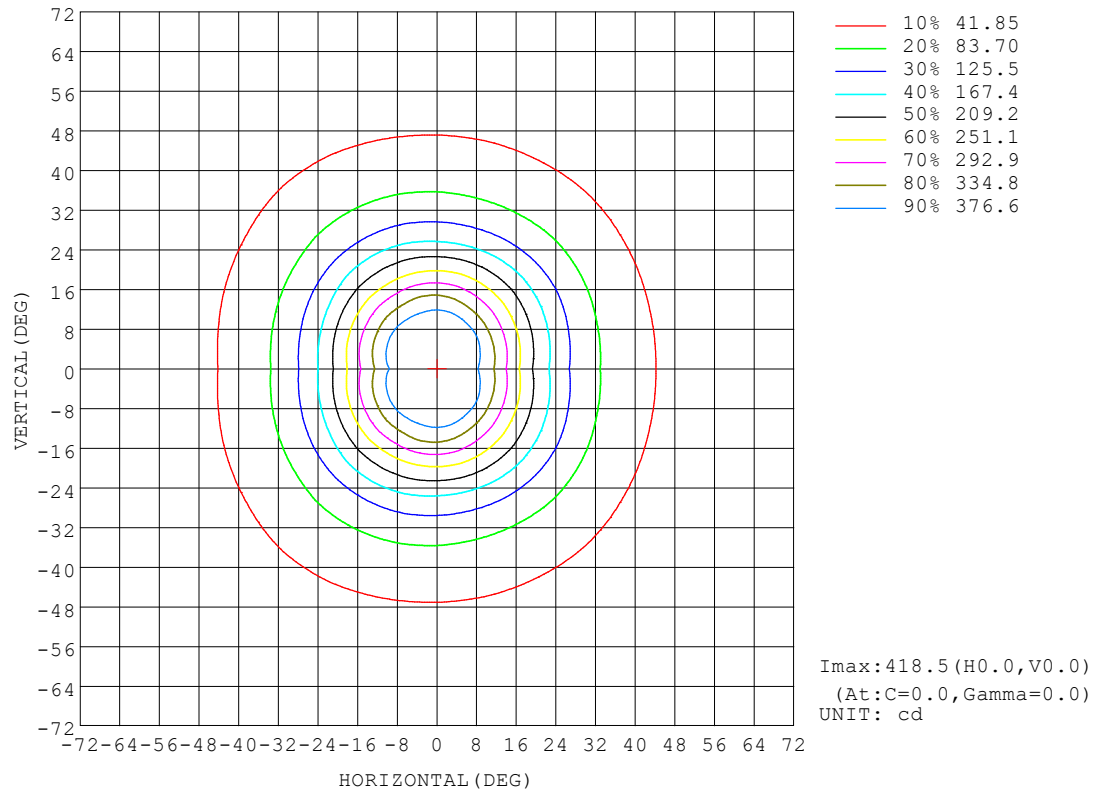
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	78	70	65	78	70	65	77	70	65	61
0.80	87	79	74	86	79	74	85	78	74	69
1.00	93	86	81	92	85	81	90	85	80	75
1.25	98	91	87	97	91	86	94	89	85	80
1.50	101	95	91	100	94	90	97	93	89	84
2.00	105	100	96	104	99	95	101	97	94	88
2.50	107	103	99	106	101	98	102	99	96	90
3.00	109	105	102	108	104	101	104	101	98	92
4.00	112	108	106	110	107	104	106	104	101	94
5.00	113	110	108	111	109	106	107	105	103	95
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 180DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:20°C  
 Operators:NICK  
 Test Date:11 October 2023

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 5.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.473  
 Humidity:65.0%  
 Test Distance:3.100m [K=1.0000]  
 Remarks: AGL-300-22X40  
 3W / 2200K / 40D / 300LM

ISOCANDELA DIAGRAM

Test:U:23.872V I:0.1346A P:3.2132W PF:1.0000 Freq:0Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:325.55x1 lm		
NAME: AGL-300-22X40	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: AQUALUX	SUR.:	Shielding Angle:

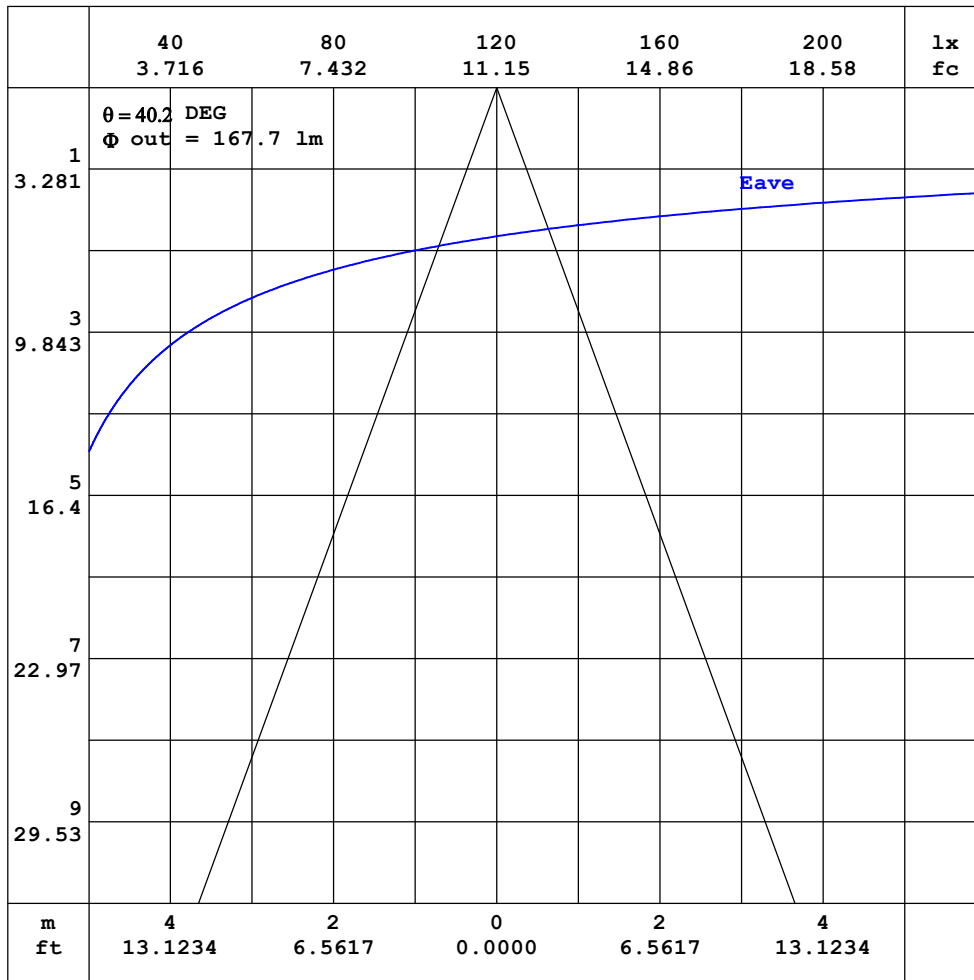


C Range: 0 - 180DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:20°C  
 Operators:NICK  
 Test Date:11 October 2023

γ Range: 0 - 90DEG  
 γ Interval: 5.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.473  
 Humidity:65.0%  
 Test Distance:3.100m [K=1.0000]  
 Remarks: AGL-300-22X40  
 3W / 2200K / 40D / 300LM

**AAI CURVES**

Test:U:23.872V I:0.1346A P:3.2132W PF:1.0000 Freq:0Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:325.55x1 lm		
NAME: AGL-300-22X40	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: AQUALUX	SUR.:	Shielding Angle:



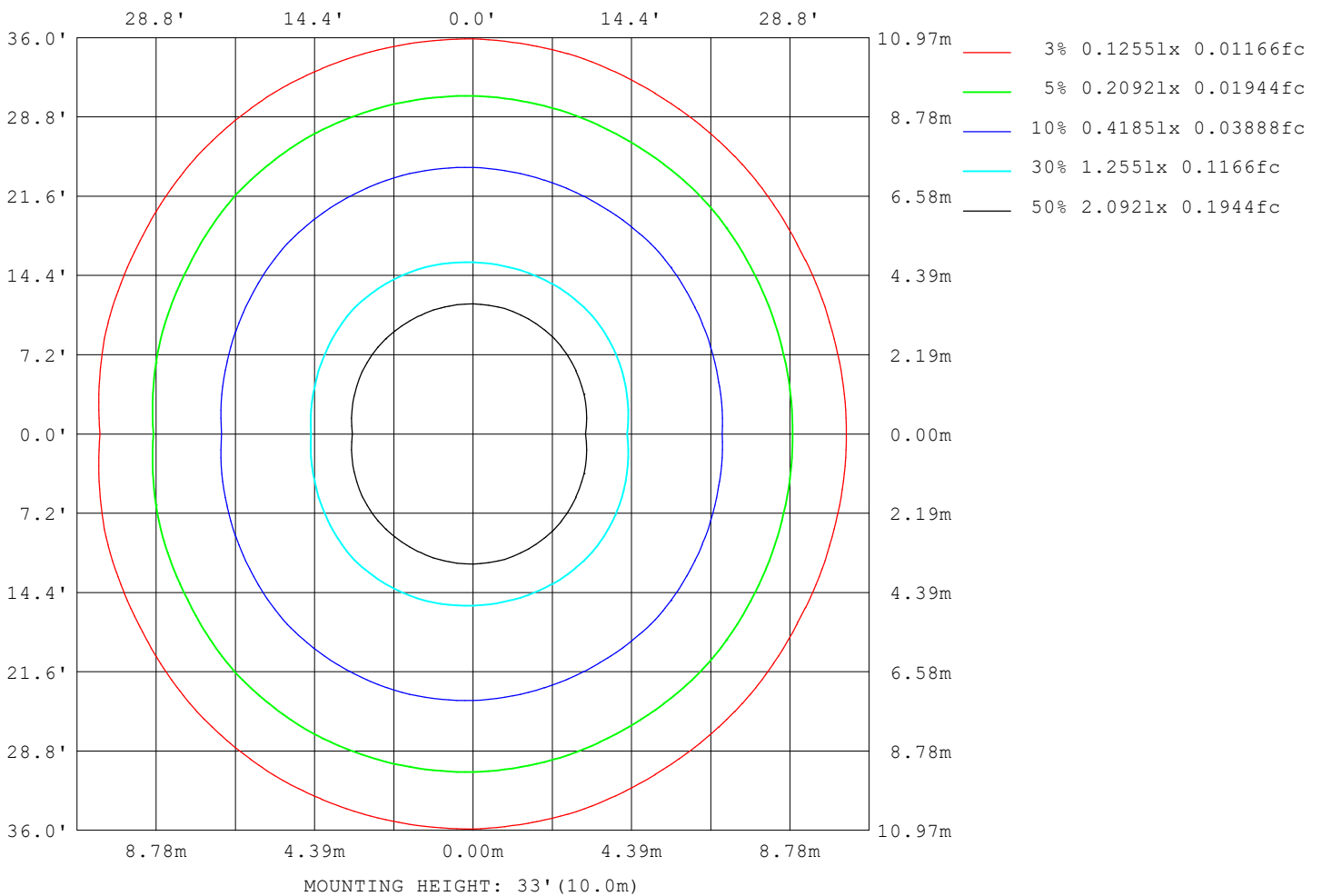
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 180DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 20°C  
 Operators: NICK  
 Test Date: 11 October 2023

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 5.0DEG  
 Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.473  
 Humidity: 65.0%  
 Test Distance: 3.100m [K=1.0000]  
 Remarks: AGL-300-22X40  
 3W / 2200K / 40D / 300LM

**ISOLUX DIAGRAM**

Test:U:23.872V I:0.1346A P:3.2132W PF:1.0000 Freq:0Hz		
UTHdi:0.00% ITHdi:0.00% KDisp:0 Lamp Flux:325.55x1 lm		
NAME: AGL-300-22X40	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: AQUALUX	SUR.:	Shielding Angle:



C Range: 0 - 180DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:20°C  
 Operators:NICK  
 Test Date:11 October 2023

γ Range: 0 - 90DEG  
 γ Interval: 5.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.473  
 Humidity:65.0%  
 Test Distance:3.100m [K=1.0000]  
 Remarks: AGL-300-22X40  
 3W / 2200K / 40D / 300LM

**LED Avg.L Report**

Test:U:23.872V I:0.1346A P:3.2132W PF:1.0000 Freq:0Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:325.55x1 lm		
NAME: AGL-300-22X40	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: AQUALUX	SUR.:	Shielding Angle:

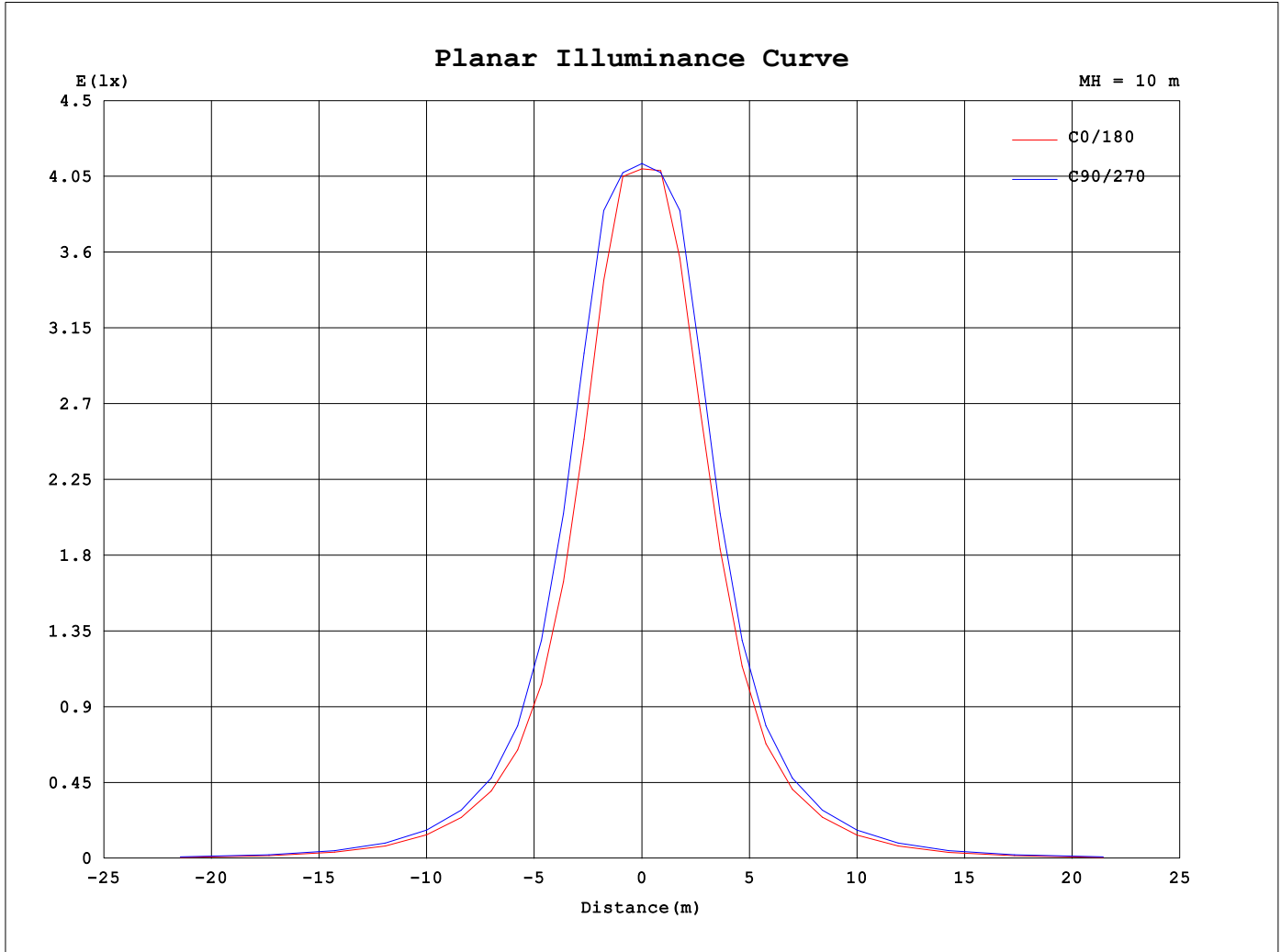
AvgL	cd/m2
L_0~180 (65) av	16105
L_0~180 (75) av	7528
L_0~180 (85) av	5639
L_90~270 (65) av	22148
L_90~270 (75) av	11881
L_90~270 (85) av	11504
L_45 (65) av	18118
L_45 (75) av	9535
L_45 (85) av	10062

Standard: GB/T 29293-2012

C Range: 0 - 180DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:20°C  
 Operators:NICK  
 Test Date:11 October 2023

γ Range: 0 - 90DEG  
 γ Interval: 5.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.473  
 Humidity:65.0%  
 Test Distance:3.100m [K=1.0000]  
 Remarks: AGL-300-22X40  
 3W / 2200K / 40D / 300LM

Planar Illuminance Curve



C Range: 0 - 180DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 20°C  
 Operators: NICK  
 Test Date: 11 October 2023

γ Range: 0 - 90DEG  
 γ Interval: 5.0DEG  
 Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.473  
 Humidity: 65.0%  
 Test Distance: 3.100m [K=1.0000]  
 Remarks: AGL-300-22X40  
 3W / 2200K / 40D / 300LM

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:23.872V I:0.1346A P:3.2132W PF:1.0000 Freq:0Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:325.55x1 lm		
NAME: AGL-300-22X40	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: AQUALUX	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	418	417	416	415	414	413	413	412	411	411	411	410	410	410	411	411	411	412	413
5	410	410	410	409	410	411	412	413	414	416	418	415	413	415	418	416	414	413	412
10	359	369	376	385	393	401	403	399	400	401	396	386	373	386	396	401	400	399	403
15	276	287	297	308	316	327	333	333	328	328	321	313	299	313	321	328	328	333	333
20	198	211	221	232	240	246	247	248	246	245	239	231	222	231	239	245	246	248	247
25	139	148	159	167	171	172	174	178	179	177	169	160	153	160	169	177	179	178	174
30	99.2	104	111	115	117	118	121	124	124	122	117	111	105	111	117	122	124	124	121
35	73.0	74.9	78.1	81.7	82.6	84.4	86.7	88.0	87.5	86.2	82.0	78.3	74.8	78.3	82.0	86.2	87.5	88.0	86.7
40	54.2	54.9	56.7	59.5	60.7	62.4	64.0	65.0	65.0	63.8	59.8	57.4	54.4	57.4	59.8	63.8	65.0	65.0	64.0
45	39.5	39.6	40.4	42.6	44.0	46.1	47.4	47.8	48.0	46.5	43.6	42.2	39.4	42.2	43.6	46.5	48.0	47.8	47.4
50	28.2	27.8	28.0	29.4	31.2	33.4	34.5	34.6	34.1	32.9	31.3	30.4	27.9	30.4	31.3	32.9	34.1	34.6	34.5
55	19.7	19.1	18.9	19.8	21.4	23.9	24.5	24.6	23.4	22.6	21.8	21.4	19.3	21.4	21.8	22.6	23.4	24.6	24.5
60	13.4	12.9	12.7	13.4	14.6	16.4	17.2	16.6	15.8	15.4	15.0	14.9	13.2	14.9	15.0	15.4	15.8	16.6	17.2
65	8.42	8.25	8.31	8.86	9.76	11.1	11.8	11.2	10.7	10.4	10.1	9.95	8.68	9.95	10.1	10.4	10.7	11.2	11.8
70	4.65	4.64	4.79	5.22	5.83	6.76	7.17	6.90	6.58	6.34	6.11	5.97	5.07	5.97	6.11	6.34	6.58	6.90	7.17
75	2.27	2.35	2.50	2.76	3.09	3.61	3.86	3.73	3.57	3.44	3.26	3.13	2.63	3.13	3.26	3.44	3.57	3.73	3.86
80	1.28	1.33	1.37	1.50	1.64	1.79	1.89	1.92	1.93	1.88	1.73	1.61	1.45	1.61	1.73	1.88	1.93	1.92	1.89
85	0.44	0.62	0.76	0.94	1.10	1.23	1.26	1.28	1.29	1.26	1.13	0.98	0.79	0.98	1.13	1.26	1.29	1.28	1.26
90	0.00	0.00	0.00	0.00	0.05	0.11	0.19	0.23	0.20	0.12	0.04	0.00	0.00	0.00	0.04	0.12	0.20	0.23	0.19

C Range: 0 - 180DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:20°C  
 Operators:NICK  
 Test Date:11 October 2023

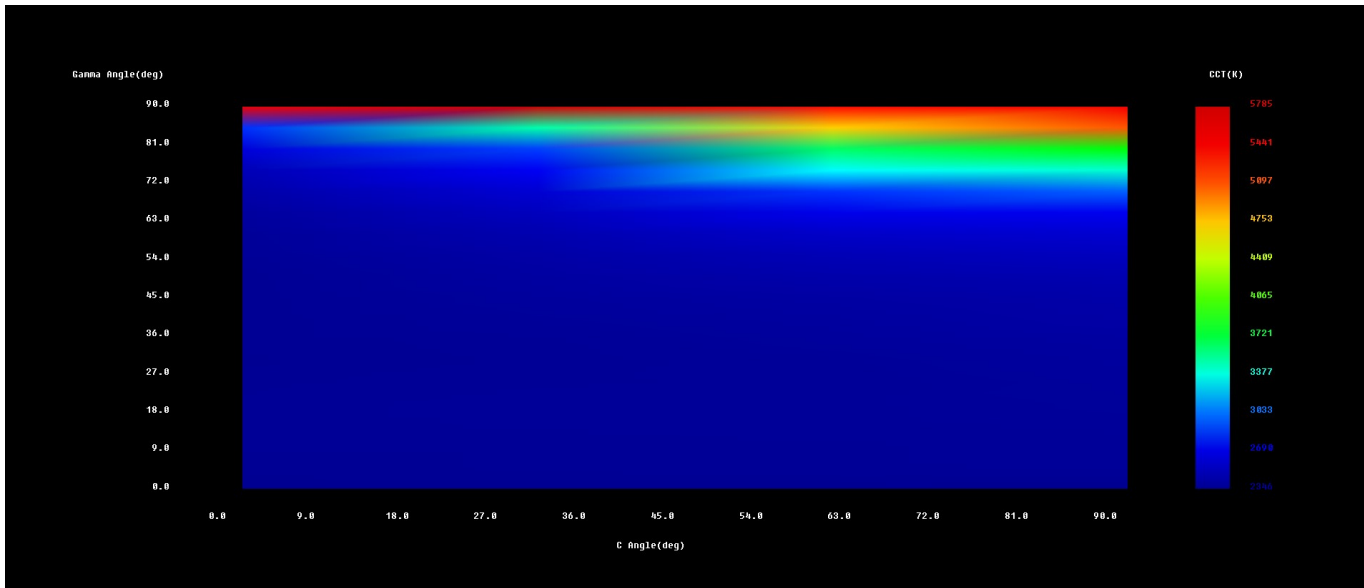
γ Range: 0 - 90DEG  
 γ Interval: 5.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.473  
 Humidity:65.0%  
 Test Distance:3.100m [K=1.0000]  
 Remarks: AGL-300-22X40  
 3W / 2200K / 40D / 300LM





### Spatial Color Distribution Report

NAME: AGL-300-22X40	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: AQUALUX		



**Color Parameters:**

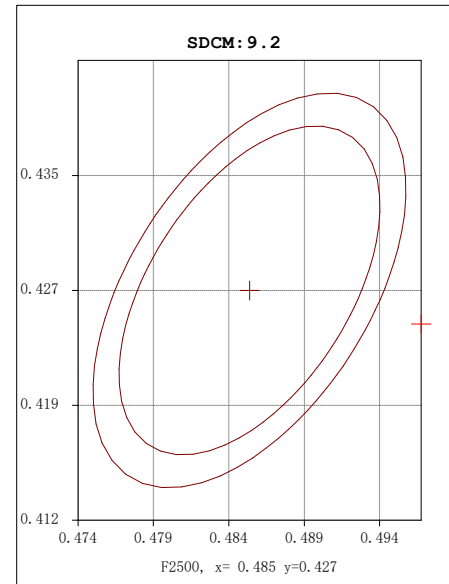
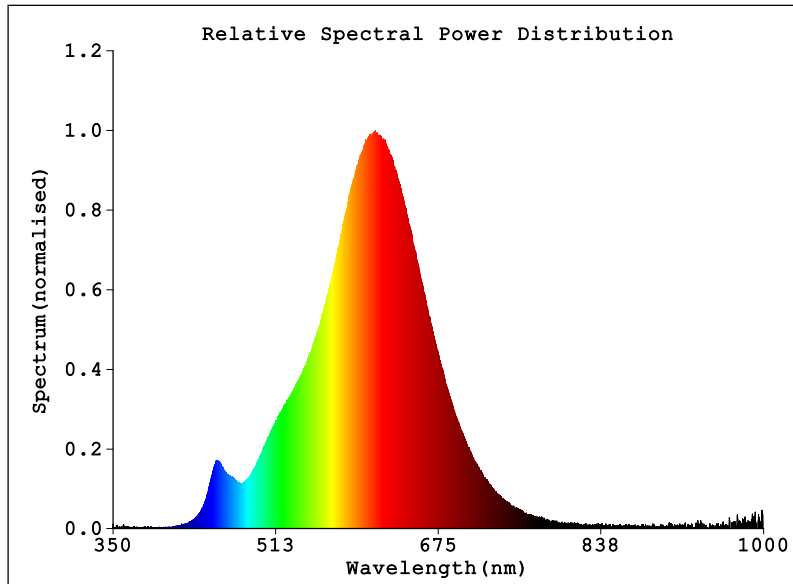
Average: x=0.4941,y=0.4229 u'=0.2789,v'=0.5371 CCT=2370K Ra=82.1 Rf=85 Rg=93  
Center : x=0.4976,y=0.4248 u'=0.2803,v'=0.5383 CCT=2346K Ra=81.7 Rf=85 Rg=91  
IESNA LM-79-2019 Max. du'v': 0.0066 / max.du'v': 0.0000[Set Range]  
GB/T 24824(LB/T 001-2009):: avg. color nonuniformity du'v':0.0018  
GB/T 24824(LB/T 001-2009):: max. color nonuniformity du'v':0.0023  
Average: R1=80 R2=91 R3=96 R4=79 R5=80 R6=91 R7=82 R8=58 R9=12 R10=81  
R11=78 R12=77 R13=82 R14=98 R15=72

Tester: NICK  
Temperature: 20°C  
Manufacturer: AQUALUX  
System: GO-SPEX500\_V1

Date: 11 October 2023  
Humidity: 65.0%  
Remarks: AGL-300-22X40 COLOUR TEST3W / 2200K / 40D / 300LM

**Spectral Radiant Test Report**

NAME: AGL-300-22X40	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: AQUALUX		



**Photon & Colormetric & Photometric Quantities:**

Chromaticity Coordinates: x=0.4976 y=0.4248/u'=0.2803 v'=0.5383 duv=0.00306

Tc=2346K Dominant WL: Ld=585.3nm Purity=76.9%

Ratio: R=28.3% G=70.1% B=1.6% Peak WL: Lp=612.1nm HWL: 113.4nm

Rendering Index: Ra=81.7 TM-30: Rf=85 Rg=91

R1 =80 R2 =91 R3 =96 R4 =78 R5 =79 R6 =91 R7 =82

R8 =57 R9 =10 R10=80 R11=77 R12=75 R13=82 R14=99 R15=72

E = 41.61 lx Ee = 0.1369 W/m2

Status: T=1152.00ms Ip=48781 (74%) [ HAAS-1200(CAN) ]

Electrical: U=23.872V I=0.13416A P=3.2027W PF=1.0000

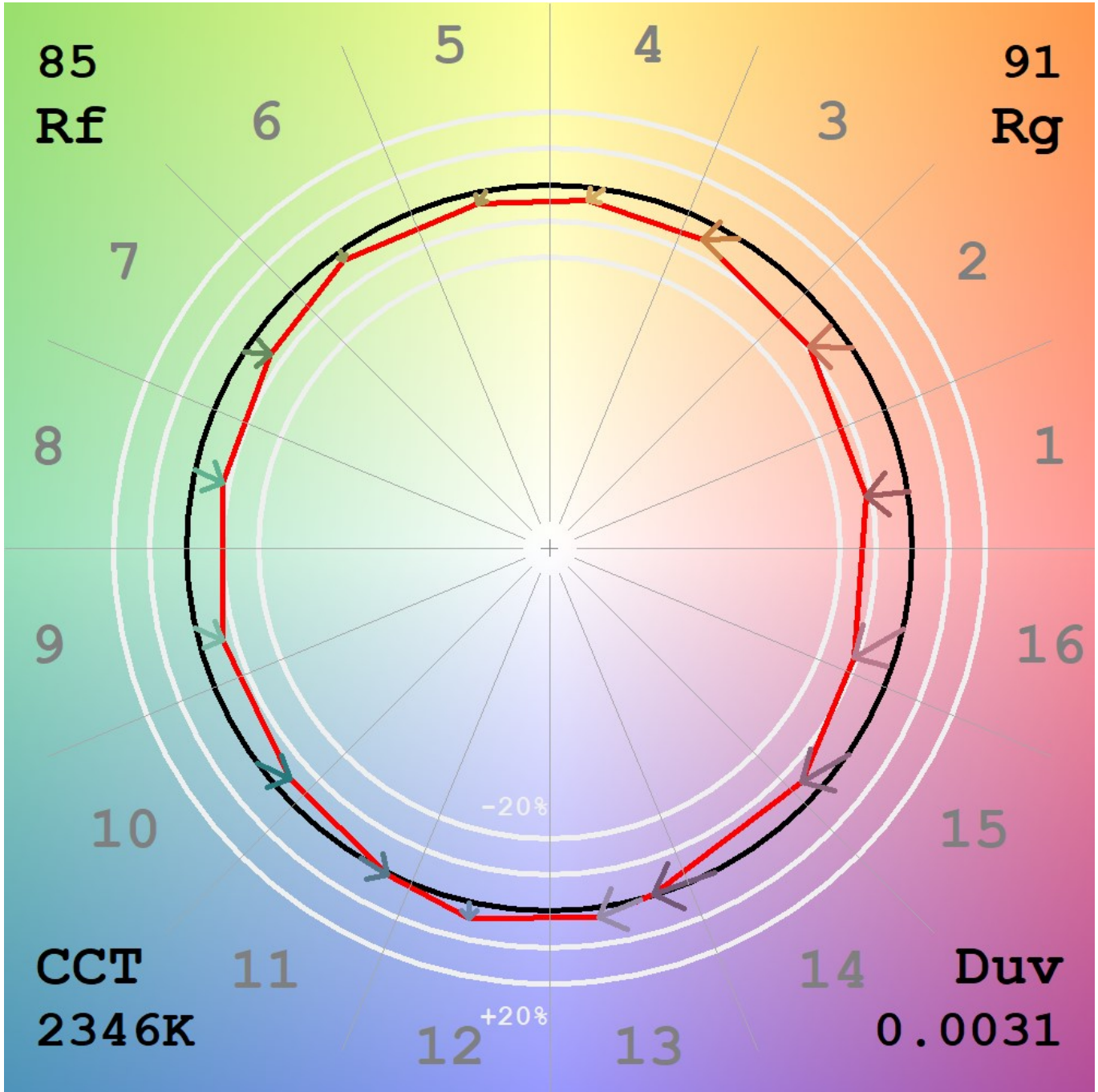
Test position: Center

Tester: NICK  
 Temperature: 20°C  
 Manufacturer: AQUALUX

Date: 11 October 2023  
 Humidity: 65.0%  
 Remarks: AGL-300-22X40 COLOUR TEST3W / 2200K / 40D / 300LM

System: GO-SPEX500\_V1

**TM30**



Tester: NICK  
 Temperature: 20°C  
 Manufacturer: AQUALUX  
 System: GO-SPEX500\_V1

Date: 11 October 2023  
 Humidity: 65.0%  
 Remarks: AGL-300-22X40 COLOUR TEST3W / 2200K / 40D / 300LM



Gamma\C	C30			CCT (K)	Ra	du'v'	Rf, Rg	Ip
	I (%)	CIE x, y	u', v'					
0.0	98.86	0.4976, 0.4248	0.2803, 0.5383	2346	81.7	0.0000	85, 91	48781
10.0	86.04	0.4959, 0.4242	0.2794, 0.5378	2360	81.9	0.0010	85, 91	42878
20.0	51.28	0.4942, 0.4238	0.2786, 0.5374	2375	82.1	0.0019	85, 92	27397
30.0	24.54	0.4945, 0.4224	0.2794, 0.5370	2362	82.1	0.0016	85, 92	31605
40.0	12.75	0.4922, 0.4212	0.2785, 0.5362	2379	82.4	0.0028	85, 93	21030
50.0	6.08	0.4887, 0.4198	0.2769, 0.5351	2408	82.8	0.0047	86, 93	29410
60.0	2.79	0.4803, 0.4143	0.2740, 0.5319	2465	84.3	0.0090	86, 95	29230
70.0	1.08	0.4631, 0.4051	0.2671, 0.5257	2613	86.3	0.0182	87, 98	29413
80.0	0.45	0.4295, 0.3801	0.2564, 0.5104	2923	91.8	0.0367	88, 102	29101
90.0	0.13	0.3268, 0.3216	0.2107, 0.4664	5785	88.3	0.1001	90, 107	29170
	C0							
0.0	98.79	0.4976, 0.4248	0.2803, 0.5383	2346	81.7	0.0000	85, 91	48781
10.0	91.51	0.4963, 0.4250	0.2793, 0.5382	2361	81.9	0.0010	85, 91	45255
20.0	54.89	0.4961, 0.4249	0.2792, 0.5381	2363	81.8	0.0011	85, 92	29115
30.0	25.95	0.4973, 0.4244	0.2802, 0.5381	2347	81.7	0.0002	85, 92	32812
40.0	13.40	0.4966, 0.4245	0.2797, 0.5380	2355	81.7	0.0007	85, 93	21650
50.0	6.90	0.4971, 0.4252	0.2798, 0.5384	2354	81.8	0.0005	86, 93	29816
60.0	3.31	0.4948, 0.4245	0.2786, 0.5378	2373	82.1	0.0018	86, 95	29167
70.0	1.33	0.4864, 0.4204	0.2751, 0.5350	2439	83.2	0.0062	87, 98	29201
80.0	0.45	0.4581, 0.4015	0.2655, 0.5236	2653	86.5	0.0209	88, 102	29220
90.0	0.10	0.3326, 0.3097	0.2199, 0.4606	5477	86.5	0.0984	90, 107	29102

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