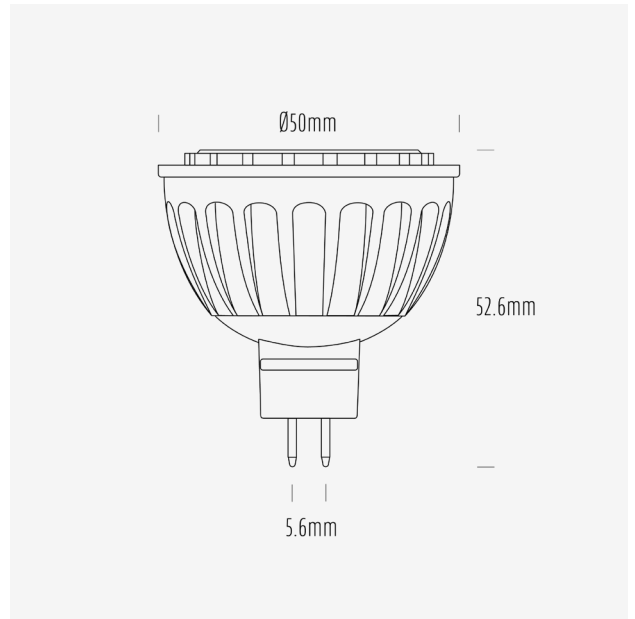


# AGL 300 Series

MR16 LED Globes



## AGL-300-30X15 / 3000K / MR16 / 15°



### Product Data

Product Code	AGL-300-30X15			
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	2.9	<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	2.9	<b>3.3</b>	3.4
Rated Flux (lm)	492	396	<b>492</b>	491
Efficacy (lm/W)	144	138	<b>151</b>	145

CCT	3000K
CCT Description	Warm White
CRI (Ra)	82
CRI (R9)	1
TM-30 (Rf)	83
TM-30 (Rg)	96
SDCM	-
Peak Intensity (cd)	2615
Nominal Beam Angle	15°
Measured Beam Angle (FWHM)	17°

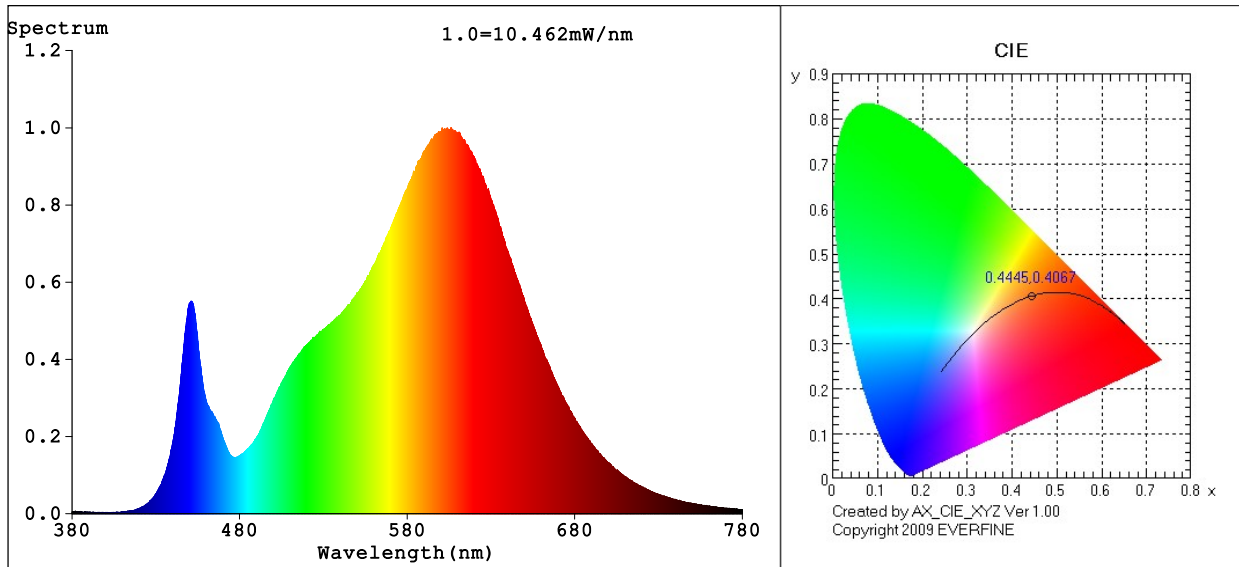
### Lifespan Data

L70	15,000h
Switching Cycles	15,000

### Compliance Data

EMI	Yes
RCM	N/A
Mercury Content	0mg

### Spectrum Test Report



**Color Parameters:**

Chromaticity Coordinate:  $x=0.4445$   $y=0.4067$  /  $u'=0.2543$   $v'=0.5236$   
 CCT=2898K (Duv=0.0001) Dominant WL:Ld =583.2nm WL:Lc = --nm Purity=55.5%  
 Ratio:R=23.5% G=74.2% B=2.3%; Peak WL:Lp=606.1nm FWHM=118.0nm  
 Render Index:Ra=81.6 AvgR=75.7 TM30:Rf=83 Rg=96

R1 =80 R2 =90 R3 =96 R4 =80 R5 =80 R6 =89 R7 =81  
 R8 =56 R9 =1 R10=79 R11=80 R12=70 R13=82 R14=99 R15=72

**Photo Parameters:**

Flux = 491.5 lm Eff. : 144.30 lm/W Fe = 1.469 W

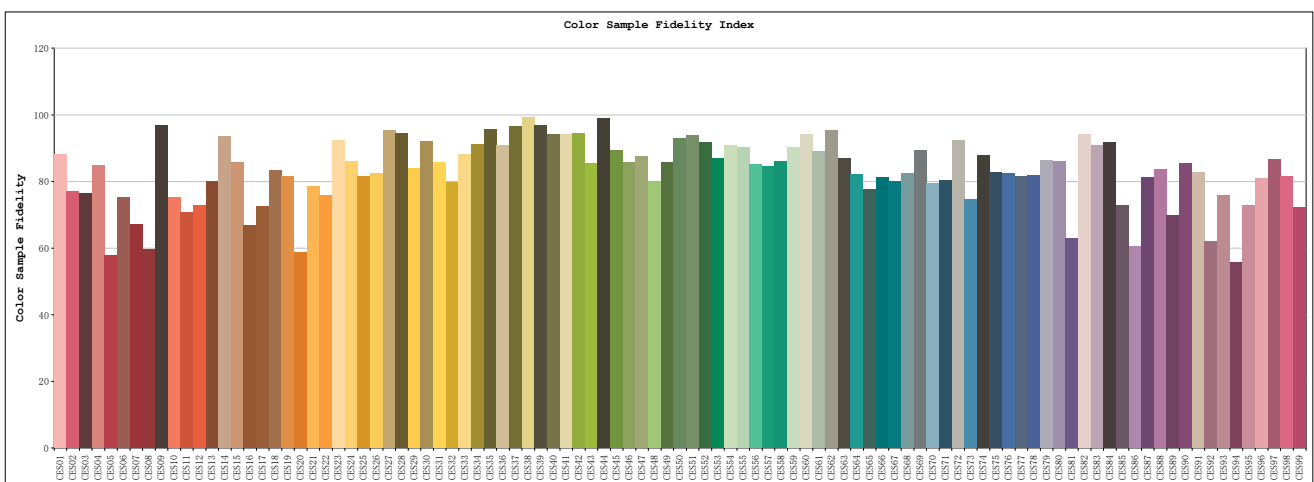
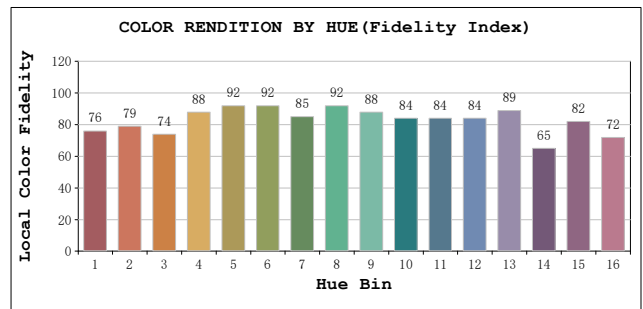
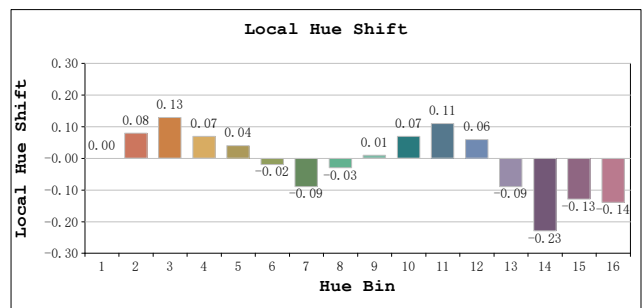
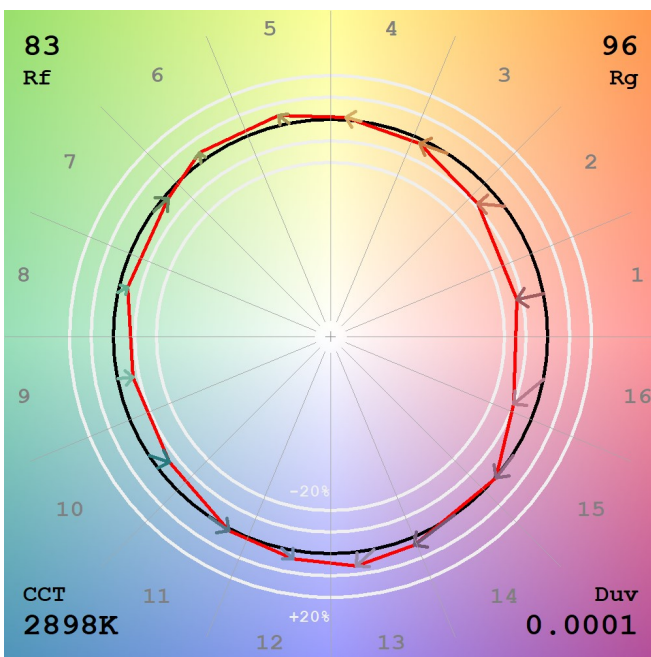
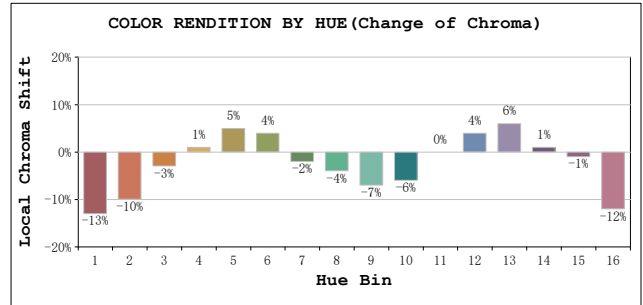
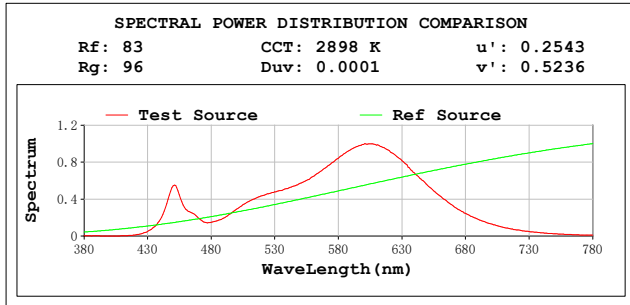
**Electrical parameters:**

V = 11.972 V I = 0.2845 A P = 3.406 W PF = 1.000  
 LEVEL:OUT WHITE:ANSI\_3000K  
 Status: Integral T = 281 ms Ip = 51155 (78%)

**GBT5702**

# TM30

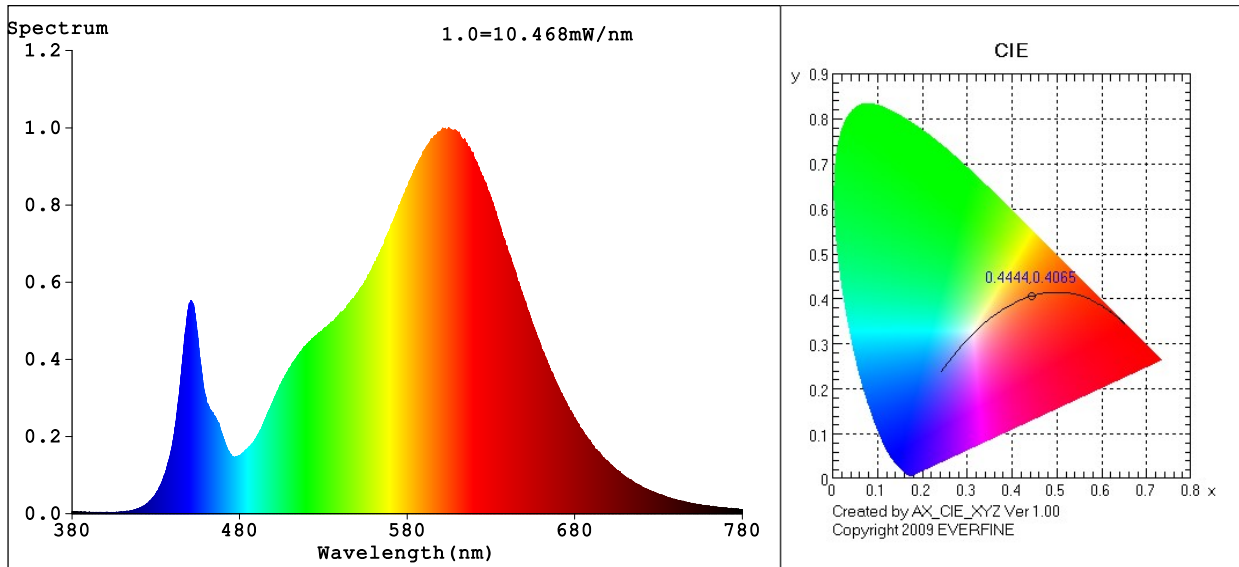
View Angle: 2 Deg



Model:AGL-300-30X15  
 Tester:NC  
 Temperature:25.3Deg  
 Manufacturer:AQUALUX

Number:AGL-300-30X15 12VDC  
 Date:2023-10-17 16:16:11  
 Humidity:65.0%  
 Remarks:12VDC

### Spectrum Test Report



**Color Parameters:**

Chromaticity Coordinate:  $x=0.4444$   $y=0.4065$  /  $u'=0.2543$   $v'=0.5235$   
 CCT=2898K (Duv=0.0000) Dominant WL:Ld =583.3nm WL:Lc = --nm Purity=55.4%  
 Ratio:R=23.5% G=74.2% B=2.3%; Peak WL:Lp=604.8nm FWHM=118.1nm  
 Render Index:Ra=81.6 AvgR=75.7 TM30:Rf=83 Rg=96

R1 =80 R2 =91 R3 =96 R4 =80 R5 =80 R6 =89 R7 =81  
 R8 =56 R9 =1 R10=79 R11=80 R12=70 R13=83 R14=99 R15=72

**Photo Parameters:**

Flux = 492.3 lm Eff. : 150.96 lm/W Fe = 1.472 W

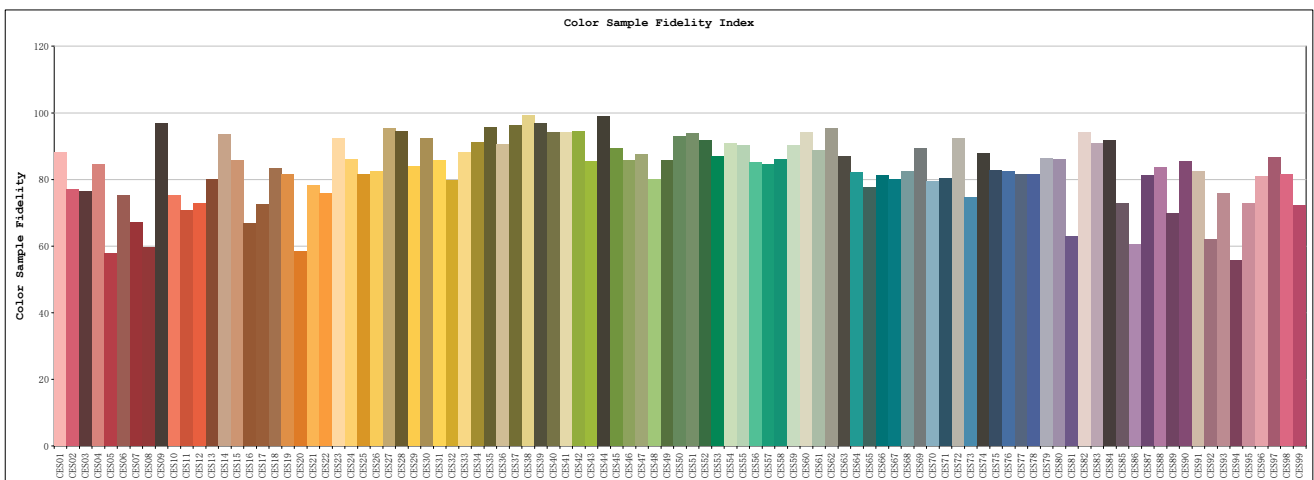
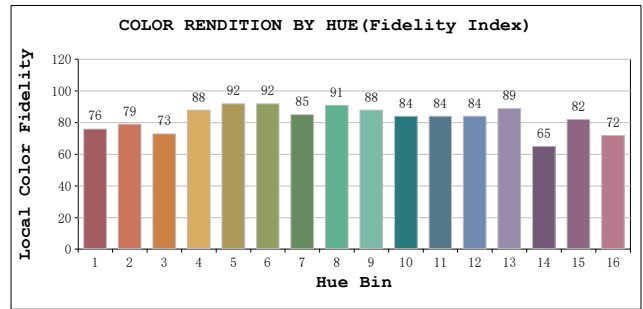
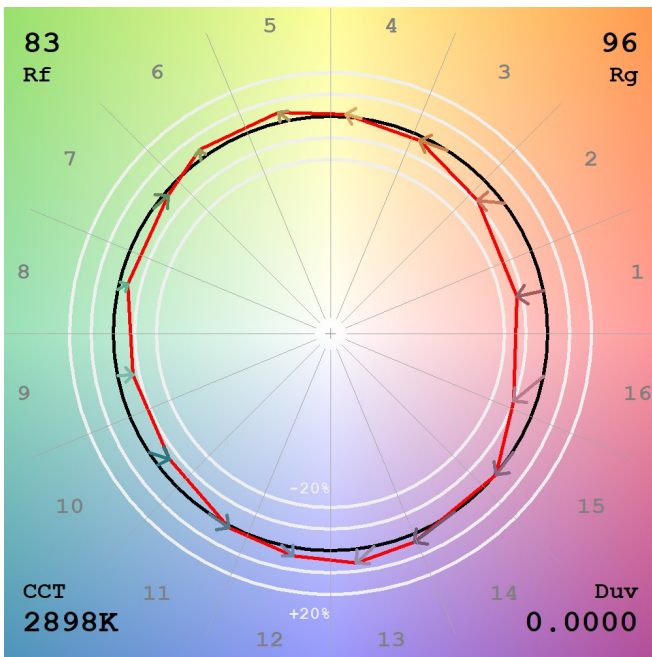
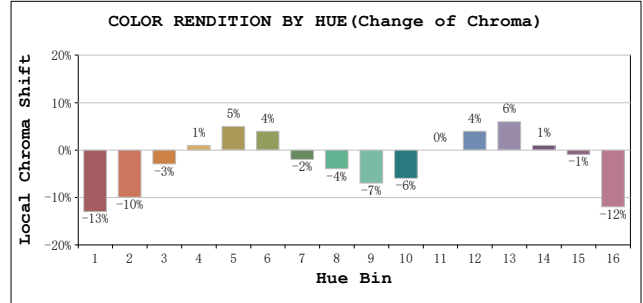
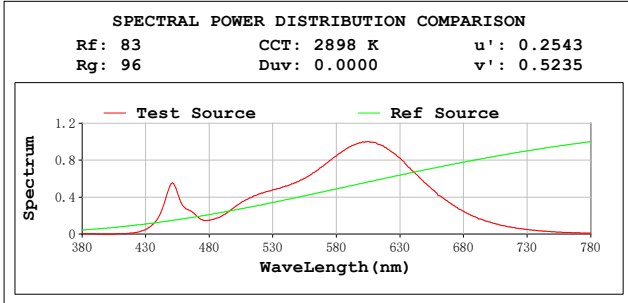
**Electrical parameters:**

V = 23.990 V I = 0.1359 A P = 3.261 W PF = 1.0000  
 LEVEL:OUT WHITE:ANSI\_3000K  
 Status: Integral T = 281 ms Ip = 51144 (78%)

**GBT5702**

TM30

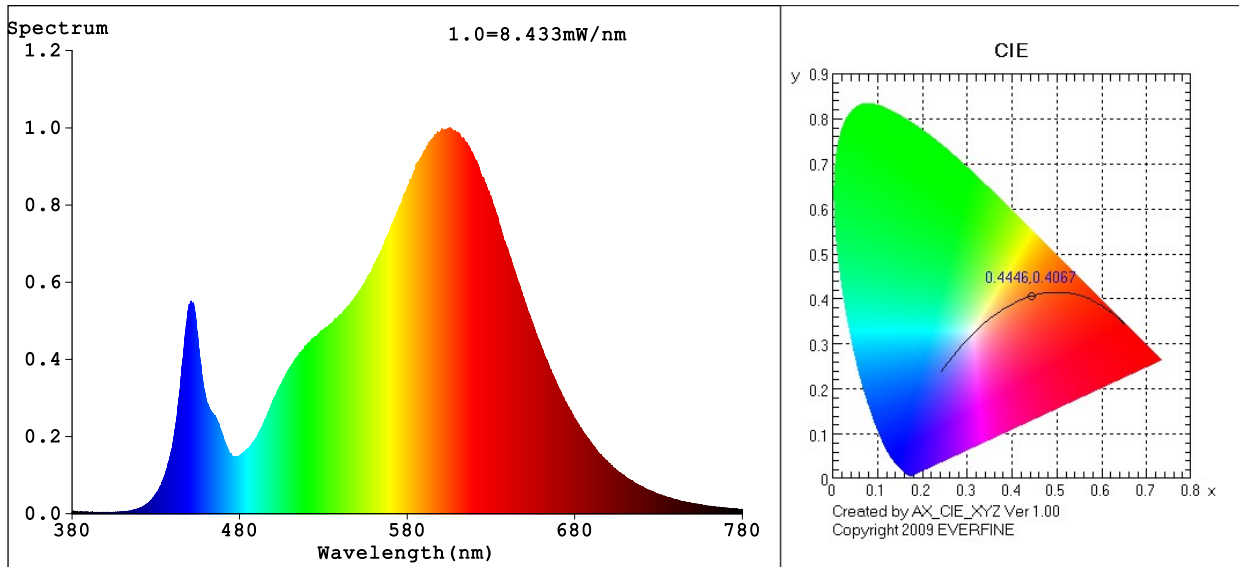
View Angle:2 Deg



Model:AGL-300-30X15  
 Tester:NC  
 Temperature:25.3Deg  
 Manufacturer:AQUALUX

Number:AGL-300-30X15 24VDC  
 Date:2023-10-17 16:17:02  
 Humidity:65.0%  
 Remarks:24VDC

### Spectrum Test Report



**Color Parameters:**

Chromaticity Coordinate:  $x=0.4446$   $y=0.4067$  /  $u'=0.2544$   $v'=0.5236$   
 CCT=2895K (Duv=0.0000) Dominant WL:Ld =583.3nm WL:Lc = --nm Purity=55.5%  
 Ratio:R=23.6% G=74.1% B=2.3%; Peak WL:Lp=605.4nm FWHM=118.5nm  
 Render Index:Ra=81.7 AvgR=75.8 TM30:Rf=83 Rg=96

R1 =80 R2 =91 R3 =96 R4 =80 R5 =80 R6 =89 R7 =81  
 R8 =56 R9 =1 R10=79 R11=80 R12=70 R13=83 R14=99 R15=72

**Photo Parameters:**

Flux = 395.6 lm Eff. : 138.27 lm/W Fe = 1.182 W

**Electrical parameters:**

V = 11.990 V I = 0.3310 A P = 2.861 W PF = 0.7209

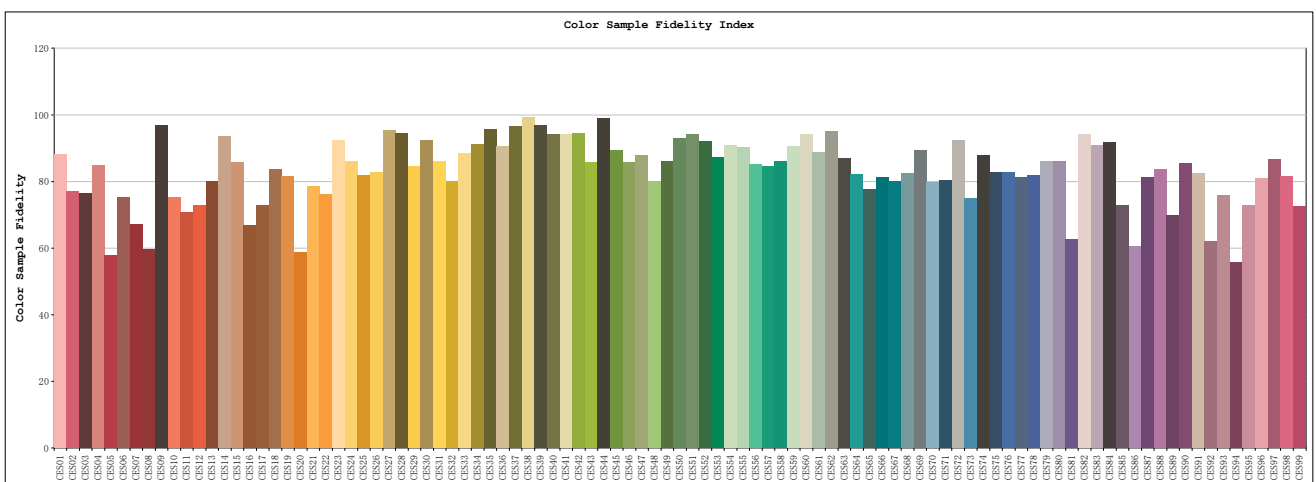
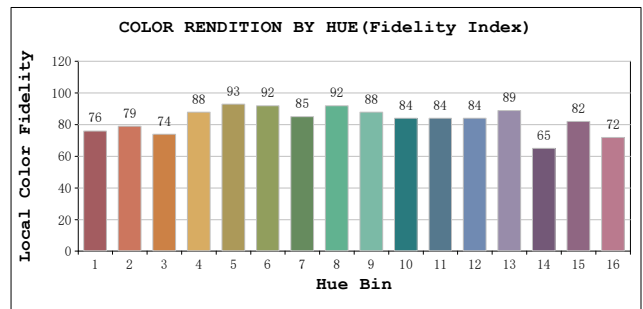
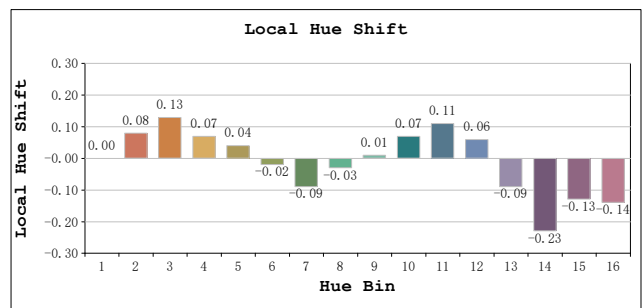
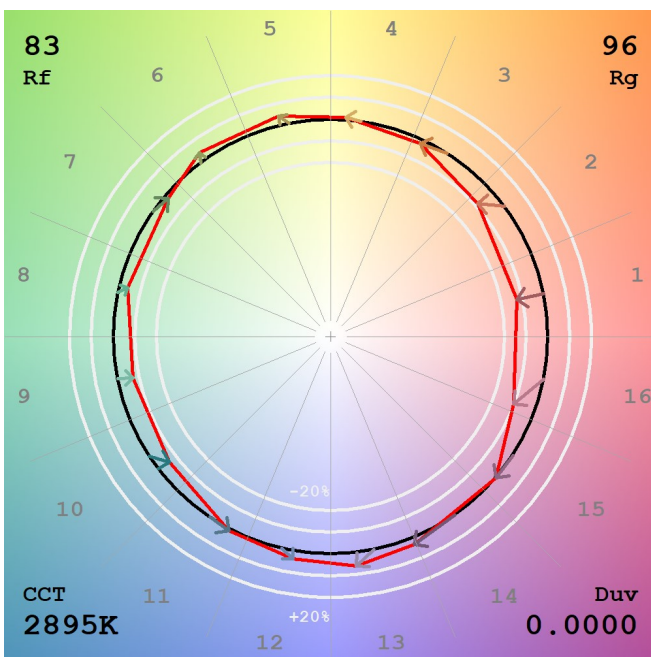
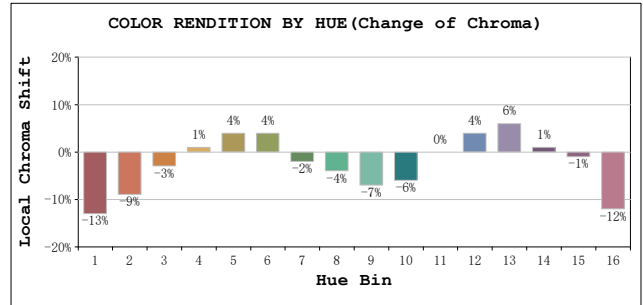
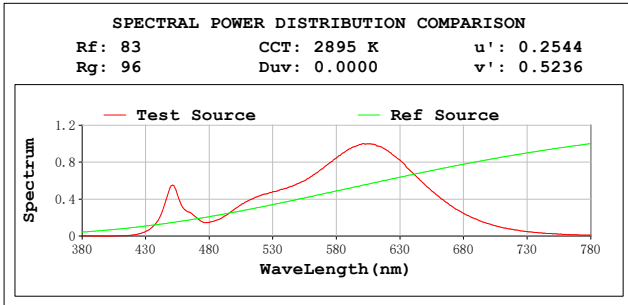
LEVEL:OUT WHITE:ANSI\_3000K

Status: Integral T = 281 ms Ip = 41238 (63%)

**GBT5702**

# TM30

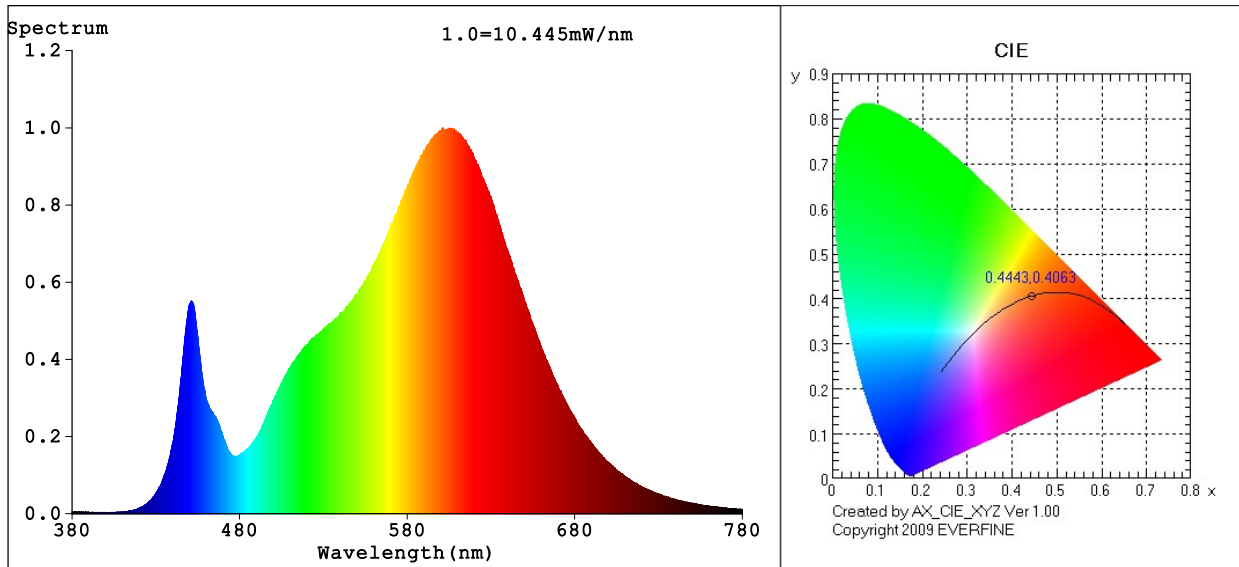
View Angle: 2 Deg



Model:AGL-300-30X15  
 Tester:NC  
 Temperature:25.3Deg  
 Manufacturer:AQUALUX

Number:AGL-300-30X15 12VAC  
 Date:2023-10-17 16:17:48  
 Humidity:65.0%  
 Remarks:12VAC

**Spectrum Test Report**



**Color Parameters:**

Chromaticity Coordinate:  $x=0.4443$   $y=0.4063$  /  $u'=0.2543$   $v'=0.5233$   
 CCT=2898K (Duv=-0.0001) Dominant WL:Ld =583.3nm WL:Lc = --nm Purity=55.3%  
 Ratio:R=23.5% G=74.1% B=2.3%; Peak WL:Lp=601.2nm FWHM=118.1nm  
 Render Index:Ra=81.6 AvgR=75.7 TM30:Rf=83 Rg=96

R1 =80 R2 =91 R3 =96 R4 =80 R5 =80 R6 =89 R7 =81  
 R8 =56 R9 =1 R10=79 R11=79 R12=70 R13=83 R14=99 R15=72

**Photo Parameters:**

Flux = 491.4 lm Eff. : 145.45 lm/W Fe = 1.470 W

**Electrical parameters:**

V = 23.967 V I = 0.2322 A P = 3.379 W PF = 0.6072

LEVEL:OUT WHITE:ANSI\_3000K

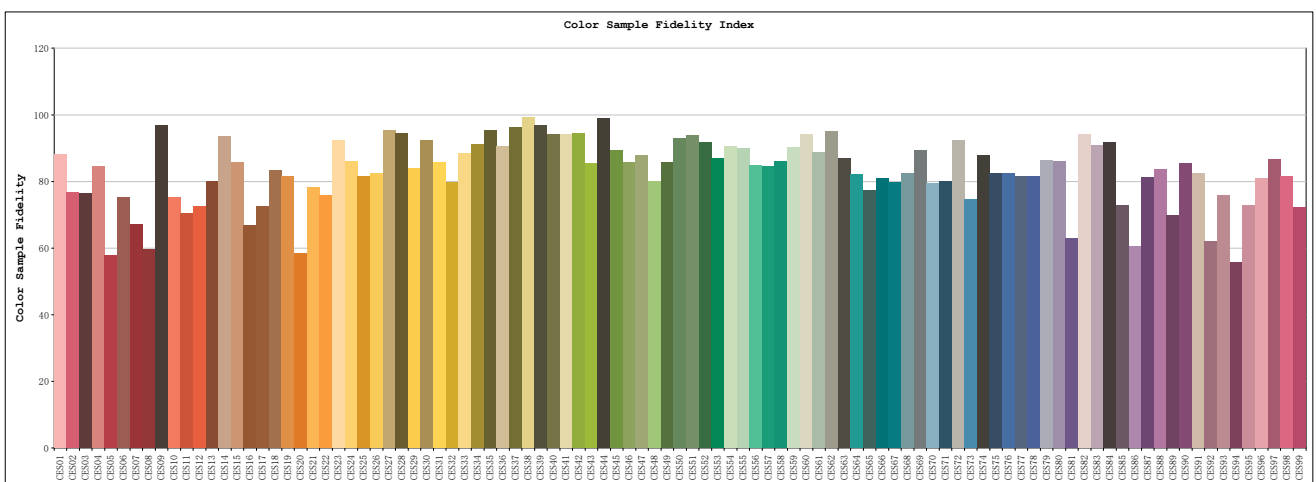
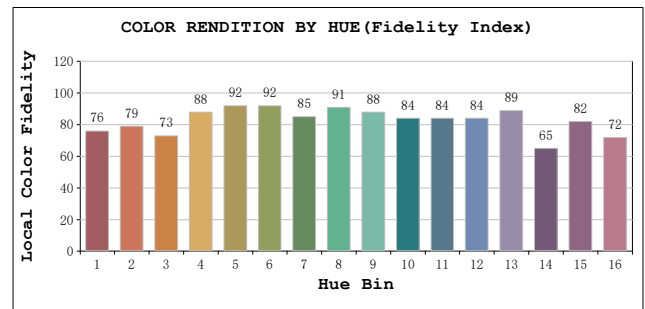
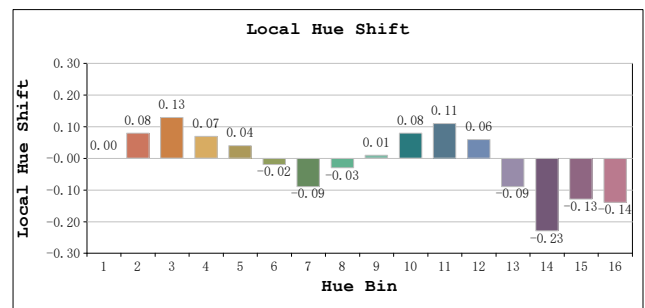
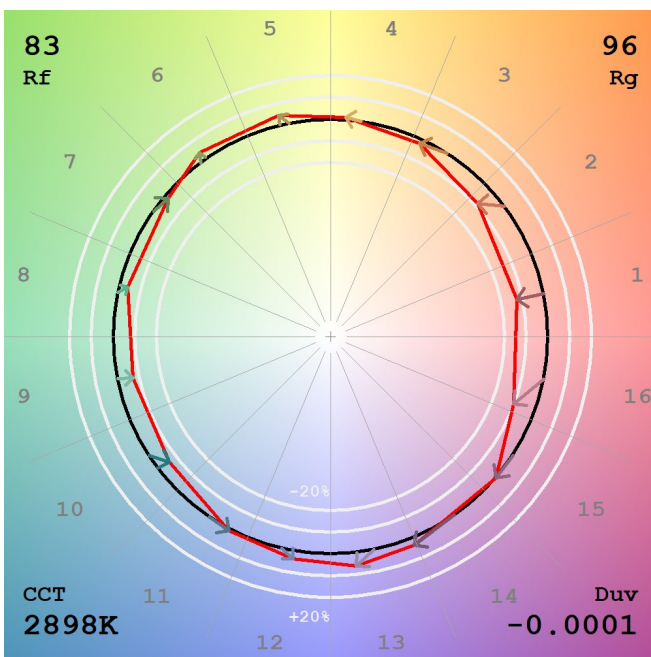
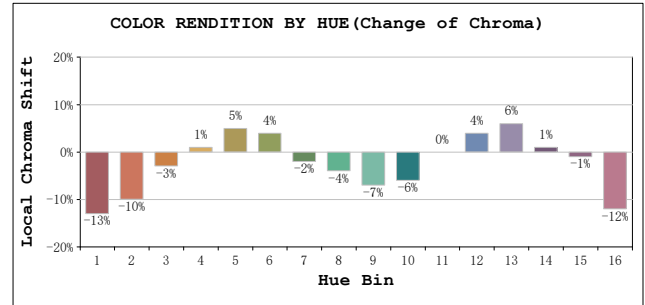
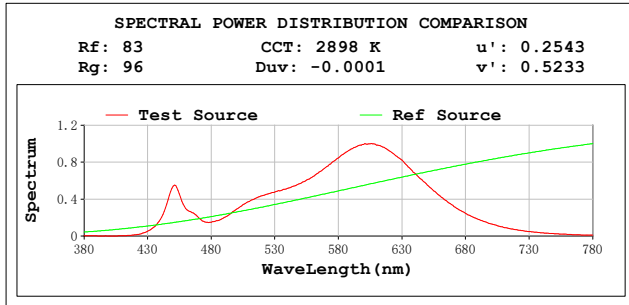
Status: Integral T = 281 ms Ip = 51111 (78%)

**GBT5702**



# TM30

View Angle:2 Deg



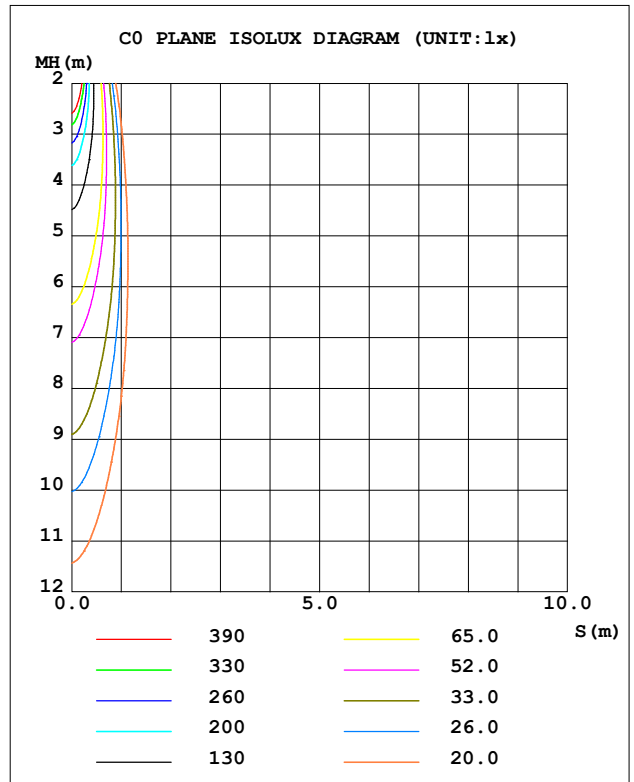
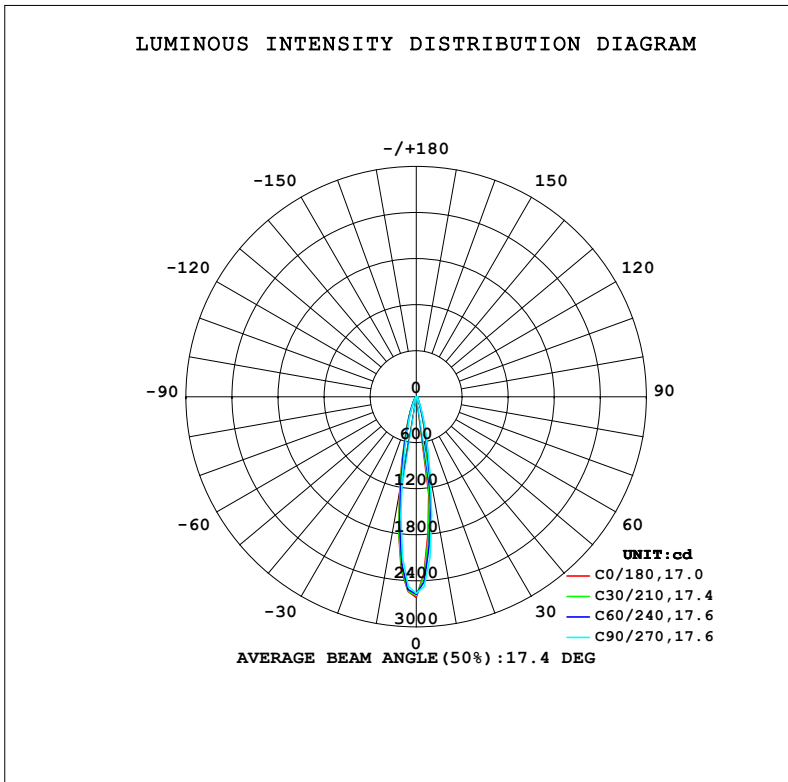
Model:AGL-300-30X15  
 Tester:NC  
 Temperature:25.3Deg  
 Manufacturer:AQUALUX

Number:AGL-300-30X15 24VAC  
 Date:2023-10-17 16:18:19  
 Humidity:65.0%  
 Remarks:24VAC

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:23.880V I:0.1333A P:3.1829W PF:1.0000 Freq:0Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:409.816x1 lm		
NAME: AGL-300-30X15	TYPE: MR16 LAMP	WEIGHT: 100GM
SPEC.: AGL-300-30X15	DIM.: 50MM	SERIAL No.: -
MFR.: AQUALUX	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	LED	I <sub>max</sub> (cd)	2615	S/MH (C0/180)	0.34
NOMINAL POWER (W)	3	LOR (%)	100.0	S/MH (C90/270)	0.31
RATED VOLTAGE (V)	24	TOTAL FLUX (lm)	409.82	η UP, DN (C0-180)	0.0, 49.3
NOMINAL FLUX (lm)	409.816	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 50.7
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE (V)	24	η down (%)	100.0	CIBSE SHR MAX	0.30



C Range: 0 - 180DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature: 20°C  
 Operators: NICK  
 Test Date: 12 October 2023

γ Range: 0 - 90DEG  
 γ Interval: 2.5DEG  
 Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.473  
 Humidity: 65.0%  
 Test Distance: 3.100m [K=1.0000]  
 Remarks: AGL-300-30X15  
 3W / 3000K / 15D / 300LM

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

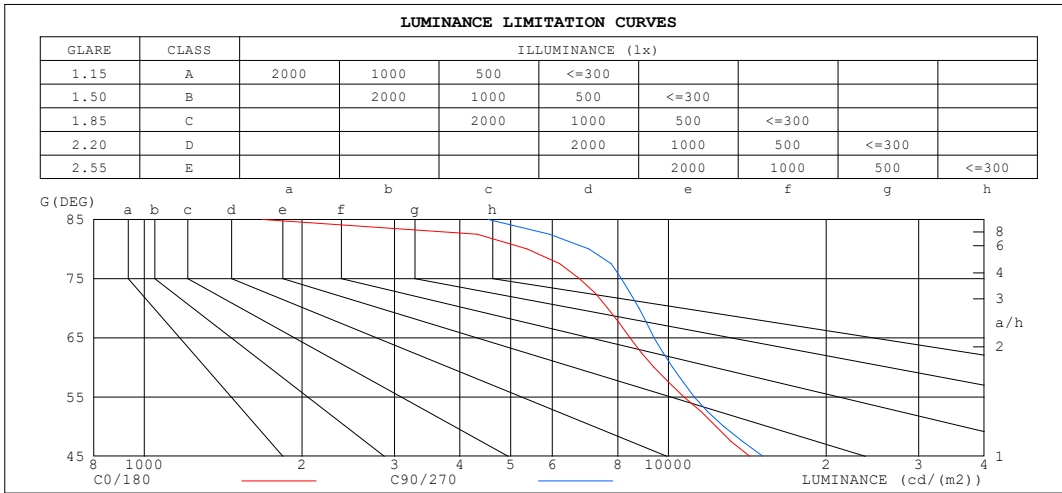
$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	∅ zone	∅ total	%lum, lamp
10	843.9	925.8	1060	1215	1267	1215	1060	925.8	0- 10	163.5	163.5	39.9,39.9
20	177.3	187.6	221.5	266.9	283.3	266.9	221.5	187.6	10- 20	142.2	305.7	74.6,74.6
30	47.57	49.94	57.95	68.32	75.05	68.32	57.95	49.94	20- 30	55.74	361.5	88.2,88.2
40	16.75	17.82	19.35	21.55	22.95	21.55	19.35	17.82	30- 40	21.72	383.2	93.5,93.5
50	9.957	10.03	10.30	10.98	11.26	10.98	10.30	10.03	40- 50	10.89	394.1	96.2,96.2
60	5.893	6.096	6.397	6.840	6.839	6.840	6.397	6.096	50- 60	7.383	401.5	98,98
70	3.289	3.491	3.772	4.067	4.055	4.067	3.772	3.491	60- 70	4.973	406.4	99.2,99.2
80	1.170	1.282	1.536	1.763	1.800	1.763	1.536	1.282	70- 80	2.770	409.2	99.8,99.8
90	0	0	0	0	0	0	0	0	80- 90	0.6223	409.8	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: MEDIUM  
 Temperature:20°C  
 Operators:NICK  
 Test Date:12 October 2023

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 2.5DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.473  
 Humidity:65.0%  
 Test Distance:3.100m [K=1.0000]  
 Remarks: AGL-300-30X15  
 3W / 3000K / 15D / 300LM

**LUMINANCE LIMITATION CURVES**

<b>Test:U:23.880V I:0.1333A P:3.1829W PF:1.0000 Freq:0Hz</b> <b>UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:409.816x1 lm</b>		
<b>NAME: AGL-300-30X15</b>	<b>TYPE: MR16 LAMP</b>	<b>WEIGHT: 100GM</b>
<b>SPEC.: AGL-300-30X15</b>	<b>DIM.: 50MM</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	1679	4532
80	5367	7045
75	6763	8125
70	7657	8780
65	8441	9386
60	9383	10186
55	10714	11203
50	12333	12755
45	14286	15131

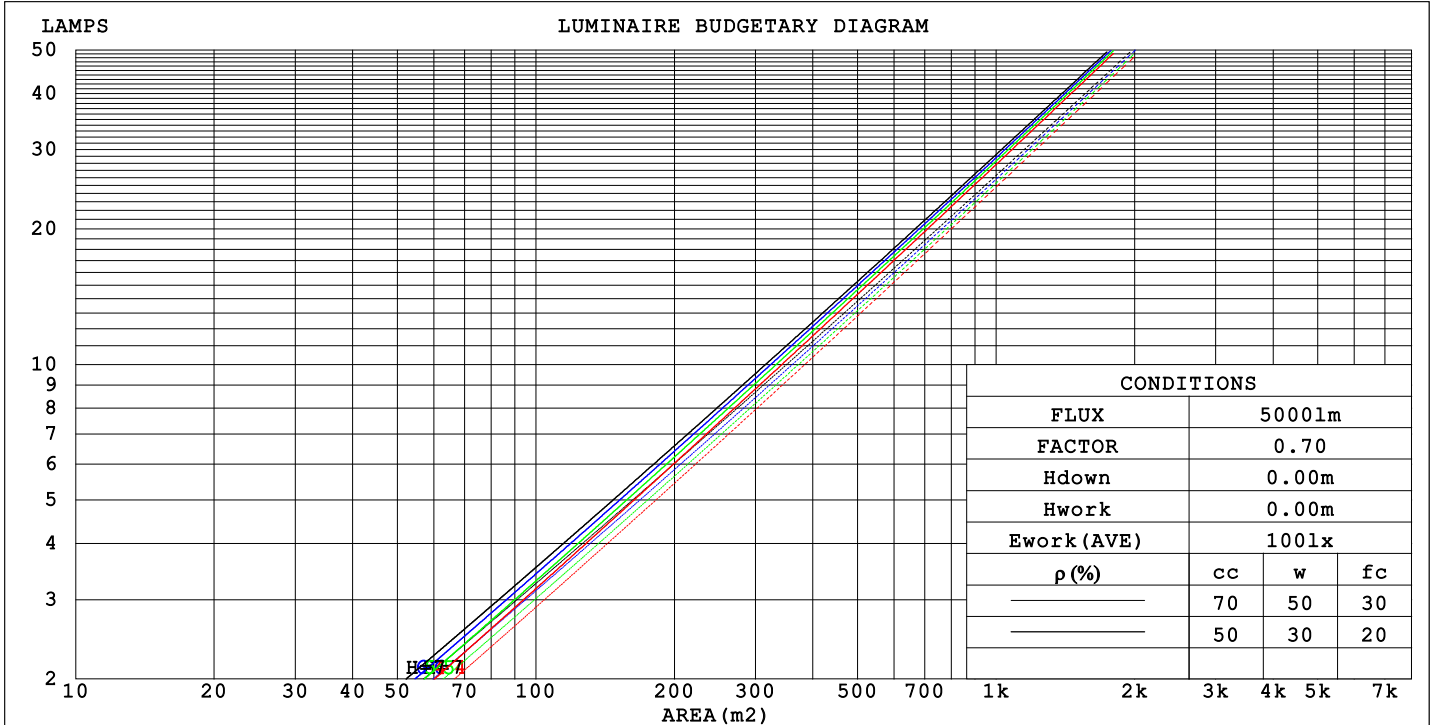
C Range: 0 - 180DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature: 20°C  
 Operator: NICK  
 Test Date: 12 October 2023

γ Range: 0 - 90DEG  
 γ Interval: 2.5DEG  
 Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.473  
 Humidity: 65.0%  
 Test Distance: 3.100m [K=1.0000]  
 Remarks: AGL-300-30X15  
 3W / 3000K / 15D / 300LM

**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

Test:U:23.880V I:0.1333A P:3.1829W PF:1.0000 Freq:0Hz		
UTHdi:0.00% ITHdi:0.00% KDisp:0 Lamp Flux:409.816x1 lm		
NAME: AGL-300-30X15	TYPE: MR16 LAMP	WEIGHT: 100GM
SPEC.: AGL-300-30X15	DIM.: 50MM	SERIAL No.: -
MFR.: AQUALUX	SUR.:	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	
pw																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	1.12	1.10	1.08	1.10	1.08	1.07	1.06	1.05	1.03	1.02	1.01	1.00	.99	.98	.97	.96
2.0	1.06	1.03	1.01	1.05	1.02	.99	1.02	.99	.97	.99	.97	.95	.96	.95	.93	.92
3.0	1.02	.98	.95	1.00	.97	.94	.98	.95	.92	.95	.93	.91	.93	.91	.90	.88
4.0	.97	.93	.90	.96	.92	.89	.94	.91	.88	.92	.90	.87	.91	.88	.86	.85
5.0	.93	.89	.86	.93	.89	.85	.91	.87	.85	.89	.86	.84	.88	.85	.83	.82
6.0	.90	.86	.83	.89	.85	.82	.88	.84	.82	.87	.84	.81	.86	.83	.81	.80
7.0	.87	.83	.80	.87	.82	.80	.85	.82	.79	.84	.81	.79	.83	.81	.78	.77
8.0	.85	.80	.77	.84	.80	.77	.83	.79	.77	.82	.79	.76	.81	.78	.76	.75
9.0	.82	.78	.75	.82	.78	.75	.81	.77	.75	.80	.77	.74	.79	.76	.74	.73
10.0	.80	.76	.73	.79	.76	.73	.79	.75	.73	.78	.75	.73	.78	.75	.72	.71



C Range: 0 - 180DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature: 20°C  
 Operators: NICK  
 Test Date: 12 October 2023

γ Range: 0 - 90DEG  
 γ Interval: 2.5DEG  
 Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.473  
 Humidity: 65.0%  
 Test Distance: 3.100m [K=1.0000]  
 Remarks: AGL-300-30X15  
 3W / 3000K / 15D / 300LM

**WEC AND CCEC**

Test:U:23.880V I:0.1333A P:3.1829W PF:1.0000 Freq:0Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:409.816x1 lm		
NAME: AGL-300-30X15	TYPE: MR16 LAMP	WEIGHT: 100GM
SPEC.: AGL-300-30X15	DIM.: 50MM	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	.148	.084	.027	.142	.081	.026	.129	.074	.024	.118	.068	.022	.107	.062	.020	
2.0	.138	.075	.023	.132	.073	.022	.122	.068	.021	.112	.063	.020	.104	.059	.018	
3.0	.128	.068	.020	.123	.066	.020	.115	.062	.019	.107	.058	.018	.099	.055	.017	
4.0	.119	.062	.018	.115	.060	.018	.108	.057	.017	.101	.054	.016	.095	.052	.016	
5.0	.112	.057	.016	.108	.056	.016	.102	.053	.016	.096	.051	.015	.091	.049	.015	
6.0	.105	.053	.015	.102	.052	.015	.097	.050	.014	.092	.048	.014	.087	.046	.014	
7.0	.099	.049	.014	.097	.048	.014	.092	.047	.013	.088	.045	.013	.084	.043	.013	
8.0	.094	.046	.013	.092	.045	.013	.088	.044	.013	.084	.043	.012	.080	.041	.012	
9.0	.089	.043	.012	.088	.043	.012	.084	.042	.012	.081	.040	.012	.077	.039	.011	
10.0	.085	.041	.011	.084	.040	.011	.080	.039	.011	.077	.038	.011	.074	.037	.011	

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	.169	.158	.147	.145	.135	.127	.099	.093	.088	.057	.054	.051	.018	.017	.016	
2.0	.152	.133	.117	.130	.114	.101	.089	.079	.070	.051	.046	.041	.016	.015	.013	
3.0	.137	.113	.094	.118	.098	.082	.081	.068	.057	.047	.040	.034	.015	.013	.011	
4.0	.125	.098	.078	.107	.085	.067	.074	.059	.048	.043	.035	.028	.014	.011	.009	
5.0	.114	.086	.065	.098	.074	.056	.068	.052	.040	.039	.030	.024	.013	.010	.008	
6.0	.105	.076	.055	.091	.066	.048	.063	.046	.034	.036	.027	.020	.012	.009	.007	
7.0	.098	.068	.047	.084	.059	.041	.058	.041	.029	.034	.024	.017	.011	.008	.006	
8.0	.091	.061	.040	.078	.053	.035	.054	.037	.025	.032	.022	.015	.010	.007	.005	
9.0	.085	.055	.035	.074	.048	.031	.051	.034	.022	.030	.020	.013	.010	.007	.004	
10.0	.080	.051	.031	.069	.044	.027	.048	.031	.019	.028	.018	.011	.009	.006	.004	

C Range: 0 - 180DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature:20°C  
 Operators:NICK  
 Test Date:12 October 2023

γ Range: 0 - 90DEG  
 γ Interval: 2.5DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.473  
 Humidity:65.0%  
 Test Distance:3.100m [K=1.0000]  
 Remarks: AGL-300-30X15  
 3W / 3000K / 15D / 300LM

**UGR(Unified Glare Rating) Table**

Test:U:23.880V I:0.1333A P:3.1829W PF:1.0000 Freq:0Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:409.816x1 lm		
NAME: AGL-300-30X15	TYPE: MR16 LAMP	WEIGHT: 100GM
SPEC.: AGL-300-30X15	DIM.: 50MM	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	17.3	18.0	17.5	18.1	18.3	17.5	18.2	17.7	18.4	18.5
	3H	18.2	18.8	18.4	19.0	19.2	18.5	19.2	18.8	19.4	19.6
	4H	18.6	19.2	18.8	19.4	19.6	19.0	19.6	19.2	19.8	20.0
	6H	18.8	19.4	19.1	19.6	19.8	19.3	19.9	19.6	20.1	20.4
	8H	18.8	19.4	19.1	19.6	19.9	19.4	19.9	19.7	20.2	20.4
	12H	18.8	19.3	19.1	19.6	19.9	19.4	19.9	19.7	20.2	20.5
4H	2H	17.7	18.3	18.0	18.5	18.7	17.9	18.5	18.1	18.7	18.9
	3H	18.8	19.3	19.1	19.6	19.9	19.1	19.6	19.4	19.9	20.2
	4H	19.3	19.8	19.6	20.1	20.4	19.6	20.2	20.0	20.4	20.7
	6H	19.6	20.0	19.9	20.3	20.7	20.1	20.5	20.4	20.8	21.2
	8H	19.6	20.0	20.0	20.4	20.8	20.2	20.6	20.5	20.9	21.3
	12H	19.6	20.0	20.0	20.3	20.7	20.2	20.6	20.6	20.9	21.3
8H	4H	19.4	19.8	19.8	20.2	20.6	19.8	20.2	20.2	20.5	20.9
	6H	19.8	20.2	20.2	20.6	21.0	20.3	20.6	20.7	21.0	21.4
	8H	19.9	20.2	20.3	20.6	21.1	20.4	20.7	20.9	21.1	21.6
	12H	19.9	20.1	20.3	20.6	21.0	20.5	20.7	20.9	21.2	21.6
12H	4H	19.4	19.8	19.8	20.2	20.6	19.8	20.1	20.2	20.5	20.9
	6H	19.8	20.1	20.3	20.6	21.0	20.3	20.6	20.7	21.0	21.4
	8H	19.9	20.2	20.4	20.6	21.1	20.4	20.7	20.9	21.1	21.6

Variations with the observer position at spacings(CIE Pub.117):		
S = 1.0H	+ 0.4 / - 0.5	+ 0.5 / - 0.5
1.5H	+ 0.4 / - 0.3	+ 0.9 / - 0.3
2.0H	+ 0.6 / - 0.6	+ 0.6 / - 0.4

CIE Pub.117, 409.8 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -3.1)  
 Area: 0.001256 m2

C Range: 0 - 180DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature:20°C  
 Operators:NICK  
 Test Date:12 October 2023

γ Range: 0 - 90DEG  
 γ Interval: 2.5DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.473  
 Humidity:65.0%  
 Test Distance:3.100m [K=1.0000]  
 Remarks: AGL-300-30X15  
 3W / 3000K / 15D / 300LM

**UTILIZATION FACTORS TABLE**

Test:U:23.880V I:0.1333A P:3.1829W PF:1.0000 Freq:0Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:409.816x1 lm		
NAME: AGL-300-30X15	TYPE: MR16 LAMP	WEIGHT: 100GM
SPEC.: AGL-300-30X15	DIM.: 50MM	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) x RCR = 5									
k = 0.60	88	81	77	87	81	77	86	81	77	74
0.80	95	89	85	94	89	85	93	88	85	81
1.00	99	94	90	98	93	90	97	93	89	85
1.25	103	98	94	102	97	94	100	96	93	89
1.50	106	101	98	104	100	97	102	99	96	91
2.00	108	104	101	107	103	100	104	101	99	93
2.50	110	106	103	108	105	102	105	103	100	94
3.00	112	108	105	110	107	104	106	104	102	96
4.00	114	111	109	112	109	107	108	106	105	97
5.00	115	113	111	113	111	109	109	107	106	99
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

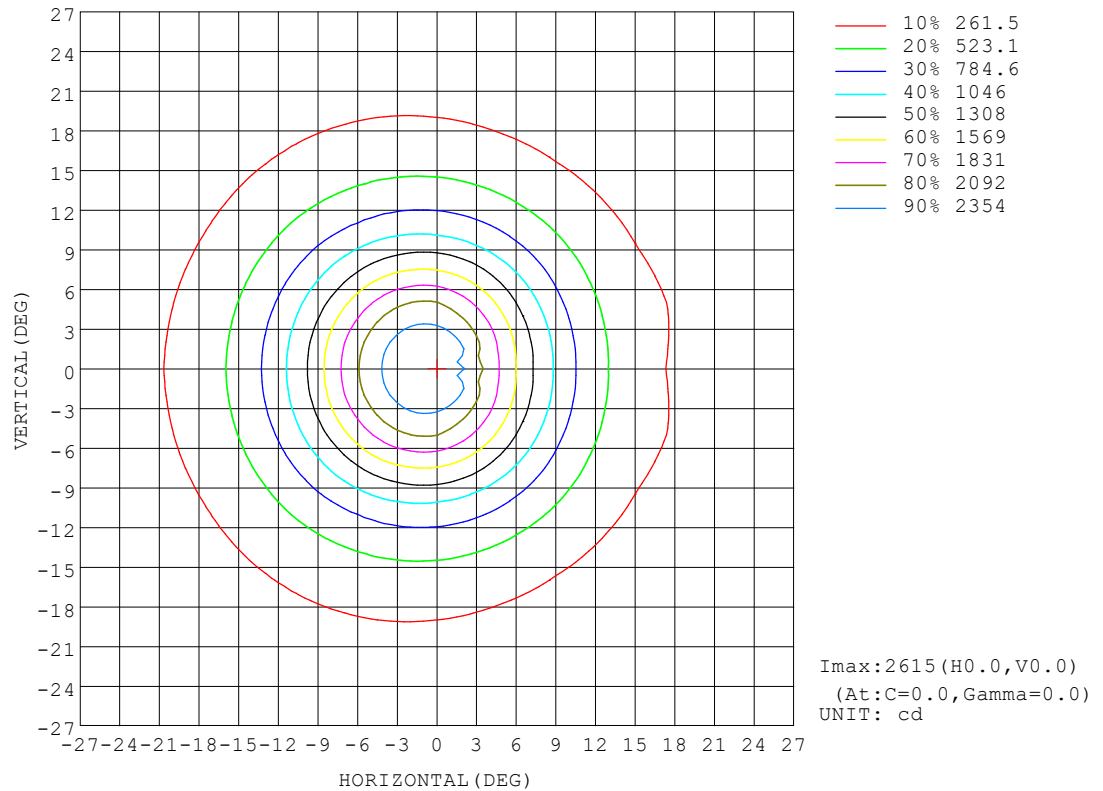
C Range: 0 - 180DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature:20°C  
 Operators:NICK  
 Test Date:12 October 2023

γ Range: 0 - 90DEG  
 γ Interval: 2.5DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.473  
 Humidity:65.0%  
 Test Distance:3.100m [K=1.0000]  
 Remarks: AGL-300-30X15  
 3W / 3000K / 15D / 300LM



ISOCANDELA DIAGRAM

Test:U:23.880V I:0.1333A P:3.1829W PF:1.0000 Freq:0Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:409.816x1 lm		
NAME: AGL-300-30X15	TYPE: MR16 LAMP	WEIGHT: 100GM
SPEC.: AGL-300-30X15	DIM.: 50MM	SERIAL No.: -
MFR.: AQUALUX	SUR.:	Shielding Angle:

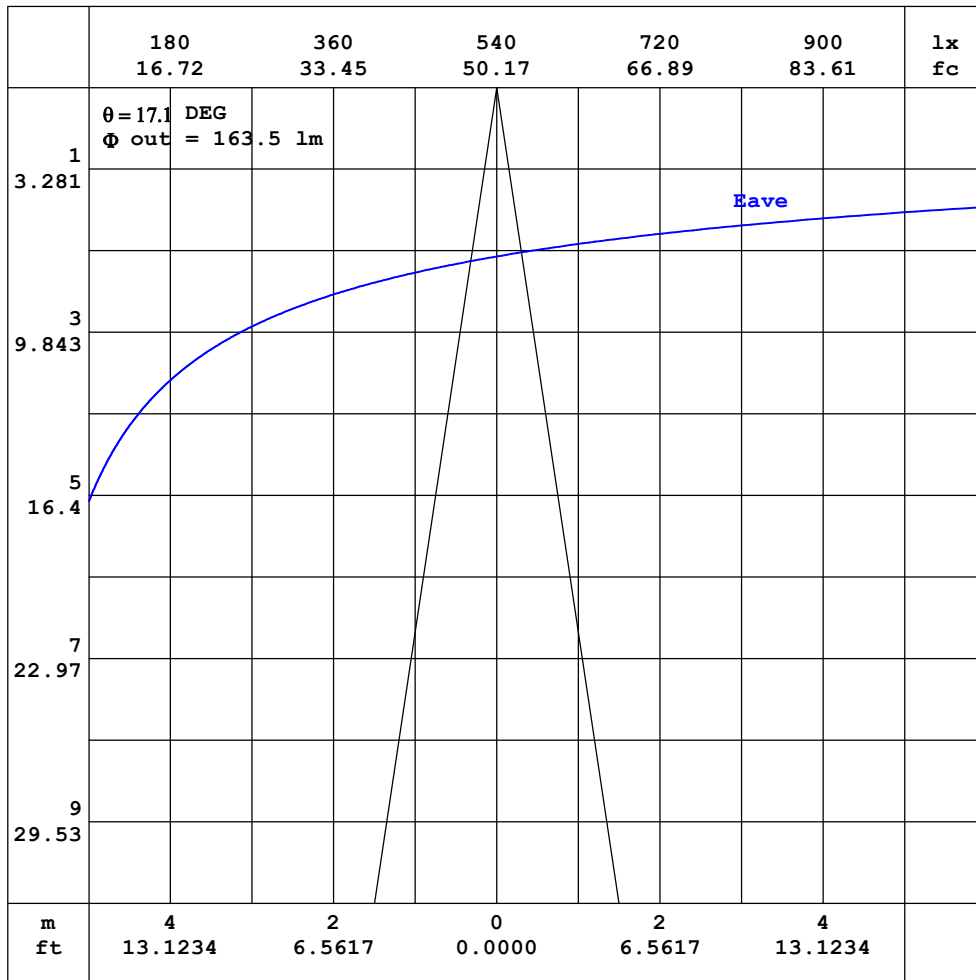


C Range: 0 - 180DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature:20°C  
 Operators:NICK  
 Test Date:12 October 2023

γ Range: 0 - 90DEG  
 γ Interval: 2.5DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.473  
 Humidity:65.0%  
 Test Distance:3.100m [K=1.0000]  
 Remarks: AGL-300-30X15  
 3W / 3000K / 15D / 300LM

**AAI CURVES**

Test:U:23.880V I:0.1333A P:3.1829W PF:1.0000 Freq:0Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:409.816x1 lm		
NAME: AGL-300-30X15	TYPE: MR16 LAMP	WEIGHT: 100GM
SPEC.: AGL-300-30X15	DIM.: 50MM	SERIAL No.: -
MFR.: AQUALUX	SUR.:	Shielding Angle:



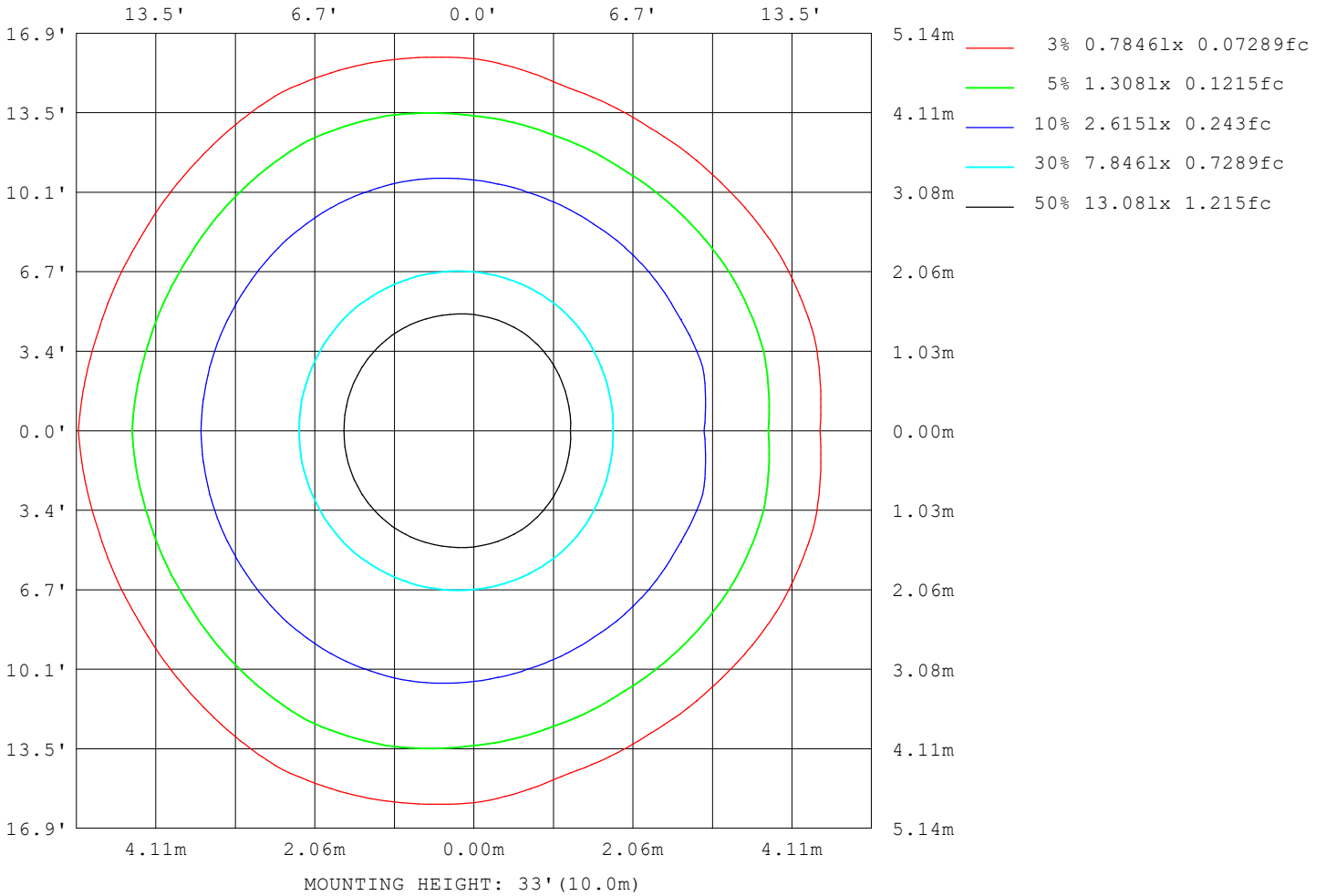
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 180DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature: 20°C  
 Operators: NICK  
 Test Date: 12 October 2023

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 2.5DEG  
 Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.473  
 Humidity: 65.0%  
 Test Distance: 3.100m [K=1.0000]  
 Remarks: AGL-300-30X15  
 3W / 3000K / 15D / 300LM

**ISOLUX DIAGRAM**

Test:U:23.880V I:0.1333A P:3.1829W PF:1.0000 Freq:0Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:409.816x1 lm		
NAME: AGL-300-30X15	TYPE: MR16 LAMP	WEIGHT: 100GM
SPEC.: AGL-300-30X15	DIM.: 50MM	SERIAL No.: -
MFR.: AQUALUX	SUR.:	Shielding Angle:



C Range: 0 - 180DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature: 20°C  
 Operators: NICK  
 Test Date: 12 October 2023

γ Range: 0 - 90DEG  
 γ Interval: 2.5DEG  
 Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.473  
 Humidity: 65.0%  
 Test Distance: 3.100m [K=1.0000]  
 Remarks: AGL-300-30X15  
 3W / 3000K / 15D / 300LM

**LED Avg.L Report**

Test:U:23.880V I:0.1333A P:3.1829W PF:1.0000 Freq:0Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:409.816x1 lm		
NAME: AGL-300-30X15	TYPE: MR16 LAMP	WEIGHT: 100GM
SPEC.: AGL-300-30X15	DIM.: 50MM	SERIAL No.: -
MFR.: AQUALUX	SUR.:	Shielding Angle:

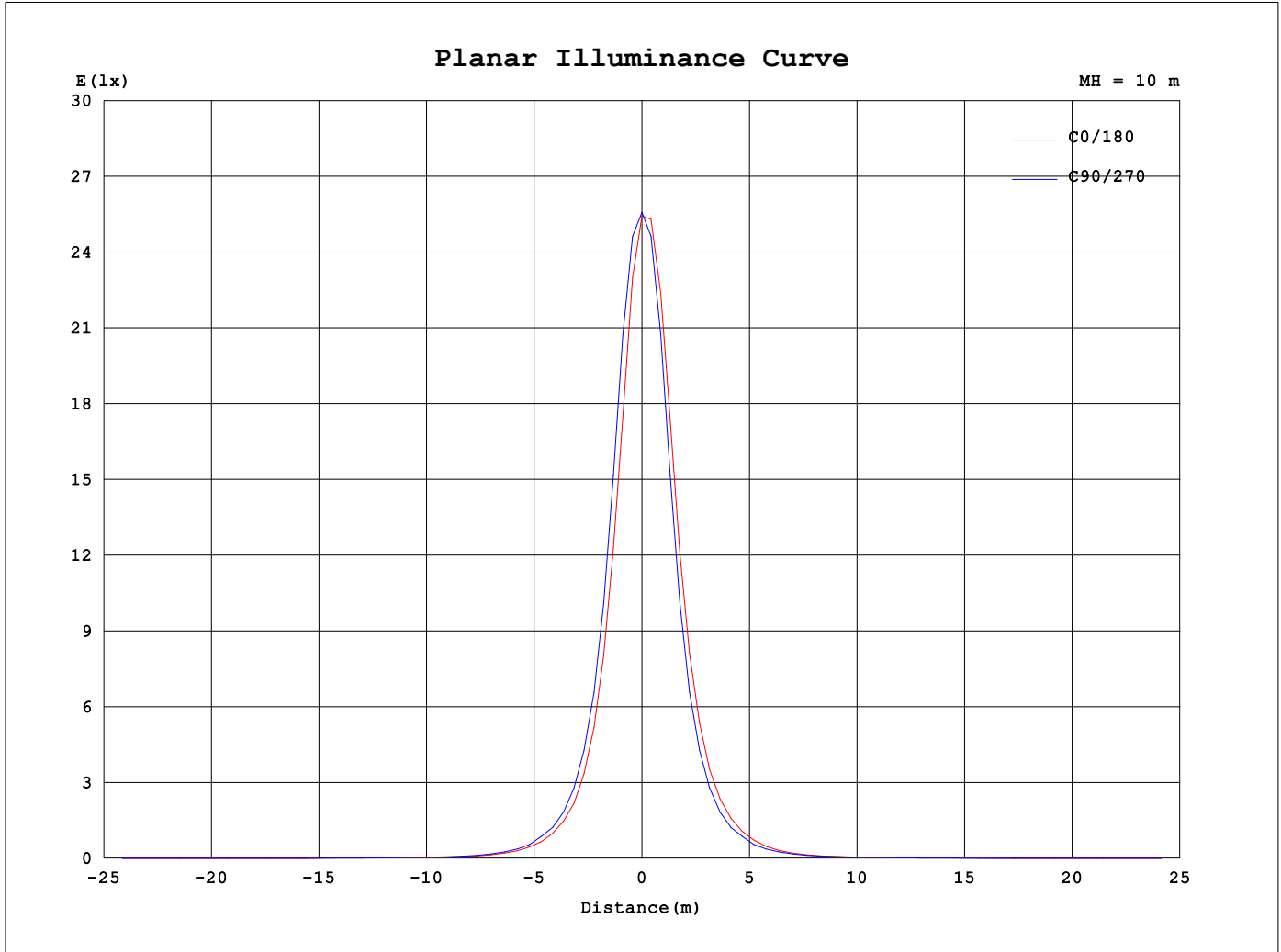
AvgL	cd/m2
L_0~180 (65) av	9244
L_0~180 (75) av	7823
L_0~180 (85) av	4066
L_90~270 (65) av	9386
L_90~270 (75) av	8125
L_90~270 (85) av	4532
L_45 (65) av	9478
L_45 (75) av	8094
L_45 (85) av	4289

Standard: GB/T 29293-2012

C Range: 0 - 180DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature:20°C  
 Operators:NICK  
 Test Date:12 October 2023

γ Range: 0 - 90DEG  
 γ Interval: 2.5DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.473  
 Humidity:65.0%  
 Test Distance:3.100m [K=1.0000]  
 Remarks: AGL-300-30X15  
 3W / 3000K / 15D / 300LM

Planar Illuminance Curve



C Range: 0 - 180DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature: 20°C  
 Operators: NICK  
 Test Date: 12 October 2023

γ Range: 0 - 90DEG  
 γ Interval: 2.5DEG  
 Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.473  
 Humidity: 65.0%  
 Test Distance: 3.100m [K=1.0000]  
 Remarks: AGL-300-30X15  
 3W / 3000K / 15D / 300LM

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:23.880V I:0.1333A P:3.1829W PF:1.0000 Freq:0Hz		
UTHDI:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:409.816x1 lm		
NAME: AGL-300-30X15	TYPE: MR16 LAMP	WEIGHT: 100GM
SPEC.: AGL-300-30X15	DIM.: 50MM	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	2615	2593	2590	2575	2571	2561	2559	2552	2552	2548	2548	2545	2545	2545	2548	2548	2552	2552	2559
5	1769	1796	1838	1893	1954	2026	2097	2153	2196	2226	2246	2260	2263	2260	2246	2226	2196	2153	2097
10	844	856	881	926	968	1015	1060	1110	1167	1215	1247	1263	1267	1263	1247	1215	1167	1110	1060
15	372	380	391	406	422	446	476	508	537	563	578	590	595	590	578	563	537	508	476
20	177	187	188	188	190	202	221	243	258	267	270	278	283	278	270	267	258	243	221
25	90.2	97.0	96.8	93.9	94.0	99.6	118	126	136	133	132	136	144	136	132	133	136	126	118
30	47.6	50.5	50.7	49.9	50.1	52.7	58.0	66.5	70.8	68.3	67.0	69.5	75.0	69.5	67.0	68.3	70.8	66.5	58.0
35	26.7	28.1	28.5	28.6	28.8	30.0	32.4	36.1	37.8	37.0	36.2	37.7	40.1	37.7	36.2	37.0	37.8	36.1	32.4
40	16.8	17.3	17.6	17.8	17.9	18.4	19.4	21.0	21.7	21.6	21.4	22.1	22.9	22.1	21.4	21.6	21.7	21.0	19.4
45	12.7	12.8	12.9	12.9	12.9	13.0	13.4	14.2	14.5	14.5	14.4	14.8	15.1	14.8	14.4	14.5	14.5	14.2	13.4
50	9.96	10.1	10.1	10.0	9.95	9.99	10.3	10.7	10.9	11.0	10.9	11.1	11.3	11.1	10.9	11.0	10.9	10.7	10.3
55	7.72	7.79	7.82	7.79	7.77	7.80	8.07	8.33	8.47	8.63	8.54	8.69	8.71	8.69	8.54	8.63	8.47	8.33	8.07
60	5.89	5.99	6.05	6.10	6.12	6.18	6.40	6.58	6.70	6.84	6.81	6.88	6.84	6.88	6.81	6.84	6.70	6.58	6.40
65	4.48	4.57	4.63	4.71	4.75	4.84	4.98	5.14	5.25	5.36	5.35	5.38	5.33	5.38	5.35	5.36	5.25	5.14	4.98
70	3.29	3.36	3.42	3.49	3.55	3.65	3.77	3.92	4.00	4.07	4.06	4.09	4.06	4.09	4.06	4.07	4.00	3.92	3.77
75	2.20	2.26	2.31	2.38	2.44	2.54	2.64	2.78	2.84	2.88	2.87	2.90	2.89	2.90	2.87	2.88	2.84	2.78	2.64
80	1.17	1.21	1.23	1.28	1.34	1.43	1.54	1.66	1.71	1.76	1.76	1.80	1.80	1.80	1.76	1.76	1.71	1.66	1.54
85	0.18	0.21	0.23	0.28	0.34	0.43	0.50	0.57	0.61	0.66	0.67	0.70	0.71	0.70	0.67	0.66	0.61	0.57	0.50
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C Range: 0 - 180DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature:20°C  
 Operators:NICK  
 Test Date:12 October 2023

γ Range: 0 - 90DEG  
 γ Interval: 2.5DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.473  
 Humidity:65.0%  
 Test Distance:3.100m [K=1.0000]  
 Remarks: AGL-300-30X15  
 3W / 3000K / 15D / 300LM

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:23.880V I:0.1333A P:3.1829W PF:1.0000 Freq:0Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:409.816x1 lm		
NAME: AGL-300-30X15	TYPE: MR16 LAMP	WEIGHT: 100GM
SPEC.: AGL-300-30X15	DIM.: 50MM	SERIAL No.: -
MFR.: AQUALUX	SUR.:	Shielding Angle:

Table--2

UNIT: cd

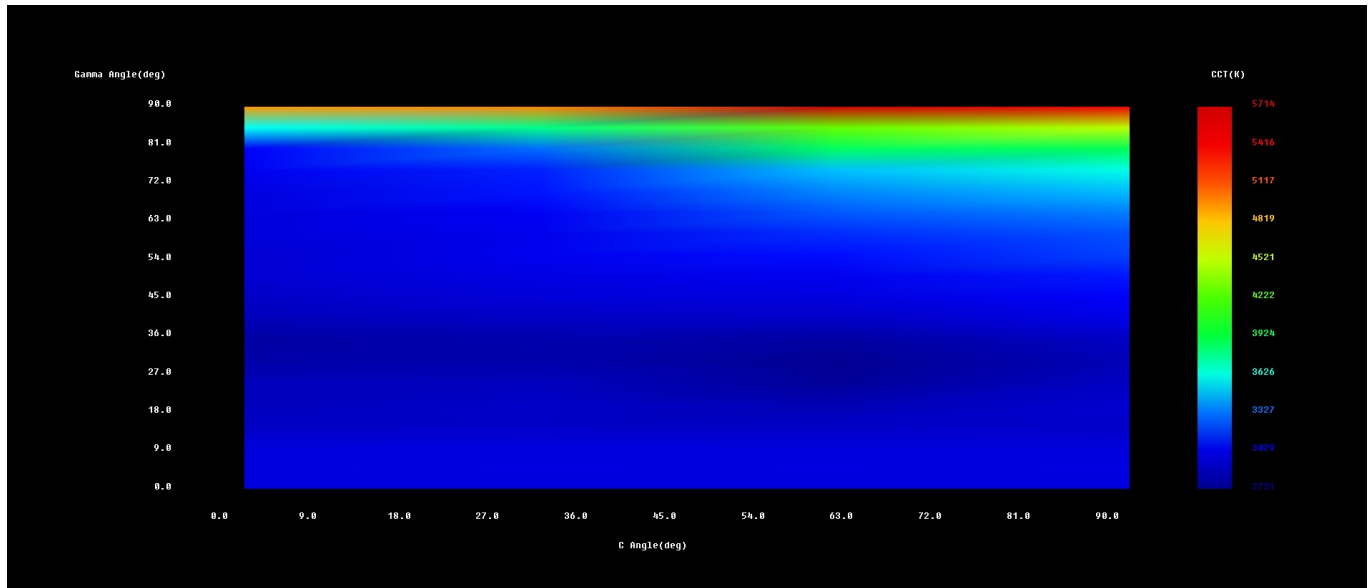
C (DEG) \ γ (DEG)	285	300	315	330	345														
0	2561	2571	2575	2590	2593														
5	2026	1954	1893	1838	1796														
10	1015	968	926	881	856														
15	446	422	406	391	380														
20	202	190	188	188	187														
25	99.6	94.0	93.9	96.8	97.0														
30	52.7	50.1	49.9	50.7	50.5														
35	30.0	28.8	28.6	28.5	28.1														
40	18.4	17.9	17.8	17.6	17.3														
45	13.0	12.9	12.9	12.9	12.8														
50	9.99	9.95	10.0	10.1	10.1														
55	7.80	7.77	7.79	7.82	7.79														
60	6.18	6.12	6.10	6.05	5.99														
65	4.84	4.75	4.71	4.63	4.57														
70	3.65	3.55	3.49	3.42	3.36														
75	2.54	2.44	2.38	2.31	2.26														
80	1.43	1.34	1.28	1.23	1.21														
85	0.43	0.34	0.28	0.23	0.21														
90	0.00	0.00	0.00	0.00	0.00														

C Range: 0 - 180DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature:20°C  
 Operators:NICK  
 Test Date:12 October 2023

γ Range: 0 - 90DEG  
 γ Interval: 2.5DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.473  
 Humidity:65.0%  
 Test Distance:3.100m [K=1.0000]  
 Remarks: AGL-300-30X15  
 3W / 3000K / 15D / 300LM

### Spatial Color Distribution Report

NAME: AGL-300-30X15	TYPE: MR16 LAMP	WEIGHT: 100GM
DIM.: 50MM	SPEC.: AGL-300-30X15	SERIAL No.: -
MFR.: AQUALUX		



**Color Parameters:**

Average: x=0.4383,y=0.4028 u'=0.2520,v'=0.5211 CCT=2967K Ra=81.7 Rf=83 Rg=96  
 Center : x=0.4369,y=0.4043 u'=0.2505,v'=0.5215 CCT=3002K Ra=81.8 Rf=83 Rg=95  
 IESNA LM-79-2019 Max. du'v': 0.0064 / max.du'v': 0.0000[Set Range]  
 GB/T 24824(LB/T 001-2009):: avg. color nonuniformity du'v':0.0016  
 GB/T 24824(LB/T 001-2009):: max. color nonuniformity du'v':0.0011  
 Average: R1=80 R2=91 R3=96 R4=79 R5=81 R6=89 R7=81 R8=56 R9=2 R10=79  
 R11=79 R12=71 R13=83 R14=98 R15=72

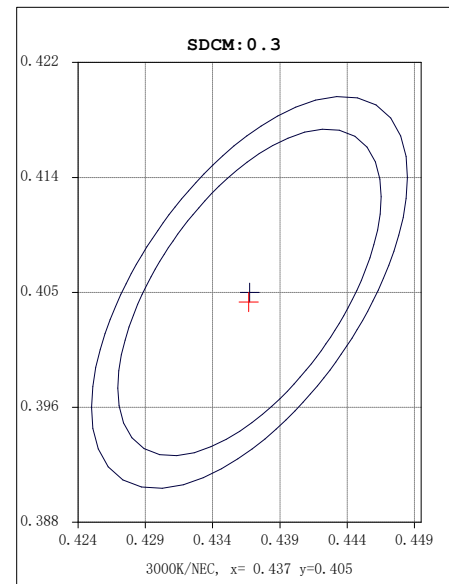
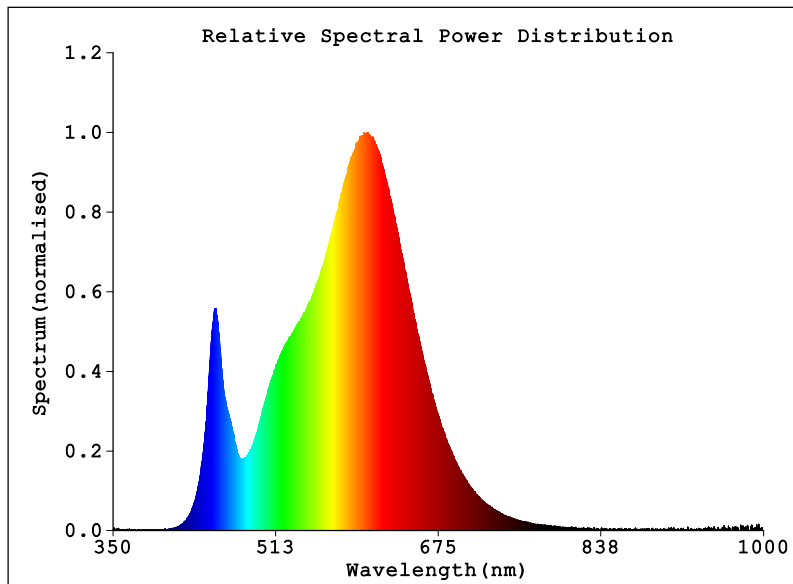
Tester: NICK  
 Temperature: 20°C  
 Manufacturer: AQUALUX  
 System: GO-SPEX500\_V1

Date: 12 October 2023  
 Humidity: 65.0%  
 Remarks: AGL-300-30X153W / 3000K / 15D / 300LM



### Spectral Radiant Test Report

NAME: AGL-300-30X15	TYPE: MR16 LAMP	WEIGHT: 100GM
DIM.: 50MM	SPEC.: AGL-300-30X15	SERIAL No.: -
MFR.: AQUALUX		



#### Photon & Colormetric & Photometric Quantities:

Chromaticity Coordinates: x=0.4369 y=0.4043/u'=0.2505 v'=0.5215 duv=0.00008

Tc=3002K Dominant WL: Ld=582.8nm Purity=52.5%

Ratio: R=22.8% G=74.7% B=2.5% Peak WL: Lp=605.0nm HWL: 123.2nm

Rendering Index: Ra=81.8 TM-30: Rf=83 Rg=95

R1 =80 R2 =91 R3 =96 R4 =80 R5 =80 R6 =89 R7 =82

R8 =57 R9 =2 R10=79 R11=79 R12=69 R13=83 R14=99 R15=72

E = 258.8 lx Ee = 0.7794 W/m<sup>2</sup>

Status: T=216.00ms Ip=48869 (75%) [ HAAS-1200(CAN) ]

Electrical: U=23.88V I=0.13305A P=3.1773W PF=1.0000

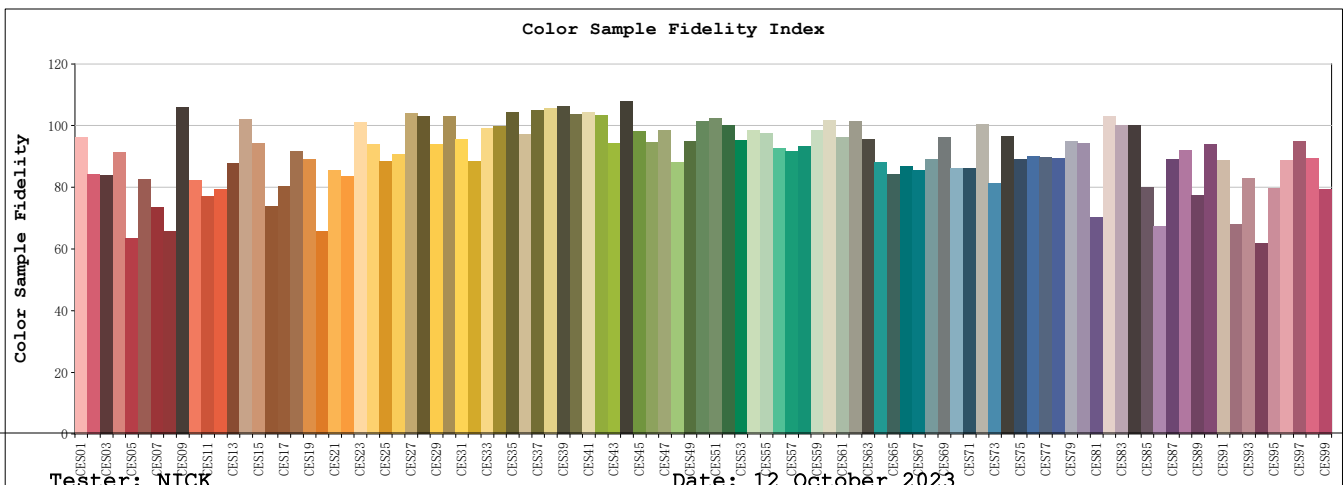
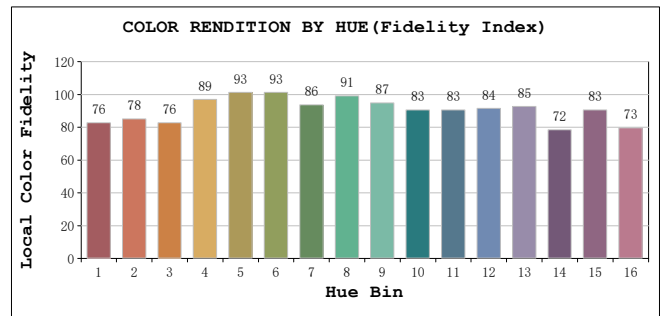
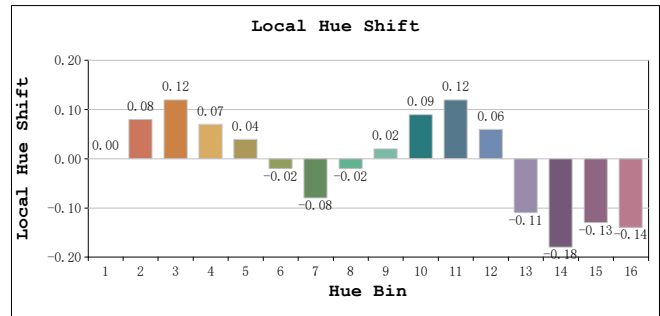
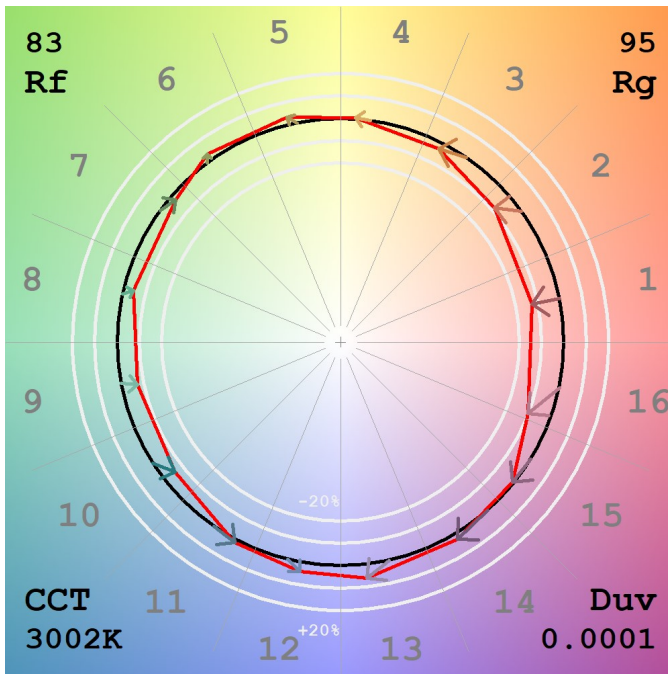
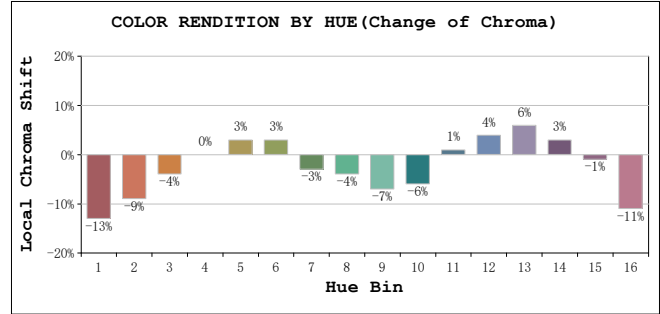
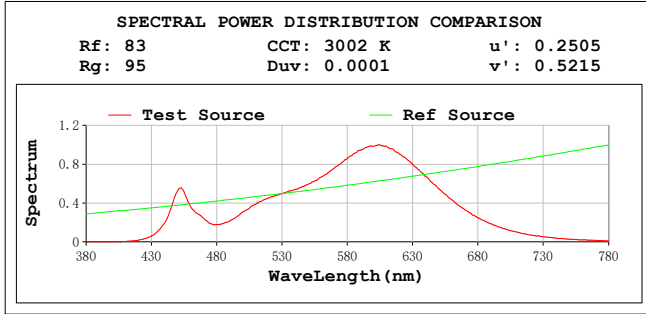
Test position: Center

Tester: NICK  
 Temperature: 20°C  
 Manufacturer: AQUALUX

Date: 12 October 2023  
 Humidity: 65.0%  
 Remarks: AGL-300-30X153W / 3000K / 15D / 300LM

System: GO-SPEX500\_V1

# TM30



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

Date: 12 October 2023  
 Humidity: 65.0%  
 Remarks: AGL-300-30X153W / 3000K / 15D / 300LM

**All Rf:**

Rf1 = 88.3	Rf2 = 77.1	Rf3 = 76.8
Rf4 = 83.9	Rf5 = 58.4	Rf6 = 75.9
Rf7 = 67.5	Rf8 = 60.3	Rf9 = 97.1
Rf10 = 75.5	Rf11 = 70.8	Rf12 = 72.7
Rf13 = 80.4	Rf14 = 93.7	Rf15 = 86.5
Rf16 = 67.9	Rf17 = 73.6	Rf18 = 84.2
Rf19 = 81.6	Rf20 = 60.5	Rf21 = 78.5
Rf22 = 76.5	Rf23 = 92.8	Rf24 = 86.1
Rf25 = 81.3	Rf26 = 83.3	Rf27 = 95.3
Rf28 = 94.4	Rf29 = 86.1	Rf30 = 94.5
Rf31 = 87.7	Rf32 = 81.0	Rf33 = 91.0
Rf34 = 91.4	Rf35 = 95.6	Rf36 = 89.2
Rf37 = 96.4	Rf38 = 97.0	Rf39 = 97.6
Rf40 = 94.9	Rf41 = 95.7	Rf42 = 94.7
Rf43 = 86.5	Rf44 = 99.0	Rf45 = 89.9
Rf46 = 86.6	Rf47 = 90.3	Rf48 = 81.0
Rf49 = 87.0	Rf50 = 93.0	Rf51 = 93.9
Rf52 = 91.7	Rf53 = 87.2	Rf54 = 90.4
Rf55 = 89.3	Rf56 = 85.0	Rf57 = 84.2
Rf58 = 85.6	Rf59 = 90.2	Rf60 = 93.3
Rf61 = 88.3	Rf62 = 93.0	Rf63 = 87.6
Rf64 = 80.8	Rf65 = 77.2	Rf66 = 79.6
Rf67 = 78.3	Rf68 = 81.6	Rf69 = 88.4
Rf70 = 79.0	Rf71 = 78.9	Rf72 = 92.1
Rf73 = 74.5	Rf74 = 88.6	Rf75 = 81.8
Rf76 = 82.6	Rf77 = 82.4	Rf78 = 82.1
Rf79 = 87.1	Rf80 = 86.6	Rf81 = 64.5
Rf82 = 94.5	Rf83 = 91.7	Rf84 = 91.7
Rf85 = 73.3	Rf86 = 61.9	Rf87 = 81.8
Rf88 = 84.3	Rf89 = 70.9	Rf90 = 86.1
Rf91 = 81.5	Rf92 = 62.5	Rf93 = 76.1
Rf94 = 56.8	Rf95 = 73.0	Rf96 = 81.3
Rf97 = 87.0	Rf98 = 82.0	Rf99 = 72.7

Tester: NICK  
Temperature: 20°C  
Manufacturer: AQUALUX

Date: 12 October 2023  
Humidity: 65.0%  
Remarks: AGL-300-30X153W / 3000K / 15D / 300LM

System: GO-SPEX500\_V1



Gamma\C	C30	CIE x,y	u',v'	CCT (K)	Ra	du'v'	Rf, Rg	Ip
0.0	99.49	0.4369,0.4043	0.2505,0.5215	3002	81.8	0.0000	83, 95	48869
10.0	51.63	0.4364,0.4020	0.2511,0.5205	2993	81.9	0.0012	83, 96	26688
20.0	11.56	0.4396,0.4002	0.2540,0.5202	2924	81.6	0.0037	83, 97	26320
30.0	3.04	0.4519,0.4114	0.2570,0.5265	2822	80.7	0.0082	83, 95	37089
40.0	0.94	0.4432,0.4055	0.2539,0.5229	2910	81.9	0.0037	84, 96	22317
50.0	0.47	0.4322,0.3970	0.2506,0.5179	3023	83.7	0.0036	85, 97	22363
60.0	0.30	0.4284,0.3930	0.2499,0.5157	3056	84.6	0.0058	85, 98	22313
70.0	0.19	0.4214,0.3893	0.2468,0.5131	3156	86.3	0.0092	86, 98	22233
80.0	0.10	0.4103,0.3815	0.2429,0.5081	3313	89.2	0.0154	88, 100	22179
90.0	0.02	0.3434,0.3288	0.2195,0.4728	4983	93.5	0.0577	88, 106	22084
	C0							
0.0	99.54	0.4369,0.4043	0.2505,0.5215	3002	81.8	0.0000	83, 95	48869
10.0	52.58	0.4368,0.4024	0.2512,0.5207	2988	81.9	0.0011	83, 96	27138
20.0	11.74	0.4445,0.4046	0.2553,0.5227	2880	81.2	0.0049	83, 97	26656
30.0	3.10	0.4535,0.4128	0.2574,0.5272	2809	80.5	0.0089	83, 95	37435
40.0	0.94	0.4488,0.4113	0.2551,0.5260	2867	80.8	0.0064	84, 96	22169
50.0	0.46	0.4392,0.4035	0.2523,0.5215	2958	82.0	0.0018	85, 97	22022
60.0	0.28	0.4361,0.4017	0.2511,0.5203	2995	82.8	0.0013	85, 98	22171
70.0	0.18	0.4330,0.3978	0.2507,0.5183	3016	84.0	0.0032	86, 98	22134
80.0	0.09	0.4222,0.3860	0.2488,0.5118	3111	88.1	0.0098	88, 100	22231
90.0	0.02	0.3430,0.3133	0.2259,0.4643	4932	86.3	0.0623	88, 106	22067

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

Date: 12 October 2023  
 Humidity: 65.0%  
 Remarks: AGL-300-30X153W / 3000K / 15D / 300LM