

IES Indoor Report

Photometric Filename:LED GROW LIGHT.IES

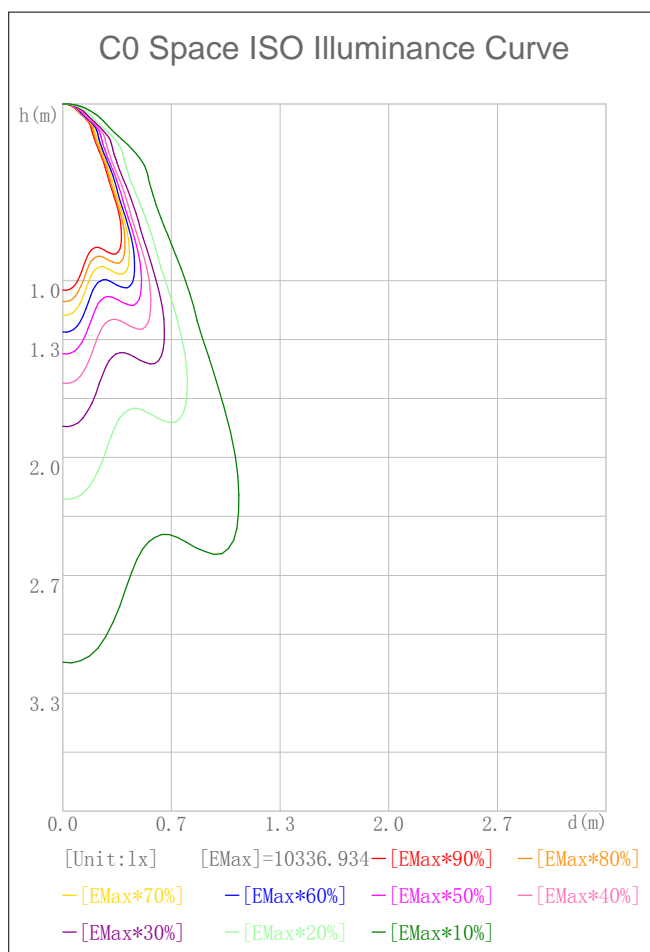
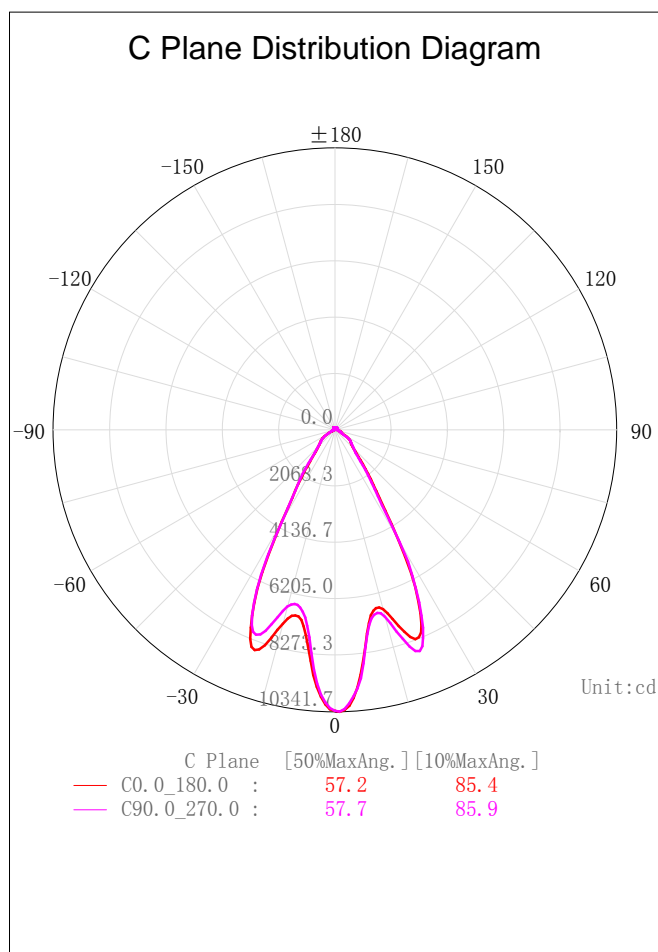
Indoor Luminaire Photometric Data

Description Information

Luminary Name: LED GROW LIGHT		Lum. Catalog: ST-APL10-150X3	Test ID:
Lamp Name:		Lamp Catalog:	Test Date: 2017/05/10
Manufacture:		Shld. Ang(°):	Test Machine:GON-2000
Test Lab:		Frequency (Hz):	Lamp CCT (K): Ra:
Lum. Size (W*L*H): 0.280m*0.600m*0.100m		Lum. Area (m2): 0.228	Lum. W (kg): 2.000
Test System: C, γ	Test Step: C=30.0 γ=1.0	Temp. (°C): 25	Humidity (%): 50.0

Character Parameter

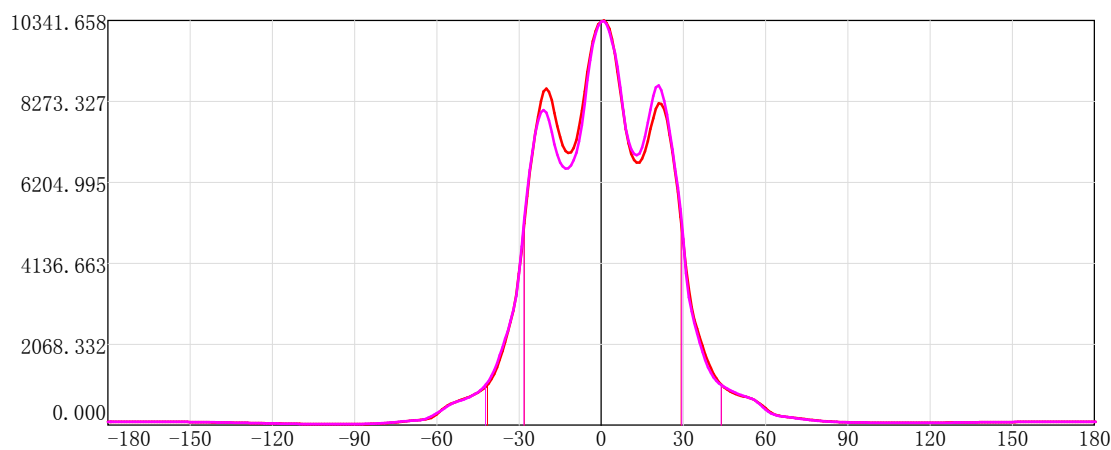
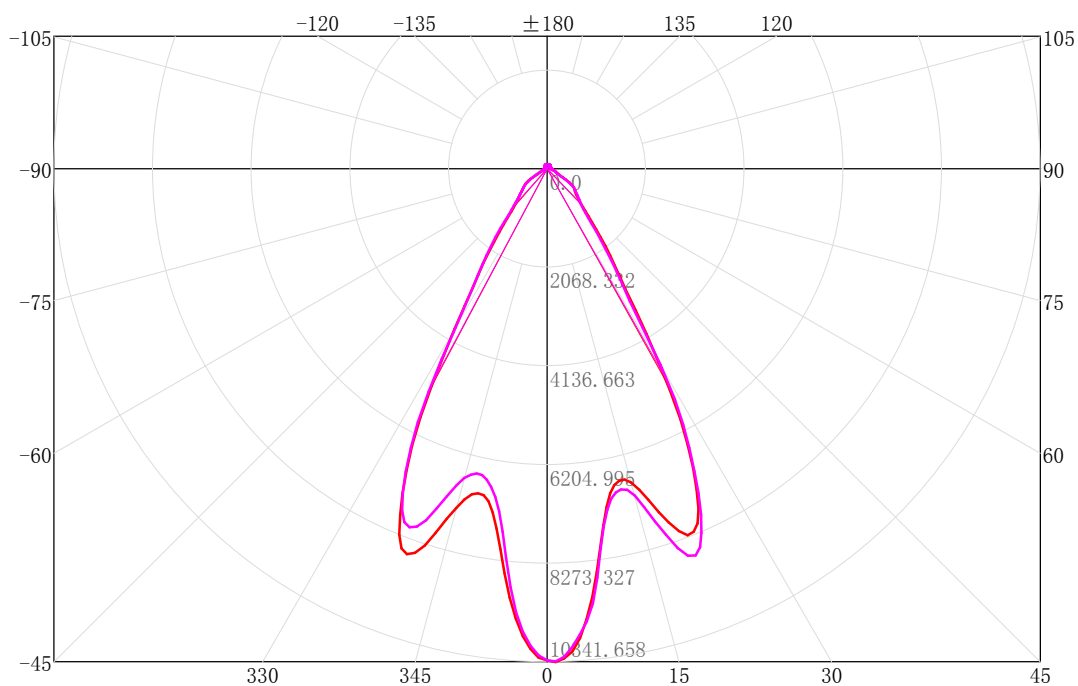
Lamp Speciality Parameter		Luminaire Speciality Parameter	
Rated Flux(lm): 9617.000	Luminary Flux(lm): 9617.151	Field Angle(10%Imax): 85.4(°)	
Rated Power(W):	Luminary Efficiency: 100.00%	Down Lumens&Percent: 9219.567lm 95.87%	
Rated Voltage(V):	Luminary EER(lm/W): 34.532	Up Lumens&Percent: 397.584lm 4.13%	
Tested Power(W): 278.500	Max. Candela(cd): 10341.658	S/MH: C0_a180=0.951 C90_270=0.955	
Lamps' Inside: 1	Max Cand@Ang. (°): C=0.0 γ=1.0	CIE Type: Semi-Direct	
Tested Electrics (V, A, pf): 223.6, 1.315, 0.947	Beam Angle(50%Imax): 57.2(°)	ErP Φ use(90°): 7981.189lm	
Lamp Size (W*L*H): 0.280m*0.600m*0.100m	Left=-28.0°, Right=29.2°	IRF (%): 258.121	



2D Plane Light Intensity Distribution Curve

Lum. Name: LED GROW LIGHT	Lum. Catalog: ST-APL10-150X3	Test ID:
Lamp Name:	Lamp Catalog:	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2017/05/10

C Plane Distribution Diagram

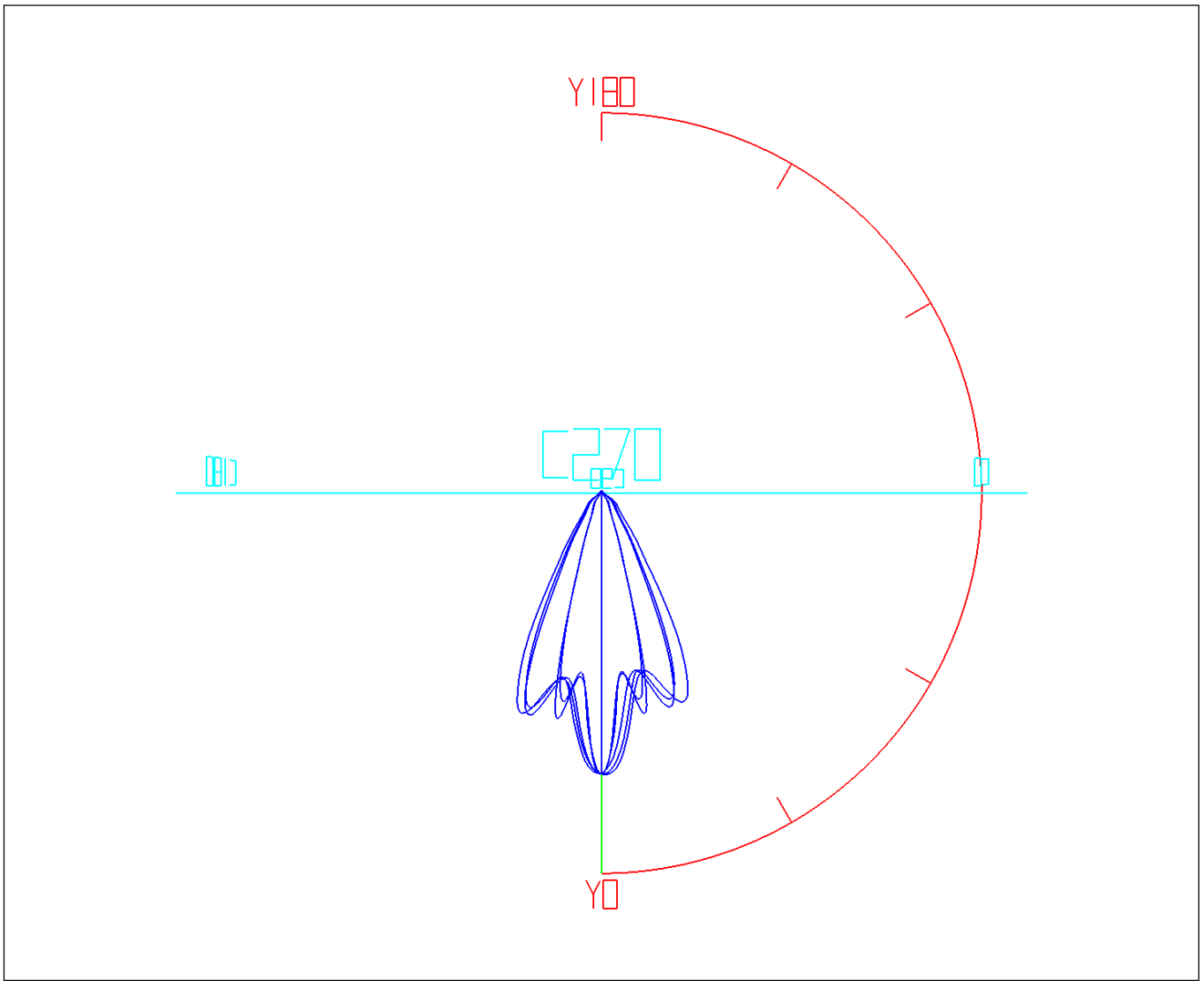


	C Plane	[50%MaxAng.]	[10%MaxAng.]	Unit:cd
—	C0_0_180.0 :	57.2	85.4	
—	C90_0_270.0 :	57.7	85.9	

3D Light Intensity Distribution Modal

Lum. Name: LED GROW LIGHT	Lum. Catalog: ST-APL10-150X3	Test ID:
Lamp Name:	Lamp Catalog:	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2017/05/10

3D Light Intensity Distribution Modal



Curves: 3D Model — Fixture — Vert. HUD — Hori. HUD —
 View Angles: Orient:0 Tilt:0 Roll:0 Spin:0

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Zonal Flux Tabulation

Zone (γ)	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	Sums%Lamp	Zone (γ)	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	Sums%Lamp
0.0-1.0	9.85	9.85	0.10	0.10	47.0-48.0	65.68	8165.00	0.68	84.90
1.0-2.0	29.29	39.14	0.30	0.41	48.0-49.0	64.10	8229.10	0.67	85.57
2.0-3.0	47.97	87.11	0.50	0.91	49.0-50.0	62.65	8291.75	0.65	86.22
3.0-4.0	65.36	152.47	0.68	1.59	50.0-51.0	61.29	8353.04	0.64	86.86
4.0-5.0	81.00	233.47	0.84	2.43	51.0-52.0	60.01	8413.04	0.62	87.48
5.0-6.0	94.56	328.03	0.98	3.41	52.0-53.0	58.75	8471.80	0.61	88.09
6.0-7.0	105.94	433.97	1.10	4.51	53.0-54.0	57.37	8529.17	0.60	88.69
7.0-8.0	115.42	549.39	1.20	5.71	54.0-55.0	55.62	8584.78	0.58	89.27
8.0-9.0	123.76	673.16	1.29	7.00	55.0-56.0	53.23	8638.02	0.55	89.82
9.0-10.0	131.96	805.12	1.37	8.37	56.0-57.0	50.04	8688.05	0.52	90.34
10.0-11.0	140.74	945.86	1.46	9.84	57.0-58.0	46.08	8734.13	0.48	90.82
11.0-12.0	150.59	1096.44	1.57	11.40	58.0-59.0	41.57	8775.70	0.43	91.25
12.0-13.0	161.86	1258.30	1.68	13.08	59.0-60.0	36.71	8812.41	0.38	91.63
13.0-14.0	175.04	1433.34	1.82	14.90	60.0-61.0	31.90	8844.31	0.33	91.97
14.0-15.0	190.68	1624.01	1.98	16.89	61.0-62.0	27.60	8871.90	0.29	92.25
15.0-16.0	209.23	1833.24	2.18	19.06	62.0-63.0	24.11	8896.01	0.25	92.50
16.0-17.0	230.65	2063.89	2.40	21.46	63.0-64.0	21.57	8917.58	0.22	92.73
17.0-18.0	254.23	2318.12	2.64	24.10	64.0-65.0	19.88	8937.46	0.21	92.93
18.0-19.0	278.60	2596.73	2.90	27.00	65.0-66.0	18.78	8956.24	0.20	93.13
19.0-20.0	301.74	2898.47	3.14	30.14	66.0-67.0	18.02	8974.26	0.19	93.32
20.0-21.0	321.55	3220.03	3.34	33.48	67.0-68.0	17.42	8991.68	0.18	93.50
21.0-22.0	336.05	3556.08	3.49	36.98	68.0-69.0	16.86	9008.54	0.18	93.67
22.0-23.0	344.02	3900.09	3.58	40.55	69.0-70.0	16.27	9024.81	0.17	93.84
23.0-24.0	345.63	4245.72	3.59	44.15	70.0-71.0	15.61	9040.42	0.16	94.00
24.0-25.0	341.37	4587.09	3.55	47.70	71.0-72.0	14.89	9055.31	0.15	94.16
25.0-26.0	331.82	4918.91	3.45	51.15	72.0-73.0	14.14	9069.45	0.15	94.31
26.0-27.0	317.36	5236.28	3.30	54.45	73.0-74.0	13.37	9082.83	0.14	94.45
27.0-28.0	297.99	5534.26	3.10	57.55	74.0-75.0	12.60	9095.43	0.13	94.58
28.0-29.0	274.38	5808.64	2.85	60.40	75.0-76.0	11.83	9107.26	0.12	94.70
29.0-30.0	248.19	6056.84	2.58	62.98	76.0-77.0	11.10	9118.36	0.12	94.82
30.0-31.0	221.55	6278.38	2.30	65.28	77.0-78.0	10.43	9128.79	0.11	94.92
31.0-32.0	197.68	6476.06	2.06	67.34	78.0-79.0	9.82	9138.62	0.10	95.03
32.0-33.0	179.08	6655.14	1.86	69.20	79.0-80.0	9.27	9147.88	0.10	95.12
33.0-34.0	164.68	6819.82	1.71	70.91	80.0-81.0	8.76	9156.65	0.09	95.21
34.0-35.0	152.33	6972.15	1.58	72.50	81.0-82.0	8.30	9164.94	0.09	95.30
35.0-36.0	140.83	7112.98	1.46	73.96	82.0-83.0	7.87	9172.81	0.08	95.38
36.0-37.0	129.36	7242.33	1.35	75.31	83.0-84.0	7.50	9180.31	0.08	95.46
37.0-38.0	117.87	7360.20	1.23	76.53	84.0-85.0	7.17	9187.48	0.07	95.53
38.0-39.0	107.01	7467.21	1.11	77.65	85.0-86.0	6.88	9194.36	0.07	95.61
39.0-40.0	97.40	7564.61	1.01	78.66	86.0-87.0	6.62	9200.98	0.07	95.67
40.0-41.0	89.48	7654.09	0.93	79.59	87.0-88.0	6.39	9207.37	0.07	95.74
41.0-42.0	83.29	7737.39	0.87	80.46	88.0-89.0	6.18	9213.55	0.06	95.80
42.0-43.0	78.51	7815.89	0.82	81.27	89.0-90.0	6.01	9219.57	0.06	95.87
43.0-44.0	74.76	7890.66	0.78	82.05	90.0-91.0	5.90	9225.47	0.06	95.93
44.0-45.0	71.81	7962.47	0.75	82.80	91.0-92.0	5.81	9231.28	0.06	95.99
45.0-46.0	69.43	8031.90	0.72	83.52	92.0-93.0	5.73	9237.01	0.06	96.05
46.0-47.0	67.42	8099.32	0.70	84.22	93.0-94.0	5.65	9242.66	0.06	96.11

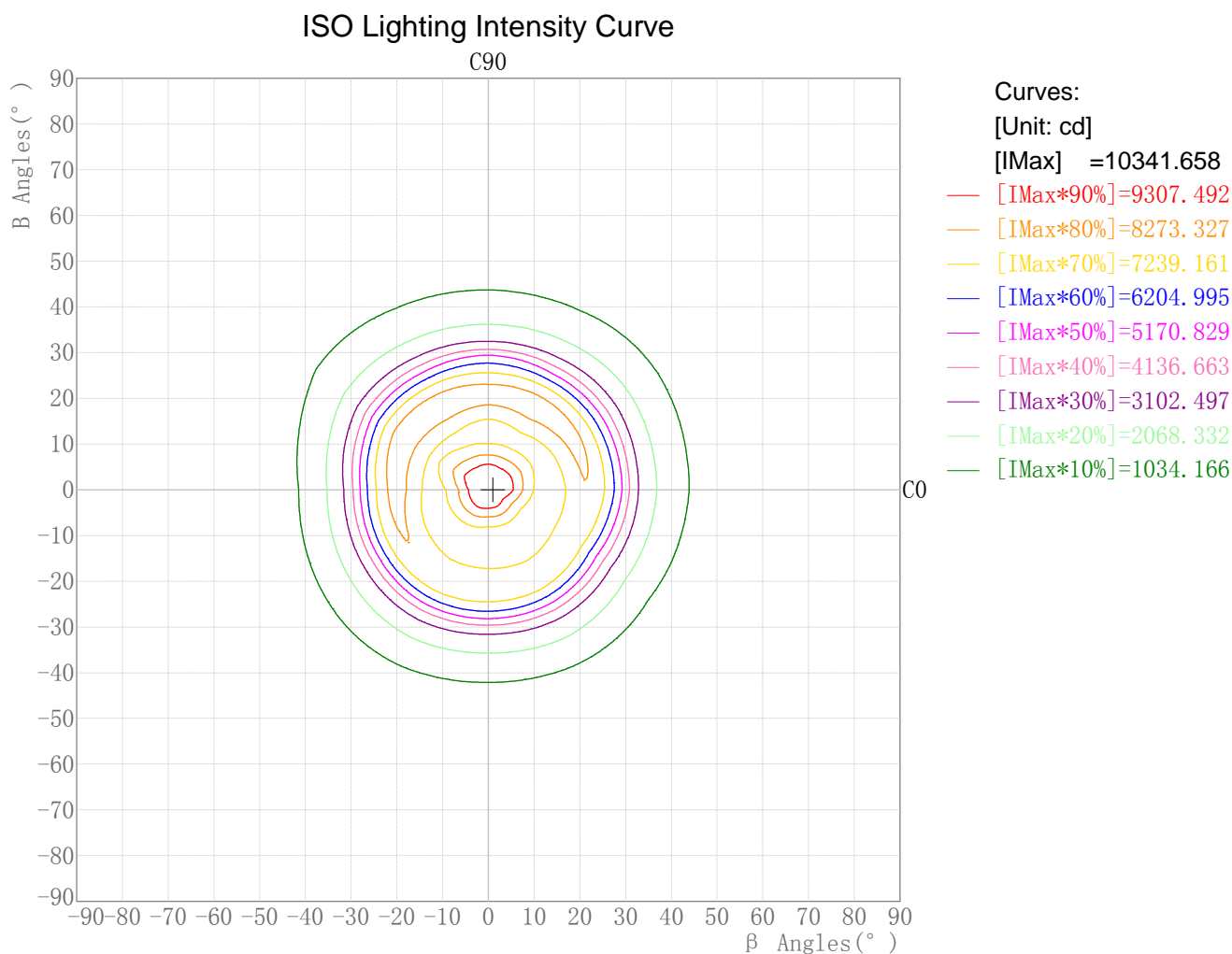
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Zonal Flux Tabulation - (Cont.)

Zone (γ)	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	Sums%Lamp	Zone (γ)	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	Sums%Lamp
94.0-95.0	5.58	9248.23	0.06	96.17	141.0-142.0	5.40	9502.63	0.06	98.81
95.0-96.0	5.51	9253.74	0.06	96.22	142.0-143.0	5.34	9507.97	0.06	98.87
96.0-97.0	5.44	9259.18	0.06	96.28	143.0-144.0	5.27	9513.23	0.05	98.92
97.0-98.0	5.39	9264.57	0.06	96.34	144.0-145.0	5.19	9518.42	0.05	98.97
98.0-99.0	5.34	9269.91	0.06	96.39	145.0-146.0	5.10	9523.52	0.05	99.03
99.0-100.0	5.29	9275.20	0.05	96.45	146.0-147.0	5.01	9528.54	0.05	99.08
100.0-101.0	5.25	9280.45	0.05	96.50	147.0-148.0	4.92	9533.45	0.05	99.13
101.0-102.0	5.22	9285.67	0.05	96.55	148.0-149.0	4.81	9538.27	0.05	99.18
102.0-103.0	5.19	9290.86	0.05	96.61	149.0-150.0	4.71	9542.98	0.05	99.23
103.0-104.0	5.17	9296.03	0.05	96.66	150.0-151.0	4.59	9547.57	0.05	99.28
104.0-105.0	5.15	9301.18	0.05	96.72	151.0-152.0	4.48	9552.04	0.05	99.32
105.0-106.0	5.15	9306.33	0.05	96.77	152.0-153.0	4.35	9556.40	0.05	99.37
106.0-107.0	5.15	9311.48	0.05	96.82	153.0-154.0	4.23	9560.63	0.04	99.41
107.0-108.0	5.15	9316.63	0.05	96.88	154.0-155.0	4.10	9564.72	0.04	99.46
108.0-109.0	5.16	9321.79	0.05	96.93	155.0-156.0	3.96	9568.69	0.04	99.50
109.0-110.0	5.17	9326.97	0.05	96.98	156.0-157.0	3.83	9572.51	0.04	99.54
110.0-111.0	5.19	9332.16	0.05	97.04	157.0-158.0	3.68	9576.20	0.04	99.58
111.0-112.0	5.21	9337.37	0.05	97.09	158.0-159.0	3.54	9579.73	0.04	99.61
112.0-113.0	5.24	9342.61	0.05	97.15	159.0-160.0	3.39	9583.13	0.04	99.65
113.0-114.0	5.26	9347.87	0.05	97.20	160.0-161.0	3.24	9586.37	0.03	99.68
114.0-115.0	5.29	9353.16	0.05	97.26	161.0-162.0	3.09	9589.45	0.03	99.71
115.0-116.0	5.32	9358.47	0.06	97.31	162.0-163.0	2.93	9592.39	0.03	99.74
116.0-117.0	5.34	9363.82	0.06	97.37	163.0-164.0	2.78	9595.16	0.03	99.77
117.0-118.0	5.37	9369.19	0.06	97.42	164.0-165.0	2.62	9597.78	0.03	99.80
118.0-119.0	5.40	9374.59	0.06	97.48	165.0-166.0	2.46	9600.24	0.03	99.83
119.0-120.0	5.43	9380.01	0.06	97.54	166.0-167.0	2.30	9602.54	0.02	99.85
120.0-121.0	5.45	9385.47	0.06	97.59	167.0-168.0	2.14	9604.67	0.02	99.87
121.0-122.0	5.48	9390.95	0.06	97.65	168.0-169.0	1.97	9606.65	0.02	99.89
122.0-123.0	5.50	9396.45	0.06	97.71	169.0-170.0	1.81	9608.45	0.02	99.91
123.0-124.0	5.53	9401.98	0.06	97.76	170.0-171.0	1.64	9610.09	0.02	99.93
124.0-125.0	5.55	9407.53	0.06	97.82	171.0-172.0	1.47	9611.57	0.02	99.94
125.0-126.0	5.57	9413.11	0.06	97.88	172.0-173.0	1.30	9612.87	0.01	99.96
126.0-127.0	5.59	9418.70	0.06	97.94	173.0-174.0	1.13	9614.00	0.01	99.97
127.0-128.0	5.61	9424.31	0.06	98.00	174.0-175.0	0.96	9614.96	0.01	99.98
128.0-129.0	5.63	9429.94	0.06	98.05	175.0-176.0	0.79	9615.75	0.01	99.99
129.0-130.0	5.64	9435.58	0.06	98.11	176.0-177.0	0.61	9616.36	0.01	99.99
130.0-131.0	5.66	9441.24	0.06	98.17	177.0-178.0	0.44	9616.80	0.00	100.00
131.0-132.0	5.66	9446.90	0.06	98.23	178.0-179.0	0.26	9617.06	0.00	100.00
132.0-133.0	5.66	9452.57	0.06	98.29	179.0-180.0	0.09	9617.15	0.00	100.00
133.0-134.0	5.66	9458.23	0.06	98.35					
134.0-135.0	5.65	9463.88	0.06	98.41					
135.0-136.0	5.64	9469.51	0.06	98.47					
136.0-137.0	5.62	9475.13	0.06	98.52					
137.0-138.0	5.59	9480.71	0.06	98.58					
138.0-139.0	5.55	9486.26	0.06	98.64					
139.0-140.0	5.51	9491.77	0.06	98.70					
140.0-141.0	5.46	9497.23	0.06	98.75					

Rectangle ISO Lighting Intensity Diagram

Lum. Name: LED GROW LIGHT	Lum. Catalog: ST-APL10-150X3	Test ID:
Lamp Name:	Lamp Catalog:	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2017/05/10

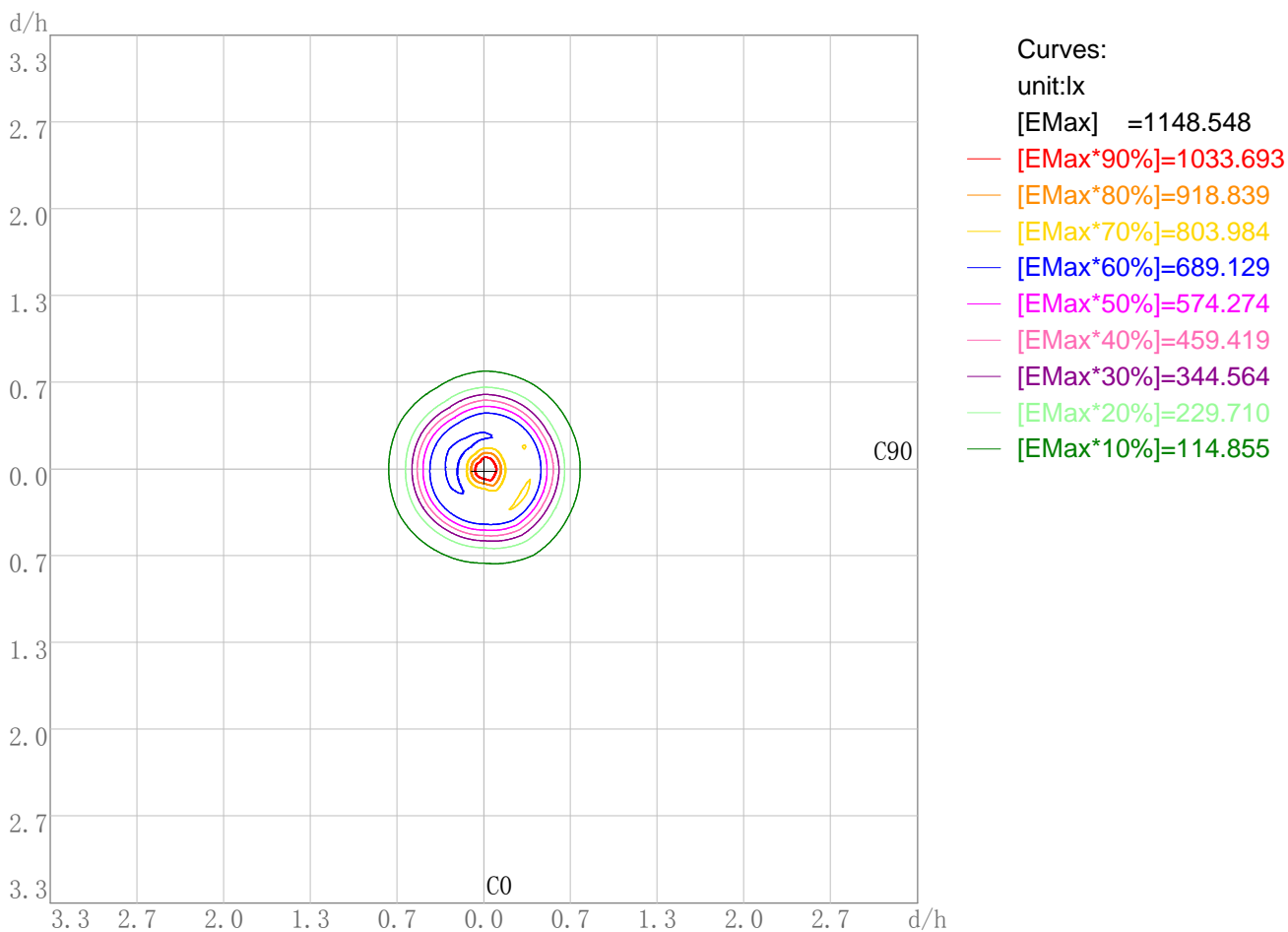


Maximum Light Intensity(cd): 10341.66
 Maximum Cand.@Angle: H=1.0°;V=0.0°

Plane ISO-Illuminance Diagram

Lum. Name: LED GROW LIGHT	Lum. Catalog: ST-APL10-150X3	Test ID:
Lamp Name:	Lamp Catalog:	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2017/05/10

Plane ISO-Illuminance Curve

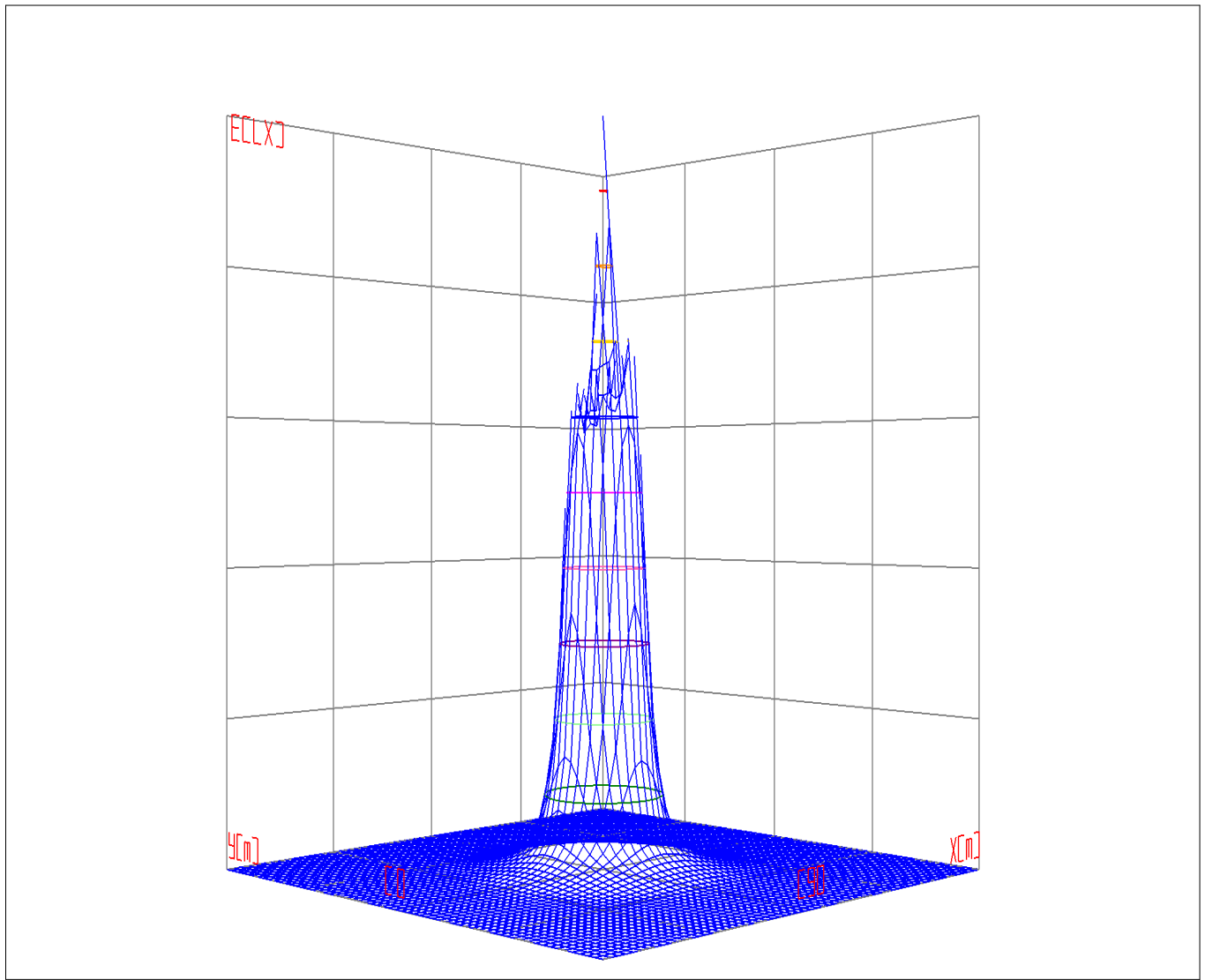


Working Plane Luminaire Mounting Height(m): 3.00
Working Plane Maximum Illuminance(lx): 1148.55
Working Plane Maximum Illuminance Position(d/h):H0.0 V0.0

3D Plane ISO Illuminance Diagram

Lum. Name: LED GROW LIGHT	Lum. Catalog: ST-APL10-150X3	Test ID:
Lamp Name:	Lamp Catalog:	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2017/05/10

3D Plane Illuminance Modal

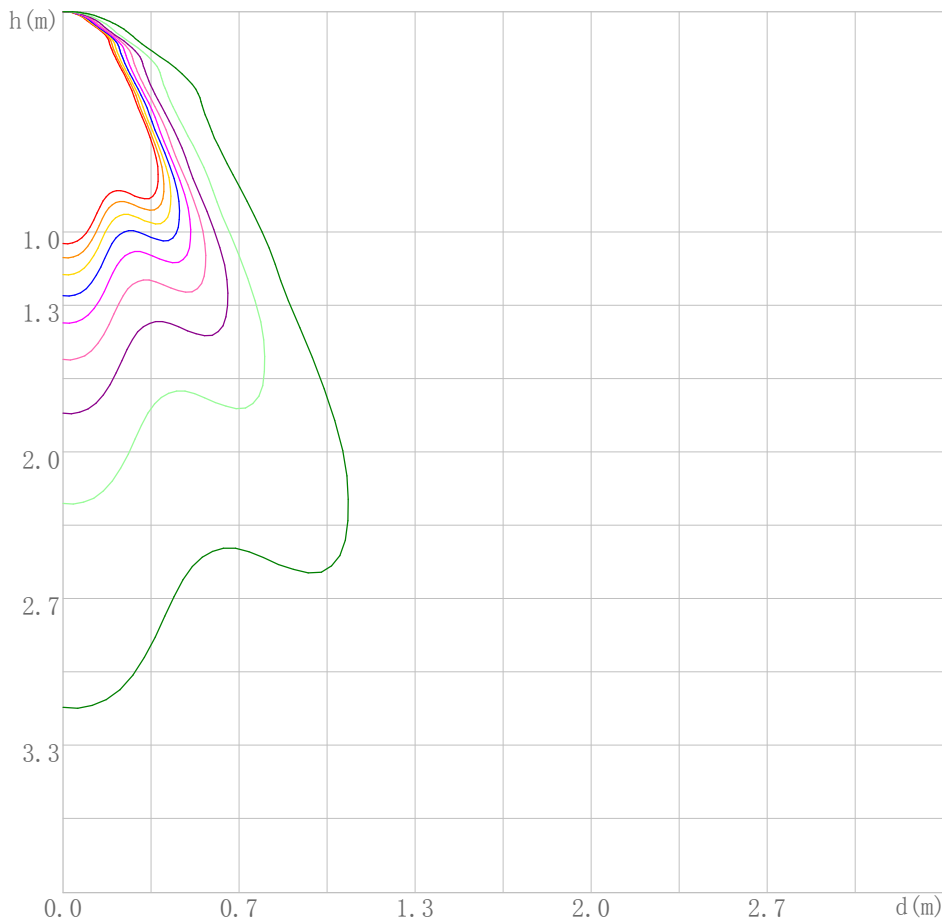


Curves: 3D Model — 90% — 80% — 70% — 60% — 50% — 40% — 30% — 20% — 10% —
View Angles(deg): 0 Height(m): 3.0 Distance(m): 10.0

Space ISO Illuminance Diagram

Lum. Name: LED GROW LIGHT	Lum. Catalog: ST-APL10-150X3	Test ID:
Lamp Name:	Lamp Catalog:	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2017/05/10

Space ISO Illuminance Curve



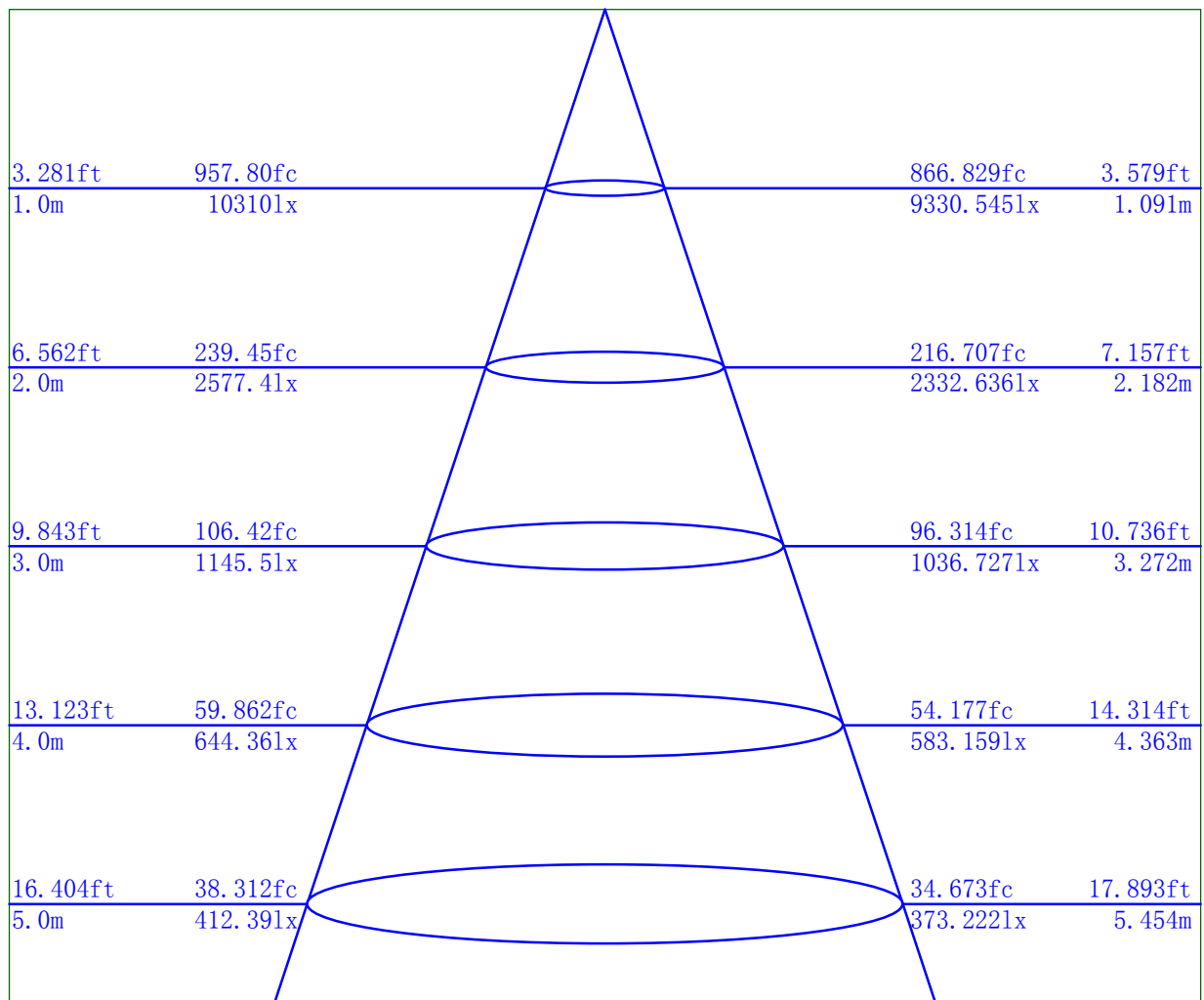
- Curves:
 [Unit: lx]
 [EMax] =10336.934
- [EMax*90%]=9303.240
 - [EMax*80%]=8269.547
 - [EMax*70%]=7235.854
 - [EMax*60%]=6202.160
 - [EMax*50%]=5168.467
 - [EMax*40%]=4134.773
 - [EMax*30%]=3101.080
 - [EMax*20%]=2067.387
 - [EMax*10%]=1033.693

Space Plane Maximum Illuminance and @Angle:10336.93lx,1.0deg
 Plane Maximum Lighting Intensity and @Angle:10341.658cd,0deg

Illuminance-Distance Diagram

Lum. Name: LED GROW LIGHT	Lum. Catalog: ST-APL10-150X3	Test ID:
Lamp Name:	Lamp Catalog:	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2017/05/10

Illuminance-Distance Curve



Height

Center E

Average E

Diameter

Beam Angle:57.2

Indoor Luminance Limiting Curves

Lum. Name: LED GROW LIGHT	Lum. Catalog: ST-APL10-150X3	Test ID:
Lamp Name:	Lamp Catalog:	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2017/05/10

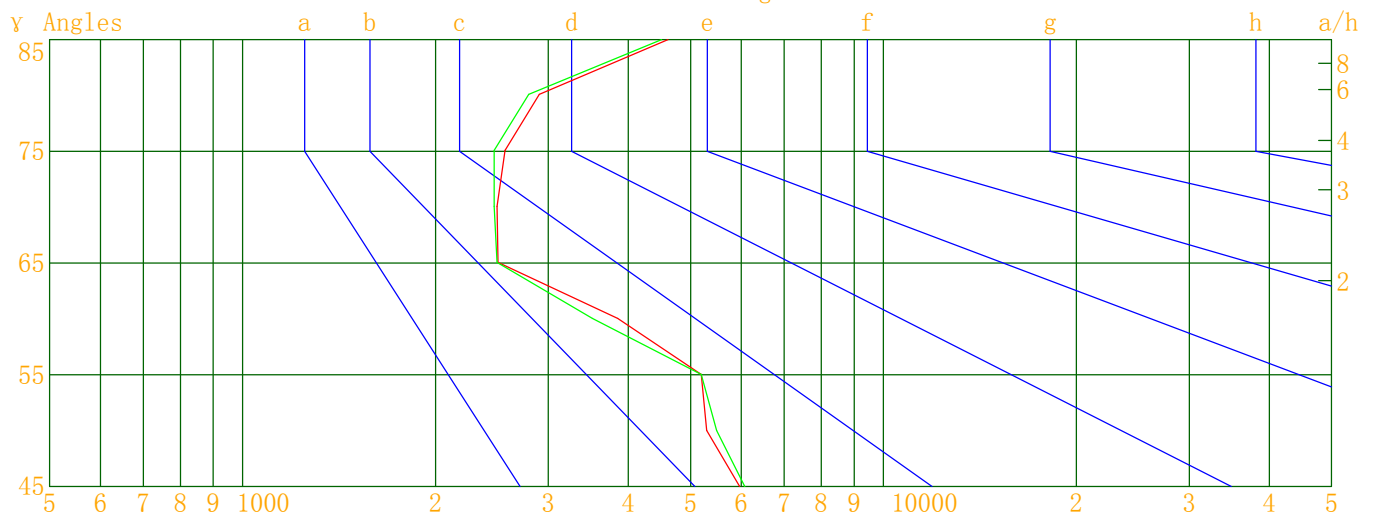
Glare Grade Table

GI	Quality	Using Illuminance							
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	a				2000	1000	500	<=300
			b	c	d	e	f	g	h

Luminance Table

Gama (deg)	45	50	55	60	65	70	75	80	85
C0	5964	5297	5195	3848	2504	2494	2569	2904	4611
C90	6075	5491	5198	3514	2496	2469	2470	2797	4505

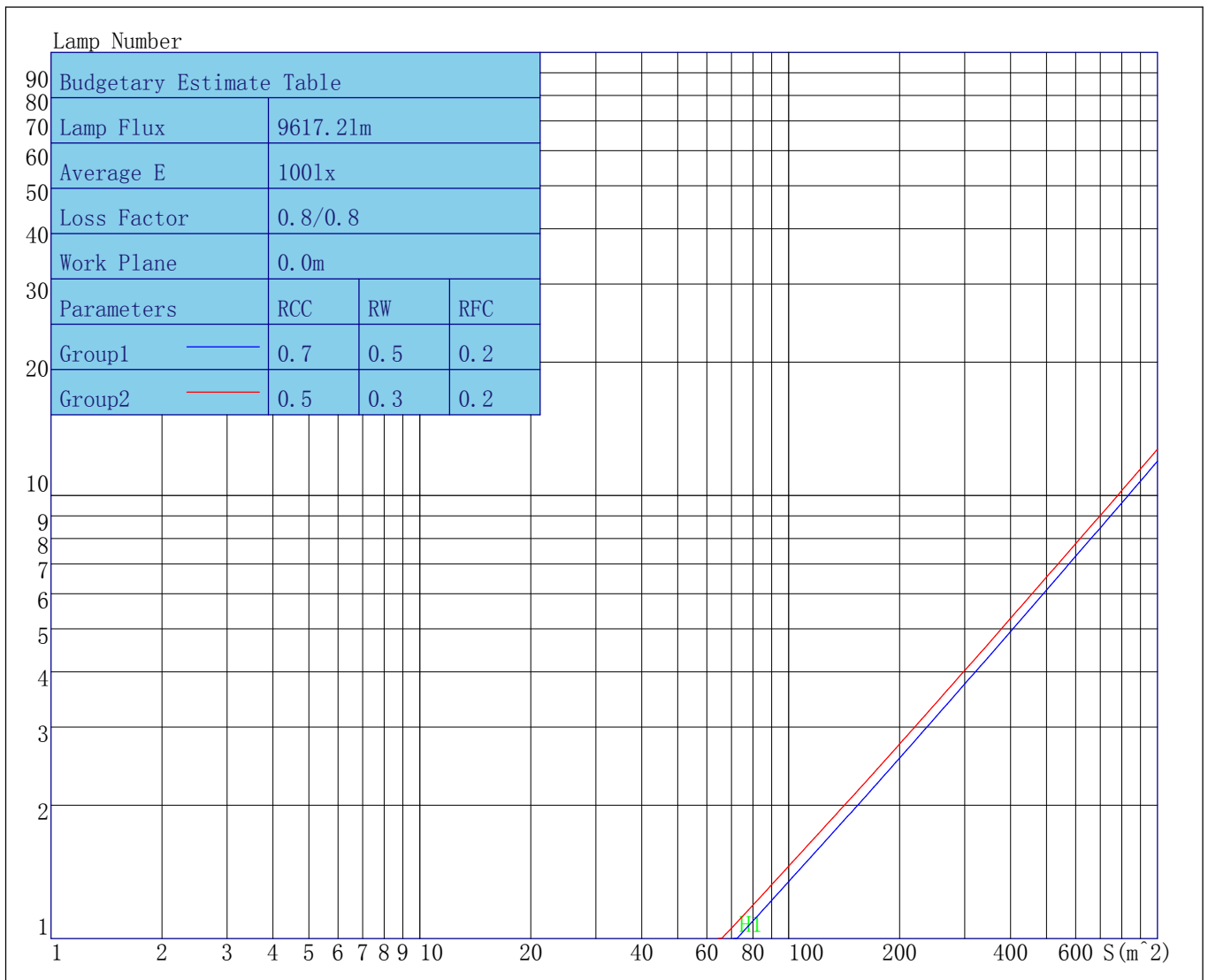
Luminance Limiting Curve



Luminous Size: Length(m)=0.600 Width(m)=0.280 Height(m)=0.100 Area(m^2)=0.228000
 Luminous Type: Without Luminous Side
 Luminous Curves: C0-C180 Color: ——— C90-C270 Color: ———

Indoor Budgetary Estimate Table

Lum. Name: LED GROW LIGHT	Lum. Catalog: ST-APL10-150X3	Test ID:
Lamp Name:	Lamp Catalog:	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2017/05/10



Parameters1: Rhocc = 0.7 Rhow = 0.5 Rhofc = 0.2 LLF = 0.8
Parameters2: Rhocc = 0.5 Rhow = 0.3 Rhofc = 0.2 LLF = 0.8
Average Illuminance(lx): 100 Cavity Height: H1(m) = 2

Indoor Coefficient of Utilization Table

Lum. Name: LED GROW LIGHT	Lum. Catalog: ST-APL10-150X3	Test ID:
Lamp Name:	Lamp Catalog:	Test Lab:
Manufacture:	Test Machine: GON-2000	Test Date: 2017/05/10

Coefficients of Utilization - Zonal Cavity Method																					
Coef.	Effective Floor Cavity Reflectance RFC=0.20																				
RhoCC (%)	80				70				50				30				10				0
RhoW (%)	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR	Coefficient of Utilization(%)																				
0	118	118	118	118	115	115	115	115	109	109	109	103	103	103	98	98	98	96			
1	111	108	105	103	108	106	103	101	101	99	97	96	95	93	92	91	90	88			
2	105	99	95	91	102	97	93	89	93	90	87	89	87	84	86	84	82	80			
3	99	91	86	81	96	90	84	80	86	82	78	83	80	77	80	77	75	73			
4	93	84	78	73	91	83	77	73	80	75	71	78	74	70	75	72	69	67			
5	88	78	72	67	86	77	71	67	75	70	66	73	68	65	71	67	64	62			
6	83	73	66	62	81	72	66	61	70	65	60	68	63	60	66	62	59	57			
7	78	68	62	57	77	67	61	57	66	60	56	64	59	55	62	58	55	53			
8	74	64	57	53	73	63	57	53	62	56	52	60	55	52	59	54	51	50			
9	70	60	54	49	69	59	53	49	58	53	49	57	52	48	56	51	48	46			
10	67	56	50	46	66	56	50	46	55	49	46	54	49	45	53	48	45	44			

IES Indoor Report
Photometric Filename:LED GROW LIGHT.IES

Unified Glare Rating Table

Lum. Name: LED GROW LIGHT	Lum. Catalog: ST-APL10-150X3	Test ID:
Lamp Name:	Lamp Catalog:	Test Lab:
Manufacture:	Test Machine: GON-2000	Test Date: 2017/05/10

Unified Glare Rating Table

Ceiling RCC	0.70	0.70	0.50	0.50	0.30	0.70	0.70	0.50	0.50	0.30
Wall RW	0.50	0.30	0.50	0.30	0.30	0.50	0.30	0.50	0.30	0.30
Floor RFC	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Room Size	Vewed crosswise					Vewed endwise				
X=2H Y=2H	15.1	16.1	15.5	16.5	17.0	15.3	16.4	15.8	16.8	17.2
Y=3H	15.4	16.4	15.9	16.8	17.3	15.7	16.7	16.2	17.1	17.6
Y=4H	15.7	16.6	16.2	17.0	17.5	16.0	16.8	16.4	17.3	17.8
Y=6H	16.0	16.8	16.5	17.3	17.8	16.2	17.1	16.7	17.5	18.0
Y=8H	16.2	16.9	16.7	17.4	17.9	16.4	17.2	16.9	17.7	18.2
Y=12H	16.4	17.2	16.9	17.6	18.2	16.7	17.4	17.2	17.9	18.4
X=4H Y=2H	15.1	16.0	15.6	16.4	16.9	15.5	16.3	15.9	16.8	17.3
Y=3H	15.6	16.4	16.1	16.8	17.3	16.0	16.8	16.5	17.2	17.8
Y=4H	16.0	16.6	16.5	17.1	17.7	16.4	17.0	16.9	17.6	18.1
Y=6H	16.4	17.0	17.0	17.5	18.1	16.8	17.4	17.4	17.9	18.5
Y=8H	16.7	17.2	17.2	17.7	18.3	17.1	17.6	17.7	18.2	18.7
Y=12H	17.1	17.5	17.6	18.1	18.7	17.5	17.9	18.0	18.5	19.1
X=8H Y=4H	16.0	16.5	16.6	17.1	17.6	16.5	17.0	17.1	17.6	18.1
Y=6H	16.6	17.0	17.2	17.6	18.2	17.1	17.5	17.7	18.1	18.7
Y=8H	17.0	17.3	17.6	17.9	18.5	17.5	17.9	18.1	18.5	19.1
Y=12H	17.5	17.8	18.1	18.4	19.1	18.1	18.4	18.7	19.0	19.6
X=12H Y=4H	16.0	16.5	16.6	17.0	17.6	16.5	17.0	17.1	17.5	18.1
Y=6H	16.6	17.0	17.2	17.5	18.2	17.2	17.6	17.8	18.1	18.7
Y=8H	17.1	17.4	17.6	17.9	18.6	17.7	18.0	18.3	18.6	19.2
Variations with the objverver position at spacings										
S=1.0H	0.2/-0.2					0.2/-0.2				
S=1.5H	0.4/-0.4					0.4/-0.4				
S=2.0H	0.5/-0.5					0.4/-0.5				
Reduced UGR Table:										
Nordic Standard Table:	BKO					BKO				
Correction Value	1.8					2.0				

o the CIE Pub. 117, data has been corrected, refers to the lamp's lumens 8.2flm.

IES Indoor Report
Photometric Filename:LED GROW LIGHT.IES

Candela Tabulation

V/H	C0.0	C30.0	C60.0	C90.0	C120.0	C150.0	C180.0	C210.0	C240.0	C270.0	C300.0	C330.0
Y 0.0	10309.7	10309.7	10309.7	10309.7	10309.7	10309.7	10309.7	10309.7	10309.7	10309.7	10309.7	10309.7
Y 1.0	10341.7	10333.6	10321.1	10327.5	10315.5	10312.1	10247.2	10230.7	10252.3	10199.5	10197.1	10139.7
Y 2.0	10273.3	10262.3	10208.2	10243.3	10223.9	10283.4	10075.9	10062.9	10106.7	10006.7	10015.1	9920.8
Y 3.0	10131.2	10104.6	9991.4	10049.3	10029.8	10173.7	9809.5	9801.2	9860.8	9717.1	9740.0	9615.0
Y 4.0	9865.5	9868.3	9717.2	9793.4	9783.1	9986.4	9453.9	9438.9	9498.8	9325.5	9350.1	9202.1
Y 5.0	9488.4	9571.6	9433.3	9525.4	9482.8	9696.1	9026.8	9011.7	9030.8	8811.8	8854.1	8719.0
Y 6.0	9032.3	9197.3	9090.1	9165.5	9139.6	9345.6	8527.8	8545.6	8484.2	8216.6	8311.3	8218.3
Y 7.0	8528.9	8756.1	8641.8	8633.9	8737.1	8983.3	8034.6	8066.5	7969.1	7670.7	7806.0	7721.2
Y 8.0	8020.1	8314.1	8082.3	8049.4	8225.9	8605.9	7616.6	7626.1	7519.0	7254.4	7361.8	7299.5
Y 9.0	7562.4	7893.0	7594.7	7580.6	7740.0	8208.5	7294.2	7277.0	7175.2	6967.2	7021.6	6962.6
Y 10.0	7195.5	7498.0	7275.8	7261.3	7382.0	7818.7	7077.6	7013.4	6909.6	6771.4	6778.8	6726.3
Y 11.0	6930.9	7169.2	7092.9	7051.1	7160.2	7494.4	6974.3	6852.4	6748.0	6640.8	6621.6	6576.3
Y 12.0	6776.7	6940.1	6999.2	6933.9	7058.8	7274.4	6957.0	6777.6	6657.5	6567.5	6535.8	6518.4
Y 13.0	6712.5	6848.0	7003.4	6898.4	7043.9	7155.8	7006.2	6781.4	6616.7	6559.8	6510.9	6532.1
Y 14.0	6713.8	6880.9	7159.8	6938.5	7153.4	7143.9	7145.0	6873.8	6650.3	6612.0	6530.1	6627.1
Y 15.0	6805.9	6996.3	7402.1	7094.1	7381.3	7255.6	7364.1	7027.0	6769.0	6714.0	6621.0	6809.5
Y 16.0	7000.4	7237.9	7696.2	7377.5	7683.9	7477.0	7639.7	7270.9	6953.7	6913.7	6800.7	7055.6
Y 17.0	7259.2	7540.0	8028.5	7730.8	8004.9	7785.0	7977.9	7532.4	7182.1	7181.1	7061.6	7343.1
Y 18.0	7569.5	7846.5	8326.4	8064.1	8357.7	8144.5	8302.6	7838.1	7463.6	7489.1	7365.3	7639.7
Y 19.0	7840.7	8143.4	8577.7	8410.7	8659.7	8463.9	8518.2	8097.9	7755.2	7794.1	7629.7	7865.3
Y 20.0	8087.6	8373.3	8726.1	8636.0	8842.5	8711.5	8599.6	8269.4	8007.3	7984.3	7853.5	7986.9
Y 21.0	8227.4	8502.4	8752.6	8683.7	8846.3	8881.2	8524.4	8288.8	8146.8	8054.5	7986.7	7977.4
Y 22.0	8208.3	8479.9	8657.4	8556.1	8744.2	8842.4	8270.3	8161.3	8139.2	7991.6	7955.7	7793.2
Y 23.0	8077.5	8298.9	8355.3	8286.3	8480.3	8659.9	7884.3	7914.4	7952.1	7776.8	7768.7	7488.1
Y 24.0	7808.6	7987.2	7985.3	7941.7	8128.3	8327.1	7458.5	7536.1	7603.0	7445.8	7435.3	7101.2
Y 25.0	7418.2	7581.8	7516.3	7510.7	7687.6	7912.2	6977.4	7036.4	7139.8	7012.2	6995.0	6615.7
Y 26.0	6974.9	7104.2	6984.6	7048.5	7148.1	7440.9	6460.1	6458.7	6603.4	6522.0	6470.0	6068.0
Y 27.0	6491.1	6534.0	6359.6	6558.5	6534.9	6898.4	5852.1	5808.2	6017.4	5966.6	5887.9	5472.0
Y 28.0	5959.0	5920.4	5684.7	6072.4	5920.9	6283.2	5162.3	5092.6	5375.1	5292.5	5250.8	4842.7
Y 29.0	5320.0	5293.6	5019.8	5526.1	5250.9	5657.7	4460.2	4415.6	4649.6	4570.5	4578.1	4250.1
Y 30.0	4662.8	4668.5	4393.3	4759.0	4613.7	5009.0	3878.1	3815.3	4020.0	3840.8	3964.8	3692.1
Y 31.0	4047.7	4056.9	3761.7	3882.4	3975.9	4371.0	3346.1	3335.5	3483.8	3303.3	3417.4	3234.3
Y 32.0	3491.1	3548.4	3238.8	3272.0	3396.5	3795.2	2937.6	2961.0	3083.5	2949.8	3036.8	2872.9
Y 33.0	3020.0	3106.8	2887.0	2907.9	2975.9	3311.8	2652.6	2672.4	2797.7	2669.3	2760.8	2598.5
Y 34.0	2706.4	2770.0	2602.0	2618.2	2667.6	2927.9	2396.4	2415.7	2534.4	2422.5	2517.5	2358.9
Y 35.0	2470.2	2498.1	2347.9	2348.9	2403.6	2636.4	2126.6	2178.1	2284.8	2215.7	2280.4	2132.7
Y 36.0	2247.4	2253.4	2108.0	2105.1	2157.5	2382.8	1897.9	1944.0	2071.6	1998.4	2074.6	1911.2
Y 37.0	2026.8	2015.2	1877.1	1875.8	1925.5	2135.7	1675.3	1723.7	1846.5	1790.1	1852.6	1698.3
Y 38.0	1818.6	1806.3	1667.1	1664.9	1714.5	1898.9	1478.4	1515.8	1641.5	1587.0	1637.2	1501.2
Y 39.0	1628.4	1606.9	1477.6	1482.2	1523.0	1680.8	1311.7	1337.7	1454.5	1405.4	1446.6	1335.6
Y 40.0	1460.7	1434.1	1324.4	1336.9	1364.1	1498.1	1174.5	1204.7	1292.9	1257.3	1281.4	1192.6
Y 41.0	1318.5	1291.4	1205.6	1225.6	1245.6	1352.4	1068.0	1099.3	1158.2	1138.7	1146.7	1083.7
Y 42.0	1199.0	1179.1	1114.7	1138.2	1153.6	1238.2	992.0	1018.0	1061.9	1042.9	1046.1	993.5
Y 43.0	1104.0	1091.7	1048.7	1074.1	1079.3	1148.2	928.4	950.9	980.8	965.0	961.4	923.2
Y 44.0	1027.2	1026.3	994.4	1018.0	1021.5	1078.7	881.9	894.4	912.3	898.9	896.0	864.7
Y 45.0	961.5	974.0	947.8	979.4	975.6	1025.4	835.3	845.1	861.4	845.3	843.0	814.7
Y 46.0	911.8	932.7	911.3	938.2	935.2	979.9	797.7	803.9	813.1	800.4	795.3	775.8

IES Indoor Report
Photometric Filename:LED GROW LIGHT.IES

Candela Tabulation - (Cont.)

V/H	C0.0	C30.0	C60.0	C90.0	C120.0	C150.0	C180.0	C210.0	C240.0	C270.0	C300.0	C330.0
Y 47.0	870.5	894.0	879.5	902.2	901.2	938.7	760.8	768.3	778.5	758.4	757.1	738.6
Y 48.0	833.6	858.6	848.1	866.2	869.5	905.6	729.1	734.6	747.7	723.1	725.4	706.7
Y 49.0	801.7	827.7	816.6	833.1	842.2	873.3	705.2	704.5	716.1	691.8	695.4	674.8
Y 50.0	776.3	799.6	786.9	804.8	819.4	843.6	678.4	673.3	688.5	661.5	668.5	647.7
Y 51.0	755.4	774.0	759.4	776.3	800.0	815.7	651.0	644.7	660.9	637.9	643.1	617.9
Y 52.0	737.1	748.0	734.8	750.1	777.1	790.1	625.5	612.7	639.7	618.7	619.5	590.9
Y 53.0	724.1	723.0	712.2	728.4	750.7	759.9	599.0	585.1	618.3	597.1	595.9	569.6
Y 54.0	703.2	699.0	689.6	705.4	720.8	724.8	574.9	555.7	594.8	569.3	570.4	547.9
Y 55.0	679.4	671.6	665.5	679.8	681.4	689.9	545.8	528.7	565.8	532.0	540.0	515.7
Y 56.0	645.1	637.4	628.1	643.0	635.5	653.9	508.2	496.8	527.8	489.4	501.8	474.4
Y 57.0	600.0	592.2	579.1	592.7	582.7	612.4	461.7	452.6	485.1	441.5	460.1	430.4
Y 58.0	550.5	544.2	523.0	527.8	520.2	568.3	408.3	397.0	431.8	396.3	417.2	381.1
Y 59.0	496.9	504.7	464.7	462.2	449.4	522.1	339.3	342.9	373.2	353.5	364.9	330.3
Y 60.0	438.6	434.8	402.0	400.6	390.7	458.7	281.0	294.8	323.6	307.3	314.3	275.0
Y 61.0	373.8	380.6	345.0	348.7	345.1	396.6	233.2	247.6	272.5	267.4	266.3	222.7
Y 62.0	324.2	332.3	299.1	305.9	307.3	335.9	191.3	206.5	225.5	231.8	223.6	189.6
Y 63.0	286.8	288.1	266.4	276.2	277.8	286.7	169.2	179.8	187.9	196.8	191.4	167.9
Y 64.0	259.7	260.2	246.7	255.5	257.3	258.1	155.6	159.5	159.6	164.9	169.8	153.2
Y 65.0	241.3	242.3	235.4	240.5	243.0	240.9	147.6	144.5	143.9	144.0	153.7	142.4
Y 66.0	229.2	229.8	225.8	228.8	233.4	230.3	140.8	137.6	134.9	132.5	139.4	134.7
Y 67.0	219.1	218.5	217.6	219.5	225.1	222.3	134.0	133.7	128.6	127.0	129.1	129.5
Y 68.0	209.1	211.5	210.0	210.1	215.6	214.6	127.4	129.4	124.6	123.6	123.0	123.9
Y 69.0	201.1	204.2	201.5	201.7	205.9	207.0	120.9	124.0	120.7	119.2	118.3	119.0
Y 70.0	194.5	195.2	192.3	192.5	196.2	199.0	113.4	117.9	115.8	114.6	113.6	113.5
Y 71.0	187.2	185.9	182.9	182.4	186.5	190.0	105.2	111.4	110.6	108.8	108.0	106.8
Y 72.0	178.5	176.6	173.6	172.8	176.9	180.5	97.4	104.2	104.6	102.9	102.3	100.1
Y 73.0	169.3	167.5	164.3	163.5	167.3	170.8	90.2	96.4	98.4	97.0	96.5	93.1
Y 74.0	160.5	158.5	154.9	154.4	157.7	161.4	83.0	89.1	91.7	90.4	90.3	86.5
Y 75.0	151.6	149.3	146.1	145.7	148.6	152.2	76.5	81.9	84.3	83.6	83.7	80.0
Y 76.0	142.9	140.7	137.8	137.6	140.1	143.5	70.2	74.9	77.3	77.0	76.9	73.0
Y 77.0	135.0	132.7	130.1	130.0	132.1	135.1	64.5	68.4	70.7	70.6	70.4	66.8
Y 78.0	127.8	124.9	123.2	123.0	124.9	127.6	59.9	63.0	65.1	65.4	64.6	61.8
Y 79.0	121.1	118.2	116.8	116.4	118.4	120.7	55.5	58.2	59.9	60.7	59.4	57.1
Y 80.0	115.0	112.3	111.1	110.7	112.5	114.4	51.4	54.0	55.4	56.1	54.7	52.7
Y 81.0	109.5	107.1	105.8	105.4	107.2	108.9	47.6	50.1	51.3	51.8	50.6	48.8
Y 82.0	104.4	102.1	101.1	100.6	102.4	103.8	44.1	46.5	47.1	47.9	46.6	45.1
Y 83.0	99.7	97.7	96.8	96.5	98.3	99.2	41.1	43.1	43.7	44.3	43.0	41.9
Y 84.0	95.5	93.6	93.2	92.9	94.4	95.0	38.5	40.6	41.0	41.7	40.2	39.5
Y 85.0	91.6	90.2	89.7	89.5	90.8	91.3	36.3	38.2	38.7	39.3	37.9	37.3
Y 86.0	88.1	87.0	86.8	86.4	87.6	87.9	34.4	36.0	36.5	37.2	36.0	35.4
Y 87.0	85.1	84.1	84.0	83.8	84.8	84.9	32.8	34.4	34.7	35.3	34.4	33.8
Y 88.0	82.4	81.6	81.5	81.4	82.1	82.3	31.6	32.9	33.1	33.8	32.8	32.3
Y 89.0	80.1	79.2	79.0	79.0	79.5	79.8	30.7	31.7	31.8	32.3	31.4	31.3
Y 90.0	77.9	77.0	77.4	77.2	77.7	77.6	30.4	31.3	31.0	31.5	30.7	30.9
Y 91.0	76.5	75.7	76.1	75.9	76.4	76.3	30.2	30.9	30.6	31.1	30.4	30.6
Y 92.0	75.3	74.7	74.9	74.8	75.1	75.0	30.0	30.4	30.3	30.7	30.2	30.3
Y 93.0	74.1	73.5	73.8	73.6	74.1	73.9	29.7	30.2	30.0	30.5	29.9	30.0

IES Indoor Report
Photometric Filename:LED GROW LIGHT.IES

Candela Tabulation - (Cont.)

V/H	C0.0	C30.0	C60.0	C90.0	C120.0	C150.0	C180.0	C210.0	C240.0	C270.0	C300.0	C330.0
Y 94.0	73.0	72.4	72.8	72.6	72.9	72.8	29.5	30.0	29.8	30.2	29.7	29.9
Y 95.0	72.0	71.5	71.7	71.6	71.8	71.7	29.5	29.8	29.7	30.0	29.5	29.7
Y 96.0	70.9	70.5	70.7	70.6	71.0	70.9	29.4	29.7	29.6	29.9	29.4	29.7
Y 97.0	70.1	69.6	69.8	69.7	70.0	69.9	29.4	29.7	29.6	29.8	29.5	29.7
Y 98.0	69.2	68.8	68.9	69.0	69.3	69.1	29.7	29.7	29.6	29.9	29.4	29.8
Y 99.0	68.4	68.0	68.2	68.3	68.6	68.4	29.7	29.9	29.6	29.8	29.5	30.0
Y 100.0	67.6	67.3	67.5	67.5	67.9	67.7	30.1	30.1	29.7	29.9	29.7	30.2
Y 101.0	67.0	66.7	66.9	67.0	67.3	67.1	30.4	30.4	29.9	30.2	30.0	30.6
Y 102.0	66.5	66.1	66.3	66.3	66.7	66.5	30.9	30.8	30.3	30.6	30.3	31.1
Y 103.0	65.9	65.6	65.8	65.9	66.2	65.9	31.2	31.3	30.7	30.8	30.7	31.5
Y 104.0	65.4	65.1	65.3	65.4	65.7	65.5	31.9	31.8	31.2	31.4	31.3	32.1
Y 105.0	65.0	64.7	64.9	64.9	65.3	65.0	32.5	32.3	31.8	31.9	32.0	32.8
Y 106.0	64.7	64.4	64.5	64.5	64.8	64.7	33.4	33.0	32.5	32.7	32.7	33.5
Y 107.0	64.5	64.0	64.2	64.3	64.6	64.4	34.3	34.0	33.5	33.6	33.6	34.4
Y 108.0	64.3	63.9	64.0	64.1	64.3	64.1	35.2	34.8	34.4	34.5	34.6	35.3
Y 109.0	64.2	63.8	63.8	63.9	64.1	63.9	36.1	35.7	35.3	35.4	35.6	36.3
Y 110.0	64.1	63.7	63.7	63.7	63.8	63.8	37.1	36.7	36.4	36.5	36.7	37.3
Y 111.0	64.1	63.7	63.5	63.6	63.8	63.8	38.1	37.7	37.4	37.6	37.7	38.5
Y 112.0	64.2	63.8	63.6	63.4	63.8	63.8	39.2	38.8	38.5	38.7	39.0	39.6
Y 113.0	64.3	63.9	63.7	63.5	63.8	63.9	40.4	39.9	39.7	39.9	40.2	40.9
Y 114.0	64.5	64.0	63.8	63.6	63.9	63.8	41.5	41.1	40.9	41.1	41.4	42.1
Y 115.0	64.7	64.2	64.0	63.8	64.0	64.0	42.7	42.3	42.1	42.4	42.6	43.3
Y 116.0	64.9	64.5	64.3	63.9	64.2	64.2	43.9	43.5	43.4	43.6	43.9	44.6
Y 117.0	65.3	64.8	64.5	64.1	64.4	64.4	45.1	44.7	44.7	44.9	45.1	45.8
Y 118.0	65.6	65.0	64.8	64.4	64.6	64.6	46.5	46.0	46.1	46.1	46.5	47.0
Y 119.0	65.9	65.4	65.3	64.9	64.9	64.9	47.8	47.3	47.3	47.5	47.9	48.3
Y 120.0	66.4	65.9	65.7	65.2	65.3	65.2	49.1	48.6	48.6	48.8	49.2	49.6
Y 121.0	66.8	66.4	66.1	65.5	65.6	65.6	50.3	49.9	49.9	50.1	50.4	51.0
Y 122.0	67.4	67.0	66.5	66.0	66.0	66.0	51.8	51.3	51.3	51.4	51.8	52.2
Y 123.0	67.9	67.4	67.1	66.5	66.5	66.5	53.1	52.7	52.6	52.8	53.0	53.6
Y 124.0	68.5	68.0	67.5	67.0	67.0	66.9	54.5	54.0	54.1	54.3	54.5	55.0
Y 125.0	69.1	68.6	68.1	67.5	67.5	67.5	56.0	55.5	55.6	55.7	56.0	56.5
Y 126.0	69.7	69.1	68.7	68.1	68.0	68.1	57.4	56.9	56.9	57.1	57.4	57.9
Y 127.0	70.4	69.8	69.4	68.8	68.7	68.7	58.7	58.2	58.3	58.5	58.8	59.4
Y 128.0	71.0	70.4	70.1	69.5	69.3	69.3	60.1	59.7	59.8	59.9	60.3	60.8
Y 129.0	71.8	71.3	70.8	70.2	70.1	70.1	61.4	61.1	61.2	61.4	61.7	62.1
Y 130.0	72.6	72.1	71.6	71.0	70.8	70.9	63.0	62.5	62.9	62.9	63.3	63.6
Y 131.0	73.3	72.9	72.5	71.8	71.7	71.7	64.4	64.0	64.4	64.4	64.8	65.2
Y 132.0	74.1	73.7	73.4	72.6	72.6	72.5	65.7	65.5	65.8	65.8	66.2	66.5
Y 133.0	74.7	74.5	74.2	73.4	73.5	73.3	67.0	66.8	67.2	67.2	67.6	67.7
Y 134.0	75.5	75.4	75.1	74.4	74.3	74.2	68.3	68.1	68.7	68.6	69.0	69.1
Y 135.0	76.2	76.2	75.9	75.2	75.2	75.0	69.5	69.4	70.0	70.1	70.3	70.3
Y 136.0	76.8	77.1	76.8	76.2	76.0	75.8	70.9	70.7	71.5	71.5	71.6	71.6
Y 137.0	77.5	77.8	77.6	77.1	76.9	76.6	72.1	72.0	72.8	72.9	73.0	72.8
Y 138.0	78.3	78.5	78.4	77.8	77.7	77.3	73.1	73.1	74.2	74.2	74.1	73.8
Y 139.0	79.0	79.2	79.2	78.7	78.4	78.0	74.3	74.3	75.2	75.4	75.4	74.8
Y 140.0	79.7	80.0	80.1	79.7	79.3	78.8	75.5	75.4	76.3	76.6	76.4	75.8

