

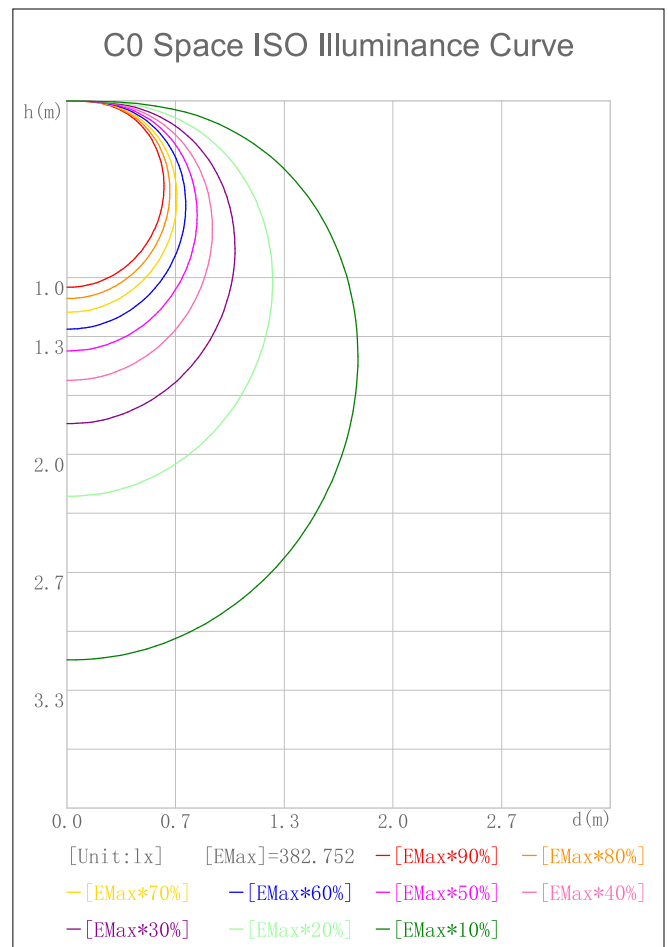
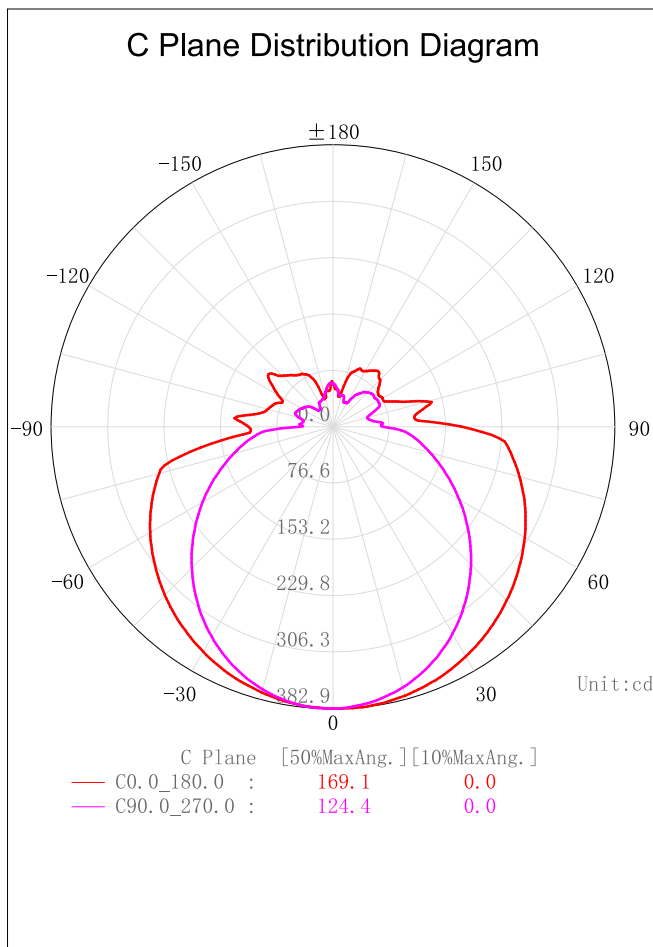
## Indoor Luminaire Photometric Data

### Description Information

Luminaire Name: 232181 U型灯管一代 玻璃单色覆膜15W50K TYPEA+BL	(Lum. Catalog: )53N	Test ID:
Lamp Name:	Lamp Catalog:	Test Date: 2023/12/15
Manufacture:	Shld. Ang(°):	Test Machine:GON-2000
Test Lab:	Frequency (Hz):	Lamp CCT (K): Ra:
Lum. Size (W*L*H):0.152m*0.570m*0.025m	Lum. Area (m2):0.101	Lum. W (kg): 0.000
Test System: C, $\gamma$	Test Step: C=30.0 $\gamma$ =1.0	Temp. (°C): 25
		Humidity (%): 60.0

### Character Parameter

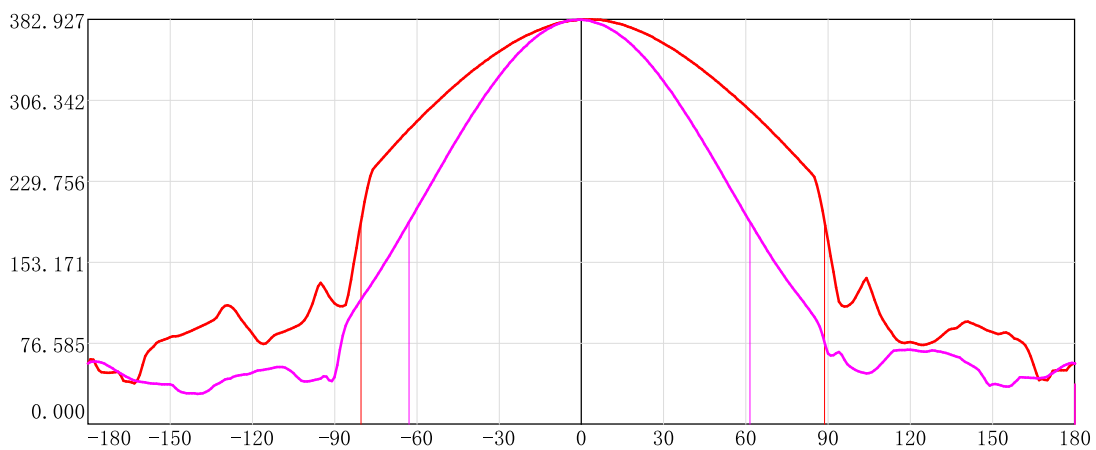
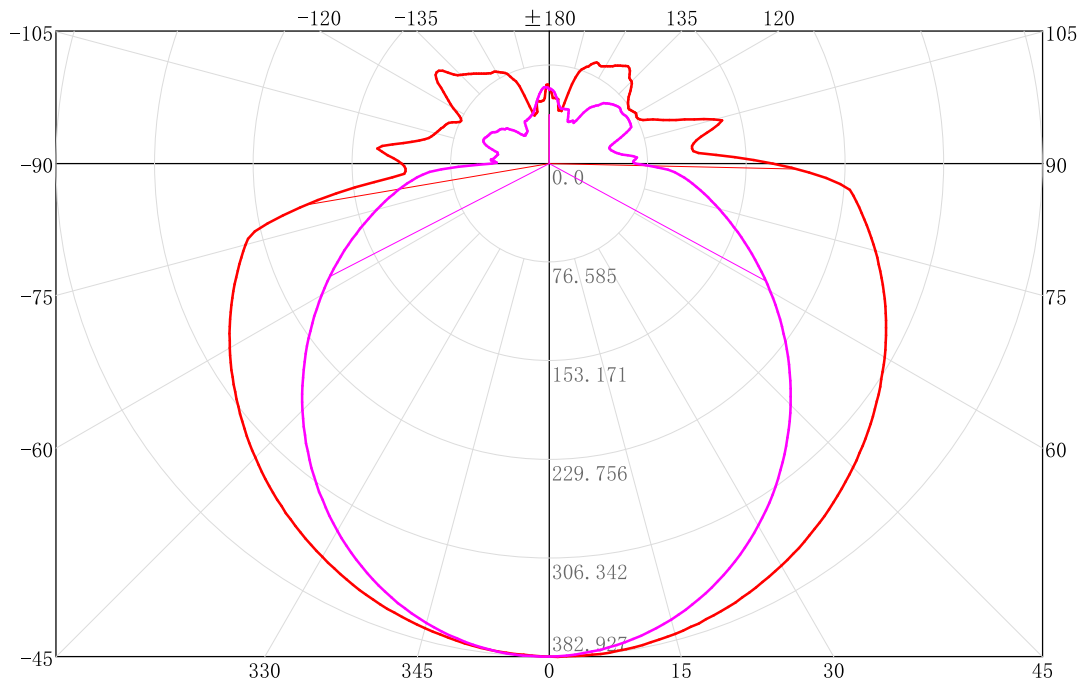
Lamp Speciality Parameter		Luminaire Speciality Parameter	
Rated Flux(lm): 1899.430	Luminaire Flux(lm): 1899.425	Field Angle(10%Imax): 360.0(°)	
Rated Power(W):	Luminaire Efficiency: 100.00%	Down Lumens&Percent: 1490.936lm 78.49%	
Rated Voltage(V):	Luminaire EER(lm/W): 121.758	Up Lumens&Percent: 408.490lm 21.51%	
Tested Power(W): 15.600	Max. Candela(cd): 382.927	S/MH: C0_a180=1.400 C90_270=1.271	
Lamps' Inside: 1	Max Cand@Ang. (°): C=0.0 $\gamma$ =1.0	CIE Type: General Diffuse	
Tested Electrics(V, A, pf):120.1, 0.131, 0.990	Beam Angle(50%Imax): 169.1(°)	ErP $\phi$ use(120°): 951.480lm	
Lamp Size(W*L*H):0.152m*0.570m*0.025m	Left=-80.3°, Right=88.8°	IRF(%): 100.445	



## 2D Plane Light Intensity Distribution Curve

Lum. Name: 232181 U型灯管一代 玻璃单色覆膜15W50K TYPEA+B L01	Lum. Catalog: N	Test ID:
Lamp Name:	Lamp Catalog:	Test Lab:
Manufacture:	Test Machine: GON-2000	Test Date: 2023/12/15

C Plane Distribution Diagram

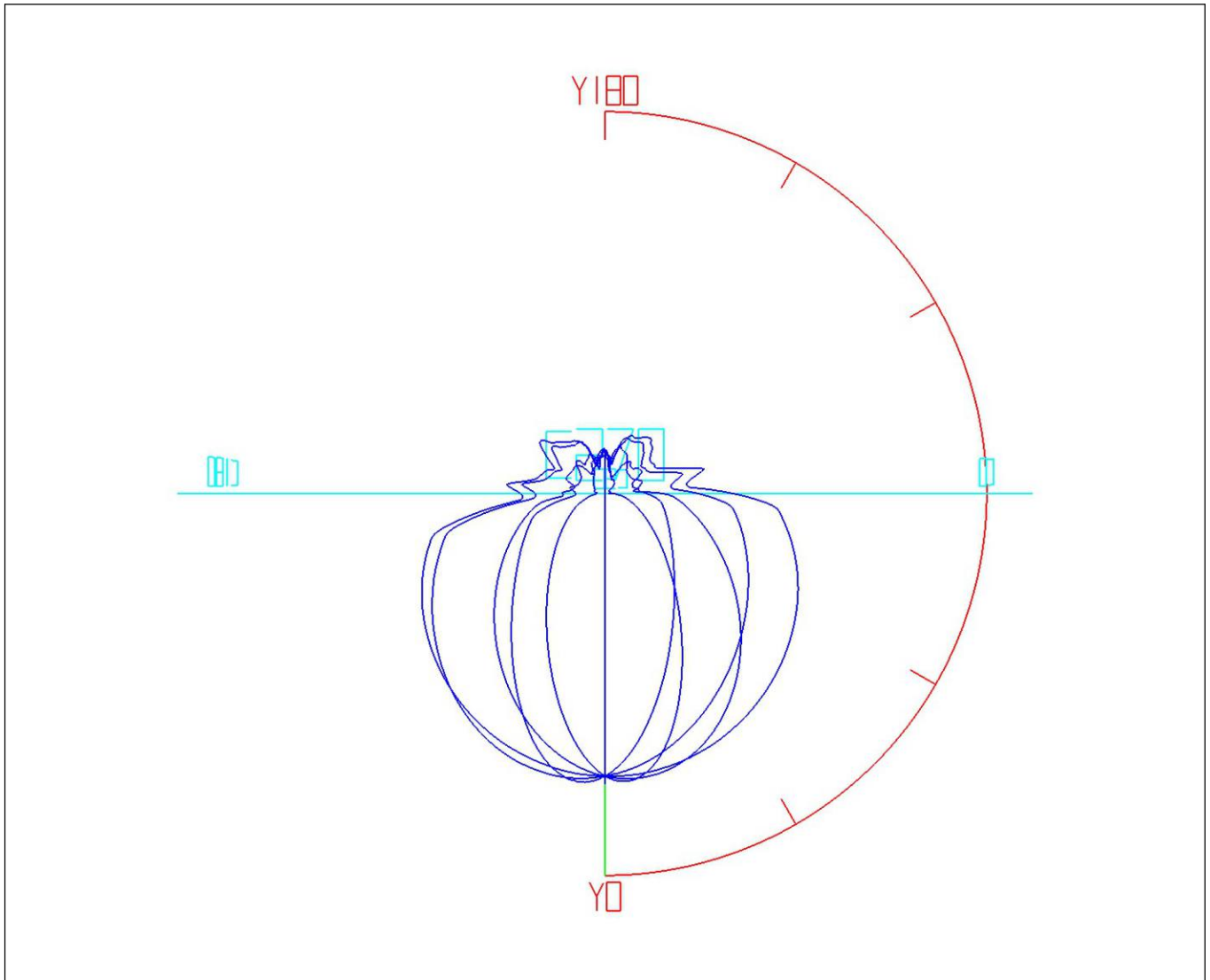


	C Plane	[50%MaxAng.]	[10%MaxAng.]	Unit:cd
—	C0. 0_180. 0 :	169.1	0.0	
—	C90. 0_270. 0 :	124.4	0.0	

### 3D Light Intensity Distribution Modal

Lum. Name: 232181 U型灯管一代 玻璃单色覆膜15W50K TYPEA+B L01	Lum. Catalog: N	Test ID:
Lamp Name:	Lamp Catalog:	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2023/12/15

### 3D Light Intensity Distribution Modal



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

### 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	0.37	0.37	0.02	0.02	47.0-48.0	22.69	22.69	1.19	1.19
1.0-2.0	1.10	1.46	0.06	0.08	48.0-49.0	22.75	45.44	1.20	2.39
2.0-3.0	1.83	3.29	0.10	0.17	49.0-50.0	22.79	68.23	1.20	3.59
3.0-4.0	2.56	5.85	0.13	0.31	50.0-51.0	22.82	91.05	1.20	4.79
4.0-5.0	3.28	9.13	0.17	0.48	51.0-52.0	22.83	113.88	1.20	6.00
5.0-6.0	4.00	13.13	0.21	0.69	52.0-53.0	22.82	136.69	1.20	7.20
6.0-7.0	4.72	17.86	0.25	0.94	53.0-54.0	22.80	159.49	1.20	8.40
7.0-8.0	5.43	23.29	0.29	1.23	54.0-55.0	22.76	182.25	1.20	9.59
8.0-9.0	6.14	29.43	0.32	1.55	55.0-56.0	22.70	204.94	1.19	10.79
9.0-10.0	6.84	36.26	0.36	1.91	56.0-57.0	22.62	227.57	1.19	11.98
10.0-11.0	7.53	43.79	0.40	2.31	57.0-58.0	22.54	250.10	1.19	13.17
11.0-12.0	8.21	52.00	0.43	2.74	58.0-59.0	22.43	272.53	1.18	14.35
12.0-13.0	8.88	60.87	0.47	3.20	59.0-60.0	22.31	294.85	1.17	15.52
13.0-14.0	9.54	70.42	0.50	3.71	60.0-61.0	22.18	317.02	1.17	16.69
14.0-15.0	10.19	80.61	0.54	4.24	61.0-62.0	22.03	339.06	1.16	17.85
15.0-16.0	10.83	91.44	0.57	4.81	62.0-63.0	21.87	360.92	1.15	19.00
16.0-17.0	11.46	102.90	0.60	5.42	63.0-64.0	21.70	382.62	1.14	20.14
17.0-18.0	12.08	114.98	0.64	6.05	64.0-65.0	21.51	404.13	1.13	21.28
18.0-19.0	12.68	127.66	0.67	6.72	65.0-66.0	21.31	425.44	1.12	22.40
19.0-20.0	13.27	140.93	0.70	7.42	66.0-67.0	21.10	446.55	1.11	23.51
20.0-21.0	13.84	154.77	0.73	8.15	67.0-68.0	20.88	467.43	1.10	24.61
21.0-22.0	14.40	169.17	0.76	8.91	68.0-69.0	20.65	488.08	1.09	25.70
22.0-23.0	14.95	184.12	0.79	9.69	69.0-70.0	20.41	508.49	1.07	26.77
23.0-24.0	15.48	199.59	0.81	10.51	70.0-71.0	20.15	528.64	1.06	27.83
24.0-25.0	15.99	215.58	0.84	11.35	71.0-72.0	19.89	548.54	1.05	28.88
25.0-26.0	16.48	232.06	0.87	12.22	72.0-73.0	19.63	568.16	1.03	29.91
26.0-27.0	16.96	249.03	0.89	13.11	73.0-74.0	19.35	587.51	1.02	30.93
27.0-28.0	17.42	266.45	0.92	14.03	74.0-75.0	19.06	606.57	1.00	31.93
28.0-29.0	17.86	284.31	0.94	14.97	75.0-76.0	18.77	625.35	0.99	32.92
29.0-30.0	18.29	302.60	0.96	15.93	76.0-77.0	18.46	643.80	0.97	33.89
30.0-31.0	18.70	321.30	0.98	16.92	77.0-78.0	18.09	661.90	0.95	34.85
31.0-32.0	19.08	340.38	1.00	17.92	78.0-79.0	17.65	679.55	0.93	35.78
32.0-33.0	19.45	359.84	1.02	18.94	79.0-80.0	17.15	696.70	0.90	36.68
33.0-34.0	19.81	379.64	1.04	19.99	80.0-81.0	16.60	713.29	0.87	37.55
34.0-35.0	20.14	399.78	1.06	21.05	81.0-82.0	16.00	729.30	0.84	38.40
35.0-36.0	20.45	420.22	1.08	22.12	82.0-83.0	15.35	744.65	0.81	39.20
36.0-37.0	20.74	440.96	1.09	23.22	83.0-84.0	14.67	759.32	0.77	39.98
37.0-38.0	21.01	461.98	1.11	24.32	84.0-85.0	13.93	773.25	0.73	40.71
38.0-39.0	21.27	483.25	1.12	25.44	85.0-86.0	13.13	786.38	0.69	41.40
39.0-40.0	21.50	504.75	1.13	26.57	86.0-87.0	12.26	798.64	0.65	42.05
40.0-41.0	21.72	526.47	1.14	27.72	87.0-88.0	11.42	810.06	0.60	42.65
41.0-42.0	21.91	548.38	1.15	28.87	88.0-89.0	10.67	820.73	0.56	43.21
42.0-43.0	22.09	570.47	1.16	30.03	89.0-90.0	9.99	830.72	0.53	43.74
43.0-44.0	22.25	592.72	1.17	31.21	90.0-91.0	9.38	840.11	0.49	44.23
44.0-45.0	22.38	615.10	1.18	32.38	91.0-92.0	8.87	848.98	0.47	44.70
45.0-46.0	22.50	637.61	1.18	33.57	92.0-93.0	8.53	857.51	0.45	45.15
46.0-47.0	22.60	660.21	1.19	34.76	93.0-94.0	8.38	865.89	0.44	45.59

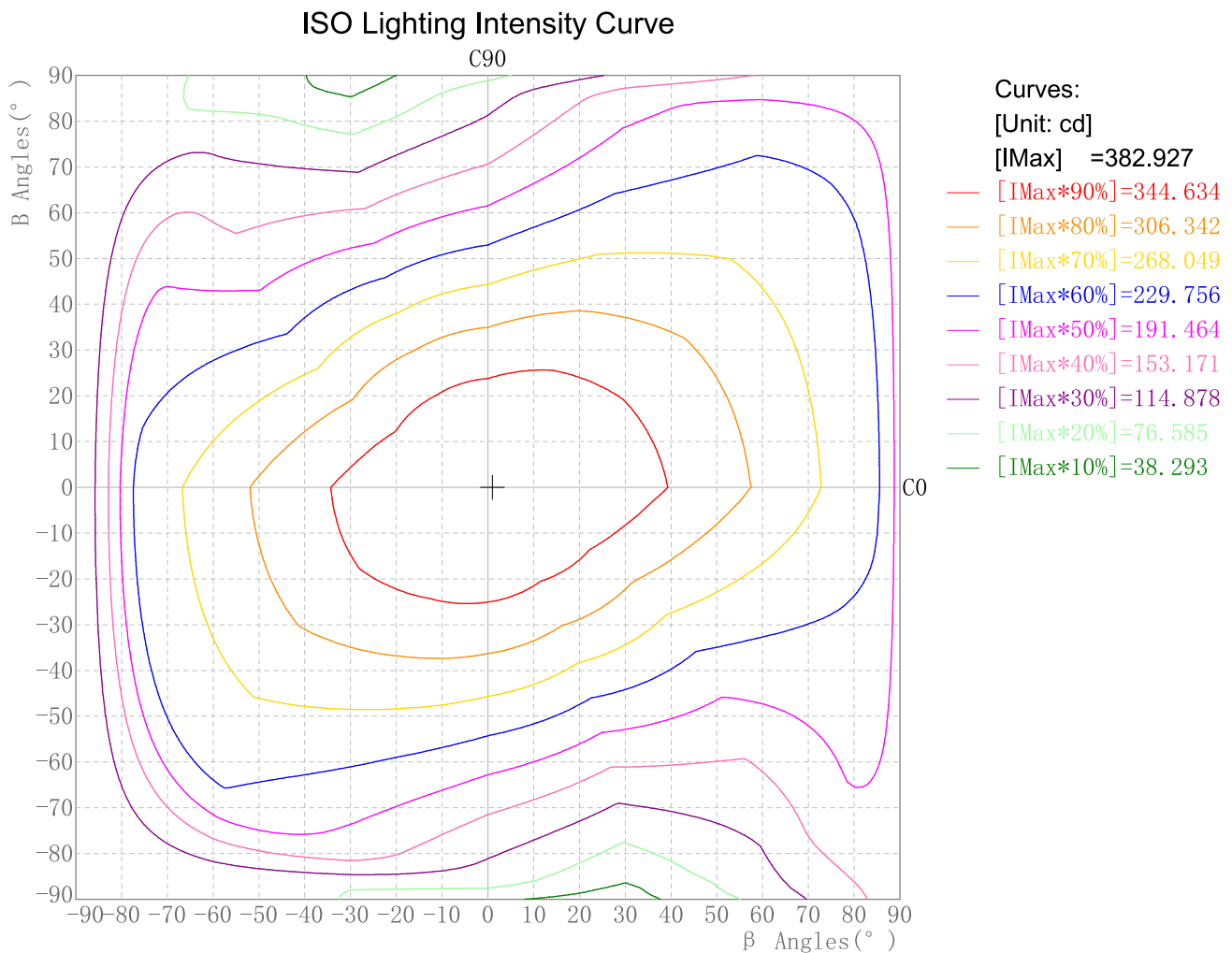


### Zonal Flux Tabulation - (Cont.)

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	8.34	8.34	0.44	0.44	141.0-142.0	4.26	4.26	0.22	0.22
95.0-96.0	8.30	16.64	0.44	0.88	142.0-143.0	4.12	8.38	0.22	0.44
96.0-97.0	8.15	24.79	0.43	1.31	143.0-144.0	3.98	12.36	0.21	0.65
97.0-98.0	7.96	32.75	0.42	1.72	144.0-145.0	3.85	16.22	0.20	0.85
98.0-99.0	7.79	40.54	0.41	2.13	145.0-146.0	3.71	19.93	0.20	1.05
99.0-100.0	7.65	48.19	0.40	2.54	146.0-147.0	3.57	23.51	0.19	1.24
100.0-101.0	7.54	55.73	0.40	2.93	147.0-148.0	3.43	26.93	0.18	1.42
101.0-102.0	7.49	63.22	0.39	3.33	148.0-149.0	3.29	30.22	0.17	1.59
102.0-103.0	7.44	70.66	0.39	3.72	149.0-150.0	3.16	33.39	0.17	1.76
103.0-104.0	7.37	78.02	0.39	4.11	150.0-151.0	3.05	36.44	0.16	1.92
104.0-105.0	7.25	85.27	0.38	4.49	151.0-152.0	2.94	39.37	0.15	2.07
105.0-106.0	7.11	92.39	0.37	4.86	152.0-153.0	2.82	42.19	0.15	2.22
106.0-107.0	6.98	99.36	0.37	5.23	153.0-154.0	2.70	44.89	0.14	2.36
107.0-108.0	6.85	106.21	0.36	5.59	154.0-155.0	2.56	47.45	0.13	2.50
108.0-109.0	6.74	112.95	0.35	5.95	155.0-156.0	2.42	49.87	0.13	2.63
109.0-110.0	6.64	119.59	0.35	6.30	156.0-157.0	2.28	52.15	0.12	2.75
110.0-111.0	6.57	126.16	0.35	6.64	157.0-158.0	2.16	54.31	0.11	2.86
111.0-112.0	6.50	132.66	0.34	6.98	158.0-159.0	2.02	56.33	0.11	2.97
112.0-113.0	6.42	139.08	0.34	7.32	159.0-160.0	1.88	58.21	0.10	3.06
113.0-114.0	6.34	145.42	0.33	7.66	160.0-161.0	1.73	59.93	0.09	3.16
114.0-115.0	6.27	151.68	0.33	7.99	161.0-162.0	1.60	61.53	0.08	3.24
115.0-116.0	6.22	157.90	0.33	8.31	162.0-163.0	1.50	63.03	0.08	3.32
116.0-117.0	6.21	164.11	0.33	8.64	163.0-164.0	1.41	64.43	0.07	3.39
117.0-118.0	6.21	170.33	0.33	8.97	164.0-165.0	1.31	65.75	0.07	3.46
118.0-119.0	6.21	176.54	0.33	9.29	165.0-166.0	1.22	66.96	0.06	3.53
119.0-120.0	6.20	182.74	0.33	9.62	166.0-167.0	1.14	68.10	0.06	3.59
120.0-121.0	6.16	188.90	0.32	9.95	167.0-168.0	1.08	69.19	0.06	3.64
121.0-122.0	6.10	195.00	0.32	10.27	168.0-169.0	1.03	70.22	0.05	3.70
122.0-123.0	6.06	201.06	0.32	10.59	169.0-170.0	0.96	71.18	0.05	3.75
123.0-124.0	6.00	207.06	0.32	10.90	170.0-171.0	0.89	72.07	0.05	3.79
124.0-125.0	5.95	213.01	0.31	11.21	171.0-172.0	0.82	72.89	0.04	3.84
125.0-126.0	5.91	218.92	0.31	11.53	172.0-173.0	0.74	73.64	0.04	3.88
126.0-127.0	5.87	224.78	0.31	11.83	173.0-174.0	0.65	74.29	0.03	3.91
127.0-128.0	5.82	230.61	0.31	12.14	174.0-175.0	0.56	74.85	0.03	3.94
128.0-129.0	5.78	236.38	0.30	12.45	175.0-176.0	0.47	75.32	0.02	3.97
129.0-130.0	5.70	242.09	0.30	12.75	176.0-177.0	0.37	75.69	0.02	3.98
130.0-131.0	5.60	247.69	0.29	13.04	177.0-178.0	0.27	75.96	0.01	4.00
131.0-132.0	5.49	253.18	0.29	13.33	178.0-179.0	0.16	76.12	0.01	4.01
132.0-133.0	5.36	258.54	0.28	13.61	179.0-180.0	0.05	76.17	0.00	4.01
133.0-134.0	5.23	263.77	0.28	13.89					
134.0-135.0	5.12	268.89	0.27	14.16					
135.0-136.0	5.01	273.90	0.26	14.42					
136.0-137.0	4.90	278.80	0.26	14.68					
137.0-138.0	4.78	283.58	0.25	14.93					
138.0-139.0	4.66	288.24	0.25	15.18					
139.0-140.0	4.52	292.76	0.24	15.41					
140.0-141.0	4.39	297.16	0.23	15.64					

### Rectangle ISO Lighting Intensity Diagram

Lum. Name: 232181 U型灯管一代 玻璃单色覆膜15W50K TYPEA+B L01	Lum. Catalog: N	Test ID:
Lamp Name:	Lamp Catalog:	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2023/12/15

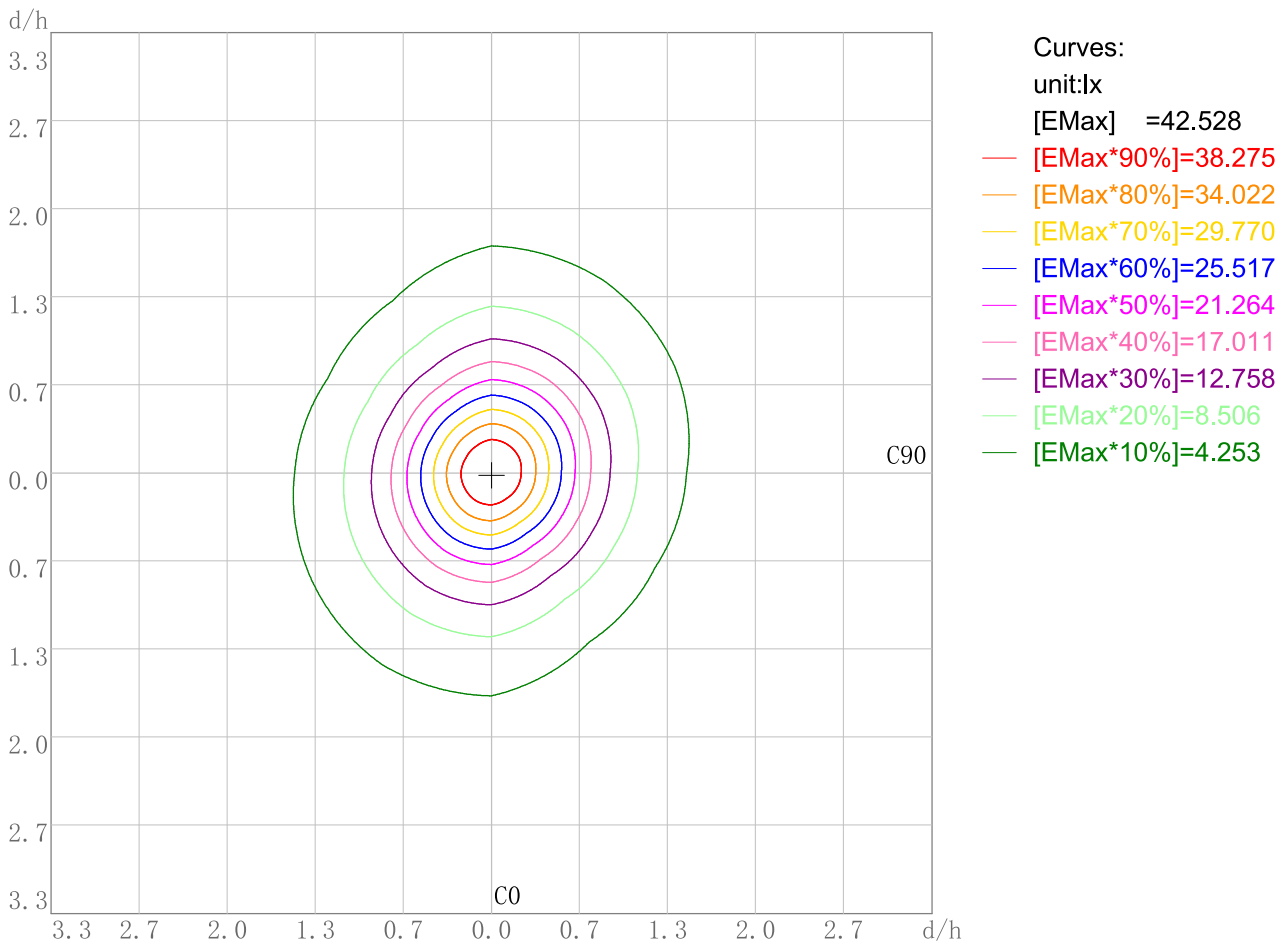


Maximum Light Intensity(cd): 382.93  
Maximum Cand.@Angle: H=1.0°,V=0.0°

### Plane ISO-Illuminance Diagram

Lum. Name: 232181 U型灯管一代 玻璃单色覆膜15W50K TYPEA+B L01	Lum. Catalog: N	Test ID:
Lamp Name:	Lamp Catalog:	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2023/12/15

Plane ISO-Illuminance Curve

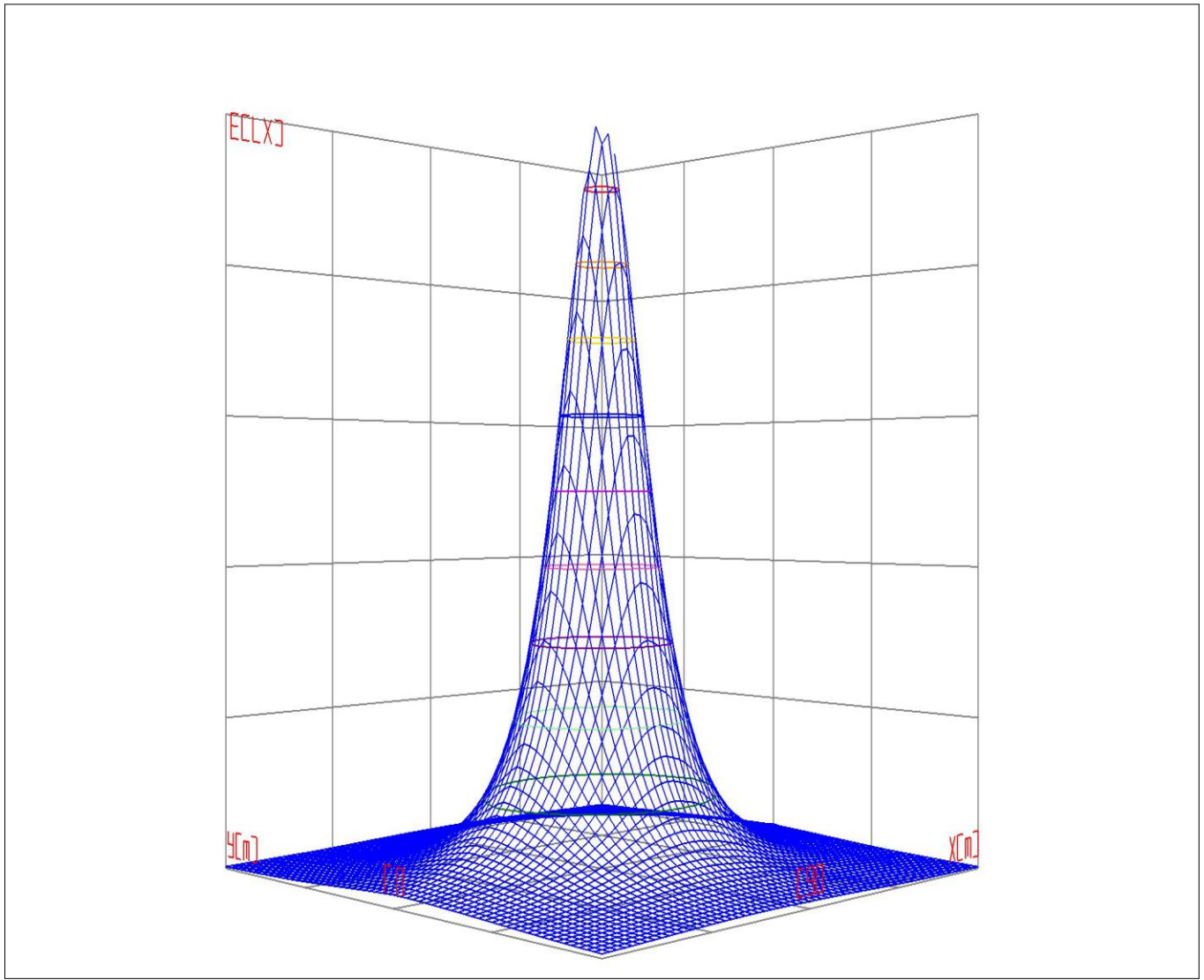


Working Plane Luminaire Mounting Height(m): 3.00  
 Working Plane Maximum Illuminance(lx): 42.53  
 Working Plane Maximum Illuminance Position(d/h):H0.0 V0.0

### 3D Plane ISO Illuminance Diagram

Lum. Name: 232181 U型灯管一代 玻璃单色覆膜15W50K TYPEA+B L01	Lum. Catalog: N	Test ID:
Lamp Name:	Lamp Catalog:	Test Lab:
Manufacture:	Test Machine: GON-2000	Test Date: 2023/12/15

3D Plane Illuminance Modal

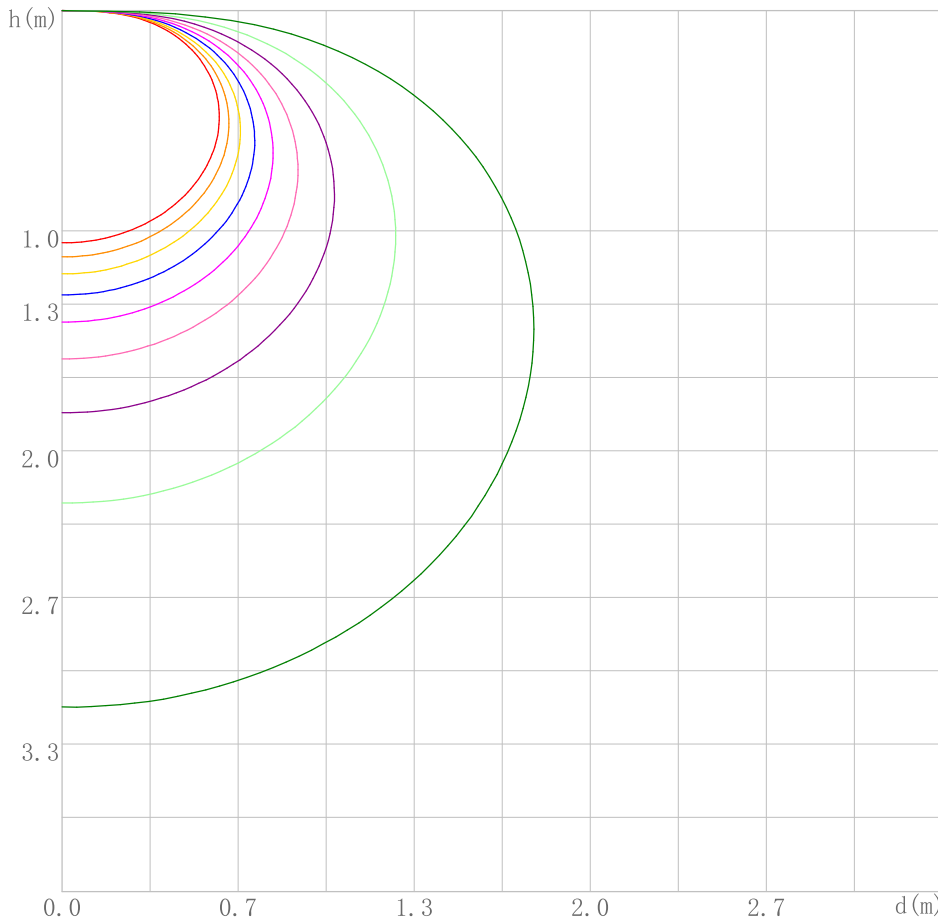


Curves: 3D Model — 90% — 80% — 70% — 60% — 50% — 40% — 30% — 20% — 10% —  
 View Angles(deg): 0    Height(m): 3.0    Distance(m): 10.0

### Space ISO Illuminance Diagram

Lum. Name: 232181 U型灯管一代 玻璃单色覆膜15W50K TYPEA+B L01	Lum. Catalog: N	Test ID:
Lamp Name:	Lamp Catalog:	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2023/12/15

Space ISO Illuminance Curve



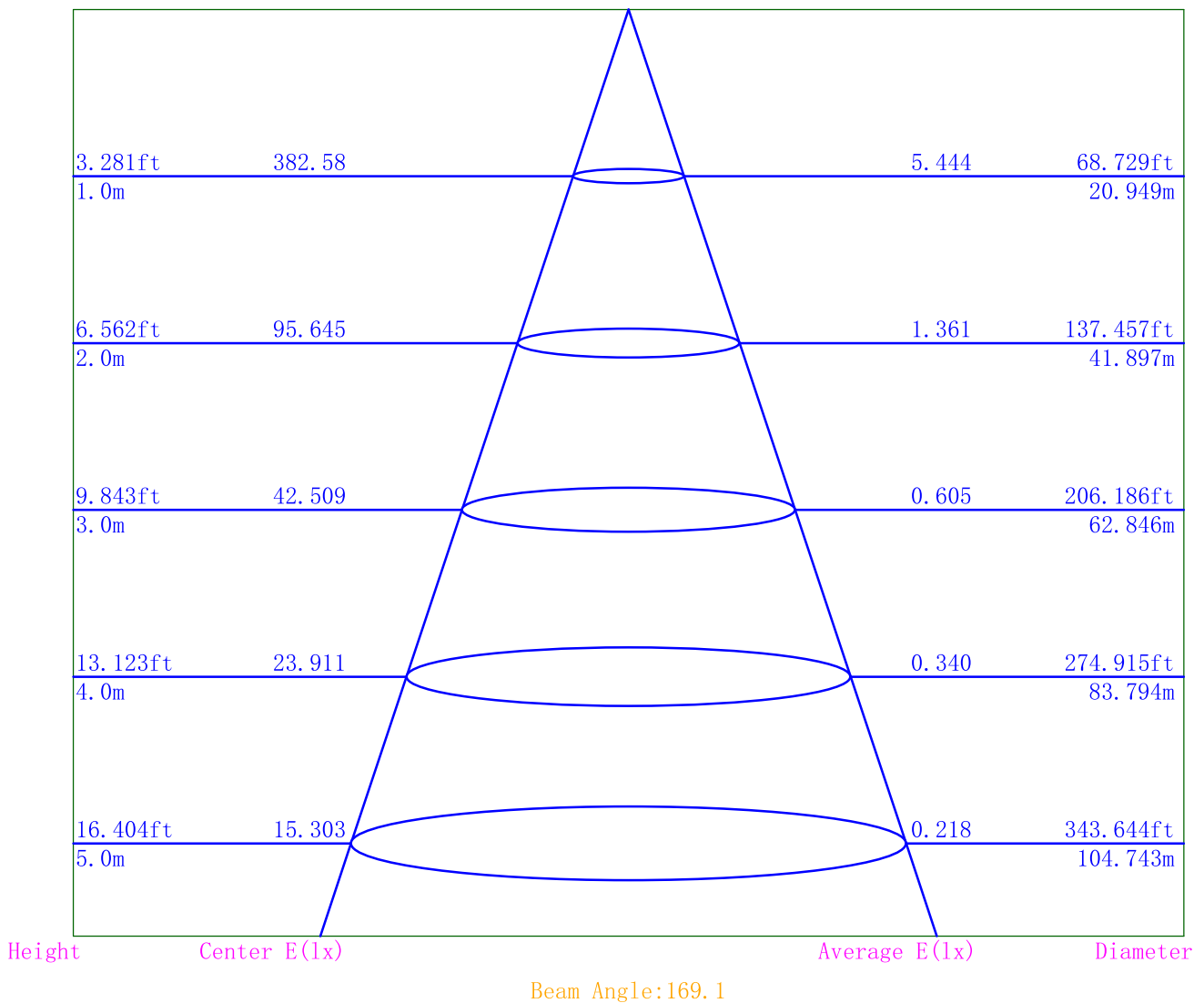
- Curves:  
[Unit: lx]  
[EMax] =382.752
- [EMax\*90%]=344.477
  - [EMax\*80%]=306.202
  - [EMax\*70%]=267.926
  - [EMax\*60%]=229.651
  - [EMax\*50%]=191.376
  - [EMax\*40%]=153.101
  - [EMax\*30%]=114.826
  - [EMax\*20%]=76.550
  - [EMax\*10%]=38.275

Space Plane Maximum Illuminance and @Angle:382.75lx,1.0deg  
Plane Maximum Lighting Intensity and @Angle:382.927cd,0deg

### Illuminance-Distance Diagram

Lum. Name: 232181 U型灯管一代 玻璃单色覆膜15W50K TYPEA+B L01	Lum. Catalog: N	Test ID:
Lamp Name:	Lamp Catalog:	Test Lab:
Manufacture:	Test Machine: GON-2000	Test Date: 2023/12/15

Illuminance-Distance Curve



## Indoor Luminance Limiting Curves

Lum. Name: 232181 U型灯管一代 玻璃单色覆膜15W50K TYPEA+B L01	Lum. Catalog: N	Test ID:
Lamp Name:	Lamp Catalog:	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2023/12/15

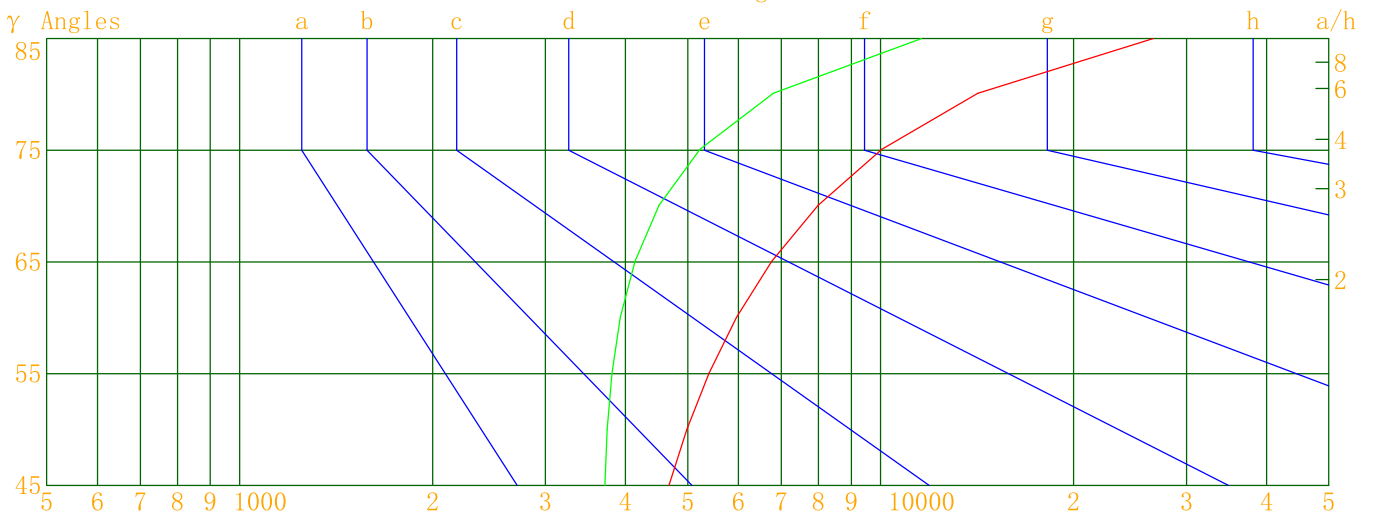
Glare Grade Table

GI	Quality	Using Illuminance							
		a	b	c	d	e	f	g	h
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	4676	4983	5395	5959	6763	7985	10040	14174	26626
C90	3713	3746	3810	3927	4136	4513	5228	6804	11579

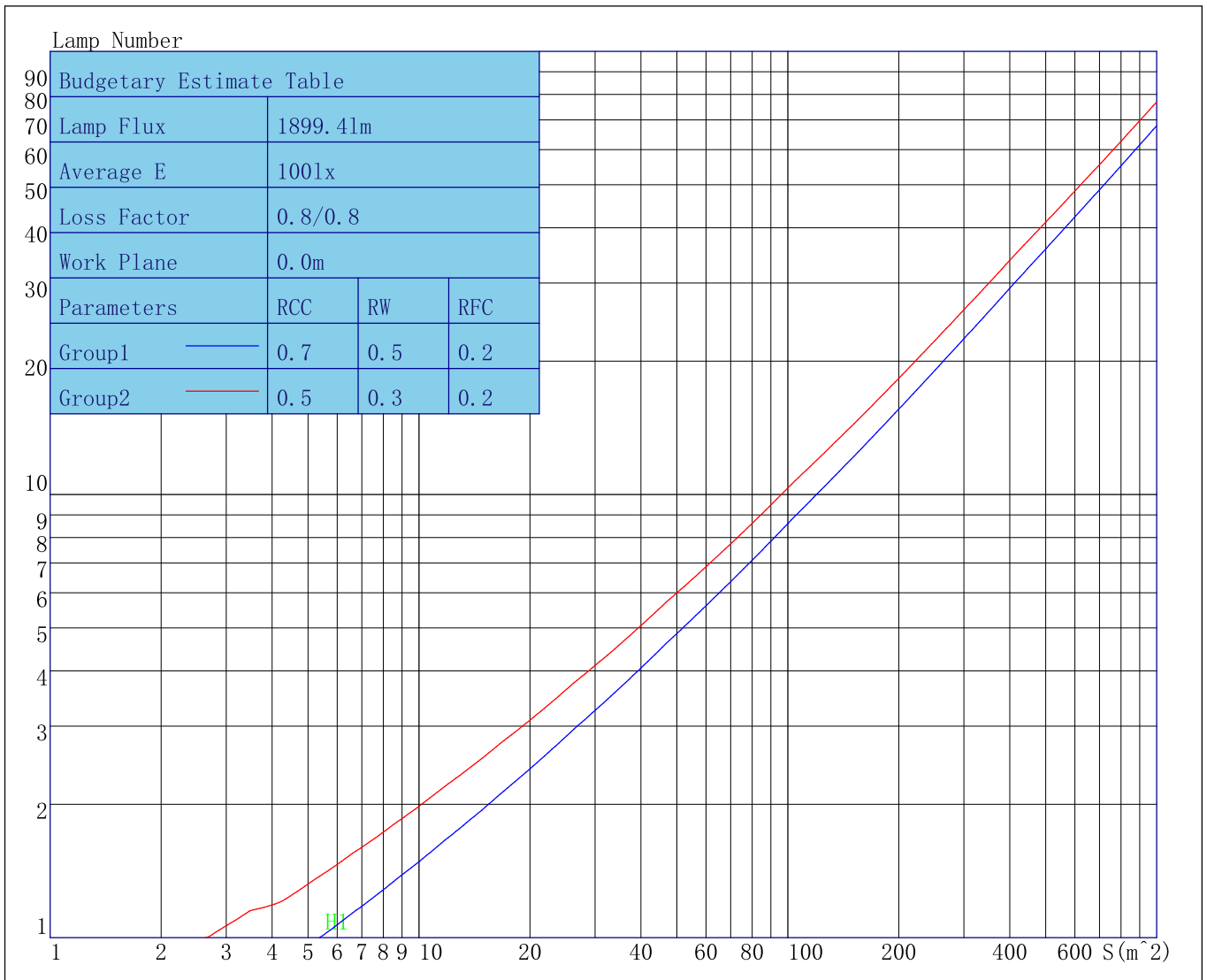
Luminance Limiting Curve



Luminous Size: Length(m)=0.570 Width(m)=0.152 Height(m)=0.025 Area(m<sup>2</sup>)=0.100890  
 Luminous Type: Without Luminous Side  
 Luminous Curves: C0-C180 Color: ——— C90-C270 Color: ———

### Indoor Budgetary Estimate Table

Lum. Name: 232181 U型灯管一代 玻璃单色覆膜15W50K TYPEA+B L01	Lum. Catalog: N	Test ID:
Lamp Name:	Lamp Catalog:	Test Lab:
Manufacture:	Test Machine: GON-2000	Test Date: 2023/12/15



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: 232181 U型灯管一代 玻璃单色覆膜15W50K TYPEA+B L01	Lum. Catalog: N	Test ID:
Lamp Name:	Lamp Catalog:	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2023/12/15

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	114	114	114	114	109	109	109	109	99	99	99	90	90	90	82	82	82	78			
1	101	95	90	85	96	90	86	81	82	78	75	75	71	69	68	65	63	59			
2	90	81	73	66	86	77	70	64	70	64	59	63	59	55	57	54	50	47			
3	82	70	61	54	77	67	59	52	61	54	48	55	49	45	50	45	41	38			
4	74	61	52	45	70	59	50	43	53	46	40	48	42	38	44	39	35	32			
5	68	54	45	38	64	52	43	37	47	40	34	43	37	32	39	34	30	27			
6	63	49	39	33	59	47	38	32	43	35	30	39	33	28	35	30	26	23			
7	58	44	35	29	55	42	34	28	39	31	26	35	29	24	32	27	23	20			
8	54	40	31	25	51	38	30	24	35	28	23	32	26	22	29	24	20	18			
9	50	36	28	22	48	35	27	22	32	25	21	30	24	19	27	22	18	16			
10	47	33	25	20	45	32	25	20	30	23	18	27	22	17	25	20	16	14			

### Unified Glare Rating Table

Lum. Name: 232181 U型灯管一代 玻璃单色覆膜15W50K TYPEA+B L01	Lum. Catalog: N	Test ID:
Lamp Name:	Lamp Catalog:	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2023/12/15

### 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	16.6	17.9	15.9	17.1	17.8	15.1	16.4	14.5	15.7	16.4
	Y=3H	19.5	20.7	19.0	20.1	20.8	17.2	18.4	16.7	17.8	18.5
	Y=4H	21.3	22.4	20.9	21.9	22.7	18.4	19.5	18.0	19.0	19.7
	Y=6H	23.4	24.4	23.0	24.0	24.8	19.7	20.7	19.4	20.3	21.1
	Y=8H	24.6	25.6	24.3	25.2	26.0	20.4	21.5	20.2	21.1	21.9
	Y=12H	26.0	26.9	25.7	26.6	27.4	21.4	22.3	21.1	22.0	22.8
X=4H	Y=2H	16.2	17.3	15.8	16.9	17.6	15.1	16.2	14.7	15.8	16.5
	Y=3H	19.2	20.2	19.0	19.9	20.7	17.3	18.2	17.0	17.9	18.7
	Y=4H	21.0	21.9	20.9	21.7	22.5	18.4	19.3	18.3	19.1	20.0
	Y=6H	23.3	24.0	23.3	24.0	24.8	19.8	20.6	19.8	20.5	21.4
	Y=8H	24.6	25.3	24.7	25.3	26.2	20.6	21.3	20.7	21.3	22.2
	Y=12H	26.3	26.9	26.4	27.0	27.9	21.6	22.3	21.8	22.4	23.3
X=8H	Y=4H	23.7	24.4	23.8	24.5	25.3	21.5	22.2	21.6	22.2	23.1
	Y=6H	25.8	26.3	26.0	26.5	27.4	22.9	23.4	23.1	23.6	24.5
	Y=8H	27.0	27.5	27.2	27.7	28.7	23.6	24.1	23.9	24.4	25.3
	Y=12H	28.5	28.9	28.8	29.2	30.2	24.5	24.9	24.8	25.3	26.2
X=12H	Y=4H	24.2	24.8	24.3	24.9	25.8	22.4	23.1	22.6	23.2	24.1
	Y=6H	26.4	26.9	26.7	27.2	28.1	24.2	24.7	24.4	24.9	25.8
	Y=8H	27.8	28.3	28.2	28.6	29.5	25.2	25.6	25.5	25.9	26.9
Variations with the objerver position at spacings											
S=1.0H	0.4/-0.6					0.2/-0.2					
S=1.5H	0.7/-1.0					0.3/-0.3					
S=2.0H	0.7/-1.3					0.3/-0.7					
Reduced UGR Table:											
Nordic Standard Table:	BKO					BKO					
Correction Value	7.5					6.6					

le is calculated according to the document STD.CIE 117-1995

### 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
γ 0.0	382.58	382.58	382.58	382.58	382.58	382.58	382.58	382.58	382.58	382.58	382.58	382.58
γ 1.0	382.93	382.60	382.65	382.43	382.17	382.55	382.56	382.50	381.84	382.67	382.23	382.89
γ 2.0	382.76	382.07	382.42	382.14	381.89	382.27	382.13	382.24	382.20	382.46	382.01	382.78
γ 3.0	382.78	382.49	382.48	381.66	381.40	381.68	381.81	382.10	382.03	382.38	381.82	382.58
γ 4.0	382.82	382.31	382.02	380.96	380.87	381.05	381.57	381.77	381.43	382.09	381.38	382.27
γ 5.0	382.74	382.17	381.53	380.04	380.24	380.33	381.26	381.38	380.88	381.57	380.73	381.85
γ 6.0	382.72	381.72	381.19	379.42	379.46	379.42	380.89	381.02	380.27	380.96	379.79	381.26
γ 7.0	382.55	381.46	380.60	378.40	378.26	378.36	380.19	380.45	379.84	379.97	378.81	380.55
γ 8.0	382.04	380.98	379.82	377.42	377.14	377.20	379.61	379.86	378.95	379.10	377.73	379.68
γ 9.0	381.58	380.49	379.09	376.13	375.95	376.15	378.88	379.13	377.89	378.08	376.58	378.75
γ 10.0	381.15	379.80	378.25	374.64	374.60	374.60	378.14	378.29	376.85	376.88	375.14	377.71
γ 11.0	380.64	379.13	377.37	373.35	373.03	373.15	377.22	377.43	375.99	375.35	373.78	376.45
γ 12.0	379.82	378.24	376.13	371.63	371.36	371.54	376.24	376.48	373.77	374.17	372.08	375.12
γ 13.0	379.32	377.34	375.11	370.10	369.41	369.73	375.25	375.36	373.01	372.56	370.44	373.68
γ 14.0	378.63	376.52	373.72	368.21	367.60	367.83	374.31	374.13	371.62	370.72	368.39	372.11
γ 15.0	377.95	375.52	372.34	366.37	365.54	365.85	373.29	373.00	370.04	369.15	366.39	370.37
γ 16.0	377.15	374.34	370.69	364.32	363.35	363.70	372.20	371.87	368.36	367.17	364.25	368.62
γ 17.0	376.02	373.22	369.21	362.10	360.99	361.40	371.06	370.70	366.55	365.20	362.01	366.65
γ 18.0	375.33	372.06	367.50	359.81	358.59	359.13	369.94	369.53	364.73	363.04	359.67	364.65
γ 19.0	374.05	370.74	365.83	357.49	356.08	356.70	368.77	368.12	363.06	360.84	357.25	362.49
γ 20.0	373.21	369.52	363.95	354.92	353.34	354.15	367.71	366.89	361.21	358.22	354.46	360.20
γ 21.0	372.09	368.07	362.07	352.36	350.47	351.53	366.40	365.49	359.00	355.89	351.82	357.86
γ 22.0	371.13	366.66	359.93	349.57	347.60	348.62	365.06	363.97	356.96	353.26	349.00	355.35
γ 23.0	370.02	365.39	358.05	346.79	344.49	345.91	363.64	362.40	354.82	350.73	345.97	352.78
γ 24.0	368.68	363.73	355.93	343.95	341.49	343.00	362.19	360.87	352.71	347.88	342.71	350.05
γ 25.0	367.52	362.34	353.72	340.83	338.19	339.96	360.71	359.11	350.37	344.82	339.47	347.31
γ 26.0	366.18	360.80	351.56	337.80	334.76	337.02	359.07	357.49	347.99	341.95	336.13	344.26
γ 27.0	364.61	359.11	349.31	334.62	331.32	333.76	357.47	355.73	345.51	338.84	332.69	341.31
γ 28.0	363.28	357.47	346.96	331.39	327.70	330.42	355.73	353.98	343.14	335.69	329.18	338.33
γ 29.0	361.72	355.56	344.43	327.97	324.14	327.05	354.20	352.07	340.61	332.46	325.48	335.06
γ 30.0	360.28	353.70	342.00	324.37	320.42	323.71	352.45	350.10	337.96	329.05	321.67	331.85
γ 31.0	358.76	351.86	339.43	320.90	316.52	320.20	350.69	348.35	335.31	325.64	317.79	328.57
γ 32.0	357.32	350.01	336.92	317.35	312.55	316.60	348.98	346.26	332.57	322.17	313.92	325.11
γ 33.0	355.73	348.08	334.27	313.76	308.54	312.91	347.23	344.24	329.75	318.58	309.85	321.61
γ 34.0	354.07	346.28	331.71	310.00	304.57	309.13	345.16	342.34	326.87	314.84	305.86	317.90
γ 35.0	352.21	344.19	328.79	306.09	300.30	305.38	343.54	340.15	324.01	311.34	301.54	314.28
γ 36.0	350.44	342.23	326.00	302.19	295.97	301.52	341.39	338.00	321.03	307.56	297.22	310.50
γ 37.0	348.79	340.18	323.23	298.22	291.71	297.69	339.63	335.82	318.13	303.56	292.88	306.86
γ 38.0	347.08	338.16	320.28	294.30	287.27	293.72	337.53	333.75	315.14	299.78	288.36	302.88
γ 39.0	345.17	336.08	317.46	290.30	282.83	289.67	335.61	331.51	312.05	295.66	283.81	298.95
γ 40.0	343.23	333.92	314.32	286.14	278.13	285.63	333.55	329.40	309.14	291.66	279.35	295.00
γ 41.0	341.35	331.66	311.25	281.95	273.48	281.57	331.41	327.07	306.08	287.71	274.54	291.17
γ 42.0	339.56	329.49	308.26	277.76	268.76	277.45	329.35	324.79	302.90	283.54	269.91	287.02
γ 43.0	337.51	327.20	305.34	273.48	264.06	273.22	327.17	322.39	299.70	279.37	265.15	282.79
γ 44.0	335.58	325.03	302.35	269.26	259.18	268.95	324.97	320.00	296.51	275.09	260.28	278.73
γ 45.0	333.55	322.62	299.17	264.88	254.27	264.75	322.65	317.55	293.30	270.89	255.43	274.54
γ 46.0	331.62	320.35	296.20	260.50	249.43	260.46	320.43	315.17	290.05	266.58	250.40	270.41

### 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
γ 47.0	329.39	318.11	293.05	256.13	244.35	256.14	318.23	312.64	286.66	262.20	245.42	266.13
γ 48.0	327.41	315.77	289.93	251.74	239.33	251.80	315.98	310.27	283.44	257.86	240.40	261.84
γ 49.0	325.23	313.43	286.77	247.34	234.30	247.41	313.49	307.68	280.08	253.34	235.28	257.56
γ 50.0	323.17	311.04	283.65	242.96	229.22	242.99	311.11	305.17	276.66	248.89	230.22	253.21
γ 51.0	321.02	308.61	280.44	238.50	224.04	238.56	308.83	302.60	273.27	244.35	225.08	248.78
γ 52.0	318.71	306.17	277.14	233.93	218.83	234.23	306.21	300.11	269.97	239.92	219.93	244.43
γ 53.0	316.53	303.83	273.97	229.51	213.64	229.80	303.99	297.55	266.49	235.40	214.61	240.07
γ 54.0	314.32	301.52	270.78	224.95	208.42	225.45	301.46	294.88	263.11	230.91	209.38	235.69
γ 55.0	312.20	299.10	267.60	220.51	203.09	221.06	299.12	292.41	259.67	226.45	204.11	231.23
γ 56.0	309.82	296.61	264.37	215.98	197.78	216.68	296.55	289.79	256.28	221.72	198.84	226.78
γ 57.0	307.36	294.09	261.26	211.57	192.39	212.37	294.20	287.21	252.85	217.35	193.40	222.34
γ 58.0	305.16	291.53	258.12	207.03	187.06	208.05	291.57	284.50	249.49	212.77	188.12	217.96
γ 59.0	302.95	288.98	254.95	202.51	181.64	203.57	288.90	281.90	246.09	208.43	182.67	213.60
γ 60.0	300.62	286.51	251.75	198.07	176.27	199.34	286.23	279.27	242.64	204.06	177.23	209.21
γ 61.0	298.22	283.91	248.64	193.70	170.92	194.93	283.68	276.57	239.14	199.52	171.82	204.76
γ 62.0	295.76	281.36	245.47	189.40	165.46	190.70	281.06	273.73	235.79	194.93	166.43	200.47
γ 63.0	293.39	278.87	242.38	184.99	160.00	186.41	278.36	270.99	232.44	190.45	161.08	196.04
γ 64.0	290.90	276.28	239.29	180.66	154.59	182.15	275.58	268.25	229.15	185.94	155.62	191.76
γ 65.0	288.37	273.71	236.30	176.35	149.25	177.89	272.92	265.51	225.93	181.53	150.17	187.50
γ 66.0	285.89	271.03	233.26	172.15	143.80	173.65	270.01	262.81	222.68	177.03	144.83	183.25
γ 67.0	283.42	268.47	230.25	167.93	138.46	169.47	267.28	260.14	219.43	172.66	139.49	179.09
γ 68.0	280.82	265.83	227.28	163.76	133.15	165.35	264.45	257.11	216.20	168.19	134.13	174.96
γ 69.0	278.27	263.09	224.29	159.78	127.81	161.22	261.53	254.31	212.90	163.86	128.69	170.82
γ 70.0	275.52	260.43	221.24	155.72	122.46	157.12	258.69	251.34	209.67	159.49	123.49	166.72
γ 71.0	272.84	257.71	218.32	151.65	117.13	153.16	255.81	248.31	206.35	155.25	118.10	162.75
γ 72.0	270.27	255.02	215.40	147.78	111.87	149.34	252.88	245.43	203.08	151.03	112.84	158.78
γ 73.0	267.48	252.29	212.46	143.96	106.66	145.38	249.99	242.57	199.66	146.87	107.75	154.88
γ 74.0	264.84	249.72	209.48	140.18	101.43	141.57	247.03	239.69	196.17	142.70	102.54	150.99
γ 75.0	262.17	246.93	206.46	136.52	96.31	137.76	244.20	236.76	192.74	138.65	97.40	147.19
γ 76.0	259.49	244.11	203.50	132.97	91.25	133.88	241.03	233.89	189.37	134.73	92.41	143.56
γ 77.0	256.65	241.40	200.47	129.41	86.22	130.15	234.67	230.87	185.99	130.86	87.46	139.92
γ 78.0	253.91	238.62	197.46	125.96	81.01	126.37	223.54	226.67	182.46	126.97	82.48	136.28
γ 79.0	251.18	235.70	194.50	122.53	75.14	122.52	210.53	216.83	178.84	123.09	77.61	132.60
γ 80.0	248.32	232.89	191.55	119.21	68.56	118.61	196.38	204.20	175.09	119.23	72.78	128.99
γ 81.0	245.57	229.93	188.43	115.81	61.79	114.53	181.86	189.98	170.55	115.39	68.02	125.39
γ 82.0	242.82	227.04	185.31	112.44	55.78	110.14	166.81	175.17	161.41	111.42	63.29	121.91
γ 83.0	240.06	224.00	181.99	108.99	51.06	105.06	151.68	159.70	148.86	107.45	58.67	118.46
γ 84.0	237.34	220.98	178.66	105.49	47.00	97.11	136.77	144.01	134.73	103.28	54.19	115.22
γ 85.0	234.13	216.62	175.07	101.81	42.72	87.27	122.30	128.30	119.88	98.69	49.70	111.88
γ 86.0	226.42	207.72	169.58	97.69	37.74	77.05	112.91	113.14	104.38	93.24	45.14	108.36
γ 87.0	215.12	195.96	160.09	92.25	32.41	68.41	111.79	105.13	88.88	83.75	37.36	104.62
γ 88.0	202.01	182.89	148.69	84.02	27.87	66.82	111.58	103.64	77.31	70.58	30.00	100.62
γ 89.0	188.03	169.18	136.38	74.96	25.35	66.99	112.56	103.41	74.64	55.95	26.57	95.87
γ 90.0	173.46	155.12	123.75	66.87	23.95	68.35	114.46	104.31	74.09	44.49	21.31	87.45
γ 91.0	158.86	141.18	110.99	65.18	22.20	69.23	117.34	106.43	75.34	40.83	13.62	74.80
γ 92.0	144.22	127.39	99.95	65.53	21.75	65.54	121.19	109.65	78.50	41.91	9.72	60.57
γ 93.0	129.67	114.41	97.55	67.19	23.93	60.47	125.65	113.90	82.96	45.18	14.13	47.97

### 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
γ 94.0	116.07	109.65	96.87	68.33	27.72	56.84	130.09	118.60	87.59	45.42	12.67	43.97
γ 95.0	112.19	108.78	97.85	65.55	29.92	54.88	133.90	123.27	88.86	43.41	15.27	43.34
γ 96.0	111.33	109.02	100.43	61.22	31.21	53.22	130.41	122.50	82.68	42.72	15.95	46.32
γ 97.0	111.60	110.54	104.09	57.04	31.05	51.71	122.32	114.74	77.27	42.15	15.94	49.84
γ 98.0	113.08	113.35	107.92	54.77	29.44	50.48	114.41	107.31	73.32	41.61	14.69	48.60
γ 99.0	115.71	117.48	111.25	53.06	28.20	49.50	107.82	101.21	70.81	41.00	13.18	45.70
γ 100.0	119.62	122.07	107.64	51.57	28.50	49.11	102.49	96.39	69.50	40.49	11.03	43.96
γ 101.0	124.61	126.70	101.84	50.36	28.85	49.66	98.42	92.78	68.46	40.65	10.68	43.67
γ 102.0	129.67	131.04	95.76	49.38	29.18	50.73	95.56	90.48	67.59	41.25	10.83	43.67
γ 103.0	134.77	129.60	89.71	48.65	29.53	52.58	93.86	88.93	66.74	43.24	10.93	43.87
γ 104.0	138.20	122.73	84.66	48.21	29.95	55.10	92.54	87.73	65.97	45.65	11.03	44.12
γ 105.0	132.14	115.75	81.30	48.30	30.43	58.47	91.43	86.60	65.31	48.30	11.13	44.19
γ 106.0	124.94	108.82	79.54	49.38	30.82	61.60	90.31	85.44	64.96	50.56	11.25	44.06
γ 107.0	117.65	102.02	78.10	51.07	31.31	64.09	89.25	84.33	64.97	52.18	11.69	44.04
γ 108.0	110.62	96.40	76.88	53.35	31.78	65.32	88.19	83.25	64.99	53.54	12.47	44.63
γ 109.0	104.04	91.59	75.63	55.96	32.26	65.85	87.12	82.35	65.25	54.03	13.41	45.80
γ 110.0	99.04	87.32	74.46	58.84	32.80	65.97	86.26	81.58	65.94	54.13	15.09	47.29
γ 111.0	94.64	83.95	73.41	61.72	33.29	65.51	85.49	80.55	67.22	54.10	17.18	49.17
γ 112.0	90.90	80.41	72.38	64.59	33.80	64.75	84.17	78.48	68.83	53.50	18.95	51.33
γ 113.0	87.52	77.35	71.45	67.53	34.00	64.13	81.84	76.03	70.82	52.85	21.01	53.86
γ 114.0	83.59	75.47	70.64	69.52	33.90	63.66	79.07	73.57	73.16	52.49	23.15	56.45
γ 115.0	80.24	74.35	69.95	70.04	34.03	63.25	76.57	72.62	75.74	52.00	24.59	59.02
γ 116.0	78.28	73.97	69.35	70.15	34.65	62.86	76.07	73.26	78.53	51.60	25.82	61.40
γ 117.0	77.17	74.08	69.08	70.26	35.29	62.53	77.02	75.00	80.96	51.25	26.89	63.28
γ 118.0	76.84	73.93	69.26	70.31	35.96	62.19	79.10	77.43	82.85	50.84	27.92	63.62
γ 119.0	77.35	72.84	69.94	70.40	36.51	61.74	82.27	80.35	84.23	49.99	28.65	63.23
γ 120.0	77.82	71.43	71.14	70.38	37.08	61.18	85.94	82.58	83.82	48.67	28.99	62.71
γ 121.0	77.33	70.15	72.62	70.25	37.54	60.70	89.19	84.40	81.21	47.71	28.69	62.12
γ 122.0	76.52	69.36	73.96	69.94	37.95	60.61	92.27	86.69	79.19	47.31	28.39	61.88
γ 123.0	75.77	69.40	75.39	69.46	38.28	60.76	95.53	89.37	76.27	47.22	28.83	61.41
γ 124.0	75.06	70.14	76.94	68.96	38.53	60.87	98.93	92.49	69.69	46.74	29.36	60.29
γ 125.0	75.03	71.23	77.66	68.71	38.77	60.75	102.57	96.02	65.63	46.30	29.91	58.90
γ 126.0	75.78	72.29	77.80	68.85	38.90	60.69	106.74	98.73	63.74	45.76	30.19	56.98
γ 127.0	76.65	73.72	78.68	69.32	39.10	60.72	109.86	99.93	63.03	44.68	30.31	54.53
γ 128.0	77.51	75.49	79.82	69.82	39.18	60.72	111.83	100.16	64.42	43.36	30.08	53.87
γ 129.0	78.85	77.42	80.96	69.60	39.28	60.57	112.60	99.26	65.04	43.11	28.96	54.01
γ 130.0	80.51	79.71	82.49	69.05	39.43	60.07	112.00	96.99	64.57	42.43	27.12	53.56
γ 131.0	82.51	82.13	83.46	68.57	39.65	59.23	109.68	93.35	64.42	40.71	27.19	53.14
γ 132.0	84.79	84.14	83.13	68.02	39.92	57.62	105.57	90.58	64.31	39.16	28.72	53.75
γ 133.0	87.13	85.03	82.60	67.38	40.60	55.87	101.19	89.08	64.16	37.98	27.49	53.57
γ 134.0	89.27	85.76	82.14	66.48	41.88	54.52	98.82	87.87	64.04	36.24	25.74	53.57
γ 135.0	90.34	87.03	81.60	65.70	43.21	52.72	97.46	86.75	64.02	33.96	25.89	54.98
γ 136.0	90.56	89.02	81.06	64.78	43.83	50.61	96.09	85.62	63.91	31.90	26.18	57.42
γ 137.0	91.22	91.12	80.40	64.01	44.70	47.17	94.79	84.77	63.80	30.68	26.67	57.78
γ 138.0	93.21	92.60	79.90	63.14	45.47	42.21	93.47	84.01	64.13	29.24	27.41	57.44
γ 139.0	95.37	92.97	79.28	61.25	45.55	37.56	92.28	83.26	64.94	29.03	27.82	56.81
γ 140.0	96.78	91.98	78.91	59.18	45.68	34.93	91.19	82.32	65.81	28.68	28.15	54.71



### 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
γ 141.0	97.24	91.06	78.40	57.76	45.89	33.88	90.00	81.51	65.89	29.31	28.45	53.72
γ 142.0	96.02	90.20	77.95	56.35	46.16	33.11	88.60	80.77	65.54	29.41	28.54	52.24
γ 143.0	94.91	89.29	77.61	54.94	46.23	32.53	87.37	80.14	65.02	29.22	28.61	50.52
γ 144.0	93.86	88.14	77.79	53.34	46.25	33.56	86.44	79.48	64.35	29.44	28.77	47.94
γ 145.0	92.80	87.07	78.46	51.05	46.29	35.36	85.36	78.90	63.50	29.92	28.92	44.43
γ 146.0	91.69	86.07	79.37	47.61	46.47	35.99	84.42	78.92	62.70	30.43	29.05	40.64
γ 147.0	90.15	85.23	79.37	43.60	46.57	36.46	83.60	79.37	61.52	32.01	29.16	36.86
γ 148.0	89.01	84.52	77.84	39.40	46.67	37.00	83.29	79.66	59.31	34.35	29.43	32.54
γ 149.0	88.10	83.74	75.53	36.72	46.80	37.44	83.12	79.05	58.06	36.91	29.69	28.89
γ 150.0	87.16	83.14	73.18	37.84	46.94	38.60	82.36	78.50	56.99	37.81	29.99	27.34
γ 151.0	86.29	83.50	71.38	38.06	47.03	41.46	81.25	77.97	54.73	37.73	30.30	26.63
γ 152.0	85.49	84.48	69.47	37.47	47.21	44.91	80.26	77.28	50.63	37.75	30.51	25.79
γ 153.0	85.67	85.11	68.18	36.81	47.30	47.13	79.22	76.60	44.89	37.95	30.80	25.81
γ 154.0	86.60	84.23	67.46	36.09	47.35	47.46	78.29	74.21	39.49	38.27	31.09	26.39
γ 155.0	86.76	81.74	66.35	35.77	47.43	47.59	76.85	71.28	36.43	38.33	31.33	25.84
γ 156.0	85.52	77.61	63.03	35.71	47.53	47.77	73.67	69.24	35.65	38.50	31.61	25.09
γ 157.0	83.60	75.33	60.54	37.01	47.61	47.94	71.03	66.80	36.87	38.78	31.89	24.30
γ 158.0	81.16	73.87	58.49	39.21	47.73	48.22	68.80	61.15	37.39	39.17	32.16	23.96
γ 159.0	80.44	71.01	56.06	41.78	47.90	48.56	64.38	52.21	37.22	39.56	32.41	23.83
γ 160.0	78.91	68.03	52.10	44.37	48.10	48.83	56.40	44.30	38.38	39.90	32.69	24.78
γ 161.0	77.26	63.57	46.13	44.46	48.32	49.17	46.89	40.33	40.10	40.25	32.97	26.56
γ 162.0	74.81	59.40	39.64	44.30	48.50	49.52	41.37	40.05	44.23	40.76	33.29	28.75
γ 163.0	69.82	56.39	38.94	44.14	48.80	49.86	38.88	42.30	48.66	41.52	33.91	30.52
γ 164.0	64.08	53.01	39.03	43.94	49.13	50.15	39.63	42.14	50.24	42.53	35.83	30.91
γ 165.0	56.43	47.14	37.81	43.88	49.53	50.53	40.12	42.65	51.17	43.98	40.02	31.98
γ 166.0	48.06	40.52	36.80	43.69	49.99	50.84	40.42	45.42	52.01	45.22	43.13	33.28
γ 167.0	41.82	41.90	37.00	43.62	50.79	51.45	41.23	51.68	52.20	46.66	44.86	35.42
γ 168.0	42.95	41.38	40.15	43.82	51.87	52.51	46.53	53.57	52.50	48.20	46.70	37.79
γ 169.0	42.07	40.91	44.71	44.34	53.14	53.69	49.53	53.76	52.72	49.70	48.42	39.49
γ 170.0	41.83	42.85	46.00	45.24	54.42	54.92	49.36	52.54	52.93	51.24	50.16	41.36
γ 171.0	44.96	48.44	46.65	46.81	55.72	56.02	48.92	51.22	53.27	52.83	51.78	43.20
γ 172.0	50.40	50.48	47.45	48.50	56.85	57.01	48.76	50.34	53.72	54.47	53.33	45.18
γ 173.0	50.82	50.88	47.94	50.31	57.79	58.07	48.77	49.56	54.32	56.03	54.84	47.18
γ 174.0	51.05	52.11	48.23	52.09	58.53	59.16	48.98	49.24	54.98	57.38	56.31	49.22
γ 175.0	51.08	53.36	48.38	53.88	59.04	59.88	49.32	49.39	55.64	58.48	57.53	51.30
γ 176.0	51.07	54.30	49.08	55.43	59.41	59.99	51.10	49.71	56.18	59.17	58.35	53.38
γ 177.0	51.07	54.15	50.70	56.65	59.78	59.41	55.96	50.19	56.40	59.45	58.97	54.83
γ 178.0	54.54	52.69	52.11	57.38	59.65	58.77	61.24	50.30	55.81	59.25	59.17	55.80
γ 179.0	56.90	50.91	53.14	58.22	59.53	58.13	61.41	49.95	54.84	58.89	59.17	56.47
γ 180.0	57.48	57.48	57.48	57.48	57.48	57.48	57.48	57.48	57.48	57.48	57.48	57.48