

# IES Indoor Report

Photometric Filename: B18W-CC-E-3K-2019-10-28.IES

## Indoor Luminaire Photometric Data

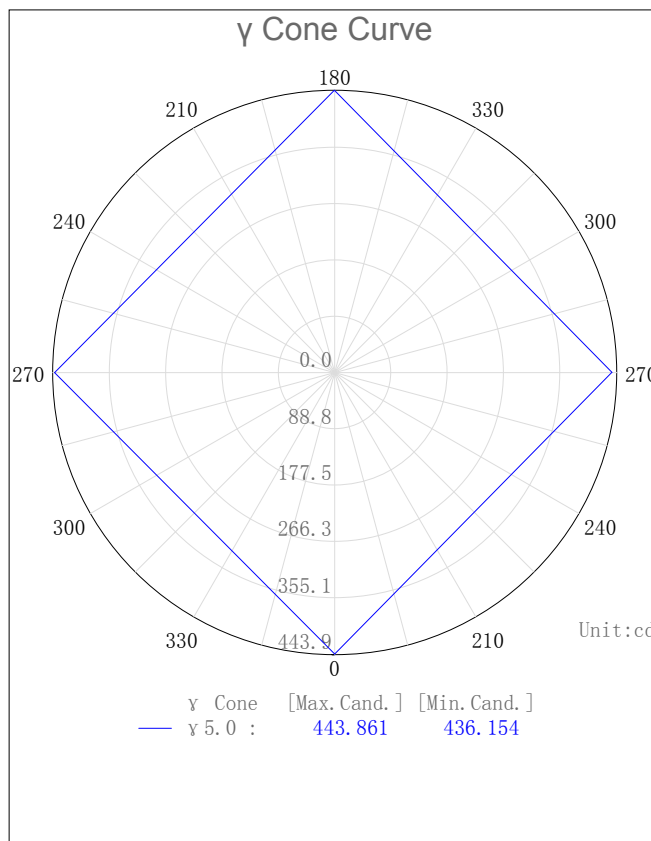
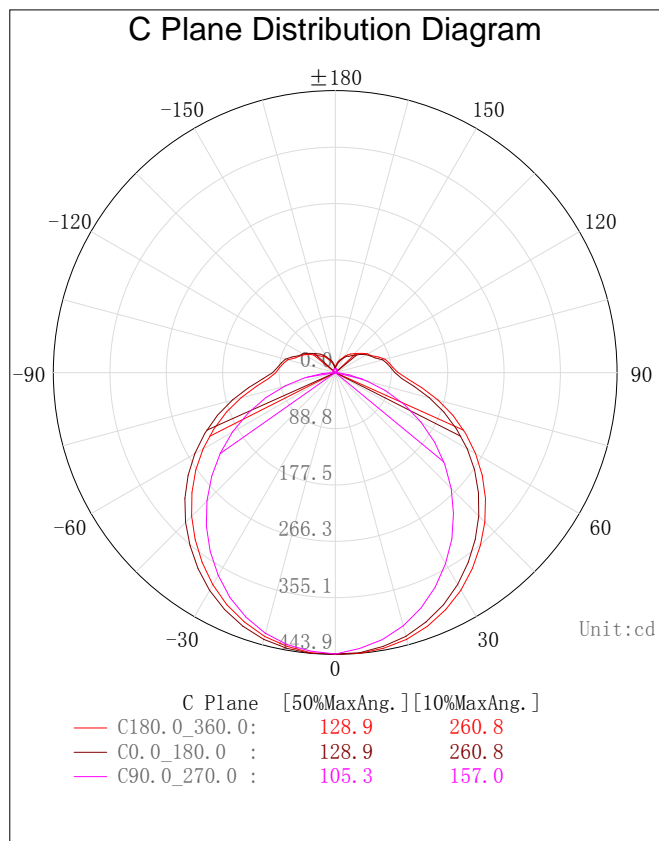
### Description Information

Lum. Name: B18W-CC-E	Lum. Catalog: LED BATTEN	Test ID:
Lamp Name: 3000K	Lamp Catalog: SMD2835	Test Date: 2019/10/28
Manufacture:	ShldAngle(°):	Test Machine: GON-2000
Test Lab:	Frequency(Hz):	Lamp CCT(K): Ra:
Lum. Size(W*L*H): 0.060m*0.600m*0.065m	Lum. Area(m2): 0.075	Lum. W(kg): 2.000
Test System: C, γ	Test Step: C=90.0 γ=5.0	Temp.(°C): 25
		Humidity(%):

### Character Parameter

Lamp Speciality Parameter		Luminaire Speciality Parameter	
Rated Flux(lm): 1563.590	Luminaire Flux: 1563.592lm	Field Angle(10%Imax): 260.8	
Rated Power(W):	Luminaire Efficiency: 100.00%	Down Lumens&Percent: 1374.868lm 87.93%	
Rated Voltage(V):	Luminaire EER(lm/W): 69.897	Up Lumens&Percent: 188.724lm 12.07%	
Tested Power(W): 22.370	Max. Cand. (cd): 443.861	S/MH: C0_a180=1.309 C90_270=1.206	
Lamps' Inside: 1	Max Cand@Ang. (°): C=180.0 γ=5.0	CIE Type: General Diffuse	
Tested Electric: U=241.8V, I=0.102A, PF=0.000	Beam Angle(50%Imax): 128.9	ErP Φuse(120°): 1006.321lm	
Lamp Size(W*L*H): 0.060m*0.600m*0.065m	Left=-63.1 Right=65.8	IRF: 108.889%	

### Lighting Distribution Diagram



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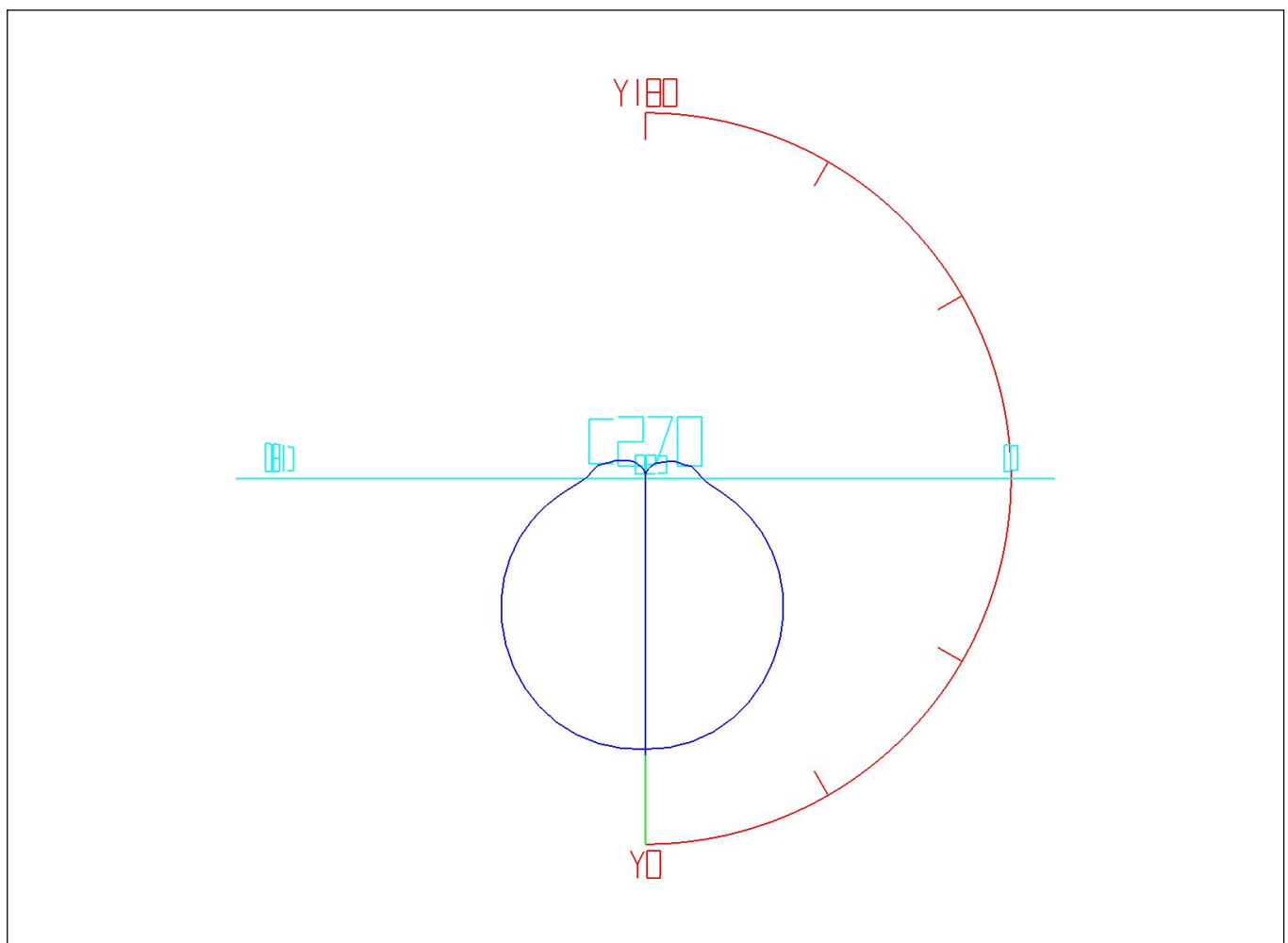
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## 3D Light Intensity Distribution Modal

Lum. Name: B18W-CC-E	Lum. Catalog: LED BATTEN	Test ID:
Lamp Name: 3000K	Lamp Catalog: SMD2835	Test Lab:
Manufacture:	Test Machine: GON-2000	Test Date: 2019/10/28

### 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 ( y )	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	Sums%Lamp
0.0-5.0	10.57	10.57	0.68	0.68
5.0-10.0	31.33	41.90	2.00	2.68
10.0-15.0	51.05	92.95	3.26	5.94
15.0-20.0	69.01	161.97	4.41	10.36
20.0-25.0	84.60	246.57	5.41	15.77
25.0-30.0	97.32	343.89	6.22	21.99
30.0-35.0	106.85	450.74	6.83	28.83
35.0-40.0	113.01	563.75	7.23	36.05
40.0-45.0	115.74	679.49	7.40	43.46
45.0-50.0	115.05	794.53	7.36	50.81
50.0-55.0	111.05	905.58	7.10	57.92
55.0-60.0	103.94	1009.51	6.65	64.56
60.0-65.0	94.00	1103.51	6.01	70.58
65.0-70.0	81.65	1185.17	5.22	75.80
70.0-75.0	67.53	1252.69	4.32	80.12
75.0-80.0	52.74	1305.43	3.37	83.49
80.0-85.0	39.29	1344.72	2.51	86.00
85.0-90.0	30.15	1374.87	1.93	87.93
90.0-95.0	26.03	1400.90	1.66	89.59
95.0-100.0	24.16	1425.05	1.54	91.14
100.0-105.0	22.46	1447.51	1.44	92.58
105.0-110.0	20.04	1467.56	1.28	93.86
110.0-115.0	17.33	1484.89	1.11	94.97
115.0-120.0	15.25	1500.13	0.98	95.94
120.0-125.0	13.29	1513.43	0.85	96.79
125.0-130.0	11.17	1524.59	0.71	97.51
130.0-135.0	9.27	1533.86	0.59	98.10
135.0-140.0	7.71	1541.57	0.49	98.59
140.0-145.0	6.39	1547.96	0.41	99.00
145.0-150.0	5.14	1553.10	0.33	99.33
150.0-155.0	3.86	1556.95	0.25	99.58
155.0-160.0	2.77	1559.72	0.18	99.75
160.0-165.0	1.91	1561.63	0.12	99.87
165.0-170.0	1.19	1562.82	0.08	99.95
170.0-175.0	0.61	1563.42	0.04	99.99
175.0-180.0	0.17	1563.59	0.01	100.00

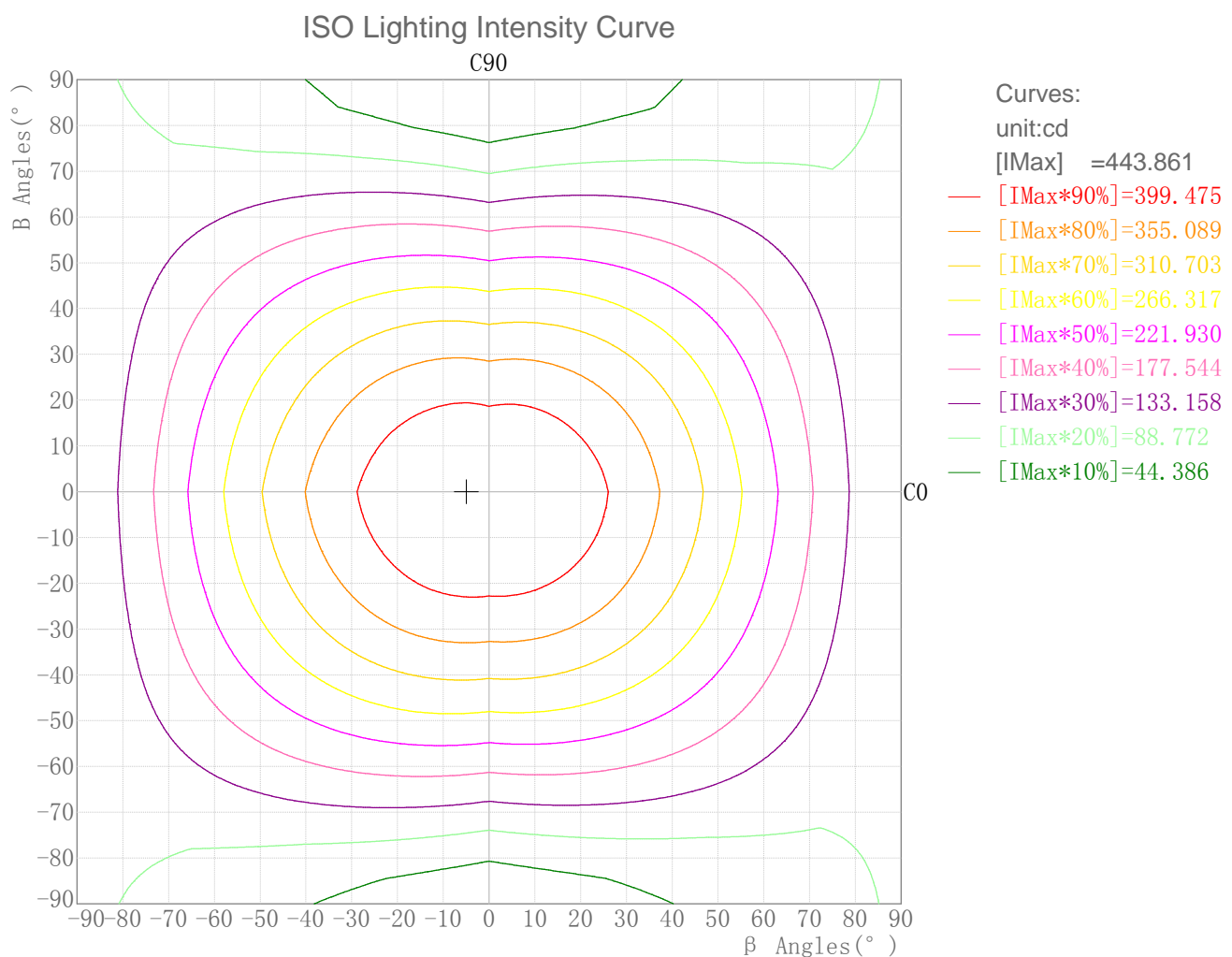
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## Rectangle ISO Lighting Intensity Diagram

Lum. Name: B18W-CC-E	Lum. Catalog: LED BATTEN	Test ID:
Lamp Name: 3000K	Lamp Catalog: SMD2835	Test Lab:
Manufacture:	Test Machine: GON-2000	Test Date: 2019/10/28



Maximum Light Intensity(cd): 443.86

Maximum Cand. @Angle: H=-5.0°, V=0.0°

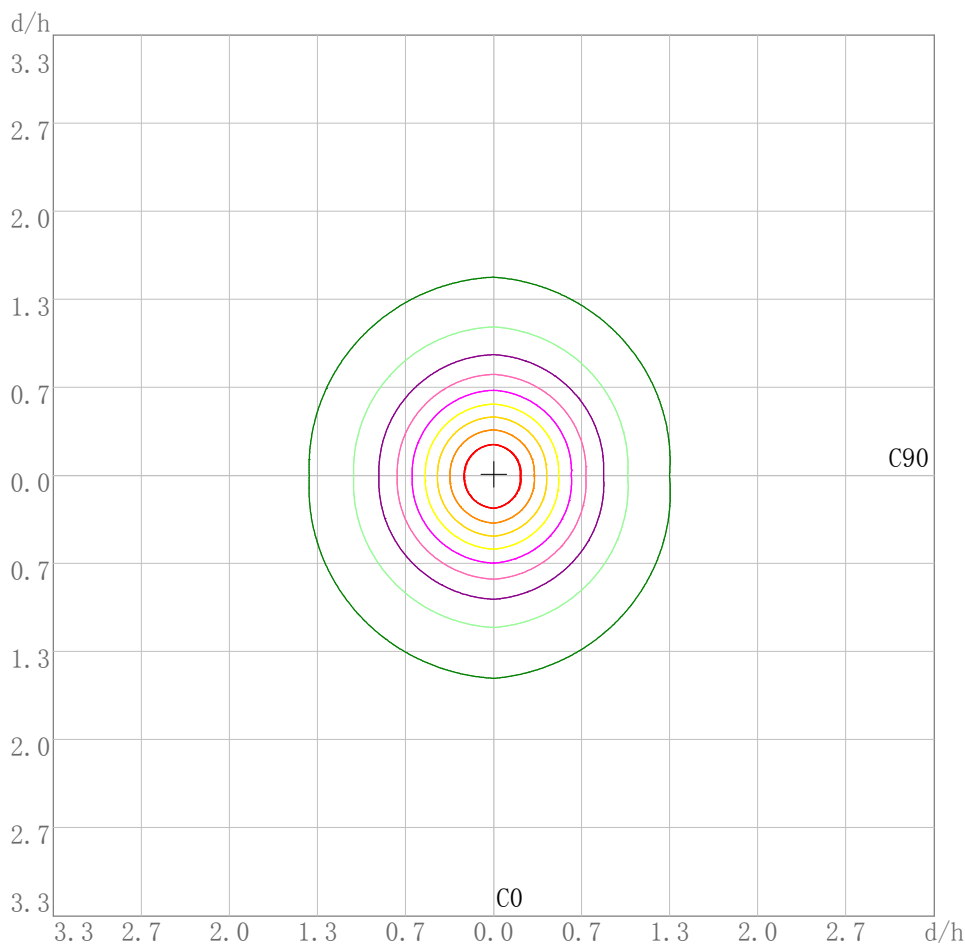
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## Plane ISO-Illuminance Diagram

Lum. Name: B18W-CC-E	Lum. Catalog: LED BATTEN	Test ID:
Lamp Name: 3000K	Lamp Catalog: SMD2835	Test Lab:
Manufacture:	Test Machine: GON-2000	Test Date: 2019/10/28

### Plane ISO-Illuminance Curve



- Curves:**  
 unit: lx  
 [EMax] = 49.261
- [EMax\*90%]=44.335
  - [EMax\*80%]=39.409
  - [EMax\*70%]=34.483
  - [EMax\*60%]=29.557
  - [EMax\*50%]=24.631
  - [EMax\*40%]=19.705
  - [EMax\*30%]=14.778
  - [EMax\*20%]=9.852
  - [EMax\*10%]=4.926

Working Plane Luminaire Mounting Height(m): 3.00  
 Working Plane Maximum Illuminance(lx): 49.26  
 Working Plane Maximum Illuminance Position(d/h): H0.0 V-0.0

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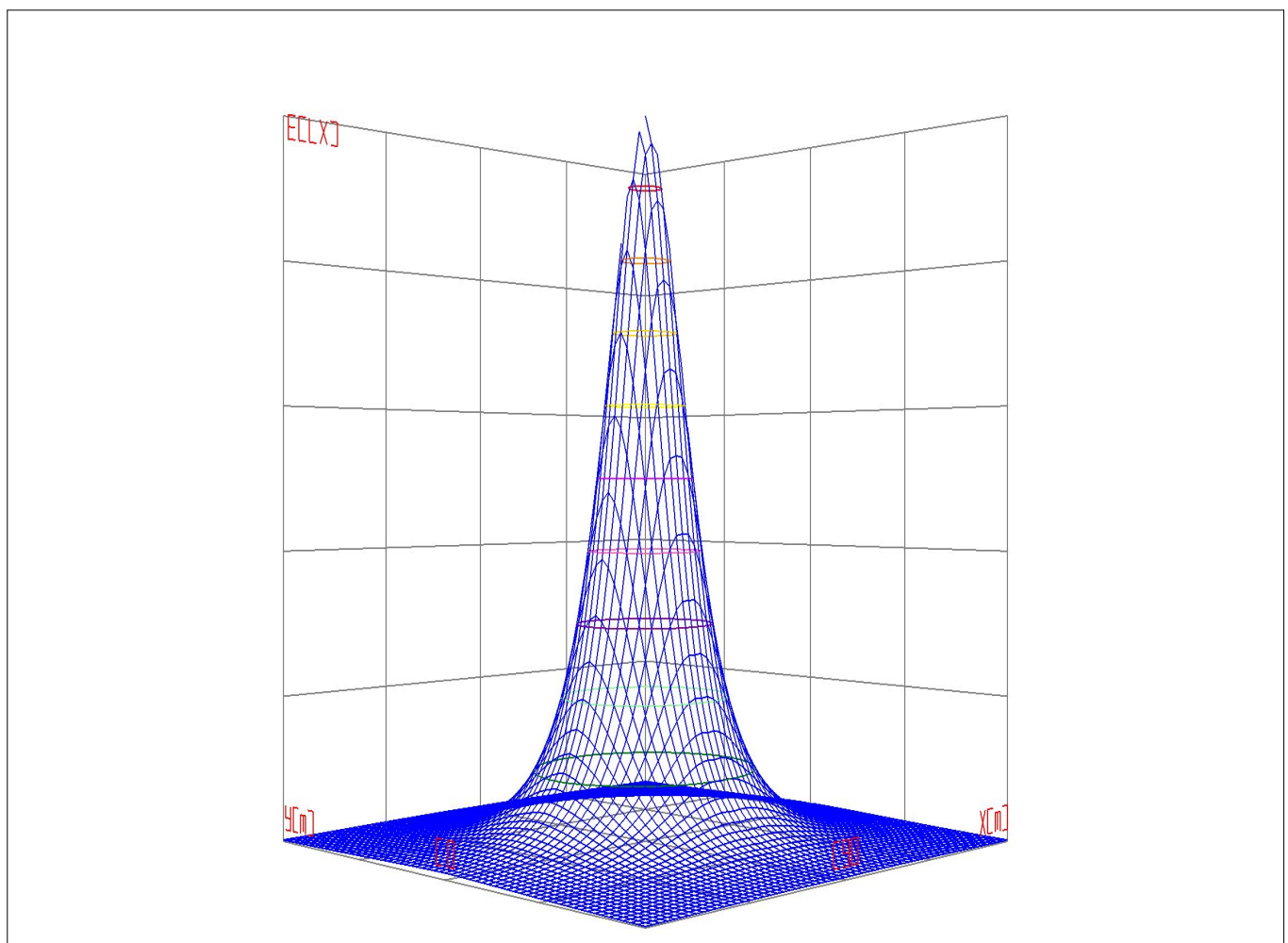
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## 3D Plane ISO Illuminance Diagram

Lum. Name: B18W-CC-E	Lum. Catalog: LED BATTEN	Test ID:
Lamp Name: 3000K	Lamp Catalog: SMD2835	Test Lab:
Manufacture:	Test Machine: GON-2000	Test Date: 2019/10/28

### 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

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# IES Indoor Report

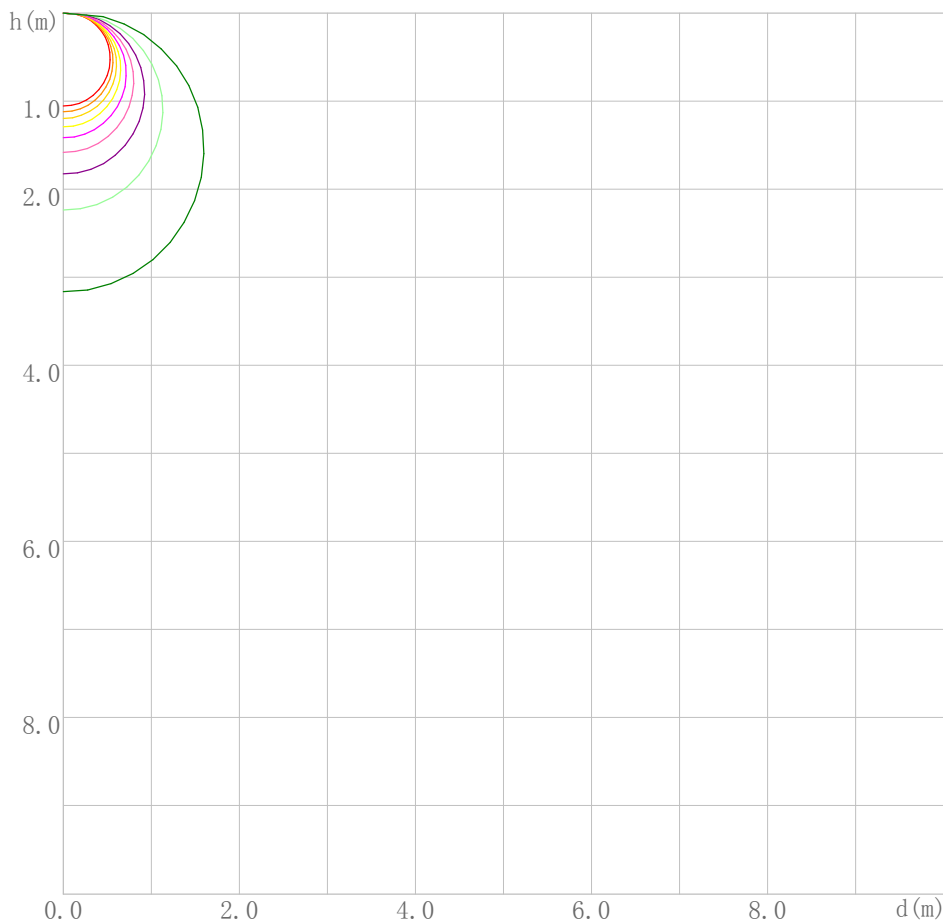
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## Space ISO Illuminance Diagram

Lum. Name: B18W-CC-E	Lum. Catalog: LED BATTEN	Test ID:
Lamp Name: 3000K	Lamp Catalog: SMD2835	Test Lab:
Manufacture:	Test Machine: GON-2000	Test Date: 2019/10/28

### Space ISO Illuminance Curve



- Curves:  
unit: lx  
[EMax] = 443.351
- [EMax\*90%]=399.016
  - [EMax\*80%]=354.681
  - [EMax\*70%]=310.346
  - [EMax\*60%]=266.011
  - [EMax\*50%]=221.676
  - [EMax\*40%]=177.340
  - [EMax\*30%]=133.005
  - [EMax\*20%]=88.670
  - [EMax\*10%]=44.335

Space Plane Maximum Illuminance and @Angle: 443.35, 0.0deg  
Plane Maximum Lighting Intensity and @Angle: 443.351cd, 0deg

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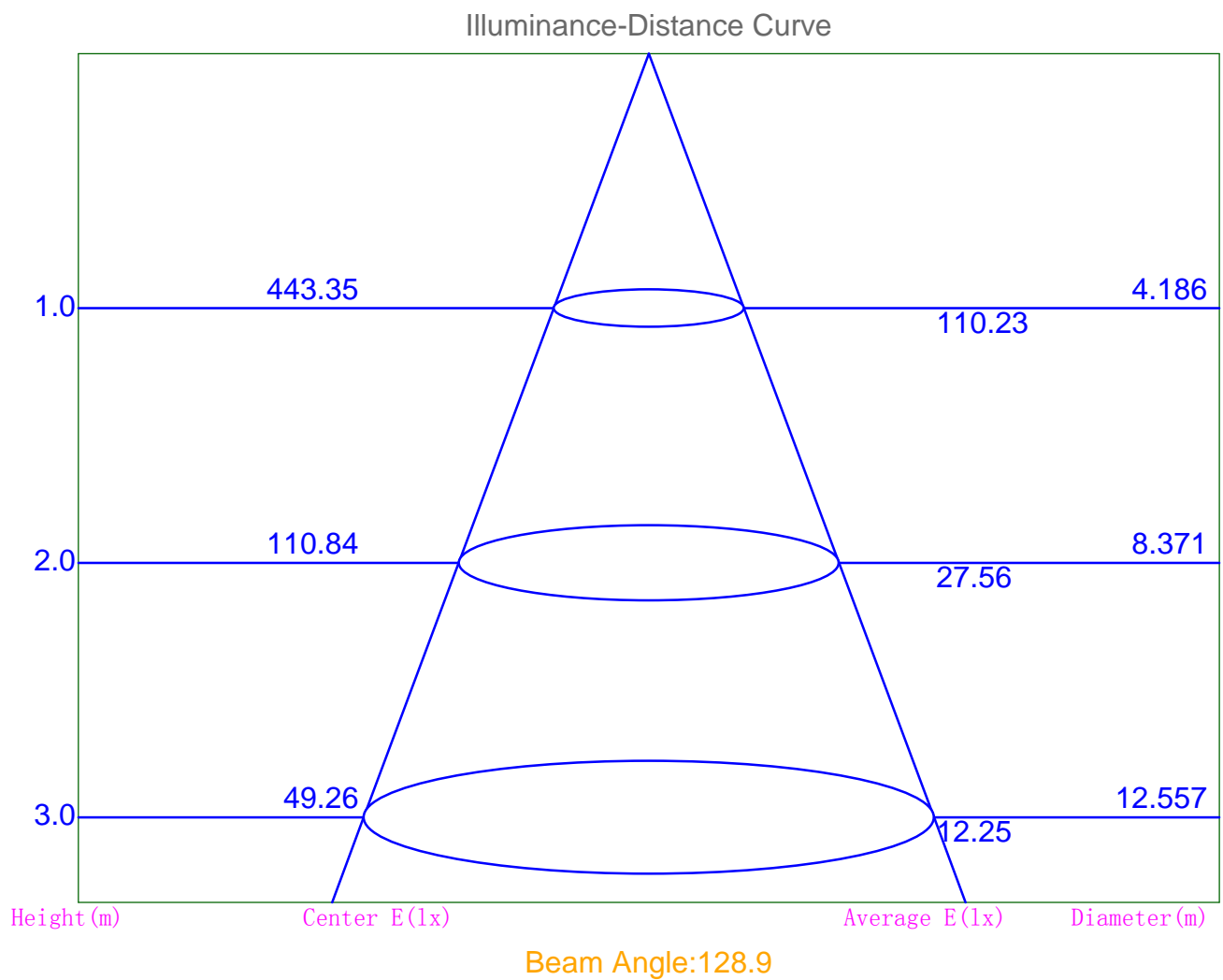
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## Illuminance-Distance Diagram

Lum. Name: B18W-CC-E	Lum. Catalog: LED BATTEN	Test ID:
Lamp Name: 3000K	Lamp Catalog: SMD2835	Test Lab:
Manufacture:	Test Machine: GON-2000	Test Date: 2019/10/28





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## Indoor Luminance Limiting Curves

Lum. Name: B18W-CC-E	Lum. Catalog: LED BATTEN	Test ID:
Lamp Name: 3000K	Lamp Catalog: SMD2835	Test Lab:
Manufacture:	Test Machine: GON-2000	Test Date: 2019/10/28

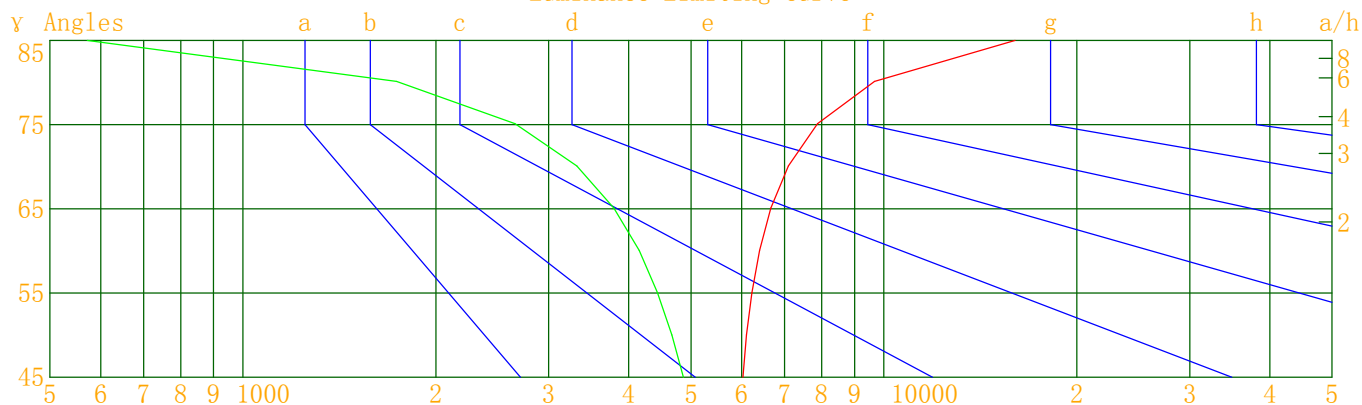
Glare Grade Table

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	6026	6104	6223	6397	6664	7095	7878	9672	16024
C90	4868	4668	4434	4152	3793	3317	2658	1736	572

Luminance Limiting Curve



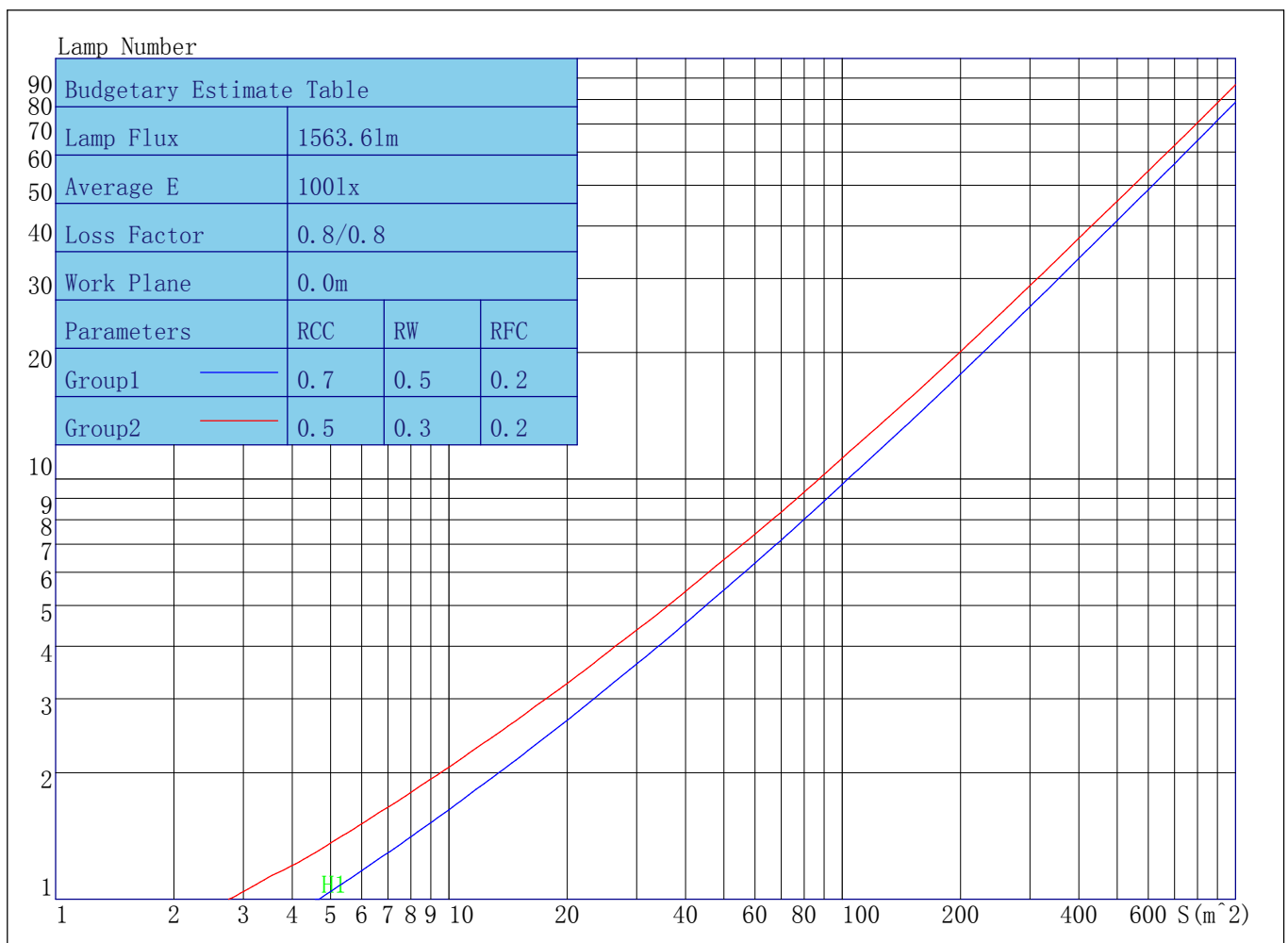
Luminous Size: Length(m)=0.600 Width(m)=0.060 Height(m)=0.065 Area(m<sup>2</sup>)=0.075000  
 Luminous Type: Without Luminous Side  
 Luminous Curves: C0-C180 Color: — C90-C270 Color: —

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## Indoor Budgetary Estimate Table

Lum. Name: B18W-CC-E	Lum. Catalog: LED BATTEN	Test ID:
Lamp Name: 3000K	Lamp Catalog: SMD2835	Test Lab:
Manufacture:	Test Machine: GON-2000	Test Date: 2019/10/28



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

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## Indoor Coefficient of Utilization Table

Lum. Name: B18W-CC-E	Lum. Catalog: LED BATTEN	Test ID:
Lamp Name: 3000K	Lamp Catalog: SMD2835	Test Lab:
Manufacture:	Test Machine: GON-2000	Test Date: 2019/10/28

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	0
RCR	Coefficient of Utilization (%)																	
0	116	116	116	116	112	112	112	112	104	104	104	97	97	97	91	91	91	88
1	105	99	95	90	101	96	92	88	89	86	83	83	81	78	78	76	74	71
2	95	86	79	73	91	83	76	71	77	72	67	72	68	64	68	64	61	58
3	86	75	67	60	82	73	65	58	68	61	56	63	58	53	59	55	51	48
4	79	66	57	50	75	64	56	49	60	53	47	56	50	45	53	48	44	41
5	72	59	50	43	69	57	49	42	54	46	41	50	44	39	47	42	38	35
6	67	53	44	37	64	51	43	37	48	41	35	46	39	34	43	37	33	31
7	62	48	39	33	59	47	38	32	44	37	31	41	35	30	39	33	29	27
8	57	44	35	29	55	42	34	29	40	33	28	38	32	27	36	30	26	24
9	53	40	32	26	51	39	31	26	37	30	25	35	29	24	33	28	24	22
10	50	37	29	24	48	36	28	23	34	27	23	32	26	22	31	25	21	20

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## Unified Glare Rating Table

Lum. Name: B18W-CC-E	Lum. Catalog: LED BATTEN	Test ID:
Lamp Name: 3000K	Lamp Catalog: SMD2835	Test Lab:
Manufacture:	Test Machine: GON-2000	Test Date: 2019/10/28

## 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	Viewed crosswise					Viewed endwise				
X=2H Y=2H	23.2	26.4	24.4	27.7	29.0	21.1	24.4	22.3	25.7	27.0
Y=3H	29.1	32.4	30.4	33.7	35.0	25.0	28.3	26.2	29.5	30.9
Y=4H	32.9	35.9	34.2	37.2	38.5	27.1	30.0	28.4	31.3	32.7
Y=6H	36.4	39.3	37.8	40.6	41.9	28.2	31.0	29.5	32.3	33.6
Y=8H	38.4	41.1	39.7	42.5	43.8	28.4	31.2	29.7	32.5	33.9
Y=12H	40.5	43.3	41.8	44.6	46.0	28.5	31.3	29.8	32.6	33.9
X=4H Y=2H	24.3	27.2	25.6	28.5	29.8	23.4	26.3	24.7	27.7	29.0
Y=3H	30.5	33.4	31.8	34.7	36.1	27.7	30.6	29.0	31.9	33.2
Y=4H	32.8	34.7	34.4	36.2	37.8	28.4	30.3	30.0	31.8	33.4
Y=6H	37.0	38.6	38.6	40.2	41.8	30.1	31.8	31.7	33.4	35.0
Y=8H	39.3	40.9	40.9	42.5	44.1	30.7	32.3	32.3	33.9	35.5
Y=12H	41.1	42.4	42.8	44.2	45.8	30.2	31.5	31.9	33.2	34.9
X=8H Y=4H	33.1	34.7	34.7	36.3	37.9	29.6	31.2	31.2	32.8	34.4
Y=6H	36.7	37.9	38.4	39.6	41.3	31.1	32.2	32.8	33.9	35.6
Y=8H	38.9	39.8	40.7	41.6	43.3	31.6	32.6	33.5	34.4	36.1
Y=12H	42.1	42.9	43.9	44.7	46.5	32.5	33.4	34.4	35.2	36.9
X=12H Y=4H	32.2	33.6	33.9	35.3	37.0	29.0	30.4	30.8	32.1	33.8
Y=6H	36.2	37.2	38.1	39.0	40.8	31.1	32.1	32.9	33.9	35.6
Y=8H	39.0	39.8	40.8	41.6	43.4	32.4	33.3	34.2	35.1	36.8
Variations with the observer position at spacings										
S=1.0H	2.1/-2.2					2.3/-0.1				
S=1.5H	-2.2/-20.8					-0.1/-16.4				
S=2.0H	-2.2/-20.8					-0.1/-16.4				

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## Candela Tabulation

V/H	C0.0	C90.0	C180.0	C270.0
Y 0.0	443.35	443.35	443.35	443.35
Y 5.0	442.62	436.15	443.86	440.27
Y 10.0	437.90	426.79	440.89	434.85
Y 15.0	429.80	412.82	434.80	424.61
Y 20.0	418.09	394.61	425.00	409.94
Y 25.0	403.11	372.71	411.89	391.11
Y 30.0	385.29	347.57	395.63	368.77
Y 35.0	365.14	319.83	376.81	343.36
Y 40.0	343.18	289.89	355.76	315.41
Y 45.0	319.59	258.18	332.92	285.39
Y 50.0	294.28	225.02	308.49	253.57
Y 55.0	267.70	190.74	282.51	220.52
Y 60.0	239.89	155.68	255.13	186.42
Y 65.0	211.23	120.23	226.57	151.50
Y 70.0	182.00	85.08	197.09	116.20
Y 75.0	152.93	51.59	167.23	81.27
Y 80.0	125.96	22.61	138.56	48.25
Y 85.0	104.74	3.74	114.09	20.36
Y 90.0	93.56	1.00	98.34	4.62
Y 95.0	87.63	1.07	91.04	3.00
Y 100.0	82.66	1.39	86.06	2.73
Y 105.0	77.59	1.77	80.90	2.67
Y 110.0	66.57	2.10	72.08	3.07
Y 115.0	61.35	2.48	62.75	3.33
Y 120.0	55.95	2.82	58.49	3.70
Y 125.0	49.66	3.13	52.31	3.96
Y 130.0	42.42	3.38	46.40	4.19
Y 135.0	37.18	3.71	41.81	4.32
Y 140.0	33.27	4.05	37.58	4.63
Y 145.0	30.95	4.32	33.60	4.84
Y 150.0	26.57	4.68	29.53	5.05
Y 155.0	21.77	4.91	24.08	5.33
Y 160.0	18.06	5.25	20.59	5.52
Y 165.0	14.58	5.51	17.22	5.82
Y 170.0	11.63	5.74	13.76	5.98
Y 175.0	8.34	5.87	10.40	6.11
Y 180.0	6.40	6.40	6.40	6.40

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