

# IES Indoor Report

Photometric Filename:ICD0LR16015WCCT-WH 4K.IES

## Indoor Luminaire Photometric Data

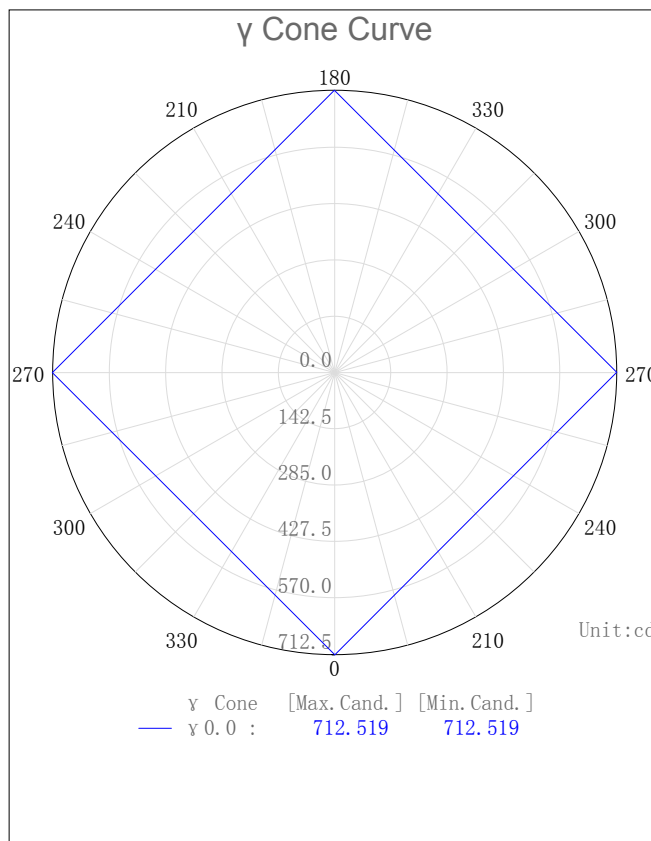
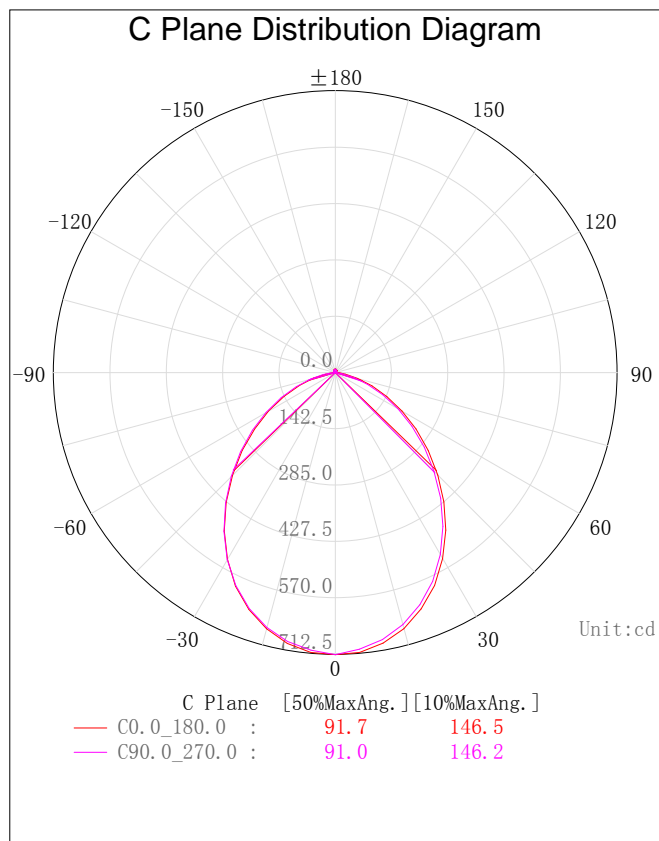
### Description Information

Lum. Name:	ICDLR16015WCCT-WH	Lum. Catalog:	LED DOWNLIGHT	Test ID:	
Lamp Name:	4000K	Lamp Catalog:	SMD835	Test Date:	2020/05/31
Manufacture:		ShldAngle(°):		Test Machine:	GON-2000
Test Lab:		Frequency(Hz):		Lamp CCT(K):	Ra:
Lum. Size(W*L*H):	0.160m*0.160m*0.046m	Lum. Area(m2):	0.033	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):	1570.740	Luminaire Flux:	1570.740lm
Rated Power(W):		Luminaire Efficiency:	100.00%
Rated Voltage(V):		Luminaire EER(lm/W):	102.999
Tested Power(W):	15.250	Max. Cand. (cd):	712.519
Lamps' Inside:	1	Max Cand@Ang. (°):	C=0.0 γ=0.0
Tested Electric:U=237.6V, I=0.067A, PF=0.000		Beam Angle(50%Imax):	91.7
Lamp Size(W*L*H):0.160m*0.160m*0.046m		Left=-45.8 Right=45.8	
		Field Angle(10%Imax):	146.5
		Down Lumens&Percent:	1548.137lm 98.56%
		Up Lumens&Percent:	22.603lm 1.44%
		S/MH:	C0_a180=1.147 C90_270=1.137
		CIE Type:	Semi-Direct
		ErP Φuse(120°):	1328.290lm
		IRF:	128.210%

### Lighting Distribution Diagram



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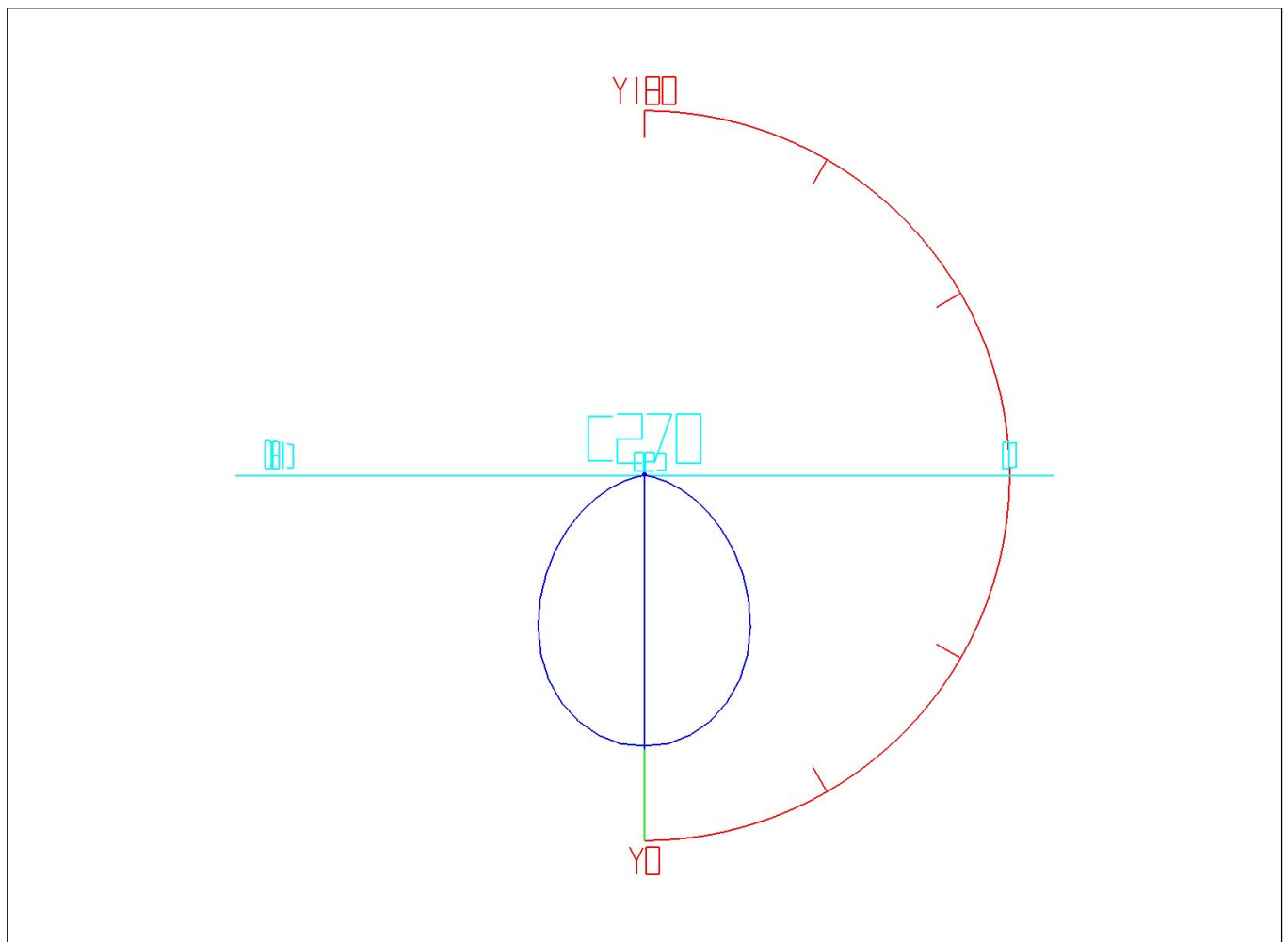
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## 3D Light Intensity Distribution Modal

Lum. Name: ICDLR16015WCCT-WH	Lum. Catalog: LED DOWNLIGHT	Test ID:
Lamp Name: 4000K	Lamp Catalog: SMD835	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2020/05/31

### 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	16.96	16.96	1.08	1.08
5.0-10.0	50.00	66.96	3.18	4.26
10.0-15.0	80.56	147.52	5.13	9.39
15.0-20.0	107.12	254.64	6.82	16.21
20.0-25.0	128.43	383.07	8.18	24.39
25.0-30.0	143.33	526.40	9.12	33.51
30.0-35.0	151.06	677.46	9.62	43.13
35.0-40.0	151.75	829.21	9.66	52.79
40.0-45.0	146.13	975.33	9.30	62.09
45.0-50.0	135.15	1110.48	8.60	70.70
50.0-55.0	119.96	1230.44	7.64	78.34
55.0-60.0	101.74	1332.18	6.48	84.81
60.0-65.0	81.57	1413.75	5.19	90.01
65.0-70.0	60.60	1474.35	3.86	93.86
70.0-75.0	40.16	1514.51	2.56	96.42
75.0-80.0	22.04	1536.55	1.40	97.82
80.0-85.0	9.09	1545.64	0.58	98.40
85.0-90.0	2.50	1548.14	0.16	98.56
90.0-95.0	0.65	1548.78	0.04	98.60
95.0-100.0	0.73	1549.52	0.05	98.65
100.0-105.0	0.88	1550.40	0.06	98.70
105.0-110.0	1.07	1551.47	0.07	98.77
110.0-115.0	1.26	1552.73	0.08	98.85
115.0-120.0	1.45	1554.18	0.09	98.95
120.0-125.0	1.61	1555.79	0.10	99.05
125.0-130.0	1.74	1557.52	0.11	99.16
130.0-135.0	1.82	1559.35	0.12	99.27
135.0-140.0	1.86	1561.21	0.12	99.39
140.0-145.0	1.84	1563.04	0.12	99.51
145.0-150.0	1.76	1564.80	0.11	99.62
150.0-155.0	1.63	1566.43	0.10	99.73
155.0-160.0	1.44	1567.87	0.09	99.82
160.0-165.0	1.20	1569.07	0.08	99.89
165.0-170.0	0.91	1569.98	0.06	99.95
170.0-175.0	0.57	1570.55	0.04	99.99
175.0-180.0	0.19	1570.74	0.01	100.00

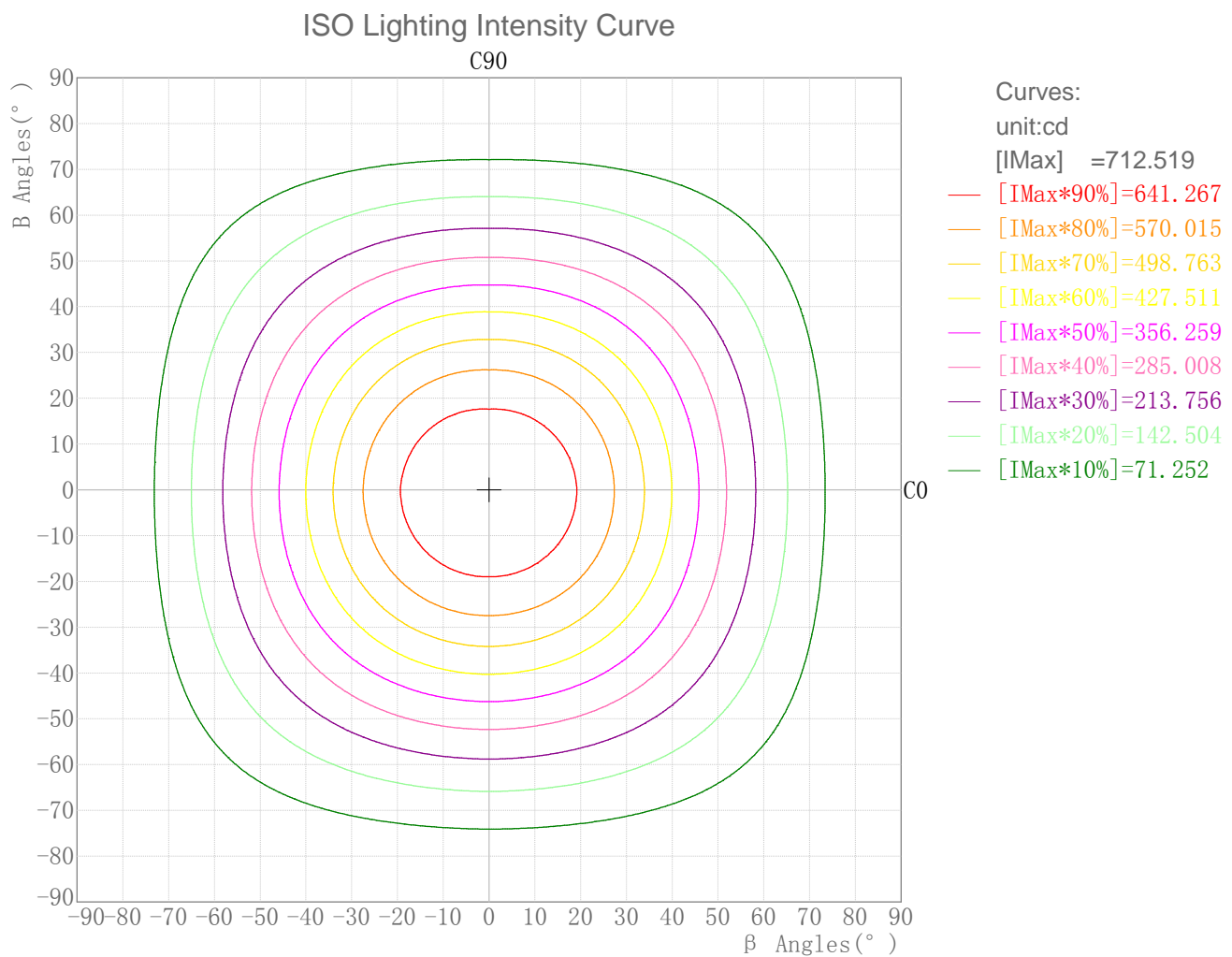
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## Rectangle ISO Lighting Intensity Diagram

Lum. Name: ICDLR16015WCCT-WH	Lum. Catalog: LED DOWNLIGHT	Test ID:
Lamp Name: 4000K	Lamp Catalog: SMD835	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2020/05/31



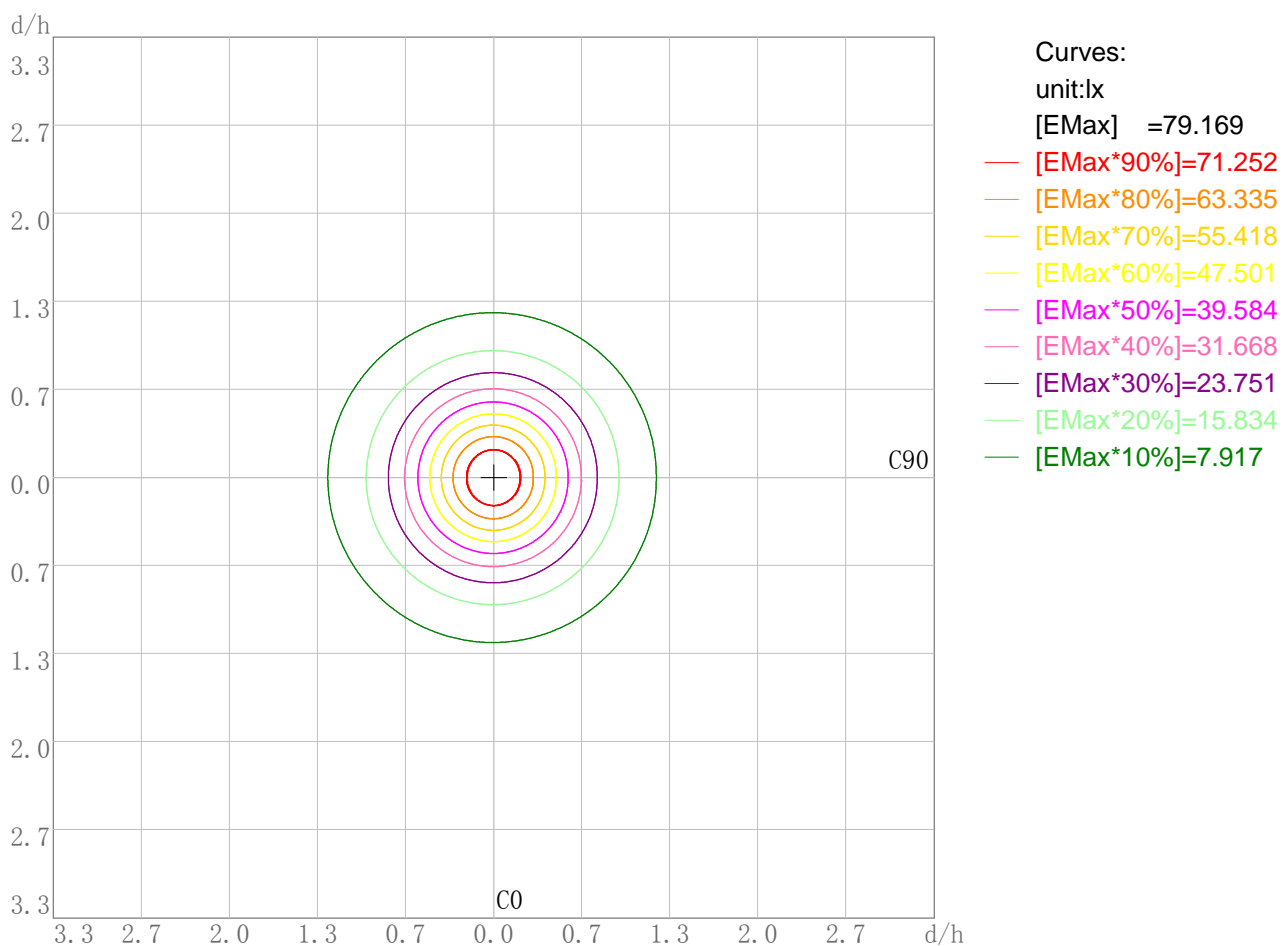
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## Plane ISO-Illuminance Diagram

Lum. Name: ICDLR16015WCCT-WH	Lum. Catalog: LED DOWNLIGHT	Test ID:
Lamp Name: 4000K	Lamp Catalog: SMD835	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2020/05/31

### Plane ISO-Illuminance Curve



Working Plane Luminaire Mounting Height(m): 3.00  
 Working Plane Maximum Illuminance(lx): 79.17  
 Working Plane Maximum Illuminance Position(d/h):H0.0 V0.0

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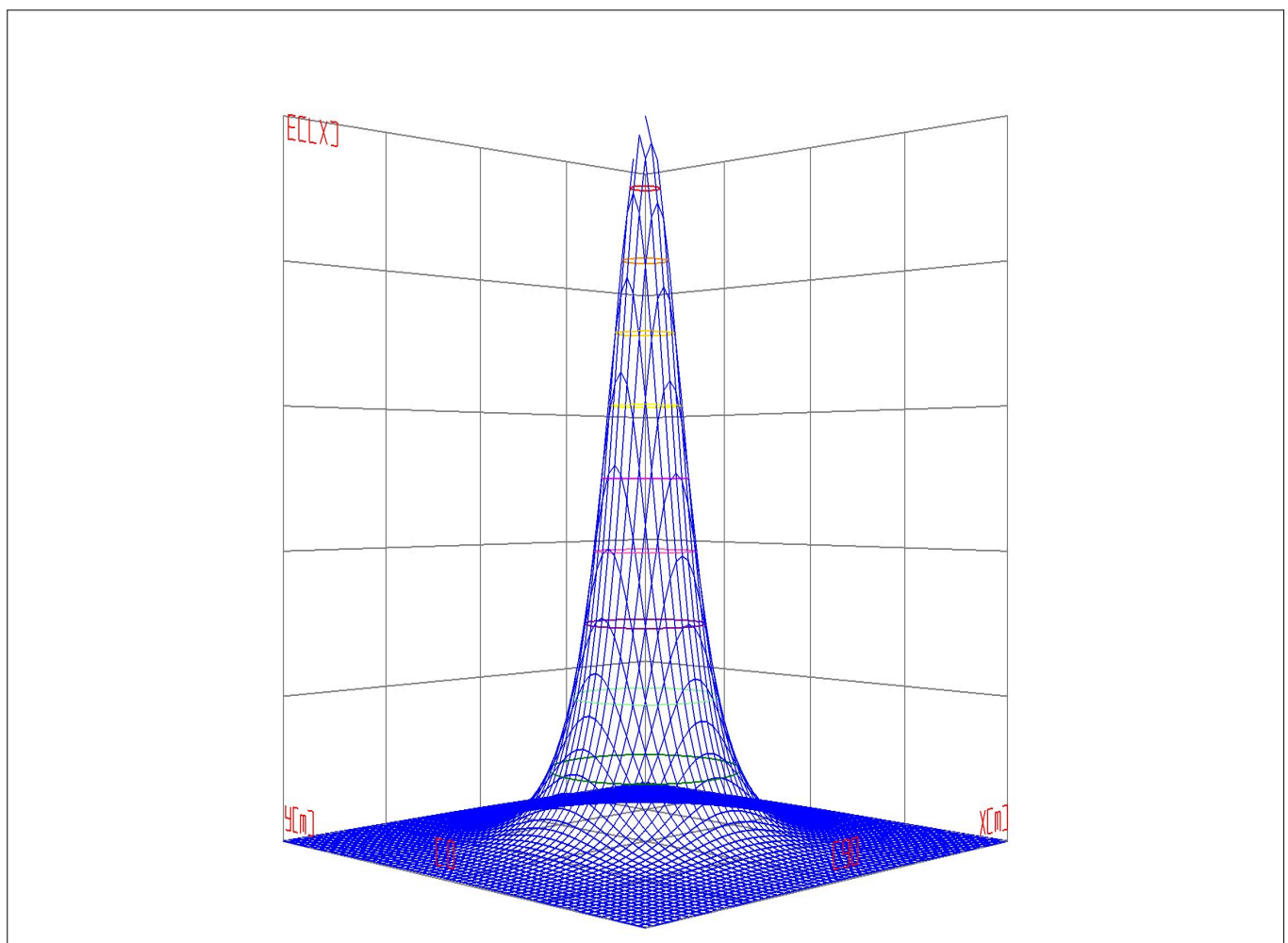
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## 3D Plane ISO Illuminance Diagram

Lum. Name: ICDLR16015WCCT-WH	Lum. Catalog: LED DOWNLIGHT	Test ID:
Lamp Name: 4000K	Lamp Catalog: SMD835	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2020/05/31

### 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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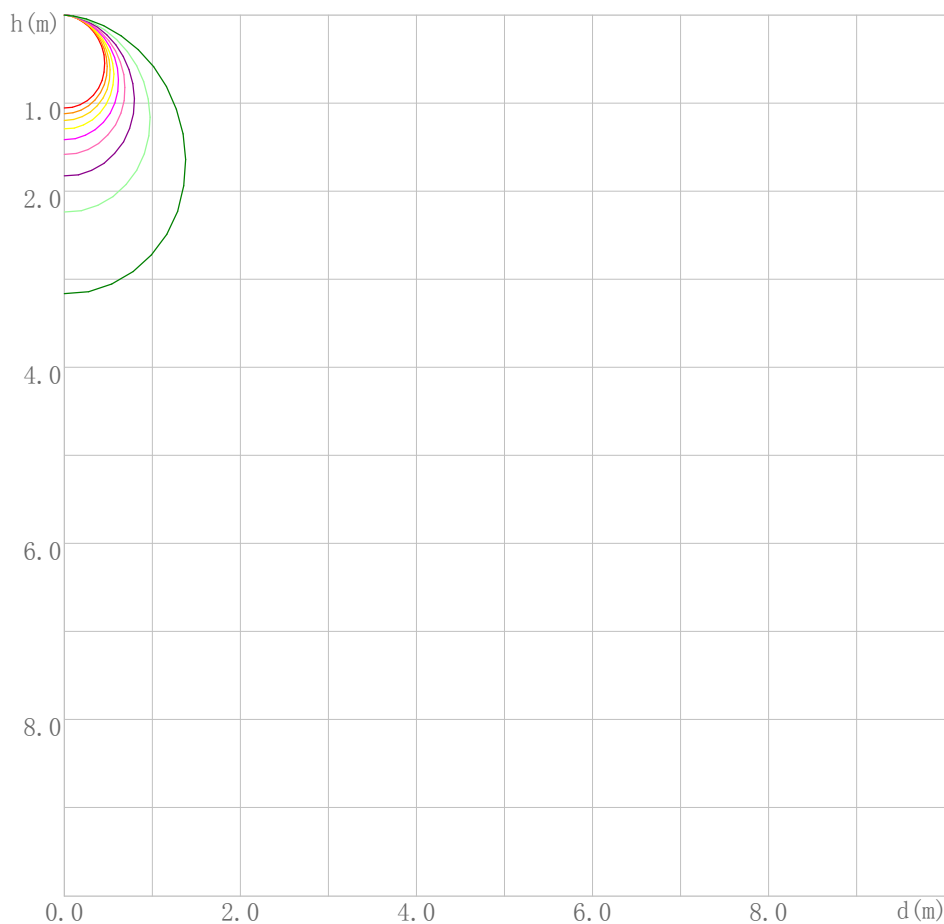
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## Space ISO Illuminance Diagram

Lum. Name: ICDLR16015WCCT-WH	Lum. Catalog: LED DOWNLIGHT	Test ID:
Lamp Name: 4000K	Lamp Catalog: SMD835	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2020/05/31

### Space ISO Illuminance Curve



Curves:  
unit:lx  
[EMax] =712.519  
— [EMax\*90%]=641.267  
— [EMax\*80%]=570.015  
— [EMax\*70%]=498.763  
— [EMax\*60%]=427.511  
— [EMax\*50%]=356.259  
— [EMax\*40%]=285.008  
— [EMax\*30%]=213.756  
— [EMax\*20%]=142.504  
— [EMax\*10%]=71.252

Space Plane Maximum Illuminance and @Angle:712.52,0.0deg  
Plane Maximum Lighting Intensity and @Angle:712.519cd,0deg

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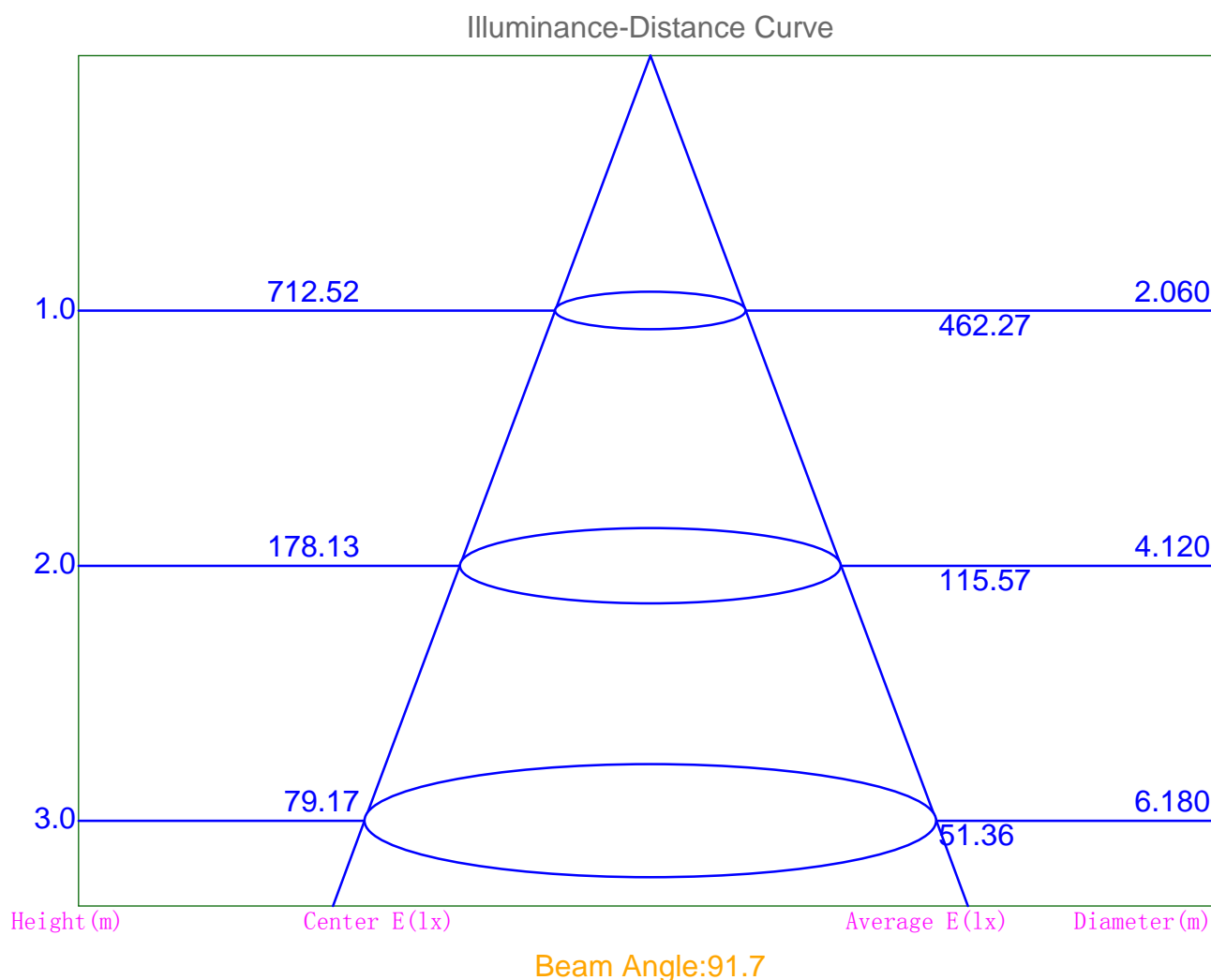
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## Illuminance-Distance Diagram

Lum. Name: ICDLR16015WCCT-WH	Lum. Catalog: LED DOWNLIGHT	Test ID:
Lamp Name: 4000K	Lamp Catalog: SMD835	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2020/05/31





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## Indoor Luminance Limiting Curves

Lum. Name: ICDLR16015WCCT-WH	Lum. Catalog: LED DOWNLIGHT	Test ID:
Lamp Name: 4000K	Lamp Catalog: SMD835	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2020/05/31

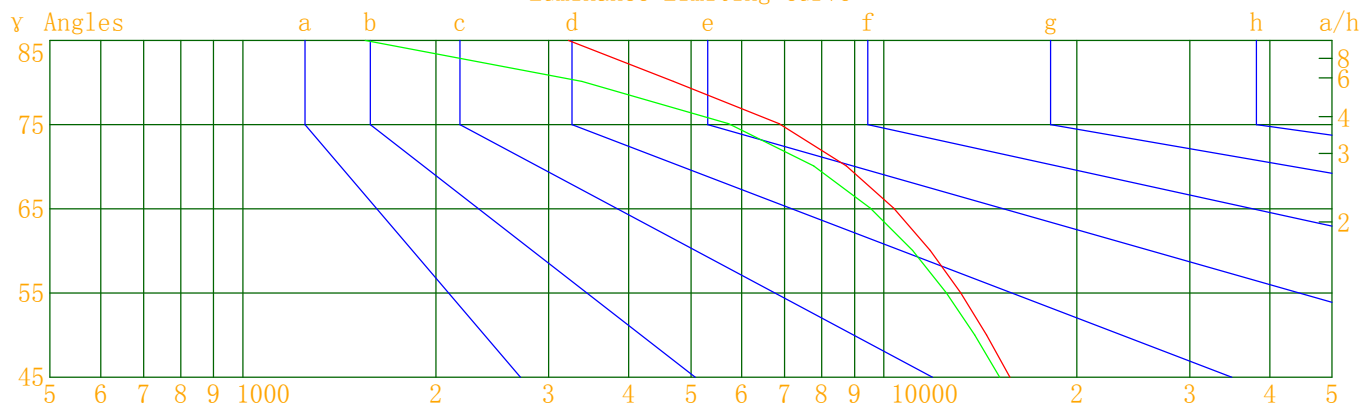
Glare Grade Table

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	15720	14460	13170	11816	10362	8734	6864	4696	3221
C90	15159	13855	12511	11084	9525	7772	5723	3380	1551

Luminance Limiting Curve



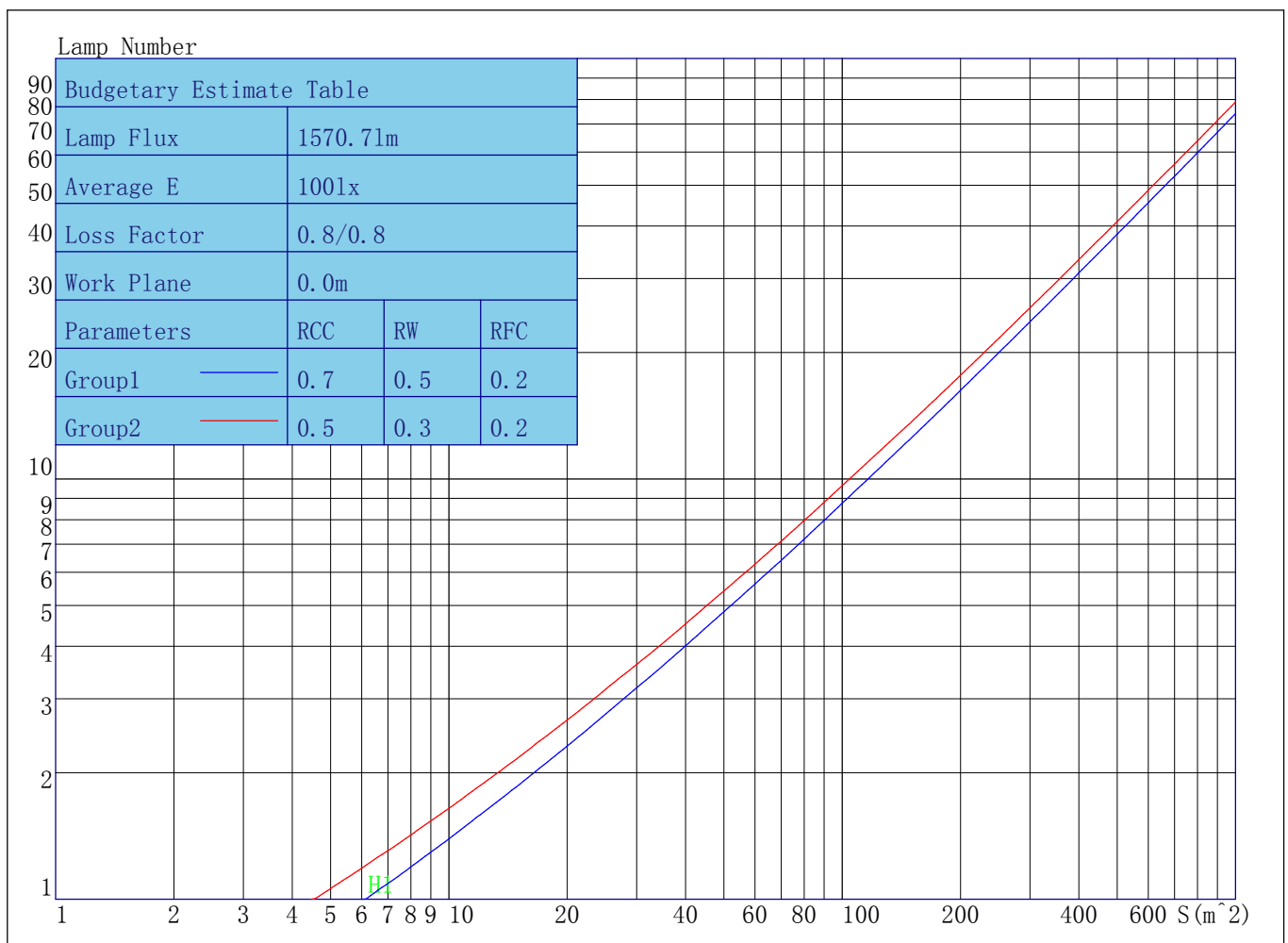
Luminous Size: Length(m)=0.160 Width(m)=0.160 Height(m)=0.046 Area(m^2)=0.032960  
 Luminous Type: Without Luminous Side  
 Luminous Curves: C0-C180 Color: — C90-C270 Color: —

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## Indoor Budgetary Estimate Table

Lum. Name: ICDLR16015WCCT-WH	Lum. Catalog: LED DOWNLIGHT	Test ID:
Lamp Name: 4000K	Lamp Catalog: SMD835	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2020/05/31



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: ICDLR16015WCCT-WH	Lum. Catalog: LED DOWNLIGHT	Test ID:
Lamp Name: 4000K	Lamp Catalog: SMD835	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2020/05/31

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	119	119	119	119	116	116	116	116	110	110	110	105	105	105	101	101	101	99
1	110	106	102	99	107	103	100	97	99	96	93	95	92	90	91	89	87	85
2	101	94	87	82	98	92	86	81	88	83	79	84	81	77	81	78	75	73
3	93	83	76	70	90	81	75	69	78	73	68	76	71	66	73	69	65	63
4	85	74	66	60	83	73	65	60	70	64	59	68	62	58	66	61	57	55
5	79	67	59	53	77	66	58	52	64	57	51	62	56	51	60	54	50	48
6	73	61	52	46	71	60	52	46	58	51	46	56	50	45	54	49	45	43
7	68	55	47	41	66	55	47	41	53	46	41	51	45	40	50	44	40	38
8	64	51	43	37	62	50	42	37	49	42	37	47	41	36	46	40	36	34
9	60	47	39	34	58	46	39	34	45	38	33	44	38	33	43	37	33	31
10	56	43	36	31	55	43	36	31	42	35	30	41	35	30	40	34	30	28

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## Unified Glare Rating Table

Lum. Name: ICDLR16015WCCT-WH	Lum. Catalog: LED DOWNLIGHT	Test ID:
Lamp Name: 4000K	Lamp Catalog: SMD835	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2020/05/31

## 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	31.4	34.7	32.2	35.4	36.1	31.1	34.4	31.9	35.1	35.7
	Y=3H	34.4	37.6	35.2	38.4	39.0	33.8	37.1	34.7	37.8	38.5
	Y=4H	36.2	39.0	37.0	39.7	40.4	35.5	38.3	36.4	39.0	39.7
	Y=6H	36.9	39.6	37.7	40.3	41.0	36.0	38.7	36.8	39.4	40.1
	Y=8H	37.1	39.7	37.9	40.4	41.1	36.1	38.8	36.9	39.5	40.2
	Y=12H	37.1	39.8	37.9	40.5	41.2	36.1	38.7	36.9	39.4	40.1
X=4H	Y=2H	32.4	35.2	33.2	35.9	36.6	32.2	35.0	33.0	35.7	36.3
	Y=3H	35.6	38.3	36.4	39.0	39.7	35.1	37.9	35.9	38.6	39.3
	Y=4H	35.8	37.3	36.9	38.3	39.2	35.2	36.7	36.3	37.7	38.6
	Y=6H	36.8	38.1	37.8	39.1	40.0	36.0	37.3	37.0	38.3	39.2
	Y=8H	37.1	38.4	38.1	39.3	40.2	36.1	37.5	37.2	38.4	39.3
	Y=12H	36.3	37.4	37.5	38.4	39.4	35.3	36.4	36.4	37.4	38.4
X=8H	Y=4H	35.9	37.3	37.0	38.2	39.1	35.4	36.7	36.5	37.7	38.5
	Y=6H	36.1	37.0	37.3	38.1	39.1	35.4	36.3	36.6	37.4	38.3
	Y=8H	36.0	36.7	37.2	37.8	38.9	35.1	35.8	36.4	37.0	38.0
	Y=12H	36.2	36.8	37.4	38.0	39.0	35.2	35.9	36.4	37.0	38.1
X=12H	Y=4H	35.0	36.1	36.2	37.1	38.1	34.5	35.5	35.6	36.6	37.6
	Y=6H	35.6	36.3	36.8	37.5	38.5	34.9	35.6	36.1	36.8	37.8
	Y=8H	36.0	36.6	37.2	37.8	38.8	35.1	35.8	36.3	36.9	38.0
Variations with the objver position at spacings											
	S=1.0H	3.2/-1.0					3.2/-0.8				
	S=1.5H	-1.0/-21.1					-0.7/-20.5				
	S=2.0H	-1.0/-21.1					-0.7/-20.5				

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## Candela Tabulation

V/H	C0.0	C90.0	C180.0	C270.0
Y 0.0	712.52	712.52	712.52	712.52
Y 5.0	709.68	701.87	709.96	703.88
Y 10.0	694.34	685.42	694.84	690.45
Y 15.0	670.36	659.35	670.31	667.09
Y 20.0	635.50	624.80	637.11	634.81
Y 25.0	593.81	582.26	595.48	594.20
Y 30.0	543.46	531.00	544.86	545.27
Y 35.0	486.58	474.13	488.08	489.91
Y 40.0	426.59	413.99	427.94	430.98
Y 45.0	366.39	353.29	366.41	371.20
Y 50.0	306.36	293.54	306.39	311.79
Y 55.0	248.97	236.53	248.36	254.82
Y 60.0	194.72	182.66	193.50	200.98
Y 65.0	144.34	132.68	142.67	150.61
Y 70.0	98.45	87.62	96.27	104.64
Y 75.0	58.56	48.82	56.12	64.09
Y 80.0	26.88	19.34	24.62	31.12
Y 85.0	9.25	4.46	7.28	10.87
Y 90.0	1.99	0.00	0.26	2.36
Y 95.0	1.88	0.36	0.55	2.06
Y 100.0	2.10	0.73	0.96	2.13
Y 105.0	2.33	1.24	1.37	2.32
Y 110.0	2.71	1.74	1.95	2.70
Y 115.0	3.15	2.23	2.45	3.05
Y 120.0	3.56	2.83	3.01	3.54
Y 125.0	4.09	3.32	3.58	3.92
Y 130.0	4.54	3.93	4.14	4.43
Y 135.0	5.06	4.44	4.71	4.85
Y 140.0	5.55	4.96	5.22	5.35
Y 145.0	5.98	5.49	5.77	5.73
Y 150.0	6.50	5.92	6.25	6.17
Y 155.0	6.89	6.44	6.75	6.55
Y 160.0	7.32	6.83	7.16	6.97
Y 165.0	7.67	7.23	7.62	7.37
Y 170.0	7.95	7.62	7.99	7.69
Y 175.0	8.16	7.89	8.19	7.98
Y 180.0	8.23	8.23	8.23	8.23

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