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Indoor Luminaire Photometric Data

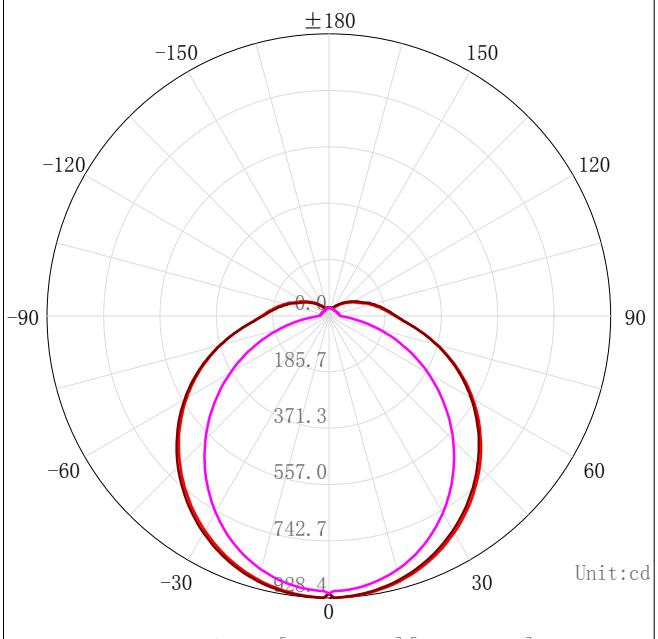
Description Information

Luminary Name: HCP-238400-5K		Lum. Catelog:	Test ID: 001
Lamp Name:		Lamp Catelog:	Test Date: 2019/12/02
Manufacture:		Shld.Ang(°):	Test Machine:GON-2000
Test Lab: Volnic IES		Frequency(Hz):	Lamp CCT(K): Ra:
Lum.Size(W*L*H):0.100m*1.200m*0.000m		Lum.Area(m2):0.120	Lum.W(kg): 1.000
Test System: C, γ	Test Step: C=30.0 γ=1.0	Temp.(℃): 25	Humidity(%): 50.0

Character Parameter

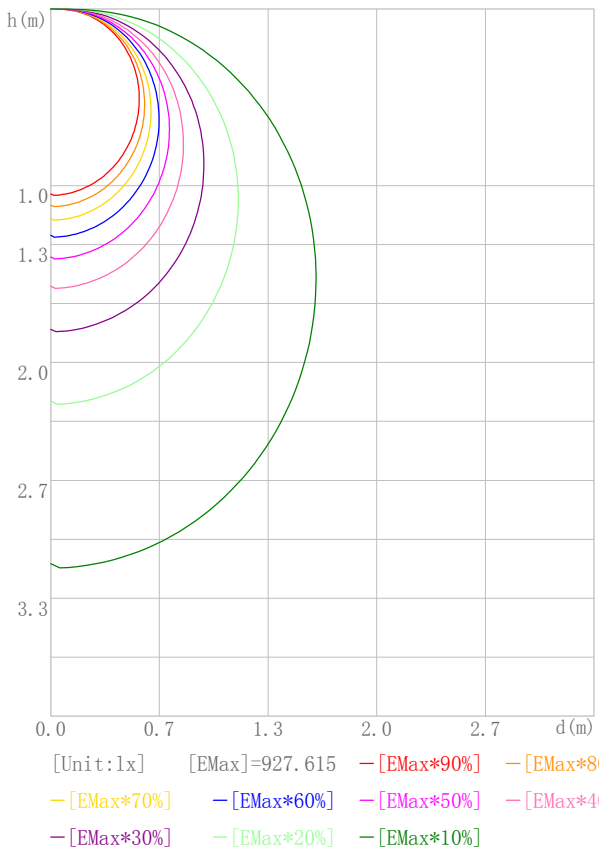
Lamp Speciality Parameter	Luminaire Speciality Parameter	
Rated Flux(lm): 3400.000	Luminary Flux(lm): 3400.000	Field Angle(10%Imax): 238.4(°)
Rated Power(W):	Luminary Efficiency: 100.00%	Down Lumens&Percent: 3001.019lm 88.27%
Rated Voltage(V):	Luminary EER(lm/W): 90.642	Up Lumens&Percent: 398.981lm 11.73%
Tested Power(W): 37.510	Max.Candela(cd): 928.358	S/MH: C0_a180=1.334 C90_270=1.220
Lamps' Inside: 1	Max Cand@Ang.(°): C=180.0 γ=1.0	CIE Type: General Diffuse
Tested Electrics(V,A,pf):239.9,0.169,0.925	Beam Angle(50%Imax): 133.9(°)	ErP Φuse(120°): 2115.762lm
Lamp Size(W*L*H):0.100m*1.200m*0.000m	Left=-66.7° ,Right=67.2°	IRF(%): 108.310

C Plane Distribution Diagram



C Plane	[50%MaxAng.]	[10%MaxAng.]
C180.0_360.0:	133.9	238.4
C0.0_180.0 :	133.9	238.4
C90.0_270.0 :	108.1	162.5

C0 Space ISO Illuminance Curve



[Unit:lx] [EMax]=927.615 —[EMax*90%] —[EMax*80%] —[EMax*70%] —[EMax*60%] —[EMax*50%] —[EMax*40%] —[EMax*30%] —[EMax*20%] —[EMax*10%]

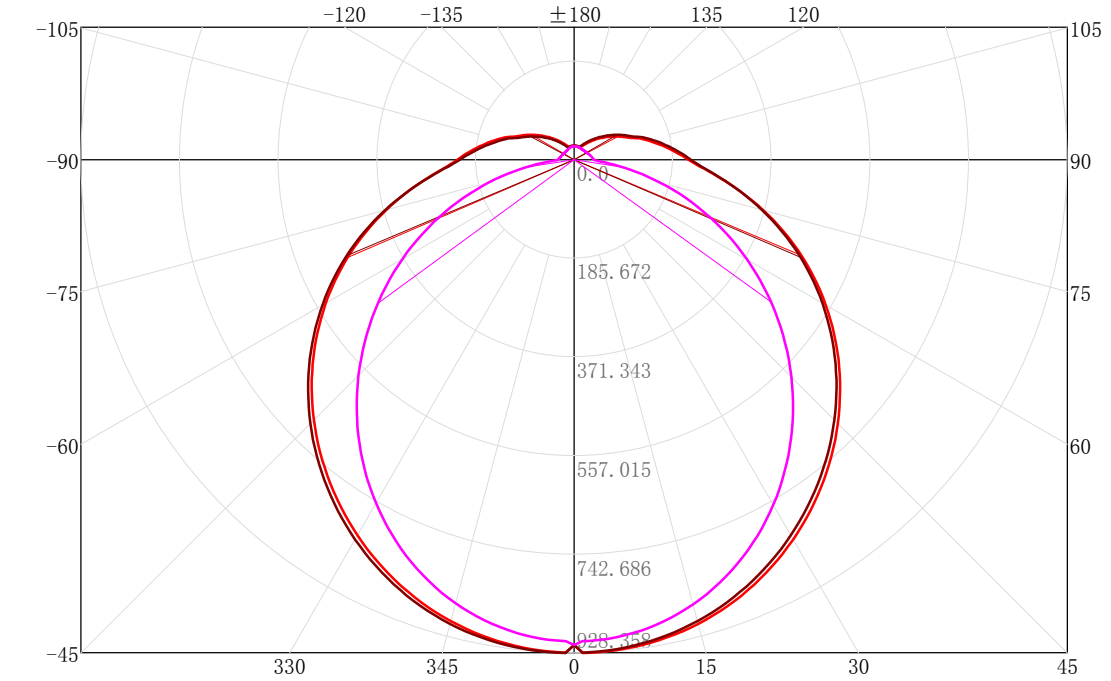
IES Indoor Report
Photometric Filename:HCP-238400-5K.IES

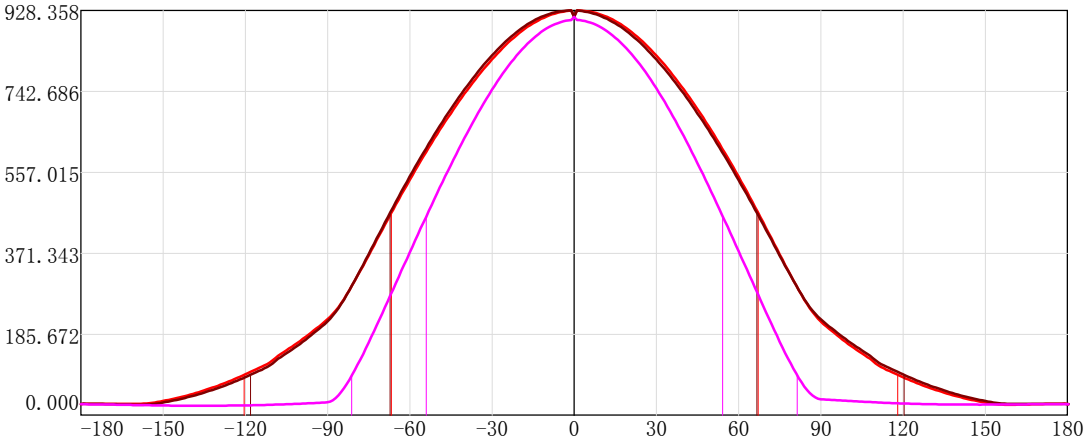
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2D Plane Light Intensity Distribution Curve

Lum.Name: HCP-238400-5K	Lum.Catelog:	Test ID: 001
Lamp Name:	Lamp Catelog:	Test Lab: Volnic IES
Manufacture:	Test Machine:GON-2000	Test Date: 2019/12/02

C Plane Distribution Diagram





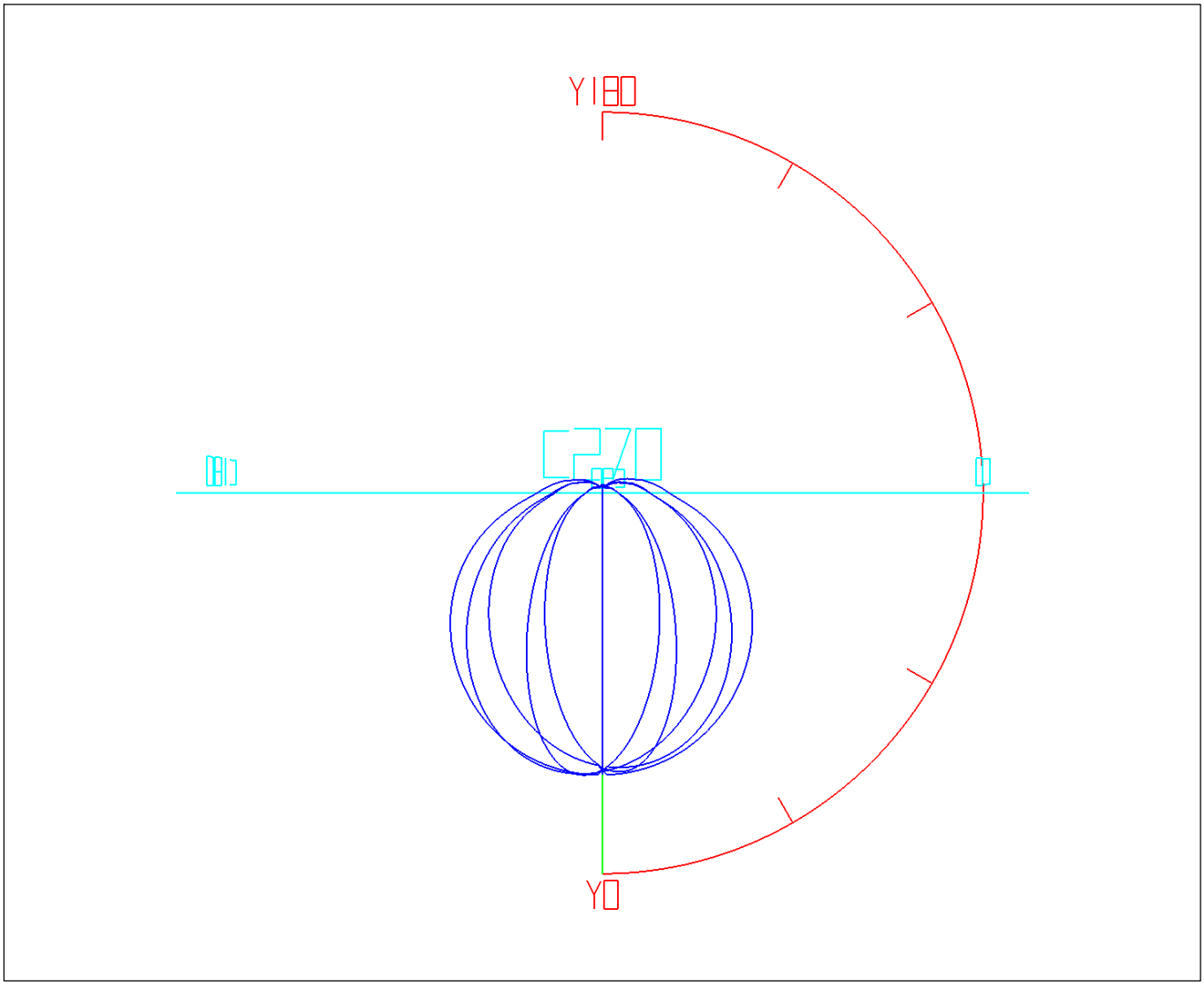
C Plane	[50%MaxAng.]	[10%MaxAng.]	Unit:cd
C180.0_360.0:	133.9	238.4	
C0.0_180.0 :	133.9	238.4	
C90.0_270.0 :	108.1	162.5	

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3D Light Intensity Distribution Modal

Lum.Name: HCP-238400-5K	Lum.Catelog:	Test ID: 001
Lamp Name:	Lamp Catelog:	Test Lab: Volnic IES
Manufacture:	Test Machine:GON-2000	Test Date: 2019/12/02

3D Light Intensity Distribution Modal



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

IES Indoor Report
Photometric Filename:HCP-238400-5K.IES

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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	0.87	0.87	0.03	0.03	47.0-48.0	48.94	1561.57	1.44	45.93
1.0-2.0	2.61	3.49	0.08	0.10	48.0-49.0	48.80	1610.37	1.44	47.36
2.0-3.0	4.35	7.84	0.13	0.23	49.0-50.0	48.61	1658.97	1.43	48.79
3.0-4.0	6.09	13.92	0.18	0.41	50.0-51.0	48.36	1707.33	1.42	50.22
4.0-5.0	7.81	21.73	0.23	0.64	51.0-52.0	48.06	1755.39	1.41	51.63
5.0-6.0	9.53	31.26	0.28	0.92	52.0-53.0	47.71	1803.10	1.40	53.03
6.0-7.0	11.23	42.49	0.33	1.25	53.0-54.0	47.32	1850.42	1.39	54.42
7.0-8.0	12.92	55.40	0.38	1.63	54.0-55.0	46.88	1897.30	1.38	55.80
8.0-9.0	14.59	69.99	0.43	2.06	55.0-56.0	46.40	1943.70	1.36	57.17
9.0-10.0	16.24	86.23	0.48	2.54	56.0-57.0	45.86	1989.56	1.35	58.52
10.0-11.0	17.87	104.10	0.53	3.06	57.0-58.0	45.28	2034.84	1.33	59.85
11.0-12.0	19.48	123.58	0.57	3.63	58.0-59.0	44.66	2079.49	1.31	61.16
12.0-13.0	21.06	144.64	0.62	4.25	59.0-60.0	43.99	2123.48	1.29	62.46
13.0-14.0	22.61	167.25	0.67	4.92	60.0-61.0	43.29	2166.77	1.27	63.73
14.0-15.0	24.14	191.39	0.71	5.63	61.0-62.0	42.55	2209.32	1.25	64.98
15.0-16.0	25.63	217.02	0.75	6.38	62.0-63.0	41.76	2251.08	1.23	66.21
16.0-17.0	27.09	244.11	0.80	7.18	63.0-64.0	40.93	2292.01	1.20	67.41
17.0-18.0	28.52	272.62	0.84	8.02	64.0-65.0	40.07	2332.08	1.18	68.59
18.0-19.0	29.90	302.53	0.88	8.90	65.0-66.0	39.18	2371.27	1.15	69.74
19.0-20.0	31.25	333.78	0.92	9.82	66.0-67.0	38.26	2409.53	1.13	70.87
20.0-21.0	32.56	366.34	0.96	10.77	67.0-68.0	37.31	2446.83	1.10	71.97
21.0-22.0	33.82	400.16	0.99	11.77	68.0-69.0	36.32	2483.15	1.07	73.03
22.0-23.0	35.04	435.21	1.03	12.80	69.0-70.0	35.30	2518.45	1.04	74.07
23.0-24.0	36.22	471.43	1.07	13.87	70.0-71.0	34.26	2552.71	1.01	75.08
24.0-25.0	37.35	508.78	1.10	14.96	71.0-72.0	33.20	2585.91	0.98	76.06
25.0-26.0	38.44	547.22	1.13	16.09	72.0-73.0	32.13	2618.04	0.94	77.00
26.0-27.0	39.47	586.69	1.16	17.26	73.0-74.0	31.04	2649.08	0.91	77.91
27.0-28.0	40.46	627.15	1.19	18.45	74.0-75.0	29.93	2679.01	0.88	78.79
28.0-29.0	41.39	668.54	1.22	19.66	75.0-76.0	28.80	2707.81	0.85	79.64
29.0-30.0	42.28	710.82	1.24	20.91	76.0-77.0	27.68	2735.49	0.81	80.46
30.0-31.0	43.11	753.93	1.27	22.17	77.0-78.0	26.56	2762.04	0.78	81.24
31.0-32.0	43.89	797.82	1.29	23.47	78.0-79.0	25.44	2787.48	0.75	81.98
32.0-33.0	44.62	842.44	1.31	24.78	79.0-80.0	24.33	2811.81	0.72	82.70
33.0-34.0	45.29	887.72	1.33	26.11	80.0-81.0	23.22	2835.03	0.68	83.38
34.0-35.0	45.90	933.62	1.35	27.46	81.0-82.0	22.14	2857.17	0.65	84.03
35.0-36.0	46.47	980.09	1.37	28.83	82.0-83.0	21.09	2878.26	0.62	84.65
36.0-37.0	46.98	1027.07	1.38	30.21	83.0-84.0	20.08	2898.34	0.59	85.25
37.0-38.0	47.43	1074.50	1.40	31.60	84.0-85.0	19.12	2917.46	0.56	85.81
38.0-39.0	47.83	1122.32	1.41	33.01	85.0-86.0	18.21	2935.67	0.54	86.34
39.0-40.0	48.17	1170.49	1.42	34.43	86.0-87.0	17.37	2953.04	0.51	86.85
40.0-41.0	48.45	1218.94	1.43	35.85	87.0-88.0	16.61	2969.65	0.49	87.34
41.0-42.0	48.68	1267.63	1.43	37.28	88.0-89.0	15.96	2985.61	0.47	87.81
42.0-43.0	48.86	1316.49	1.44	38.72	89.0-90.0	15.41	3001.02	0.45	88.27
43.0-44.0	48.99	1365.48	1.44	40.16	90.0-91.0	14.95	3015.97	0.44	88.70
44.0-45.0	49.06	1414.54	1.44	41.60	91.0-92.0	14.53	3030.50	0.43	89.13
45.0-46.0	49.07	1463.60	1.44	43.05	92.0-93.0	14.11	3044.61	0.42	89.55
46.0-47.0	49.03	1512.63	1.44	44.49	93.0-94.0	13.70	3058.31	0.40	89.95

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Zonal Flux Tabulation - (Cont.)

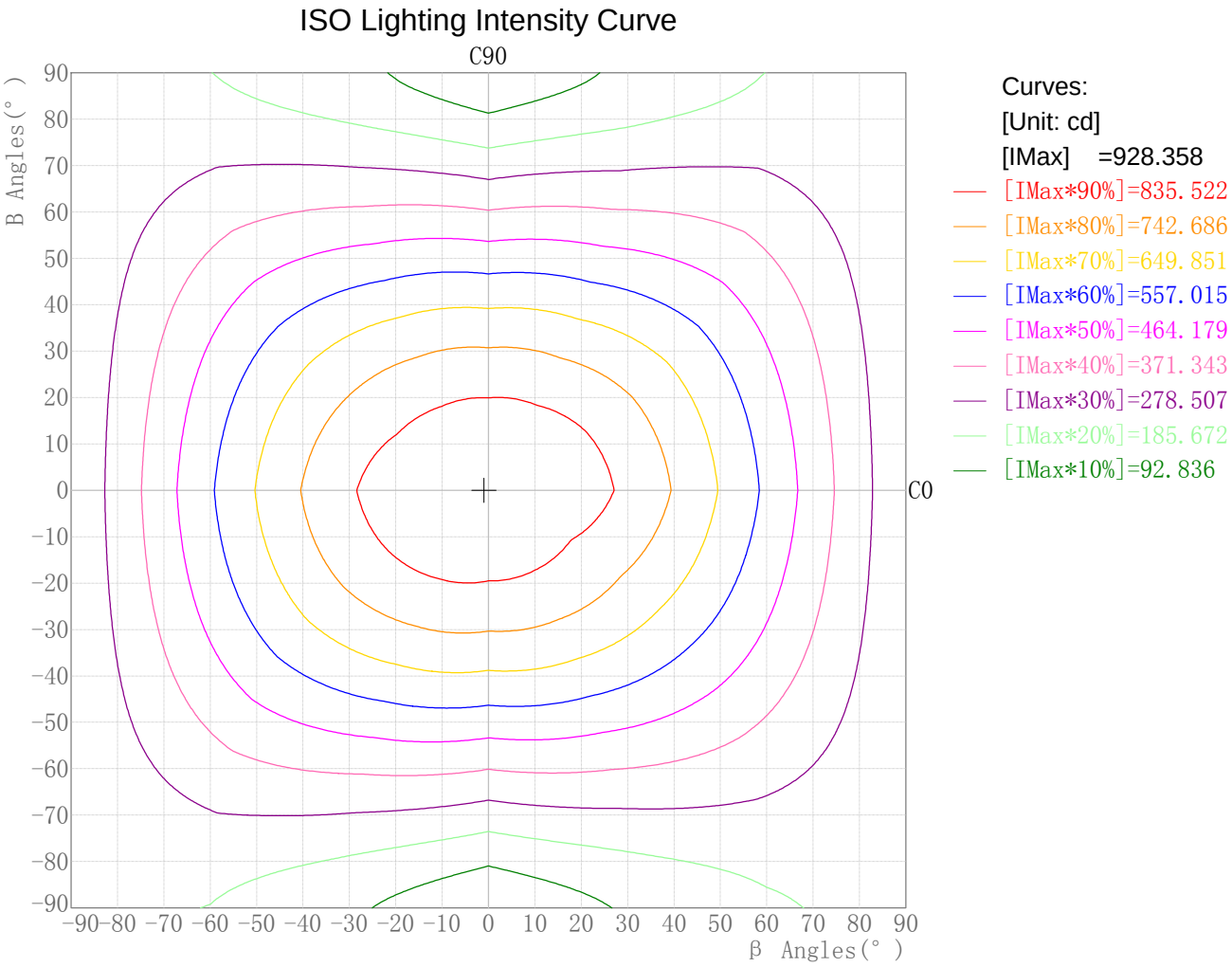
Zone(γ)	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	Sums%Lamp
94.0-95.0	13.29	3071.60	0.39	90.34
95.0-96.0	12.89	3084.50	0.38	90.72
96.0-97.0	12.50	3097.00	0.37	91.09
97.0-98.0	12.12	3109.12	0.36	91.44
98.0-99.0	11.74	3120.86	0.35	91.79
99.0-100.0	11.37	3132.23	0.33	92.12
100.0-101.0	11.00	3143.23	0.32	92.45
101.0-102.0	10.65	3153.87	0.31	92.76
102.0-103.0	10.30	3164.17	0.30	93.06
103.0-104.0	9.95	3174.13	0.29	93.36
104.0-105.0	9.62	3183.74	0.28	93.64
105.0-106.0	9.28	3193.02	0.27	93.91
106.0-107.0	8.92	3201.94	0.26	94.17
107.0-108.0	8.54	3210.48	0.25	94.43
108.0-109.0	8.17	3218.64	0.24	94.67
109.0-110.0	7.82	3226.47	0.23	94.90
110.0-111.0	7.51	3233.98	0.22	95.12
111.0-112.0	7.23	3241.21	0.21	95.33
112.0-113.0	6.96	3248.17	0.20	95.53
113.0-114.0	6.70	3254.87	0.20	95.73
114.0-115.0	6.45	3261.32	0.19	95.92
115.0-116.0	6.21	3267.53	0.18	96.10
116.0-117.0	5.97	3273.50	0.18	96.28
117.0-118.0	5.76	3279.26	0.17	96.45
118.0-119.0	5.55	3284.81	0.16	96.61
119.0-120.0	5.34	3290.15	0.16	96.77
120.0-121.0	5.14	3295.29	0.15	96.92
121.0-122.0	4.94	3300.23	0.15	97.07
122.0-123.0	4.74	3304.97	0.14	97.21
123.0-124.0	4.55	3309.52	0.13	97.34
124.0-125.0	4.37	3313.89	0.13	97.47
125.0-126.0	4.19	3318.09	0.12	97.59
126.0-127.0	4.02	3322.11	0.12	97.71
127.0-128.0	3.85	3325.96	0.11	97.82
128.0-129.0	3.69	3329.65	0.11	97.93
129.0-130.0	3.53	3333.18	0.10	98.03
130.0-131.0	3.37	3336.55	0.10	98.13
131.0-132.0	3.23	3339.77	0.09	98.23
132.0-133.0	3.09	3342.86	0.09	98.32
133.0-134.0	2.96	3345.82	0.09	98.41
134.0-135.0	2.83	3348.65	0.08	98.49
135.0-136.0	2.71	3351.36	0.08	98.57
136.0-137.0	2.59	3353.95	0.08	98.65
137.0-138.0	2.47	3356.42	0.07	98.72
138.0-139.0	2.36	3358.79	0.07	98.79
139.0-140.0	2.26	3361.05	0.07	98.85
140.0-141.0	2.16	3363.21	0.06	98.92
141.0-142.0	2.07	3365.28	0.06	98.98
142.0-143.0	1.98	3367.26	0.06	99.04
143.0-144.0	1.90	3369.16	0.06	99.09
144.0-145.0	1.81	3370.97	0.05	99.15
145.0-146.0	1.74	3372.71	0.05	99.20
146.0-147.0	1.66	3374.37	0.05	99.25
147.0-148.0	1.59	3375.95	0.05	99.29
148.0-149.0	1.52	3377.47	0.04	99.34
149.0-150.0	1.45	3378.92	0.04	99.38
150.0-151.0	1.39	3380.31	0.04	99.42
151.0-152.0	1.33	3381.64	0.04	99.46
152.0-153.0	1.27	3382.91	0.04	99.50
153.0-154.0	1.22	3384.13	0.04	99.53
154.0-155.0	1.17	3385.30	0.03	99.57
155.0-156.0	1.12	3386.42	0.03	99.60
156.0-157.0	1.08	3387.49	0.03	99.63
157.0-158.0	1.03	3388.53	0.03	99.66
158.0-159.0	0.99	3389.52	0.03	99.69
159.0-160.0	0.95	3390.47	0.03	99.72
160.0-161.0	0.91	3391.37	0.03	99.75
161.0-162.0	0.86	3392.24	0.03	99.77
162.0-163.0	0.82	3393.06	0.02	99.80
163.0-164.0	0.78	3393.84	0.02	99.82
164.0-165.0	0.73	3394.57	0.02	99.84
165.0-166.0	0.69	3395.26	0.02	99.86
166.0-167.0	0.64	3395.91	0.02	99.88
167.0-168.0	0.60	3396.50	0.02	99.90
168.0-169.0	0.55	3397.06	0.02	99.91
169.0-170.0	0.51	3397.56	0.01	99.93
170.0-171.0	0.46	3398.02	0.01	99.94
171.0-172.0	0.41	3398.44	0.01	99.95
172.0-173.0	0.36	3398.80	0.01	99.96
173.0-174.0	0.32	3399.12	0.01	99.97
174.0-175.0	0.27	3399.39	0.01	99.98
175.0-176.0	0.22	3399.61	0.01	99.99
176.0-177.0	0.17	3399.78	0.01	99.99
177.0-178.0	0.12	3399.90	0.00	100.00
178.0-179.0	0.07	3399.98	0.00	100.00
179.0-180.0	0.02	3400.00	0.00	100.00

IES Indoor Report
Photometric Filename:HCP-238400-5K.IES

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Rectangle ISO Lighting Intensity Diagram

Lum.Name: HCP-238400-5K	Lum.Catelog:	Test ID: 001
Lamp Name:	Lamp Catelog:	Test Lab: Volnic IES
Manufacture:	Test Machine:GON-2000	Test Date: 2019/12/02



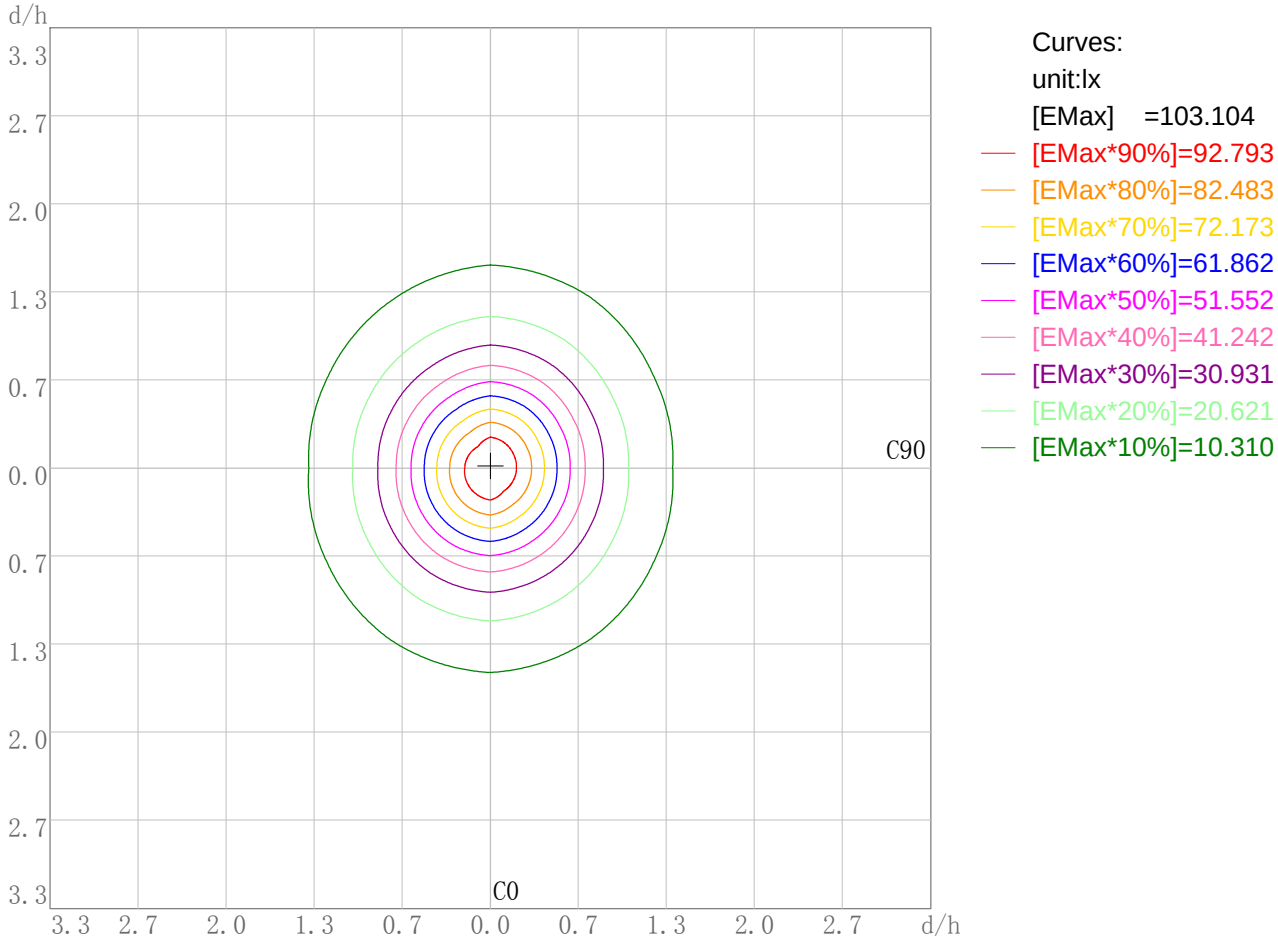
Maximum Light Intensity(cd): 928.36
Maximum Cand.@Angle: H=-1.0°,V=0.0°

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Plane ISO-Illuminance Diagram

Lum.Name: HCP-238400-5K	Lum.Catelog:	Test ID: 001
Lamp Name:	Lamp Catelog:	Test Lab: Volnic IES
Manufacture:	Test Machine:GON-2000	Test Date: 2019/12/02

Plane ISO-Illuminance Curve



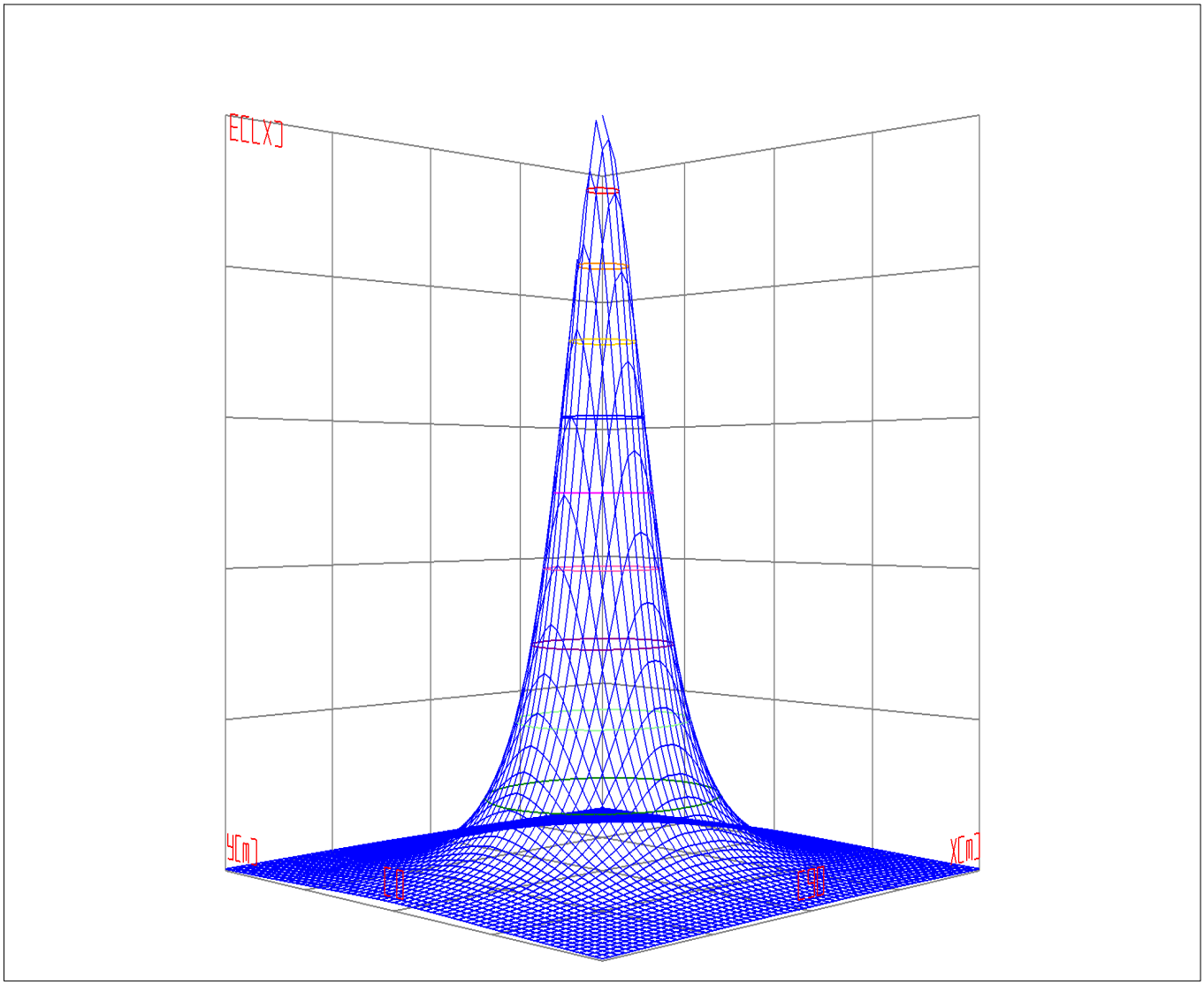
Working Plane Luminaire Mounting Height(m): 3.00
Working Plane Maximum Illuminance(lx): 103.10
Working Plane Maximum Illuminance Position(d/h):H0.0 V-0.0

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3D Plane ISO Illuminance Diagram

Lum.Name: HCP-238400-5K	Lum.Catelog:	Test ID: 001
Lamp Name:	Lamp Catelog:	Test Lab: Volnic IES
Manufacture:	Test Machine:GON-2000	Test Date: 2019/12/02

3D Plane Illuminance Modal



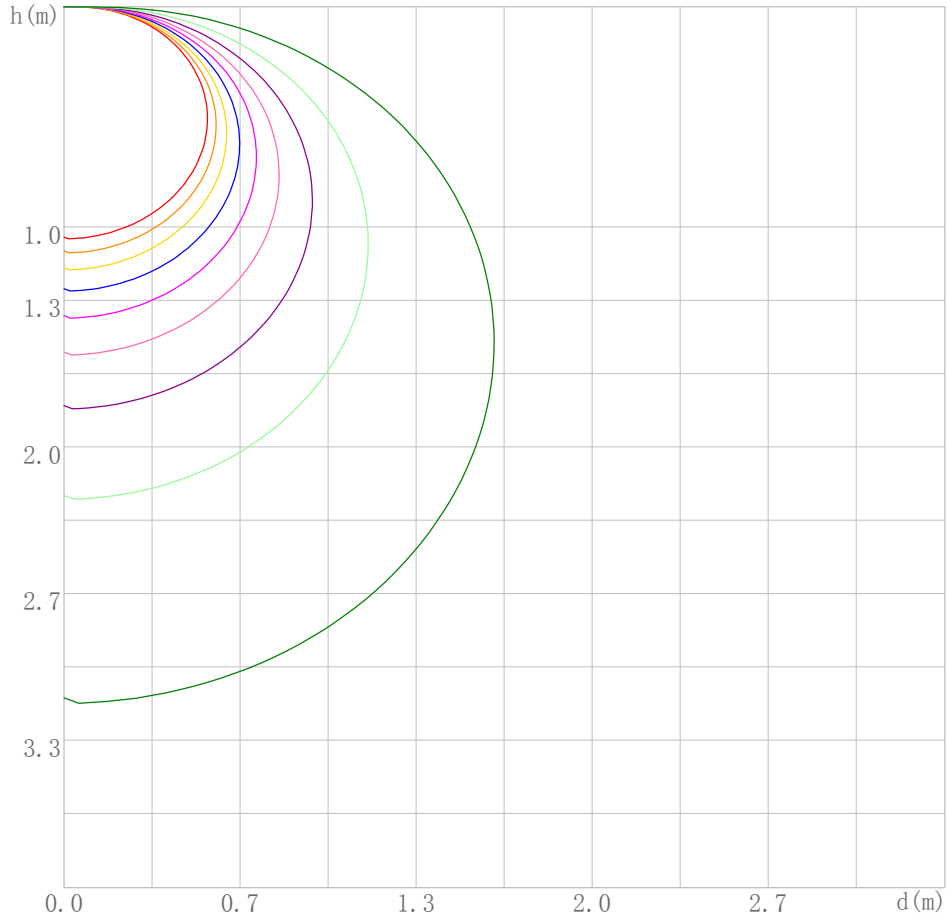
Curves: 3D Model 90% 80% 70% 60% 50% 40% 30% 20% 10%
View Angles(deg): 0 Height(m): 3.0 Distance(m): 10.0

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Space ISO Illuminance Diagram

Lum.Name: HCP-238400-5K	Lum.Catelog:	Test ID: 001
Lamp Name:	Lamp Catelog:	Test Lab: Volnic IES
Manufacture:	Test Machine:GON-2000	Test Date: 2019/12/02

Space ISO Illuminance Curve



Curves:
[Unit: lx]
[EMax] =927.615
[EMax*90%]=834.854
[EMax*80%]=742.092
[EMax*70%]=649.331
[EMax*60%]=556.569
[EMax*50%]=463.808
[EMax*40%]=371.046
[EMax*30%]=278.285
[EMax*20%]=185.523
[EMax*10%]=92.762

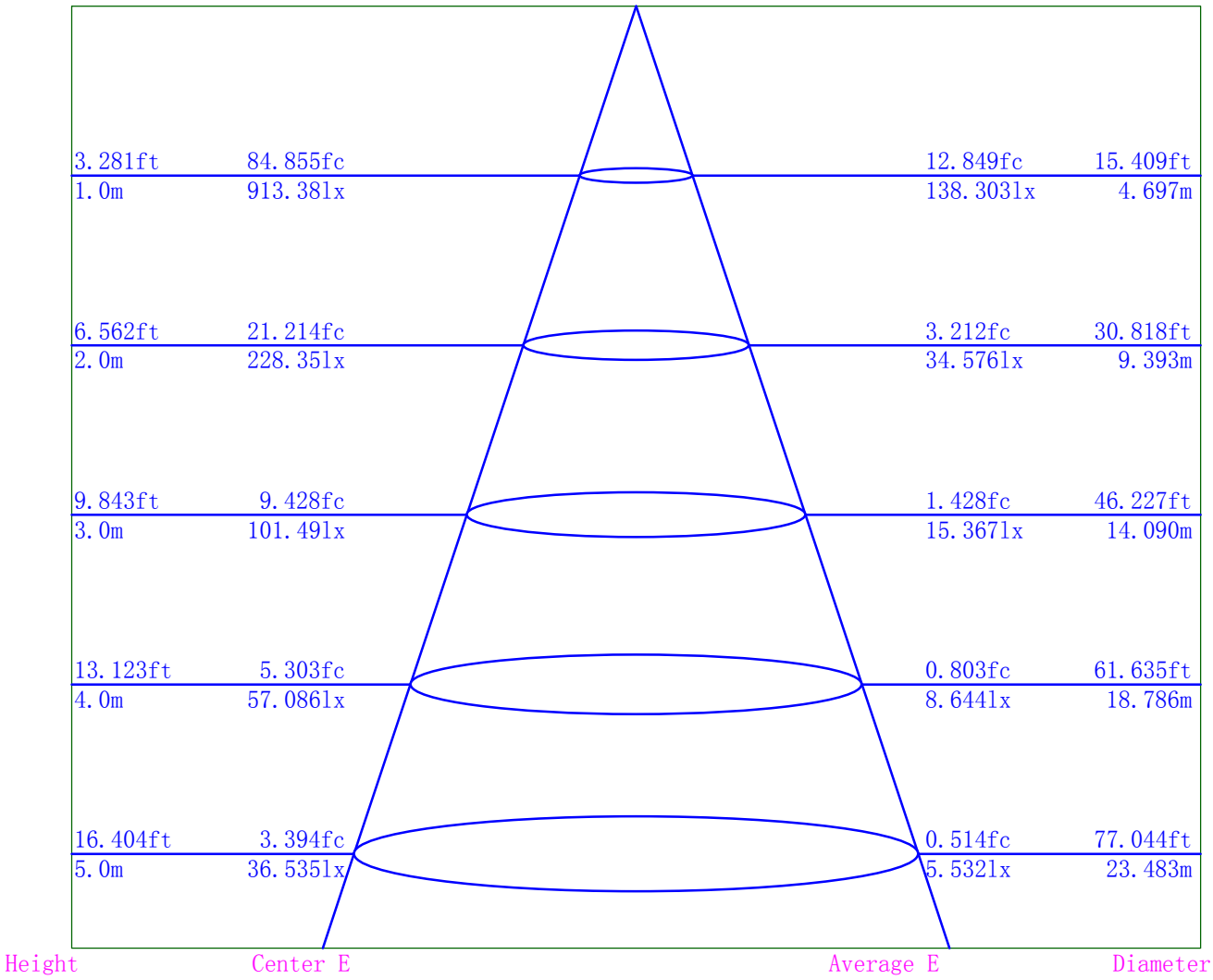
Space Plane Maximum Illuminance and @Angle:927.62lx,1.0deg
Plane Maximum Lighting Intensity and @Angle:928.039cd,0eg

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Illuminance-Distance Diagram

Lum.Name: HCP-238400-5K	Lum.Catelog:	Test ID: 001
Lamp Name:	Lamp Catelog:	Test Lab: Volnic IES
Manufacture:	Test Machine:GON-2000	Test Date: 2019/12/02

Illuminance-Distance Curve



Beam Angle:133.9

IES Indoor Report
Photometric Filename:HCP-238400-5K.IES

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Indoor Luminance Limiting Curves

Lum.Name: HCP-238400-5K	Lum.Catelog:	Test ID: 001
Lamp Name:	Lamp Catelog:	Test Lab: Volnic IES
Manufacture:	Test Machine:GON-2000	Test Date: 2019/12/02

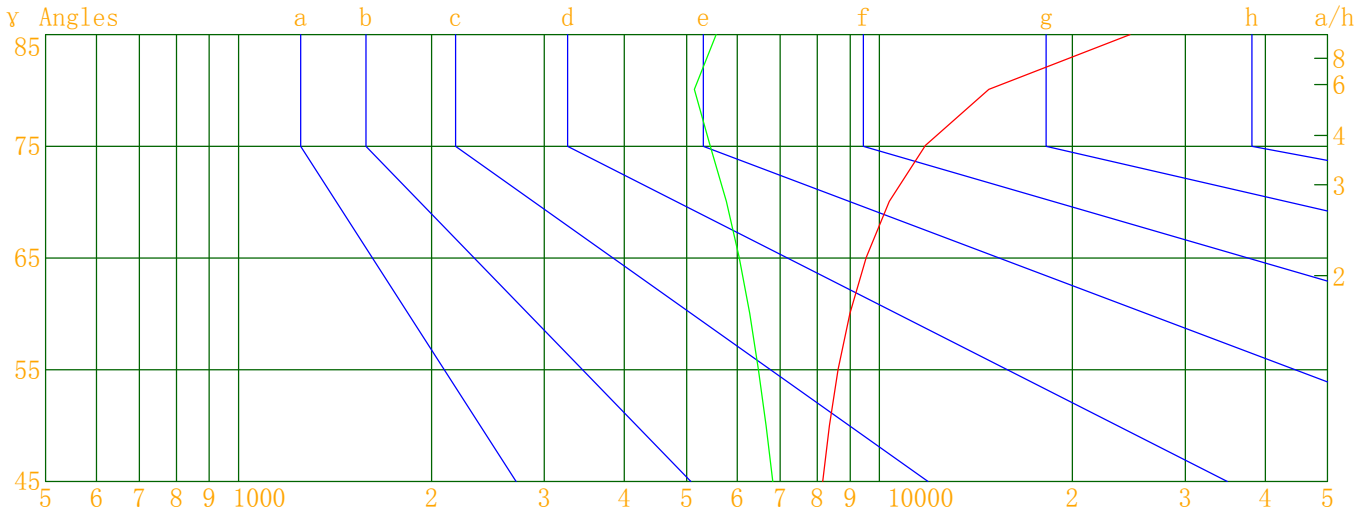
Glare Grade Table

GI	Quality	Using Illuminace							
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	8160	8355	8622	8995	9535	10364	11796	14820	24590
C90	6813	6654	6474	6274	6042	5767	5442	5141	5564

Luminance Limiting Curve



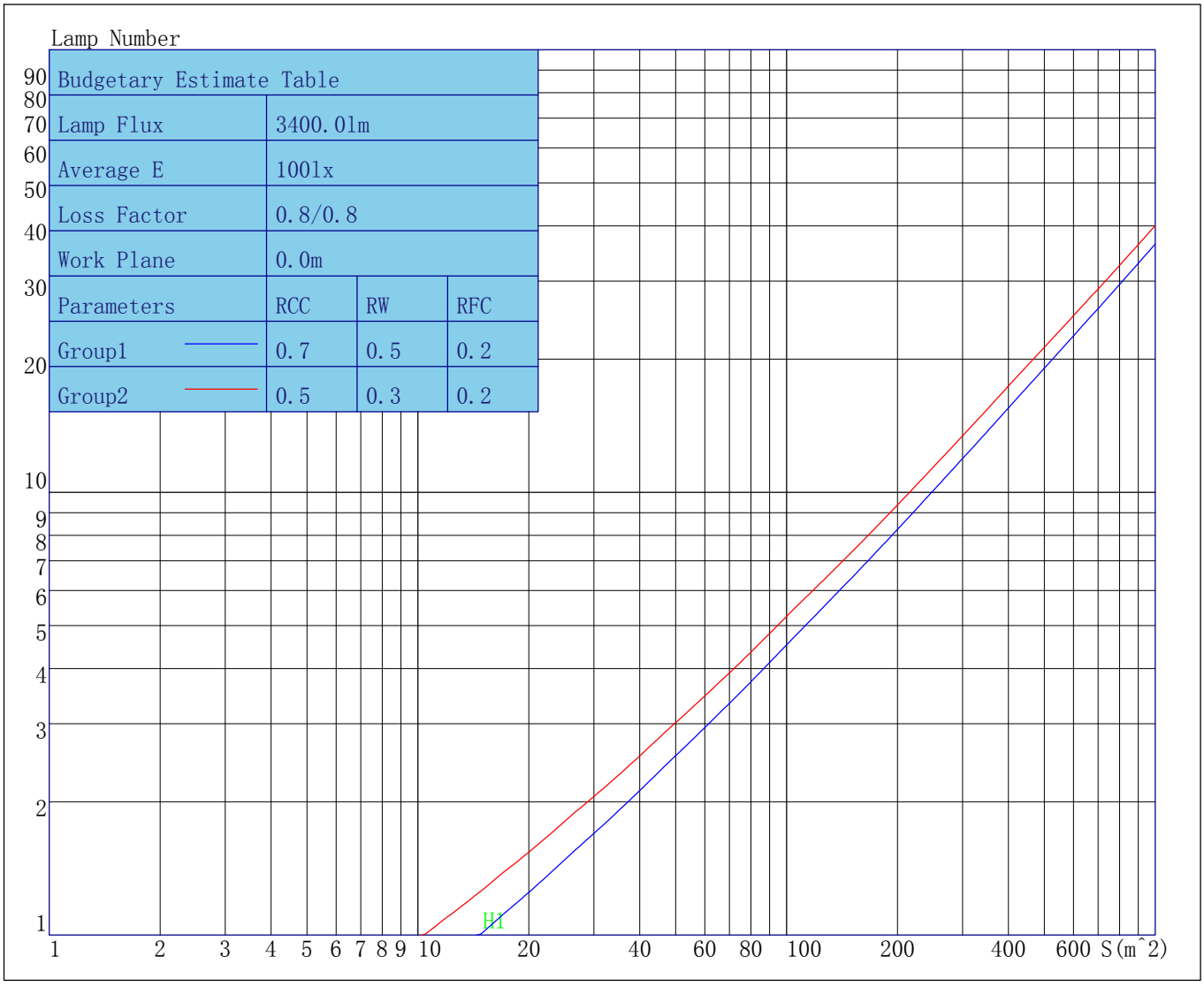
Luminous Size: Length(m)=1.200 Width(m)=0.100 Height(m)=0.000 Area(m^2)=0.120000
Luminous Type: Without Luminous Side
Luminous Curves: C0-C180 Color: ——— C90-C270 Color: ———

IES Indoor Report
Photometric Filename:HCP-238400-5K.IES

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Indoor Budgetary Estimate Table

Lum.Name: HCP-238400-5K	Lum.Catelog:	Test ID: 001
Lamp Name:	Lamp Catelog:	Test Lab: Volnic IES
Manufacture:	Test Machine:GON-2000	Test Date: 2019/12/02



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: HCP-238400-5K	**Lum.Catelog:**	**Test ID:** 001
Lamp Name:	**Lamp Catelog:**	**Test Lab:** Volnic IES
Manufacture:	**Test Machine:GON-2000**	**Test Date:** 2019/12/02

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	105	105	105	98	98	98	91	91	91	88
1	104	99	94	89	100	95	91	86	89	85	82	83	80	77	77	75	73	70
2	94	85	77	71	90	82	75	69	76	71	66	71	67	63	67	63	59	57
3	85	74	65	58	82	71	63	57	67	60	54	62	57	52	58	54	50	47
4	78	65	56	49	74	63	54	48	59	52	46	55	49	44	52	46	42	40
5	71	58	49	42	68	56	47	41	53	45	39	49	43	38	46	41	36	34
6	66	52	43	36	63	50	42	36	47	40	34	45	38	33	42	36	32	29
7	61	47	38	32	58	46	37	31	43	36	30	41	34	29	38	33	28	26
8	57	43	34	28	54	42	33	28	39	32	27	37	31	26	35	29	25	23
9	53	39	31	25	51	38	30	25	36	29	24	34	28	23	32	27	23	21
10	49	36	28	23	48	35	28	22	33	26	22	32	25	21	30	24	21	19

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Unified Glare Rating Table

Lum.Name: HCP-238400-5K	**Lum.Catelog:**	**Test ID:** 001
Lamp Name:	**Lamp Catelog:**	**Test Lab:** Volnic IES
Manufacture:	**Test Machine:GON-2000**	**Test Date:** 2019/12/02

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	19.1	20.6	19.6	21.1	21.7	17.8	19.2	18.3	19.8	20.3
	Y=3H	21.5	22.8	22.0	23.3	24.0	19.4	20.8	20.0	21.3	21.9
	Y=4H	22.7	24.0	23.3	24.5	25.2	20.1	21.4	20.7	21.9	22.6
	Y=6H	24.0	25.2	24.6	25.8	26.4	20.7	21.9	21.3	22.4	23.1
	Y=8H	24.7	25.8	25.3	26.4	27.1	20.9	22.0	21.5	22.6	23.3
	Y=12H	25.5	26.6	26.1	27.2	27.9	21.1	22.2	21.7	22.8	23.4
X=4H	Y=2H	19.8	21.1	20.4	21.6	22.3	18.8	20.1	19.4	20.7	21.3
	Y=3H	22.4	23.5	23.0	24.1	24.8	20.7	21.8	21.3	22.4	23.1
	Y=4H	23.8	24.8	24.4	25.4	26.1	21.6	22.6	22.2	23.2	23.9
	Y=6H	25.3	26.2	25.9	26.8	27.5	22.3	23.2	23.0	23.8	24.6
	Y=8H	26.1	26.9	26.8	27.6	28.3	22.6	23.5	23.3	24.1	24.8
	Y=12H	27.1	27.8	27.7	28.5	29.2	22.9	23.6	23.5	24.3	25.0
X=8H	Y=4H	24.2	25.0	24.8	25.7	26.4	22.4	23.2	23.0	23.8	24.6
	Y=6H	25.9	26.6	26.6	27.3	28.2	23.4	24.1	24.1	24.8	25.6
	Y=8H	26.9	27.6	27.6	28.2	29.0	23.9	24.5	24.5	25.2	25.9
	Y=12H	28.1	28.7	28.8	29.3	30.1	24.3	24.9	25.0	25.5	26.3
X=12H	Y=4H	24.2	25.0	24.9	25.6	26.4	22.6	23.3	23.2	24.0	24.7
	Y=6H	26.1	26.7	26.7	27.3	28.1	23.8	24.4	24.4	25.0	25.8
	Y=8H	27.2	27.7	27.8	28.4	29.2	24.4	24.9	25.0	25.6	26.4
Variations with the objerver position at spacings											
S=1.0H		0.1/-0.1					0.4/-0.4				
S=1.5H		0.2/-0.2					0.6/-0.6				
S=2.0H		0.1/-0.1					0.7/-0.8				
Reduced UGR Table:											
Nordic Standard Table:		BK0					BK0				
Correction Value		5.1					4.0				

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

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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	913.38	913.38	913.38	913.38	913.38	913.38	913.38	913.38	913.38	913.38	913.38	913.38
Y 1.0	928.04	917.52	910.87	906.49	902.57	899.36	928.36	917.69	911.15	906.31	902.29	898.54
Y 2.0	927.41	916.87	910.21	905.99	902.21	899.22	928.19	917.45	910.69	905.63	901.59	897.84
Y 3.0	926.63	916.18	909.21	905.07	901.59	898.90	927.79	916.88	910.04	904.62	900.64	896.74
Y 4.0	925.68	915.13	907.87	903.83	900.48	898.38	927.24	915.95	908.98	903.21	899.27	895.48
Y 5.0	924.48	913.82	906.13	902.23	899.12	897.46	926.35	914.93	907.48	901.44	897.65	894.01
Y 6.0	923.02	912.29	904.23	900.32	897.43	896.37	925.20	913.54	905.76	899.31	895.70	892.26
Y 7.0	921.17	910.47	901.76	897.97	895.40	894.94	923.87	911.98	903.76	896.85	893.40	890.31
Y 8.0	919.37	908.30	899.10	895.23	892.94	893.26	922.30	910.13	901.38	893.97	890.78	887.91
Y 9.0	917.13	905.97	896.19	892.14	890.32	891.28	920.51	907.88	898.69	890.79	887.79	885.26
Y 10.0	914.61	903.28	892.81	888.64	887.39	889.16	918.30	905.31	895.56	887.07	884.53	882.39
Y 11.0	911.84	900.28	889.21	884.86	883.99	886.70	915.92	902.62	892.16	883.27	880.92	879.25
Y 12.0	908.98	897.12	885.33	880.67	880.43	883.88	913.37	899.55	888.48	878.89	876.92	875.89
Y 13.0	905.83	893.66	881.09	876.23	876.39	880.99	910.51	896.38	884.48	874.29	872.77	872.22
Y 14.0	902.29	890.13	876.32	871.27	872.04	877.68	907.46	892.82	880.09	869.18	868.14	868.28
Y 15.0	898.69	885.97	871.40	866.06	867.34	874.25	904.18	888.95	875.39	863.88	863.27	864.08
Y 16.0	894.78	881.71	866.22	860.50	862.41	870.23	900.55	884.80	870.28	858.11	858.10	859.59
Y 17.0	890.59	877.26	860.59	854.59	857.14	866.22	896.69	880.57	865.08	852.13	852.56	854.85
Y 18.0	886.23	872.43	854.70	848.40	851.70	861.82	892.60	875.74	859.38	845.79	846.72	850.06
Y 19.0	881.60	867.28	848.64	841.88	845.90	857.27	888.24	870.89	853.46	839.13	840.76	844.78
Y 20.0	876.66	861.99	842.13	834.99	839.68	852.36	883.60	865.79	847.25	832.09	834.36	839.32
Y 21.0	871.40	856.34	835.41	827.69	833.26	847.15	878.70	860.29	840.76	824.73	827.65	833.63
Y 22.0	866.02	850.38	828.36	820.15	826.45	841.63	873.57	854.55	833.88	817.11	820.68	827.56
Y 23.0	860.49	844.23	821.12	812.43	819.53	835.90	868.21	848.54	826.70	809.25	813.41	821.30
Y 24.0	854.73	838.01	813.55	804.39	812.30	830.08	862.66	842.38	819.38	801.01	805.98	814.83
Y 25.0	848.78	831.33	805.78	795.99	804.79	823.86	856.91	835.87	811.77	792.56	798.25	808.24
Y 26.0	842.59	824.62	797.60	787.38	796.97	817.52	850.91	829.23	803.92	783.79	790.22	801.41
Y 27.0	836.13	817.55	789.27	778.28	788.93	810.97	844.72	822.40	795.66	774.71	781.93	794.22
Y 28.0	829.65	810.35	780.64	768.97	780.70	804.05	838.23	815.27	787.23	765.23	773.26	786.92
Y 29.0	822.91	802.93	772.00	759.59	772.08	797.13	831.66	807.90	778.40	755.74	764.39	779.58
Y 30.0	816.02	795.45	762.96	749.87	763.35	789.88	824.87	800.38	769.52	746.01	755.48	771.91
Y 31.0	808.84	787.58	753.64	739.87	754.40	782.42	818.04	792.75	760.45	735.98	746.35	764.07
Y 32.0	801.49	779.58	744.02	729.66	745.03	774.84	810.87	784.85	751.08	725.73	736.87	756.20
Y 33.0	794.05	771.39	734.24	719.18	735.46	767.00	803.49	776.78	741.61	715.13	727.27	747.97
Y 34.0	786.37	762.96	724.30	708.32	725.81	758.88	795.90	768.39	731.62	704.26	717.38	739.56
Y 35.0	778.59	754.59	714.16	697.54	715.95	750.80	788.10	760.01	721.40	693.36	707.10	731.05
Y 36.0	770.74	745.86	703.84	686.34	705.94	742.48	780.13	751.50	711.16	682.17	696.88	722.38
Y 37.0	762.64	737.11	693.41	675.16	695.65	734.05	772.18	742.68	700.79	670.97	686.48	713.63
Y 38.0	754.34	728.31	682.58	663.66	685.22	725.28	763.97	733.71	690.25	659.51	675.86	704.65
Y 39.0	745.88	719.00	671.71	651.89	674.55	716.35	755.52	724.65	679.47	647.64	665.17	695.59
Y 40.0	737.41	709.68	660.64	639.90	663.73	707.34	746.92	715.21	668.56	635.71	654.14	686.11
Y 41.0	728.72	700.30	649.58	627.89	652.93	698.27	738.20	705.86	657.25	623.54	642.93	676.77
Y 42.0	719.91	690.78	638.35	615.64	641.92	689.00	729.29	696.41	645.96	611.33	631.80	667.25
Y 43.0	710.89	681.09	626.91	603.35	630.69	679.51	720.42	686.77	634.82	599.05	620.38	657.70
Y 44.0	701.78	671.30	615.46	590.93	619.25	670.09	711.28	677.05	623.28	586.56	609.20	647.92
Y 45.0	692.41	661.42	603.62	578.09	607.77	660.16	702.07	666.97	611.59	573.89	597.64	638.00
Y 46.0	683.11	651.27	591.82	565.29	596.36	650.27	692.53	656.84	599.77	560.99	585.93	627.95

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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	673.69	641.04	580.08	552.51	584.72	640.31	682.88	646.68	587.86	548.17	574.23	617.83
γ 48.0	664.06	630.99	568.27	539.51	573.04	630.28	673.22	636.37	575.95	535.23	562.32	607.56
γ 49.0	654.40	620.52	556.34	526.39	561.24	620.07	663.51	625.98	564.04	522.21	550.57	597.47
γ 50.0	644.49	610.04	544.13	513.22	549.19	609.71	653.61	615.45	552.05	508.98	538.58	587.14
γ 51.0	634.46	599.39	531.94	499.79	537.10	599.21	643.61	604.79	539.97	495.70	526.47	576.67
γ 52.0	624.26	588.63	519.77	486.34	525.18	588.63	633.36	593.98	527.64	482.35	514.33	565.99
γ 53.0	614.16	577.95	507.48	472.87	513.03	578.07	622.76	583.25	515.28	468.77	502.08	555.41
γ 54.0	603.88	567.22	495.36	459.25	500.93	567.46	612.15	572.30	503.07	455.31	489.97	544.78
γ 55.0	593.47	556.42	482.94	445.62	488.82	556.76	601.81	561.41	490.71	441.85	477.80	534.05
γ 56.0	582.90	545.57	470.29	432.00	476.43	545.88	591.14	550.46	478.27	428.30	465.49	523.27
γ 57.0	572.12	534.24	457.77	418.08	464.05	534.82	580.31	539.26	465.77	414.54	453.20	512.32
γ 58.0	561.43	523.28	445.39	404.20	451.77	523.88	569.25	528.03	453.28	400.58	440.75	501.34
γ 59.0	550.61	512.03	432.98	390.29	439.41	512.72	558.26	516.68	440.63	386.88	428.32	490.31
γ 60.0	539.72	500.92	420.54	376.46	427.16	501.56	547.11	505.36	428.12	372.95	415.97	479.15
γ 61.0	528.74	489.48	408.12	362.53	414.78	490.35	535.89	494.02	415.64	359.21	403.52	468.13
γ 62.0	517.48	478.07	395.51	348.63	402.33	479.22	524.64	482.53	403.08	345.37	391.15	456.88
γ 63.0	506.29	466.52	383.02	334.51	389.94	467.73	513.15	470.95	390.53	331.36	378.83	445.62
γ 64.0	494.97	455.01	370.52	320.40	377.59	456.25	501.58	459.31	377.93	317.36	366.43	434.25
γ 65.0	483.58	443.59	358.20	306.42	365.44	444.84	489.78	447.71	365.24	303.39	353.89	423.01
γ 66.0	472.19	432.11	345.81	292.55	353.20	433.43	478.04	435.89	352.78	289.48	341.56	411.64
γ 67.0	460.61	420.58	333.40	278.51	340.96	421.84	466.29	424.24	340.41	275.65	329.47	400.28
γ 68.0	448.79	408.94	321.09	264.63	328.74	410.33	454.30	412.44	328.16	261.75	317.23	388.90
γ 69.0	437.04	397.13	308.75	250.56	316.37	398.65	442.29	400.50	315.72	247.87	305.27	377.42
γ 70.0	425.38	385.43	296.52	236.71	304.32	386.99	430.20	388.61	303.21	233.96	293.11	365.83
γ 71.0	413.60	373.76	284.52	222.83	292.42	375.34	417.88	376.82	290.95	220.17	281.09	354.47
γ 72.0	401.83	362.28	272.75	209.36	280.56	363.72	405.71	364.97	278.84	206.52	269.09	343.14
γ 73.0	390.02	350.65	260.83	195.82	268.71	352.18	393.52	353.21	266.80	193.04	257.36	331.89
γ 74.0	378.21	339.08	248.94	182.48	257.05	340.70	381.47	341.44	254.99	179.63	245.83	320.59
γ 75.0	366.37	327.44	237.37	169.01	245.44	329.10	369.20	329.65	243.23	166.39	234.29	309.21
γ 76.0	354.71	315.86	225.98	155.89	234.18	317.58	357.04	317.73	231.54	153.13	222.83	298.07
γ 77.0	343.05	304.50	214.93	143.30	223.03	306.17	344.91	306.11	220.04	140.43	211.55	286.95
γ 78.0	331.57	293.52	203.88	130.92	212.16	294.99	332.82	294.74	208.83	127.96	200.49	276.14
γ 79.0	320.12	282.47	193.19	118.88	201.35	284.02	320.94	283.48	197.82	115.74	189.82	265.45
γ 80.0	308.81	271.56	182.64	107.14	190.84	273.09	309.36	272.27	187.12	103.92	179.37	255.00
γ 81.0	297.68	260.90	172.35	95.82	180.60	262.35	297.88	261.36	176.69	92.50	169.30	244.63
γ 82.0	287.03	250.62	162.64	85.26	170.93	251.91	286.59	250.53	166.48	81.65	159.31	234.50
γ 83.0	276.67	240.62	153.48	75.40	161.55	241.82	275.58	240.22	156.69	71.54	149.83	224.80
γ 84.0	266.66	231.01	144.63	66.38	152.79	232.19	265.02	230.28	147.29	62.24	140.88	215.55
γ 85.0	257.17	221.89	136.37	58.19	144.43	222.96	255.05	220.82	138.51	53.72	132.38	206.78
γ 86.0	248.07	213.32	128.64	51.20	136.69	214.32	245.58	211.94	130.36	46.15	124.49	198.56
γ 87.0	239.78	205.46	121.72	45.44	129.62	206.12	236.76	203.53	122.85	39.86	117.39	190.96
γ 88.0	232.33	198.34	115.67	40.91	123.45	198.71	228.72	195.91	116.02	34.85	110.99	184.10
γ 89.0	225.81	192.13	110.73	38.23	118.45	192.23	221.33	189.18	110.06	31.62	105.48	178.22
γ 90.0	219.98	186.84	106.77	36.87	114.08	186.73	215.09	183.47	105.12	30.17	100.86	173.33
γ 91.0	214.67	181.95	102.92	36.49	110.29	181.84	209.52	178.34	101.16	29.67	97.30	168.63
γ 92.0	209.49	177.22	99.21	36.06	106.68	177.15	204.13	173.43	97.41	29.24	93.67	164.08
γ 93.0	204.28	172.52	95.68	35.73	102.85	172.41	198.76	168.60	93.79	28.93	90.27	159.64

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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	199.26	167.95	92.24	35.35	99.37	167.82	193.49	163.84	90.37	28.56	86.92	155.23
Y 95.0	194.24	163.34	89.06	35.06	96.18	163.25	188.26	159.13	86.89	28.23	83.66	150.93
Y 96.0	189.35	158.91	85.85	34.62	92.84	158.90	183.15	154.56	83.61	27.89	80.58	146.69
Y 97.0	184.56	154.54	82.87	34.29	89.75	154.56	178.19	150.24	80.56	27.56	77.51	142.68
Y 98.0	179.80	150.28	79.94	33.85	86.67	150.34	173.39	145.83	77.50	27.25	74.60	138.58
Y 99.0	175.04	145.99	77.23	33.50	83.77	146.11	168.67	141.53	74.63	26.93	71.90	134.57
Y 100.0	170.54	141.81	74.48	33.13	80.96	141.94	163.88	137.35	71.91	26.65	69.18	130.68
Y 101.0	166.01	137.77	71.82	32.85	78.20	138.02	159.30	133.20	69.12	26.46	66.52	126.92
Y 102.0	161.68	133.86	69.43	32.53	75.56	134.11	154.86	129.31	66.54	26.21	64.13	123.13
Y 103.0	157.32	129.93	67.02	32.20	72.98	130.26	150.50	125.45	64.14	25.95	61.69	119.50
Y 104.0	153.12	126.18	64.70	31.81	70.53	126.47	146.17	121.66	61.84	25.71	59.47	115.92
Y 105.0	148.84	122.32	62.47	31.39	68.18	122.78	142.03	117.93	59.66	25.39	57.25	112.51
Y 106.0	144.79	117.75	60.29	31.12	65.91	119.10	137.93	113.71	57.38	25.21	55.14	108.52
Y 107.0	140.78	112.39	58.05	30.83	63.37	114.18	133.79	108.42	55.23	24.98	53.02	103.47
Y 108.0	136.71	107.57	55.86	30.50	60.81	108.74	129.71	103.19	53.02	24.81	50.84	98.57
Y 109.0	131.65	103.37	53.77	30.14	58.62	104.50	124.51	99.25	50.72	24.61	48.65	94.70
Y 110.0	125.97	99.96	51.88	29.80	56.49	100.99	119.11	95.96	48.81	24.46	46.88	91.40
Y 111.0	121.42	97.45	49.96	29.56	54.29	97.92	114.64	93.20	47.05	24.23	44.99	88.79
Y 112.0	117.64	94.69	48.11	29.20	52.20	95.36	110.91	90.51	45.09	24.00	43.13	86.38
Y 113.0	114.30	91.48	46.44	28.89	50.60	92.53	107.65	87.61	43.30	23.83	41.44	83.54
Y 114.0	111.27	88.52	45.00	28.61	49.04	89.50	104.46	84.54	41.70	23.64	40.05	80.63
Y 115.0	108.63	85.44	43.76	28.38	47.69	86.57	101.70	81.53	40.47	23.48	38.81	77.81
Y 116.0	105.88	82.51	42.35	28.12	46.31	83.52	99.16	78.56	39.14	23.32	37.53	74.96
Y 117.0	102.80	80.05	41.23	27.83	44.99	80.72	96.19	75.83	37.97	23.21	36.31	72.64
Y 118.0	99.77	78.12	40.00	27.63	43.71	78.51	93.13	73.81	36.87	23.10	35.16	70.69
Y 119.0	96.75	75.66	39.07	27.42	42.58	76.64	90.13	71.76	35.76	22.94	34.21	68.74
Y 120.0	93.80	73.29	37.99	27.23	41.32	74.31	87.28	69.43	34.74	22.79	33.16	66.44
Y 121.0	91.01	70.99	36.97	27.06	40.23	72.08	84.70	67.14	33.79	22.67	32.22	64.36
Y 122.0	88.40	68.70	35.87	26.87	39.14	69.78	82.13	64.93	32.75	22.66	31.19	62.15
Y 123.0	85.53	66.49	34.90	26.67	38.03	67.55	79.45	62.92	31.80	22.61	30.13	60.10
Y 124.0	82.70	64.50	34.01	26.53	36.96	65.43	76.75	60.92	31.02	22.51	29.34	58.16
Y 125.0	80.11	62.29	33.20	26.38	36.04	63.39	74.13	58.93	30.17	22.39	28.57	56.26
Y 126.0	77.52	60.33	32.36	26.13	35.05	61.47	71.72	56.99	29.36	22.42	27.85	54.47
Y 127.0	75.04	58.39	31.41	26.04	34.02	59.53	69.34	55.12	28.54	22.17	27.17	52.62
Y 128.0	72.55	56.53	30.40	25.89	33.14	57.61	66.93	53.31	27.77	22.21	26.16	50.85
Y 129.0	70.22	54.59	29.69	25.76	32.28	55.76	64.79	51.50	26.98	22.11	25.02	49.12
Y 130.0	67.86	52.78	28.99	25.59	31.35	53.89	62.54	49.70	25.99	22.09	24.06	47.47
Y 131.0	65.60	50.92	28.18	25.42	30.46	52.12	60.33	48.12	25.48	22.13	23.27	45.84
Y 132.0	63.53	49.29	27.70	25.38	29.71	50.42	58.22	46.47	24.95	22.08	22.85	44.17
Y 133.0	61.34	47.68	27.25	25.23	29.12	48.81	56.20	44.91	24.37	22.04	22.44	42.77
Y 134.0	59.27	46.10	26.99	25.14	28.47	47.24	54.17	43.34	23.98	22.00	22.45	41.36
Y 135.0	57.07	44.45	26.62	25.10	27.90	45.52	52.18	41.86	23.60	22.07	22.31	39.91
Y 136.0	55.09	42.91	26.25	25.03	27.34	43.91	50.23	40.42	23.15	22.04	22.02	38.49
Y 137.0	53.09	41.42	25.96	25.00	26.92	42.38	48.39	38.99	22.83	22.06	21.79	37.16
Y 138.0	51.21	40.06	25.69	24.85	26.44	40.91	46.50	37.70	22.54	22.01	21.74	35.86
Y 139.0	49.30	38.65	25.52	24.84	26.05	39.60	44.72	36.22	22.36	22.01	21.58	34.52
Y 140.0	47.60	37.40	25.45	24.73	25.68	38.20	43.07	34.99	22.31	22.08	21.53	33.39

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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 141.0	45.77	36.14	25.39	24.72	25.43	36.98	41.47	33.85	22.21	22.05	21.55	32.34
Y 142.0	44.06	34.95	25.29	24.68	25.26	35.70	39.78	32.76	22.05	22.06	21.56	31.30
Y 143.0	42.46	33.82	25.32	24.66	25.19	34.60	38.33	31.80	22.04	22.13	21.72	30.30
Y 144.0	41.01	32.83	25.19	24.66	25.13	33.59	36.81	30.78	22.19	22.19	21.72	29.36
Y 145.0	39.48	31.79	25.22	24.66	25.07	32.49	35.41	29.90	22.15	22.31	21.73	28.36
Y 146.0	38.11	30.90	25.14	24.64	24.98	31.59	34.16	28.92	22.21	22.29	21.83	27.08
Y 147.0	36.78	29.96	25.33	24.65	25.14	30.68	32.93	28.02	22.33	22.34	21.92	26.25
Y 148.0	35.38	29.08	25.26	24.55	25.00	29.69	31.69	27.24	22.44	22.49	22.09	25.65
Y 149.0	34.14	28.29	25.28	24.60	24.95	28.83	30.51	26.51	22.37	22.61	22.09	24.86
Y 150.0	32.98	27.61	25.24	24.71	25.07	28.06	29.42	25.79	22.65	22.56	22.23	24.16
Y 151.0	31.89	27.13	25.33	24.70	25.08	27.26	28.25	25.23	22.79	22.77	22.34	23.95
Y 152.0	30.58	26.66	25.28	24.75	25.15	26.69	27.21	24.61	22.95	22.84	22.53	23.63
Y 153.0	29.72	26.26	25.31	24.75	25.05	26.07	26.52	24.17	22.98	22.92	22.57	23.40
Y 154.0	28.90	25.94	25.30	24.78	25.04	25.66	25.68	24.06	23.15	23.11	22.63	23.31
Y 155.0	28.02	25.90	25.32	24.74	25.13	25.39	25.05	23.90	23.27	23.22	22.80	23.46
Y 156.0	27.35	25.90	25.34	24.90	25.13	25.28	24.60	23.94	23.40	23.34	22.90	23.38
Y 157.0	26.97	25.89	25.34	24.93	25.15	25.26	24.35	23.91	23.45	23.40	23.04	23.51
Y 158.0	26.75	25.90	25.37	25.08	25.20	25.29	24.25	24.03	23.61	23.56	23.23	23.57
Y 159.0	26.57	25.90	25.36	25.00	25.23	25.27	24.27	24.11	23.75	23.68	23.34	23.64
Y 160.0	26.52	25.95	25.36	25.05	25.28	25.22	24.42	24.15	23.94	23.75	23.41	23.77
Y 161.0	26.49	25.89	25.39	25.08	25.29	25.20	24.57	24.22	23.89	23.83	23.53	23.82
Y 162.0	26.53	25.98	25.47	25.16	25.30	25.26	24.72	24.34	24.05	24.02	23.62	23.96
Y 163.0	26.50	25.97	25.45	25.13	25.38	25.24	24.92	24.42	24.16	24.16	23.74	24.07
Y 164.0	26.55	26.05	25.48	25.25	25.42	25.33	24.98	24.63	24.36	24.24	23.82	24.19
Y 165.0	26.55	26.07	25.49	25.28	25.35	25.30	25.10	24.69	24.49	24.34	23.98	24.36
Y 166.0	26.52	26.10	25.54	25.36	25.48	25.28	25.28	24.80	24.63	24.43	23.98	24.51
Y 167.0	26.60	26.06	25.58	25.40	25.44	25.25	25.35	24.88	24.69	24.56	24.19	24.54
Y 168.0	26.58	26.13	25.70	25.42	25.42	25.23	25.55	24.94	24.80	24.60	24.27	24.65
Y 169.0	26.57	26.05	25.64	25.44	25.40	25.25	25.63	25.12	24.86	24.79	24.35	24.70
Y 170.0	26.53	26.02	25.65	25.50	25.42	25.27	25.82	25.17	24.96	24.82	24.47	24.77
Y 171.0	26.59	26.06	25.67	25.55	25.47	25.35	25.94	25.18	25.01	24.92	24.49	24.92
Y 172.0	26.65	26.03	25.70	25.53	25.46	25.28	26.12	25.23	25.15	24.96	24.53	24.96
Y 173.0	26.66	25.97	25.65	25.63	25.44	25.27	26.14	25.38	25.35	25.11	24.72	25.02
Y 174.0	26.59	26.01	25.68	25.52	25.49	25.27	26.33	25.45	25.48	25.14	24.75	25.03
Y 175.0	26.53	25.96	25.73	25.54	25.55	25.25	26.43	25.53	25.40	25.23	24.90	25.10
Y 176.0	26.48	25.90	25.62	25.65	25.48	25.29	26.49	25.64	25.39	25.32	24.95	25.12
Y 177.0	26.64	25.99	25.65	25.63	25.39	25.23	26.58	25.67	25.50	25.26	25.00	25.27
Y 178.0	26.52	25.91	25.71	25.65	25.50	25.31	26.74	25.78	25.59	25.40	25.13	25.31
Y 179.0	26.52	25.91	25.70	25.64	25.34	25.21	26.90	25.67	25.77	25.59	25.17	25.34
Y 180.0	25.84	25.84	25.84	25.84	25.84	25.84	25.84	25.84	25.84	25.84	25.84	25.84