

IES Indoor Report

Photometric Filename:KARLIN4FTCCT-3K.IES

Indoor Luminaire Photometric Data

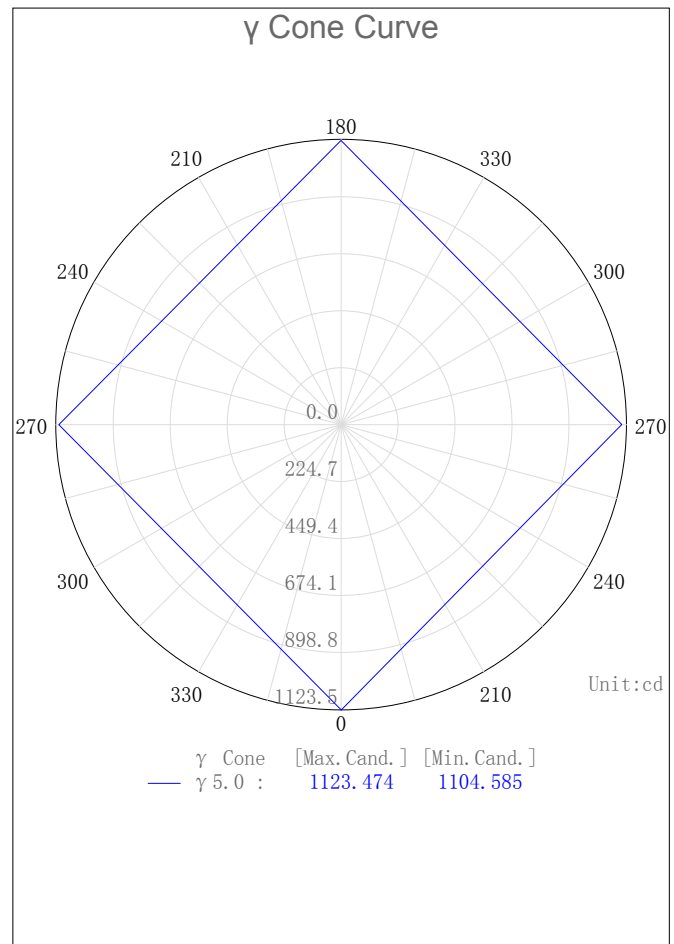
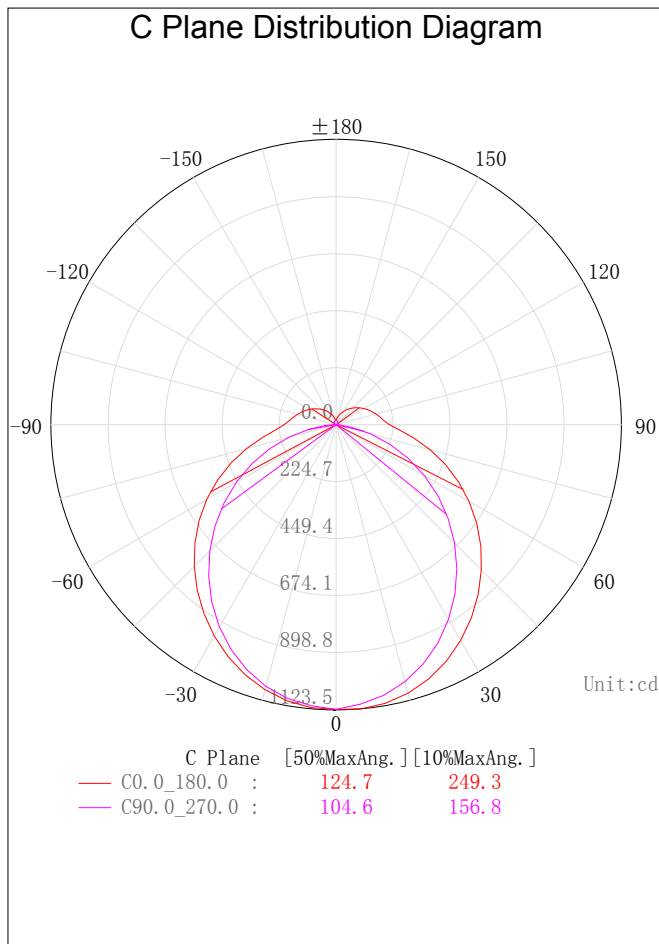
Description Information

Lum. Name:	KARLIN4FTCCT-3K	Lum. Catalog:	LED BATTEN	Test ID:	
Lamp Name:	3000K	Lamp Catalog:	SMD2835	Test Date:	2022/06/28
Manufacture:		ShldAngle(°):		Test Machine:	GON-2000
Test Lab:		Frequency (Hz):		Lamp CCT (K):	Ra:
Lum. Size (W*L*H):	0.060m*1.200m*0.065m	Lum. Area (m2):	0.150	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):	3788.990	Luminaire Flux:	3788.991lm
Rated Power(W):		Luminaire Efficiency:	100.00%
Rated Voltage(V):		Luminaire EER(lm/W):	108.692
Tested Power(W):	34.860	Max. Cand. (cd):	1123.474
Lamps' Inside:	1	Max Cand@Ang. (°):	C=0.0 γ=5.0
Tested Electric:U=238.6V, I=0.147A, PF=0.000		Beam Angle(50%Imax):	124.7
Lamp Size (W*L*H):	0.060m*1.200m*0.065m	Left=-61.8 Right=62.9	
		Field Angle(10%Imax):	249.3
		Down Lumens&Percent:	3383.3401m 89.29%
		Up Lumens&Percent:	405.6501m 10.71%
		S/MH:	C0_a180=1.287 C90_270=1.201
		CIE Type:	General Diffuse
		ErP φ use(120°):	2497.713lm
		IRF:	108.953%

Lighting Distribution Diagram



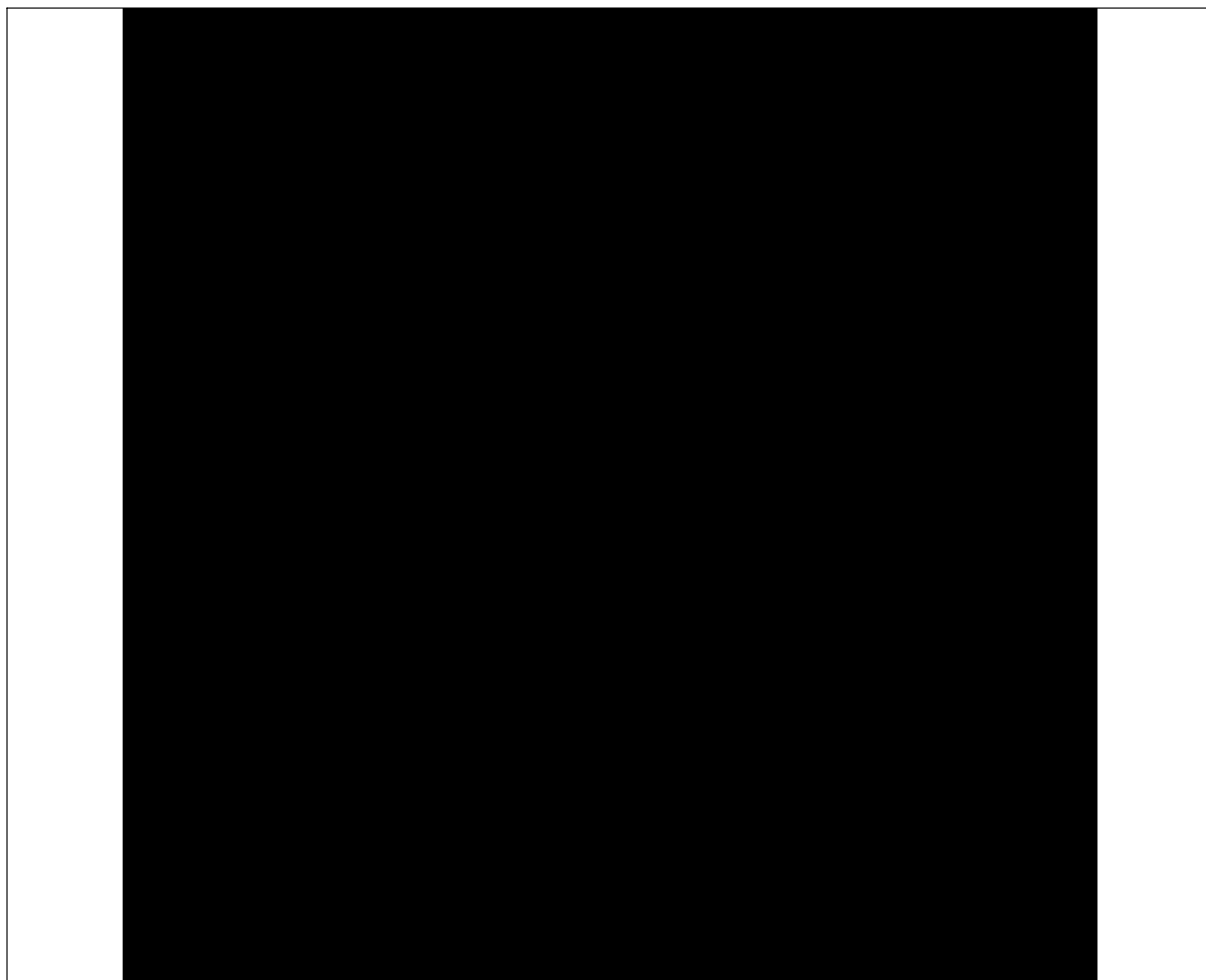
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3D Light Intensity Distribution Modal

Lum. Name: KARLIN4FTCCT-3K	Lum. Catalog: LED BATTEN	Test ID:
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3D Light Intensity Distribution Modal



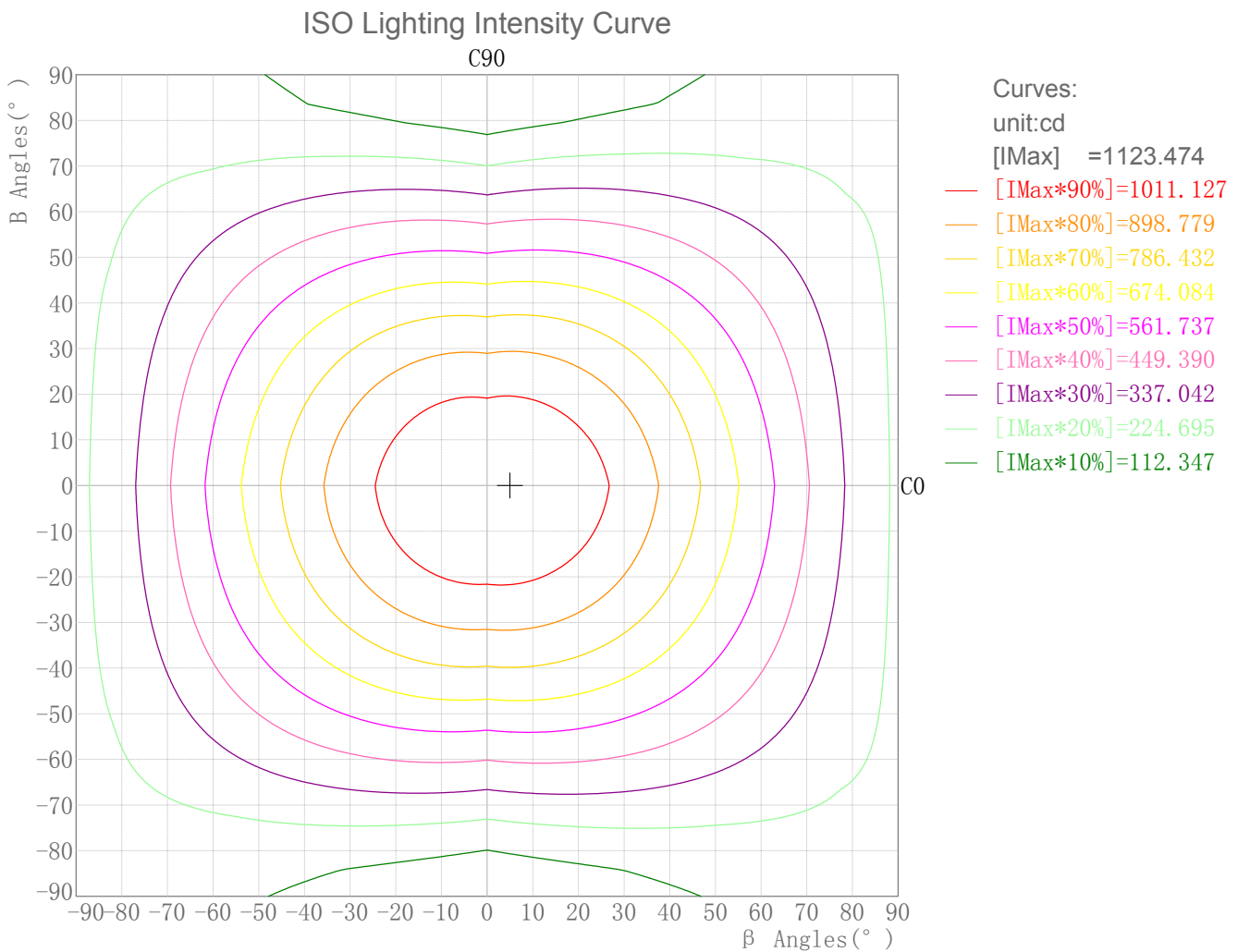
Curves: 3D Model —— Fixture —— Vert. HUD —— Hori. HUD ——
View Angles: Orient:0 Tilt:0 Roll:0 Spin:0

Zonal Flux Tabulation

Zone (γ)	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	Sums%Lamp
0.0-5.0	26.73	26.73	0.71	0.71
5.0-10.0	79.18	105.91	2.09	2.80
10.0-15.0	128.83	234.74	3.40	6.20
15.0-20.0	173.79	408.52	4.59	10.78
20.0-25.0	212.50	621.02	5.61	16.39
25.0-30.0	243.77	864.79	6.43	22.82
30.0-35.0	266.84	1131.63	7.04	29.87
35.0-40.0	281.32	1412.94	7.42	37.29
40.0-45.0	287.09	1700.04	7.58	44.87
45.0-50.0	284.32	1984.35	7.50	52.37
50.0-55.0	273.37	2257.72	7.21	59.59
55.0-60.0	254.76	2512.49	6.72	66.31
60.0-65.0	229.22	2741.71	6.05	72.36
65.0-70.0	197.81	2939.51	5.22	77.58
70.0-75.0	162.07	3101.58	4.28	81.86
75.0-80.0	124.71	3226.29	3.29	85.15
80.0-85.0	90.47	3316.76	2.39	87.54
85.0-90.0	66.58	3383.34	1.76	89.29
90.0-95.0	55.39	3438.73	1.46	90.76
95.0-100.0	50.19	3488.92	1.32	92.08
100.0-105.0	45.82	3534.74	1.21	93.29
105.0-110.0	41.64	3576.38	1.10	94.39
110.0-115.0	37.56	3613.93	0.99	95.38
115.0-120.0	33.48	3647.41	0.88	96.26
120.0-125.0	29.27	3676.68	0.77	97.04
125.0-130.0	25.14	3701.82	0.66	97.70
130.0-135.0	21.17	3722.99	0.56	98.26
135.0-140.0	17.53	3740.53	0.46	98.72
140.0-145.0	14.23	3754.76	0.38	99.10
145.0-150.0	11.12	3765.87	0.29	99.39
150.0-155.0	8.40	3774.28	0.22	99.61
155.0-160.0	6.15	3780.43	0.16	99.77
160.0-165.0	4.21	3784.64	0.11	99.89
165.0-170.0	2.61	3787.24	0.07	99.95
170.0-175.0	1.35	3788.59	0.04	99.99
175.0-180.0	0.40	3788.99	0.01	100.00

Rectangle ISO Lighting Intensity Diagram

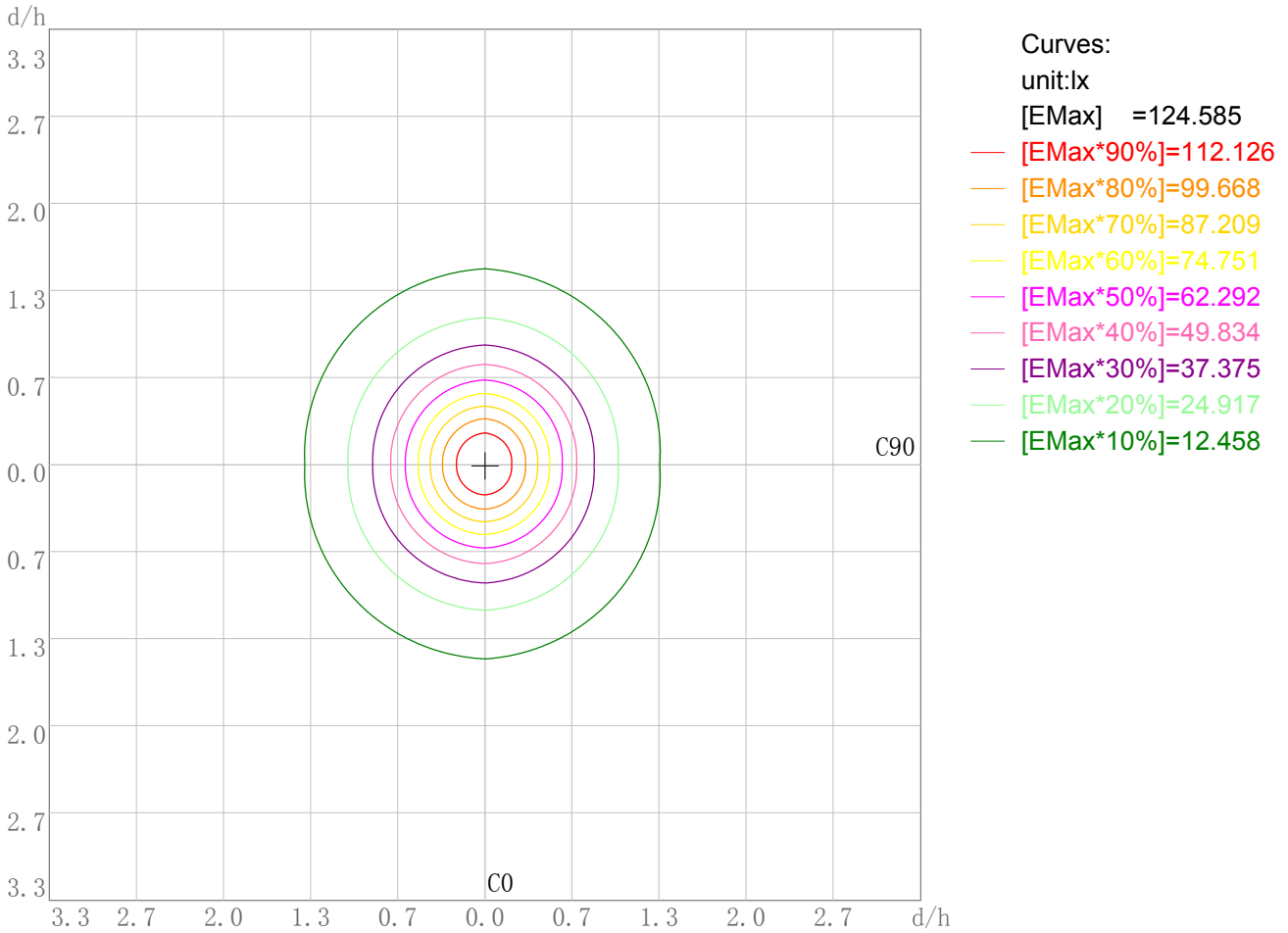
Lum. Name: KARLIN4FTCCT-3K	Lum. Catalog: LED BATTEN	Test ID:
Lamp Name: 3000K	Lamp Catalog: SMD2835	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2022/06/28



Plane ISO-Illuminance Diagram

Lum. Name: KARLIN4FTCCT-3K	Lum. Catalog: LED BATTEN	Test ID:
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Plane ISO-Illuminance Curve

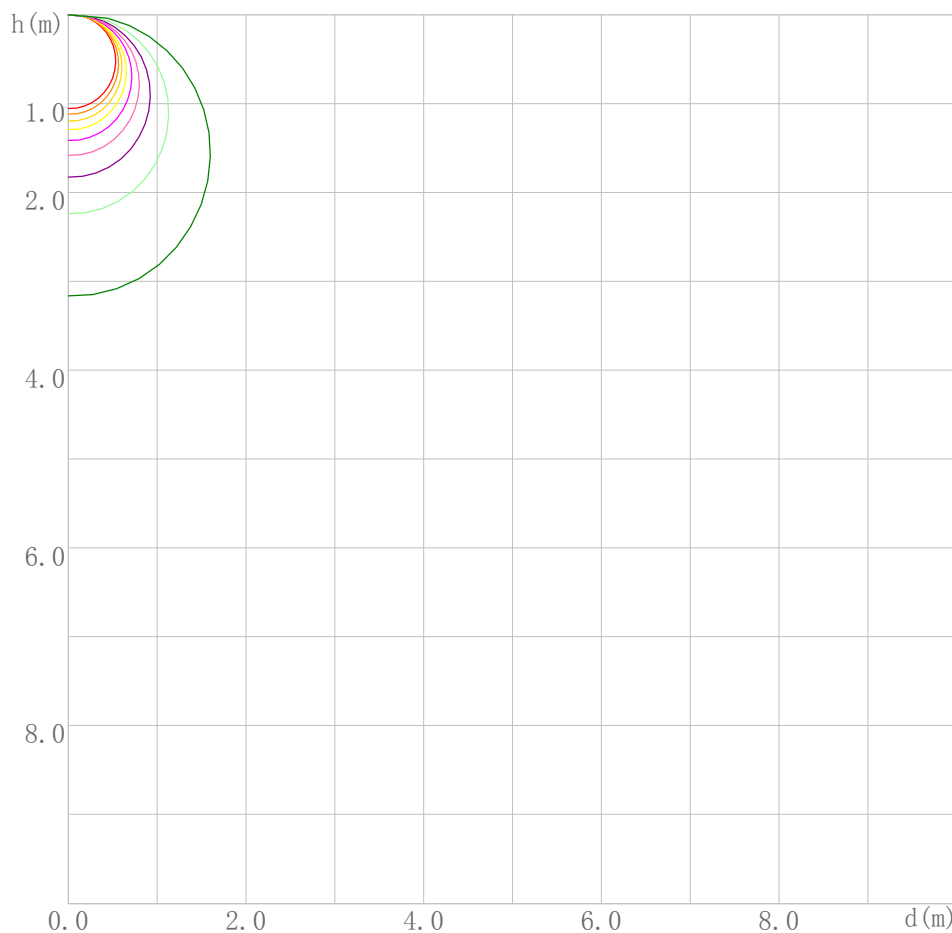


Working Plane Luminaire Mounting Height(m): 3.00
 Working Plane Maximum Illuminance(lx): 124.58
 Working Plane Maximum Illuminance Position(d/h):H0.0 V0.0

Space ISO Illuminance Diagram

Lum. Name: KARLIN4FTCCT-3K	Lum. Catalog: LED BATTEN	Test ID:
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Space ISO Illuminance Curve

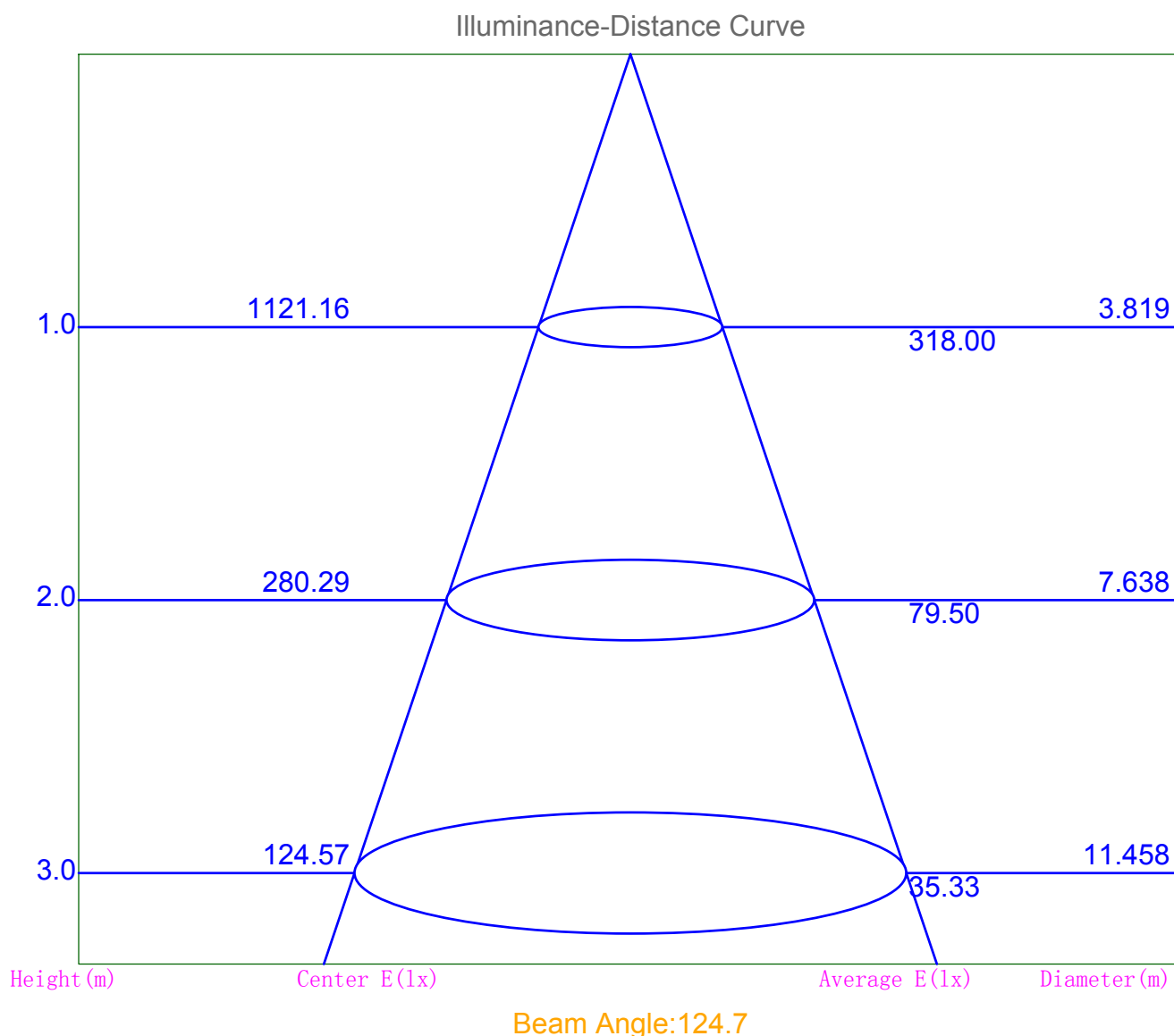


- Curves:
unit:lx
[EMax] =1121.158
- [EMax*90%]=1009.042
 - [EMax*80%]=896.926
 - [EMax*70%]=784.811
 - [EMax*60%]=672.695
 - [EMax*50%]=560.579
 - [EMax*40%]=448.463
 - [EMax*30%]=336.347
 - [EMax*20%]=224.232
 - [EMax*10%]=112.116

Space Plane Maximum Illuminance and @Angle:1121.16,0.0deg
Plane Maximum Lighting Intensity and @Angle:1123.474cd,0deg

Illuminance-Distance Diagram

Lum. Name: KARLIN4FTCCT-3K	Lum. Catalog: LED BATTEN	Test ID:
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Manufacture:	Test Machine:GON-2000	Test Date: 2022/06/28



Indoor Luminance Limiting Curves

Lum. Name: KARLIN4FTCCT-3K	Lum. Catalog: LED BATTEN	Test ID:
Lamp Name: 3000K	Lamp Catalog: SMD2835	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date: 2022/06/28

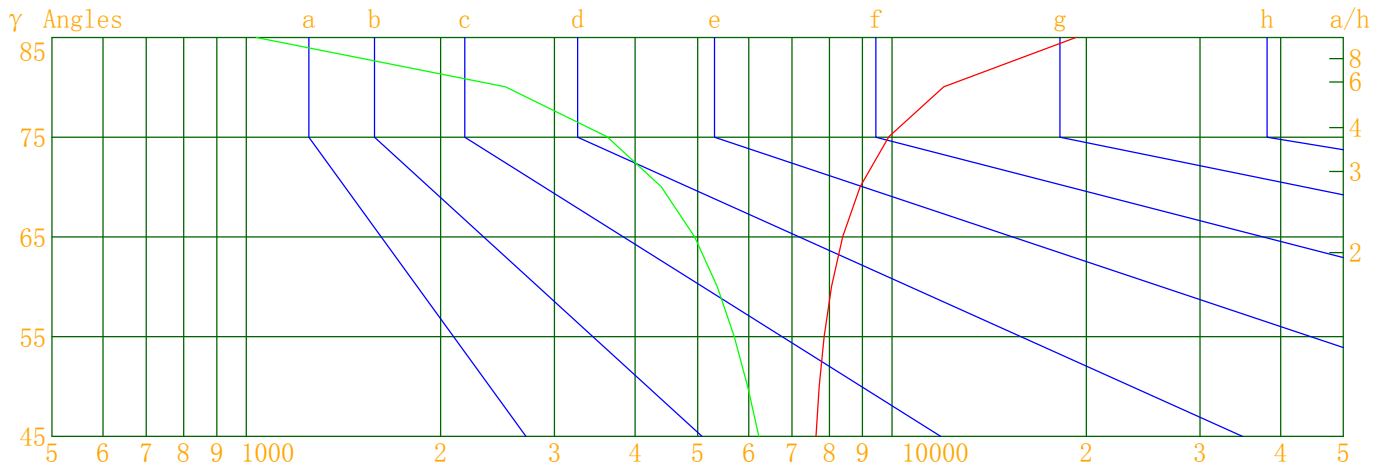
Glare Grade Table

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	7628	7713	7850	8060	8389	8926	9890	12027	19260
C90	6220	5976	5696	5362	4944	4390	3621	2520	1037

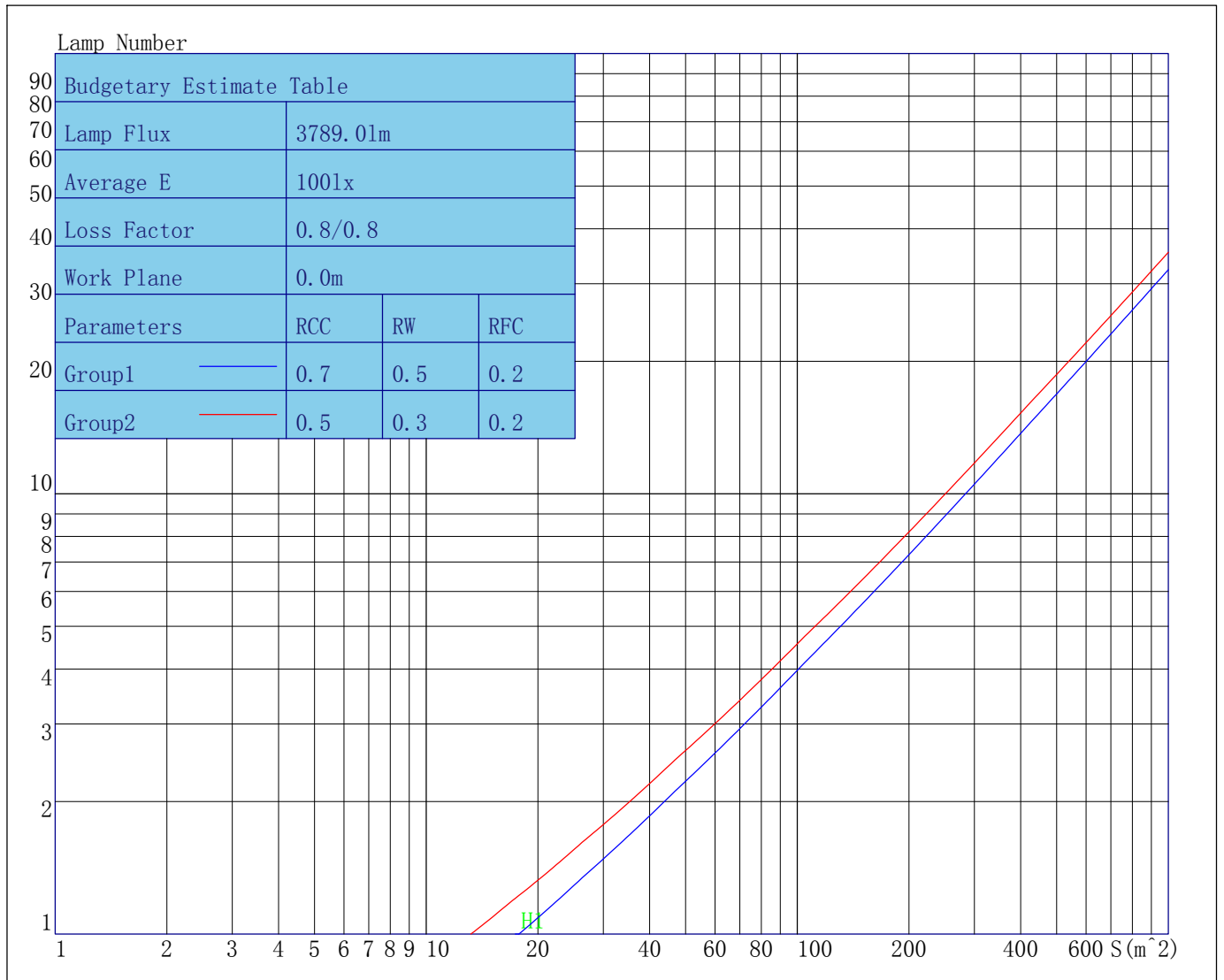
Luminance Limiting Curve



Luminous Size: Length(m)=1.200 Width(m)=0.060 Height(m)=0.065 Area(m^2)=0.150000
 Luminous Type: Without Luminous Side
 Luminous Curves: C0-C180 Color: — C90-C270 Color: —

Indoor Budgetary Estimate Table

Lum. Name: KARLIN4FTCCT-3K	Lum. Catalog: LED BATTEN	Test ID:
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Manufacture:	Test Machine:GON-2000	Test Date: 2022/06/28



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: KARLIN4FTCCT-3K	Lum. Catalog: LED BATTEN	Test ID:
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Manufacture:	Test Machine:GON-2000	Test Date: 2022/06/28

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	113	113	113	113	105	105	105	98	98	98	92	92	92	89
1	105	100	95	91	101	97	92	88	90	87	84	85	82	79	79	77	75	72
2	95	86	79	73	91	84	77	72	78	73	68	73	69	65	69	65	62	59
3	87	76	67	60	83	73	65	59	69	62	57	64	59	54	61	56	52	50
4	79	67	58	51	76	65	56	50	61	54	48	57	51	46	54	49	45	42
5	73	60	50	44	70	58	49	43	54	47	41	51	45	40	48	43	39	36
6	67	54	44	38	64	52	44	37	49	42	36	46	40	35	44	38	34	32
7	62	48	40	33	60	47	39	33	45	37	32	42	36	31	40	34	30	28
8	58	44	36	30	56	43	35	29	41	34	28	39	32	28	37	31	27	25
9	54	40	32	27	52	39	32	26	37	30	26	36	29	25	34	28	24	22
10	50	37	29	24	49	36	29	24	35	28	23	33	27	23	31	26	22	20

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Unified Glare Rating Table

Lum. Name: KARLIN4FTCCT-3K	Lum. Catalog: LED BATTEN	Test ID:
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Manufacture:	Test Machine:GON-2000	Test Date: 2022/06/28

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	Vewed crosswise					Vewed endwise				
X=2H Y=2H	18.5	21.8	19.7	23.0	24.3	16.5	19.8	17.7	21.1	22.3
Y=3H	24.5	27.8	25.7	29.0	30.2	20.5	23.8	21.7	25.1	26.3
Y=4H	28.3	31.2	29.5	32.4	33.7	22.8	25.7	24.0	26.9	28.2
Y=6H	31.7	34.5	33.0	35.8	37.1	23.9	26.7	25.1	28.0	29.2
Y=8H	33.5	36.4	34.8	37.6	38.9	24.2	27.0	25.4	28.3	29.5
Y=12H	35.6	38.4	36.8	39.6	40.9	24.3	27.1	25.6	28.4	29.6
X=4H Y=2H	19.7	22.6	20.9	23.8	25.1	18.9	21.8	20.1	23.0	24.3
Y=3H	25.9	28.8	27.1	30.1	31.3	23.2	26.1	24.5	27.4	28.6
Y=4H	28.2	30.0	29.7	31.5	33.0	24.1	25.9	25.6	27.4	28.9
Y=6H	32.3	33.9	33.8	35.5	36.9	25.8	27.5	27.4	29.0	30.5
Y=8H	34.5	36.1	36.1	37.6	39.1	26.5	28.1	28.0	29.6	31.1
Y=12H	36.2	37.5	37.9	39.2	40.8	25.9	27.3	27.6	28.9	30.5
X=8H Y=4H	28.5	30.1	30.1	31.6	33.1	25.2	26.8	26.8	28.3	29.8
Y=6H	32.0	33.2	33.7	34.8	36.4	26.7	27.9	28.4	29.5	31.1
Y=8H	34.1	35.0	35.9	36.7	38.4	27.3	28.2	29.0	29.9	31.6
Y=12H	37.1	38.0	38.9	39.7	41.4	28.1	29.0	29.9	30.7	32.4
X=12H Y=4H	27.6	29.0	29.3	30.6	32.2	24.6	25.9	26.3	27.6	29.2
Y=6H	31.6	32.5	33.3	34.3	35.9	26.7	27.6	28.4	29.4	31.0
Y=8H	34.2	35.1	36.0	36.8	38.5	28.0	28.8	29.7	30.5	32.2
Variations with the objerver position at spacings										
S=1.0H	2.1/-2.1					2.3/-0.2				
S=1.5H	-2.1/-20.7					-0.2/-16.5				
S=2.0H	-2.1/-20.7					-0.2/-16.5				

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Candela Tabulation

V/H	C0.0	C90.0	C180.0	C270.0
γ 0.0	1121.16	1121.16	1121.16	1121.16
γ 5.0	1123.47	1104.58	1118.85	1110.96
γ 10.0	1114.26	1082.32	1104.48	1095.04
γ 15.0	1095.17	1048.28	1080.55	1066.84
γ 20.0	1065.96	1003.10	1047.73	1027.26
γ 25.0	1027.40	948.42	1007.00	977.34
γ 30.0	980.93	885.30	959.92	918.70
γ 35.0	928.30	815.42	907.20	852.50
γ 40.0	870.80	739.83	850.20	780.21
γ 45.0	809.04	659.68	789.44	702.91
γ 50.0	743.67	576.15	725.37	621.98
γ 55.0	675.42	490.08	658.25	538.11
γ 60.0	604.50	402.14	587.86	452.26
γ 65.0	531.83	313.38	514.40	365.23
γ 70.0	457.93	225.24	439.09	277.73
γ 75.0	383.96	140.57	364.11	191.48
γ 80.0	313.27	65.63	294.69	110.60
γ 85.0	251.80	13.55	239.01	43.29
γ 90.0	208.95	3.81	204.65	7.58
γ 95.0	187.98	4.80	184.39	7.05
γ 100.0	174.79	4.00	170.16	5.69
γ 105.0	162.33	4.94	156.91	6.11
γ 110.0	150.13	5.93	144.14	6.67
γ 115.0	138.04	8.04	131.86	8.54
γ 120.0	126.22	8.73	119.94	9.48
γ 125.0	114.72	9.39	108.18	9.91
γ 130.0	103.39	10.13	96.75	10.00
γ 135.0	92.56	10.72	85.86	9.66
γ 140.0	82.18	11.43	75.45	10.90
γ 145.0	71.24	12.08	65.56	12.34
γ 150.0	59.88	12.91	54.77	13.18
γ 155.0	50.90	13.79	46.23	13.98
γ 160.0	42.64	14.42	37.93	14.74
γ 165.0	34.32	15.06	29.85	15.30
γ 170.0	27.03	15.55	22.80	15.84
γ 175.0	20.26	15.88	17.54	16.08
γ 180.0	15.85	15.85	15.85	15.85