IES Indoor Report
Photometric Filename:TR10-12-C5-01 4000K RA90 24D.IES

Indoor Luminaire Photometric Data

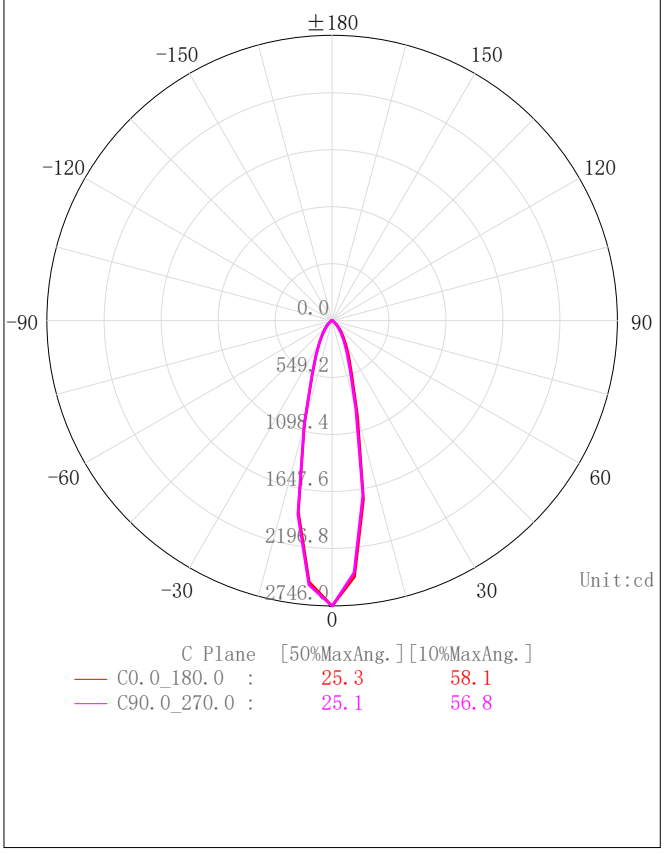
Description Information

Luminary Name: TR10-12-C5-01 4000K RA90 24D		Lum. Catelog:	Test ID: 01
Lamp Name:		Lamp Catelog: LED	Test Date: 2022/11/02
Manufacture: Shenzhen Norming Lighting		Shld.Ang(°):	Test Machine:GON-2000
Test Lab: Quality Department		Frequency(Hz):	Lamp CCT(K): Ra:
Lum.Size(W*L*H):0.041m*0.041m*0.000m		Lum.Area(m2):0.002	Lum.W(kg): 0.000
Test System: C,γ	Test Step: C=90.0 γ=5.0	Temp.(℃): 25	Humidity(%):

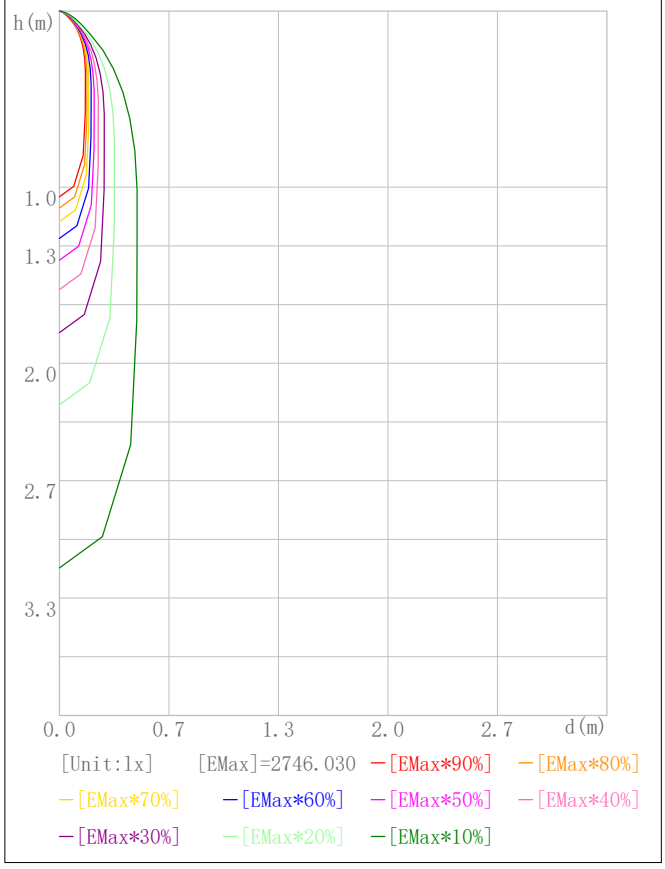
Character Parameter

Lamp Speciality Parameter	Luminaire Speciality Parameter	
Rated Flux(lm): 880.270	Luminary Flux(lm): 880.273	Field Angle(10%Imax): 58.1(°)
Rated Power(W):	Luminary Efficiency: 100.00%	Down Lumens&Percent: 879.276lm 99.89%
Rated Voltage(V):	Luminary EER(lm/W): 73.479	Up Lumens&Percent: 0.997lm 0.11%
Tested Power(W): 11.980	Max.Candela(cd): 2746.030	S/MH: C0_a180=0.429 C90_270=0.426
Lamps' Inside: 1	Max Cand@Ang.(°): C=0.0 γ=0.0	CIE Type: Semi-Direct
Tested Electrics(V,A,pf):229.7,0.054	Beam Angle(50%Imax): 25.3(°)	ErP Φuse(90°): 812.641lm
Lamp Size(W*L*H):0.041m*0.041m*0.000m	Left=-13.0° ,Right=12.3°	IRF(%): 666.387

C Plane Distribution Diagram



C0 Space ISO Illuminance Curve

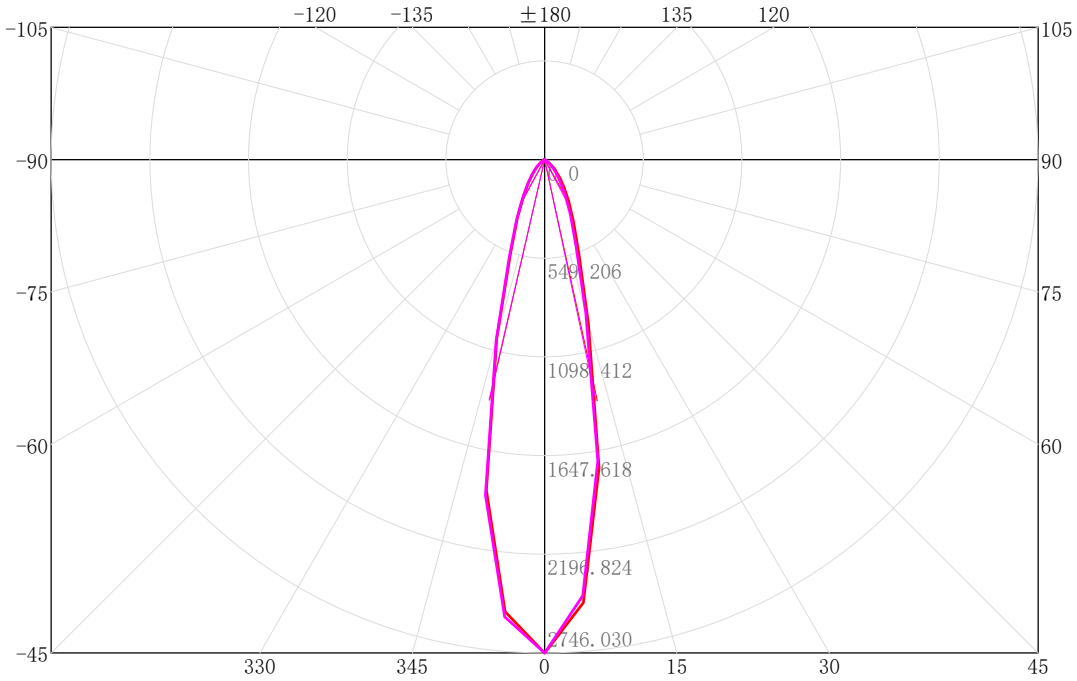


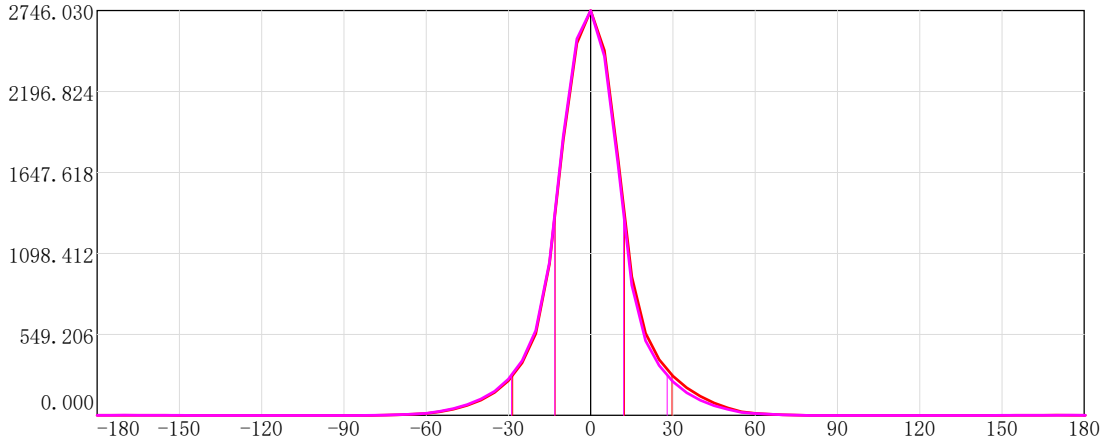
IES Indoor Report
Photometric Filename:TR10-12-C5-01 4000K RA90 24D.IES

2D Plane Light Intensity Distribution Curve

Lum.Name: TR10-12-C5-01 4000K RA90 24D	Lum.Catelog:	Test ID: 01
Lamp Name:	Lamp Catelog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/11/02

C Plane Distribution Diagram





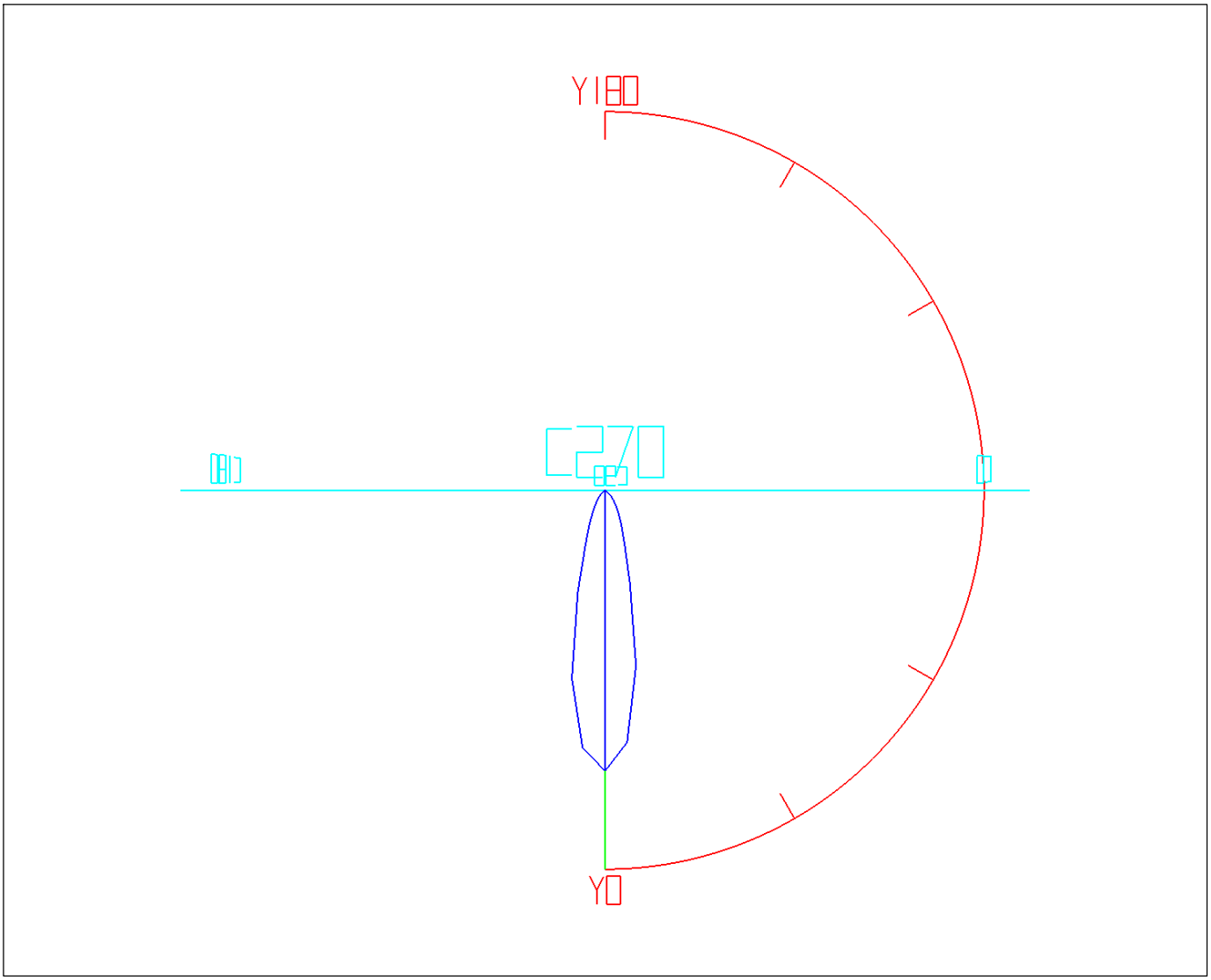
C Plane	[50%MaxAng.]	[10%MaxAng.]	Unit:cd
C0.0_180.0 :	25.3	58.1	
C90.0_270.0 :	25.1	56.8	

IES Indoor Report
Photometric Filename:TR10-12-C5-01 4000K RA90 24D.IES

3D Light Intensity Distribution Modal

Lum.Name: TR10-12-C5-01 4000K RA90 24D	Lum.Catelog:	Test ID: 01
Lamp Name:	Lamp Catelog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/11/02

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:TR10-12-C5-01 4000K RA90 24D.IES

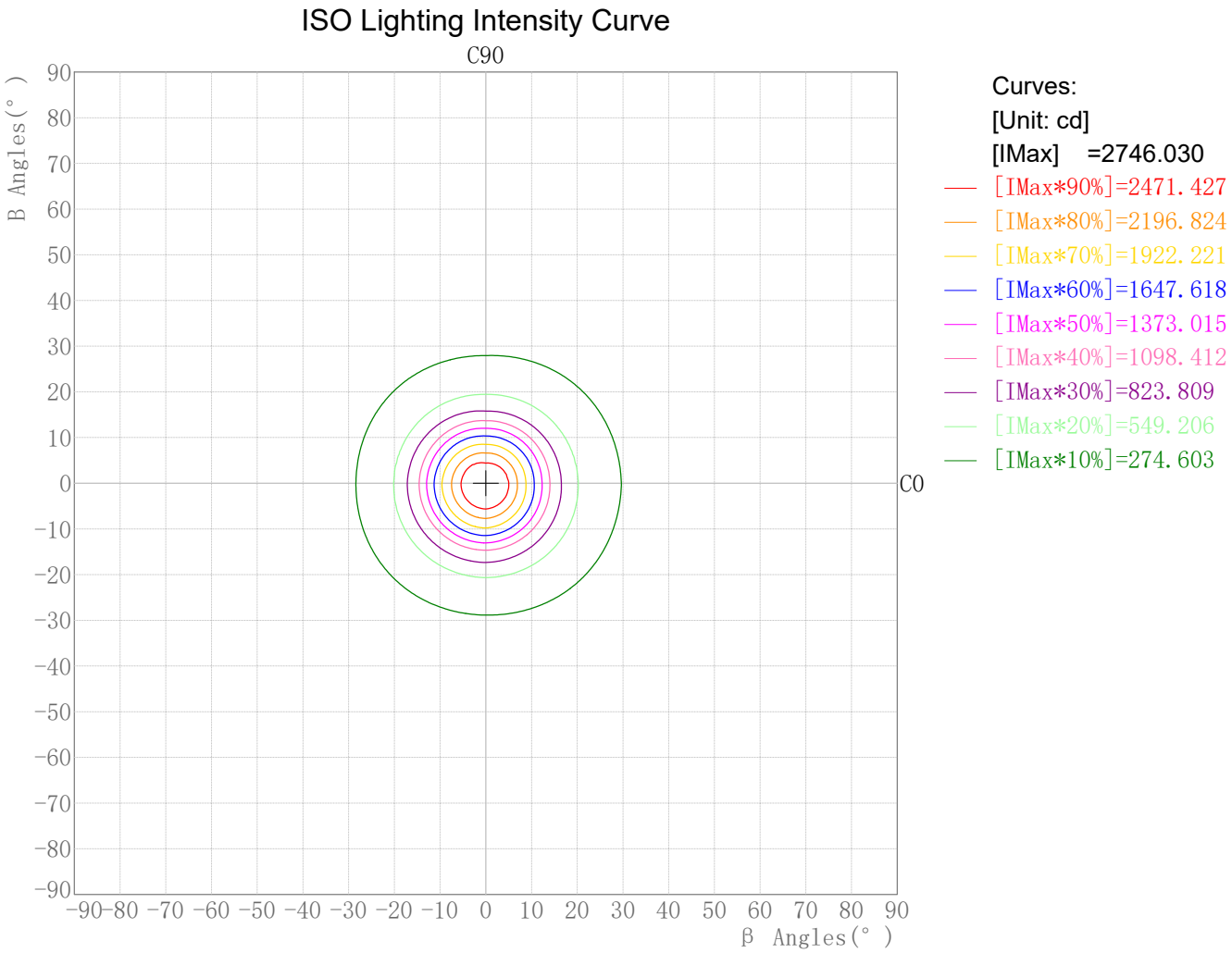
Zonal Flux Tabulation

Zone(γ)	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	Sums%Lamp
0.0-5.0	62.68	62.68	7.12	7.12
5.0-10.0	153.81	216.49	17.47	24.59
10.0-15.0	164.67	381.16	18.71	43.30
15.0-20.0	125.47	506.62	14.25	57.55
20.0-25.0	95.49	602.11	10.85	68.40
25.0-30.0	76.70	678.81	8.71	77.11
30.0-35.0	60.38	739.19	6.86	83.97
35.0-40.0	46.37	785.56	5.27	89.24
40.0-45.0	34.39	819.96	3.91	93.15
45.0-50.0	23.98	843.94	2.72	95.87
50.0-55.0	15.26	859.20	1.73	97.61
55.0-60.0	8.83	868.03	1.00	98.61
60.0-65.0	5.34	873.37	0.61	99.22
65.0-70.0	3.31	876.68	0.38	99.59
70.0-75.0	1.75	878.43	0.20	99.79
75.0-80.0	0.71	879.14	0.08	99.87
80.0-85.0	0.13	879.28	0.02	99.89
85.0-90.0	0.00	879.28	0.00	99.89
90.0-95.0	0.00	879.28	0.00	99.89
95.0-100.0	0.00	879.28	0.00	99.89
100.0-105.0	0.00	879.28	0.00	99.89
105.0-110.0	0.00	879.28	0.00	99.89
110.0-115.0	0.00	879.28	0.00	99.89
115.0-120.0	0.00	879.28	0.00	99.89
120.0-125.0	0.00	879.28	0.00	99.89
125.0-130.0	0.00	879.28	0.00	99.89
130.0-135.0	0.00	879.28	0.00	99.89
135.0-140.0	0.00	879.28	0.00	99.89
140.0-145.0	0.00	879.28	0.00	99.89
145.0-150.0	0.07	879.35	0.01	99.90
150.0-155.0	0.17	879.51	0.02	99.91
155.0-160.0	0.21	879.72	0.02	99.94
160.0-165.0	0.21	879.94	0.02	99.96
165.0-170.0	0.18	880.12	0.02	99.98
170.0-175.0	0.12	880.24	0.01	100.00
175.0-180.0	0.04	880.27	0.00	100.00

IES Indoor Report
Photometric Filename:TR10-12-C5-01 4000K RA90 24D.IES

Rectangle ISO Lighting Intensity Diagram

Lum.Name: TR10-12-C5-01 4000K RA90 24D	Lum.Catelog:	Test ID: 01
Lamp Name:	Lamp Catelog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/11/02



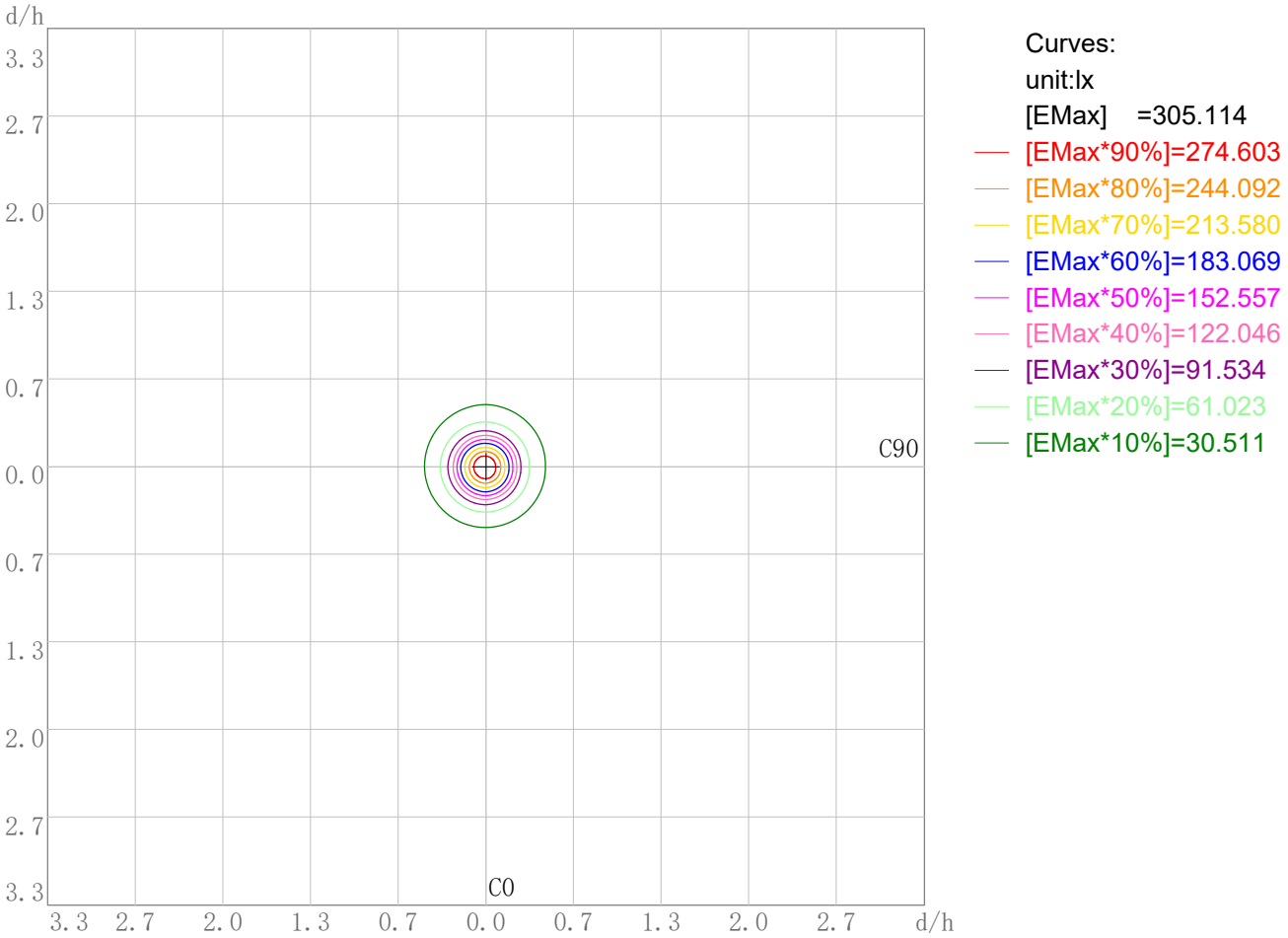
Maximum Light Intensity(cd): 2746.03
Maximum Cand.@Angle: H=0.0°,V=0.0°

IES Indoor Report
Photometric Filename:TR10-12-C5-01 4000K RA90 24D.IES

Plane ISO-Illuminance Diagram

Lum.Name: TR10-12-C5-01 4000K RA90 24D	Lum.Catelog:	Test ID: 01
Lamp Name:	Lamp Catelog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/11/02

Plane ISO-Illuminance Curve



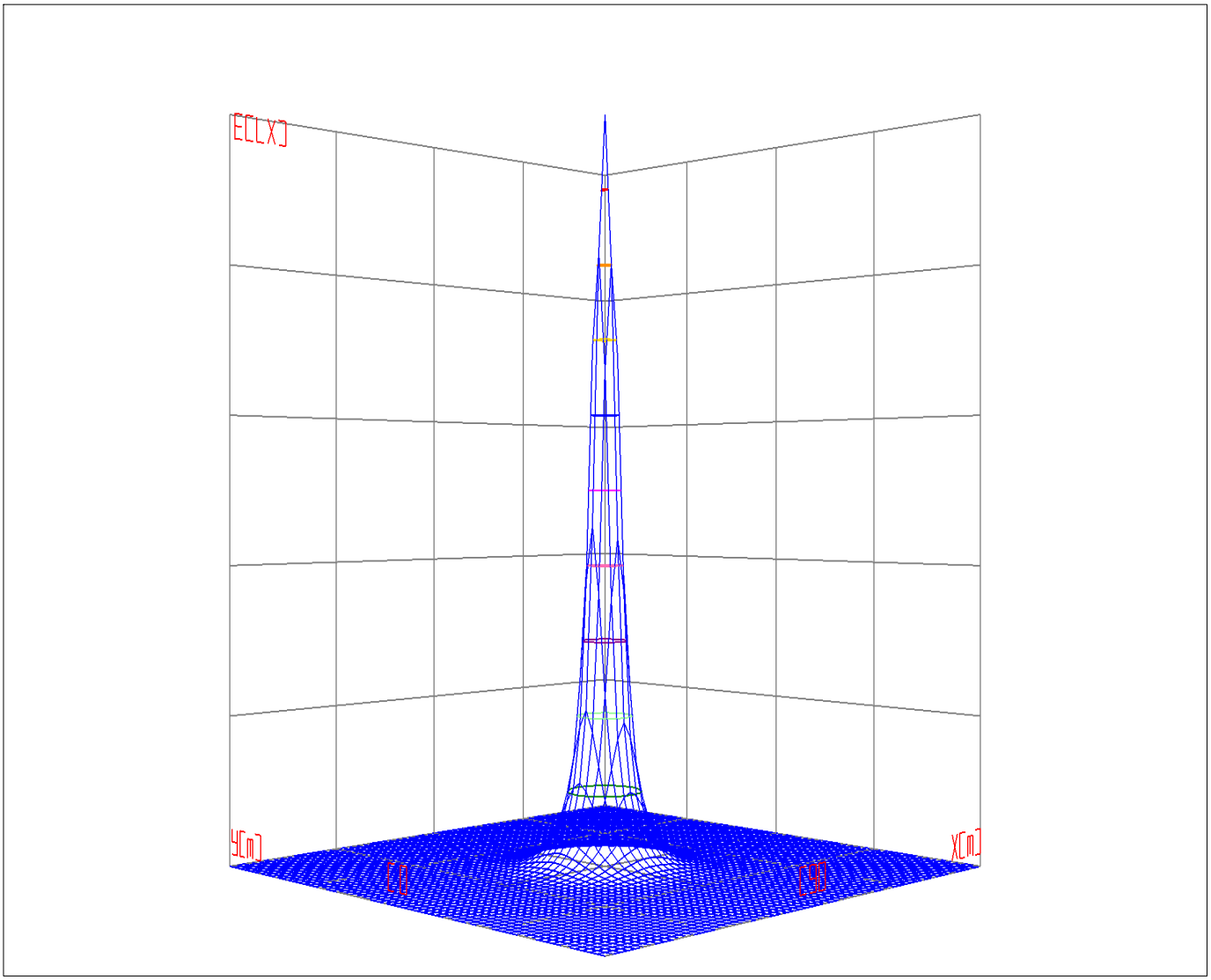
Working Plane Luminaire Mounting Height(m): 3.00
Working Plane Maximum Illuminance(lx): 305.11
Working Plane Maximum Illuminance Position(d/h):H0.0 V0.0

IES Indoor Report
Photometric Filename:TR10-12-C5-01 4000K RA90 24D.IES

3D Plane ISO Illuminance Diagram

Lum.Name: TR10-12-C5-01 4000K RA90 24D	Lum.Catelog:	Test ID: 01
Lamp Name:	Lamp Catelog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/11/02

3D Plane Illuminance Modal



Curves: 3D Model 90% 80% 70% 60% 50% 40% 30% 20% 10%

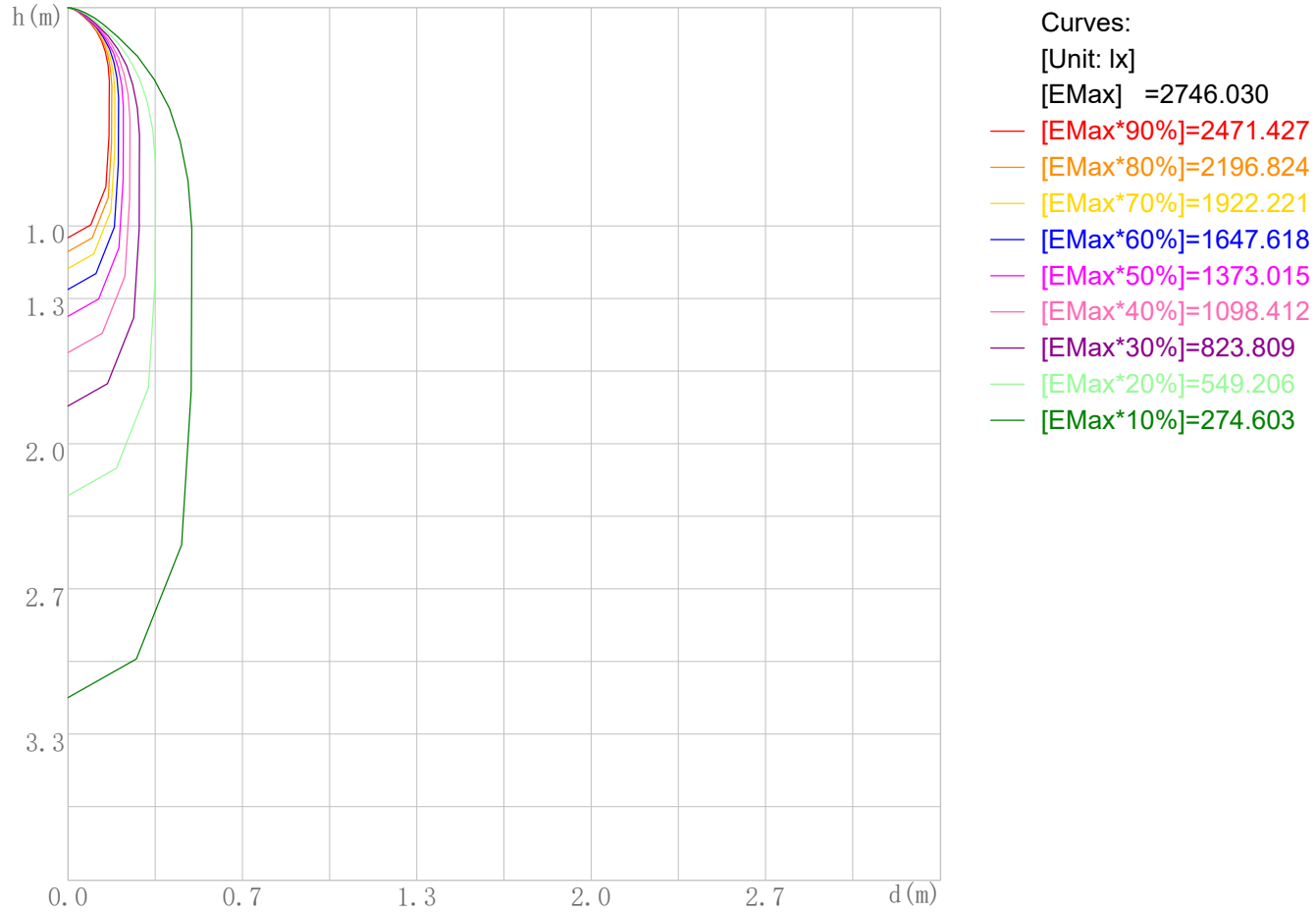
View Angles(deg): 0 Height(m): 3.0 Distance(m): 10.0

IES Indoor Report
Photometric Filename:TR10-12-C5-01 4000K RA90 24D.IES

Space ISO Illuminance Diagram

Lum.Name: TR10-12-C5-01 4000K RA90 24D	Lum.Catelog:	Test ID: 01
Lamp Name:	Lamp Catelog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/11/02

Space ISO Illuminance Curve



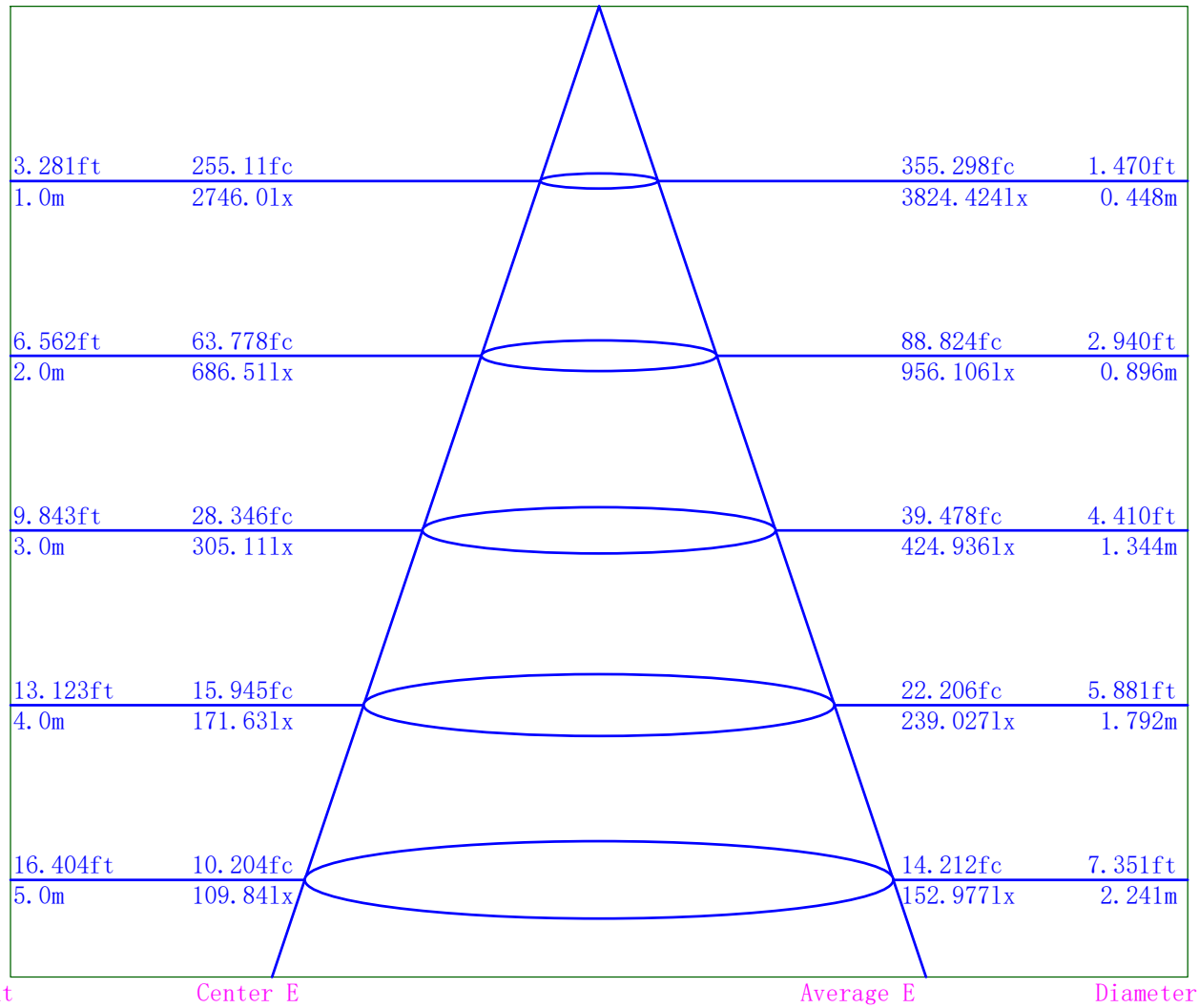
Space Plane Maximum Illuminance and @Angle:2746.03lx,0.0deg
Plane Maximum Lighting Intensity and @Angle:2746.030cd,0eg

IES Indoor Report
Photometric Filename:TR10-12-C5-01 4000K RA90 24D.IES

Illuminance-Distance Diagram

Lum.Name: TR10-12-C5-01 4000K RA90 24D	Lum.Catelog:	Test ID: 01
Lamp Name:	Lamp Catelog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/11/02

Illuminance-Distance Curve



Beam Angle:25.3

IES Indoor Report
Photometric Filename:TR10-12-C5-01 4000K RA90 24D.IES

Indoor Luminance Limiting Curves

Lum.Name: TR10-12-C5-01 4000K RA90 24D	Lum.Catelog:	Test ID: 01
Lamp Name:	Lamp Catelog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/11/02

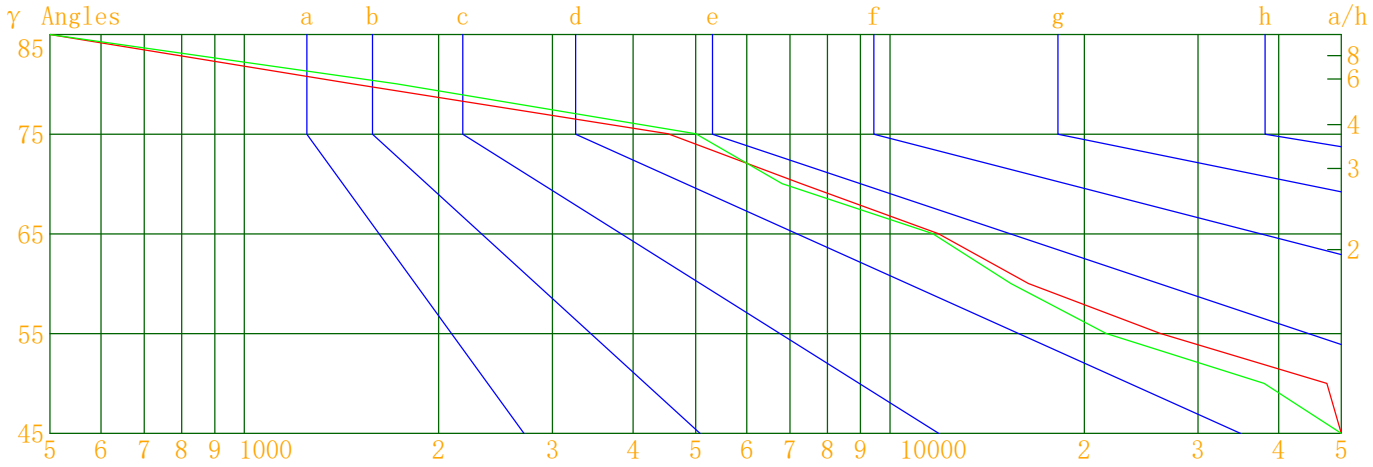
Glare Grade Table

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	70845	47492	26237	16391	11877	7288	4530	1470	0
C90	55658	37974	21614	15388	11640	6806	5001	1720	0

Luminance Limiting Curve



Luminous Size: Length(m)=0.041 Width(m)=0.041 Height(m)=0.000 Area(m^2)=0.001681

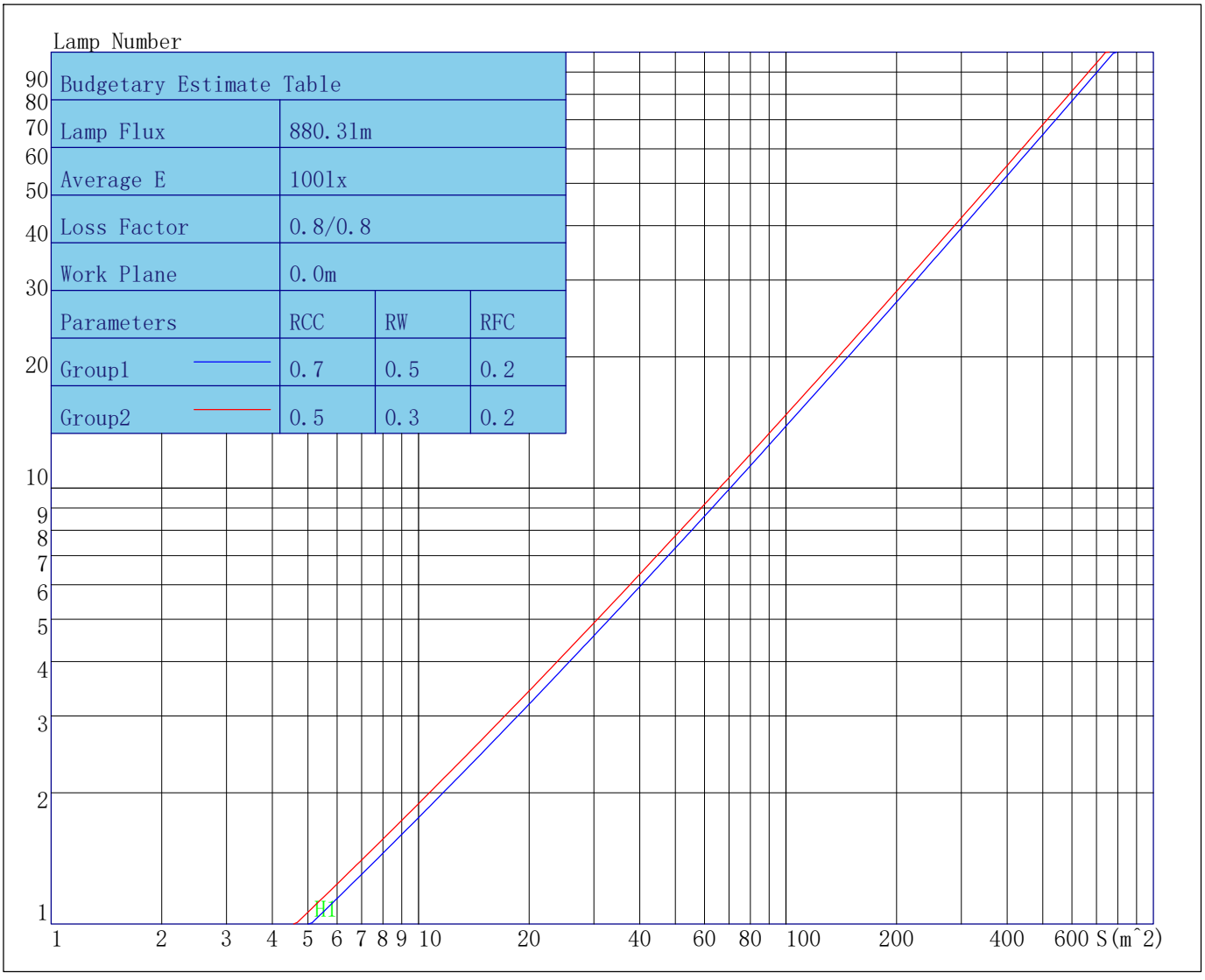
Luminous Type: Without Luminous Side

Luminous Curves: C0-C180 Color: C90-C270 Color:

IES Indoor Report
Photometric Filename:TR10-12-C5-01 4000K RA90 24D.IES

Indoor Budgetary Estimate Table

Lum.Name: TR10-12-C5-01 4000K RA90 24D	Lum.Catelog:	Test ID: 01
Lamp Name:	Lamp Catelog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/11/02



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

IES Indoor Report
Photometric Filename:TR10-12-C5-01 4000K RA90 24D.IES

Indoor Coefficient of Utilization Table

Lum.Name: TR10-12-C5-01 4000K RA90 24D	Lum.Catelog:	Test ID: 01
Lamp Name:	Lamp Catelog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/11/02

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	114	111	109	107	112	109	107	105	105	104	102	101	100	99	98	97	96	94
2	109	104	101	98	107	103	99	96	99	97	94	97	94	92	94	92	90	89
3	104	98	94	90	102	97	93	89	94	91	88	92	89	87	90	87	85	84
4	100	93	88	84	98	92	87	83	90	86	83	88	84	82	86	83	81	79
5	95	88	83	79	94	87	82	79	85	81	78	84	80	77	82	79	76	75
6	92	84	78	74	90	83	78	74	81	77	74	80	76	73	79	75	73	71
7	88	80	74	71	87	79	74	71	78	73	70	77	73	70	76	72	69	68
8	85	76	71	67	83	76	71	67	75	70	67	74	70	67	73	69	66	65
9	81	73	68	64	80	73	68	64	72	67	64	71	67	64	70	66	64	63
10	79	70	65	62	78	70	65	62	69	65	62	68	64	61	68	64	61	60

IES Indoor Report
Photometric Filename:TR10-12-C5-01 4000K RA90 24D.IES

Unified Glare Rating Table

Lum.Name: TR10-12-C5-01 4000K RA90 24D	Lum.Catelog:	Test ID: 01
Lamp Name:	Lamp Catelog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/11/02

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	21.8	22.8	22.1	23.1	23.4	20.8	21.8	21.2	22.1	22.5
	Y=3H	21.7	22.6	22.1	22.9	23.3	20.8	21.7	21.1	22.0	22.4
	Y=4H	21.6	22.5	22.0	22.8	23.2	20.7	21.5	21.1	21.9	22.3
	Y=6H	21.5	22.3	21.9	22.7	23.1	20.6	21.4	21.0	21.7	22.1
	Y=8H	21.5	22.2	21.9	22.6	23.0	20.5	21.3	21.0	21.7	22.1
	Y=12H	21.4	22.1	21.8	22.5	22.9	20.5	21.2	20.9	21.6	22.0
X=4H	Y=2H	21.6	22.5	22.0	22.8	23.2	20.7	21.5	21.1	21.9	22.3
	Y=3H	21.6	22.2	22.0	22.7	23.1	20.7	21.4	21.1	21.8	22.2
	Y=4H	21.5	22.1	21.9	22.5	23.0	20.6	21.2	21.0	21.6	22.1
	Y=6H	21.4	21.9	21.8	22.4	22.8	20.5	21.0	21.0	21.5	22.0
	Y=8H	21.3	21.8	21.8	22.3	22.7	20.4	20.9	20.9	21.4	21.9
	Y=12H	21.2	21.7	21.7	22.2	22.6	20.4	20.8	20.9	21.3	21.8
X=8H	Y=4H	21.3	21.8	21.8	22.3	22.7	20.4	20.9	20.9	21.4	21.9
	Y=6H	21.2	21.6	21.7	22.1	22.6	20.3	20.7	20.9	21.2	21.8
	Y=8H	21.1	21.5	21.7	22.0	22.5	20.3	20.6	20.8	21.1	21.6
	Y=12H	21.1	21.4	21.6	21.9	22.5	20.2	20.5	20.7	21.0	21.6
X=12H	Y=4H	21.3	21.7	21.7	22.2	22.7	20.4	20.8	20.9	21.3	21.8
	Y=6H	21.1	21.5	21.7	22.0	22.5	20.3	20.6	20.8	21.1	21.7
	Y=8H	21.1	21.4	21.6	21.9	22.5	20.2	20.5	20.7	21.0	21.6
Variations with the objerver position at spacings											
S=1.0H		1.4/-1.8					1.5/-1.9				
S=1.5H		2.3/-3.1					2.1/-2.9				
S=2.0H		3.4/-4.9					3.3/-4.3				
Reduced UGR Table:											
Nordic Standard Table:		BK0					BK0				
Correction Value		0.2					0.2				

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

IES Indoor Report
Photometric Filename:TR10-12-C5-01 4000K RA90 24D.IES

Candela Tabulation

V/H	C0.0	C90.0	C180.0	C270.0
γ 0.0	2746.03	2746.03	2746.03	2746.03
γ 5.0	2474.99	2435.16	2524.96	2553.76
γ 10.0	1743.21	1702.95	1868.11	1895.35
γ 15.0	940.72	883.01	1029.20	1041.10
γ 20.0	557.56	507.14	554.89	575.90
γ 25.0	379.23	338.48	357.53	370.98
γ 30.0	266.78	229.55	235.90	245.97
γ 35.0	187.27	154.09	156.41	164.15
γ 40.0	130.22	103.47	104.32	111.84
γ 45.0	84.21	66.16	68.43	74.33
γ 50.0	51.32	41.03	42.65	46.59
γ 55.0	25.30	20.84	25.08	27.90
γ 60.0	13.78	12.93	13.12	13.88
γ 65.0	8.44	8.27	8.58	8.94
γ 70.0	4.19	3.91	4.85	5.09
γ 75.0	1.97	2.18	2.21	2.32
γ 80.0	0.43	0.50	0.36	0.69
γ 85.0	0.00	0.00	0.00	0.00
γ 90.0	0.00	0.00	0.00	0.00
γ 95.0	0.00	0.00	0.00	0.00
γ 100.0	0.00	0.00	0.00	0.00
γ 105.0	0.00	0.00	0.00	0.00
γ 110.0	0.00	0.00	0.00	0.00
γ 115.0	0.00	0.00	0.00	0.00
γ 120.0	0.00	0.00	0.00	0.00
γ 125.0	0.00	0.00	0.00	0.00
γ 130.0	0.00	0.00	0.00	0.00
γ 135.0	0.00	0.00	0.00	0.00
γ 140.0	0.00	0.00	0.00	0.00
γ 145.0	0.00	0.00	0.00	0.00
γ 150.0	0.45	0.55	0.37	0.55
γ 155.0	0.59	1.00	0.91	0.85
γ 160.0	0.90	1.17	1.38	1.19
γ 165.0	1.34	1.49	1.47	1.40
γ 170.0	1.90	1.55	1.51	1.77
γ 175.0	1.50	1.82	1.52	1.37
γ 180.0	1.61	1.61	1.61	1.61