

IES Indoor Report

Photometric Filename: AT10020 15W-2700K-RA90-15D-BK.IES

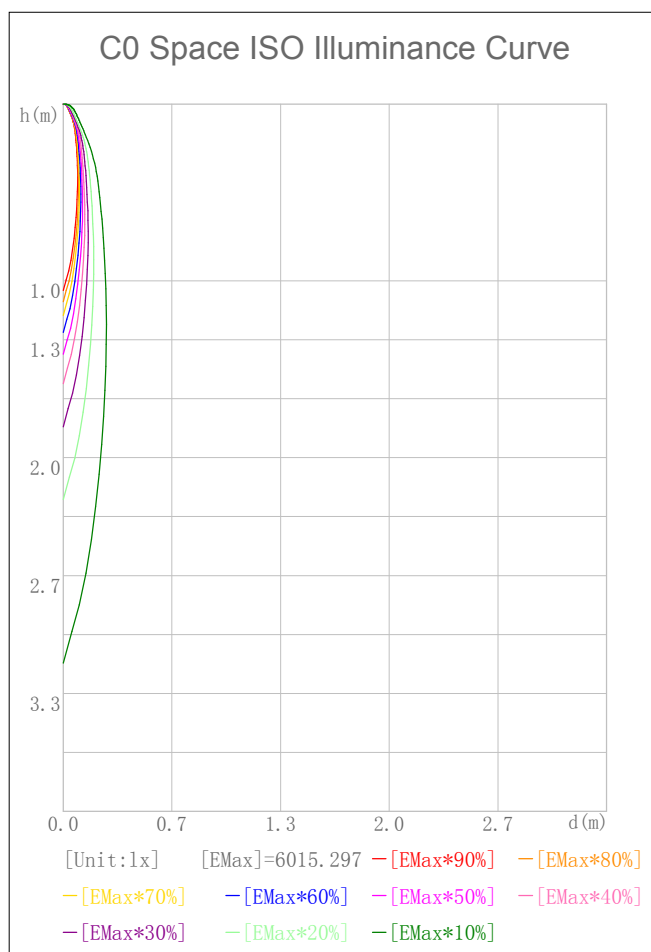
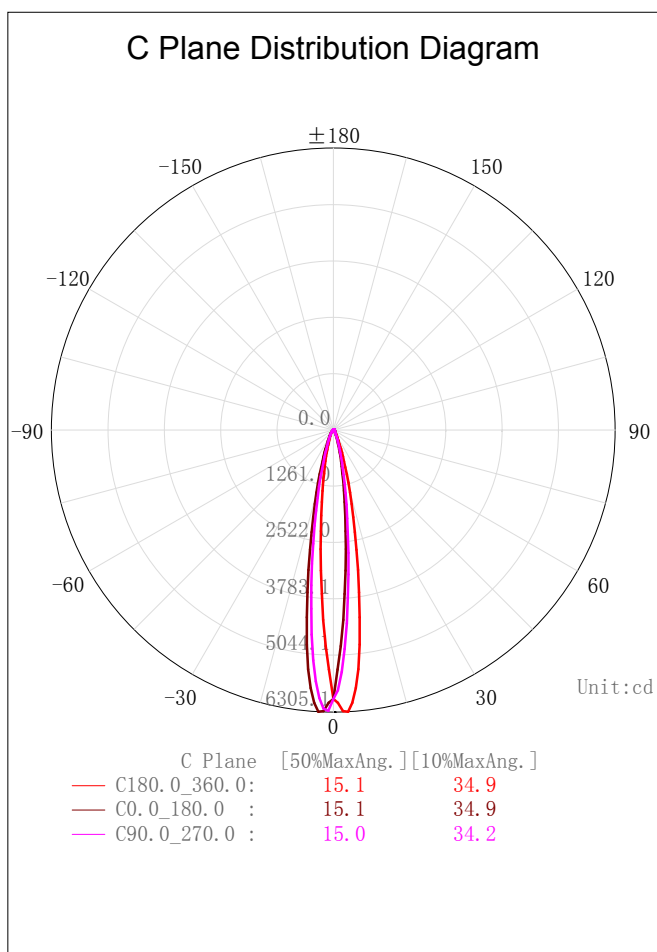
Indoor Luminaire Photometric Data

Description Information

Luminaire Name: AT10020 15W-2700K-RA90-15D-BK	Lum. Catalog: 四线导轨灯	Test ID:
Lamp Name: 1202C4	Lamp Catalog: COB	Test Date: 2022/06/06
Manufacture:	Shld. Ang(°): 15	Test Machine: GON-2000
Test Lab: Test	Frequency(Hz): 50	Lamp CCT(K): 2700 Ra: 90
Lum. Size (W*L*H): 0.000m*0.000m*0.000m	Lum. Area (m2): 0.000	Lum. W (kg): 0.000
Test System: C, γ	Test Step: C=30.0 γ=1.0	Temp. (°C): 25
		Humidity (%): 50.0

Character Parameter

Lamp Speciality Parameter		Luminaire Speciality Parameter	
Rated Flux(lm): 900.000	Luminaire Flux(lm): 835.156	Field Angle(10%Imax): 34.9(°)	
Rated Power(W): 15	Luminaire Efficiency: 92.80%	Down Lumens&Percent: 814.932lm 97.58%	
Rated Voltage(V): 220	Luminaire EER(lm/W): 54.621	Up Lumens&Percent: 20.224lm 2.42%	
Tested Power(W): 15.290	Max. Candela(cd): 6305.120	S/MH: C0_a180=0.269 C90_270=0.267	
Lamps' Inside: 1	Max Cand@Ang.(°): C=180.0 γ=3.0	CIE Type: Semi-Direct	
Tested Electrics(V, A, pf): 220.5, 0.071, 0.968	Beam Angle(50%Imax): 15.1(°)	ErP Φ use(90°): 796.438lm	
Lamp Size(W*L*H): 0.000m*0.000m*0.000m	Left=-5.0°, Right=10.0°	IRF (%): 1800.368	



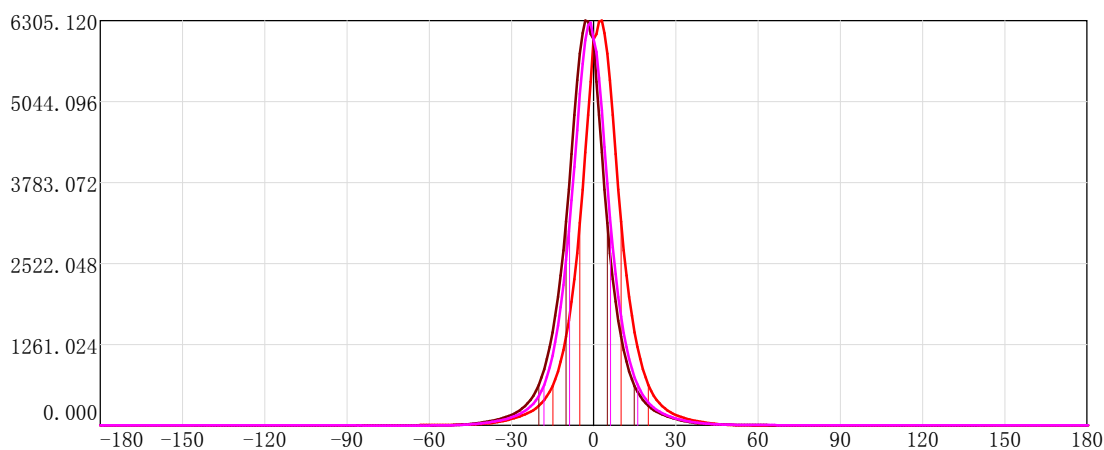
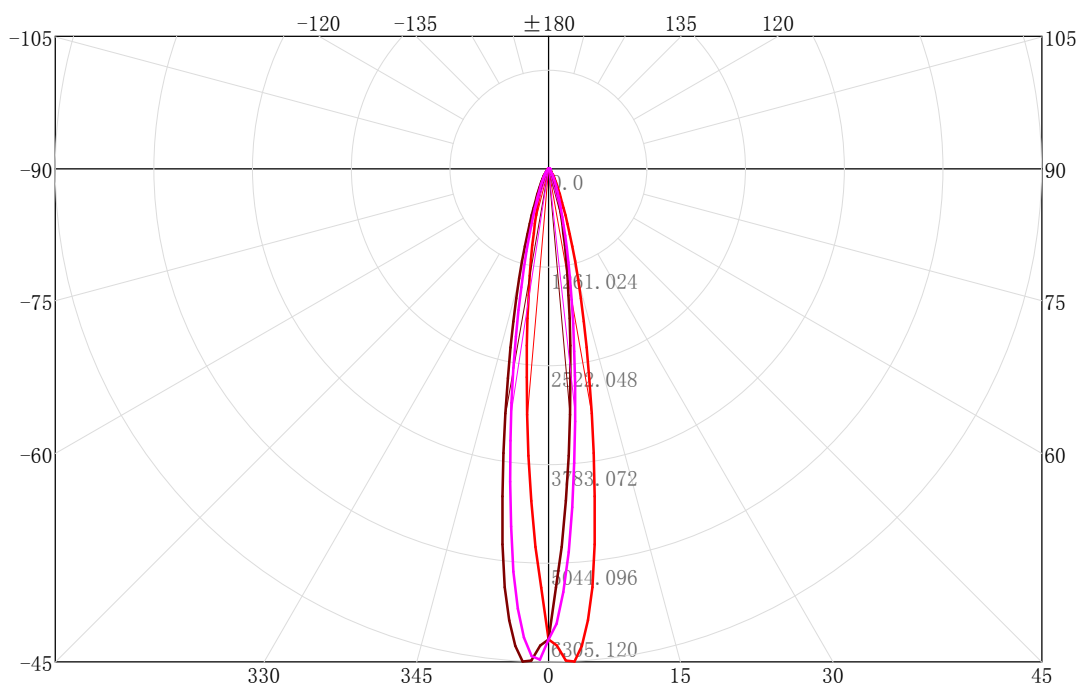
IES Indoor Report

Photometric Filename: AT10020 15W-2700K-RA90-15D-BK.IES

2D Plane Light Intensity Distribution Curve

Lum. Name: AT10020 15W-2700K-RA90-15D-BK	Lum. Catalog: 四线导轨灯	Test ID:
Lamp Name: 1202C4	Lamp Catalog: COB	Test Lab: Test
Manufacture:	Test Machine: GON-2000	Test Date: 2022/06/06

C Plane Distribution Diagram



	C Plane	[50%MaxAng.]	[10%MaxAng.]	Unit:cd
—	C180.0_360.0:	15.1	34.9	
—	C0.0_180.0 :	15.1	34.9	
—	C90.0_270.0 :	15.0	34.2	

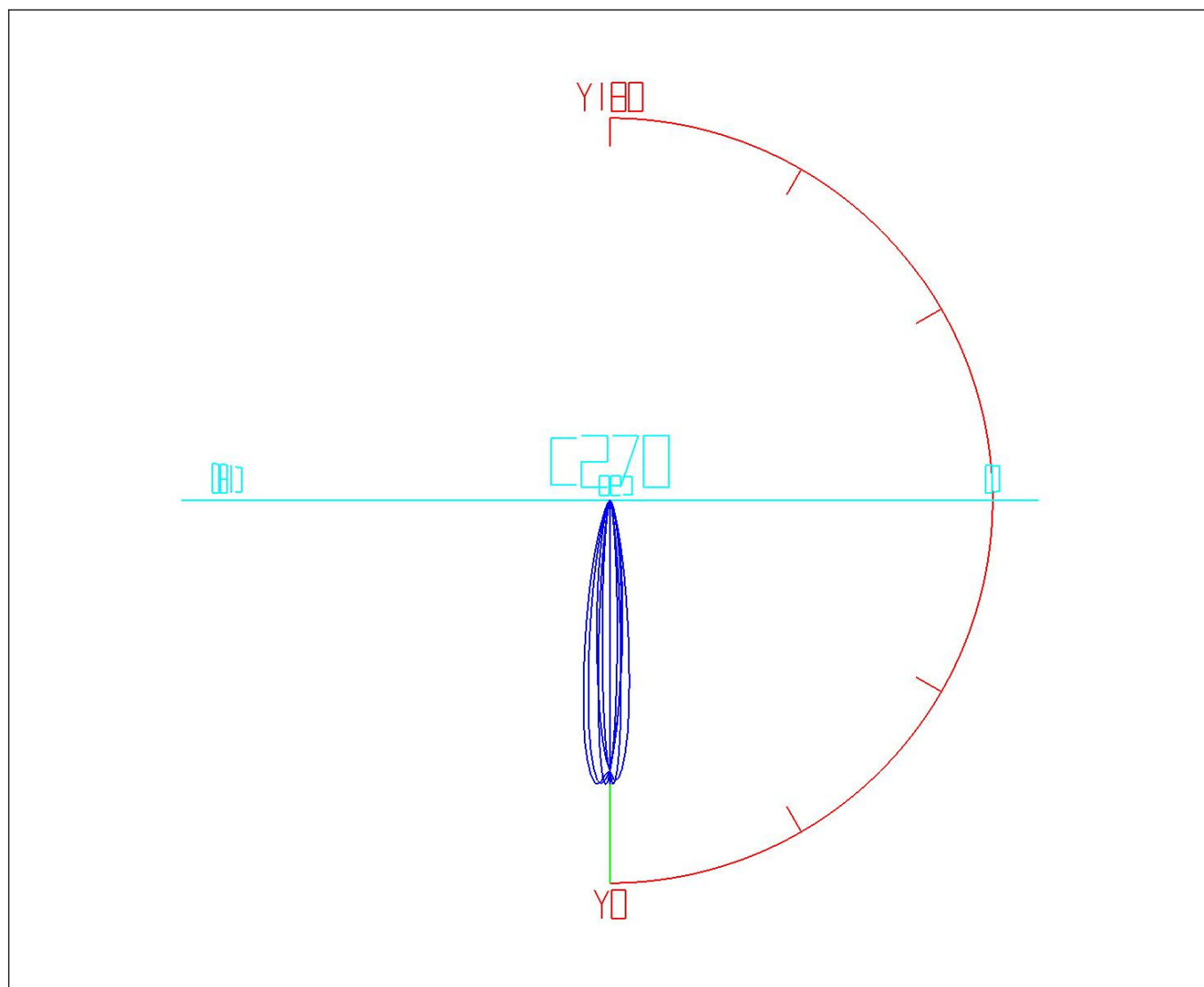
IES Indoor Report

Photometric Filename: AT10020 15W-2700K-RA90-15D-BK.IES

3D Light Intensity Distribution Modal

Lum. Name: AT10020 15W-2700K-RA90-15D-BK	Lum. Catalog: 四线导轨灯	Test ID:
Lamp Name: 1202C4	Lamp Catalog: COB	Test Lab: Test
Manufacture:	Test Machine: GON-2000	Test Date: 2022/06/06

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:AT10020 15W-2700K-RA90-15D-BK.IES

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	5.72	5.72	0.64	0.64	47.0-48.0	1.18	793.77	0.13	88.20
1.0-2.0	16.78	22.50	1.86	2.50	48.0-49.0	1.07	794.84	0.12	88.32
2.0-3.0	26.62	49.12	2.96	5.46	49.0-50.0	0.97	795.80	0.11	88.42
3.0-4.0	34.61	83.74	3.85	9.30	50.0-51.0	0.88	796.68	0.10	88.52
4.0-5.0	40.50	124.23	4.50	13.80	51.0-52.0	0.81	797.50	0.09	88.61
5.0-6.0	44.24	168.48	4.92	18.72	52.0-53.0	0.76	798.25	0.08	88.69
6.0-7.0	45.89	214.37	5.10	23.82	53.0-54.0	0.70	798.96	0.08	88.77
7.0-8.0	45.88	260.25	5.10	28.92	54.0-55.0	0.66	799.62	0.07	88.85
8.0-9.0	44.76	305.01	4.97	33.89	55.0-56.0	0.63	800.25	0.07	88.92
9.0-10.0	42.80	347.81	4.76	38.65	56.0-57.0	0.59	800.84	0.07	88.98
10.0-11.0	40.22	388.03	4.47	43.11	57.0-58.0	0.56	801.40	0.06	89.04
11.0-12.0	37.37	425.40	4.15	47.27	58.0-59.0	0.55	801.95	0.06	89.11
12.0-13.0	34.42	459.81	3.82	51.09	59.0-60.0	0.53	802.49	0.06	89.17
13.0-14.0	31.46	491.27	3.50	54.59	60.0-61.0	0.52	803.00	0.06	89.22
14.0-15.0	28.56	519.84	3.17	57.76	61.0-62.0	0.51	803.51	0.06	89.28
15.0-16.0	25.82	545.65	2.87	60.63	62.0-63.0	0.50	804.00	0.06	89.33
16.0-17.0	23.27	568.92	2.59	63.21	63.0-64.0	0.49	804.49	0.05	89.39
17.0-18.0	20.95	589.88	2.33	65.54	64.0-65.0	0.47	804.96	0.05	89.44
18.0-19.0	18.89	608.76	2.10	67.64	65.0-66.0	0.46	805.43	0.05	89.49
19.0-20.0	17.06	625.83	1.90	69.54	66.0-67.0	0.45	805.88	0.05	89.54
20.0-21.0	15.46	641.29	1.72	71.25	67.0-68.0	0.45	806.33	0.05	89.59
21.0-22.0	14.06	655.35	1.56	72.82	68.0-69.0	0.44	806.76	0.05	89.64
22.0-23.0	12.83	668.17	1.43	74.24	69.0-70.0	0.42	807.19	0.05	89.69
23.0-24.0	11.75	679.92	1.31	75.55	70.0-71.0	0.41	807.60	0.05	89.73
24.0-25.0	10.80	690.72	1.20	76.75	71.0-72.0	0.41	808.01	0.05	89.78
25.0-26.0	9.94	700.66	1.10	77.85	72.0-73.0	0.41	808.42	0.05	89.82
26.0-27.0	9.16	709.82	1.02	78.87	73.0-74.0	0.40	808.82	0.04	89.87
27.0-28.0	8.45	718.28	0.94	79.81	74.0-75.0	0.40	809.22	0.04	89.91
28.0-29.0	7.80	726.08	0.87	80.68	75.0-76.0	0.39	809.62	0.04	89.96
29.0-30.0	7.20	733.27	0.80	81.47	76.0-77.0	0.39	810.00	0.04	90.00
30.0-31.0	6.63	739.91	0.74	82.21	77.0-78.0	0.39	810.39	0.04	90.04
31.0-32.0	6.10	746.01	0.68	82.89	78.0-79.0	0.38	810.78	0.04	90.09
32.0-33.0	5.61	751.61	0.62	83.51	79.0-80.0	0.38	811.16	0.04	90.13
33.0-34.0	5.14	756.75	0.57	84.08	80.0-81.0	0.38	811.53	0.04	90.17
34.0-35.0	4.71	761.46	0.52	84.61	81.0-82.0	0.38	811.91	0.04	90.21
35.0-36.0	4.30	765.76	0.48	85.08	82.0-83.0	0.38	812.29	0.04	90.25
36.0-37.0	3.91	769.67	0.43	85.52	83.0-84.0	0.38	812.67	0.04	90.30
37.0-38.0	3.54	773.21	0.39	85.91	84.0-85.0	0.38	813.04	0.04	90.34
38.0-39.0	3.20	776.42	0.36	86.27	85.0-86.0	0.38	813.42	0.04	90.38
39.0-40.0	2.89	779.31	0.32	86.59	86.0-87.0	0.38	813.79	0.04	90.42
40.0-41.0	2.60	781.90	0.29	86.88	87.0-88.0	0.38	814.17	0.04	90.46
41.0-42.0	2.32	784.23	0.26	87.14	88.0-89.0	0.38	814.55	0.04	90.51
42.0-43.0	2.08	786.31	0.23	87.37	89.0-90.0	0.38	814.93	0.04	90.55
43.0-44.0	1.85	788.16	0.21	87.57	90.0-91.0	0.38	815.31	0.04	90.59
44.0-45.0	1.65	789.80	0.18	87.76	91.0-92.0	0.38	815.68	0.04	90.63
45.0-46.0	1.47	791.27	0.16	87.92	92.0-93.0	0.37	816.05	0.04	90.67
46.0-47.0	1.32	792.59	0.15	88.07	93.0-94.0	0.36	816.42	0.04	90.71

-
-
-

IES Indoor Report

Photometric Filename: AT10020 15W-2700K-RA90-15D-BK.IES

Zonal Flux Tabulation - (Cont.)

Zone (γ)	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	Sums%Lamp	Zone (γ)	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	Sums%Lamp
94.0-95.0	0.36	816.78	0.04	90.75	141.0-142.0	0.20	829.72	0.02	92.19
95.0-96.0	0.36	817.14	0.04	90.79	142.0-143.0	0.20	829.93	0.02	92.21
96.0-97.0	0.35	817.49	0.04	90.83	143.0-144.0	0.20	830.13	0.02	92.24
97.0-98.0	0.35	817.83	0.04	90.87	144.0-145.0	0.20	830.33	0.02	92.26
98.0-99.0	0.34	818.18	0.04	90.91	145.0-146.0	0.20	830.53	0.02	92.28
99.0-100.0	0.34	818.51	0.04	90.95	146.0-147.0	0.20	830.73	0.02	92.30
100.0-101.0	0.33	818.84	0.04	90.98	147.0-148.0	0.20	830.92	0.02	92.32
101.0-102.0	0.33	819.17	0.04	91.02	148.0-149.0	0.19	831.12	0.02	92.35
102.0-103.0	0.32	819.49	0.04	91.05	149.0-150.0	0.19	831.31	0.02	92.37
103.0-104.0	0.32	819.80	0.04	91.09	150.0-151.0	0.19	831.51	0.02	92.39
104.0-105.0	0.31	820.12	0.03	91.12	151.0-152.0	0.20	831.70	0.02	92.41
105.0-106.0	0.31	820.43	0.03	91.16	152.0-153.0	0.20	831.90	0.02	92.43
106.0-107.0	0.31	820.73	0.03	91.19	153.0-154.0	0.19	832.09	0.02	92.45
107.0-108.0	0.31	821.04	0.03	91.23	154.0-155.0	0.19	832.29	0.02	92.48
108.0-109.0	0.31	821.35	0.03	91.26	155.0-156.0	0.19	832.48	0.02	92.50
109.0-110.0	0.31	821.65	0.03	91.29	156.0-157.0	0.19	832.67	0.02	92.52
110.0-111.0	0.30	821.96	0.03	91.33	157.0-158.0	0.19	832.85	0.02	92.54
111.0-112.0	0.29	822.25	0.03	91.36	158.0-159.0	0.18	833.04	0.02	92.56
112.0-113.0	0.29	822.54	0.03	91.39	159.0-160.0	0.18	833.22	0.02	92.58
113.0-114.0	0.29	822.83	0.03	91.43	160.0-161.0	0.18	833.40	0.02	92.60
114.0-115.0	0.29	823.13	0.03	91.46	161.0-162.0	0.17	833.57	0.02	92.62
115.0-116.0	0.30	823.42	0.03	91.49	162.0-163.0	0.17	833.73	0.02	92.64
116.0-117.0	0.29	823.71	0.03	91.52	163.0-164.0	0.16	833.89	0.02	92.65
117.0-118.0	0.28	824.00	0.03	91.56	164.0-165.0	0.15	834.04	0.02	92.67
118.0-119.0	0.28	824.28	0.03	91.59	165.0-166.0	0.14	834.19	0.02	92.69
119.0-120.0	0.28	824.55	0.03	91.62	166.0-167.0	0.13	834.32	0.01	92.70
120.0-121.0	0.28	824.83	0.03	91.65	167.0-168.0	0.13	834.45	0.01	92.72
121.0-122.0	0.28	825.11	0.03	91.68	168.0-169.0	0.12	834.56	0.01	92.73
122.0-123.0	0.27	825.38	0.03	91.71	169.0-170.0	0.11	834.67	0.01	92.74
123.0-124.0	0.26	825.64	0.03	91.74	170.0-171.0	0.09	834.76	0.01	92.75
124.0-125.0	0.26	825.90	0.03	91.77	171.0-172.0	0.08	834.85	0.01	92.76
125.0-126.0	0.26	826.15	0.03	91.79	172.0-173.0	0.07	834.92	0.01	92.77
126.0-127.0	0.25	826.40	0.03	91.82	173.0-174.0	0.06	834.98	0.01	92.78
127.0-128.0	0.25	826.65	0.03	91.85	174.0-175.0	0.05	835.04	0.01	92.78
128.0-129.0	0.24	826.89	0.03	91.88	175.0-176.0	0.04	835.08	0.00	92.79
129.0-130.0	0.24	827.13	0.03	91.90	176.0-177.0	0.03	835.11	0.00	92.79
130.0-131.0	0.23	827.36	0.03	91.93	177.0-178.0	0.02	835.14	0.00	92.79
131.0-132.0	0.23	827.59	0.03	91.95	178.0-179.0	0.01	835.15	0.00	92.79
132.0-133.0	0.23	827.82	0.03	91.98	179.0-180.0	0.00	835.16	0.00	92.80
133.0-134.0	0.23	828.04	0.03	92.00					
134.0-135.0	0.22	828.26	0.02	92.03					
135.0-136.0	0.22	828.48	0.02	92.05					
136.0-137.0	0.22	828.70	0.02	92.08					
137.0-138.0	0.21	828.91	0.02	92.10					
138.0-139.0	0.20	829.11	0.02	92.12					
139.0-140.0	0.20	829.32	0.02	92.15					
140.0-141.0	0.20	829.52	0.02	92.17					

-
-
-

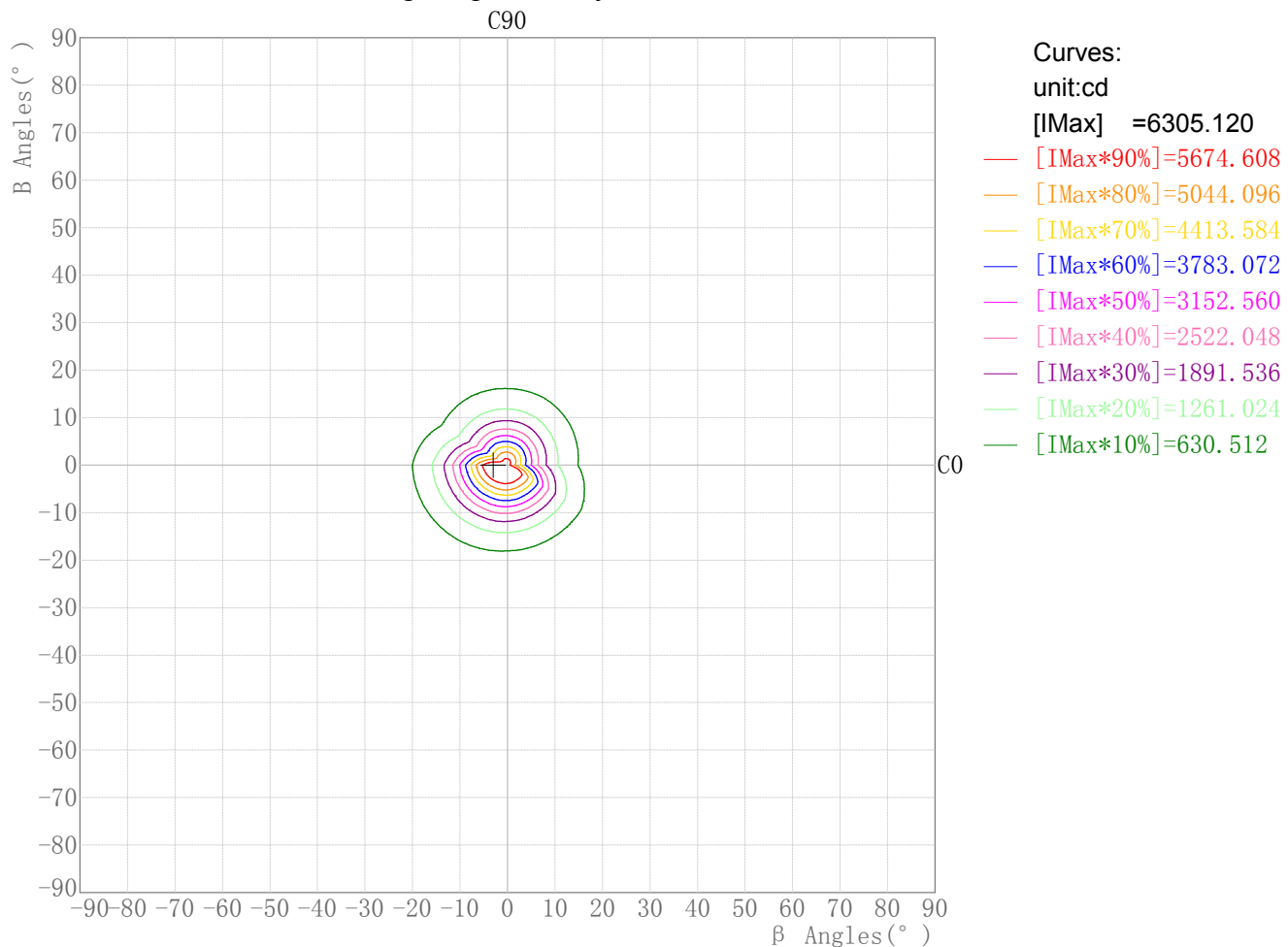
IES Indoor Report

Photometric Filename: AT10020 15W-2700K-RA90-15D-BK.IES

Rectangle ISO Lighting Intensity Diagram

Lum. Name: AT10020 15W-2700K-RA90-15D-BK	Lum. Catalog: 四线导轨灯	Test ID:
Lamp Name: 1202C4	Lamp Catalog: COB	Test Lab: Test
Manufacture:	Test Machine: GON-2000	Test Date: 2022/06/06

ISO Lighting Intensity Curve



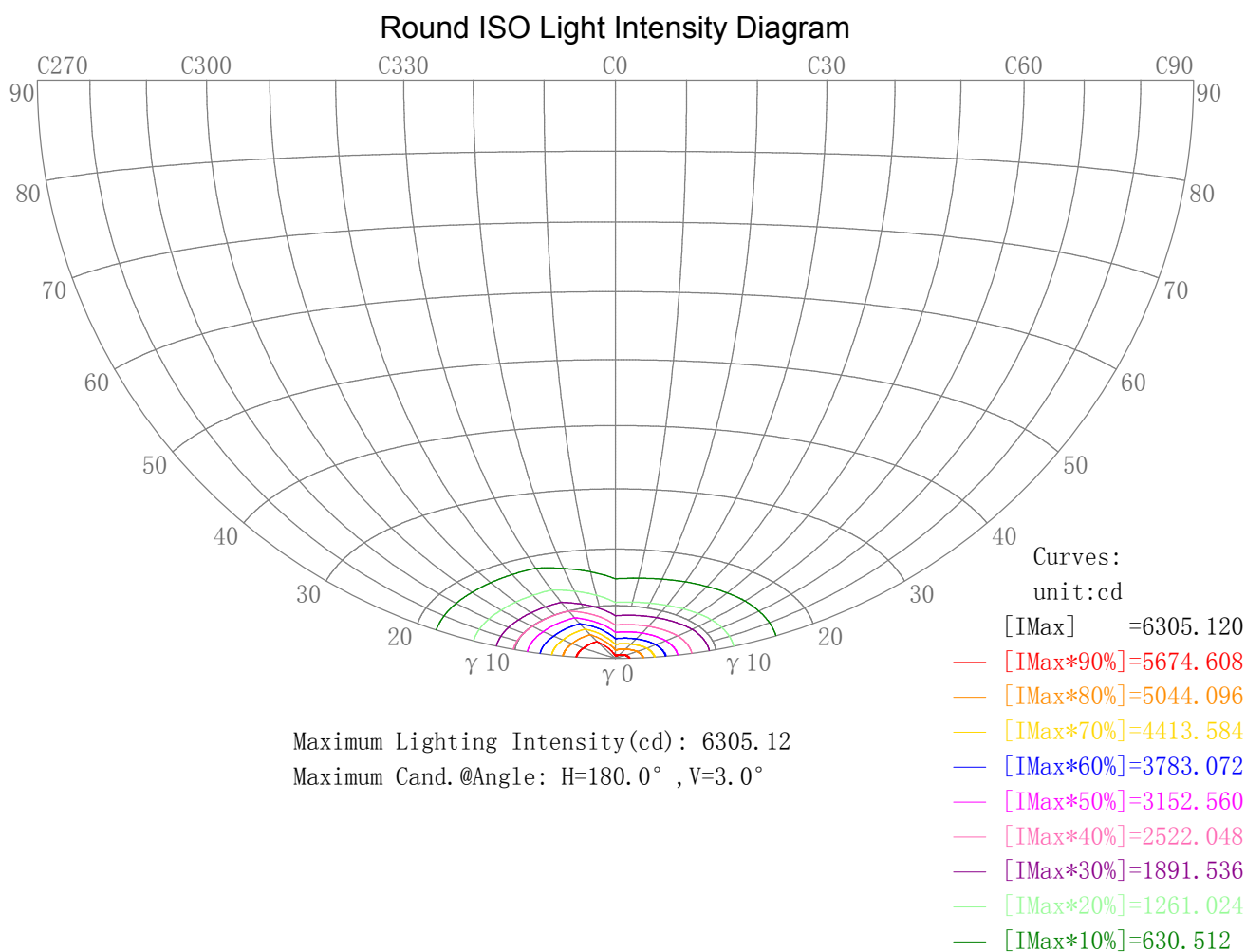
Maximum Light Intensity(cd): 6305.12
Maximum Cand.@Angle: H=-3.0°,V=0.0°

IES Indoor Report

Photometric Filename: AT10020 15W-2700K-RA90-15D-BK.IES

Round ISO Lighting Intensity Diagram

Lum. Name: AT10020 15W-2700K-RA90-15D-BK	Lum. Catalog: 四线导轨灯	Test ID:
Lamp Name: 1202C4	Lamp Catalog: COB	Test Lab: Test
Manufacture:	Test Machine: GON-2000	Test Date: 2022/06/06



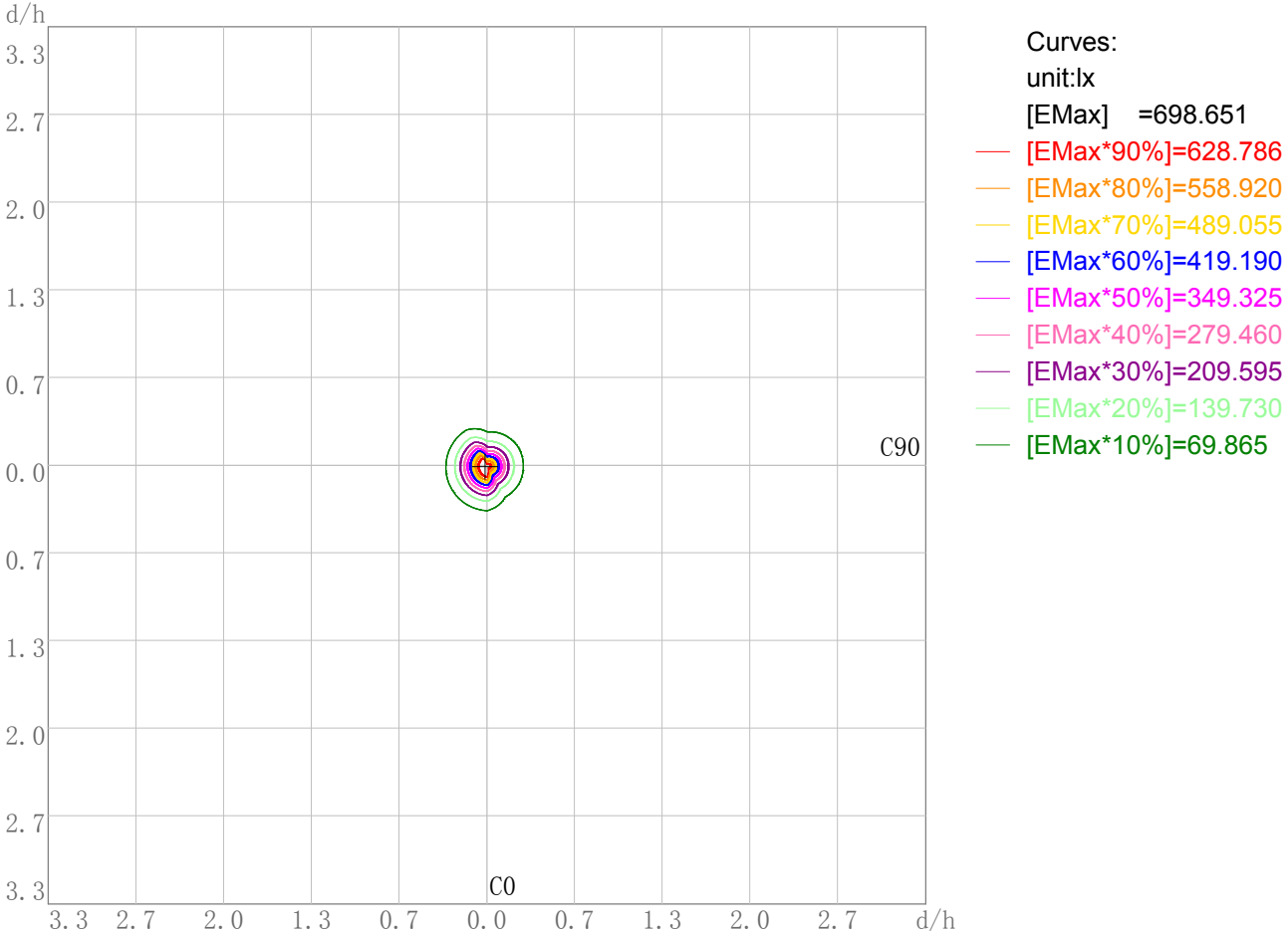
IES Indoor Report

Photometric Filename: AT10020 15W-2700K-RA90-15D-BK.IES

Plane ISO-Illuminance Diagram

Lum. Name: AT10020 15W-2700K-RA90-15D-BK	Lum. Catalog: 四线导轨灯	Test ID:
Lamp Name: 1202C4	Lamp Catalog: COB	Test Lab: Test
Manufacture:	Test Machine: GON-2000	Test Date: 2022/06/06

Plane ISO-Illuminance Curve



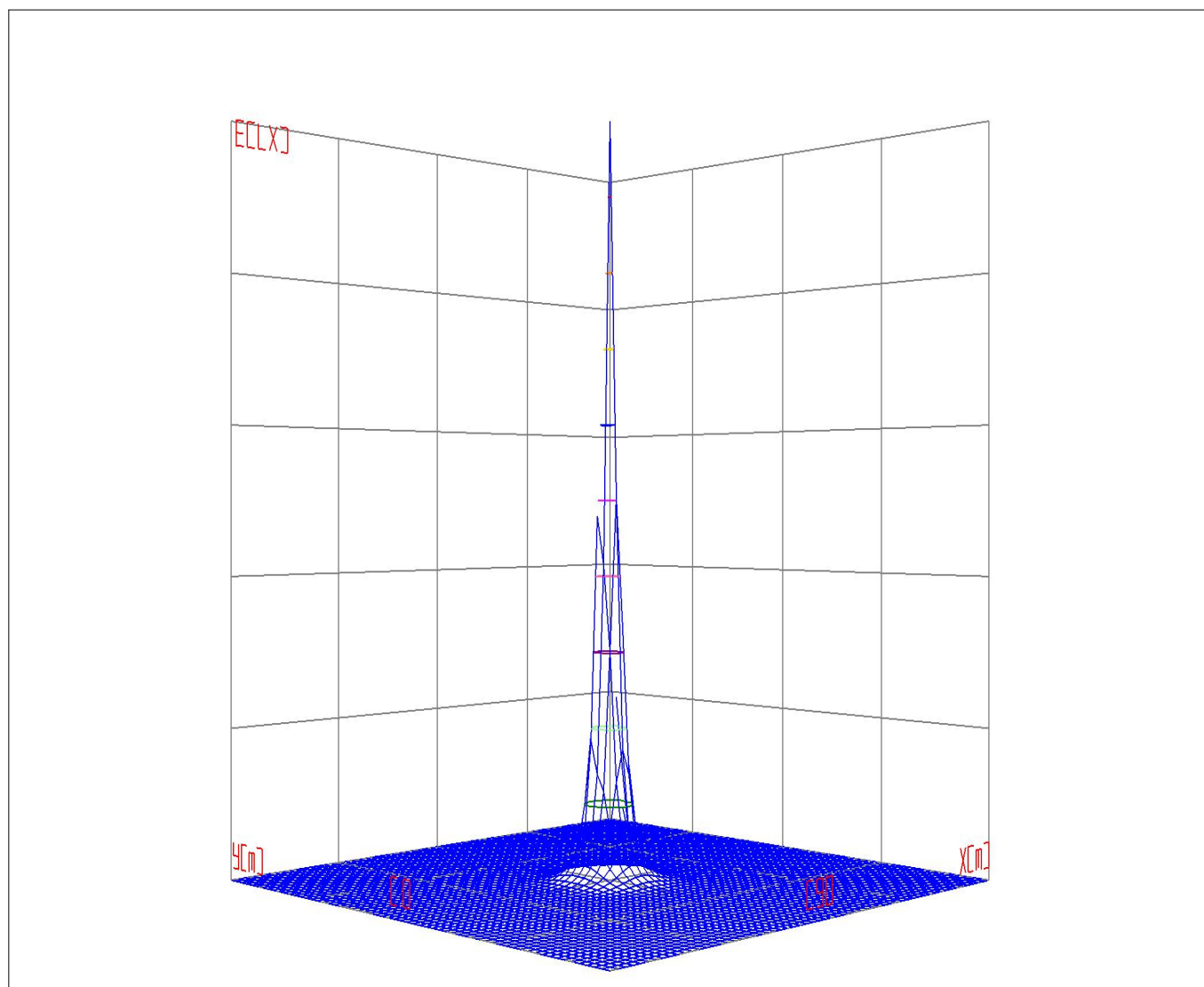
IES Indoor Report

Photometric Filename: AT10020 15W-2700K-RA90-15D-BK.IES

3D Plane ISO Illuminance Diagram

Lum. Name: AT10020 15W-2700K-RA90-15D-BK	Lum. Catalog: 四线导轨灯	Test ID:
Lamp Name: 1202C4	Lamp Catalog: COB	Test Lab: Test
Manufacture:	Test Machine: GON-2000	Test Date: 2022/06/06

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

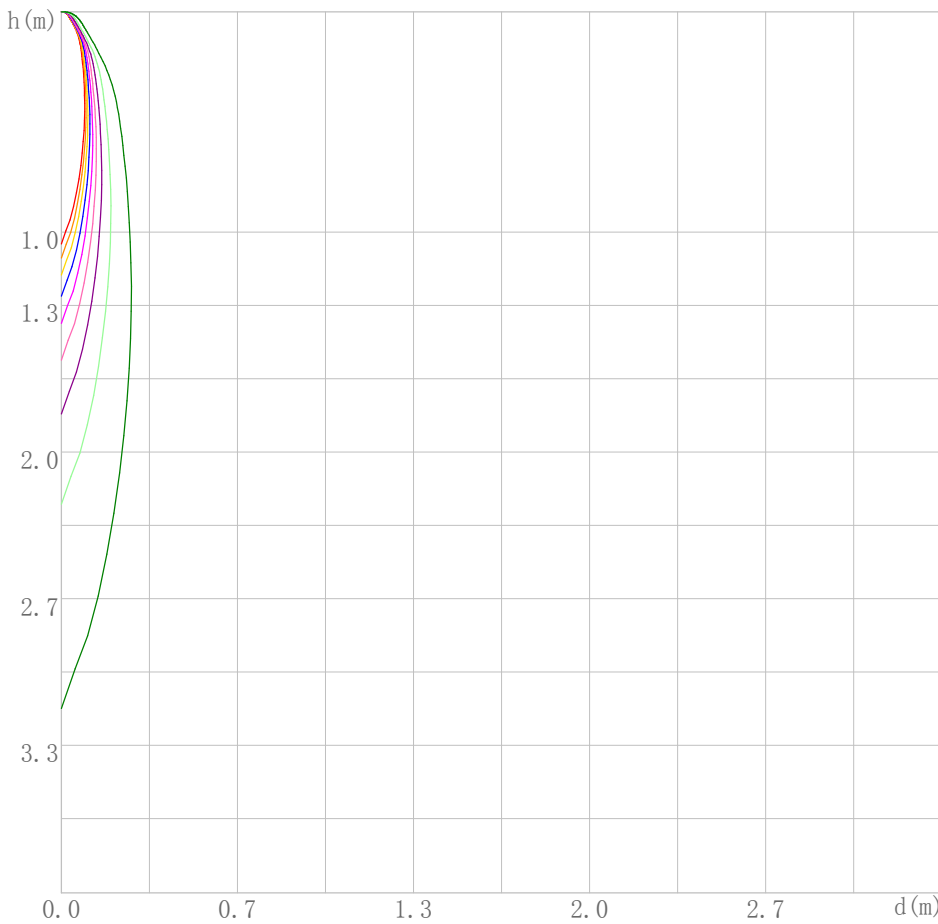
IES Indoor Report

Photometric Filename: AT10020 15W-2700K-RA90-15D-BK.IES

Space ISO Illuminance Diagram

Lum. Name: AT10020 15W-2700K-RA90-15D-BK	Lum. Catalog: 四线导轨灯	Test ID:
Lamp Name: 1202C4	Lamp Catalog: COB	Test Lab: Test
Manufacture:	Test Machine: GON-2000	Test Date: 2022/06/06

Space ISO Illuminance Curve



- Curves:
[Unit: lx]
[EMax] =6015.297
- [EMax*90%]=5413.767
 - [EMax*80%]=4812.238
 - [EMax*70%]=4210.708
 - [EMax*60%]=3609.178
 - [EMax*50%]=3007.648
 - [EMax*40%]=2406.119
 - [EMax*30%]=1804.589
 - [EMax*20%]=1203.059
 - [EMax*10%]=601.530

Space Plane Maximum Illuminance and @Angle:6015.30lx,0.0deg
Plane Maximum Lighting Intensity and @Angle:6015.297cd,0deg

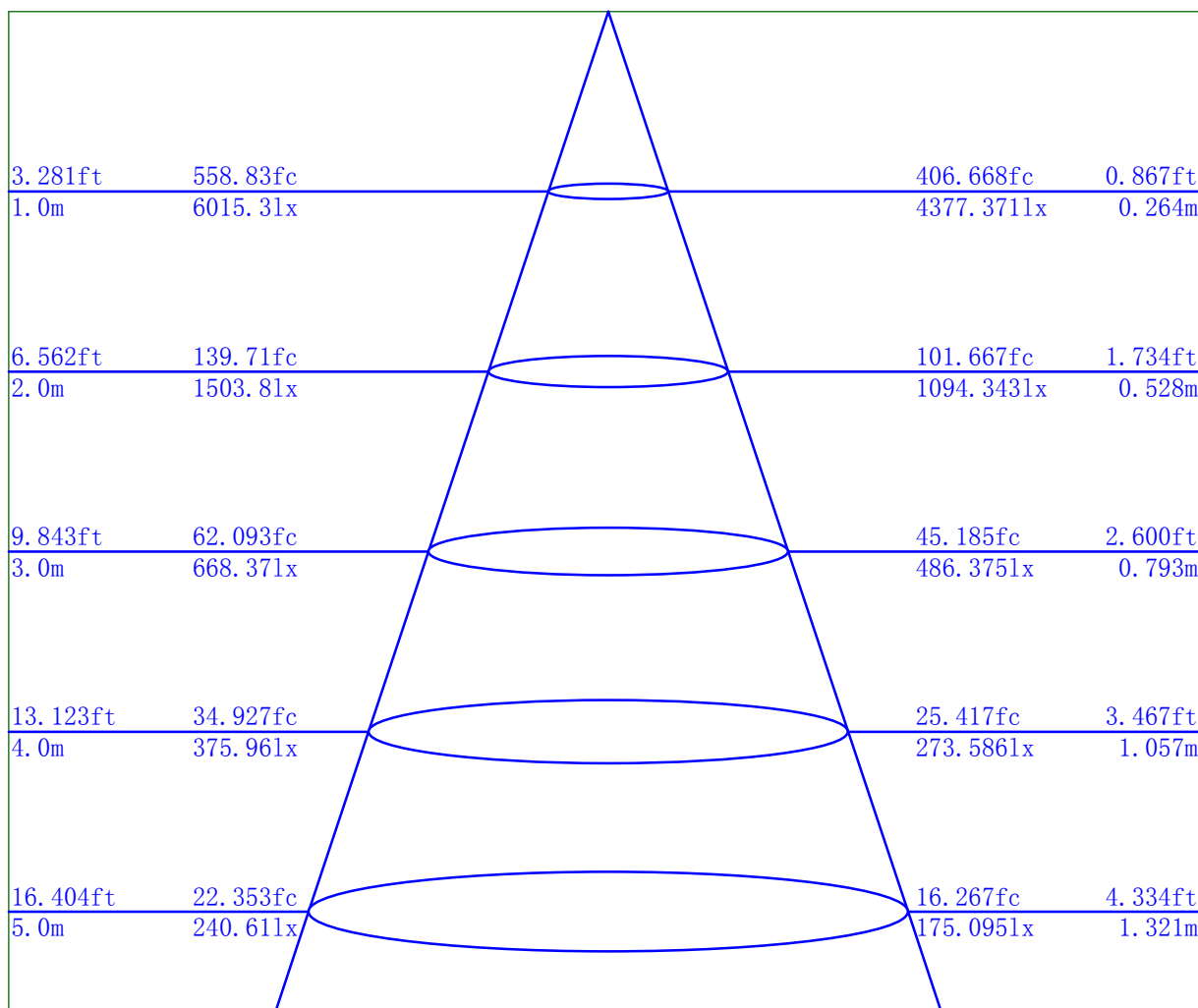
IES Indoor Report

Photometric Filename: AT10020 15W-2700K-RA90-15D-BK.IES

Illuminance-Distance Diagram

Lum. Name: AT10020 15W-2700K-RA90-15D-BK	Lum. Catalog: 四线导轨灯	Test ID:
Lamp Name: 1202C4	Lamp Catalog: COB	Test Lab: Test
Manufacture:	Test Machine: GON-2000	Test Date: 2022/06/06

Illuminance-Distance Curve



Height

Center E

Average E

Diameter

Beam Angle: 15.1

-
-
-

IES Indoor Report

Photometric Filename: AT10020 15W-2700K-RA90-15D-BK.IES

Indoor Luminance Limiting Curves

Lum. Name: AT10020 15W-2700K-RA90-15D-BK	Lum. Catalog: 四线导轨灯	Test ID:
Lamp Name: 1202C4	Lamp Catalog: COB	Test Lab: Test
Manufacture:	Test Machine: GON-2000	Test Date: 2022/06/06

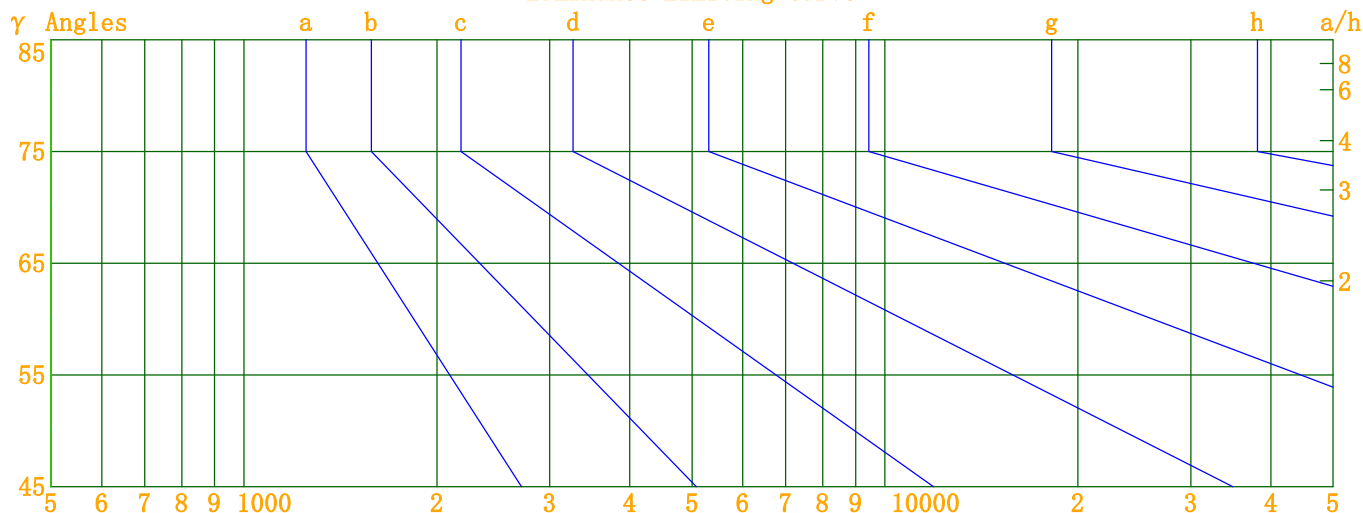
Glare Grade Table

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	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

Luminance Limiting Curve



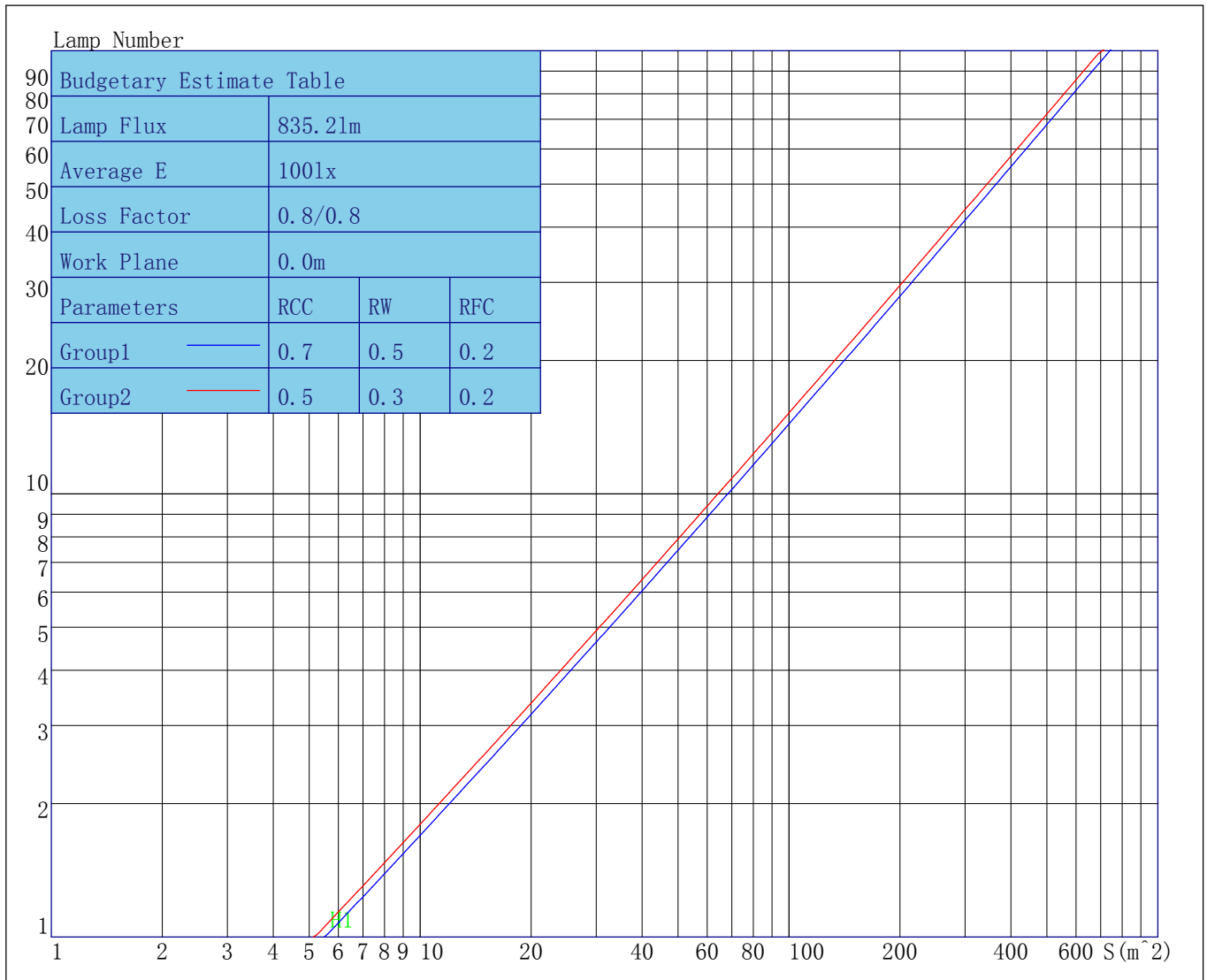
Luminous Size: Length(m)=0.000 Width(m)=0.000 Height(m)=0.000 Area(m^2)=0.000000
 Luminous Type: Without Luminous Side
 Luminous Curves: C0-C180 Color: — C90-C270 Color: —

IES Indoor Report

Photometric Filename: AT10020 15W-2700K-RA90-15D-BK.IES

Indoor Budgetary Estimate Table

Lum. Name: AT10020 15W-2700K-RA90-15D-BK	Lum. Catalog: 四线导轨灯	Test ID:
Lamp Name: 1202C4	Lamp Catalog: COB	Test Lab: Test
Manufacture:	Test Machine: GON-2000	Test Date: 2022/06/06



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: AT10020 15W-2700K-RA90-15D-BK.IES

Indoor Coefficient of Utilization Table

Lum. Name: AT10020 15W-2700K-RA90-15D-BK	Lum. Catalog: 四线导轨灯	Test ID:
Lamp Name: 1202C4	Lamp Catalog: COB	Test Lab: Test
Manufacture:	Test Machine: GON-2000	Test Date: 2022/06/06

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	110	110	110	110	107	107	107	107	102	102	102	97	97	97	93	93	93	91
1	106	104	102	100	103	102	100	98	97	96	95	94	93	92	90	89	89	87
2	102	99	96	93	100	97	94	92	94	91	90	91	89	87	88	86	85	84
3	99	94	91	88	97	93	90	87	90	87	85	88	86	84	85	84	82	81
4	96	90	86	84	94	89	86	83	87	84	82	85	83	81	83	81	80	78
5	93	87	83	80	91	86	82	80	84	81	79	83	80	78	81	79	77	76
6	90	84	80	77	89	83	79	77	82	78	76	80	78	75	79	77	75	74
7	87	81	77	75	86	81	77	74	79	76	74	78	75	73	77	75	73	72
8	85	79	75	72	84	78	75	72	77	74	72	76	73	71	75	73	71	70
9	83	77	73	70	82	76	73	70	75	72	70	74	72	69	74	71	69	68
10	81	75	71	68	80	74	71	68	73	70	68	73	70	68	72	69	67	67

IES Indoor Report

Photometric Filename:AT10020 15W-2700K-RA90-15D-BK.IES

Unified Glare Rating Table

Lum. Name: AT10020 15W-2700K-RA90-15D-BK	Lum. Catalog: 四线导轨灯	Test ID:
Lamp Name: 1202C4	Lamp Catalog: COB	Test Lab: Test
Manufacture:	Test Machine:GON-2000	Test Date: 2022/06/06

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	-1.1	-0.4	-0.7	0.0	0.4	-1.1	-0.4	-0.7	0.0	0.4
	Y=3H	-1.3	-0.7	-0.9	-0.3	0.1	-1.3	-0.7	-0.9	-0.3	0.1
	Y=4H	-1.4	-0.9	-1.0	-0.4	0.0	-1.4	-0.9	-1.0	-0.4	0.0
	Y=6H	-1.5	-1.0	-1.1	-0.6	-0.1	-1.5	-1.0	-1.1	-0.6	-0.1
	Y=8H	-1.6	-1.1	-1.1	-0.7	-0.2	-1.6	-1.1	-1.1	-0.7	-0.2
	Y=12H	-1.7	-1.2	-1.2	-0.8	-0.3	-1.7	-1.2	-1.2	-0.8	-0.3
X=4H	Y=2H	-1.4	-0.9	-1.0	-0.4	0.0	-1.4	-0.9	-1.0	-0.4	0.0
	Y=3H	-1.6	-1.2	-1.2	-0.8	-0.3	-1.6	-1.2	-1.2	-0.8	-0.3
	Y=4H	-1.8	-1.4	-1.3	-0.9	-0.4	-1.8	-1.4	-1.3	-0.9	-0.4
	Y=6H	-1.9	-1.6	-1.4	-1.1	-0.6	-1.9	-1.6	-1.4	-1.1	-0.6
	Y=8H	-2.0	-1.7	-1.4	-1.2	-0.7	-2.0	-1.7	-1.4	-1.2	-0.7
	Y=12H	-2.0	-1.8	-1.5	-1.3	-0.8	-2.0	-1.8	-1.5	-1.3	-0.8
X=8H	Y=4H	-2.0	-1.7	-1.4	-1.2	-0.7	-2.0	-1.7	-1.4	-1.2	-0.7
	Y=6H	-2.1	-1.9	-1.5	-1.4	-0.8	-2.1	-1.9	-1.5	-1.4	-0.8
	Y=8H	-2.1	-2.0	-1.5	-1.5	-0.9	-2.1	-2.0	-1.5	-1.5	-0.9
	Y=12H	-2.2	-2.1	-1.6	-1.6	-0.9	-2.2	-2.1	-1.6	-1.6	-0.9
X=12H	Y=4H	-2.0	-1.8	-1.5	-1.3	-0.8	-2.0	-1.8	-1.5	-1.3	-0.8
	Y=6H	-2.1	-2.0	-1.6	-1.5	-0.9	-2.1	-2.0	-1.6	-1.5	-0.9
	Y=8H	-2.2	-2.1	-1.6	-1.6	-0.9	-2.2	-2.1	-1.6	-1.6	-0.9
Variations with the objverer position at spacings											
S=1.0H	0.0/0.0					0.0/0.0					
S=1.5H	0.0/0.0					0.0/0.0					
S=2.0H	0.0/0.0					0.0/0.0					
Reduced UGR Table:											
Nordic Standard Table:	BKO					BKO					
Correction Value	0.0					0.0					

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

-
-
-

IES Indoor Report

Photometric Filename: AT10020 15W-2700K-RA90-15D-BK.IES

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
γ 0.0	6015.30	6015.30	6015.30	6015.30	6015.30	6015.30	6015.30	6015.30	6015.30	6015.30	6015.30	6015.30
γ 1.0	5353.60	5546.08	5737.90	5816.84	5869.21	5773.00	6095.21	6174.44	6252.68	6274.09	6290.73	6207.83
γ 2.0	4835.24	5062.72	5310.50	5412.16	5477.92	5378.17	6289.04	6272.57	6254.59	6229.67	6201.28	6153.89
γ 3.0	4249.13	4498.96	4781.88	4902.40	4984.44	4873.86	6305.12	6177.89	6063.16	5996.57	5939.65	5923.36
γ 4.0	3675.70	3925.67	4198.83	4336.42	4431.54	4304.28	6112.17	5916.91	5725.09	5634.33	5555.34	5569.93
γ 5.0	3153.36	3395.24	3633.40	3769.44	3866.53	3751.64	5792.27	5546.88	5291.37	5166.12	5083.70	5130.35
γ 6.0	2679.49	2910.89	3128.73	3246.03	3353.74	3246.83	5377.17	5052.97	4735.16	4596.75	4514.29	4598.88
γ 7.0	2277.52	2478.34	2671.61	2770.46	2876.37	2786.26	4835.29	4471.59	4138.86	4027.14	3930.28	4017.79
γ 8.0	1931.34	2107.63	2280.73	2356.32	2443.72	2383.39	4228.54	3905.24	3610.02	3508.76	3416.57	3472.60
γ 9.0	1634.25	1787.98	1943.49	2002.22	2071.38	2035.94	3677.06	3396.32	3142.80	3027.37	2945.25	2971.54
γ 10.0	1385.78	1511.39	1647.18	1698.65	1752.90	1733.28	3174.54	2932.05	2695.14	2582.17	2494.13	2512.01
γ 11.0	1174.43	1279.61	1396.07	1439.63	1484.45	1470.17	2726.11	2506.10	2295.31	2185.85	2109.66	2117.84
γ 12.0	996.55	1086.67	1184.69	1220.98	1261.55	1246.05	2335.96	2134.73	1952.93	1846.06	1778.35	1787.73
γ 13.0	844.09	926.47	1009.27	1036.54	1071.03	1055.27	2001.83	1815.62	1653.17	1553.21	1494.41	1508.73
γ 14.0	719.03	794.22	861.38	880.70	914.32	893.29	1707.61	1542.42	1392.48	1301.42	1249.21	1267.71
γ 15.0	612.88	683.02	736.85	749.88	778.34	757.41	1449.01	1306.49	1173.27	1087.75	1046.78	1061.84
γ 16.0	528.46	590.04	633.49	641.19	665.04	644.90	1227.69	1103.90	988.19	907.27	877.41	890.78
γ 17.0	457.35	512.14	546.71	550.72	569.69	552.75	1037.11	933.12	833.05	756.88	734.16	750.30
γ 18.0	398.48	446.76	472.84	475.20	490.02	475.56	877.88	789.61	703.75	634.12	616.49	635.53
γ 19.0	348.69	391.42	411.58	412.46	423.45	411.41	745.61	669.66	596.38	536.25	521.20	541.68
γ 20.0	306.75	344.32	360.67	360.20	368.14	358.36	632.87	570.84	507.36	457.65	444.63	464.89
γ 21.0	271.39	303.63	317.72	315.87	321.84	313.64	539.67	489.23	435.22	394.03	383.35	401.02
γ 22.0	241.49	268.32	280.05	278.38	283.24	275.80	461.84	422.25	375.26	341.12	333.57	347.27
γ 23.0	215.79	238.22	248.40	246.29	250.35	243.74	398.64	367.36	326.08	297.35	291.79	302.51
γ 24.0	193.79	212.49	221.62	218.84	222.27	216.21	347.39	322.04	284.93	260.42	257.14	264.97
γ 25.0	174.25	190.16	198.38	195.16	198.32	192.67	303.83	283.31	250.67	229.02	226.97	233.13
γ 26.0	157.09	170.70	178.28	174.44	176.87	172.57	267.00	249.67	220.91	202.62	201.05	206.17
γ 27.0	141.51	153.54	160.43	156.04	157.07	154.90	234.99	221.16	195.85	179.88	178.56	183.24
γ 28.0	127.50	138.29	144.59	139.81	140.04	139.20	207.93	196.40	174.58	160.08	157.91	163.51
γ 29.0	114.35	124.86	130.23	124.98	124.50	125.29	184.57	174.50	155.81	142.82	140.25	146.25
γ 30.0	102.48	112.75	117.08	111.88	110.28	112.76	164.85	155.46	139.74	127.40	124.00	131.12
γ 31.0	91.07	101.53	105.16	100.20	97.63	101.38	147.25	138.73	125.51	113.67	109.78	117.75
γ 32.0	81.14	91.51	93.45	89.82	85.91	91.08	132.22	123.64	113.14	101.52	96.94	105.76
γ 33.0	71.83	82.60	82.66	80.19	75.90	81.80	118.96	110.36	101.96	90.82	85.34	94.80
γ 34.0	63.53	74.21	73.30	71.51	67.14	73.65	107.14	98.84	91.42	81.06	75.08	84.79
γ 35.0	55.59	66.65	64.63	64.01	59.69	66.32	96.54	88.38	81.78	72.40	66.17	75.65
γ 36.0	47.92	59.47	56.37	57.17	52.92	59.43	86.43	79.22	73.36	64.57	58.52	67.21
γ 37.0	41.86	52.59	48.30	50.60	46.63	53.00	77.11	70.90	65.56	57.60	51.62	59.58
γ 38.0	36.84	46.67	41.71	44.65	41.38	47.21	68.42	63.19	57.86	51.49	45.60	52.51
γ 39.0	33.03	41.23	36.92	39.85	37.22	42.22	60.45	56.52	50.04	45.72	40.05	45.71
γ 40.0	29.90	36.42	32.68	35.62	33.31	37.88	52.79	50.38	42.00	40.26	34.76	39.58
γ 41.0	26.42	32.13	29.20	31.81	30.19	33.88	45.28	44.35	35.99	35.28	30.15	34.23
γ 42.0	23.60	28.39	25.86	28.38	27.09	30.35	39.04	38.92	30.76	30.68	26.39	29.47
γ 43.0	21.51	25.29	23.19	25.26	24.55	27.17	33.32	33.92	26.12	26.52	22.69	25.27
γ 44.0	19.62	22.15	21.31	22.38	22.07	23.94	27.68	29.17	21.91	22.69	19.33	21.57
γ 45.0	17.87	19.84	19.52	19.94	20.00	21.48	23.77	24.93	18.43	19.26	16.51	18.47
γ 46.0	16.51	17.98	17.59	18.43	18.32	19.76	19.49	21.12	15.79	16.27	14.12	15.89

-
-
-

IES Indoor Report

Photometric Filename:AT10020 15W-2700K-RA90-15D-BK.IES

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	15.34	16.18	16.39	16.96	17.20	18.31	16.81	17.04	13.57	13.52	11.26	13.48
γ 48.0	14.22	15.02	15.39	15.88	15.92	16.88	14.05	13.51	11.22	11.29	10.00	11.26
γ 49.0	13.66	13.89	14.51	14.90	14.80	15.38	11.46	11.14	9.36	9.52	8.51	9.50
γ 50.0	12.62	12.83	13.62	13.88	13.84	14.38	9.20	9.34	8.01	8.04	7.52	8.03
γ 51.0	11.86	12.17	12.79	12.97	12.98	13.51	7.77	7.92	6.84	6.64	6.26	6.91
γ 52.0	11.27	11.65	12.30	12.43	12.11	12.85	6.77	6.54	5.99	5.58	5.63	5.93
γ 53.0	10.73	10.94	11.61	11.89	11.44	12.45	5.63	5.45	4.94	4.77	4.62	4.96
γ 54.0	10.40	10.50	11.09	11.27	11.15	11.94	4.64	4.63	4.03	3.98	3.75	4.36
γ 55.0	9.98	10.23	10.64	10.88	10.82	11.42	3.85	3.84	3.48	3.49	3.47	3.96
γ 56.0	9.68	9.70	10.37	10.48	10.42	11.00	3.30	2.99	3.29	3.23	3.21	3.53
γ 57.0	8.90	9.22	9.77	10.03	9.94	10.49	2.61	2.43	2.66	2.85	2.62	3.14
γ 58.0	8.79	8.91	9.47	9.67	9.83	10.18	2.14	2.29	2.54	2.67	2.28	2.93
γ 59.0	8.52	8.80	9.09	9.33	9.45	9.92	1.77	2.18	2.50	2.55	2.33	2.72
γ 60.0	7.97	8.59	8.89	9.07	9.39	9.49	1.57	1.92	2.00	2.31	2.38	2.37
γ 61.0	7.88	8.23	8.79	8.95	9.11	9.20	1.47	1.74	1.98	2.04	2.22	2.20
γ 62.0	7.82	8.12	8.72	8.66	8.84	9.02	1.07	1.68	1.84	2.04	1.99	2.30
γ 63.0	7.51	8.00	8.27	8.37	8.36	8.74	1.23	1.69	1.92	2.09	2.00	2.45
γ 64.0	7.36	7.58	8.06	8.08	8.12	8.48	1.15	1.58	1.75	1.76	1.77	2.36
γ 65.0	7.11	7.25	7.80	7.91	8.01	8.40	1.27	1.51	1.83	1.75	1.89	2.08
γ 66.0	6.87	7.07	7.40	7.68	7.93	8.08	1.05	1.45	1.84	1.85	1.69	1.91
γ 67.0	6.71	6.95	7.22	7.33	7.65	7.69	1.13	1.37	1.66	1.77	2.02	1.94
γ 68.0	6.33	6.81	7.15	7.22	7.33	7.63	0.98	1.39	1.71	1.60	1.90	1.96
γ 69.0	6.36	6.59	6.89	7.02	7.24	7.50	0.75	1.36	1.51	1.60	1.78	1.82
γ 70.0	5.77	6.43	6.64	6.64	7.05	7.24	0.70	1.30	1.42	1.71	1.79	1.80
γ 71.0	5.88	6.26	6.22	6.49	6.88	7.00	0.64	1.30	1.66	1.73	1.83	1.91
γ 72.0	5.59	5.95	6.15	6.44	6.86	6.87	0.79	1.40	1.38	1.69	1.84	1.88
γ 73.0	5.36	5.77	6.25	6.32	6.55	6.83	0.97	1.32	1.56	1.67	2.02	1.75
γ 74.0	5.28	5.73	6.13	6.30	6.55	6.50	1.01	1.33	1.49	1.79	1.87	1.90
γ 75.0	5.23	5.45	5.83	6.17	6.29	6.35	1.07	1.26	1.69	1.90	1.89	2.05
γ 76.0	5.28	5.36	5.73	6.01	6.07	6.35	0.77	1.08	1.73	1.76	2.01	1.88
γ 77.0	5.20	5.38	5.63	5.95	5.98	6.09	0.81	1.16	1.66	1.88	1.92	1.85
γ 78.0	5.00	5.32	5.52	5.76	5.88	5.99	1.32	1.15	1.73	1.96	2.02	1.97
γ 79.0	4.84	5.22	5.35	5.68	5.57	5.79	1.02	1.18	1.55	1.98	2.04	2.00
γ 80.0	4.73	4.93	5.34	5.57	5.60	5.52	1.08	1.14	1.83	2.19	1.97	2.20
γ 81.0	4.65	4.75	5.16	5.46	5.26	5.43	1.37	1.16	1.95	2.13	2.20	2.26
γ 82.0	4.73	4.65	5.03	5.31	5.23	5.46	1.54	1.47	2.04	2.12	2.18	2.14
γ 83.0	4.27	4.51	4.86	5.05	5.46	5.43	1.41	1.71	2.07	2.33	2.18	2.27
γ 84.0	4.35	4.30	4.63	5.08	5.10	5.41	1.41	1.72	1.97	2.39	2.24	2.54
γ 85.0	4.24	4.15	4.63	5.04	5.12	5.29	1.69	1.73	2.04	2.51	2.38	2.71
γ 86.0	4.14	4.03	4.55	4.88	4.67	5.17	1.85	1.94	2.09	2.49	2.42	2.73
γ 87.0	3.96	4.02	4.50	4.79	4.84	5.18	1.94	2.13	2.30	2.64	2.40	2.87
γ 88.0	4.00	3.97	4.48	4.60	4.86	5.18	2.03	2.08	2.38	2.76	2.56	2.91
γ 89.0	3.99	3.84	4.38	4.52	4.61	5.08	2.22	2.00	2.54	2.86	2.53	2.85
γ 90.0	3.71	3.90	4.28	4.34	4.61	4.96	2.12	2.11	2.74	2.90	2.61	2.93
γ 91.0	3.48	3.87	4.04	4.29	4.68	4.81	2.29	2.24	2.85	2.86	2.79	2.92
γ 92.0	3.69	3.75	4.16	4.38	4.58	4.54	2.51	2.16	2.73	2.86	2.93	2.84
γ 93.0	3.35	3.80	3.96	4.32	4.44	4.52	2.09	2.09	2.74	2.89	2.80	2.76

-
-
-

IES Indoor Report

Photometric Filename:AT10020 15W-2700K-RA90-15D-BK.IES

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 94.0	3.36	3.72	3.97	4.27	4.39	4.59	2.27	2.18	2.77	2.89	2.87	2.65
γ 95.0	3.45	3.56	3.83	4.05	4.44	4.62	2.15	2.17	2.73	2.88	2.82	2.73
γ 96.0	3.50	3.44	3.76	4.11	4.29	4.48	2.28	2.18	2.66	2.98	2.62	2.92
γ 97.0	3.36	3.37	3.85	4.17	4.05	4.19	2.25	2.14	2.55	3.06	2.54	2.90
γ 98.0	2.99	3.36	3.99	4.12	4.01	4.35	2.25	2.06	2.53	2.93	2.53	2.87
γ 99.0	3.07	3.50	3.83	4.01	4.36	4.46	2.02	1.93	2.38	2.81	2.43	2.72
γ 100.0	2.99	3.48	3.75	3.86	3.87	4.31	1.88	1.89	2.49	2.86	2.65	2.88
γ 101.0	3.06	3.37	3.71	3.73	3.87	4.18	1.89	2.01	2.56	2.89	2.45	3.00
γ 102.0	3.04	3.24	3.60	3.78	3.69	3.90	2.16	2.00	2.42	2.87	2.51	2.81
γ 103.0	3.07	3.12	3.44	3.77	3.82	3.81	2.09	2.05	2.45	2.76	2.52	2.80
γ 104.0	3.01	3.14	3.43	3.82	3.74	3.83	2.01	2.14	2.24	2.69	2.49	2.92
γ 105.0	2.82	3.26	3.53	3.76	3.80	3.83	2.14	2.15	2.30	2.62	2.50	2.87
γ 106.0	2.65	3.18	3.28	3.83	3.90	3.83	1.82	2.03	2.35	2.55	2.36	2.85
γ 107.0	2.72	2.89	3.31	3.81	3.84	3.84	2.11	1.94	2.40	2.67	2.62	2.88
γ 108.0	2.57	2.87	3.18	3.78	3.87	3.92	2.18	2.03	2.46	2.81	2.77	2.78
γ 109.0	2.87	2.88	3.20	3.79	3.85	3.93	2.13	2.06	2.58	2.83	2.77	2.91
γ 110.0	2.66	2.71	3.14	3.71	3.74	3.84	2.31	2.10	2.72	3.05	2.74	2.98
γ 111.0	2.58	2.57	2.99	3.60	3.79	3.84	2.06	2.12	2.66	2.91	2.71	2.89
γ 112.0	2.49	2.64	3.14	3.57	3.49	3.90	2.15	2.12	2.67	2.92	2.60	2.80
γ 113.0	2.37	2.63	2.88	3.56	3.63	3.88	2.27	2.08	2.70	3.03	2.64	2.98
γ 114.0	2.49	2.73	2.96	3.38	3.50	3.90	1.98	2.18	2.70	3.06	2.70	3.10
γ 115.0	2.55	2.99	3.06	3.43	3.63	3.93	2.16	2.37	2.76	3.05	2.69	3.08
γ 116.0	2.74	3.06	3.02	3.40	3.66	3.92	2.12	2.34	2.78	2.96	2.83	3.16
γ 117.0	2.70	2.95	3.11	3.40	3.51	3.73	2.25	2.31	2.81	2.94	2.62	3.18
γ 118.0	2.35	2.85	3.15	3.35	3.44	3.72	2.08	2.31	2.54	2.92	2.64	3.18
γ 119.0	2.39	2.86	3.00	3.38	3.59	3.91	2.10	2.25	2.52	2.95	2.71	3.08
γ 120.0	2.28	2.89	2.95	3.56	3.35	3.76	2.05	2.44	2.75	3.11	2.78	3.19
γ 121.0	2.21	2.81	3.40	3.58	3.32	3.67	2.26	2.45	2.64	3.01	2.75	3.26
γ 122.0	2.35	2.56	3.19	3.50	3.58	3.90	2.36	2.33	2.85	2.84	3.09	3.15
γ 123.0	2.16	2.34	3.12	3.25	3.46	3.85	2.08	2.23	2.87	2.93	2.92	3.10
γ 124.0	2.51	2.39	3.22	3.09	3.06	3.72	2.24	1.96	2.95	3.11	2.90	3.09
γ 125.0	2.49	2.55	3.23	3.14	3.02	3.66	2.39	1.97	2.78	3.19	3.01	3.12
γ 126.0	2.36	2.57	3.23	3.04	2.95	3.48	2.28	2.20	2.65	3.22	2.91	3.10
γ 127.0	2.35	2.49	3.09	2.90	2.99	3.45	2.25	2.35	2.58	3.12	2.83	3.20
γ 128.0	2.68	2.37	3.12	2.97	2.98	3.47	2.24	2.34	2.60	2.96	3.10	3.28
γ 129.0	2.57	2.22	3.07	3.14	3.05	3.47	2.18	2.40	2.77	2.90	3.04	3.13
γ 130.0	2.43	2.16	3.04	3.27	3.10	3.46	2.00	2.48	2.66	2.99	2.89	3.05
γ 131.0	2.27	2.38	3.15	3.11	3.18	3.25	2.30	2.31	2.54	3.02	2.90	3.14
γ 132.0	2.21	2.28	3.09	3.06	3.25	3.26	2.41	2.34	2.54	3.01	2.72	3.19
γ 133.0	2.47	2.25	3.28	3.19	3.13	3.47	2.24	2.51	2.43	2.94	3.00	3.22
γ 134.0	2.38	2.32	3.04	3.06	3.24	3.50	2.41	2.54	2.56	2.86	2.96	3.16
γ 135.0	2.26	2.33	2.88	3.12	3.01	3.46	2.49	2.51	2.78	2.97	2.99	3.13
γ 136.0	2.28	2.40	2.92	3.11	3.03	3.56	2.54	2.50	2.92	2.92	3.01	3.15
γ 137.0	2.31	2.39	2.95	3.01	3.00	3.47	2.40	2.51	2.89	2.89	3.17	3.15
γ 138.0	2.28	2.41	2.93	2.91	2.90	3.27	2.20	2.50	2.93	3.04	3.10	3.19
γ 139.0	2.29	2.33	3.15	2.93	2.86	3.39	2.42	2.50	2.58	3.18	3.08	3.26
γ 140.0	2.41	2.44	2.91	3.12	3.12	3.51	2.68	2.59	2.75	3.20	2.96	3.18

-
-
-

IES Indoor Report

Photometric Filename:AT10020 15W-2700K-RA90-15D-BK.IES

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 141.0	2.60	2.68	2.88	3.23	3.13	3.51	2.58	2.66	2.74	3.26	3.03	3.19
γ 142.0	2.60	2.70	2.99	3.22	3.26	3.64	2.40	2.68	2.69	3.40	3.10	3.42
γ 143.0	2.95	2.61	2.97	3.33	3.26	3.75	2.48	2.68	2.84	3.40	3.28	3.42
γ 144.0	2.84	2.77	2.99	3.40	3.16	3.73	2.60	2.55	3.02	3.37	3.43	3.38
γ 145.0	3.08	2.96	3.00	3.36	3.31	3.92	2.41	2.53	3.16	3.43	3.40	3.45
γ 146.0	3.01	2.93	3.26	3.37	3.68	4.03	2.66	2.60	3.19	3.32	3.42	3.55
γ 147.0	3.06	2.98	3.39	3.54	3.72	4.06	2.88	2.74	3.30	3.26	3.40	3.56
γ 148.0	3.05	3.11	3.29	3.54	3.65	4.23	2.93	2.77	3.31	3.40	3.45	3.52
γ 149.0	3.15	3.24	3.30	3.59	3.85	4.26	2.87	2.86	3.19	3.38	3.62	3.57
γ 150.0	3.40	3.39	3.50	3.79	3.84	4.24	2.87	2.98	3.39	3.48	3.67	3.68
γ 151.0	3.85	3.41	3.74	3.91	4.24	4.41	3.01	3.02	3.42	3.73	3.85	3.69
γ 152.0	3.72	3.58	3.90	4.05	4.30	4.66	3.01	3.18	3.70	3.85	3.84	3.87
γ 153.0	3.84	3.73	4.16	4.30	4.29	4.76	3.25	3.21	3.71	3.92	3.92	4.08
γ 154.0	3.97	3.69	4.12	4.54	4.47	4.75	3.19	3.26	3.89	4.05	4.22	4.17
γ 155.0	4.01	3.94	4.39	4.72	4.57	4.82	3.46	3.47	3.95	4.07	4.30	4.28
γ 156.0	4.15	4.14	4.52	4.78	4.81	5.02	3.54	3.68	3.90	4.25	4.45	4.31
γ 157.0	4.20	4.16	4.37	4.75	4.93	5.19	3.61	3.78	4.13	4.41	4.47	4.59
γ 158.0	4.22	4.36	4.56	4.67	5.24	5.32	3.63	3.86	4.36	4.49	4.72	4.91
γ 159.0	4.48	4.51	4.60	4.70	5.46	5.44	3.83	3.98	4.45	4.55	4.83	5.09
γ 160.0	4.57	4.52	4.76	4.85	5.28	5.54	4.01	4.14	4.60	4.63	4.96	5.13
γ 161.0	4.60	4.58	4.91	5.07	5.43	5.68	4.07	4.37	4.66	4.69	5.04	5.26
γ 162.0	4.83	4.62	5.17	5.20	5.38	5.81	4.54	4.54	4.82	4.78	5.30	5.37
γ 163.0	4.83	4.70	5.06	5.30	5.49	5.86	4.63	4.63	4.93	4.89	5.16	5.33
γ 164.0	4.95	4.82	5.11	5.38	5.67	5.83	4.67	4.65	4.91	5.14	5.18	5.42
γ 165.0	4.93	4.92	5.09	5.53	5.55	5.88	4.60	4.71	4.91	5.17	5.35	5.56
γ 166.0	4.98	4.95	5.38	5.34	5.63	5.89	4.61	4.71	4.98	5.14	5.18	5.70
γ 167.0	4.92	4.90	5.47	5.40	5.69	5.83	4.64	4.76	5.15	5.34	5.27	5.84
γ 168.0	5.06	4.74	5.37	5.46	5.75	5.82	4.73	4.85	5.10	5.34	5.30	5.85
γ 169.0	5.10	4.58	5.40	5.41	5.69	5.79	4.85	4.83	5.20	5.38	5.56	5.80
γ 170.0	4.96	4.72	5.13	5.50	5.55	5.68	5.00	4.84	5.13	5.20	5.32	5.79
γ 171.0	4.92	4.72	5.11	5.50	5.48	5.68	4.99	4.88	5.04	5.11	5.32	5.84
γ 172.0	4.93	4.40	5.42	5.50	5.68	5.57	5.02	4.67	5.11	5.13	5.47	5.77
γ 173.0	4.83	4.43	5.26	5.44	5.29	5.30	4.99	4.52	5.33	5.08	5.61	5.75
γ 174.0	4.62	4.51	5.00	5.37	5.36	5.31	5.03	4.70	5.34	4.92	5.16	5.63
γ 175.0	4.55	4.42	4.90	5.46	5.35	5.31	4.81	4.59	5.10	4.94	5.43	5.37
γ 176.0	4.33	4.51	4.95	5.34	5.24	5.28	4.81	4.62	5.09	5.14	5.32	5.27
γ 177.0	4.70	4.54	5.03	5.17	5.06	5.24	4.61	4.71	5.13	5.21	5.24	5.10
γ 178.0	4.69	4.40	4.91	5.05	5.09	5.28	4.82	4.65	4.85	5.12	5.35	5.16
γ 179.0	4.56	4.37	4.84	4.95	5.06	5.25	4.36	4.66	4.79	5.06	5.25	5.28
γ 180.0	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90