

# IES Indoor Report

Photometric Filename: AT10020-20W-4000K-RA90-15D-SBK-3T-IES.IES

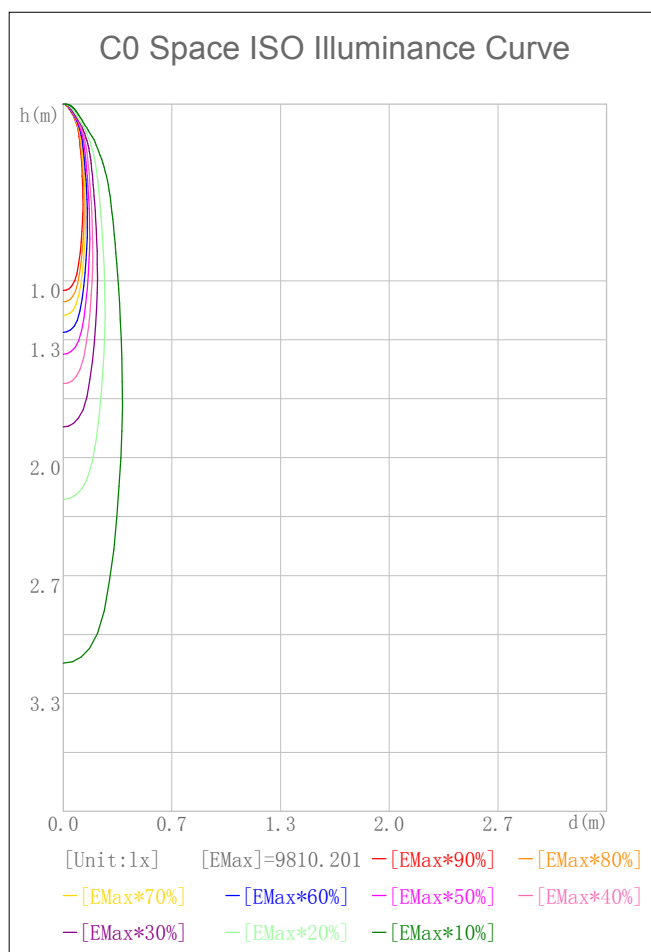
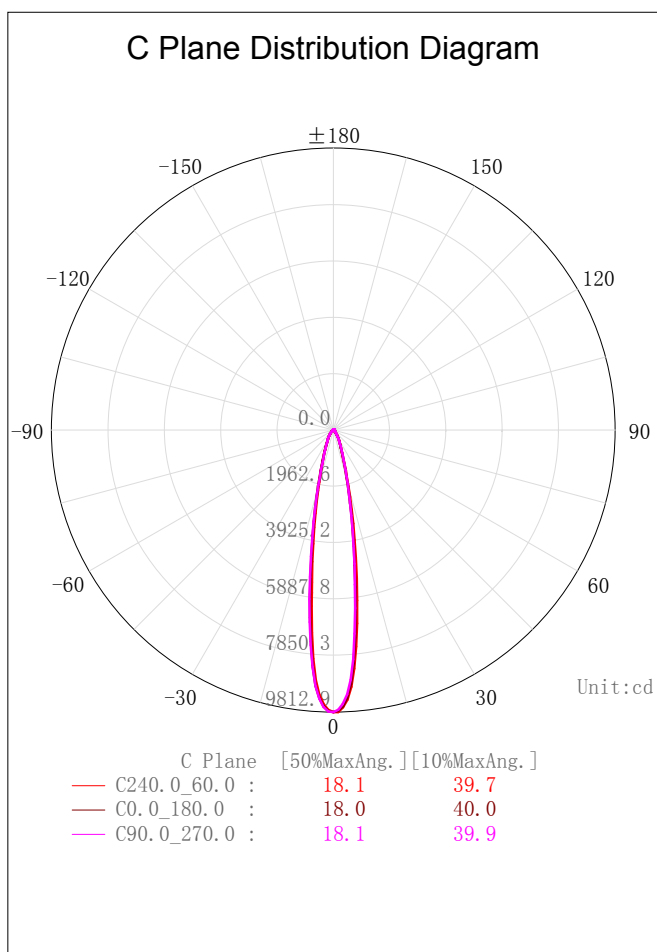
## Indoor Luminaire Photometric Data

### Description Information

Luminary Name: AT10020-20W-4000K-RA90-15D-SBK-3T-IES		Lum. Catalog:	Test ID:
Lamp Name: 40G1000-C-73		Lamp Catalog: COB	Test Date: 2022/09/08
Manufacture:		Shld. Ang(°): 15	Test Machine: GON-2000
Test Lab: Test		Frequency(Hz): 50	Lamp CCT(K): 4000 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): 1850.000	Luminary Flux(lm): 1773.632	Field Angle(10%Imax): 39.7(°)	
Rated Power(W): 20	Luminary Efficiency: 95.87%	Down Lumens&Percent: 1730.547lm 97.57%	
Rated Voltage(V): 220	Luminary EER(lm/W): 87.978	Up Lumens&Percent: 43.085lm 2.43%	
Tested Power(W): 20.160	Max. Candela(cd): 9812.932	S/MH: C0_a180=0.308 C90_270=0.310	
Lamps' Inside: 1	Max Cand@Ang.(°): C=240.0 γ=1.0	CIE Type: Semi-Direct	
Tested Electrics(V, A, pf): 220.9, 0.094, 0.966		Beam Angle(50%Imax): 18.1(°)	ErP Φ use(90°): 1671.634lm
Lamp Size(W*L*H): 0.000m*0.000m*0.000m		Left=-8.6°, Right=9.4°	IRF (%): 1226.000



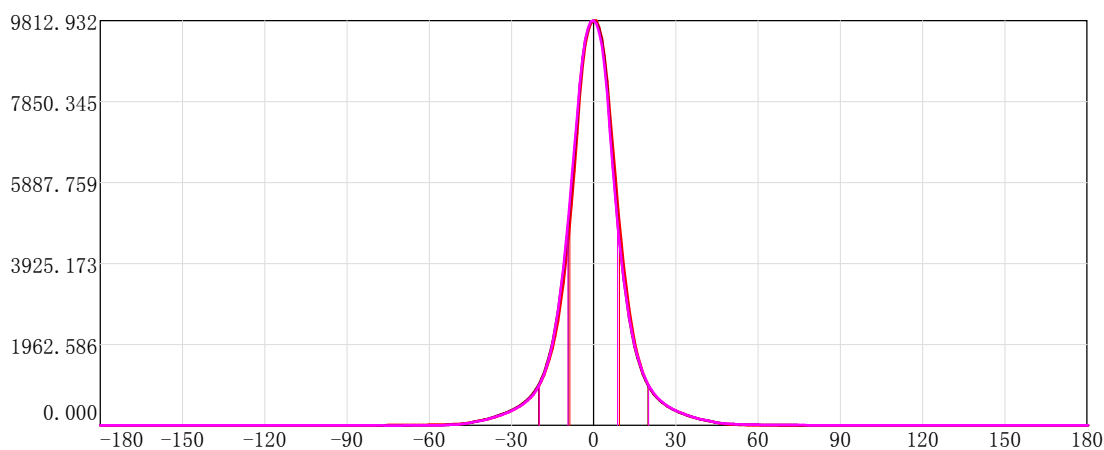
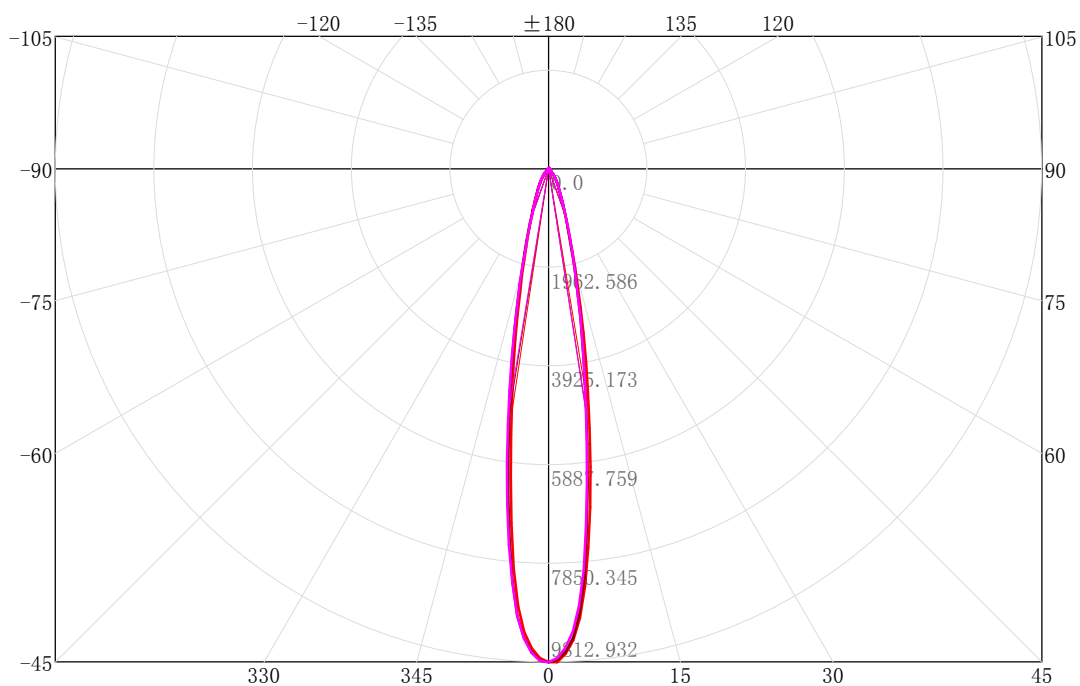
# IES Indoor Report

Photometric Filename: AT10020-20W-4000K-RA90-15D-SBK-3T-IES.IES

## 2D Plane Light Intensity Distribution Curve

Lum. Name: AT10020-20W-4000K-RA90-15D-SBK-3T-IES	Lum. Catalog:	Test ID:
Lamp Name: 40G1000-C-73	Lamp Catalog: COB	Test Lab: Test
Manufacture:	Test Machine: GON-2000	Test Date: 2022/09/08

C Plane Distribution Diagram



	C Plane	[50%MaxAng.]	[10%MaxAng.]	Unit:cd
—	C240.0_60.0 :	18.1	39.7	
—	C0.0_180.0 :	18.0	40.0	
—	C90.0_270.0 :	18.1	39.9	

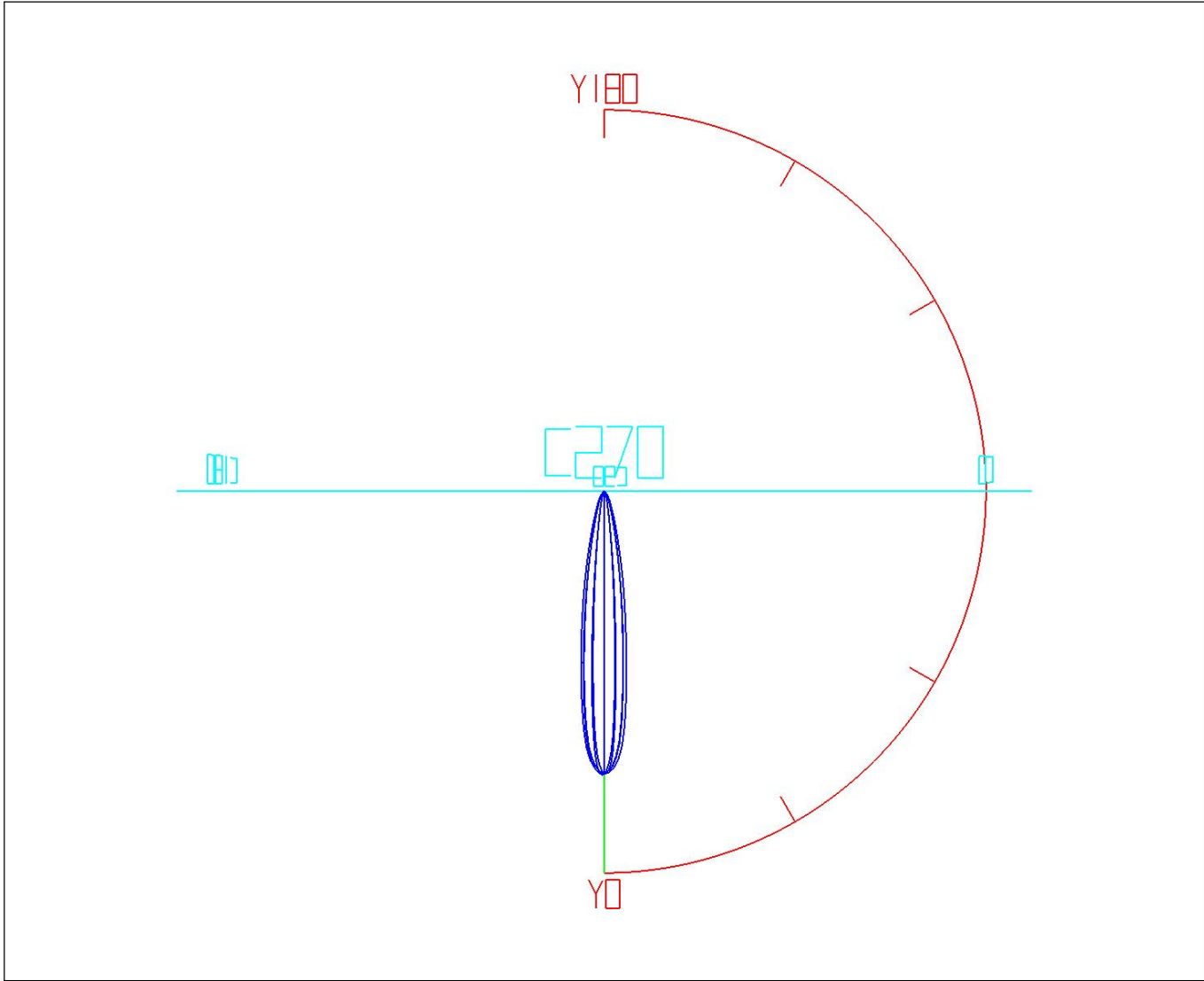
**IES Indoor Report**

**Photometric Filename: AT10020-20W-4000K-RA90-15D-SBK-3T-IES.IES**

**3D Light Intensity Distribution Modal**

Lum. Name: AT10020-20W-4000K-RA90-15D-SBK-3T-IES	Lum. Catalog:	Test ID:
Lamp Name: 40G1000-C-73	Lamp Catalog: COB	Test Lab: Test
Manufacture:	Test Machine: GON-2000	Test Date: 2022/09/08

**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: AT10020-20W-4000K-RA90-15D-SBK-3T-IES.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	9.36	9.36	0.51	0.51	47.0-48.0	3.79	1679.05	0.20	90.76
1.0-2.0	27.77	37.13	1.50	2.01	48.0-49.0	3.33	1682.38	0.18	90.94
2.0-3.0	45.18	82.31	2.44	4.45	49.0-50.0	2.95	1685.33	0.16	91.10
3.0-4.0	60.71	143.02	3.28	7.73	50.0-51.0	2.66	1687.99	0.14	91.24
4.0-5.0	73.09	216.10	3.95	11.68	51.0-52.0	2.44	1690.44	0.13	91.37
5.0-6.0	81.30	297.40	4.39	16.08	52.0-53.0	2.24	1692.68	0.12	91.50
6.0-7.0	85.61	383.01	4.63	20.70	53.0-54.0	2.00	1694.68	0.11	91.60
7.0-8.0	86.85	469.86	4.69	25.40	54.0-55.0	1.77	1696.45	0.10	91.70
8.0-9.0	85.72	555.58	4.63	30.03	55.0-56.0	1.61	1698.06	0.09	91.79
9.0-10.0	82.97	638.55	4.48	34.52	56.0-57.0	1.50	1699.56	0.08	91.87
10.0-11.0	79.14	717.69	4.28	38.79	57.0-58.0	1.41	1700.96	0.08	91.94
11.0-12.0	74.49	792.18	4.03	42.82	58.0-59.0	1.34	1702.31	0.07	92.02
12.0-13.0	69.24	861.43	3.74	46.56	59.0-60.0	1.29	1703.60	0.07	92.09
13.0-14.0	63.77	925.20	3.45	50.01	60.0-61.0	1.25	1704.85	0.07	92.15
14.0-15.0	58.46	983.65	3.16	53.17	61.0-62.0	1.21	1706.06	0.07	92.22
15.0-16.0	53.50	1037.16	2.89	56.06	62.0-63.0	1.16	1707.22	0.06	92.28
16.0-17.0	48.99	1086.14	2.65	58.71	63.0-64.0	1.10	1708.32	0.06	92.34
17.0-18.0	44.92	1131.07	2.43	61.14	64.0-65.0	1.04	1709.36	0.06	92.40
18.0-19.0	41.31	1172.38	2.23	63.37	65.0-66.0	0.99	1710.36	0.05	92.45
19.0-20.0	38.10	1210.48	2.06	65.43	66.0-67.0	0.97	1711.32	0.05	92.50
20.0-21.0	35.29	1245.77	1.91	67.34	67.0-68.0	0.94	1712.26	0.05	92.55
21.0-22.0	32.84	1278.60	1.77	69.11	68.0-69.0	0.92	1713.18	0.05	92.60
22.0-23.0	30.68	1309.29	1.66	70.77	69.0-70.0	0.90	1714.08	0.05	92.65
23.0-24.0	28.77	1338.06	1.56	72.33	70.0-71.0	0.89	1714.96	0.05	92.70
24.0-25.0	27.06	1365.12	1.46	73.79	71.0-72.0	0.88	1715.84	0.05	92.75
25.0-26.0	25.54	1390.66	1.38	75.17	72.0-73.0	0.87	1716.71	0.05	92.80
26.0-27.0	24.16	1414.82	1.31	76.48	73.0-74.0	0.85	1717.56	0.05	92.84
27.0-28.0	22.88	1437.69	1.24	77.71	74.0-75.0	0.84	1718.41	0.05	92.89
28.0-29.0	21.68	1459.37	1.17	78.88	75.0-76.0	0.83	1719.24	0.05	92.93
29.0-30.0	20.53	1479.91	1.11	79.99	76.0-77.0	0.83	1720.07	0.04	92.98
30.0-31.0	19.42	1499.33	1.05	81.04	77.0-78.0	0.82	1720.89	0.04	93.02
31.0-32.0	18.33	1517.66	0.99	82.04	78.0-79.0	0.82	1721.71	0.04	93.07
32.0-33.0	17.25	1534.91	0.93	82.97	79.0-80.0	0.82	1722.53	0.04	93.11
33.0-34.0	16.20	1551.11	0.88	83.84	80.0-81.0	0.81	1723.34	0.04	93.15
34.0-35.0	15.15	1566.26	0.82	84.66	81.0-82.0	0.81	1724.15	0.04	93.20
35.0-36.0	14.09	1580.35	0.76	85.42	82.0-83.0	0.81	1724.96	0.04	93.24
36.0-37.0	13.07	1593.42	0.71	86.13	83.0-84.0	0.80	1725.77	0.04	93.28
37.0-38.0	12.09	1605.50	0.65	86.78	84.0-85.0	0.80	1726.57	0.04	93.33
38.0-39.0	11.11	1616.61	0.60	87.38	85.0-86.0	0.80	1727.37	0.04	93.37
39.0-40.0	10.18	1626.80	0.55	87.93	86.0-87.0	0.80	1728.17	0.04	93.41
40.0-41.0	9.35	1636.14	0.51	88.44	87.0-88.0	0.80	1728.97	0.04	93.46
41.0-42.0	8.59	1644.74	0.46	88.90	88.0-89.0	0.80	1729.76	0.04	93.50
42.0-43.0	7.88	1652.61	0.43	89.33	89.0-90.0	0.78	1730.55	0.04	93.54
43.0-44.0	7.07	1659.69	0.38	89.71	90.0-91.0	0.77	1731.32	0.04	93.58
44.0-45.0	6.10	1665.78	0.33	90.04	91.0-92.0	0.77	1732.09	0.04	93.63
45.0-46.0	5.12	1670.91	0.28	90.32	92.0-93.0	0.76	1732.86	0.04	93.67
46.0-47.0	4.36	1675.26	0.24	90.55	93.0-94.0	0.75	1733.61	0.04	93.71

ALUDS

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## 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	0.75	1734.36	0.04	93.75	141.0-142.0	0.44	1762.00	0.02	95.24
95.0-96.0	0.74	1735.09	0.04	93.79	142.0-143.0	0.44	1762.44	0.02	95.27
96.0-97.0	0.73	1735.82	0.04	93.83	143.0-144.0	0.44	1762.88	0.02	95.29
97.0-98.0	0.72	1736.54	0.04	93.87	144.0-145.0	0.44	1763.31	0.02	95.31
98.0-99.0	0.72	1737.26	0.04	93.91	145.0-146.0	0.43	1763.74	0.02	95.34
99.0-100.0	0.70	1737.96	0.04	93.94	146.0-147.0	0.43	1764.18	0.02	95.36
100.0-101.0	0.69	1738.66	0.04	93.98	147.0-148.0	0.43	1764.60	0.02	95.38
101.0-102.0	0.69	1739.34	0.04	94.02	148.0-149.0	0.43	1765.03	0.02	95.41
102.0-103.0	0.68	1740.02	0.04	94.06	149.0-150.0	0.43	1765.46	0.02	95.43
103.0-104.0	0.67	1740.69	0.04	94.09	150.0-151.0	0.42	1765.88	0.02	95.45
104.0-105.0	0.67	1741.36	0.04	94.13	151.0-152.0	0.42	1766.30	0.02	95.48
105.0-106.0	0.66	1742.02	0.04	94.16	152.0-153.0	0.42	1766.72	0.02	95.50
106.0-107.0	0.65	1742.67	0.04	94.20	153.0-154.0	0.42	1767.14	0.02	95.52
107.0-108.0	0.66	1743.33	0.04	94.23	154.0-155.0	0.41	1767.55	0.02	95.54
108.0-109.0	0.65	1743.98	0.04	94.27	155.0-156.0	0.41	1767.96	0.02	95.57
109.0-110.0	0.64	1744.63	0.03	94.30	156.0-157.0	0.41	1768.37	0.02	95.59
110.0-111.0	0.64	1745.26	0.03	94.34	157.0-158.0	0.40	1768.77	0.02	95.61
111.0-112.0	0.63	1745.89	0.03	94.37	158.0-159.0	0.39	1769.16	0.02	95.63
112.0-113.0	0.63	1746.52	0.03	94.41	159.0-160.0	0.38	1769.54	0.02	95.65
113.0-114.0	0.62	1747.14	0.03	94.44	160.0-161.0	0.37	1769.92	0.02	95.67
114.0-115.0	0.62	1747.76	0.03	94.47	161.0-162.0	0.36	1770.28	0.02	95.69
115.0-116.0	0.62	1748.38	0.03	94.51	162.0-163.0	0.35	1770.63	0.02	95.71
116.0-117.0	0.61	1748.99	0.03	94.54	163.0-164.0	0.33	1770.96	0.02	95.73
117.0-118.0	0.60	1749.59	0.03	94.57	164.0-165.0	0.32	1771.27	0.02	95.74
118.0-119.0	0.60	1750.19	0.03	94.60	165.0-166.0	0.30	1771.57	0.02	95.76
119.0-120.0	0.59	1750.78	0.03	94.64	166.0-167.0	0.28	1771.86	0.02	95.78
120.0-121.0	0.58	1751.36	0.03	94.67	167.0-168.0	0.26	1772.12	0.01	95.79
121.0-122.0	0.57	1751.93	0.03	94.70	168.0-169.0	0.24	1772.36	0.01	95.80
122.0-123.0	0.56	1752.49	0.03	94.73	169.0-170.0	0.22	1772.58	0.01	95.82
123.0-124.0	0.56	1753.05	0.03	94.76	170.0-171.0	0.20	1772.79	0.01	95.83
124.0-125.0	0.56	1753.61	0.03	94.79	171.0-172.0	0.18	1772.97	0.01	95.84
125.0-126.0	0.55	1754.16	0.03	94.82	172.0-173.0	0.16	1773.12	0.01	95.84
126.0-127.0	0.54	1754.70	0.03	94.85	173.0-174.0	0.14	1773.26	0.01	95.85
127.0-128.0	0.53	1755.23	0.03	94.88	174.0-175.0	0.11	1773.38	0.01	95.86
128.0-129.0	0.52	1755.75	0.03	94.91	175.0-176.0	0.09	1773.47	0.01	95.86
129.0-130.0	0.52	1756.27	0.03	94.93	176.0-177.0	0.07	1773.54	0.00	95.87
130.0-131.0	0.52	1756.79	0.03	94.96	177.0-178.0	0.05	1773.59	0.00	95.87
131.0-132.0	0.51	1757.30	0.03	94.99	178.0-179.0	0.03	1773.62	0.00	95.87
132.0-133.0	0.50	1757.80	0.03	95.02	179.0-180.0	0.01	1773.63	0.00	95.87
133.0-134.0	0.49	1758.29	0.03	95.04					
134.0-135.0	0.48	1758.77	0.03	95.07					
135.0-136.0	0.48	1759.24	0.03	95.09					
136.0-137.0	0.47	1759.71	0.03	95.12					
137.0-138.0	0.47	1760.18	0.03	95.14					
138.0-139.0	0.46	1760.64	0.03	95.17					
139.0-140.0	0.46	1761.10	0.02	95.19					
140.0-141.0	0.45	1761.55	0.02	95.22					

ALUDS

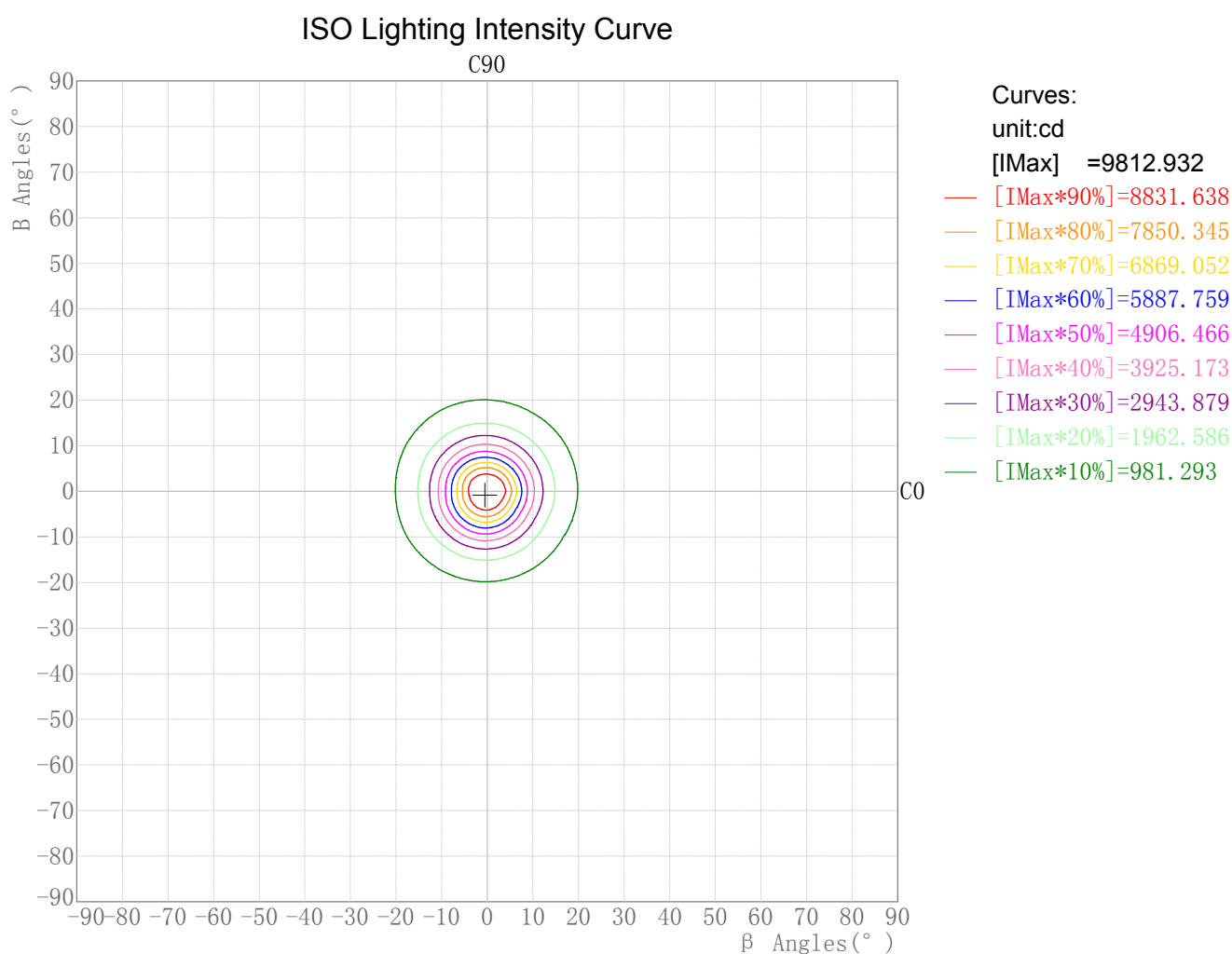
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## Rectangle ISO Lighting Intensity Diagram

Lum. Name: AT10020-20W-4000K-RA90-15D-SBK-3T-IES	Lum. Catalog:	Test ID:
Lamp Name: 40G1000-C-73	Lamp Catalog: COB	Test Lab: Test
Manufacture:	Test Machine: GON-2000	Test Date: 2022/09/08

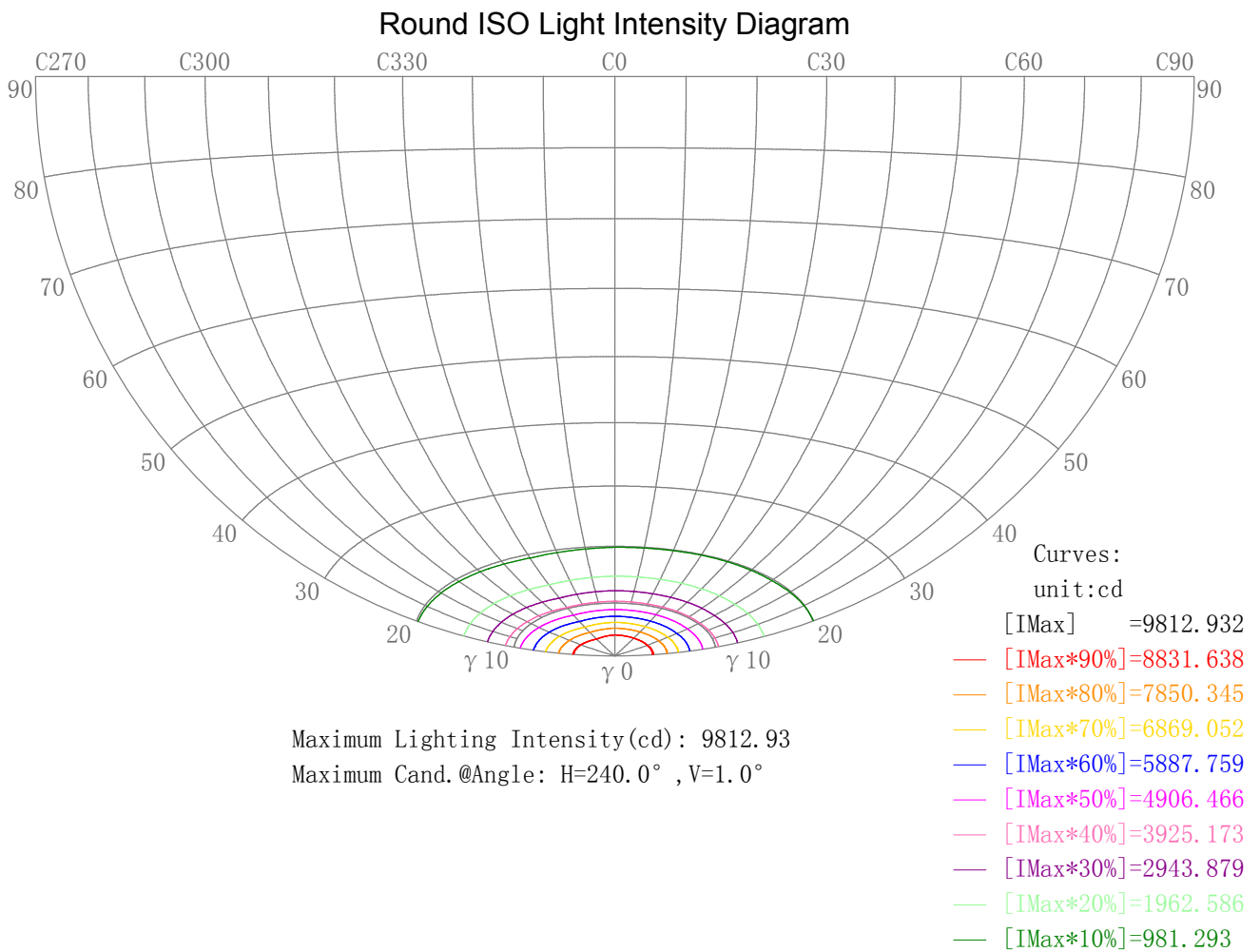


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Photometric Filename: AT10020-20W-4000K-RA90-15D-SBK-3T-IES.IES

## Round ISO Lighting Intensity Diagram

Lum. Name: AT10020-20W-4000K-RA90-15D-SBK-3T-IES	Lum. Catalog:	Test ID:
Lamp Name: 40G1000-C-73	Lamp Catalog: COB	Test Lab: Test
Manufacture:	Test Machine: GON-2000	Test Date: 2022/09/08



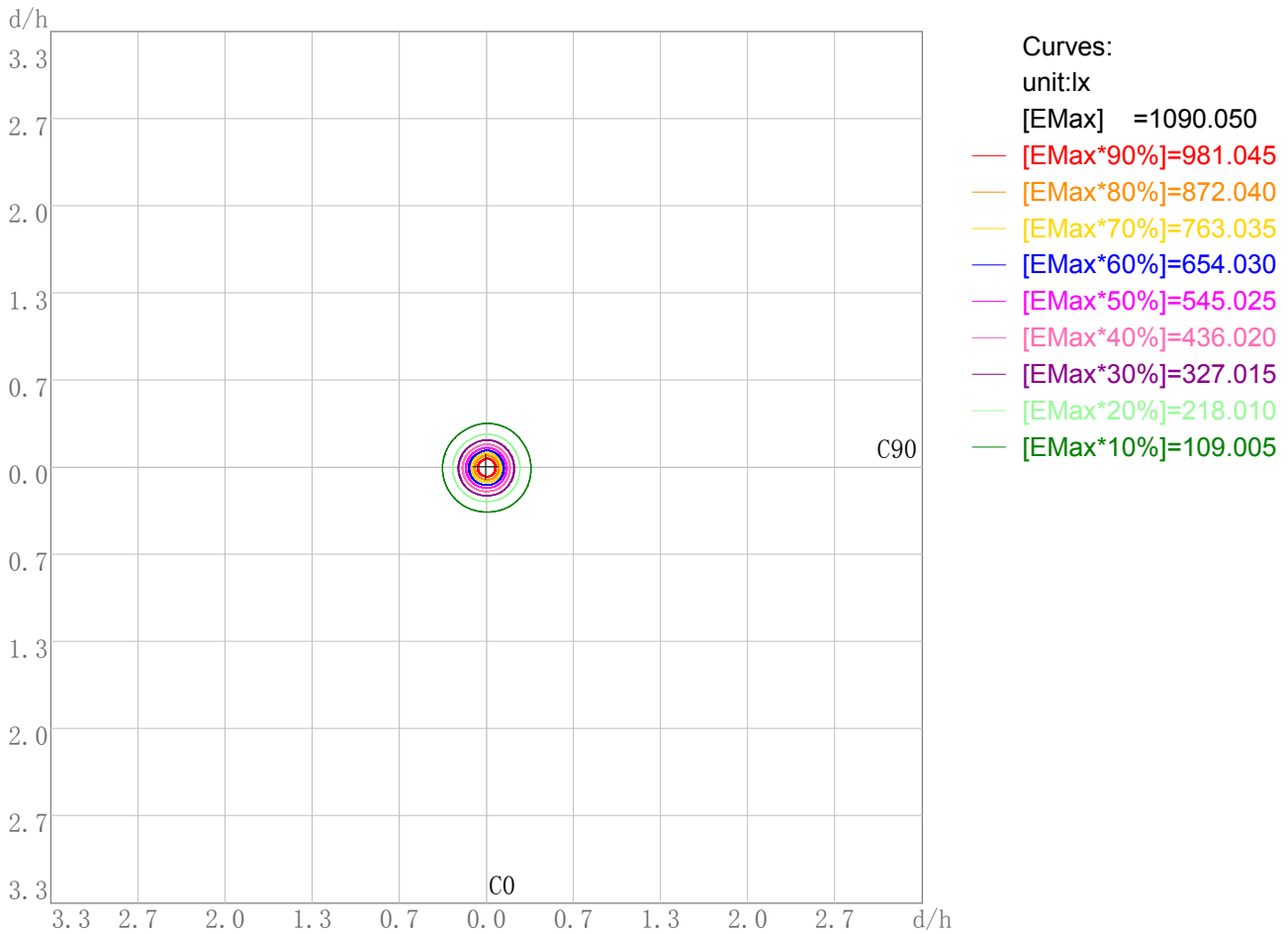
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## Plane ISO-Illuminance Diagram

Lum. Name: AT10020-20W-4000K-RA90-15D-SBK-3T-IES	Lum. Catalog:	Test ID:
Lamp Name: 40G1000-C-73	Lamp Catalog: COB	Test Lab: Test
Manufacture:	Test Machine: GON-2000	Test Date: 2022/09/08

### Plane ISO-Illuminance Curve



Working Plane Luminaire Mounting Height(m): 3.00

Working Plane Maximum Illuminance(lx): 1090.05

Working Plane Maximum Illuminance Position(d/h):H-0.0 V-0.0



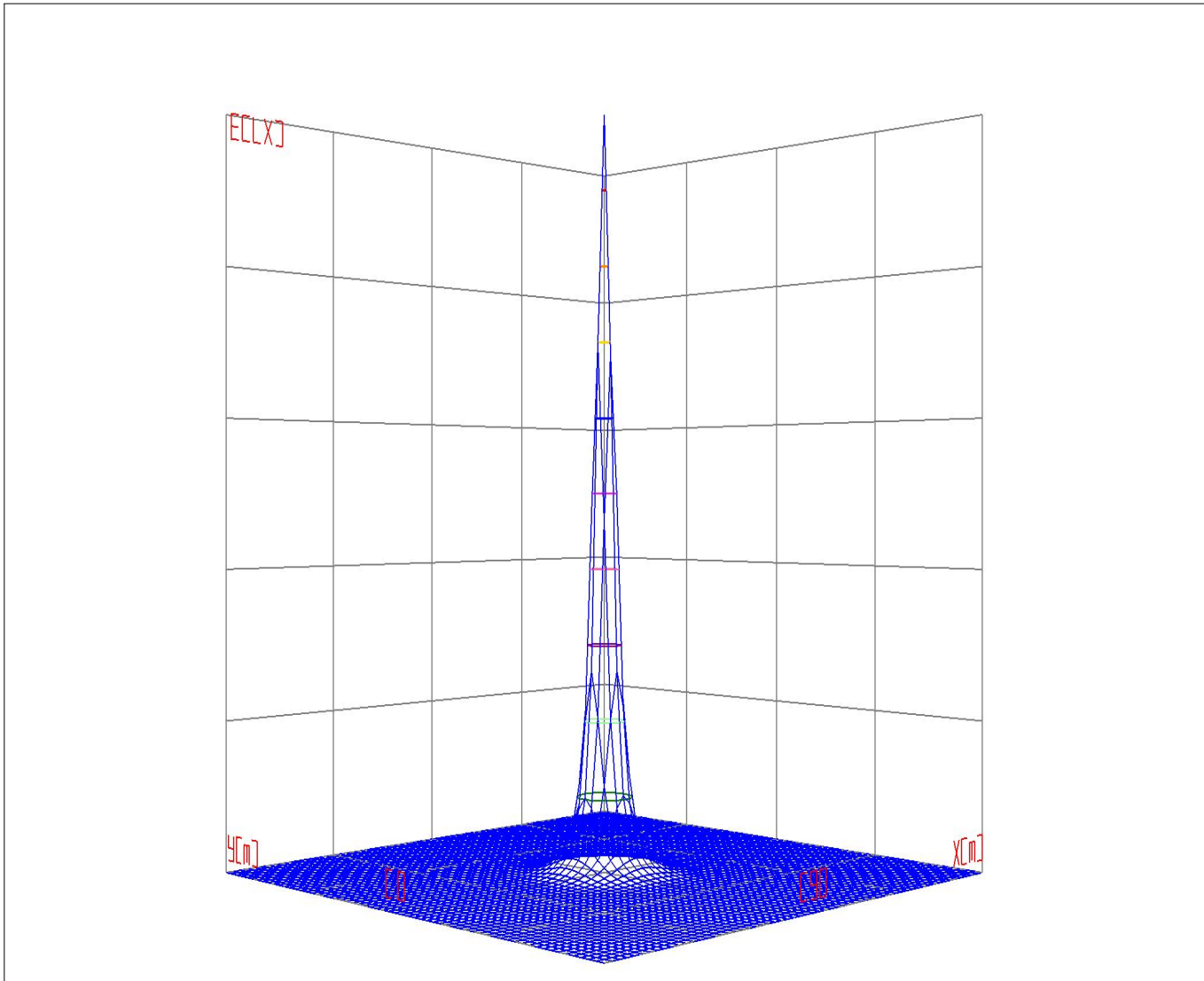
**IES Indoor Report**

**Photometric Filename: AT10020-20W-4000K-RA90-15D-SBK-3T-IES.IES**

**3D Plane ISO Illuminance Diagram**

Lum. Name: AT10020-20W-4000K-RA90-15D-SBK-3T-IES	Lum. Catalog:	Test ID:
Lamp Name: 40G1000-C-73	Lamp Catalog: COB	Test Lab: Test
Manufacture:	Test Machine: GON-2000	Test Date: 2022/09/08

**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

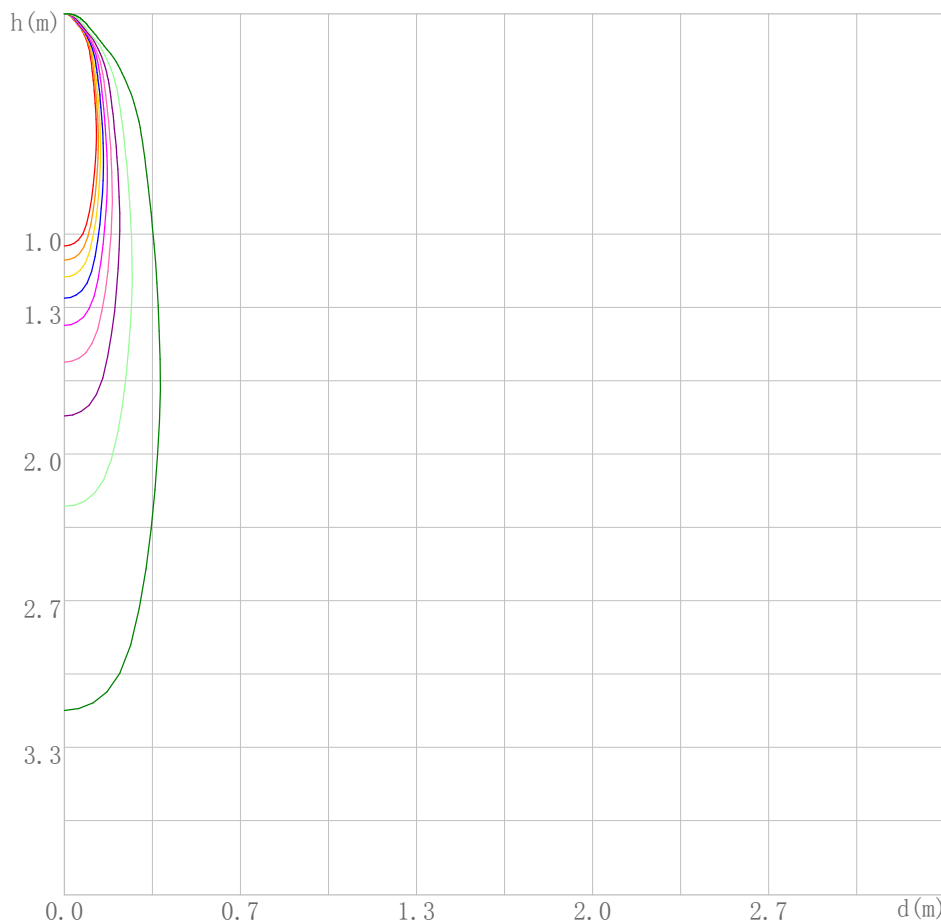
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## Space ISO Illuminance Diagram

Lum. Name: AT10020-20W-4000K-RA90-15D-SBK-3T-IES	Lum. Catalog:	Test ID:
Lamp Name: 40G1000-C-73	Lamp Catalog: COB	Test Lab: Test
Manufacture:	Test Machine: GON-2000	Test Date: 2022/09/08

### Space ISO Illuminance Curve



- Curves:  
[Unit: lx]  
[EMax] =9810.201
- [EMax\*90%]=8829.181
  - [EMax\*80%]=7848.161
  - [EMax\*70%]=6867.141
  - [EMax\*60%]=5886.121
  - [EMax\*50%]=4905.101
  - [EMax\*40%]=3924.080
  - [EMax\*30%]=2943.060
  - [EMax\*20%]=1962.040
  - [EMax\*10%]=981.020

Space Plane Maximum Illuminance and @Angle:9810.20lx,0.0deg  
Plane Maximum Lighting Intensity and @Angle:9810.201cd,0deg

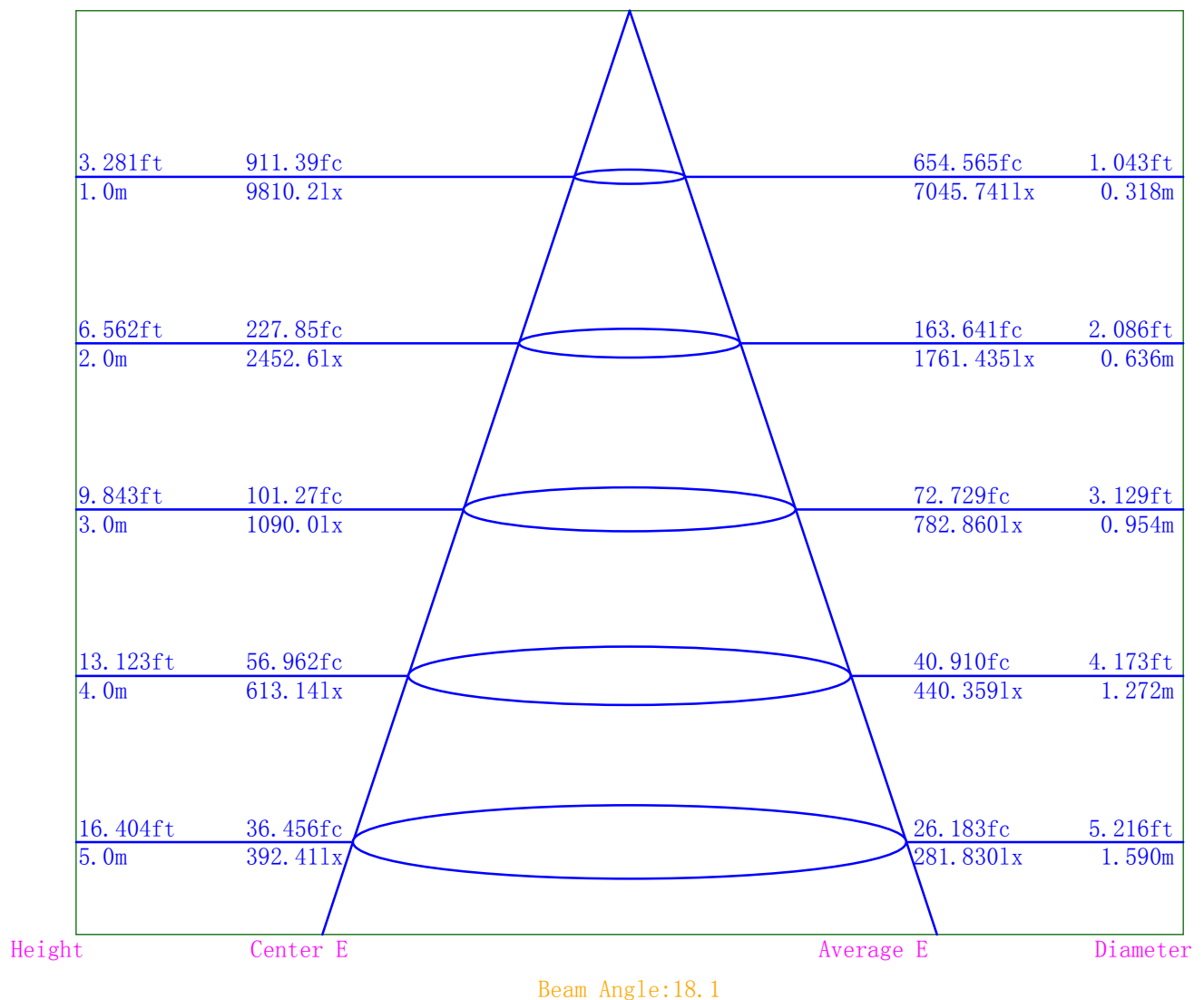
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Photometric Filename: AT10020-20W-4000K-RA90-15D-SBK-3T-IES.IES

## Illuminance-Distance Diagram

Lum. Name: AT10020-20W-4000K-RA90-15D-SBK-3T-IES	Lum. Catalog:	Test ID:
Lamp Name: 40G1000-C-73	Lamp Catalog: COB	Test Lab: Test
Manufacture:	Test Machine: GON-2000	Test Date: 2022/09/08

Illuminance-Distance Curve



# IES Indoor Report

Photometric Filename: AT10020-20W-4000K-RA90-15D-SBK-3T-IES.IES

## Indoor Luminance Limiting Curves

Lum. Name: AT10020-20W-4000K-RA90-15D-SBK-3T-IES	Lum. Catalog:	Test ID:
Lamp Name: 40G1000-C-73	Lamp Catalog: COB	Test Lab: Test
Manufacture:	Test Machine: GON-2000	Test Date: 2022/09/08

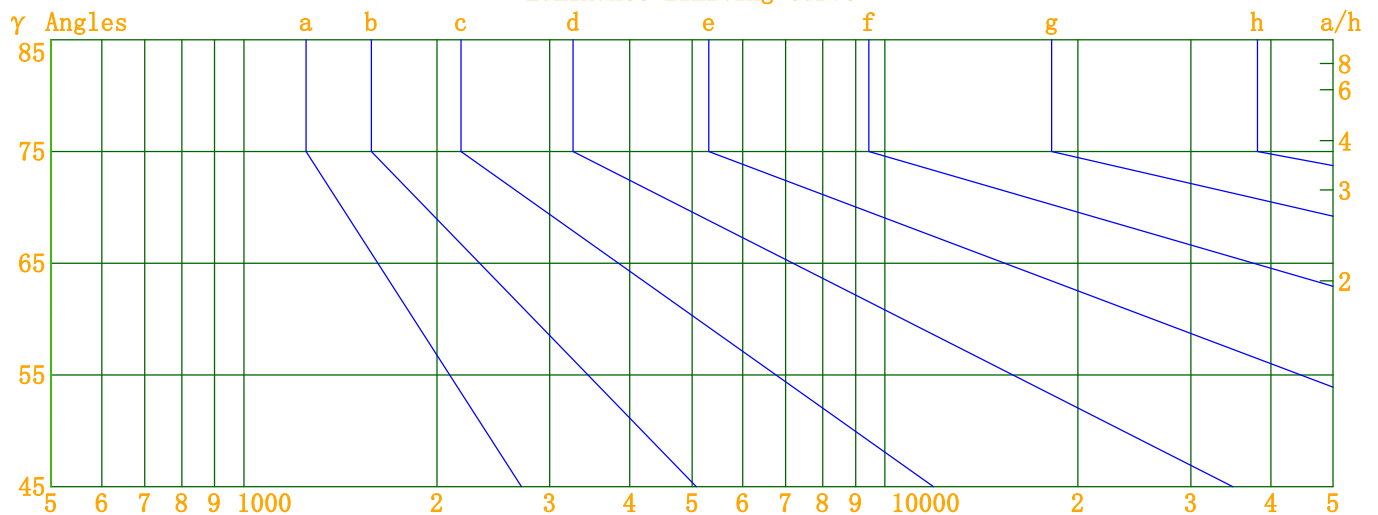
Glare Grade Table

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



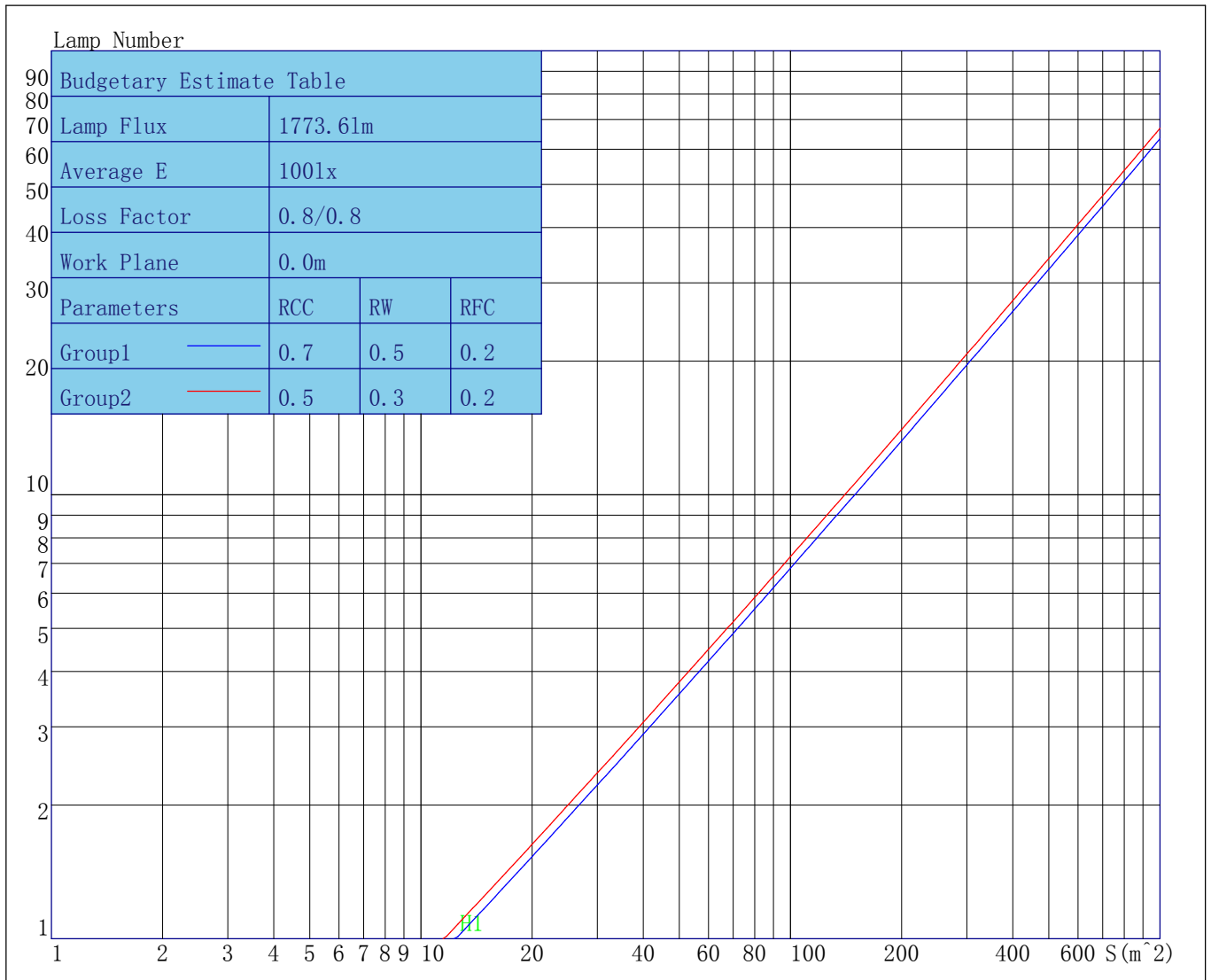
Luminous Size: Length(m)=0.000 Width(m)=0.000 Height(m)=0.000 Area(m^2)=0.000000  
 Luminous Type: Without Luminous Side  
 Luminous Curves: C0-C180 Color: — C90-C270 Color: —

# IES Indoor Report

Photometric Filename: AT10020-20W-4000K-RA90-15D-SBK-3T-IES.IES

## Indoor Budgetary Estimate Table

Lum. Name: AT10020-20W-4000K-RA90-15D-SBK-3T-IES	Lum. Catalog:	Test ID:
Lamp Name: 40G1000-C-73	Lamp Catalog: COB	Test Lab: Test
Manufacture:	Test Machine: GON-2000	Test Date: 2022/09/08



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: AT10020-20W-4000K-RA90-15D-SBK-3T-IES.IES

## Indoor Coefficient of Utilization Table

Lum. Name: AT10020-20W-4000K-RA90-15D-SBK-3T-IES	Lum. Catalog:	Test ID:
Lamp Name: 40G1000-C-73	Lamp Catalog: COB	Test Lab: Test
Manufacture:	Test Machine: GON-2000	Test Date: 2022/09/08

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

# IES Indoor Report

Photometric Filename: AT10020-20W-4000K-RA90-15D-SBK-3T-IES.IES

## Unified Glare Rating Table

Lum. Name: AT10020-20W-4000K-RA90-15D-SBK-3T-IES	Lum. Catalog:	Test ID:
Lamp Name: 40G1000-C-73	Lamp Catalog: COB	Test Lab: Test
Manufacture:	Test Machine: GON-2000	Test Date: 2022/09/08

## 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	1.3	2.1	1.7	2.5	2.9	1.3	2.1	1.7	2.5	2.9
Y=3H	1.1	1.8	1.5	2.2	2.6	1.1	1.8	1.5	2.2	2.6
Y=4H	1.0	1.6	1.4	2.0	2.5	1.0	1.6	1.4	2.0	2.5
Y=6H	0.8	1.5	1.3	1.9	2.3	0.8	1.5	1.3	1.9	2.3
Y=8H	0.8	1.3	1.3	1.8	2.3	0.8	1.3	1.3	1.8	2.3
Y=12H	0.7	1.3	1.2	1.7	2.2	0.7	1.3	1.2	1.7	2.2
X=4H Y=2H	1.0	1.6	1.4	2.0	2.5	1.0	1.6	1.4	2.0	2.5
Y=3H	0.7	1.3	1.2	1.7	2.2	0.7	1.3	1.2	1.7	2.2
Y=4H	0.6	1.1	1.1	1.6	2.1	0.6	1.1	1.1	1.6	2.1
Y=6H	0.5	0.9	1.0	1.4	1.9	0.5	0.9	1.0	1.4	1.9
Y=8H	0.4	0.8	1.0	1.3	1.8	0.4	0.8	1.0	1.3	1.8
Y=12H	0.4	0.6	0.9	1.2	1.7	0.4	0.6	0.9	1.2	1.7
X=8H Y=4H	0.4	0.8	1.0	1.3	1.8	0.4	0.8	1.0	1.3	1.8
Y=6H	0.3	0.6	0.9	1.1	1.7	0.3	0.6	0.9	1.1	1.7
Y=8H	0.2	0.5	0.8	1.0	1.6	0.2	0.5	0.8	1.0	1.6
Y=12H	0.2	0.4	0.8	0.9	1.5	0.2	0.4	0.8	0.9	1.5
X=12H Y=4H	0.4	0.6	0.9	1.2	1.7	0.4	0.6	0.9	1.2	1.7
Y=6H	0.2	0.5	0.8	1.0	1.6	0.2	0.5	0.8	1.0	1.6
Y=8H	0.2	0.4	0.8	0.9	1.5	0.2	0.4	0.8	0.9	1.5
Variations with the objverger 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: AT10020-20W-4000K-RA90-15D-SBK-3T-IES.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	9810.20	9810.20	9810.20	9810.20	9810.20	9810.20	9810.20	9810.20	9810.20	9810.20	9810.20	9810.20
γ 1.0	9767.22	9746.89	9733.00	9733.95	9745.08	9752.65	9783.62	9778.10	9812.93	9787.19	9749.86	9698.13
γ 2.0	9614.01	9576.64	9547.42	9536.49	9588.66	9624.58	9612.04	9615.96	9654.81	9635.48	9574.83	9508.51
γ 3.0	9333.60	9272.23	9227.11	9217.22	9299.08	9367.95	9336.23	9346.63	9390.05	9353.13	9269.66	9173.51
γ 4.0	8859.06	8771.80	8717.43	8711.29	8841.60	8966.03	8905.78	8921.64	8958.71	8918.64	8798.29	8675.27
γ 5.0	8150.30	8030.03	7980.26	8010.58	8174.40	8336.29	8219.94	8286.00	8330.39	8274.09	8087.40	7942.75
γ 6.0	7256.60	7141.78	7085.60	7126.81	7341.70	7527.55	7403.29	7515.18	7576.55	7524.11	7278.41	7039.13
γ 7.0	6372.23	6258.71	6168.67	6245.86	6505.96	6674.63	6580.38	6706.81	6783.34	6739.25	6470.05	6178.60
γ 8.0	5526.09	5437.19	5344.23	5436.43	5680.29	5859.24	5771.17	5911.53	5987.59	5936.42	5668.55	5382.35
γ 9.0	4757.40	4702.89	4641.55	4718.02	4925.87	5101.33	5026.81	5153.79	5219.76	5175.41	4904.20	4653.75
γ 10.0	4113.98	4062.59	4019.29	4097.79	4264.73	4436.37	4355.15	4460.34	4512.15	4465.79	4229.68	4018.57
γ 11.0	3549.25	3498.84	3458.82	3542.33	3685.58	3844.29	3777.67	3847.43	3894.03	3837.48	3628.36	3447.47
γ 12.0	3054.32	3001.18	2965.81	3047.66	3173.78	3315.86	3247.14	3301.63	3334.55	3278.78	3103.75	2938.05
γ 13.0	2606.16	2568.35	2532.52	2615.01	2731.82	2846.63	2779.97	2817.59	2837.23	2783.02	2643.17	2492.75
γ 14.0	2227.01	2204.26	2172.57	2247.67	2351.52	2434.54	2374.47	2400.36	2403.86	2357.67	2243.10	2116.21
γ 15.0	1908.06	1901.26	1876.89	1940.22	2030.82	2086.22	2026.21	2048.78	2036.30	1992.60	1907.16	1807.69
γ 16.0	1646.58	1647.37	1626.10	1680.46	1759.92	1795.99	1735.52	1752.90	1733.06	1694.77	1627.06	1555.49
γ 17.0	1426.35	1431.52	1412.74	1458.21	1527.49	1551.16	1496.63	1506.77	1487.87	1451.27	1397.07	1346.04
γ 18.0	1244.45	1249.53	1233.19	1273.95	1335.34	1349.20	1296.57	1303.37	1283.07	1253.24	1208.95	1172.78
γ 19.0	1089.83	1096.88	1077.77	1118.09	1169.66	1178.54	1132.89	1134.42	1114.97	1092.81	1055.93	1028.56
γ 20.0	960.23	968.40	952.72	986.79	1029.09	1035.47	994.75	994.16	974.13	958.24	929.42	906.28
γ 21.0	851.19	860.69	846.92	875.83	911.66	914.81	881.84	879.56	859.84	847.92	826.17	805.32
γ 22.0	761.76	769.44	756.11	781.07	812.61	814.49	787.46	784.92	765.39	756.23	738.29	719.03
γ 23.0	683.48	691.13	677.69	700.32	728.82	730.47	707.17	705.04	687.70	679.49	664.30	645.46
γ 24.0	616.33	623.77	612.23	630.77	655.48	658.53	638.16	637.12	620.29	614.62	600.38	582.00
γ 25.0	559.42	566.66	555.50	572.13	593.19	596.65	578.64	579.02	562.56	557.32	544.94	527.02
γ 26.0	509.00	517.39	505.86	521.06	541.22	543.68	527.47	528.60	512.29	507.70	496.39	479.54
γ 27.0	465.38	473.65	462.63	474.92	495.17	497.00	482.07	483.98	468.26	463.56	453.66	437.57
γ 28.0	426.99	434.09	424.55	434.93	453.35	456.10	441.34	444.37	429.63	424.72	415.15	400.13
γ 29.0	391.71	398.27	388.83	398.82	415.62	418.92	405.28	408.54	394.96	390.39	380.53	366.41
γ 30.0	359.77	365.40	356.84	366.14	382.10	385.11	372.14	375.54	362.46	357.96	348.94	335.69
γ 31.0	329.65	334.81	326.88	335.87	350.96	354.08	341.76	345.05	333.08	327.85	319.87	307.78
γ 32.0	301.86	306.28	299.34	307.15	321.72	325.22	312.81	316.48	305.03	299.96	292.79	281.31
γ 33.0	275.98	279.75	273.00	280.38	294.13	298.53	286.59	289.77	279.56	275.09	267.42	257.10
γ 34.0	251.84	254.73	248.88	256.12	268.42	273.45	261.54	264.78	255.87	251.57	244.15	234.14
γ 35.0	228.62	230.99	225.24	232.82	244.90	249.42	238.02	241.17	233.54	228.97	221.60	211.62
γ 36.0	206.96	209.39	204.73	211.63	222.24	226.32	215.13	218.84	211.28	206.24	200.29	190.86
γ 37.0	187.21	189.34	185.69	191.58	201.45	206.28	194.92	198.11	191.11	186.49	180.83	171.91
γ 38.0	168.47	170.16	166.38	171.93	182.30	187.67	176.27	178.78	172.91	168.82	162.54	153.60
γ 39.0	151.23	153.18	150.10	155.34	164.43	169.49	157.30	158.93	153.97	151.18	144.91	136.57
γ 40.0	136.89	138.65	136.74	140.98	149.07	153.36	139.63	140.33	136.17	134.13	129.21	121.87
γ 41.0	124.31	125.93	124.39	128.07	135.10	139.10	124.82	125.26	121.56	119.38	115.35	108.97
γ 42.0	113.14	114.48	113.13	116.52	122.60	126.61	111.78	112.28	108.44	106.55	103.19	97.51
γ 43.0	101.69	101.84	100.93	104.28	111.42	115.25	100.14	100.44	97.05	95.27	92.19	85.88
γ 44.0	86.99	86.15	84.37	88.81	97.63	102.93	87.96	88.24	85.90	83.29	78.28	71.36
γ 45.0	72.31	71.37	69.51	73.68	81.48	87.53	72.19	73.59	71.32	68.62	63.01	57.23
γ 46.0	62.00	61.03	59.86	62.74	68.29	72.99	57.56	58.58	56.15	54.38	50.51	46.58



# IES Indoor Report

Photometric Filename: AT10020-20W-4000K-RA90-15D-SBK-3T-IES.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	54.78	53.43	52.74	54.87	59.47	62.85	47.21	47.52	45.27	44.53	41.96	39.16
γ 48.0	47.78	46.83	46.38	48.12	52.60	55.38	39.56	40.14	38.42	37.60	35.31	33.13
γ 49.0	42.57	41.82	41.53	42.74	46.21	48.72	33.10	33.67	32.13	31.34	29.44	27.88
γ 50.0	38.72	38.44	38.05	38.81	41.57	43.58	27.92	27.92	27.07	26.22	24.98	24.14
γ 51.0	36.08	35.65	35.22	36.11	38.20	39.75	23.96	23.98	22.99	22.60	21.92	21.06
γ 52.0	33.62	33.13	32.77	33.79	35.76	37.00	21.03	21.11	20.08	19.90	19.28	18.59
γ 53.0	30.66	29.91	29.77	30.49	32.89	34.29	18.28	18.41	17.60	17.26	16.69	15.85
γ 54.0	27.42	26.82	26.59	27.39	29.11	30.56	14.78	15.10	15.02	14.40	13.17	13.01
γ 55.0	25.25	24.72	24.95	25.26	26.19	27.25	11.61	12.01	11.77	11.53	11.07	11.35
γ 56.0	23.75	23.17	23.49	23.67	24.56	25.00	9.97	10.24	10.31	9.98	9.71	9.99
γ 57.0	22.52	22.09	22.37	22.60	23.00	23.39	8.43	9.11	8.85	8.83	8.52	9.01
γ 58.0	21.30	21.04	21.39	21.46	21.74	22.38	7.84	8.07	7.80	7.99	7.69	8.10
γ 59.0	20.45	20.16	20.73	20.59	21.00	21.81	7.27	7.44	7.11	7.18	7.03	7.46
γ 60.0	19.59	19.42	19.84	20.00	20.38	21.01	6.46	7.04	6.77	6.67	6.44	6.94
γ 61.0	18.79	18.72	19.25	19.05	19.60	20.03	6.22	6.51	6.47	6.24	6.02	6.64
γ 62.0	18.18	17.97	18.44	18.38	18.92	19.27	5.66	5.86	5.89	6.05	5.70	6.33
γ 63.0	17.22	17.28	17.57	17.77	18.23	18.51	5.15	5.37	5.38	5.55	5.29	5.80
γ 64.0	16.48	16.43	16.68	16.73	17.38	17.99	4.60	4.92	4.89	4.98	4.81	5.03
γ 65.0	15.42	15.53	15.82	15.74	16.31	16.95	4.18	4.38	4.40	4.53	4.20	4.48
γ 66.0	14.94	14.90	15.11	15.16	15.65	16.12	3.92	4.02	4.29	4.16	4.32	4.23
γ 67.0	14.69	14.33	15.10	14.71	15.19	15.51	3.85	3.89	3.99	4.01	4.25	4.05
γ 68.0	14.08	13.88	14.51	14.43	14.50	15.05	3.60	3.88	3.71	4.08	3.88	3.83
γ 69.0	13.51	13.53	13.84	14.21	13.90	14.55	3.64	3.84	3.86	3.96	3.97	3.80
γ 70.0	13.09	13.27	13.51	13.87	13.70	13.95	3.58	3.76	3.61	3.85	3.67	3.65
γ 71.0	12.74	12.99	13.11	13.55	13.55	13.85	3.66	3.65	3.67	3.81	3.58	3.83
γ 72.0	12.70	12.50	12.78	13.28	13.23	13.37	3.62	3.63	3.80	3.76	3.78	3.97
γ 73.0	12.38	12.19	12.61	12.81	13.03	13.18	3.45	3.68	3.55	3.70	3.90	3.93
γ 74.0	12.15	12.10	12.42	12.35	12.57	12.85	3.46	3.81	3.65	3.53	3.86	3.93
γ 75.0	11.61	11.80	11.70	12.29	12.50	12.74	3.43	3.75	3.69	3.64	3.87	4.02
γ 76.0	11.33	11.42	11.46	12.01	12.19	12.44	3.69	3.79	3.74	3.78	3.80	3.98
γ 77.0	10.88	11.23	11.26	11.69	11.72	12.04	3.48	3.91	3.95	4.03	3.93	4.24
γ 78.0	10.95	11.03	11.10	11.38	11.47	11.70	3.51	3.94	3.94	4.16	4.15	4.35
γ 79.0	10.81	10.63	10.97	11.17	11.39	11.48	3.81	4.06	4.06	4.00	4.32	4.58
γ 80.0	10.58	10.40	10.77	10.84	11.16	11.49	4.08	4.12	4.37	4.12	4.28	4.53
γ 81.0	10.10	10.19	10.35	10.55	10.94	11.22	4.06	4.41	4.55	4.42	4.46	4.80
γ 82.0	10.02	9.95	10.10	10.32	10.61	10.92	4.35	4.56	4.74	4.53	4.64	4.86
γ 83.0	10.06	9.89	9.78	10.21	10.35	10.64	4.39	4.59	4.90	4.53	4.49	5.07
γ 84.0	9.58	9.74	9.53	9.84	10.07	10.38	4.73	4.89	4.69	4.70	4.64	5.30
γ 85.0	9.33	9.38	9.61	9.53	9.90	10.07	4.78	5.09	4.79	4.89	4.93	5.48
γ 86.0	9.25	9.27	9.57	9.65	9.58	10.20	4.66	5.01	5.14	4.99	5.25	5.77
γ 87.0	8.98	9.17	9.07	9.39	9.61	9.62	5.00	5.12	5.18	5.32	5.26	5.77
γ 88.0	8.75	8.99	8.83	9.13	9.57	9.76	5.13	5.35	5.32	5.41	5.44	5.85
γ 89.0	8.53	8.82	8.79	8.81	9.53	9.41	5.20	5.22	5.47	5.36	5.46	5.96
γ 90.0	8.60	8.66	8.51	8.55	9.10	9.31	5.08	5.20	5.32	5.29	5.58	5.83
γ 91.0	8.49	8.59	8.36	8.49	8.80	9.20	4.97	5.47	5.28	5.30	5.69	5.93
γ 92.0	8.02	8.45	8.00	8.52	9.05	8.89	5.09	5.62	5.42	5.43	5.61	6.03
γ 93.0	8.01	8.21	7.89	8.19	8.73	8.72	5.33	5.57	5.45	5.56	5.70	5.78

# IES Indoor Report

Photometric Filename:AT10020-20W-4000K-RA90-15D-SBK-3T-IES.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	7.82	7.97	8.05	8.00	8.38	8.80	5.34	5.38	5.47	5.55	5.60	5.84
γ 95.0	7.78	7.82	7.97	7.99	8.49	8.64	5.09	5.26	5.49	5.62	5.67	5.90
γ 96.0	7.65	7.63	7.80	7.89	8.29	8.24	5.18	5.35	5.50	5.52	5.51	6.00
γ 97.0	7.42	7.62	7.64	7.71	8.06	8.23	5.33	5.39	5.44	5.28	5.66	5.96
γ 98.0	7.13	7.62	7.66	7.59	8.22	8.36	5.31	5.30	5.46	5.40	5.70	5.85
γ 99.0	7.12	7.45	7.51	7.43	7.86	8.53	5.09	5.33	5.46	5.52	5.54	5.81
γ 100.0	7.07	7.28	7.58	7.38	7.98	7.88	4.90	5.34	5.34	5.49	5.45	5.63
γ 101.0	6.79	7.31	7.29	7.22	7.74	7.82	5.16	5.34	5.48	5.27	5.56	5.86
γ 102.0	6.88	7.18	7.39	7.17	7.54	7.93	5.39	5.37	5.34	5.30	5.55	5.71
γ 103.0	6.62	7.01	7.02	7.14	7.37	7.40	4.99	5.41	5.30	5.34	5.48	5.81
γ 104.0	6.64	6.96	6.88	6.95	7.54	7.60	5.14	5.52	5.60	5.45	5.70	5.92
γ 105.0	6.35	6.96	6.91	7.02	7.44	7.49	5.29	5.58	5.25	5.63	5.63	5.93
γ 106.0	6.53	6.97	6.85	6.67	7.20	7.38	5.47	5.50	5.56	5.59	5.40	5.77
γ 107.0	6.50	6.83	6.64	6.69	7.16	7.13	5.09	5.48	5.54	5.46	5.89	5.96
γ 108.0	6.50	6.82	6.74	6.92	7.43	7.25	5.39	5.57	5.68	5.55	5.99	6.25
γ 109.0	6.29	6.84	6.25	6.81	7.08	7.07	5.30	5.75	5.57	5.55	5.97	6.08
γ 110.0	6.47	6.67	6.33	6.50	7.13	6.84	5.49	5.81	5.65	5.68	6.12	5.90
γ 111.0	6.15	6.62	6.22	6.55	7.14	6.90	5.50	5.66	5.71	5.64	5.85	6.36
γ 112.0	6.30	6.50	6.02	6.58	6.91	7.07	5.68	5.57	5.65	5.72	5.93	6.18
γ 113.0	6.19	6.31	6.09	6.30	6.87	6.95	5.64	5.76	6.11	5.80	5.93	6.39
γ 114.0	5.99	6.36	6.05	6.26	6.73	6.93	5.43	5.87	6.08	5.95	5.83	6.42
γ 115.0	6.20	6.37	6.21	6.33	6.95	6.98	5.56	5.91	5.95	6.00	5.91	6.59
γ 116.0	5.98	6.26	6.33	6.28	6.84	7.09	5.58	5.82	6.22	5.94	5.89	6.73
γ 117.0	6.18	6.26	6.34	6.34	6.80	7.06	5.80	5.78	5.85	5.83	5.74	6.43
γ 118.0	5.79	6.22	6.43	6.54	6.94	6.70	5.63	5.97	5.97	5.74	5.64	6.45
γ 119.0	5.93	5.99	6.35	6.61	6.78	7.03	5.85	6.04	5.85	5.73	5.76	6.56
γ 120.0	5.86	5.82	5.88	6.65	6.69	6.95	5.72	6.12	5.95	5.92	5.70	6.43
γ 121.0	5.81	5.97	5.86	6.53	6.82	6.70	5.73	6.01	5.92	5.89	5.93	6.34
γ 122.0	5.92	6.09	5.93	6.32	6.71	6.63	5.60	5.77	5.86	5.71	6.04	6.40
γ 123.0	5.94	6.00	6.01	6.14	6.62	6.90	5.70	5.88	5.82	5.78	6.02	6.48
γ 124.0	5.90	5.90	5.98	6.20	6.64	6.78	5.81	6.00	6.15	5.94	5.98	6.71
γ 125.0	5.77	5.89	6.12	6.21	6.63	6.79	5.70	5.99	6.00	5.94	6.01	6.77
γ 126.0	5.85	5.79	6.03	6.08	6.70	6.79	5.75	5.94	6.22	6.01	6.26	6.59
γ 127.0	5.92	5.72	5.89	6.03	6.77	6.65	5.95	5.77	6.28	5.84	6.10	6.30
γ 128.0	5.77	5.82	5.99	6.12	6.55	6.52	5.81	5.73	6.35	5.82	6.04	6.27
γ 129.0	5.67	5.64	5.99	5.94	6.64	6.58	6.01	5.72	6.30	6.19	6.05	6.47
γ 130.0	6.04	5.67	5.78	6.25	6.81	6.46	6.07	5.87	6.34	6.40	6.49	6.41
γ 131.0	5.91	5.98	6.00	6.42	6.71	6.56	5.62	5.95	6.26	6.29	6.26	6.54
γ 132.0	5.98	5.92	5.89	6.27	6.64	6.57	5.69	5.93	6.13	6.25	6.39	6.57
γ 133.0	5.85	5.84	5.89	6.15	6.56	6.47	5.90	5.94	6.27	6.15	6.27	6.51
γ 134.0	5.88	5.80	5.98	6.00	6.45	6.49	5.78	5.81	6.20	6.21	6.41	6.74
γ 135.0	5.90	5.76	5.55	6.03	6.57	6.43	5.95	5.75	6.40	6.45	6.38	6.79
γ 136.0	5.65	5.91	5.78	6.18	6.71	6.41	5.99	5.95	6.32	6.36	6.40	6.86
γ 137.0	5.70	5.99	5.86	6.16	6.36	6.36	6.13	6.04	6.58	6.66	6.31	6.89
γ 138.0	5.74	6.10	5.99	6.29	6.68	6.43	6.04	6.16	6.58	6.57	6.36	6.91
γ 139.0	6.07	6.16	6.34	6.29	6.86	6.61	6.24	6.17	6.63	6.62	6.53	6.95
γ 140.0	5.86	6.06	6.47	6.23	6.92	6.79	6.05	6.03	6.62	6.56	6.64	7.00

# IES Indoor Report

Photometric Filename:AT10020-20W-4000K-RA90-15D-SBK-3T-IES.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	5.97	6.09	6.33	6.48	6.79	6.92	6.29	6.15	6.64	6.66	6.59	7.01
γ 142.0	5.93	6.12	6.45	6.51	6.92	6.95	6.37	6.13	6.65	6.73	6.66	7.11
γ 143.0	6.10	6.22	6.53	6.59	7.03	7.17	6.32	6.29	6.75	6.76	6.73	7.14
γ 144.0	6.23	6.35	6.66	6.86	7.15	7.13	6.29	6.66	7.19	6.77	6.89	7.37
γ 145.0	6.20	6.49	6.73	6.93	7.33	7.04	6.27	6.78	7.04	7.11	7.08	7.46
γ 146.0	6.66	6.80	6.86	6.96	7.76	7.39	6.69	6.77	7.32	7.28	6.89	7.54
γ 147.0	6.63	6.90	7.11	7.26	7.63	7.33	6.77	6.76	7.38	7.34	7.19	7.72
γ 148.0	7.12	7.06	7.46	7.43	7.64	7.59	6.72	6.94	7.37	7.54	7.39	7.91
γ 149.0	7.07	7.42	7.50	7.57	7.94	7.92	7.09	7.15	7.40	7.74	7.48	8.09
γ 150.0	7.46	7.61	7.81	7.85	8.24	8.15	7.18	7.26	7.75	7.91	7.52	8.34
γ 151.0	7.49	7.83	8.17	8.02	8.21	8.37	7.47	7.41	7.97	7.93	7.73	8.40
γ 152.0	7.92	8.17	8.08	8.46	8.44	8.60	7.86	7.63	8.14	8.25	7.98	8.55
γ 153.0	8.03	8.39	8.30	8.72	8.88	8.63	8.00	7.95	8.35	8.56	8.14	8.90
γ 154.0	8.06	8.73	8.79	8.69	9.06	9.15	8.14	8.32	8.74	8.77	8.39	8.99
γ 155.0	8.62	9.15	9.06	8.92	9.18	9.03	8.42	8.63	8.76	9.00	8.73	9.36
γ 156.0	8.66	9.39	9.12	9.43	9.46	9.25	8.61	9.00	9.03	9.25	9.00	9.65
γ 157.0	8.72	9.47	9.54	9.73	9.69	9.85	8.88	9.17	9.19	9.70	9.16	9.79
γ 158.0	9.48	9.46	9.79	9.86	10.09	10.14	9.20	9.22	9.61	9.86	9.45	10.09
γ 159.0	9.65	9.78	10.03	10.02	10.26	10.39	9.38	9.43	9.57	9.84	9.44	10.45
γ 160.0	9.73	10.17	10.28	10.27	10.47	10.55	9.49	9.65	10.04	10.10	9.87	10.45
γ 161.0	9.89	10.32	10.56	10.55	10.79	10.71	9.77	9.93	10.24	10.36	10.04	10.62
γ 162.0	10.09	10.29	10.25	10.62	11.06	10.83	10.00	10.13	10.38	10.44	10.22	10.82
γ 163.0	10.66	10.38	10.76	10.79	11.01	11.04	9.98	10.37	10.65	10.56	10.39	11.05
γ 164.0	10.72	10.62	10.64	11.04	10.87	11.23	9.91	10.74	10.33	10.68	10.69	11.03
γ 165.0	10.76	10.77	11.10	11.07	11.06	11.57	10.43	10.83	10.64	10.73	10.76	11.20
γ 166.0	10.80	10.85	11.03	11.38	11.07	11.66	10.51	10.71	10.75	10.79	10.77	11.33
γ 167.0	10.99	10.88	11.18	11.42	11.20	11.82	10.69	10.76	10.80	10.84	10.82	11.49
γ 168.0	10.97	11.04	11.20	11.52	11.27	11.83	10.73	10.85	10.97	10.69	10.65	11.53
γ 169.0	10.66	11.21	11.08	11.46	11.00	11.77	10.76	10.87	10.88	10.94	10.75	11.51
γ 170.0	11.14	11.13	11.37	11.57	11.06	11.76	10.82	10.94	10.64	11.03	10.80	11.40
γ 171.0	11.04	10.95	11.21	11.56	11.25	11.87	10.71	10.84	11.03	11.05	10.84	11.47
γ 172.0	11.01	10.91	11.01	11.43	10.98	11.72	10.61	10.66	10.98	11.16	10.95	11.59
γ 173.0	10.84	10.95	11.18	11.24	11.06	11.56	10.66	10.58	10.79	11.01	10.79	11.27
γ 174.0	10.75	10.89	10.91	11.14	11.27	11.69	10.51	10.50	10.65	10.99	10.82	11.18
γ 175.0	10.73	10.63	10.71	11.10	10.86	11.65	10.28	10.36	10.67	11.02	10.90	11.22
γ 176.0	10.59	10.46	11.00	10.89	10.88	11.37	10.35	10.37	10.84	10.94	10.80	11.24
γ 177.0	10.52	10.35	10.76	10.80	10.87	11.34	10.23	10.29	10.86	10.77	10.42	11.25
γ 178.0	10.48	10.30	10.73	10.81	10.73	11.34	10.52	10.25	10.51	10.71	10.39	11.30
γ 179.0	10.44	10.50	10.76	10.77	10.63	11.14	10.35	10.26	10.57	10.84	10.40	11.39
γ 180.0	10.64	10.64	10.64	10.64	10.64	10.64	10.64	10.64	10.64	10.64	10.64	10.64