

# IES Indoor Report

Photometric Filename: AT10020-20W-3500K-RA90-36D-WH.IES

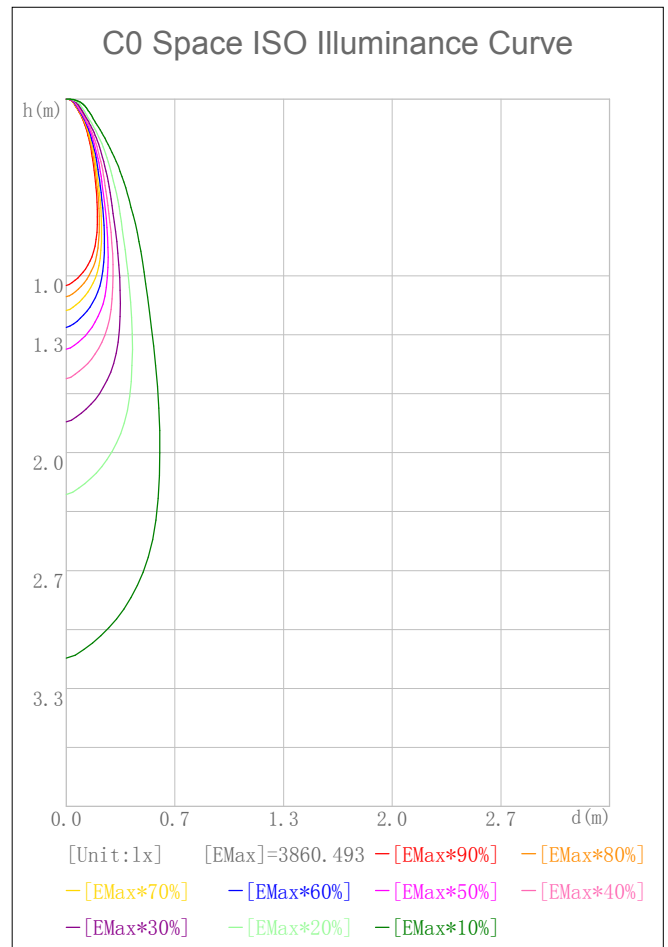
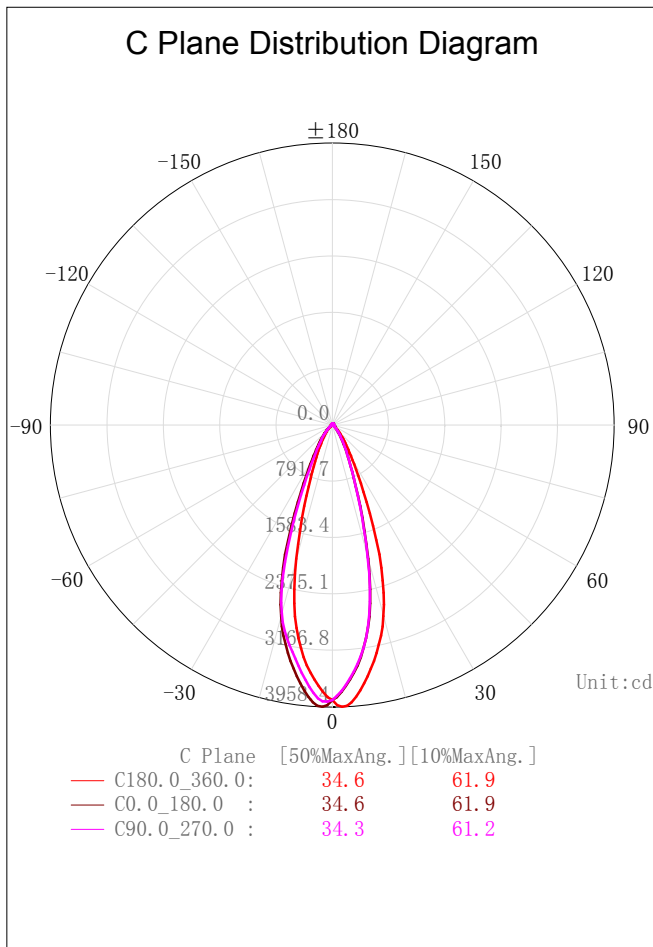
## Indoor Luminaire Photometric Data

### Description Information

Luminary Name: AT10020-20W-3500K-RA90-36D-WH	Lum. Catalog: 三线导轨灯	Test ID:
Lamp Name: 1204C4三线导轨 灯	Lamp Catalog: COB	Test Date: 2022/06/05
Manufacture:	Shld. Ang(°): 36	Test Machine: GON-2000
Test Lab: Test	Frequency(Hz): 50	Lamp CCT(K): 3500 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, $\gamma$	Test Step: C=30.0 $\gamma$ =1.0	Temp. (°C): 25
		Humidity (%): 50.0

### Character Parameter

Lamp Speciality Parameter		Luminaire Speciality Parameter	
Rated Flux(lm): 1850.000	Luminary Flux(lm): 1709.063	Field Angle(10%Imax): 61.9(°)	
Rated Power(W): 20	Luminary Efficiency: 92.38%	Down Lumens&Percent: 1638.035lm 95.84%	
Rated Voltage(V): 220	Luminary EER(lm/W): 82.246	Up Lumens&Percent: 71.028lm 4.16%	
Tested Power(W): 20.780	Max. Candela(cd): 3958.441	S/MH: C0_a180=0.582 C90_270=0.576	
Lamps' Inside: 1	Max Cand@Ang. (°): C=180.0 $\gamma$ =2.0	CIE Type: Semi-Direct	
Tested Electrics(V, A, pf): 221.0, 0.106, 0.887	Beam Angle(50%Imax): 34.6(°)	ErP $\Phi$ use(90°): 1542.932lm	
Lamp Size(W*L*H): 0.000m*0.000m*0.000m	Left=-14.8°, Right=19.7°	IRF (%): 537.931	



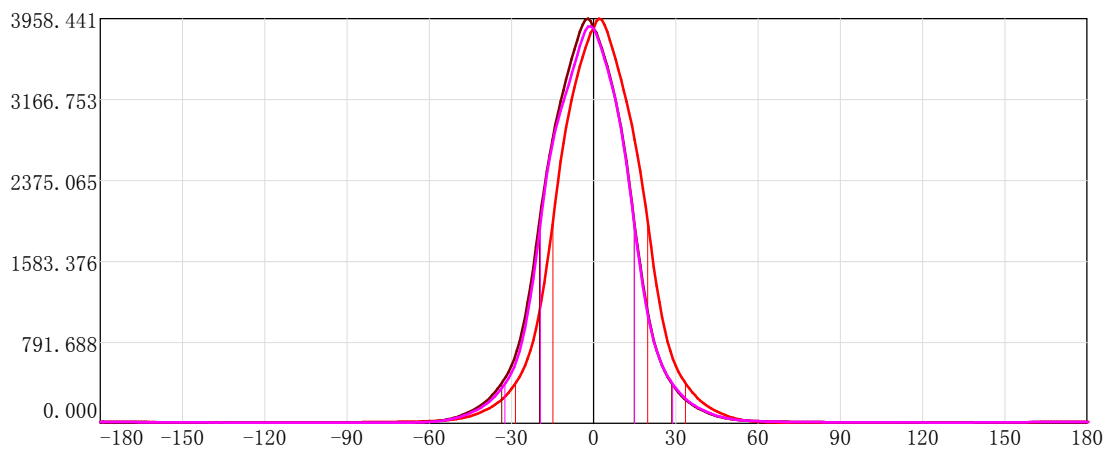
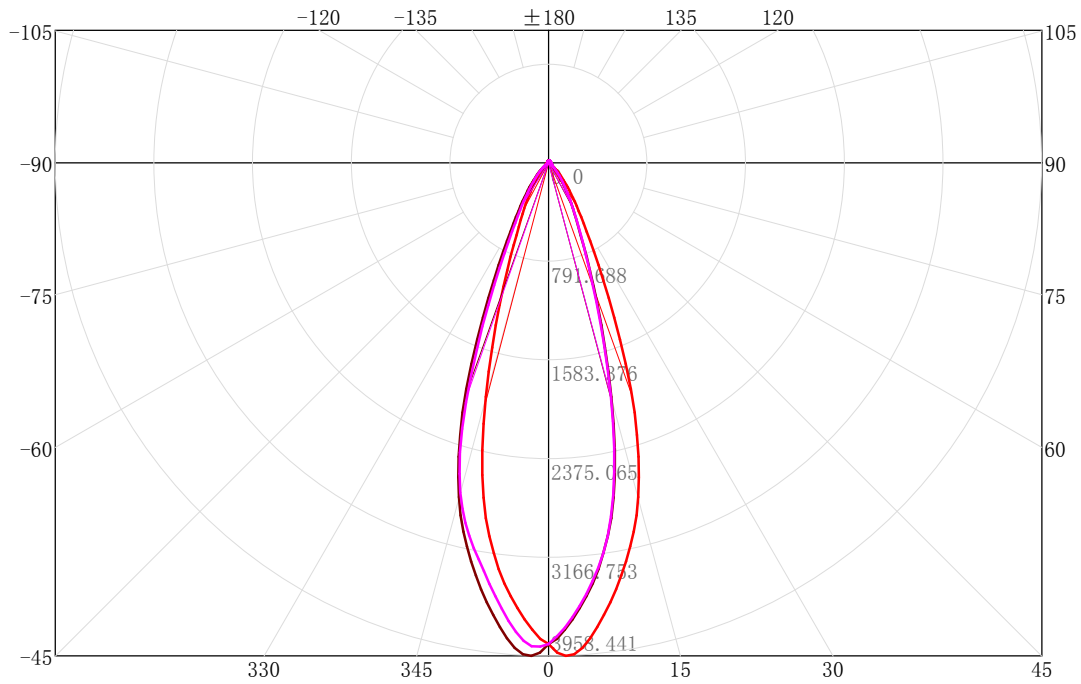
# IES Indoor Report

Photometric Filename: AT10020-20W-3500K-RA90-36D-WH.IES

## 2D Plane Light Intensity Distribution Curve

Lum. Name: AT10020-20W-3500K-RA90-36D-WH	Lum. Catalog: 三线导轨灯	Test ID:
Lamp Name: 1204C4三线导轨 灯	Lamp Catalog: COB	Test Lab: Test
Manufacture:	Test Machine: GON-2000	Test Date: 2022/06/05

C Plane Distribution Diagram



	C Plane	[50%MaxAng.]	[10%MaxAng.]	Unit:cd
—	C180.0_360.0:	34.6	61.9	
—	C0.0_180.0 :	34.6	61.9	
—	C90.0_270.0 :	34.3	61.2	

# IES Indoor Report

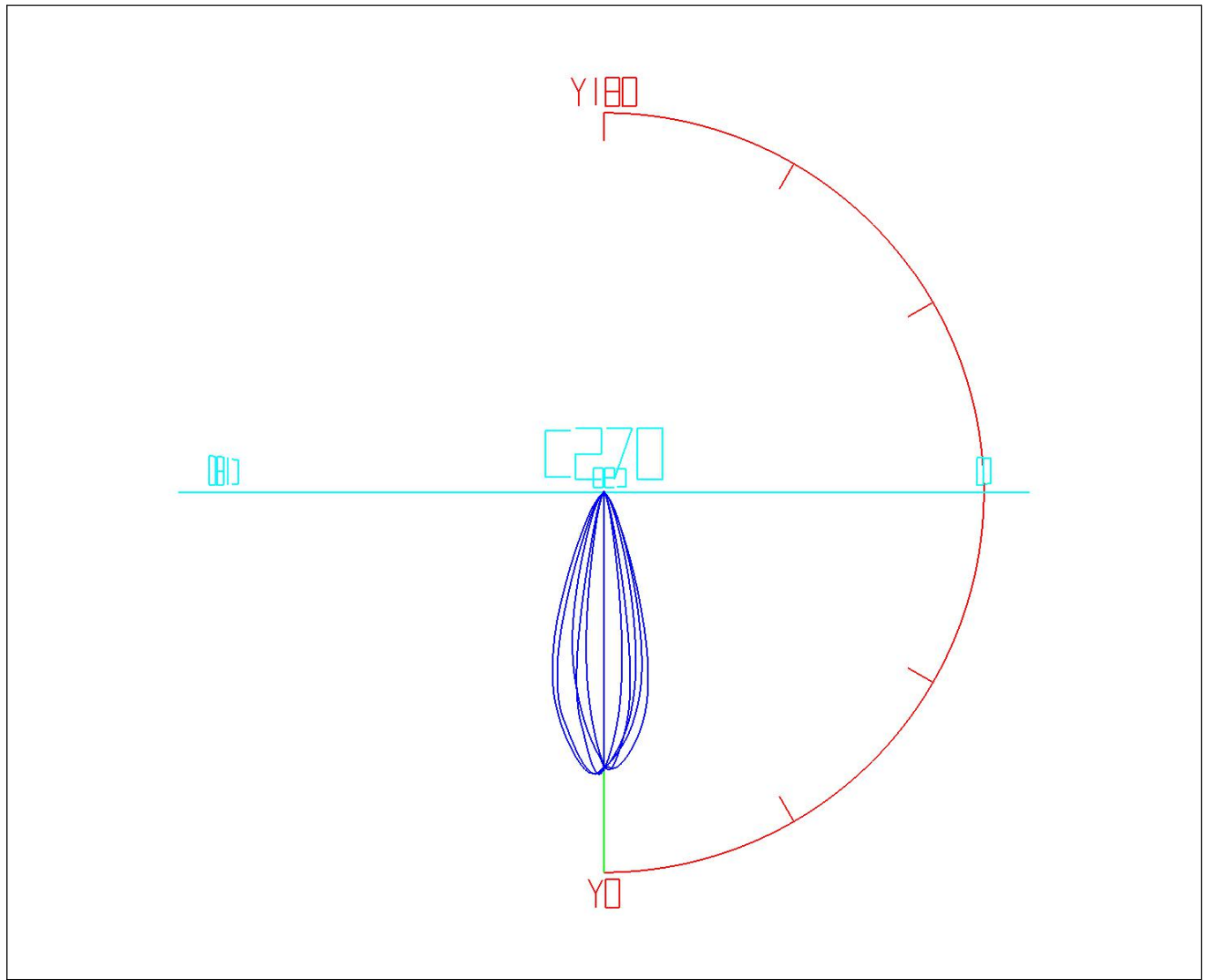
Photometric Filename: AT10020-20W-3500K-RA90-36D-WH.IES

---

## 3D Light Intensity Distribution Modal

Lum. Name: AT10020-20W-3500K-RA90-36D-WH	Lum. Catalog: 三线导轨灯	Test ID:
Lamp Name: 1204C4三线导轨 灯	Lamp Catalog: COB	Test Lab: Test
Manufacture:	Test Machine: GON-2000	Test Date: 2022/06/05

## 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-3500K-RA90-36D-WH.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	3.69	3.69	0.20	0.20	47.0-48.0	5.61	1558.97	0.30	84.27
1.0-2.0	11.01	14.70	0.59	0.79	48.0-49.0	5.08	1564.05	0.27	84.54
2.0-3.0	18.13	32.82	0.98	1.77	49.0-50.0	4.58	1568.63	0.25	84.79
3.0-4.0	24.93	57.75	1.35	3.12	50.0-51.0	4.12	1572.75	0.22	85.01
4.0-5.0	31.35	89.11	1.69	4.82	51.0-52.0	3.72	1576.48	0.20	85.21
5.0-6.0	37.35	126.46	2.02	6.84	52.0-53.0	3.39	1579.86	0.18	85.40
6.0-7.0	42.91	169.37	2.32	9.16	53.0-54.0	3.10	1582.96	0.17	85.57
7.0-8.0	48.00	217.38	2.59	11.75	54.0-55.0	2.82	1585.78	0.15	85.72
8.0-9.0	52.58	269.96	2.84	14.59	55.0-56.0	2.57	1588.35	0.14	85.86
9.0-10.0	56.63	326.59	3.06	17.65	56.0-57.0	2.36	1590.71	0.13	85.98
10.0-11.0	60.12	386.71	3.25	20.90	57.0-58.0	2.19	1592.90	0.12	86.10
11.0-12.0	62.97	449.68	3.40	24.31	58.0-59.0	2.06	1594.96	0.11	86.21
12.0-13.0	65.08	514.76	3.52	27.82	59.0-60.0	1.95	1596.91	0.11	86.32
13.0-14.0	66.34	581.10	3.59	31.41	60.0-61.0	1.86	1598.77	0.10	86.42
14.0-15.0	66.68	647.78	3.60	35.02	61.0-62.0	1.77	1600.54	0.10	86.52
15.0-16.0	66.15	713.94	3.58	38.59	62.0-63.0	1.69	1602.22	0.09	86.61
16.0-17.0	64.82	778.76	3.50	42.10	63.0-64.0	1.62	1603.85	0.09	86.69
17.0-18.0	62.73	841.49	3.39	45.49	64.0-65.0	1.56	1605.41	0.08	86.78
18.0-19.0	59.96	901.45	3.24	48.73	65.0-66.0	1.51	1606.91	0.08	86.86
19.0-20.0	56.60	958.04	3.06	51.79	66.0-67.0	1.46	1608.37	0.08	86.94
20.0-21.0	52.80	1010.84	2.85	54.64	67.0-68.0	1.41	1609.78	0.08	87.02
21.0-22.0	48.82	1059.66	2.64	57.28	68.0-69.0	1.38	1611.17	0.07	87.09
22.0-23.0	44.90	1104.56	2.43	59.71	69.0-70.0	1.36	1612.53	0.07	87.16
23.0-24.0	41.12	1145.68	2.22	61.93	70.0-71.0	1.35	1613.88	0.07	87.24
24.0-25.0	37.56	1183.23	2.03	63.96	71.0-72.0	1.33	1615.21	0.07	87.31
25.0-26.0	34.31	1217.55	1.85	65.81	72.0-73.0	1.32	1616.53	0.07	87.38
26.0-27.0	31.43	1248.98	1.70	67.51	73.0-74.0	1.31	1617.84	0.07	87.45
27.0-28.0	28.89	1277.86	1.56	69.07	74.0-75.0	1.30	1619.14	0.07	87.52
28.0-29.0	26.64	1304.50	1.44	70.51	75.0-76.0	1.30	1620.44	0.07	87.59
29.0-30.0	24.64	1329.14	1.33	71.85	76.0-77.0	1.29	1621.73	0.07	87.66
30.0-31.0	22.85	1351.99	1.23	73.08	77.0-78.0	1.28	1623.01	0.07	87.73
31.0-32.0	21.20	1373.19	1.15	74.23	78.0-79.0	1.28	1624.29	0.07	87.80
32.0-33.0	19.68	1392.86	1.06	75.29	79.0-80.0	1.27	1625.57	0.07	87.87
33.0-34.0	18.27	1411.13	0.99	76.28	80.0-81.0	1.27	1626.83	0.07	87.94
34.0-35.0	16.96	1428.09	0.92	77.19	81.0-82.0	1.26	1628.09	0.07	88.00
35.0-36.0	15.73	1443.82	0.85	78.04	82.0-83.0	1.26	1629.35	0.07	88.07
36.0-37.0	14.55	1458.37	0.79	78.83	83.0-84.0	1.25	1630.60	0.07	88.14
37.0-38.0	13.43	1471.80	0.73	79.56	84.0-85.0	1.25	1631.84	0.07	88.21
38.0-39.0	12.38	1484.18	0.67	80.23	85.0-86.0	1.25	1633.09	0.07	88.28
39.0-40.0	11.43	1495.61	0.62	80.84	86.0-87.0	1.24	1634.33	0.07	88.34
40.0-41.0	10.55	1506.16	0.57	81.41	87.0-88.0	1.24	1635.57	0.07	88.41
41.0-42.0	9.71	1515.87	0.52	81.94	88.0-89.0	1.23	1636.80	0.07	88.48
42.0-43.0	8.92	1524.79	0.48	82.42	89.0-90.0	1.23	1638.03	0.07	88.54
43.0-44.0	8.16	1532.95	0.44	82.86	90.0-91.0	1.23	1639.26	0.07	88.61
44.0-45.0	7.45	1540.40	0.40	83.26	91.0-92.0	1.22	1640.49	0.07	88.67
45.0-46.0	6.79	1547.19	0.37	83.63	92.0-93.0	1.22	1641.71	0.07	88.74
46.0-47.0	6.18	1553.37	0.33	83.97	93.0-94.0	1.21	1642.92	0.07	88.81

-  
-  
-

# IES Indoor Report

Photometric Filename: AT10020-20W-3500K-RA90-36D-WH.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	1.21	1644.13	0.07	88.87	141.0-142.0	0.77	1691.77	0.04	91.45
95.0-96.0	1.21	1645.34	0.07	88.94	142.0-143.0	0.76	1692.53	0.04	91.49
96.0-97.0	1.20	1646.54	0.06	89.00	143.0-144.0	0.75	1693.28	0.04	91.53
97.0-98.0	1.19	1647.73	0.06	89.07	144.0-145.0	0.74	1694.02	0.04	91.57
98.0-99.0	1.19	1648.92	0.06	89.13	145.0-146.0	0.73	1694.75	0.04	91.61
99.0-100.0	1.19	1650.11	0.06	89.20	146.0-147.0	0.72	1695.47	0.04	91.65
100.0-101.0	1.18	1651.29	0.06	89.26	147.0-148.0	0.71	1696.17	0.04	91.69
101.0-102.0	1.18	1652.47	0.06	89.32	148.0-149.0	0.69	1696.87	0.04	91.72
102.0-103.0	1.17	1653.64	0.06	89.39	149.0-150.0	0.68	1697.55	0.04	91.76
103.0-104.0	1.16	1654.80	0.06	89.45	150.0-151.0	0.67	1698.22	0.04	91.80
104.0-105.0	1.15	1655.95	0.06	89.51	151.0-152.0	0.66	1698.88	0.04	91.83
105.0-106.0	1.14	1657.10	0.06	89.57	152.0-153.0	0.65	1699.52	0.03	91.87
106.0-107.0	1.14	1658.23	0.06	89.63	153.0-154.0	0.63	1700.15	0.03	91.90
107.0-108.0	1.13	1659.36	0.06	89.70	154.0-155.0	0.61	1700.77	0.03	91.93
108.0-109.0	1.12	1660.48	0.06	89.76	155.0-156.0	0.60	1701.36	0.03	91.97
109.0-110.0	1.11	1661.59	0.06	89.82	156.0-157.0	0.58	1701.95	0.03	92.00
110.0-111.0	1.11	1662.70	0.06	89.88	157.0-158.0	0.57	1702.51	0.03	92.03
111.0-112.0	1.10	1663.80	0.06	89.93	158.0-159.0	0.55	1703.06	0.03	92.06
112.0-113.0	1.09	1664.88	0.06	89.99	159.0-160.0	0.53	1703.59	0.03	92.09
113.0-114.0	1.08	1665.96	0.06	90.05	160.0-161.0	0.51	1704.10	0.03	92.11
114.0-115.0	1.07	1667.02	0.06	90.11	161.0-162.0	0.49	1704.59	0.03	92.14
115.0-116.0	1.05	1668.08	0.06	90.17	162.0-163.0	0.47	1705.05	0.03	92.16
116.0-117.0	1.05	1669.12	0.06	90.22	163.0-164.0	0.44	1705.49	0.02	92.19
117.0-118.0	1.04	1670.16	0.06	90.28	164.0-165.0	0.42	1705.92	0.02	92.21
118.0-119.0	1.03	1671.19	0.06	90.33	165.0-166.0	0.40	1706.31	0.02	92.23
119.0-120.0	1.02	1672.21	0.06	90.39	166.0-167.0	0.37	1706.68	0.02	92.25
120.0-121.0	1.01	1673.22	0.05	90.44	167.0-168.0	0.35	1707.03	0.02	92.27
121.0-122.0	1.00	1674.21	0.05	90.50	168.0-169.0	0.32	1707.35	0.02	92.29
122.0-123.0	0.99	1675.20	0.05	90.55	169.0-170.0	0.29	1707.65	0.02	92.31
123.0-124.0	0.97	1676.18	0.05	90.60	170.0-171.0	0.27	1707.91	0.01	92.32
124.0-125.0	0.96	1677.14	0.05	90.66	171.0-172.0	0.24	1708.15	0.01	92.33
125.0-126.0	0.95	1678.09	0.05	90.71	172.0-173.0	0.21	1708.36	0.01	92.34
126.0-127.0	0.94	1679.03	0.05	90.76	173.0-174.0	0.18	1708.55	0.01	92.35
127.0-128.0	0.93	1679.96	0.05	90.81	174.0-175.0	0.16	1708.70	0.01	92.36
128.0-129.0	0.92	1680.87	0.05	90.86	175.0-176.0	0.13	1708.83	0.01	92.37
129.0-130.0	0.91	1681.78	0.05	90.91	176.0-177.0	0.10	1708.93	0.01	92.37
130.0-131.0	0.89	1682.67	0.05	90.96	177.0-178.0	0.07	1709.01	0.00	92.38
131.0-132.0	0.88	1683.56	0.05	91.00	178.0-179.0	0.04	1709.05	0.00	92.38
132.0-133.0	0.87	1684.42	0.05	91.05	179.0-180.0	0.01	1709.06	0.00	92.38
133.0-134.0	0.86	1685.28	0.05	91.10					
134.0-135.0	0.85	1686.13	0.05	91.14					
135.0-136.0	0.84	1686.97	0.05	91.19					
136.0-137.0	0.83	1687.80	0.04	91.23					
137.0-138.0	0.81	1688.61	0.04	91.28					
138.0-139.0	0.81	1689.42	0.04	91.32					
139.0-140.0	0.80	1690.21	0.04	91.36					
140.0-141.0	0.78	1691.00	0.04	91.41					

-  
-  
-

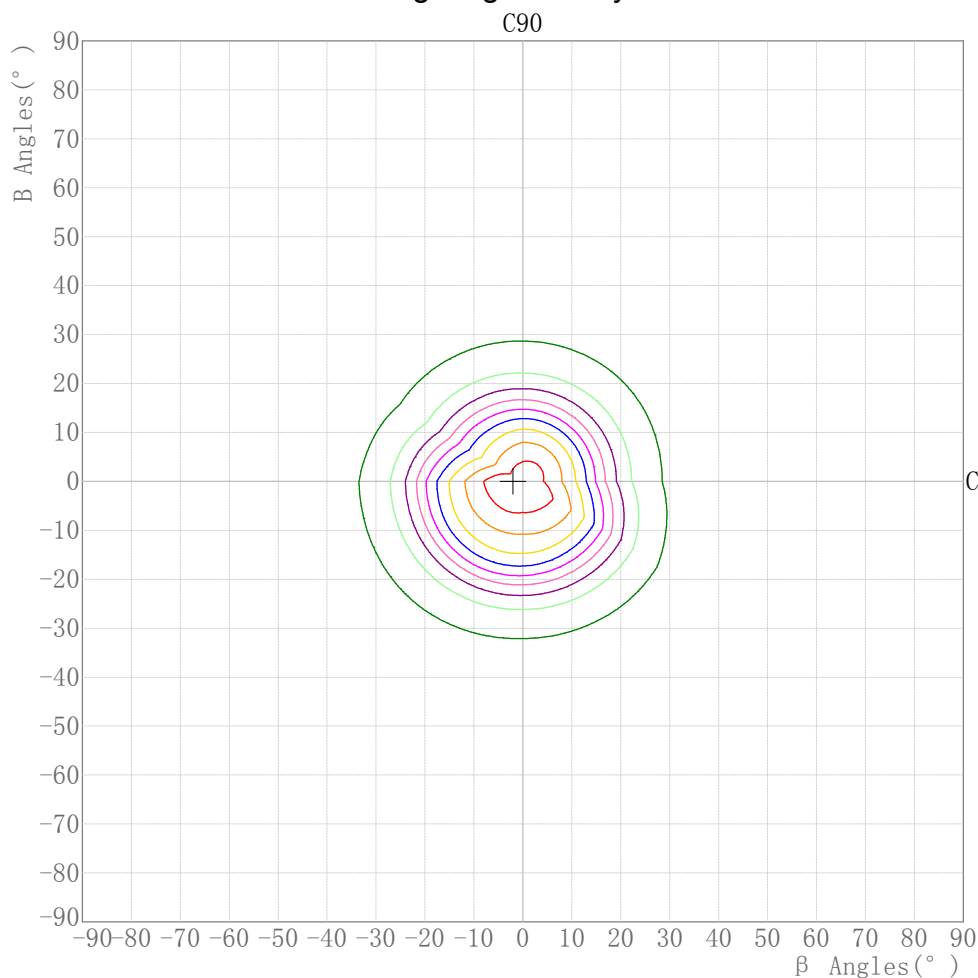
# IES Indoor Report

Photometric Filename: AT10020-20W-3500K-RA90-36D-WH.IES

## Rectangle ISO Lighting Intensity Diagram

Lum. Name: AT10020-20W-3500K-RA90-36D-WH	Lum. Catalog: 三线导轨灯	Test ID:
Lamp Name: 1204C4三线导轨 灯	Lamp Catalog: COB	Test Lab: Test
Manufacture:	Test Machine: GON-2000	Test Date: 2022/06/05

### ISO Lighting Intensity Curve



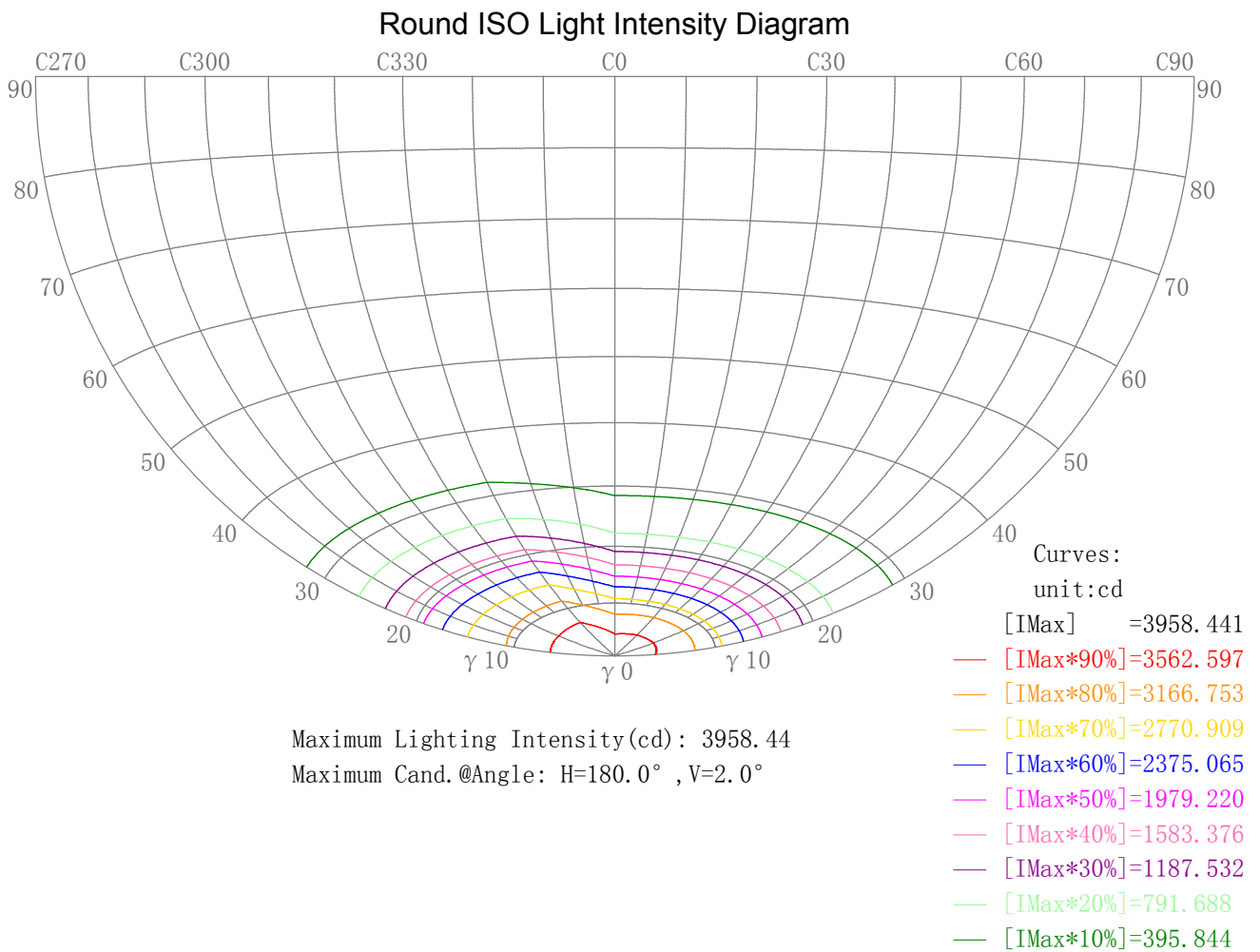
Maximum Light Intensity(cd): 3958.44  
Maximum Cand.@Angle: H=-2.0°,V=0.0°

# IES Indoor Report

Photometric Filename: AT10020-20W-3500K-RA90-36D-WH.IES

## Round ISO Lighting Intensity Diagram

Lum. Name: AT10020-20W-3500K-RA90-36D-WH	Lum. Catalog: 三线导轨灯	Test ID:
Lamp Name: 1204C4三线导轨 灯	Lamp Catalog: COB	Test Lab: Test
Manufacture:	Test Machine: GON-2000	Test Date: 2022/06/05



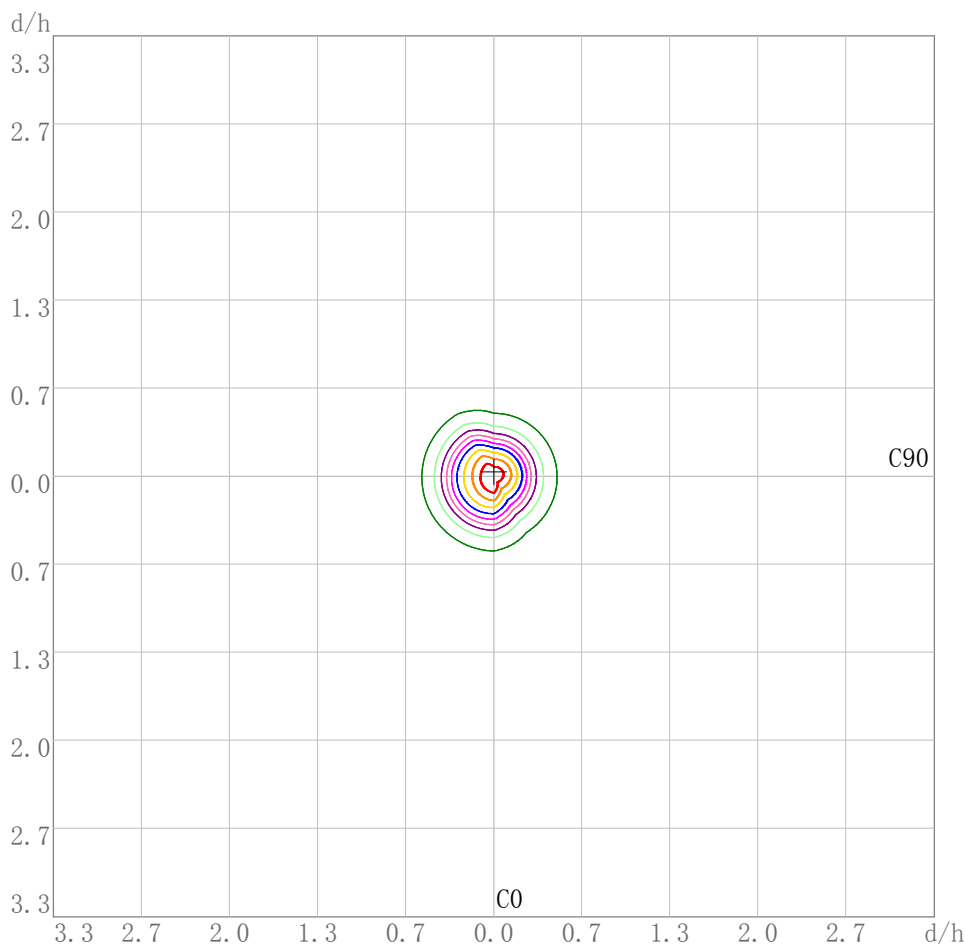
# IES Indoor Report

Photometric Filename: AT10020-20W-3500K-RA90-36D-WH.IES

## Plane ISO-Illuminance Diagram

Lum. Name: AT10020-20W-3500K-RA90-36D-WH	Lum. Catalog: 三线导轨灯	Test ID:
Lamp Name: 1204C4三线导轨 灯	Lamp Catalog: COB	Test Lab: Test
Manufacture:	Test Machine: GON-2000	Test Date: 2022/06/05

Plane ISO-Illuminance Curve



- Curves:  
unit:lx
- [EMax] =439.023
  - [EMax\*90%]=395.121
  - [EMax\*80%]=351.219
  - [EMax\*70%]=307.316
  - [EMax\*60%]=263.414
  - [EMax\*50%]=219.512
  - [EMax\*40%]=175.609
  - [EMax\*30%]=131.707
  - [EMax\*20%]=87.805
  - [EMax\*10%]=43.902

Working Plane Luminaire Mounting Height(m): 3.00  
 Working Plane Maximum Illuminance(lx): 439.02  
 Working Plane Maximum Illuminance Position(d/h):H0.0 V-0.0



**IES Indoor Report**

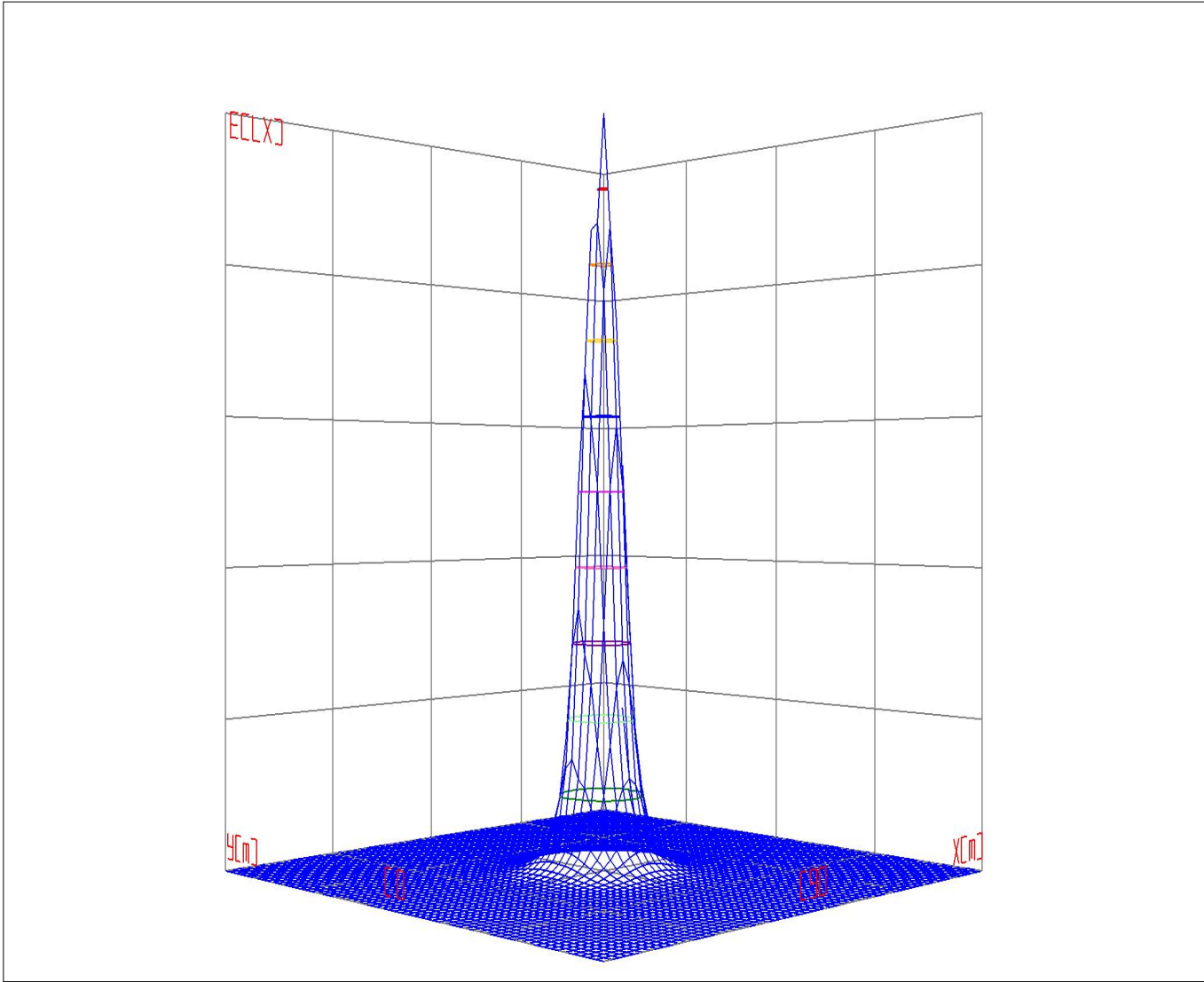
**Photometric Filename: AT10020-20W-3500K-RA90-36D-WH.IES**

---

**3D Plane ISO Illuminance Diagram**

Lum. Name: AT10020-20W-3500K-RA90-36D-WH	Lum. Catalog: 三线导轨灯	Test ID:
Lamp Name: 1204C4三线导轨 灯	Lamp Catalog: COB	Test Lab: Test
Manufacture:	Test Machine: GON-2000	Test Date: 2022/06/05

**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

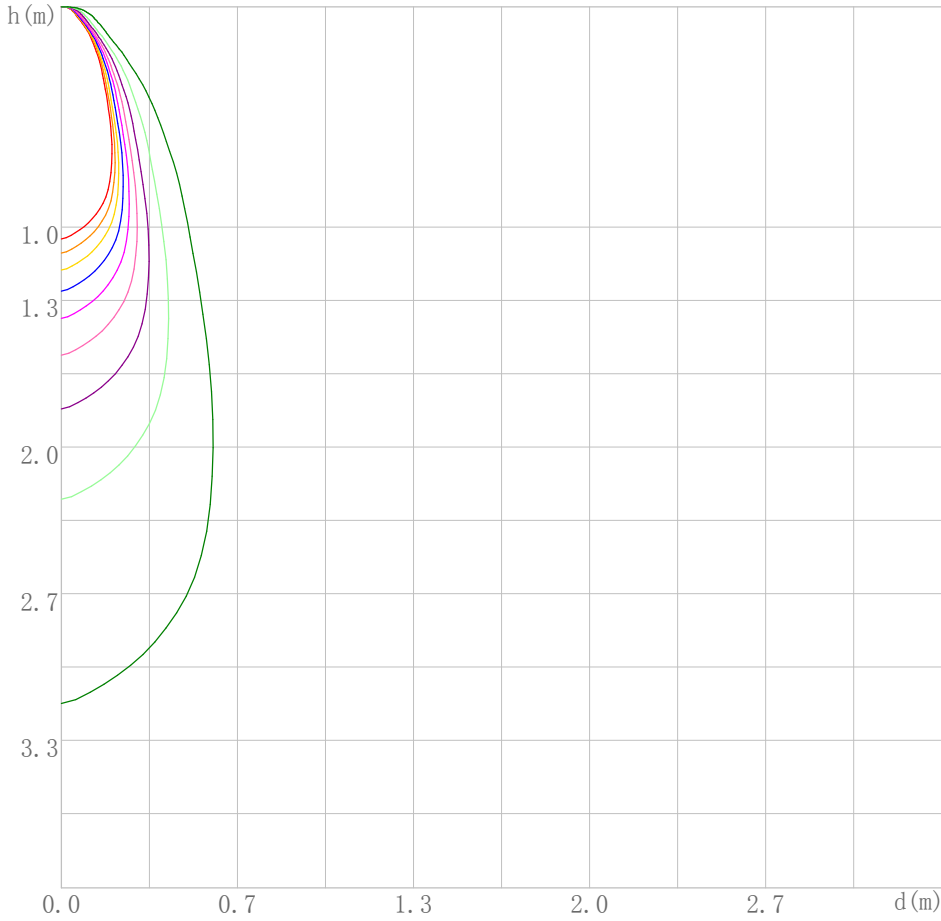
**IES Indoor Report**

**Photometric Filename: AT10020-20W-3500K-RA90-36D-WH.IES**

**Space ISO Illuminance Diagram**

Lum. Name: AT10020-20W-3500K-RA90-36D-WH	Lum. Catalog: 三线导轨灯	Test ID:
Lamp Name: 1204C4三线导轨 灯	Lamp Catalog: COB	Test Lab: Test
Manufacture:	Test Machine: GON-2000	Test Date: 2022/06/05

Space ISO Illuminance Curve



- Curves:  
[Unit: lx]  
[EMax] =3860.493
- [EMax\*90%]=3474.444
  - [EMax\*80%]=3088.394
  - [EMax\*70%]=2702.345
  - [EMax\*60%]=2316.296
  - [EMax\*50%]=1930.246
  - [EMax\*40%]=1544.197
  - [EMax\*30%]=1158.148
  - [EMax\*20%]=772.099
  - [EMax\*10%]=386.049

Space Plane Maximum Illuminance and @Angle:3860.49lx,0.0deg  
Plane Maximum Lighting Intensity and @Angle:3860.493cd,0deg

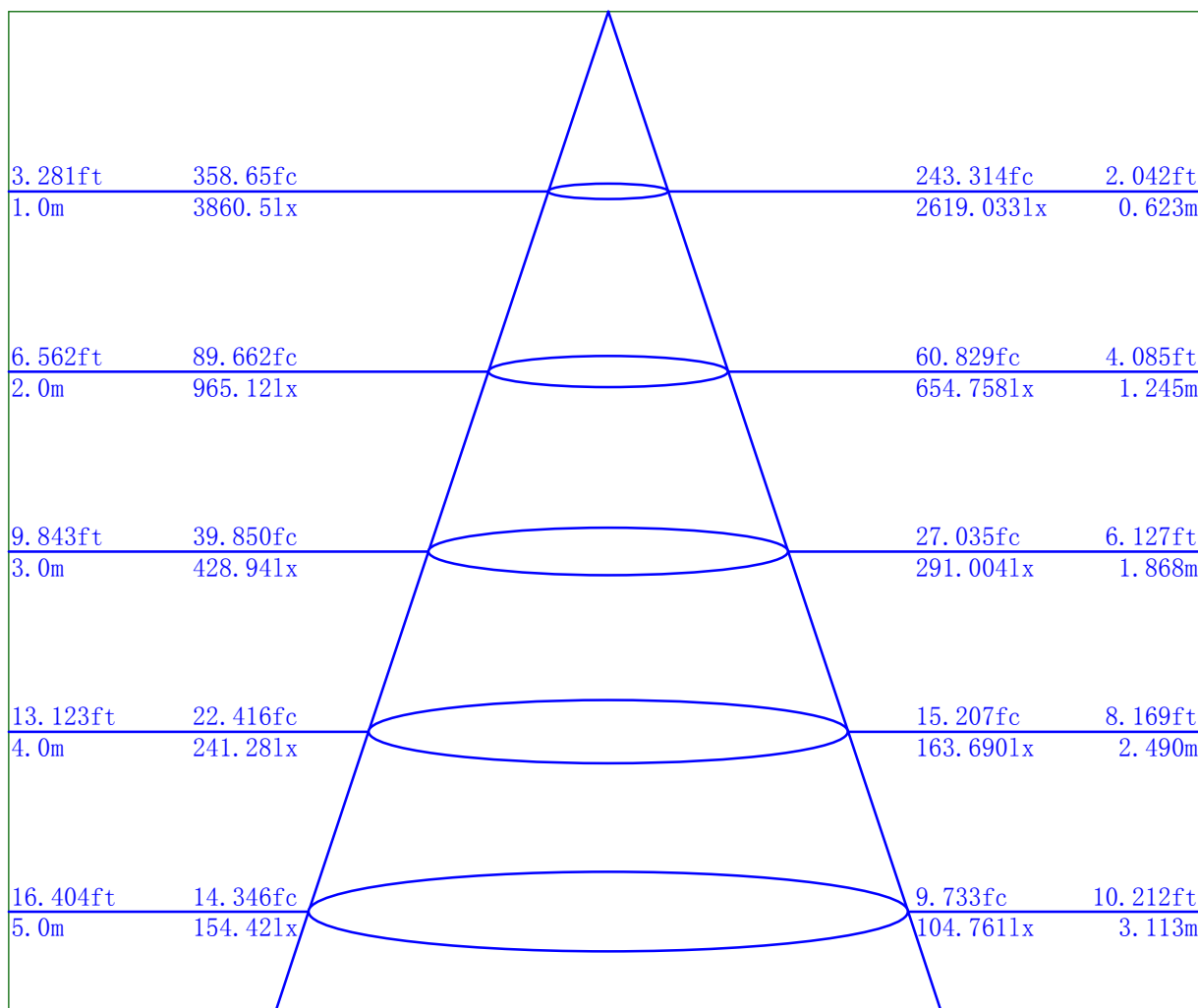
# IES Indoor Report

Photometric Filename: AT10020-20W-3500K-RA90-36D-WH.IES

## Illuminance-Distance Diagram

Lum. Name: AT10020-20W-3500K-RA90-36D-WH	Lum. Catalog: 三线导轨灯	Test ID:
Lamp Name: 1204C4三线导轨 灯	Lamp Catalog: COB	Test Lab: Test
Manufacture:	Test Machine: GON-2000	Test Date: 2022/06/05

Illuminance-Distance Curve



Height

Center E

Average E

Diameter

Beam Angle: 34.6

-  
-  
-

# IES Indoor Report

Photometric Filename: AT10020-20W-3500K-RA90-36D-WH.IES

## Indoor Luminance Limiting Curves

Lum. Name: AT10020-20W-3500K-RA90-36D-WH	Lum. Catalog: 三线导轨灯	Test ID:
Lamp Name: 1204C4三线导轨 灯	Lamp Catalog: COB	Test Lab: Test
Manufacture:	Test Machine: GON-2000	Test Date: 2022/06/05

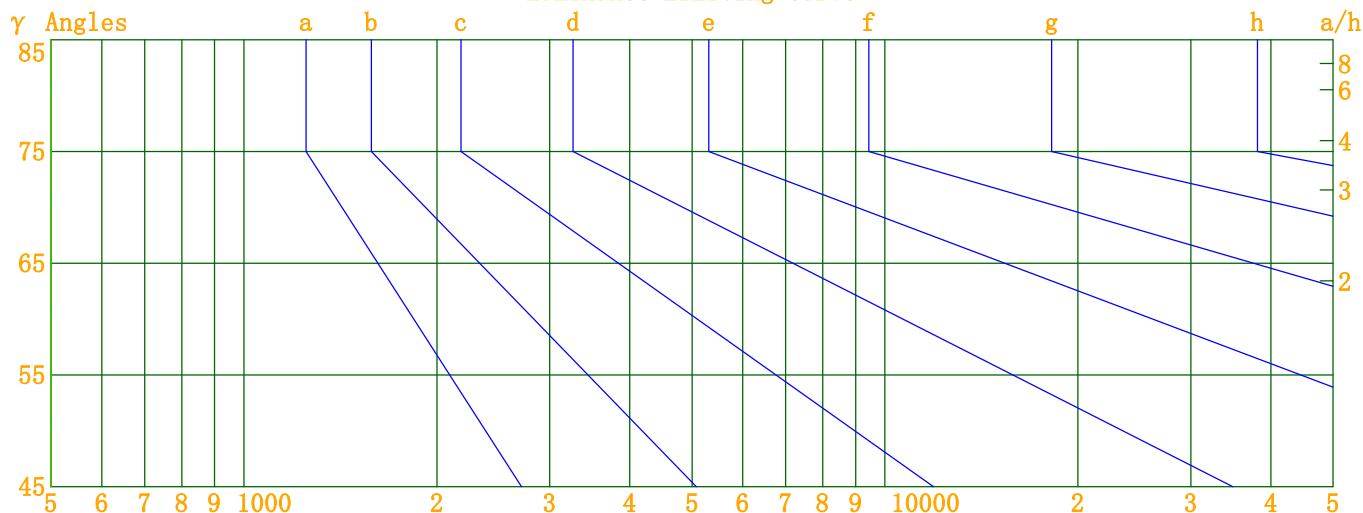
Glare Grade Table

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



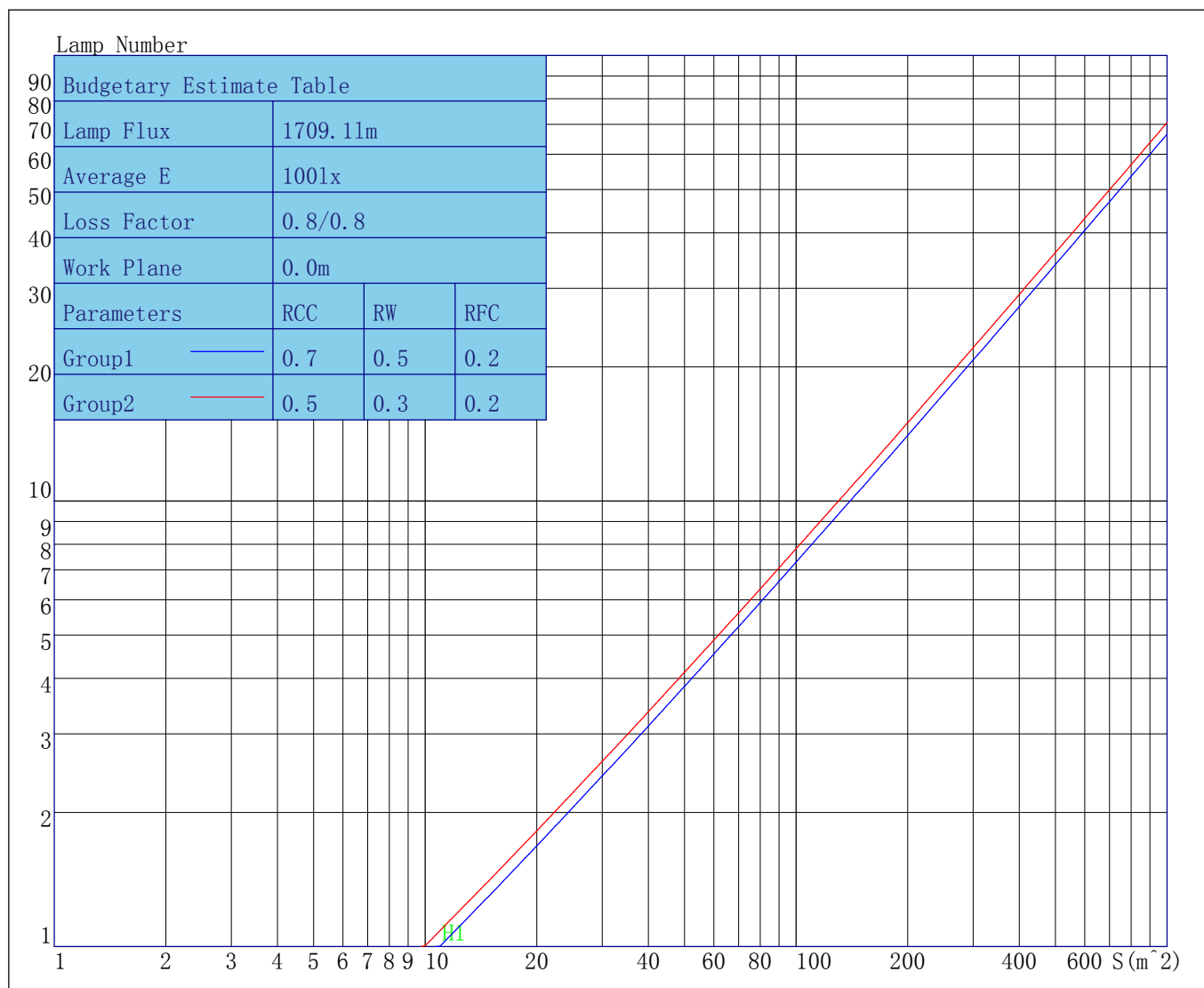
Luminous Size: Length(m)=0.000 Width(m)=0.000 Height(m)=0.000 Area(m^2)=0.000000  
 Luminous Type: Without Luminous Side  
 Luminous Curves: C0-C180 Color: — C90-C270 Color: —

# IES Indoor Report

Photometric Filename: AT10020-20W-3500K-RA90-36D-WH.IES

## Indoor Budgetary Estimate Table

Lum. Name: AT10020-20W-3500K-RA90-36D-WH	Lum. Catalog: 三线导轨灯	Test ID:
Lamp Name: 1204C4三线导轨 灯	Lamp Catalog: COB	Test Lab: Test
Manufacture:	Test Machine: GON-2000	Test Date: 2022/06/05



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-3500K-RA90-36D-WH.IES

## Indoor Coefficient of Utilization Table

Lum. Name: AT10020-20W-3500K-RA90-36D-WH	Lum. Catalog: 三线导轨灯	Test ID:
Lamp Name: 1204C4三线导轨 灯	Lamp Catalog: COB	Test Lab: Test
Manufacture:	Test Machine: GON-2000	Test Date: 2022/06/05

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	109	109	109	109	106	106	106	106	101	101	101	95	95	95	91	91	91	89
1	104	101	99	97	101	99	97	95	95	93	92	91	89	88	87	86	85	83
2	99	95	91	88	97	93	90	87	89	87	84	86	84	82	83	81	80	78
3	95	89	85	81	93	88	84	80	85	81	79	82	79	77	79	77	75	74
4	91	84	79	76	89	83	78	75	80	77	74	78	75	73	76	73	71	70
5	87	80	75	71	85	79	74	71	77	73	70	75	71	69	73	70	68	66
6	83	76	71	67	82	75	70	67	73	69	66	71	68	65	70	67	64	63
7	80	72	67	63	78	71	67	63	70	66	63	68	65	62	67	64	61	60
8	77	69	64	60	75	68	63	60	67	63	60	66	62	59	64	61	59	58
9	74	66	61	58	73	65	61	57	64	60	57	63	59	57	62	59	56	55
10	71	63	58	55	70	62	58	55	62	57	55	61	57	54	60	56	54	53

-  
-  
-

# IES Indoor Report

Photometric Filename: AT10020-20W-3500K-RA90-36D-WH.IES

## Unified Glare Rating Table

Lum. Name: AT10020-20W-3500K-RA90-36D-WH	Lum. Catalog: 三线导轨灯	Test ID:
Lamp Name: 1204C4三线导轨 灯	Lamp Catalog: COB	Test Lab: Test
Manufacture:	Test Machine: GON-2000	Test Date: 2022/06/05

## 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	1.2	2.0	1.7	2.4	2.8	1.2	2.0	1.7	2.4	2.8
Y=3H	1.0	1.7	1.5	2.1	2.6	1.0	1.7	1.5	2.1	2.6
Y=4H	0.9	1.5	1.4	2.0	2.5	0.9	1.5	1.4	2.0	2.5
Y=6H	0.8	1.4	1.3	1.8	2.3	0.8	1.4	1.3	1.8	2.3
Y=8H	0.7	1.3	1.3	1.7	2.2	0.7	1.3	1.3	1.7	2.2
Y=12H	0.7	1.2	1.2	1.6	2.2	0.7	1.2	1.2	1.6	2.2
X=4H Y=2H	0.9	1.5	1.4	2.0	2.5	0.9	1.5	1.4	2.0	2.5
Y=3H	0.7	1.2	1.2	1.7	2.2	0.7	1.2	1.2	1.7	2.2
Y=4H	0.6	1.0	1.1	1.5	2.1	0.6	1.0	1.1	1.5	2.1
Y=6H	0.5	0.8	1.0	1.3	1.9	0.5	0.8	1.0	1.3	1.9
Y=8H	0.4	0.7	1.0	1.2	1.8	0.4	0.7	1.0	1.2	1.8
Y=12H	0.3	0.6	0.9	1.1	1.7	0.3	0.6	0.9	1.1	1.7
X=8H Y=4H	0.4	0.7	1.0	1.2	1.8	0.4	0.7	1.0	1.2	1.8
Y=6H	0.3	0.5	0.9	1.1	1.6	0.3	0.5	0.9	1.1	1.6
Y=8H	0.2	0.4	0.8	1.0	1.6	0.2	0.4	0.8	1.0	1.6
Y=12H	0.2	0.3	0.8	0.8	1.5	0.2	0.3	0.8	0.8	1.5
X=12H Y=4H	0.3	0.6	0.9	1.1	1.7	0.3	0.6	0.9	1.1	1.7
Y=6H	0.2	0.4	0.8	0.9	1.6	0.2	0.4	0.8	0.9	1.6
Y=8H	0.2	0.3	0.8	0.8	1.5	0.2	0.3	0.8	0.8	1.5
Variations with the objerver 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-3500K-RA90-36D-WH.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	3860.49	3860.49	3860.49	3860.49	3860.49	3860.49	3860.49	3860.49	3860.49	3860.49	3860.49	3860.49
γ 1.0	3821.05	3840.69	3843.64	3800.57	3767.25	3735.32	3931.92	3932.93	3930.57	3882.46	3866.19	3851.77
γ 2.0	3746.89	3772.43	3774.17	3731.49	3690.00	3651.10	3958.44	3942.32	3932.53	3881.15	3868.46	3864.51
γ 3.0	3668.16	3694.70	3695.54	3651.44	3600.10	3555.15	3947.24	3914.52	3891.78	3840.36	3832.56	3840.40
γ 4.0	3582.21	3611.35	3611.19	3565.08	3504.71	3454.31	3900.32	3855.58	3825.17	3772.04	3771.35	3791.97
γ 5.0	3492.04	3523.25	3514.31	3472.32	3401.11	3345.65	3829.51	3777.21	3744.00	3689.35	3696.69	3727.89
γ 6.0	3393.97	3427.45	3411.53	3375.94	3292.96	3230.53	3745.30	3688.01	3651.13	3597.07	3613.50	3654.78
γ 7.0	3283.67	3318.12	3308.04	3273.91	3178.61	3111.63	3653.84	3594.63	3553.82	3503.55	3527.66	3576.78
γ 8.0	3161.50	3190.25	3187.47	3161.24	3059.08	2989.16	3560.67	3498.42	3452.42	3410.13	3441.56	3494.10
γ 9.0	3032.40	3048.97	3046.56	3029.83	2932.96	2864.65	3464.20	3401.11	3350.65	3316.62	3356.14	3408.26
γ 10.0	2894.63	2898.17	2892.42	2879.54	2792.90	2739.35	3362.36	3308.05	3257.06	3230.96	3268.63	3315.57
γ 11.0	2738.51	2733.47	2726.06	2715.19	2639.53	2609.32	3257.60	3221.49	3179.29	3147.43	3176.71	3214.72
γ 12.0	2561.27	2551.18	2543.52	2537.01	2477.10	2472.73	3146.74	3138.19	3101.45	3057.89	3077.44	3102.39
γ 13.0	2364.43	2350.59	2345.03	2344.25	2305.66	2327.87	3036.43	3045.64	3009.42	2963.85	2967.40	2979.79
γ 14.0	2156.43	2138.40	2130.25	2136.17	2123.57	2169.47	2915.10	2933.49	2902.41	2859.63	2843.55	2845.73
γ 15.0	1943.94	1925.87	1911.10	1921.03	1932.73	1999.22	2775.75	2805.65	2781.15	2736.28	2704.20	2696.55
γ 16.0	1741.19	1723.34	1706.73	1713.45	1735.67	1818.47	2625.02	2665.23	2643.24	2593.90	2547.02	2530.89
γ 17.0	1549.62	1535.31	1514.42	1517.89	1546.17	1632.59	2464.86	2509.68	2487.80	2430.01	2367.97	2347.53
γ 18.0	1370.53	1359.85	1339.00	1338.02	1373.02	1454.94	2295.29	2338.61	2313.53	2244.32	2171.79	2150.67
γ 19.0	1204.94	1197.87	1178.71	1174.83	1213.75	1290.75	2120.10	2152.81	2123.60	2035.30	1967.01	1948.17
γ 20.0	1056.64	1051.86	1036.23	1031.99	1070.32	1140.45	1930.75	1948.44	1905.48	1816.20	1761.92	1748.90
γ 21.0	924.65	922.13	911.21	909.15	943.63	1004.39	1727.48	1730.02	1683.43	1607.23	1570.74	1560.23
γ 22.0	812.89	809.50	802.08	804.00	833.40	884.99	1528.49	1520.12	1474.87	1416.33	1389.29	1383.30
γ 23.0	716.63	713.91	709.92	714.05	738.65	781.36	1347.03	1332.45	1286.28	1238.55	1218.97	1219.73
γ 24.0	634.20	633.15	630.82	636.57	657.02	693.56	1185.26	1162.27	1114.69	1075.22	1062.25	1067.08
γ 25.0	566.12	565.48	563.48	570.00	586.69	617.75	1040.09	1009.68	964.54	930.98	923.01	930.74
γ 26.0	508.25	508.33	507.22	513.20	526.79	553.83	912.66	878.72	839.20	809.31	804.59	812.52
γ 27.0	458.09	459.22	458.34	464.14	475.12	498.60	802.54	767.99	733.93	707.84	704.24	711.46
γ 28.0	414.35	416.01	416.26	421.43	430.61	451.84	708.92	675.63	645.87	622.80	619.18	626.44
γ 29.0	374.42	377.29	377.81	382.74	390.30	409.15	630.39	598.92	572.00	551.92	547.85	555.95
γ 30.0	338.32	341.82	343.33	347.69	354.32	371.34	563.40	534.74	510.34	492.89	488.23	496.45
γ 31.0	304.39	308.73	310.89	314.78	321.03	336.91	506.46	480.52	458.99	442.96	438.23	445.37
γ 32.0	272.14	277.75	281.14	284.78	289.16	303.91	457.14	433.76	414.56	400.49	395.05	400.82
γ 33.0	244.80	249.84	253.34	257.02	260.84	273.82	414.78	392.86	376.11	362.53	356.65	361.24
γ 34.0	221.96	225.98	229.37	232.26	235.50	246.99	375.32	356.18	341.28	328.31	321.67	325.17
γ 35.0	201.85	205.22	208.23	210.73	213.28	223.23	340.38	322.95	309.91	297.08	289.13	291.37
γ 36.0	183.93	186.80	189.41	191.46	193.85	202.49	307.67	292.33	279.64	267.39	258.82	260.36
γ 37.0	167.10	169.80	171.59	173.85	176.03	183.95	277.34	263.54	251.65	240.13	231.10	232.64
γ 38.0	151.57	153.82	156.07	157.92	159.78	167.20	248.44	236.74	225.79	215.23	207.26	208.58
γ 39.0	137.22	139.38	141.20	143.26	145.33	151.61	223.19	212.92	203.38	193.51	186.52	187.86
γ 40.0	124.65	126.42	128.16	130.16	131.89	137.73	201.21	192.06	183.43	174.70	168.08	169.74
γ 41.0	112.18	114.17	115.81	118.10	119.52	125.52	181.31	173.09	165.45	157.25	151.33	153.22
γ 42.0	100.80	102.60	104.32	106.85	108.38	113.90	163.01	156.12	149.36	141.66	136.26	137.72
γ 43.0	90.16	91.76	93.48	95.98	97.45	102.68	146.59	140.98	134.57	127.39	122.71	123.87
γ 44.0	80.64	81.77	83.50	85.88	87.06	91.58	131.91	126.91	120.72	114.58	110.31	111.49
γ 45.0	72.18	73.28	74.81	76.40	77.58	81.41	118.90	114.19	108.86	102.85	99.11	100.07
γ 46.0	65.26	66.10	67.24	68.35	69.19	72.28	106.72	102.44	97.41	91.97	88.22	88.98

-  
-  
-



# IES Indoor Report

Photometric Filename: AT10020-20W-3500K-RA90-36D-WH.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	59.39	60.02	60.89	61.64	62.22	64.16	94.92	91.05	86.46	81.58	78.18	78.65
γ 48.0	54.48	54.74	55.78	56.24	56.26	57.66	83.62	80.12	76.26	71.89	68.84	69.22
γ 49.0	49.30	49.76	50.71	51.45	51.00	52.03	73.14	70.05	66.95	62.98	60.40	60.77
γ 50.0	44.21	44.94	45.95	46.53	46.03	46.96	63.43	61.18	58.39	55.22	53.30	53.80
γ 51.0	39.68	40.33	40.79	41.62	41.24	41.59	55.19	53.63	51.49	48.69	47.50	47.83
γ 52.0	36.43	36.71	37.11	37.63	37.23	36.99	48.22	47.24	45.38	43.26	42.42	42.62
γ 53.0	33.79	33.96	34.25	34.42	34.28	33.73	42.52	41.66	40.47	38.28	37.82	37.76
γ 54.0	31.64	31.80	31.75	31.91	31.49	31.33	37.42	36.76	35.82	33.81	33.14	32.91
γ 55.0	29.81	29.95	29.91	29.82	29.66	29.31	32.75	31.91	30.93	29.07	28.44	28.00
γ 56.0	28.29	28.36	28.37	27.95	28.07	27.58	27.57	27.19	26.02	24.71	24.50	24.43
γ 57.0	26.89	26.97	26.79	26.65	26.60	26.38	23.80	23.44	22.97	21.86	21.57	21.63
γ 58.0	25.80	25.72	25.71	25.36	25.42	25.28	20.98	20.68	20.40	19.24	19.18	19.41
γ 59.0	24.50	24.69	24.68	24.46	24.30	24.38	18.98	18.46	18.14	17.39	17.48	17.60
γ 60.0	23.55	23.68	23.48	23.56	23.30	23.38	17.14	16.76	16.81	16.06	16.30	16.26
γ 61.0	22.64	22.53	22.60	22.50	22.37	22.50	15.74	15.44	15.46	14.85	14.96	15.05
γ 62.0	21.54	21.44	21.49	21.32	21.46	21.56	14.92	14.28	14.43	13.77	13.78	13.92
γ 63.0	20.60	20.59	20.42	20.09	20.48	20.76	13.88	13.44	13.93	12.89	12.88	12.95
γ 64.0	20.03	19.82	19.82	19.34	19.54	20.04	13.20	12.72	12.96	12.00	12.02	11.99
γ 65.0	19.35	19.06	19.07	18.91	18.90	19.44	12.31	12.07	12.01	11.14	11.26	11.20
γ 66.0	18.83	18.58	18.51	18.38	18.41	18.53	11.52	11.59	11.40	10.52	10.62	10.50
γ 67.0	18.31	18.26	18.12	17.81	17.96	18.14	10.83	10.74	10.81	9.85	9.74	9.89
γ 68.0	18.12	17.94	17.83	17.48	17.63	17.90	10.31	9.89	9.78	9.13	9.29	9.40
γ 69.0	18.12	17.59	17.10	17.17	17.19	17.45	9.81	9.45	9.74	8.94	9.10	9.11
γ 70.0	17.54	17.39	17.12	16.97	17.02	17.11	9.52	9.20	9.15	8.91	8.80	8.81
γ 71.0	17.56	17.00	16.71	16.86	16.81	16.82	9.19	9.10	8.76	8.82	8.57	8.75
γ 72.0	16.98	16.46	16.51	16.45	16.36	16.56	9.12	8.94	8.68	8.76	8.57	8.71
γ 73.0	16.85	16.29	16.42	16.02	16.09	16.50	9.18	8.90	8.70	8.66	8.53	8.63
γ 74.0	16.45	16.08	16.27	15.83	15.70	16.21	9.12	8.98	8.67	8.52	8.53	8.61
γ 75.0	16.18	15.75	15.95	15.50	15.34	15.99	9.22	9.04	8.71	8.58	8.39	8.45
γ 76.0	15.70	15.57	15.48	15.36	15.31	15.80	9.10	9.01	8.89	8.58	8.46	8.58
γ 77.0	15.68	15.28	15.40	15.21	15.00	15.43	8.89	9.10	8.81	8.53	8.62	8.61
γ 78.0	15.22	15.07	15.11	14.98	14.77	15.13	8.82	9.17	8.98	8.67	8.76	8.58
γ 79.0	15.03	14.93	14.88	14.73	14.75	14.89	9.02	9.14	8.79	8.83	8.77	8.41
γ 80.0	14.94	14.65	14.83	14.55	14.31	14.68	9.16	9.19	9.01	8.80	8.67	8.72
γ 81.0	14.56	14.50	14.33	14.39	14.12	14.29	9.15	9.15	9.00	8.75	8.89	8.58
γ 82.0	14.45	14.34	14.07	14.38	14.00	14.24	8.97	9.08	9.02	8.83	8.76	8.60
γ 83.0	14.32	14.14	14.06	14.23	13.73	14.11	9.30	9.20	9.26	8.79	8.74	8.55
γ 84.0	14.08	14.03	14.00	13.82	13.52	13.95	9.15	9.34	9.05	8.80	8.81	8.54
γ 85.0	13.83	13.88	13.73	13.59	13.43	13.88	9.13	9.41	9.26	8.94	9.05	8.87
γ 86.0	13.46	13.62	13.64	13.60	13.24	13.63	9.42	9.39	9.36	9.03	9.05	9.09
γ 87.0	13.44	13.56	13.46	13.44	13.23	13.52	9.45	9.43	9.36	8.96	9.19	9.02
γ 88.0	13.48	13.46	12.76	13.10	12.96	13.54	9.38	9.59	9.34	9.10	9.14	9.09
γ 89.0	13.19	13.29	12.88	12.96	12.81	13.12	9.51	9.61	9.60	9.20	9.26	9.33
γ 90.0	12.88	13.17	13.06	13.03	12.73	12.96	9.56	9.64	9.53	9.29	9.44	9.55
γ 91.0	12.91	12.96	12.80	12.79	12.31	13.01	9.54	9.64	9.65	9.54	9.45	9.60
γ 92.0	12.87	12.74	12.81	12.62	12.32	12.74	9.83	9.75	9.55	9.56	9.38	9.47
γ 93.0	12.75	12.56	12.71	12.57	12.32	12.30	9.76	9.94	9.80	9.59	9.39	9.60

-  
-  
-

# IES Indoor Report

Photometric Filename: AT10020-20W-3500K-RA90-36D-WH.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	12.60	12.41	12.32	12.38	12.33	12.35	9.76	10.01	9.90	9.62	9.54	9.72
γ 95.0	12.56	12.31	12.45	12.10	12.19	12.42	9.85	10.03	9.94	9.87	9.39	9.58
γ 96.0	12.43	12.20	12.36	12.15	12.02	12.40	9.68	10.14	10.09	9.88	9.59	9.71
γ 97.0	12.19	12.22	12.10	11.95	11.82	12.31	9.80	10.30	10.03	9.95	9.54	9.67
γ 98.0	12.19	12.21	12.11	11.80	11.53	12.06	10.10	10.20	10.06	10.02	9.64	9.85
γ 99.0	12.10	11.95	12.01	11.88	11.47	12.22	9.89	10.24	10.27	10.03	9.73	10.05
γ 100.0	11.99	11.84	11.85	11.81	11.35	12.19	10.11	10.45	10.17	10.11	9.86	9.96
γ 101.0	12.01	11.78	11.77	11.73	11.29	11.97	10.23	10.57	10.44	10.15	9.90	10.07
γ 102.0	11.59	11.84	11.82	11.67	11.28	11.77	10.04	10.51	10.46	9.99	9.85	10.02
γ 103.0	11.92	11.81	11.53	11.47	11.09	11.56	10.28	10.40	10.43	10.04	9.99	10.04
γ 104.0	11.85	11.73	11.51	11.53	11.14	11.51	9.93	10.41	10.63	10.11	9.97	10.10
γ 105.0	11.70	11.81	11.46	11.51	10.93	11.56	10.36	10.46	10.39	10.23	10.00	10.07
γ 106.0	11.49	11.60	11.41	11.38	11.00	11.38	10.14	10.62	10.40	10.19	9.89	10.05
γ 107.0	11.74	11.40	11.49	11.21	11.11	11.44	10.30	10.73	10.40	10.18	9.95	10.23
γ 108.0	11.30	11.40	11.18	11.10	11.08	11.26	10.30	10.62	10.30	10.19	9.95	10.28
γ 109.0	11.33	11.45	11.16	11.09	10.90	11.17	10.39	10.57	10.20	10.18	10.04	10.42
γ 110.0	11.53	11.38	11.11	11.13	10.91	11.40	10.33	10.69	10.23	10.24	10.10	10.17
γ 111.0	11.18	11.31	11.06	11.02	10.88	11.46	10.50	10.76	10.47	10.32	10.02	10.43
γ 112.0	11.14	11.27	11.14	11.06	10.79	11.13	10.36	10.81	10.66	10.24	10.16	10.17
γ 113.0	11.05	11.17	10.98	10.99	10.97	11.27	10.21	10.87	10.42	10.11	10.14	10.17
γ 114.0	10.92	11.08	10.87	11.00	10.83	11.46	10.25	10.94	10.53	10.18	9.96	10.35
γ 115.0	11.09	10.85	10.87	11.06	10.61	11.16	10.32	10.80	10.53	10.37	9.97	10.15
γ 116.0	11.00	10.78	10.96	11.05	10.77	11.15	10.26	10.64	10.69	10.48	10.04	10.18
γ 117.0	11.10	10.82	10.91	11.03	10.52	11.23	10.15	10.75	10.57	10.37	10.07	10.11
γ 118.0	10.85	10.91	11.15	11.15	10.24	11.06	10.35	10.85	10.75	10.54	9.98	10.06
γ 119.0	11.11	11.05	10.77	11.13	10.34	11.04	10.34	10.77	10.66	10.53	10.21	10.22
γ 120.0	11.08	10.86	10.65	10.89	10.56	11.16	10.39	10.65	10.60	10.65	10.36	10.39
γ 121.0	10.76	10.90	10.76	10.96	10.44	11.10	10.40	10.76	10.82	10.56	10.35	10.43
γ 122.0	10.69	10.93	10.88	10.95	10.27	10.99	10.56	10.93	10.63	10.45	10.12	10.27
γ 123.0	10.77	10.89	10.70	10.79	10.32	10.96	10.57	11.03	10.80	10.61	10.21	10.43
γ 124.0	10.90	10.92	10.93	10.79	10.23	10.87	10.62	10.90	10.55	10.36	10.20	10.53
γ 125.0	10.98	10.90	10.80	10.75	10.38	10.83	10.67	10.67	10.63	10.51	10.27	10.47
γ 126.0	10.95	10.95	10.98	10.47	10.26	10.92	10.98	10.71	10.50	10.44	10.49	10.34
γ 127.0	10.74	10.97	11.05	10.65	10.40	10.83	10.74	10.60	10.69	10.47	10.37	10.34
γ 128.0	11.00	10.86	10.91	10.68	10.42	10.88	10.88	10.53	10.74	10.48	10.35	10.43
γ 129.0	10.89	10.80	11.09	10.65	10.43	10.61	10.94	10.75	10.52	10.58	10.46	10.45
γ 130.0	10.97	10.95	10.81	10.56	10.45	10.84	10.81	10.83	10.58	10.65	10.45	10.59
γ 131.0	10.90	11.00	10.84	10.58	10.48	10.78	10.97	10.82	10.75	10.84	10.47	10.56
γ 132.0	11.02	11.07	10.85	10.50	10.41	10.70	10.97	10.88	10.63	10.80	10.49	10.41
γ 133.0	10.97	11.11	10.97	10.61	10.51	10.79	10.96	10.83	10.79	10.65	10.51	10.61
γ 134.0	10.88	11.20	10.90	10.73	10.67	11.13	11.00	10.91	10.64	10.56	10.49	10.62
γ 135.0	11.19	11.34	10.86	10.68	10.72	11.30	10.91	11.14	10.85	10.79	10.54	10.56
γ 136.0	10.91	11.32	10.99	10.76	10.58	11.12	10.94	11.12	10.84	11.09	10.78	10.71
γ 137.0	11.01	11.28	11.18	10.89	10.61	11.14	10.87	11.07	11.06	10.82	10.71	10.70
γ 138.0	11.21	11.33	11.44	10.86	10.71	11.10	11.00	11.23	10.98	10.79	10.91	10.72
γ 139.0	11.39	11.42	11.59	11.07	10.89	11.24	11.16	11.39	10.98	10.96	10.78	10.79
γ 140.0	11.61	11.58	11.47	11.16	11.17	11.40	11.18	11.31	11.25	10.88	10.81	10.69

# IES Indoor Report

Photometric Filename: AT10020-20W-3500K-RA90-36D-WH.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	11.68	11.67	11.67	11.27	11.11	11.52	11.09	11.22	11.25	10.97	10.78	10.98
γ 142.0	11.83	11.72	11.72	11.43	11.31	11.61	11.48	11.35	11.00	11.01	10.98	11.16
γ 143.0	11.61	11.86	11.77	11.55	11.49	11.78	11.31	11.47	11.25	11.25	10.95	11.24
γ 144.0	11.76	12.07	11.65	11.79	11.40	11.88	11.40	11.49	11.31	11.16	11.02	11.34
γ 145.0	11.93	12.20	12.01	11.99	11.70	11.80	11.53	11.65	11.39	11.05	11.25	11.39
γ 146.0	12.10	12.14	12.24	12.09	11.84	12.14	11.60	11.81	11.49	11.20	11.27	11.67
γ 147.0	12.14	12.27	12.38	12.14	11.93	12.54	11.94	11.86	11.75	11.53	11.31	11.44
γ 148.0	12.30	12.62	12.40	12.46	12.15	12.52	11.83	12.08	11.58	11.38	11.62	11.53
γ 149.0	12.31	12.79	12.61	12.69	12.36	12.52	12.06	12.15	11.72	11.65	11.79	11.89
γ 150.0	12.44	12.72	12.68	12.82	12.19	12.55	12.26	12.24	12.22	12.00	11.65	11.99
γ 151.0	12.75	12.85	12.97	12.92	12.48	12.39	12.55	12.42	12.23	11.94	11.86	12.00
γ 152.0	13.28	13.03	13.25	12.83	12.81	12.74	12.50	12.53	12.45	12.16	12.13	12.27
γ 153.0	13.39	13.05	13.40	13.10	12.88	13.03	12.64	12.46	12.67	12.29	12.44	12.59
γ 154.0	13.27	13.16	13.40	13.53	12.81	13.15	12.71	12.52	12.55	12.62	12.53	12.67
γ 155.0	13.40	13.44	13.80	13.64	12.96	13.49	13.04	12.80	12.79	12.94	12.50	12.74
γ 156.0	13.49	13.68	13.89	13.80	13.09	13.57	13.21	12.83	13.00	12.89	12.69	12.79
γ 157.0	13.78	13.78	13.93	13.99	13.28	13.50	13.19	12.83	13.36	13.02	12.90	12.93
γ 158.0	13.93	13.89	14.16	14.08	13.48	13.82	13.52	12.98	13.60	13.17	13.23	13.19
γ 159.0	14.08	14.02	14.36	14.28	13.74	14.06	13.46	13.25	13.38	13.19	13.42	13.47
γ 160.0	14.22	14.21	14.26	14.33	13.91	14.22	13.42	13.45	13.55	13.45	13.45	13.39
γ 161.0	14.50	14.31	14.37	14.59	13.66	14.23	13.74	13.53	13.94	13.67	13.75	13.35
γ 162.0	14.47	14.21	14.78	14.41	14.01	14.31	13.94	13.72	13.88	13.63	13.83	13.57
γ 163.0	14.52	14.26	14.62	14.49	14.19	14.21	14.27	13.97	14.10	13.74	13.81	13.60
γ 164.0	14.62	14.53	14.75	14.52	14.18	14.41	14.12	14.09	14.51	13.79	13.95	13.93
γ 165.0	14.70	14.64	14.87	14.85	14.20	14.49	14.33	14.24	14.35	14.02	14.20	14.13
γ 166.0	14.64	14.53	15.11	14.67	14.29	14.65	14.32	14.29	14.43	14.07	14.15	14.26
γ 167.0	14.62	14.65	14.94	14.87	14.48	14.75	14.35	14.38	14.73	14.22	14.31	14.13
γ 168.0	14.75	14.75	15.00	14.94	14.52	14.88	14.43	14.45	14.90	14.37	14.40	14.39
γ 169.0	15.07	14.66	15.29	15.06	14.65	14.72	14.54	14.63	15.15	14.42	14.50	14.53
γ 170.0	14.80	14.73	15.23	15.10	14.57	14.76	14.51	14.83	14.78	14.32	14.53	14.61
γ 171.0	14.97	14.87	15.17	14.99	14.73	14.65	14.66	14.75	14.87	14.38	14.63	14.59
γ 172.0	14.90	14.94	15.20	15.04	14.75	14.52	14.82	14.76	15.00	14.57	14.66	14.30
γ 173.0	14.98	14.88	15.53	15.12	14.78	14.63	14.70	14.88	14.78	14.58	14.63	14.33
γ 174.0	15.01	15.11	15.37	15.18	14.65	14.57	14.68	14.84	14.93	14.46	14.73	14.48
γ 175.0	14.90	15.31	15.20	15.25	14.73	14.74	14.94	14.83	15.14	14.71	14.84	14.71
γ 176.0	14.97	15.28	15.14	14.95	14.93	14.84	15.14	14.91	15.06	14.65	14.91	14.70
γ 177.0	15.10	15.14	15.31	15.07	14.99	15.08	15.10	14.96	15.21	14.77	14.92	14.74
γ 178.0	15.25	15.04	15.18	15.33	14.74	14.89	14.98	15.04	15.10	14.98	15.04	14.76
γ 179.0	15.17	15.07	15.36	15.29	14.57	14.61	14.97	14.99	15.13	15.05	14.90	14.78
γ 180.0	14.99	14.99	14.99	14.99	14.99	14.99	14.99	14.99	14.99	14.99	14.99	14.99