IES Indoor Report
Photometric Filename:F21-24V-5050-72-3000K.IES

Indoor Luminaire Photometric Data

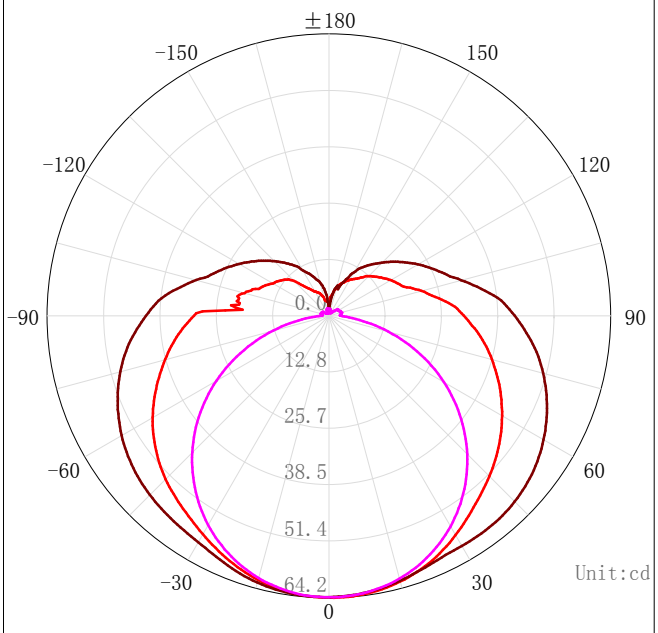
Description Information

Luminary Name: F21-24V-5050-72-3000K		Lum. Catelog:	Test ID: 001
Lamp Name: F21-24V-5050-72-3000K		Lamp Catelog: LED	Test Date: 2019/06/28
Manufacture:		Shld.Ang(°):	Test Machine:GON-2000
Test Lab: VOLNIC		Frequency(Hz):	Lamp CCT(K): 3000 Ra:
Lum.Size(W*L*H):0.015m*1.000m*0.025m		Lum.Area(m2):0.040	Lum.W(kg): 3.000
Test System: C, γ	Test Step: C=45.0 γ=1.0	Temp.(℃): 25	Humidity(%):

Character Parameter

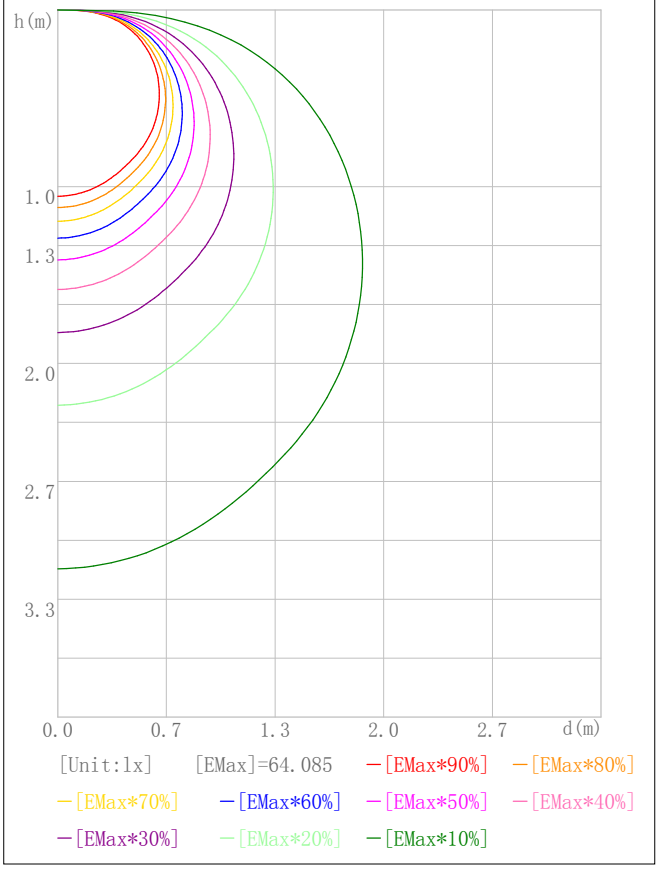
Lamp Speciality Parameter	Luminaire Speciality Parameter	
Rated Flux(lm): 363.100	Luminary Flux(lm): 363.104	Field Angle(10%Imax): 314.3(°)
Rated Power(W):	Luminary Efficiency: 100.00%	Down Lumens&Percent: 274.871lm 75.70%
Rated Voltage(V):	Luminary EER(lm/W): 27.508	Up Lumens&Percent: 88.233lm 24.30%
Tested Power(W): 13.200	Max.Candela(cd): 64.196	S/MH: C0_a180=1.432 C90_270=1.278
Lamps' Inside: 1	Max Cand@Ang.(°): C=135.0 γ=2.0	CIE Type: General Diffuse
Tested Electrics(V,A,pf):24.1,0.551,1.000	Beam Angle(50%Imax): 174.5(°)	ErP Φuse(120°): 165.522lm
Lamp Size(W*L*H):0.015m*1.000m*0.025m	Left=-87.3°,Right=87.2°	IRF(%): 94.221

C Plane Distribution Diagram



C Plane	[50%MaxAng.]	[10%MaxAng.]
C135.0_315.0:	174.5	314.3
C0.0_180.0 :	207.9	335.9
C90.0_270.0 :	115.8	164.5

C0 Space ISO Illuminance Curve

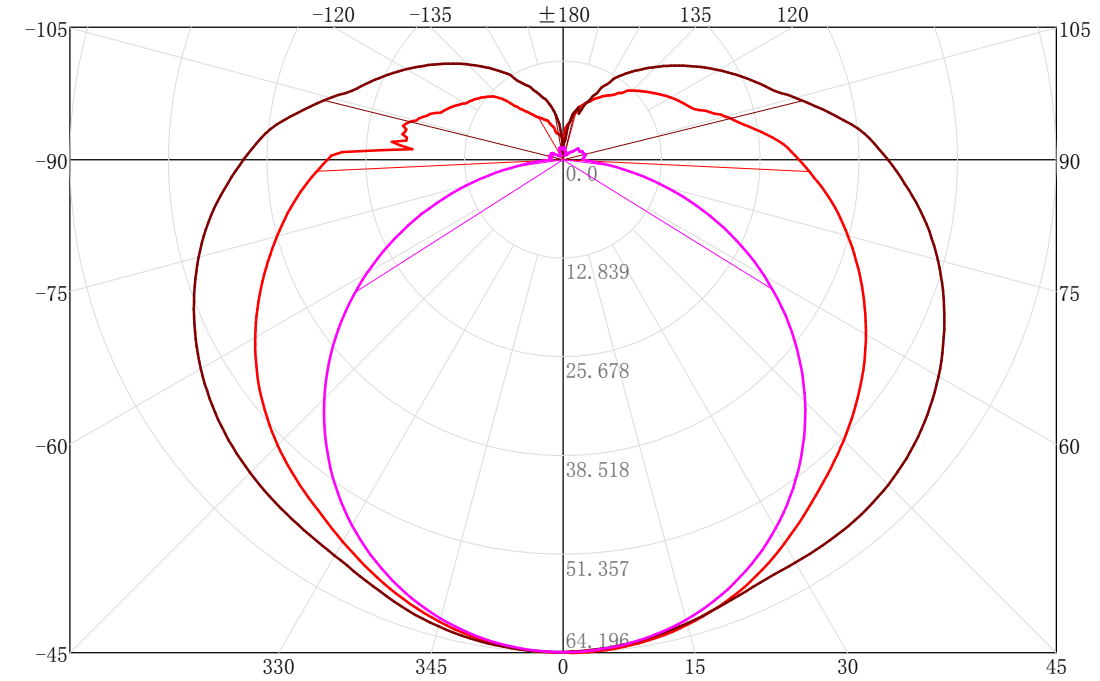


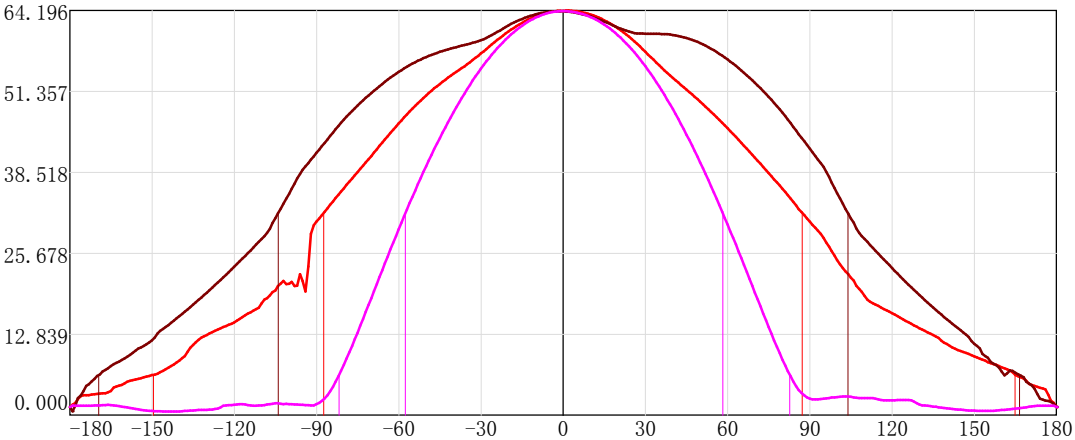
IES Indoor Report
Photometric Filename:F21-24V-5050-72-3000K.IES

2D Plane Light Intensity Distribution Curve

Lum.Name: F21-24V-5050-72-3000K	Lum.Catelog:	Test ID: 001
Lamp Name: F21-24V-5050-72-3000K	Lamp Catelog: LED	Test Lab: VOLNIC
Manufacture:	Test Machine:GON-2000	Test Date: 2019/06/28

C Plane Distribution Diagram





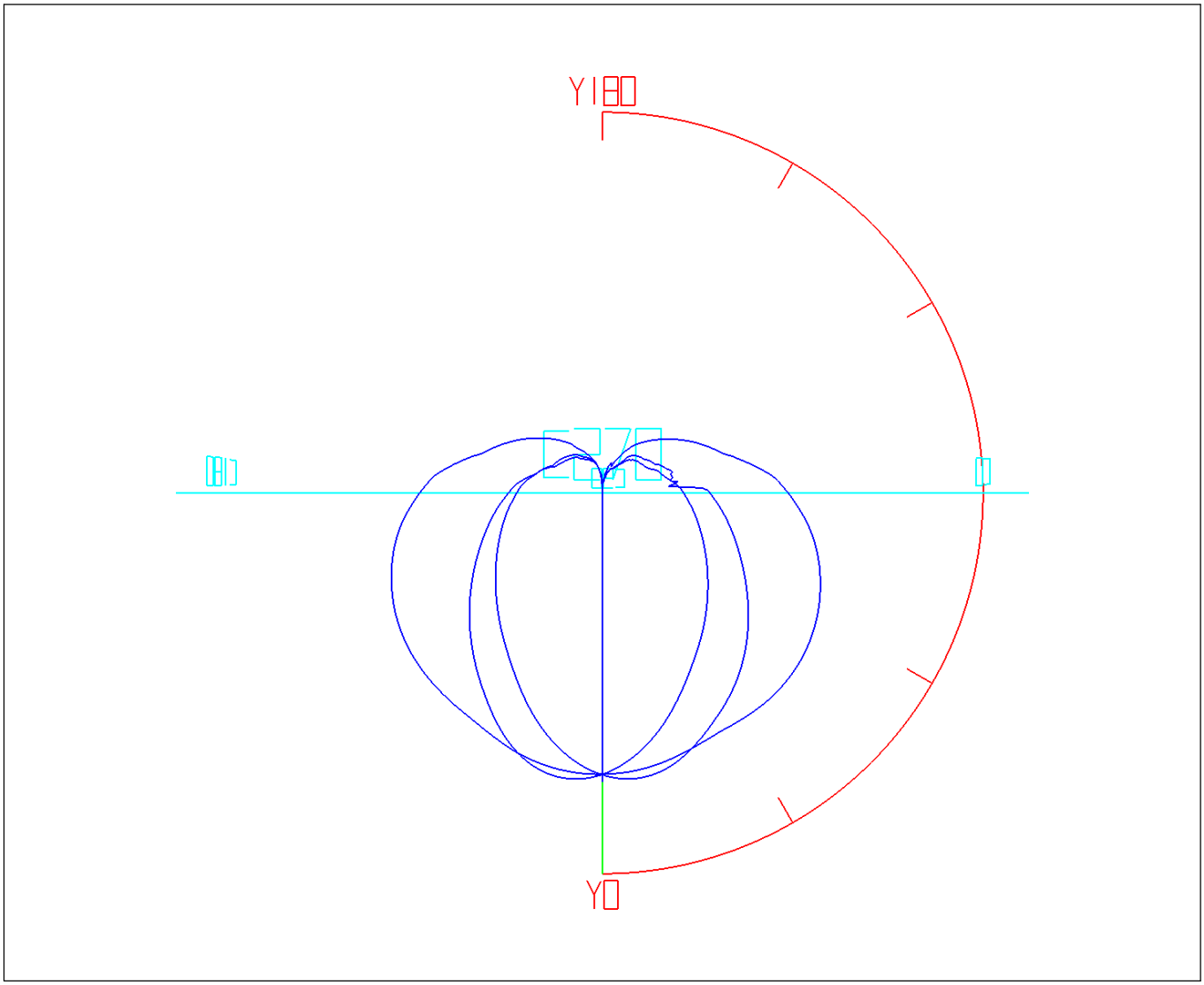
C Plane	[50%MaxAng.]	[10%MaxAng.]	Unit:cd
C135.0_315.0:	174.5	314.3	
C0.0_180.0 :	207.9	335.9	
C90.0_270.0 :	115.8	164.5	

IES Indoor Report
Photometric Filename:F21-24V-5050-72-3000K.IES

3D Light Intensity Distribution Modal

Lum.Name: F21-24V-5050-72-3000K	Lum.Catelog:	Test ID: 001
Lamp Name: F21-24V-5050-72-3000K	Lamp Catelog: LED	Test Lab: VOLNIC
Manufacture:	Test Machine:GON-2000	Test Date: 2019/06/28

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:F21-24V-5050-72-3000K.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	0.06	0.06	0.02	0.02	47.0-48.0	4.06	117.36	1.12	32.32
1.0-2.0	0.18	0.25	0.05	0.07	48.0-49.0	4.09	121.45	1.13	33.45
2.0-3.0	0.31	0.55	0.08	0.15	49.0-50.0	4.11	125.56	1.13	34.58
3.0-4.0	0.43	0.98	0.12	0.27	50.0-51.0	4.13	129.69	1.14	35.72
4.0-5.0	0.55	1.53	0.15	0.42	51.0-52.0	4.15	133.84	1.14	36.86
5.0-6.0	0.67	2.20	0.18	0.61	52.0-53.0	4.16	138.00	1.15	38.01
6.0-7.0	0.79	2.99	0.22	0.82	53.0-54.0	4.17	142.17	1.15	39.16
7.0-8.0	0.91	3.90	0.25	1.07	54.0-55.0	4.18	146.35	1.15	40.31
8.0-9.0	1.03	4.93	0.28	1.36	55.0-56.0	4.18	150.53	1.15	41.46
9.0-10.0	1.15	6.08	0.32	1.67	56.0-57.0	4.18	154.71	1.15	42.61
10.0-11.0	1.26	7.34	0.35	2.02	57.0-58.0	4.18	158.89	1.15	43.76
11.0-12.0	1.38	8.72	0.38	2.40	58.0-59.0	4.17	163.05	1.15	44.91
12.0-13.0	1.49	10.21	0.41	2.81	59.0-60.0	4.16	167.21	1.15	46.05
13.0-14.0	1.60	11.82	0.44	3.25	60.0-61.0	4.14	171.36	1.14	47.19
14.0-15.0	1.71	13.53	0.47	3.73	61.0-62.0	4.13	175.48	1.14	48.33
15.0-16.0	1.82	15.35	0.50	4.23	62.0-63.0	4.11	179.59	1.13	49.46
16.0-17.0	1.93	17.28	0.53	4.76	63.0-64.0	4.09	183.68	1.13	50.59
17.0-18.0	2.03	19.31	0.56	5.32	64.0-65.0	4.06	187.74	1.12	51.70
18.0-19.0	2.14	21.45	0.59	5.91	65.0-66.0	4.03	191.77	1.11	52.82
19.0-20.0	2.24	23.68	0.62	6.52	66.0-67.0	4.00	195.78	1.10	53.92
20.0-21.0	2.33	26.02	0.64	7.16	67.0-68.0	3.97	199.74	1.09	55.01
21.0-22.0	2.43	28.44	0.67	7.83	68.0-69.0	3.93	203.68	1.08	56.09
22.0-23.0	2.52	30.97	0.69	8.53	69.0-70.0	3.89	207.57	1.07	57.17
23.0-24.0	2.61	33.58	0.72	9.25	70.0-71.0	3.85	211.43	1.06	58.23
24.0-25.0	2.70	36.28	0.74	9.99	71.0-72.0	3.81	215.24	1.05	59.28
25.0-26.0	2.79	39.07	0.77	10.76	72.0-73.0	3.77	219.00	1.04	60.32
26.0-27.0	2.87	41.94	0.79	11.55	73.0-74.0	3.72	222.72	1.02	61.34
27.0-28.0	2.95	44.89	0.81	12.36	74.0-75.0	3.67	226.40	1.01	62.35
28.0-29.0	3.03	47.93	0.84	13.20	75.0-76.0	3.62	230.02	1.00	63.35
29.0-30.0	3.11	51.04	0.86	14.06	76.0-77.0	3.57	233.59	0.98	64.33
30.0-31.0	3.18	54.22	0.88	14.93	77.0-78.0	3.52	237.10	0.97	65.30
31.0-32.0	3.26	57.48	0.90	15.83	78.0-79.0	3.46	240.57	0.95	66.25
32.0-33.0	3.33	60.80	0.92	16.75	79.0-80.0	3.41	243.97	0.94	67.19
33.0-34.0	3.39	64.20	0.93	17.68	80.0-81.0	3.35	247.32	0.92	68.11
34.0-35.0	3.46	67.65	0.95	18.63	81.0-82.0	3.29	250.61	0.91	69.02
35.0-36.0	3.52	71.18	0.97	19.60	82.0-83.0	3.23	253.85	0.89	69.91
36.0-37.0	3.58	74.76	0.99	20.59	83.0-84.0	3.17	257.02	0.87	70.78
37.0-38.0	3.64	78.39	1.00	21.59	84.0-85.0	3.11	260.13	0.86	71.64
38.0-39.0	3.69	82.09	1.02	22.61	85.0-86.0	3.05	263.19	0.84	72.48
39.0-40.0	3.75	85.83	1.03	23.64	86.0-87.0	3.00	266.19	0.83	73.31
40.0-41.0	3.80	89.63	1.05	24.68	87.0-88.0	2.95	269.13	0.81	74.12
41.0-42.0	3.84	93.47	1.06	25.74	88.0-89.0	2.89	272.03	0.80	74.92
42.0-43.0	3.89	97.36	1.07	26.81	89.0-90.0	2.84	274.87	0.78	75.70
43.0-44.0	3.93	101.29	1.08	27.90	90.0-91.0	2.80	277.67	0.77	76.47
44.0-45.0	3.97	105.26	1.09	28.99	91.0-92.0	2.75	280.41	0.76	77.23
45.0-46.0	4.00	109.26	1.10	30.09	92.0-93.0	2.66	283.08	0.73	77.96
46.0-47.0	4.04	113.29	1.11	31.20	93.0-94.0	2.56	285.64	0.71	78.67

IES Indoor Report
Photometric Filename:F21-24V-5050-72-3000K.IES

Zonal Flux Tabulation - (Cont.)

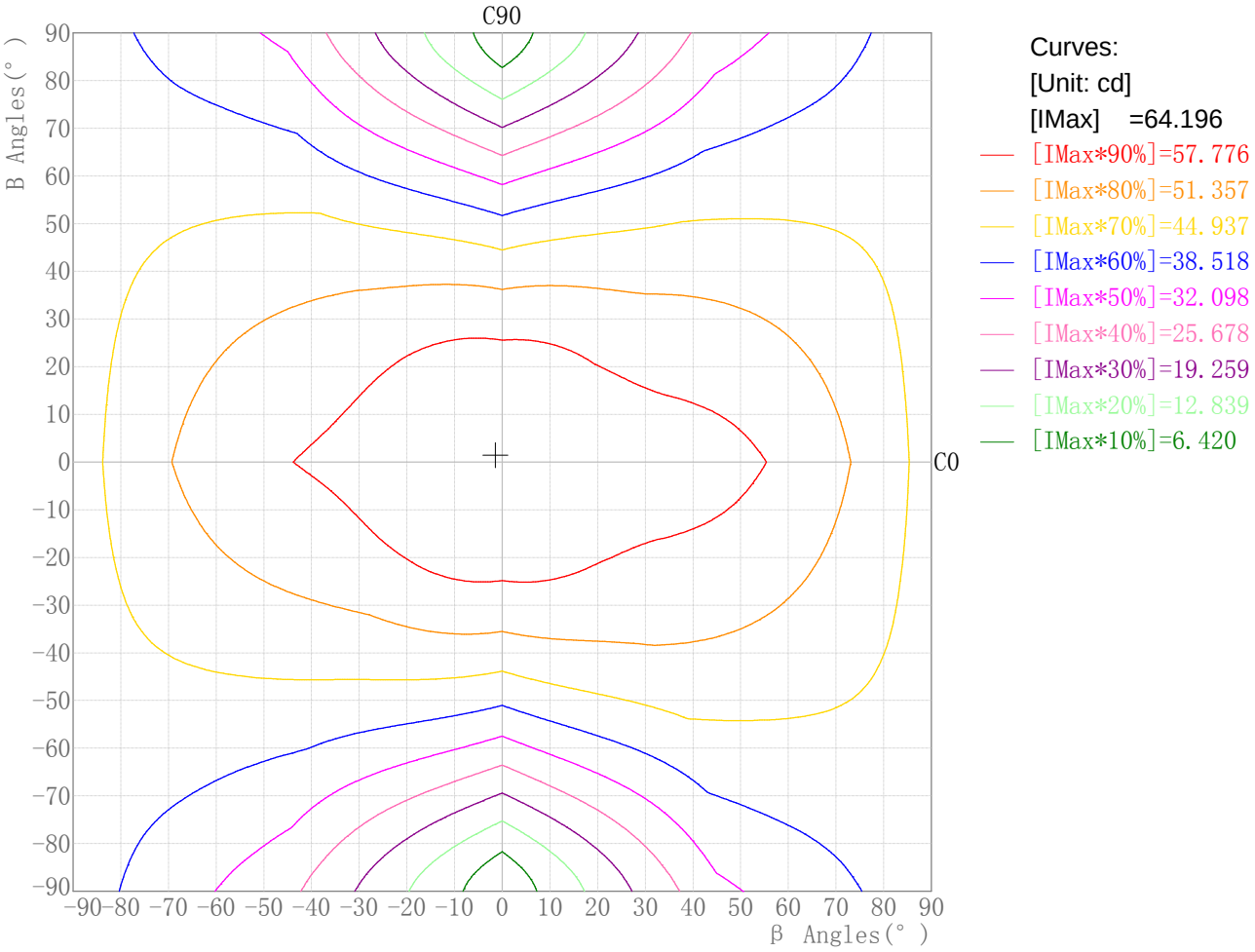
Zone(γ)	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	Sums%Lamp
94.0-95.0	2.51	288.15	0.69	79.36
95.0-96.0	2.47	290.62	0.68	80.04
96.0-97.0	2.42	293.04	0.67	80.70
97.0-98.0	2.35	295.39	0.65	81.35
98.0-99.0	2.30	297.69	0.63	81.98
99.0-100.0	2.24	299.93	0.62	82.60
100.0-101.0	2.19	302.11	0.60	83.20
101.0-102.0	2.14	304.25	0.59	83.79
102.0-103.0	2.09	306.34	0.58	84.37
103.0-104.0	2.04	308.38	0.56	84.93
104.0-105.0	1.99	310.37	0.55	85.48
105.0-106.0	1.93	312.30	0.53	86.01
106.0-107.0	1.87	314.17	0.52	86.53
107.0-108.0	1.81	315.98	0.50	87.02
108.0-109.0	1.76	317.74	0.48	87.51
109.0-110.0	1.71	319.45	0.47	87.98
110.0-111.0	1.65	321.10	0.46	88.43
111.0-112.0	1.61	322.71	0.44	88.88
112.0-113.0	1.57	324.27	0.43	89.31
113.0-114.0	1.53	325.81	0.42	89.73
114.0-115.0	1.50	327.31	0.41	90.14
115.0-116.0	1.46	328.77	0.40	90.54
116.0-117.0	1.43	330.20	0.39	90.94
117.0-118.0	1.39	331.59	0.38	91.32
118.0-119.0	1.36	332.95	0.37	91.70
119.0-120.0	1.32	334.27	0.36	92.06
120.0-121.0	1.29	335.56	0.35	92.41
121.0-122.0	1.26	336.81	0.35	92.76
122.0-123.0	1.22	338.04	0.34	93.10
123.0-124.0	1.19	339.23	0.33	93.43
124.0-125.0	1.15	340.38	0.32	93.74
125.0-126.0	1.12	341.50	0.31	94.05
126.0-127.0	1.09	342.59	0.30	94.35
127.0-128.0	1.05	343.64	0.29	94.64
128.0-129.0	1.02	344.66	0.28	94.92
129.0-130.0	0.98	345.64	0.27	95.19
130.0-131.0	0.95	346.58	0.26	95.45
131.0-132.0	0.92	347.50	0.25	95.70
132.0-133.0	0.88	348.38	0.24	95.95
133.0-134.0	0.85	349.23	0.23	96.18
134.0-135.0	0.81	350.05	0.22	96.40
135.0-136.0	0.78	350.82	0.21	96.62
136.0-137.0	0.74	351.56	0.20	96.82
137.0-138.0	0.70	352.27	0.19	97.02
138.0-139.0	0.67	352.94	0.18	97.20
139.0-140.0	0.64	353.58	0.18	97.38
140.0-141.0	0.61	354.19	0.17	97.55
141.0-142.0	0.58	354.78	0.16	97.71
142.0-143.0	0.56	355.33	0.15	97.86
143.0-144.0	0.53	355.86	0.15	98.01
144.0-145.0	0.51	356.37	0.14	98.15
145.0-146.0	0.48	356.85	0.13	98.28
146.0-147.0	0.46	357.31	0.13	98.41
147.0-148.0	0.44	357.75	0.12	98.53
148.0-149.0	0.41	358.17	0.11	98.64
149.0-150.0	0.39	358.56	0.11	98.75
150.0-151.0	0.37	358.93	0.10	98.85
151.0-152.0	0.35	359.28	0.10	98.95
152.0-153.0	0.33	359.61	0.09	99.04
153.0-154.0	0.31	359.92	0.09	99.12
154.0-155.0	0.29	360.22	0.08	99.21
155.0-156.0	0.28	360.49	0.08	99.28
156.0-157.0	0.26	360.75	0.07	99.35
157.0-158.0	0.24	361.00	0.07	99.42
158.0-159.0	0.23	361.22	0.06	99.48
159.0-160.0	0.21	361.43	0.06	99.54
160.0-161.0	0.19	361.63	0.05	99.59
161.0-162.0	0.18	361.81	0.05	99.64
162.0-163.0	0.17	361.98	0.05	99.69
163.0-164.0	0.16	362.13	0.04	99.73
164.0-165.0	0.14	362.28	0.04	99.77
165.0-166.0	0.13	362.40	0.04	99.81
166.0-167.0	0.12	362.52	0.03	99.84
167.0-168.0	0.10	362.62	0.03	99.87
168.0-169.0	0.09	362.72	0.03	99.89
169.0-170.0	0.08	362.79	0.02	99.92
170.0-171.0	0.07	362.86	0.02	99.93
171.0-172.0	0.06	362.92	0.02	99.95
172.0-173.0	0.05	362.97	0.01	99.96
173.0-174.0	0.04	363.01	0.01	99.98
174.0-175.0	0.03	363.04	0.01	99.98
175.0-176.0	0.03	363.07	0.01	99.99
176.0-177.0	0.02	363.09	0.00	100.00
177.0-178.0	0.01	363.10	0.00	100.00
178.0-179.0	0.01	363.10	0.00	100.00
179.0-180.0	0.00	363.10	0.00	100.00

IES Indoor Report
Photometric Filename:F21-24V-5050-72-3000K.IES

Rectangle ISO Lighting Intensity Diagram

Lum.Name: F21-24V-5050-72-3000K	Lum.Catelog:	Test ID: 001
Lamp Name: F21-24V-5050-72-3000K	Lamp Catelog: LED	Test Lab: VOLNIC
Manufacture:	Test Machine:GON-2000	Test Date: 2019/06/28

ISO Lighting Intensity Curve



Maximum Light Intensity(cd): 64.20

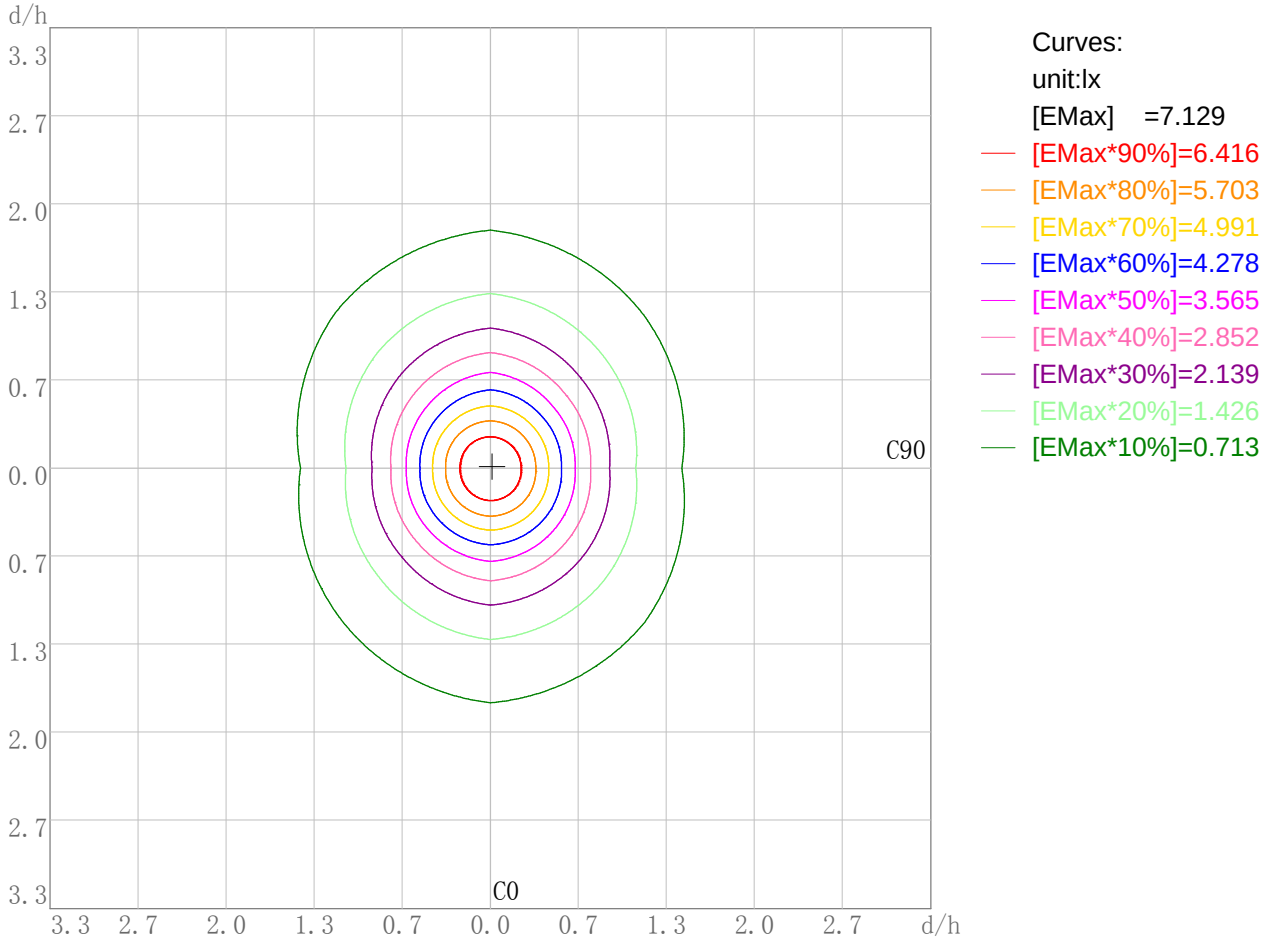
Maximum Cand.@Angle: H=-1.4°,V=1.4°

IES Indoor Report
Photometric Filename:F21-24V-5050-72-3000K.IES

Plane ISO-Illuminance Diagram

Lum.Name: F21-24V-5050-72-3000K	Lum.Catelog:	Test ID: 001
Lamp Name: F21-24V-5050-72-3000K	Lamp Catelog: LED	Test Lab: VOLNIC
Manufacture:	Test Machine:GON-2000	Test Date: 2019/06/28

Plane ISO-Illuminance Curve



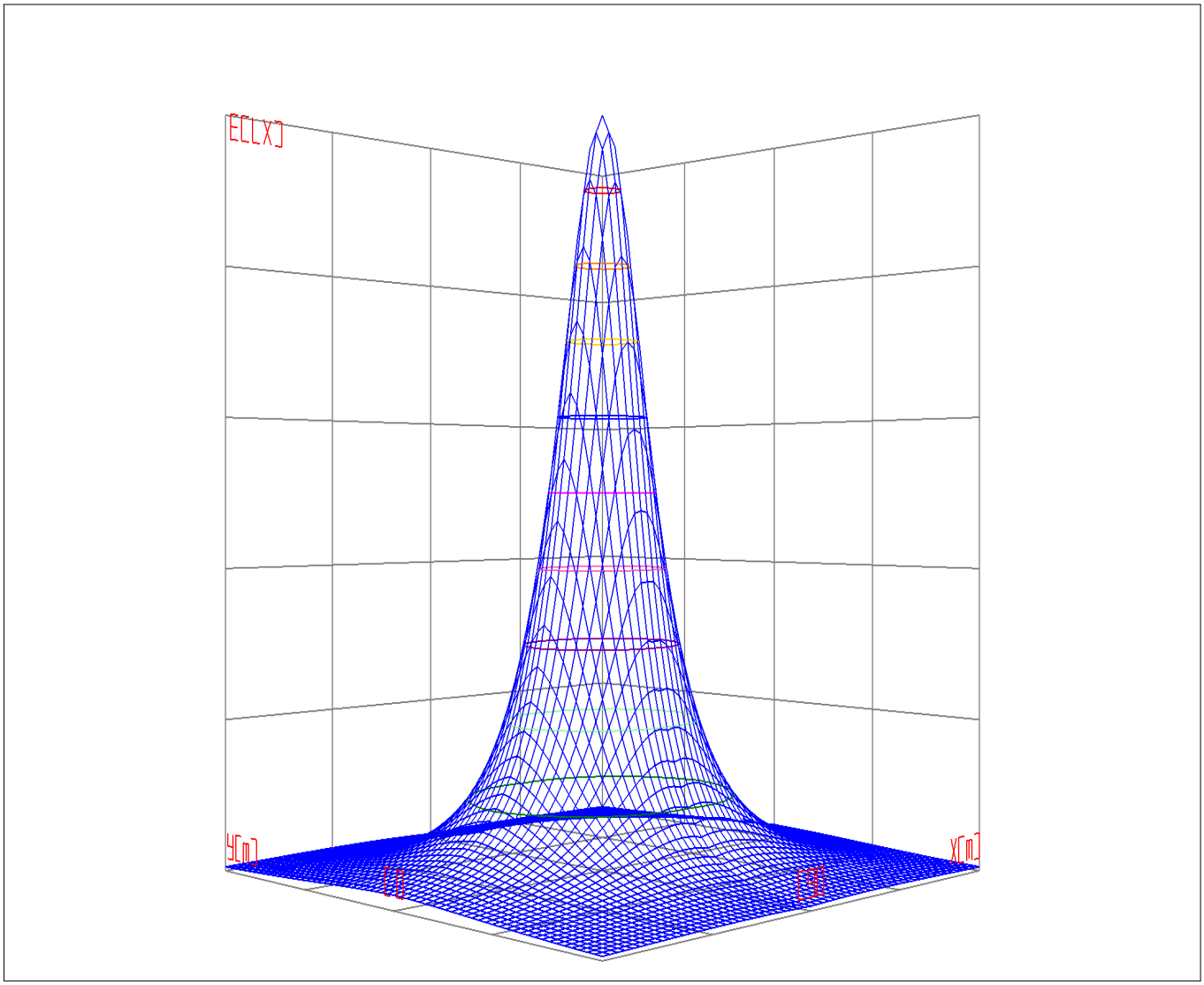
Working Plane Luminaire Mounting Height(m): 3.00
Working Plane Maximum Illuminance(lx): 7.13
Working Plane Maximum Illuminance Position(d/h):H0.0 V-0.0

IES Indoor Report
Photometric Filename:F21-24V-5050-72-3000K.IES

3D Plane ISO Illuminance Diagram

Lum.Name: F21-24V-5050-72-3000K	Lum.Catelog:	Test ID: 001
Lamp Name: F21-24V-5050-72-3000K	Lamp Catelog: LED	Test Lab: VOLNIC
Manufacture:	Test Machine:GON-2000	Test Date: 2019/06/28

3D Plane Illuminance Modal



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

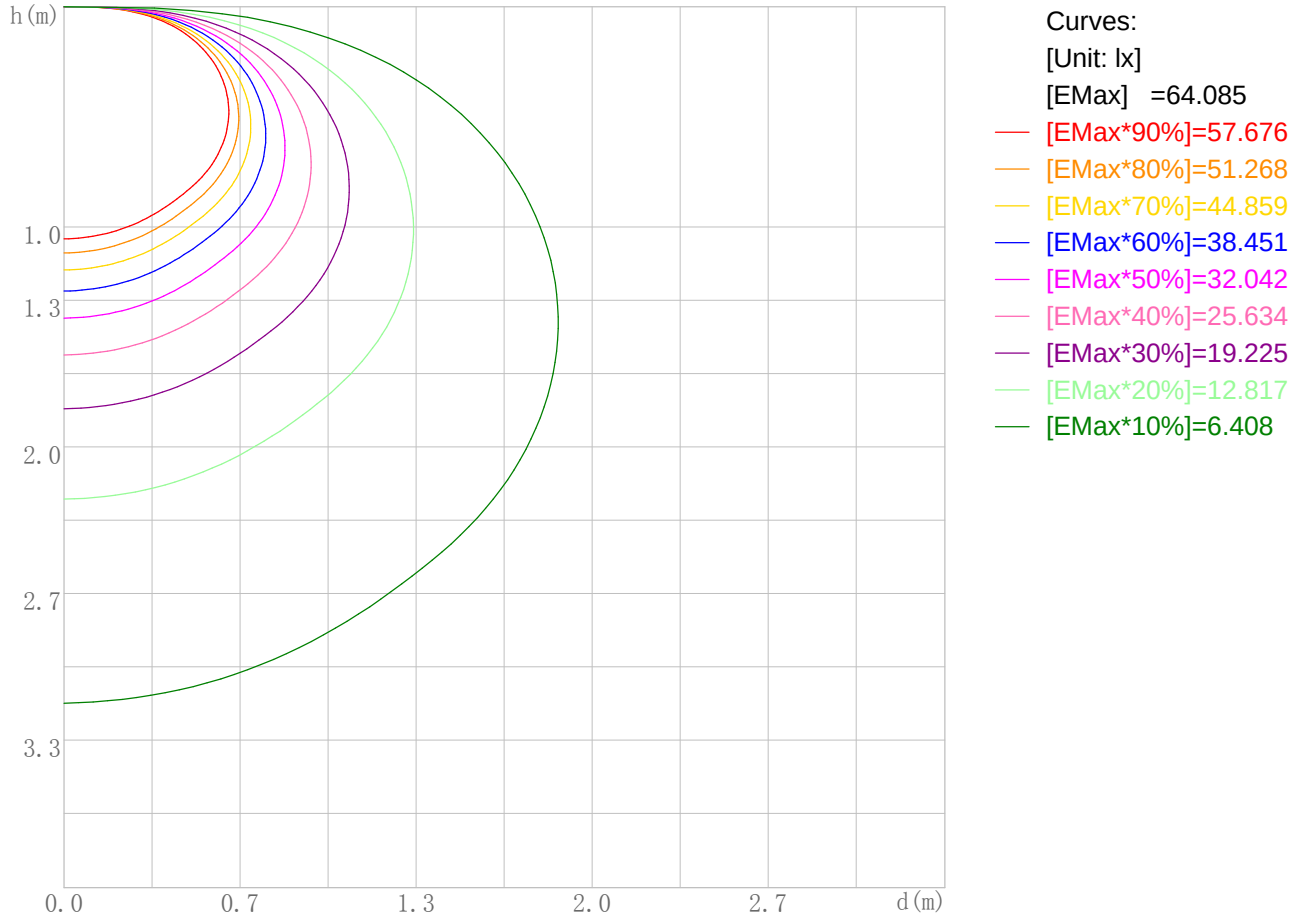
View Angles(deg): 0 Height(m): 3.0 Distance(m): 10.0

IES Indoor Report
Photometric Filename:F21-24V-5050-72-3000K.IES

Space ISO Illuminance Diagram

Lum.Name: F21-24V-5050-72-3000K	Lum.Catelog:	Test ID: 001
Lamp Name: F21-24V-5050-72-3000K	Lamp Catelog: LED	Test Lab: VOLNIC
Manufacture:	Test Machine:GON-2000	Test Date: 2019/06/28

Space ISO Illuminance Curve



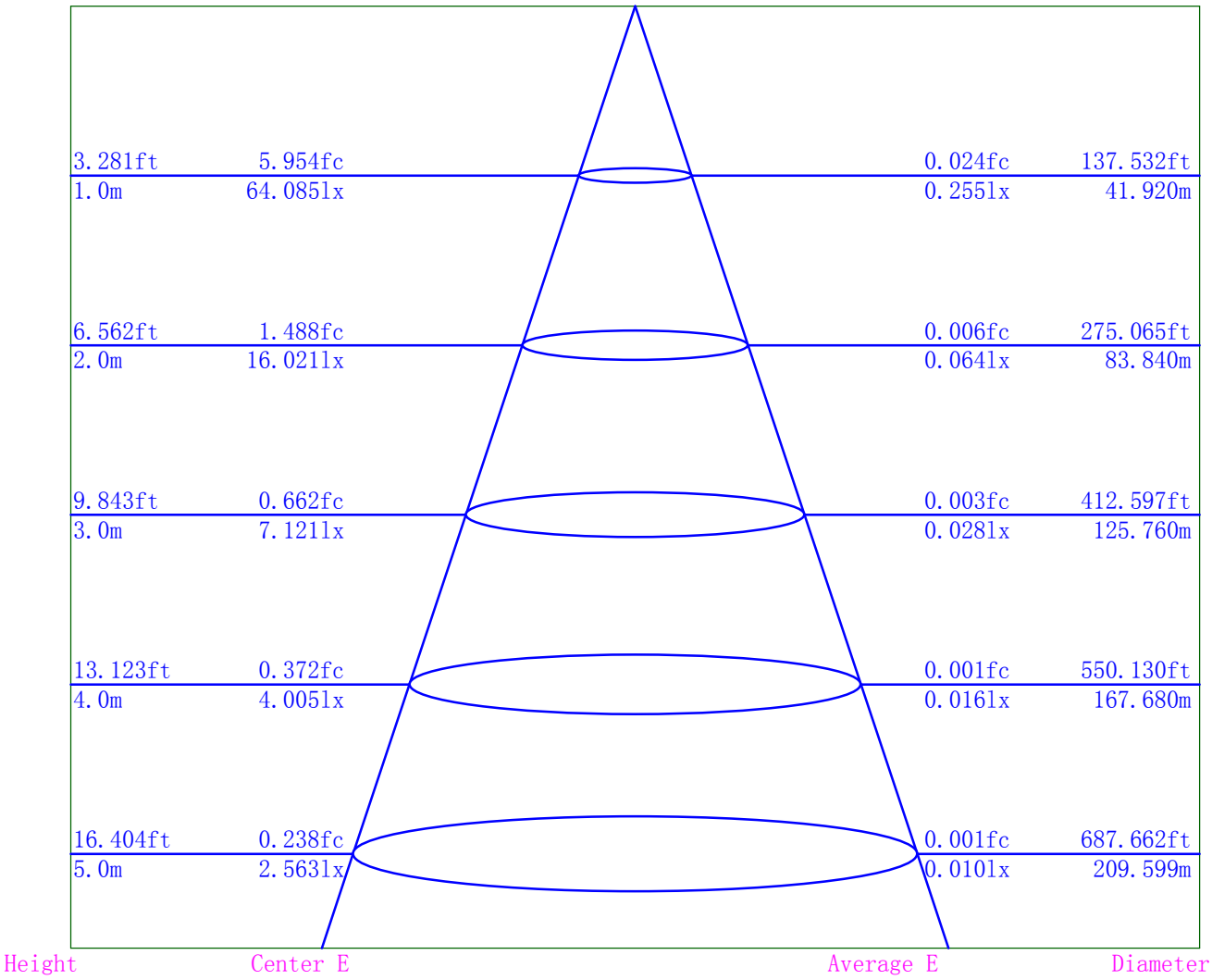
Space Plane Maximum Illuminance and @Angle:64.08lx,0.0deg
Plane Maximum Lighting Intensity and @Angle:64.085cd,0eg

IES Indoor Report
Photometric Filename:F21-24V-5050-72-3000K.IES

Illuminance-Distance Diagram

Lum.Name: F21-24V-5050-72-3000K	Lum.Catelog:	Test ID: 001
Lamp Name: F21-24V-5050-72-3000K	Lamp Catelog: LED	Test Lab: VOLNIC
Manufacture:	Test Machine:GON-2000	Test Date: 2019/06/28

Illuminance-Distance Curve



Beam Angle:174.5

IES Indoor Report
Photometric Filename:F21-24V-5050-72-3000K.IES

Indoor Luminance Limiting Curves

Lum.Name: F21-24V-5050-72-3000K	Lum.Catelog:	Test ID: 001
Lamp Name: F21-24V-5050-72-3000K	Lamp Catelog: LED	Test Lab: VOLNIC
Manufacture:	Test Machine:GON-2000	Test Date: 2019/06/28

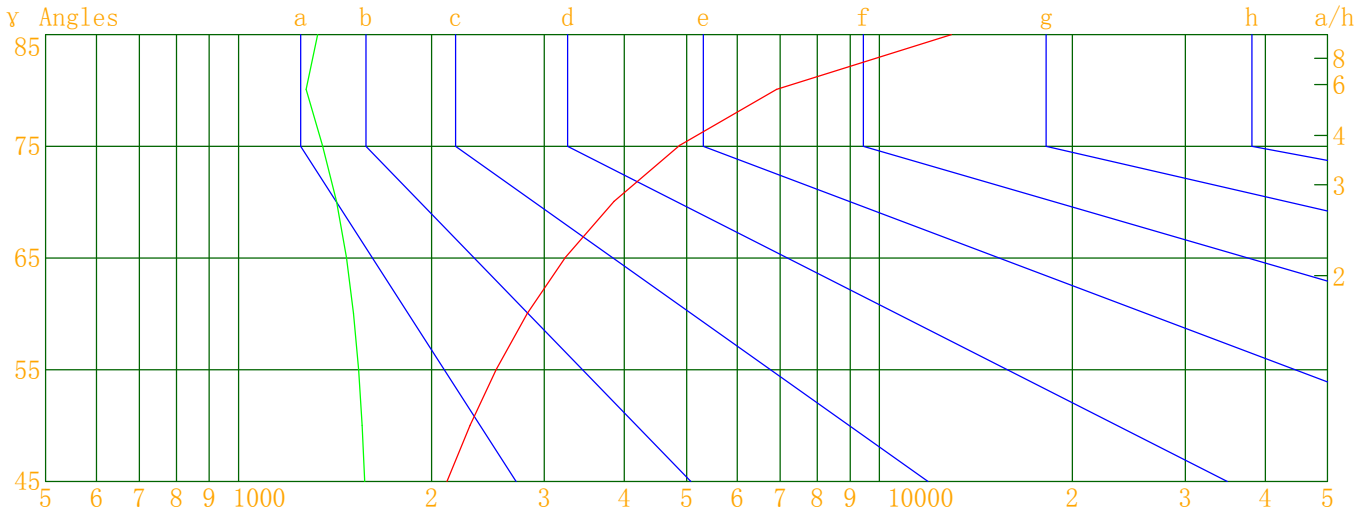
Glare Grade Table

GI	Quality	Using Illuminace							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E	a				2000	1000	500	<=300
			b	c	d	e	f	g	h

Luminance Table

Gama(deg)	45	50	55	60	65	70	75	80	85
C0	2115	2296	2523	2821	3234	3853	4876	6910	12949
C90	1574	1559	1540	1512	1474	1422	1352	1275	1329

Luminance Limiting Curve



Luminous Size: Length(m)=1.000 Width(m)=0.015 Height(m)=0.025 Area(m^2)=0.040000

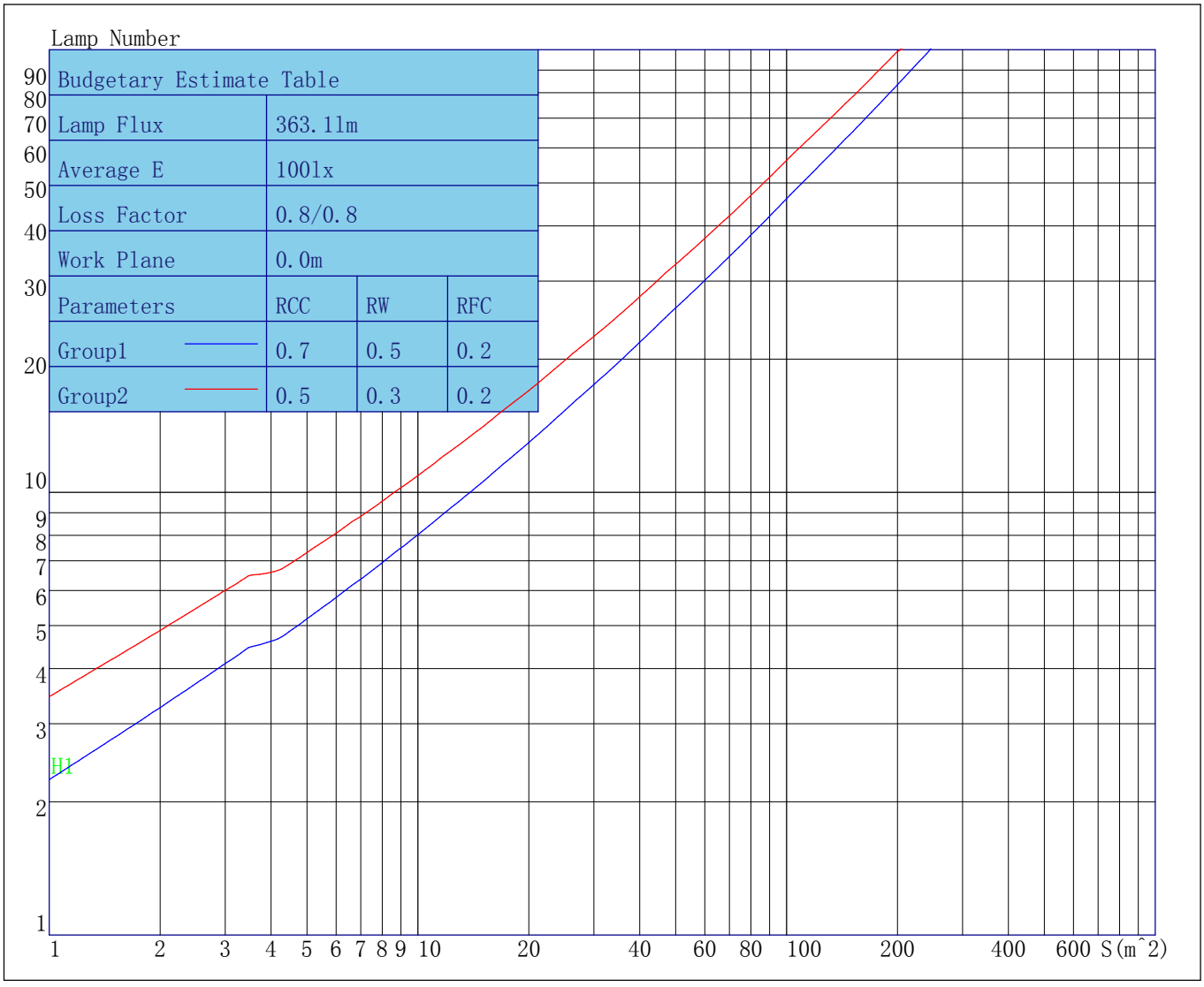
Luminous Type: Without Luminous Side

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

IES Indoor Report
Photometric Filename:F21-24V-5050-72-3000K.IES

Indoor Budgetary Estimate Table

Lum.Name: F21-24V-5050-72-3000K	Lum.Catelog:	Test ID: 001
Lamp Name: F21-24V-5050-72-3000K	Lamp Catelog: LED	Test Lab: VOLNIC
Manufacture:	Test Machine:GON-2000	Test Date: 2019/06/28



Parameters1: Rhocc = 0.7 Rhow = 0.5 Rhofc = 0.2 LLF = 0.8
Parameters2: Rhocc = 0.5 Rhow = 0.3 Rhofc = 0.2 LLF = 0.8
Average Illuminance(lx): 100 Cavity Height: H1(m) = 2

IES Indoor Report
Photometric Filename:F21-24V-5050-72-3000K.IES

Indoor Coefficient of Utilization Table

Lum.Name: F21-24V-5050-72-3000K	Lum.Catelog:	Test ID: 001
Lamp Name: F21-24V-5050-72-3000K	Lamp Catelog: LED	Test Lab: VOLNIC
Manufacture:	Test Machine:GON-2000	Test Date: 2019/06/28

Coefficients of Utilization - Zonal Cavity Method																		
Coef.	Effective Floor Cavity Reflectance RFC=0.20																	
RhoCC(%)	80				70				50			30			10			0
RhoW(%)	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR	Coefficient of Utilization(%)																	
0	113	113	113	113	108	108	108	108	98	98	98	88	88	88	80	80	80	76
1	100	93	88	83	94	89	84	79	80	76	72	72	68	66	64	62	59	55
2	89	79	71	64	84	75	68	62	68	62	57	61	56	52	54	50	47	43
3	80	69	59	52	76	65	57	50	59	52	46	52	47	42	47	42	38	35
4	73	60	50	43	69	57	48	41	51	44	38	46	40	35	41	36	32	29
5	67	53	43	36	63	50	42	35	46	38	32	41	35	30	37	32	27	24
6	61	47	38	31	58	45	36	30	41	33	28	37	31	26	33	28	24	21
7	57	43	34	27	54	41	32	26	37	30	24	33	27	23	30	25	21	18
8	53	39	30	24	50	37	29	23	34	27	22	30	24	20	28	22	18	16
9	49	35	27	21	46	34	26	21	31	24	19	28	22	18	25	20	16	14
10	46	32	24	19	43	31	23	18	28	22	17	26	20	16	24	18	15	13

IES Indoor Report
Photometric Filename:F21-24V-5050-72-3000K.IES

Unified Glare Rating Table

Lum.Name: F21-24V-5050-72-3000K	Lum.Catelog:	Test ID: 001
Lamp Name: F21-24V-5050-72-3000K	Lamp Catelog: LED	Test Lab: VOLNIC
Manufacture:	Test Machine:GON-2000	Test Date: 2019/06/28

Unified Glare Rating Table

Ceiling RCC		0.70	0.70	0.50	0.50	0.30	0.70	0.70	0.50	0.50	0.30
Wall RW		0.50	0.30	0.50	0.30	0.30	0.50	0.30	0.50	0.30	0.30
Floor RFC		0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Room Size		Vewed crosswise					Vewed endwise				
X=2H	Y=2H	14.1	15.4	14.8	16.1	17.0	11.9	13.2	12.6	13.9	14.7
	Y=3H	17.2	18.4	17.9	19.1	20.0	13.8	15.0	14.4	15.7	16.6
	Y=4H	19.0	20.1	19.7	20.8	21.7	14.6	15.7	15.3	16.4	17.3
	Y=6H	20.9	21.9	21.6	22.7	23.6	15.2	16.3	15.9	17.0	17.9
	Y=8H	21.9	23.0	22.7	23.7	24.6	15.5	16.5	16.2	17.3	18.2
	Y=12H	23.1	24.1	23.9	24.9	25.8	15.7	16.6	16.4	17.4	18.3
X=4H	Y=2H	14.9	16.1	15.6	16.8	17.7	13.4	14.5	14.1	15.2	16.1
	Y=3H	18.2	19.2	19.0	20.0	20.9	15.6	16.6	16.3	17.3	18.2
	Y=4H	20.1	21.1	20.9	21.8	22.8	16.6	17.5	17.3	18.3	19.2
	Y=6H	22.3	23.1	23.0	23.9	24.8	17.5	18.3	18.3	19.1	20.0
	Y=8H	23.5	24.2	24.2	25.0	26.0	17.9	18.6	18.6	19.4	20.4
	Y=12H	24.8	25.5	25.6	26.3	27.3	18.2	18.9	18.9	19.7	20.6
X=8H	Y=4H	20.7	21.4	21.4	22.2	23.2	17.9	18.7	18.7	19.5	20.4
	Y=6H	23.0	23.7	23.8	24.5	25.6	19.3	19.9	20.1	20.8	21.8
	Y=8H	24.4	25.0	25.2	25.9	26.8	19.9	20.5	20.7	21.3	22.3
	Y=12H	26.0	26.6	26.8	27.4	28.4	20.4	21.0	21.2	21.8	22.8
X=12H	Y=4H	20.7	21.4	21.5	22.3	23.2	18.3	19.1	19.1	19.9	20.8
	Y=6H	23.2	23.8	24.0	24.6	25.6	19.9	20.6	20.7	21.4	22.4
	Y=8H	24.7	25.3	25.5	26.1	27.1	20.8	21.3	21.6	22.1	23.1
Variations with the objerver position at spacings											
S=1.0H		0.0/-0.1					0.3/-0.3				
S=1.5H		0.1/-0.1					0.4/-0.5				
S=2.0H		0.2/-0.3					0.4/-0.5				
Reduced UGR Table:											
Nordic Standard Table:		BK0					BK0				
Correction Value		6.6					5.3				

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

IES Indoor Report
Photometric Filename:F21-24V-5050-72-3000K.IES

Candela Tabulation

V/H	C0.0	C45.0	C90.0	C135.0	C180.0	C225.0	C270.0	C315.0
Y 0.0	64.08	64.08	64.08	64.08	64.08	64.08	64.08	64.08
Y 1.0	64.02	64.04	64.07	64.19	64.07	64.07	64.08	64.15
Y 2.0	63.97	64.01	64.06	64.20	64.04	64.05	64.04	64.12
Y 3.0	63.92	63.94	64.00	64.16	64.03	64.03	63.99	64.06
Y 4.0	63.87	63.88	63.93	64.12	64.02	63.97	63.93	64.00
Y 5.0	63.80	63.79	63.83	64.07	63.97	63.92	63.83	63.93
Y 6.0	63.71	63.66	63.74	63.99	63.93	63.83	63.72	63.83
Y 7.0	63.60	63.55	63.63	63.90	63.85	63.74	63.57	63.72
Y 8.0	63.51	63.43	63.49	63.79	63.78	63.62	63.43	63.58
Y 9.0	63.39	63.30	63.32	63.68	63.69	63.49	63.25	63.45
Y 10.0	63.26	63.13	63.15	63.54	63.57	63.33	63.06	63.27
Y 11.0	63.10	62.96	62.96	63.41	63.46	63.17	62.84	63.09
Y 12.0	62.94	62.76	62.73	63.25	63.31	62.99	62.60	62.90
Y 13.0	62.78	62.55	62.50	63.07	63.17	62.80	62.36	62.70
Y 14.0	62.61	62.34	62.24	62.86	63.01	62.57	62.07	62.48
Y 15.0	62.43	62.09	61.96	62.64	62.85	62.33	61.78	62.24
Y 16.0	62.26	61.83	61.66	62.43	62.67	62.10	61.47	61.98
Y 17.0	62.07	61.57	61.35	62.17	62.48	61.82	61.12	61.71
Y 18.0	61.86	61.29	61.00	61.91	62.27	61.52	60.76	61.43
Y 19.0	61.66	60.99	60.63	61.66	62.04	61.24	60.39	61.13
Y 20.0	61.47	60.67	60.26	61.36	61.80	60.92	59.99	60.84
Y 21.0	61.32	60.35	59.87	61.05	61.55	60.59	59.56	60.52
Y 22.0	61.13	60.01	59.42	60.73	61.30	60.24	59.12	60.19
Y 23.0	60.99	59.66	58.99	60.40	61.02	59.88	58.66	59.86
Y 24.0	60.85	59.30	58.53	60.04	60.78	59.50	58.20	59.51
Y 25.0	60.72	58.92	58.06	59.67	60.52	59.10	57.69	59.16
Y 26.0	60.61	58.54	57.54	59.29	60.30	58.69	57.20	58.80
Y 27.0	60.54	58.15	57.04	58.90	60.08	58.27	56.65	58.45
Y 28.0	60.52	57.76	56.49	58.50	59.85	57.83	56.12	58.08
Y 29.0	60.53	57.35	55.93	58.07	59.64	57.37	55.55	57.72
Y 30.0	60.51	56.96	55.36	57.65	59.48	56.92	54.95	57.38
Y 31.0	60.51	56.56	54.75	57.22	59.32	56.45	54.34	57.01
Y 32.0	60.50	56.16	54.14	56.79	59.18	55.95	53.72	56.67
Y 33.0	60.50	55.76	53.51	56.36	59.06	55.48	53.06	56.32
Y 34.0	60.51	55.36	52.85	55.93	58.93	54.98	52.39	55.98
Y 35.0	60.49	54.97	52.19	55.51	58.83	54.49	51.72	55.65
Y 36.0	60.47	54.58	51.49	55.10	58.71	53.99	51.02	55.34
Y 37.0	60.45	54.21	50.79	54.67	58.60	53.50	50.30	55.06
Y 38.0	60.43	53.85	50.06	54.28	58.49	53.01	49.56	54.77
Y 39.0	60.37	53.51	49.31	53.88	58.37	52.53	48.81	54.45
Y 40.0	60.31	53.16	48.56	53.51	58.26	52.05	48.03	54.14
Y 41.0	60.24	52.79	47.79	53.13	58.14	51.58	47.26	53.83
Y 42.0	60.15	52.45	47.00	52.76	58.01	51.12	46.45	53.51
Y 43.0	60.05	52.08	46.20	52.40	57.89	50.65	45.63	53.20
Y 44.0	59.94	51.72	45.37	52.02	57.75	50.19	44.80	52.88
Y 45.0	59.83	51.36	44.52	51.65	57.63	49.75	43.96	52.54
Y 46.0	59.69	50.97	43.68	51.27	57.47	49.29	43.09	52.18

IES Indoor Report
Photometric Filename:F21-24V-5050-72-3000K.IES

Candela Tabulation - (Cont.)

V/H	C0.0	C45.0	C90.0	C135.0	C180.0	C225.0	C270.0	C315.0
Y 47.0	59.54	50.59	42.80	50.88	57.32	48.83	42.21	51.85
Y 48.0	59.38	50.19	41.90	50.50	57.15	48.38	41.32	51.47
Y 49.0	59.22	49.80	41.00	50.12	56.98	47.91	40.40	51.08
Y 50.0	59.03	49.38	40.10	49.73	56.81	47.45	39.47	50.69
Y 51.0	58.82	48.95	39.16	49.32	56.62	46.99	38.55	50.30
Y 52.0	58.61	48.52	38.24	48.92	56.40	46.51	37.59	49.90
Y 53.0	58.37	48.08	37.28	48.52	56.21	46.04	36.62	49.48
Y 54.0	58.13	47.63	36.31	48.09	55.98	45.57	35.64	49.05
Y 55.0	57.88	47.19	35.33	47.68	55.75	45.10	34.63	48.62
Y 56.0	57.60	46.70	34.33	47.26	55.51	44.61	33.63	48.16
Y 57.0	57.32	46.24	33.33	46.84	55.25	44.11	32.61	47.71
Y 58.0	57.05	45.76	32.30	46.40	54.99	43.61	31.55	47.25
Y 59.0	56.74	45.27	31.27	45.96	54.72	43.12	30.53	46.76
Y 60.0	56.42	44.76	30.23	45.51	54.45	42.60	29.48	46.27
Y 61.0	56.09	44.27	29.18	45.06	54.16	42.11	28.41	45.77
Y 62.0	55.76	43.78	28.14	44.60	53.85	41.58	27.34	45.29
Y 63.0	55.41	43.26	27.08	44.13	53.54	41.07	26.27	44.77
Y 64.0	55.04	42.73	26.00	43.68	53.22	40.57	25.18	44.25
Y 65.0	54.67	42.21	24.92	43.21	52.87	40.04	24.09	43.74
Y 66.0	54.30	41.69	23.84	42.74	52.54	39.52	23.00	43.24
Y 67.0	53.91	41.16	22.75	42.26	52.19	39.00	21.90	42.72
Y 68.0	53.52	40.62	21.65	41.79	51.83	38.48	20.81	42.20
Y 69.0	53.11	40.09	20.57	41.30	51.46	37.97	19.70	41.67
Y 70.0	52.71	39.57	19.45	40.83	51.10	37.45	18.59	41.13
Y 71.0	52.29	39.03	18.35	40.33	50.71	36.90	17.49	40.62
Y 72.0	51.85	38.48	17.25	39.86	50.33	36.40	16.39	40.10
Y 73.0	51.40	37.95	16.15	39.36	49.93	35.89	15.29	39.58
Y 74.0	50.95	37.42	15.07	38.87	49.53	35.37	14.19	39.06
Y 75.0	50.49	36.89	13.99	38.39	49.12	34.85	13.11	38.54
Y 76.0	50.01	36.36	12.92	37.90	48.69	34.35	12.06	38.04
Y 77.0	49.54	35.83	11.87	37.42	48.27	33.84	11.01	37.54
Y 78.0	49.03	35.30	10.84	36.93	47.81	33.34	9.98	37.02
Y 79.0	48.53	34.77	9.84	36.44	47.36	32.84	8.98	36.52
Y 80.0	48.00	34.24	8.85	35.94	46.88	32.35	8.01	36.00
Y 81.0	47.45	33.69	7.92	35.43	46.40	31.84	7.06	35.49
Y 82.0	46.89	33.16	7.01	34.92	45.90	31.33	6.17	34.97
Y 83.0	46.32	32.61	6.18	34.37	45.38	30.81	5.31	34.45
Y 84.0	45.72	32.06	5.36	33.83	44.82	30.31	4.54	33.90
Y 85.0	45.14	31.49	4.63	33.28	44.28	29.80	3.81	33.37
Y 86.0	44.56	30.96	4.03	32.70	43.74	29.26	3.20	32.84
Y 87.0	44.01	30.43	3.55	32.21	43.21	28.71	2.68	32.27
Y 88.0	43.42	29.91	3.13	31.71	42.67	28.20	2.28	31.73
Y 89.0	42.86	29.39	2.84	31.21	42.14	27.72	1.97	31.21
Y 90.0	42.28	28.84	2.66	30.71	41.60	27.23	1.76	30.68
Y 91.0	41.69	28.34	2.54	30.21	41.06	26.74	1.57	30.16
Y 92.0	41.10	27.85	2.53	29.73	40.53	26.26	1.59	28.75
Y 93.0	40.54	27.35	2.55	29.28	39.99	25.82	1.62	23.60

IES Indoor Report
Photometric Filename:F21-24V-5050-72-3000K.IES

Candela Tabulation - (Cont.)

V/H	C0.0	C45.0	C90.0	C135.0	C180.0	C225.0	C270.0	C315.0
Y 94.0	39.97	26.66	2.60	28.78	39.46	25.31	1.65	19.66
Y 95.0	39.36	25.90	2.64	28.11	38.92	24.64	1.67	21.30
Y 96.0	38.63	25.16	2.70	27.42	38.28	23.93	1.68	22.40
Y 97.0	37.78	24.39	2.76	26.73	37.56	23.26	1.71	20.57
Y 98.0	36.91	23.64	2.82	26.03	36.73	22.55	1.74	20.51
Y 99.0	36.05	22.93	2.86	25.31	35.93	21.87	1.77	21.18
Y 100.0	35.20	22.25	2.89	24.61	35.12	21.19	1.80	20.88
Y 101.0	34.39	21.73	2.95	23.94	34.34	20.56	1.80	20.80
Y 102.0	33.55	21.27	2.98	23.35	33.55	20.03	1.75	21.29
Y 103.0	32.75	20.84	2.98	22.86	32.79	19.61	1.83	20.93
Y 104.0	31.96	20.44	2.97	22.39	32.02	19.22	1.91	20.48
Y 105.0	31.21	20.06	2.93	21.81	31.26	18.86	1.92	19.77
Y 106.0	30.56	19.68	2.83	21.35	30.52	18.48	1.84	19.56
Y 107.0	29.65	18.99	2.77	20.57	29.60	17.78	1.78	19.05
Y 108.0	28.95	18.39	2.72	20.04	28.93	17.35	1.71	18.57
Y 109.0	28.44	17.68	2.72	19.60	28.43	16.94	1.65	18.35
Y 110.0	27.98	17.20	2.74	18.91	27.96	16.30	1.57	17.76
Y 111.0	27.50	16.70	2.73	18.33	27.50	15.70	1.55	17.05
Y 112.0	27.02	16.16	2.73	18.04	27.08	15.38	1.52	16.86
Y 113.0	26.56	15.94	2.72	17.78	26.60	15.14	1.50	16.60
Y 114.0	26.09	15.73	2.65	17.55	26.16	14.91	1.56	16.35
Y 115.0	25.62	15.51	2.54	17.34	25.73	14.69	1.64	16.15
Y 116.0	25.16	15.31	2.46	17.11	25.29	14.47	1.71	15.89
Y 117.0	24.69	15.09	2.41	16.86	24.85	14.26	1.76	15.56
Y 118.0	24.27	14.80	2.37	16.65	24.41	14.06	1.77	15.28
Y 119.0	23.83	14.54	2.38	16.43	23.99	13.86	1.70	15.01
Y 120.0	23.36	14.35	2.38	16.20	23.56	13.69	1.67	14.70
Y 121.0	22.91	14.23	2.40	15.97	23.13	13.51	1.63	14.50
Y 122.0	22.46	14.08	2.41	15.72	22.70	13.34	1.61	14.35
Y 123.0	22.01	13.83	2.43	15.47	22.29	13.16	1.57	14.17
Y 124.0	21.57	13.60	2.43	15.22	21.86	12.98	1.50	14.01
Y 125.0	21.15	13.37	2.43	14.98	21.46	12.82	1.25	13.82
Y 126.0	20.73	13.16	2.43	14.75	21.05	12.65	1.09	13.62
Y 127.0	20.31	12.96	2.41	14.49	20.66	12.48	1.03	13.41
Y 128.0	19.90	12.71	2.17	14.28	20.26	12.32	0.92	13.19
Y 129.0	19.48	12.31	1.91	14.04	19.86	12.16	0.89	12.98
Y 130.0	19.07	12.04	1.71	13.82	19.45	11.99	0.88	12.74
Y 131.0	18.67	11.91	1.59	13.59	19.07	11.83	0.88	12.53
Y 132.0	18.27	11.61	1.57	13.38	18.68	11.66	0.85	12.31
Y 133.0	17.87	11.22	1.53	13.16	18.30	11.51	0.84	11.96
Y 134.0	17.48	10.83	1.47	12.95	17.91	11.36	0.82	11.56
Y 135.0	17.09	10.26	1.39	12.74	17.54	11.19	0.76	11.19
Y 136.0	16.70	9.76	1.35	12.51	17.16	10.82	0.75	10.73
Y 137.0	16.33	9.47	1.29	12.29	16.80	10.35	0.72	10.09
Y 138.0	15.96	9.13	1.22	11.83	16.44	10.21	0.69	9.41
Y 139.0	15.59	8.81	1.17	11.50	16.07	9.98	0.66	9.08
Y 140.0	15.23	8.52	1.10	11.34	15.72	9.81	0.63	8.67

IES Indoor Report
Photometric Filename:F21-24V-5050-72-3000K.IES

Candela Tabulation - (Cont.)

V/H	C0.0	C45.0	C90.0	C135.0	C180.0	C225.0	C270.0	C315.0
Y 141.0	14.88	8.27	1.05	11.02	15.36	9.69	0.62	8.35
Y 142.0	14.53	8.00	1.01	10.74	15.02	9.58	0.60	8.06
Y 143.0	14.16	7.73	0.97	10.55	14.68	9.42	0.61	7.83
Y 144.0	13.84	7.47	0.93	10.38	14.34	9.28	0.61	7.58
Y 145.0	13.50	7.24	0.90	10.20	14.01	9.17	0.62	7.32
Y 146.0	13.15	7.04	0.86	10.03	13.68	9.05	0.62	7.06
Y 147.0	12.81	6.86	0.82	9.89	13.37	8.94	0.64	6.86
Y 148.0	12.43	6.74	0.79	9.77	12.99	8.81	0.65	6.62
Y 149.0	11.77	6.64	0.77	9.54	12.33	8.68	0.68	6.46
Y 150.0	11.33	6.54	0.75	9.34	11.88	8.54	0.69	6.37
Y 151.0	11.01	6.44	0.72	9.18	11.57	8.40	0.72	6.26
Y 152.0	10.60	6.32	0.71	9.00	11.29	8.28	0.76	6.15
Y 153.0	9.72	6.23	0.70	8.84	10.99	8.14	0.82	6.03
Y 154.0	9.39	6.14	0.69	8.68	10.73	8.01	0.88	5.90
Y 155.0	9.15	6.05	0.71	8.41	10.59	7.88	0.95	5.80
Y 156.0	8.48	5.85	0.69	8.25	10.26	7.79	1.02	5.68
Y 157.0	8.16	5.60	0.70	8.14	9.87	7.69	1.10	5.59
Y 158.0	7.97	5.36	0.75	8.00	9.59	7.53	1.18	5.50
Y 159.0	7.55	5.16	0.80	7.83	9.30	7.35	1.26	5.35
Y 160.0	6.94	4.98	0.84	7.63	9.05	7.20	1.33	5.07
Y 161.0	6.32	4.83	0.88	7.46	8.78	7.05	1.39	4.85
Y 162.0	6.63	4.69	0.93	7.31	8.51	6.91	1.47	4.71
Y 163.0	7.11	4.48	0.97	7.13	8.33	6.78	1.51	4.55
Y 164.0	7.06	3.98	1.02	6.84	8.14	6.63	1.57	4.42
Y 165.0	6.75	3.84	1.06	6.37	7.79	6.49	1.62	3.85
Y 166.0	6.51	3.78	1.11	6.20	7.48	6.32	1.66	3.64
Y 167.0	6.30	3.74	1.16	6.05	7.21	5.98	1.63	3.51
Y 168.0	6.03	3.67	1.23	5.86	6.94	5.85	1.63	3.48
Y 169.0	5.32	3.55	1.29	5.50	6.52	5.30	1.59	3.45
Y 170.0	5.00	3.29	1.37	4.97	6.24	5.07	1.57	3.41
Y 171.0	4.77	3.22	1.42	4.82	5.81	4.91	1.56	3.36
Y 172.0	4.22	3.14	1.47	4.66	5.39	4.72	1.54	3.28
Y 173.0	3.37	3.08	1.52	4.54	4.93	4.56	1.53	3.20
Y 174.0	2.62	3.02	1.52	4.36	4.68	4.40	1.52	3.17
Y 175.0	2.47	3.03	1.53	4.27	3.83	4.24	1.52	3.17
Y 176.0	2.35	2.79	1.53	4.12	3.15	4.01	1.51	3.03
Y 177.0	2.28	2.27	1.52	3.26	2.73	3.21	1.51	2.59
Y 178.0	2.11	1.95	1.52	2.32	1.51	2.35	1.53	1.96
Y 179.0	1.83	1.55	1.52	1.96	0.67	1.97	1.53	1.70
Y 180.0	1.32	1.32	1.32	1.32	1.32	1.32	1.32	1.32