IES Indoor Report
Photometric Filename:HCP-813054 6500K RA90 15D.IES

Indoor Luminaire Photometric Data

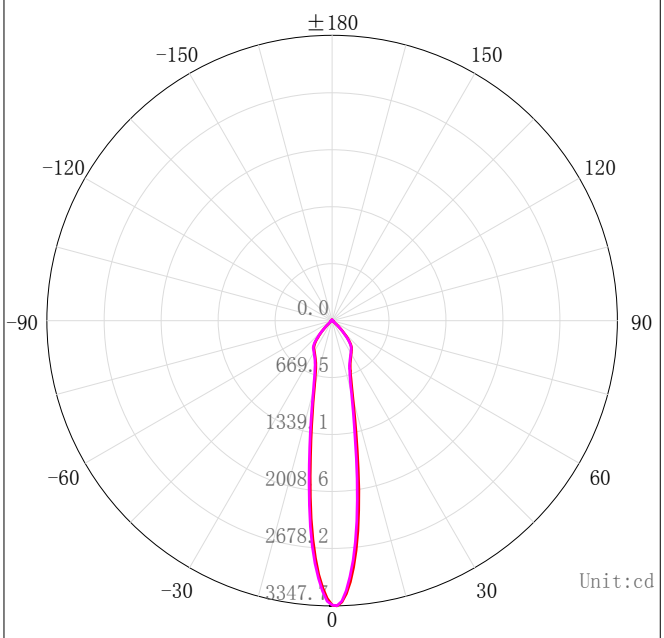
Description Information

Luminary Name: HCP-813054 6500K RA90 15D		Lum. Catelog:	Test ID: 01
Lamp Name:		Lamp Catelog: LED	Test Date: 2020/01/08
Manufacture: HAVIT COMMERCIAL		Shld.Ang(°):	Test Machine:GON-2000
Test Lab: QUalty peatment		Frequency(Hz):	Lamp CCT(K): Ra:
Lum.Size(W*L*H):0.498m*0.498m*0.750m		Lum.Area(m2):0.622	Lum.W(kg): 0.000
Test System: C, γ	Test Step: C=90.0 γ=1.0	Temp.(℃): 25	Humidity(%):

Character Parameter

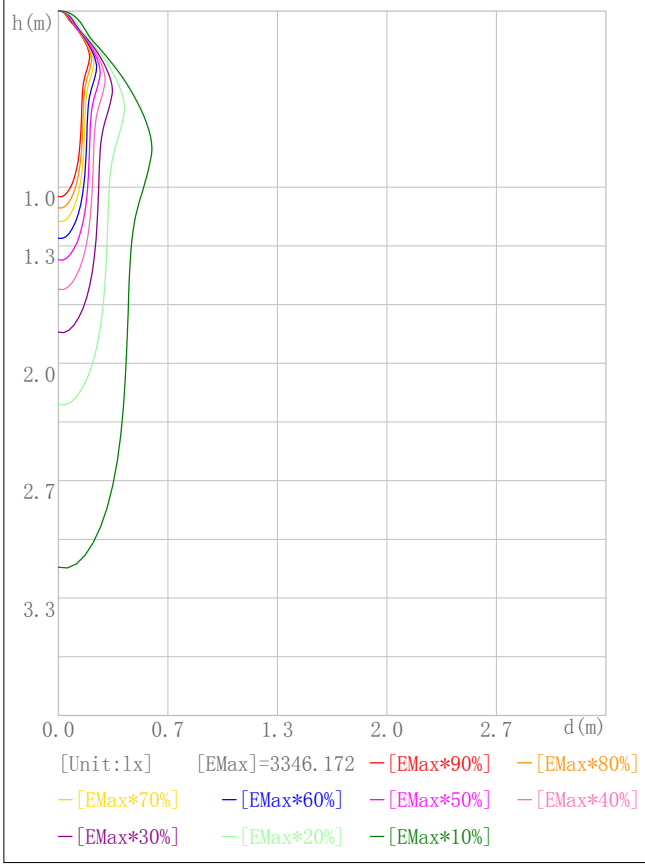
Lamp Speciality Parameter	Luminaire Speciality Parameter	
Rated Flux(lm): 1139.810	Luminary Flux(lm): 1139.813	Field Angle(10%Imax): 75.8(°)
Rated Power(W):	Luminary Efficiency: 100.00%	Down Lumens&Percent: 1107.357lm 97.15%
Rated Voltage(V):	Luminary EER(lm/W): 108.865	Up Lumens&Percent: 32.457lm 2.85%
Tested Power(W): 10.470	Max.Candela(cd): 3347.701	S/MH: C0_a180=0.328 C90_270=0.325
Lamps' Inside: 1	Max Cand@Ang.(°): C=0.0 γ=1.0	CIE Type: Semi-Direct
Tested Electrics(V,A,pf):34.9,0.299	Beam Angle(50%Imax): 19.2(°)	ErP Φuse(90°): 1009.232lm
Lamp Size(W*L*H):0.498m*0.498m*0.750m	Left=-8.7° ,Right=10.4°	IRF(%): 634.892

C Plane Distribution Diagram



C Plane	[50%MaxAng.]	[10%MaxAng.]
C0.0_180.0 :	19.2	75.8
C90.0_270.0 :	19.0	76.3

C0 Space ISO Illuminance Curve



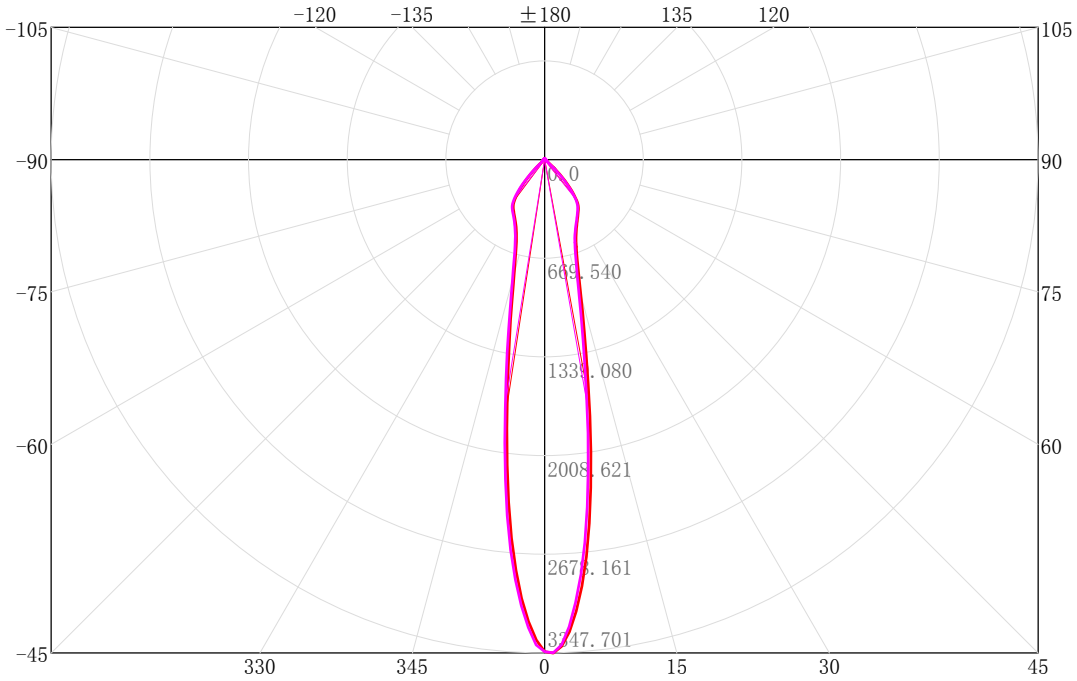
VOLNIC GON-2000 分布光度计,伏达光电技术有限公司
地址:杭州市益乐路223#银江科技园1幢3楼,邮编:310012
电话：(+86)571-88858219,88910474,www.volnic.cn

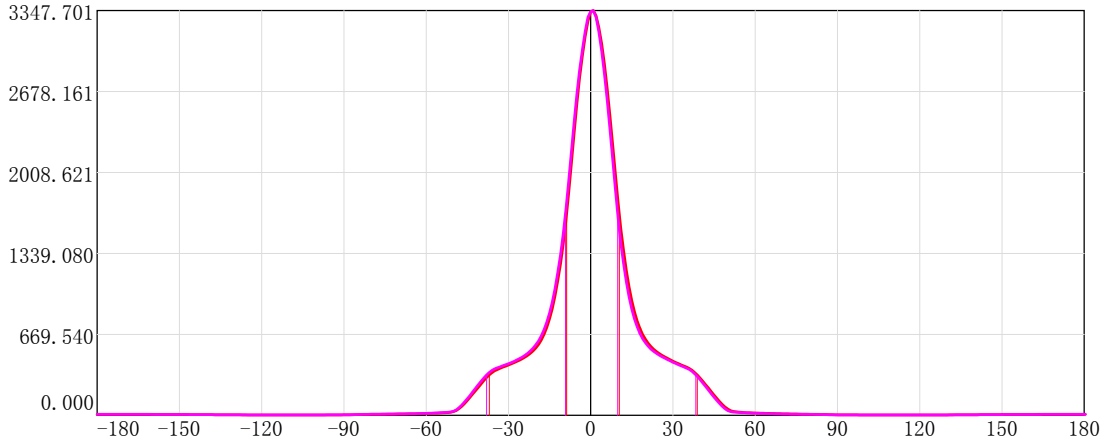
IES Indoor Report
Photometric Filename:HCP-813054 6500K RA90 15D.IES

2D Plane Light Intensity Distribution Curve

Lum.Name: HCP-813054 6500K RA90 15D	Lum.Catelog:	Test ID: 01
Lamp Name:	Lamp Catelog: LED	Test Lab: QUalty peatment
Manufacture: HAVIT COMMERCIAL	Test Machine:GON-2000	Test Date: 2020/01/08

C Plane Distribution Diagram





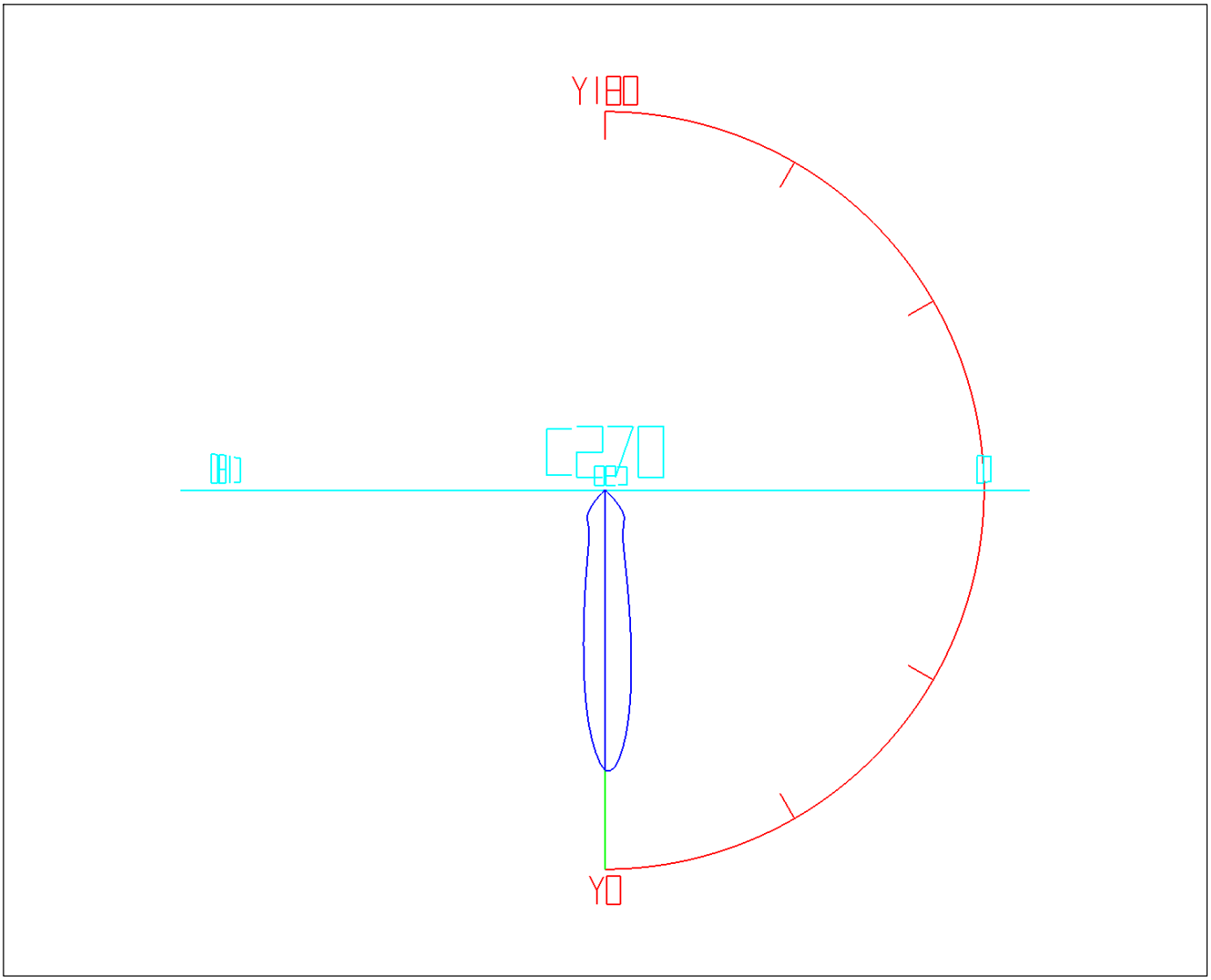
C Plane	[50%MaxAng.]	[10%MaxAng.]	Unit:cd
C0.0_180.0 :	19.2	75.8	
C90.0_270.0 :	19.0	76.3	

IES Indoor Report
Photometric Filename:HCP-813054 6500K RA90 15D.IES

3D Light Intensity Distribution Modal

Lum.Name: HCP-813054 6500K RA90 15D	Lum.Catelog:	Test ID: 01
Lamp Name:	Lamp Catelog: LED	Test Lab: QUalty peatment
Manufacture: HAVIT COMMERCIAL	Test Machine:GON-2000	Test Date: 2020/01/08

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:HCP-813054 6500K RA90 15D.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	3.18	3.18	0.28	0.28	47.0-48.0	6.70	1042.42	0.59	91.46
1.0-2.0	9.38	12.57	0.82	1.10	48.0-49.0	5.13	1047.55	0.45	91.91
2.0-3.0	15.13	27.69	1.33	2.43	49.0-50.0	3.87	1051.42	0.34	92.25
3.0-4.0	20.19	47.88	1.77	4.20	50.0-51.0	3.03	1054.44	0.27	92.51
4.0-5.0	24.41	72.29	2.14	6.34	51.0-52.0	2.57	1057.02	0.23	92.74
5.0-6.0	27.65	99.94	2.43	8.77	52.0-53.0	2.35	1059.37	0.21	92.94
6.0-7.0	29.82	129.76	2.62	11.38	53.0-54.0	2.21	1061.57	0.19	93.14
7.0-8.0	30.93	160.69	2.71	14.10	54.0-55.0	2.09	1063.67	0.18	93.32
8.0-9.0	31.13	191.82	2.73	16.83	55.0-56.0	2.00	1065.66	0.18	93.49
9.0-10.0	30.63	222.45	2.69	19.52	56.0-57.0	1.92	1067.58	0.17	93.66
10.0-11.0	29.70	252.15	2.61	22.12	57.0-58.0	1.84	1069.42	0.16	93.82
11.0-12.0	28.58	280.73	2.51	24.63	58.0-59.0	1.78	1071.20	0.16	93.98
12.0-13.0	27.39	308.13	2.40	27.03	59.0-60.0	1.73	1072.93	0.15	94.13
13.0-14.0	26.22	334.34	2.30	29.33	60.0-61.0	1.68	1074.61	0.15	94.28
14.0-15.0	25.15	359.49	2.21	31.54	61.0-62.0	1.63	1076.25	0.14	94.42
15.0-16.0	24.25	383.75	2.13	33.67	62.0-63.0	1.59	1077.83	0.14	94.56
16.0-17.0	23.53	407.27	2.06	35.73	63.0-64.0	1.54	1079.38	0.14	94.70
17.0-18.0	22.96	430.23	2.01	37.75	64.0-65.0	1.50	1080.88	0.13	94.83
18.0-19.0	22.56	452.79	1.98	39.73	65.0-66.0	1.46	1082.34	0.13	94.96
19.0-20.0	22.31	475.10	1.96	41.68	66.0-67.0	1.42	1083.77	0.12	95.08
20.0-21.0	22.19	497.29	1.95	43.63	67.0-68.0	1.39	1085.15	0.12	95.20
21.0-22.0	22.19	519.48	1.95	45.58	68.0-69.0	1.35	1086.50	0.12	95.32
22.0-23.0	22.28	541.76	1.95	47.53	69.0-70.0	1.32	1087.82	0.12	95.44
23.0-24.0	22.43	564.19	1.97	49.50	70.0-71.0	1.29	1089.11	0.11	95.55
24.0-25.0	22.62	586.81	1.98	51.48	71.0-72.0	1.26	1090.37	0.11	95.66
25.0-26.0	22.83	609.64	2.00	53.49	72.0-73.0	1.23	1091.60	0.11	95.77
26.0-27.0	23.05	632.69	2.02	55.51	73.0-74.0	1.20	1092.79	0.10	95.88
27.0-28.0	23.27	655.95	2.04	57.55	74.0-75.0	1.17	1093.96	0.10	95.98
28.0-29.0	23.47	679.43	2.06	59.61	75.0-76.0	1.13	1095.09	0.10	96.08
29.0-30.0	23.67	703.09	2.08	61.69	76.0-77.0	1.10	1096.19	0.10	96.17
30.0-31.0	23.85	726.94	2.09	63.78	77.0-78.0	1.07	1097.27	0.09	96.27
31.0-32.0	24.02	750.96	2.11	65.88	78.0-79.0	1.05	1098.32	0.09	96.36
32.0-33.0	24.16	775.11	2.12	68.00	79.0-80.0	1.03	1099.34	0.09	96.45
33.0-34.0	24.26	799.37	2.13	70.13	80.0-81.0	1.01	1100.35	0.09	96.54
34.0-35.0	24.28	823.65	2.13	72.26	81.0-82.0	0.98	1101.33	0.09	96.62
35.0-36.0	24.16	847.81	2.12	74.38	82.0-83.0	0.95	1102.28	0.08	96.71
36.0-37.0	23.78	871.58	2.09	76.47	83.0-84.0	0.91	1103.19	0.08	96.79
37.0-38.0	23.08	894.67	2.03	78.49	84.0-85.0	0.86	1104.04	0.08	96.86
38.0-39.0	22.09	916.76	1.94	80.43	85.0-86.0	0.79	1104.84	0.07	96.93
39.0-40.0	20.84	937.59	1.83	82.26	86.0-87.0	0.72	1105.56	0.06	96.99
40.0-41.0	19.38	956.97	1.70	83.96	87.0-88.0	0.65	1106.21	0.06	97.05
41.0-42.0	17.74	974.71	1.56	85.52	88.0-89.0	0.59	1106.80	0.05	97.10
42.0-43.0	15.96	990.67	1.40	86.92	89.0-90.0	0.56	1107.36	0.05	97.15
43.0-44.0	14.09	1004.76	1.24	88.15	90.0-91.0	0.55	1107.90	0.05	97.20
44.0-45.0	12.19	1016.96	1.07	89.22	91.0-92.0	0.53	1108.44	0.05	97.25
45.0-46.0	10.30	1027.26	0.90	90.13	92.0-93.0	0.52	1108.96	0.05	97.29
46.0-47.0	8.46	1035.72	0.74	90.87	93.0-94.0	0.51	1109.46	0.04	97.34

IES Indoor Report
Photometric Filename:HCP-813054 6500K RA90 15D.IES

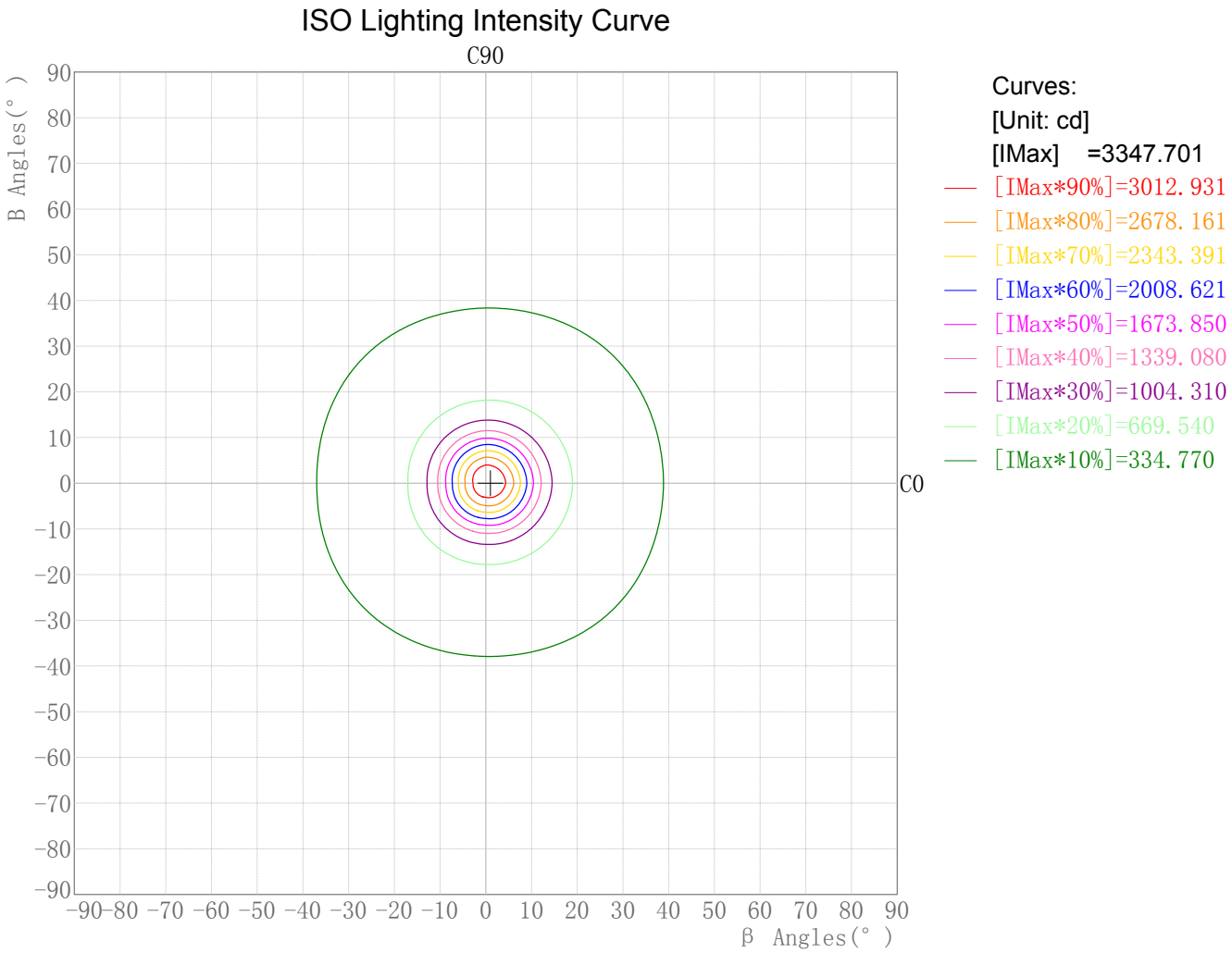
Zonal Flux Tabulation - (Cont.)

Zone(γ)	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	Sums%Lamp
94.0-95.0	0.50	1109.96	0.04	97.38
95.0-96.0	0.49	1110.45	0.04	97.42
96.0-97.0	0.48	1110.93	0.04	97.47
97.0-98.0	0.47	1111.39	0.04	97.51
98.0-99.0	0.46	1111.85	0.04	97.55
99.0-100.0	0.45	1112.30	0.04	97.59
100.0-101.0	0.44	1112.75	0.04	97.63
101.0-102.0	0.44	1113.19	0.04	97.66
102.0-103.0	0.43	1113.62	0.04	97.70
103.0-104.0	0.43	1114.04	0.04	97.74
104.0-105.0	0.42	1114.47	0.04	97.78
105.0-106.0	0.42	1114.88	0.04	97.81
106.0-107.0	0.41	1115.30	0.04	97.85
107.0-108.0	0.41	1115.71	0.04	97.89
108.0-109.0	0.41	1116.12	0.04	97.92
109.0-110.0	0.41	1116.52	0.04	97.96
110.0-111.0	0.40	1116.93	0.04	97.99
111.0-112.0	0.40	1117.33	0.04	98.03
112.0-113.0	0.40	1117.73	0.04	98.06
113.0-114.0	0.40	1118.13	0.03	98.10
114.0-115.0	0.40	1118.52	0.03	98.13
115.0-116.0	0.40	1118.92	0.03	98.17
116.0-117.0	0.39	1119.31	0.03	98.20
117.0-118.0	0.39	1119.70	0.03	98.24
118.0-119.0	0.39	1120.09	0.03	98.27
119.0-120.0	0.39	1120.49	0.03	98.30
120.0-121.0	0.39	1120.88	0.03	98.34
121.0-122.0	0.39	1121.27	0.03	98.37
122.0-123.0	0.39	1121.66	0.03	98.41
123.0-124.0	0.39	1122.05	0.03	98.44
124.0-125.0	0.39	1122.44	0.03	98.48
125.0-126.0	0.39	1122.83	0.03	98.51
126.0-127.0	0.39	1123.22	0.03	98.54
127.0-128.0	0.39	1123.61	0.03	98.58
128.0-129.0	0.39	1124.01	0.03	98.61
129.0-130.0	0.40	1124.41	0.03	98.65
130.0-131.0	0.40	1124.80	0.03	98.68
131.0-132.0	0.40	1125.21	0.04	98.72
132.0-133.0	0.40	1125.61	0.04	98.75
133.0-134.0	0.41	1126.01	0.04	98.79
134.0-135.0	0.41	1126.42	0.04	98.83
135.0-136.0	0.41	1126.83	0.04	98.86
136.0-137.0	0.41	1127.25	0.04	98.90
137.0-138.0	0.42	1127.67	0.04	98.93
138.0-139.0	0.42	1128.09	0.04	98.97
139.0-140.0	0.42	1128.51	0.04	99.01
140.0-141.0	0.43	1128.94	0.04	99.05
141.0-142.0	0.43	1129.37	0.04	99.08
142.0-143.0	0.43	1129.79	0.04	99.12
143.0-144.0	0.43	1130.22	0.04	99.16
144.0-145.0	0.43	1130.65	0.04	99.20
145.0-146.0	0.43	1131.08	0.04	99.23
146.0-147.0	0.43	1131.51	0.04	99.27
147.0-148.0	0.42	1131.93	0.04	99.31
148.0-149.0	0.42	1132.35	0.04	99.35
149.0-150.0	0.41	1132.76	0.04	99.38
150.0-151.0	0.41	1133.17	0.04	99.42
151.0-152.0	0.40	1133.57	0.04	99.45
152.0-153.0	0.39	1133.96	0.03	99.49
153.0-154.0	0.39	1134.35	0.03	99.52
154.0-155.0	0.38	1134.73	0.03	99.55
155.0-156.0	0.37	1135.09	0.03	99.59
156.0-157.0	0.36	1135.45	0.03	99.62
157.0-158.0	0.35	1135.79	0.03	99.65
158.0-159.0	0.33	1136.13	0.03	99.68
159.0-160.0	0.32	1136.45	0.03	99.71
160.0-161.0	0.31	1136.76	0.03	99.73
161.0-162.0	0.30	1137.06	0.03	99.76
162.0-163.0	0.28	1137.34	0.02	99.78
163.0-164.0	0.27	1137.62	0.02	99.81
164.0-165.0	0.26	1137.87	0.02	99.83
165.0-166.0	0.24	1138.12	0.02	99.85
166.0-167.0	0.23	1138.34	0.02	99.87
167.0-168.0	0.21	1138.56	0.02	99.89
168.0-169.0	0.20	1138.76	0.02	99.91
169.0-170.0	0.18	1138.94	0.02	99.92
170.0-171.0	0.17	1139.10	0.01	99.94
171.0-172.0	0.15	1139.25	0.01	99.95
172.0-173.0	0.13	1139.38	0.01	99.96
173.0-174.0	0.11	1139.50	0.01	99.97
174.0-175.0	0.10	1139.59	0.01	99.98
175.0-176.0	0.08	1139.67	0.01	99.99
176.0-177.0	0.06	1139.73	0.01	99.99
177.0-178.0	0.04	1139.78	0.00	100.00
178.0-179.0	0.03	1139.80	0.00	100.00
179.0-180.0	0.01	1139.81	0.00	100.00

IES Indoor Report
Photometric Filename:HCP-813054 6500K RA90 15D.IES

Rectangle ISO Lighting Intensity Diagram

Lum.Name: HCP-813054 6500K RA90 15D	Lum.Catelog:	Test ID: 01
Lamp Name:	Lamp Catelog: LED	Test Lab: QUalty peatment
Manufacture: HAVIT COMMERCIAL	Test Machine:GON-2000	Test Date: 2020/01/08



Maximum Light Intensity(cd): 3347.70
Maximum Cand.@Angle: H=1.0°,V=0.0°

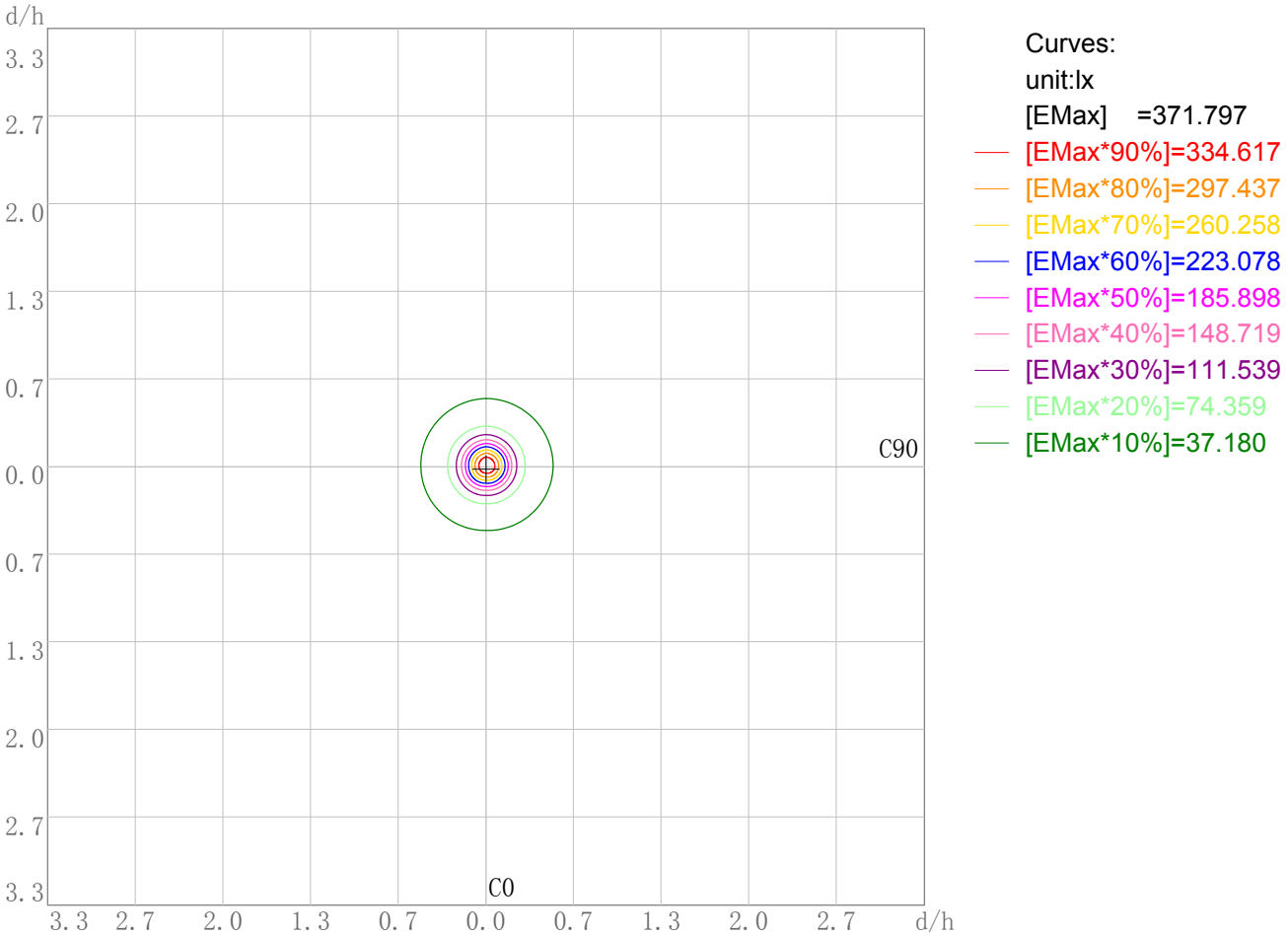
VOLNIC GON-2000 分布光度计,伏达光电技术有限公司
地址:杭州市益乐路223#银江科技园1幢3楼,邮编:310012
电话：(+86)571-88858219,88910474,www.volnic.cn

IES Indoor Report
Photometric Filename:HCP-813054 6500K RA90 15D.IES

Plane ISO-Illuminance Diagram

Lum.Name: HCP-813054 6500K RA90 15D	Lum.Catelog:	Test ID: 01
Lamp Name:	Lamp Catelog: LED	Test Lab: QUalty peatment
Manufacture: HAVIT COMMERCIAL	Test Machine:GON-2000	Test Date: 2020/01/08

Plane ISO-Illuminance Curve



Working Plane Luminaire Mounting Height(m): 3.00
Working Plane Maximum Illuminance(lx): 371.80
Working Plane Maximum Illuminance Position(d/h):H0.0 V0.0

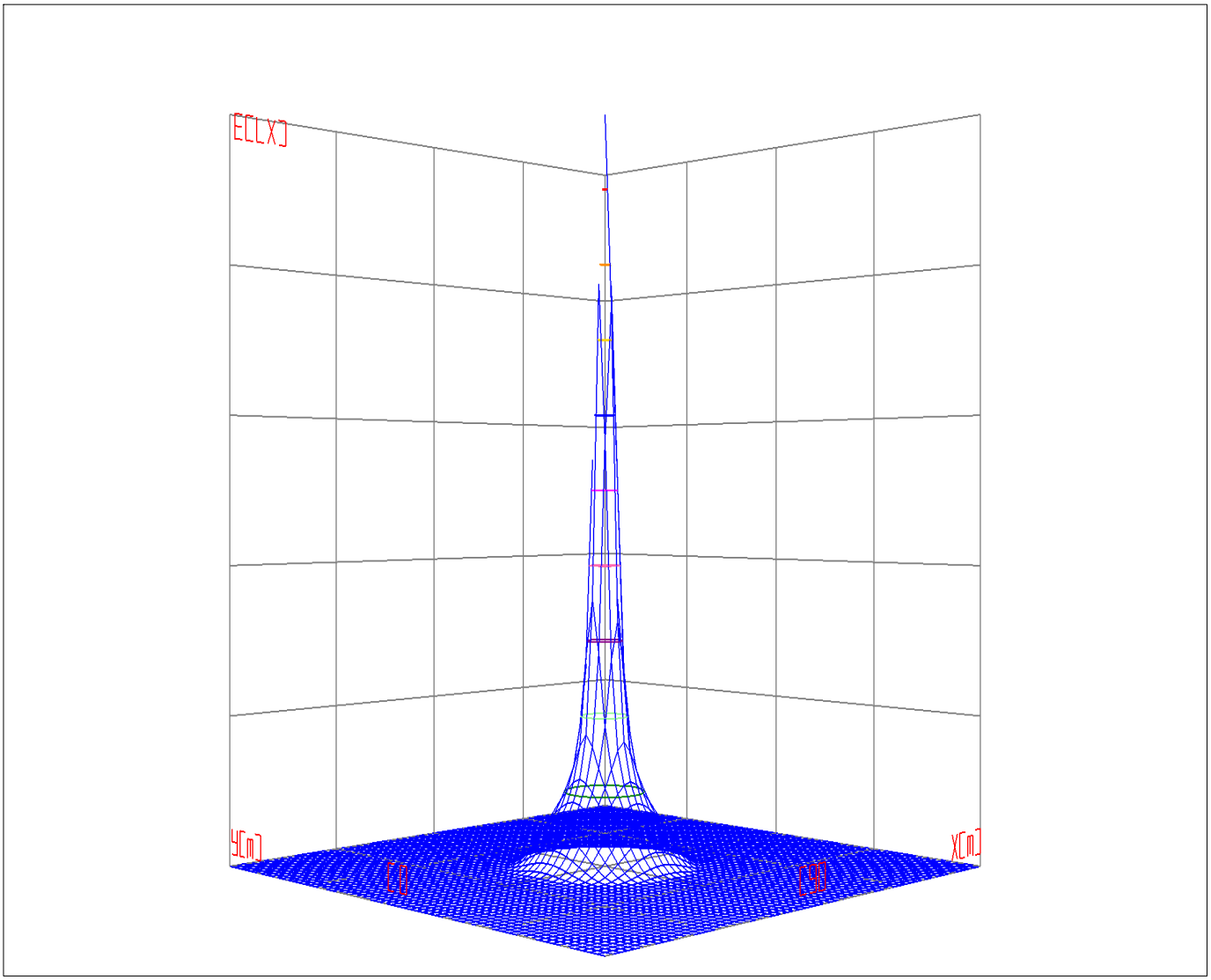
VOLNIC GON-2000 分布光度计,伏达光电技术有限公司
地址:杭州市益乐路223#银江科技园1幢3楼,邮编:310012
电话：(+86)571-88858219,88910474,www.volnic.cn

IES Indoor Report
Photometric Filename:HCP-813054 6500K RA90 15D.IES

3D Plane ISO Illuminance Diagram

Lum.Name: HCP-813054 6500K RA90 15D	Lum.Catelog:	Test ID: 01
Lamp Name:	Lamp Catelog: LED	Test Lab: QUalty peatment
Manufacture: HAVIT COMMERCIAL	Test Machine:GON-2000	Test Date: 2020/01/08

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

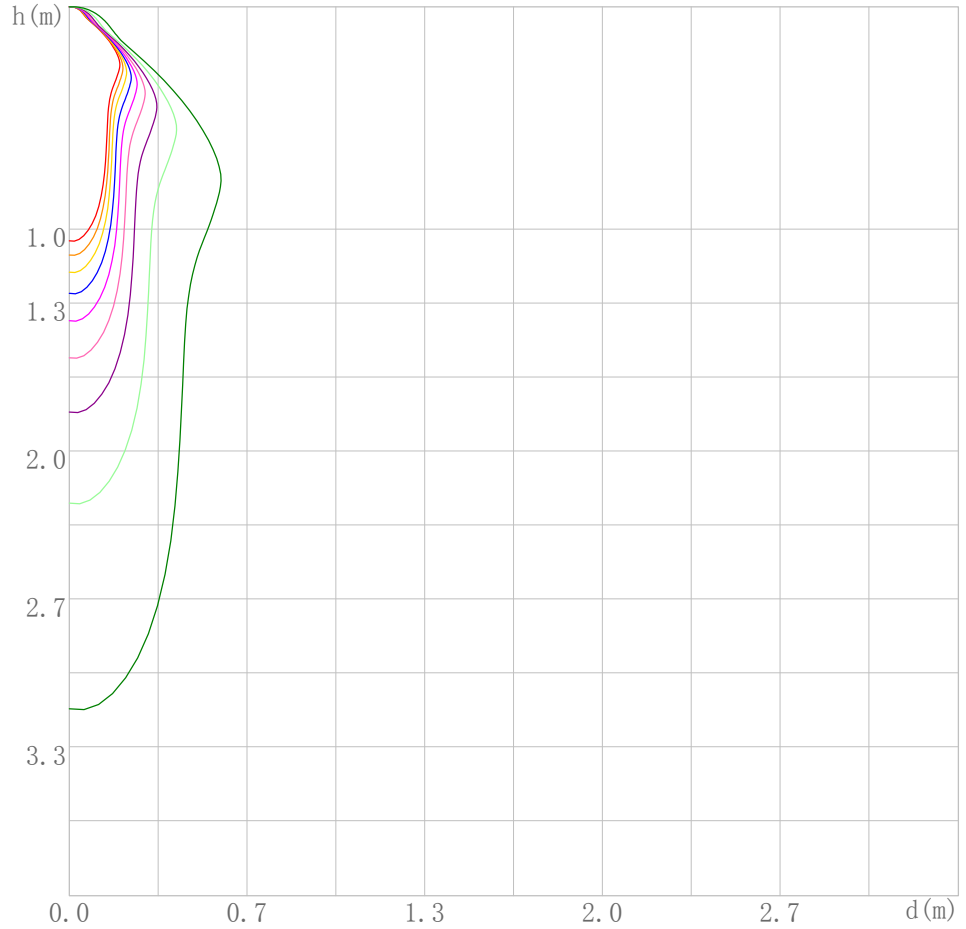
VOLNIC GON-2000 分布光度计,伏达光电技术有限公司
地址:杭州市益乐路223#银江科技园1幢3楼,邮编:310012
电话：(+86)571-88858219,88910474,www.volnic.cn

IES Indoor Report
Photometric Filename:HCP-813054 6500K RA90 15D.IES

Space ISO Illuminance Diagram

Lum.Name: HCP-813054 6500K RA90 15D	Lum.Catelog:	Test ID: 01
Lamp Name:	Lamp Catelog: LED	Test Lab: QUalty peatment
Manufacture: HAVIT COMMERCIAL	Test Machine:GON-2000	Test Date: 2020/01/08

Space ISO Illuminance Curve



Curves:
[Unit: lx]
[EMax] =3346.172
[EMax*90%]=3011.554
[EMax*80%]=2676.937
[EMax*70%]=2342.320
[EMax*60%]=2007.703
[EMax*50%]=1673.086
[EMax*40%]=1338.469
[EMax*30%]=1003.851
[EMax*20%]=669.234
[EMax*10%]=334.617

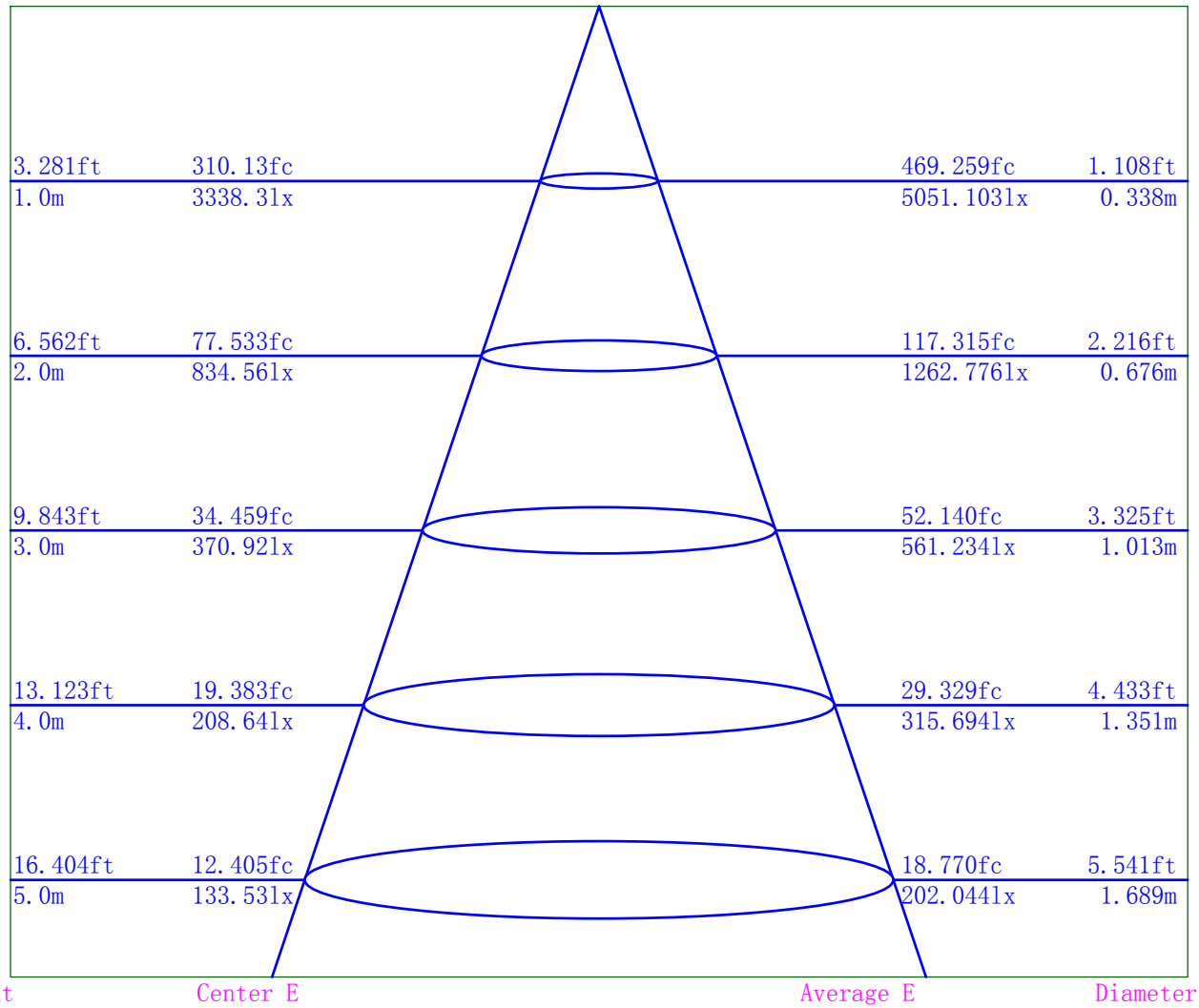
Space Plane Maximum Illuminance and @Angle:3346.17lx,1.0deg
Plane Maximum Lighting Intensity and @Angle:3347.701cd,0eg

IES Indoor Report
Photometric Filename:HCP-813054 6500K RA90 15D.IES

Illuminance-Distance Diagram

Lum.Name: HCP-813054 6500K RA90 15D	Lum.Catelog:	Test ID: 01
Lamp Name:	Lamp Catelog: LED	Test Lab: QUalty peatment
Manufacture: HAVIT COMMERCIAL	Test Machine:GON-2000	Test Date: 2020/01/08

Illuminance-Distance Curve



Beam Angle:19.2

VOLNIC GON-2000 分布光度计,伏达光电技术有限公司
地址:杭州市益乐路223#银江科技园1幢3楼,邮编:310012
电话：(+86)571-88858219,88910474,www.volnic.cn

IES Indoor Report
Photometric Filename:HCP-813054 6500K RA90 15D.IES

Indoor Luminance Limiting Curves

Lum.Name: HCP-813054 6500K RA90 15D	Lum.Catelog:	Test ID: 01
Lamp Name:	Lamp Catelog: LED	Test Lab: QUalty peatment
Manufacture: HAVIT COMMERCIAL	Test Machine:GON-2000	Test Date: 2020/01/08

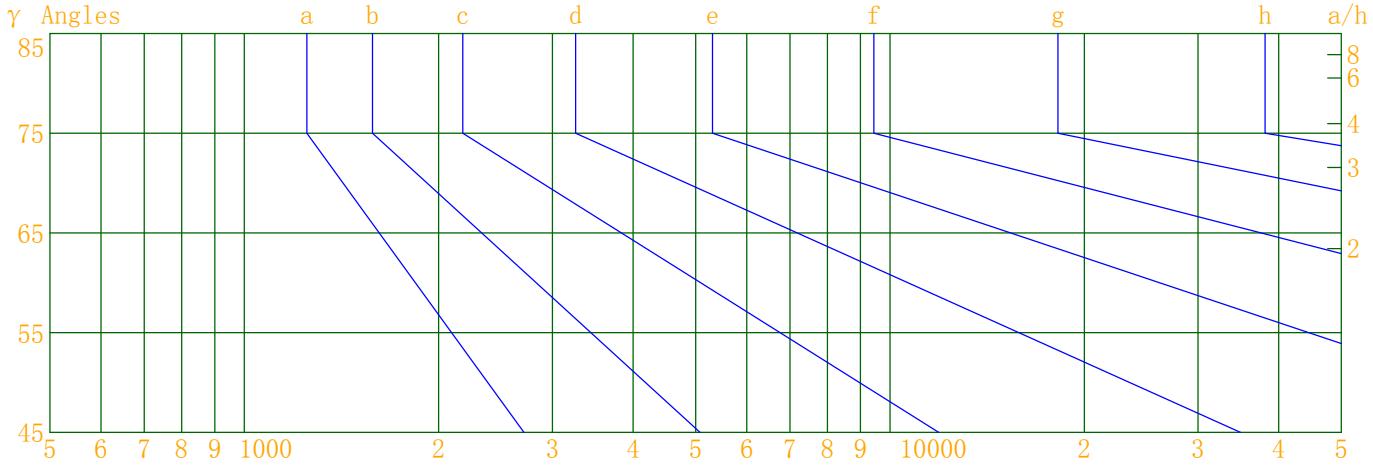
Glare Grade Table

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	384	132	72	65	63	65	72	91	150
C90	344	100	65	59	57	58	64	82	134

Luminance Limiting Curve



Luminous Size: Length(m)=0.498 Width(m)=0.498 Height(m)=0.750 Area(m^2)=0.621504

Luminous Type: Without Luminous Side

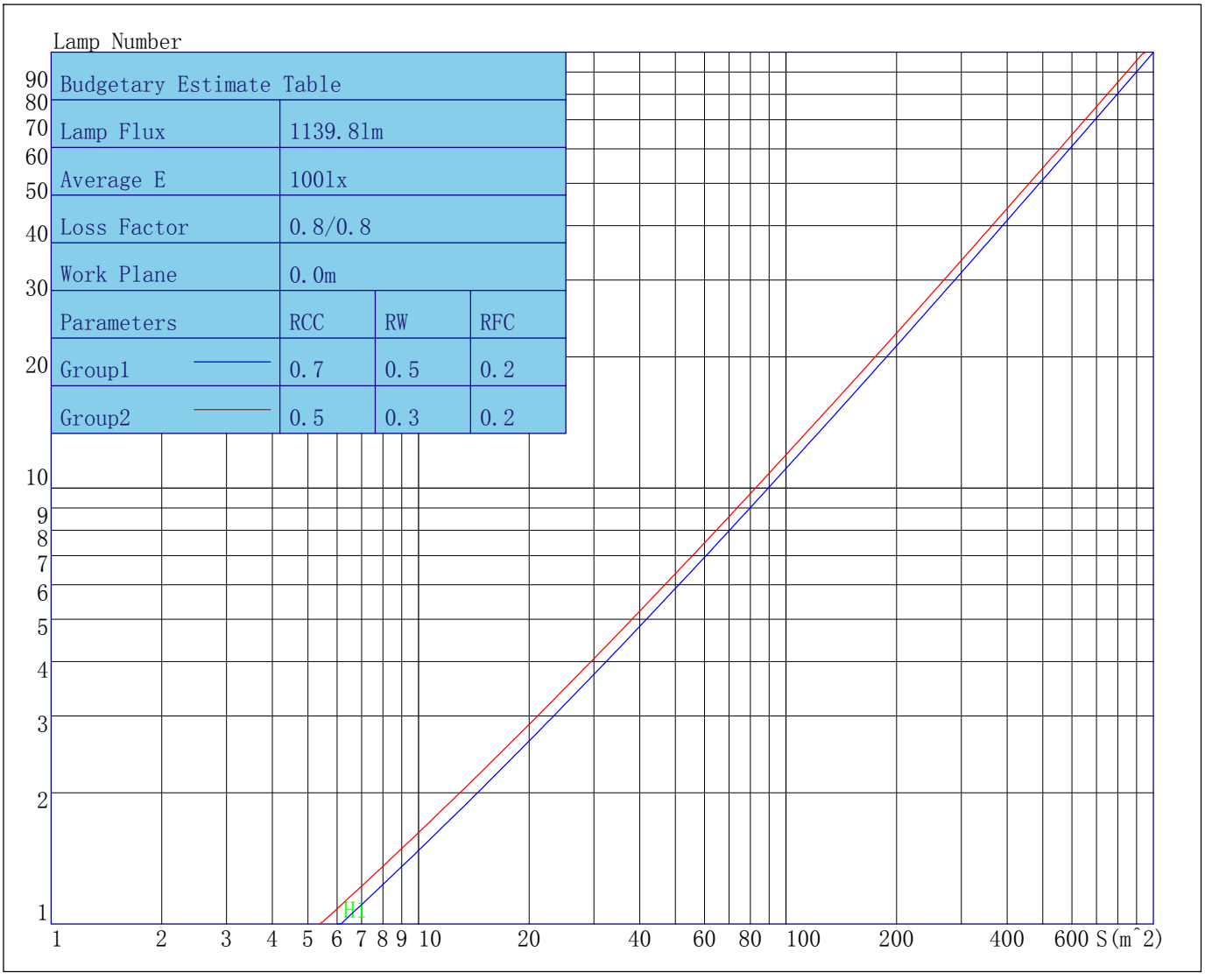
Luminous Curves: C0-C180 Color: C90-C270 Color:

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IES Indoor Report
Photometric Filename:HCP-813054 6500K RA90 15D.IES

Indoor Budgetary Estimate Table

Lum.Name: HCP-813054 6500K RA90 15D	Lum.Catelog:	Test ID: 01
Lamp Name:	Lamp Catelog: LED	Test Lab: QUalty peatment
Manufacture: HAVIT COMMERCIAL	Test Machine:GON-2000	Test Date: 2020/01/08



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

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电话：(+86)571-88858219,88910474,www.volnic.cn

IES Indoor Report
Photometric Filename:HCP-813054 6500K RA90 15D.IES

Indoor Coefficient of Utilization Table

Lum.Name: HCP-813054 6500K RA90 15D	Lum.Catelog:	Test ID: 01
Lamp Name:	Lamp Catelog: LED	Test Lab: QUalty peatment
Manufacture: HAVIT COMMERCIAL	Test Machine:GON-2000	Test Date: 2020/01/08

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	118	118	118	118	115	115	115	115	110	110	110	104	104	104	99	99	99	97
1	112	109	107	104	110	107	104	102	102	100	99	98	97	95	94	93	92	90
2	106	101	97	93	104	99	95	92	96	92	90	92	90	87	89	87	85	83
3	101	94	89	85	99	93	88	84	90	86	82	87	83	81	84	81	79	77
4	96	88	82	78	94	87	81	77	84	80	76	82	78	75	80	76	74	72
5	91	82	76	72	89	81	76	72	79	74	71	77	73	70	75	72	69	67
6	86	77	71	67	85	77	71	67	75	70	66	73	69	65	71	68	65	63
7	82	73	67	63	81	72	67	62	71	66	62	69	65	61	68	64	61	59
8	79	69	63	59	77	68	63	59	67	62	58	66	61	58	65	61	58	56
9	75	66	60	56	74	65	59	56	64	59	55	63	58	55	62	58	55	53
10	72	62	57	53	71	62	56	53	61	56	52	60	55	52	59	55	52	51

IES Indoor Report
Photometric Filename:HCP-813054 6500K RA90 15D.IES

Unified Glare Rating Table

Lum.Name: HCP-813054 6500K RA90 15D	Lum.Catelog:	Test ID: 01
Lamp Name:	Lamp Catelog: LED	Test Lab: QUalty peatment
Manufacture: HAVIT COMMERCIAL	Test Machine:GON-2000	Test Date: 2020/01/08

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	4.5	5.5	4.9	5.9	6.3	4.1	5.2	4.5	5.6	5.9
	Y=3H	4.5	5.4	4.9	5.8	6.3	4.1	5.1	4.6	5.5	5.9
	Y=4H	4.6	5.4	5.0	5.8	6.3	4.2	5.1	4.7	5.5	5.9
	Y=6H	4.7	5.5	5.2	5.9	6.4	4.3	5.1	4.8	5.5	6.0
	Y=8H	4.8	5.6	5.3	6.0	6.5	4.4	5.2	4.9	5.6	6.1
	Y=12H	5.0	5.7	5.5	6.1	6.6	4.6	5.3	5.0	5.7	6.2
X=4H	Y=2H	4.3	5.1	4.7	5.5	6.0	3.9	4.8	4.4	5.2	5.7
	Y=3H	4.4	5.1	4.9	5.6	6.0	4.0	4.7	4.5	5.2	5.7
	Y=4H	4.5	5.2	5.0	5.7	6.2	4.2	4.8	4.6	5.3	5.8
	Y=6H	4.8	5.4	5.3	5.9	6.4	4.4	5.0	4.9	5.5	6.0
	Y=8H	5.0	5.5	5.6	6.0	6.6	4.6	5.1	5.1	5.6	6.2
	Y=12H	5.3	5.8	5.9	6.3	6.9	4.9	5.3	5.4	5.9	6.4
X=8H	Y=4H	4.5	5.0	5.0	5.5	6.1	4.1	4.7	4.7	5.2	5.7
	Y=6H	4.9	5.4	5.5	5.9	6.5	4.5	5.0	5.1	5.5	6.1
	Y=8H	5.3	5.7	5.9	6.2	6.8	4.9	5.2	5.4	5.8	6.4
	Y=12H	5.8	6.1	6.3	6.6	7.3	5.3	5.6	5.9	6.2	6.8
X=12H	Y=4H	4.5	5.0	5.0	5.5	6.0	4.1	4.6	4.7	5.1	5.7
	Y=6H	5.0	5.4	5.6	5.9	6.5	4.6	5.0	5.2	5.5	6.1
	Y=8H	5.4	5.7	6.0	6.3	6.9	5.0	5.3	5.5	5.9	6.5
Variations with the objerver position at spacings											
S=1.0H		0.1/-0.1					0.1/-0.1				
S=1.5H		0.2/-0.2					0.2/-0.2				
S=2.0H		0.2/-0.2					0.2/-0.2				
Reduced UGR Table:											
Nordic Standard Table:		BK0					BK0				
Correction Value		1.3					1.2				

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

IES Indoor Report
Photometric Filename:HCP-813054 6500K RA90 15D.IES

Candela Tabulation

V/H	C0.0	C90.0	C180.0	C270.0
γ0.0	3338.25	3338.25	3338.25	3338.25
γ1.0	3347.70	3345.99	3259.17	3292.58
γ2.0	3303.99	3292.77	3134.19	3175.53
γ3.0	3208.20	3172.43	2980.11	3029.29
γ4.0	3071.92	3011.69	2793.40	2856.20
γ5.0	2905.13	2824.35	2577.34	2656.61
γ6.0	2707.87	2612.34	2336.32	2428.10
γ7.0	2485.27	2373.72	2086.19	2184.45
γ8.0	2247.75	2126.00	1841.69	1941.52
γ9.0	2005.41	1877.85	1615.89	1709.10
γ10.0	1767.16	1637.62	1421.49	1504.17
γ11.0	1549.85	1425.79	1254.82	1329.23
γ12.0	1360.18	1251.76	1110.20	1177.52
γ13.0	1199.17	1103.98	985.42	1044.98
γ14.0	1062.50	979.42	881.88	935.07
γ15.0	948.49	878.03	797.39	845.12
γ16.0	855.89	796.74	728.07	771.00
γ17.0	779.89	731.27	671.13	709.20
γ18.0	717.89	677.66	625.06	658.47
γ19.0	668.47	634.42	587.65	617.15
γ20.0	628.12	599.00	557.54	583.19
γ21.0	595.31	571.06	532.71	555.12
γ22.0	568.74	548.30	512.78	532.69
γ23.0	546.60	529.72	495.65	513.24
γ24.0	527.68	513.08	481.10	496.76
γ25.0	511.57	498.99	467.85	481.85
γ26.0	497.26	485.68	456.20	469.09
γ27.0	484.09	473.41	445.42	457.36
γ28.0	471.89	461.78	435.27	446.46
γ29.0	459.97	450.58	425.81	436.69
γ30.0	448.93	439.94	416.61	427.59
γ31.0	438.43	429.61	407.87	419.14
γ32.0	428.27	419.88	398.99	410.90
γ33.0	418.55	410.12	390.39	402.70
γ34.0	408.80	400.75	380.35	394.54
γ35.0	398.96	390.86	368.69	384.49
γ36.0	387.43	379.31	353.24	371.57
γ37.0	372.74	363.25	334.16	354.25
γ38.0	353.86	343.16	311.80	332.88
γ39.0	332.00	319.57	286.87	308.54
γ40.0	307.34	293.70	259.90	282.11
γ41.0	280.79	266.24	232.17	254.27
γ42.0	252.62	237.66	204.48	224.89
γ43.0	224.52	208.39	176.71	194.38
γ44.0	196.41	179.25	149.28	164.59
γ45.0	168.68	150.98	122.74	137.03
γ46.0	141.38	124.28	97.91	110.84

IES Indoor Report
Photometric Filename:HCP-813054 6500K RA90 15D.IES

Candela Tabulation - (Cont.)

V/H	C0.0	C90.0	C180.0	C270.0
γ47.0	115.49	98.78	75.46	86.20
γ48.0	91.38	74.97	56.54	64.24
γ49.0	70.08	54.97	41.35	46.35
γ50.0	52.63	40.06	31.29	34.67
γ51.0	39.87	31.58	26.46	29.44
γ52.0	32.87	28.42	24.26	26.93
γ53.0	29.92	26.26	22.53	24.93
γ54.0	27.76	24.54	21.11	23.24
γ55.0	25.84	23.00	19.99	22.00
γ56.0	24.36	21.84	18.91	20.77
γ57.0	23.09	20.70	18.07	19.84
γ58.0	21.94	19.78	17.20	18.89
γ59.0	21.00	18.89	16.55	18.18
γ60.0	20.06	18.20	15.93	17.52
γ61.0	19.31	17.50	15.35	16.88
γ62.0	18.59	16.85	14.79	16.26
γ63.0	17.91	16.20	14.29	15.69
γ64.0	17.23	15.59	13.83	15.16
γ65.0	16.60	15.00	13.37	14.66
γ66.0	15.99	14.43	12.96	14.20
γ67.0	15.41	13.89	12.58	13.78
γ68.0	14.85	13.37	12.24	13.38
γ69.0	14.32	12.89	11.93	13.04
γ70.0	13.82	12.43	11.65	12.71
γ71.0	13.34	11.98	11.36	12.41
γ72.0	12.89	11.55	11.08	12.13
γ73.0	12.43	11.14	10.79	11.84
γ74.0	12.01	10.76	10.50	11.54
γ75.0	11.58	10.36	10.22	11.24
γ76.0	11.16	9.99	9.93	10.94
γ77.0	10.76	9.64	9.68	10.64
γ78.0	10.40	9.31	9.45	10.37
γ79.0	10.06	9.05	9.28	10.10
γ80.0	9.82	8.87	9.10	9.94
γ81.0	9.56	8.72	8.96	9.58
γ82.0	9.24	8.47	8.41	9.40
γ83.0	9.11	8.02	8.08	8.98
γ84.0	8.53	7.67	7.64	8.52
γ85.0	8.14	7.26	6.95	8.03
γ86.0	7.69	6.63	6.20	7.25
γ87.0	6.98	5.90	5.56	6.51
γ88.0	6.29	5.26	4.96	5.81
γ89.0	5.61	4.74	4.83	5.56
γ90.0	5.41	4.62	4.72	5.41
γ91.0	5.28	4.53	4.59	5.28
γ92.0	5.16	4.43	4.49	5.14
γ93.0	5.05	4.34	4.38	5.02

IES Indoor Report
Photometric Filename:HCP-813054 6500K RA90 15D.IES

Candela Tabulation - (Cont.)

V/H	C0.0	C90.0	C180.0	C270.0
γ 94.0	4.95	4.25	4.29	4.90
γ 95.0	4.84	4.18	4.21	4.80
γ 96.0	4.74	4.11	4.13	4.69
γ 97.0	4.66	4.03	4.05	4.61
γ 98.0	4.58	3.98	3.99	4.51
γ 99.0	4.50	3.92	3.93	4.44
γ 100.0	4.44	3.87	3.89	4.38
γ 101.0	4.38	3.82	3.85	4.33
γ 102.0	4.32	3.80	3.82	4.27
γ 103.0	4.27	3.77	3.79	4.23
γ 104.0	4.23	3.74	3.78	4.20
γ 105.0	4.20	3.73	3.77	4.17
γ 106.0	4.17	3.71	3.76	4.15
γ 107.0	4.15	3.70	3.76	4.13
γ 108.0	4.13	3.70	3.76	4.12
γ 109.0	4.12	3.70	3.77	4.11
γ 110.0	4.09	3.69	3.78	4.12
γ 111.0	4.09	3.69	3.81	4.12
γ 112.0	4.08	3.70	3.83	4.13
γ 113.0	4.07	3.71	3.86	4.16
γ 114.0	4.07	3.72	3.89	4.16
γ 115.0	4.07	3.73	3.93	4.20
γ 116.0	4.07	3.74	3.98	4.22
γ 117.0	4.07	3.76	4.01	4.26
γ 118.0	4.08	3.78	4.05	4.29
γ 119.0	4.09	3.80	4.11	4.32
γ 120.0	4.11	3.83	4.15	4.37
γ 121.0	4.12	3.86	4.21	4.42
γ 122.0	4.16	3.89	4.28	4.46
γ 123.0	4.19	3.94	4.33	4.51
γ 124.0	4.22	3.99	4.39	4.56
γ 125.0	4.28	4.05	4.47	4.62
γ 126.0	4.32	4.11	4.53	4.69
γ 127.0	4.39	4.17	4.62	4.75
γ 128.0	4.45	4.25	4.71	4.83
γ 129.0	4.53	4.34	4.80	4.90
γ 130.0	4.61	4.43	4.90	4.99
γ 131.0	4.70	4.53	5.00	5.08
γ 132.0	4.79	4.63	5.11	5.18
γ 133.0	4.89	4.74	5.24	5.29
γ 134.0	5.00	4.86	5.38	5.41
γ 135.0	5.11	4.98	5.51	5.55
γ 136.0	5.23	5.11	5.67	5.68
γ 137.0	5.35	5.25	5.82	5.83
γ 138.0	5.51	5.40	5.98	5.99
γ 139.0	5.65	5.55	6.15	6.15
γ 140.0	5.81	5.71	6.31	6.30

IES Indoor Report
Photometric Filename:HCP-813054 6500K RA90 15D.IES

Candela Tabulation - (Cont.)

V/H	C0.0	C90.0	C180.0	C270.0
γ 141.0	5.95	5.86	6.47	6.46
γ 142.0	6.10	6.03	6.64	6.63
γ 143.0	6.26	6.18	6.80	6.78
γ 144.0	6.42	6.35	6.96	6.94
γ 145.0	6.57	6.50	7.12	7.09
γ 146.0	6.72	6.66	7.25	7.23
γ 147.0	6.88	6.81	7.38	7.35
γ 148.0	7.02	6.96	7.51	7.48
γ 149.0	7.16	7.08	7.64	7.59
γ 150.0	7.30	7.22	7.74	7.70
γ 151.0	7.43	7.34	7.86	7.80
γ 152.0	7.56	7.46	7.95	7.90
γ 153.0	7.67	7.57	8.05	7.99
γ 154.0	7.79	7.68	8.14	8.07
γ 155.0	7.90	7.77	8.23	8.15
γ 156.0	8.00	7.86	8.31	8.23
γ 157.0	8.10	7.95	8.39	8.31
γ 158.0	8.19	8.03	8.48	8.39
γ 159.0	8.29	8.13	8.56	8.46
γ 160.0	8.38	8.21	8.64	8.54
γ 161.0	8.47	8.29	8.71	8.61
γ 162.0	8.55	8.38	8.78	8.67
γ 163.0	8.65	8.48	8.85	8.75
γ 164.0	8.74	8.56	8.92	8.80
γ 165.0	8.81	8.65	8.98	8.87
γ 166.0	8.88	8.73	9.05	8.92
γ 167.0	8.95	8.81	9.09	8.98
γ 168.0	9.01	8.88	9.14	9.02
γ 169.0	9.08	8.95	9.17	9.06
γ 170.0	9.13	9.01	9.20	9.09
γ 171.0	9.17	9.06	9.22	9.11
γ 172.0	9.21	9.10	9.24	9.13
γ 173.0	9.24	9.12	9.25	9.14
γ 174.0	9.25	9.13	9.25	9.16
γ 175.0	9.27	9.16	9.26	9.17
γ 176.0	9.27	9.17	9.25	9.18
γ 177.0	9.28	9.19	9.26	9.21
γ 178.0	9.28	9.19	9.27	9.23
γ 179.0	9.30	9.19	9.30	9.26
γ 180.0	9.28	9.28	9.28	9.28