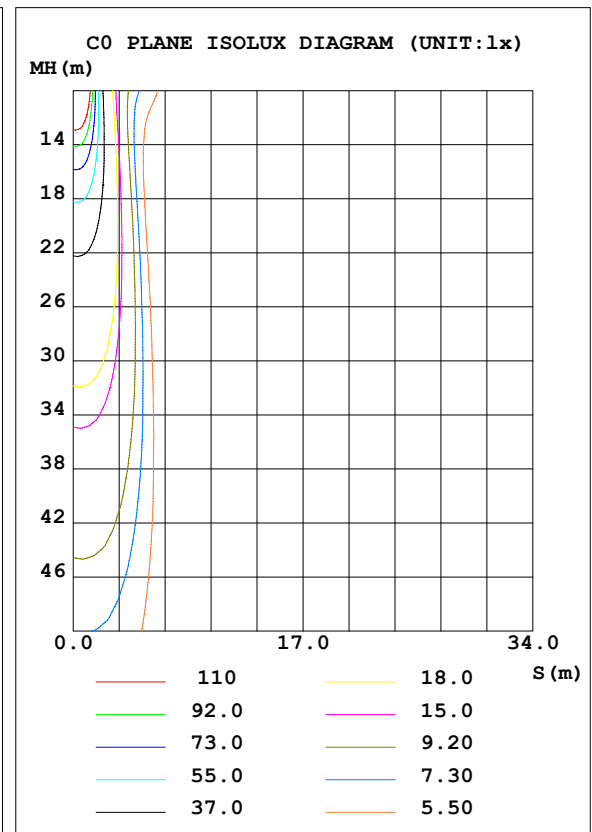
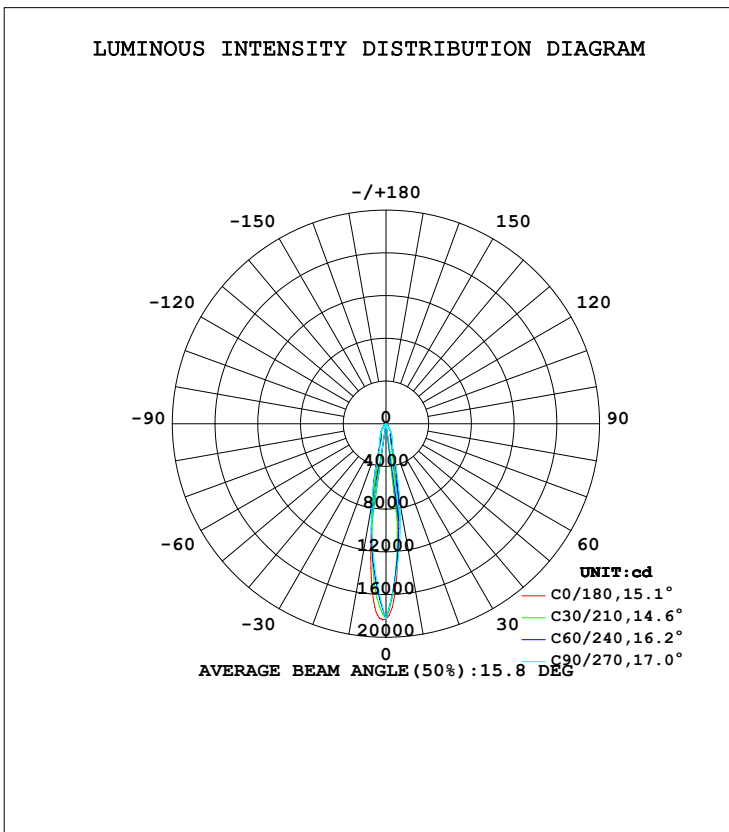


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: Infero Hori 30W-15D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	Infero Hori 30W-15D-3000K-90	Imax (cd)	18359	S/MH (C0/180)	0.29
NOMINAL POWER (W)	28	LOR (%)	100.0	S/MH (C90/270)	0.29
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	2767.9	η UP, DN (C0-180)	0.0, 50.0
NOMINAL FLUX (lm)	2767.9	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 50.0
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE (V)	230.0	η down (%)	100.0	CIBSE SHR MAX	1.00



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DOBAC
Test Date: 2017-11-09

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity: 65.0%
Test Distance: 6.960m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	lum, lamp
5	1532	1360	1291	1204	1260	1206	1294	1362	0- 5	360.5	360.5	13,13
10	651.4	697.0	752.8	538.8	479.6	541.4	758.9	700.3	5- 10	656.2	1017	36.7,36.7
15	245.5	273.5	214.7	221.2	190.7	223.2	223.9	277.5	10- 15	473.6	1490	53.8,53.8
20	134.4	131.5	173.7	122.4	118.6	123.7	180.2	135.1	15- 20	283.1	1773	64.1,64.1
25	103.5	101.7	132.8	97.73	99.51	97.68	136.5	103.8	20- 25	256.9	2030	73.3,73.3
30	93.73	80.10	91.75	74.84	90.92	73.85	92.80	81.03	25- 30	250.2	2280	82.4,82.4
35	70.66	53.50	62.79	44.27	53.49	43.07	63.61	52.62	30- 35	221.5	2502	90.4,90.4
40	16.41	20.66	33.82	11.45	7.403	10.42	34.42	18.87	35- 40	138.3	2640	95.4,95.4
45	4.917	7.598	4.852	5.871	4.833	5.900	5.230	7.135	40- 45	58.64	2699	97.5,97.5
50	6.354	5.956	3.548	5.421	6.646	5.244	3.803	6.161	45- 50	25.86	2725	98.4,98.4
55	5.287	5.151	2.244	4.294	3.985	4.067	2.377	5.220	50- 55	21.10	2746	99.2,99.2
60	1.046	2.631	0.9392	2.078	0.8766	1.980	0.9504	2.629	55- 60	11.79	2758	99.6,99.6
65	0.5923	1.024	0.7297	0.8351	0.5939	0.8297	0.7264	1.006	60- 65	4.742	2762	99.8,99.8
70	0.4227	0.4368	0.5202	0.4039	0.4229	0.4033	0.5025	0.4168	65- 70	2.717	2765	99.9,99.9
75	0.2869	0.2854	0.3107	0.2000	0.2794	0.1922	0.2785	0.2293	70- 75	1.876	2767	100,100
80	0.0195	0.1171	0	0.0219	0.0137	0.0107	0	0.0363	75- 80	0.8853	2768	100,100
85	0.0035	0	0	0	0.0050	0	0	0	80- 85	0.0659	2768	100,100
90	0.0021	0	0	0	0.0022	0	0	0	85- 90	0.0033	2768	100,100
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:×10cd								UNIT:lm			

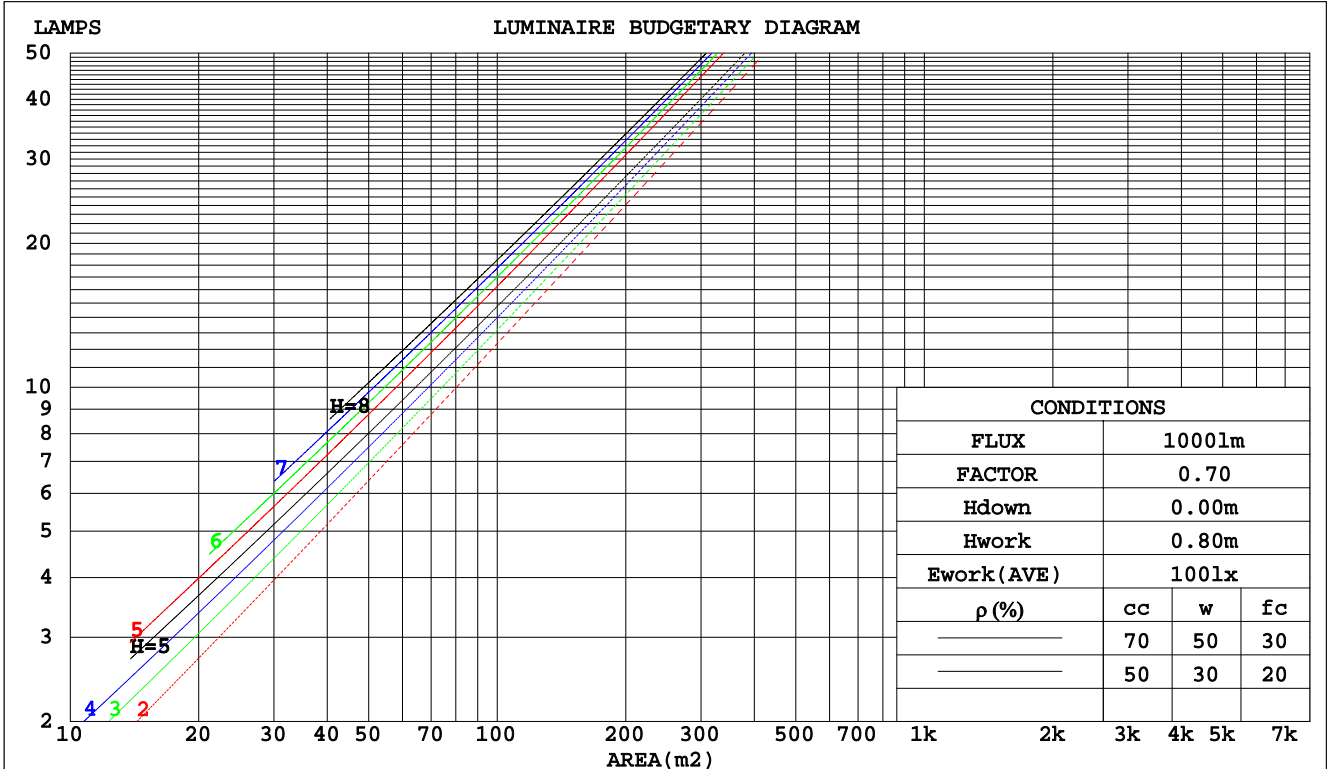
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-09

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity:65.0%
Test Distance:6.960m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: Infero Hori 30W-15D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pw																
pfc																
RCR	RCR:Room Cavity Ratio Coefficients of Utilization(CU)															
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	.00
1.0	1.12	1.10	1.08	1.10	1.08	1.07	1.06	1.05	1.03	1.02	1.01	1.00	.99	.98	.97	.96
2.0	1.06	1.03	1.00	1.05	1.02	.99	1.01	.99	.97	.99	.97	.95	.96	.94	.93	.91
3.0	1.01	.97	.94	.90	.96	.93	.97	.94	.92	.95	.92	.90	.93	.91	.89	.87
4.0	.96	.92	.88	.95	.91	.88	.93	.90	.87	.91	.88	.86	.89	.87	.85	.84
5.0	.92	.87	.84	.91	.87	.84	.89	.86	.83	.88	.85	.82	.87	.84	.82	.80
6.0	.88	.84	.80	.88	.83	.80	.86	.82	.79	.85	.82	.79	.84	.81	.78	.77
7.0	.85	.80	.77	.84	.80	.77	.83	.79	.76	.82	.79	.76	.81	.78	.76	.74
8.0	.82	.77	.74	.81	.77	.74	.80	.76	.74	.79	.76	.73	.79	.75	.73	.72
9.0	.79	.74	.71	.79	.74	.71	.78	.74	.71	.77	.73	.71	.76	.73	.71	.70
10.0	.77	.72	.69	.76	.72	.69	.75	.72	.69	.75	.71	.69	.74	.71	.69	.68



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DOBAC
Test Date: 2017-11-09

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity: 65.0%
Test Distance: 6.960m [K=1.0000]
Remarks:

WEC AND CCEC

NAME: Infero Hori 30W-15D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.149	.085	.027	.142	.081	.026	.130	.074	.024	.118	.068	.022	.108	.062	.020	
2.0	.140	.077	.024	.135	.074	.023	.124	.069	.021	.115	.064	.020	.106	.060	.019	
3.0	.132	.070	.021	.127	.068	.020	.118	.064	.020	.110	.061	.019	.103	.057	.018	
4.0	.124	.065	.019	.120	.063	.019	.113	.060	.018	.106	.057	.017	.100	.054	.016	
5.0	.117	.060	.017	.114	.059	.017	.108	.056	.017	.102	.054	.016	.096	.051	.015	
6.0	.111	.056	.016	.108	.055	.016	.103	.053	.015	.098	.051	.015	.093	.049	.015	
7.0	.106	.052	.015	.103	.051	.015	.098	.050	.014	.094	.048	.014	.090	.047	.014	
8.0	.101	.049	.014	.098	.048	.014	.094	.047	.013	.090	.046	.013	.086	.044	.013	
9.0	.096	.046	.013	.094	.046	.013	.090	.045	.013	.087	.043	.012	.083	.042	.012	
10.0	.092	.044	.012	.090	.043	.012	.087	.042	.012	.084	.041	.012	.081	.041	.012	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.169	.158	.147	.145	.135	.127	.099	.093	.088	.057	.054	.051	.018	.017	.016	
2.0	.152	.133	.116	.130	.114	.101	.089	.079	.070	.051	.046	.041	.017	.015	.013	
3.0	.138	.113	.094	.118	.098	.081	.081	.068	.057	.047	.040	.034	.015	.013	.011	
4.0	.126	.098	.077	.108	.085	.067	.074	.059	.047	.043	.035	.028	.014	.011	.009	
5.0	.116	.086	.064	.100	.074	.056	.069	.052	.039	.040	.031	.023	.013	.010	.008	
6.0	.108	.076	.054	.092	.066	.047	.064	.046	.033	.037	.027	.020	.012	.009	.007	
7.0	.100	.068	.046	.086	.059	.040	.060	.042	.028	.035	.024	.017	.011	.008	.006	
8.0	.094	.062	.040	.081	.053	.034	.056	.038	.024	.033	.022	.015	.011	.007	.005	
9.0	.088	.056	.034	.076	.049	.030	.053	.034	.021	.031	.020	.013	.010	.007	.004	
10.0	.083	.051	.030	.072	.045	.026	.050	.031	.019	.029	.019	.011	.009	.006	.004	

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DOBAC
 Test Date:2017-11-09

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.260
 Humidity:65.0%
 Test Distance:6.960m [K=1.0000]
 Remarks:

Uncorrected UGR Table

NAME: Infero Hori 30W-15D-3000K-90						TYPE:					WEIGHT:				
DIM.:						SPEC.:					SERIAL No.:				
MFR.: DOBAC						SUR.:					PROTECTION ANGLE:				
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise									
x = 2H y = 2H	22.4	23.1	22.6	23.3	23.4	23.3	24.0	23.5	24.2	24.4	23.3	24.0	23.5	24.2	24.4
3H	22.2	22.9	22.5	23.1	23.3	23.2	23.9	23.4	24.0	24.2	23.2	23.9	23.4	24.0	24.2
4H	22.2	22.8	22.4	23.0	23.2	23.1	23.7	23.4	24.0	24.2	23.1	23.7	23.4	24.0	24.2
6H	22.1	22.7	22.4	22.9	23.2	23.0	23.6	23.3	23.9	24.1	23.0	23.6	23.3	23.9	24.1
8H	22.0	22.6	22.3	22.9	23.1	23.0	23.6	23.3	23.8	24.1	23.0	23.6	23.3	23.8	24.1
12H	22.0	22.6	22.3	22.8	23.1	22.9	23.5	23.2	23.8	24.0	22.9	23.5	23.2	23.8	24.0
4H 2H	22.2	22.9	22.5	23.1	23.3	23.1	23.8	23.4	24.0	24.2	23.1	23.8	23.4	24.0	24.2
3H	22.1	22.6	22.4	22.9	23.2	23.0	23.5	23.3	23.8	24.1	23.0	23.5	23.3	23.8	24.1
4H	22.0	22.5	22.3	22.8	23.1	22.9	23.4	23.2	23.7	24.0	22.9	23.4	23.2	23.7	24.0
6H	21.9	22.3	22.2	22.7	23.0	22.8	23.2	23.2	23.6	23.9	22.8	23.2	23.2	23.6	23.9
8H	21.8	22.3	22.2	22.6	23.0	22.7	23.2	23.1	23.5	23.9	22.7	23.2	23.1	23.5	23.9
12H	21.8	22.2	22.2	22.5	22.9	22.7	23.1	23.1	23.4	23.8	22.7	23.1	23.1	23.4	23.8
8H 4H	21.8	22.3	22.2	22.6	23.0	22.7	23.2	23.1	23.5	23.9	22.7	23.2	23.1	23.5	23.9
6H	21.7	22.1	22.1	22.5	22.9	22.6	23.0	23.1	23.4	23.8	22.6	23.0	23.1	23.4	23.8
8H	21.7	22.0	22.1	22.4	22.8	22.6	22.9	23.0	23.3	23.7	22.6	22.9	23.0	23.3	23.7
12H	21.6	21.9	22.1	22.3	22.8	22.5	22.8	23.0	23.2	23.7	22.5	22.8	23.0	23.2	23.7
12H 4H	21.8	22.2	22.2	22.5	22.9	22.7	23.1	23.1	23.4	23.8	22.7	23.1	23.1	23.4	23.8
6H	21.7	22.0	22.1	22.4	22.8	22.6	22.9	23.0	23.3	23.7	22.6	22.9	23.0	23.3	23.7
8H	21.6	21.9	22.1	22.3	22.8	22.5	22.8	23.0	23.2	23.7	22.5	22.8	23.0	23.2	23.7
Variations with the observer position at spacings:															
S = 1.0H	+ 4.3 / - 7.3					+ 2.7 / -10.7									
1.5H	+ 6.4 / - 6.1					+ 5.1 / - 9.1									
2.0H	+ 3.8 / - 7.6					+ 2.7 / - 6.3									

CIE Pub.117 Corrected 2768 lm Total Lamp Luminous Flux.(8log(F/F0) = 3.5)

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-09

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity:65.0%
Test Distance:6.960m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

NAME: Infero Hori 30W-15D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

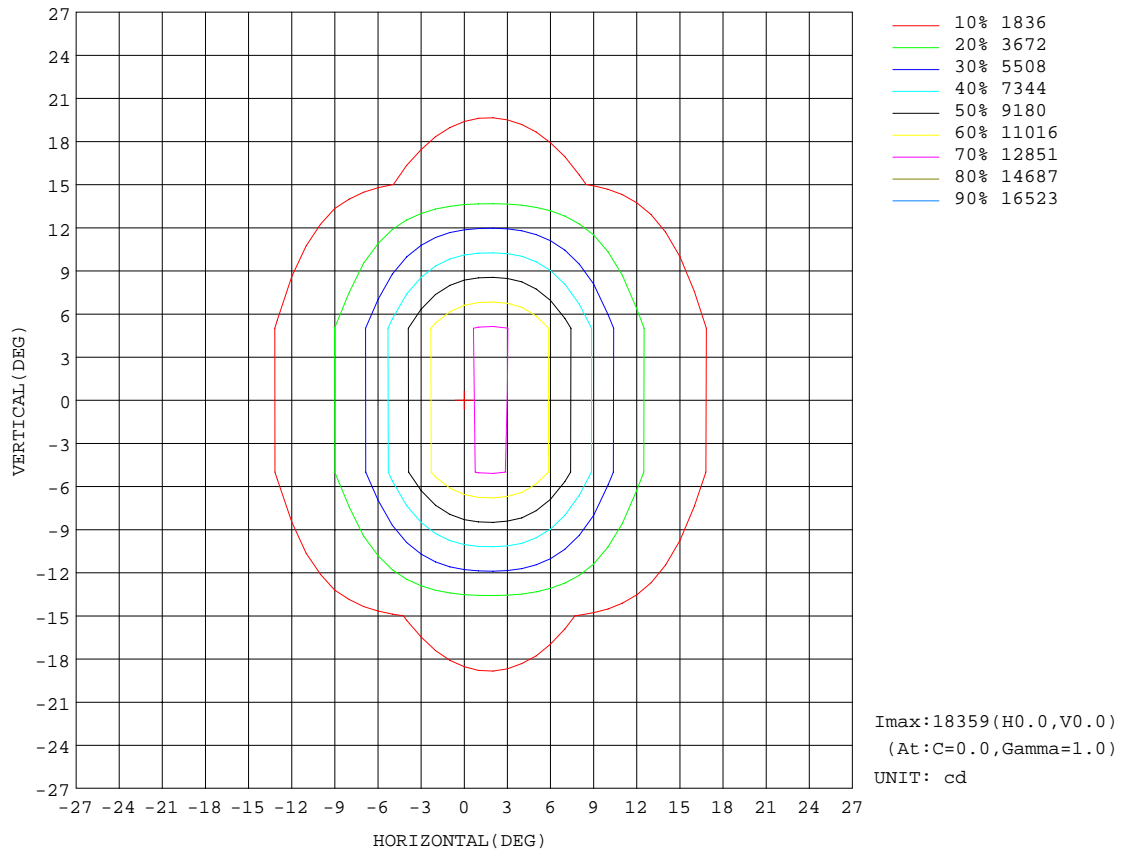
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	89	82	79	88	82	79	87	82	79	75
0.80	96	90	87	95	90	87	94	89	86	83
1.00	100	95	91	99	94	91	98	94	91	87
1.25	104	99	96	103	98	95	101	97	95	91
1.50	107	102	99	105	101	98	103	100	97	93
2.00	109	105	102	108	104	101	105	102	100	95
2.50	111	107	104	109	106	103	106	103	101	96
3.00	112	109	106	110	107	105	107	105	103	97
4.00	114	111	109	112	110	108	108	107	105	98
5.00	115	113	111	113	111	110	109	108	107	99
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNM = 1.25			

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DOBAC
 Test Date: 2017-11-09

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V1.0.260
 Humidity: 65.0%
 Test Distance: 6.960m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

NAME: Infero Hori 30W-15D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

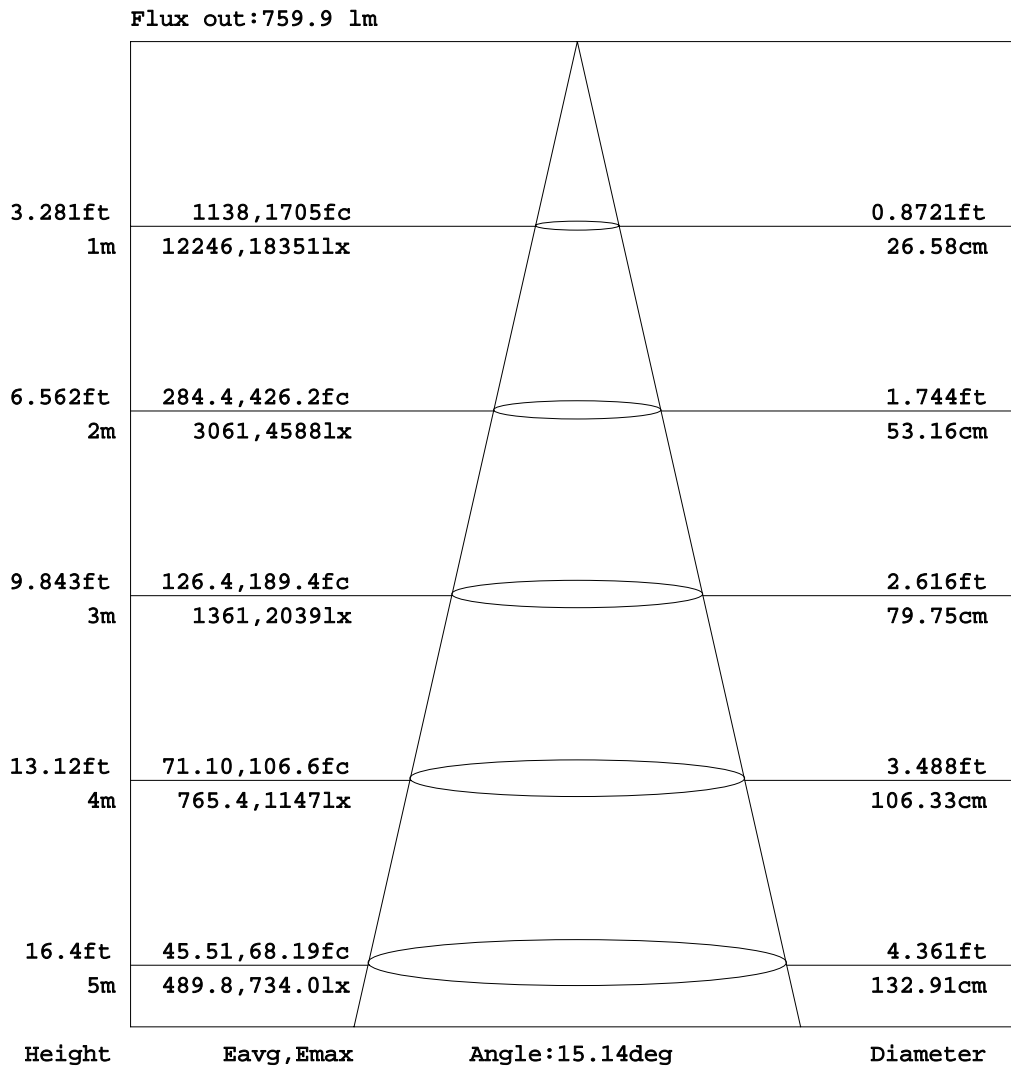


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DOBAC
Test Date: 2017-11-09

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity: 65.0%
Test Distance: 6.960m [K=1.0000]
Remarks:

AAI Figure

NAME: Infero Hori 30W-15D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:



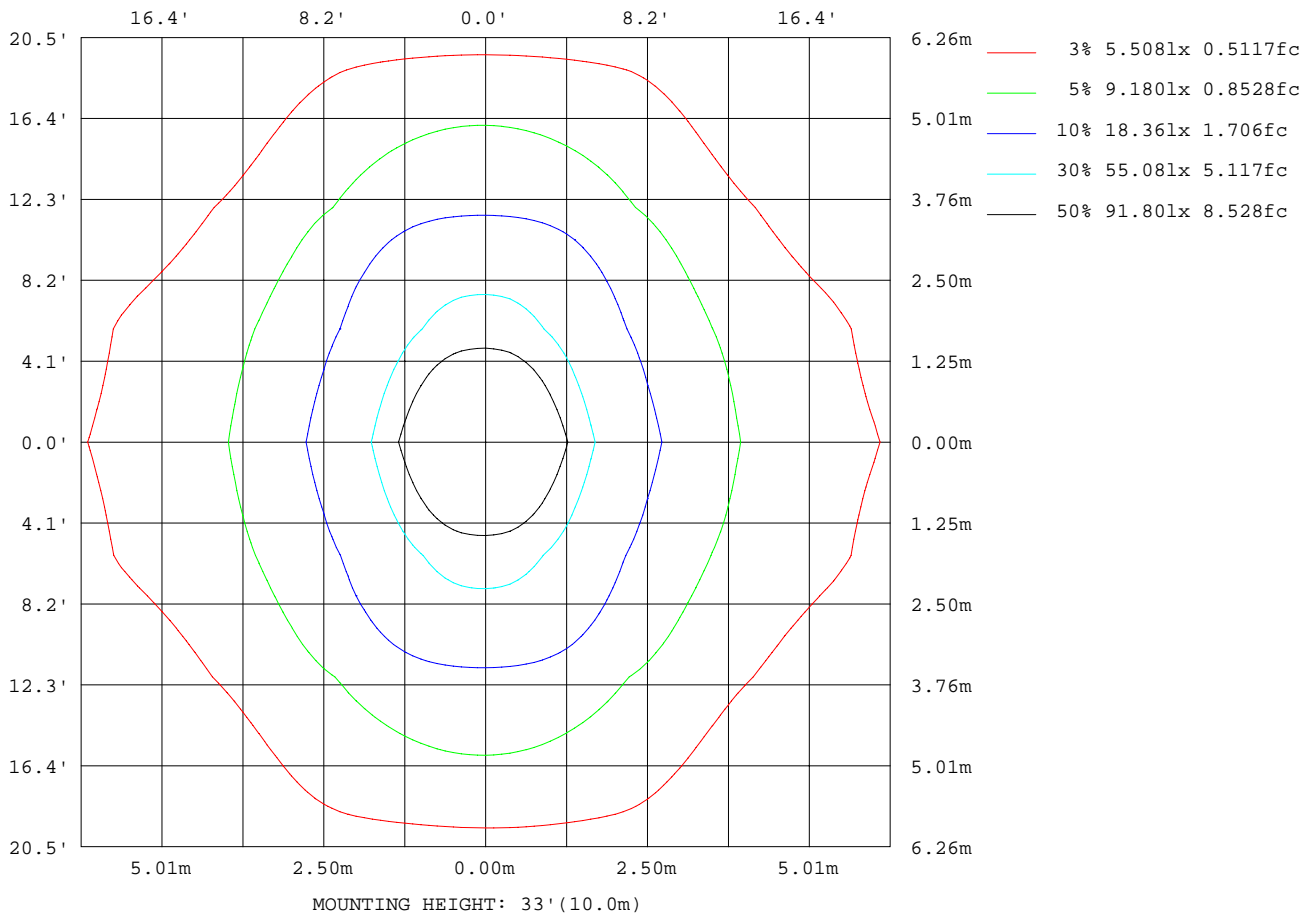
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DOBAC
Test Date: 2017-11-09

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity: 65.0%
Test Distance: 6.960m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

NAME: Infero Hori 30W-15D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DOBAC
 Test Date: 2017-11-09

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V1.0.260
 Humidity: 65.0%
 Test Distance: 6.960m [K=1.0000]
 Remarks:

Average Luminance Table(CIBSE)

NAME: Infero Hori 30W-15D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Parameter description for average Luminance	Symbol	Value	Unit
Luminance in Azimuth Plane	Bc	refer Table 2	cd/sq.m.
Intensity at angle Gamma in given azimuth plane	I	from data	cd/klm
Number of lamps	N	1	
Output of each lamp(initial lumens as specified)	F	2767.9	lm
Multiplying factor	K	1	
Luminous area in horizontal plane used in calculations	A	0.0021	sq.m.
Angle to the downward vertical from light centre	Gamma	from data	deg

Table 1. Calculation parameters for determination of CIBSE LG3:1996 Average Luminance

G deg	C plane(deg)																		
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
55	43894	42138	37348	38632	29796	45475	32537	22641	19337	18627	19378	23309	34530	42615	24407	36889	30451	33264	33086
60	9961	10188	10516	18646	15922	29190	19607	11714	9468	8945	9115	11698	20593	25958	11796	15359	8677	8822	8349
65	6674	6614	6731	6751	8765	10818	6753	7236	7965	8222	7618	6925	6868	9840	7505	6658	6584	6634	6692
70	5885	5958	6081	6196	6127	6134	6332	6667	7127	7242	6821	6341	6252	5850	5759	5888	5731	5742	5888
75	5279	5412	5441	5499	4432	5501	5772	5915	5862	5716	5647	5499	5345	4829	3954	4893	4662	4939	5141
80	533	792	3487	2861	984	3267	2135	1011	257	0	248	932	1882	2416	629	2433	588	362	374
85	190	328	561	0	0	0	0	0	0	0	0	0	0	0	0	0	331	229	276

Table 2. Average Luminance(cd/sq.m.) for defined C plane,Gamma angle

CIBSE Category	Gamma (deg)	Average Luminance		Patch Luminance	
		maximum	specified	maximum	specified
		calculated	maximum	measured	maximum
Category 1	55 to 90	45475	200	---	500
Category 2	65 to 90	10818	200	---	500
Category 3	75 to 90	5915	200	---	500

Table 3. Tabulation of Average and Patch Luminance(cd/sq.m.) for defined CIBSE categories

No match

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-09

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity:65.0%
Test Distance:6.960m [K=1.0000]
Remarks:

Average Luminance Table(CIBSE)

NAME: Infero Hori 30W-15D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Parameter description for average Luminance	Symbol	Value	Unit
Luminance in Azimuth Plane	Bc	refer Table 2	cd/sq.m.
Intensity at angle Gamma in given azimuth plane	I	from data	cd/klm
Number of lamps	N	1	
Output of each lamp(initial lumens as specified)	F	2767.9	lm
Multiplying factor	K	1	
Luminous area in horizontal plane used in calculations	A	0.0021	sq.m.
Angle to the downward vertical from light centre	Gamma	from data	deg

Table 1. Calculation parameters for determination of CIBSE LG3:2001 Average Luminance

G deg	C plane(deg)																		
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
55	43894	42138	37348	38632	29796	45475	32537	22641	19337	18627	19378	23309	34530	42615	24407	36889	30451	33264	33086
60	9961	10188	10516	18646	15922	29190	19607	11714	9468	8945	9115	11698	20593	25958	11796	15359	8677	8822	8349
65	6674	6614	6731	6751	8765	10818	6753	7236	7965	8222	7618	6925	6868	9840	7505	6658	6584	6634	6692
70	5885	5958	6081	6196	6127	6134	6332	6667	7127	7242	6821	6341	6252	5850	5759	5888	5731	5742	5888
75	5279	5412	5441	5499	4432	5501	5772	5915	5862	5716	5647	5499	5345	4829	3954	4893	4662	4939	5141
80	533	792	3487	2861	984	3267	2135	1011	257	0	248	932	1882	2416	629	2433	588	362	374
85	190	328	561	0	0	0	0	0	0	0	0	0	0	0	0	0	331	229	276

Table 2. Average Luminance(cd/sq.m.) for defined C plane,Gamma angle

range (deg)	Maximum measured	Average Luminance(cd/sq.m)			
		Maximum limit for screen type & software category used			
		Type I,II screen Some neg.s'ware	Type I,II screen Only pos.s'ware	Type III screen Some neg.s'ware	Type III screen Only pos.s'ware
55 to 90	45475	1000	1500	200	500
65 to 90	10818	1000	1500	200	500

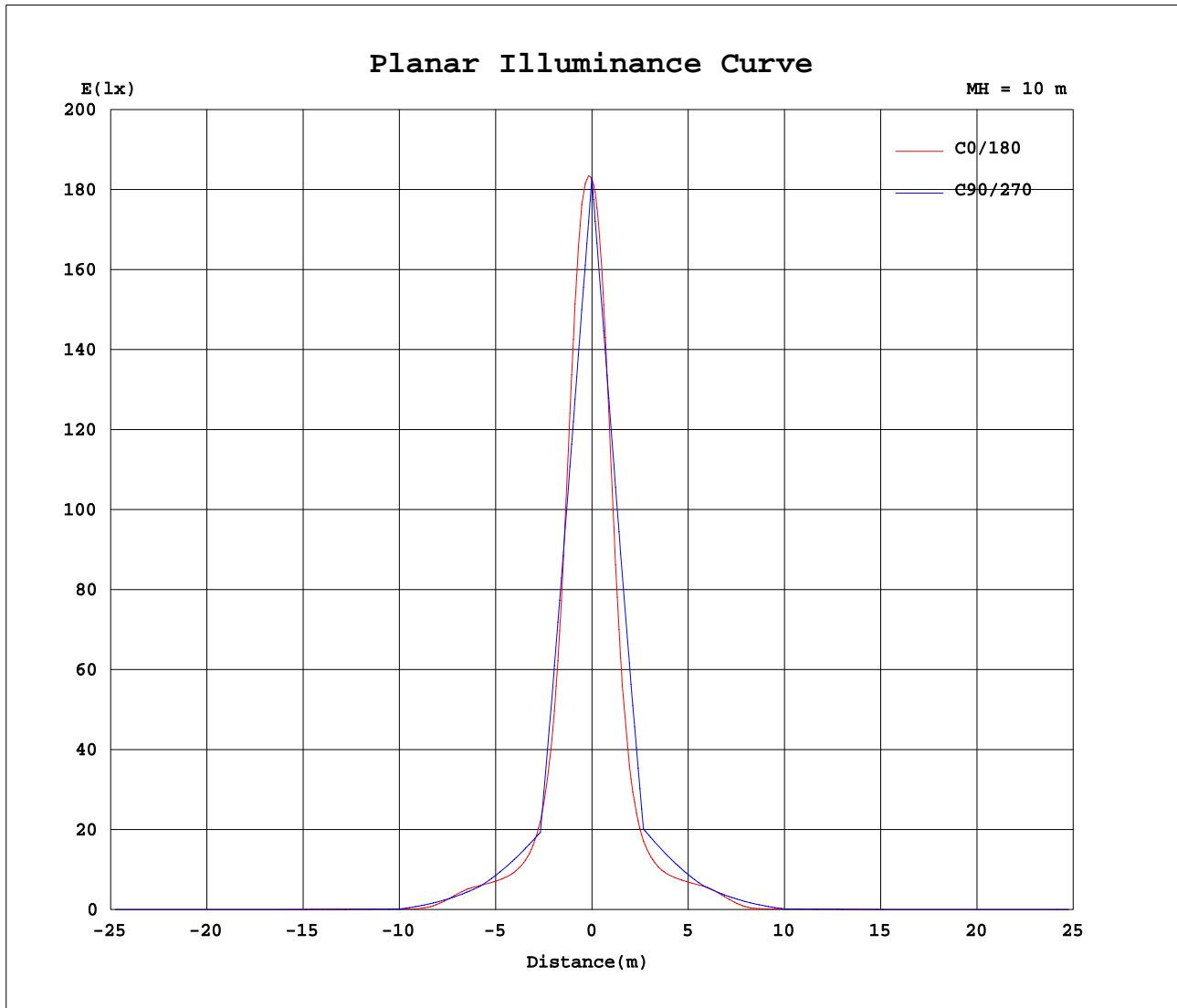
Table 3. Tabulation of average luminance(cd/sq.m.) and luminance limits

No match

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-09

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity:65.0%
Test Distance:6.960m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DOBAC
 Test Date: 2017-11-09

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V1.0.260
 Humidity: 65.0%
 Test Distance: 6.960m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: Infero Hori 30W-15D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: x10cd

C(DEG) γ (DEG)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
0	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829
5	1532	1496	1464	1438	1416	1399	1387	1378	1369	1360	1355	1348	1337	1329	1319	1310	1303	1295	1291
10	651	628	614	608	609	614	631	651	674	697	720	742	761	770	775	773	766	759	753
15	245	237	232	231	232	236	242	252	262	274	285	293	295	288	273	254	234	221	215
20	134	131	130	129	130	130	132	133	133	132	132	138	145	152	159	166	171	174	174
25	104	102	102	102	102	102	102	102	101	102	104	109	114	119	123	128	131	133	133
30	93.7	92.0	91.2	91.4	91.8	92.4	88.9	82.9	79.9	80.1	83.0	87.1	91.5	94.9	95.8	95.3	94.0	92.6	91.8
35	70.7	64.7	61.8	61.9	65.4	67.5	62.9	56.1	52.4	53.5	58.2	65.5	69.9	70.9	69.3	66.7	64.7	63.4	62.8
40	16.4	15.0	14.5	14.8	18.0	24.3	27.2	24.4	18.4	20.7	31.3	38.5	42.5	43.1	41.5	38.5	36.0	34.4	33.8
45	4.92	4.97	4.95	4.85	5.35	5.95	7.16	5.21	5.56	7.60	14.0	18.8	19.8	17.9	14.4	10.5	7.36	5.47	4.85
50	6.35	6.41	6.31	5.88	5.92	6.30	5.66	4.58	4.92	5.96	7.33	7.37	5.53	4.69	4.17	3.87	3.65	3.57	3.55
55	5.29	4.84	5.08	4.77	4.50	5.35	4.65	3.40	3.59	5.15	5.48	4.89	3.92	3.17	2.73	2.49	2.33	2.27	2.24
60	1.05	1.01	1.07	1.24	1.10	1.73	1.96	1.11	1.67	2.63	3.06	2.74	2.06	1.53	1.23	1.07	0.99	0.96	0.94
65	0.59	0.58	0.59	0.59	0.60	0.63	0.60	0.64	0.78	1.02	0.96	0.59	0.60	0.61	0.64	0.67	0.71	0.73	0.73
70	0.42	0.42	0.43	0.43	0.44	0.44	0.45	0.45	0.44	0.44	0.44	0.45	0.45	0.46	0.48	0.50	0.51	0.52	0.52
75	0.29	0.29	0.29	0.30	0.30	0.31	0.30	0.26	0.24	0.29	0.30	0.31	0.31	0.32	0.32	0.32	0.32	0.31	0.31
80	0.02	0.04	0.03	0.07	0.13	0.14	0.10	0.07	0.04	0.12	0.12	0.10	0.08	0.06	0.04	0.02	0.01	0.00	0.00
85	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-09

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity:65.0%
Test Distance:6.960m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: Infero Hori 30W-15D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Table--2

UNIT: x10cd

C(DEG) γ (DEG)	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185
0	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829
5	1282	1278	1269	1260	1252	1239	1229	1217	1204	1195	1188	1183	1182	1186	1196	1211	1232	1260	1233
10	745	734	718	697	670	640	606	572	539	513	489	470	454	450	450	454	464	480	464
15	216	225	236	246	250	248	241	232	221	210	201	193	188	184	183	183	186	191	186
20	170	165	157	150	142	136	129	124	122	123	121	120	118	117	116	116	117	119	117
25	131	127	123	118	113	108	103	99.7	97.7	97.9	100	99.9	99.2	98.6	98.3	98.3	98.7	99.5	98.9
30	92.0	93.1	94.2	94.2	91.8	87.0	81.7	77.2	74.8	75.3	79.3	86.7	90.7	89.0	87.2	86.8	88.2	90.9	88.1
35	63.0	64.3	66.5	68.4	68.0	64.2	57.2	49.0	44.3	45.1	50.9	56.3	57.5	53.2	48.8	47.3	48.8	53.5	48.7
40	34.2	35.8	38.3	40.4	40.5	37.8	31.4	21.8	11.5	13.9	20.5	20.8	15.8	10.9	8.37	8.02	7.49	7.40	7.49
45	5.48	7.41	10.5	14.1	16.9	17.5	14.6	9.26	5.87	5.03	5.04	5.86	5.52	5.23	4.82	4.95	4.95	4.83	4.96
50	3.57	3.70	3.93	4.28	4.91	5.91	7.21	6.52	5.42	4.48	4.59	6.22	6.49	5.87	6.23	6.74	6.67	6.65	6.58
55	2.25	2.33	2.50	2.81	3.34	4.16	4.99	5.13	4.29	2.94	3.33	4.44	4.34	3.67	4.04	4.01	3.69	3.99	3.65
60	0.93	0.96	1.04	1.23	1.59	2.16	2.69	2.73	2.08	1.24	0.94	1.61	1.25	0.91	1.02	0.93	0.87	0.88	0.86
65	0.71	0.68	0.64	0.61	0.61	0.61	0.60	0.87	0.84	0.67	0.60	0.59	0.60	0.58	0.59	0.59	0.59	0.59	0.58
70	0.51	0.49	0.47	0.46	0.45	0.45	0.44	0.42	0.40	0.41	0.42	0.42	0.42	0.41	0.41	0.41	0.42	0.42	0.42
75	0.31	0.31	0.30	0.30	0.30	0.29	0.28	0.26	0.20	0.21	0.24	0.27	0.27	0.25	0.27	0.27	0.28	0.28	0.28
80	0.00	0.01	0.02	0.03	0.05	0.07	0.09	0.09	0.02	0.02	0.06	0.09	0.11	0.02	0.06	0.01	0.01	0.01	0.01
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-09

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity:65.0%
Test Distance:6.960m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: Infero Hori 30W-15D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Table--3

UNIT: x10cd

C(DEG) γ (DEG)	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280
0	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829
5	1211	1196	1187	1183	1184	1189	1197	1206	1219	1232	1241	1255	1263	1272	1281	1285	1294	1298	1306
10	454	450	451	455	471	491	515	541	575	609	644	675	702	724	740	751	759	765	772
15	183	183	184	189	194	202	211	223	234	244	252	255	253	244	233	225	224	230	243
20	117	117	117	119	120	122	123	124	126	131	138	146	154	163	170	177	180	180	177
25	98.6	98.6	98.9	99.5	100	101	98.0	97.7	99.7	103	109	115	120	126	130	134	137	137	135
30	86.7	87.3	89.5	91.7	87.6	79.5	74.9	73.8	75.8	80.3	85.9	91.0	94.6	95.3	94.5	93.3	92.8	93.5	95.1
35	47.1	48.5	52.7	57.0	56.1	51.0	44.8	43.1	47.1	54.4	62.1	66.5	67.8	67.0	65.2	64.0	63.6	64.1	65.5
40	8.02	8.26	10.6	15.7	20.6	20.3	14.1	10.4	20.5	30.0	36.2	39.5	39.9	38.6	36.4	34.9	34.4	35.0	36.7
45	4.98	4.89	5.21	5.55	5.87	5.11	4.99	5.90	8.67	14.0	16.9	16.6	14.0	10.7	7.76	5.86	5.23	5.91	7.84
50	6.55	6.03	5.69	6.34	6.14	4.61	4.44	5.24	6.48	7.14	6.02	5.06	4.46	4.11	3.93	3.82	3.80	3.86	3.99
55	3.90	3.88	3.53	4.15	4.31	3.26	2.86	4.07	4.95	4.92	4.21	3.42	2.91	2.60	2.46	2.38	2.38	2.42	2.52
60	0.88	0.98	0.86	1.20	1.57	0.94	1.20	1.98	2.61	2.64	2.15	1.62	1.26	1.06	0.98	0.94	0.95	0.97	1.03
65	0.58	0.57	0.57	0.59	0.59	0.61	0.67	0.83	0.86	0.59	0.60	0.61	0.62	0.64	0.68	0.70	0.73	0.72	0.71
70	0.42	0.42	0.42	0.42	0.42	0.43	0.43	0.40	0.40	0.42	0.43	0.44	0.45	0.46	0.48	0.49	0.50	0.50	0.49
75	0.27	0.27	0.24	0.27	0.27	0.24	0.22	0.19	0.18	0.25	0.27	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.27
80	0.01	0.05	0.01	0.10	0.08	0.05	0.02	0.01	0.02	0.07	0.06	0.05	0.03	0.02	0.01	0.00	0.00	0.00	0.01
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-09

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity:65.0%
Test Distance:6.960m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: Infero Hori 30W-15D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Table--4

UNIT: x10cd

C(DEG) γ (DEG)	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355				
0	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829	1829				
5	1313	1322	1332	1340	1351	1357	1362	1370	1380	1388	1400	1417	1439	1465	1496				
10	779	780	775	765	746	724	700	677	654	633	616	610	609	615	628				
15	262	281	295	301	298	289	278	265	255	244	238	233	232	233	237				
20	172	165	158	150	143	136	135	136	135	133	131	131	130	130	132				
25	131	127	122	117	111	107	104	103	104	104	103	102	102	102	103				
30	96.9	97.8	96.9	93.5	88.6	84.0	81.0	80.5	83.4	89.6	93.2	92.6	91.7	91.3	92.1				
35	67.9	70.7	72.3	70.8	66.0	58.2	52.6	51.6	55.9	62.7	67.7	65.4	61.6	61.4	64.4				
40	39.4	42.5	44.0	43.0	38.5	30.0	18.9	17.2	24.4	27.0	23.6	16.9	14.1	14.3	14.9				
45	11.0	15.0	18.5	20.2	18.6	13.2	7.14	5.70	5.59	7.29	6.08	5.53	5.13	5.20	5.11				
50	4.25	4.55	5.16	5.96	7.66	7.33	6.16	5.16	4.90	6.00	6.62	6.21	6.19	6.54	6.52				
55	2.71	2.97	3.45	4.20	5.15	5.72	5.22	3.66	3.48	4.80	5.44	4.57	4.84	5.11	4.83				
60	1.13	1.31	1.63	2.17	2.84	3.12	2.63	1.62	1.08	1.98	1.73	1.11	1.23	1.07	1.01				
65	0.69	0.65	0.63	0.60	0.59	0.96	1.01	0.75	0.63	0.60	0.63	0.59	0.59	0.58	0.58				
70	0.48	0.46	0.45	0.44	0.43	0.42	0.42	0.42	0.43	0.43	0.42	0.42	0.42	0.42	0.42				
75	0.27	0.27	0.28	0.28	0.27	0.27	0.23	0.22	0.25	0.28	0.29	0.28	0.28	0.28	0.28				
80	0.02	0.03	0.05	0.06	0.08	0.10	0.04	0.03	0.06	0.09	0.12	0.11	0.07	0.03	0.03				
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00				
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				

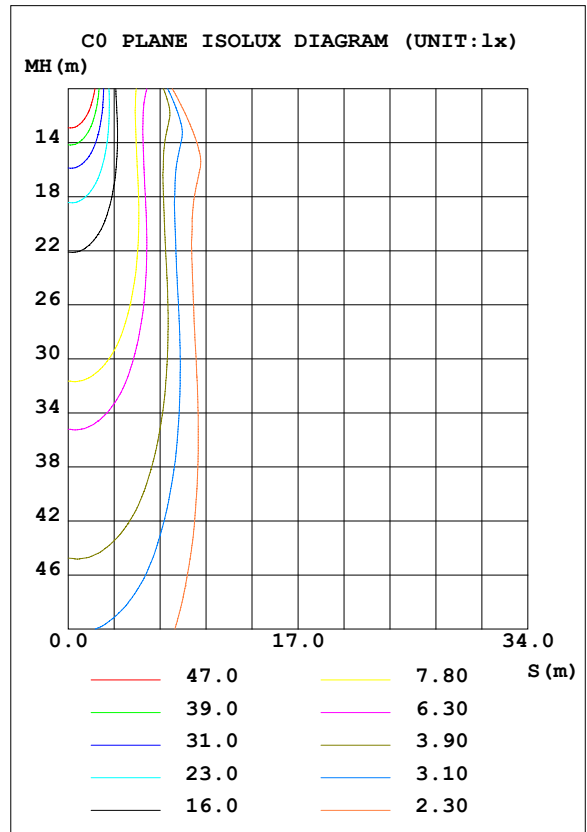
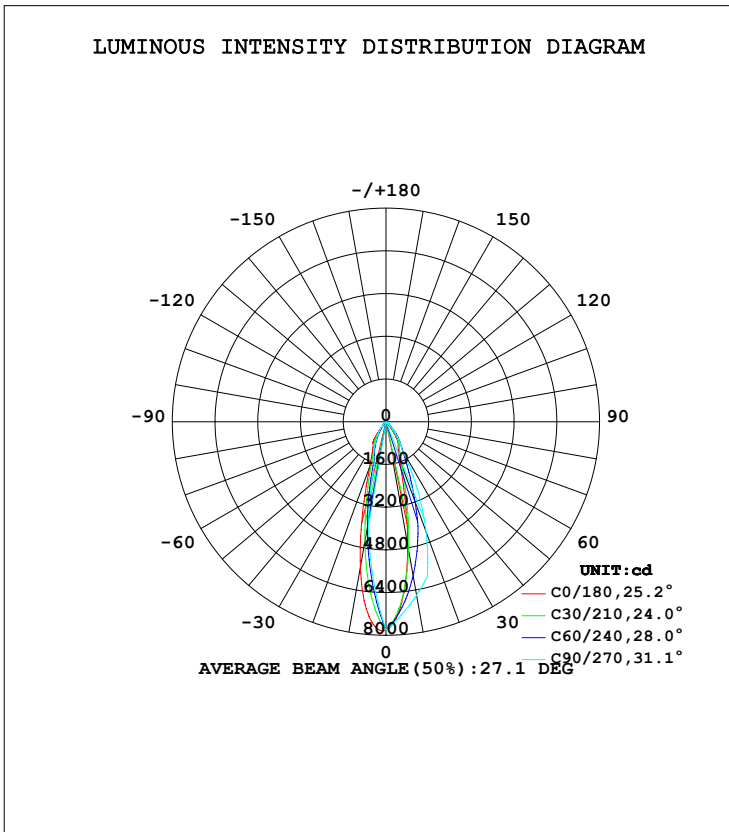
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-09

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity:65.0%
Test Distance:6.960m [K=1.0000]
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: Infero Hori 30W-24D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	Infero Hori 30W-24D-3000K-90	Imax (cd)	7835	S/MH (C0/180)	0.46
NOMINAL POWER (W)	28	LOR (%)	100.0	S/MH (C90/270)	0.33
RATED VOLTAGE (V)	218	TOTAL FLUX (lm)	2716.1	η UP, DN (C0-180)	0.0, 37.8
NOMINAL FLUX (lm)	2716.12	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 62.2
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE (V)	217.1	η down (%)	100.0	CIBSE SHR MAX	1.00



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DOBAC
Test Date: 2017-11-21

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity: 65.0%
Test Distance: 6.960m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	lum, lamp
5	7321	6208	5773	5904	6798	6823	7205	7187	0- 5	168.9	168.9	6.22,6.22
10	5525	4280	3735	3861	4692	5315	6599	5937	5- 10	408.3	577.3	21.3,21.3
15	3289	2506	1698	2203	2583	3669	5993	4315	10- 15	476.4	1054	38.8,38.8
20	1788	1332	1358	1236	1481	2318	4392	2806	15- 20	426.1	1480	54.5,54.5
25	1194	941.8	1018	882.4	1082	1485	2790	1715	20- 25	357.0	1837	67.6,67.6
30	979.6	631.3	677.9	575.2	923.9	1087	1188	1194	25- 30	290.5	2127	78.3,78.3
35	728.9	320.6	474.3	289.5	543.0	804.1	860.1	920.6	30- 35	225.4	2353	86.6,86.6
40	227.9	83.48	270.6	78.11	106.1	474.8	531.9	624.3	35- 40	150.6	2503	92.2,92.2
45	80.85	69.58	66.97	65.46	73.88	203.2	203.8	301.2	40- 45	76.14	2579	95,95
50	71.07	57.33	53.83	54.22	63.83	83.47	154.5	119.4	45- 50	38.25	2618	96.4,96.4
55	55.76	44.79	40.68	41.74	50.96	63.71	105.2	66.80	50- 55	27.97	2646	97.4,97.4
60	41.60	34.49	27.54	32.65	36.93	49.14	55.85	52.46	55- 60	22.42	2668	98.2,98.2
65	29.00	25.91	20.72	24.77	26.33	35.91	44.60	38.58	60- 65	17.23	2685	98.9,98.9
70	22.63	18.16	13.91	17.44	21.55	26.24	33.36	28.59	65- 70	13.39	2699	99.4,99.4
75	19.21	10.03	7.098	9.018	17.45	21.09	22.12	22.80	70- 75	10.22	2709	99.7,99.7
80	9.961	2.310	0	1.353	5.436	13.68	0	14.76	75- 80	6.021	2715	100,100
85	1.042	0	0	0	0.5247	0	0	0	80- 85	1.199	2716	100,100
90	0.0504	0	0	0	0.0508	0	0	0	85- 90	0.0392	2716	100,100
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:cd								UNIT:lm			

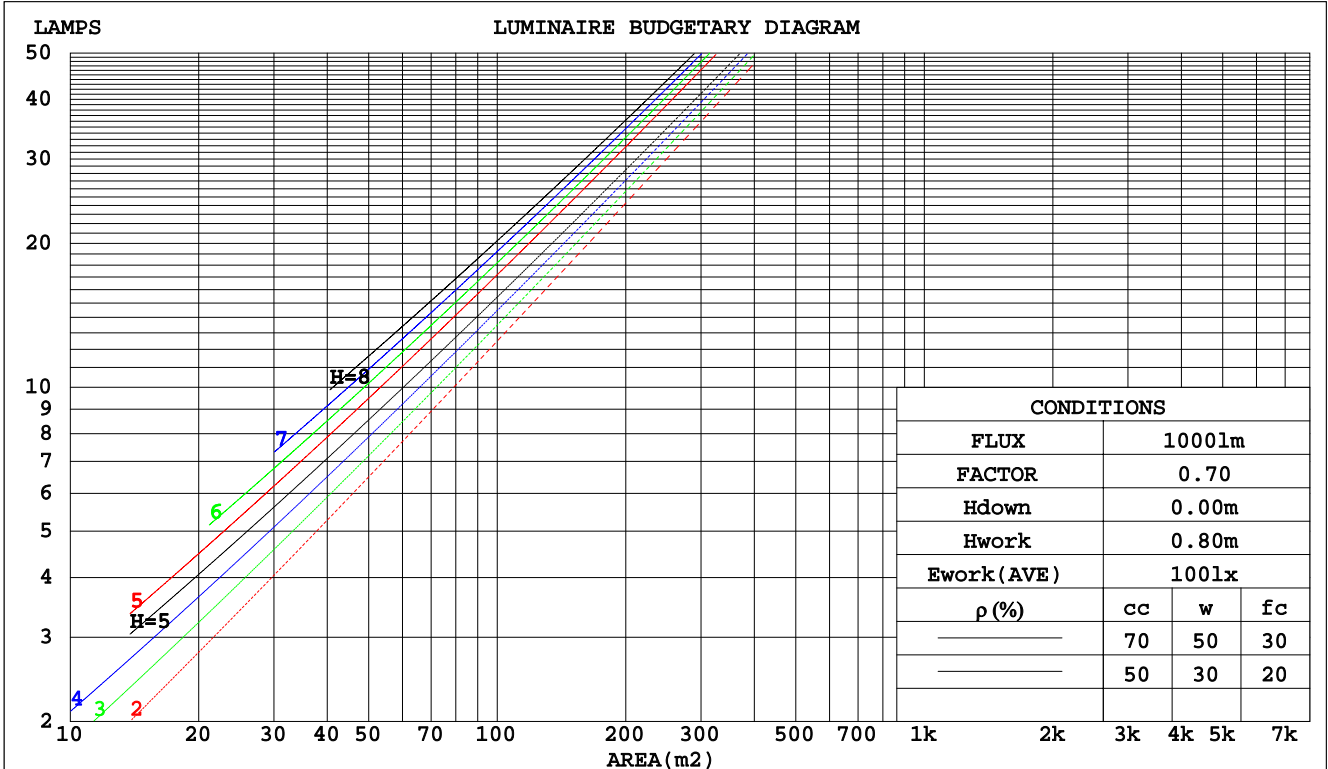
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-21

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity:65.0%
Test Distance:6.960m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: Infero Hori 30W-24D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pw																0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															
	Coefficients of Utilization(CU)															
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1.0	1.11	1.09	1.07	1.09	1.07	1.05	1.05	1.03	1.02	1.01	1.00	.99	.98	.97	.96	.94
2.0	1.04	1.00	.97	1.03	.99	.96	.99	.97	.94	.96	.94	.92	.94	.92	.90	.89
3.0	.98	.93	.90	.97	.92	.89	.94	.91	.88	.92	.89	.86	.89	.87	.85	.83
4.0	.92	.87	.84	.91	.87	.83	.89	.85	.82	.87	.84	.81	.86	.83	.80	.79
5.0	.88	.82	.78	.87	.82	.78	.85	.81	.77	.83	.80	.77	.82	.79	.76	.75
6.0	.83	.78	.74	.82	.77	.74	.81	.76	.73	.80	.76	.73	.78	.75	.72	.71
7.0	.79	.74	.70	.79	.73	.70	.77	.73	.69	.76	.72	.69	.75	.71	.69	.67
8.0	.76	.70	.67	.75	.70	.66	.74	.69	.66	.73	.69	.66	.72	.68	.66	.64
9.0	.72	.67	.63	.72	.67	.63	.71	.66	.63	.70	.66	.63	.69	.65	.63	.62
10.0	.69	.64	.61	.69	.64	.61	.68	.64	.60	.67	.63	.60	.67	.63	.60	.59



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DOBAC
 Test Date: 2017-11-21

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V1.0.260
 Humidity: 65.0%
 Test Distance: 6.960m [K=1.0000]
 Remarks:

WEC AND CCEC

NAME: Infero Hori 30W-24D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

ρ _{cc}	80%			70%			50%			30%			10%			0
ρ _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ _{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.168	.096	.030	.161	.092	.029	.149	.085	.027	.137	.079	.025	.127	.073	.024	
2.0	.159	.087	.027	.154	.085	.026	.143	.080	.025	.134	.075	.023	.125	.071	.022	
3.0	.150	.080	.024	.146	.078	.023	.137	.074	.023	.129	.070	.022	.121	.067	.021	
4.0	.142	.074	.022	.138	.072	.021	.130	.069	.021	.123	.066	.020	.117	.063	.019	
5.0	.135	.069	.020	.131	.067	.020	.124	.065	.019	.118	.062	.019	.113	.060	.018	
6.0	.128	.064	.018	.125	.063	.018	.119	.061	.018	.114	.059	.017	.108	.057	.017	
7.0	.122	.060	.017	.119	.059	.017	.114	.058	.017	.109	.056	.016	.105	.054	.016	
8.0	.116	.057	.016	.113	.056	.016	.109	.054	.016	.105	.053	.015	.101	.052	.015	
9.0	.111	.054	.015	.109	.053	.015	.105	.052	.015	.101	.051	.014	.097	.049	.014	
10.0	.106	.051	.014	.104	.050	.014	.100	.049	.014	.097	.048	.014	.094	.047	.014	

ρ _{cc}	80%			70%			50%			30%			10%			0
ρ _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ _{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.171	.157	.146	.146	.135	.125	.100	.093	.087	.057	.054	.050	.018	.017	.016	
2.0	.155	.133	.114	.132	.114	.099	.091	.079	.069	.052	.046	.040	.017	.015	.013	
3.0	.141	.113	.091	.121	.098	.079	.083	.068	.055	.048	.040	.033	.015	.013	.011	
4.0	.130	.099	.074	.112	.085	.065	.077	.059	.045	.045	.035	.027	.014	.011	.009	
5.0	.121	.087	.061	.104	.075	.053	.072	.052	.038	.042	.031	.022	.013	.010	.007	
6.0	.113	.077	.052	.097	.067	.045	.067	.047	.032	.039	.028	.019	.013	.009	.006	
7.0	.106	.069	.044	.091	.060	.038	.063	.042	.027	.037	.025	.016	.012	.008	.005	
8.0	.100	.063	.038	.086	.055	.033	.060	.038	.023	.035	.023	.014	.011	.007	.005	
9.0	.095	.058	.033	.082	.050	.029	.057	.035	.020	.033	.021	.012	.011	.007	.004	
10.0	.090	.053	.029	.078	.046	.025	.054	.032	.018	.031	.019	.011	.010	.006	.004	

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-21

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity:65.0%
Test Distance:6.960m [K=1.0000]
Remarks:

Uncorrected UGR Table

NAME: Infero Hori 30W-24D-3000K-90						TYPE:					WEIGHT:				
DIM.:						SPEC.:					SERIAL No.:				
MFR.: DOBAC						SUR.:					PROTECTION ANGLE:				
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise									
x = 2H y = 2H	22.5	23.3	22.7	23.5	23.7	21.3	22.2	21.6	22.4	22.5	21.3	22.2	21.6	22.4	22.5
3H	22.7	23.5	23.0	23.7	23.9	21.5	22.3	21.7	22.5	22.7	21.5	22.3	21.7	22.5	22.7
4H	23.0	23.7	23.2	23.9	24.1	21.5	22.2	21.8	22.4	22.7	21.5	22.2	21.8	22.4	22.7
6H	23.1	23.8	23.4	24.0	24.3	21.4	22.1	21.7	22.4	22.6	21.4	22.1	21.7	22.4	22.6
8H	23.1	23.8	23.4	24.0	24.3	21.4	22.0	21.7	22.3	22.6	21.4	22.0	21.7	22.3	22.6
12H	23.0	23.7	23.4	24.0	24.2	21.3	22.0	21.6	22.2	22.5	21.3	22.0	21.6	22.2	22.5
4H 2H	22.4	23.2	22.7	23.4	23.6	21.3	22.1	21.6	22.3	22.5	21.3	22.1	21.6	22.3	22.5
3H	22.8	23.5	23.1	23.7	24.0	21.6	22.2	21.9	22.5	22.8	21.6	22.2	21.9	22.5	22.8
4H	23.1	23.7	23.5	24.0	24.3	21.6	22.2	21.9	22.5	22.8	21.6	22.2	21.9	22.5	22.8
6H	23.3	23.8	23.7	24.2	24.5	21.5	22.1	21.9	22.4	22.7	21.5	22.1	21.9	22.4	22.7
8H	23.3	23.8	23.7	24.1	24.5	21.5	22.0	21.9	22.3	22.7	21.5	22.0	21.9	22.3	22.7
12H	23.3	23.7	23.7	24.1	24.5	21.4	21.9	21.8	22.2	22.6	21.4	21.9	21.8	22.2	22.6
8H 4H	23.1	23.5	23.4	23.9	24.3	21.6	22.1	22.0	22.4	22.8	21.6	22.1	22.0	22.4	22.8
6H	23.3	23.7	23.7	24.1	24.5	21.5	21.9	21.9	22.3	22.7	21.5	21.9	21.9	22.3	22.7
8H	23.3	23.6	23.7	24.0	24.5	21.5	21.8	21.9	22.2	22.7	21.5	21.8	21.9	22.2	22.7
12H	23.2	23.5	23.7	24.0	24.4	21.4	21.7	21.9	22.1	22.6	21.4	21.7	21.9	22.1	22.6
12H 4H	23.0	23.5	23.4	23.8	24.2	21.5	22.0	22.0	22.4	22.7	21.5	22.0	22.0	22.4	22.7
6H	23.2	23.6	23.7	24.0	24.4	21.5	21.8	21.9	22.2	22.7	21.5	21.8	21.9	22.2	22.7
8H	23.2	23.5	23.7	24.0	24.4	21.4	21.7	21.9	22.2	22.6	21.4	21.7	21.9	22.2	22.6
Variations with the observer position at spacings:															
S = 1.0H	+ 3.7 / - 2.0					+ 2.8 / - 3.6									
1.5H	+ 5.8 / - 2.0					+ 4.9 / - 2.9									
2.0H	+ 0.8 / - 1.0					+ 0.8 / - 1.1									

CIE Pub.117 Corrected 2716 lm Total Lamp Luminous Flux.(8log(F/F0) = 3.5)

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-21

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity:65.0%
Test Distance:6.960m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

NAME: Infero Hori 30W-24D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

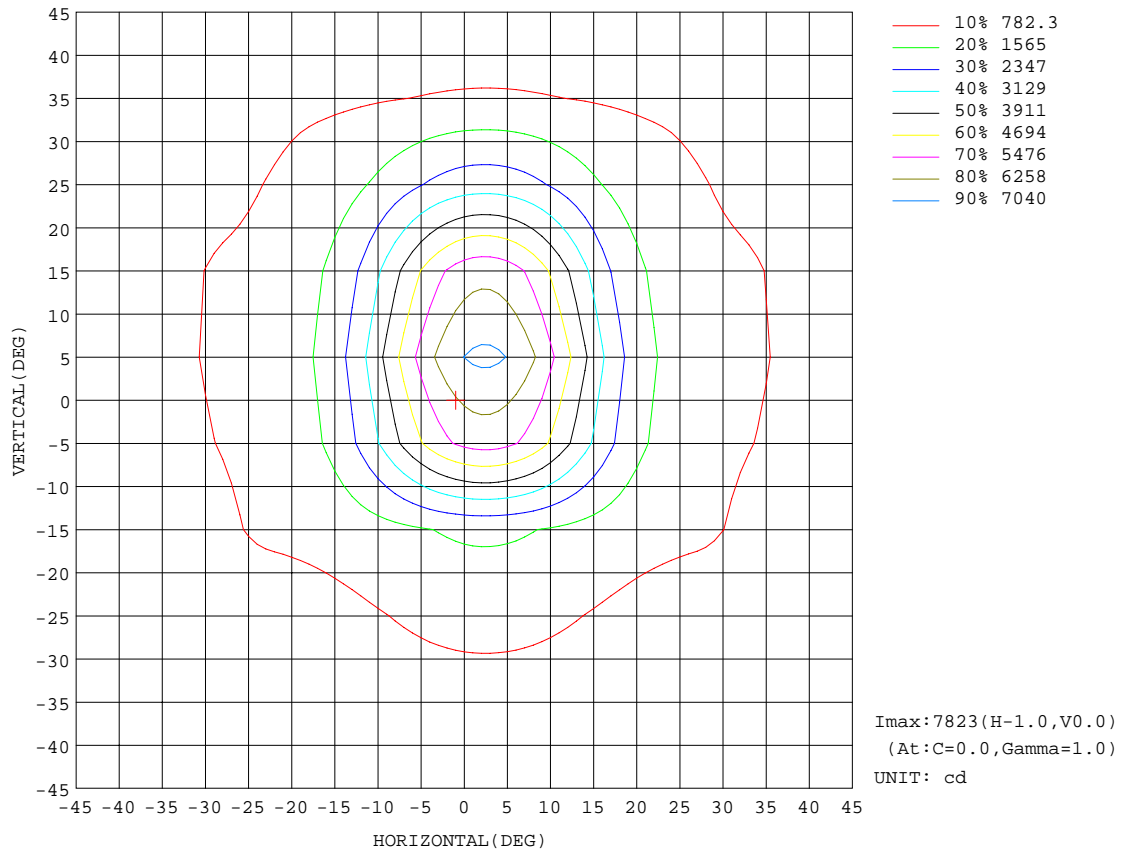
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	87	80	76	86	80	76	85	80	76	73
0.80	94	88	84	93	88	84	92	87	84	80
1.00	99	93	89	98	92	89	96	92	88	84
1.25	103	97	94	102	97	93	100	96	93	88
1.50	105	101	97	104	100	97	102	98	96	91
2.00	108	104	101	107	103	100	104	101	98	93
2.50	110	106	103	108	105	102	105	102	100	94
3.00	112	108	105	110	107	104	106	104	102	96
4.00	114	111	109	112	109	107	108	106	104	97
5.00	115	113	111	113	111	109	109	107	106	98
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-21

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity:65.0%
Test Distance:6.960m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

NAME: Infero Hori 30W-24D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

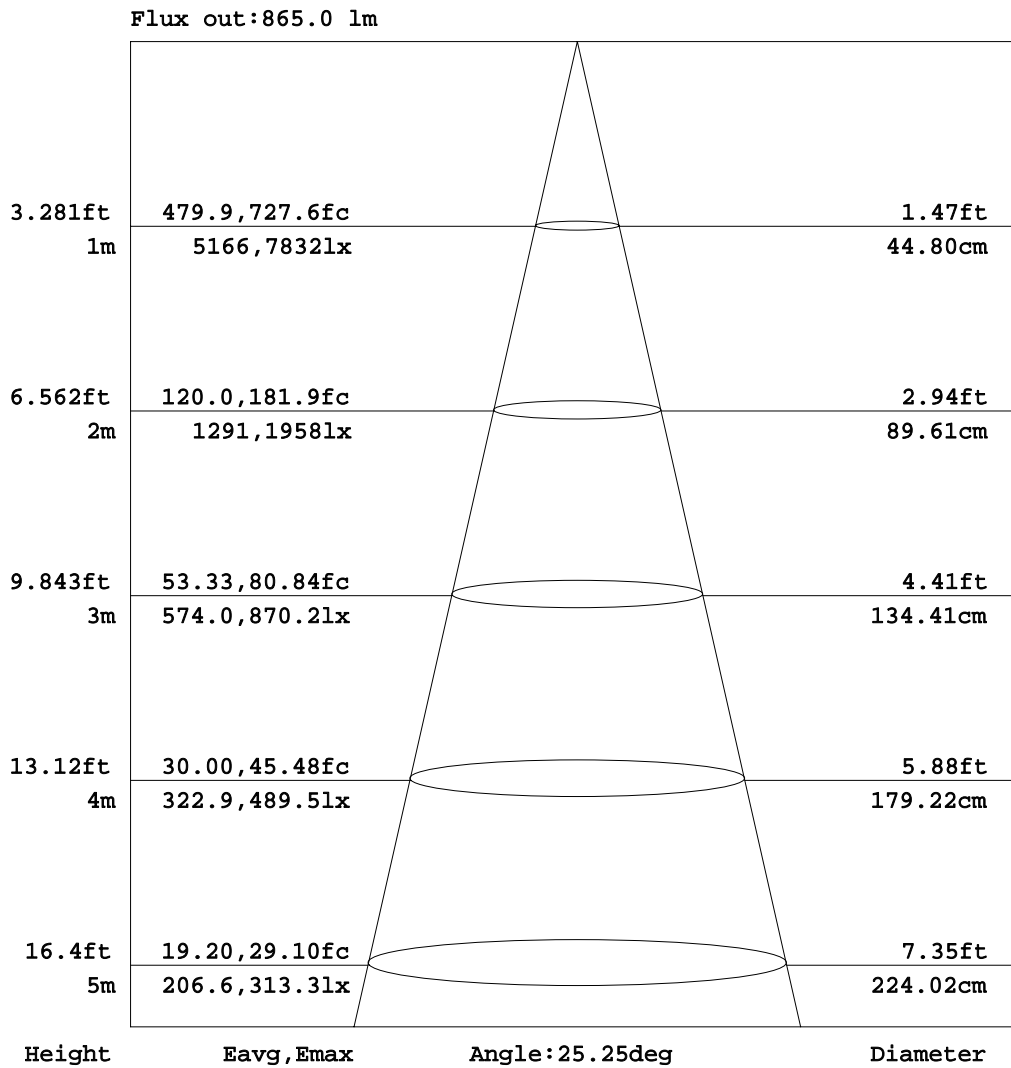


C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DOBAC
 Test Date: 2017-11-21

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V1.0.260
 Humidity: 65.0%
 Test Distance: 6.960m [K=1.0000]
 Remarks:

AAI Figure

NAME: Infero Hori 30W-24D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:



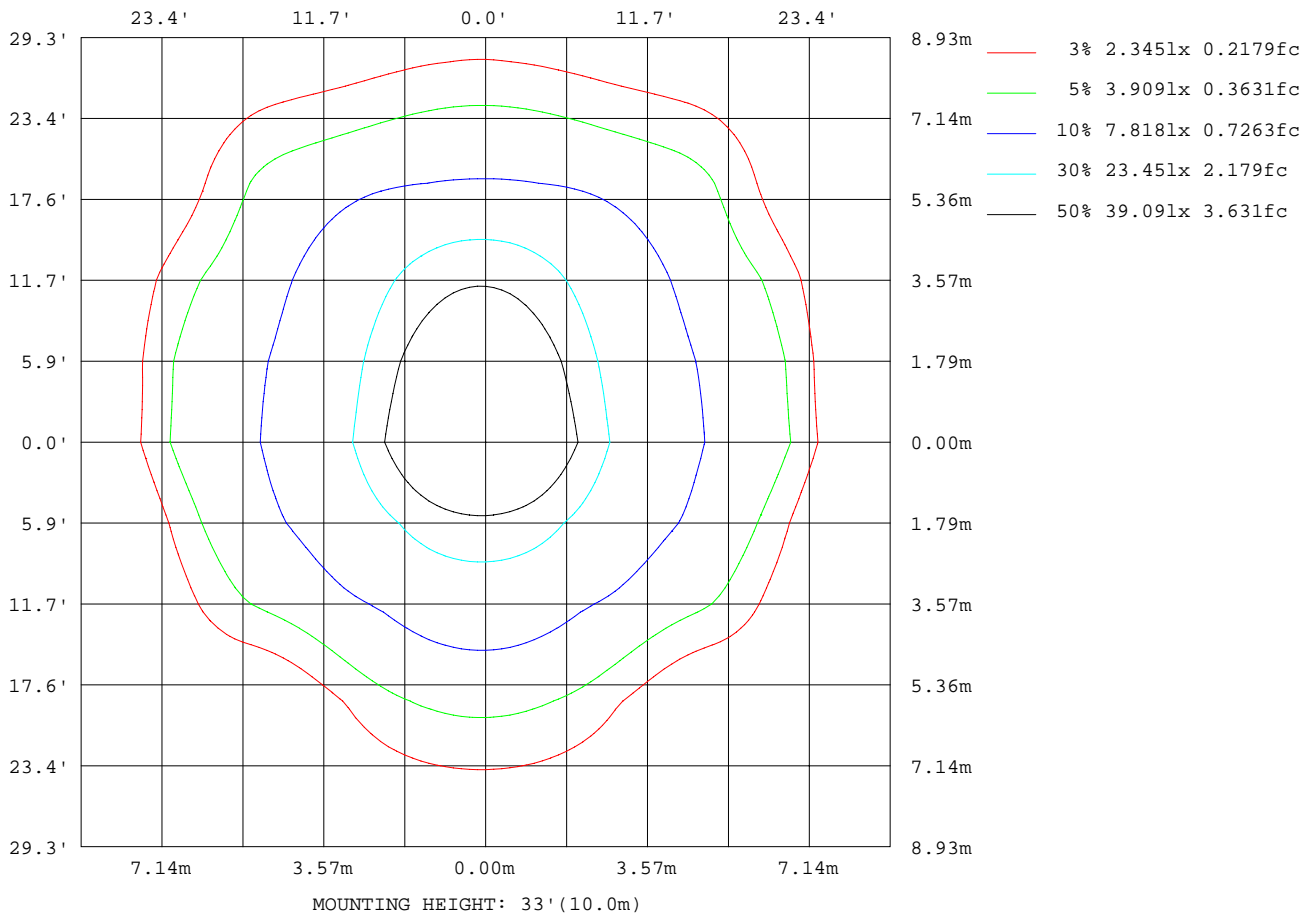
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-21

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity:65.0%
Test Distance:6.960m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

NAME: Infero Hori 30W-24D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
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 Operators: DOBAC
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γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V1.0.260
 Humidity: 65.0%
 Test Distance: 6.960m [K=1.0000]
 Remarks:

Average Luminance Table(CIBSE)

NAME: Infero Hori 30W-24D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Parameter description for average Luminance	Symbol	Value	Unit
Luminance in Azimuth Plane	Bc	refer Table 2	cd/sq.m.
Intensity at angle Gamma in given azimuth plane	I	from data	cd/klm
Number of lamps	N	1	
Output of each lamp(initial lumens as specified)	F	2716.12	lm
Multiplying factor	K	1	
Luminous area in horizontal plane used in calculations	A	0.0019	sq.m.
Angle to the downward vertical from light centre	Gamma	from data	deg

Table 1. Calculation parameters for determination of CIBSE LG3:1996 Average Luminance

G deg	C plane(deg)																		
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
55	51163	48204	45507	43539	41687	41168	40429	39202	37886	37331	37558	38055	38712	38867	38674	40505	41788	43961	46762
60	43785	40550	38406	36296	35951	35891	33757	31505	29736	28987	29423	30595	32581	34252	33485	33560	34598	36589	38874
65	36115	33835	33247	31294	32941	30571	27434	26505	26127	25810	25591	25416	26561	29623	30906	29317	30682	31383	32787
70	34824	33803	33059	31757	30894	25693	23055	22147	21815	21407	20938	20558	21514	24449	29739	29572	31472	32144	33166
75	39068	36428	31602	31271	23385	18273	16029	15284	15005	14434	13569	12888	13366	15980	21419	27352	25867	31897	35485
80	30192	20765	18344	17195	7974	6489	4643	2393	648	0	582	1932	3328	4072	4864	13693	10115	11810	16476
85	6294	5068	3041	0	0	0	0	0	0	0	0	0	0	0	0	0	1508	2353	3168

Table 2. Average Luminance(cd/sq.m.) for defined C plane,Gamma angle

CIBSE Category	Gamma (deg)	Average Luminance		Patch Luminance	
		maximum	specified	maximum	specified
		calculated	maximum	measured	maximum
Category 1	55 to 90	51163	200	---	500
Category 2	65 to 90	39068	200	---	500
Category 3	75 to 90	39068	200	---	500

Table 3. Tabulation of Average and Patch Luminance(cd/sq.m.) for defined CIBSE categories

No match

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-21

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity:65.0%
Test Distance:6.960m [K=1.0000]
Remarks:

Average Luminance Table(CIBSE)

NAME: Infero Hori 30W-24D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Parameter description for average Luminance	Symbol	Value	Unit
Luminance in Azimuth Plane	Bc	refer Table 2	cd/sq.m.
Intensity at angle Gamma in given azimuth plane	I	from data	cd/klm
Number of lamps	N	1	
Output of each lamp(initial lumens as specified)	F	2716.12	lm
Multiplying factor	K	1	
Luminous area in horizontal plane used in calculations	A	0.0019	sq.m.
Angle to the downward vertical from light centre	Gamma	from data	deg

Table 1. Calculation parameters for determination of CIBSE LG3:2001 Average Luminance

G deg	C plane(deg)																		
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
55	51163	48204	45507	43539	41687	41168	40429	39202	37886	37331	37558	38055	38712	38867	38674	40505	41788	43961	46762
60	43785	40550	38406	36296	35951	35891	33757	31505	29736	28987	29423	30595	32581	34252	33485	33560	34598	36589	38874
65	36115	33835	33247	31294	32941	30571	27434	26505	26127	25810	25591	25416	26561	29623	30906	29317	30682	31383	32787
70	34824	33803	33059	31757	30894	25693	23055	22147	21815	21407	20938	20558	21514	24449	29739	29572	31472	32144	33166
75	39068	36428	31602	31271	23385	18273	16029	15284	15005	14434	13569	12888	13366	15980	21419	27352	25867	31897	35485
80	30192	20765	18344	17195	7974	6489	4643	2393	648	0	582	1932	3328	4072	4864	13693	10115	11810	16476
85	6294	5068	3041	0	0	0	0	0	0	0	0	0	0	0	0	0	1508	2353	3168

Table 2. Average Luminance(cd/sq.m.) for defined C plane,Gamma angle

range (deg)	Maximum measured	Average Luminance(cd/sq.m)			
		Maximum limit for screen type & software category used			
		Type I,II screen Some neg.s'ware	Type I,II screen Only pos.s'ware	Type III screen Some neg.s'ware	Type III screen Only pos.s'ware
55 to 90	51163	1000	1500	200	500
65 to 90	39068	1000	1500	200	500

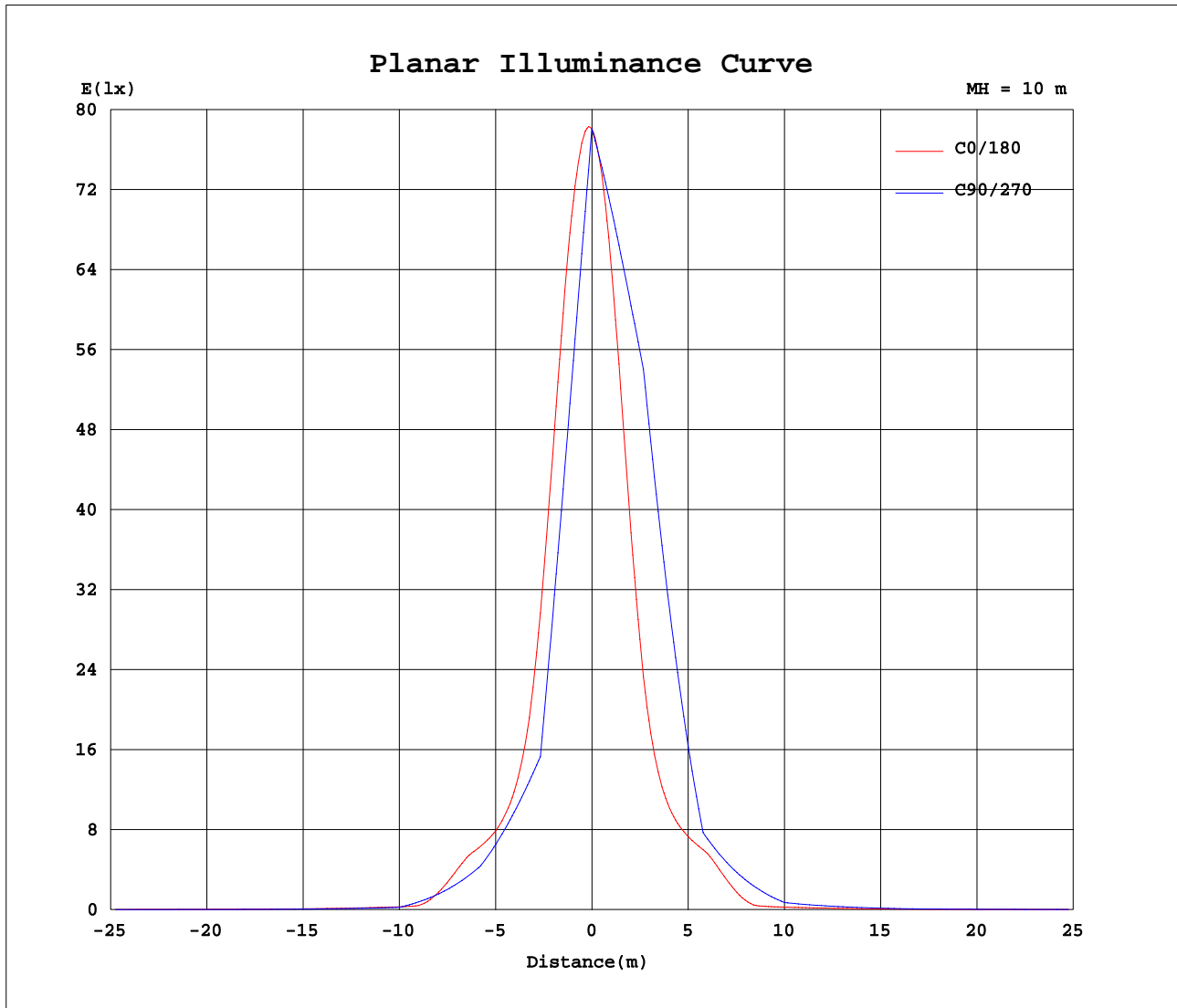
Table 3. Tabulation of average luminance(cd/sq.m.) and luminance limits

No match

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-21

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity:65.0%
Test Distance:6.960m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DOBAC
 Test Date: 2017-11-21

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V1.0.260
 Humidity: 65.0%
 Test Distance: 6.960m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: Infero Hori 30W-24D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
0	7810	7810	7810	7810	7810	7810	7810	7810	7810	7810	7810	7810	7810	7810	7810	7810	7810	7810	7810
5	7321	7160	7007	6863	6729	6605	6492	6391	6295	6208	6132	6064	5998	5946	5894	5852	5819	5788	5773
10	5525	5301	5105	4937	4791	4665	4554	4458	4365	4280	4190	4107	4033	3960	3896	3841	3795	3760	3735
15	3289	3125	3000	2904	2827	2764	2706	2651	2584	2506	2415	2310	2196	2076	1962	1860	1777	1722	1698
20	1788	1710	1656	1614	1584	1559	1538	1501	1436	1332	1267	1277	1294	1313	1332	1350	1360	1362	1358
25	1194	1161	1138	1121	1106	1091	1069	1029	975	942	928	931	946	967	988	1007	1019	1022	1018
30	980	926	888	871	876	895	857	761	683	631	607	606	621	644	663	677	683	682	678
35	729	633	563	519	503	521	518	482	403	321	279	280	342	396	434	458	471	476	474
40	228	200	180	146	122	174	211	207	151	83.5	98.5	145	198	237	261	271	274	273	271
45	80.9	79.1	78.3	76.8	74.3	74.8	78.3	75.2	71.4	69.6	69.6	80.2	102	114	111	98.2	82.8	71.3	67.0
50	71.1	68.1	66.5	65.1	63.3	62.1	62.0	60.6	58.8	57.3	56.9	56.6	56.3	55.9	55.7	54.9	54.4	54.0	53.8
55	55.8	53.3	52.5	50.6	49.6	49.1	47.4	46.3	45.4	44.8	44.9	44.4	44.1	43.2	42.7	41.9	41.3	40.9	40.7
60	41.6	39.4	38.5	37.0	36.5	35.8	34.5	33.2	34.2	34.5	34.1	33.3	32.1	30.9	29.9	29.0	28.2	27.8	27.5
65	29.0	27.7	27.2	26.5	26.7	25.9	25.1	26.0	26.5	25.9	24.5	22.9	22.0	21.4	21.3	21.1	21.0	20.9	20.7
70	22.6	22.2	22.0	21.6	21.5	20.6	20.6	20.9	20.1	18.2	16.7	15.6	15.0	14.5	14.4	14.3	14.2	14.1	13.9
75	19.2	18.5	17.9	17.5	15.5	15.7	15.4	13.4	11.5	10.0	8.99	8.30	7.88	7.61	7.52	7.45	7.38	7.27	7.10
80	9.96	8.18	6.85	6.63	6.05	7.02	5.67	4.01	2.63	2.31	2.14	1.88	1.53	1.15	0.79	0.47	0.21	0.05	0.00
85	1.04	0.82	0.84	0.94	0.50	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-21

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity:65.0%
Test Distance:6.960m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: Infero Hori 30W-24D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Table--2

UNIT: cd

C(DEG) γ (DEG)	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185
0	7810	7810	7810	7810	7810	7810	7810	7810	7810	7810	7810	7810	7810	7810	7810	7810	7810	7810	7810
5	5753	5749	5746	5752	5768	5788	5822	5860	5904	5961	6028	6100	6186	6284	6394	6516	6651	6798	6756
10	3719	3711	3714	3727	3747	3775	3798	3827	3861	3905	3954	4003	4066	4145	4243	4364	4512	4692	4643
15	1704	1736	1792	1868	1947	2026	2099	2158	2203	2236	2260	2272	2292	2315	2349	2399	2474	2583	2558
20	1344	1320	1295	1262	1233	1208	1193	1189	1236	1297	1329	1345	1355	1366	1379	1401	1432	1481	1473
25	1005	983	957	925	894	870	856	860	882	926	989	1008	1017	1023	1030	1041	1058	1082	1080
30	669	657	634	605	572	541	527	536	575	642	730	808	812	784	782	808	858	924	922
35	466	451	425	383	327	258	191	217	290	376	424	432	402	373	382	414	466	543	543
40	267	262	250	227	190	142	98.6	79.3	78.1	133	167	148	113	85.9	106	109	106	106	112
45	71.0	81.3	93.6	100	95.4	79.9	66.7	65.6	65.5	67.6	70.3	69.9	69.2	70.5	72.6	72.0	72.5	73.9	74.2
50	53.9	53.9	54.3	54.3	54.0	54.3	53.9	53.6	54.2	55.3	56.2	57.8	58.1	58.9	60.2	60.8	61.7	63.8	64.5
55	40.8	40.9	41.3	41.5	41.8	42.2	42.6	42.4	41.7	42.1	43.1	44.1	45.4	45.5	46.4	47.9	48.7	51.0	51.5
60	27.6	28.0	28.5	29.1	30.0	31.0	31.9	32.5	32.7	31.8	30.5	31.9	32.9	32.9	33.6	34.8	35.4	36.9	37.9
65	20.6	20.5	20.5	20.4	20.7	21.3	22.3	23.8	24.8	24.8	24.1	23.5	24.4	24.6	24.5	25.2	25.5	26.3	26.9
70	13.8	13.6	13.5	13.4	13.6	14.0	14.7	15.9	17.4	19.3	19.7	19.2	19.4	20.5	20.5	20.9	21.3	21.6	21.9
75	6.88	6.67	6.47	6.34	6.37	6.57	7.05	7.86	9.02	10.5	12.2	13.5	12.7	12.7	15.4	15.7	16.7	17.5	17.9
80	0.05	0.19	0.40	0.64	0.88	1.10	1.26	1.34	1.35	1.60	3.10	4.52	4.49	3.34	4.20	3.90	4.61	5.44	6.53
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.25	0.42	0.39	0.39	0.52	0.63
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-21

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity:65.0%
Test Distance:6.960m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: Infero Hori 30W-24D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Table--3

UNIT: cd

C(DEG) γ (DEG)	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280
0	7810	7810	7810	7810	7810	7810	7810	7810	7810	7810	7810	7810	7810	7810	7810	7810	7810	7810	7810
5	6726	6708	6702	6707	6724	6752	6785	6823	6870	6919	6963	7014	7057	7101	7142	7171	7205	7217	7234
10	4627	4645	4694	4772	4877	5008	5153	5315	5488	5670	5857	6023	6183	6327	6446	6538	6599	6622	6613
15	2572	2622	2702	2821	2971	3170	3403	3669	3961	4274	4601	4926	5235	5502	5731	5897	5993	6009	5956
20	1487	1518	1571	1646	1752	1897	2085	2318	2597	2885	3177	3462	3738	3976	4165	4309	4392	4411	4374
25	1088	1103	1131	1170	1230	1308	1382	1485	1619	1780	1983	2190	2372	2530	2649	2739	2790	2809	2794
30	927	940	958	981	987	989	1024	1087	1148	1209	1268	1314	1325	1296	1246	1201	1188	1218	1284
35	573	630	711	749	728	708	735	804	889	931	893	857	836	832	839	850	860	864	864
40	138	186	256	311	332	338	378	475	572	616	593	547	513	504	511	523	532	534	532
45	74.9	76.8	79.4	86.7	110	86.5	107	203	286	319	301	248	199	177	184	196	204	204	200
50	66.2	68.2	68.3	69.7	71.8	70.5	72.5	83.5	114	98.8	76.8	78.0	79.5	91.6	120	144	154	150	132
55	53.6	54.6	56.0	58.1	58.6	59.9	61.1	63.7	64.3	64.5	64.7	65.3	66.4	71.1	86.0	99.5	105	103	93.2
60	40.0	40.8	42.8	43.8	45.3	47.2	48.3	49.1	50.1	51.2	52.0	52.9	53.7	54.8	56.0	55.9	55.8	56.6	57.6
65	27.9	28.9	30.3	31.3	33.1	34.8	35.4	35.9	36.6	37.8	40.1	41.9	42.8	43.5	43.8	44.2	44.6	44.7	44.7
70	22.1	22.5	23.0	23.6	24.9	25.1	24.7	26.2	28.1	30.0	31.5	32.3	32.7	33.0	33.0	33.2	33.4	33.5	33.6
75	18.2	18.9	18.7	19.5	19.2	19.1	19.9	21.1	22.2	22.9	23.2	23.1	22.7	22.4	22.2	22.1	22.1	22.3	22.6
80	8.17	9.02	11.6	11.0	11.0	13.4	15.3	13.7	10.9	8.31	6.04	4.16	2.64	1.48	0.66	0.16	0.00	0.17	0.67
85	0.88	1.42	1.34	1.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-21

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity:65.0%
Test Distance:6.960m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: Infero Hori 30W-24D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Table--4

UNIT: cd

C(DEG) γ (DEG)	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355				
0	7810	7810	7810	7810	7810	7810	7810	7810	7810	7810	7810	7810	7810	7810	7810				
5	7238	7239	7238	7224	7217	7202	7187	7178	7173	7168	7172	7184	7206	7236	7274				
10	6573	6507	6419	6315	6188	6060	5937	5807	5691	5587	5508	5451	5423	5425	5459				
15	5839	5659	5422	5156	4875	4591	4315	4058	3831	3633	3475	3354	3276	3237	3240				
20	4280	4116	3907	3662	3389	3110	2806	2517	2289	2110	1971	1877	1814	1780	1770				
25	2735	2629	2481	2291	2082	1879	1715	1584	1485	1380	1304	1252	1218	1198	1189				
30	1360	1418	1431	1395	1329	1260	1194	1133	1081	1057	1038	1011	992	982	977				
35	864	870	888	922	966	970	921	852	806	807	851	842	779	734	717				
40	531	539	567	614	669	682	624	518	460	436	420	382	302	247	223				
45	200	214	258	319	368	366	301	192	113	143	118	91.3	87.4	83.4	81.5				
50	108	87.5	82.6	80.5	108	143	119	79.4	75.1	75.3	75.2	73.7	73.7	72.6	71.0				
55	79.8	70.3	68.4	66.9	67.1	67.4	66.8	64.7	63.4	63.0	62.6	60.7	59.0	58.4	56.1				
60	57.0	55.7	54.8	54.1	53.9	53.3	52.5	51.7	50.6	49.0	47.6	47.1	45.0	43.9	42.0				
65	44.5	44.1	43.3	42.2	40.7	39.5	38.6	38.0	37.5	35.9	34.2	33.4	31.9	30.4	29.3				
70	33.7	33.6	33.5	32.9	32.1	30.6	28.6	26.5	26.7	26.5	25.2	24.2	23.7	23.2	22.8				
75	23.0	23.4	23.8	24.1	24.1	23.7	22.8	21.6	20.6	20.5	20.7	20.1	20.1	19.7	19.4				
80	1.51	2.71	4.28	6.27	8.68	11.5	14.8	17.1	15.8	14.3	13.3	14.0	13.0	12.5	11.0				
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.04	2.69	2.84	1.95	1.28				
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				

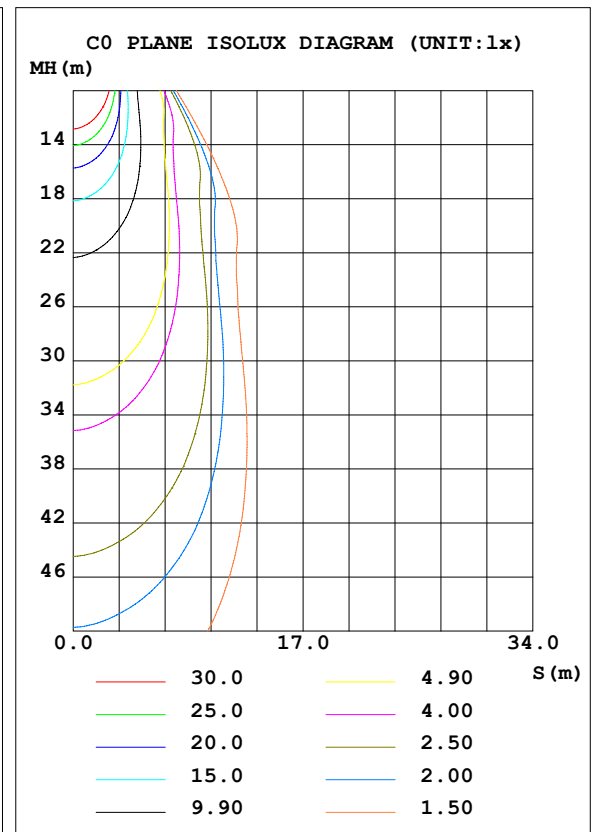
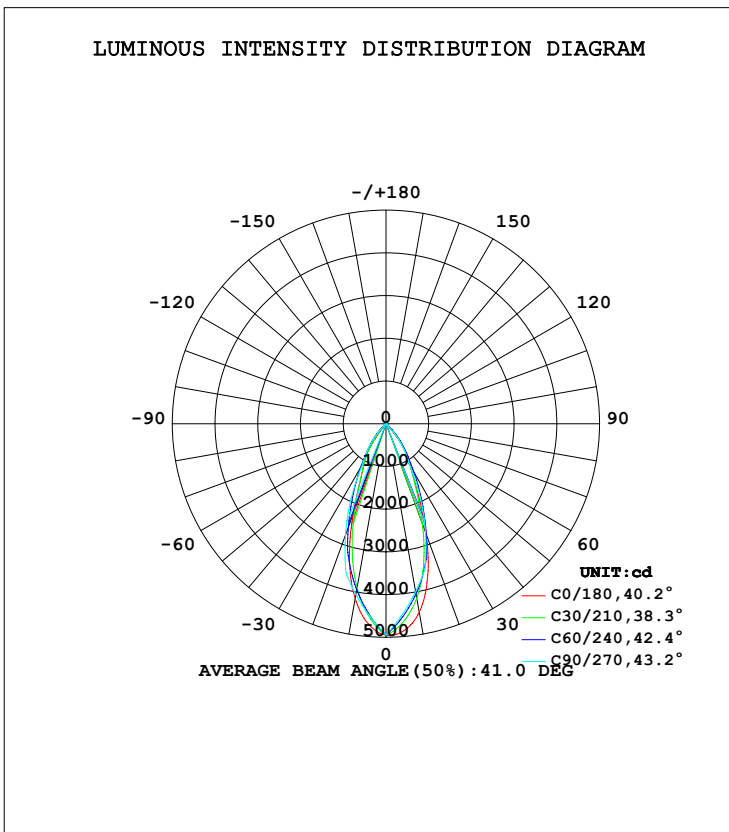
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-21

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity:65.0%
Test Distance:6.960m [K=1.0000]
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: Infero Hori 30W-40D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	Infero Hori 30W-40D-3000K-90	Imax (cd)	4957	S/MH (C0/180)	0.61
NOMINAL POWER (W)	28	LOR (%)	100.0	S/MH (C90/270)	0.69
RATED VOLTAGE (V)	218	TOTAL FLUX (lm)	2782.7	η UP, DN (C0-180)	0.0, 50.4
NOMINAL FLUX (lm)	2782.72	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 49.6
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	217.1	η down (%)	100.0	CIBSE SHR MAX	0.65



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DOBAC
Test Date: 2017-11-21

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity: 65.0%
Test Distance: 6.960m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	lum,lamp
5	4709	4498	4504	4605	4860	4582	4471	4473	0- 5	112.7	112.7	4.05,4.05
10	4158	3900	4060	4121	4485	4078	3994	3847	5- 10	307.3	420.0	15.1,15.1
15	3304	3164	3617	3491	3755	3425	3518	3088	10- 15	439.5	859.5	30.9,30.9
20	2255	2347	2776	2728	2745	2640	2706	2255	15- 20	484.2	1344	48.3,48.3
25	1377	1571	1936	1895	1719	1826	1894	1492	20- 25	436.8	1781	64,64
30	1024	994.3	1096	1244	1139	1192	1083	946.0	25- 30	351.1	2132	76.6,76.6
35	565.0	548.5	757.2	762.9	851.6	713.4	749.7	517.1	30- 35	265.3	2397	86.1,86.1
40	131.9	173.8	418.0	367.3	295.4	308.4	416.8	149.1	35- 40	169.5	2566	92.2,92.2
45	81.77	85.52	78.83	148.7	79.62	121.7	83.96	83.89	40- 45	79.23	2646	95.1,95.1
50	62.53	65.18	66.56	69.17	63.57	68.26	70.23	64.40	45- 50	34.45	2680	96.3,96.3
55	48.58	49.47	54.28	52.85	52.82	53.84	56.50	49.89	50- 55	25.49	2706	97.2,97.2
60	38.34	40.41	42.01	43.62	42.70	44.37	42.77	40.54	55- 60	21.70	2727	98,98
65	30.73	32.46	35.59	35.36	34.98	36.03	36.01	32.44	60- 65	18.28	2746	98.7,98.7
70	24.29	24.58	29.18	28.39	29.02	28.81	29.26	24.75	65- 70	15.53	2761	99.2,99.2
75	16.92	15.38	22.77	21.93	23.91	22.24	22.50	16.34	70- 75	12.67	2774	99.7,99.7
80	3.603	5.745	0	13.10	13.75	13.18	0	7.134	75- 80	7.623	2781	100,100
85	0.3279	0	0	0	1.570	0	0	0	80- 85	1.275	2783	100,100
90	0.0659	0	0	0	0.0456	0	0	0	85- 90	0.0412	2783	100,100
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:cd								UNIT:lm			

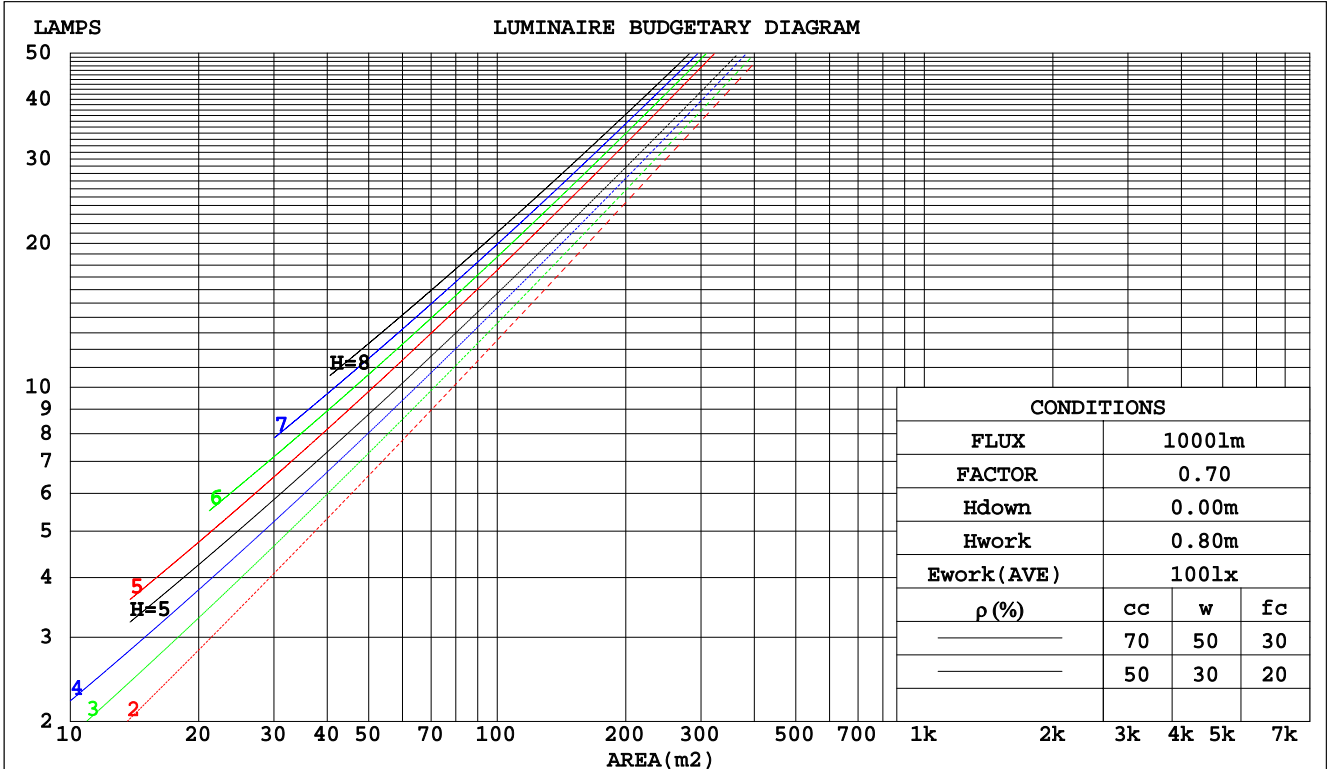
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-21

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity:65.0%
Test Distance:6.960m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: Infero Hori 30W-40D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pw																0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio Coefficients of Utilization(CU)															
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	.00
1.0	1.11	1.08	1.06	1.09	1.07	1.05	1.05	1.03	1.01	1.01	.00	.98	.98	.97	.96	.94
2.0	1.03	.00	.96	1.02	.98	.95	.99	.96	.93	.96	.93	.91	.93	.91	.89	.88
3.0	.97	.92	.88	.96	.91	.88	.93	.89	.86	.91	.87	.85	.88	.86	.84	.82
4.0	.91	.86	.82	.90	.85	.81	.88	.84	.80	.86	.82	.79	.84	.81	.78	.77
5.0	.86	.80	.76	.85	.80	.76	.83	.79	.75	.81	.78	.74	.80	.77	.74	.72
6.0	.81	.75	.71	.80	.75	.71	.79	.74	.71	.77	.73	.70	.76	.73	.70	.68
7.0	.77	.71	.67	.76	.71	.67	.75	.70	.67	.74	.69	.66	.73	.69	.66	.65
8.0	.73	.67	.63	.72	.67	.63	.71	.66	.63	.70	.66	.63	.69	.65	.62	.61
9.0	.69	.64	.60	.69	.64	.60	.68	.63	.60	.67	.63	.60	.66	.62	.59	.58
10.0	.66	.61	.57	.66	.60	.57	.65	.60	.57	.64	.60	.57	.63	.59	.56	.55



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DOBAC
Test Date: 2017-11-21

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity: 65.0%
Test Distance: 6.960m [K=1.0000]
Remarks:

WEC AND CCEC

NAME: Infero Hori 30W-40D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.175	.100	.032	.168	.096	.030	.156	.089	.029	.144	.083	.027	.133	.077	.025	
2.0	.166	.091	.028	.161	.089	.027	.150	.084	.026	.141	.079	.025	.132	.074	.023	
3.0	.157	.084	.025	.153	.082	.025	.144	.078	.024	.135	.074	.023	.128	.071	.022	
4.0	.149	.077	.023	.145	.076	.022	.137	.073	.022	.130	.070	.021	.123	.067	.020	
5.0	.141	.072	.021	.138	.071	.021	.131	.068	.020	.125	.066	.020	.119	.064	.019	
6.0	.134	.067	.019	.131	.066	.019	.125	.064	.019	.120	.062	.018	.115	.060	.018	
7.0	.128	.063	.018	.125	.062	.018	.120	.061	.017	.115	.059	.017	.111	.057	.017	
8.0	.122	.060	.017	.120	.059	.017	.115	.058	.016	.111	.056	.016	.107	.055	.016	
9.0	.117	.057	.016	.115	.056	.016	.111	.055	.016	.107	.054	.015	.103	.052	.015	
10.0	.112	.054	.015	.110	.053	.015	.106	.052	.015	.103	.051	.015	.100	.050	.014	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.171	.157	.145	.146	.135	.125	.100	.093	.086	.058	.054	.050	.018	.017	.016	
2.0	.156	.133	.113	.133	.114	.098	.091	.079	.068	.053	.046	.040	.017	.015	.013	
3.0	.143	.114	.090	.122	.098	.078	.084	.068	.055	.049	.040	.032	.016	.013	.011	
4.0	.132	.099	.073	.113	.085	.064	.078	.059	.045	.045	.035	.027	.015	.011	.009	
5.0	.123	.087	.060	.106	.075	.053	.073	.053	.037	.042	.031	.022	.014	.010	.007	
6.0	.115	.078	.051	.099	.067	.044	.068	.047	.031	.040	.028	.019	.013	.009	.006	
7.0	.109	.070	.043	.093	.061	.037	.065	.043	.026	.038	.025	.016	.012	.008	.005	
8.0	.103	.064	.037	.088	.055	.032	.061	.039	.023	.036	.023	.014	.012	.007	.004	
9.0	.098	.058	.032	.084	.051	.028	.058	.036	.020	.034	.021	.012	.011	.007	.004	
10.0	.093	.054	.028	.080	.047	.024	.056	.033	.017	.032	.019	.010	.011	.006	.003	

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-21

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity:65.0%
Test Distance:6.960m [K=1.0000]
Remarks:

Uncorrected UGR Table

NAME: Infero Hori 30W-40D-3000K-90					TYPE:					WEIGHT:				
DIM.:					SPEC.:					SERIAL No.:				
MFR.: DOBAC					SUR.:					PROTECTION ANGLE:				
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3				
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3				
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2				
Room dimensions	Viewed crosswise					Viewed endwise								
x = 2H y = 2H	22.7	23.7	23.0	23.8	24.0	24.8	25.7	25.0	25.8	26.0				
3H	23.0	23.9	23.3	24.1	24.3	25.0	25.8	25.2	26.0	26.2				
4H	23.2	24.0	23.5	24.2	24.4	25.1	25.9	25.4	26.1	26.3				
6H	23.2	23.9	23.5	24.2	24.4	25.1	25.8	25.4	26.1	26.3				
8H	23.1	23.8	23.4	24.1	24.4	25.0	25.8	25.4	26.0	26.3				
12H	23.1	23.8	23.4	24.0	24.3	25.0	25.7	25.3	26.0	26.2				
4H 2H	22.7	23.5	23.0	23.8	24.0	24.7	25.4	24.9	25.7	25.9				
3H	23.2	23.9	23.5	24.2	24.4	25.0	25.7	25.3	25.9	26.2				
4H	23.4	24.0	23.8	24.3	24.6	25.2	25.9	25.6	26.2	26.5				
6H	23.4	24.0	23.8	24.3	24.6	25.2	25.8	25.6	26.1	26.5				
8H	23.4	23.9	23.8	24.2	24.6	25.2	25.7	25.6	26.0	26.4				
12H	23.3	23.8	23.7	24.1	24.5	25.1	25.6	25.5	26.0	26.4				
8H 4H	23.4	24.0	23.8	24.3	24.7	25.2	25.7	25.6	26.1	26.4				
6H	23.5	23.9	23.9	24.3	24.7	25.2	25.6	25.6	26.0	26.4				
8H	23.4	23.8	23.9	24.2	24.6	25.2	25.5	25.6	25.9	26.4				
12H	23.4	23.7	23.8	24.1	24.6	25.1	25.4	25.6	25.9	26.3				
12H 4H	23.4	23.9	23.8	24.2	24.6	25.2	25.6	25.6	26.0	26.4				
6H	23.4	23.8	23.9	24.2	24.6	25.2	25.5	25.6	26.0	26.4				
8H	23.4	23.7	23.8	24.1	24.6	25.1	25.4	25.6	25.9	26.3				
Variations with the observer position at spacings:														
S = 1.0H	+ 2.1 / - 1.4					+ 2.1 / - 3.6								
1.5H	+ 3.7 / - 1.2					+ 4.4 / - 3.4								
2.0H	+ 0.7 / - 0.6					+ 0.4 / - 0.6								

CIE Pub.117 Corrected 2783 lm Total Lamp Luminous Flux. (8log(F/F0) = 3.6)

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DOBAC
Test Date: 2017-11-21

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity: 65.0%
Test Distance: 6.960m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

NAME: Infero Hori 30W-40D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

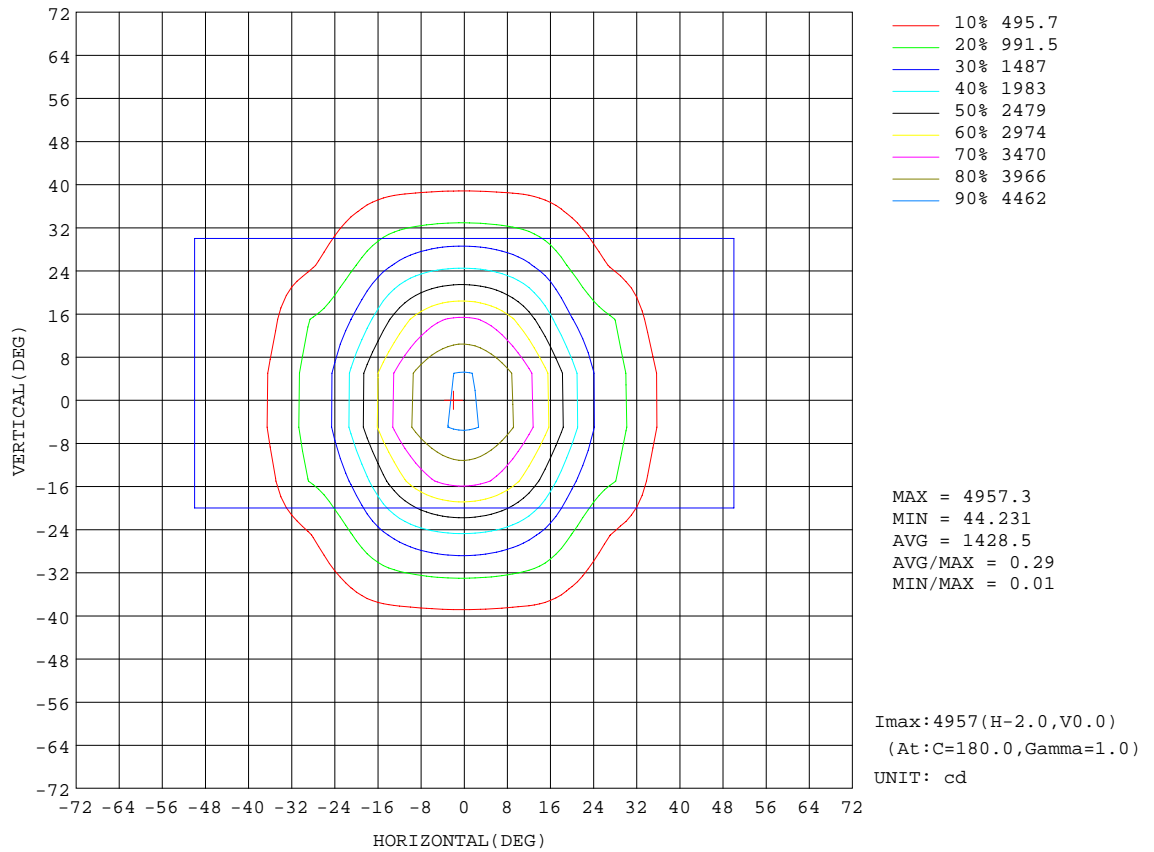
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	87	80	76	86	80	76	85	80	76	73
0.80	94	88	84	94	88	84	92	87	84	80
1.00	99	93	89	98	92	89	96	92	88	84
1.25	103	97	94	102	97	93	100	96	93	88
1.50	105	101	97	104	100	97	102	98	96	91
2.00	108	104	101	107	103	100	104	101	98	93
2.50	110	106	103	108	105	102	105	102	100	94
3.00	111	108	105	110	107	104	106	104	102	95
4.00	114	111	109	112	109	107	108	106	104	97
5.00	115	113	111	113	111	109	109	107	106	98
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-21

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity:65.0%
Test Distance:6.960m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

NAME: Infero Hori 30W-40D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

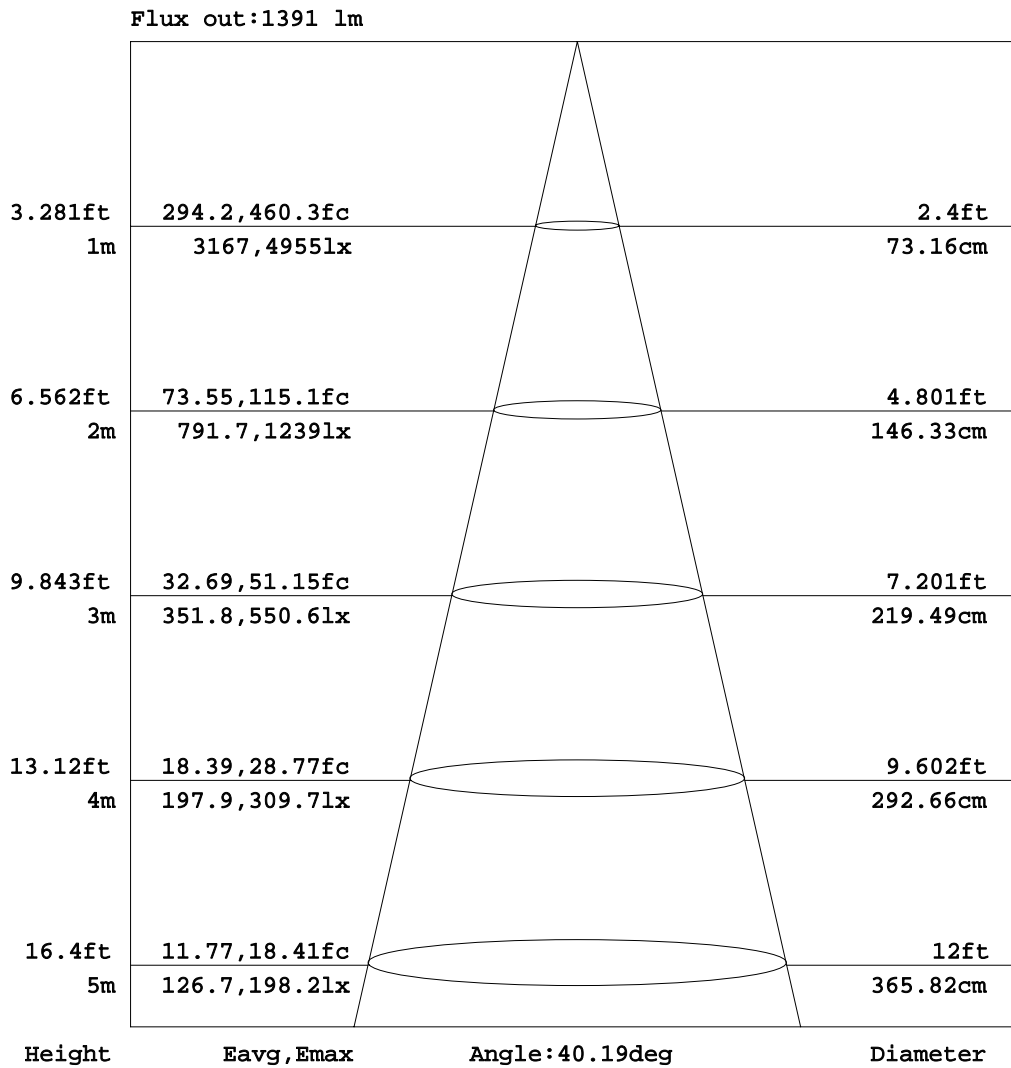


C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DOBAC
 Test Date: 2017-11-21

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V1.0.260
 Humidity: 65.0%
 Test Distance: 6.960m [K=1.0000]
 Remarks:

AAI Figure

NAME: Infero Hori 30W-40D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:



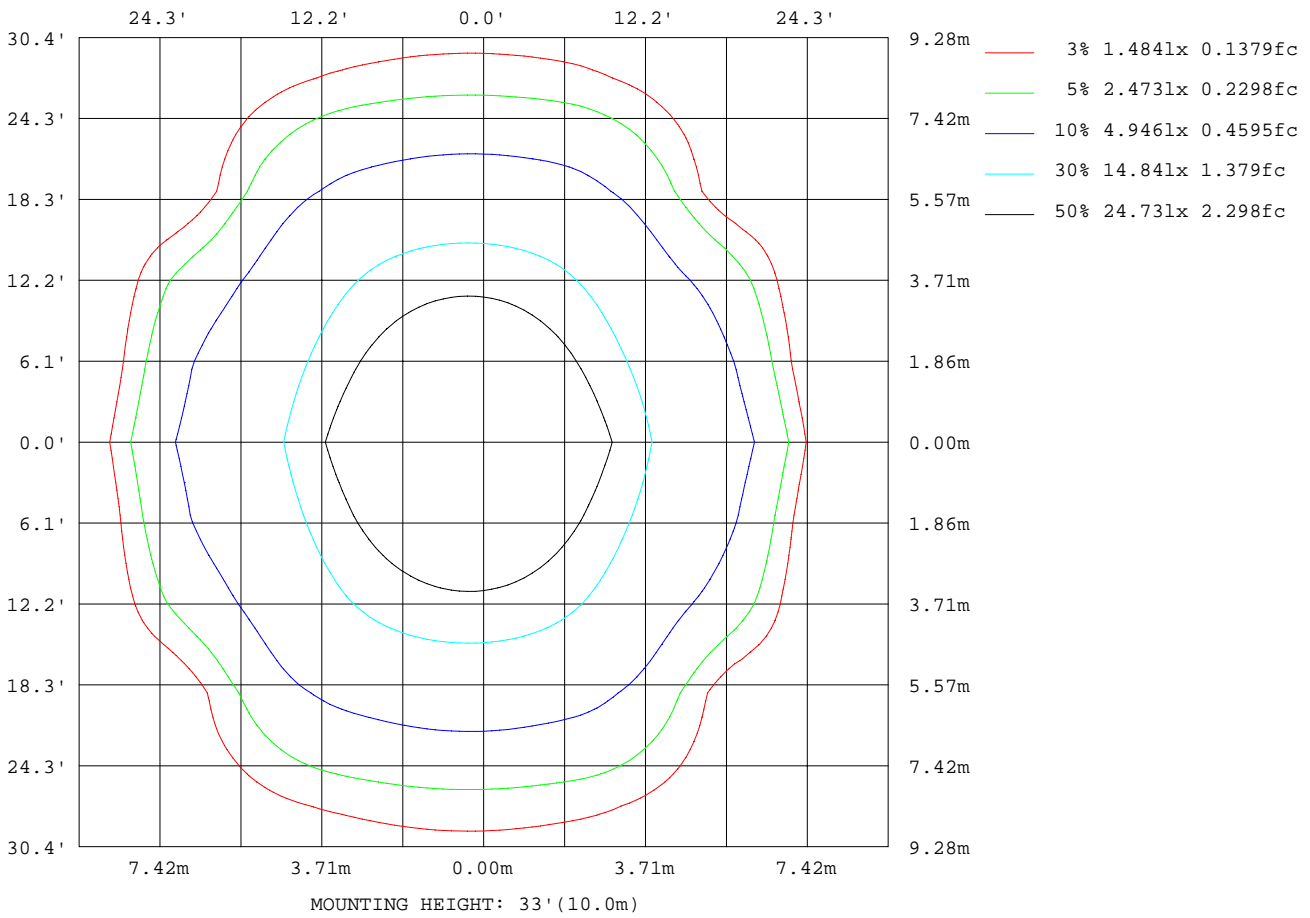
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DOBAC
Test Date: 2017-11-21

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity: 65.0%
Test Distance: 6.960m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

NAME: Infero Hori 30W-40D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DOBAC
 Test Date: 2017-11-21

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V1.0.260
 Humidity: 65.0%
 Test Distance: 6.960m [K=1.0000]
 Remarks:

Average Luminance Table(CIBSE)

NAME: Infero Hori 30W-40D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Parameter description for average Luminance	Symbol	Value	Unit
Luminance in Azimuth Plane	Bc	refer Table 2	cd/sq.m.
Intensity at angle Gamma in given azimuth plane	I	from data	cd/klm
Number of lamps	N	1	
Output of each lamp(initial lumens as specified)	F	2782.72	lm
Multiplying factor	K	1	
Luminous area in horizontal plane used in calculations	A	0.0019	sq.m.
Angle to the downward vertical from light centre	Gamma	from data	deg

Table 1. Calculation parameters for determination of CIBSE LG3:1996 Average Luminance

G deg	C plane(deg)																		
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
55	44575	44284	44445	145389	45918	46389	48234	50322	49708	49812	49869	49670	49224	49023	48235	48021	47795	48258	48465
60	40363	40193	40573	40930	41757	43142	43906	44318	44025	44220	44795	45494	45864	46107	45369	45084	44963	44994	44951
65	38272	37840	38288	38558	40000	40463	40997	42441	43618	44329	44525	44271	43517	43687	44077	43751	43431	43319	43560
70	37385	36765	37943	37243	39035	38278	41022	43003	44186	44904	45203	45064	44461	43752	44068	44536	44464	44386	44664
75	34413	30665	28106	32541	30699	34913	41341	44402	45597	46294	46792	46984	46631	45545	43887	45842	47475	48189	48616
80	10921	8113	9191	16717	13757	20741	16209	7881	2027	0	2081	8372	18834	32715	42483	34421	45189	44773	41690
85	1980	2137	2236	0	0	0	0	0	0	0	0	0	0	0	0	0	11100	10565	9483

Table 2. Average Luminance(cd/sq.m.) for defined C plane,Gamma angle

CIBSE Category	Gamma (deg)	Average Luminance		Patch Luminance	
		maximum	specified	maximum	specified
		calculated	maximum	measured	maximum
Category 1	55 to 90	50322	200	---	500
Category 2	65 to 90	48616	200	---	500
Category 3	75 to 90	48616	200	---	500

Table 3. Tabulation of Average and Patch Luminance(cd/sq.m.) for defined CIBSE categories

No match

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-21

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity:65.0%
Test Distance:6.960m [K=1.0000]
Remarks:

Average Luminance Table(CIBSE)

NAME: Infero Hori 30W-40D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Parameter description for average Luminance	Symbol	Value	Unit
Luminance in Azimuth Plane	Bc	refer Table 2	cd/sq.m.
Intensity at angle Gamma in given azimuth plane	I	from data	cd/klm
Number of lamps	N	1	
Output of each lamp(initial lumens as specified)	F	2782.72	lm
Multiplying factor	K	1	
Luminous area in horizontal plane used in calculations	A	0.0019	sq.m.
Angle to the downward vertical from light centre	Gamma	from data	deg

Table 1. Calculation parameters for determination of CIBSE LG3:2001 Average Luminance

G deg	C plane(deg)																		
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
55	44575	44284	44451	45389	45918	46389	48234	50322	49708	49812	49869	49670	49224	49023	48235	48021	47795	48258	48465
60	40363	40193	40573	40930	41757	43142	43906	44318	44025	44220	44795	45494	45864	46107	45369	45084	44963	44994	44951
65	38272	37840	38288	38558	40000	40463	40997	42441	43618	44329	44525	44271	43517	43687	44077	43751	43431	43319	43560
70	37385	36765	37943	37243	39035	38278	41022	43003	44186	44904	45203	45064	44461	43752	44068	44536	44464	44386	44664
75	34413	30665	28106	32541	30699	34913	41341	44402	45597	46294	46792	46984	46631	45545	43887	45842	47475	48189	48616
80	10921	8113	9191	16717	13757	20741	16209	7881	2027	0	2081	8372	18834	32715	42483	34421	45189	44773	41690
85	1980	2137	2236	0	0	0	0	0	0	0	0	0	0	0	0	0	11100	10565	9483

Table 2. Average Luminance(cd/sq.m.) for defined C plane,Gamma angle

range (deg)	Maximum measured	Average Luminance(cd/sq.m)			
		Maximum limit for screen type & software category used			
		Type I,II screen Some neg.s'ware	Type I,II screen Only pos.s'ware	Type III screen Some neg.s'ware	Type III screen Only pos.s'ware
55 to 90	50322	1000	1500	200	500
65 to 90	48616	1000	1500	200	500

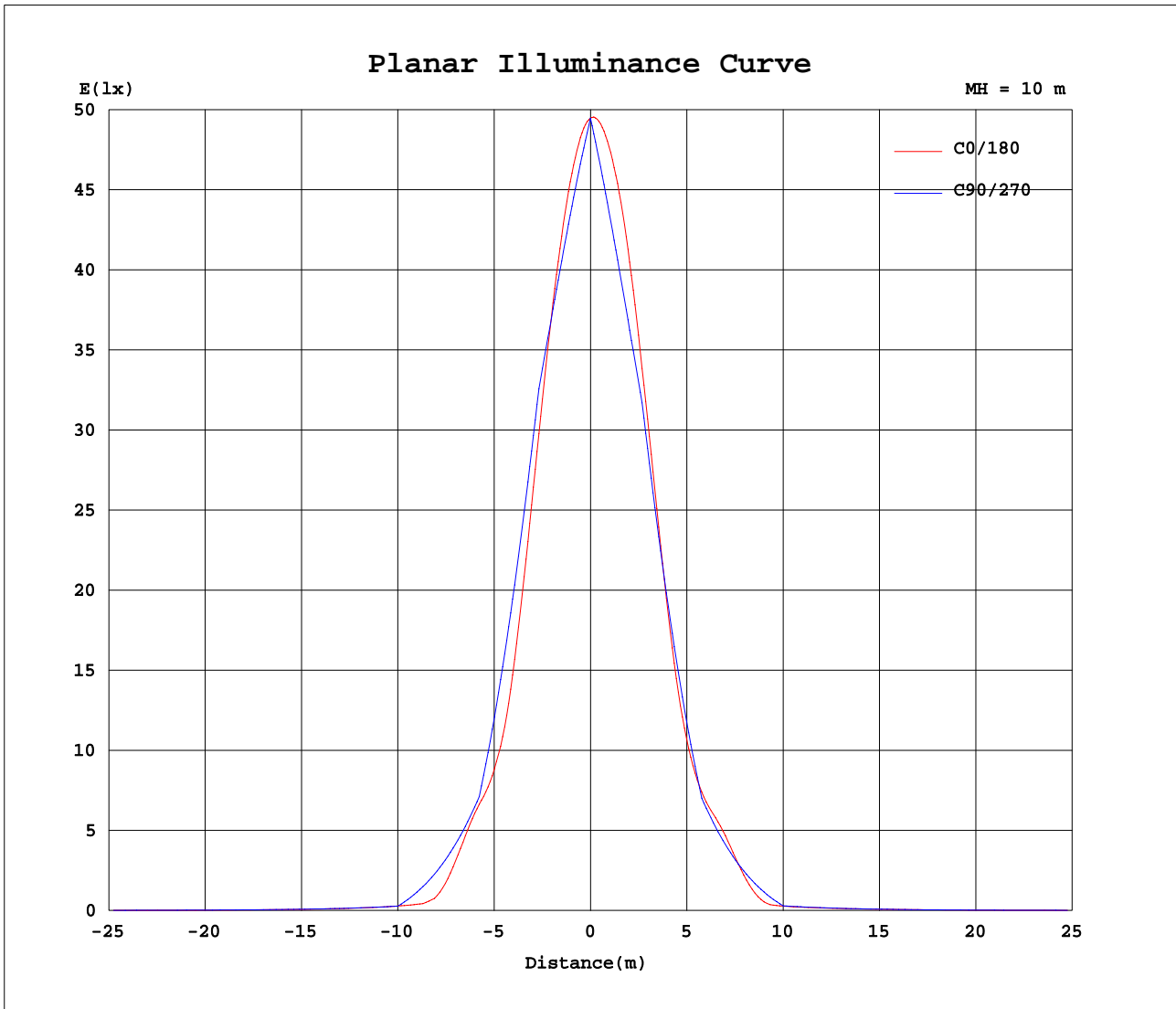
Table 3. Tabulation of average luminance(cd/sq.m.) and luminance limits

No match

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-21

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity:65.0%
Test Distance:6.960m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DOBAC
 Test Date: 2017-11-21

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V1.0.260
 Humidity: 65.0%
 Test Distance: 6.960m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: Infero Hori 30W-40D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
0	4947	4947	4947	4947	4947	4947	4947	4947	4947	4947	4947	4947	4947	4947	4947	4947	4947	4947	4947
5	4709	4672	4638	4607	4580	4556	4537	4521	4508	4498	4491	4487	4485	4486	4486	4489	4494	4497	4504
10	4158	4088	4028	3979	3942	3916	3899	3892	3892	3900	3911	3927	3946	3966	3986	4007	4027	4046	4060
15	3304	3212	3142	3093	3065	3055	3064	3084	3118	3164	3218	3277	3338	3401	3458	3510	3552	3589	3617
20	2255	2174	2123	2096	2089	2103	2138	2189	2259	2347	2437	2511	2578	2631	2673	2706	2732	2754	2776
25	1377	1343	1327	1324	1338	1362	1393	1433	1488	1571	1663	1753	1821	1867	1892	1906	1915	1923	1936
30	1024	984	961	963	985	1016	991	948	951	994	1066	1144	1202	1221	1198	1157	1122	1100	1096
35	565	514	494	504	548	597	602	571	539	548	606	674	742	781	782	766	757	754	757
40	132	126	123	124	128	179	231	241	190	174	281	378	443	473	472	449	429	419	418
45	81.8	79.5	79.0	81.4	80.7	81.6	84.3	83.8	83.5	85.5	120	176	207	203	177	138	106	85.3	78.8
50	62.5	61.1	61.2	61.7	62.0	62.6	63.7	64.5	65.1	65.2	66.3	68.8	64.6	66.3	68.2	67.5	66.5	66.2	66.6
55	48.6	47.8	48.3	48.1	48.4	49.0	49.5	50.0	50.0	49.5	50.6	51.5	52.6	53.8	54.8	54.8	54.2	54.0	54.3
60	38.3	37.9	38.2	38.1	38.5	38.7	38.9	38.8	39.7	40.4	41.0	41.5	41.7	42.2	42.1	42.0	41.8	41.9	42.0
65	30.7	30.3	30.4	30.6	30.7	30.8	31.0	31.6	32.1	32.5	32.5	32.3	32.9	33.6	34.1	34.5	35.0	35.4	35.6
70	24.3	23.7	23.9	24.1	24.7	23.7	24.2	25.4	25.4	24.6	24.9	25.7	26.7	27.4	27.9	28.3	28.7	29.0	29.2
75	16.9	15.6	15.1	14.9	13.8	13.9	16.0	16.0	15.1	15.4	17.2	19.0	20.3	21.3	21.8	22.2	22.4	22.6	22.8
80	3.60	3.12	2.68	3.17	3.03	4.72	5.52	4.90	4.54	5.75	6.84	6.52	5.35	3.94	2.60	1.49	0.67	0.17	0.00
85	0.33	0.18	0.35	0.48	0.37	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-21

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity:65.0%
Test Distance:6.960m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: Infero Hori 30W-40D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Table--2

UNIT: cd

C(DEG) γ (DEG)	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	
0	4947	4947	4947	4947	4947	4947	4947	4947	4947	4947	4947	4947	4947	4947	4947	4947	4947	4947	4947	
5	4510	4519	4527	4537	4548	4559	4574	4589	4605	4624	4646	4669	4694	4723	4754	4787	4823	4860	4820	
10	4072	4081	4088	4093	4096	4101	4105	4111	4121	4134	4153	4177	4209	4246	4293	4348	4413	4485	4407	
15	3630	3637	3632	3620	3598	3573	3544	3516	3491	3469	3455	3450	3458	3483	3521	3579	3656	3755	3648	
20	2794	2812	2827	2838	2840	2835	2820	2788	2728	2658	2596	2550	2526	2521	2537	2577	2645	2745	2639	
25	1953	1975	1998	2020	2034	2034	2011	1967	1895	1818	1749	1694	1658	1636	1625	1635	1663	1719	1659	
30	1112	1148	1199	1259	1316	1355	1353	1310	1244	1182	1147	1148	1147	1129	1116	1112	1119	1139	1116	
35	764	774	790	812	842	861	850	818	763	726	722	771	841	840	798	786	804	852	797	
40	425	439	462	493	528	543	521	461	367	312	339	389	392	354	299	272	272	295	267	
45	86.0	106	139	182	228	259	259	223	149	88.9	85.2	128	110	83.1	80.9	78.4	78.2	79.6	78.3	
50	66.7	66.2	65.6	65.2	65.0	64.3	80.6	88.4	69.2	65.4	63.8	63.4	63.6	63.4	63.6	63.2	62.8	63.6	63.0	
55	54.4	54.3	54.1	54.1	53.9	53.6	53.7	53.4	52.8	52.6	52.3	52.3	52.3	52.1	52.2	52.6	52.1	52.8	52.1	
60	42.2	42.6	42.9	43.2	43.3	43.6	43.7	43.8	43.6	43.1	42.7	42.8	42.8	42.7	42.5	42.7	42.4	42.7	42.4	
65	35.7	35.8	35.7	35.5	35.1	34.9	34.6	35.1	35.4	35.4	35.3	35.1	35.0	34.9	34.9	34.8	34.8	35.0	34.9	
70	29.3	29.4	29.4	29.3	29.0	28.9	28.6	28.4	28.4	28.6	28.9	28.9	28.9	28.9	28.8	28.8	29.0	29.0	29.2	
75	22.9	23.0	23.1	23.1	23.0	22.9	22.7	22.4	21.9	21.6	21.4	22.5	23.6	23.3	23.9	23.7	23.8	23.9	24.0	
80	0.17	0.69	1.55	2.76	4.32	6.21	8.42	10.8	13.1	14.0	11.9	11.4	12.9	14.9	13.4	14.8	13.7	13.8	13.6	
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.21	1.84	2.42	1.75	1.02	1.57	1.64
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-21

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity:65.0%
Test Distance:6.960m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: Infero Hori 30W-40D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Table--3

UNIT: cd

C(DEG) γ (DEG)	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280
0	4947	4947	4947	4947	4947	4947	4947	4947	4947	4947	4947	4947	4947	4947	4947	4947	4947	4947	4947
5	4782	4746	4712	4681	4653	4628	4604	4582	4564	4547	4532	4519	4507	4496	4487	4477	4471	4464	4461
10	4338	4277	4225	4183	4146	4118	4094	4078	4065	4055	4048	4039	4032	4026	4018	4007	3994	3980	3961
15	3563	3497	3451	3418	3403	3401	3409	3425	3445	3468	3493	3516	3532	3539	3542	3535	3518	3490	3452
20	2564	2515	2490	2484	2497	2530	2580	2640	2698	2736	2758	2766	2767	2759	2742	2726	2706	2683	2658
25	1627	1615	1619	1632	1658	1697	1755	1826	1897	1950	1980	1987	1975	1957	1933	1912	1894	1881	1871
30	1108	1109	1118	1130	1121	1116	1139	1192	1253	1301	1317	1293	1242	1184	1135	1098	1083	1088	1111
35	772	780	820	820	750	688	678	713	763	796	825	828	807	784	768	756	750	748	753
40	259	274	320	368	375	321	269	308	413	483	513	514	491	461	438	423	417	419	430
45	78.3	80.2	82.5	103	121	84.4	84.9	122	193	239	246	223	184	143	110	90.4	84.0	90.5	110
50	63.6	64.0	64.4	64.6	64.9	65.3	65.6	68.3	81.6	79.9	67.2	68.5	69.6	69.5	69.5	69.9	70.2	69.9	69.3
55	52.9	52.6	52.7	53.3	53.4	53.3	53.7	53.8	54.7	55.2	55.7	56.2	56.8	56.6	56.4	56.5	56.5	56.2	55.8
60	42.8	42.7	43.0	43.2	43.4	43.3	43.8	44.4	44.7	44.9	44.9	44.5	44.3	43.9	43.4	43.1	42.8	42.6	42.4
65	35.0	35.2	35.3	35.3	35.5	35.8	36.0	36.0	35.7	35.5	35.8	35.9	36.0	36.3	36.2	36.2	36.0	35.7	35.2
70	29.1	29.2	29.3	29.4	29.5	29.5	29.2	28.8	28.9	29.3	29.5	29.6	29.6	29.7	29.6	29.5	29.3	29.0	28.6
75	24.0	24.3	23.6	24.1	23.0	21.5	21.7	22.2	22.7	23.2	23.3	23.4	23.3	23.1	23.0	22.7	22.5	22.3	22.0
80	14.2	12.6	14.7	12.9	11.2	11.6	13.8	13.2	10.9	8.55	6.31	4.37	2.78	1.55	0.68	0.17	0.00	0.17	0.66
85	1.78	2.17	1.64	1.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DOBAC
Test Date: 2017-11-21

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity: 65.0%
Test Distance: 6.960m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: Infero Hori 30W-40D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Table--4

UNIT: cd

C(DEG) γ (DEG)	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355				
0	4947	4947	4947	4947	4947	4947	4947	4947	4947	4947	4947	4947	4947	4947	4947				
5	4457	4455	4455	4455	4460	4465	4473	4486	4501	4519	4542	4568	4598	4632	4669				
10	3942	3922	3903	3885	3868	3855	3847	3844	3850	3862	3885	3917	3961	4016	4082				
15	3410	3358	3302	3242	3186	3134	3088	3051	3024	3011	3012	3032	3069	3125	3204				
20	2628	2589	2544	2487	2417	2336	2255	2180	2116	2077	2055	2054	2071	2108	2167				
25	1860	1843	1812	1754	1680	1585	1492	1417	1378	1359	1342	1327	1319	1325	1342				
30	1147	1179	1182	1150	1083	1005	946	919	932	986	1008	971	944	948	977				
35	764	768	748	699	622	563	517	519	557	574	561	514	483	482	508				
40	448	458	448	411	348	251	149	178	227	215	165	117	121	123	125				
45	139	171	192	193	162	107	83.9	81.1	81.0	80.7	80.1	79.8	80.3	78.7	79.4				
50	68.5	66.5	65.2	64.2	68.0	65.1	64.4	63.8	63.0	62.4	61.7	61.3	61.0	60.9	61.0				
55	55.2	54.1	53.4	52.5	51.8	50.9	49.9	50.0	49.8	49.2	48.8	48.2	47.8	47.9	47.6				
60	42.2	42.1	42.0	41.8	41.4	41.1	40.5	39.8	38.9	38.9	38.6	38.3	37.9	37.9	37.7				
65	34.6	34.1	33.3	32.7	32.1	32.3	32.4	32.1	31.6	31.2	30.9	30.7	30.6	30.4	30.3				
70	28.1	27.6	27.0	26.3	25.6	25.0	24.7	25.4	25.7	25.3	24.9	24.9	24.6	24.7	24.6				
75	21.7	21.3	20.7	19.9	19.0	17.8	16.3	16.1	17.1	18.6	18.5	17.2	17.9	17.3	16.9				
80	1.45	2.52	3.82	5.21	6.60	7.52	7.13	6.55	6.59	7.45	8.25	6.29	5.71	4.39	3.83				
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.50	0.70	0.44	0.34				
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-21

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.260
Humidity:65.0%
Test Distance:6.960m [K=1.0000]
Remarks: