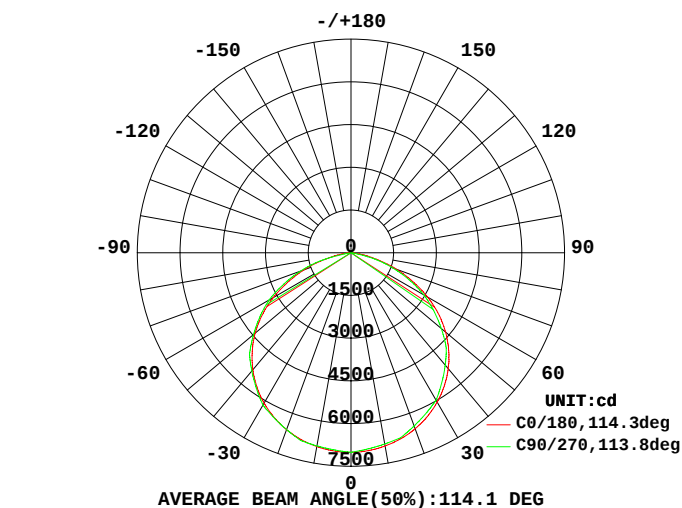


LUMINAIRE PHOTOMETRIC TEST REPORT

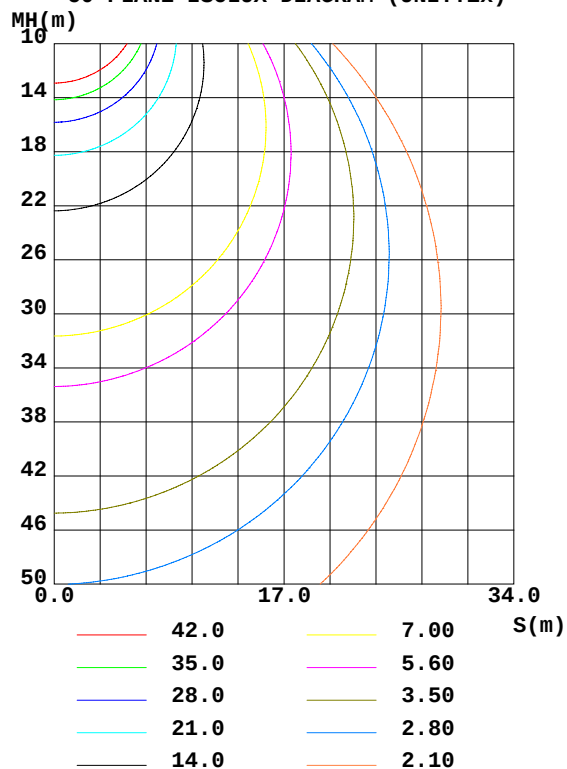
Test:U:220.1V I:0.7130A P:152.2W PF:0.9680 Lamp Flux:19661.4x1 lm		
NAME: 高棚灯	TYPE:室外	WEIGHT:2
SPEC.:150W	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 129.18 lm/W			
MODEL: 28P7S	4000-4500K	I _{max} (cd)	7008	S/MH(C0/180)	1.29
NOMINAL POWER(W)	150	LOR(%)	100.0	S/MH(C90/270)	1.30
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	19661	η UP, DN(C0-180)	0.0, 48.8
NOMINAL FLUX(lm)	19661.4	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 51.2
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	220.2	η down(%)	100.0	CIBSE SHR MAX	1.35

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2016-02-20

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.287
Humidity: 65.0%
Test Distance: 8.000m [K=1.0000]
Remarks: 辉赫透镜 196合1 光面透镜

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	ϕ zone	ϕ total	%lum,lamp
5	6973	6922	6913	6930	6984	6954	6947	6946	0- 5	166.6	166.6	0.85,0.85
10	6890	6813	6819	6828	6910	6877	6886	6862	5- 10	493.4	660.0	3.36,3.36
15	6761	6680	6724	6702	6789	6778	6826	6755	10- 15	806.5	1467	7.46,7.46
20	6578	6524	6475	6553	6613	6655	6611	6625	15- 20	1097	2563	13,13
25	6342	6247	6226	6281	6384	6407	6396	6370	20- 25	1351	3914	19.9,19.9
30	6054	5927	5976	5967	6099	6115	6181	6074	25- 30	1565	5479	27.9,27.9
35	5710	5590	5562	5629	5758	5801	5800	5758	30- 35	1730	7209	36.7,36.7
40	5311	5210	5148	5250	5362	5444	5419	5402	35- 40	1834	9043	46,46
45	4854	4697	4735	4743	4908	4959	5037	4911	40- 45	1878	10921	55.5,55.5
50	4334	4170	4140	4222	4394	4456	4467	4405	45- 50	1855	12777	65,65
55	3756	3622	3546	3681	3804	3935	3897	3879	50- 55	1754	14530	73.9,73.9
60	3100	2935	2952	2987	3151	3252	3327	3200	55- 60	1582	16113	82,82
65	2393	2255	2256	2298	2455	2572	2603	2527	60- 65	1344	17457	88.8,88.8
70	1701	1591	1560	1627	1764	1884	1880	1848	65- 70	1048	18505	94.1,94.1
75	984.6	952.1	864.3	985.1	1047	1200	1156	1167	70- 75	720.3	19225	97.8,97.8
80	432.3	340.6	0	360.5	477.0	504.6	0	477.5	75- 80	363.3	19589	99.6,99.6
85	35.69	0	0	0	69.67	0	0	0	80- 85	70.01	19659	100,100
90	3.030	0	0	0	4.566	0	0	0	85- 90	2.853	19661	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		

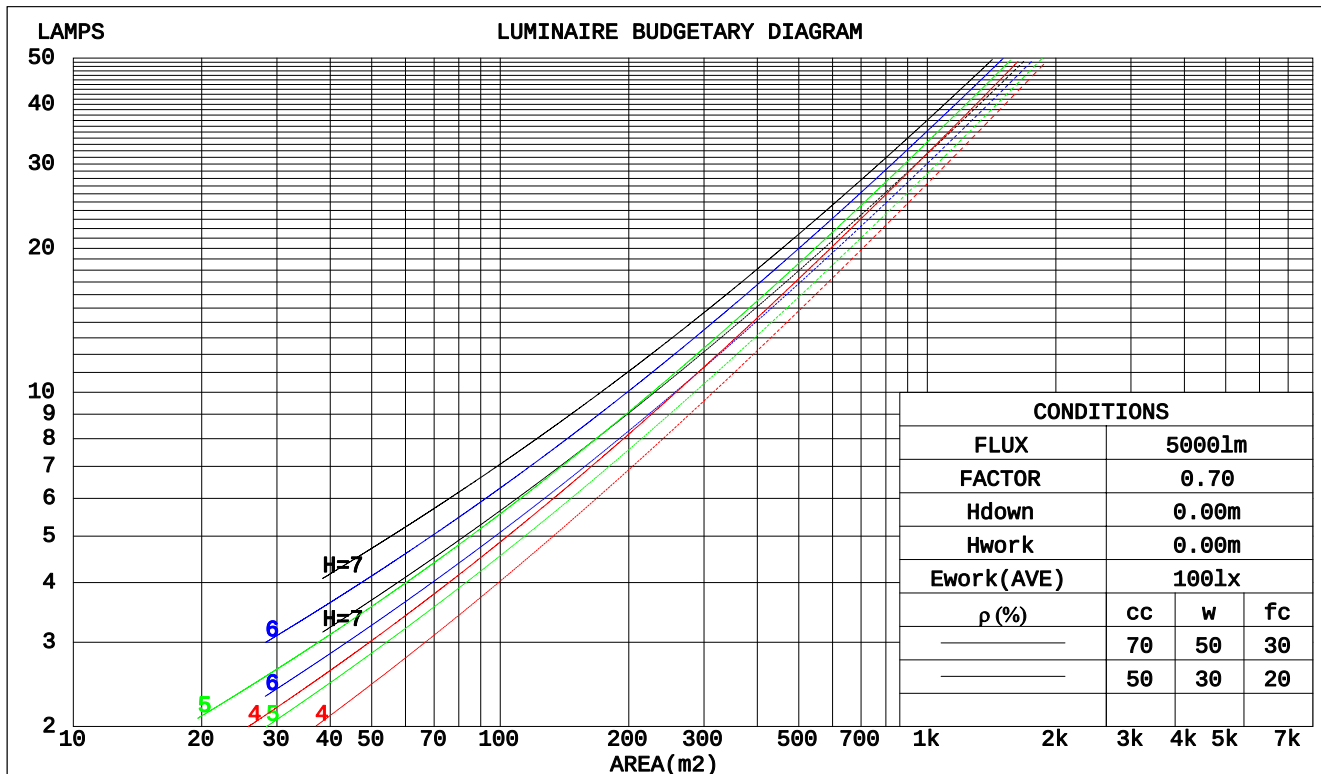
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2016-02-20

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:8.000m [K=1.0000]
 Remarks: 辉赫透镜 196合1 光面透镜

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.1V I:0.7130A P:152.2W PF:0.9680 Lamp Flux:19661.4x1 lm		
NAME: 高棚灯	TYPE:室外	WEIGHT:2
SPEC.:150W	DIM.:	SERIAL No.:
MFR.:	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						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	1.05	1.01	.97	1.03	.99	.96	.99	.96	.93	.95	.92	.90	.91	.89	.87	.85
2.0	.92	.85	.80	.90	.84	.79	.86	.81	.77	.83	.79	.75	.80	.77	.74	.71
3.0	.81	.73	.66	.79	.72	.66	.76	.70	.65	.73	.68	.64	.71	.66	.62	.60
4.0	.72	.63	.56	.70	.62	.56	.68	.61	.55	.65	.59	.54	.63	.58	.54	.52
5.0	.64	.55	.48	.63	.54	.48	.61	.53	.48	.59	.52	.47	.57	.51	.47	.45
6.0	.57	.49	.42	.57	.48	.42	.55	.47	.42	.53	.46	.41	.51	.46	.41	.39
7.0	.52	.43	.37	.51	.43	.37	.50	.42	.37	.48	.42	.37	.47	.41	.36	.34
8.0	.47	.39	.33	.47	.39	.33	.45	.38	.33	.44	.38	.33	.43	.37	.32	.31
9.0	.44	.35	.30	.43	.35	.30	.42	.35	.30	.41	.34	.29	.40	.34	.29	.27
10.0	.40	.32	.27	.40	.32	.27	.39	.32	.27	.38	.31	.27	.37	.31	.27	.25



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2016-02-20

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:8.000m [K=1.0000]
 Remarks: 辉赫透镜 196合1 光面透镜

WEC AND CCEC

Test:U:220.1V I:0.7130A P:152.2W PF:0.9680 Lamp Flux:19661.4x1 lm									
NAME: 高棚灯					TYPE:室外			WEIGHT:2	
SPEC.:150W					DIM.:			SERIAL No.:	
MFR.:					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	.287	.163	.052	.280	.160	.051	.267	.153	.049	.255	.147	.047	.244	.141	.046		
2.0	.278	.152	.047	.272	.150	.046	.260	.145	.045	.250	.140	.044	.240	.136	.043		
3.0	.261	.139	.042	.256	.137	.041	.245	.133	.040	.236	.129	.040	.227	.126	.039		
4.0	.243	.126	.037	.238	.125	.037	.229	.122	.036	.221	.119	.036	.213	.116	.035		
5.0	.226	.115	.033	.222	.114	.033	.214	.111	.033	.206	.109	.032	.199	.106	.032		
6.0	.210	.105	.030	.207	.104	.030	.199	.102	.030	.193	.100	.029	.186	.098	.029		
7.0	.196	.097	.028	.193	.096	.027	.187	.094	.027	.181	.093	.027	.175	.091	.027		
8.0	.184	.090	.025	.181	.089	.025	.175	.087	.025	.170	.086	.025	.165	.084	.025		
9.0	.173	.083	.023	.170	.083	.023	.165	.081	.023	.160	.080	.023	.155	.079	.023		
10.0	.162	.078	.022	.160	.077	.022	.155	.076	.021	.151	.075	.021	.147	.074	.021		

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	.179	.156	.136	.153	.134	.117	.105	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.170	.132	.100	.146	.114	.086	.100	.079	.060	.058	.046	.035	.019	.015	.011	
3.0	.163	.114	.076	.140	.099	.066	.096	.068	.046	.055	.040	.027	.018	.013	.009	
4.0	.155	.101	.059	.133	.087	.051	.092	.061	.036	.053	.036	.021	.017	.012	.007	
5.0	.148	.090	.048	.127	.078	.042	.088	.055	.029	.051	.032	.017	.016	.010	.006	
6.0	.141	.082	.040	.121	.071	.034	.084	.050	.024	.049	.029	.015	.016	.010	.005	
7.0	.135	.075	.034	.116	.065	.029	.080	.046	.021	.046	.027	.012	.015	.009	.004	
8.0	.128	.069	.029	.110	.060	.025	.076	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.122	.064	.025	.105	.056	.022	.073	.039	.016	.043	.023	.009	.014	.008	.003	
10.0	.117	.060	.023	.101	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2016-02-20

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:8.000m [K=1.0000]
 Remarks: 辉赫透镜 196合1 光面透镜

UGR(Unified Glare Rating) Table

Test:U:220.1V I:0.7130A P:152.2W PF:0.9680 Lamp Flux:19661.4x1 lm											
NAME: 高棚灯					TYPE:室外			WEIGHT:2			
SPEC.:150W					DIM.:			SERIAL No.:			
MFR.:					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	2H	27.3	28.8	27.6	29.0	29.2	27.1	28.6	27.4	28.8	29.0
	3H	28.6	29.9	28.9	30.2	30.4	28.3	29.7	28.6	29.9	30.2
	4H	28.9	30.2	29.2	30.5	30.7	28.6	29.9	28.9	30.2	30.4
	6H	29.1	30.3	29.4	30.6	30.8	28.6	29.8	28.9	30.1	30.4
	8H	29.0	30.2	29.4	30.5	30.8	28.6	29.7	28.9	30.0	30.3
	12H	29.0	30.1	29.3	30.4	30.7	28.5	29.6	28.9	29.9	30.2
4H	2H	27.8	29.1	28.1	29.4	29.6	27.7	29.0	28.0	29.2	29.5
	3H	29.2	30.3	29.5	30.6	30.9	29.0	30.1	29.4	30.4	30.7
	4H	29.6	30.7	30.0	31.0	31.3	29.4	30.4	29.8	30.7	31.1
	6H	29.8	30.8	30.2	31.1	31.5	29.4	30.3	29.8	30.7	31.0
	8H	29.8	30.7	30.3	31.1	31.4	29.4	30.2	29.8	30.6	31.0
	12H	29.8	30.6	30.2	31.0	31.4	29.3	30.1	29.7	30.5	30.9
8H	4H	29.7	30.6	30.2	31.0	31.3	29.5	30.4	29.9	30.7	31.1
	6H	30.0	30.7	30.5	31.1	31.5	29.6	30.3	30.0	30.7	31.1
	8H	30.1	30.7	30.5	31.1	31.5	29.5	30.1	30.0	30.6	31.0
	12H	30.0	30.6	30.5	31.0	31.5	29.5	30.0	30.0	30.5	30.9
12H	4H	29.7	30.5	30.1	30.9	31.3	29.5	30.3	29.9	30.7	31.1
	6H	30.0	30.6	30.4	31.0	31.5	29.5	30.2	30.0	30.6	31.0
	8H	30.0	30.6	30.5	31.0	31.5	29.5	30.0	30.0	30.5	31.0
Variations with the observer position at spacings:											
S = 1.0H		+ 0.2 / - 0.2					+ 0.3 / - 0.3				
1.5H		+ 0.2 / - 0.4					+ 0.2 / - 0.4				
2.0H		+ 0.4 / - 0.4					+ 0.4 / - 0.3				

CIE Pub.117 Corrected 19661 lm Total Lamp Luminous Flux.(8log(F/F0) = 10.3)

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2016-02-20

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:8.000m [K=1.0000]
 Remarks: 辉赫透镜 196合1 光面透镜

UTILIZATION FACTORS TABLE

Test:U:220.1V I:0.7130A P:152.2W PF:0.9680 Lamp Flux:19661.4x1 lm		
NAME: 高棚灯	TYPE: 室外	WEIGHT: 2
SPEC.: 150W	DIM.:	SERIAL No.:
MFR.:	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) $k(RI) \times RCR = 5$									
$k = 0.60$	58	47	40	57	46	40	56	46	39	33
0.80	68	57	50	67	57	50	66	56	49	42
1.00	77	66	59	76	66	59	74	67	58	51
1.25	84	74	67	83	73	67	80	72	66	59
1.50	89	80	73	88	79	73	85	77	71	64
2.00	96	88	82	94	87	81	91	85	80	72
2.50	100	93	87	98	91	86	94	89	84	76
3.00	103	97	92	101	95	91	97	92	88	80
4.00	107	102	98	105	100	96	101	97	93	85
5.00	110	105	101	107	103	100	103	99	97	88
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:
 Test Date: 2016-02-20

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.287
 Humidity: 65.0%
 Test Distance: 8.000m [K=1.0000]
 Remarks: 辉赫透镜 196合1 光面透镜

ISOCANDELA DIAGRAM

Test:U:220.1V I:0.7130A P:152.2W PF:0.9680 Lamp Flux:19661.4x1 lm		
NAME: 高棚灯	TYPE: 室外	WEIGHT: 2
SPEC.: 150W	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

Conical surface Flux(90deg):

10921 lm

%lum = 55.5%

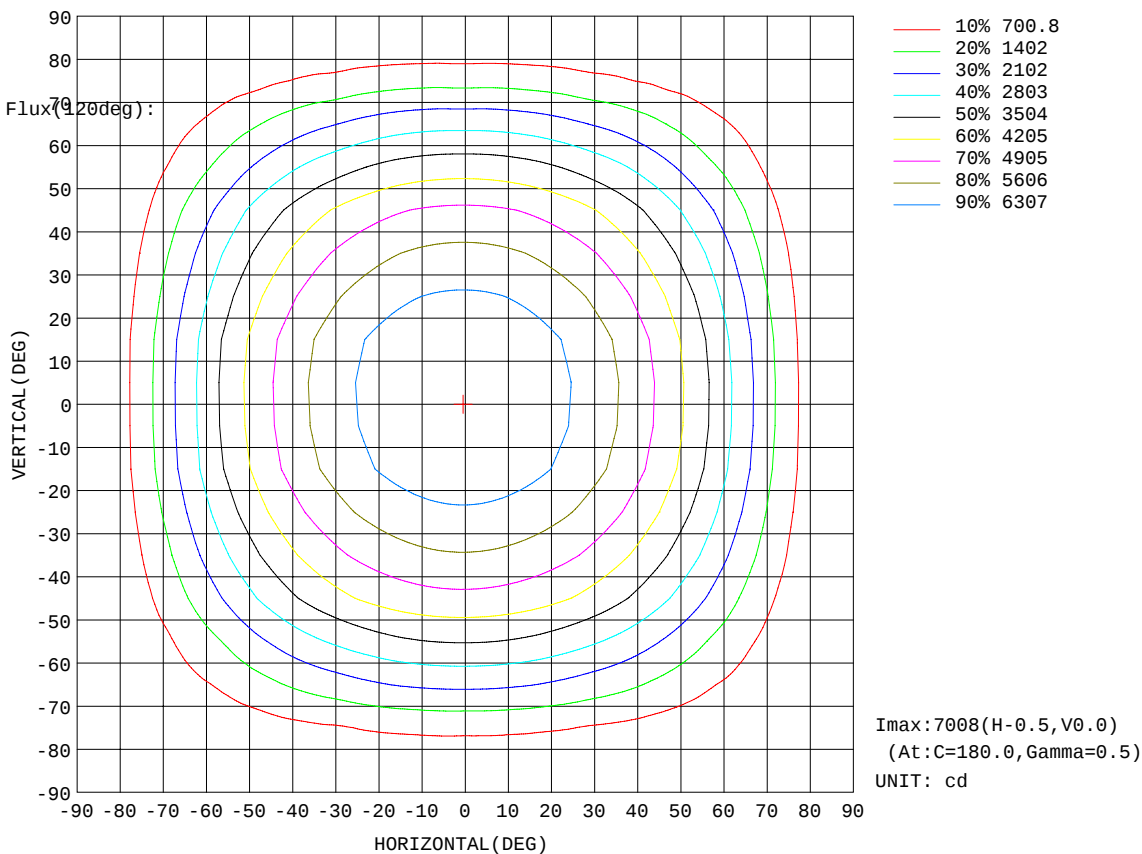
%lamp = 55.5%

Conical surface Flux(0deg):

16113 lm

%lum = 82.0%

%lamp = 82.0%

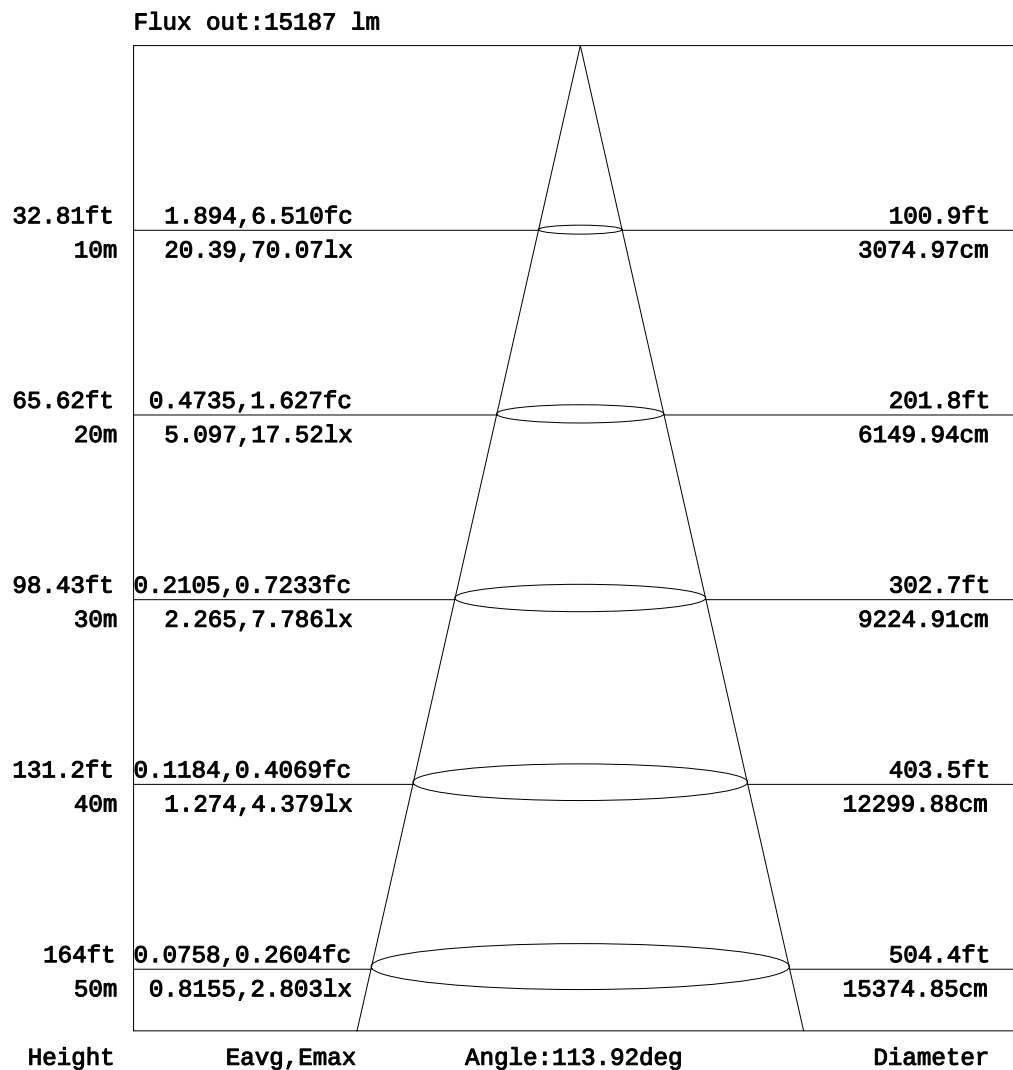


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2016-02-20

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.287
Humidity: 65.0%
Test Distance: 8.000m [K=1.0000]
Remarks: 辉赫透镜 196合1 光面透镜

AAI Figure

Test:U:220.1V I:0.7130A P:152.2W PF:0.9680 Lamp Flux:19661.4x1 lm		
NAME: 高棚灯	TYPE: 室外	WEIGHT: 2
SPEC.: 150W	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:



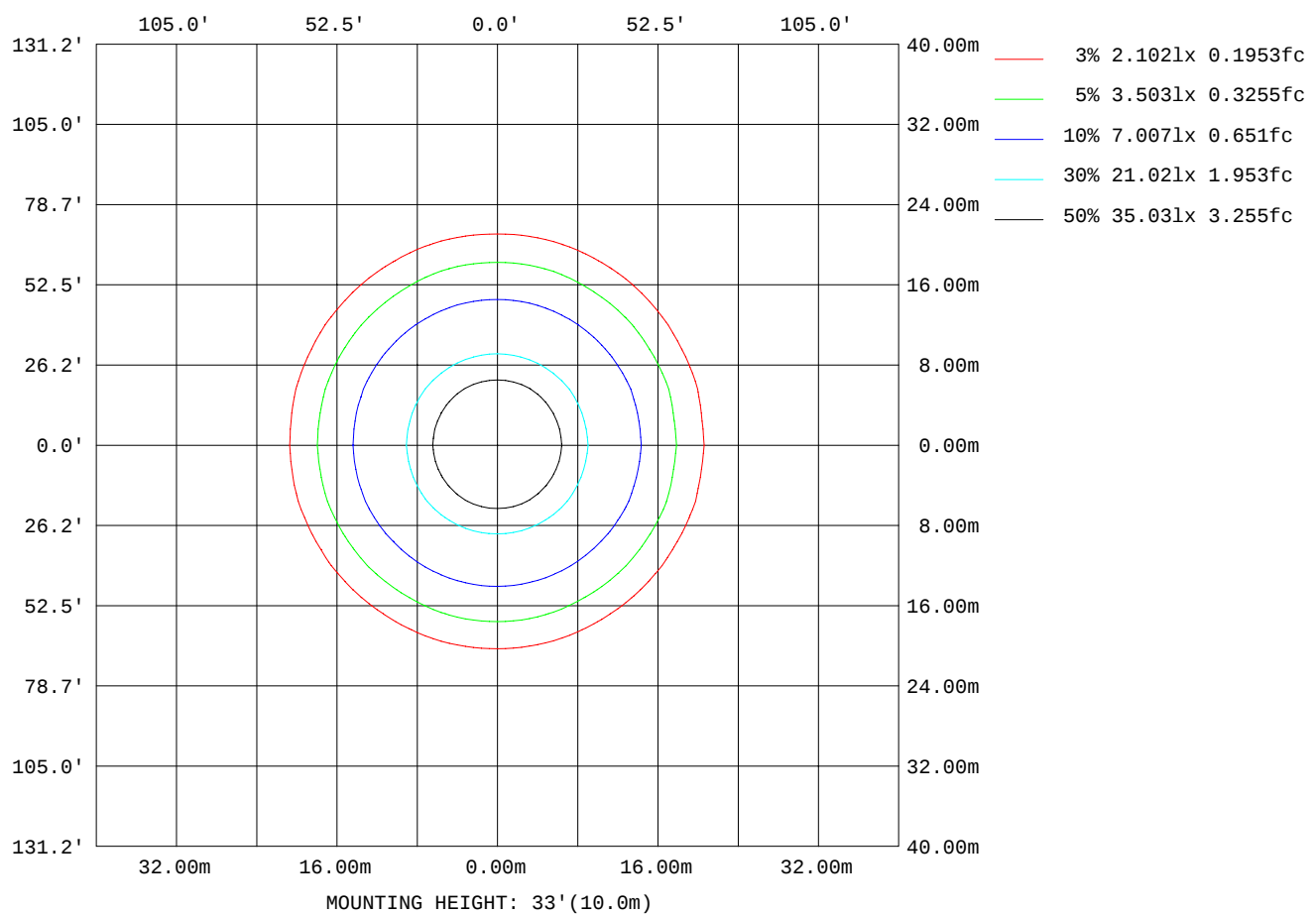
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2016-02-20

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.287
Humidity: 65.0%
Test Distance: 8.000m [K=1.0000]
Remarks: 辉赫透镜 196合1 光面透镜

ISOLUX DIAGRAM

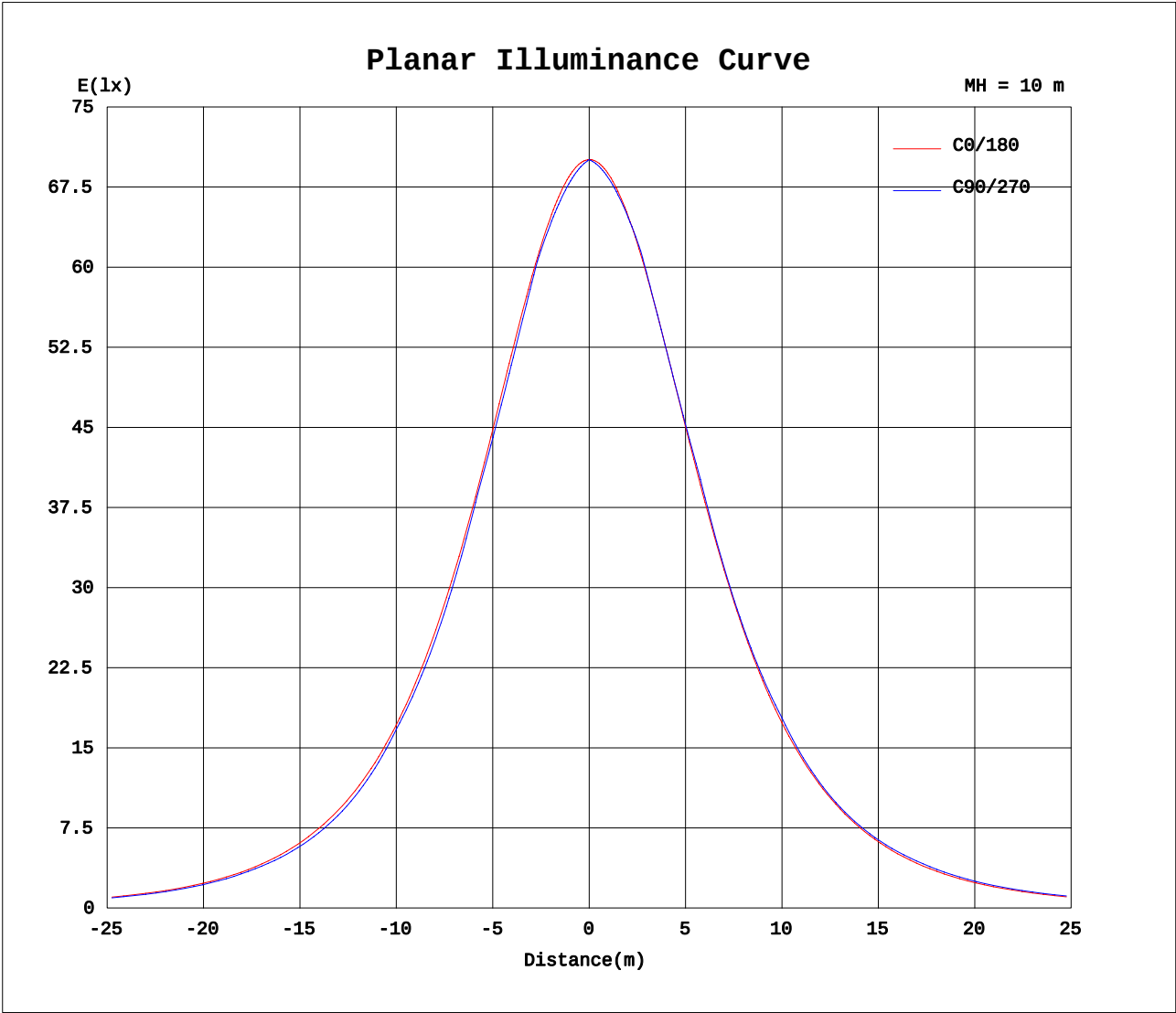
Test:U:220.1V I:0.7130A P:152.2W PF:0.9680 Lamp Flux:19661.4x1 lm		
NAME: 高棚灯	TYPE: 室外	WEIGHT: 2
SPEC.: 150W	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2016-02-20

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.287
 Humidity: 65.0%
 Test Distance: 8.000m [K=1.0000]
 Remarks: 辉赫透镜 196合1 光面透镜

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2016-02-20

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.287
Humidity:65.0%
Test Distance:8.000m [K=1.0000]
Remarks: 辉赫透镜 196合1 光面透镜

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.1V I:0.7130A P:152.2W PF:0.9680 Lamp Flux:19661.4x1 lm		
NAME: 高棚灯	TYPE:室外	WEIGHT:2
SPEC.:150W	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

Table - -1

UNIT: cd

[illegible]

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2016-02-20

```

Range: 0 - 90DEG
Interval: 0.5DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.287
Humidity:65.0%
Test Distance:8.000m [K=1.0000]
Remarks: 辉林透镜 196合1 光面透镜

```

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.1V I:0.7130A P:152.2W PF:0.9680 Lamp Flux:19661.4x1 lm		
NAME: 高棚灯	TYPE:室外	WEIGHT:2
SPEC.:150W	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

Table - - 2

UNIT: cd

[illegible]

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2016-02-20

```

Range: 0 - 90DEG
Interval: 0.5DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.287
Humidity:65.0%
Test Distance:8.000m [K=1.0000]
Remarks: 辉赫透镜 196合1 光面透镜

```


LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.1V I:0.7130A P:152.2W PF:0.9680 Lamp Flux:19661.4x1 lm		
NAME: 高棚灯	TYPE:室外	WEIGHT:2
SPEC.:150W	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

Table - - 4

UNIT: cd

[illegible]

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2016-02-20

Range: 0 - 90DEG
Interval: 0.5DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.287
Humidity:65.0%
Test Distance:8.000m [K=1.0000]
Remarks: 辉赫透镜 196合1 光面透镜