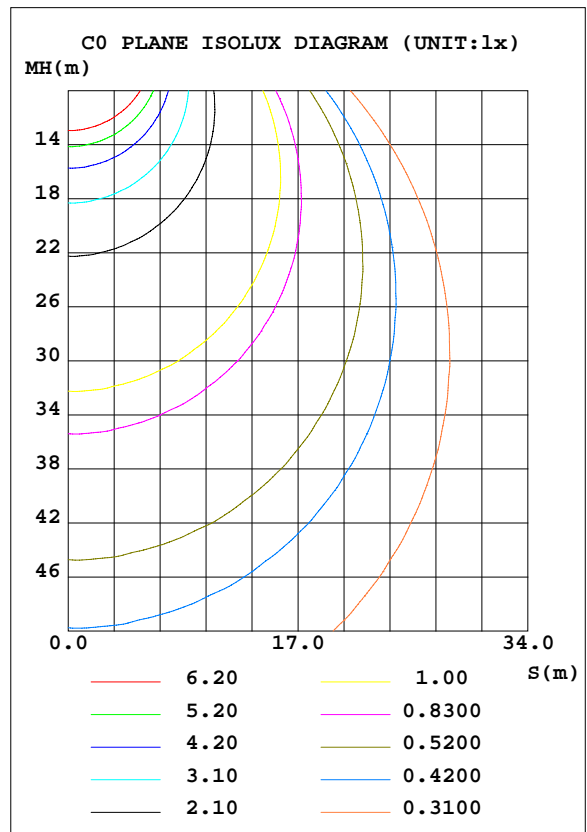
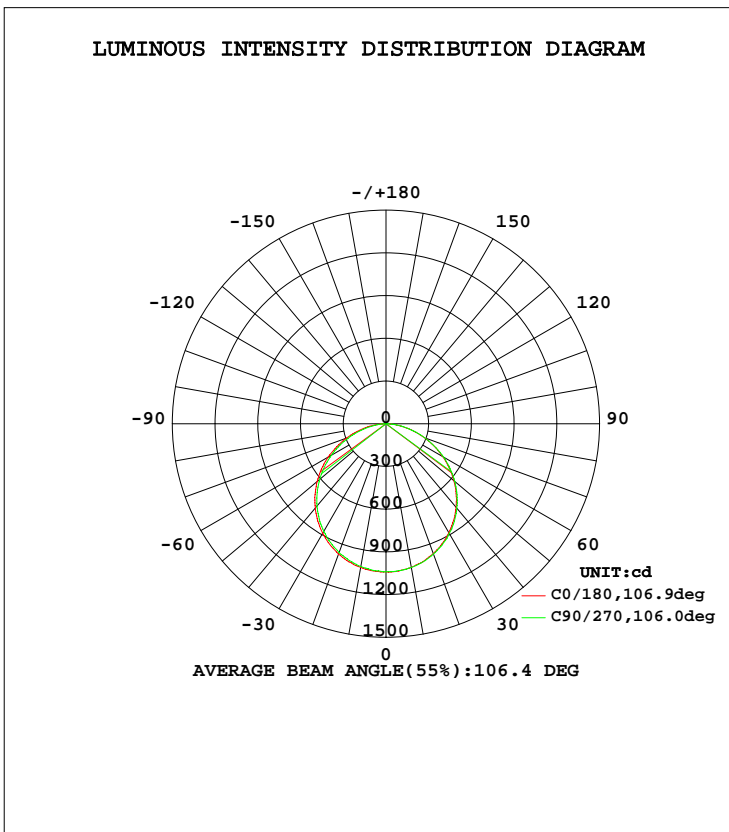


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.6V I:0.2430A P:28.83W PF:0.9840 Lamp Flux:2993.6x1 lm		
NAME: 18寸吸顶灯+背光	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 103.82 lm/W			
MODEL	4000K	I <sub>max</sub> (cd)	1042	S/MH(C0/180)	1.26
NOMINAL POWER(W)	28	LOR(%)	100.0	S/MH(C90/270)	1.27
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	2993.6	η UP, DN(C0-180)	0.1, 50.2
NOMINAL FLUX(lm)	2993.6	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.1, 49.6
LAMPS INSIDE	1	η up(%)	0.2	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	120.6	η down(%)	99.8	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25DEG  
 Operators:  
 Test Date:2023-10-30

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity:65.0%  
 Test Distance:9.100m [K=1.0000]  
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C90	C180	C270					γ	Φ zone	Φ total	lum, lamp
10	1024	1025	1024	1017					0- 10	98.47	98.47	3.29,3.29
20	970.5	973.5	974.5	962.6					10- 20	282.5	381.0	12.7,12.7
30	884.4	889.7	889.1	873.8					20- 30	429.2	810.2	27.1,27.1
40	766.9	774.3	772.4	754.1					30- 40	518.6	1329	44.4,44.4
50	622.9	631.5	631.1	608.1					40- 50	538.2	1867	62.4,62.4
60	459.4	466.5	469.3	442.8					50- 60	485.4	2352	78.6,78.6
70	287.2	288.8	294.4	269.2					60- 70	368.1	2721	90.9,90.9
80	120.7	122.3	129.1	104.5					70- 80	211.3	2932	97.9,97.9
90	0.7230	0.6613	0.3781	0.3860					80- 90	55.50	2987	99.8,99.8
100	0.3637	0.3703	0.5492	0.4626					90-100	0.4671	2988	99.8,99.8
110	0.5701	0.5486	0.7989	0.7330					100-110	0.5700	2988	99.8,99.8
120	0.7844	0.7976	1.070	1.032					110-120	0.7825	2989	99.9,99.9
130	1.034	1.040	1.327	1.303					120-130	0.9396	2990	99.9,99.9
140	1.262	1.275	1.577	1.574					130-140	1.005	2991	99.9,99.9
150	1.490	1.524	1.797	1.794					140-150	0.9640	2992	99.9,99.9
160	1.733	1.795	1.954	1.930					150-160	0.8118	2993	100,100
170	1.947	1.994	2.071	2.058					160-170	0.5486	2993	100,100
180	2.083	2.072	2.090	2.065					170-180	0.1952	2994	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

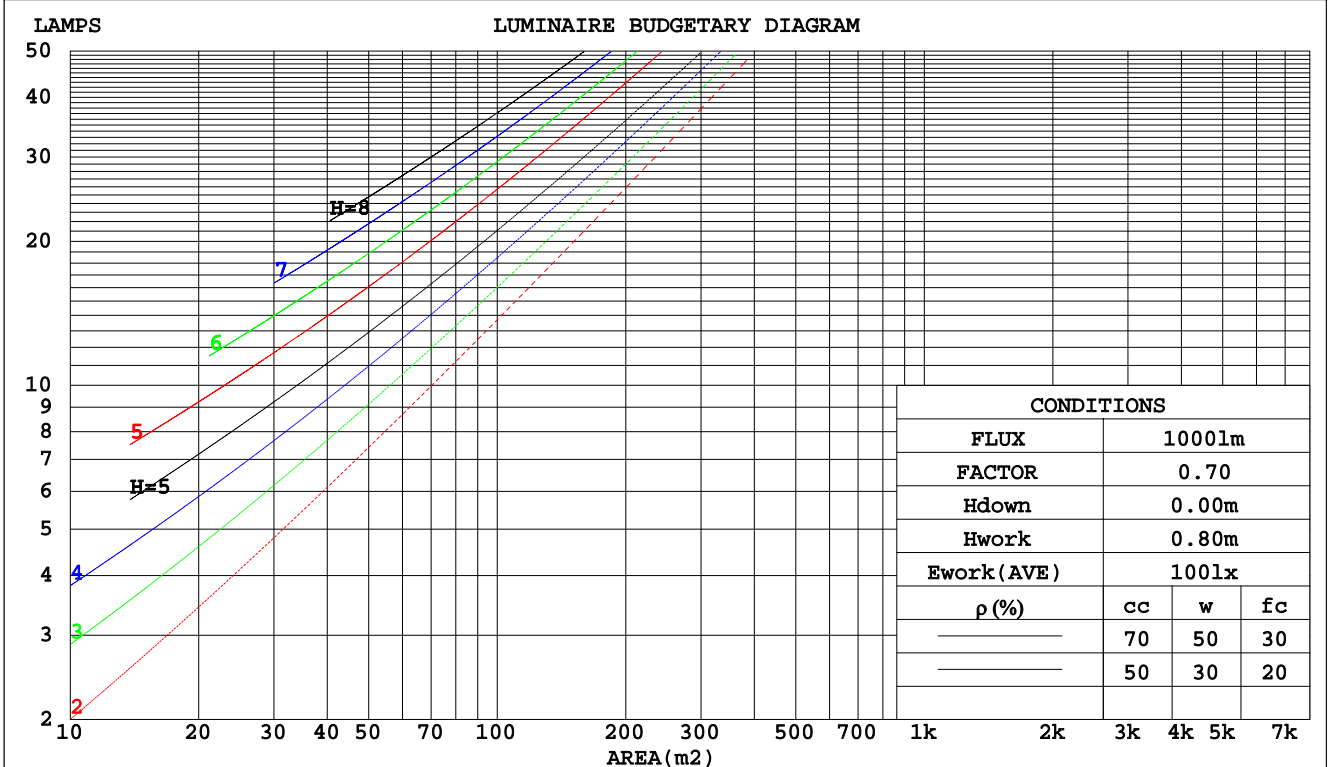
C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25DEG  
 Operators:  
 Test Date:2023-10-30

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity:65.0%  
 Test Distance:9.100m [K=1.0000]  
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.6V I:0.2430A P:28.83W PF:0.9840 Lamp Flux:2993.6x1 lm		
NAME: 18寸吸顶灯+背光	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	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	1.04	.00	.96	1.02	.98	.94	.97	.94	.91	.93	.91	.88	.90	.88	.86	.83
2.0	.90	.83	.78	.88	.82	.77	.85	.80	.75	.82	.77	.73	.78	.75	.72	.69
3.0	.79	.71	.64	.78	.70	.64	.75	.68	.63	.72	.66	.62	.69	.65	.60	.58
4.0	.70	.61	.55	.69	.61	.54	.66	.59	.53	.64	.58	.53	.62	.56	.52	.50
5.0	.63	.54	.47	.62	.53	.47	.59	.52	.46	.57	.51	.46	.55	.50	.45	.43
6.0	.56	.47	.41	.55	.47	.41	.54	.46	.40	.52	.45	.40	.50	.44	.40	.37
7.0	.51	.42	.36	.50	.42	.36	.49	.41	.36	.47	.40	.35	.46	.40	.35	.33
8.0	.47	.38	.32	.46	.38	.32	.45	.37	.32	.43	.37	.32	.42	.36	.31	.29
9.0	.43	.34	.29	.42	.34	.29	.41	.34	.29	.40	.33	.28	.39	.33	.28	.26
10.0	.39	.31	.26	.39	.31	.26	.38	.31	.26	.37	.30	.26	.36	.30	.26	.24



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 25DEG  
 Operators:  
 Test Date: 2023-10-30

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity: 65.0%  
 Test Distance: 9.100m [K=1.0000]  
 Remarks:

WEC AND CCEC

Test:U:120.6V I:0.2430A P:28.83W PF:0.9840 Lamp Flux:2993.6x1 lm		
NAME: 18寸吸顶灯+背光	TYPE:	WEIGHT:
DIM.:	SPEC.:	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						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.310	.176	.056	.303	.173	.055	.289	.166	.053	.277	.160	.051	.266	.154	.050	
2.0	.292	.160	.049	.286	.157	.048	.274	.152	.047	.263	.147	.046	.253	.143	.045	
3.0	.270	.144	.043	.265	.142	.043	.254	.138	.042	.245	.134	.041	.236	.130	.040	
4.0	.249	.130	.038	.244	.128	.038	.235	.125	.037	.227	.122	.037	.219	.119	.036	
5.0	.231	.117	.034	.226	.116	.034	.218	.113	.033	.210	.111	.033	.203	.109	.033	
6.0	.214	.107	.031	.210	.106	.031	.203	.104	.030	.196	.102	.030	.189	.100	.030	
7.0	.199	.098	.028	.196	.097	.028	.189	.096	.028	.183	.094	.027	.177	.092	.027	
8.0	.186	.091	.026	.183	.090	.025	.177	.088	.025	.171	.087	.025	.166	.085	.025	
9.0	.174	.084	.024	.171	.084	.023	.166	.082	.023	.161	.081	.023	.156	.079	.023	
10.0	.164	.079	.022	.161	.078	.022	.156	.077	.022	.152	.075	.021	.148	.074	.021	

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	.192	.192	.192	.164	.164	.164	.112	.112	.112	.064	.064	.064	.021	.021	.021	
1.0	.182	.158	.136	.156	.135	.117	.106	.093	.081	.061	.054	.047	.020	.017	.015	
2.0	.174	.134	.100	.149	.115	.086	.102	.080	.060	.059	.046	.035	.019	.015	.011	
3.0	.166	.116	.076	.142	.100	.066	.098	.069	.046	.056	.041	.027	.018	.013	.009	
4.0	.159	.103	.060	.136	.089	.052	.094	.062	.037	.054	.036	.022	.017	.012	.007	
5.0	.151	.092	.049	.130	.080	.042	.089	.056	.030	.052	.033	.018	.017	.011	.006	
6.0	.144	.084	.041	.124	.073	.035	.085	.051	.025	.050	.030	.015	.016	.010	.005	
7.0	.137	.077	.035	.118	.067	.030	.082	.047	.022	.047	.028	.013	.015	.009	.004	
8.0	.131	.071	.030	.112	.062	.026	.078	.043	.019	.045	.026	.011	.015	.008	.004	
9.0	.125	.066	.027	.107	.057	.023	.074	.040	.017	.043	.024	.010	.014	.008	.003	
10.0	.119	.062	.024	.102	.054	.021	.071	.038	.015	.041	.022	.009	.013	.007	.003	

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25DEG  
 Operators:  
 Test Date:2023-10-30

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity:65.0%  
 Test Distance:9.100m [K=1.0000]  
 Remarks:

Uncorrected UGR Table

Test:U:120.6V I:0.2430A P:28.83W PF:0.9840 Lamp Flux:2993.6x1 lm										
NAME: 18寸吸顶灯+背光					TYPE:			WEIGHT:		
DIM.:					SPEC.:			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	23.9	25.4	24.2	25.6	25.8	23.9	25.5	24.2	25.7	25.9
3H	25.4	26.8	25.7	27.0	27.3	25.4	26.9	25.7	27.1	27.3
4H	26.0	27.3	26.3	27.6	27.9	26.1	27.4	26.4	27.6	27.9
6H	26.4	27.7	26.8	28.0	28.3	26.5	27.7	26.8	28.0	28.3
8H	26.6	27.8	26.9	28.1	28.4	26.6	27.8	27.0	28.1	28.4
12H	26.6	27.8	27.0	28.1	28.4	26.7	27.9	27.0	28.2	28.5
4H 2H	24.5	25.8	24.8	26.1	26.4	24.5	25.9	24.9	26.1	26.4
3H	26.2	27.4	26.6	27.7	28.0	26.2	27.4	26.6	27.7	28.0
4H	26.9	28.0	27.3	28.3	28.7	27.0	28.0	27.3	28.4	28.7
6H	27.5	28.4	27.9	28.8	29.2	27.5	28.5	27.9	28.8	29.2
8H	27.7	28.5	28.1	28.9	29.3	27.7	28.6	28.1	29.0	29.4
12H	27.8	28.6	28.2	29.0	29.4	27.8	28.6	28.3	29.0	29.4
8H 4H	27.2	28.1	27.6	28.5	28.8	27.2	28.1	27.6	28.5	28.9
6H	27.9	28.6	28.3	29.0	29.5	27.9	28.7	28.4	29.1	29.5
8H	28.2	28.8	28.6	29.2	29.7	28.2	28.9	28.7	29.3	29.7
12H	28.3	28.9	28.8	29.4	29.8	28.4	29.0	28.9	29.4	29.9
12H 4H	27.2	28.0	27.6	28.4	28.8	27.2	28.1	27.7	28.4	28.9
6H	28.0	28.6	28.4	29.0	29.5	28.0	28.6	28.5	29.1	29.5
8H	28.3	28.8	28.7	29.3	29.8	28.3	28.9	28.8	29.3	29.8
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				

CIE Pub.117 Corrected 2994 lm Total Lamp Luminous Flux.(8log(F/F0) = 3.8)

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25DEG  
 Operators:  
 Test Date:2023-10-30

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity:65.0%  
 Test Distance:9.100m [K=1.0000]  
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:120.6V I:0.2430A P:28.83W PF:0.9840 Lamp Flux:2993.6x1 lm		
NAME: 18寸吸顶灯+背光	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

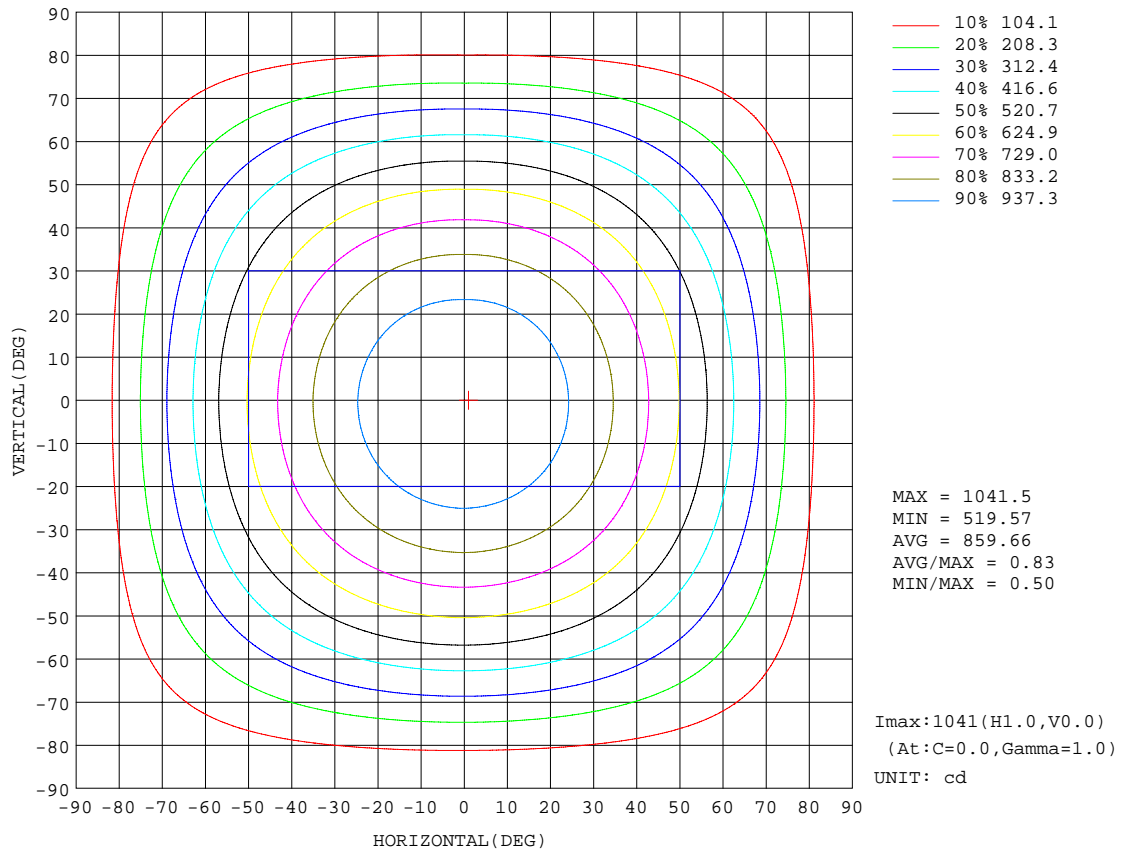
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	57	46	39	57	45	39	55	45	38	32
0.80	67	56	48	66	55	48	65	55	48	41
1.00	76	65	57	75	64	57	72	66	57	49
1.25	83	72	65	81	72	65	79	70	64	57
1.50	88	78	71	86	77	71	83	75	69	62
2.00	95	86	80	93	85	79	89	83	78	70
2.50	99	91	85	97	90	84	93	87	82	74
3.00	102	95	90	100	94	89	96	91	86	78
4.00	106	100	96	104	99	94	99	95	92	83
5.00	109	104	100	106	102	98	102	98	95	86
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25DEG  
 Operators:  
 Test Date:2023-10-30

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity:65.0%  
 Test Distance:9.100m [K=1.0000]  
 Remarks:

ISOCANDELA DIAGRAM

Test:U:120.6V I:0.2430A P:28.83W PF:0.9840 Lamp Flux:2993.6x1 lm		
NAME: 18寸吸顶灯+背光	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

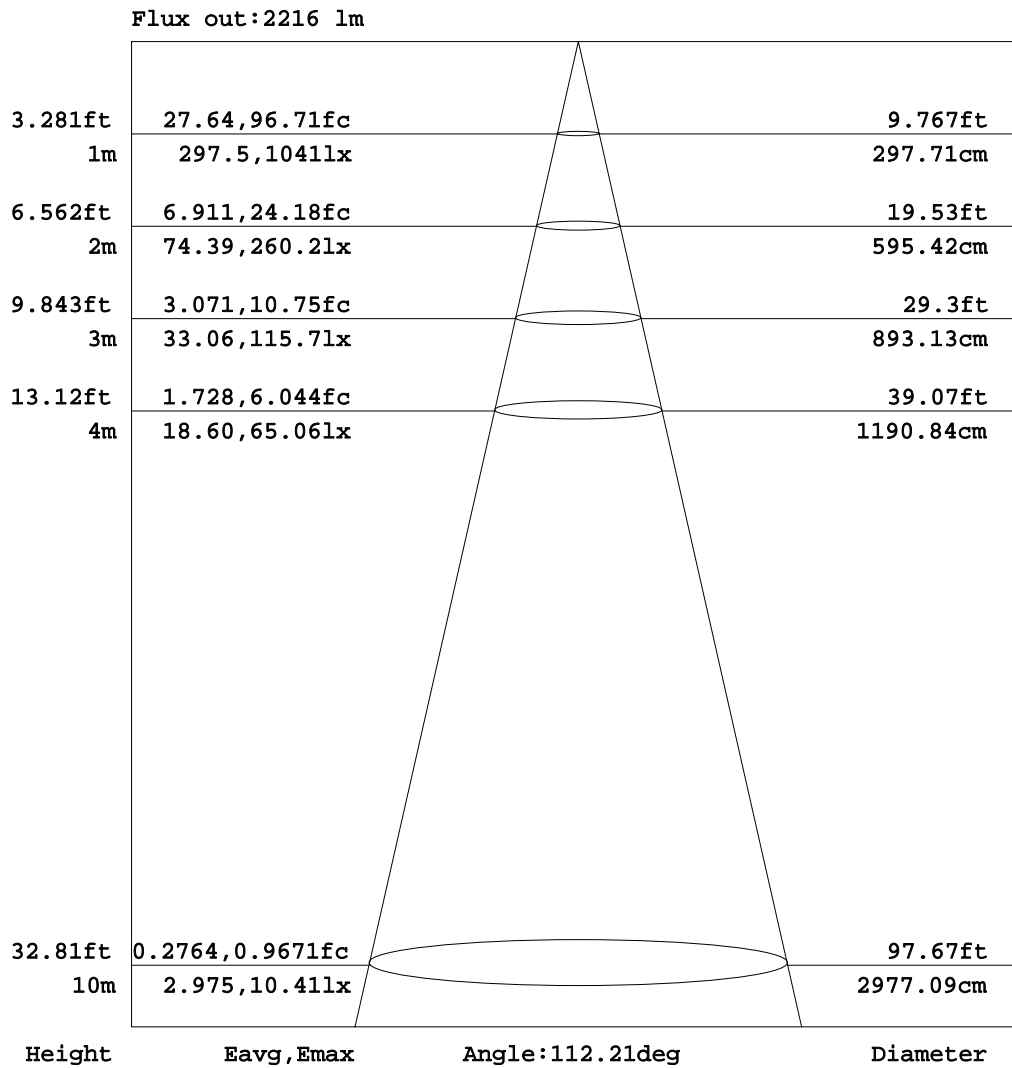


C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25DEG  
 Operators:  
 Test Date:2023-10-30

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity:65.0%  
 Test Distance:9.100m [K=1.0000]  
 Remarks:

AAI Figure

Test:U:120.6V I:0.2430A P:28.83W PF:0.9840 Lamp Flux:2993.6x1 lm		
NAME: 18寸吸顶灯+背光	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:



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

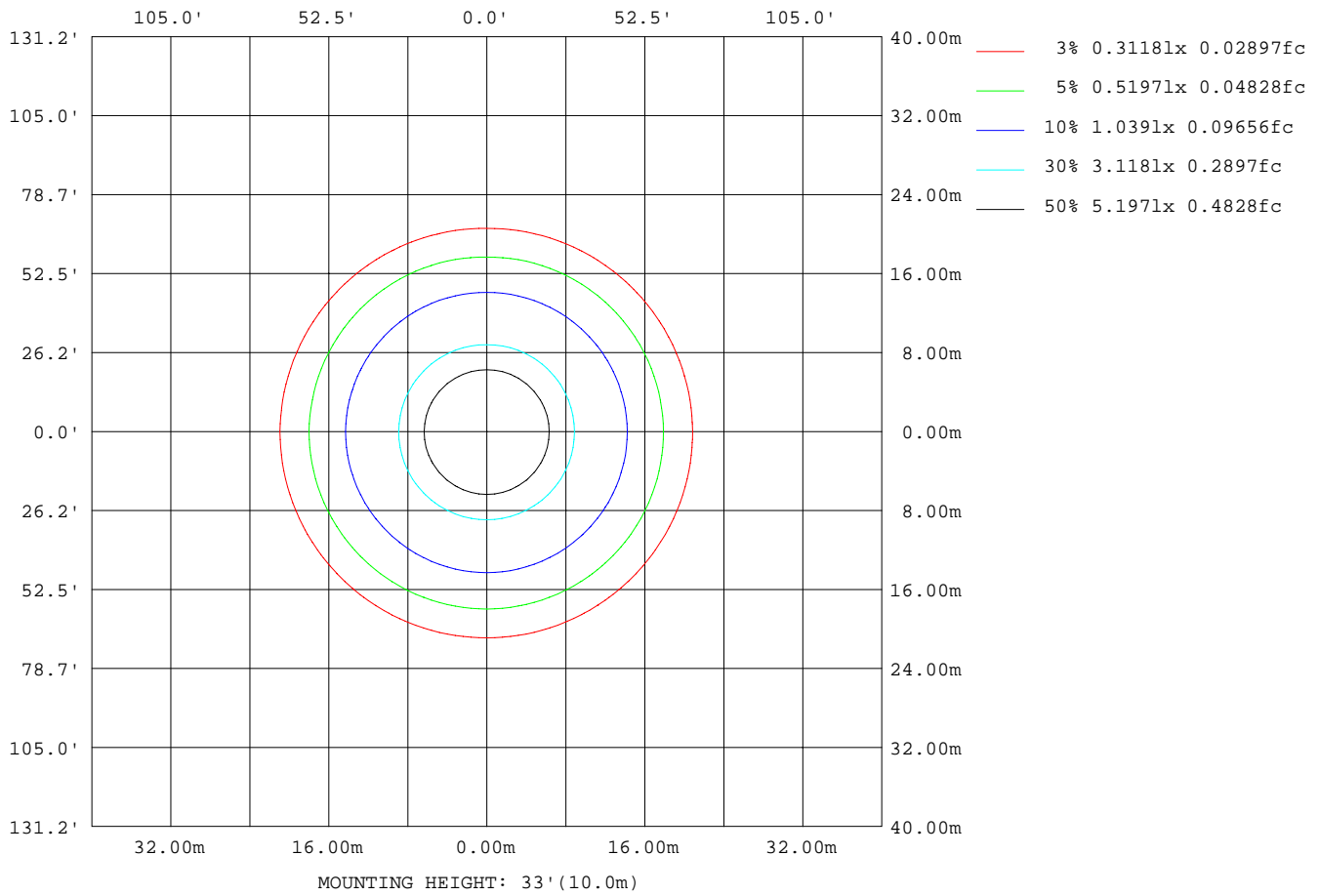
C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25DEG  
 Operators:  
 Test Date:2023-10-30

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity:65.0%  
 Test Distance:9.100m [K=1.0000]  
 Remarks:



ISOLUX DIAGRAM

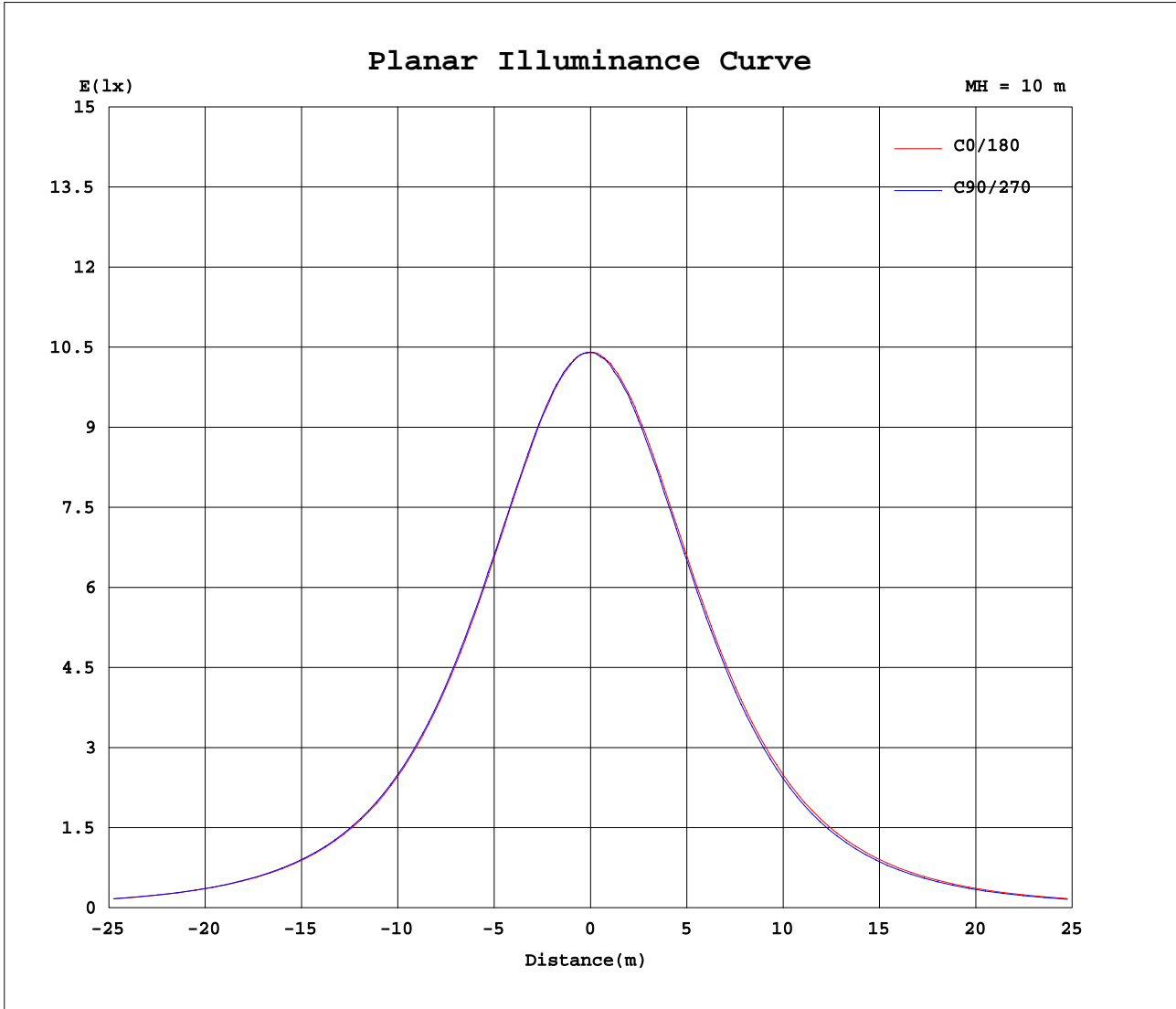
Test:U:120.6V I:0.2430A P:28.83W PF:0.9840 Lamp Flux:2993.6x1 lm		
NAME: 18寸吸顶灯+背光	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 25DEG  
 Operators:  
 Test Date: 2023-10-30

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity: 65.0%  
 Test Distance: 9.100m [K=1.0000]  
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 25DEG  
 Operators:  
 Test Date: 2023-10-30

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity: 65.0%  
 Test Distance: 9.100m [K=1.0000]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.6V I:0.2430A P:28.83W PF:0.9840 Lamp Flux:2993.6x1 lm		
NAME: 18寸吸顶灯+背光	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C(DEG)\ γ (DEG)	0	90	180	270															
0	1040	1040	1040	1040															
5	1039	1035	1037	1034															
10	1024	1025	1024	1017															
15	1003	1005	1004	995															
20	971	974	975	963															
25	931	937	936	921															
30	884	890	889	874															
35	829	837	835	818															
40	767	774	772	754															
45	698	706	705	684															
50	623	631	631	608															
55	543	550	553	527															
60	459	466	469	443															
65	374	377	381	356															
70	287	289	294	269															
75	201	203	210	183															
80	121	122	129	104															
85	47.9	50.7	55.5	36.8															
90	0.72	0.66	0.38	0.39															
95	0.48	0.32	0.44	0.36															
100	0.36	0.37	0.55	0.46															
105	0.48	0.44	0.67	0.57															
110	0.57	0.55	0.80	0.73															
115	0.69	0.66	0.93	0.89															
120	0.78	0.80	1.07	1.03															
125	0.92	0.90	1.21	1.17															
130	1.03	1.04	1.33	1.30															
135	1.17	1.15	1.46	1.44															
140	1.26	1.27	1.58	1.57															
145	1.39	1.41	1.70	1.68															
150	1.49	1.52	1.80	1.79															
155	1.62	1.67	1.89	1.87															
160	1.73	1.79	1.95	1.93															
165	1.88	1.90	2.04	1.99															
170	1.95	1.99	2.07	2.06															
175	2.05	2.05	2.08	2.06															
180	2.08	2.07	2.09	2.07															

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 25DEG  
 Operators:  
 Test Date: 2023-10-30

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity: 65.0%  
 Test Distance: 9.100m [K=1.0000]  
 Remarks: