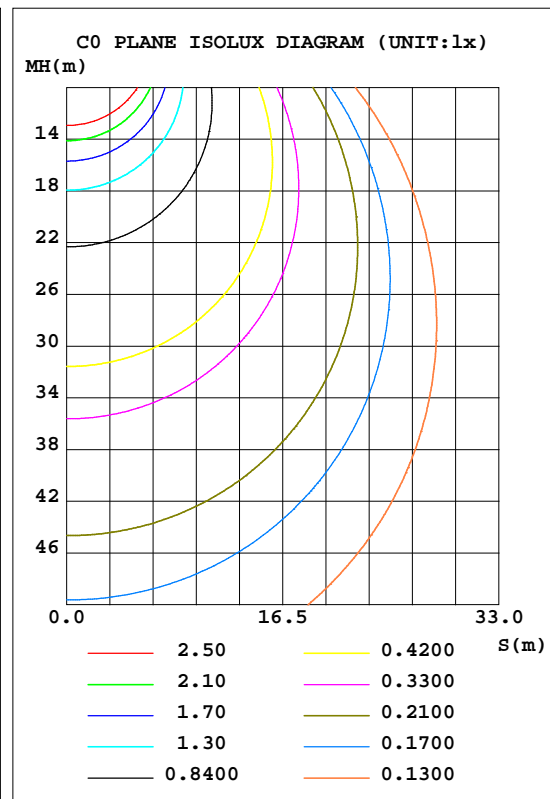
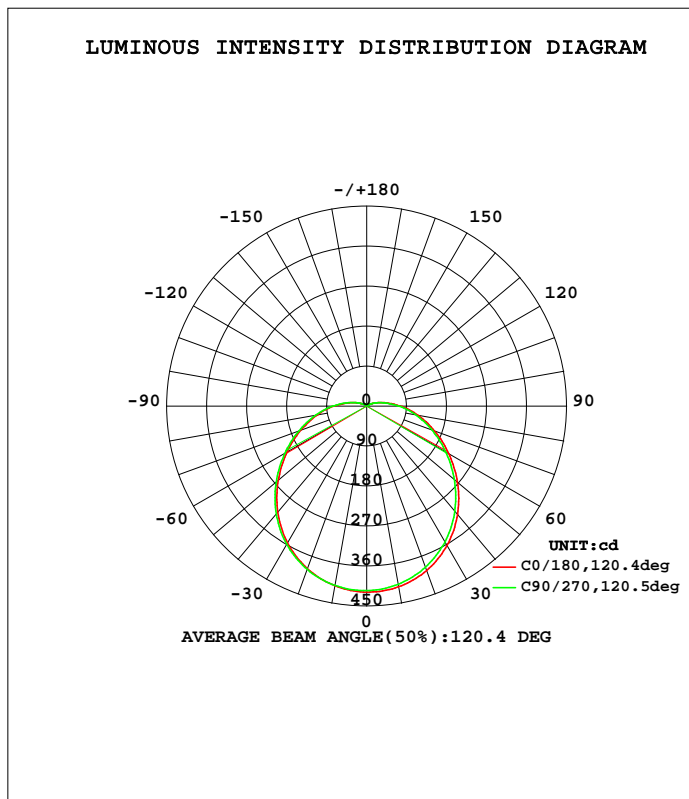


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: 24W-6000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	24W-6000K	I <sub>max</sub> (cd)	418.7	S/MH(C0/180)	1.28
NOMINAL POWER(W)	24	LOR(%)	100.0	S/MH(C90/270)	1.26
RATED VOLTAGE(V)	242	TOTAL FLUX(lm)	1526.5	η UP, DN(C0-180)	4.2, 45.5
NOMINAL FLUX(lm)	1526.47	CIE CLASS	DIRECT	η UP, DN(C180-360)	4.3, 46.0
LAMPS INSIDE	1	η up(%)	8.5	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	241.4	η down(%)	91.5	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DAMIN  
 Test Date: 2014-08-28

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.281  
 Humidity: 65.0%  
 Test Distance: 6.200m [K=1.0000]  
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	\$lum,lamp
10	412.9	410.4	407.3	405.5	410.7	409.9	409.9	409.2	0- 10	39.41	39.41	2.58,2.58
20	394.1	390.6	386.3	383.9	389.8	389.8	391.4	391.4	10- 20	113.3	152.7	10,10
30	362.0	358.1	352.8	350.2	356.1	356.8	359.8	360.2	20- 30	172.8	325.5	21.3,21.3
40	318.4	314.4	308.6	305.7	311.6	312.9	316.9	317.8	30- 40	210.5	536.0	35.1,35.1
50	266.8	263.1	257.5	254.3	259.9	261.6	265.8	267.1	40- 50	222.5	758.5	49.7,49.7
60	213.3	210.1	205.2	202.1	207.3	209.0	212.8	214.2	50- 60	210.8	969.3	63.5,63.5
70	162.3	159.7	155.8	152.7	157.5	158.8	162.1	163.7	60- 70	182.1	1151	75.4,75.4
80	116.4	113.9	111.3	108.6	112.4	113.8	116.0	117.5	70- 80	143.5	1295	84.8,84.8
90	76.13	75.03	72.70	71.01	73.80	74.16	76.34	76.95	80- 90	102.1	1397	91.5,91.5
100	44.43	44.16	42.60	41.68	43.37	43.29	44.74	45.22	90-100	63.71	1461	95.7,95.7
110	22.37	22.67	21.88	21.41	22.33	22.00	22.72	22.96	100-110	34.16	1495	97.9,97.9
120	9.664	10.21	10.05	9.771	10.39	9.859	9.979	10.09	110-120	15.42	1510	98.9,98.9
130	4.043	4.480	4.742	4.290	5.298	4.637	4.501	4.987	120-130	6.239	1517	99.4,99.4
140	3.827	3.858	3.858	3.881	4.557	4.504	4.501	4.463	130-140	3.226	1520	99.6,99.6
150	4.202	4.235	4.227	4.240	4.711	4.658	4.651	4.610	140-150	2.704	1523	99.7,99.7
160	4.562	4.593	4.577	4.587	4.881	4.828	4.820	4.777	150-160	2.114	1525	99.9,99.9
170	4.853	4.876	4.850	4.846	5.020	4.977	4.975	4.929	160-170	1.363	1526	100,100
180	5.023	5.043	5.005	4.998	5.048	5.023	5.023	4.990	170-180	0.4734	1526	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

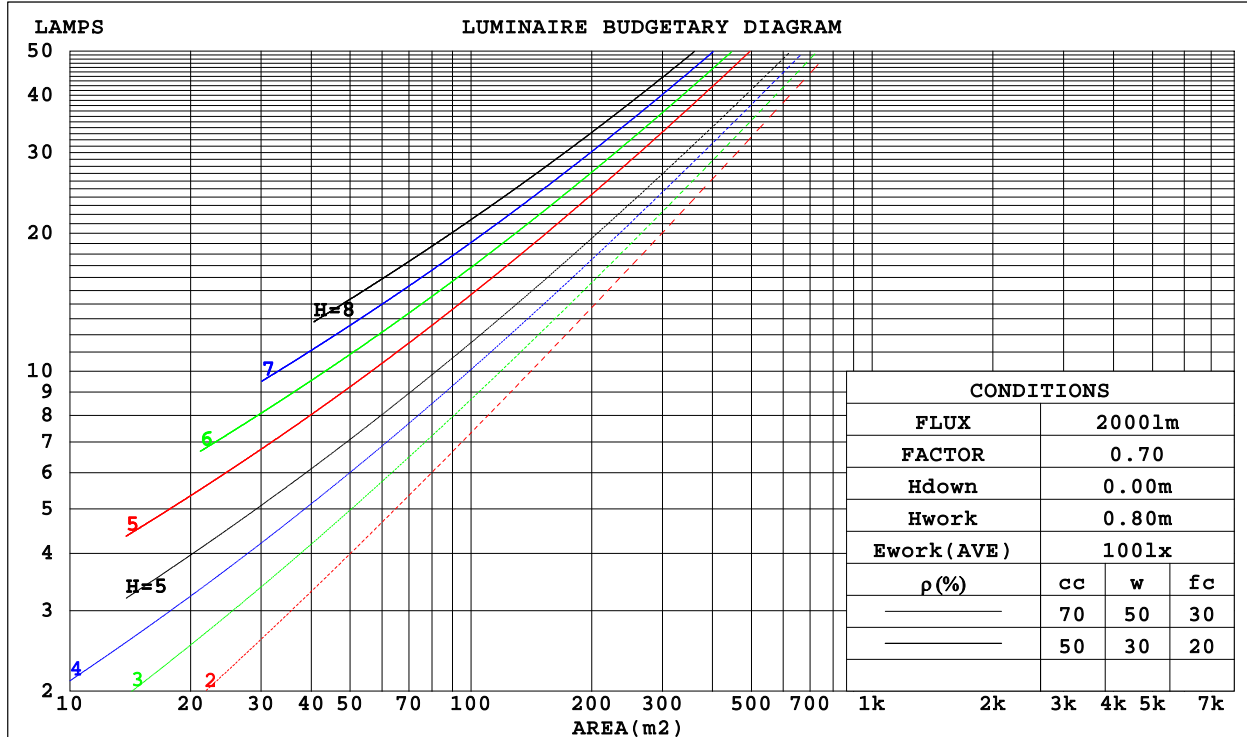
C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2014-08-28

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.281  
 Humidity:65.0%  
 Test Distance:6.200m [K=1.0000]  
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: 24W-6000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:

$\rho_{cc}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	1.17	1.17	1.17	1.13	1.13	1.13	1.06	1.06	1.06	1.00	1.00	1.00	.94	.94	.94	.92
1.0	.98	.93	.89	.95	.91	.86	.89	.86	.82	.84	.81	.78	.79	.77	.74	.71
2.0	.85	.77	.70	.82	.75	.69	.77	.71	.66	.72	.67	.63	.68	.64	.61	.58
3.0	.74	.65	.58	.71	.63	.57	.67	.60	.54	.63	.57	.52	.60	.55	.50	.48
4.0	.65	.55	.48	.63	.54	.47	.59	.52	.46	.56	.50	.44	.53	.47	.43	.40
5.0	.58	.48	.41	.56	.47	.41	.53	.45	.39	.50	.43	.38	.47	.42	.37	.35
6.0	.52	.42	.36	.50	.42	.35	.48	.40	.34	.45	.38	.33	.43	.37	.32	.30
7.0	.47	.38	.31	.46	.37	.31	.43	.36	.30	.41	.34	.29	.39	.33	.29	.26
8.0	.43	.34	.28	.42	.33	.28	.40	.32	.27	.38	.31	.26	.36	.30	.26	.23
9.0	.39	.31	.25	.38	.30	.25	.36	.29	.24	.35	.28	.24	.33	.27	.23	.21
10.0	.36	.28	.23	.35	.28	.22	.34	.27	.22	.32	.26	.21	.31	.25	.21	.19



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DAMIN  
 Test Date: 2014-08-28

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.281  
 Humidity: 65.0%  
 Test Distance: 6.200m [K=1.0000]  
 Remarks:

WEC AND CCEC

NAME: 24W-6000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.374	.213	.067	.364	.208	.066	.346	.198	.063	.329	.190	.061	.313	.182	.059	
2.0	.328	.180	.055	.319	.176	.054	.303	.168	.052	.287	.161	.050	.273	.155	.049	
3.0	.293	.156	.047	.285	.153	.046	.271	.147	.045	.257	.141	.043	.244	.135	.042	
4.0	.265	.138	.040	.258	.135	.040	.245	.130	.039	.232	.125	.038	.221	.120	.037	
5.0	.242	.123	.036	.235	.121	.035	.223	.116	.034	.212	.112	.033	.202	.108	.032	
6.0	.222	.111	.032	.216	.109	.031	.205	.105	.031	.195	.101	.030	.186	.098	.029	
7.0	.205	.101	.029	.200	.100	.028	.190	.096	.028	.181	.093	.027	.172	.089	.026	
8.0	.190	.093	.026	.186	.091	.026	.177	.088	.025	.168	.085	.025	.161	.082	.024	
9.0	.178	.086	.024	.173	.084	.024	.165	.082	.023	.158	.079	.023	.150	.076	.022	
10.0	.166	.080	.022	.162	.078	.022	.155	.076	.021	.148	.073	.021	.141	.071	.020	

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.255	.255	.255	.218	.218	.218	.149	.149	.149	.085	.085	.085	.027	.027	.027	
1.0	.250	.221	.194	.214	.189	.167	.146	.130	.116	.084	.075	.067	.027	.024	.022	
2.0	.243	.197	.159	.208	.170	.138	.142	.117	.096	.082	.068	.056	.026	.022	.018	
3.0	.235	.180	.137	.201	.156	.119	.138	.108	.083	.080	.063	.049	.026	.020	.016	
4.0	.227	.168	.122	.195	.145	.106	.134	.101	.075	.077	.059	.044	.025	.019	.015	
5.0	.219	.157	.112	.188	.136	.097	.130	.095	.069	.075	.056	.041	.024	.018	.013	
6.0	.212	.149	.105	.182	.129	.091	.126	.091	.064	.073	.053	.038	.023	.017	.013	
7.0	.205	.143	.099	.176	.124	.086	.122	.087	.061	.071	.051	.036	.023	.017	.012	
8.0	.198	.137	.095	.170	.119	.083	.118	.083	.059	.069	.049	.035	.022	.016	.012	
9.0	.191	.132	.092	.165	.115	.080	.114	.081	.057	.067	.048	.034	.022	.016	.011	
10.0	.186	.128	.089	.160	.111	.078	.111	.078	.055	.065	.046	.033	.021	.015	.011	

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DAMIN  
 Test Date: 2014-08-28

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.281  
 Humidity: 65.0%  
 Test Distance: 6.200m [K=1.0000]  
 Remarks:

Uncorrected UGR Table

NAME:24W-6000K		TYPE:					WEIGHT:				
SPEC.:		DIM.:					SERIAL No.:				
MFR.: EVERFINE		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	21.4	22.9	21.8	23.3	23.7	21.3	22.8	21.7	23.1	23.5	
3H	23.5	24.9	23.9	25.3	25.7	23.3	24.7	23.7	25.1	25.5	
4H	24.6	25.9	25.0	26.3	26.7	24.4	25.7	24.8	26.1	26.5	
6H	25.7	27.0	26.2	27.4	27.9	25.5	26.8	26.0	27.2	27.6	
8H	26.4	27.6	26.8	28.0	28.5	26.1	27.3	26.6	27.8	28.2	
12H	27.1	28.2	27.5	28.7	29.2	26.8	28.0	27.3	28.4	28.9	
4H 2H	22.1	23.5	22.6	23.9	24.3	22.0	23.3	22.5	23.7	24.2	
3H	24.4	25.6	24.9	26.0	26.5	24.3	25.4	24.8	25.9	26.4	
4H	25.7	26.7	26.2	27.2	27.7	25.5	26.6	26.0	27.1	27.6	
6H	27.0	28.0	27.6	28.5	29.0	26.8	27.8	27.4	28.3	28.8	
8H	27.8	28.6	28.3	29.2	29.7	27.6	28.4	28.1	29.0	29.5	
12H	28.6	29.4	29.1	29.9	30.5	28.4	29.2	28.9	29.7	30.3	
8H 4H	26.2	27.1	26.7	27.6	28.1	26.0	26.9	26.6	27.4	28.0	
6H	27.8	28.5	28.3	29.1	29.7	27.6	28.4	28.2	28.9	29.5	
8H	28.7	29.4	29.3	29.9	30.6	28.5	29.2	29.1	29.8	30.4	
12H	29.7	30.3	30.3	30.9	31.6	29.5	30.1	30.1	30.7	31.4	
12H 4H	26.3	27.1	26.8	27.6	28.2	26.1	27.0	26.7	27.5	28.1	
6H	28.0	28.7	28.6	29.2	29.9	27.8	28.5	28.4	29.1	29.7	
8H	29.0	29.6	29.6	30.2	30.8	28.8	29.4	29.4	30.0	30.7	
Variations with the observer position at spacings:											
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.1					
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3					
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.4					

CIE Pub.117 Corrected 1526 lm Total Lamp Luminous Flux.(8log(F/F0) = 1.5)

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2014-08-28

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.281  
 Humidity:65.0%  
 Test Distance:6.200m [K=1.0000]  
 Remarks:

UTILIZATION FACTORS TABLE

NAME: 24W-6000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:

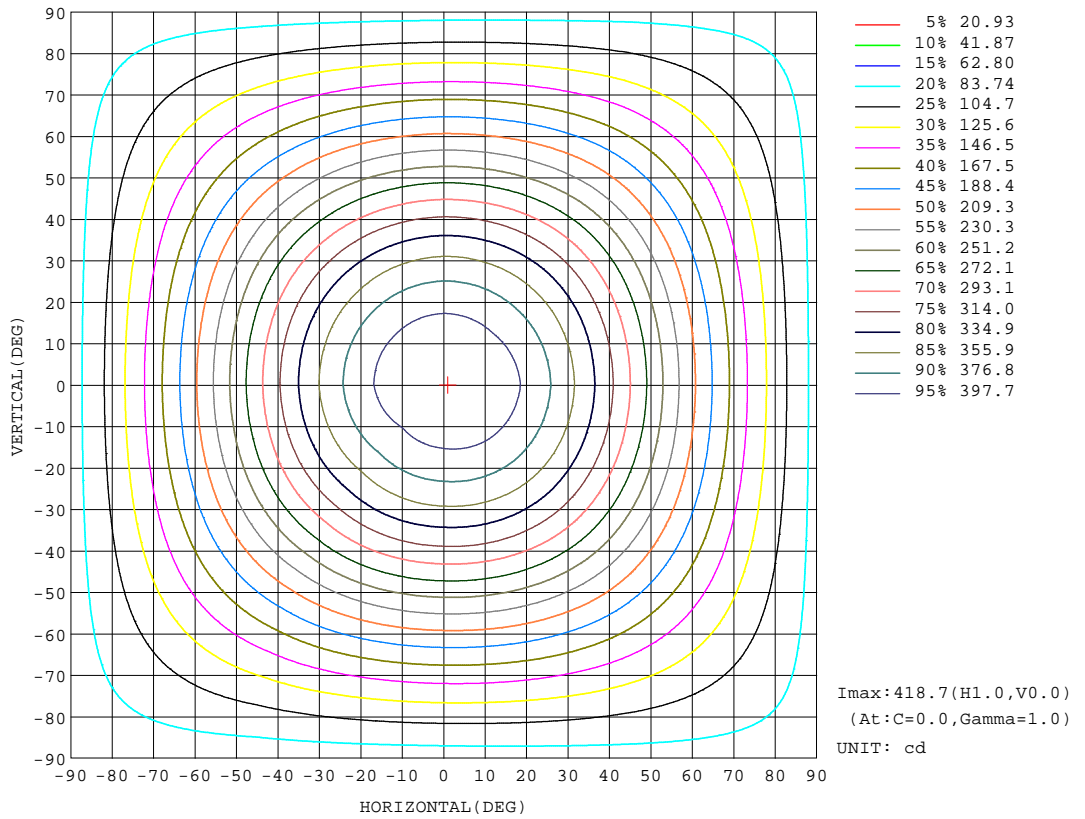
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	52	40	32	51	39	32	49	39	32	25
0.80	61	49	41	60	48	40	58	47	40	33
1.00	69	57	49	68	56	48	65	57	47	40
1.25	76	64	56	74	63	55	71	61	54	46
1.50	81	69	61	79	68	61	75	66	59	50
2.00	88	78	70	86	76	69	81	73	67	57
2.50	92	83	75	90	81	74	85	77	72	61
3.00	96	87	80	93	85	79	88	81	76	65
4.00	100	93	87	97	91	85	92	86	82	70
5.00	103	97	91	100	94	89	94	89	85	73
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DAMIN  
 Test Date: 2014-08-28

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.281  
 Humidity: 65.0%  
 Test Distance: 6.200m [K=1.0000]  
 Remarks:

ISOCANDELA DIAGRAM

NAME: 24W-6000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:



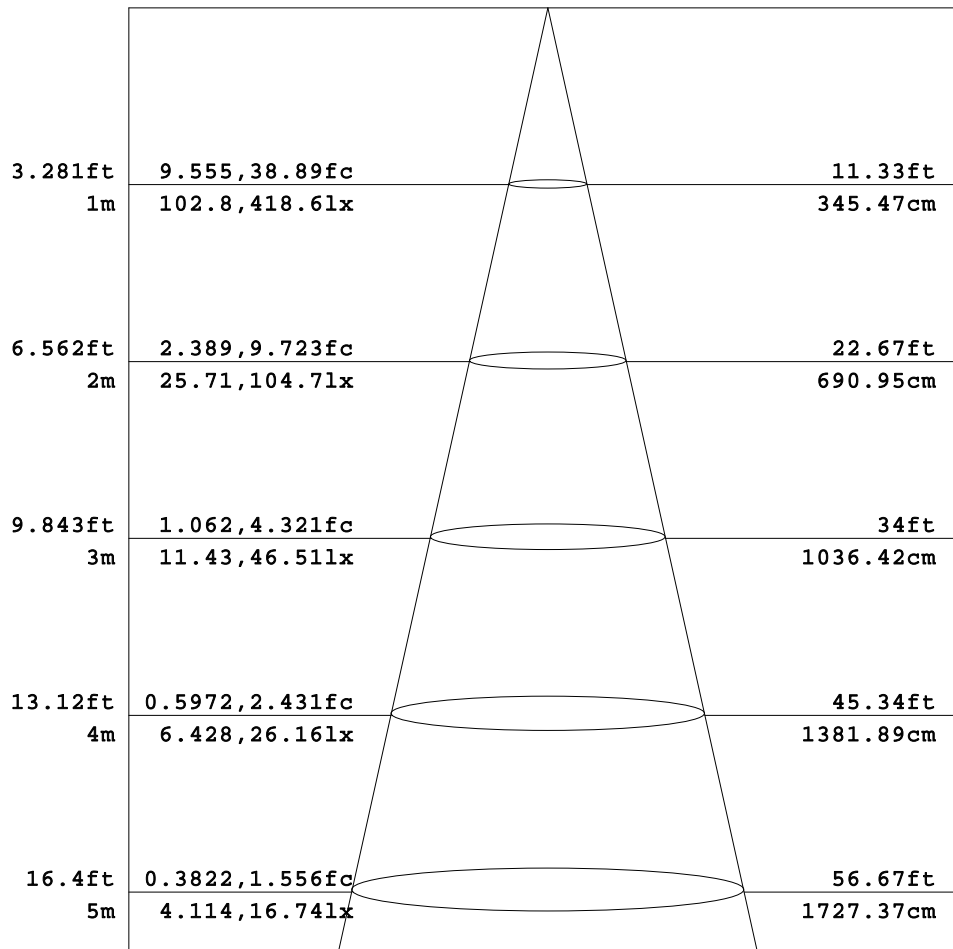
C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DAMIN  
 Test Date: 2014-08-28

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.281  
 Humidity: 65.0%  
 Test Distance: 6.200m [K=1.0000]  
 Remarks:

AAI Figure

NAME: 24W-6000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:

Flux out: 969.3 lm



Height Eavg, Emax Angle: 119.87deg Diameter

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

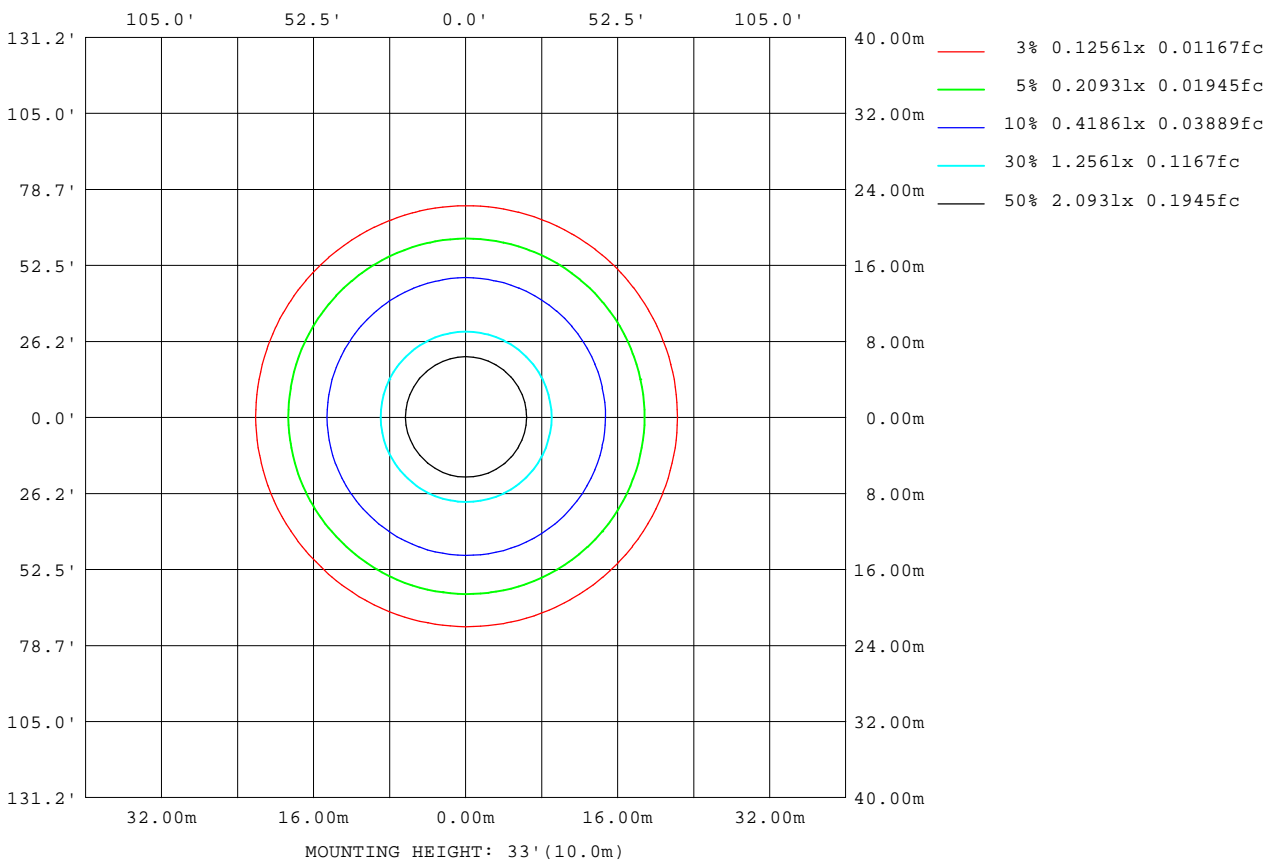
C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DAMIN  
 Test Date: 2014-08-28

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.281  
 Humidity: 65.0%  
 Test Distance: 6.200m [K=1.0000]  
 Remarks:



ISOLUX DIAGRAM

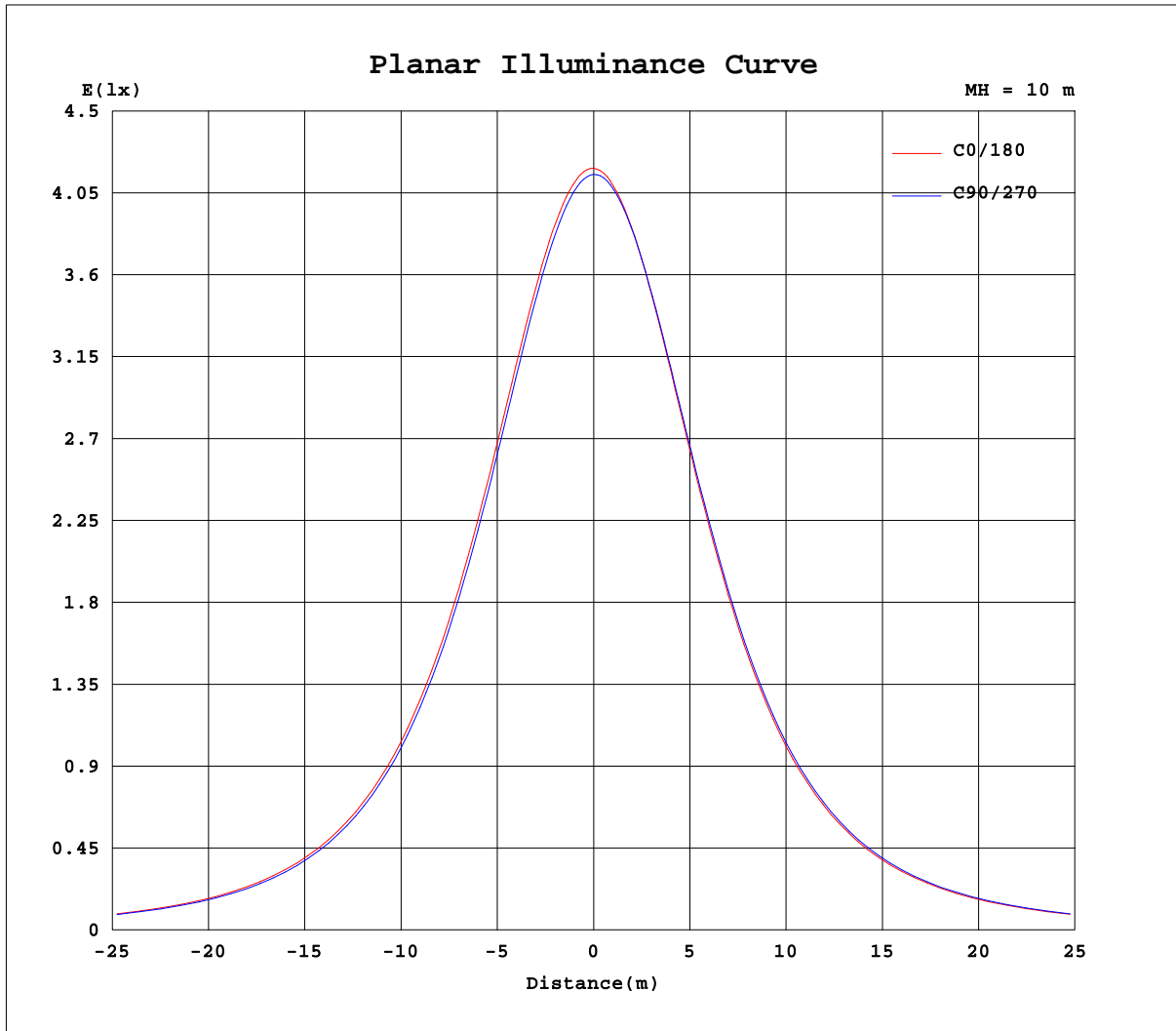
NAME: 24W-6000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DAMIN  
 Test Date: 2014-08-28

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.281  
 Humidity: 65.0%  
 Test Distance: 6.200m [K=1.0000]  
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DAMIN  
 Test Date: 2014-08-28

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.281  
 Humidity: 65.0%  
 Test Distance: 6.200m [K=1.0000]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: 24W-6000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C( DEG) γ (DEG)	0	45	90	135	180	225	270	315												
0	419	417	415	414	419	417	415	414												
5	417	415	413	411	416	415	414	413												
10	413	410	407	405	411	410	410	409												
15	405	402	398	396	402	401	402	402												
20	394	391	386	384	390	390	391	391												
25	380	376	371	369	374	375	377	377												
30	362	358	353	350	356	357	360	360												
35	341	337	332	329	335	336	340	340												
40	318	314	309	306	312	313	317	318												
45	293	289	284	281	286	288	292	293												
50	267	263	258	254	260	262	266	267												
55	240	236	231	228	233	235	239	241												
60	213	210	205	202	207	209	213	214												
65	187	184	180	177	182	183	187	188												
70	162	160	156	153	158	159	162	164												
75	139	136	133	130	134	136	138	140												
80	116	114	111	109	112	114	116	117												
85	95.7	93.7	91.3	89.0	92.4	93.3	95.4	96.6												
90	76.1	75.0	72.7	71.0	73.8	74.2	76.3	76.9												
95	59.1	58.5	56.5	55.2	57.5	57.6	59.5	60.0												
100	44.4	44.2	42.6	41.7	43.4	43.3	44.7	45.2												
105	32.2	32.2	31.1	30.4	31.7	31.4	32.5	32.9												
110	22.4	22.7	21.9	21.4	22.3	22.0	22.7	23.0												
115	14.9	15.4	14.9	14.6	15.3	14.9	15.3	15.4												
120	9.66	10.2	10.1	9.77	10.4	9.86	9.98	10.1												
125	6.15	6.73	6.83	6.54	7.28	6.60	6.53	6.89												
130	4.04	4.48	4.74	4.29	5.30	4.64	4.50	4.99												
135	3.64	3.68	3.70	3.71	4.49	4.44	4.44	4.40												
140	3.83	3.86	3.86	3.88	4.56	4.50	4.50	4.46												
145	4.02	4.05	4.05	4.06	4.63	4.57	4.57	4.53												
150	4.20	4.24	4.23	4.24	4.71	4.66	4.65	4.61												
155	4.39	4.42	4.41	4.42	4.79	4.74	4.74	4.70												
160	4.56	4.59	4.58	4.59	4.88	4.83	4.82	4.78												
165	4.72	4.75	4.73	4.74	4.96	4.92	4.91	4.87												
170	4.85	4.88	4.85	4.85	5.02	4.98	4.97	4.93												
175	4.96	4.98	4.94	4.94	5.05	5.01	5.02	4.97												
180	5.02	5.04	5.01	5.00	5.05	5.02	5.02	4.99												

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DAMIN  
 Test Date: 2014-08-28

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.281  
 Humidity: 65.0%  
 Test Distance: 6.200m [K=1.0000]  
 Remarks: