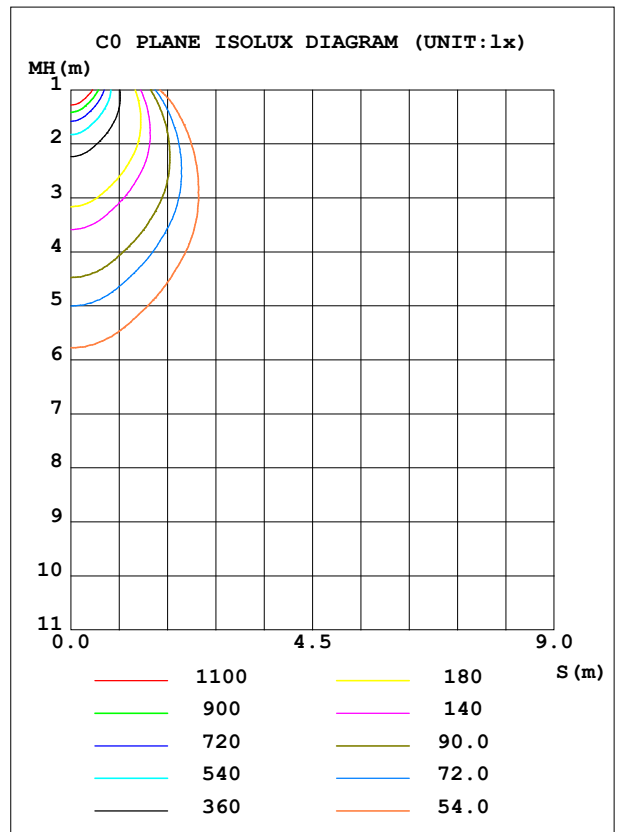
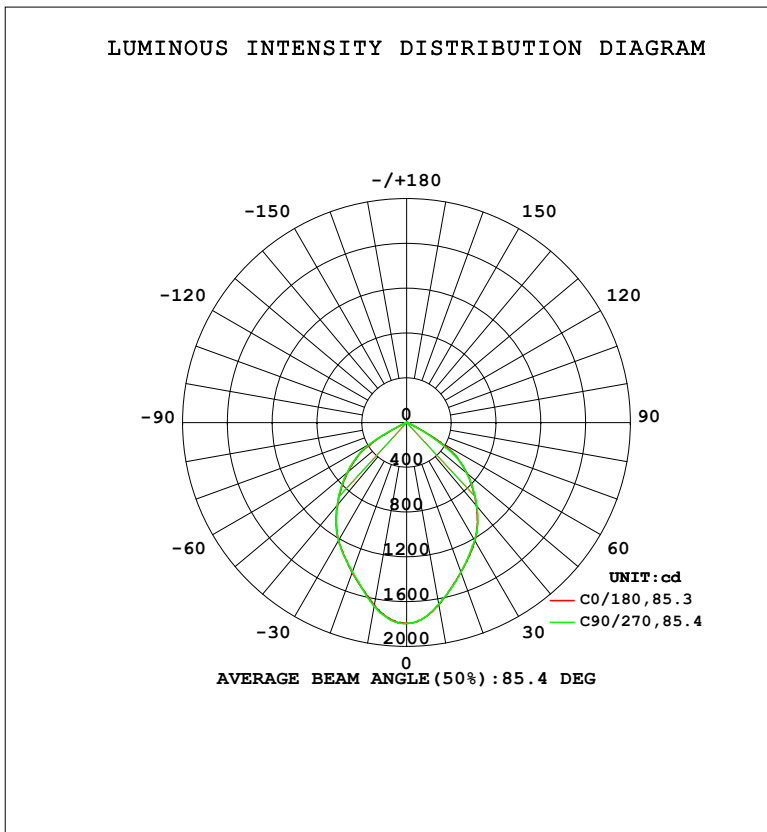


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:240.33V I:0.1768A P:24.633W PF:0.5796 Freq:49.99Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:3119.36x1 lm		
NAME: TS-24W	TYPE: 24W	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.034	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	TS-24W	Imax (cd)	1796	S/MH (C0/180)	1.03
NOMINAL POWER (W)	24	LOR (%)	100.0	S/MH (C90/270)	1.02
RATED VOLTAGE (V)	240	TOTAL FLUX (lm)	3119.4	η UP, DN (C0-180)	0.0, 50.3
NOMINAL FLUX (lm)	3119.36	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 49.7
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.00
TEST VOLTAGE (V)	240	η down (%)	100.0	CIBSE SHR MAX	1.15



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.3 °C
 Operators: DAMIN
 Test Date: 2023-06-28

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000H_V1 SYSTEM V2.00.456
 Humidity: 65.0%
 Test Distance: 9.640m [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
10	1657	1665	1667	1660	1650	1640	1648	1655	0- 10	164.4	164.4	5.27,5.27
20	1425	1421	1421	1419	1422	1411	1422	1430	10- 20	431.9	596.3	19.1,19.1
30	1216	1221	1217	1219	1219	1206	1217	1217	20- 30	606.8	1203	38.6,38.6
40	962.9	971.1	967.7	969.1	971.1	967.4	976.5	974.2	30- 40	686.9	1890	60.6,60.6
50	683.9	698.2	694.8	699.5	701.8	698.5	697.2	692.5	40- 50	643.5	2534	81.2,81.2
60	324.7	360.7	364.1	346.7	320.0	271.4	271.8	293.1	50- 60	477.0	3011	96.5,96.5
70	13.15	14.19	14.49	13.73	13.04	13.13	12.38	12.34	60- 70	102.4	3113	99.8,99.8
80	0.8909	1.011	0.9202	0.9825	0.9695	0.8535	0.7485	0.7917	70- 80	6.041	3119	100,100
90	0.2154	0.2189	0.1843	0.2086	0.1741	0.1923	0.2081	0.1907	80- 90	0.3751	3119	100,100
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 2224.1 lm

%lum = 71.3%

%lamp = 71.3%

Conical surface Flux(120deg): 3010.5 lm

%lum = 96.5%

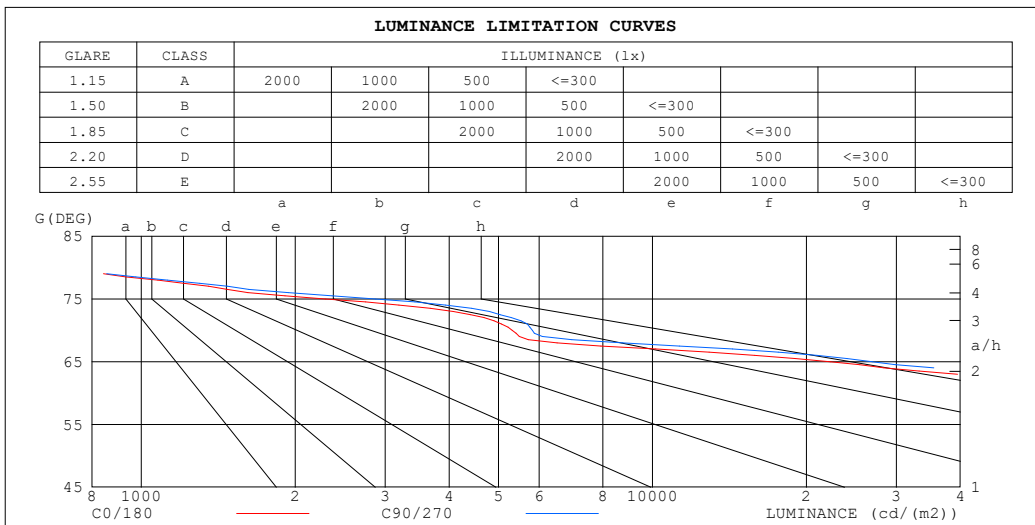
%lamp = 96.5%

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2023-06-28

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.456
 Humidity:65.0%
 Test Distance:9.640m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:240.33V I:0.1768A P:24.633W PF:0.5796 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:3119.36x1 lm		
NAME: TS-24W	TYPE: 24W	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.034	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	362	338
80	710	728
75	2295	2870
70	5320	5823
65	22272	26929
60	89886	100078
55	131247	132328
50	147279	148538
45	161481	162035

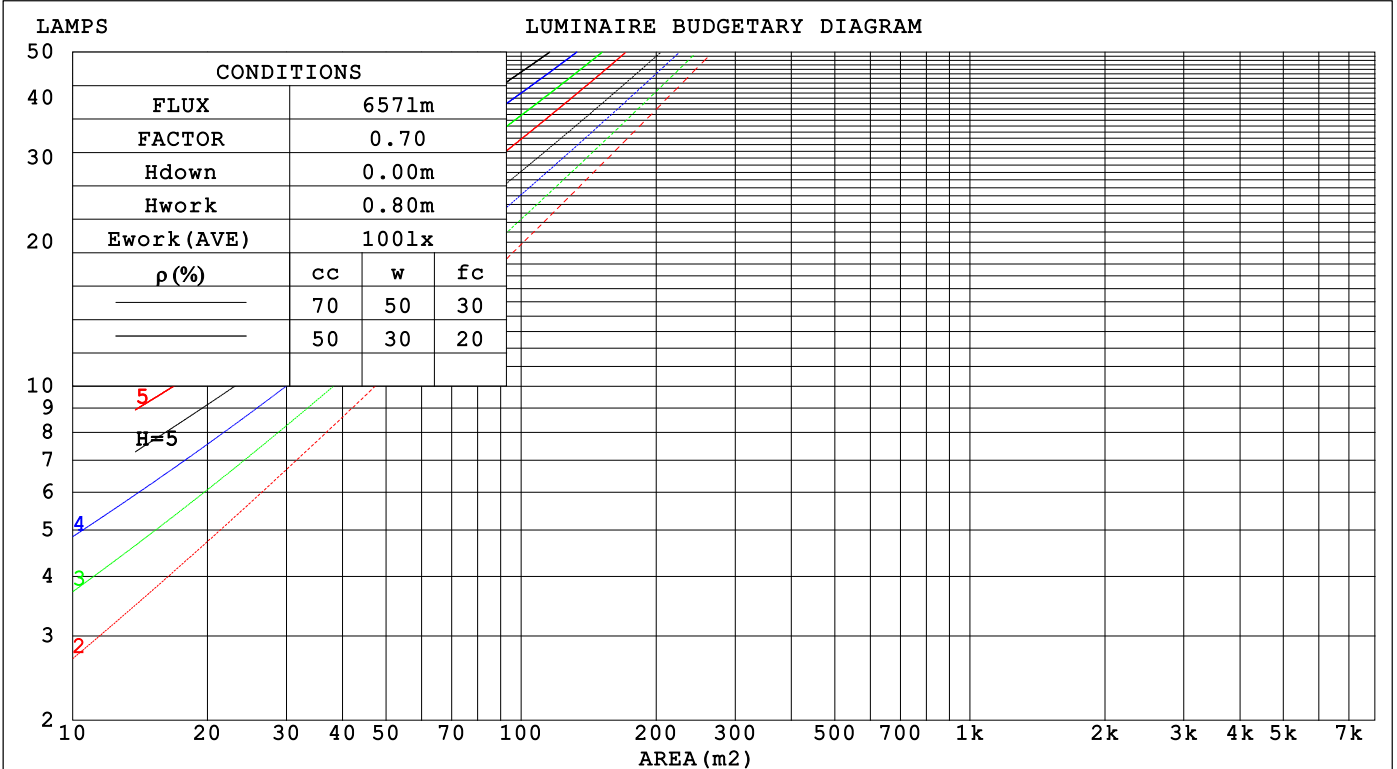
C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3 °C
 Operators:DAMIN
 Test Date:2023-06-28

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.456
 Humidity:65.0%
 Test Distance:9.640m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:240.33V I:0.1768A P:24.633W PF:0.5796 Freq:49.99Hz		
UTHdi:0.00% ITHdi:0.00% KDisp:0 Lamp Flux:3119.36x1 lm		
NAME: TS-24W	TYPE: 24W	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.034	Shielding 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 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	1.08	1.05	1.02	1.06	1.03	1.00	1.02	.99	.97	.98	.96	.94	.95	.93	.92	.90
2.0	.97	.92	.88	.96	.91	.87	.92	.88	.85	.89	.86	.83	.86	.83	.81	.79
3.0	.88	.81	.76	.86	.80	.75	.83	.78	.74	.81	.76	.73	.78	.75	.72	.70
4.0	.79	.72	.66	.78	.71	.66	.76	.70	.65	.73	.68	.64	.71	.67	.63	.61
5.0	.72	.64	.58	.71	.63	.58	.69	.62	.57	.67	.61	.57	.65	.60	.56	.55
6.0	.65	.57	.52	.64	.57	.52	.63	.56	.51	.61	.55	.51	.60	.54	.50	.49
7.0	.60	.52	.46	.59	.52	.46	.57	.51	.46	.56	.50	.46	.55	.50	.45	.44
8.0	.55	.47	.42	.54	.47	.42	.53	.46	.42	.52	.46	.41	.51	.45	.41	.39
9.0	.51	.43	.38	.50	.43	.38	.49	.42	.38	.48	.42	.38	.47	.42	.38	.36
10.0	.47	.40	.35	.46	.40	.35	.46	.39	.35	.45	.39	.35	.44	.38	.34	.33



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3 °C
 Operators:DAMIN
 Test Date:2023-06-28

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.456
 Humidity:65.0%
 Test Distance:9.640m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:240.33V I:0.1768A P:24.633W PF:0.5796 Freq:49.99Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:3119.36x1 lm		
NAME: TS-24W	TYPE: 24W	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.034	Shielding 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	.228	.130	.041	.221	.126	.040	.208	.119	.038	.196	.113	.036	.185	.107	.035	
2.0	.225	.123	.038	.219	.121	.037	.208	.116	.036	.198	.111	.035	.188	.107	.034	
3.0	.217	.115	.035	.211	.113	.034	.202	.109	.033	.193	.106	.032	.184	.102	.032	
4.0	.206	.107	.032	.202	.106	.031	.193	.102	.031	.185	.100	.030	.178	.097	.029	
5.0	.196	.100	.029	.192	.098	.029	.184	.096	.028	.177	.093	.028	.170	.091	.027	
6.0	.185	.093	.027	.182	.092	.026	.175	.090	.026	.169	.088	.026	.163	.086	.025	
7.0	.175	.087	.025	.172	.086	.024	.166	.084	.024	.160	.082	.024	.155	.081	.024	
8.0	.166	.081	.023	.163	.080	.023	.158	.079	.022	.153	.077	.022	.148	.076	.022	
9.0	.157	.076	.021	.155	.075	.021	.150	.074	.021	.145	.073	.021	.141	.072	.021	
10.0	.149	.072	.020	.147	.071	.020	.142	.070	.020	.138	.069	.020	.134	.068	.019	

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	.175	.157	.141	.149	.135	.121	.102	.093	.084	.059	.054	.049	.019	.017	.016	
2.0	.163	.132	.106	.140	.114	.092	.096	.079	.064	.055	.046	.037	.018	.015	.012	
3.0	.154	.114	.082	.132	.098	.071	.091	.068	.050	.052	.040	.029	.017	.013	.010	
4.0	.146	.100	.065	.126	.086	.056	.086	.060	.040	.050	.035	.023	.016	.011	.008	
5.0	.139	.089	.052	.120	.077	.046	.082	.054	.032	.048	.032	.019	.015	.010	.006	
6.0	.133	.081	.043	.114	.070	.038	.079	.049	.027	.046	.029	.016	.015	.009	.005	
7.0	.127	.074	.036	.109	.064	.032	.075	.045	.022	.044	.026	.013	.014	.009	.004	
8.0	.121	.068	.031	.104	.059	.027	.072	.041	.019	.042	.024	.012	.014	.008	.004	
9.0	.115	.063	.027	.099	.054	.024	.069	.038	.017	.040	.023	.010	.013	.007	.003	
10.0	.110	.059	.024	.095	.051	.021	.066	.036	.015	.039	.021	.009	.012	.007	.003	

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2023-06-28

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.456
 Humidity:65.0%
 Test Distance:9.640m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:240.33V I:0.1768A P:24.633W PF:0.5796 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:3119.36x1 lm		
NAME: TS-24W	TYPE: 24W	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.034	Shielding 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	29.2	30.5	29.4	30.6	30.8	29.3	30.6	29.6	30.8	31.0
3H	29.0	30.2	29.3	30.4	30.6	29.1	30.3	29.4	30.5	30.8
4H	28.9	30.0	29.2	30.2	30.5	29.1	30.2	29.4	30.4	30.6
6H	28.8	29.8	29.1	30.1	30.4	29.0	30.0	29.3	30.3	30.5
8H	28.7	29.7	29.1	30.0	30.3	28.9	29.9	29.2	30.2	30.5
12H	28.7	29.7	29.0	29.9	30.2	28.9	29.8	29.2	30.1	30.4
4H 2H	29.2	30.3	29.5	30.6	30.8	29.3	30.5	29.6	30.7	30.9
3H	29.0	30.0	29.4	30.3	30.6	29.2	30.1	29.5	30.4	30.7
4H	29.0	29.8	29.3	30.1	30.4	29.1	30.0	29.5	30.3	30.6
6H	28.9	29.6	29.2	30.0	30.3	29.0	29.8	29.4	30.1	30.5
8H	28.8	29.5	29.2	29.9	30.2	29.0	29.7	29.4	30.0	30.4
12H	28.8	29.4	29.2	29.8	30.2	28.9	29.5	29.3	29.9	30.3
8H 4H	28.8	29.5	29.2	29.9	30.2	29.0	29.7	29.4	30.0	30.4
6H	28.7	29.3	29.2	29.7	30.1	28.9	29.4	29.3	29.8	30.3
8H	28.7	29.2	29.1	29.6	30.0	28.8	29.3	29.3	29.7	30.2
12H	28.6	29.1	29.1	29.5	30.0	28.8	29.2	29.3	29.6	30.1
12H 4H	28.8	29.4	29.2	29.8	30.2	28.9	29.5	29.3	29.9	30.3
6H	28.7	29.2	29.1	29.6	30.0	28.8	29.3	29.3	29.7	30.2
8H	28.6	29.1	29.1	29.5	30.0	28.8	29.2	29.3	29.6	30.1
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.6 / - 0.8					+ 0.6 / - 0.9				
1.5H	+ 0.7 / - 1.1					+ 0.7 / - 1.1				
2.0H	+ 1.5 / - 7.0					+ 1.4 / - 6.5				

CIE Pub.117, 3119 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 4.0)
 Area: 0.007259 m2

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2023-06-28

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.456
 Humidity:65.0%
 Test Distance:9.640m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:240.33V I:0.1768A P:24.633W PF:0.5796 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:3119.36x1 lm		
NAME: TS-24W	TYPE: 24W	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.034	Shielding Angle:

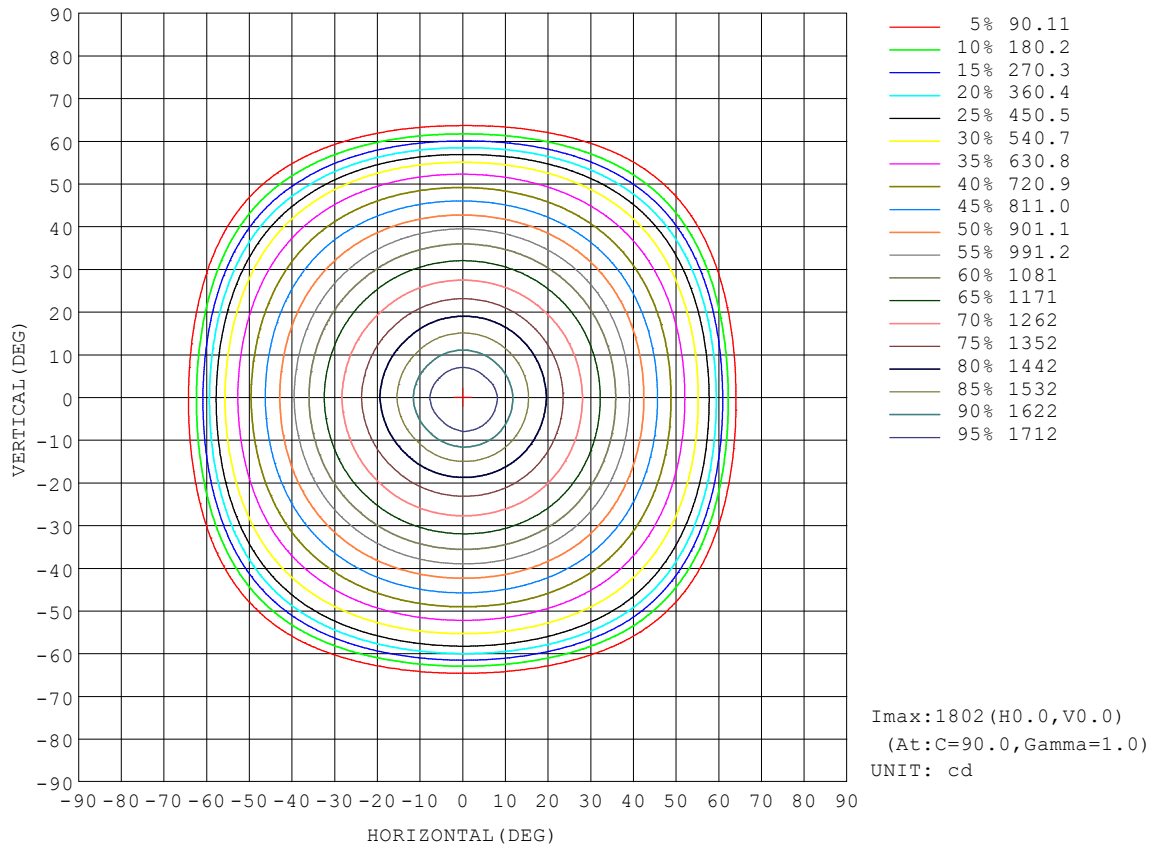
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	66	55	49	65	55	49	64	55	49	43
0.80	76	67	61	76	66	60	74	66	60	54
1.00	85	76	71	84	76	70	82	77	70	64
1.25	92	84	78	91	83	78	88	82	77	71
1.50	96	89	84	95	88	83	92	87	82	76
2.00	102	96	91	100	95	90	97	93	89	82
2.50	105	99	95	103	98	94	99	95	92	85
3.00	107	102	98	105	101	97	102	98	95	88
4.00	110	106	102	108	104	101	104	101	98	90
5.00	112	108	105	109	106	103	105	103	100	92
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:25.3°C
 Operators:DAMIN
 Test Date:2023-06-28

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.456
 Humidity:65.0%
 Test Distance:9.640m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:240.33V I:0.1768A P:24.633W PF:0.5796 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:3119.36x1 lm		
NAME: TS-24W	TYPE: 24W	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.034	Shielding Angle:



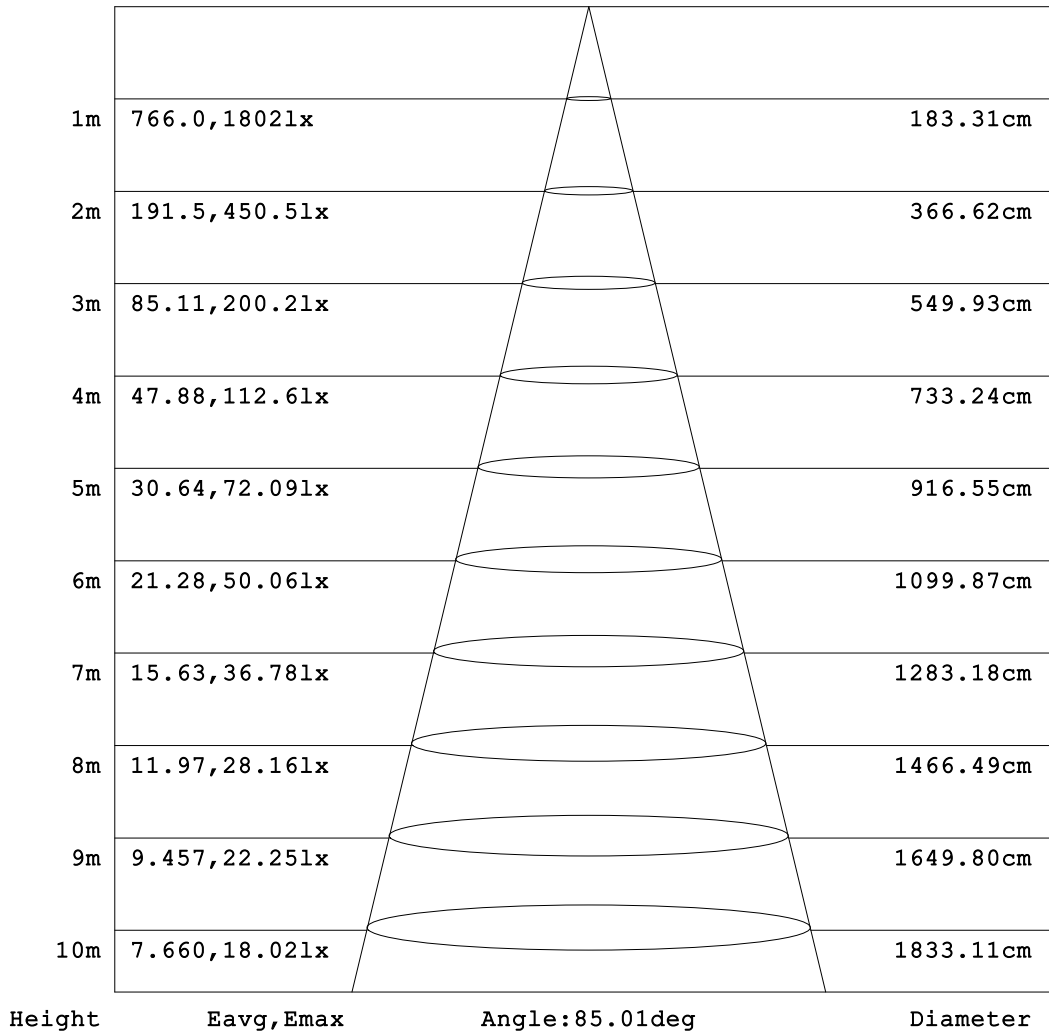
C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3 °C
 Operators:DAMIN
 Test Date:2023-06-28

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.456
 Humidity:65.0%
 Test Distance:9.640m [K=1.0000]
 Remarks:

AAI Figure

Test:U:240.33V I:0.1768A P:24.633W PF:0.5796 Freq:49.99Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:3119.36x1 lm		
NAME: TS-24W	TYPE: 24W	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.034	Shielding Angle:

Flux out:2093 lm



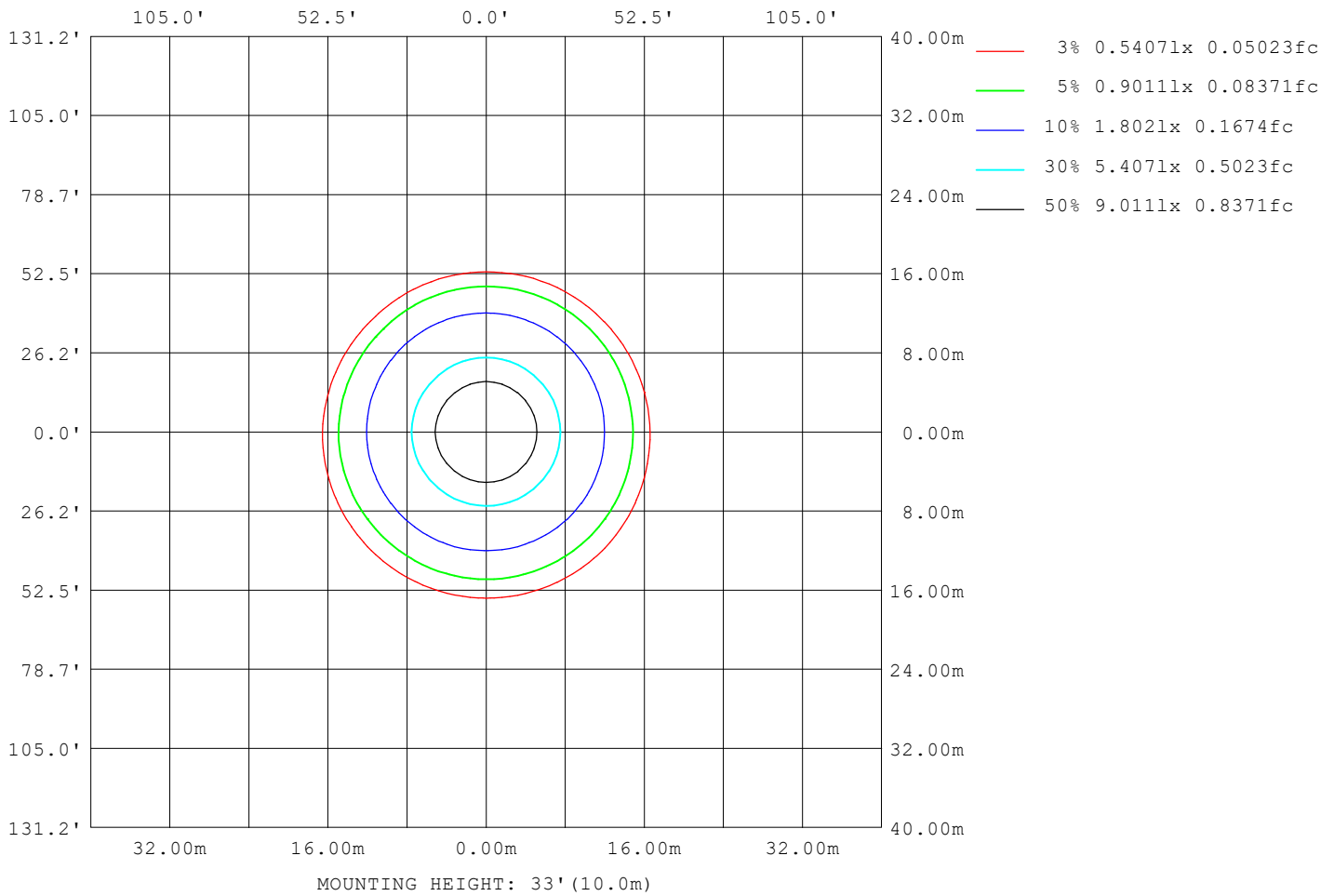
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.3 °C
 Operators: DAMIN
 Test Date: 2023-06-28

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000H_V1 SYSTEM V2.00.456
 Humidity: 65.0%
 Test Distance: 9.640m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:240.33V I:0.1768A P:24.633W PF:0.5796 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:3119.36x1 lm		
NAME: TS-24W	TYPE: 24W	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.034	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3 °C
 Operators:DAMIN
 Test Date:2023-06-28

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.456
 Humidity:65.0%
 Test Distance:9.640m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:240.33V I:0.1768A P:24.633W PF:0.5796 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:3119.36x1 lm		
NAME: TS-24W	TYPE: 24W	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.034	Shielding Angle:

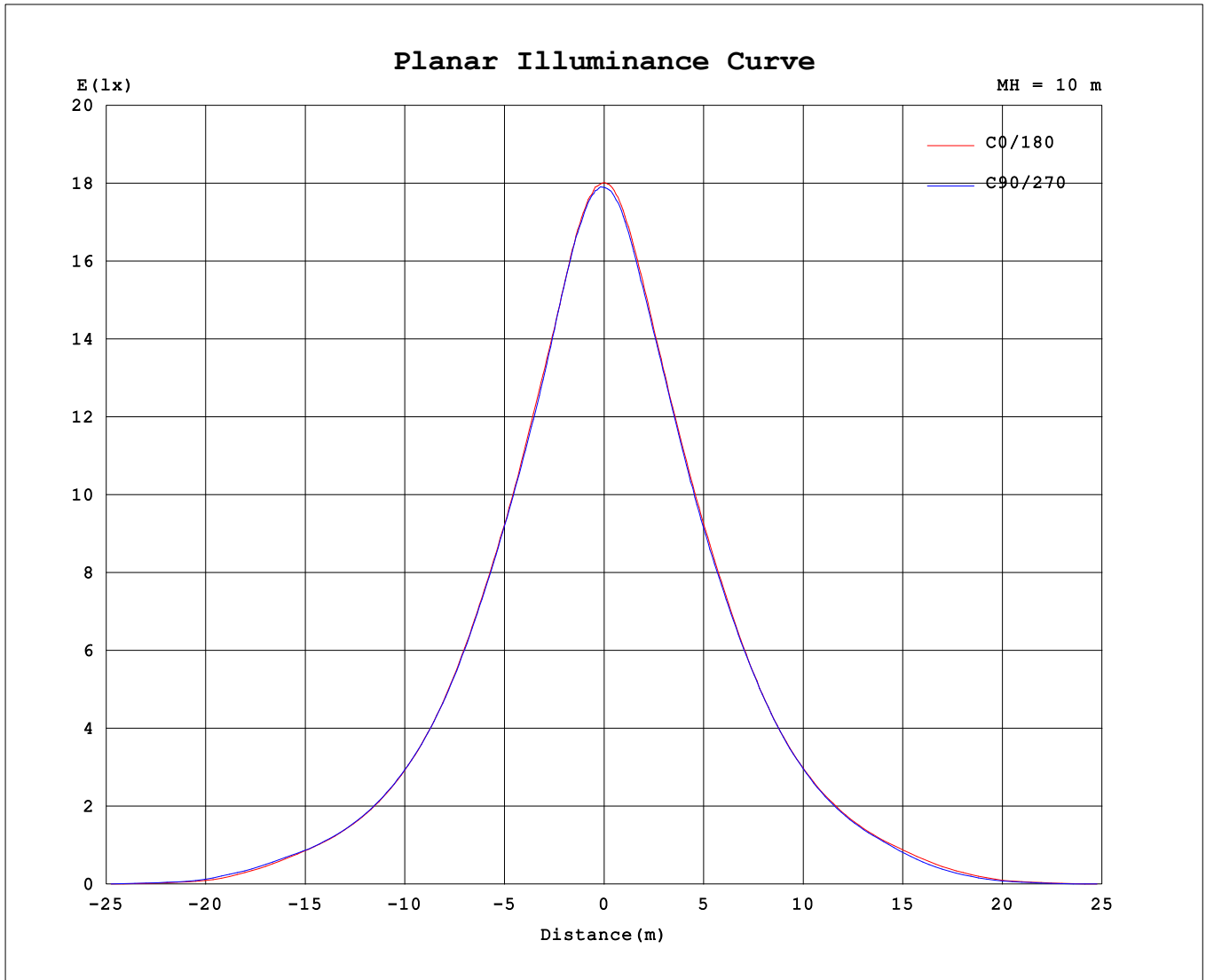
AvgL	cd/m2
L_0~180 (65) av	23139
L_0~180 (75) av	2406
L_0~180 (85) av	376
L_90~270 (65) av	23049
L_90~270 (75) av	2262
L_90~270 (85) av	298
L_45 (65) av	23494
L_45 (75) av	2442
L_45 (85) av	344

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3℃
 Operators:DAMIN
 Test Date:2023-06-28

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.456
 Humidity:65.0%
 Test Distance:9.640m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.3 °C
 Operators: DAMIN
 Test Date: 2023-06-28

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000H_V1 SYSTEM V2.00.456
 Humidity: 65.0%
 Test Distance: 9.640m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:240.33V I:0.1768A P:24.633W PF:0.5796 Freq:49.99Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:3119.36x1 lm		
NAME: TS-24W	TYPE: 24W	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.: 0.034	Shielding Angle:

Table--1

UNIT: cd

C (DEG) \ γ (DEG)	0	45	90	135	180	225	270	315										
0	1794	1794	1794	1794	1794	1794	1794	1794										
5	1758	1765	1764	1760	1753	1743	1754	1756										
10	1657	1665	1667	1660	1650	1640	1648	1655										
15	1535	1537	1536	1533	1534	1528	1537	1543										
20	1425	1421	1421	1419	1422	1411	1422	1430										
25	1317	1317	1320	1319	1319	1307	1313	1319										
30	1216	1221	1217	1219	1219	1206	1217	1217										
35	1100	1106	1100	1100	1104	1094	1106	1104										
40	963	971	968	969	971	967	977	974										
45	825	837	834	839	839	841	842	836										
50	684	698	695	699	702	698	697	693										
55	544	553	552	554	558	544	543	547										
60	325	361	364	347	320	271	272	293										
65	68.0	79.8	82.8	82.2	74.0	60.5	58.6	65.7										
70	13.1	14.2	14.5	13.7	13.0	13.1	12.4	12.3										
75	4.29	5.71	5.41	5.34	4.75	3.60	3.09	3.71										
80	0.89	1.01	0.92	0.98	0.97	0.85	0.75	0.79										
85	0.23	0.22	0.21	0.28	0.25	0.18	0.16	0.19										
90	0.22	0.22	0.18	0.21	0.17	0.19	0.21	0.19										

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3℃
 Operators:DAMIN
 Test Date:2023-06-28

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.456
 Humidity:65.0%
 Test Distance:9.640m [K=1.0000]
 Remarks: