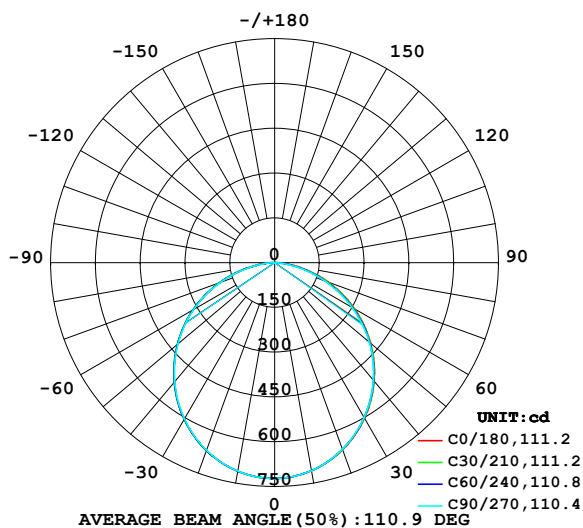


LUMINAIRE PHOTOMETRIC TEST REPORT

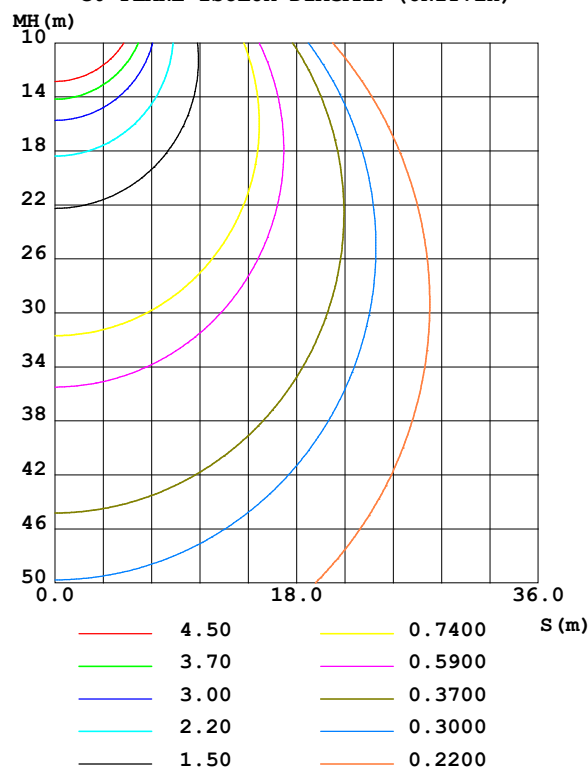
Test:U:220.44V I:0.1461A P:19.301W PF:0.5993 Freq:50.00Hz Lamp Flux:2013.48x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.: 4000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 104.32 lm/W			
MODEL	P7	I _{max} (cd)	722.8	S/MH(C0/180)	1.25
NOMINAL POWER(W)	20	LOR(%)	100.0	S/MH(C90/270)	1.24
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	2013.5	η UP,DN(C0-180)	0.0,49.6
NOMINAL FLUX(lm)	2013.48	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.4
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	219.5	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: 15.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: DAMIN
Test Date: 2024-03-07

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.473
Humidity: 65.0%
Test Distance: 9.401m [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	708.2	708.0	707.3	708.6	709.5	709.1	709.3	708.6	0- 10	68.31	68.31	3.39,3.39
20	666.9	666.5	665.0	667.1	669.4	668.8	668.8	667.3	10- 20	195.0	263.3	13.1,13.1
30	602.2	601.8	599.3	602.6	605.8	604.9	604.5	602.7	20- 30	293.9	557.2	27.7,27.7
40	518.5	517.7	514.4	518.4	522.9	521.9	521.1	518.9	30- 40	352.3	909.5	45.2,45.2
50	419.7	418.6	413.6	419.1	424.5	423.6	422.6	420.1	40- 50	363.5	1273	63.2,63.2
60	308.9	307.3	299.0	307.4	314.9	312.8	313.3	309.3	50- 60	326.9	1600	79.5,79.5
70	190.7	186.3	178.1	186.6	195.9	193.6	192.3	191.3	60- 70	247.0	1847	91.7,91.7
80	77.38	69.62	61.92	70.10	80.39	76.29	71.78	74.55	70- 80	137.2	1984	98.5,98.5
90	1.031	1.066	0.9994	1.005	1.236	1.192	1.127	1.200	80- 90	29.35	2013	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): 1092.9 lm

%lum = 54.3%

%lamp = 54.3%

Conical surface Flux(130deg): 1735.8 lm

%lum = 86.2%

%lamp = 86.2%

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2024-03-07

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.473
 Humidity:65.0%
 Test Distance:9.401m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

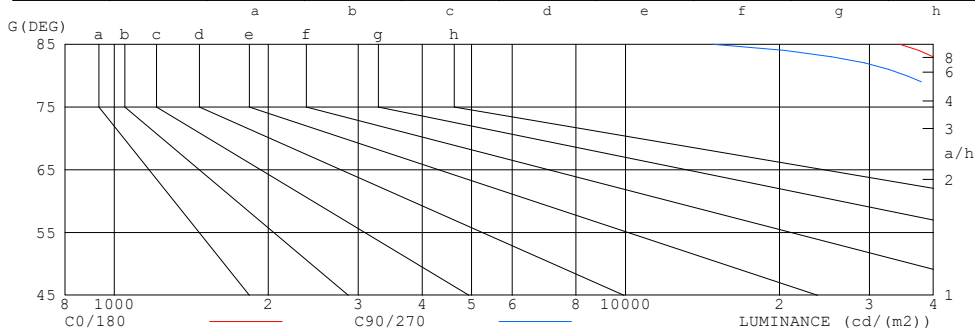
Test:U:220.44V I:0.1461A P:19.301W PF:0.5993 Freq:50.00Hz

Lamp Flux:2013.48x1 lm

NAME:	TYPE:	WEIGHT:
SPEC.: 4000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

LUMINANCE LIMITATION CURVES

GLARE	CLASS	ILLUMINANCE (lx)							
1.15	A	2000	1000	500	<=300				
1.50	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.20	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300



LUMINANCE cd/(m2)

G (DEG)	C0/180	C90/270
85	34410	14841
80	45816	35450
75	52704	45342
70	57317	51759
65	60932	56044
60	63529	59462
55	65528	62005
50	67130	63967
45	68456	65533

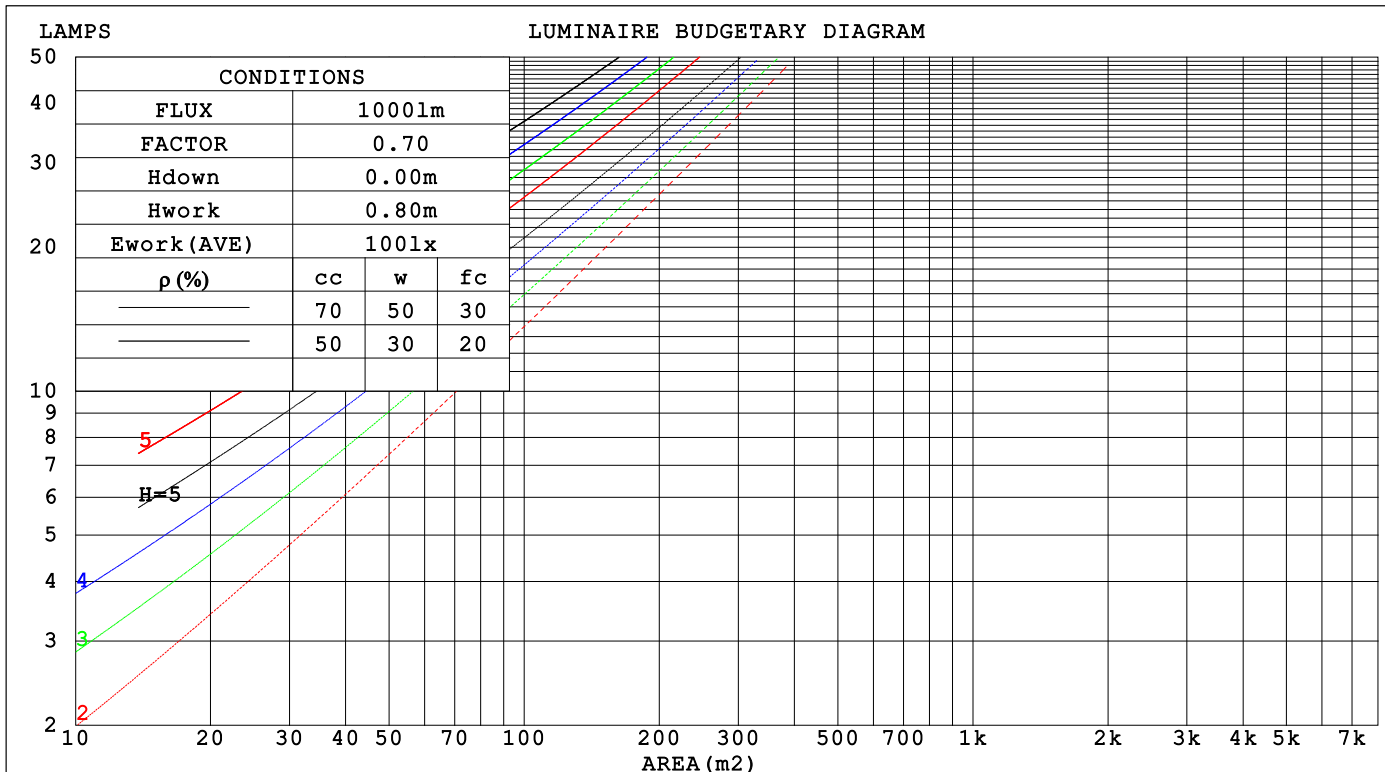
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:DAMIN
Test Date:2024-03-07

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.473
Humidity:65.0%
Test Distance:9.401m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.44V I:0.1461A P:19.301W PF:0.5993 Freq:50.00Hz Lamp Flux:2013.48x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.: 4000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	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	1.04	.00	.96	1.02	.98	.95	.98	.94	.92	.94	.91	.89	.90	.88	.86	.84
2.0	.91	.84	.78	.89	.83	.77	.85	.80	.76	.82	.78	.74	.79	.75	.72	.70
3.0	.80	.72	.65	.78	.71	.64	.75	.69	.63	.72	.67	.62	.70	.65	.61	.59
4.0	.71	.62	.55	.69	.61	.55	.67	.60	.54	.64	.58	.53	.62	.57	.52	.50
5.0	.63	.54	.47	.62	.53	.47	.60	.52	.47	.58	.51	.46	.56	.50	.46	.43
6.0	.57	.48	.41	.56	.47	.41	.54	.46	.41	.52	.46	.40	.51	.45	.40	.38
7.0	.51	.43	.37	.51	.42	.36	.49	.42	.36	.48	.41	.36	.46	.40	.36	.34
8.0	.47	.38	.33	.46	.38	.32	.45	.38	.32	.44	.37	.32	.43	.36	.32	.30
9.0	.43	.35	.29	.43	.35	.29	.41	.34	.29	.40	.34	.29	.39	.33	.29	.27
10.0	.40	.32	.27	.39	.32	.27	.38	.31	.26	.37	.31	.26	.36	.30	.26	.24



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:DAMIN
Test Date:2024-03-07

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.473
Humidity:65.0%
Test Distance:9.401m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:220.44V I:0.1461A P:19.301W PF:0.5993 Freq:50.00Hz Lamp Flux:2013.48x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.: 4000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	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						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.304	.173	.055	.297	.169	.054	.284	.163	.052	.272	.157	.050	.260	.151	.049		
2.0	.288	.158	.048	.282	.155	.048	.270	.150	.047	.260	.146	.046	.250	.141	.045		
3.0	.268	.142	.043	.262	.140	.042	.252	.136	.041	.242	.133	.041	.233	.129	.040		
4.0	.247	.129	.038	.243	.127	.038	.233	.124	.037	.225	.121	.036	.217	.118	.036		
5.0	.229	.117	.034	.225	.115	.034	.217	.113	.033	.209	.110	.033	.202	.108	.032		
6.0	.213	.107	.031	.209	.105	.030	.202	.103	.030	.195	.101	.030	.188	.099	.029		
7.0	.198	.098	.028	.195	.097	.028	.188	.095	.027	.182	.093	.027	.176	.092	.027		
8.0	.185	.090	.025	.182	.090	.025	.176	.088	.025	.171	.087	.025	.166	.085	.025		
9.0	.173	.084	.023	.171	.083	.023	.166	.082	.023	.161	.081	.023	.156	.079	.023		
10.0	.163	.078	.022	.161	.078	.022	.156	.076	.022	.152	.075	.021	.147	.074	.021		

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	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020		
1.0	.180	.156	.135	.154	.134	.116	.105	.092	.080	.061	.053	.047	.019	.017	.015		
2.0	.172	.132	.098	.147	.114	.085	.101	.079	.059	.058	.046	.035	.019	.015	.011		
3.0	.164	.114	.075	.141	.099	.065	.097	.068	.045	.056	.040	.027	.018	.013	.009		
4.0	.156	.101	.059	.134	.087	.051	.092	.061	.036	.053	.036	.021	.017	.012	.007		
5.0	.149	.091	.047	.128	.078	.041	.088	.055	.029	.051	.032	.017	.016	.010	.006		
6.0	.142	.082	.039	.122	.071	.034	.084	.050	.024	.049	.029	.014	.016	.010	.005		
7.0	.135	.075	.033	.116	.065	.029	.080	.046	.021	.047	.027	.012	.015	.009	.004		
8.0	.129	.069	.029	.111	.060	.025	.077	.042	.018	.045	.025	.011	.014	.008	.004		
9.0	.123	.065	.025	.106	.056	.022	.073	.039	.016	.043	.023	.009	.014	.008	.003		
10.0	.117	.060	.022	.101	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003		

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:DAMIN
Test Date:2024-03-07

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.473
Humidity:65.0%
Test Distance:9.401m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.44V I:0.1461A P:19.301W PF:0.5993 Freq:50.00Hz Lamp Flux:2013.48x1 lm										
NAME:			TYPE:			WEIGHT:				
SPEC.: 4000K			DIM.:			SERIAL No.:				
MFR.: EVERFINE			SUR.:			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	25.0	26.5	25.3	26.7	26.9	24.7	26.3	25.0	26.5	26.7
3H	26.5	27.9	26.8	28.2	28.4	26.1	27.5	26.4	27.8	28.0
4H	27.1	28.4	27.4	28.7	29.0	26.7	28.0	27.0	28.2	28.5
6H	27.5	28.8	27.8	29.0	29.3	26.9	28.2	27.3	28.5	28.8
8H	27.6	28.8	28.0	29.1	29.4	27.0	28.2	27.3	28.5	28.8
12H	27.7	28.8	28.0	29.1	29.4	27.0	28.1	27.3	28.4	28.7
4H 2H	25.6	26.9	25.9	27.2	27.4	25.4	26.7	25.7	27.0	27.2
3H	27.3	28.4	27.6	28.7	29.0	26.9	28.1	27.3	28.4	28.7
4H	28.0	29.0	28.3	29.4	29.7	27.6	28.6	27.9	28.9	29.3
6H	28.5	29.4	28.9	29.8	30.2	28.0	28.9	28.4	29.2	29.6
8H	28.7	29.5	29.1	29.9	30.3	28.0	28.9	28.5	29.3	29.7
12H	28.7	29.5	29.2	29.9	30.3	28.0	28.9	28.5	29.2	29.6
8H 4H	28.2	29.1	28.6	29.4	29.8	27.8	28.7	28.2	29.1	29.4
6H	28.8	29.6	29.3	30.0	30.4	28.3	29.1	28.8	29.5	29.9
8H	29.1	29.7	29.5	30.1	30.6	28.5	29.1	28.9	29.5	30.0
12H	29.2	29.8	29.7	30.2	30.7	28.5	29.1	29.0	29.5	30.0
12H 4H	28.2	29.0	28.6	29.4	29.8	27.8	28.6	28.2	29.0	29.4
6H	28.9	29.5	29.3	29.9	30.4	28.4	29.0	28.8	29.4	29.9
8H	29.1	29.7	29.6	30.1	30.6	28.5	29.1	29.0	29.5	30.0
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.4				
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				

CIE Pub.117, 2013 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 2.4)
Area: 0.01 m2

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:DAMIN
Test Date:2024-03-07

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.473
Humidity:65.0%
Test Distance:9.401m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.44V I:0.1461A P:19.301W PF:0.5993 Freq:50.00Hz Lamp Flux:2013.48x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.: 4000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

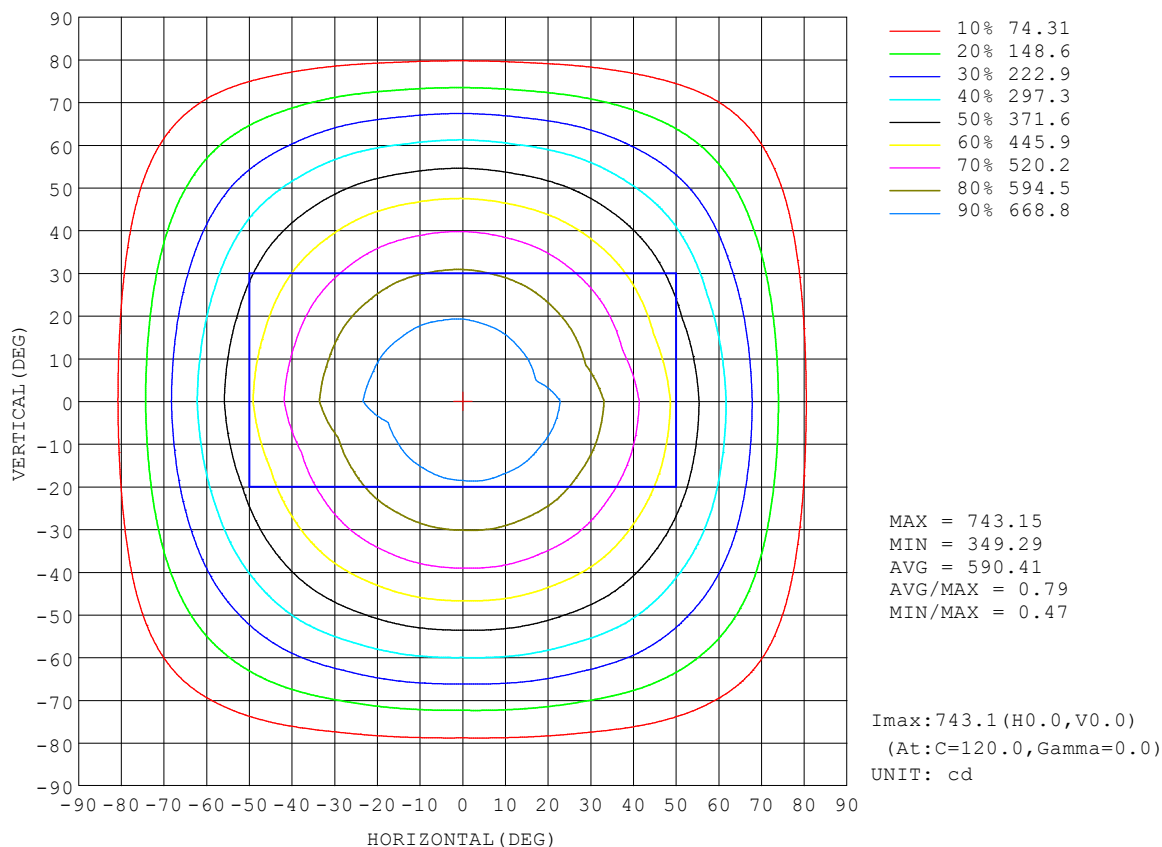
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	58	46	39	57	46	39	56	46	39	33
0.80	68	56	49	67	56	49	65	55	48	42
1.00	76	65	58	75	65	58	73	66	57	50
1.25	83	73	66	82	72	66	79	71	65	57
1.50	88	79	72	87	78	71	84	76	70	63
2.00	95	87	80	93	86	80	90	83	78	70
2.50	99	91	86	97	90	85	93	87	83	75
3.00	103	96	90	100	94	89	96	91	87	79
4.00	106	101	96	104	99	95	100	96	92	83
5.00	109	104	100	106	102	99	102	99	96	86
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: DAMIN
Test Date: 2024-03-07

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.473
Humidity: 65.0%
Test Distance: 9.401m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:220.44V I:0.1461A P:19.301W PF:0.5993 Freq:50.00Hz Lamp Flux:2013.48x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.: 4000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

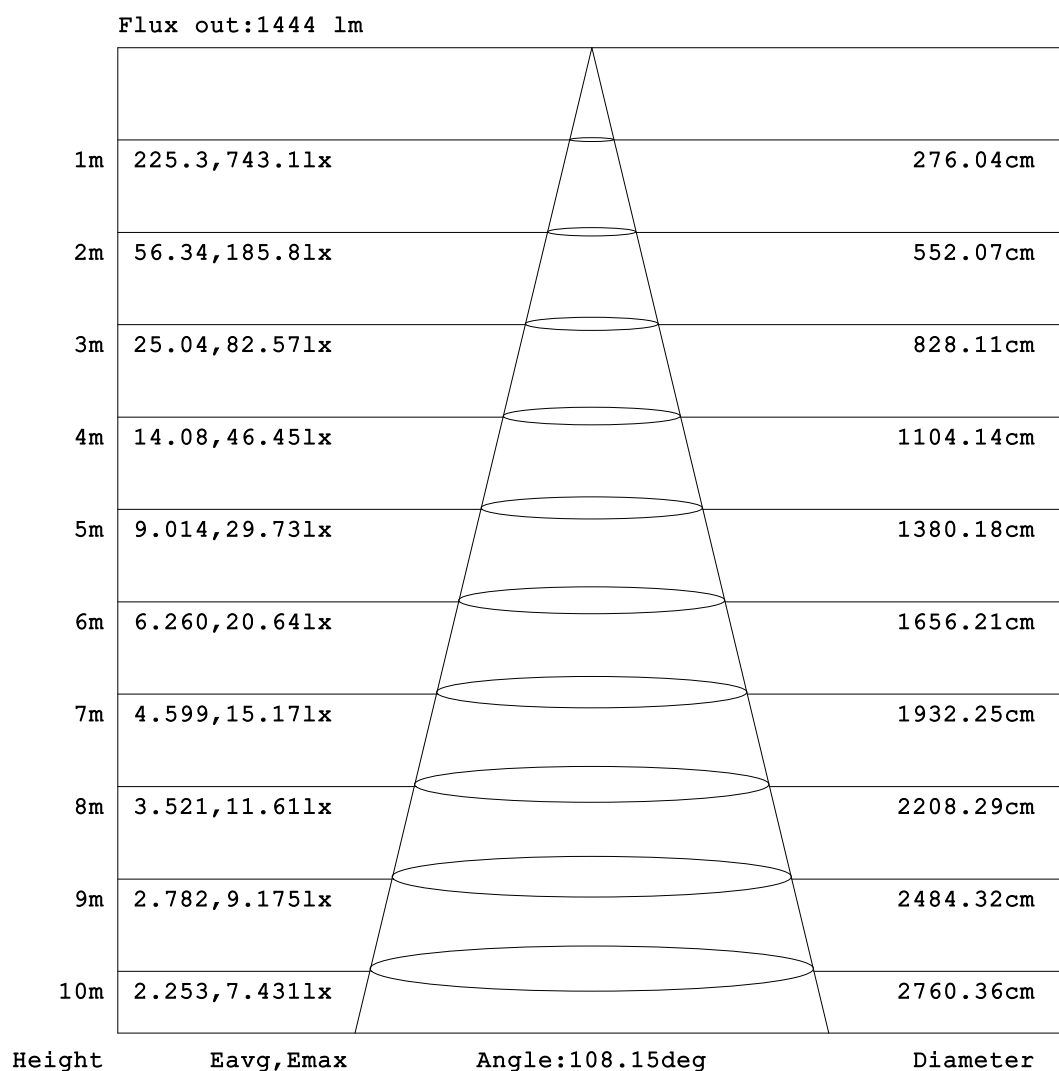


C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: DAMIN
Test Date: 2024-03-07

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.473
Humidity: 65.0%
Test Distance: 9.401m [K=1.0000]
Remarks:

AAI Figure

Test:U:220.44V I:0.1461A P:19.301W PF:0.5993 Freq:50.00Hz Lamp Flux:2013.48x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.: 4000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:



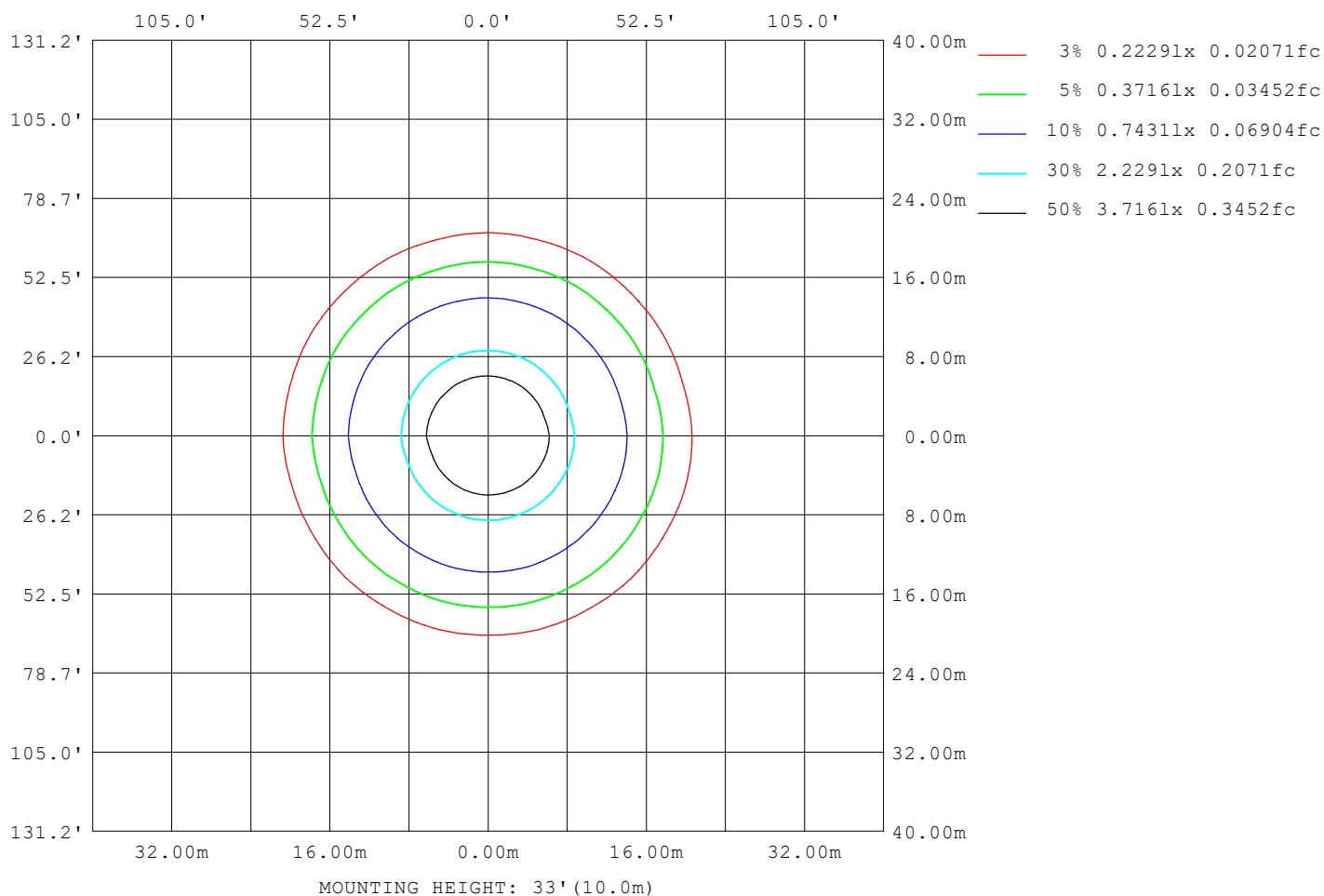
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:DAMIN
Test Date:2024-03-07

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.473
Humidity:65.0%
Test Distance:9.401m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:220.44V I:0.1461A P:19.301W PF:0.5993 Freq:50.00Hz Lamp Flux:2013.48x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.: 4000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:DAMIN
Test Date:2024-03-07

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.473
Humidity:65.0%
Test Distance:9.401m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:220.44V I:0.1461A P:19.301W PF:0.5993 Freq:50.00Hz Lamp Flux:2013.48x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.: 4000K	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

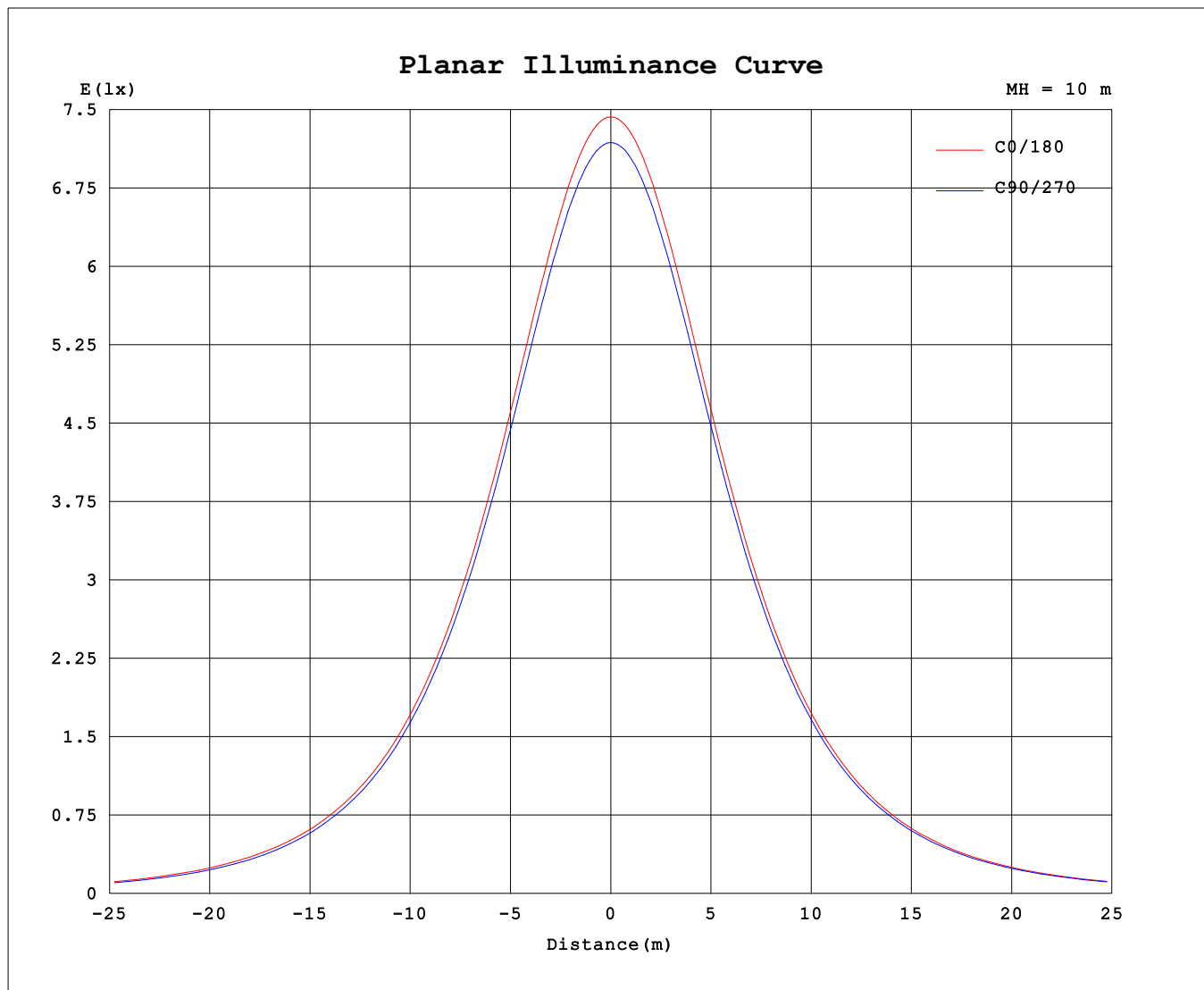
AvgL	cd/m2
L_0~180 (65) av	59892
L_0~180 (75) av	51997
L_0~180 (85) av	34534
L_90~270 (65) av	58207
L_90~270 (75) av	48057
L_90~270 (85) av	18760
L_45 (65) av	59142
L_45 (75) av	50121
L_45 (85) av	24809

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3℃
 Operators:DAMIN
 Test Date:2024-03-07

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.473
 Humidity:65.0%
 Test Distance:9.401m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators: DAMIN
 Test Date: 2024-03-07

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.473
 Humidity: 65.0%
 Test Distance: 9.401m [K=1.0000]
 Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.473
Humidity:65.0%
Test Distance:9.401m [K=1.0000]
Remarks:

```

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.473
Humidity:65.0%
Test Distance:9.401m [K=1.0000]
Remarks:

```