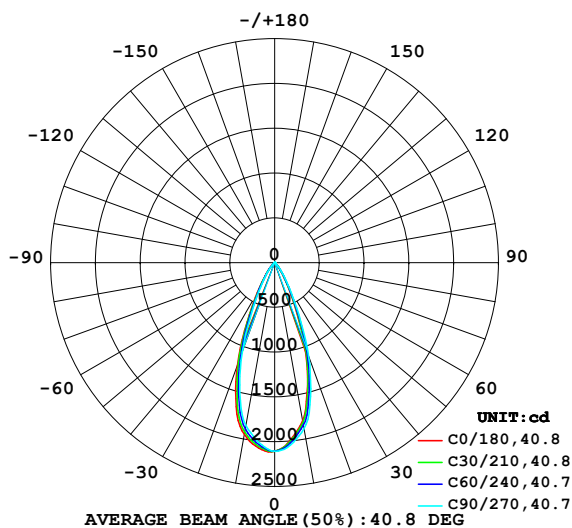


LUMINAIRE PHOTOMETRIC TEST REPORT

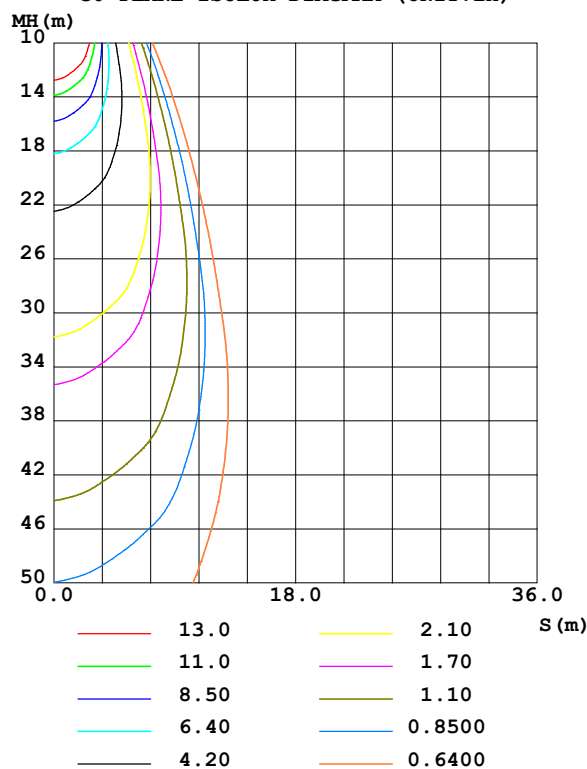
Test:U:220.32V I:0.1017A P:12.320W PF:0.5497 Freq:50.00Hz Lamp Flux:1050.35x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 85.25 lm/W
MODEL	328AR	I _{max} (cd)	2114	S/MH (C0/180)	0.67	
NOMINAL POWER(W)	12	LOR (%)	100.0	S/MH (C90/270)	0.63	
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	1050.3	η UP,DN (C0-180)	0.0,50.4	
NOMINAL FLUX(lm)	1050.35	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0,49.6	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50	
TEST VOLTAGE(V)	219.5	η down (%)	100.0	CIBSE SHR MAX	0.65	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:DAMIN
Test Date:2024-04-19

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	1798	1829	1883	1933	1950	1894	1851	1819	0- 10	188.9	188.9	18,18
20	974.4	1043	1114	1203	1218	1141	1061	997.5	10- 20	418.6	607.5	57.8,57.8
30	280.2	308.8	340.2	388.3	387.5	355.7	320.6	288.4	20- 30	295.5	903.0	86,86
40	72.33	80.37	89.90	104.0	108.4	98.78	87.63	75.99	30- 40	113.8	1017	96.8,96.8
50	7.056	9.525	11.15	13.33	12.79	10.89	8.611	6.878	40- 50	30.10	1047	99.7,99.7
60	0.4981	0.5813	0.6780	0.9339	1.019	1.066	0.5347	0.6172	50- 60	3.254	1050	100,100
70	0	0	0	0	0	0	0	0	60- 70	0.1804	1050	100,100
80	0	0	0	0	0	0	0	0	70- 80	0	1050	100,100
90	0	0	0	0	0	0	0	0	80- 90	0	1050	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): 1039.1 lm

%lum = 98.9%

%lamp = 98.9%

Conical surface Flux(130deg): 1050.3 lm

%lum = 100.0%

%lamp = 100.0%

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2024-04-19

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

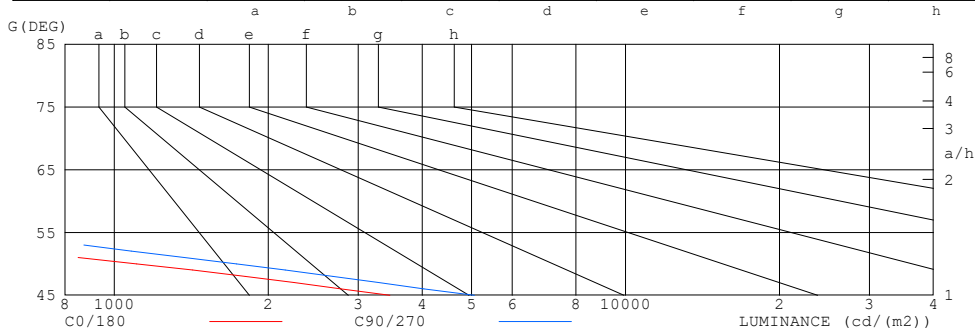
Test:U:220.32V I:0.1017A P:12.320W PF:0.5497 Freq:50.00Hz

Lamp Flux:1050.35x1 lm

NAME:	TYPE:	WEIGHT:
SPEC.:	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	0	0
80	0	0
75	0	0
70	0	0
65	0	32
60	100	135
55	391	575
50	1105	1733
45	3460	5060

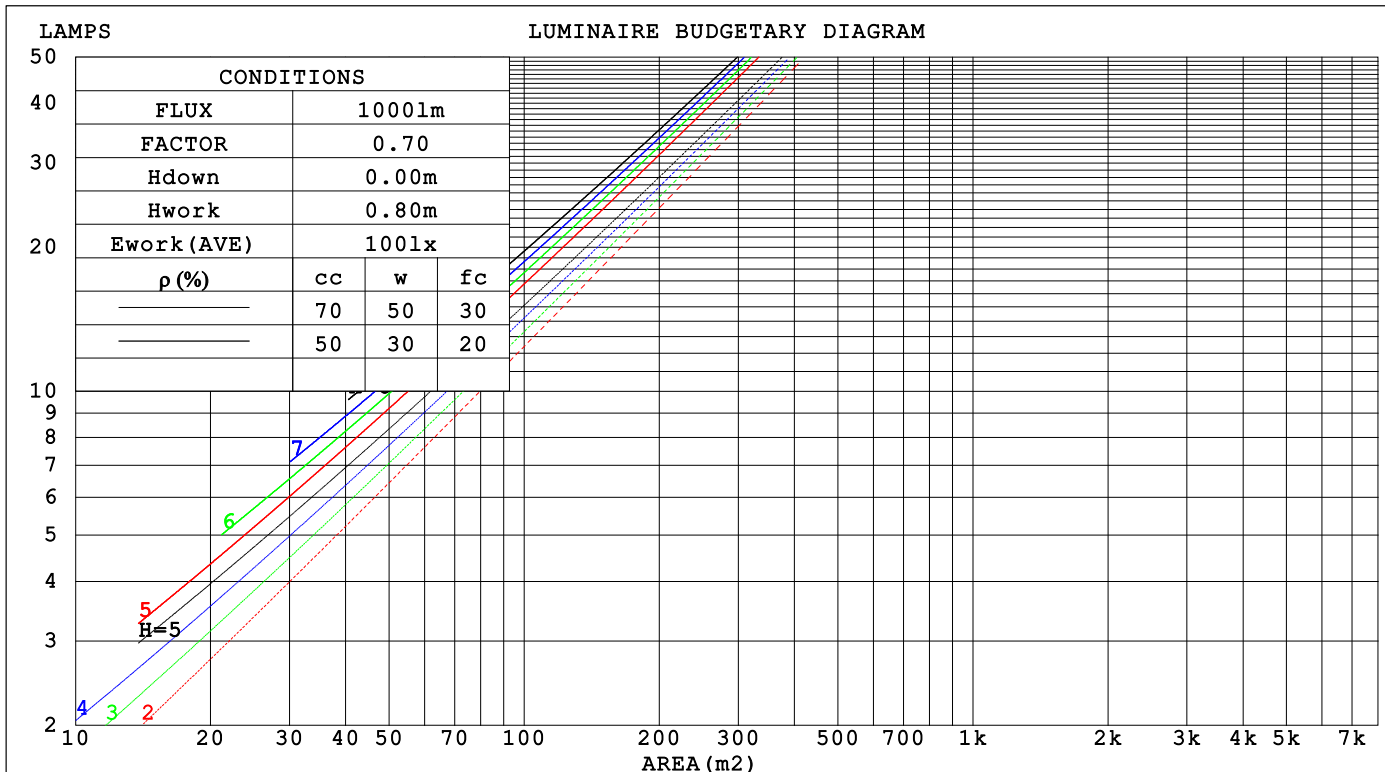
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:DAMIN
Test Date:2024-04-19

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:220.32V I:0.1017A P:12.320W PF:0.5497 Freq:50.00Hz Lamp Flux:1050.35x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	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	1.12	1.10	1.08	1.10	1.08	1.06	1.06	1.04	1.03	1.02	1.01	.00	.99	.98	.97	.95														
2.0	1.05	1.02	.99	1.04	1.00	.98	1.00	.98	.96	.98	.95	.94	.95	.93	.92	.90														
3.0	.99	.95	.92	.98	.94	.91	.96	.92	.90	.93	.91	.88	.91	.89	.87	.85														
4.0	.94	.89	.86	.93	.89	.85	.91	.87	.84	.89	.86	.83	.87	.85	.82	.81														
5.0	.89	.84	.81	.89	.84	.80	.87	.83	.80	.85	.82	.79	.84	.81	.78	.77														
6.0	.85	.80	.76	.84	.80	.76	.83	.79	.76	.82	.78	.75	.80	.77	.75	.73														
7.0	.81	.76	.72	.81	.76	.72	.79	.75	.72	.78	.74	.71	.77	.74	.71	.70														
8.0	.77	.72	.69	.77	.72	.69	.76	.72	.68	.75	.71	.68	.74	.71	.68	.67														
9.0	.74	.69	.66	.74	.69	.66	.73	.68	.65	.72	.68	.65	.71	.68	.65	.64														
10.0	.71	.66	.63	.71	.66	.63	.70	.66	.62	.69	.65	.62	.68	.65	.62	.61														



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:DAMIN
Test Date:2024-04-19

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:220.32V I:0.1017A P:12.320W PF:0.5497 Freq:50.00Hz Lamp Flux:1050.35x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	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	.158	.090	.028	.151	.086	.027	.138	.079	.025	.127	.073	.024	.116	.067	.022		
2.0	.149	.082	.025	.143	.079	.024	.133	.074	.023	.123	.069	.022	.115	.065	.020		
3.0	.141	.075	.022	.136	.073	.022	.128	.069	.021	.119	.065	.020	.112	.062	.019		
4.0	.134	.070	.020	.130	.068	.020	.122	.065	.019	.115	.062	.019	.109	.059	.018		
5.0	.127	.065	.019	.124	.064	.019	.117	.061	.018	.111	.059	.017	.106	.056	.017		
6.0	.121	.061	.017	.118	.060	.017	.113	.058	.017	.107	.056	.016	.102	.054	.016		
7.0	.116	.057	.016	.113	.056	.016	.108	.055	.016	.104	.053	.015	.099	.052	.015		
8.0	.111	.054	.015	.109	.054	.015	.104	.052	.015	.100	.051	.015	.096	.049	.014		
9.0	.107	.052	.014	.105	.051	.014	.101	.050	.014	.097	.049	.014	.093	.047	.014		
10.0	.102	.049	.014	.101	.049	.014	.097	.048	.013	.094	.047	.013	.091	.046	.013		

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	.170	.157	.146	.145	.135	.126	.099	.093	.087	.057	.054	.051	.018	.017	.016		
2.0	.153	.133	.115	.131	.114	.100	.090	.079	.070	.052	.046	.041	.017	.015	.013		
3.0	.140	.113	.093	.120	.098	.080	.082	.068	.056	.047	.040	.033	.015	.013	.011		
4.0	.128	.098	.076	.110	.085	.066	.076	.059	.046	.044	.035	.027	.014	.011	.009		
5.0	.119	.086	.063	.102	.075	.054	.070	.052	.038	.041	.031	.023	.013	.010	.008		
6.0	.111	.077	.052	.095	.067	.046	.066	.047	.032	.038	.027	.019	.012	.009	.006		
7.0	.104	.069	.045	.090	.060	.039	.062	.042	.027	.036	.025	.016	.012	.008	.005		
8.0	.098	.063	.038	.085	.054	.033	.058	.038	.024	.034	.023	.014	.011	.007	.005		
9.0	.093	.057	.033	.080	.050	.029	.055	.035	.021	.032	.021	.012	.010	.007	.004		
10.0	.088	.053	.029	.076	.046	.025	.053	.032	.018	.031	.019	.011	.010	.006	.004		

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:DAMIN
Test Date:2024-04-19

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:220.32V I:0.1017A P:12.320W PF:0.5497 Freq:50.00Hz Lamp Flux:1050.35x1 lm										
NAME:			TYPE:			WEIGHT:				
SPEC.:			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	10.8	11.6	11.0	11.7	11.9	11.7	12.5	11.9	12.7	12.9
3H	10.6	11.3	10.8	11.5	11.7	11.6	12.3	11.8	12.5	12.7
4H	10.5	11.2	10.8	11.4	11.7	11.5	12.2	11.8	12.4	12.6
6H	10.4	11.1	10.7	11.3	11.6	11.4	12.1	11.7	12.3	12.5
8H	10.4	11.0	10.7	11.3	11.5	11.4	12.0	11.7	12.2	12.5
12H	10.3	11.0	10.7	11.2	11.5	11.3	11.9	11.6	12.2	12.5
4H 2H	10.5	11.2	10.8	11.4	11.7	11.5	12.2	11.8	12.4	12.6
3H	10.3	11.0	10.7	11.2	11.5	11.3	11.9	11.6	12.2	12.5
4H	10.2	10.8	10.6	11.1	11.4	11.2	11.8	11.6	12.1	12.4
6H	10.1	10.6	10.5	11.0	11.3	11.1	11.6	11.5	11.9	12.3
8H	10.1	10.6	10.5	10.9	11.3	11.1	11.5	11.5	11.9	12.2
12H	10.0	10.5	10.5	10.8	11.2	11.0	11.4	11.4	11.8	12.2
8H 4H	10.1	10.6	10.5	10.9	11.3	11.1	11.5	11.5	11.9	12.2
6H	10.0	10.4	10.4	10.8	11.2	11.0	11.3	11.4	11.7	12.1
8H	9.9	10.3	10.4	10.7	11.1	10.9	11.2	11.3	11.7	12.1
12H	9.9	10.2	10.3	10.6	11.1	10.8	11.1	11.3	11.6	12.0
12H 4H	10.0	10.5	10.5	10.8	11.2	11.0	11.4	11.4	11.8	12.2
6H	9.9	10.3	10.4	10.7	11.1	10.9	11.2	11.3	11.7	12.1
8H	9.9	10.2	10.3	10.6	11.1	10.8	11.1	11.3	11.6	12.0
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 3.2 / -21.3					+ 3.5 / -18.8				
1.5H	+ 5.6 / -14.0					+ 5.8 / -13.8				
2.0H	+ 7.3 / -23.8					+ 8.0 / -21.9				

CIE Pub.117, 1050 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.2)
Area: 0.01 m2

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:DAMIN
Test Date:2024-04-19

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:220.32V I:0.1017A P:12.320W PF:0.5497 Freq:50.00Hz Lamp Flux:1050.35x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

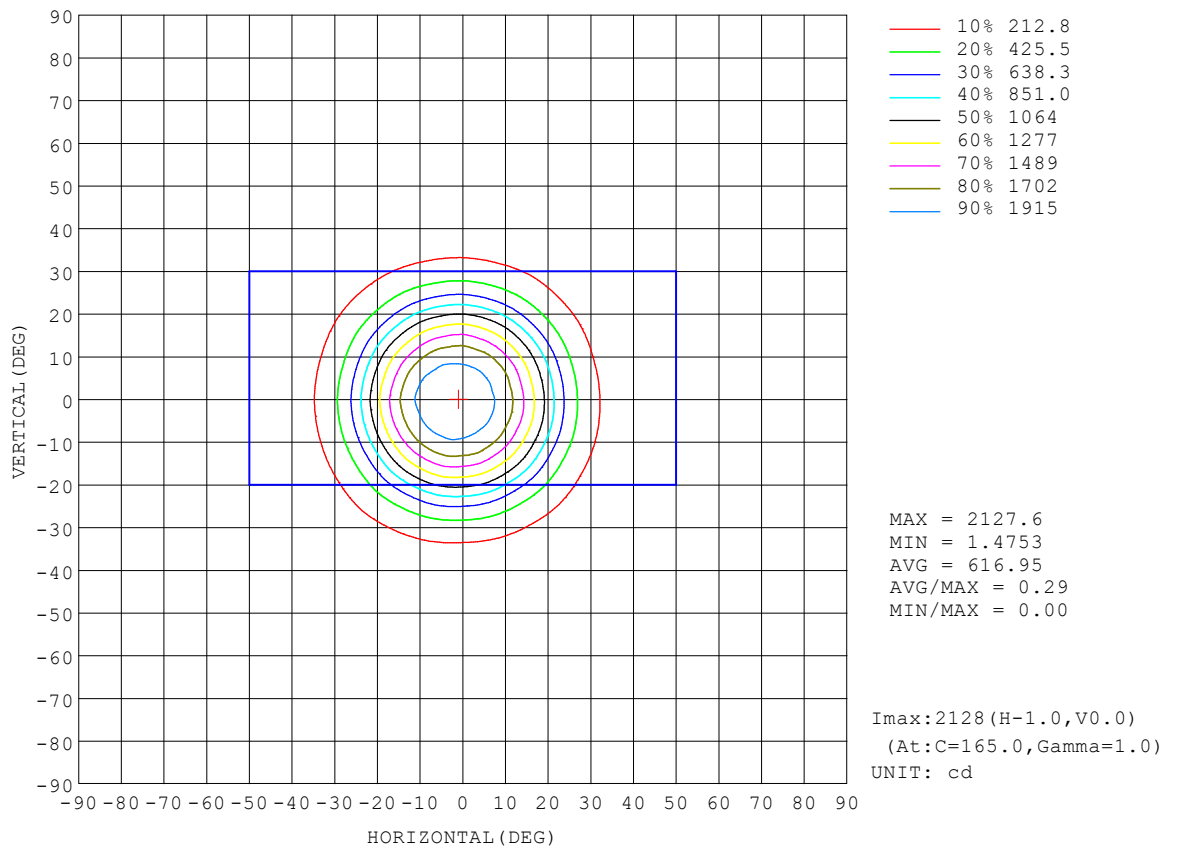
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	90	84	80	89	83	80	88	83	80	76
0.80	97	91	88	96	91	88	95	90	87	84
1.00	101	96	92	100	95	92	98	95	91	88
1.25	105	100	97	104	99	96	102	98	95	91
1.50	107	103	100	106	102	99	104	101	98	94
2.00	109	106	103	108	105	102	105	103	100	95
2.50	111	107	105	109	106	104	106	104	102	96
3.00	112	109	107	111	108	106	107	105	103	97
4.00	114	112	110	112	110	108	109	107	106	99
5.00	115	113	112	113	112	110	109	108	107	100
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: 2024-04-19

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:220.32V I:0.1017A P:12.320W PF:0.5497 Freq:50.00Hz Lamp Flux:1050.35x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

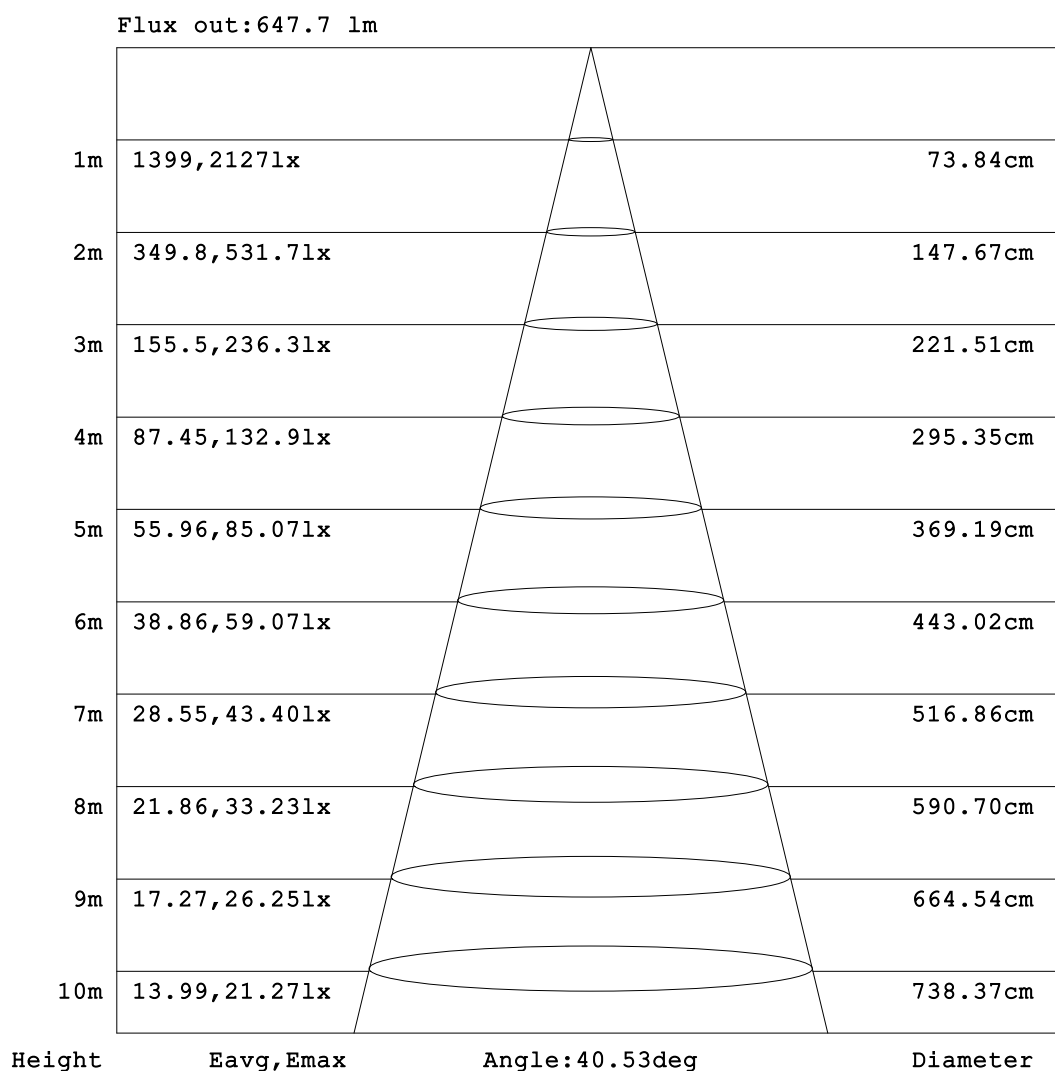


C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: DAMIN
Test Date: 2024-04-19

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:220.32V I:0.1017A P:12.320W PF:0.5497 Freq:50.00Hz Lamp Flux:1050.35x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:



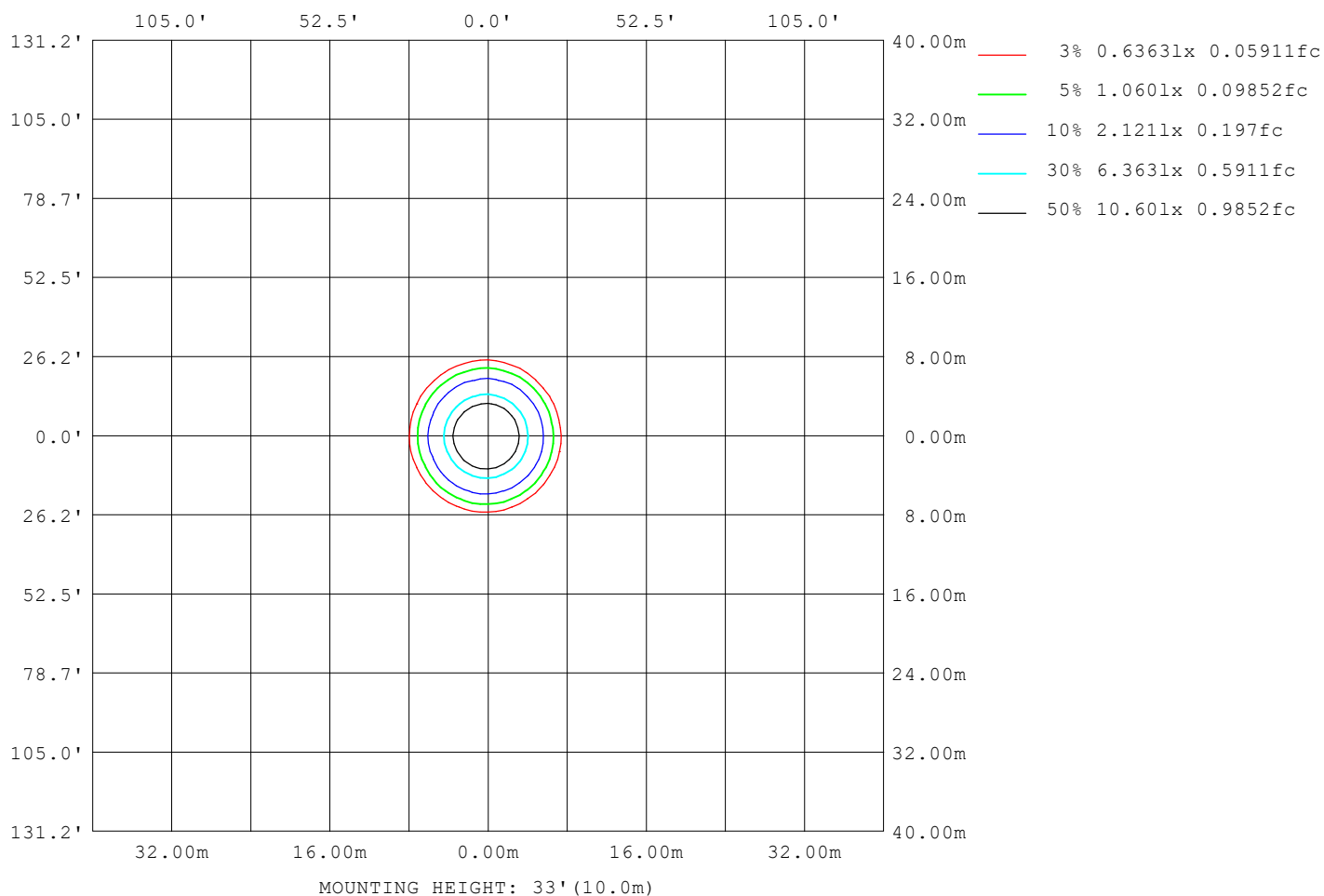
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:DAMIN
Test Date:2024-04-19

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:220.32V I:0.1017A P:12.320W PF:0.5497 Freq:50.00Hz Lamp Flux:1050.35x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	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:2024-04-19

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:220.32V I:0.1017A P:12.320W PF:0.5497 Freq:50.00Hz Lamp Flux:1050.35x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

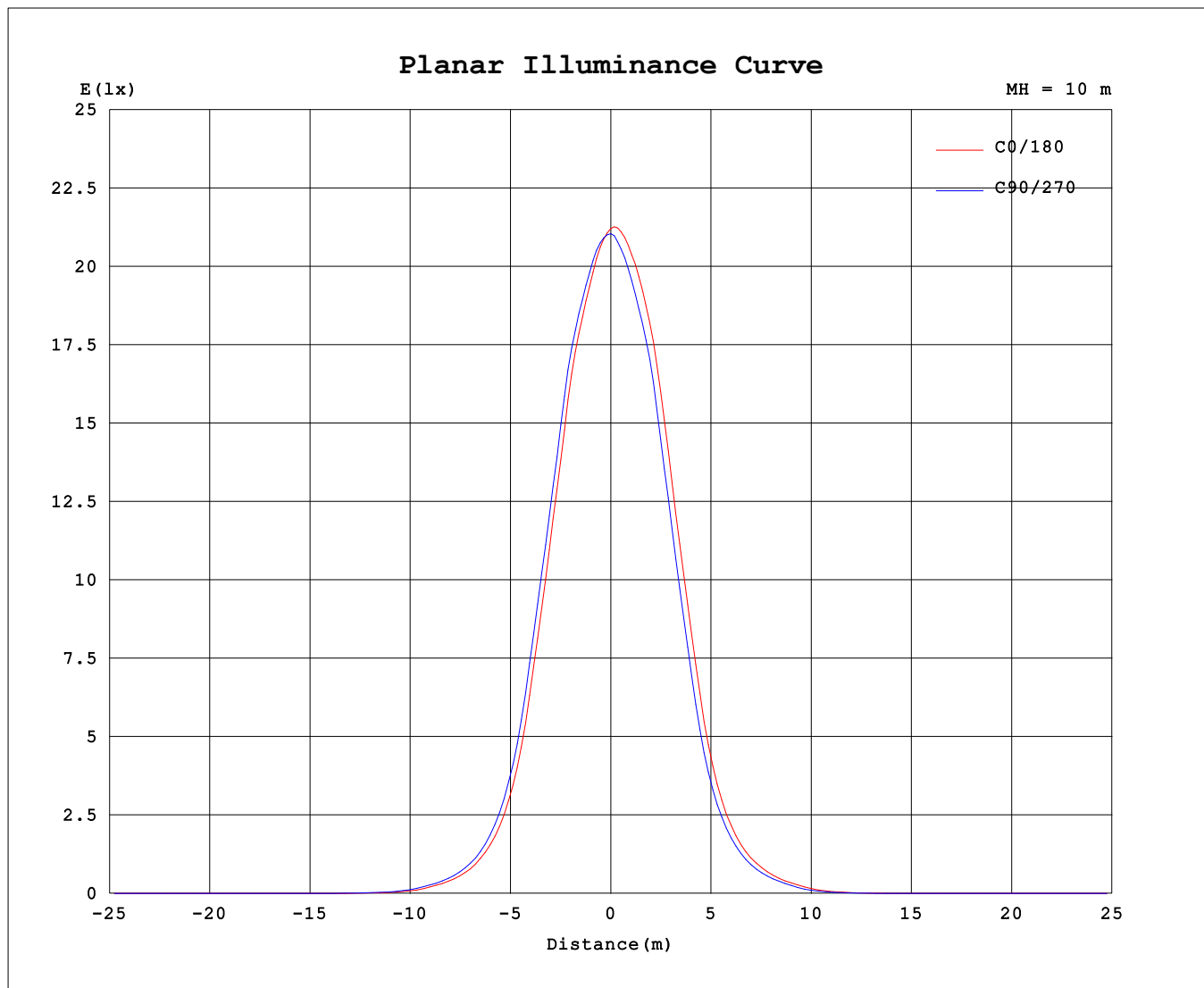
AvgL	cd/m2
L_0~180 (65) av	20
L_0~180 (75) av	0
L_0~180 (85) av	0
L_90~270 (65) av	16
L_90~270 (75) av	0
L_90~270 (85) av	0
L_45 (65) av	19
L_45 (75) av	0
L_45 (85) av	0

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:DAMIN
Test Date:2024-04-19

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: 2024-04-19

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:

Test:U:220.32V I:0.1017A P:12.320W PF:0.5497 Freq:50.00Hz Lamp Flux:1050.35x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

UNIT: cd

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: DAMIN
Test Date: 2024-04-19

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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:

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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:

```