

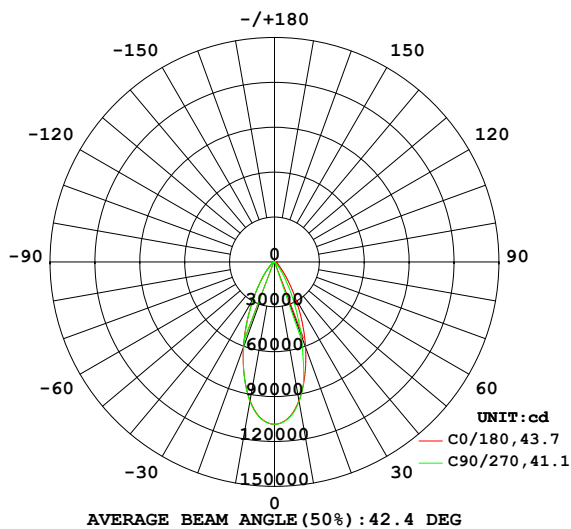
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

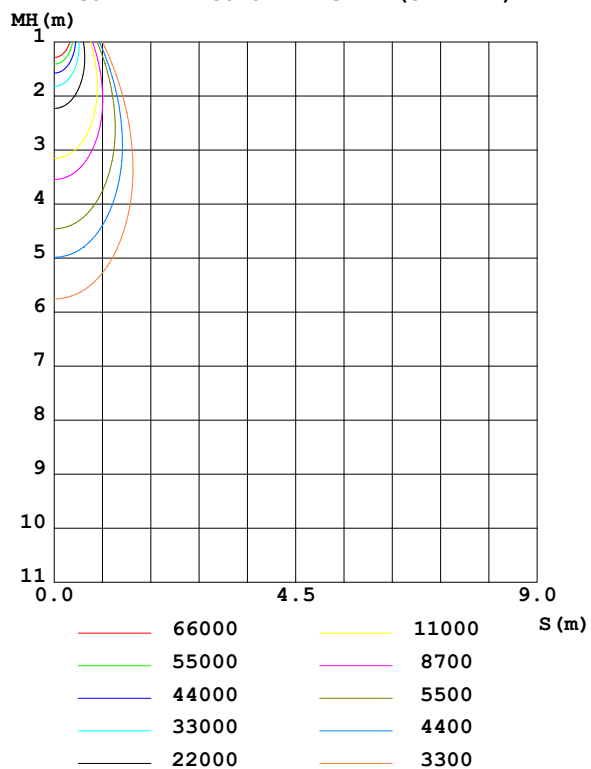
Test:U:230.0V I:2.140A P:480.0W PF:0.975 Freq:50.00Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:67488.9x1 lm		
NAME: SP04-480-5770-F04004Z+L130	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 140.60 lm/W			
MODEL	/	I _{max} (cd)	108444	S/MH (C0/180)	0.69
NOMINAL POWER (W)	/	LOR (%)	100.0	S/MH (C90/270)	0.69
RATED VOLTAGE (V)	/	TOTAL FLUX (lm)	67489	η UP,DN (C0-180)	0.0,45.8
NOMINAL FLUX (lm)	67488.9	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0,54.2
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	/	η down (%)	100.0	CIBSE SHR MAX	0.70

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: LYJ
Test Date: 2023-03-07

γ Range: 0 - 180DEG
γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity: 65.0%
Test Distance: 26.000m [K=0.4556]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	941.6	944.5	947.2	944.5	941.6	944.4	945.7	944.4	0- 10	9681	9681	14.3,14.3
20	607.7	589.8	522.8	589.8	607.7	608.8	600.3	608.8	10- 20	21450	31131	46.1,46.1
30	280.8	240.5	179.7	240.5	280.8	301.5	281.7	301.5	20- 30	18825	49956	74,74
40	98.25	75.44	41.46	75.44	98.25	124.2	102.2	124.2	30- 40	10230	60186	89.2,89.2
50	35.48	18.17	4.639	18.17	35.48	49.16	36.63	49.16	40- 50	4242	64427	95.5,95.5
60	17.87	2.527	0.1692	2.527	17.87	22.65	17.22	22.65	50- 60	1791	66218	98.1,98.1
70	8.783	0.2438	0.0912	0.2438	8.783	10.10	7.055	10.10	60- 70	879.1	67098	99.4,99.4
80	1.968	0.0628	0.0117	0.0628	1.968	2.540	2.244	2.540	70- 80	334.8	67432	99.9,99.9
90	0	0	0	0	0	0	0	0	80- 90	56.54	67489	100,100
100	0	0	0	0	0	0	0	0	90-100	0	67489	100,100
110	0	0	0	0	0	0	0	0	100-110	0	67489	100,100
120	0	0	0	0	0	0	0	0	110-120	0	67489	100,100
130	0	0	0	0	0	0	0	0	120-130	0	67489	100,100
140	0	0	0	0	0	0	0	0	130-140	0	67489	100,100
150	0	0	0	0	0	0	0	0	140-150	0	67489	100,100
160	0	0	0	0	0	0	0	0	150-160	0	67489	100,100
170	0	0	0	0	0	0	0	0	160-170	0	67489	100,100
180	0	0	0	0	0	0	0	0	170-180	0	67489	100,100
DEG	LUMINOUS INTENSITY:X100cd									UNIT:lm		

Conical surface Flux(90deg): 62789 lm

%lum = 93.0%

%lamp = 93.0%

Conical surface Flux(120deg): 66218 lm

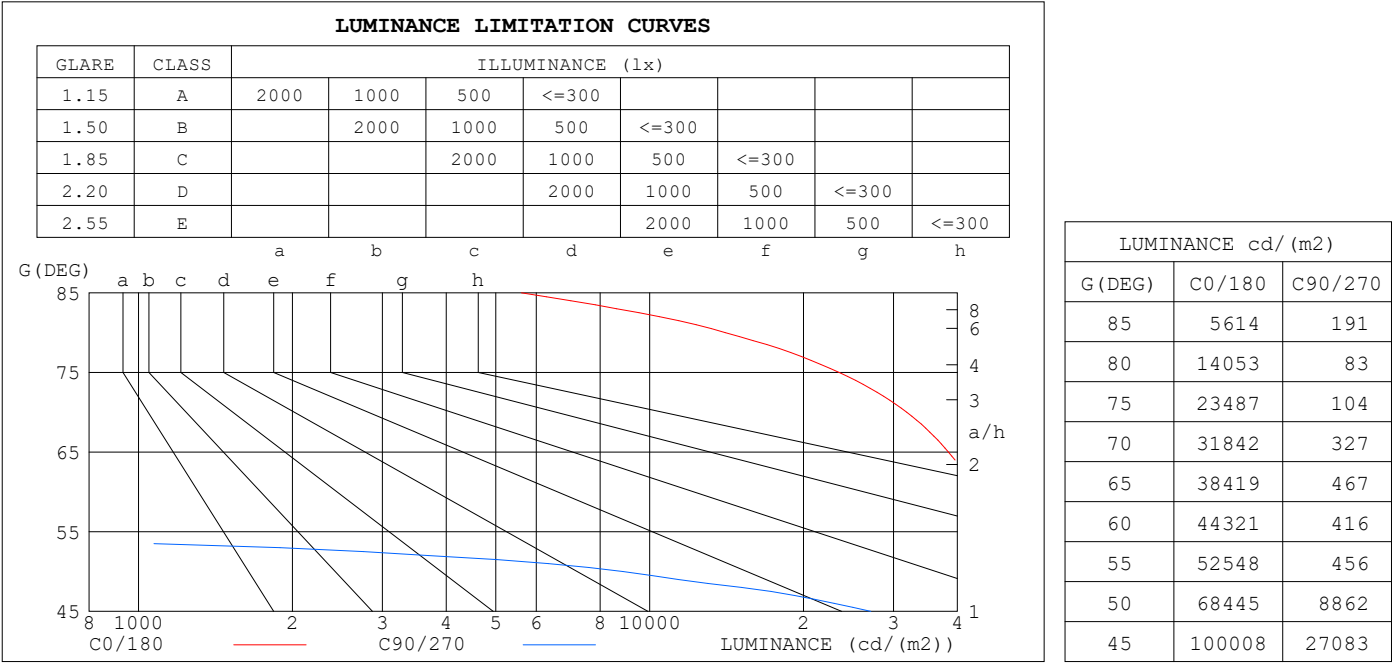
%lum = 98.1%

%lamp = 98.1%

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:LYJ
Test Date:2023-03-07

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity:65.0%
Test Distance:26.000m [K=0.4556]
Remarks:

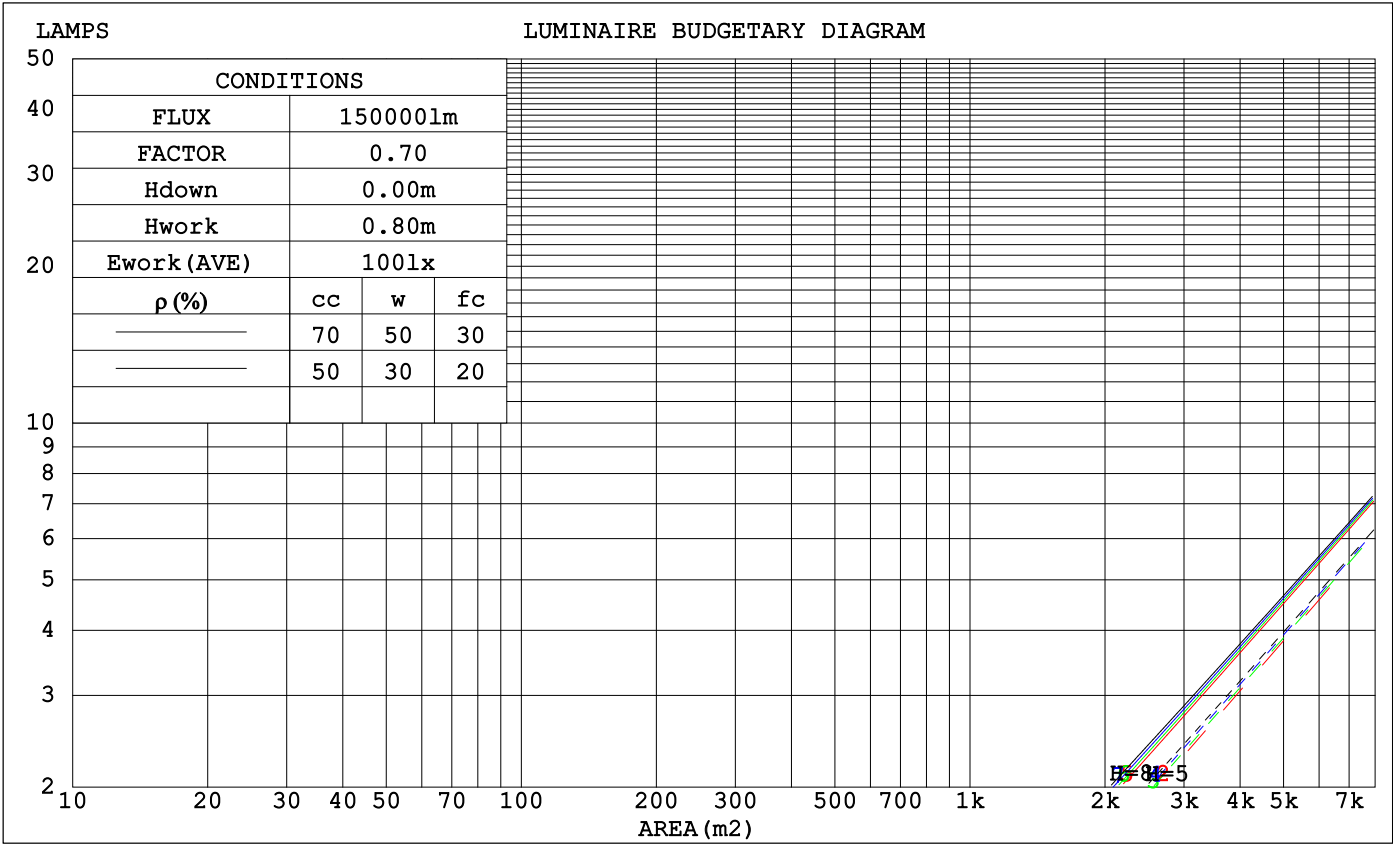
LUMINANCE LIMITATION CURVES



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:LYJ
Test Date:2023-03-07

γ Range: 0 - 180DEG
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Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity:65.0%
Test Distance:26.000m [K=0.4556]
Remarks:

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	1.11	1.08	1.06	1.09	1.06	1.04	1.05	1.03	1.01	1.01	.99	.98	.97	.96	.95	.93
2.0	1.03	.99	.96	1.01	.98	.95	.98	.95	.93	.95	.93	.91	.92	.90	.89	.87
3.0	.96	.91	.87	.95	.90	.87	.92	.88	.85	.90	.87	.84	.88	.85	.83	.81
4.0	.90	.85	.81	.89	.84	.80	.87	.83	.79	.85	.81	.78	.83	.80	.77	.76
5.0	.85	.79	.75	.84	.79	.75	.82	.77	.74	.80	.76	.73	.79	.75	.73	.71
6.0	.80	.74	.70	.79	.74	.70	.78	.73	.69	.76	.72	.69	.75	.71	.68	.67
7.0	.76	.70	.66	.75	.69	.65	.74	.69	.65	.72	.68	.65	.71	.67	.64	.63
8.0	.72	.66	.62	.71	.65	.62	.70	.65	.61	.69	.64	.61	.68	.64	.61	.60
9.0	.68	.62	.58	.67	.62	.58	.67	.62	.58	.66	.61	.58	.65	.61	.58	.56
10.0	.65	.59	.55	.64	.59	.55	.63	.59	.55	.63	.58	.55	.62	.58	.55	.54



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γ Range: 0 - 180DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity:65.0%
Test Distance:26.000m [K=0.4556]
Remarks:

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EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

WEC AND CCEC

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	.178	.102	.032	.172	.098	.031	.159	.091	.029	.148	.085	.027	.137	.079	.026	
2.0	.170	.093	.029	.165	.091	.028	.154	.086	.027	.144	.081	.025	.135	.077	.024	
3.0	.162	.086	.026	.157	.084	.025	.148	.080	.024	.139	.076	.023	.132	.073	.023	
4.0	.153	.080	.023	.149	.078	.023	.141	.075	.022	.134	.072	.022	.127	.069	.021	
5.0	.145	.074	.021	.142	.073	.021	.135	.070	.021	.129	.068	.020	.123	.066	.020	
6.0	.138	.069	.020	.135	.068	.020	.129	.066	.019	.123	.064	.019	.118	.062	.018	
7.0	.132	.065	.018	.129	.064	.018	.124	.062	.018	.119	.061	.018	.114	.059	.017	
8.0	.125	.061	.017	.123	.061	.017	.118	.059	.017	.114	.058	.017	.110	.056	.016	
9.0	.120	.058	.016	.118	.057	.016	.114	.056	.016	.110	.055	.016	.106	.054	.016	
10.0	.115	.055	.015	.113	.055	.015	.109	.053	.015	.106	.052	.015	.102	.051	.015	

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	.171	.157	.145	.147	.135	.125	.100	.093	.086	.058	.054	.050	.018	.017	.016	
2.0	.156	.132	.113	.134	.114	.097	.092	.079	.068	.053	.046	.040	.017	.015	.013	
3.0	.144	.114	.090	.123	.098	.078	.085	.068	.055	.049	.040	.032	.016	.013	.011	
4.0	.133	.099	.073	.114	.085	.063	.079	.060	.044	.045	.035	.026	.015	.011	.009	
5.0	.124	.087	.060	.107	.075	.052	.074	.053	.037	.043	.031	.022	.014	.010	.007	
6.0	.117	.078	.050	.100	.067	.044	.069	.047	.031	.040	.028	.018	.013	.009	.006	
7.0	.110	.070	.042	.095	.061	.037	.065	.043	.026	.038	.025	.016	.012	.008	.005	
8.0	.104	.064	.036	.090	.055	.032	.062	.039	.022	.036	.023	.013	.012	.008	.004	
9.0	.099	.059	.032	.085	.051	.028	.059	.036	.020	.034	.021	.012	.011	.007	.004	
10.0	.094	.054	.028	.081	.047	.024	.056	.033	.017	.033	.020	.010	.011	.006	.003	

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.3℃
 Operators:LYJ
 Test Date:2023-03-07

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
 Humidity:65.0%
 Test Distance:26.000m [K=0.4556]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UGR(Unified Glare Rating) Table

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	2H	18.5	19.6	18.9	19.9	20.2	14.6	14.6	14.6	14.6	14.6
	3H	19.5	20.4	19.9	20.7	21.1	14.6	14.6	14.6	14.6	14.6
	4H	19.7	20.5	20.1	20.9	21.3	14.6	14.6	14.6	14.6	14.6
	6H	19.7	20.5	20.2	20.9	21.3	14.6	14.6	14.6	14.6	14.6
	8H	19.7	20.4	20.1	20.8	21.2	14.6	14.6	14.6	14.6	14.6
	12H	19.7	20.4	20.1	20.7	21.2	14.6	14.6	14.6	14.6	14.6
	4H	2H	18.2	19.1	18.7	19.4	19.8	14.6	14.6	14.6	14.6
	3H	19.2	19.9	19.6	20.3	20.7	14.6	14.6	14.6	14.6	14.6
	4H	19.4	20.0	19.8	20.4	20.9	14.6	14.6	14.6	14.6	14.6
	6H	19.4	20.0	19.9	20.4	20.9	14.6	14.6	14.6	14.6	14.6
	8H	19.4	19.9	19.9	20.3	20.8	14.6	14.6	14.6	14.6	14.6
	12H	19.3	19.8	19.8	20.3	20.7	14.6	14.6	14.6	14.6	14.6
8H	4H	19.2	19.7	19.7	20.1	20.6	14.6	14.6	14.6	14.6	14.6
	6H	19.2	19.6	19.8	20.1	20.6	14.6	14.6	14.6	14.6	14.6
	8H	19.2	19.5	19.7	20.1	20.6	14.6	14.6	14.6	14.6	14.6
	12H	19.2	19.5	19.7	20.0	20.5	14.6	14.6	14.6	14.6	14.6
12H	4H	19.1	19.6	19.6	20.0	20.5	14.6	14.6	14.6	14.6	14.6
	6H	19.2	19.5	19.7	20.0	20.5	14.6	14.6	14.6	14.6	14.6
	8H	19.2	19.4	19.7	19.9	20.5	14.6	14.6	14.6	14.6	14.6
CIE190: 2010											

CIE190: 2010
Area: 0.0813 m2

C Range: 0 - 360DEG
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Test Speed: HIGH
Temperature:25.3℃
Operators:LYJ
Test Date:2023-03-07

γ Range: 0 - 180DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity:65.0%
Test Distance:26.000m [K=0.4556]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

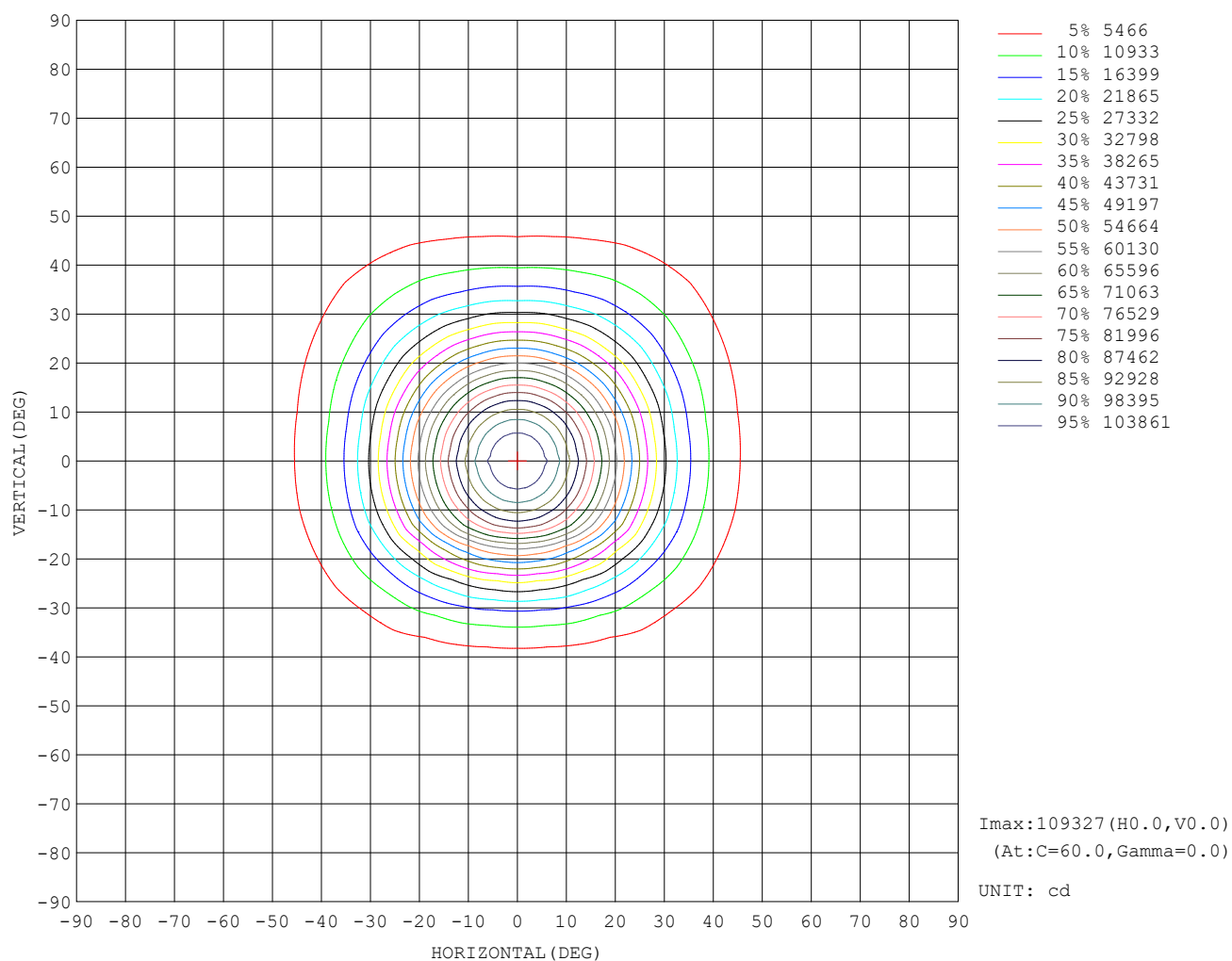
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	85	78	74	84	78	74	83	77	74	70
0.80	93	86	82	92	86	82	91	85	82	78
1.00	97	91	87	97	91	87	95	91	87	83
1.25	102	96	92	101	96	92	99	94	91	87
1.50	105	100	96	103	99	95	101	97	94	90
2.00	108	103	100	106	102	99	103	100	98	92
2.50	109	105	102	108	104	101	105	102	99	93
3.00	111	108	105	109	106	104	106	103	101	95
4.00	113	110	108	111	109	107	108	106	104	97
5.00	115	112	110	112	110	109	108	107	105	98
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004						Suspended			SHRNOM = 1.25	

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 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.465
 Humidity: 65.0%
 Test Distance: 26.000m [K=0.4556]
 Remarks:

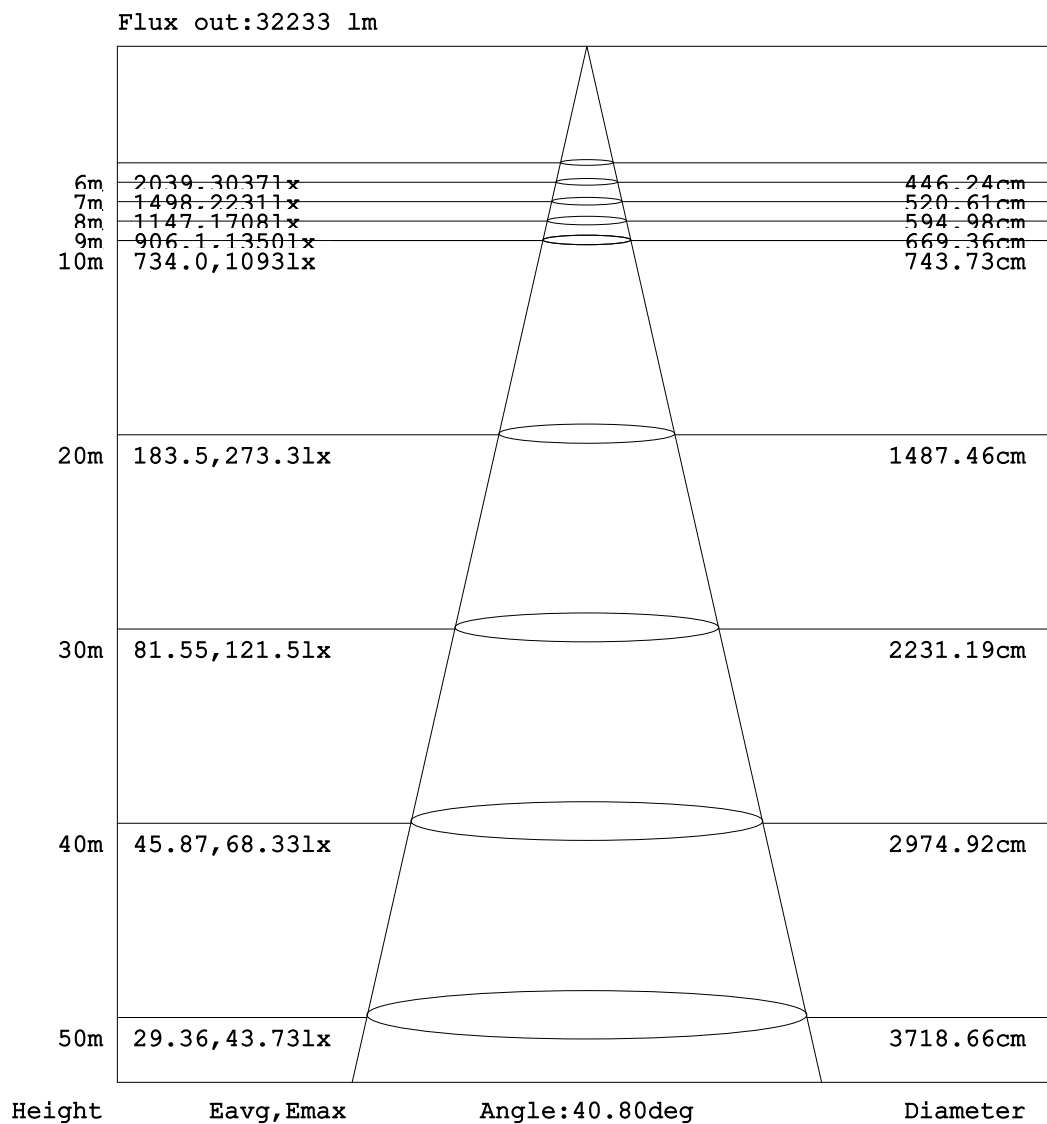
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
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Test Speed: HIGH
Temperature:25.3°C
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Test Date:2023-03-07

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity:65.0%
Test Distance:26.000m [K=0.4556]
Remarks:

AAI Figure



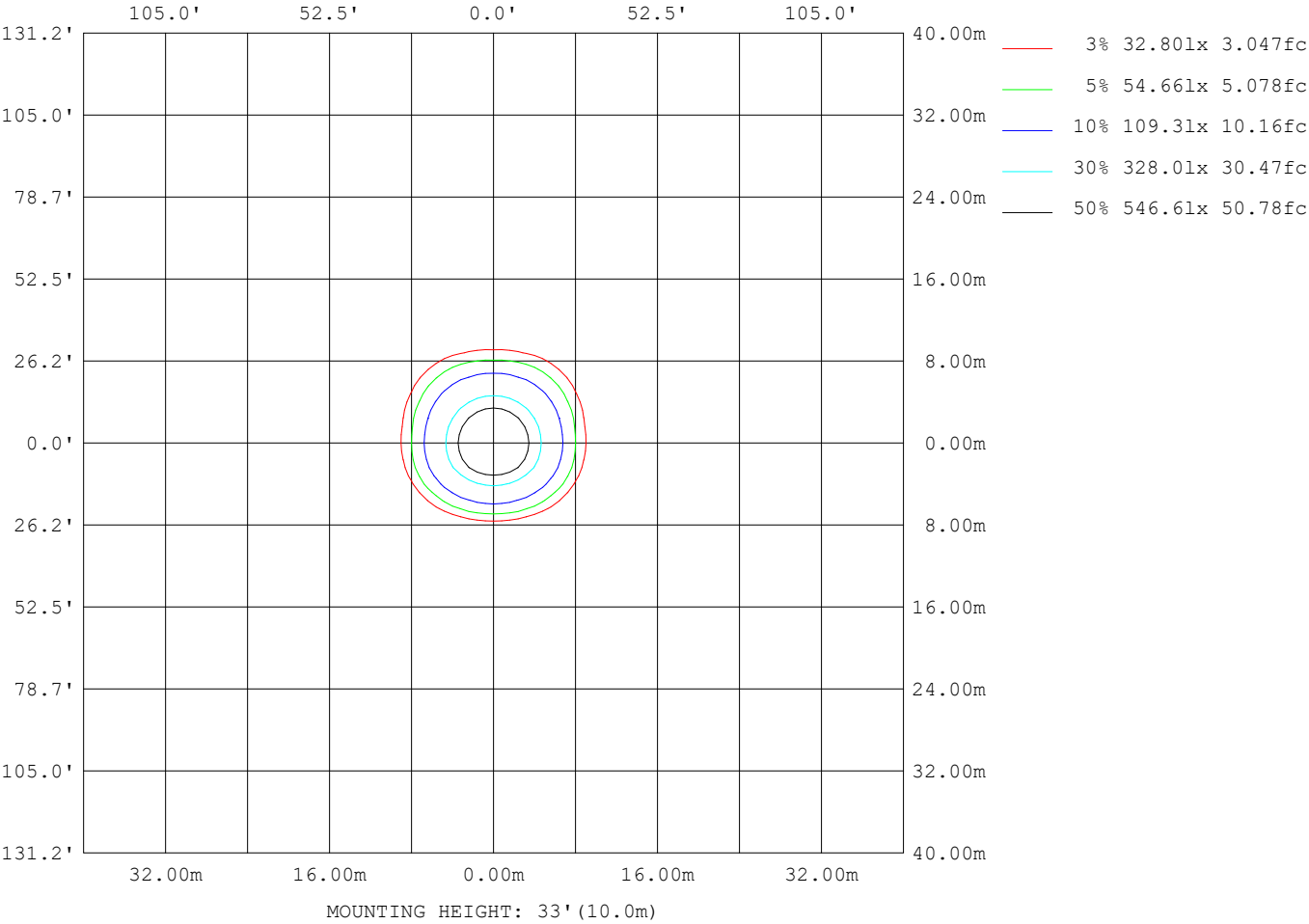
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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C Interval: 10.0DEG
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γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity:65.0%
Test Distance:26.000m [K=0.4556]
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EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

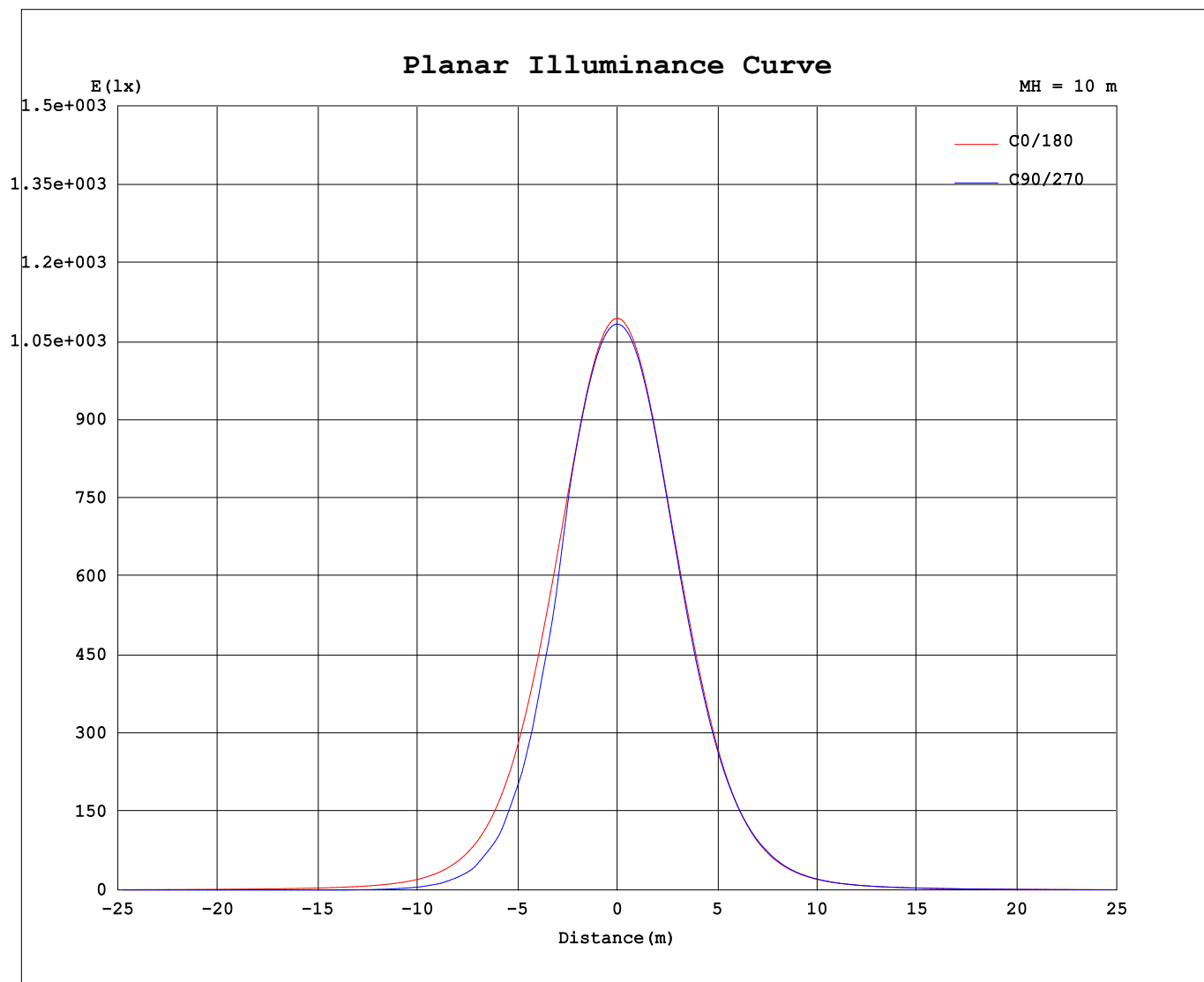
ISOLUX DIAGRAM



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:LYJ
Test Date:2023-03-07

γ Range: 0 - 180DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity:65.0%
Test Distance:26.000m [K=0.4556]
Remarks:

Planar Illuminance Curve



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γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
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Humidity: 65.0%
Test Distance: 26.000m [K=0.4556]
Remarks: