

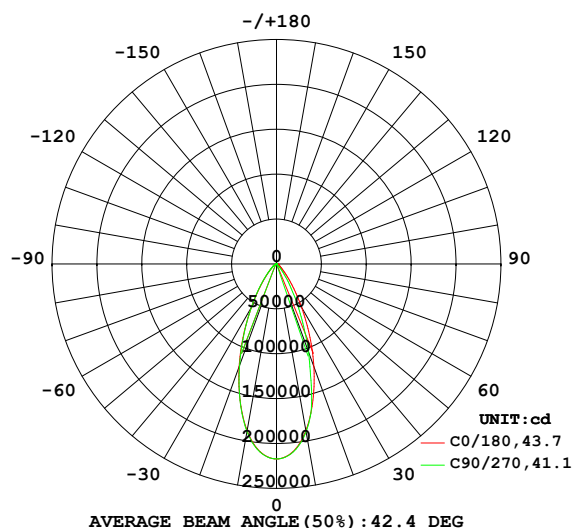
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

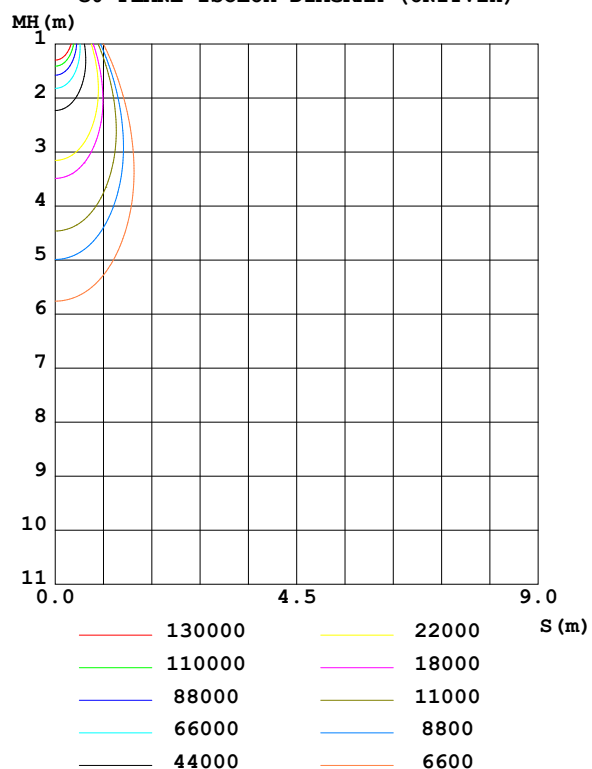
Test:U:230.0V I:4.272A P:960.0W PF:0.977 Freq:50.00Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:135147x1 lm		
NAME: SP04-960-5770-F04004Z+L130	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 140.78 lm/W			
MODEL	/	I _{max} (cd)	217160	S/MH (C0/180)	0.69
NOMINAL POWER (W)	/	LOR (%)	100.0	S/MH (C90/270)	0.69
RATED VOLTAGE (V)	/	TOTAL FLUX (lm)	135147	η UP,DN (C0-180)	0.0,45.8
NOMINAL FLUX (lm)	135147	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	1886	1891	1897	1891	1886	1891	1894	1891	0- 10	19386	19386	14.3,14.3
20	1217	1181	1047	1181	1217	1219	1202	1219	10- 20	42954	62340	46.1,46.1
30	562.3	481.6	359.8	481.6	562.3	603.9	564.0	603.9	20- 30	37697	100037	74,74
40	196.8	151.1	83.02	151.1	196.8	248.7	204.7	248.7	30- 40	20486	120522	89.2,89.2
50	71.05	36.38	9.290	36.38	71.05	98.45	73.35	98.45	40- 50	8494	129017	95.5,95.5
60	35.79	5.060	0.3388	5.060	35.79	45.37	34.49	45.37	50- 60	3586	132603	98.1,98.1
70	17.59	0.4882	0.1826	0.4882	17.59	20.22	14.13	20.22	60- 70	1760	134363	99.4,99.4
80	3.941	0.1258	0.0235	0.1258	3.941	5.086	4.493	5.086	70- 80	670.5	135034	99.9,99.9
90	0	0	0	0	0	0	0	0	80- 90	113.2	135147	100,100
100	0	0	0	0	0	0	0	0	90-100	0	135147	100,100
110	0	0	0	0	0	0	0	0	100-110	0	135147	100,100
120	0	0	0	0	0	0	0	0	110-120	0	135147	100,100
130	0	0	0	0	0	0	0	0	120-130	0	135147	100,100
140	0	0	0	0	0	0	0	0	130-140	0	135147	100,100
150	0	0	0	0	0	0	0	0	140-150	0	135147	100,100
160	0	0	0	0	0	0	0	0	150-160	0	135147	100,100
170	0	0	0	0	0	0	0	0	160-170	0	135147	100,100
180	0	0	0	0	0	0	0	0	170-180	0	135147	100,100
DEG	LUMINOUS INTENSITY:X100cd									UNIT:lm		

Conical surface Flux(90deg): 1.2574e+005 lm

%lum = 93.0%

%lamp = 93.0%

Conical surface Flux(120deg): 1.326e+005 lm

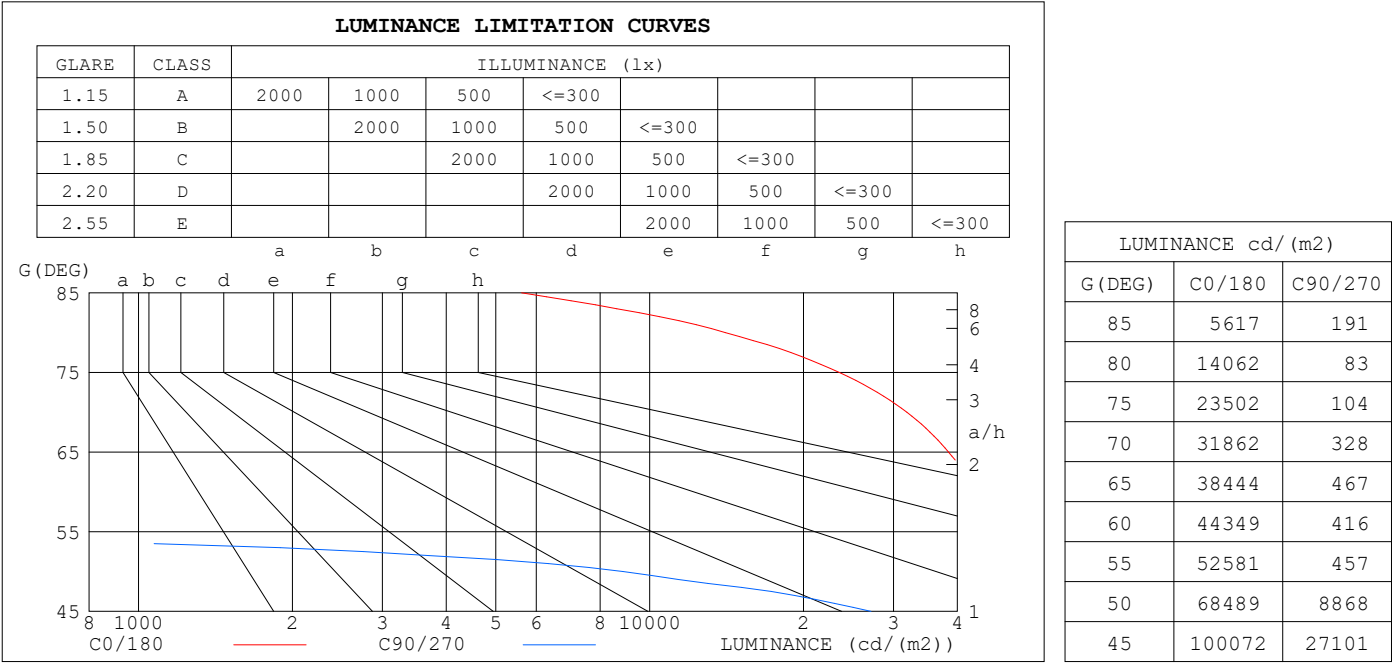
%lum = 98.1%

%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:

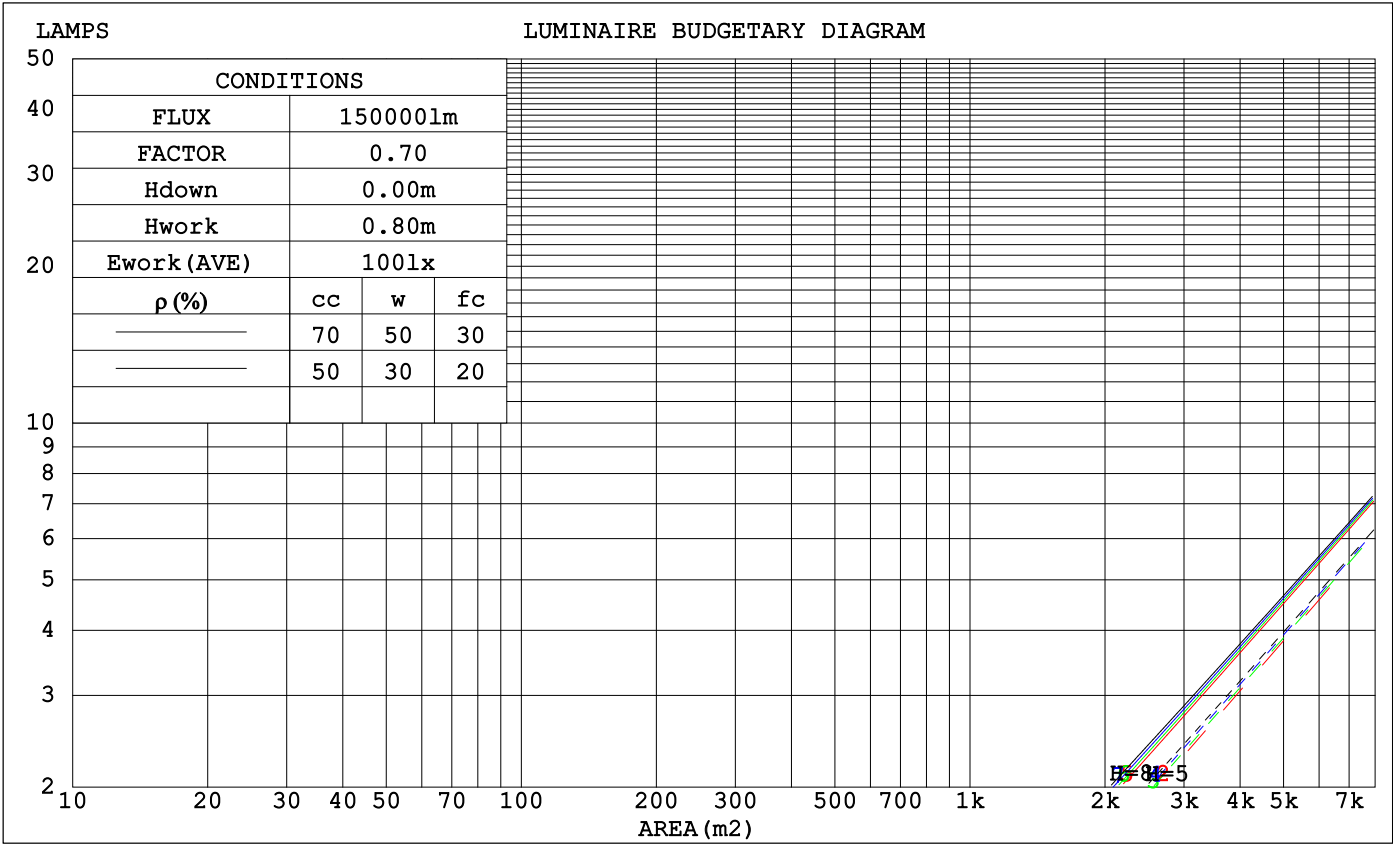
LUMINANCE LIMITATION CURVES



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
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:

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



C Range: 0 - 360DEG
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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	17.0	17.0	17.0	17.0	17.0
	3H	19.5	20.4	19.9	20.7	21.1	17.0	17.0	17.0	17.0	17.0
	4H	19.7	20.5	20.1	20.9	21.3	17.0	17.0	17.0	17.0	17.0
	6H	19.7	20.5	20.2	20.9	21.3	17.0	17.0	17.0	17.0	17.0
	8H	19.7	20.4	20.2	20.8	21.2	17.0	17.0	17.0	17.0	17.0
	12H	19.7	20.4	20.1	20.7	21.2	17.0	17.0	17.0	17.0	17.0
4H	2H	18.2	19.1	18.7	19.4	19.8	17.0	17.0	17.0	17.0	17.0
	3H	19.2	19.9	19.6	20.3	20.7	17.0	17.0	17.0	17.0	17.0
	4H	19.4	20.0	19.8	20.4	20.9	17.0	17.0	17.0	17.0	17.0
	6H	19.4	20.0	19.9	20.4	20.9	17.0	17.0	17.0	17.0	17.0
	8H	19.4	19.9	19.9	20.3	20.8	17.0	17.0	17.0	17.0	17.0
	12H	19.4	19.8	19.8	20.3	20.7	17.0	17.0	17.0	17.0	17.0
8H	4H	19.2	19.7	19.7	20.1	20.6	17.0	17.0	17.0	17.0	17.0
	6H	19.2	19.6	19.8	20.1	20.6	17.0	17.0	17.0	17.0	17.0
	8H	19.2	19.6	19.7	20.1	20.6	17.0	17.0	17.0	17.0	17.0
	12H	19.2	19.5	19.7	20.0	20.5	17.0	17.0	17.0	17.0	17.0
12H	4H	19.1	19.6	19.6	20.0	20.5	17.0	17.0	17.0	17.0	17.0
	6H	19.2	19.5	19.7	20.0	20.5	17.0	17.0	17.0	17.0	17.0
	8H	19.2	19.5	19.7	19.9	20.5	17.0	17.0	17.0	17.0	17.0
CIE190: 2010											

CIE190: 2010
Area: 0.1627 m2

C Range: 0 - 360DEG
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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

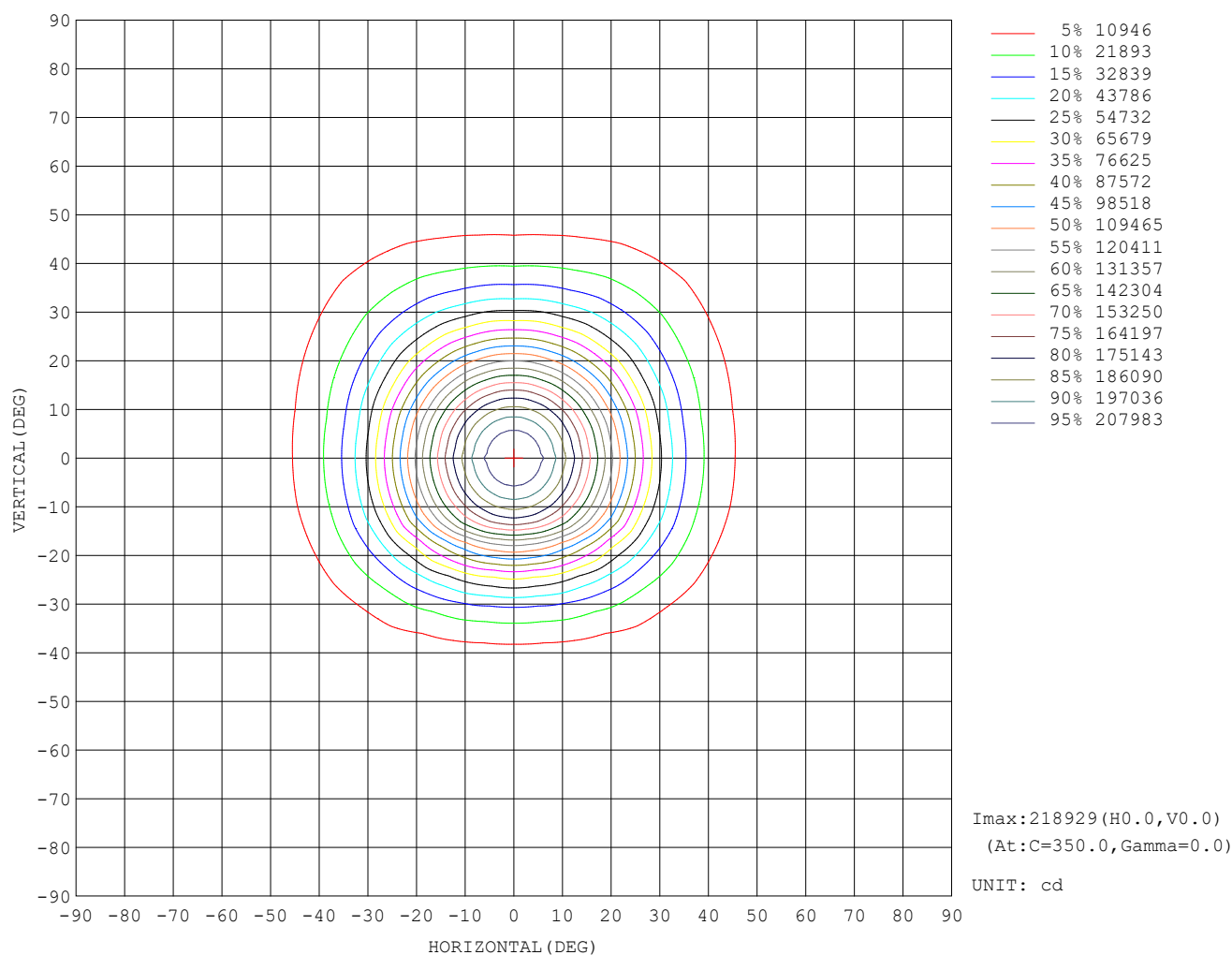
UTILIZATION FACTORS TABLE

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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 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:

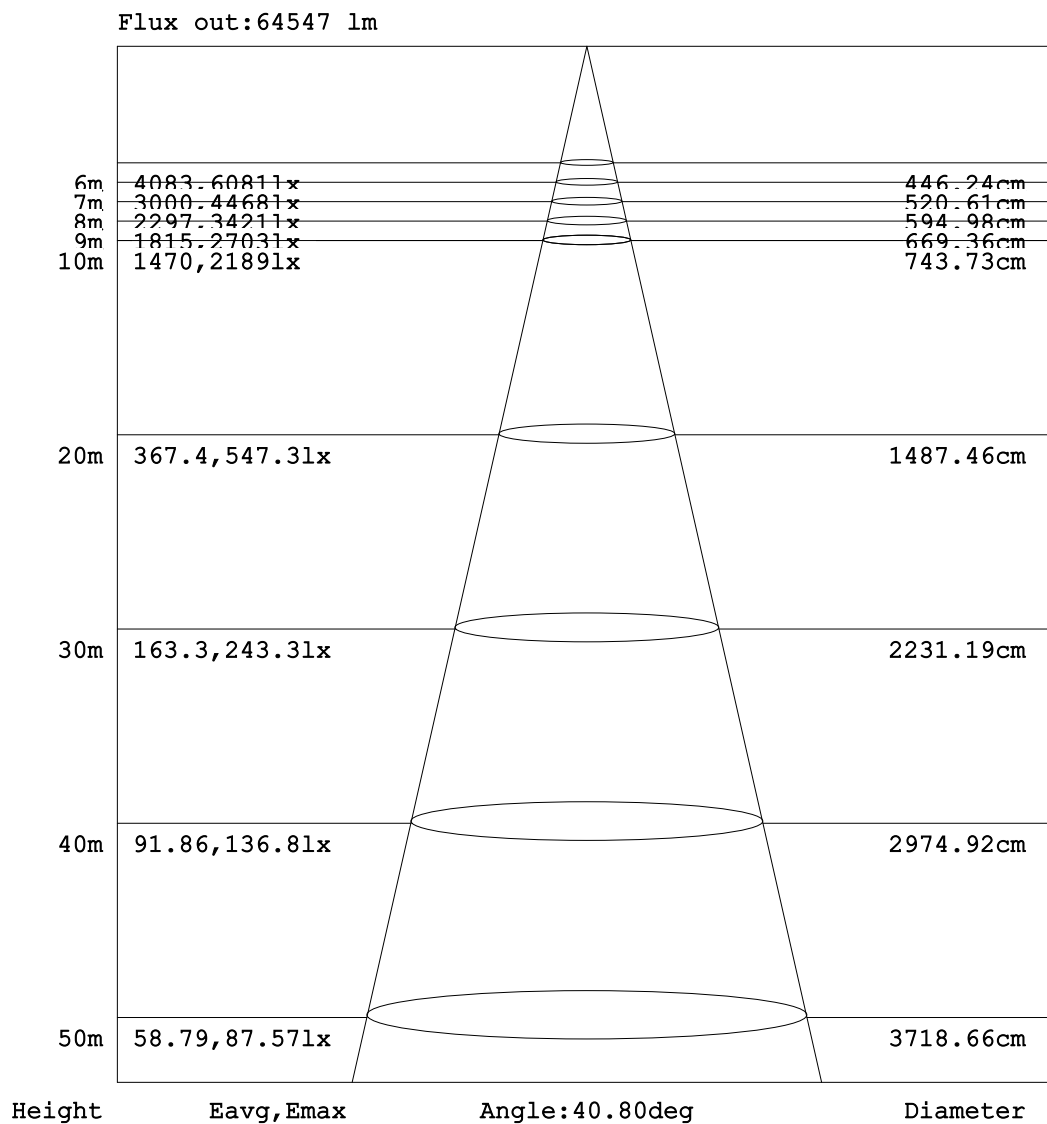
ISOCANDELA DIAGRAM



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



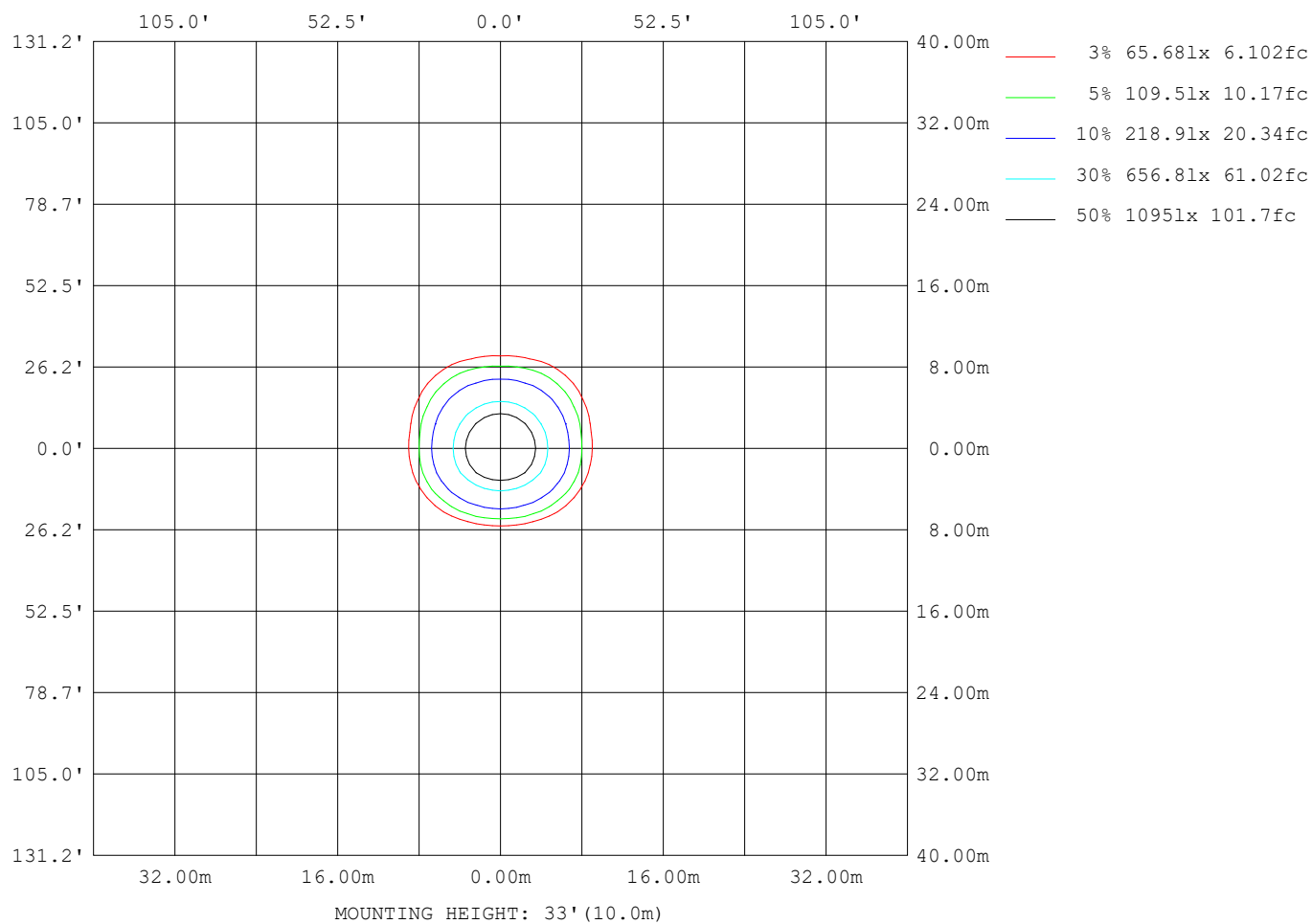
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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C Interval: 10.0DEG
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

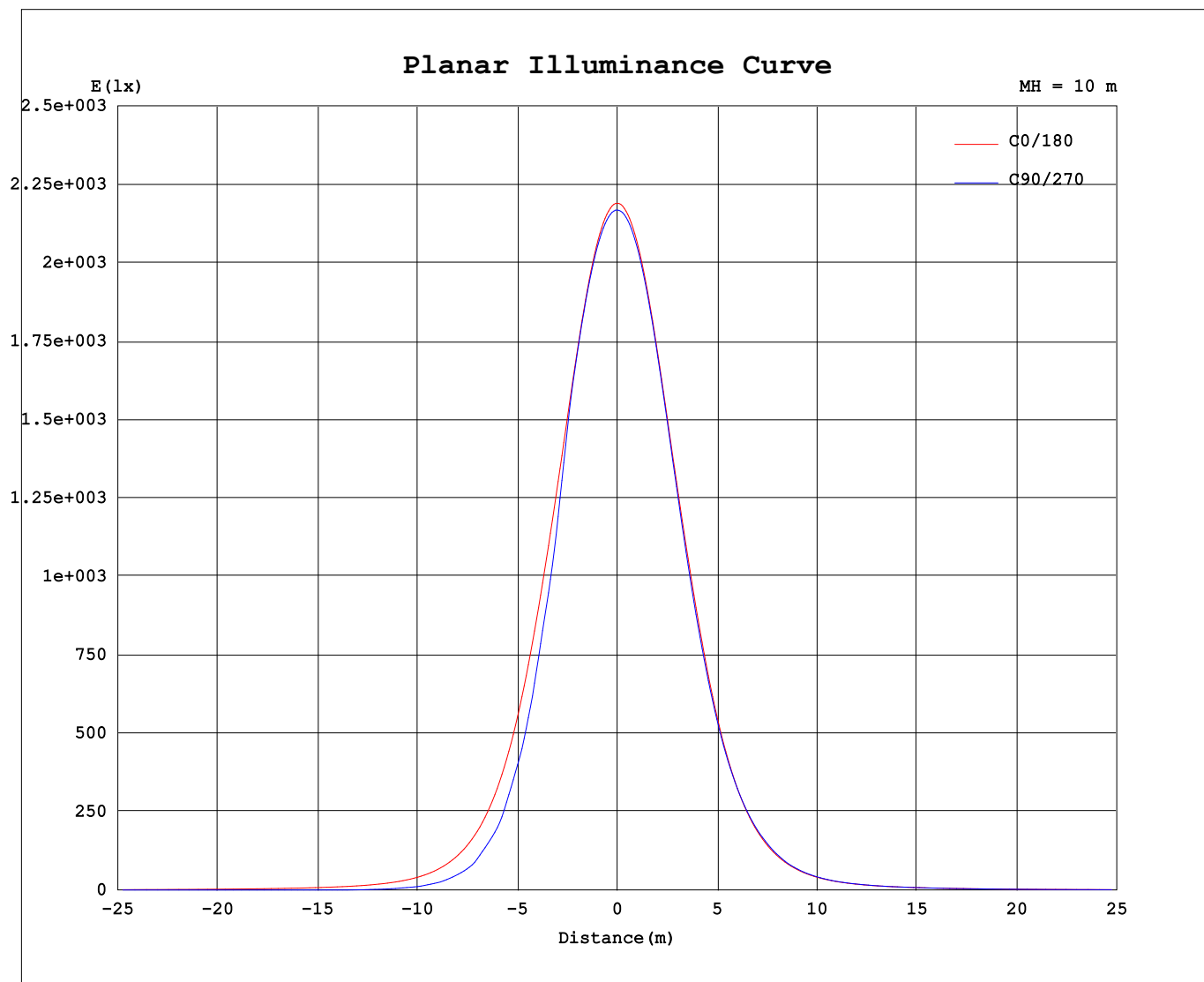
ISOLUX DIAGRAM



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



C Range: 0 - 360DEG
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γ Range: 0 - 180DEG
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Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity: 65.0%
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Remarks: