

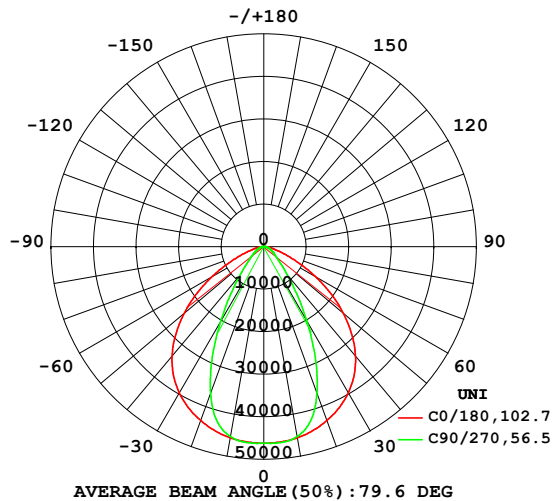
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

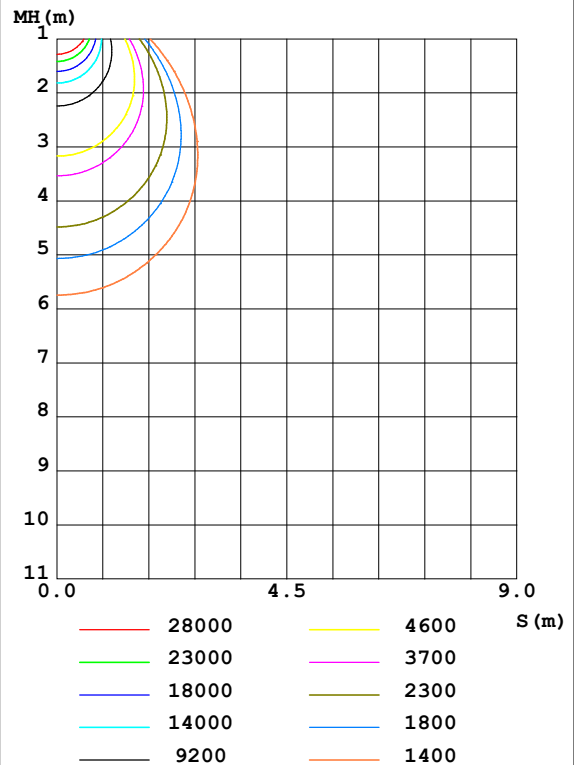
Test:U:229.7V I:2.120A P:482.1W PF:0.9898 Freq:50.00Hz UTHDi:0% ITHDi:0% Lamp Flux:71909.3x1 lm		
NAME: LHB09-480-5070-L00402	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 149.16 lm/W			
MODEL	/	I _{max} (cd)	46277	S/MH (C0/180)	1.27
NOMINAL POWER(W)	480	LOR(%)	100.0	S/MH (C90/270)	0.86
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	71909	η UP,DN(C0-180)	0.0,50.0
NOMINAL FLUX(lm)	71909.3	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.0
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.00
TEST VOLTAGE (V)	230	η down (%)	100.0	CIBSE SHR MAX	1.00

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:LYJ
Test Date:2020-06-18

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.426
Humidity:65.0%
Test Distance:26.000m [K=0.4589]
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	4560	4562	4534	4562	4560	4562	4534	4562	0- 10	4387	4387	6.1,6.1
20	4348	4101	3667	4101	4348	4101	3667	4101	10- 20	12283	16670	23.2,23.2
30	3975	2924	2036	2924	3975	2924	2036	2924	20- 30	16268	32937	45.8,45.8
40	3355	1630	856.5	1630	3355	1630	856.5	1630	30- 40	14900	47837	66.5,66.5
50	2447	911.9	397.7	911.9	2447	911.9	397.7	911.9	40- 50	10928	58765	81.7,81.7
60	1391	483.7	233.0	483.7	1391	483.7	233.0	483.7	50- 60	6946	65711	91.4,91.4
70	526.3	247.8	134.2	247.8	526.3	247.8	134.2	247.8	60- 70	3883	69594	96.8,96.8
80	154.4	95.93	58.82	95.93	154.4	95.93	58.82	95.93	70- 80	1836	71430	99.3,99.3
90	0.5282	0.3783	0.3338	0.3783	0.5282	0.3783	0.3338	0.3783	80- 90	478.7	71909	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:×10cd									UNIT:lm		

Conical surface Flux(90deg): 53837 lm

%lum = 74.9%

%lamp = 74.9%

Conical surface Flux(120deg): 65711 lm

%lum = 91.4%

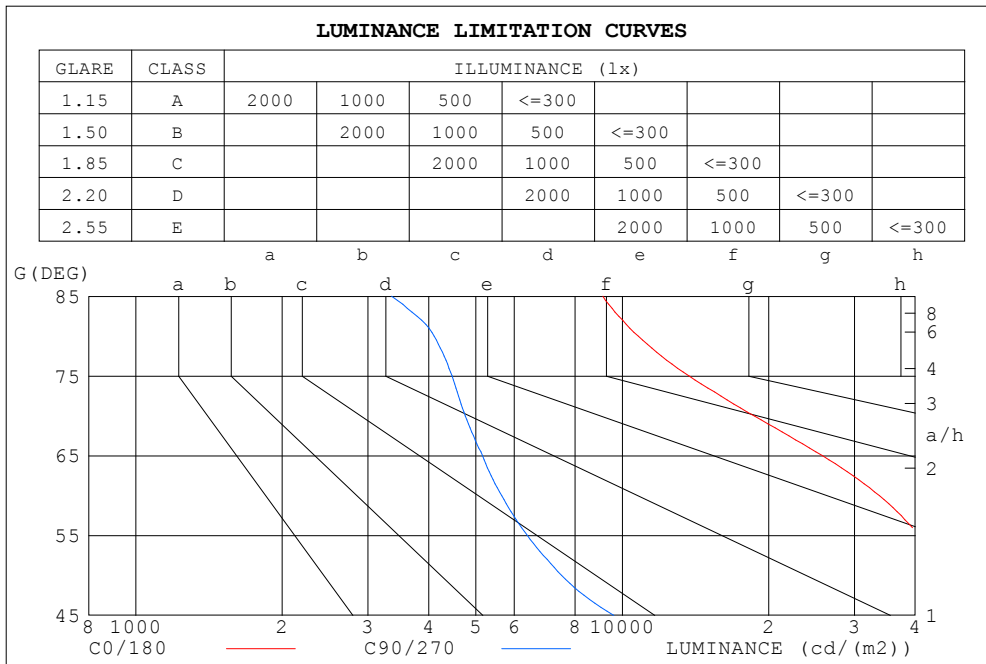
%lamp = 91.4%

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Test Date:2020-06-18

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 γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.426
Humidity:65.0%
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EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINANCE LIMITATION CURVES



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	9119	3358
80	10791	4107
75	13723	4468
70	18679	4759
65	25813	5160
60	33769	5651
55	40740	6381
50	46202	7502
45	50341	9601

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 Remarks:

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Test Distance:26.000m [K=0.4589]
Remarks:

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EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

WEC AND CCEC

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	.239	.136	.043	.232	.132	.042	.219	.126	.040	.207	.119	.038	.196	.114	.037	
2.0	.229	.125	.038	.223	.123	.038	.212	.118	.037	.202	.113	.035	.192	.109	.034	
3.0	.216	.115	.034	.211	.113	.034	.201	.109	.033	.192	.105	.032	.184	.102	.032	
4.0	.203	.106	.031	.199	.104	.031	.190	.101	.030	.182	.098	.030	.175	.095	.029	
5.0	.191	.097	.028	.187	.096	.028	.180	.093	.028	.173	.091	.027	.166	.089	.027	
6.0	.180	.090	.026	.176	.089	.026	.170	.087	.025	.163	.085	.025	.158	.083	.025	
7.0	.170	.084	.024	.166	.083	.024	.160	.081	.023	.155	.079	.023	.150	.078	.023	
8.0	.160	.078	.022	.157	.078	.022	.152	.076	.022	.147	.075	.021	.142	.073	.021	
9.0	.152	.073	.020	.149	.073	.020	.144	.071	.020	.140	.070	.020	.136	.069	.020	
10.0	.144	.069	.019	.142	.068	.019	.137	.067	.019	.133	.066	.019	.129	.065	.019	

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	.175	.157	.140	.150	.135	.120	.103	.093	.083	.059	.054	.048	.019	.017	.016	
2.0	.164	.132	.106	.140	.114	.091	.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	.125	.086	.057	.086	.060	.040	.050	.035	.024	.016	.011	.008	
5.0	.138	.089	.053	.118	.077	.046	.082	.054	.033	.047	.032	.019	.015	.010	.006	
6.0	.131	.080	.044	.112	.070	.038	.078	.049	.027	.045	.029	.016	.015	.009	.005	
7.0	.124	.073	.037	.107	.063	.032	.074	.044	.023	.043	.026	.014	.014	.009	.005	
8.0	.118	.067	.032	.102	.058	.028	.071	.041	.020	.041	.024	.012	.013	.008	.004	
9.0	.113	.062	.028	.097	.054	.024	.067	.038	.017	.039	.022	.010	.013	.007	.003	
10.0	.108	.058	.025	.093	.050	.021	.065	.035	.015	.038	.021	.009	.012	.007	.003	

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:LYJ
 Test Date:2020-06-18

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.426
 Humidity:65.0%
 Test Distance:26.000m [K=0.4589]
 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	21.9	23.3	22.3	23.6	23.9	14.2	15.5	14.5	15.8	16.2
3H	23.2	24.4	23.6	24.7	25.1	15.5	16.7	15.9	17.0	17.4
4H	23.6	24.7	24.0	25.1	25.5	16.0	17.1	16.4	17.5	17.9
6H	23.9	24.9	24.3	25.3	25.7	16.4	17.4	16.8	17.8	18.2
8H	24.0	24.9	24.4	25.3	25.7	16.5	17.5	17.0	17.9	18.3
12H	24.0	24.9	24.4	25.3	25.8	16.6	17.5	17.0	17.9	18.4
4H 2H	22.0	23.1	22.4	23.4	23.8	15.8	16.9	16.2	17.3	17.7
3H	23.5	24.4	23.9	24.8	25.2	17.1	18.0	17.5	18.4	18.8
4H	24.0	24.8	24.4	25.2	25.6	17.6	18.5	18.1	18.9	19.3
6H	24.3	25.1	24.8	25.5	26.0	18.1	18.8	18.5	19.2	19.7
8H	24.5	25.1	24.9	25.6	26.1	18.2	18.9	18.7	19.3	19.8
12H	24.6	25.2	25.0	25.6	26.1	18.3	18.9	18.8	19.3	19.8
8H 4H	24.0	24.6	24.4	25.1	25.5	18.4	19.0	18.8	19.5	19.9
6H	24.4	25.0	24.9	25.5	26.0	18.9	19.4	19.4	19.9	20.4
8H	24.6	25.1	25.1	25.6	26.1	19.0	19.5	19.6	20.0	20.5
12H	24.8	25.2	25.3	25.7	26.3	19.2	19.6	19.7	20.1	20.7
12H 4H	23.9	24.5	24.4	25.0	25.5	18.5	19.1	18.9	19.5	20.0
6H	24.4	24.9	24.9	25.4	25.9	19.0	19.5	19.5	20.0	20.5
8H	24.6	25.1	25.1	25.5	26.1	19.2	19.7	19.8	20.2	20.7
CIE190: 2010										

CIE190: 2010
Area: 0.823728 m2

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Operators:LYJ
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γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.426
Humidity:65.0%
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Remarks:

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UTILIZATION FACTORS TABLE

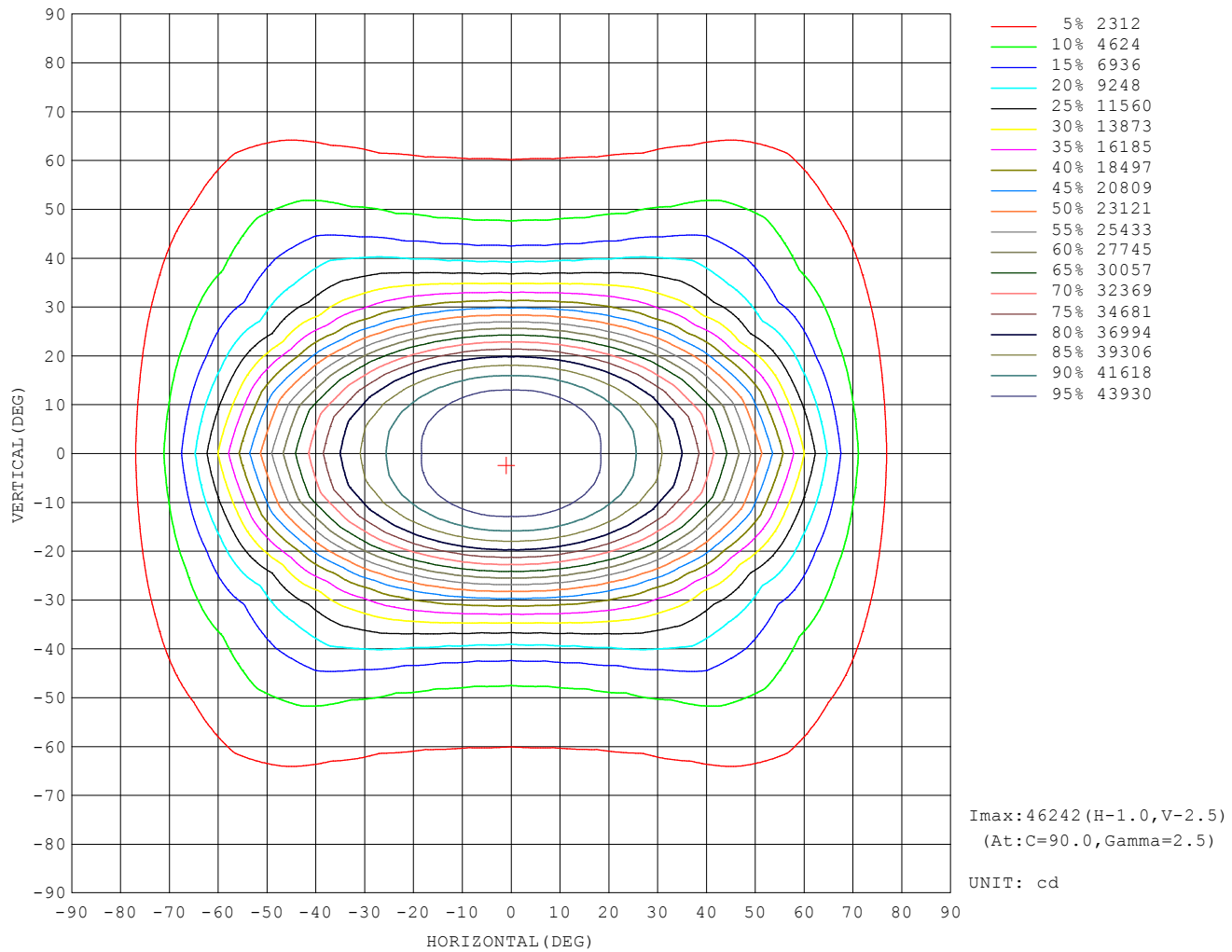
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	71	61	56	70	61	56	69	61	55	50
0.80	80	71	65	79	71	65	78	70	65	59
1.00	87	79	73	86	78	73	84	79	72	67
1.25	93	85	80	92	84	79	89	83	79	73
1.50	97	90	84	95	89	84	93	87	83	77
2.00	102	96	91	100	95	90	97	92	89	82
2.50	105	99	94	103	98	94	99	95	92	85
3.00	107	102	98	105	101	97	101	98	95	87
4.00	110	106	102	108	104	101	104	101	98	90
5.00	112	108	105	110	106	104	105	103	101	92
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 V2.00.426
 Humidity: 65.0%
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 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

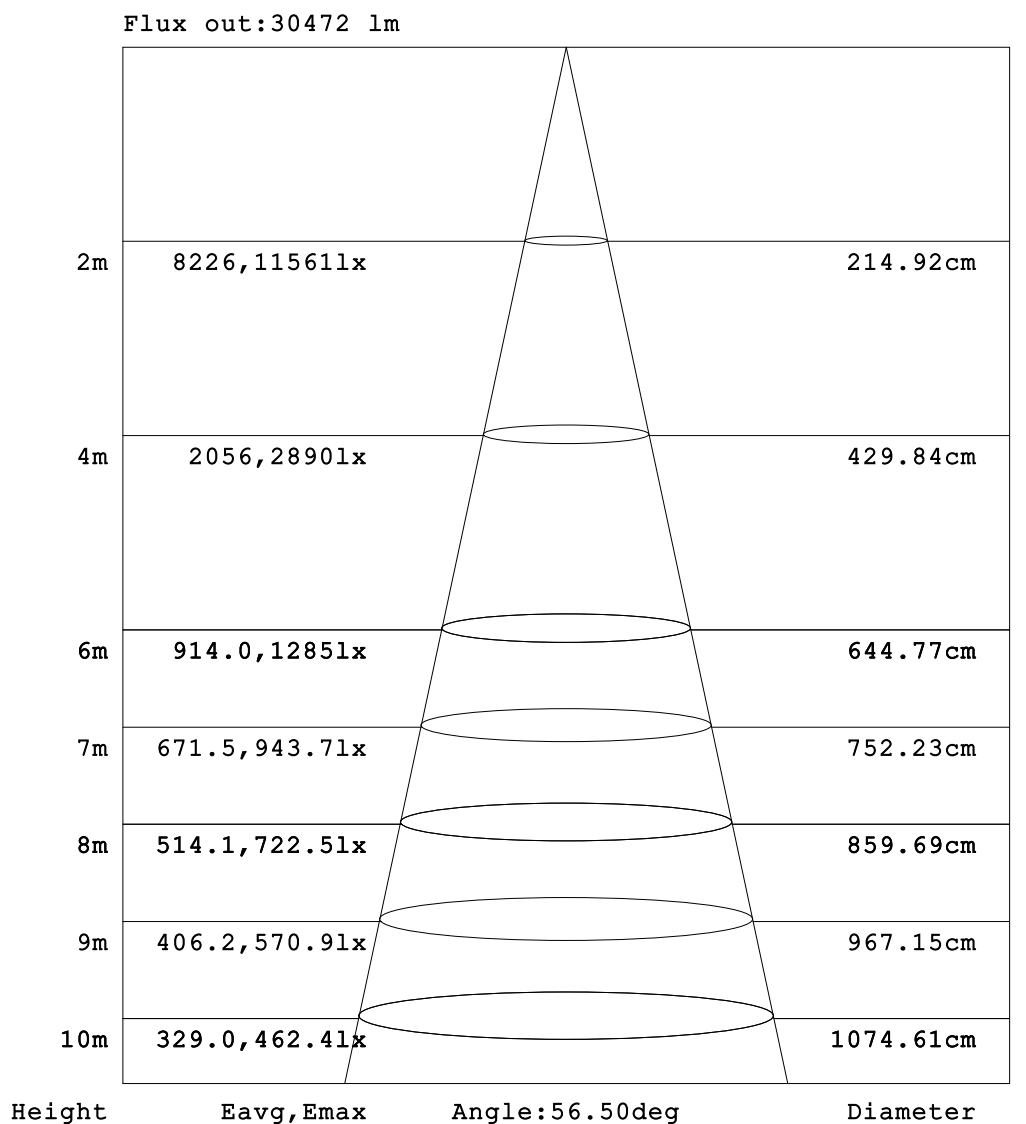
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
C Interval: 10.0DEG
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Temperature: 25.3DEG
Operators: LYJ
Test Date: 2020-06-18

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.426
Humidity: 65.0%
Test Distance: 26.000m [K=0.4589]
Remarks:

AAI Figure



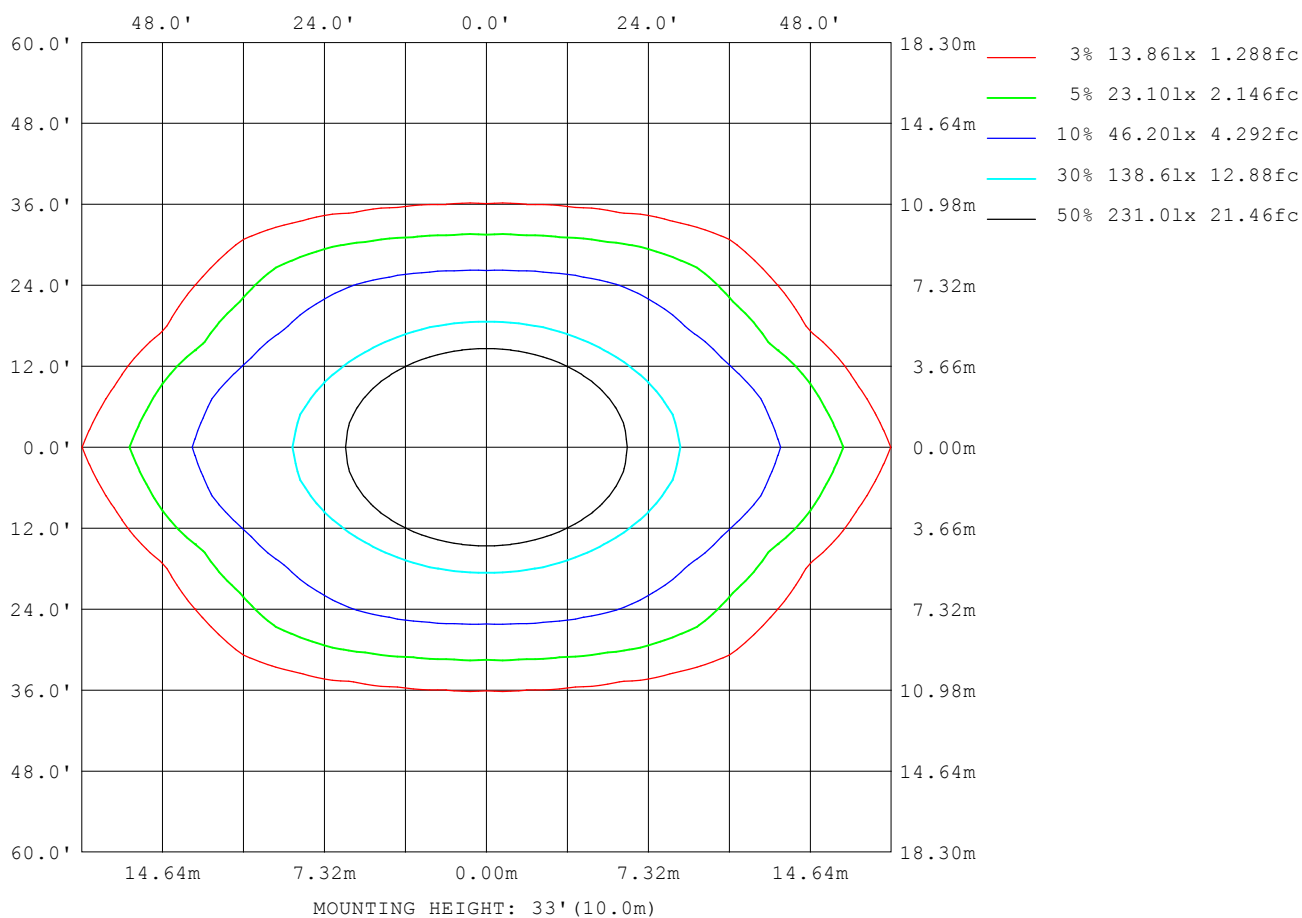
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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γ Range: 0 - 90DEG
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Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.426
Humidity:65.0%
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EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

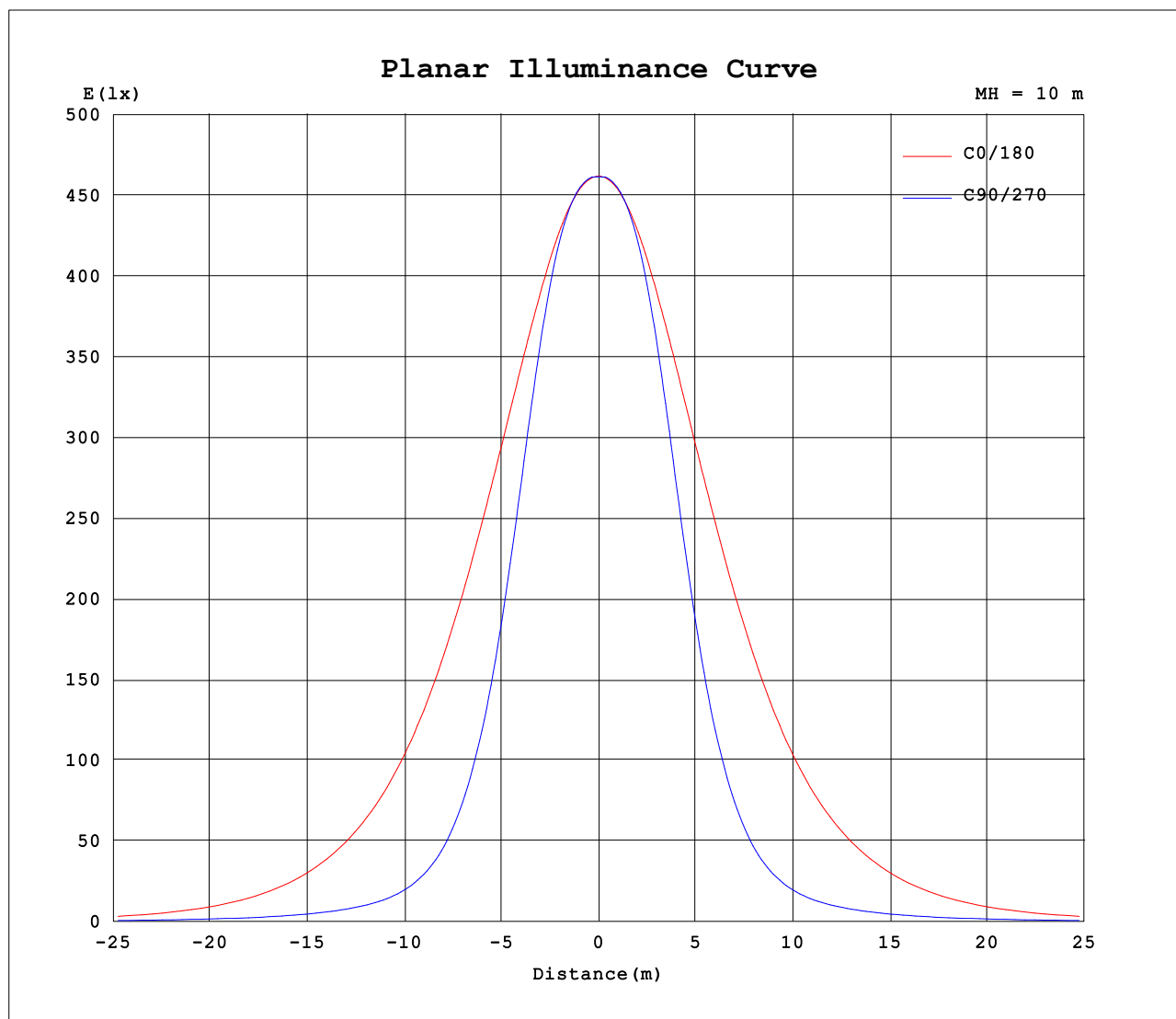
ISOLUX DIAGRAM



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: LYJ
Test Date: 2020-06-18

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.426
Humidity: 65.0%
Test Distance: 26.000m [K=0.4589]
Remarks:

Planar Illuminance Curve



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γ Range: 0 - 90DEG
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Remarks: