

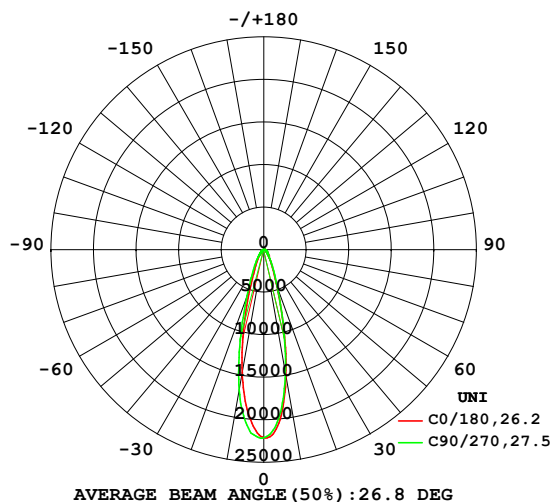
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

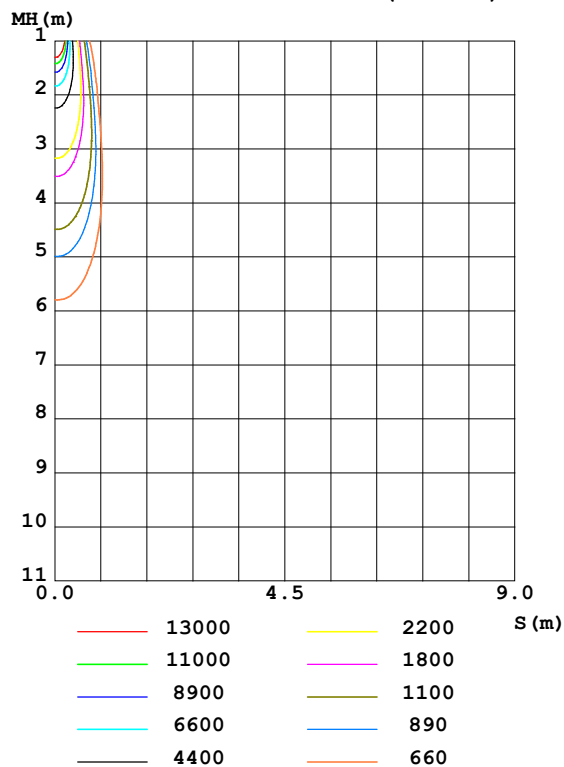
Test:U:229.9V I:0.2289A P:50.22W PF:0.9542 Freq:50.01Hz UTHDi:0% ITHDi:0% Lamp Flux:7542.65x1 lm		
NAME: FL23-050-5070-F06404	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 150.21 lm/W			
MODEL	-	Imax(cd)	22208	S/MH(C0/180)	0.44
NOMINAL POWER(W)	50	LOR(%)	100.0	S/MH(C90/270)	0.49
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	7542.6	η UP,DN(C0-180)	0.0,47.5
NOMINAL FLUX(lm)	7542.65	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,52.5
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.00
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:2020-07-14

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	1506	1494	1470	1437	1469	1580	1673	1627	0- 10	1775	1775	23.5,23.5
20	456.0	464.0	469.4	439.4	456.0	527.4	575.8	523.1	10- 20	2552	4327	57.4,57.4
30	166.8	172.6	176.2	160.7	163.8	188.2	212.7	187.5	20- 30	1339	5666	75.1,75.1
40	76.37	79.03	79.19	75.49	77.09	85.97	93.23	84.49	30- 40	750.6	6417	85.1,85.1
50	43.86	44.47	43.46	43.75	44.90	48.28	50.14	46.97	40- 50	466.7	6883	91.3,91.3
60	28.72	27.76	26.23	27.61	29.48	30.46	31.22	29.57	50- 60	326.6	7210	95.6,95.6
70	16.50	14.29	12.77	14.29	17.08	17.06	17.65	16.45	60- 70	219.3	7429	98.5,98.5
80	4.701	2.800	1.510	2.845	5.143	5.318	5.431	4.957	70- 80	101.1	7530	99.8,99.8
90	0.0105	0.0105	0.0105	0.0092	0.0105	0.0111	0.0157	0.0079	80- 90	12.49	7543	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): 6673.1 lm

%lum = 88.5%

%lamp = 88.5%

Conical surface Flux(120deg): 7209.8 lm

%lum = 95.6%

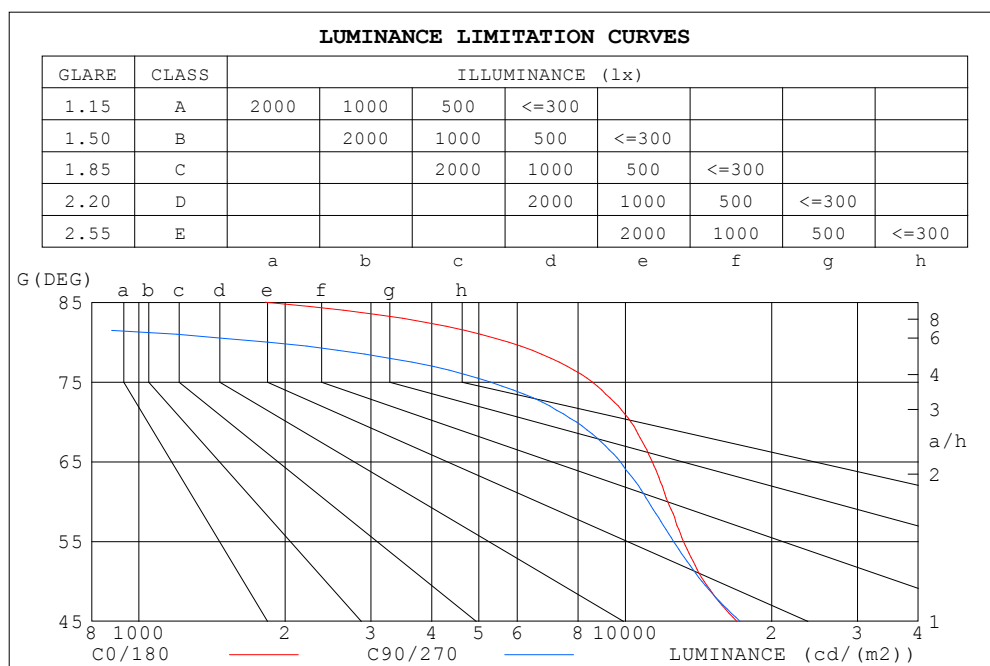
%lamp = 95.6%

C Range: 0 - 360DEG
C Interval: 10.0DEG
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Operators:LYJ
Test Date:2020-07-14

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

LUMINANCE LIMITATION CURVES



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	1820	26
80	5761	1849
75	8553	5270
70	10265	7937
65	11361	9764
60	12222	11155
55	13167	12568
50	14522	14379
45	16964	17219

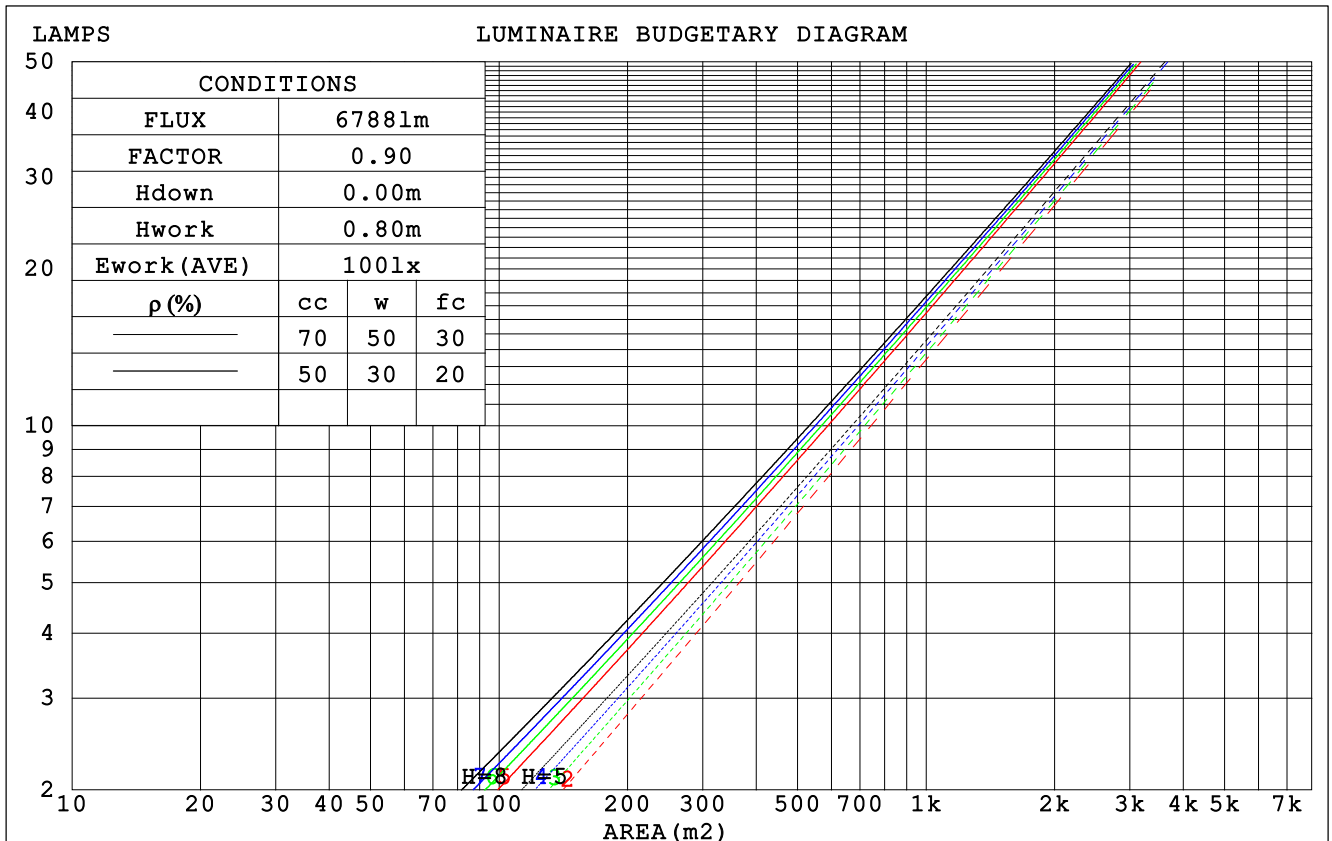
C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: LYJ
 Test Date: 2020-07-14

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

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

pcc	80%			70%			50%			30%			10%			0
p _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
p _{fc}	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	.00
1.0	1.11	1.08	1.06	1.09	1.06	1.04	1.04	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	.97	.92	.88	.95	.91	.87	.93	.89	.86	.90	.87	.84	.88	.85	.83	.82
4.0	.91	.86	.82	.90	.85	.81	.88	.84	.80	.86	.82	.79	.84	.81	.78	.77
5.0	.86	.81	.76	.85	.80	.76	.83	.79	.75	.82	.78	.75	.80	.77	.74	.73
6.0	.82	.76	.72	.81	.76	.72	.79	.75	.71	.78	.74	.71	.77	.73	.70	.69
7.0	.78	.72	.68	.77	.72	.68	.76	.71	.68	.75	.71	.68	.74	.70	.67	.66
8.0	.74	.69	.65	.74	.69	.65	.73	.68	.65	.72	.68	.65	.71	.67	.64	.63
9.0	.71	.66	.62	.71	.66	.62	.70	.65	.62	.69	.65	.62	.68	.65	.62	.61
10.0	.69	.63	.60	.68	.63	.60	.67	.63	.60	.67	.62	.60	.66	.62	.59	.58



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:LYJ
Test Date:2020-07-14

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

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	.180	.102	.032	.173	.099	.031	.160	.092	.029	.149	.086	.028	.138	.080	.026	
2.0	.170	.093	.029	.164	.091	.028	.154	.085	.027	.144	.081	.025	.135	.076	.024	
3.0	.159	.085	.025	.155	.083	.025	.146	.079	.024	.137	.075	.023	.130	.072	.022	
4.0	.149	.078	.023	.145	.076	.022	.138	.073	.022	.130	.070	.021	.124	.067	.020	
5.0	.140	.072	.021	.137	.070	.020	.130	.068	.020	.124	.065	.019	.118	.063	.019	
6.0	.132	.066	.019	.129	.065	.019	.123	.063	.018	.118	.061	.018	.113	.059	.018	
7.0	.125	.062	.018	.122	.061	.017	.117	.059	.017	.112	.058	.017	.108	.056	.016	
8.0	.118	.058	.016	.116	.057	.016	.112	.056	.016	.107	.054	.016	.103	.053	.015	
9.0	.113	.054	.015	.110	.054	.015	.106	.053	.015	.103	.051	.015	.099	.050	.015	
10.0	.107	.051	.014	.105	.051	.014	.102	.050	.014	.098	.049	.014	.095	.048	.014	

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	.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	.143	.114	.090	.123	.098	.078	.084	.068	.055	.049	.040	.032	.016	.013	.011		
4.0	.132	.099	.073	.113	.085	.064	.078	.059	.045	.045	.035	.026	.015	.011	.009		
5.0	.123	.087	.061	.106	.075	.053	.073	.053	.037	.042	.031	.022	.014	.010	.007		
6.0	.115	.078	.051	.099	.067	.044	.068	.047	.031	.039	.028	.019	.013	.009	.006		
7.0	.108	.070	.043	.093	.060	.038	.064	.042	.027	.037	.025	.016	.012	.008	.005		
8.0	.101	.063	.037	.087	.055	.033	.060	.039	.023	.035	.023	.014	.011	.007	.005		
9.0	.096	.058	.032	.082	.050	.028	.057	.035	.020	.033	.021	.012	.011	.007	.004		
10.0	.091	.053	.029	.078	.046	.025	.054	.033	.018	.032	.019	.011	.010	.006	.004		

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:LYJ
 Test Date:2020-07-14

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	16.9	18.0	17.3	18.3	18.6	16.5	17.6	16.8	17.9	18.2
3H	18.4	19.4	18.8	19.7	20.1	17.6	18.6	18.0	18.9	19.3
4H	18.9	19.8	19.3	20.1	20.5	17.8	18.7	18.2	19.1	19.5
6H	19.1	19.9	19.5	20.3	20.7	17.8	18.6	18.2	19.0	19.4
8H	19.1	19.9	19.5	20.3	20.7	17.8	18.5	18.2	18.9	19.3
12H	19.1	19.8	19.5	20.2	20.6	17.7	18.5	18.1	18.8	19.3
4H 2H	17.3	18.2	17.7	18.6	18.9	16.9	17.8	17.3	18.2	18.6
3H	19.0	19.7	19.4	20.1	20.5	18.2	18.9	18.6	19.4	19.8
4H	19.5	20.2	19.9	20.6	21.0	18.5	19.1	18.9	19.6	20.0
6H	19.8	20.3	20.2	20.8	21.3	18.5	19.0	19.0	19.5	20.0
8H	19.8	20.3	20.3	20.8	21.2	18.4	18.9	18.9	19.4	19.9
12H	19.7	20.2	20.2	20.7	21.2	18.4	18.8	18.9	19.3	19.8
8H 4H	19.5	20.0	20.0	20.5	21.0	18.6	19.1	19.0	19.5	20.0
6H	19.8	20.2	20.3	20.7	21.2	18.6	19.0	19.1	19.5	20.0
8H	19.9	20.2	20.4	20.7	21.2	18.5	18.9	19.1	19.4	19.9
12H	19.8	20.2	20.4	20.7	21.2	18.5	18.8	19.0	19.3	19.9
12H 4H	19.5	19.9	20.0	20.4	20.9	18.5	19.0	19.0	19.5	20.0
6H	19.8	20.1	20.3	20.6	21.2	18.6	18.9	19.1	19.4	20.0
8H	19.8	20.1	20.3	20.6	21.2	18.5	18.8	19.0	19.3	19.9
CIE190: 2010										

CIE190: 2010
Area: 0.04708 m2

C Range: 0 - 360DEG
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Operators:LYJ
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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

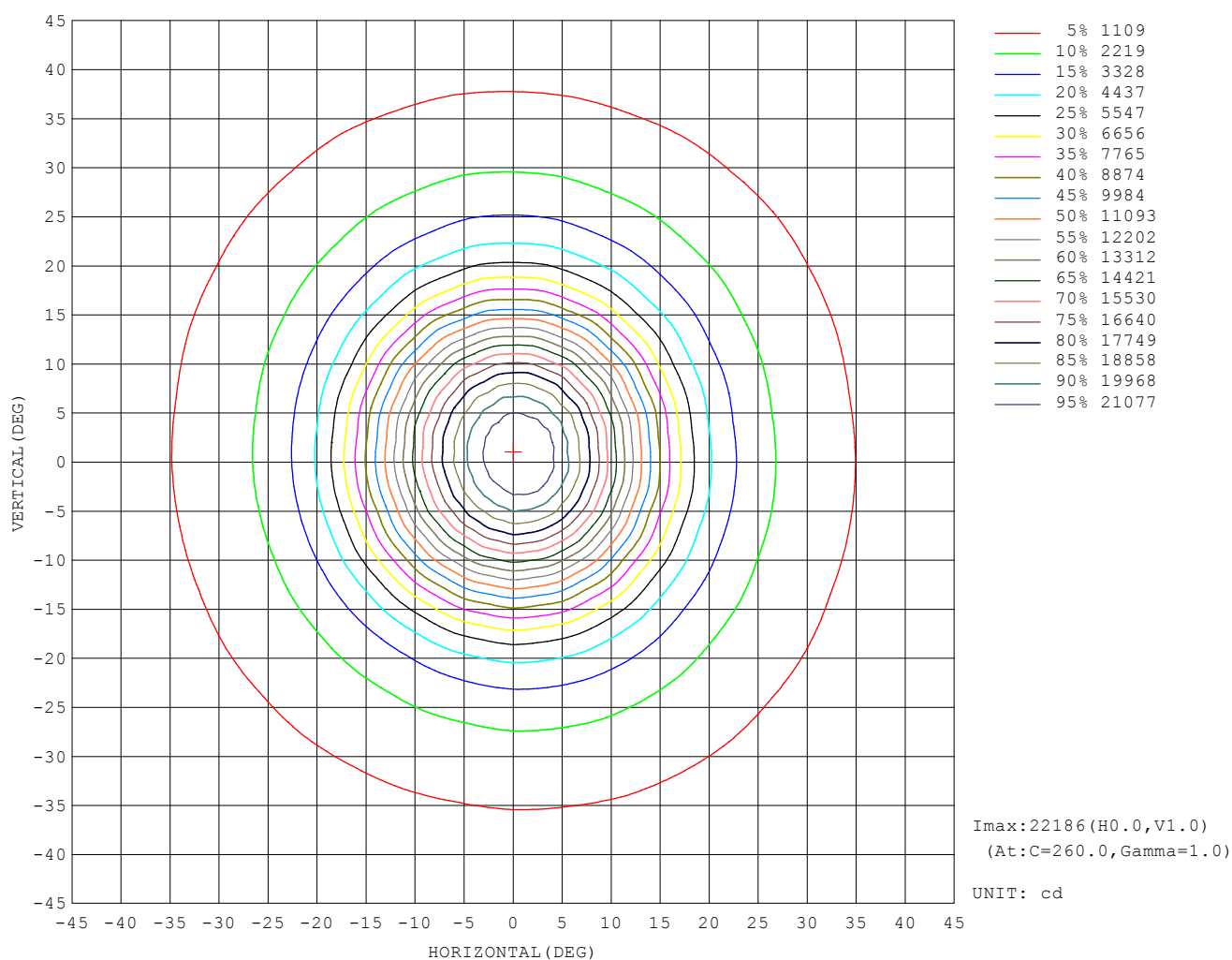
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	82	75	71	82	75	71	81	74	70	66
0.80	90	83	79	89	83	79	88	82	78	74
1.00	95	89	85	94	88	84	93	88	84	79
1.25	100	94	90	99	93	89	97	92	88	84
1.50	103	97	93	102	97	93	99	95	92	87
2.00	106	101	98	105	100	97	102	98	95	90
2.50	108	104	100	107	103	100	103	100	98	91
3.00	110	106	103	108	105	102	105	102	100	93
4.00	113	109	107	111	108	105	107	105	103	95
5.00	114	111	109	112	110	108	108	106	105	97
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%
 Test Distance: 26.000m [K=0.4589]
 Remarks:

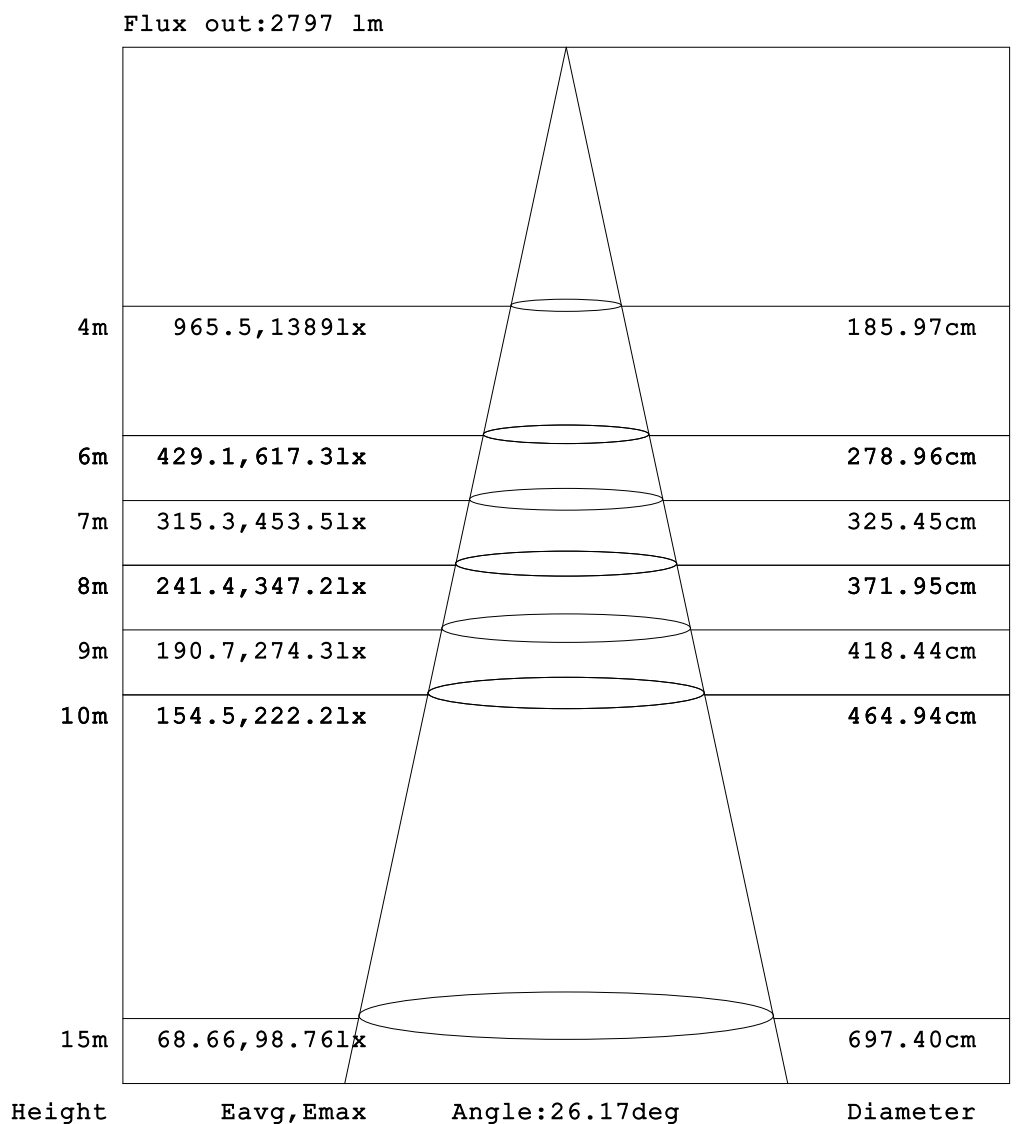
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:LYJ
Test Date:2020-07-14

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.426
Humidity:65.0%
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Remarks:

AAI Figure



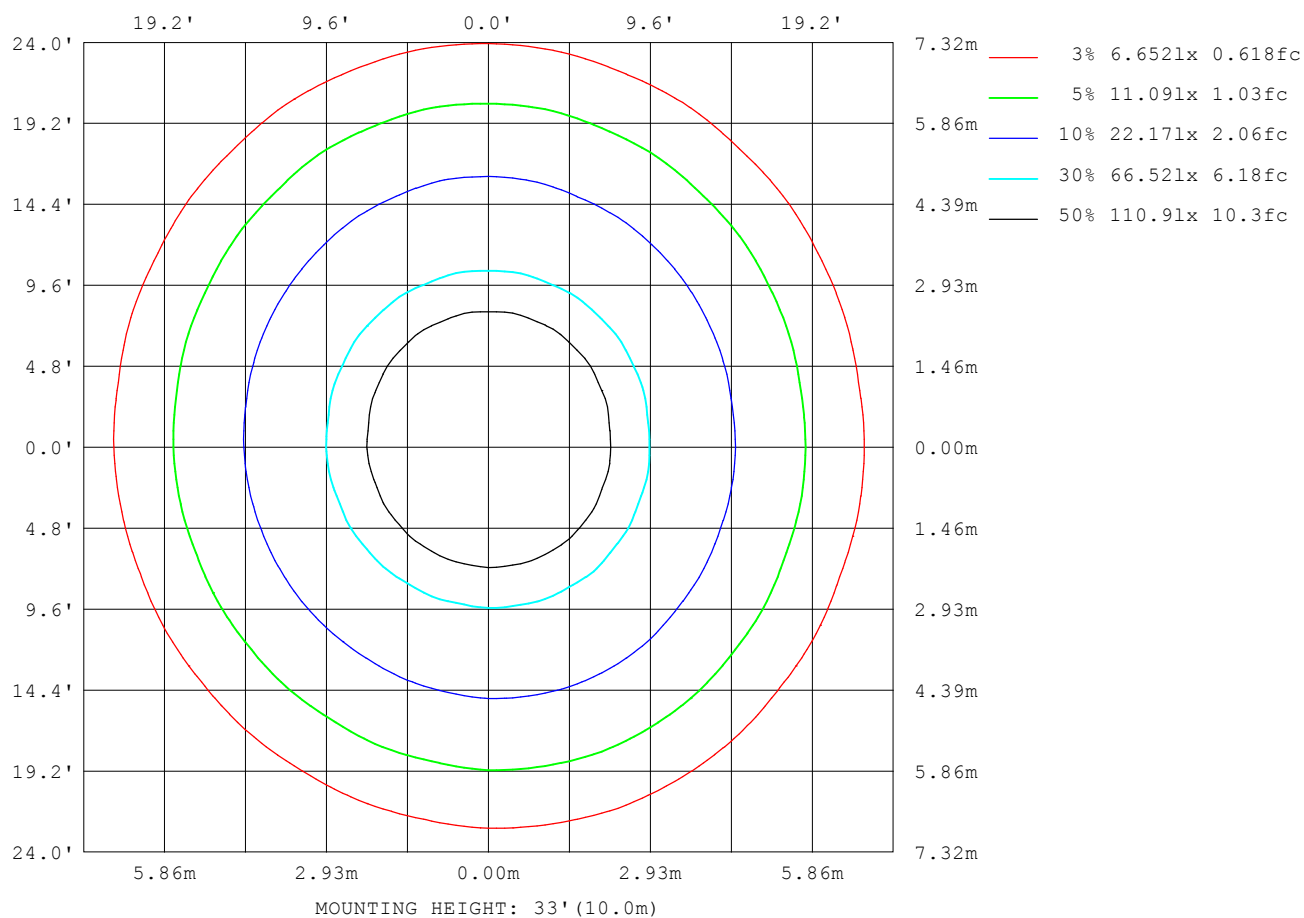
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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C Interval: 10.0DEG
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γ Range: 0 - 90DEG
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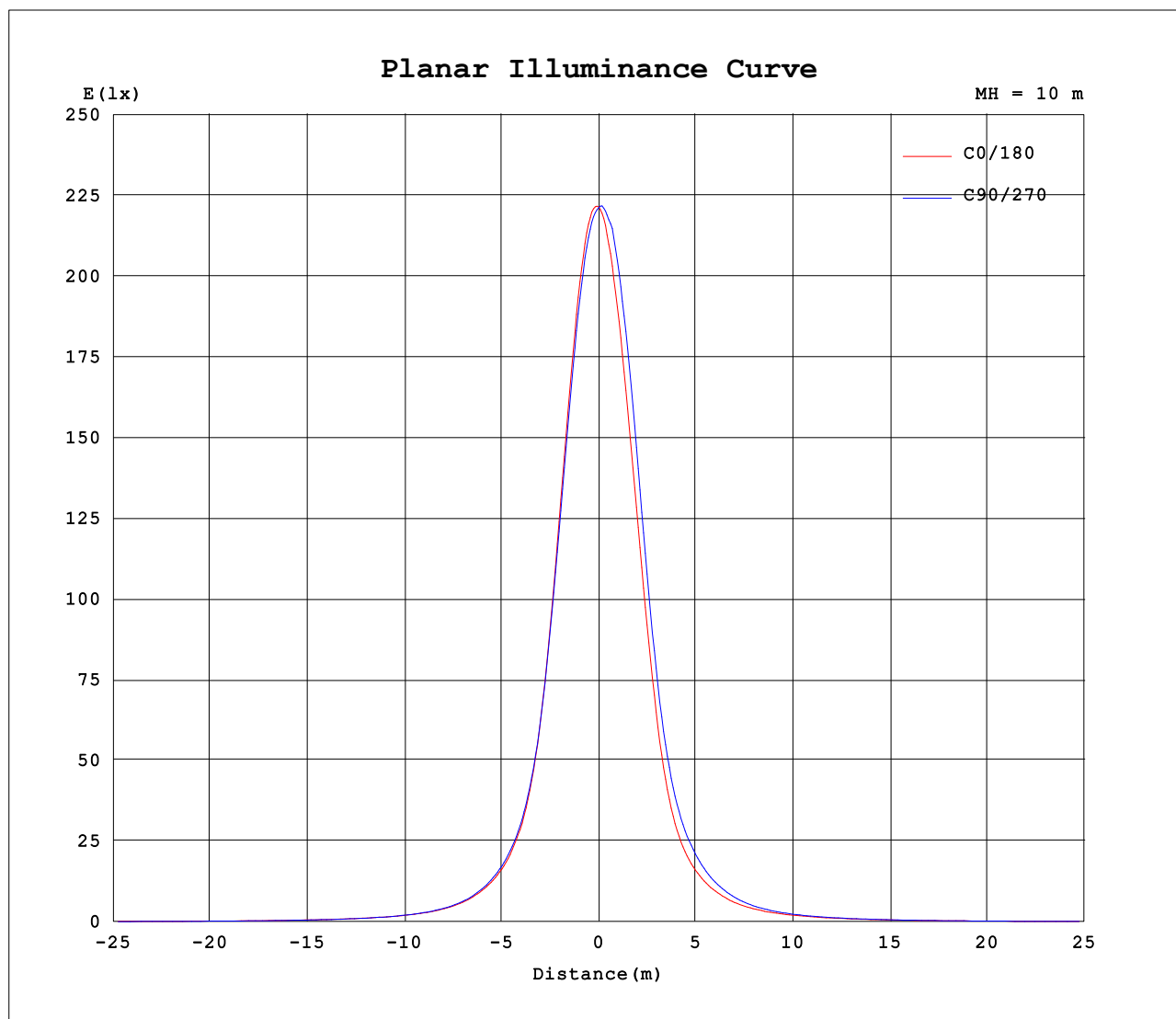
ISOLUX DIAGRAM



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: LYJ
Test Date: 2020-07-14

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



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: LYJ
Test Date: 2020-07-14

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: