

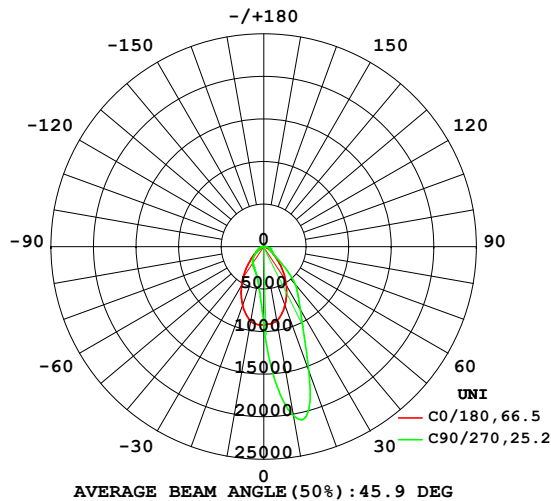
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

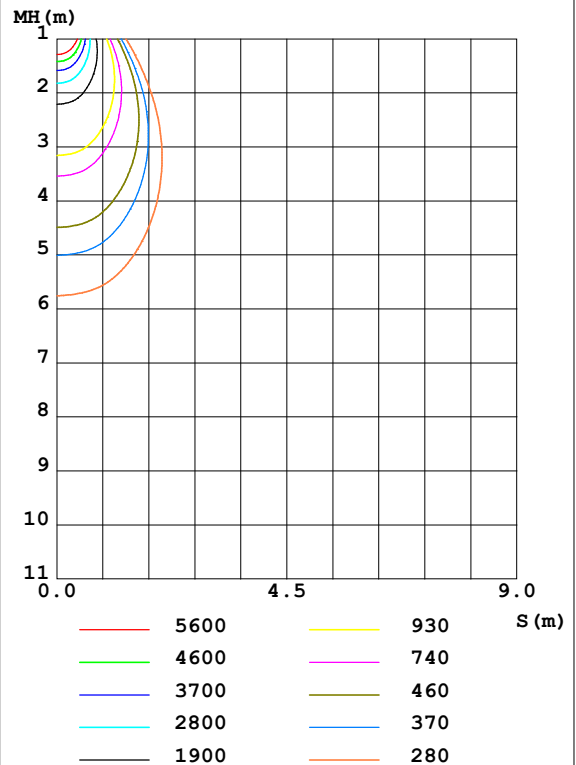
Test:U:229.9V I:0.4498A P:102.0W PF:0.9867 Freq:50.01Hz UTHDi:0% ITHDi:0% Lamp Flux:14873.6x1 lm					
NAME: FL23-100-5070-F12803		TYPE:		WEIGHT:	
SPEC.:		DIM.:		SERIAL No.:	
MFR.:		SUR.:		Shielding Angle:	

DATA OF LAMP		PHOTOMETRIC DATA Eff: 145.77 lm/W			
MODEL	-	I _{max} (cd)	20977	S/MH (C0/180)	0.95
NOMINAL POWER(W)	100	LOR(%)	100.0	S/MH (C90/270)	0.25
RATED VOLTAGE(V)	230	TOTAL FLUX (lm)	14874	η UP,DN (C0-180)	0.0,67.5
NOMINAL FLUX(lm)	14873.6	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0,32.5
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	230	η down (%)	100.0	CIBSE SHR MAX	0.55

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: 2020-08-31

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=0.4574]
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	884.0	1773	2017	1801	889.1	480.4	408.7	478.2	0- 10	983.8	983.8	6.61,6.61
20	731.9	1813	1550	1721	730.0	353.8	302.4	352.8	10- 20	2987	3970	26.7,26.7
30	534.0	991.6	862.6	910.8	523.1	299.1	253.7	298.5	20- 30	3425	7395	49.7,49.7
40	331.1	519.6	574.9	495.3	310.9	263.1	207.3	262.5	30- 40	2864	10259	69,69
50	169.2	307.4	186.1	296.7	156.2	224.3	128.1	225.1	40- 50	2194	12453	83.7,83.7
60	87.16	115.5	99.34	107.3	83.64	115.1	87.78	128.6	50- 60	1406	13859	93.2,93.2
70	42.40	36.89	74.22	35.99	40.48	40.78	52.96	43.59	60- 70	691.5	14550	97.8,97.8
80	19.64	11.13	16.27	10.42	18.20	10.56	18.51	11.98	70- 80	285.1	14835	99.7,99.7
90	0	0	0	0	0	0	0	0	80- 90	38.30	14874	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): 11457 lm

%lum = 77.0%

%lamp = 77.0%

Conical surface Flux(120deg): 13859 lm

%lum = 93.2%

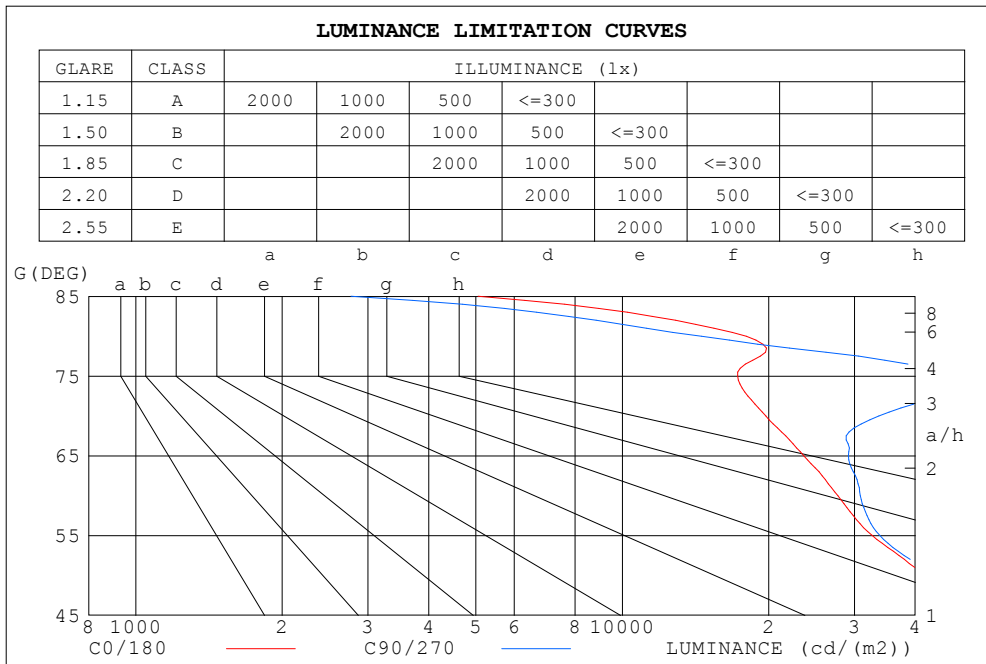
%lamp = 93.2%

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C Interval: 10.0DEG
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Operators:LYJ
Test Date:2020-08-31

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=0.4574]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINANCE LIMITATION CURVES



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	5052	2770
80	17985	14544
75	17268	46885
70	19717	33686
65	23608	29146
60	27725	30843
55	32621	33829
50	41855	44940
45	53688	80810

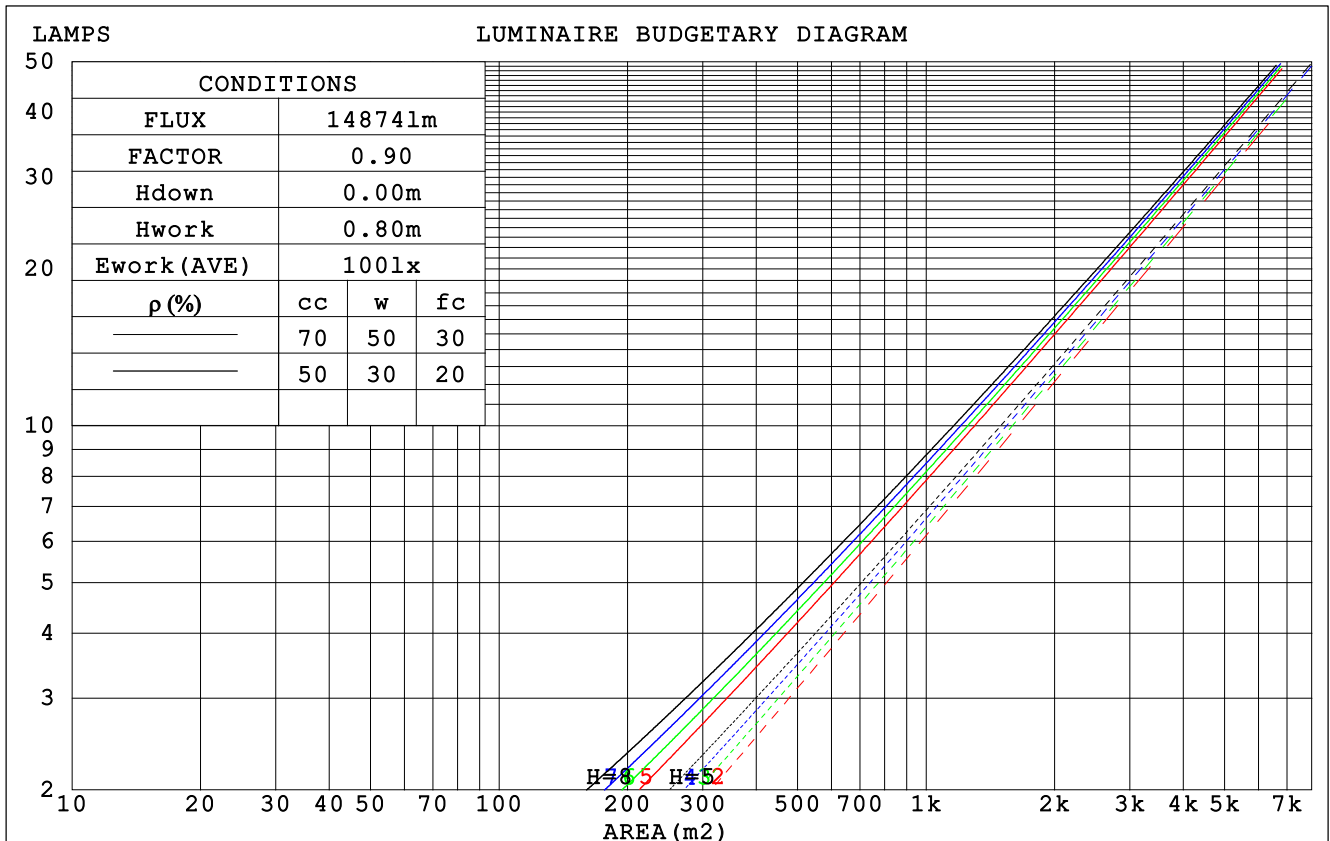
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Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.426
Humidity: 65.0%
Test Distance: 26.000m [K=0.4574]
Remarks:

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	1.00
1.0	1.08	1.05	1.02	1.06	1.03	1.01	1.02	.00	.98	.98	.96	.95	.95	.93	.92	.90
2.0	.98	.93	.89	.96	.92	.88	.93	.89	.86	.90	.87	.84	.87	.84	.82	.80
3.0	.89	.83	.78	.88	.82	.77	.85	.80	.76	.82	.78	.75	.80	.76	.73	.72
4.0	.81	.74	.69	.80	.74	.69	.78	.72	.68	.76	.71	.67	.74	.70	.66	.64
5.0	.75	.67	.62	.74	.67	.62	.72	.66	.61	.70	.65	.61	.68	.64	.60	.58
6.0	.69	.61	.56	.68	.61	.56	.66	.60	.56	.65	.59	.55	.63	.58	.55	.53
7.0	.64	.56	.51	.63	.56	.51	.61	.55	.51	.60	.55	.50	.59	.54	.50	.48
8.0	.59	.52	.47	.58	.52	.47	.57	.51	.47	.56	.51	.46	.55	.50	.46	.45
9.0	.55	.48	.43	.55	.48	.43	.54	.47	.43	.53	.47	.43	.52	.47	.43	.41
10.0	.52	.45	.40	.51	.45	.40	.50	.44	.40	.49	.44	.40	.49	.43	.40	.38



C Range: 0 - 360DEG
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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=0.4574]
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	.226	.129	.041	.219	.125	.040	.206	.118	.038	.195	.112	.036	.184	.106	.034															
2.0	.219	.120	.037	.213	.117	.036	.202	.112	.035	.192	.107	.034	.182	.103	.032															
3.0	.207	.110	.033	.202	.108	.033	.193	.104	.032	.184	.101	.031	.176	.097	.030															
4.0	.196	.102	.030	.191	.100	.030	.183	.097	.029	.175	.094	.028	.168	.091	.028															
5.0	.185	.094	.027	.181	.093	.027	.173	.090	.027	.166	.088	.026	.160	.085	.026															
6.0	.174	.087	.025	.171	.086	.025	.164	.084	.024	.158	.082	.024	.152	.080	.024															
7.0	.164	.081	.023	.161	.080	.023	.156	.079	.023	.150	.077	.022	.145	.075	.022															
8.0	.156	.076	.021	.153	.075	.021	.148	.074	.021	.143	.072	.021	.138	.071	.021															
9.0	.148	.071	.020	.145	.071	.020	.140	.069	.020	.136	.068	.020	.132	.067	.019															
10.0	.140	.067	.019	.138	.067	.019	.134	.066	.018	.130	.064	.018	.126	.063	.018															

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	.141	.149	.135	.121	.102	.093	.084	.059	.054	.049	.019	.017	.016		
2.0	.162	.132	.107	.139	.114	.092	.095	.079	.064	.055	.046	.038	.018	.015	.012		
3.0	.152	.114	.083	.131	.098	.072	.090	.068	.051	.052	.040	.030	.017	.013	.010		
4.0	.144	.100	.066	.123	.086	.058	.085	.060	.041	.049	.035	.024	.016	.011	.008		
5.0	.136	.089	.054	.117	.077	.047	.080	.054	.033	.047	.031	.020	.015	.010	.006		
6.0	.129	.080	.045	.111	.069	.039	.076	.048	.028	.044	.029	.016	.014	.009	.005		
7.0	.122	.073	.038	.105	.063	.033	.073	.044	.023	.042	.026	.014	.014	.009	.005		
8.0	.117	.067	.033	.100	.058	.028	.069	.041	.020	.040	.024	.012	.013	.008	.004		
9.0	.111	.062	.028	.096	.054	.025	.066	.038	.018	.039	.022	.010	.013	.007	.003		
10.0	.106	.057	.025	.092	.050	.022	.063	.035	.015	.037	.021	.009	.012	.007	.003		

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:LYJ
 Test Date:2020-08-31

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=0.4574]
 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	21.3	22.7	21.7	23.0	23.3	22.2	23.5	22.6	23.9	24.2
3H	22.4	23.6	22.8	23.9	24.3	23.1	24.3	23.5	24.6	25.0
4H	22.7	23.8	23.1	24.2	24.6	23.7	24.8	24.1	25.2	25.5
6H	23.0	24.0	23.4	24.4	24.8	24.0	25.0	24.4	25.4	25.8
8H	23.0	24.0	23.5	24.4	24.8	24.0	24.9	24.4	25.3	25.7
12H	23.0	23.9	23.5	24.3	24.7	24.0	24.9	24.4	25.3	25.7
4H 2H	21.7	22.8	22.1	23.1	23.5	22.4	23.5	22.8	23.8	24.2
3H	22.9	23.8	23.3	24.2	24.6	23.5	24.3	23.9	24.7	25.2
4H	23.3	24.1	23.7	24.5	24.9	24.1	24.8	24.5	25.3	25.7
6H	23.5	24.2	24.0	24.7	25.1	24.4	25.1	24.8	25.5	26.0
8H	23.6	24.2	24.1	24.7	25.2	24.4	25.0	24.8	25.4	25.9
12H	23.6	24.2	24.1	24.6	25.1	24.3	24.9	24.8	25.4	25.9
8H 4H	23.3	24.0	23.8	24.4	24.9	24.1	24.7	24.5	25.1	25.6
6H	23.6	24.1	24.1	24.6	25.1	24.4	24.9	24.9	25.4	25.9
8H	23.7	24.2	24.2	24.7	25.2	24.4	24.9	24.9	25.4	25.9
12H	23.7	24.1	24.2	24.6	25.2	24.4	24.8	24.9	25.3	25.8
12H 4H	23.3	23.9	23.8	24.3	24.8	24.0	24.6	24.5	25.1	25.5
6H	23.6	24.1	24.1	24.5	25.1	24.4	24.8	24.9	25.3	25.8
8H	23.7	24.1	24.2	24.6	25.2	24.4	24.8	24.9	25.3	25.8
CIE190: 2010										

CIE190: 2010
Area: 0.0635 m2

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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%
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Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UTILIZATION FACTORS TABLE

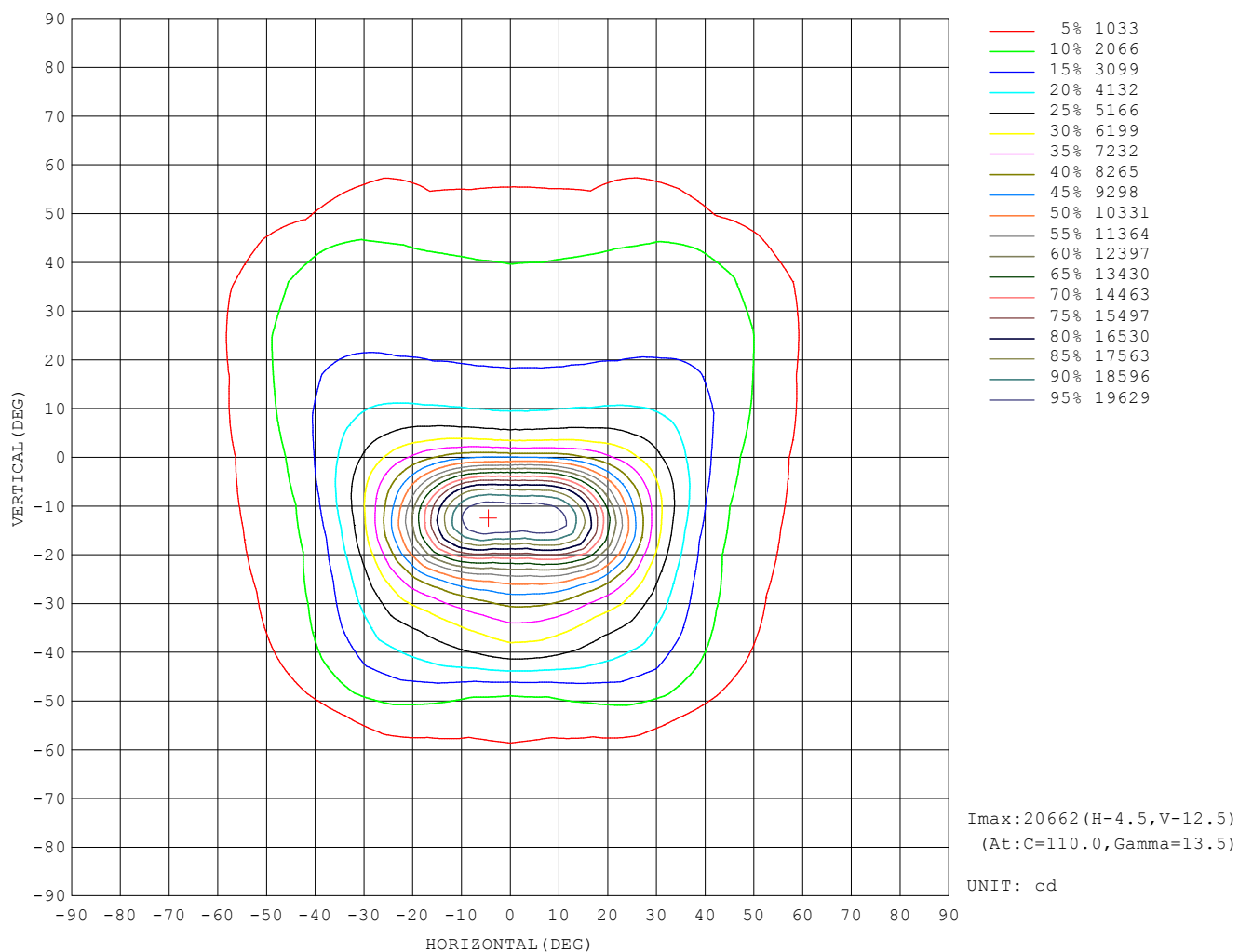
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	72	63	57	71	63	57	70	62	57	52
0.80	81	73	67	80	72	67	79	71	66	61
1.00	88	80	75	87	80	75	85	80	74	69
1.25	94	87	81	93	86	81	91	85	80	75
1.50	98	91	86	97	90	86	94	89	85	79
2.00	103	97	92	101	96	92	98	94	90	84
2.50	105	100	96	104	99	95	100	96	93	86
3.00	108	103	99	106	102	98	102	99	96	89
4.00	111	107	103	108	105	102	105	102	99	91
5.00	112	109	106	110	107	105	106	104	101	93
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=0.4574]
 Remarks:

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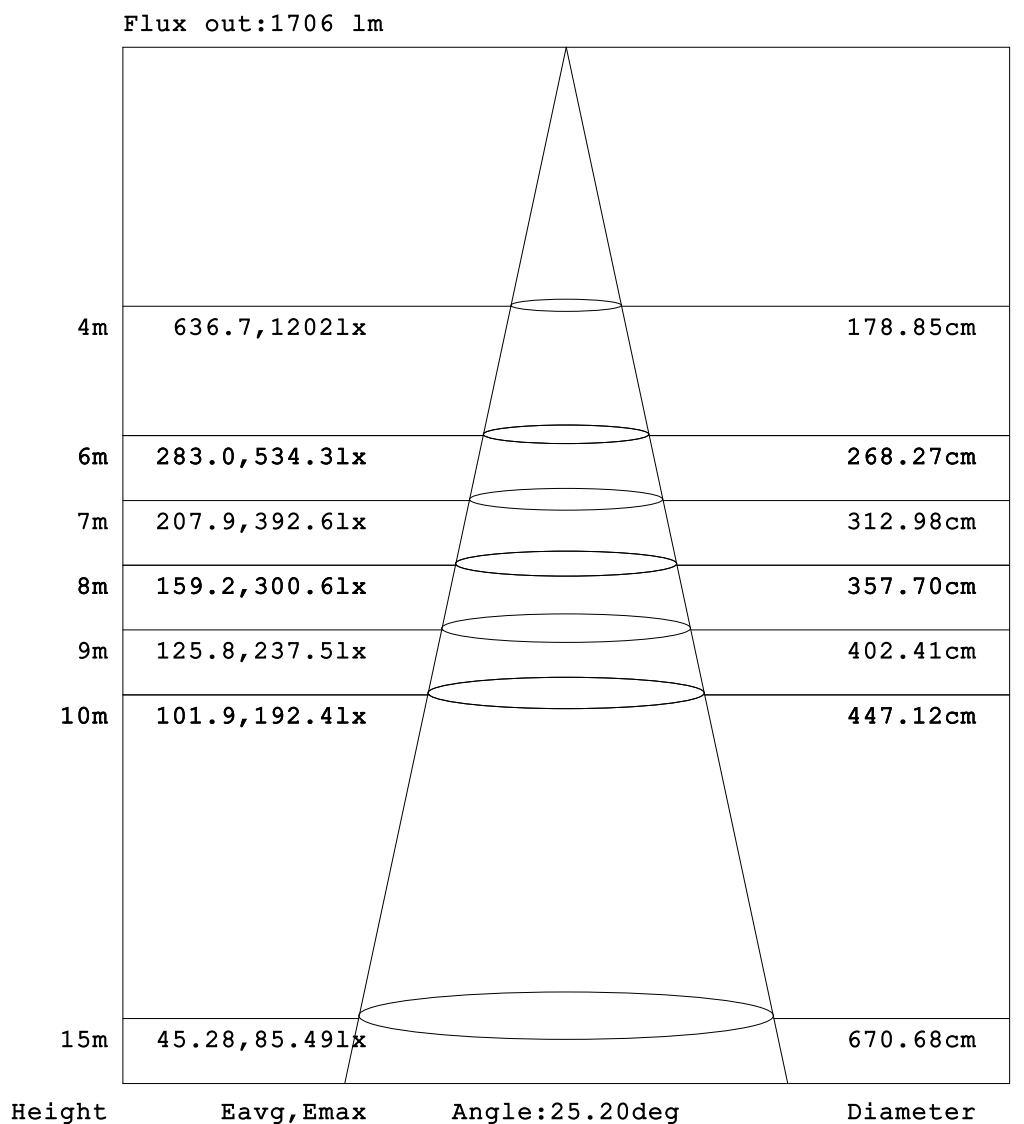
ISOCANDELA DIAGRAM



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Remarks:

AAI Figure



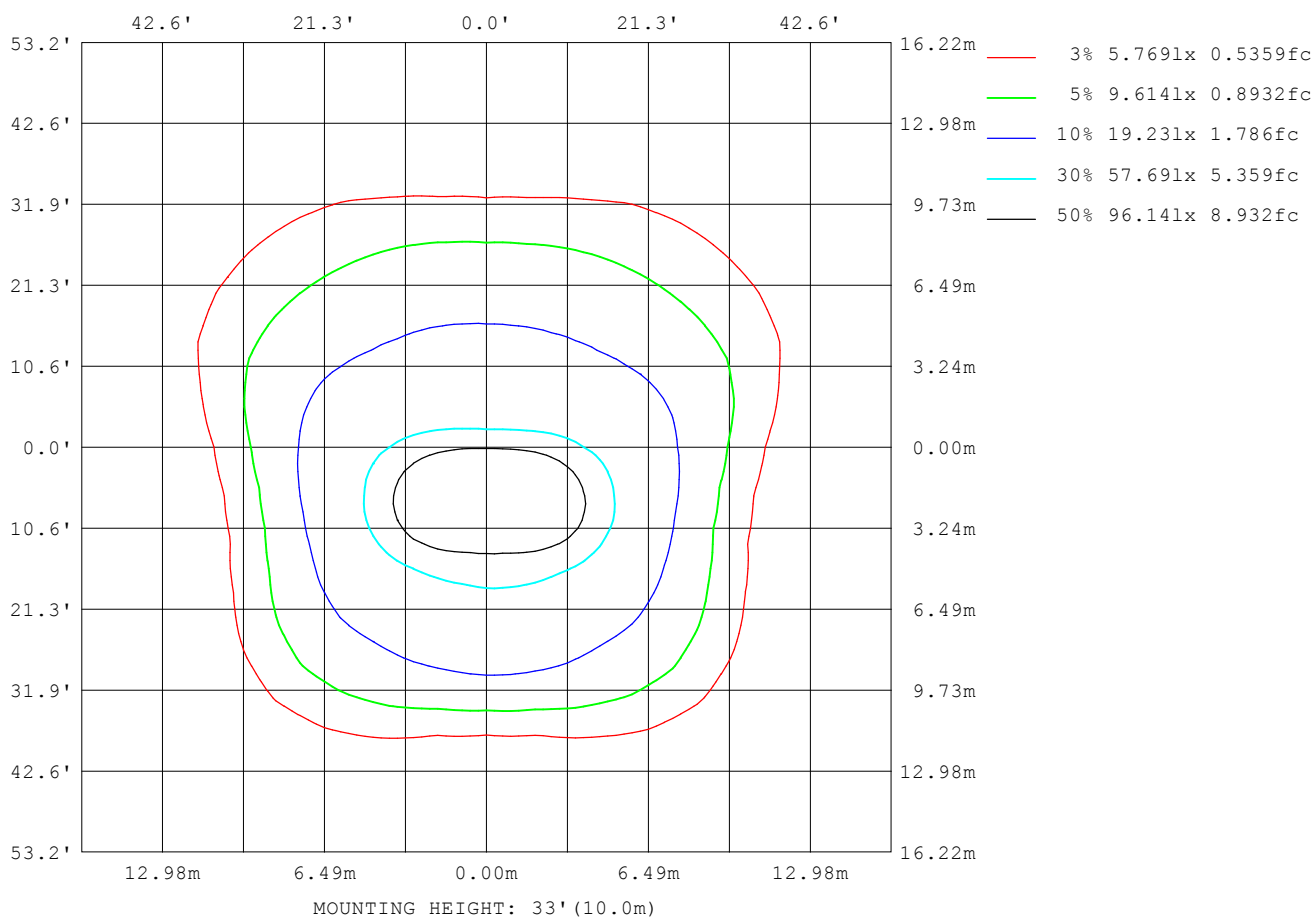
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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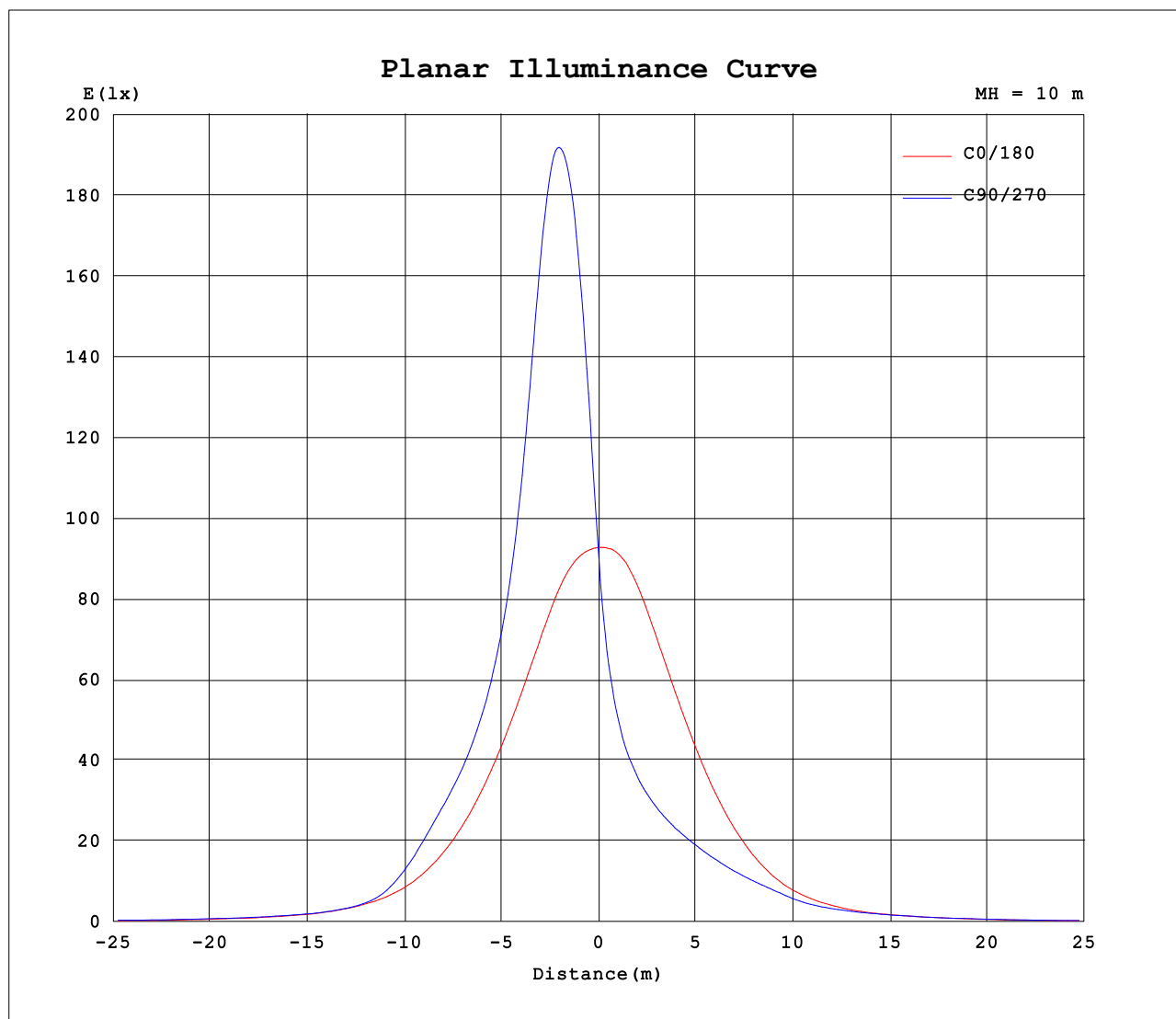
ISOLUX DIAGRAM



C Range: 0 - 360DEG
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Temperature: 25.3DEG
Operators: LYJ
Test Date: 2020-08-31

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 γ Interval: 0.5DEG
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Humidity: 65.0%
Test Distance: 26.000m [K=0.4574]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
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Temperature: 25.3DEG
Operators: LYJ
Test Date: 2020-08-31

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=0.4574]
Remarks: