

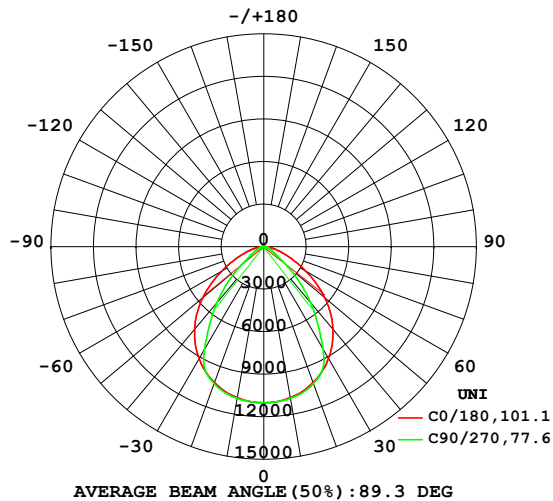
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

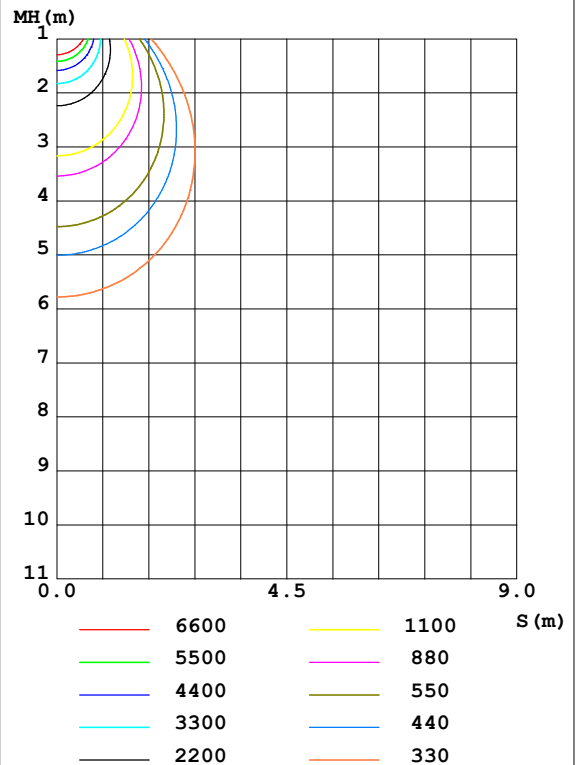
Test:U:229.7V I:0.6610A P:151.7W PF:0.9993 Freq:50.01Hz UTHDi:0% ITHDi:0% Lamp Flux:22525.9x1 lm					
NAME: LHB09-150-5070-L00403			TYPE:		WEIGHT:
SPEC.:			DIM.:		SERIAL No.:
MFR.:			SUR.:		Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 148.47 lm/W
MODEL	/	Imax(cd)	11012	S/MH(C0/180)	1.24	
NOMINAL POWER(W)	150	LOR(%)	100.0	S/MH(C90/270)	1.12	
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	22526	η UP,DN(C0-180)	0.0,50.0	
NOMINAL FLUX(lm)	22525.9	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.0	
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25	
TEST VOLTAGE(V)	230	η down(%)	100.0	CIBSE SHR MAX	1.35	

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	1081	1084	1087	1084	1081	1084	1087	1084	0- 10	1043	1043	4.63,4.63
20	1020	1028	1028	1028	1020	1028	1028	1028	10- 20	2994	4037	17.9,17.9
30	913.0	915.4	839.2	915.4	913.0	915.4	839.2	915.4	20- 30	4478	8515	37.8,37.8
40	760.2	708.7	514.1	708.7	760.2	708.7	514.1	708.7	30- 40	4908	13422	59.6,59.6
50	562.0	422.2	218.0	422.2	562.0	422.2	218.0	422.2	40- 50	4151	17573	78,78
60	338.5	210.7	79.31	210.7	338.5	210.7	79.31	210.7	50- 60	2705	20278	90,90
70	159.1	94.72	37.03	94.72	159.1	94.72	37.03	94.72	60- 70	1458	21736	96.5,96.5
80	54.01	31.84	12.96	31.84	54.01	31.84	12.96	31.84	70- 80	647.3	22384	99.4,99.4
90	0.1762	0.1264	0.0982	0.1264	0.1762	0.1264	0.0982	0.1264	80- 90	142.1	22526	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): 15653 lm

%lum = 69.5%

%lamp = 69.5%

Conical surface Flux(120deg): 20278 lm

%lum = 90.0%

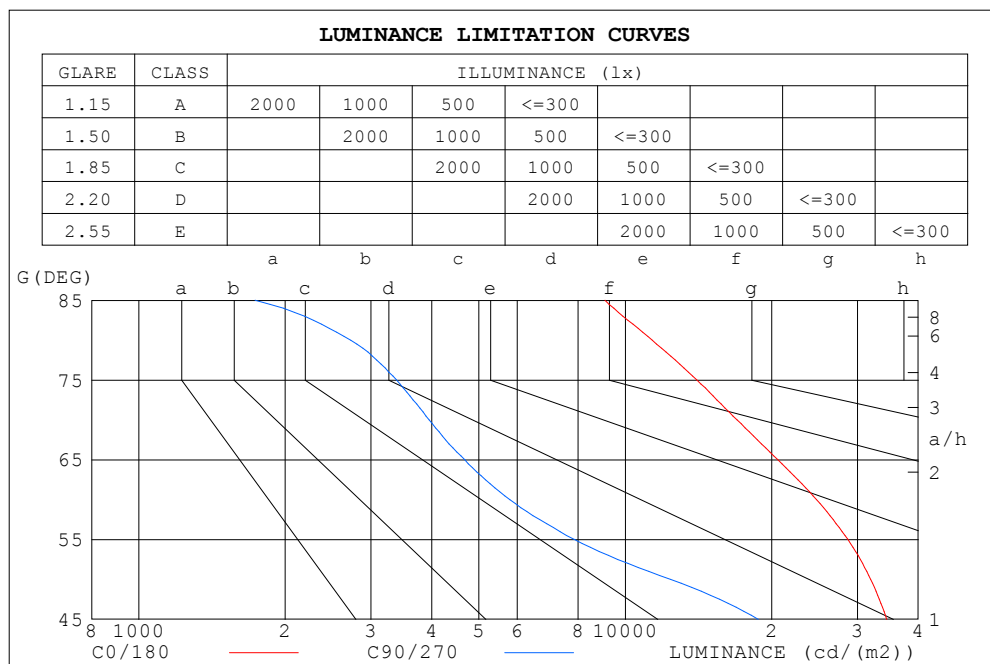
%lamp = 90.0%

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

LUMINANCE LIMITATION CURVES



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	9084	1735
80	11359	2726
75	14022	3388
70	16984	3954
65	20592	4675
60	24727	5793
55	28667	7855
50	31930	12385
45	34435	18766

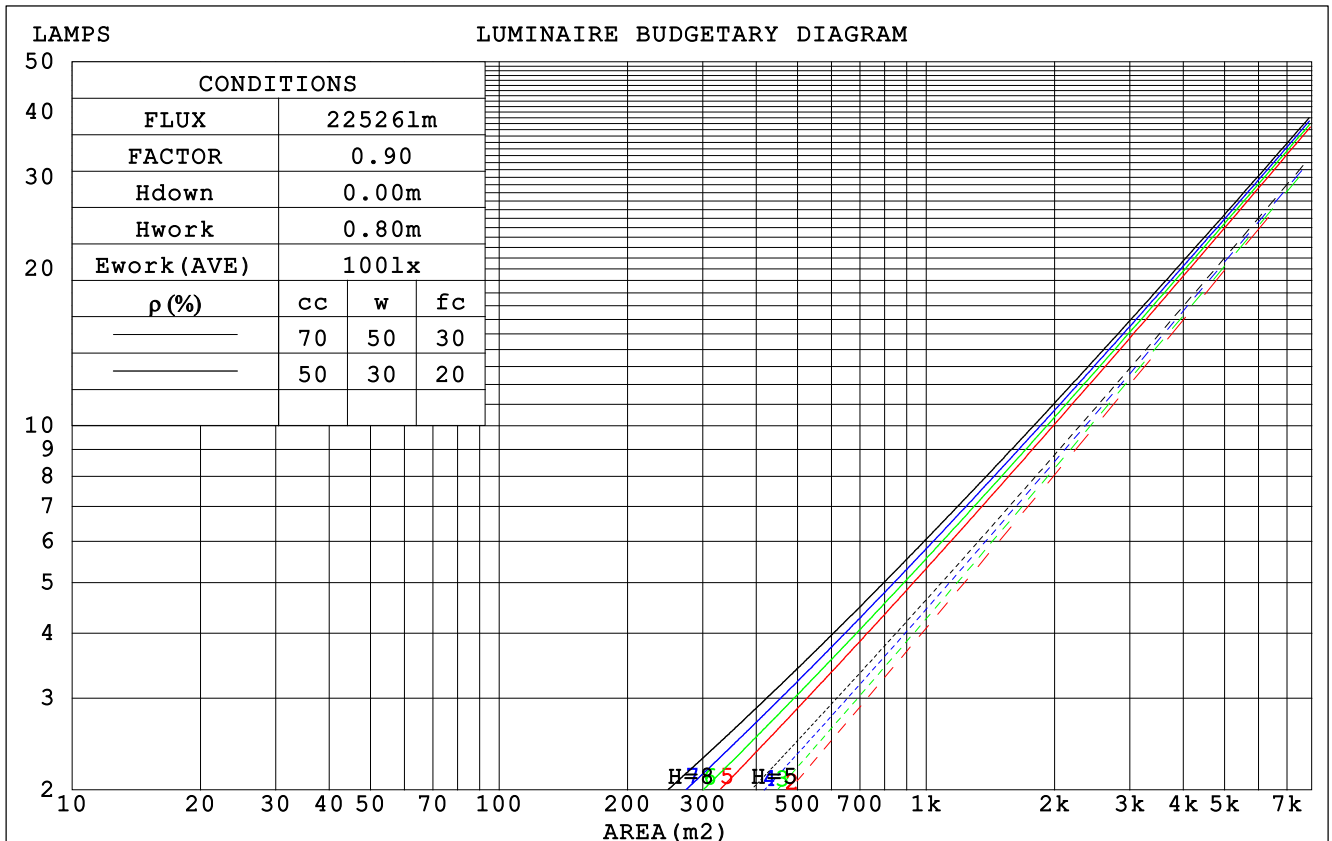
C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: LYJ
 Test Date: 2020-06-18

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

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	1.07	1.03	1.00	1.05	1.02	.99	1.01	.98	.96	.97	.95	.93	.93	.91	.90	.88
2.0	.96	.90	.85	.94	.88	.84	.90	.86	.82	.87	.83	.80	.84	.81	.79	.77
3.0	.86	.79	.73	.84	.78	.72	.81	.76	.71	.79	.74	.70	.76	.72	.69	.67
4.0	.77	.70	.64	.76	.69	.63	.74	.67	.62	.71	.66	.62	.69	.65	.61	.59
5.0	.70	.62	.56	.69	.61	.56	.67	.60	.55	.65	.59	.55	.63	.58	.54	.52
6.0	.64	.56	.50	.63	.55	.50	.61	.54	.49	.59	.53	.49	.58	.53	.48	.47
7.0	.58	.50	.45	.57	.50	.45	.56	.49	.44	.55	.49	.44	.53	.48	.44	.42
8.0	.54	.46	.40	.53	.45	.40	.52	.45	.40	.50	.44	.40	.49	.44	.40	.38
9.0	.49	.42	.37	.49	.42	.37	.48	.41	.36	.47	.41	.36	.46	.40	.36	.34
10.0	.46	.38	.34	.45	.38	.34	.44	.38	.33	.43	.38	.33	.43	.37	.33	.32



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

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	.252	.143	.045	.245	.140	.044	.232	.133	.042	.220	.127	.041	.209	.121	.039															
2.0	.243	.133	.041	.237	.131	.040	.226	.125	.039	.215	.121	.038	.206	.116	.037															
3.0	.230	.122	.037	.224	.120	.036	.215	.116	.035	.205	.113	.035	.197	.109	.034															
4.0	.216	.112	.033	.211	.111	.033	.203	.107	.032	.194	.104	.032	.187	.102	.031															
5.0	.203	.103	.030	.199	.102	.030	.191	.099	.029	.184	.097	.029	.177	.095	.028															
6.0	.190	.095	.027	.187	.094	.027	.180	.092	.027	.174	.090	.027	.168	.088	.026															
7.0	.179	.089	.025	.176	.088	.025	.170	.086	.025	.164	.084	.024	.159	.083	.024															
8.0	.169	.083	.023	.166	.082	.023	.161	.080	.023	.156	.079	.023	.151	.077	.023															
9.0	.160	.077	.022	.157	.077	.022	.152	.075	.021	.148	.074	.021	.143	.073	.021															
10.0	.151	.073	.020	.149	.072	.020	.145	.071	.020	.140	.070	.020	.136	.069	.020															

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	.176	.157	.139	.151	.134	.120	.103	.092	.083	.059	.054	.048	.019	.017	.016		
2.0	.166	.132	.104	.142	.114	.090	.097	.079	.063	.056	.046	.037	.018	.015	.012		
3.0	.157	.114	.080	.134	.098	.069	.092	.068	.049	.053	.040	.029	.017	.013	.009		
4.0	.149	.100	.063	.128	.087	.055	.088	.060	.039	.051	.035	.023	.016	.012	.008		
5.0	.141	.089	.051	.121	.077	.045	.084	.054	.031	.048	.032	.019	.016	.010	.006		
6.0	.134	.081	.042	.116	.070	.037	.080	.049	.026	.046	.029	.016	.015	.009	.005		
7.0	.128	.074	.036	.110	.064	.031	.076	.045	.022	.044	.026	.013	.014	.009	.004		
8.0	.122	.068	.031	.105	.059	.027	.073	.041	.019	.042	.024	.011	.014	.008	.004		
9.0	.117	.063	.027	.100	.055	.023	.070	.038	.017	.041	.023	.010	.013	.007	.003		
10.0	.111	.059	.024	.096	.051	.021	.067	.036	.015	.039	.021	.009	.013	.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	23.7	25.2	24.1	25.5	25.8	15.6	17.1	16.0	17.4	17.7
3H	24.8	26.1	25.2	26.4	26.8	16.3	17.6	16.7	17.9	18.3
4H	25.2	26.4	25.6	26.7	27.1	16.6	17.8	17.0	18.1	18.5
6H	25.4	26.5	25.8	26.9	27.3	16.7	17.8	17.1	18.2	18.6
8H	25.4	26.5	25.9	26.9	27.3	16.7	17.8	17.2	18.2	18.6
12H	25.5	26.5	25.9	26.9	27.3	16.7	17.7	17.2	18.1	18.5
4H 2H	23.8	25.0	24.2	25.3	25.7	17.3	18.5	17.7	18.9	19.3
3H	25.1	26.0	25.5	26.4	26.8	18.1	19.1	18.5	19.5	19.9
4H	25.5	26.4	26.0	26.8	27.3	18.3	19.2	18.8	19.6	20.1
6H	25.9	26.6	26.3	27.1	27.5	18.5	19.3	19.0	19.7	20.2
8H	25.9	26.7	26.4	27.1	27.6	18.5	19.2	19.0	19.7	20.1
12H	26.0	26.6	26.5	27.1	27.6	18.5	19.1	19.0	19.6	20.1
8H 4H	25.5	26.2	26.0	26.7	27.1	19.1	19.8	19.5	20.2	20.7
6H	25.9	26.5	26.4	27.0	27.4	19.3	19.9	19.8	20.4	20.8
8H	26.0	26.5	26.5	27.1	27.5	19.3	19.8	19.8	20.4	20.8
12H	26.1	26.6	26.6	27.1	27.6	19.3	19.8	19.8	20.3	20.9
12H 4H	25.5	26.1	25.9	26.6	27.1	19.2	19.8	19.7	20.3	20.8
6H	25.9	26.4	26.4	26.8	27.4	19.4	20.0	20.0	20.4	21.0
8H	26.0	26.5	26.5	27.0	27.5	19.5	20.0	20.0	20.5	21.0
CIE190: 2010										

CIE190: 2010
Area: 0.1105 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%
Test Distance:26.000m [K=0.4589]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UTILIZATION FACTORS TABLE

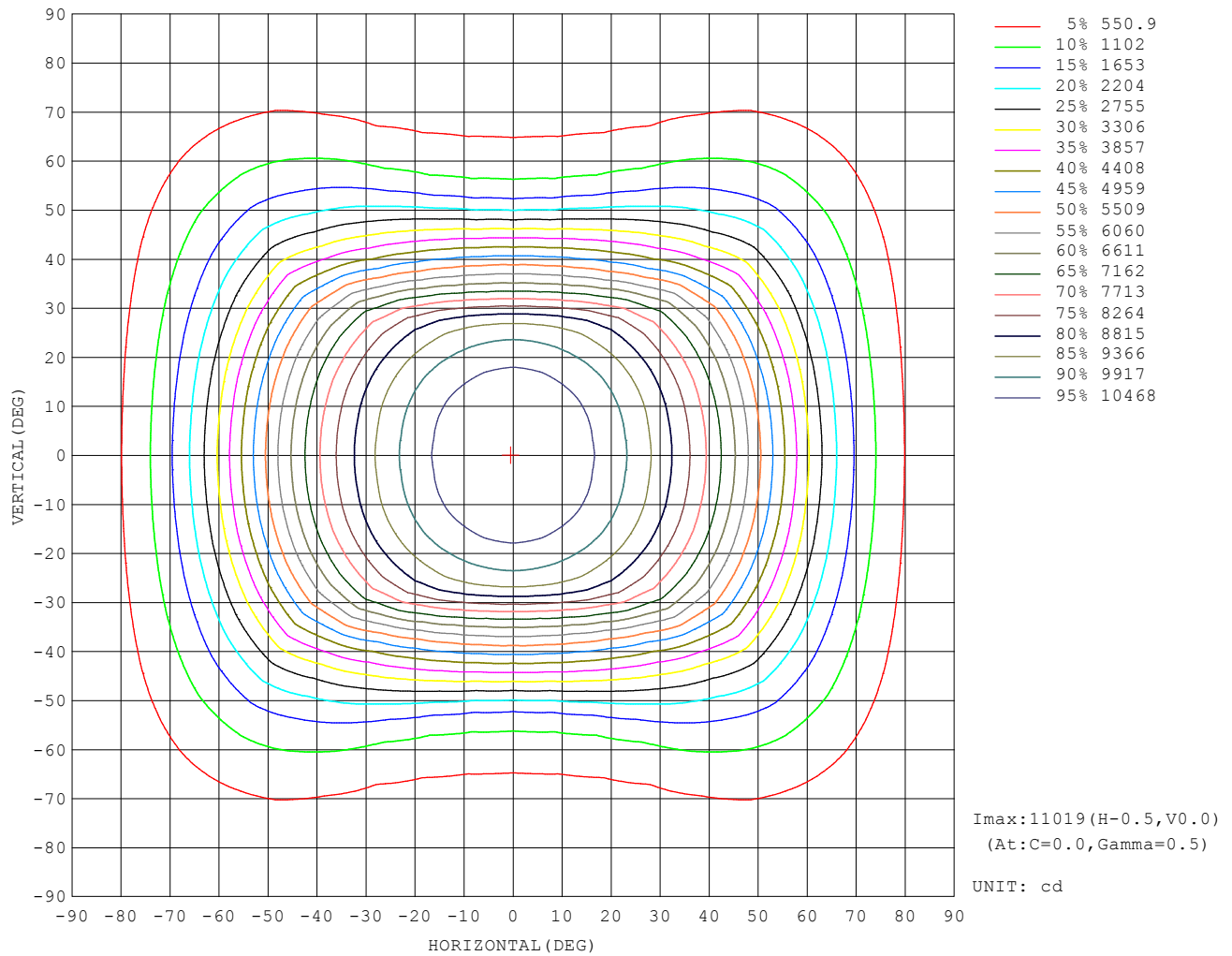
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	66	56	50	65	56	50	64	55	50	44
0.80	76	66	60	75	66	60	74	65	59	54
1.00	84	75	69	83	74	68	81	75	68	62
1.25	90	82	76	89	81	76	87	80	75	69
1.50	95	87	81	93	86	81	91	84	80	73
2.00	100	94	88	99	92	88	96	90	86	79
2.50	103	97	92	102	96	91	98	93	90	82
3.00	106	101	96	104	99	95	100	96	93	85
4.00	109	105	101	107	103	100	103	100	97	89
5.00	111	107	104	109	105	102	104	102	99	91
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

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 Operators: LYJ
 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%
 Test Distance: 26.000m [K=0.4589]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

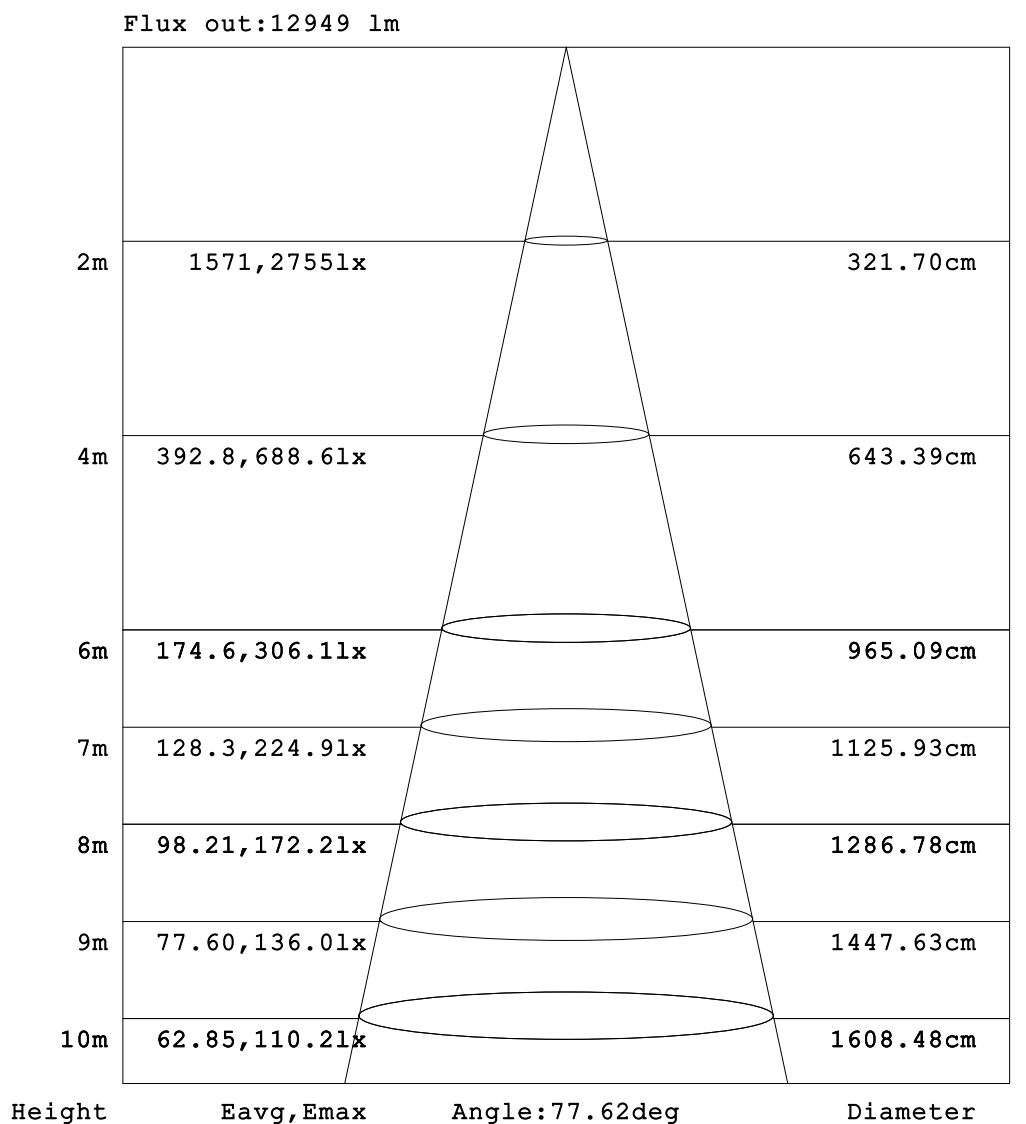
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
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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



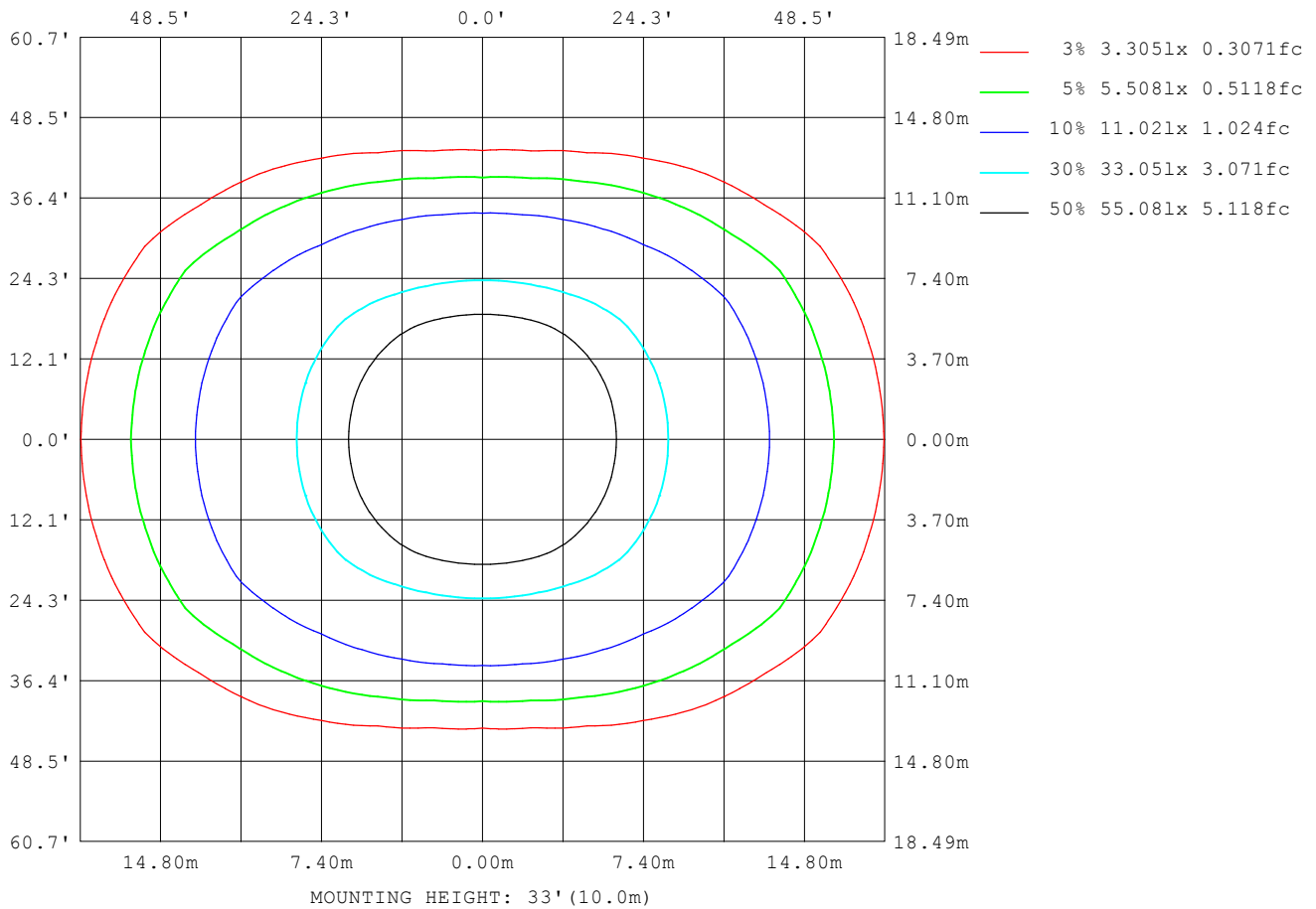
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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γ Range: 0 - 90DEG
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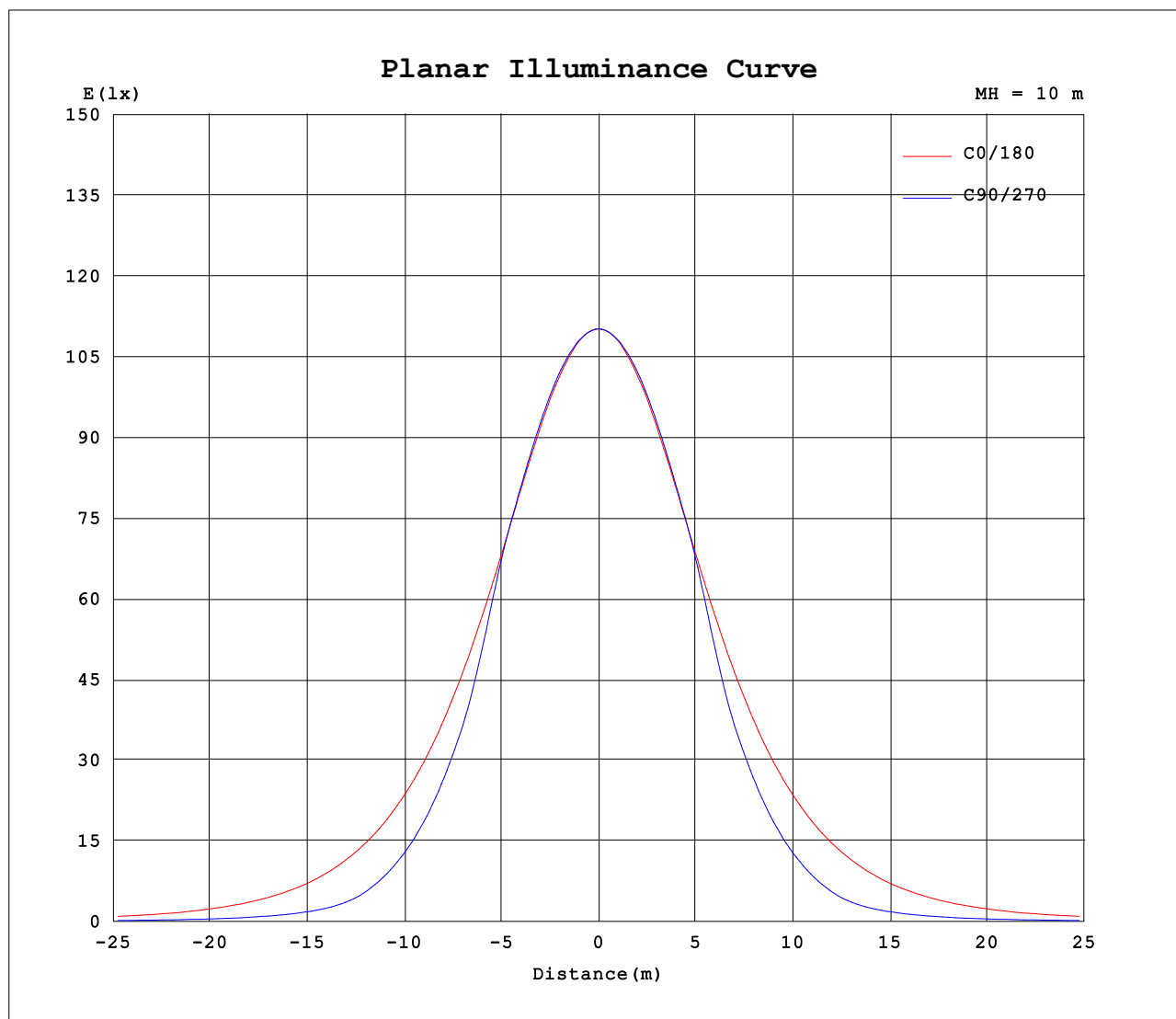
ISOLUX DIAGRAM



C Range: 0 - 360DEG
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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:

Planar Illuminance Curve



C Range: 0 - 360DEG
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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: