

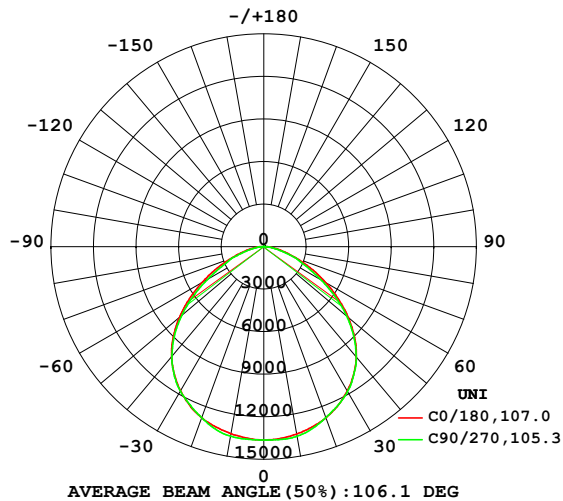
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

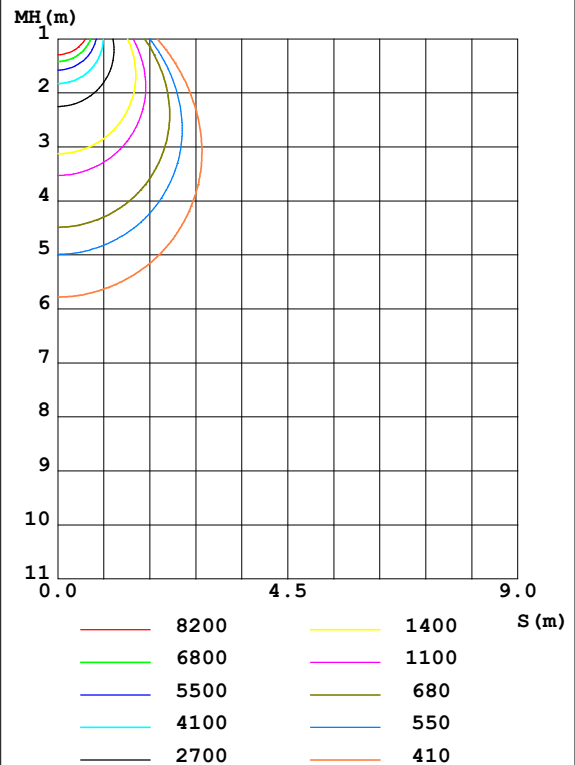
Test:U:229.6V I:1.0697A P:242.0W PF:0.9852 Freq:50.01Hz UTHDi:0% ITHDi:0% Lamp Flux:35766.1x1 lm		
NAME: LHB09-240-5070-L00404	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 147.81 lm/W			
MODEL	/	I _{max} (cd)	13657	S/MH (C0/180)	1.28
NOMINAL POWER(W)	/	LOR(%)	100.0	S/MH (C90/270)	1.28
RATED VOLTAGE(V)	230	TOTAL FLUX (lm)	35766	η UP,DN (C0-180)	0.0,50.1
NOMINAL FLUX(lm)	35766.1	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0,49.9
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: 15.0DEG
Test Speed: HIGH
Temperature:26.6DEG
Operators:LYJ
Test Date:2020-11-11

γ Range: 0 - 180DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.426
Humidity:49.8%
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	1341	1353	1357	1349	1339	1349	1357	1353	0- 10	1296	1296	3.62,3.62
20	1284	1293	1283	1290	1283	1294	1283	1295	10- 20	3744	5040	14.1,14.1
30	1176	1178	1182	1175	1175	1171	1177	1175	20- 30	5712	10753	30.1,30.1
40	1016	1015	1017	1012	1012	1008	1009	1012	30- 40	6900	17652	49.4,49.4
50	778.8	777.5	764.5	771.9	777.3	768.1	755.4	773.4	40- 50	6938	24591	68.8,68.8
60	502.0	495.6	463.0	489.8	499.6	484.2	452.5	487.6	50- 60	5616	30206	84.5,84.5
70	252.9	241.2	242.9	236.2	250.8	233.4	235.4	234.7	60- 70	3507	33713	94.3,94.3
80	90.74	88.17	74.06	85.77	90.68	84.77	70.96	85.19	70- 80	1640	35354	98.8,98.8
90	0	0	0	0	0	0	0	0	80- 90	412.5	35766	100,100
100	0	0	0	0	0	0	0	0	90-100	0	35766	100,100
110	0	0	0	0	0	0	0	0	100-110	0	35766	100,100
120	0	0	0	0	0	0	0	0	110-120	0	35766	100,100
130	0	0	0	0	0	0	0	0	120-130	0	35766	100,100
140	0	0	0	0	0	0	0	0	130-140	0	35766	100,100
150	0	0	0	0	0	0	0	0	140-150	0	35766	100,100
160	0	0	0	0	0	0	0	0	150-160	0	35766	100,100
170	0	0	0	0	0	0	0	0	160-170	0	35766	100,100
180	0	0	0	0	0	0	0	0	170-180	0	35766	100,100
DEG	LUMINOUS INTENSITY:×10cd									UNIT:lm		

Conical surface Flux(90deg): 21205 lm

%lum = 59.3%

%lamp = 59.3%

Conical surface Flux(120deg): 30206 lm

%lum = 84.5%

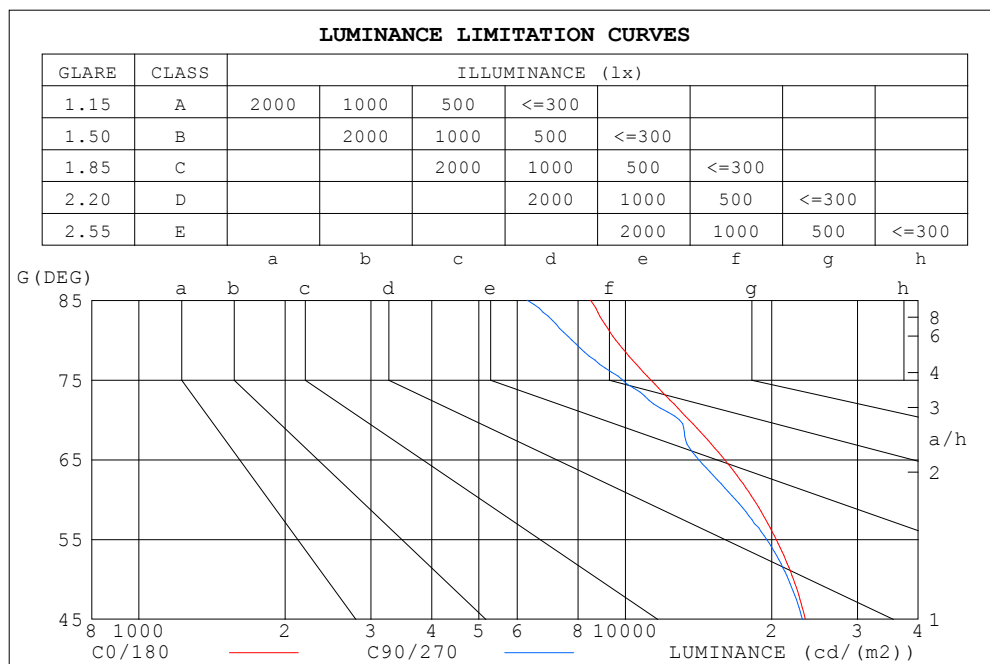
%lamp = 84.5%

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 γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.426
Humidity:49.8%
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Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINANCE LIMITATION CURVES



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	8486	6285
80	9561	7765
75	11286	9873
70	13527	12927
65	16008	14161
60	18369	16858
55	20434	19522
50	22167	21654
45	23448	23133

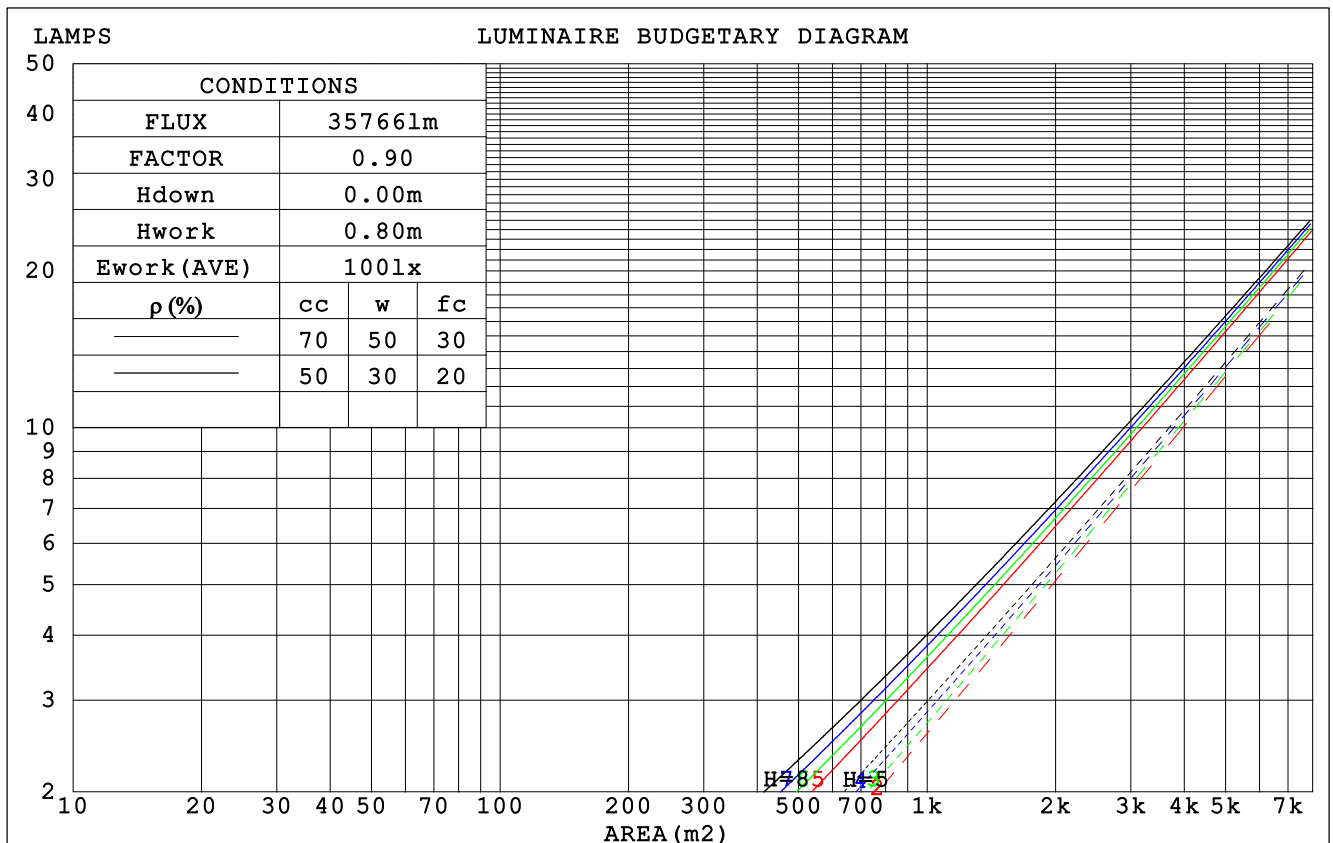
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EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

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	1.05	1.01	.98	1.03	.99	.96	.99	.96	.93	.95	.93	.90	.91	.89	.88	.86
2.0	.93	.86	.81	.91	.85	.80	.87	.82	.78	.84	.80	.76	.81	.78	.75	.73
3.0	.82	.74	.68	.80	.73	.67	.77	.71	.66	.75	.70	.65	.72	.68	.64	.62
4.0	.73	.65	.58	.72	.64	.58	.69	.62	.57	.67	.61	.56	.65	.60	.55	.53
5.0	.65	.57	.50	.64	.56	.50	.62	.55	.50	.60	.54	.49	.58	.53	.49	.46
6.0	.59	.50	.44	.58	.50	.44	.56	.49	.44	.55	.48	.43	.53	.47	.43	.41
7.0	.54	.45	.39	.53	.45	.39	.51	.44	.39	.50	.43	.38	.49	.43	.38	.36
8.0	.49	.41	.35	.48	.40	.35	.47	.40	.35	.46	.39	.34	.45	.39	.34	.32
9.0	.45	.37	.32	.44	.37	.31	.43	.36	.31	.42	.36	.31	.41	.35	.31	.29
10.0	.42	.34	.29	.41	.34	.29	.40	.33	.28	.39	.33	.28	.38	.32	.28	.26



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γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.426
Humidity:49.8%
Test Distance:26.000m [K=0.4574]
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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	.283	.161	.051	.276	.157	.050	.262	.151	.048	.250	.144	.046	.239	.139	.045															
2.0	.270	.148	.045	.264	.146	.045	.253	.141	.044	.242	.136	.043	.232	.131	.041															
3.0	.253	.135	.040	.248	.133	.040	.238	.129	.039	.228	.125	.038	.220	.122	.038															
4.0	.236	.123	.036	.231	.121	.036	.222	.118	.035	.214	.115	.035	.206	.112	.034															
5.0	.220	.112	.032	.216	.111	.032	.208	.108	.032	.200	.106	.031	.193	.103	.031															
6.0	.205	.103	.029	.202	.102	.029	.195	.100	.029	.188	.098	.029	.182	.096	.028															
7.0	.192	.095	.027	.189	.094	.027	.182	.092	.027	.176	.090	.026	.171	.089	.026															
8.0	.180	.088	.025	.177	.087	.025	.171	.086	.024	.166	.084	.024	.161	.083	.024															
9.0	.169	.082	.023	.167	.081	.023	.162	.080	.023	.157	.079	.023	.152	.077	.022															
10.0	.160	.077	.021	.157	.076	.021	.153	.075	.021	.148	.074	.021	.144	.073	.021															

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	.178	.156	.137	.153	.134	.117	.104	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.169	.132	.101	.145	.114	.087	.099	.079	.061	.057	.046	.036	.018	.015	.012	
3.0	.161	.114	.077	.138	.099	.066	.095	.068	.047	.055	.040	.027	.018	.013	.009	
4.0	.154	.101	.060	.132	.087	.052	.091	.061	.037	.052	.036	.022	.017	.012	.007	
5.0	.146	.090	.049	.126	.078	.042	.087	.055	.030	.050	.032	.018	.016	.010	.006	
6.0	.139	.082	.040	.120	.071	.035	.083	.050	.025	.048	.029	.015	.015	.010	.005	
7.0	.133	.075	.034	.114	.065	.030	.079	.045	.021	.046	.027	.013	.015	.009	.004	
8.0	.127	.069	.029	.109	.060	.026	.075	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.121	.064	.026	.104	.056	.022	.072	.039	.016	.042	.023	.010	.014	.008	.003	
10.0	.115	.060	.023	.099	.052	.020	.069	.037	.014	.040	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
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 Operators:LYJ
 Test Date:2020-11-11

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.426
 Humidity:49.8%
 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	25.6	27.2	26.0	27.5	27.8	25.2	26.8	25.6	27.1	27.4
3H	26.9	28.3	27.3	28.6	29.0	26.4	27.8	26.8	28.1	28.5
4H	27.3	28.6	27.7	29.0	29.3	26.7	28.1	27.1	28.4	28.8
6H	27.6	28.8	28.0	29.2	29.5	26.9	28.2	27.4	28.5	28.9
8H	27.6	28.8	28.1	29.2	29.6	27.0	28.2	27.4	28.6	29.0
12H	27.7	28.8	28.1	29.2	29.6	27.0	28.1	27.5	28.5	29.0
4H 2H	26.0	27.4	26.4	27.7	28.1	25.7	27.0	26.1	27.3	27.7
3H	27.5	28.6	27.9	29.0	29.4	27.0	28.1	27.5	28.5	28.9
4H	28.0	29.0	28.5	29.4	29.9	27.5	28.5	27.9	28.9	29.3
6H	28.4	29.3	28.9	29.7	30.2	27.8	28.7	28.2	29.1	29.6
8H	28.5	29.3	29.0	29.8	30.2	27.9	28.7	28.3	29.1	29.6
12H	28.6	29.3	29.1	29.8	30.3	27.9	28.6	28.4	29.1	29.6
8H 4H	28.2	29.0	28.6	29.4	29.9	27.7	28.5	28.1	28.9	29.4
6H	28.7	29.3	29.2	29.8	30.3	28.1	28.7	28.5	29.2	29.7
8H	28.8	29.4	29.4	29.9	30.4	28.2	28.8	28.7	29.3	29.8
12H	29.0	29.5	29.5	30.0	30.6	28.3	28.8	28.8	29.3	29.9
12H 4H	28.2	28.9	28.7	29.4	29.8	27.7	28.4	28.2	28.9	29.4
6H	28.7	29.3	29.2	29.7	30.3	28.1	28.7	28.6	29.2	29.7
8H	28.9	29.4	29.4	29.9	30.5	28.2	28.8	28.8	29.3	29.8
CIE190: 2010										

CIE190: 2010
Area: 0.221 m2

C Range: 0 - 360DEG
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γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.426
Humidity: 49.8%
Test Distance: 26.000m [K=0.4574]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

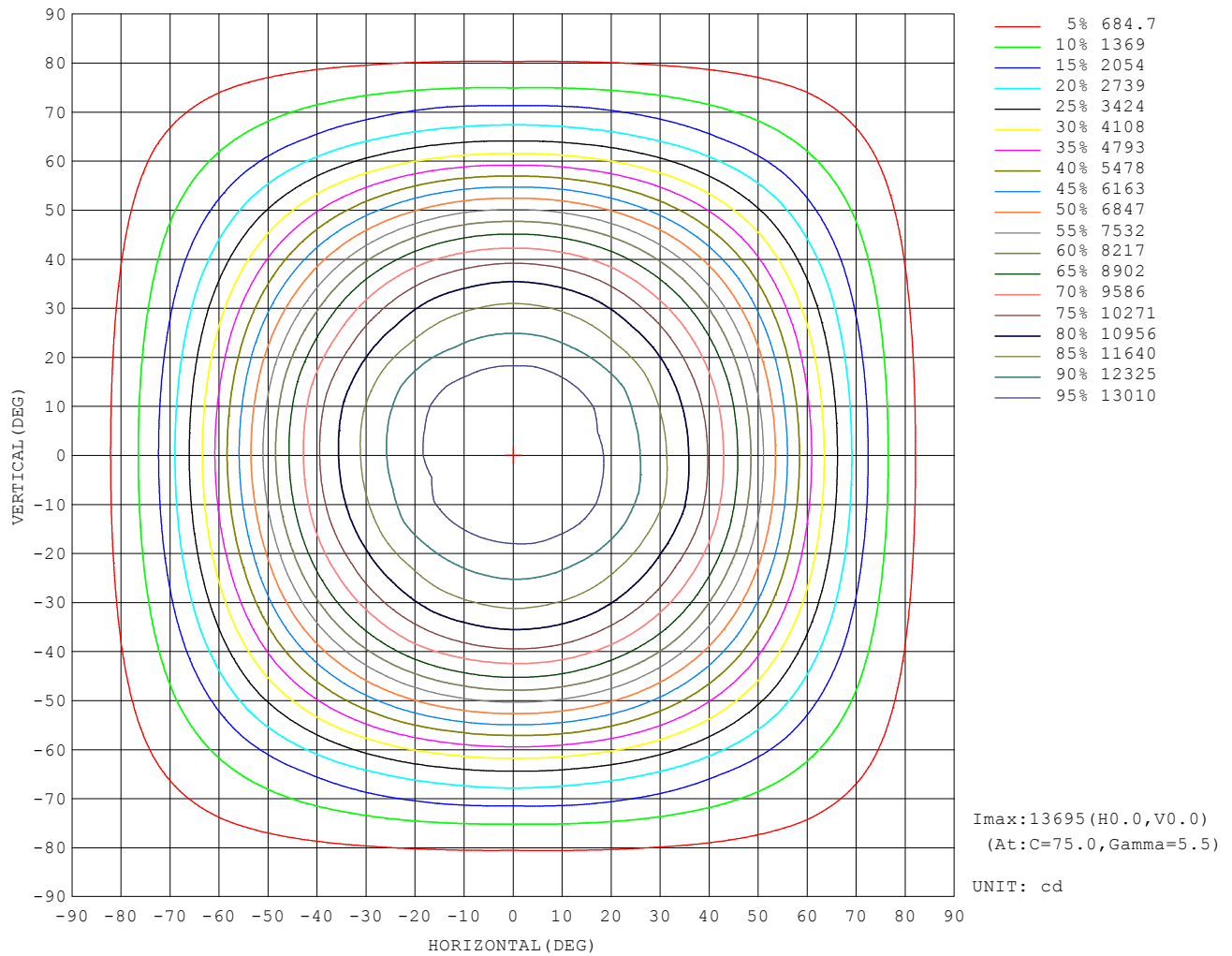
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	60	49	42	59	49	42	58	48	42	36
0.80	70	59	52	69	59	52	68	58	52	45
1.00	79	68	62	78	68	61	76	69	61	54
1.25	86	76	69	84	75	69	82	74	68	61
1.50	91	82	75	89	81	75	86	79	74	66
2.00	97	89	83	95	88	83	92	86	81	74
2.50	101	94	88	99	92	87	95	90	85	77
3.00	104	98	93	102	96	91	98	93	89	81
4.00	108	102	98	105	101	97	101	97	94	85
5.00	110	105	102	107	103	100	103	100	97	88
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: 49.8%
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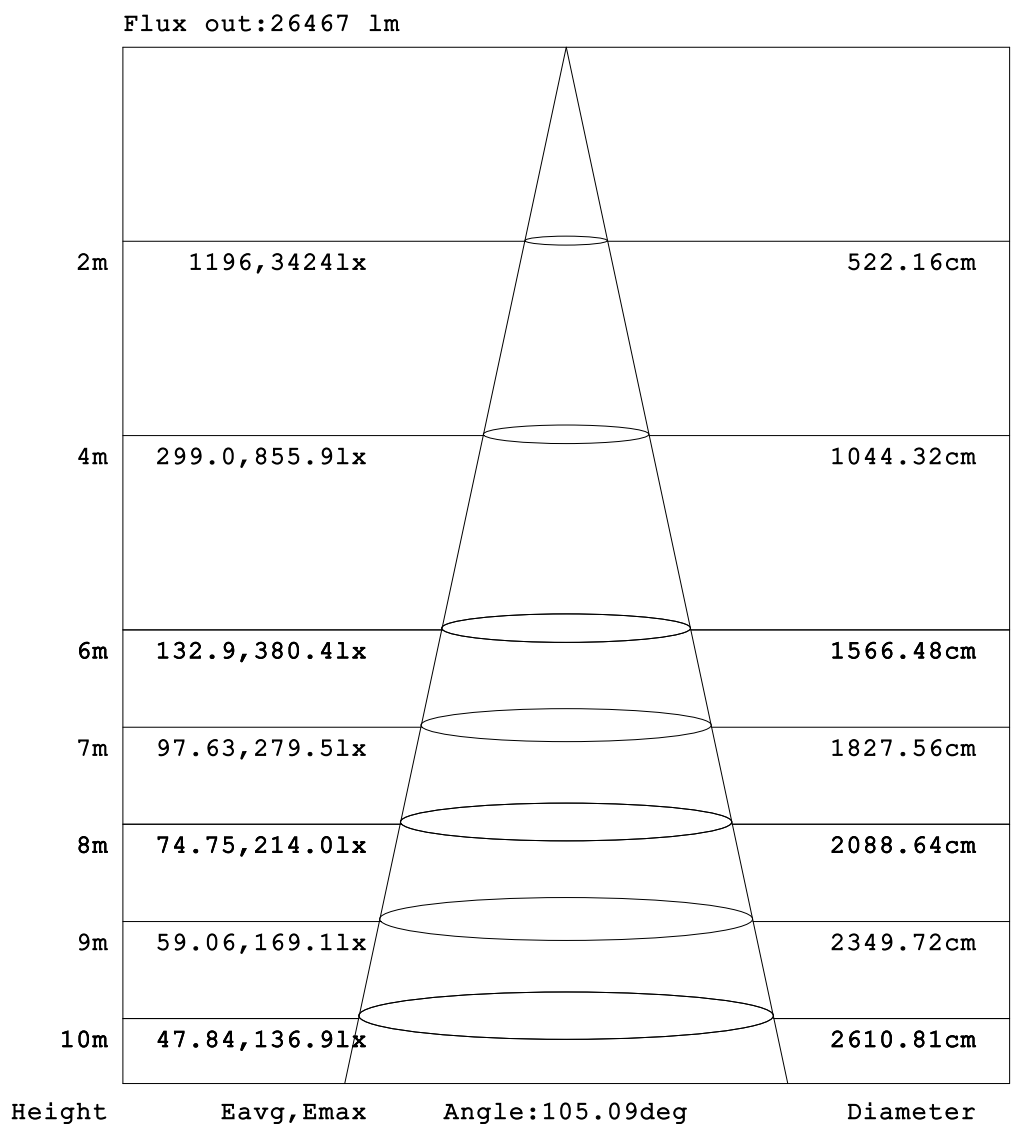
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
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Remarks:

AAI Figure



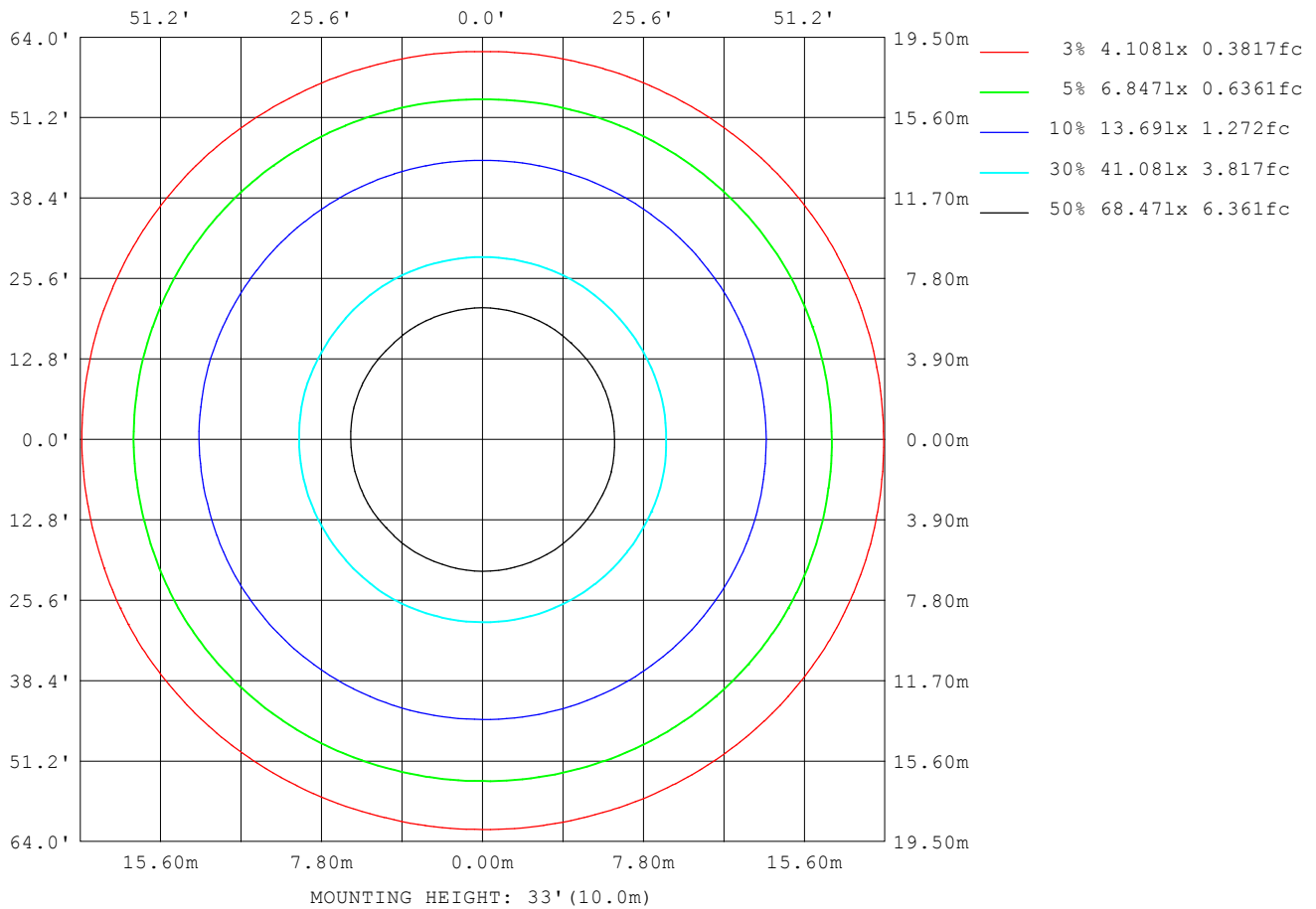
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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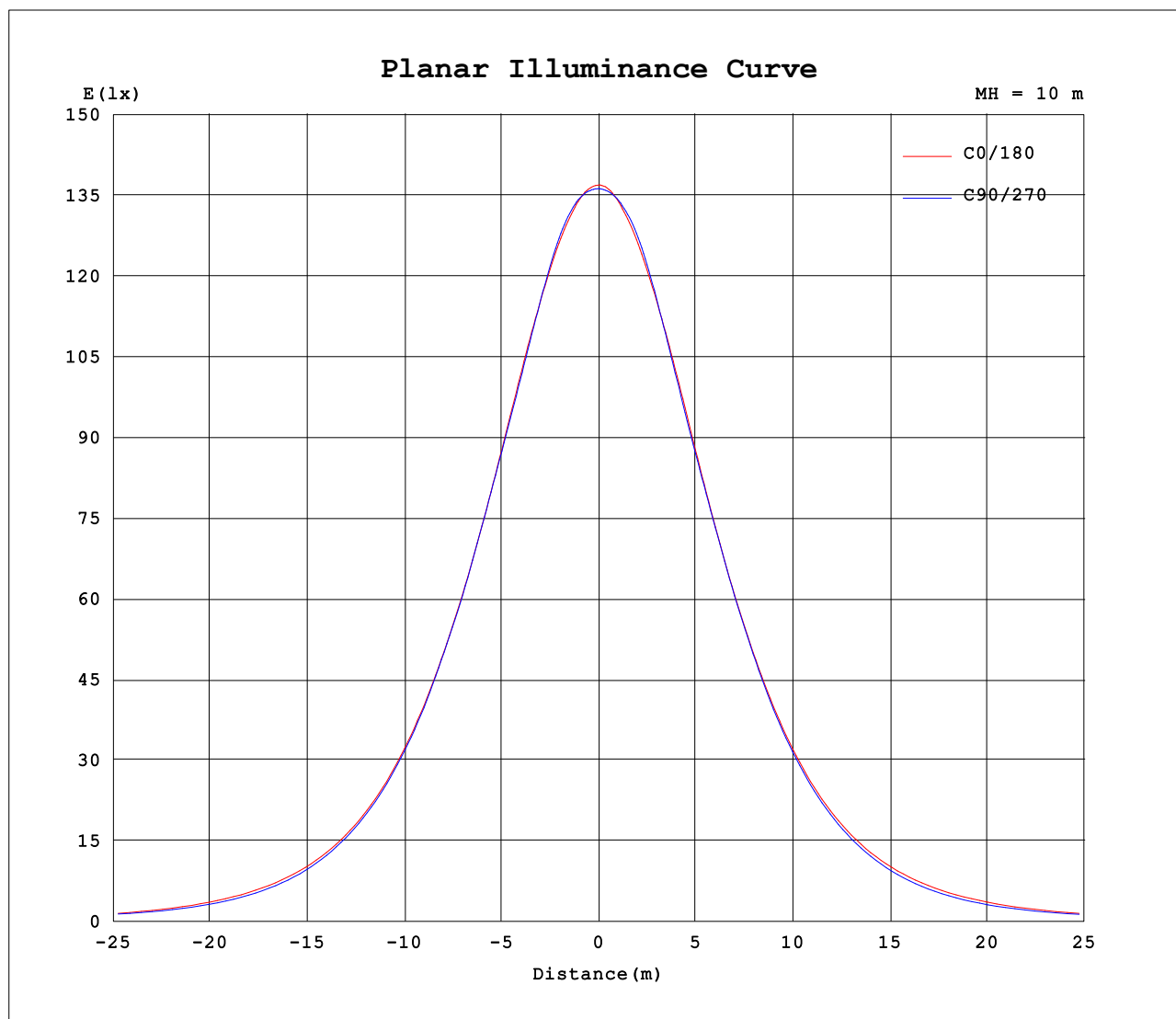
ISOLUX DIAGRAM



C Range: 0 - 360DEG
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γ Range: 0 - 180DEG
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Remarks:

Planar Illuminance Curve



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γ Range: 0 - 180DEG
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Humidity: 49.8%
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Remarks: