

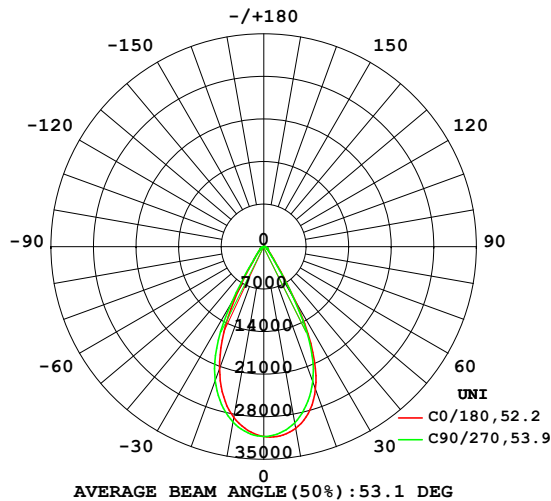
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

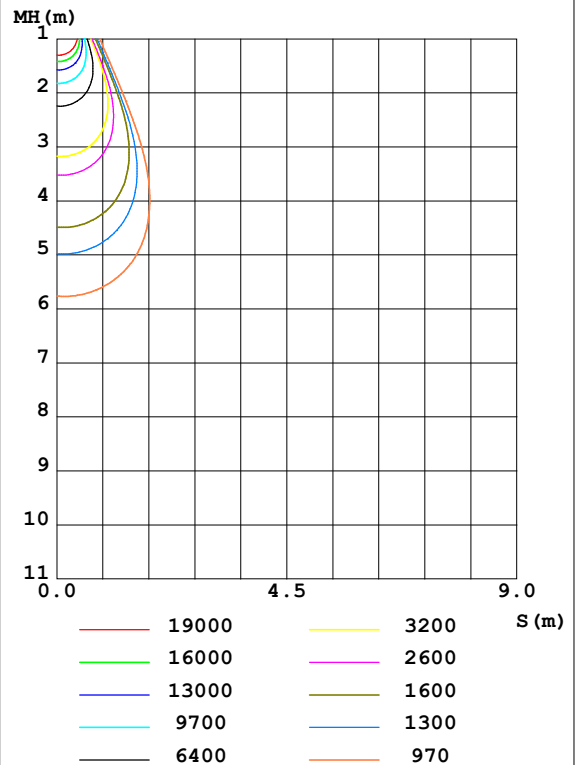
Test:U:230.0V I:0.6586A P:149.7W PF:0.9885 Freq:49.99Hz Lamp Flux:23374.5x1 lm					
NAME: FL23-150-5070-F19202			TYPE:		WEIGHT:
SPEC.:			DIM.:		SERIAL No.:
MFR.:			SUR.:		Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 156.12 lm/W			
MODEL	-	I _{max} (cd)	31346	S/MH (C0/180)	0.76
NOMINAL POWER(W)	150	LOR(%)	100.0	S/MH (C90/270)	0.79
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	23375	η UP,DN(C0-180)	0.0,50.3
NOMINAL FLUX(lm)	23374.5	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,49.7
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE (V)	230	η down (%)	100.0	CIBSE SHR MAX	0.80

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:WJH
Test Date:2020-07-06

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.426
Humidity:65.0%
Test Distance:9.350m [K=1.0000]
Remarks:

Checker: LI

Assessor:

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	3034	3008	2940	2882	2852	2868	2929	2991	0- 10	2893	2893	12.4,12.4
20	2490	2463	2360	2217	2132	2201	2342	2428	10- 20	7488	10382	44.4,44.4
30	1069	1059	1005	923.9	864.3	923.3	1051	1068	20- 30	7886	18267	78.2,78.2
40	212.5	204.1	201.7	199.1	198.9	205.3	212.7	213.2	30- 40	2848	21115	90.3,90.3
50	95.48	91.07	89.93	87.62	86.54	84.41	89.83	90.16	40- 50	1039	22154	94.8,94.8
60	69.44	53.78	68.22	51.60	61.38	49.85	65.10	52.32	50- 60	607.2	22762	97.4,97.4
70	34.76	27.16	30.31	26.23	32.31	26.87	32.93	27.90	60- 70	407.4	23169	99.1,99.1
80	8.883	6.768	6.042	6.568	8.728	8.066	9.917	8.240	70- 80	180.3	23349	99.9,99.9
90	0.2704	0.2541	0.2526	0.2618	0.2785	0.3074	0.3200	0.2983	80- 90	25.32	23375	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): 21721 lm

%lum = 92.9%

%lamp = 92.9%

Conical surface Flux(120deg): 22762 lm

%lum = 97.4%

%lamp = 97.4%

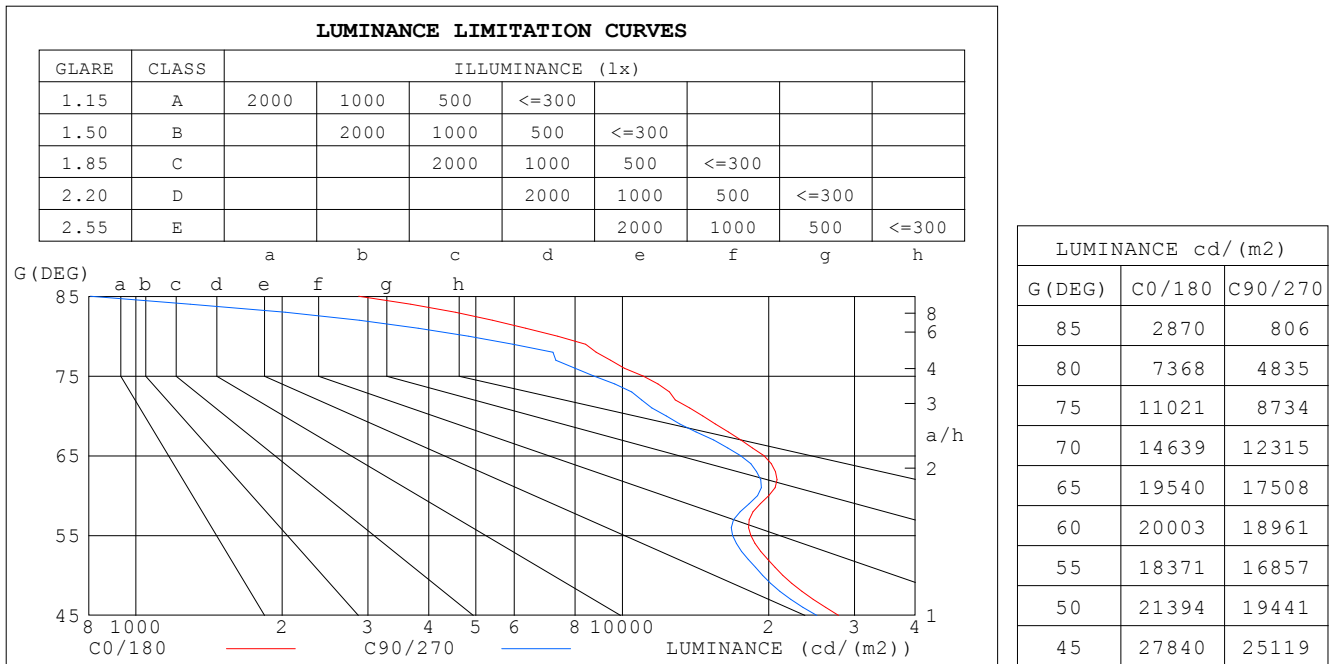
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γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.426
Humidity:65.0%
Test Distance:9.350m [K=1.0000]
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Assessor:

LUMINANCE LIMITATION CURVES



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Temperature: 25.3DEG
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Test Date: 2020-07-06

Checker: LI

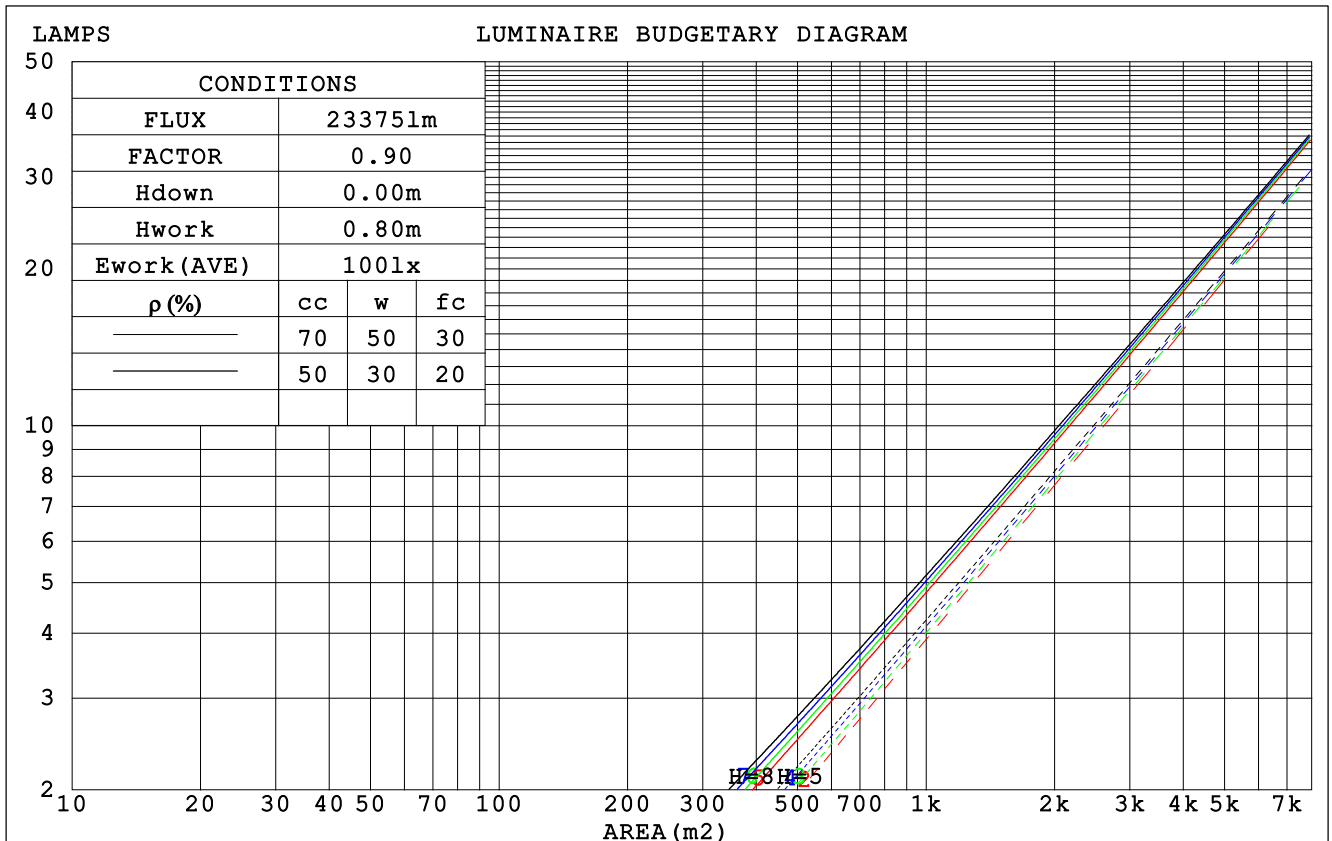
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Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.426
Humidity: 65.0%
Test Distance: 9.350m [K=1.0000]
Remarks:

Assessor:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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			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	1.11	1.08	1.06	1.08	1.06	1.04	1.04	1.03	1.01	1.01	.99	.98	.97	.96	.95	.93
2.0	1.03	.99	.95	1.01	.98	.94	.98	.95	.92	.95	.93	.90	.92	.90	.88	.87
3.0	.96	.91	.87	.95	.90	.87	.92	.88	.85	.90	.87	.84	.87	.85	.83	.81
4.0	.90	.85	.80	.89	.84	.80	.87	.82	.79	.85	.81	.78	.83	.80	.77	.76
5.0	.85	.79	.75	.84	.78	.74	.82	.77	.74	.80	.76	.73	.79	.75	.72	.71
6.0	.80	.74	.70	.79	.74	.70	.78	.73	.69	.76	.72	.69	.75	.71	.68	.67
7.0	.75	.70	.66	.75	.69	.65	.74	.69	.65	.72	.68	.65	.71	.67	.64	.63
8.0	.71	.66	.62	.71	.65	.62	.70	.65	.61	.69	.64	.61	.68	.64	.61	.59
9.0	.68	.62	.58	.67	.62	.58	.66	.61	.58	.66	.61	.58	.65	.61	.58	.56
10.0	.64	.59	.55	.64	.59	.55	.63	.58	.55	.62	.58	.55	.62	.58	.55	.53



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γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.426
Humidity: 65.0%
Test Distance: 9.350m [K=1.0000]
Remarks:

Checker: LI

Assessor:

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	.103	.033	.174	.099	.031	.161	.092	.030	.150	.086	.028	.139	.080	.026	
2.0	.172	.094	.029	.166	.091	.028	.155	.086	.027	.146	.082	.026	.137	.077	.024	
3.0	.162	.086	.026	.158	.084	.025	.149	.081	.024	.140	.077	.024	.132	.073	.023	
4.0	.154	.080	.023	.150	.078	.023	.142	.075	.022	.134	.072	.022	.128	.069	.021	
5.0	.146	.074	.021	.142	.073	.021	.135	.070	.021	.129	.068	.020	.123	.066	.020	
6.0	.138	.069	.020	.135	.068	.020	.129	.066	.019	.124	.064	.019	.118	.062	.019	
7.0	.132	.065	.018	.129	.064	.018	.124	.063	.018	.119	.061	.018	.114	.059	.017	
8.0	.126	.061	.017	.123	.061	.017	.119	.059	.017	.114	.058	.017	.110	.056	.016	
9.0	.120	.058	.016	.118	.058	.016	.114	.056	.016	.110	.055	.016	.106	.054	.016	
10.0	.115	.055	.015	.113	.055	.015	.109	.054	.015	.106	.053	.015	.102	.052	.015	

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	.124	.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	.144	.114	.090	.123	.098	.078	.085	.068	.054	.049	.040	.032	.016	.013	.011	
4.0	.133	.099	.073	.114	.085	.063	.079	.060	.044	.046	.035	.026	.015	.011	.009	
5.0	.124	.087	.060	.107	.075	.052	.074	.053	.037	.043	.031	.022	.014	.010	.007	
6.0	.117	.078	.050	.100	.067	.044	.069	.047	.031	.040	.028	.018	.013	.009	.006	
7.0	.110	.070	.042	.095	.061	.037	.065	.043	.026	.038	.025	.016	.012	.008	.005	
8.0	.104	.064	.036	.090	.056	.032	.062	.039	.022	.036	.023	.013	.012	.008	.004	
9.0	.099	.059	.032	.085	.051	.028	.059	.036	.020	.034	.021	.012	.011	.007	.004	
10.0	.094	.054	.028	.081	.047	.024	.056	.033	.017	.033	.020	.010	.011	.006	.003	

C Range: 0 - 360DEG
 C Interval: 15.0DEG
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γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.426
 Humidity:65.0%
 Test Distance:9.350m [K=1.0000]
 Remarks:

Checker: LI

Assessor:

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	16.2	17.2	16.5	17.5	17.8	15.6	16.6	16.0	16.9	17.3
3H	17.6	18.5	18.0	18.8	19.2	17.0	17.9	17.4	18.2	18.6
4H	18.0	18.9	18.4	19.2	19.6	17.3	18.2	17.7	18.5	18.9
6H	18.2	19.0	18.6	19.3	19.7	17.4	18.2	17.9	18.6	19.0
8H	18.2	18.9	18.6	19.3	19.7	17.4	18.1	17.8	18.5	18.9
12H	18.2	18.8	18.6	19.2	19.7	17.3	18.0	17.8	18.4	18.8
4H 2H	16.6	17.5	17.0	17.8	18.2	16.1	16.9	16.5	17.3	17.7
3H	18.2	18.9	18.6	19.3	19.7	17.6	18.2	18.0	18.7	19.1
4H	18.6	19.2	19.1	19.7	20.1	18.0	18.6	18.4	19.0	19.4
6H	18.9	19.4	19.3	19.8	20.3	18.1	18.6	18.6	19.1	19.5
8H	18.9	19.3	19.3	19.8	20.3	18.0	18.5	18.5	19.0	19.5
12H	18.8	19.2	19.3	19.7	20.2	18.0	18.4	18.5	18.9	19.4
8H 4H	18.7	19.2	19.2	19.6	20.1	18.0	18.5	18.5	18.9	19.4
6H	18.9	19.3	19.4	19.8	20.3	18.2	18.6	18.7	19.1	19.5
8H	19.0	19.3	19.5	19.8	20.3	18.1	18.5	18.7	19.0	19.5
12H	18.9	19.2	19.5	19.7	20.3	18.1	18.4	18.6	18.9	19.5
12H 4H	18.6	19.0	19.1	19.5	20.0	18.0	18.4	18.5	18.9	19.4
6H	18.9	19.2	19.4	19.7	20.3	18.1	18.5	18.7	19.0	19.5
8H	18.9	19.2	19.5	19.7	20.3	18.1	18.4	18.6	18.9	19.5
CIE190: 2010										

CIE190: 2010
Area: 0.0716 m2

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 γ Interval: 1.0DEG
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Humidity:65.0%
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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) $k(RI) \times RCR = 5$									
$k = 0.60$	86	79	75	85	79	75	84	78	75	71
0.80	93	87	83	92	87	83	91	86	82	79
1.00	98	92	88	97	91	88	95	91	87	83
1.25	102	96	93	101	96	92	99	95	91	87
1.50	105	100	96	103	99	96	101	97	95	90
2.00	108	103	100	106	102	99	103	100	98	92
2.50	110	105	102	108	104	101	105	102	99	93
3.00	111	108	105	109	106	104	106	103	101	95
4.00	113	110	108	111	109	107	108	106	104	97
5.00	115	112	110	113	110	109	109	107	106	98
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

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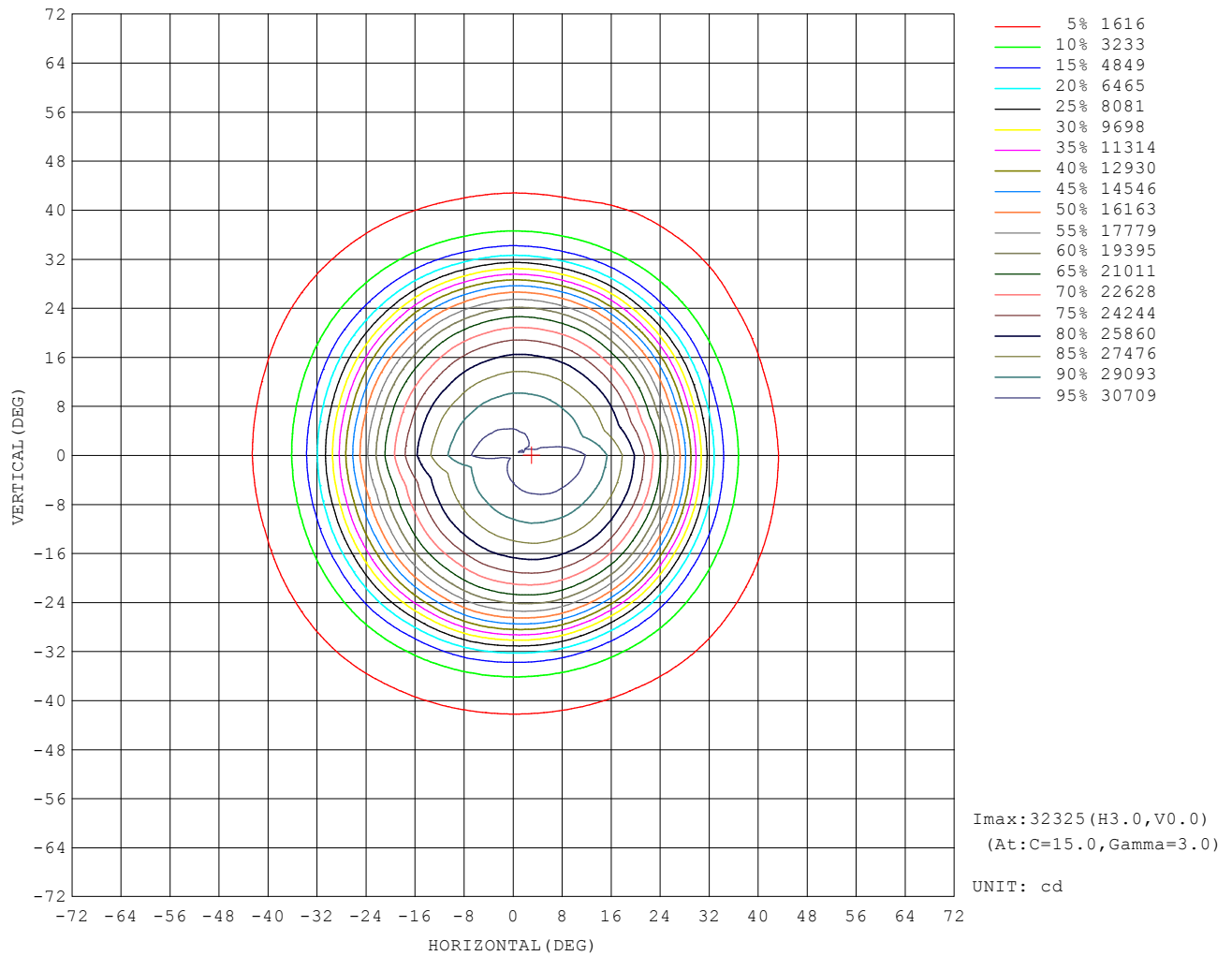
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 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.426
 Humidity: 65.0%
 Test Distance: 9.350m [K=1.0000]
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EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM



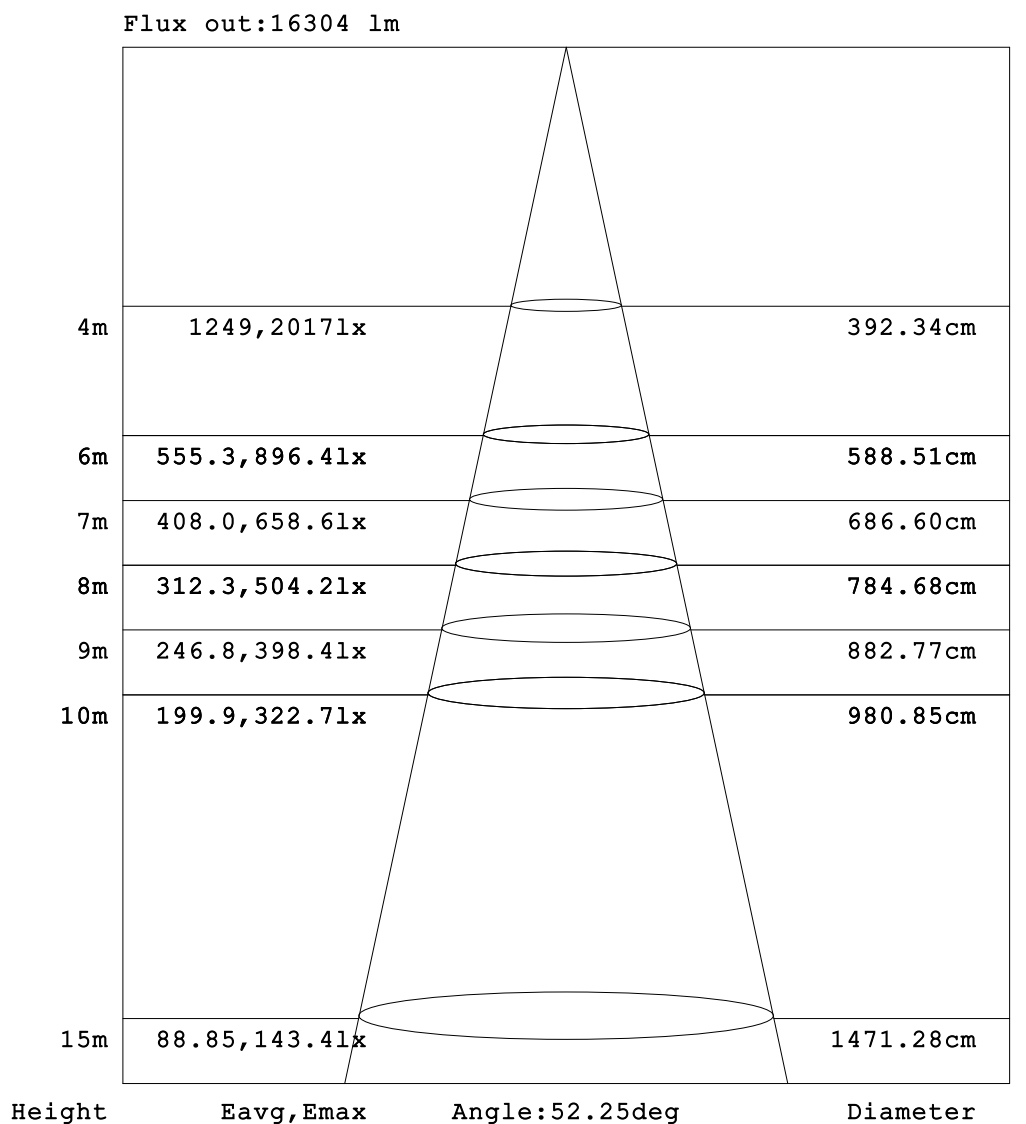
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Remarks:

Checker: LI

Assessor:

AAI Figure



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

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Test Date:2020-07-06

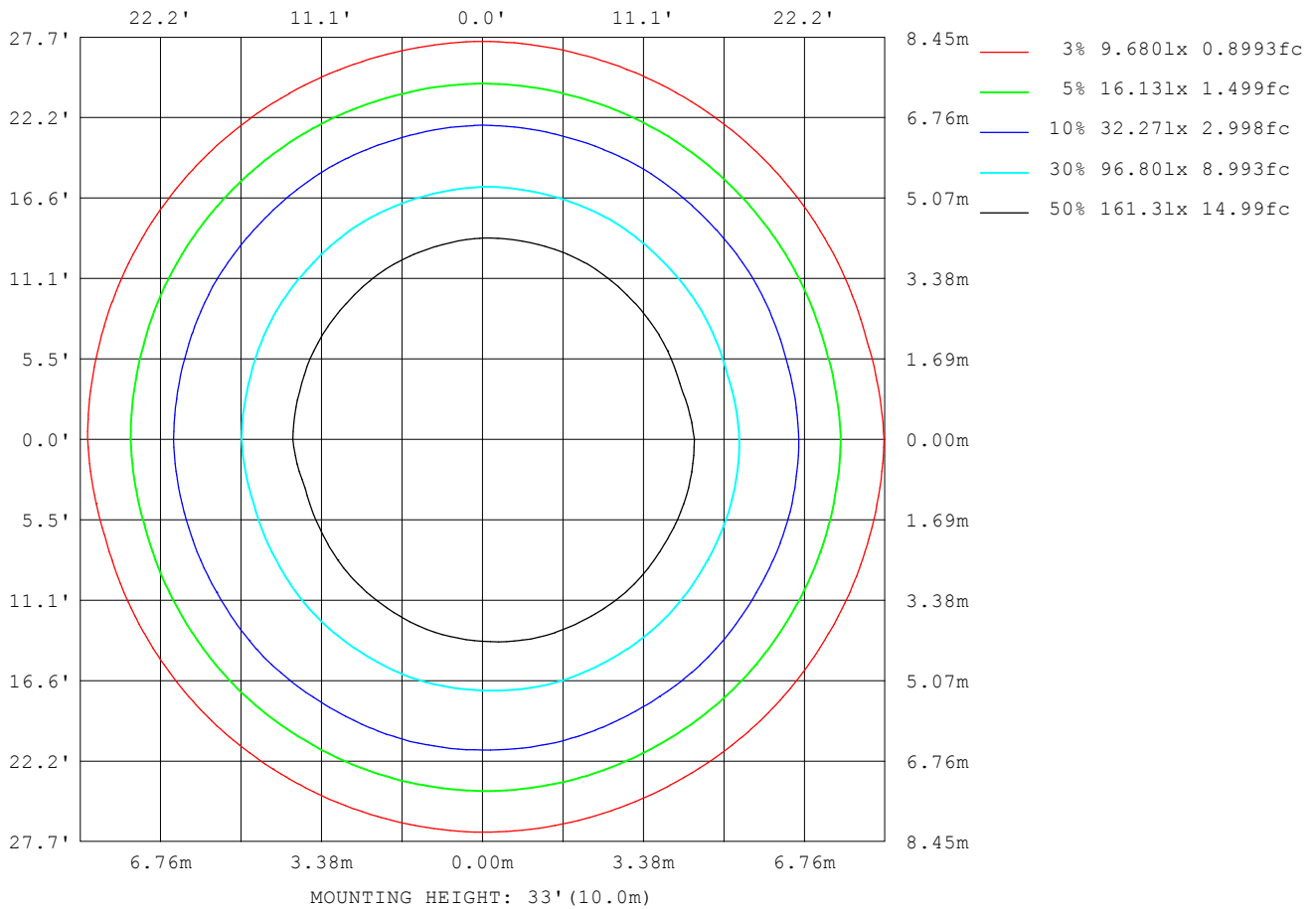
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Assessor:

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ISOLUX DIAGRAM



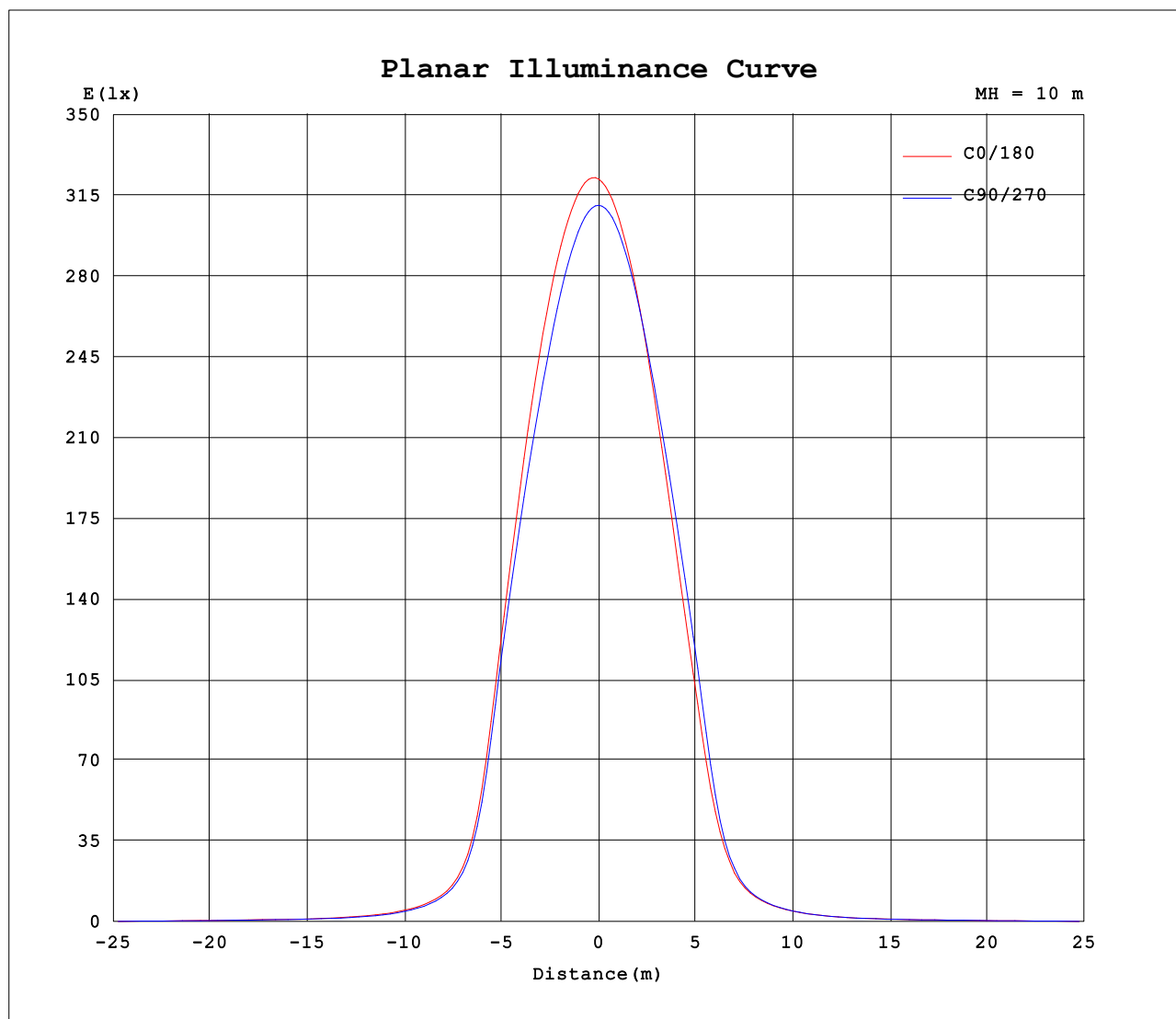
C Range: 0 - 360DEG
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γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
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Remarks:

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Assessor:

Planar Illuminance Curve



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Remarks:

Assessor: