

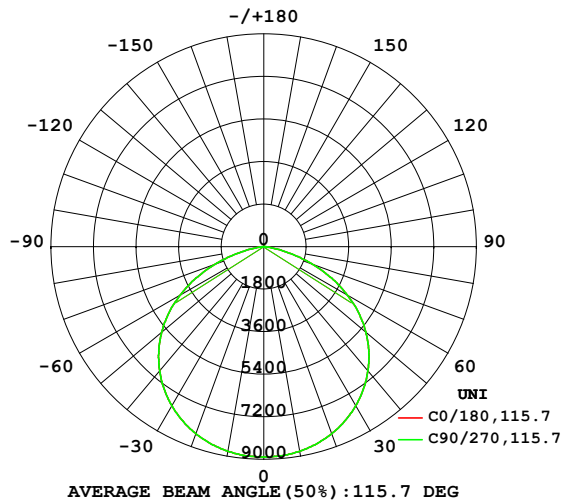
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

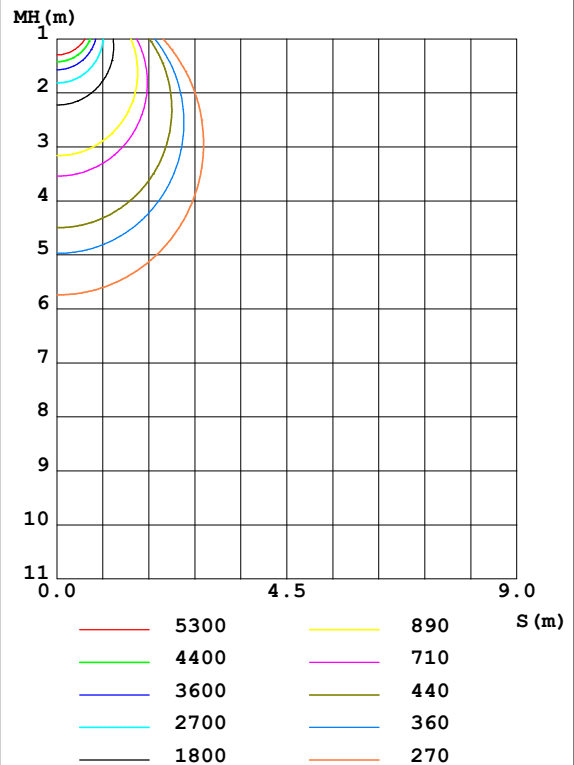
Test:U:229.7V I:0.8836A P:201.6W PF:0.9932 Freq:50.00Hz UTHDi:0% ITHDi:0% Lamp Flux:25456.7x1 lm		
NAME: FL23-200-5070-F00A23	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 126.29 lm/W			
MODEL	RF303	I _{max} (cd)	8897	S/MH(C0/180)	1.30
NOMINAL POWER(W)	200	LOR(%)	100.0	S/MH(C90/270)	1.30
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	25457	η UP,DN(C0-180)	0.0,50.0
NOMINAL FLUX(lm)	25456.7	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: 2.5DEG
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	8787	8787	8787	8787	8787	8787	8787	8787	0- 10	844.4	844.4	3.32,3.32
20	8418	8418	8418	8418	8418	8418	8418	8418	10- 20	2439	3283	12.9,12.9
30	7780	7780	7780	7780	7780	7780	7780	7780	20- 30	3749	7033	27.6,27.6
40	6862	6862	6862	6862	6862	6862	6862	6862	30- 40	4602	11635	45.7,45.7
50	5640	5640	5640	5640	5640	5640	5640	5640	40- 50	4847	16482	64.7,64.7
60	4074	4074	4074	4074	4074	4074	4074	4074	50- 60	4376	20858	81.9,81.9
70	2203	2203	2203	2203	2203	2203	2203	2203	60- 70	3119	23977	94.2,94.2
80	470.9	470.9	470.9	470.9	470.9	470.9	470.9	470.9	70- 80	1345	25322	99.5,99.5
90	1.772	1.772	1.772	1.772	1.772	1.772	1.772	1.772	80- 90	134.8	25457	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:cd									UNIT:lm		

Conical surface Flux(90deg): 14071 lm

%lum = 55.3%

%lamp = 55.3%

Conical surface Flux(120deg): 20858 lm

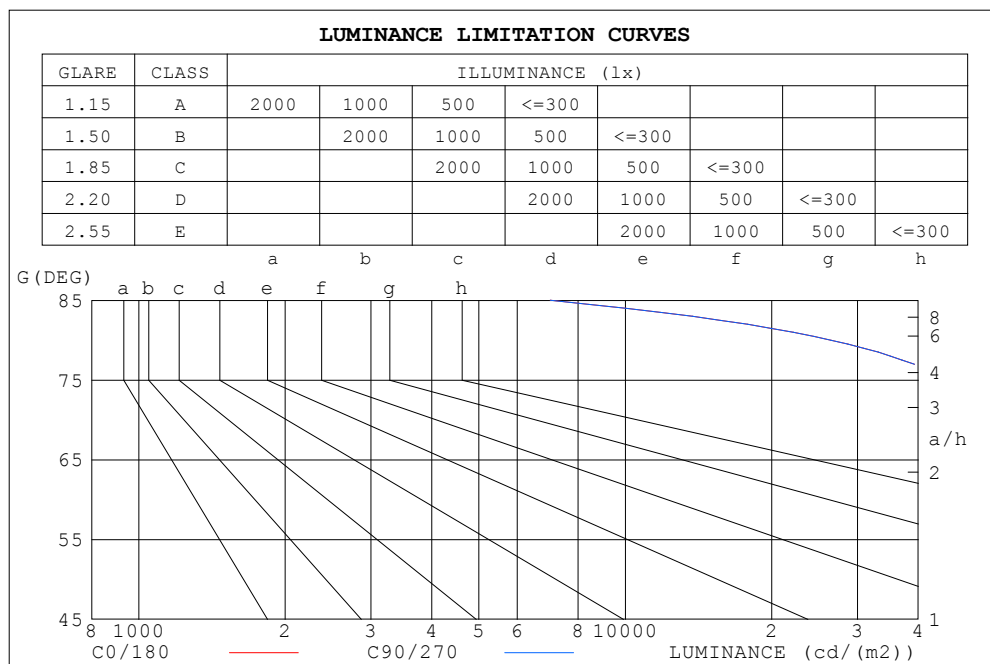
%lum = 81.9%

%lamp = 81.9%

C Range: 0 - 360DEG
C Interval: 2.5DEG
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:

LUMINANCE LIMITATION CURVES



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	7014	7014
80	26482	26482
75	47049	47049
70	62911	62911
65	73215	73215
60	79567	79567
55	83639	83639
50	85692	85692
45	86864	86864

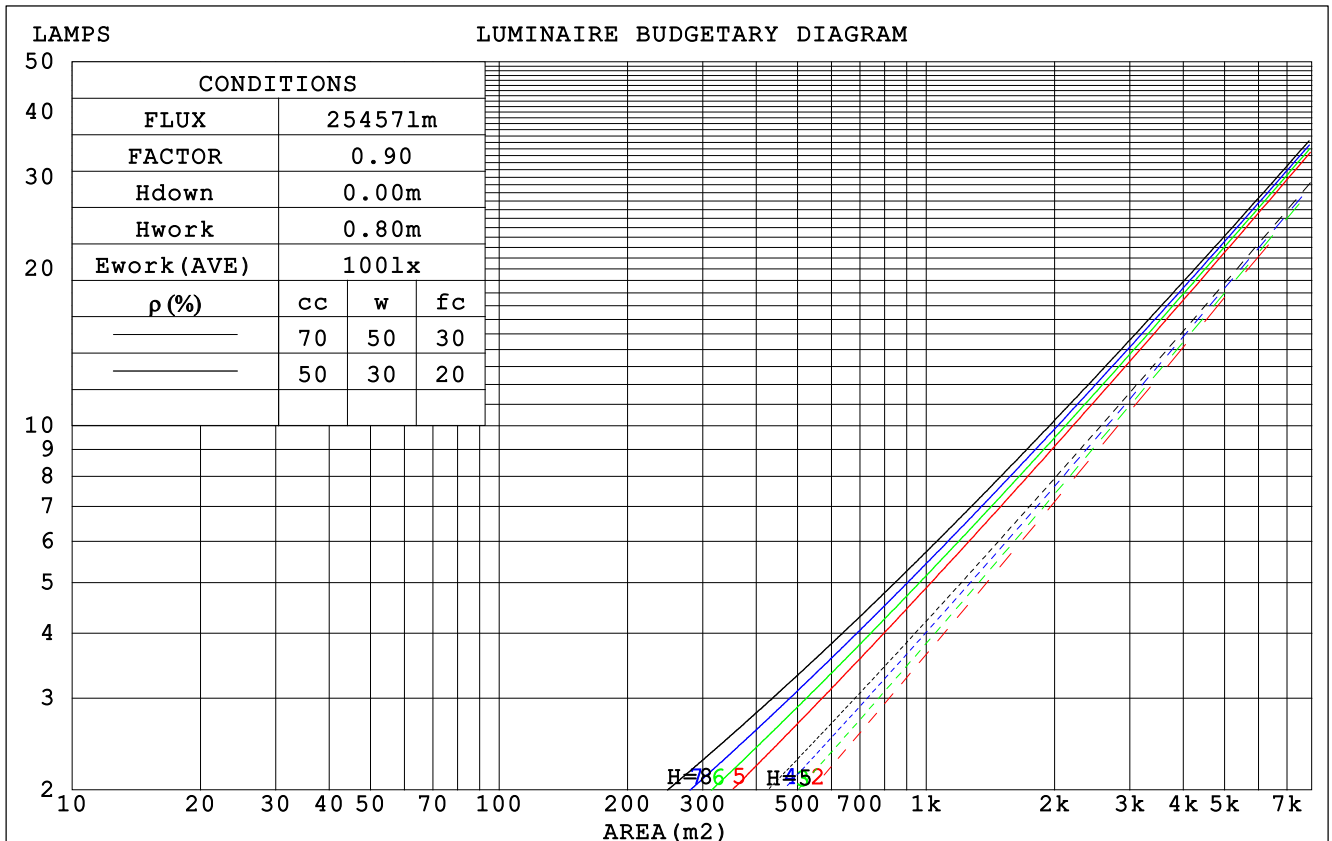
C Range: 0 - 360DEG
C Interval: 2.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: LYJ
Test Date: 2020-07-14

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
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	.00
1.0	1.05	1.01	.97	1.03	.99	.96	.99	.96	.93	.95	.92	.90	.91	.89	.87	.85
2.0	.92	.85	.80	.90	.84	.79	.86	.81	.77	.83	.79	.75	.80	.77	.74	.71
3.0	.81	.73	.66	.79	.72	.66	.76	.70	.65	.73	.68	.63	.71	.66	.62	.60
4.0	.71	.63	.56	.70	.62	.56	.68	.61	.55	.65	.59	.54	.63	.58	.54	.51
5.0	.64	.55	.48	.63	.54	.48	.61	.53	.48	.59	.52	.47	.57	.51	.46	.44
6.0	.57	.48	.42	.56	.48	.42	.55	.47	.42	.53	.46	.41	.51	.45	.41	.39
7.0	.52	.43	.37	.51	.43	.37	.50	.42	.37	.48	.41	.36	.47	.41	.36	.34
8.0	.47	.39	.33	.47	.39	.33	.45	.38	.33	.44	.37	.32	.43	.37	.32	.30
9.0	.43	.35	.30	.43	.35	.30	.42	.34	.29	.41	.34	.29	.40	.34	.29	.27
10.0	.40	.32	.27	.39	.32	.27	.38	.31	.27	.38	.31	.27	.37	.31	.26	.25



C Range: 0 - 360DEG
 C Interval: 2.5DEG
 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	.288	.164	.052	.281	.160	.051	.268	.154	.049	.256	.148	.047	.245	.142	.046		
2.0	.279	.153	.047	.273	.150	.046	.261	.145	.045	.250	.140	.044	.240	.136	.043		
3.0	.262	.139	.042	.256	.137	.041	.246	.133	.040	.236	.130	.040	.228	.126	.039		
4.0	.244	.127	.037	.239	.125	.037	.230	.122	.036	.221	.119	.036	.213	.116	.035		
5.0	.226	.115	.033	.222	.114	.033	.214	.111	.033	.207	.109	.032	.199	.107	.032		
6.0	.211	.106	.030	.207	.105	.030	.200	.102	.030	.193	.100	.029	.187	.098	.029		
7.0	.197	.097	.028	.193	.096	.027	.187	.095	.027	.181	.093	.027	.175	.091	.027		
8.0	.184	.090	.025	.181	.089	.025	.175	.088	.025	.170	.086	.025	.165	.085	.025		
9.0	.173	.084	.023	.170	.083	.023	.165	.082	.023	.160	.080	.023	.155	.079	.023		
10.0	.163	.078	.022	.160	.077	.022	.156	.076	.021	.151	.075	.021	.147	.074	.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	.179	.156	.136	.153	.134	.117	.105	.092	.081	.060	.053	.047	.019	.017	.015		
2.0	.171	.132	.100	.146	.114	.086	.100	.079	.060	.058	.046	.035	.019	.015	.011		
3.0	.163	.114	.075	.140	.099	.065	.096	.068	.046	.055	.040	.027	.018	.013	.009		
4.0	.155	.101	.059	.133	.087	.051	.092	.061	.036	.053	.036	.021	.017	.012	.007		
5.0	.148	.090	.048	.127	.078	.042	.088	.055	.029	.051	.032	.017	.016	.010	.006		
6.0	.141	.082	.040	.121	.071	.034	.084	.050	.024	.049	.029	.014	.016	.010	.005		
7.0	.135	.075	.033	.116	.065	.029	.080	.046	.021	.046	.027	.012	.015	.009	.004		
8.0	.128	.069	.029	.110	.060	.025	.076	.042	.018	.044	.025	.011	.014	.008	.004		
9.0	.122	.064	.025	.105	.056	.022	.073	.039	.016	.043	.023	.009	.014	.008	.003		
10.0	.117	.060	.023	.101	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003		

C Range: 0 - 360DEG
 C Interval: 2.5DEG
 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	27.7	29.4	28.1	29.7	30.0	27.7	29.4	28.1	29.7	30.0
3H	29.2	30.7	29.6	31.0	31.4	29.2	30.7	29.6	31.0	31.4
4H	29.6	31.0	30.0	31.3	31.7	29.6	31.0	30.0	31.3	31.7
6H	29.7	31.0	30.2	31.4	31.8	29.7	31.0	30.2	31.4	31.8
8H	29.7	30.9	30.2	31.3	31.7	29.7	30.9	30.2	31.3	31.7
12H	29.7	30.9	30.1	31.3	31.7	29.7	30.9	30.1	31.3	31.7
4H 2H	28.3	29.7	28.7	30.0	30.4	28.3	29.7	28.7	30.0	30.4
3H	30.0	31.1	30.4	31.5	31.9	30.0	31.1	30.4	31.5	31.9
4H	30.4	31.4	30.9	31.9	32.3	30.4	31.4	30.9	31.9	32.3
6H	30.6	31.5	31.1	31.9	32.4	30.6	31.5	31.1	31.9	32.4
8H	30.6	31.4	31.1	31.9	32.4	30.6	31.4	31.1	31.9	32.4
12H	30.6	31.3	31.1	31.8	32.3	30.6	31.3	31.1	31.8	32.3
8H 4H	30.6	31.4	31.0	31.8	32.3	30.6	31.4	31.0	31.8	32.3
6H	30.8	31.5	31.3	32.0	32.4	30.8	31.5	31.3	32.0	32.4
8H	30.8	31.4	31.3	31.9	32.4	30.8	31.4	31.3	31.9	32.4
12H	30.8	31.3	31.3	31.8	32.4	30.8	31.3	31.3	31.8	32.4
12H 4H	30.6	31.3	31.0	31.8	32.3	30.6	31.3	31.0	31.8	32.3
6H	30.8	31.4	31.3	31.9	32.4	30.8	31.4	31.3	31.9	32.4
8H	30.8	31.3	31.3	31.8	32.4	30.8	31.3	31.3	31.8	32.4
CIE190: 2010										

CIE190: 2010
Area: 0.1024 m2

C Range: 0 - 360DEG
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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

UTILIZATION FACTORS TABLE

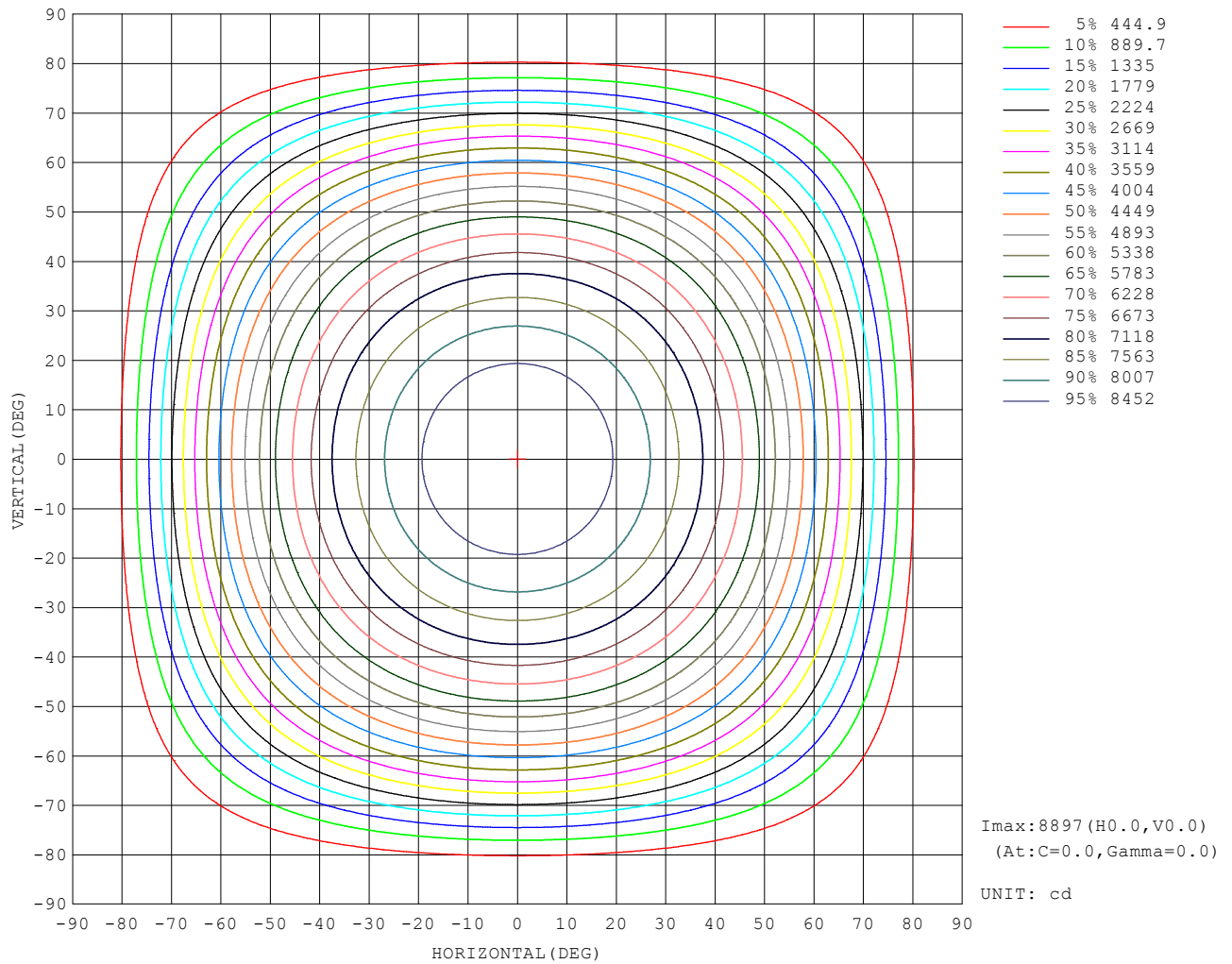
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	58	46	39	57	46	39	56	46	39	33
0.80	68	57	49	67	56	49	65	56	49	42
1.00	77	66	59	76	65	59	74	67	58	51
1.25	84	74	67	83	73	67	80	72	66	59
1.50	89	80	73	88	79	72	85	77	71	64
2.00	96	88	82	94	87	81	91	85	79	72
2.50	100	93	87	98	91	86	94	89	84	76
3.00	103	97	92	101	95	90	97	92	88	80
4.00	107	102	97	105	100	96	101	97	93	85
5.00	109	105	101	107	103	100	103	99	97	88
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
 C Interval: 2.5DEG
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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

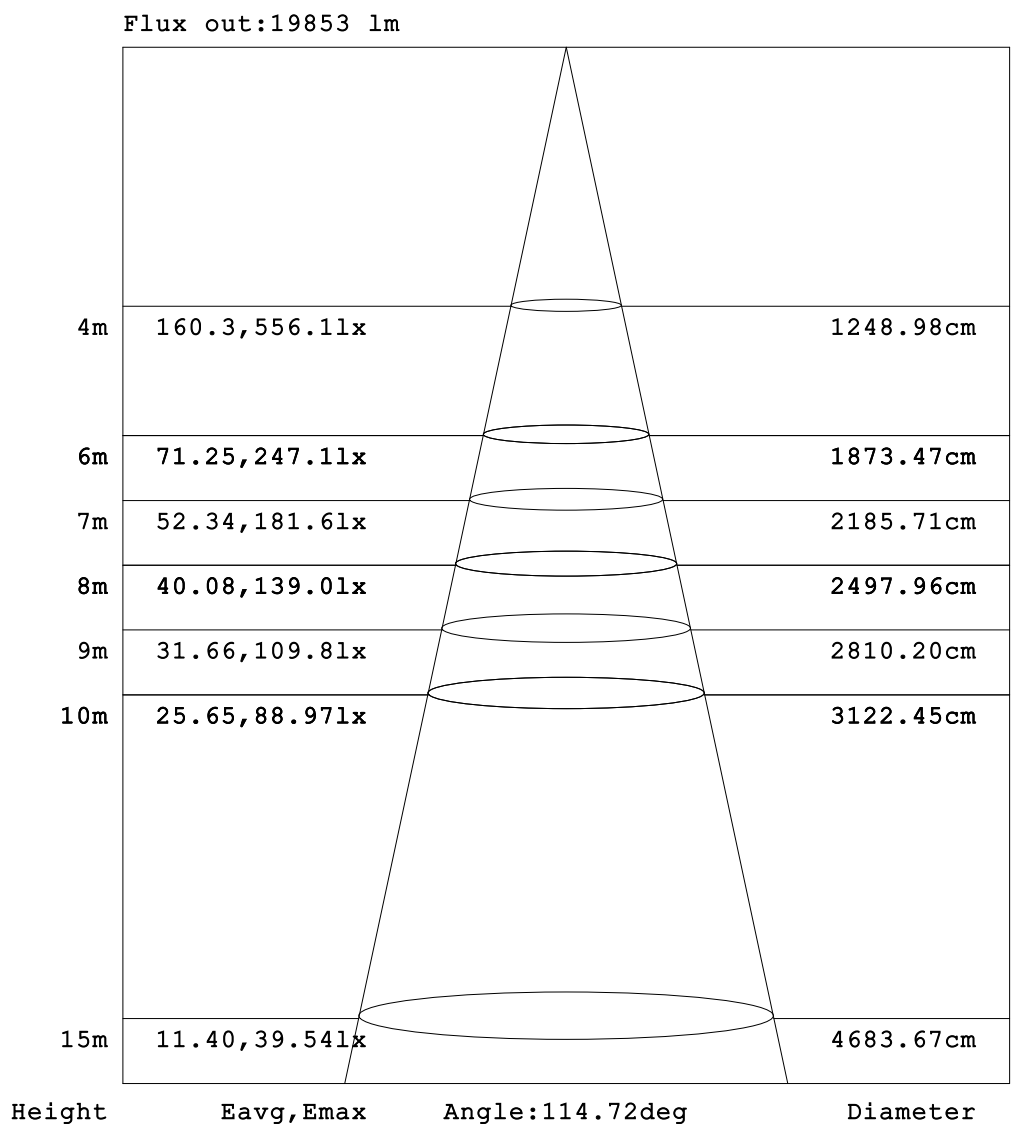
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
C Interval: 2.5DEG
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:

AAI Figure

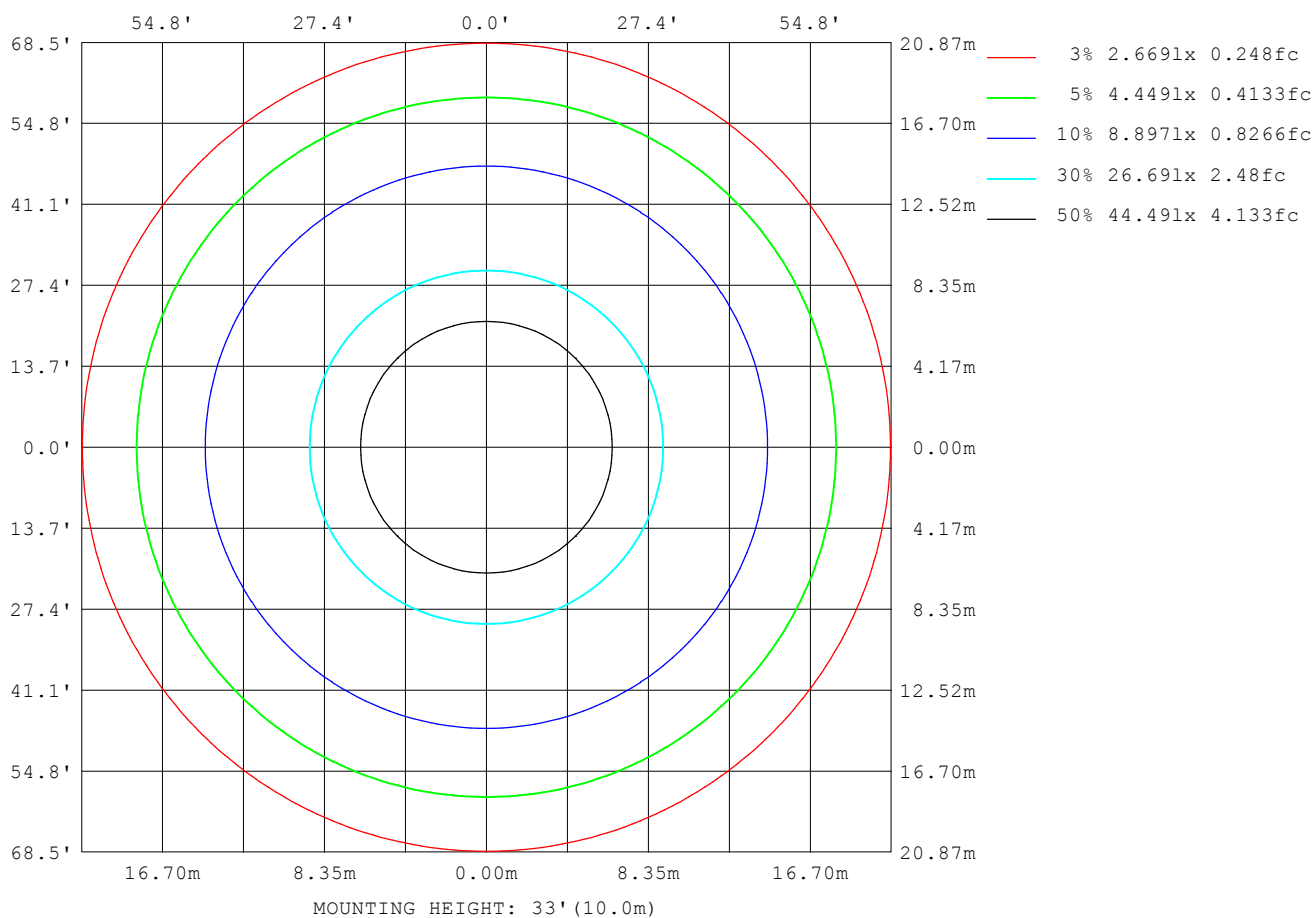


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 2.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:LYJ
Test Date:2020-07-14

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
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Humidity:65.0%
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Remarks:

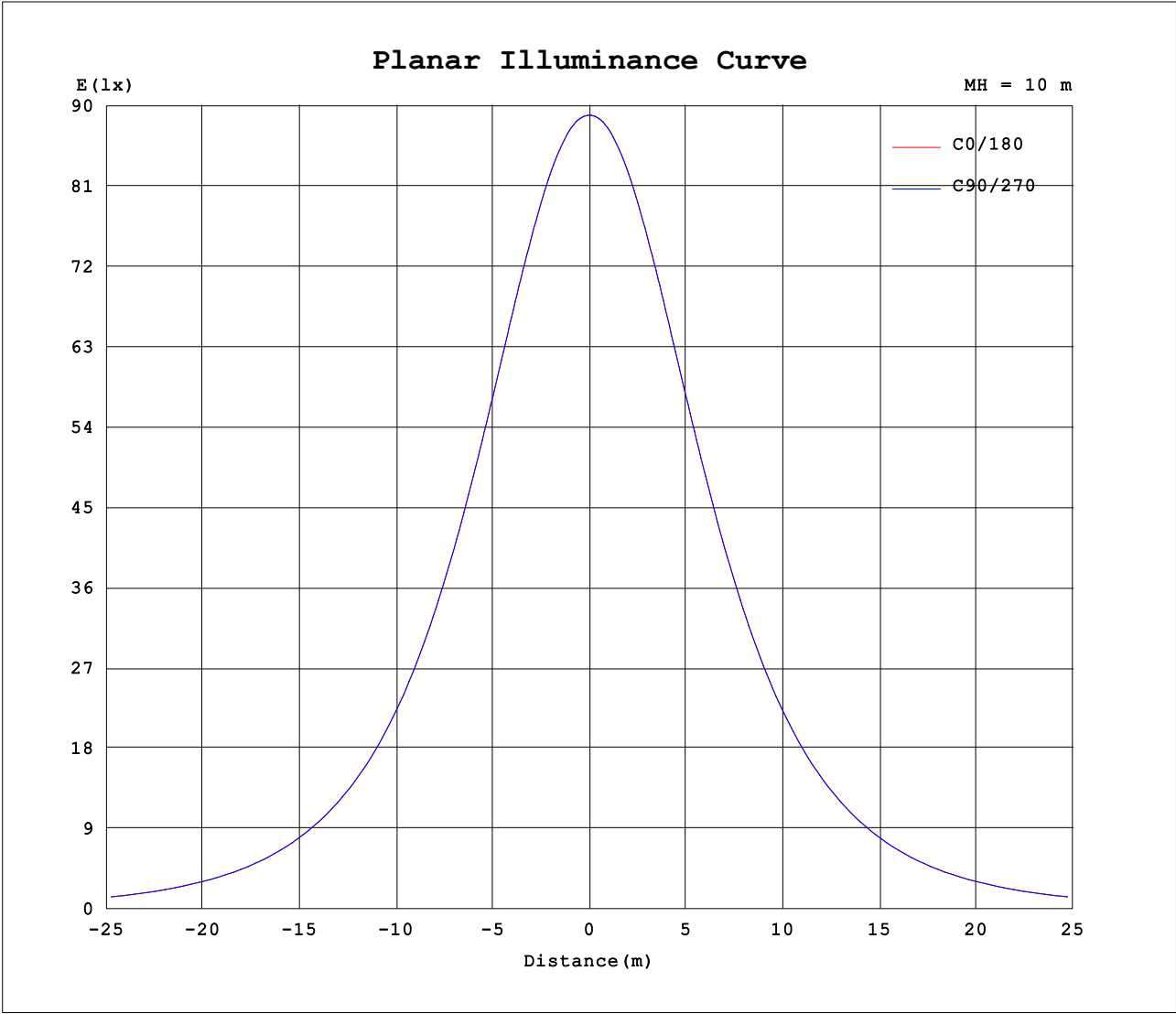
ISOLUX DIAGRAM



C Range: 0 - 360DEG
C Interval: 2.5DEG
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: 2.5DEG
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: