

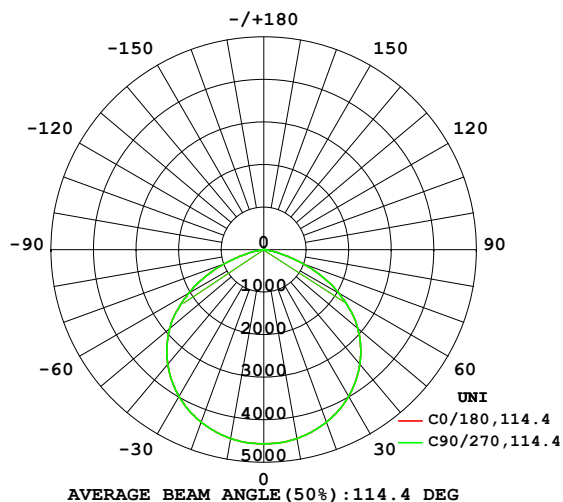
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

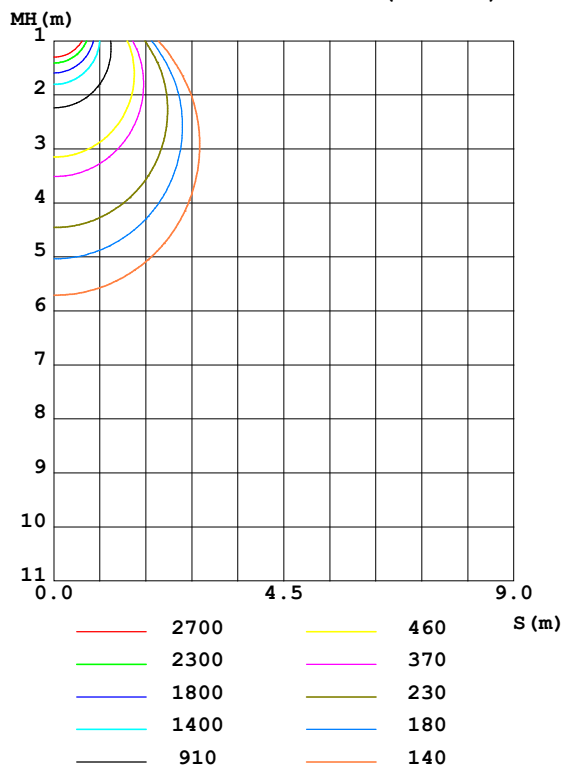
Test:U:229.8V I:0.4495A P:101.9W PF:0.9868 Freq:50.01Hz UTHDi:0% ITHDi:0% Lamp Flux:12754.3x1 lm		
NAME: FL23-100-5070-F00A23	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 125.10 lm/W			
MODEL	RF303	I _{max} (cd)	4565	S/MH(C0/180)	1.30
NOMINAL POWER(W)	100	LOR(%)	100.0	S/MH(C90/270)	1.30
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	12754	η UP,DN(C0-180)	0.0,50.0
NOMINAL FLUX(lm)	12754.3	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	4507	4507	4507	4507	4507	4507	4507	4507	0- 10	433.1	433.1	3.4,3.4
20	4313	4313	4313	4313	4313	4313	4313	4313	10- 20	1250	1683	13.2,13.2
30	3988	3988	3988	3988	3988	3988	3988	3988	20- 30	1922	3605	28.3,28.3
40	3516	3516	3516	3516	3516	3516	3516	3516	30- 40	2358	5962	46.7,46.7
50	2887	2887	2887	2887	2887	2887	2887	2887	40- 50	2482	8445	66.2,66.2
60	2026	2026	2026	2026	2026	2026	2026	2026	50- 60	2212	10657	83.6,83.6
70	1007	1007	1007	1007	1007	1007	1007	1007	60- 70	1512	12169	95.4,95.4
80	142.4	142.4	142.4	142.4	142.4	142.4	142.4	142.4	70- 80	550.1	12719	99.7,99.7
90	0.6758	0.6758	0.6758	0.6758	0.6758	0.6758	0.6758	0.6758	80- 90	35.43	12754	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): 7210 lm

%lum = 56.5%

%lamp = 56.5%

Conical surface Flux(120deg): 10657 lm

%lum = 83.6%

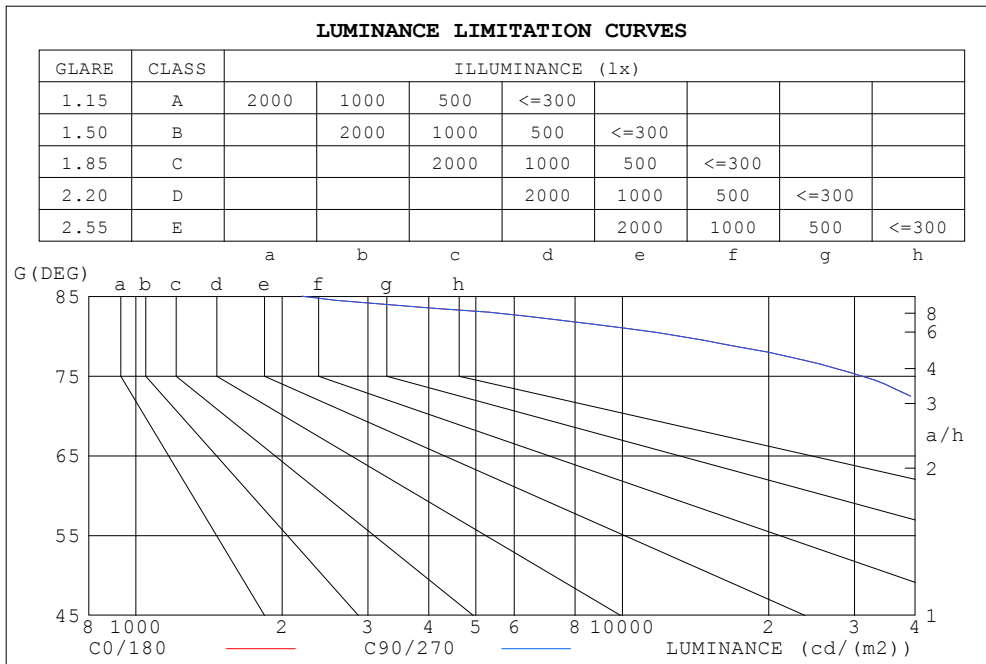
%lamp = 83.6%

C Range: 0 - 360DEG
C Interval: 2.5DEG
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Operators:LYJ
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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	2195	2195
80	13121	13121
75	31005	31005
70	47105	47105
65	58021	58021
60	64837	64837
55	69281	69281
50	71873	71873
45	72879	72879

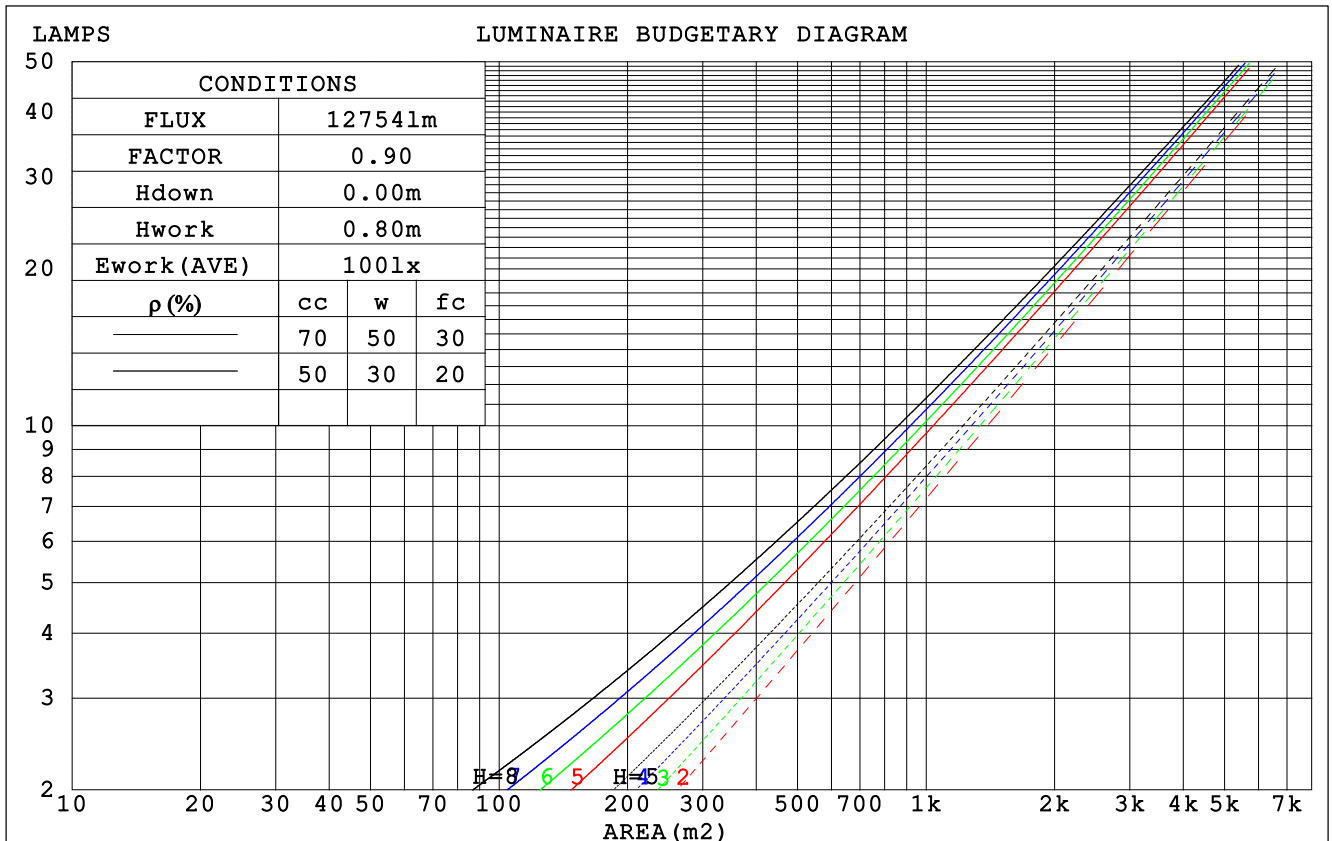
C Range: 0 - 360DEG
 C Interval: 2.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: LYJ
 Test Date: 2020-07-14

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	1.00
1.0	1.05	1.02	.98	1.03	.00	.96	.99	.96	.93	.95	.93	.91	.92	.90	.88	.86
2.0	.92	.86	.81	.91	.85	.80	.87	.82	.78	.84	.80	.76	.81	.77	.74	.72
3.0	.81	.74	.67	.80	.73	.67	.77	.71	.66	.74	.69	.64	.72	.67	.63	.61
4.0	.72	.64	.57	.71	.63	.57	.68	.61	.56	.66	.60	.55	.64	.59	.54	.52
5.0	.64	.56	.49	.63	.55	.49	.61	.54	.48	.59	.53	.48	.57	.52	.47	.45
6.0	.58	.49	.43	.57	.49	.43	.55	.48	.42	.54	.47	.42	.52	.46	.42	.40
7.0	.53	.44	.38	.52	.43	.38	.50	.43	.37	.49	.42	.37	.47	.41	.37	.35
8.0	.48	.39	.34	.47	.39	.34	.46	.39	.33	.45	.38	.33	.43	.37	.33	.31
9.0	.44	.36	.30	.43	.35	.30	.42	.35	.30	.41	.35	.30	.40	.34	.30	.28
10.0	.40	.33	.27	.40	.32	.27	.39	.32	.27	.38	.32	.27	.37	.31	.27	.25



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=0.4589]
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	.280	.159	.050	.273	.156	.049	.260	.149	.048	.248	.143	.046	.236	.137	.044															
2.0	.272	.149	.046	.266	.147	.045	.255	.142	.044	.244	.137	.043	.234	.133	.042															
3.0	.257	.137	.041	.252	.135	.041	.241	.131	.040	.232	.127	.039	.223	.124	.038															
4.0	.240	.125	.037	.235	.123	.036	.226	.120	.036	.218	.117	.035	.210	.114	.035															
5.0	.224	.114	.033	.220	.113	.033	.211	.110	.032	.204	.108	.032	.197	.105	.032															
6.0	.209	.105	.030	.205	.104	.030	.198	.101	.029	.191	.099	.029	.185	.097	.029															
7.0	.195	.096	.027	.192	.096	.027	.185	.094	.027	.179	.092	.027	.174	.090	.027															
8.0	.183	.089	.025	.180	.089	.025	.174	.087	.025	.169	.085	.025	.164	.084	.024															
9.0	.172	.083	.023	.169	.082	.023	.164	.081	.023	.159	.080	.023	.154	.078	.023															
10.0	.162	.078	.022	.159	.077	.021	.155	.076	.021	.150	.075	.021	.146	.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	.178	.156	.137	.152	.134	.118	.104	.092	.081	.060	.053	.047	.019	.017	.015		
2.0	.170	.132	.100	.145	.114	.087	.100	.079	.061	.057	.046	.035	.018	.015	.012		
3.0	.162	.114	.076	.139	.099	.066	.095	.068	.046	.055	.040	.027	.018	.013	.009		
4.0	.155	.101	.060	.133	.087	.052	.091	.061	.037	.053	.036	.022	.017	.012	.007		
5.0	.147	.090	.048	.127	.078	.042	.087	.055	.030	.051	.032	.018	.016	.010	.006		
6.0	.141	.082	.040	.121	.071	.035	.083	.050	.025	.048	.029	.015	.016	.010	.005		
7.0	.134	.075	.034	.115	.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	.042	.023	.009	.014	.008	.003		
10.0	.116	.060	.023	.100	.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	27.1	28.7	27.4	29.0	29.3	27.1	28.7	27.4	29.0	29.3
3H	28.4	29.8	28.8	30.1	30.5	28.4	29.8	28.8	30.1	30.5
4H	28.6	30.0	29.0	30.3	30.7	28.6	30.0	29.0	30.3	30.7
6H	28.7	29.9	29.1	30.3	30.7	28.7	29.9	29.1	30.3	30.7
8H	28.7	29.9	29.1	30.2	30.6	28.7	29.9	29.1	30.2	30.6
12H	28.6	29.8	29.1	30.2	30.6	28.6	29.8	29.1	30.2	30.6
4H 2H	27.6	28.9	28.0	29.3	29.7	27.6	28.9	28.0	29.3	29.7
3H	29.0	30.2	29.5	30.6	31.0	29.0	30.2	29.5	30.6	31.0
4H	29.4	30.4	29.8	30.8	31.2	29.4	30.4	29.8	30.8	31.2
6H	29.4	30.3	29.9	30.8	31.2	29.4	30.3	29.9	30.8	31.2
8H	29.4	30.2	29.9	30.7	31.1	29.4	30.2	29.9	30.7	31.1
12H	29.4	30.1	29.9	30.6	31.1	29.4	30.1	29.9	30.6	31.1
8H 4H	29.4	30.3	29.9	30.7	31.2	29.4	30.3	29.9	30.7	31.2
6H	29.5	30.2	30.0	30.7	31.2	29.5	30.2	30.0	30.7	31.2
8H	29.5	30.1	30.0	30.6	31.1	29.5	30.1	30.0	30.6	31.1
12H	29.5	30.0	30.0	30.5	31.1	29.5	30.0	30.0	30.5	31.1
12H 4H	29.4	30.2	29.9	30.6	31.1	29.4	30.2	29.9	30.6	31.1
6H	29.5	30.1	30.0	30.6	31.1	29.5	30.1	30.0	30.6	31.1
8H	29.5	30.0	30.0	30.5	31.1	29.5	30.0	30.0	30.5	31.1
CIE190: 2010										

CIE190: 2010
Area: 0.0625 m2

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Operators: LYJ
Test Date: 2020-07-14

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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

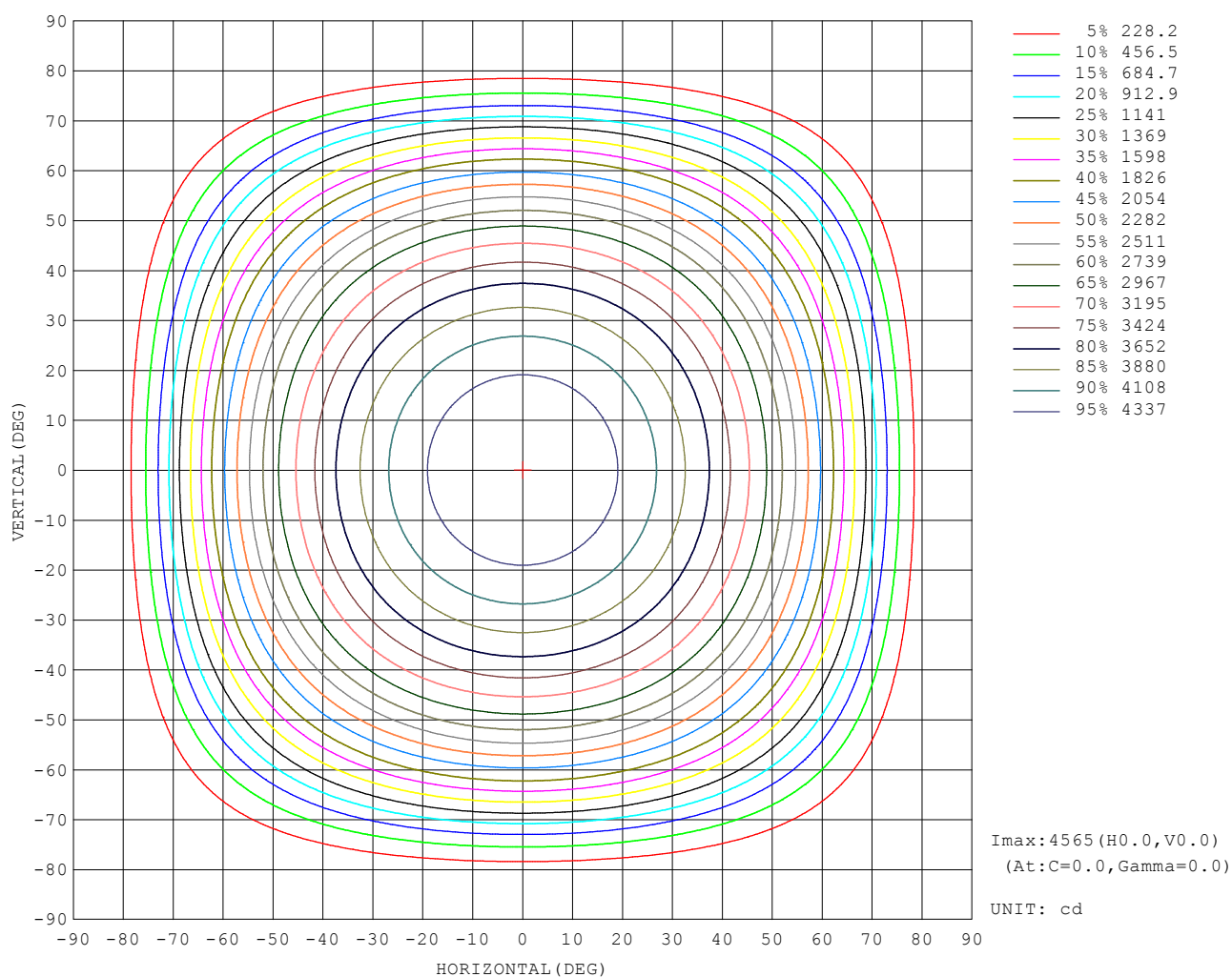
UTILIZATION FACTORS TABLE

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	47	40	58	47	40	56	46	40	33
0.80	69	57	50	68	57	50	66	56	50	43
1.00	78	67	60	76	66	60	74	68	59	52
1.25	85	75	68	83	74	68	81	73	67	60
1.50	90	81	74	88	80	73	85	78	72	65
2.00	97	89	83	95	88	82	92	85	80	73
2.50	100	93	88	98	92	87	95	89	85	77
3.00	104	97	92	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		

C Range: 0 - 360DEG
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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:

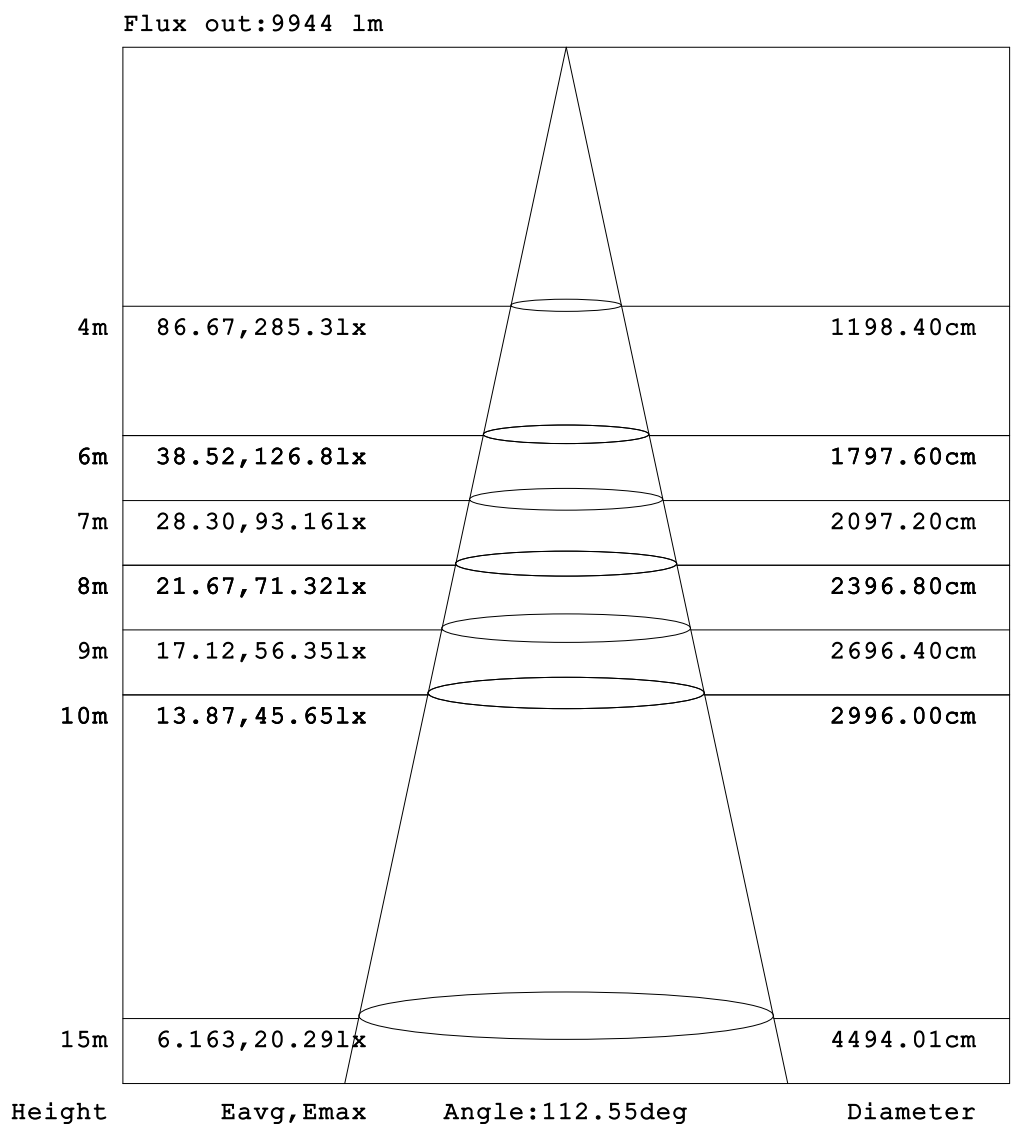
ISOCANDELA DIAGRAM



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

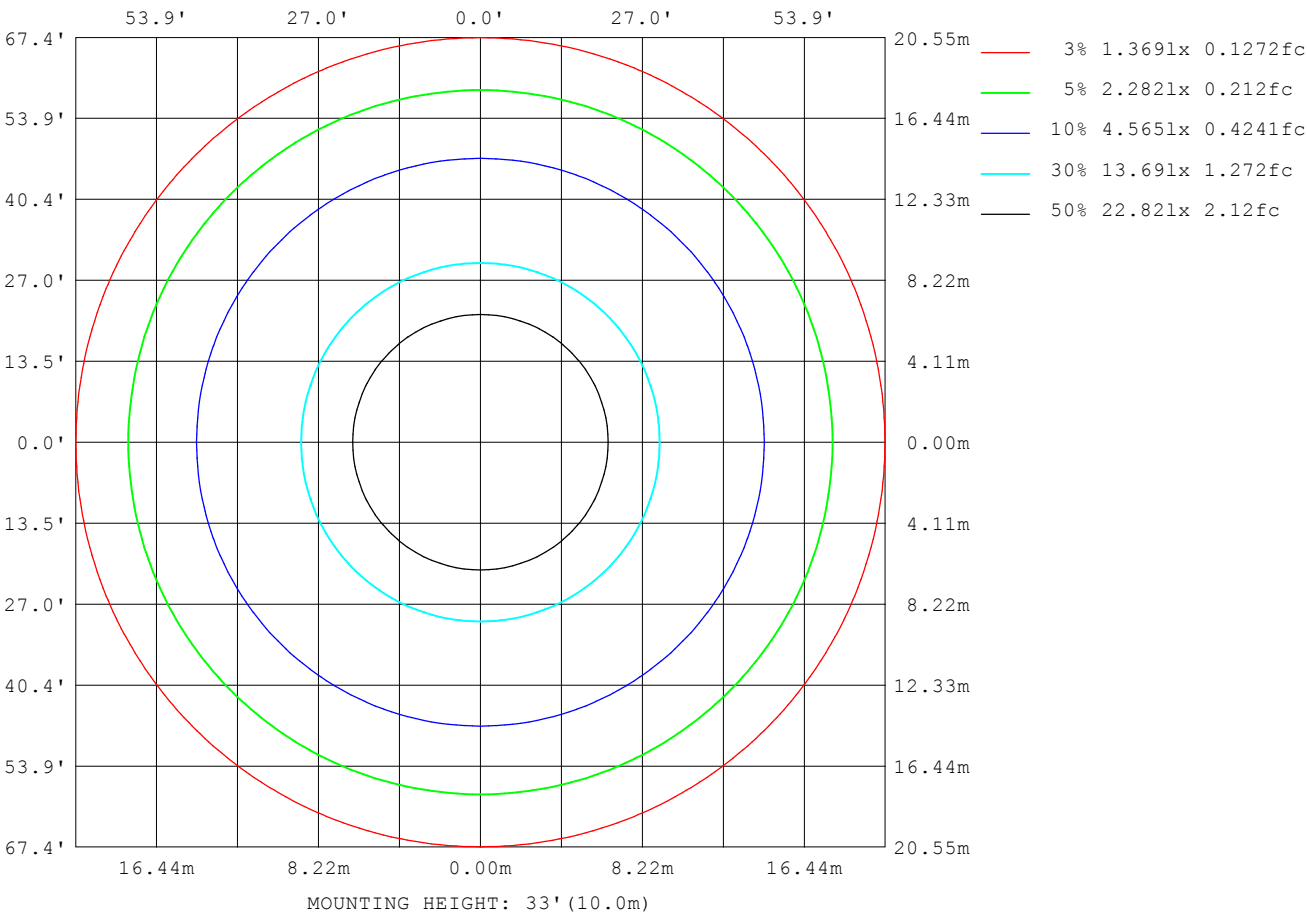


Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 2.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: LYJ
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γ Range: 0 - 90DEG
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Humidity: 65.0%
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Remarks:

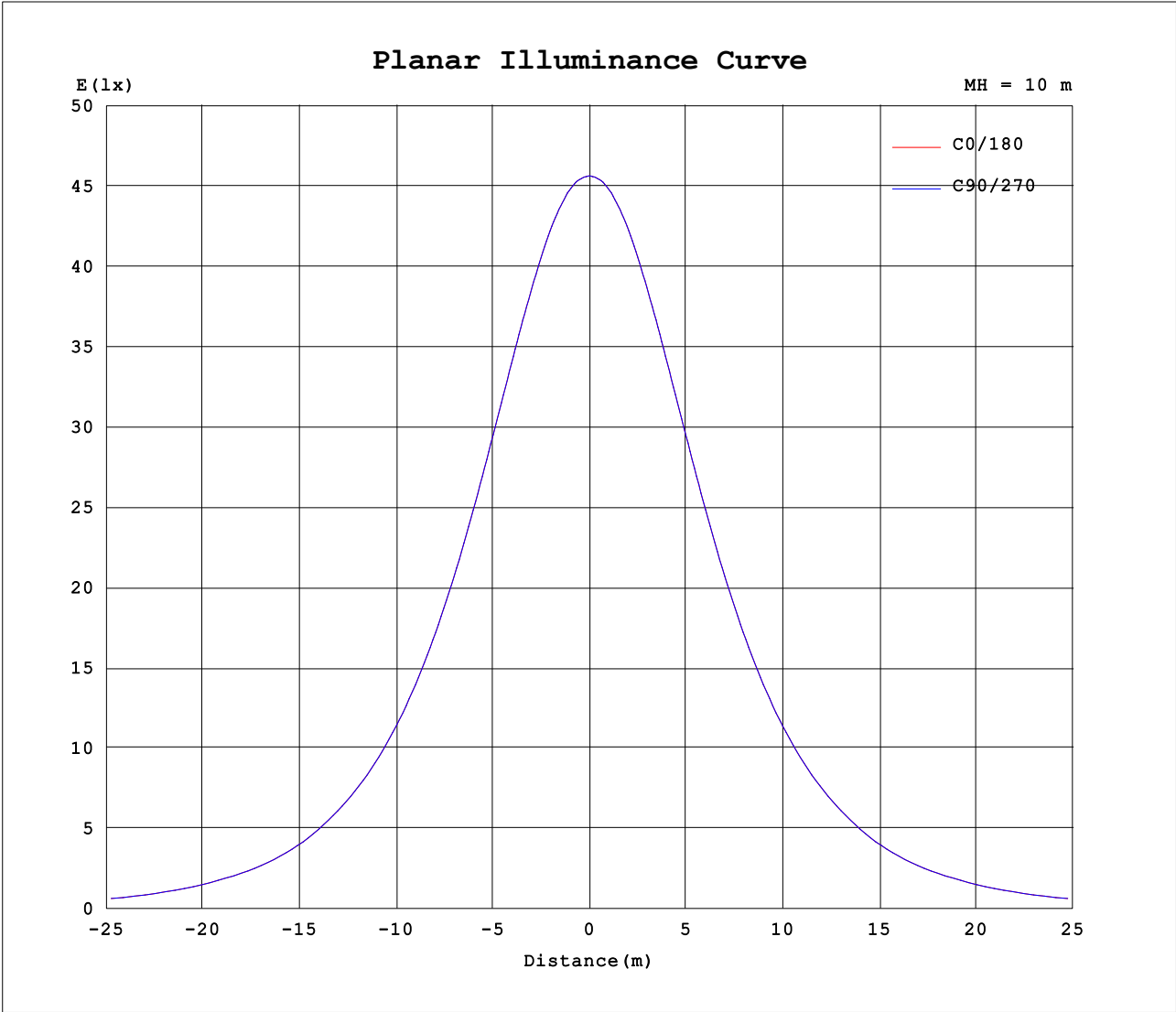
ISOLUX DIAGRAM



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
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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: