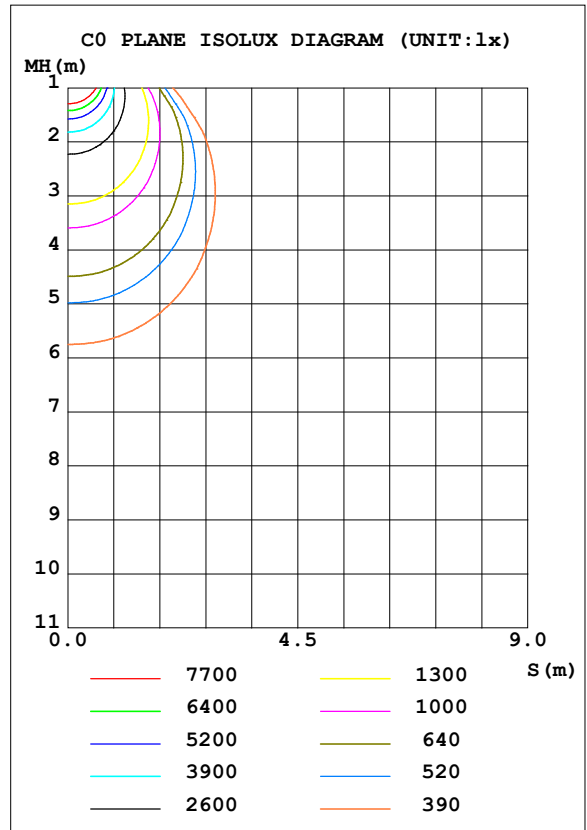
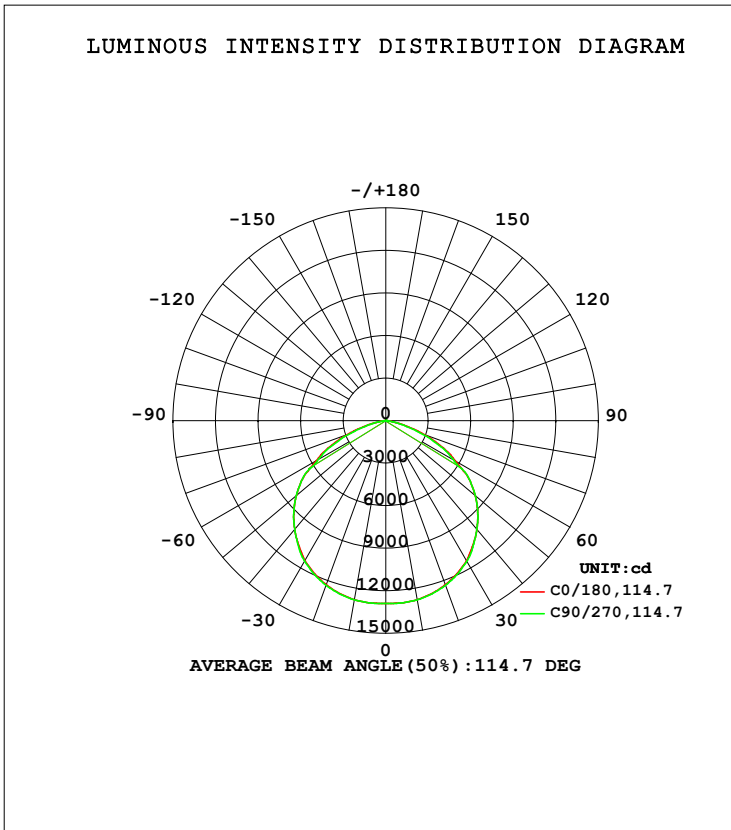


EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:229.9V I:1.320A P:297.9W PF:0.9819 Lamp Flux:36679.5x1 lm		
	TYPE:300W	WEIGHT:
SPEC.:6500K Ra80 F00A09	DIM.: 0.567*0.465*0.097	SERIAL No.:
MFR.:	SUR.:0.379*0.277	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 123.12 lm/W			
MODEL	3030	I _{max} (cd)	12906	S/MH (C0/180)	1.31
NOMINAL POWER (W)	300	LOR (%)	100.0	S/MH (C90/270)	1.31
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	36679	η UP, DN (C0-180)	0.0, 50.0
NOMINAL FLUX (lm)	36679.5	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



C Range: 0 - 360DEG
 C Interval: 2.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2018-09-21

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity: 65.0%
 Test Distance: 9.500m [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
5	1290	1290	1290	1290	1290	1290	1290	1290	0- 5	308.4	308.4	0.84,0.84
10	1282	1283	1283	1283	1282	1283	1283	1283	5- 10	920.6	1229	3.35,3.35
15	1262	1266	1264	1267	1262	1267	1264	1266	10- 15	1511	2740	7.47,7.47
20	1231	1238	1235	1238	1231	1238	1235	1238	15- 20	2061	4802	13.1,13.1
25	1190	1200	1195	1201	1190	1201	1195	1200	20- 25	2551	7353	20,20
30	1140	1150	1145	1150	1140	1150	1145	1150	25- 30	2965	10318	28.1,28.1
35	1072	1088	1076	1088	1072	1088	1076	1088	30- 35	3286	13604	37.1,37.1
40	1000	1018	999.7	1019	1000	1019	999.7	1018	35- 40	3488	17092	46.6,46.6
45	918.1	920.9	918.7	922.9	918.1	922.9	918.7	920.9	40- 45	3577	20669	56.4,56.4
50	823.9	823.0	825.3	824.0	823.9	824.0	825.3	823.0	45- 50	3542	24211	66,66
55	718.1	718.1	718.4	719.5	718.1	719.5	718.4	718.1	50- 55	3374	27585	75.2,75.2
60	566.2	599.8	550.0	600.9	566.2	600.9	550.0	599.8	55- 60	3022	30607	83.4,83.4
65	433.9	457.5	413.6	461.1	433.9	461.1	413.6	457.5	60- 65	2475	33082	90.2,90.2
70	286.7	289.1	259.9	290.8	286.7	290.8	259.9	289.1	65- 70	1831	34913	95.2,95.2
75	158.0	148.3	137.7	151.2	158.0	151.2	137.7	148.3	70- 75	1127	36040	98.3,98.3
80	55.61	48.67	42.67	47.26	55.61	47.26	42.67	48.67	75- 80	507.4	36548	99.6,99.6
85	5.534	5.774	5.460	5.316	5.534	5.316	5.460	5.774	80- 85	117.7	36665	100,100
90	1.256	1.295	1.221	1.252	1.256	1.252	1.221	1.295	85- 90	14.15	36680	100,100
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:×10cd									UNIT:lm		

Conical surface Flux(90deg): 20669 lm

%lum = 56.4%
%lamp = 56.4%

Conical surface Flux(120deg): 30607 lm

%lum = 83.4%
%lamp = 83.4%

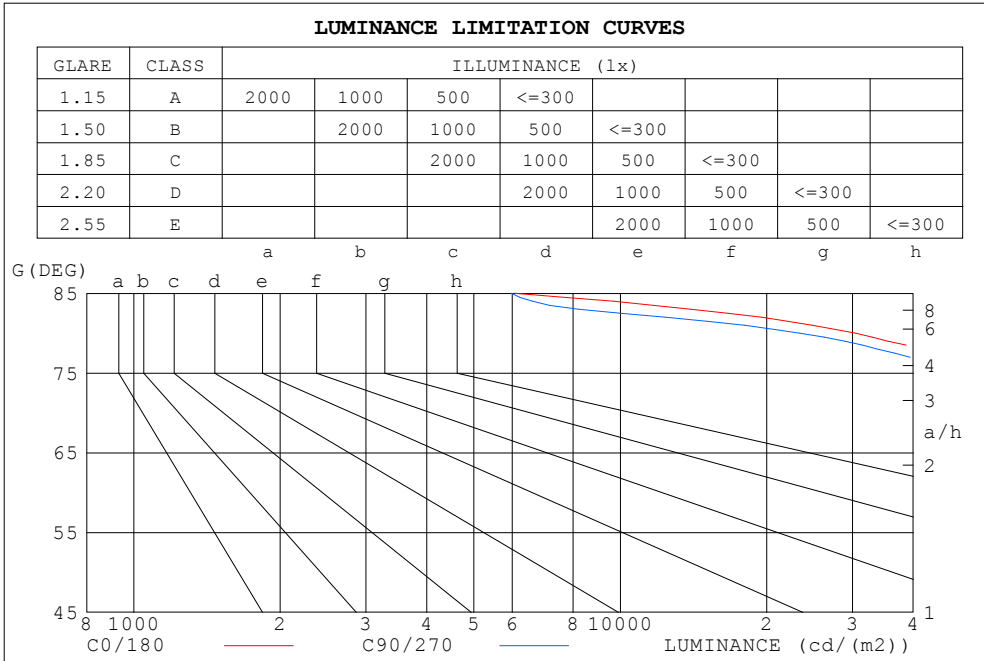
C Range: 0 - 360DEG
C Interval: 2.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2018-09-21

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks:

Checker: LI

Assessor:

LUMINANCE LIMITATION CURVES



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	6047	5967
80	30500	23400
75	58145	50669
70	79833	72375
65	97771	93209
60	107846	104755
55	119227	119291
50	122076	122286
45	123654	123733

C Range: 0 - 360DEG
 C Interval: 2.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2018-09-21

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity: 65.0%
 Test Distance: 9.500m [K=1.0000]
 Remarks:

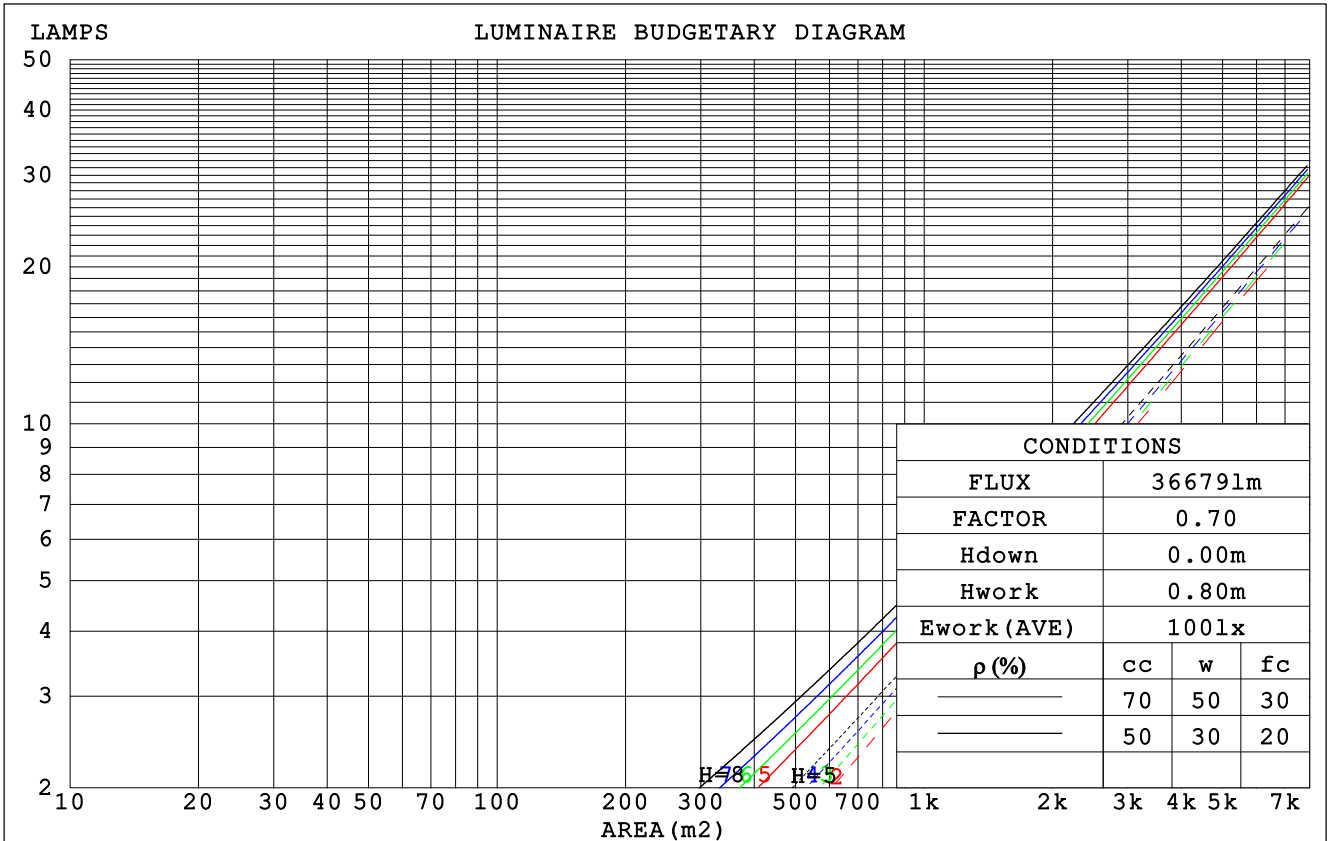
Checker: LI

Assessor:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{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	.90	.96	.99	.96	.93	.95	.93	.90	.91	.90	.88	.86
2.0	.92	.86	.80	.90	.85	.80	.87	.82	.78	.84	.80	.76	.81	.77	.74	.72
3.0	.81	.73	.67	.80	.72	.67	.77	.71	.65	.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	.53	.47	.42	.52	.46	.41	.39
7.0	.52	.44	.38	.52	.43	.38	.50	.43	.37	.49	.42	.37	.47	.41	.37	.35
8.0	.48	.39	.34	.47	.39	.33	.46	.38	.33	.45	.38	.33	.43	.37	.33	.31
9.0	.44	.36	.30	.43	.35	.30	.42	.35	.30	.41	.34	.30	.40	.34	.30	.28
10.0	.40	.33	.27	.40	.32	.27	.39	.32	.27	.38	.31	.27	.37	.31	.27	.25



C Range: 0 - 360DEG
 C Interval: 2.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2018-09-21

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:9.500m [K=1.0000]
 Remarks:

Checker: LI

Assessor:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

WEC AND CCEC

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)									
0.0																
1.0	.281	.160	.051	.274	.156	.050	.261	.150	.048	.249	.144	.046	.238	.138	.044	
2.0	.273	.150	.046	.267	.147	.045	.256	.142	.044	.245	.138	.043	.235	.133	.042	
3.0	.258	.137	.041	.252	.135	.041	.242	.131	.040	.233	.127	.039	.224	.124	.038	
4.0	.241	.125	.037	.236	.123	.036	.227	.120	.036	.218	.117	.035	.210	.114	.035	
5.0	.224	.114	.033	.220	.113	.033	.212	.110	.032	.204	.108	.032	.197	.105	.032	
6.0	.209	.105	.030	.205	.104	.030	.198	.102	.030	.191	.099	.029	.185	.097	.029	
7.0	.195	.097	.027	.192	.096	.027	.186	.094	.027	.180	.092	.027	.174	.090	.027	
8.0	.183	.089	.025	.180	.089	.025	.174	.087	.025	.169	.086	.025	.164	.084	.024	
9.0	.172	.083	.023	.169	.082	.023	.164	.081	.023	.159	.080	.023	.155	.079	.023	
10.0	.162	.078	.022	.160	.077	.021	.155	.076	.021	.150	.075	.021	.146	.074	.021	

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	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	.118	.104	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.170	.132	.100	.145	.114	.087	.100	.079	.060	.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	.036	.053	.036	.022	.017	.012	.007	
5.0	.148	.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:
 Test Date:2018-09-21

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:9.500m [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	29.6	31.1	29.9	31.3	31.5	29.5	31.0	29.8	31.2	31.4
3H	30.7	32.1	31.0	32.3	32.5	30.5	31.9	30.8	32.1	32.3
4H	31.0	32.3	31.3	32.5	32.8	30.7	32.0	31.0	32.2	32.5
6H	31.0	32.2	31.3	32.5	32.8	30.7	31.9	31.0	32.2	32.5
8H	31.0	32.1	31.3	32.4	32.7	30.6	31.8	31.0	32.1	32.4
12H	30.9	32.0	31.3	32.3	32.6	30.6	31.7	30.9	32.0	32.3
4H 2H	30.1	31.4	30.4	31.7	31.9	30.0	31.3	30.3	31.6	31.8
3H	31.4	32.5	31.7	32.8	33.1	31.1	32.3	31.5	32.6	32.9
4H	31.7	32.7	32.0	33.0	33.3	31.4	32.4	31.8	32.8	33.1
6H	31.8	32.7	32.2	33.0	33.4	31.5	32.4	31.8	32.7	33.1
8H	31.7	32.6	32.2	32.9	33.3	31.4	32.3	31.8	32.6	33.0
12H	31.7	32.5	32.1	32.9	33.3	31.4	32.1	31.8	32.5	32.9
8H 4H	31.7	32.6	32.1	32.9	33.3	31.5	32.3	31.9	32.7	33.1
6H	31.9	32.5	32.3	32.9	33.4	31.6	32.2	32.0	32.6	33.1
8H	31.8	32.5	32.3	32.9	33.3	31.5	32.1	32.0	32.6	33.0
12H	31.8	32.3	32.3	32.8	33.3	31.5	32.0	32.0	32.5	32.9
12H 4H	31.7	32.5	32.1	32.8	33.2	31.4	32.2	31.9	32.6	33.0
6H	31.8	32.4	32.3	32.9	33.3	31.5	32.1	32.0	32.6	33.0
8H	31.8	32.3	32.3	32.8	33.3	31.5	32.0	32.0	32.5	32.9
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
1.5H	+ 0.3 / - 0.6					+ 0.3 / - 0.6				
2.0H	+ 0.4 / - 0.5					+ 0.5 / - 0.6				

CIE Pub.117 Corrected 36679 lm Total Lamp Luminous Flux. (8log(F/F0) = 12.5)

C Range: 0 - 360DEG
 C Interval: 2.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2018-09-21

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:9.500m [K=1.0000]
 Remarks:

Checker: LI

Assessor:

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	59	74	68	59	52
1.25	85	75	68	83	74	67	81	73	67	60
1.50	90	80	74	88	80	73	85	78	72	65
2.00	97	89	83	95	87	82	91	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	107	102	98	105	100	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
 C Interval: 2.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2018-09-21

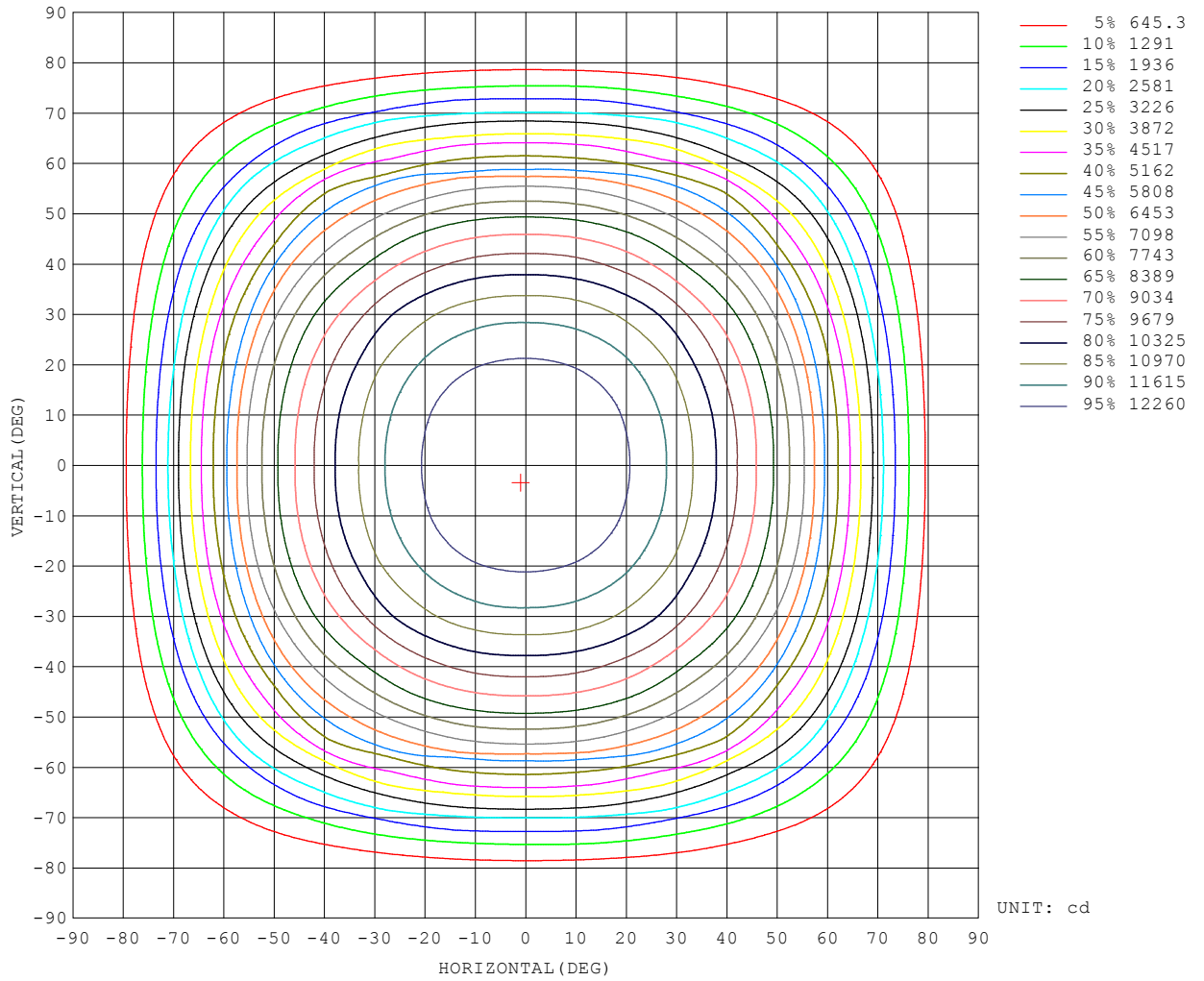
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 Humidity: 65.0%
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 Remarks:

Checker: LI

Assessor:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM



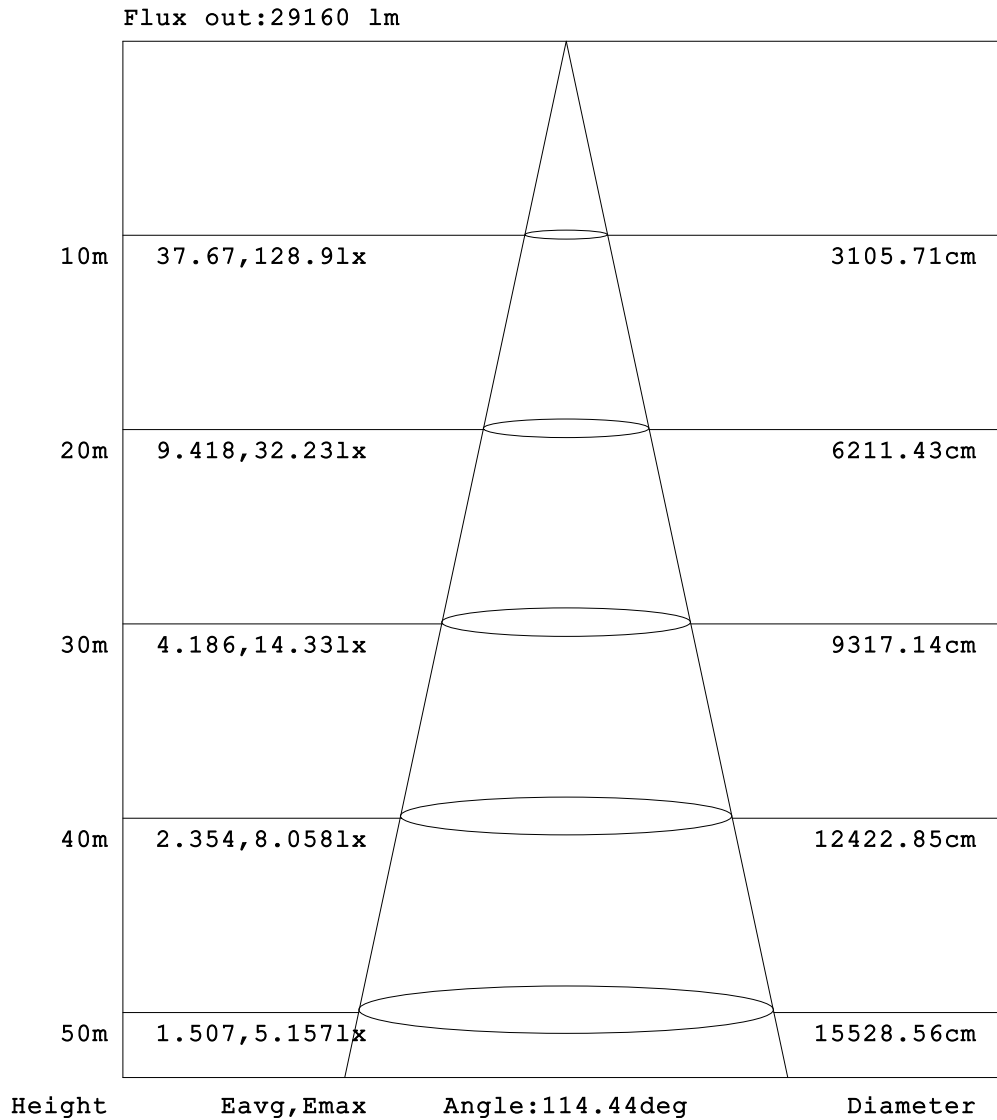
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C Interval: 2.5DEG
Test Speed: HIGH
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Operators:
Test Date: 2018-09-21

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity: 65.0%
Test Distance: 9.500m [K=1.0000]
Remarks:

Checker: LI

Assessor:

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:
 Test Date:2018-09-21

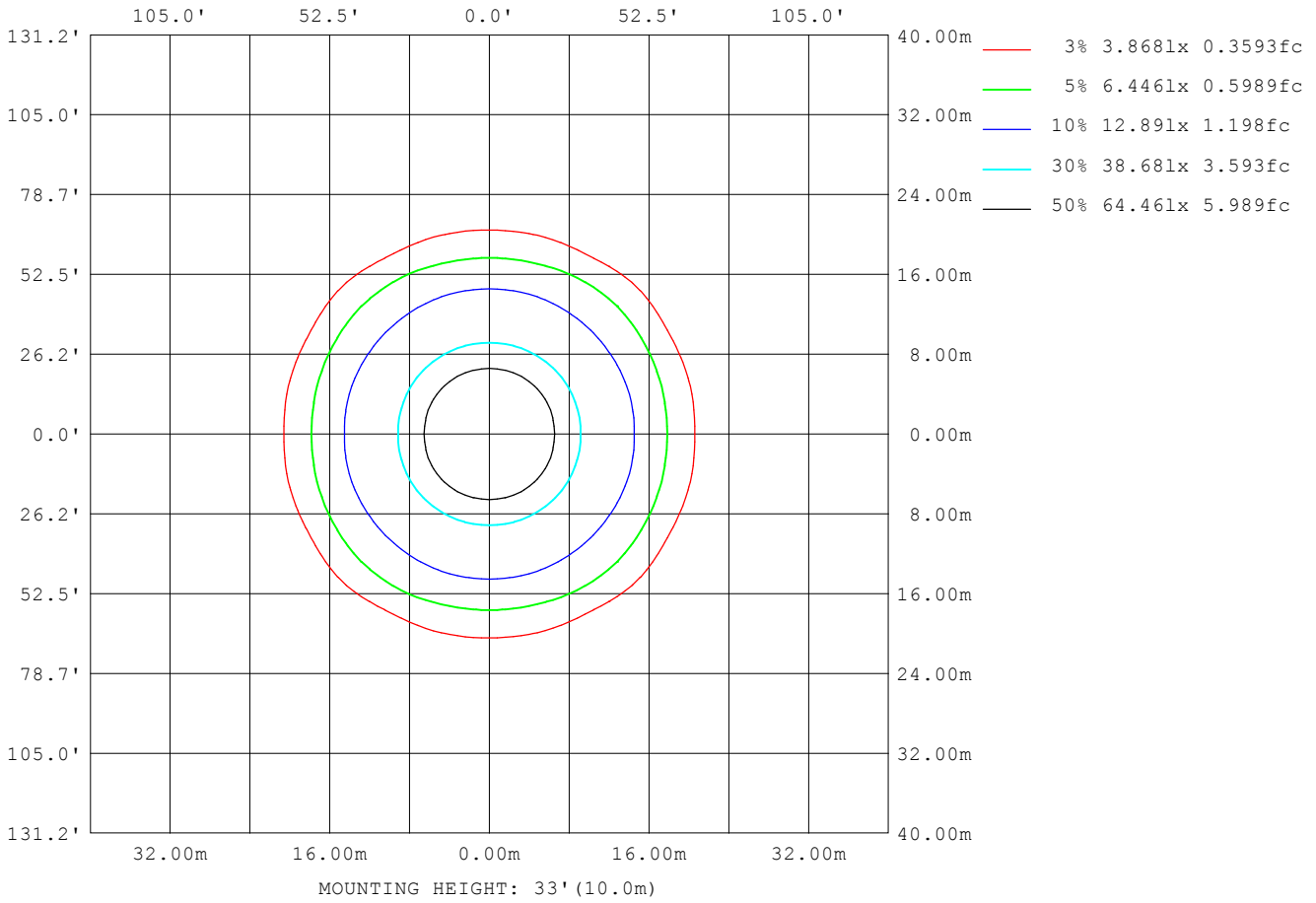
γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:9.500m [K=1.0000]
 Remarks:

Checker: LI

Assessor:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM



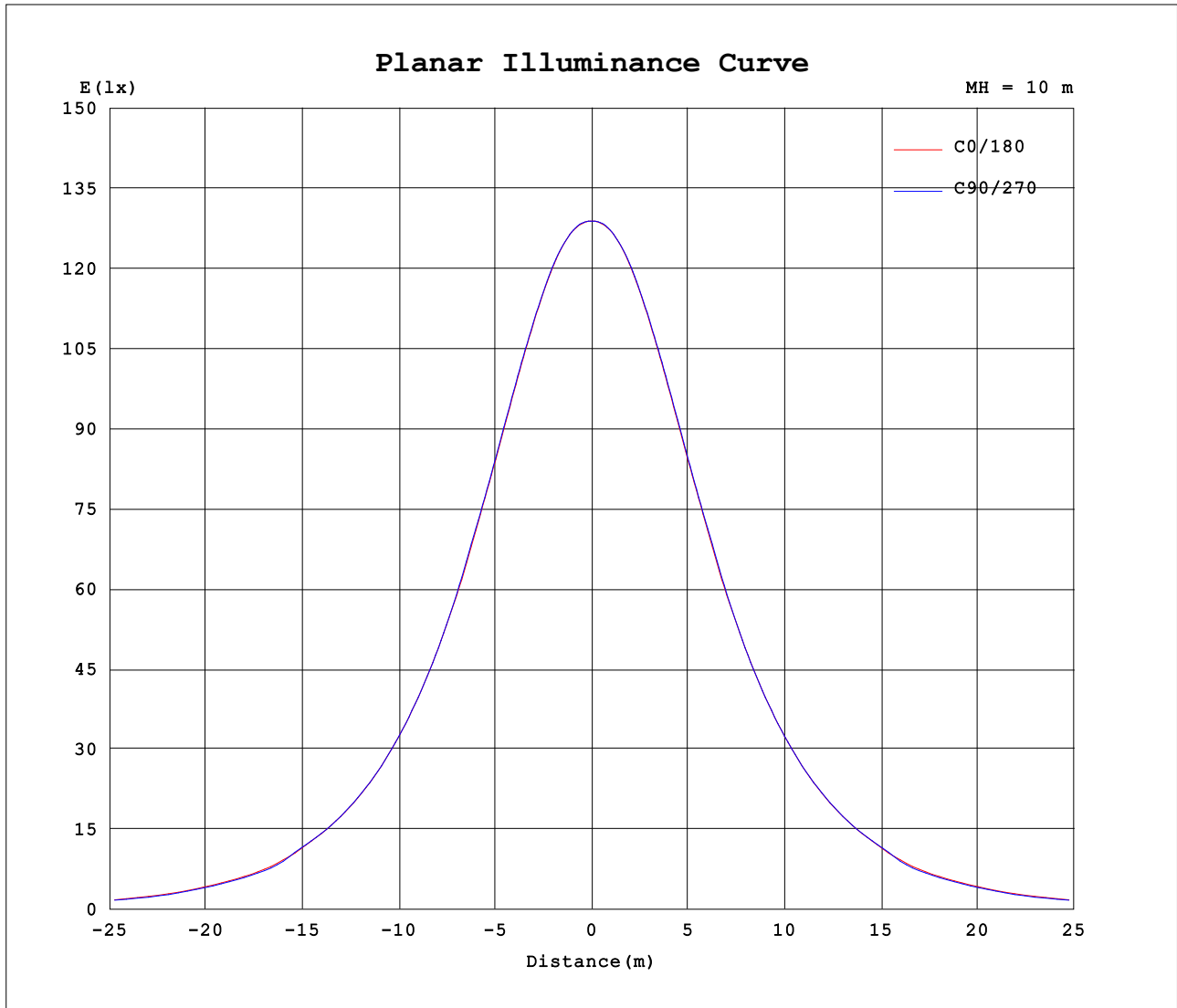
C Range: 0 - 360DEG
 C Interval: 2.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
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γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity: 65.0%
 Test Distance: 9.500m [K=1.0000]
 Remarks:

Checker: LI

Assessor:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 2.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2018-09-21

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity: 65.0%
Test Distance: 9.500m [K=1.0000]
Remarks:

Checker: LI

Assessor: