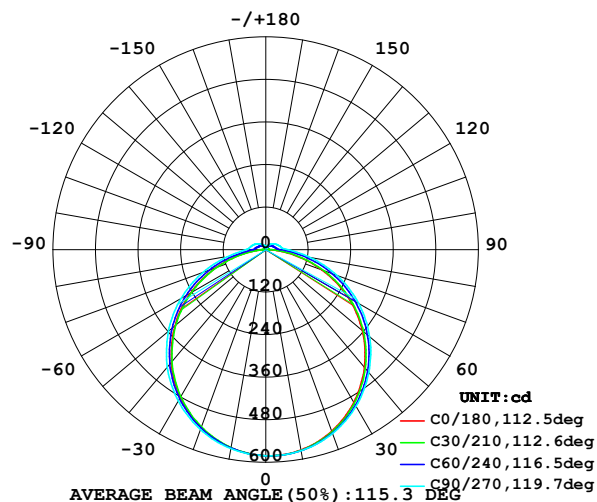


## LUMINAIRE PHOTOMETRIC TEST REPORT

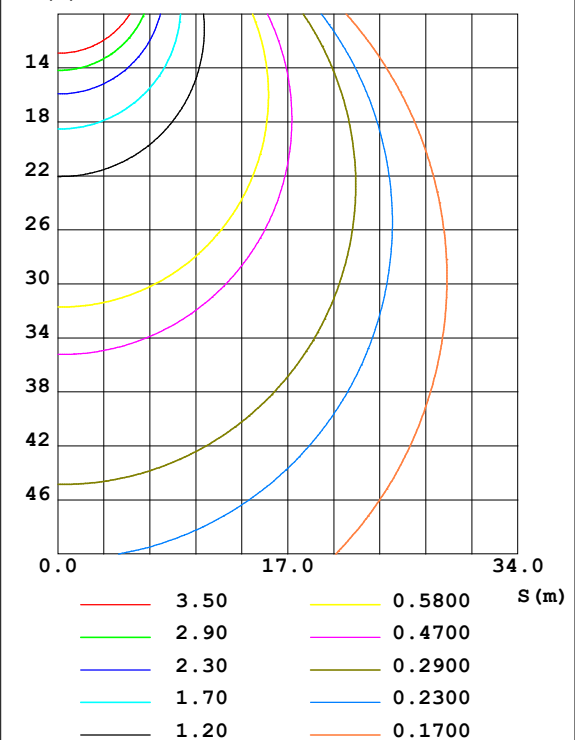
Test:U:230.2V I:0.0891A P:19.91W PF:0.9712 Lamp Flux:1897.41x1 lm		
NAME: TP-M2-020-NW	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 95.31 lm/W			
MODEL		I <sub>max</sub> (cd)	581.8	S/MH (C0/180)	1.27
NOMINAL POWER (W)	20	LOR (%)	100.0	S/MH (C90/270)	1.30
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	1897.4	η UP, DN (C0-180)	3.3, 48.2
NOMINAL FLUX (lm)	1897.41	CIE CLASS	DIRECT	η UP, DN (C180-360)	3.3, 45.2
LAMPS INSIDE	1	η up (%)	6.6	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	230.6	η down (%)	93.4	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: 25.3DEG  
Operators: QC  
Test Date: 2014-08-05

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.281  
Humidity: 65.0%  
Test Distance: 10.500m [K=1.0000]  
Remarks:

## ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	573.6	575.3	575.8	574.0	567.9	566.9	569.9	570.3	0- 10	55.03	55.03	2.9,2.9
20	544.9	548.8	551.4	547.9	533.6	532.7	539.9	540.6	10- 20	157.9	212.9	11.2,11.2
30	497.3	503.6	509.5	504.0	481.8	481.5	493.4	493.6	20- 30	240.3	453.2	23.9,23.9
40	433.1	442.6	452.5	445.5	414.2	415.3	432.6	431.8	30- 40	291.9	745.2	39.3,39.3
50	355.8	366.7	382.3	373.1	334.4	337.6	358.6	357.6	40- 50	306.7	1052	55.4,55.4
60	267.1	281.2	302.3	292.2	245.5	250.7	276.6	273.8	50- 60	283.9	1336	70.4,70.4
70	169.5	188.1	214.4	204.4	150.0	157.1	188.9	183.1	60- 70	226.6	1562	82.3,82.3
80	72.53	94.30	126.2	116.7	56.67	68.72	104.7	96.89	70- 80	144.5	1707	90,90
90	10.01	27.97	62.31	53.59	8.450	23.46	56.54	48.19	80- 90	65.42	1772	93.4,93.4
100	5.979	18.08	44.06	37.77	6.513	18.56	44.68	37.72	90-100	33.59	1806	95.2,95.2
110	5.498	14.96	37.89	32.37	5.951	14.92	38.84	32.46	100-110	26.98	1833	96.6,96.6
120	5.003	12.85	31.83	27.35	6.124	13.38	32.68	27.41	110-120	21.68	1855	97.7,97.7
130	5.150	11.10	26.08	22.72	6.193	11.13	25.52	22.67	120-130	16.64	1871	98.6,98.6
140	4.948	9.525	20.59	17.62	6.138	8.865	20.68	18.16	130-140	11.84	1883	99.2,99.2
150	4.934	8.075	15.48	11.95	5.831	7.092	15.72	13.84	140-150	7.611	1891	99.6,99.6
160	4.962	6.650	10.80	8.144	5.581	5.998	10.27	9.786	150-160	4.280	1895	99.9,99.9
170	5.052	5.488	6.784	5.823	5.379	5.439	6.035	6.304	160-170	1.960	1897	100,100
180	5.212	5.174	5.177	5.210	5.212	5.188	5.170	5.210	170-180	0.5249	1897	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

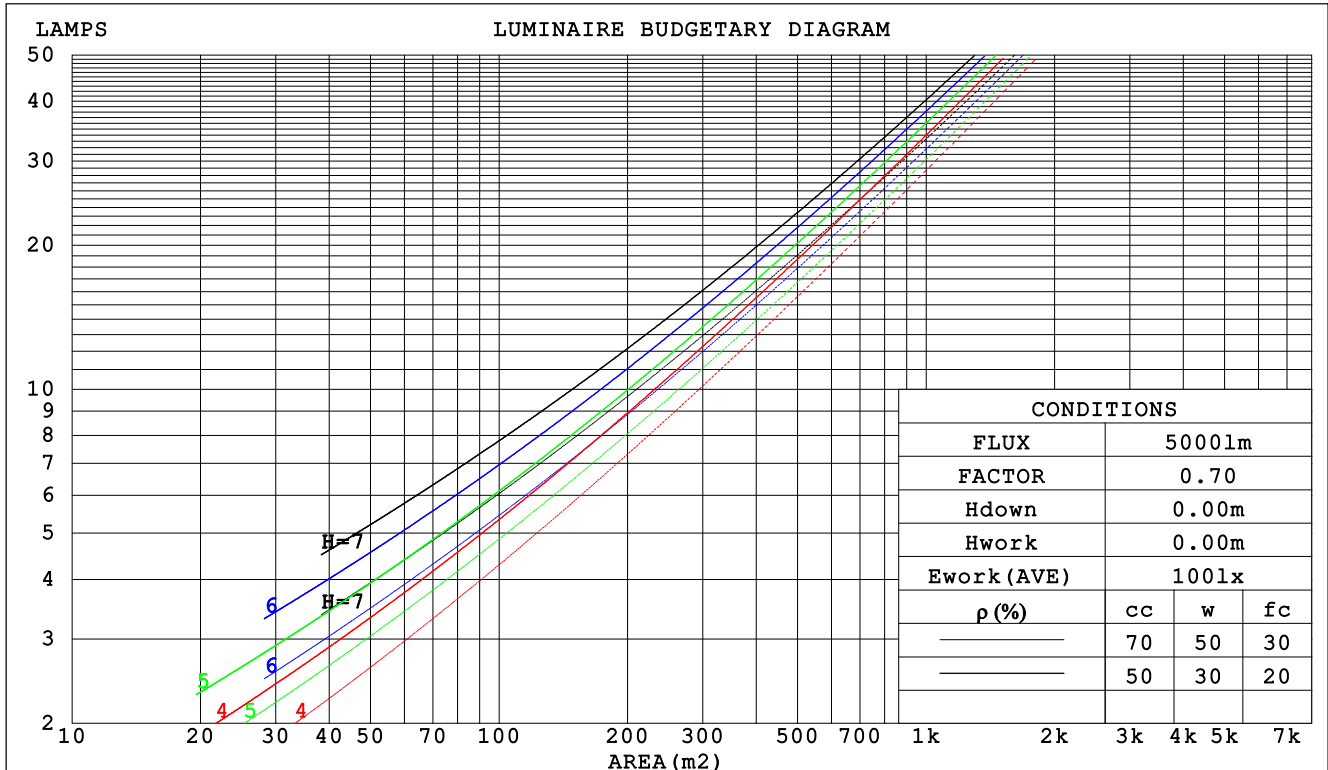
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:QC  
 Test Date:2014-08-05

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.281  
 Humidity:65.0%  
 Test Distance:10.500m [K=1.0000]  
 Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:230.2V I:0.0891A P:19.91W PF:0.9712 Lamp Flux:1897.41x1 lm		
NAME: TP-M2-020-NW	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:

$\rho_{cc}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio			Coefficients of Utilization(CU)												
0.0	1.17	1.17	1.17	1.14	1.14	1.14	1.07	1.07	1.07	1.01	1.01	1.01	.96	.96	.96	.93
1.0	1.01	.97	.92	.98	.94	.90	.93	.89	.86	.88	.85	.82	.83	.81	.79	.76
2.0	.88	.81	.75	.85	.79	.73	.81	.75	.70	.76	.72	.68	.72	.69	.65	.63
3.0	.77	.68	.61	.75	.67	.61	.71	.64	.59	.67	.61	.57	.64	.59	.55	.52
4.0	.68	.59	.52	.66	.58	.51	.63	.55	.50	.59	.53	.48	.57	.51	.47	.44
5.0	.60	.51	.44	.59	.50	.44	.56	.48	.43	.53	.47	.42	.51	.45	.41	.38
6.0	.54	.45	.39	.53	.44	.38	.50	.43	.37	.48	.41	.36	.46	.40	.36	.33
7.0	.49	.40	.34	.48	.40	.34	.46	.38	.33	.44	.37	.32	.42	.36	.32	.29
8.0	.45	.36	.30	.44	.36	.30	.42	.35	.29	.40	.34	.29	.38	.33	.28	.26
9.0	.41	.33	.27	.40	.32	.27	.38	.31	.26	.37	.30	.26	.35	.30	.25	.23
10.0	.38	.30	.24	.37	.29	.24	.36	.29	.24	.34	.28	.23	.33	.27	.23	.21



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: QC  
 Test Date: 2014-08-05

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.281  
 Humidity: 65.0%  
 Test Distance: 10.500m [K=1.0000]  
 Remarks:

### WEC AND CCEC

Test:U:230.2V I:0.0891A P:19.91W PF:0.9712 Lamp Flux:1897.41x1 lm								
NAME: TP-M2-020-NW				TYPE:			WEIGHT:	
SPEC.:				DIM.:			SERIAL No.:	
MFR.: EVERFINE				SUR.:			PROTECTION ANGLE:	

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	.331	.188	.060	.322	.183	.058	.305	.175	.056	.289	.167	.053	.274	.159	.051		
2.0	.303	.166	.051	.295	.162	.050	.280	.156	.048	.266	.149	.047	.253	.143	.045		
3.0	.277	.147	.044	.270	.144	.043	.256	.139	.042	.243	.133	.041	.232	.128	.040		
4.0	.254	.132	.039	.247	.129	.038	.235	.125	.037	.224	.120	.036	.213	.116	.035		
5.0	.233	.119	.034	.228	.117	.034	.217	.113	.033	.206	.109	.032	.197	.105	.032		
6.0	.216	.108	.031	.210	.106	.031	.201	.103	.030	.191	.099	.029	.183	.096	.029		
7.0	.200	.099	.028	.195	.097	.028	.186	.094	.027	.178	.091	.027	.170	.088	.026		
8.0	.187	.091	.026	.182	.090	.025	.174	.087	.025	.166	.084	.024	.159	.082	.024		
9.0	.175	.084	.024	.171	.083	.023	.163	.081	.023	.156	.078	.022	.150	.076	.022		
10.0	.164	.079	.022	.160	.077	.022	.154	.075	.021	.147	.073	.021	.141	.071	.020		

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	.241	.241	.241	.206	.206	.206	.140	.140	.140	.081	.081	.081	.026	.026	.026	
1.0	.232	.207	.183	.199	.177	.158	.136	.122	.109	.078	.071	.063	.025	.023	.021	
2.0	.225	.183	.148	.192	.157	.128	.132	.109	.089	.076	.063	.052	.024	.020	.017	
3.0	.217	.166	.125	.186	.143	.108	.128	.099	.076	.074	.058	.045	.024	.019	.015	
4.0	.209	.153	.109	.180	.132	.095	.124	.092	.067	.072	.054	.039	.023	.018	.013	
5.0	.202	.142	.098	.173	.123	.086	.119	.086	.060	.069	.051	.036	.022	.016	.012	
6.0	.195	.134	.091	.167	.116	.079	.115	.081	.056	.067	.048	.033	.022	.016	.011	
7.0	.188	.127	.085	.162	.110	.074	.112	.077	.052	.065	.046	.031	.021	.015	.010	
8.0	.181	.122	.081	.156	.106	.070	.108	.074	.050	.063	.044	.030	.020	.014	.010	
9.0	.175	.117	.077	.151	.101	.067	.105	.071	.048	.061	.042	.029	.020	.014	.009	
10.0	.170	.113	.075	.146	.098	.065	.101	.069	.046	.059	.041	.028	.019	.013	.009	

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:QC  
Test Date:2014-08-05

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.281  
Humidity:65.0%  
Test Distance:10.500m [K=1.0000]  
Remarks:

### Uncorrected UGR Table

Test:U:230.2V I:0.0891A P:19.91W PF:0.9712 Lamp Flux:1897.41x1 lm											
NAME: TP-M2-020-NW						TYPE:		WEIGHT:			
SPEC.:						DIM.:		SERIAL No.:			
MFR.: EVERFINE						SUR.:		PROTECTION ANGLE:			
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	18.4	19.8	18.7	20.1	20.5	18.9	20.4	19.3	20.7	21.0	
3H	19.9	21.2	20.3	21.6	22.0	20.8	22.1	21.2	22.5	22.9	
4H	20.5	21.8	20.9	22.1	22.5	21.7	23.0	22.1	23.3	23.7	
6H	20.9	22.1	21.3	22.5	22.9	22.5	23.7	22.9	24.1	24.5	
8H	21.0	22.2	21.5	22.6	23.0	22.9	24.1	23.3	24.5	24.9	
12H	21.1	22.2	21.6	22.6	23.1	23.3	24.4	23.7	24.8	25.3	
4H 2H	19.1	20.3	19.5	20.7	21.1	19.5	20.8	19.9	21.1	21.5	
3H	20.8	21.9	21.2	22.3	22.7	21.6	22.7	22.0	23.1	23.5	
4H	21.5	22.5	21.9	22.9	23.4	22.6	23.6	23.1	24.0	24.5	
6H	22.0	22.9	22.5	23.4	23.9	23.6	24.5	24.1	25.0	25.5	
8H	22.2	23.0	22.7	23.5	24.0	24.1	24.9	24.6	25.4	25.9	
12H	22.2	23.0	22.8	23.5	24.1	24.6	25.4	25.1	25.9	26.4	
8H 4H	21.9	22.7	22.4	23.2	23.7	22.8	23.7	23.4	24.2	24.7	
6H	22.5	23.2	23.1	23.8	24.3	24.0	24.7	24.6	25.3	25.8	
8H	22.8	23.4	23.3	23.9	24.5	24.7	25.3	25.2	25.8	26.4	
12H	22.9	23.5	23.5	24.0	24.6	25.3	25.9	25.9	26.5	27.1	
12H 4H	21.9	22.7	22.5	23.2	23.8	22.8	23.6	23.4	24.1	24.7	
6H	22.7	23.3	23.2	23.8	24.4	24.1	24.7	24.6	25.3	25.8	
8H	23.0	23.5	23.5	24.1	24.7	24.8	25.3	25.3	25.9	26.5	
Variations with the observer position at spacings:											
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.1					
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3					
2.0H	+ 0.1 / - 0.3					+ 0.1 / - 0.3					

CIE Pub.117 Corrected 1897 lm Total Lamp Luminous Flux.(8log(F/F0) = 2.2)

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:QC  
Test Date:2014-08-05

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.281  
Humidity:65.0%  
Test Distance:10.500m [K=1.0000]  
Remarks:

### UTILIZATION FACTORS TABLE

Test:U:230.2V I:0.0891A P:19.91W PF:0.9712 Lamp Flux:1897.41x1 lm		
NAME: TP-M2-020-NW	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:

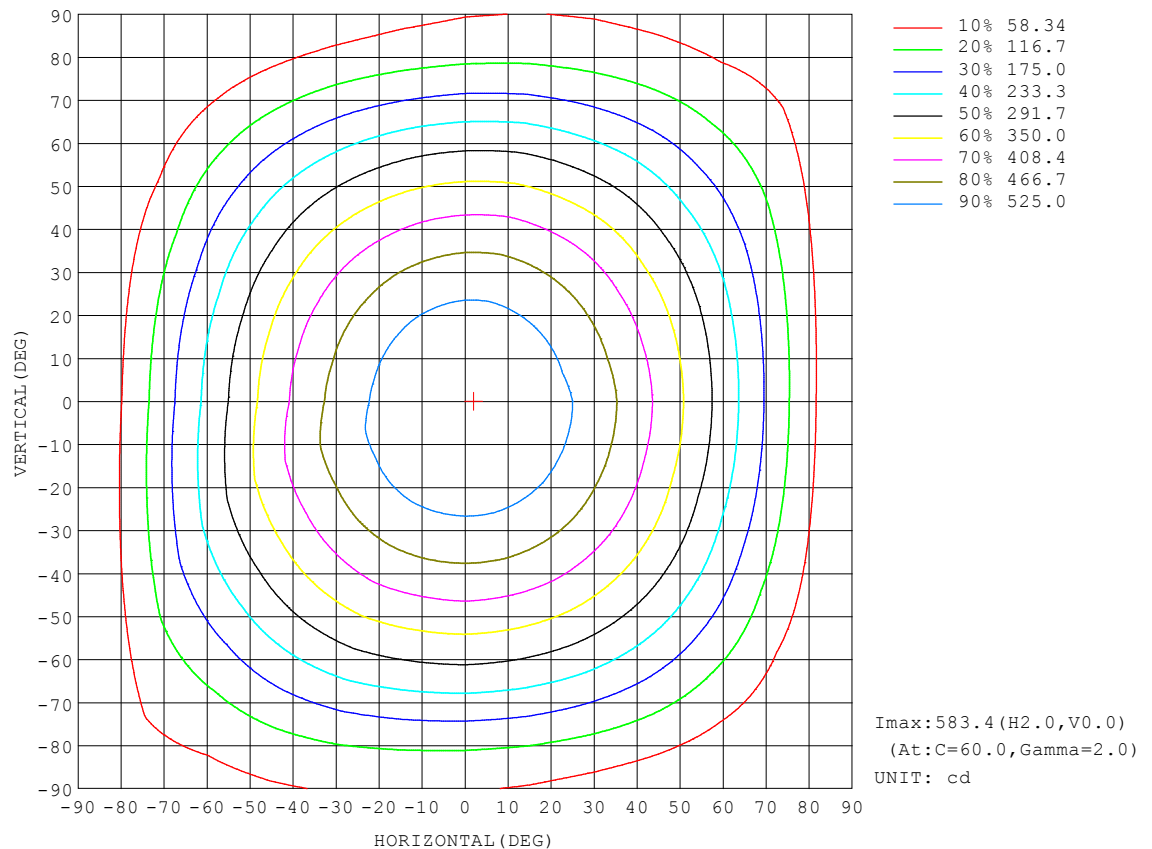
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	54	42	35	53	42	35	52	41	35	28
0.80	64	52	44	63	51	44	61	50	44	36
1.00	72	61	53	71	60	52	68	61	52	44
1.25	79	68	61	77	67	60	74	65	59	51
1.50	84	74	66	82	73	65	79	70	64	55
2.00	91	82	75	89	80	74	85	78	72	63
2.50	95	87	80	93	85	79	88	82	77	67
3.00	99	91	85	96	89	84	91	86	81	71
4.00	103	97	92	100	94	90	95	90	86	75
5.00	106	100	96	103	98	94	97	93	90	78
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: QC  
Test Date: 2014-08-05

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.281  
Humidity: 65.0%  
Test Distance: 10.500m [K=1.0000]  
Remarks:

## ISOCANDELA DIAGRAM

Test:U:230.2V I:0.0891A P:19.91W PF:0.9712 Lamp Flux:1897.41x1 lm		
NAME: TP-M2-020-NW	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:

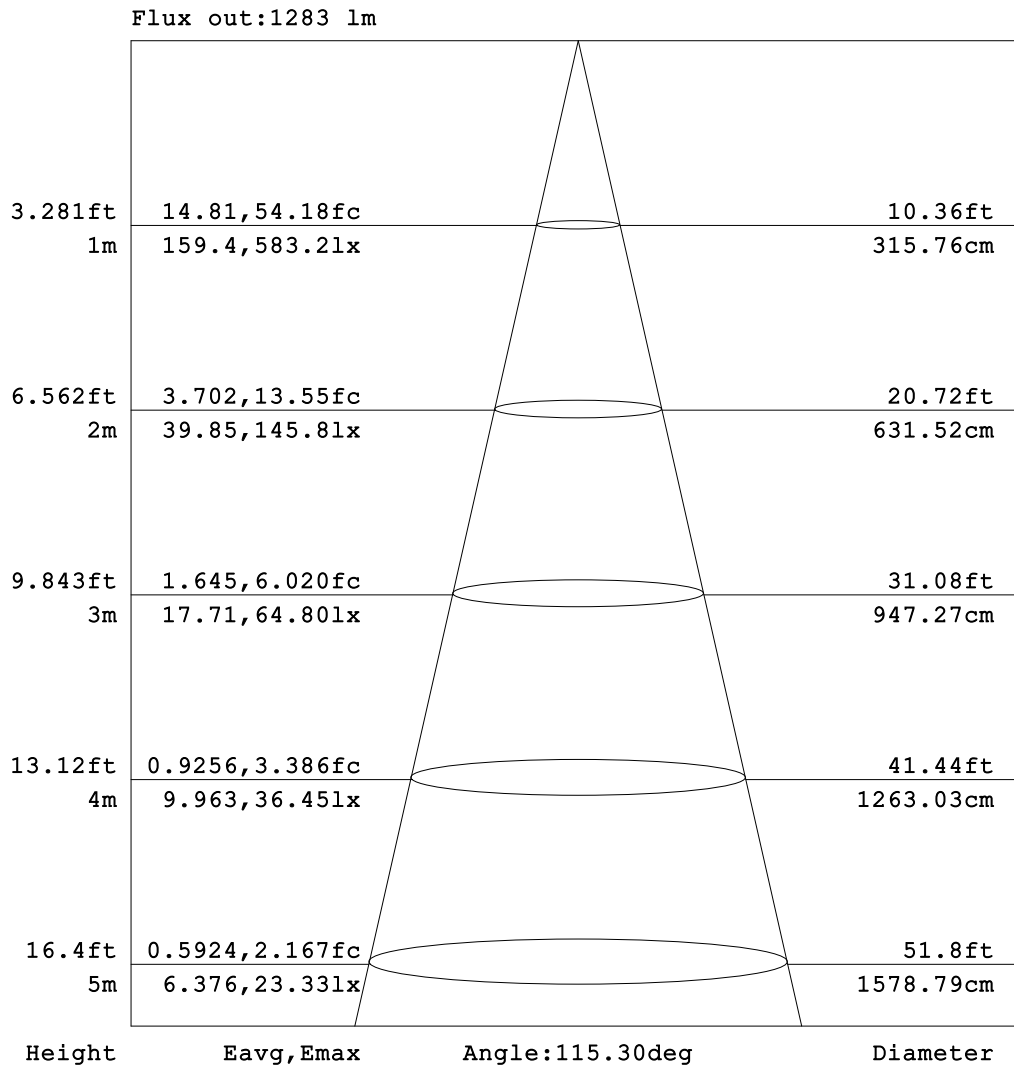


C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:QC  
Test Date:2014-08-05

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.281  
Humidity:65.0%  
Test Distance:10.500m [K=1.0000]  
Remarks:

### AAI Figure

Test:U:230.2V I:0.0891A P:19.91W PF:0.9712 Lamp Flux:1897.41x1 lm		
NAME: TP-M2-020-NW	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:



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

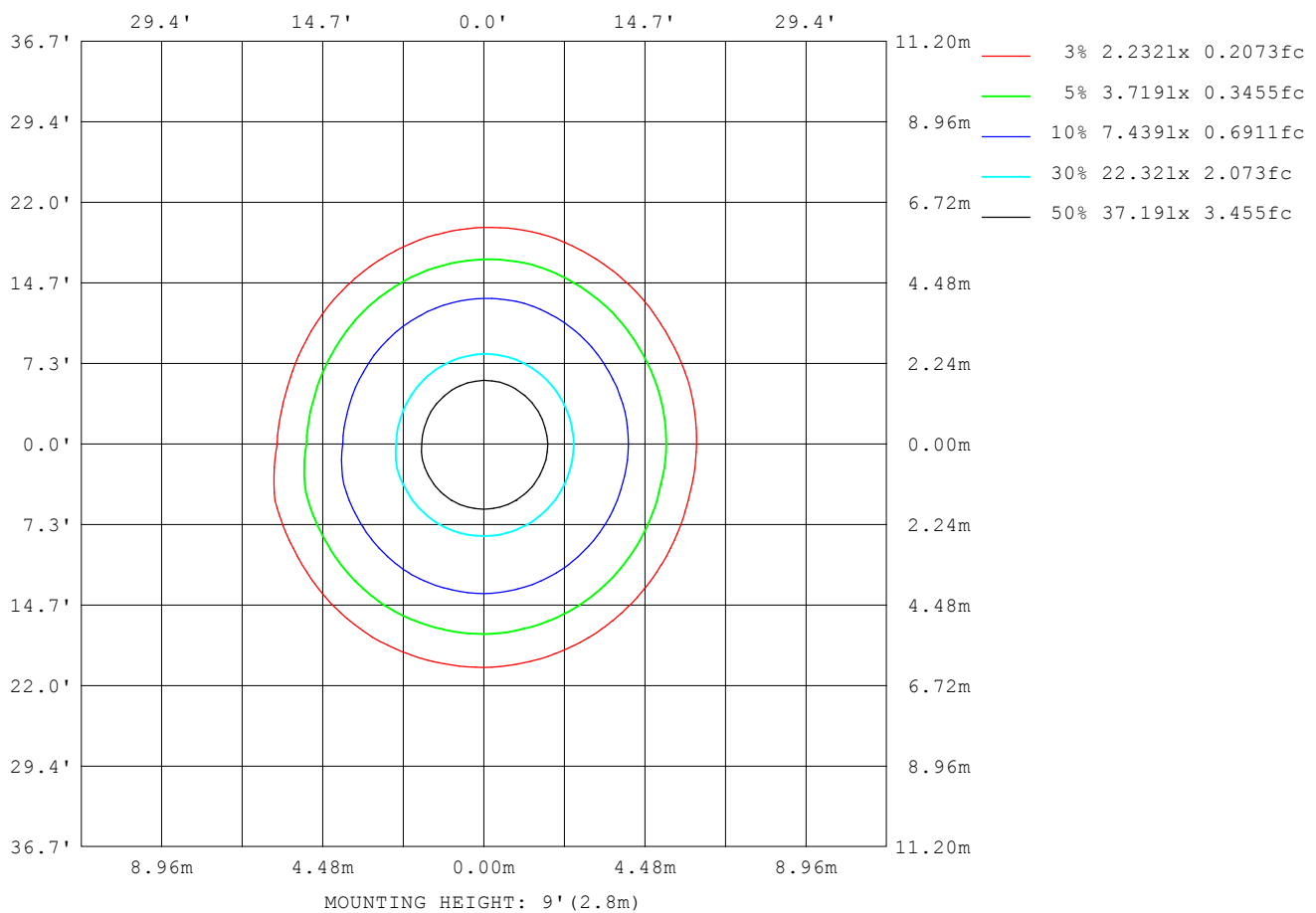
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: QC  
Test Date: 2014-08-05

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.281  
Humidity: 65.0%  
Test Distance: 10.500m [K=1.0000]  
Remarks:



### ISOLUX DIAGRAM

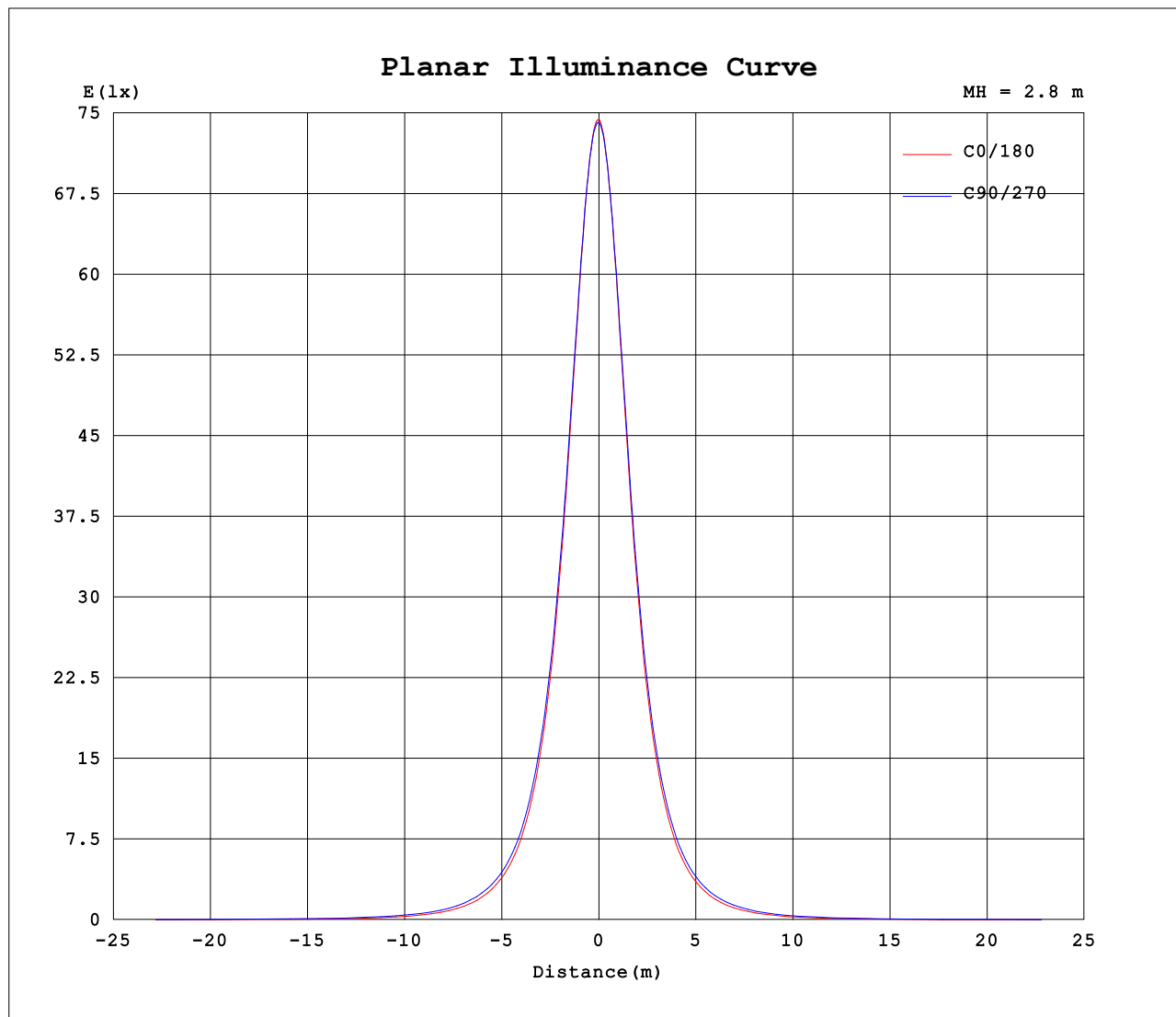
Test:U:230.2V I:0.0891A P:19.91W PF:0.9712 Lamp Flux:1897.41x1 lm		
NAME: TP-M2-020-NW	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: QC  
 Test Date: 2014-08-05

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.281  
 Humidity: 65.0%  
 Test Distance: 10.500m [K=1.0000]  
 Remarks:

## Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: QC  
Test Date: 2014-08-05

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.281  
Humidity: 65.0%  
Test Distance: 10.500m [K=1.0000]  
Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.2V I:0.0891A P:19.91W PF:0.9712 Lamp Flux:1897.41x1 lm		
NAME: TP-M2-020-NW	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	581	581	581	581	581	581	581	581	581	581	581	581	581	581	581	581	581	581	581
5	580	580	581	581	581	581	581	581	580	580	579	579	577	576	577	577	577	577	578
10	574	574	575	575	575	576	576	576	575	574	572	572	568	566	567	567	568	568	570
15	562	562	563	564	565	566	566	565	565	563	561	560	553	551	552	552	554	555	557
20	545	545	547	549	550	551	551	551	550	548	544	543	534	531	532	533	535	537	540
25	523	524	526	528	530	532	533	532	531	528	524	522	510	507	507	509	512	515	519
30	497	498	500	504	506	509	509	509	508	504	499	497	482	478	479	482	486	489	493
35	467	467	470	475	479	482	483	482	481	476	470	468	450	446	447	450	455	460	464
40	433	433	437	443	447	451	452	452	450	445	438	436	414	410	411	415	422	427	433
45	396	395	400	405	412	417	419	418	417	410	403	399	375	371	372	378	384	391	396
50	356	354	360	367	374	379	382	381	381	373	365	361	334	329	331	338	345	353	359
55	313	311	317	325	334	340	343	343	342	334	325	321	291	285	287	295	303	312	319
60	267	265	272	281	291	298	302	302	301	292	282	278	246	239	242	251	260	270	277
65	219	216	224	235	246	254	259	259	258	249	238	234	198	189	195	204	215	225	233
70	169	166	175	188	200	209	214	215	214	204	192	189	150	140	146	157	170	180	189
75	120	116	126	140	153	164	169	170	169	160	146	143	102	90.8	98.4	111	125	136	145
80	72.5	66.6	77.8	94.3	109	120	126	128	126	117	103	99.4	56.7	44.4	54.5	68.7	83.5	95.3	105
85	32.0	24.3	36.3	53.8	69.0	81.6	88.6	90.6	88.7	79.1	65.3	62.1	22.3	9.39	21.3	36.7	52.2	64.8	74.1
90	10.0	0.94	11.9	28.0	42.8	55.0	62.3	64.5	62.4	53.6	41.3	38.7	8.45	1.23	9.70	23.5	37.2	48.5	56.5
95	6.86	0.78	7.86	20.2	32.0	41.9	48.5	50.5	48.5	41.3	31.8	30.0	7.10	1.47	8.27	20.3	31.9	41.5	48.1
100	5.98	0.97	6.79	18.1	29.2	38.2	44.1	46.0	44.0	37.8	29.3	27.6	6.51	1.77	7.27	18.6	29.6	38.6	44.7
105	5.67	1.21	6.23	16.4	26.8	35.4	41.0	42.8	41.0	35.1	27.1	25.6	5.87	2.09	6.57	16.3	26.2	36.0	41.7
110	5.50	1.47	5.93	15.0	24.5	32.6	37.9	39.6	37.9	32.4	25.0	23.6	5.95	2.44	6.50	14.9	24.3	32.6	38.8
115	4.81	1.74	5.74	13.8	22.5	30.0	34.8	36.5	35.0	29.8	23.2	21.9	6.01	2.78	6.40	14.1	22.6	29.3	35.9
120	5.00	2.04	5.63	12.8	20.6	27.4	31.8	33.4	32.0	27.3	21.4	20.2	6.12	3.09	6.58	13.4	20.4	27.1	32.7
125	5.17	2.35	5.58	11.9	18.9	24.9	28.9	30.4	29.2	25.0	19.7	18.6	6.20	3.42	6.25	12.5	19.3	24.7	28.1
130	5.15	2.65	5.51	11.1	17.2	22.5	26.1	27.4	26.4	22.7	17.6	16.5	6.19	3.73	6.03	11.1	17.7	22.6	25.5
135	5.03	2.96	5.47	10.3	15.6	20.2	23.3	24.5	23.7	20.4	15.0	14.0	6.19	4.02	5.69	9.88	15.3	20.5	23.0
140	4.95	3.29	5.44	9.52	14.0	18.0	20.6	21.6	21.0	17.6	12.7	12.0	6.14	4.29	5.49	8.86	13.0	17.8	20.7
145	4.92	3.62	5.38	8.80	12.5	15.8	18.0	18.8	18.4	14.5	10.8	10.3	5.98	4.54	5.46	7.91	11.1	15.2	18.2
150	4.93	3.95	5.21	8.07	11.1	13.8	15.5	16.2	16.0	11.9	9.34	8.93	5.83	4.75	5.43	7.09	9.54	12.4	15.7
155	4.95	4.25	5.14	7.38	9.70	11.7	13.1	13.7	12.9	9.82	8.10	7.83	5.69	4.92	5.31	6.42	8.15	10.2	13.4
160	4.96	4.50	5.12	6.65	8.36	9.81	10.8	11.3	9.89	8.14	7.08	6.92	5.58	5.05	5.25	6.00	6.96	8.33	10.3
165	4.98	4.73	5.12	5.91	7.12	8.09	8.75	9.12	7.69	6.87	6.33	6.24	5.46	5.14	5.33	5.61	6.15	6.78	7.86
170	5.05	4.89	5.14	5.49	5.93	6.39	6.78	7.09	6.00	5.82	5.75	5.75	5.38	5.19	5.29	5.44	5.51	5.73	6.04
175	5.07	5.04	5.12	5.23	5.33	5.42	5.53	5.32	5.34	5.36	5.49	5.49	5.27	5.21	5.27	5.34	5.35	5.24	5.35
180	5.21	5.19	5.24	5.17	5.16	5.14	5.18	5.28	5.19	5.21	5.28	5.28	5.21	5.19	5.24	5.19	5.16	5.14	5.17

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:QC  
Test Date:2014-08-05

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.281  
Humidity:65.0%  
Test Distance:10.500m [K=1.0000]  
Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.2V I:0.0891A P:19.91W PF:0.9712 Lamp Flux:1897.41x1 lm		
NAME: TP-M2-020-NW	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:

Table--2

UNIT: cd

C (DEG) γ (DEG)	285	300	315	330	345														
0	581	581	581	581	581														
5	578	578	578	578	579														
10	570	570	570	571	571														
15	558	558	558	558	559														
20	541	541	541	541	541														
25	520	520	519	519	520														
30	496	494	494	493	494														
35	467	466	464	464	464														
40	435	434	432	431	431														
45	400	397	396	393	395														
50	363	359	358	354	355														
55	323	319	317	312	314														
60	281	277	274	269	270														
65	238	233	229	223	224														
70	193	189	183	177	177														
75	149	144	138	131	131														
80	108	104	96.9	88.4	87.7														
85	77.4	73.2	65.2	55.0	53.6														
90	59.4	55.8	48.2	38.0	36.3														
95	50.4	47.5	40.8	31.8	30.2														
100	46.7	44.0	37.7	29.2	27.7														
105	43.7	41.1	35.1	27.0	25.5														
110	40.6	38.1	32.5	24.8	23.5														
115	37.5	35.2	29.9	22.8	21.6														
120	34.4	32.3	27.4	21.0	19.9														
125	31.4	29.4	25.0	19.3	18.3														
130	28.4	26.6	22.7	17.6	16.7														
135	25.4	23.8	20.4	16.0	15.2														
140	22.4	21.1	18.2	14.4	13.6														
145	19.3	18.5	16.0	12.7	12.2														
150	16.3	15.9	13.8	11.2	10.8														
155	12.4	13.4	11.7	9.75	9.42														
160	10.4	11.1	9.79	8.33	8.09														
165	8.76	8.88	8.00	7.04	6.82														
170	7.25	6.83	6.30	5.78	5.74														
175	5.42	5.49	5.39	5.31	5.29														
180	5.28	5.19	5.21	5.27	5.28														

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:QC  
Test Date:2014-08-05

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.281  
Humidity:65.0%  
Test Distance:10.500m [K=1.0000]  
Remarks: