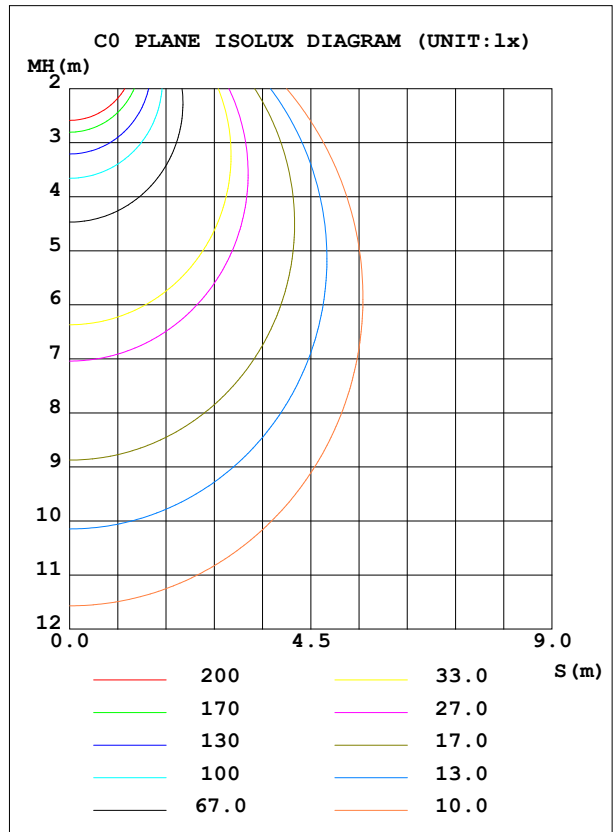
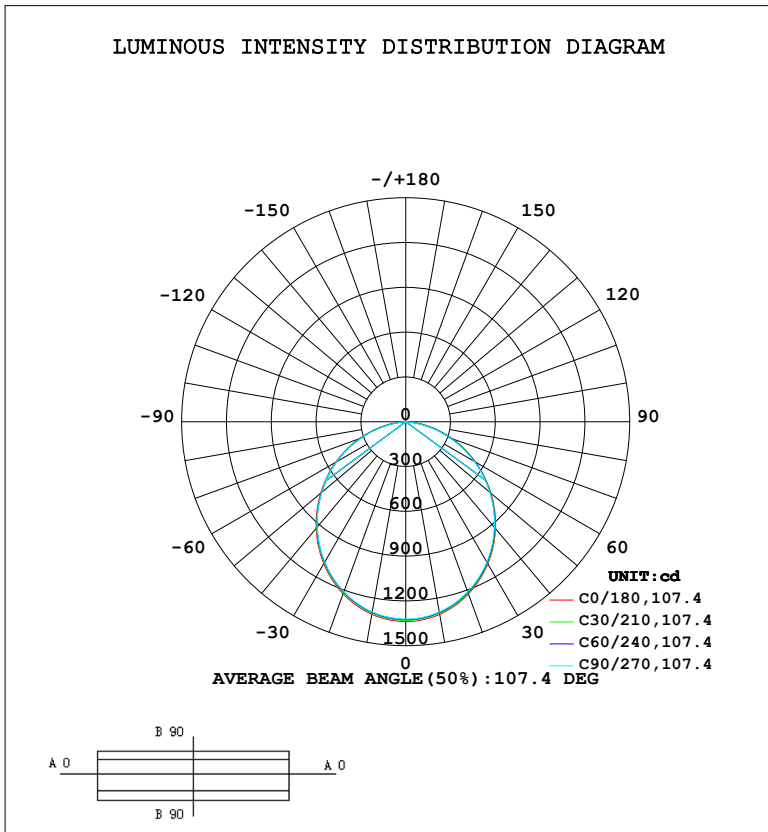


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.10V I:0.2361A P:29.677W PF:0.5711 Freq:50.00Hz		
Lamp Flux:3549x1 lm		
NAME: 116E-30W 6500K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	

DATA OF LAMP		PHOTOMETRIC DATA Eff: 119.59 lm/W			
MODEL		Imax (cd)	1338	S/MH (C0/180)	1.23
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	1.23
RATED VOLTAGE (V)	--	TOTAL FLUX (lm)	3549.0	η UP, DN (C0-180)	0.0, 50.0
NOMINAL FLUX (lm)	3549	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)	--	η down (%)	100.0	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: 10.0deg/s
 Temperature: 25.3°C
 Operators: DAMIN
 Test Date: 2023-09-05

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-3000H_V1 SYSTEM V2.00.463
 Humidity: 65.0%
 Test Distance: 9.000m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	1310	1300	1293	1289	1310	1298	1293	1289	0- 10	125.0	125.0	3.52,3.52
20	1227	1219	1212	1207	1227	1215	1211	1208	10- 20	355.6	480.6	13.5,13.5
30	1099	1093	1086	1081	1098	1087	1084	1082	20- 30	532.2	1013	28.5,28.5
40	935.2	930.5	923.6	919.2	933.8	923.7	922.4	921.0	30- 40	631.3	1644	46.3,46.3
50	744.8	742.1	735.1	731.3	743.2	734.2	734.2	733.8	40- 50	642.2	2286	64.4,64.4
60	538.4	541.3	528.4	531.9	541.0	529.3	532.1	530.3	50- 60	568.5	2855	80.4,80.4
70	328.5	328.4	311.0	319.6	328.9	318.7	314.1	319.6	60- 70	422.3	3277	92.3,92.3
80	132.6	121.9	99.89	115.6	130.6	115.5	100.6	116.3	70- 80	228.9	3506	98.8,98.8
90	1.835	1.876	1.660	1.860	2.266	2.280	2.027	2.273	80- 90	43.09	3549	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): 1969.3 lm

%lum = 55.5%

%lamp = 55.5%

Conical surface Flux(120deg): 2854.7 lm

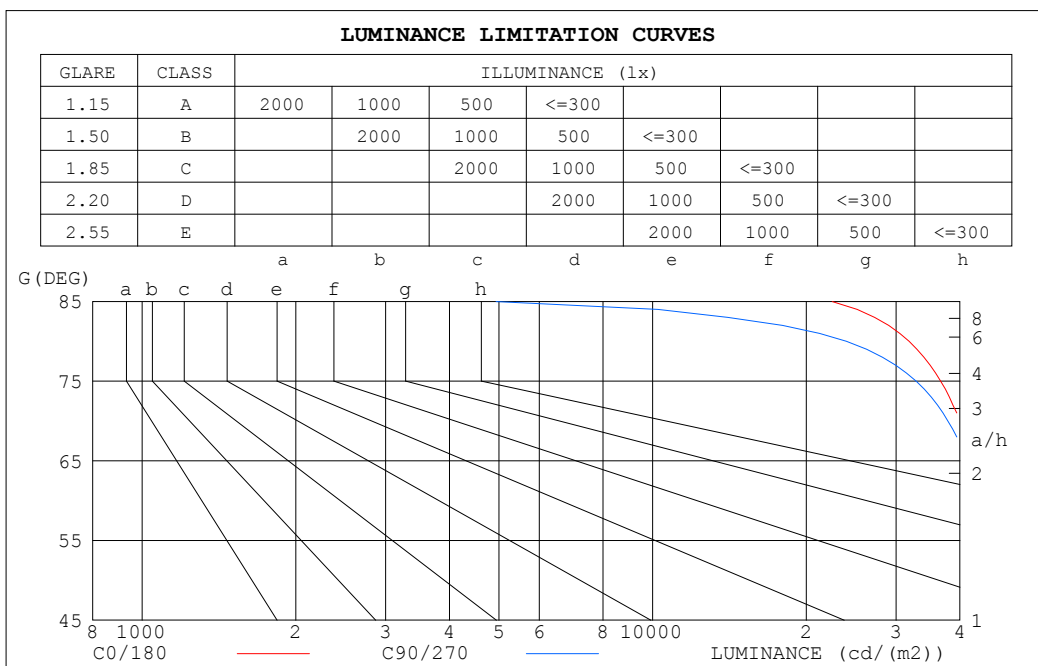
%lum = 80.4%

%lamp = 80.4%

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: 10.0deg/s
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2023-09-05

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.463
 Humidity:65.0%
 Test Distance:9.000m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES



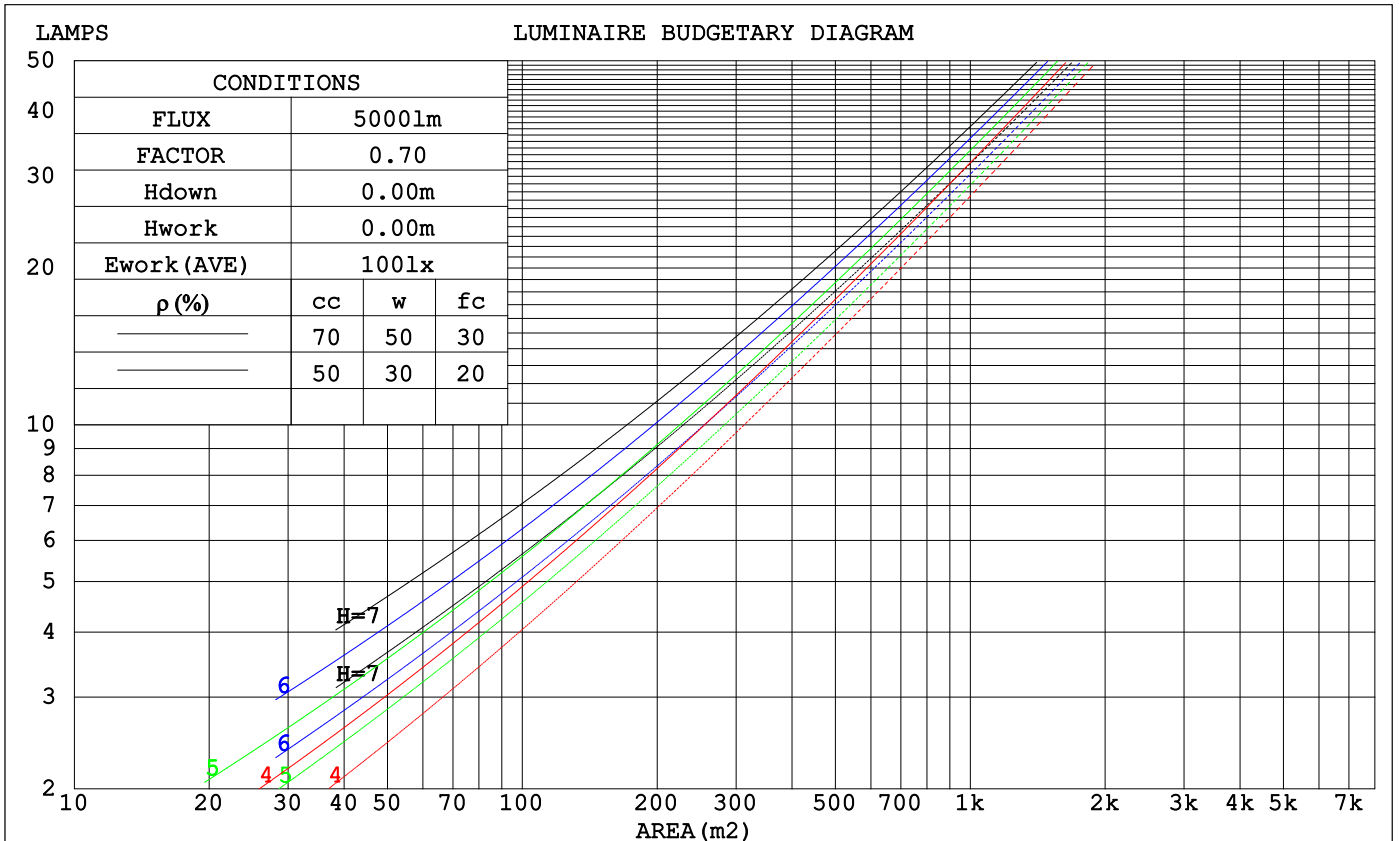
LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	22484	4936
80	31806	23969
75	36676	32833
70	40025	37885
65	42716	41412
60	44865	44030
55	46704	46062
50	48280	47651
45	49658	49022

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: 10.0deg/s
 Temperature: 25.3°C
 Operators: DAMIN
 Test Date: 2023-09-05

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-3000H_V1 SYSTEM V2.00.463
 Humidity: 65.0%
 Test Distance: 9.000m [K=1.0000]
 Remarks:

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	1.04	1.00	.97	1.02	.98	.95	.98	.95	.92	.94	.92	.89	.90	.88	.87	.84
2.0	.91	.85	.79	.89	.83	.78	.86	.81	.76	.83	.78	.74	.80	.76	.73	.71
3.0	.80	.72	.66	.79	.71	.65	.76	.69	.64	.73	.68	.63	.70	.66	.62	.60
4.0	.71	.63	.56	.70	.62	.55	.67	.60	.55	.65	.59	.54	.63	.58	.53	.51
5.0	.64	.55	.48	.63	.54	.48	.60	.53	.47	.58	.52	.47	.57	.51	.46	.44
6.0	.57	.49	.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	.42	.37	.47	.41	.36	.34
8.0	.48	.39	.33	.47	.39	.33	.46	.38	.33	.44	.38	.33	.43	.37	.33	.31
9.0	.44	.35	.30	.43	.35	.30	.42	.35	.30	.41	.34	.30	.40	.34	.29	.28
10.0	.40	.32	.27	.40	.32	.27	.39	.32	.27	.38	.31	.27	.37	.31	.27	.25



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: 10.0deg/s
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2023-09-05

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.463
 Humidity:65.0%
 Test Distance:9.000m [K=1.0000]
 Remarks:

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	.298	.170	.054	.291	.166	.053	.278	.159	.051	.266	.153	.049	.254	.148	.048	
2.0	.284	.156	.048	.278	.153	.047	.266	.148	.046	.255	.143	.045	.245	.139	.044	
3.0	.264	.141	.042	.259	.139	.042	.248	.135	.041	.239	.131	.040	.230	.127	.039	
4.0	.245	.127	.037	.240	.126	.037	.231	.122	.037	.222	.119	.036	.214	.116	.035	
5.0	.227	.116	.033	.222	.114	.033	.214	.112	.033	.207	.109	.032	.200	.107	.032	
6.0	.211	.106	.030	.207	.105	.030	.200	.102	.030	.193	.100	.029	.187	.098	.029	
7.0	.196	.097	.028	.193	.096	.027	.187	.094	.027	.181	.093	.027	.175	.091	.027	
8.0	.184	.090	.025	.181	.089	.025	.175	.087	.025	.169	.086	.025	.164	.084	.025	
9.0	.172	.083	.023	.170	.083	.023	.164	.081	.023	.160	.080	.023	.155	.079	.023	
10.0	.162	.078	.022	.160	.077	.022	.155	.076	.021	.151	.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	.179	.156	.135	.154	.134	.116	.105	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.171	.132	.099	.147	.114	.086	.100	.079	.060	.058	.046	.035	.019	.015	.011	
3.0	.163	.114	.075	.140	.099	.065	.096	.068	.046	.056	.040	.027	.018	.013	.009	
4.0	.156	.101	.059	.134	.087	.051	.092	.061	.036	.053	.036	.021	.017	.012	.007	
5.0	.148	.090	.048	.127	.078	.041	.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	.034	.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	.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: 15.0DEG
 Test Speed: 10.0deg/s
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2023-09-05

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.463
 Humidity:65.0%
 Test Distance:9.000m [K=1.0000]
 Remarks:

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	26.2	27.7	26.5	27.9	28.1	26.2	27.7	26.4	27.9	28.1
3H	27.7	29.1	28.0	29.3	29.6	27.6	28.9	27.9	29.2	29.4
4H	28.3	29.6	28.6	29.8	30.1	28.0	29.4	28.4	29.6	29.9
6H	28.7	29.9	29.0	30.2	30.4	28.3	29.5	28.6	29.8	30.1
8H	28.8	30.0	29.1	30.2	30.5	28.3	29.5	28.7	29.8	30.1
12H	28.8	30.0	29.2	30.3	30.6	28.3	29.4	28.6	29.7	30.0
4H 2H	26.8	28.1	27.1	28.4	28.6	26.8	28.1	27.1	28.3	28.6
3H	28.5	29.6	28.8	29.9	30.2	28.3	29.5	28.7	29.8	30.1
4H	29.2	30.2	29.5	30.5	30.9	28.9	30.0	29.3	30.3	30.6
6H	29.7	30.6	30.1	30.9	31.3	29.3	30.2	29.7	30.6	30.9
8H	29.8	30.7	30.2	31.1	31.4	29.3	30.2	29.8	30.6	31.0
12H	29.9	30.7	30.3	31.1	31.5	29.3	30.1	29.7	30.5	30.9
8H 4H	29.4	30.2	29.8	30.6	31.0	29.2	30.0	29.6	30.4	30.8
6H	30.0	30.7	30.5	31.1	31.6	29.6	30.4	30.1	30.8	31.2
8H	30.3	30.9	30.7	31.3	31.8	29.7	30.4	30.2	30.8	31.2
12H	30.4	30.9	30.9	31.4	31.9	29.7	30.3	30.2	30.7	31.2
12H 4H	29.4	30.2	29.8	30.6	31.0	29.2	30.0	29.6	30.4	30.8
6H	30.0	30.7	30.5	31.1	31.6	29.7	30.3	30.1	30.7	31.2
8H	30.3	30.8	30.8	31.3	31.8	29.8	30.3	30.3	30.8	31.3
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				

CIE Pub.117, 3549 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 4.4)
 Area: 0.024 m2

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: 10.0deg/s
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2023-09-05

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.463
 Humidity:65.0%
 Test Distance:9.000m [K=1.0000]
 Remarks:

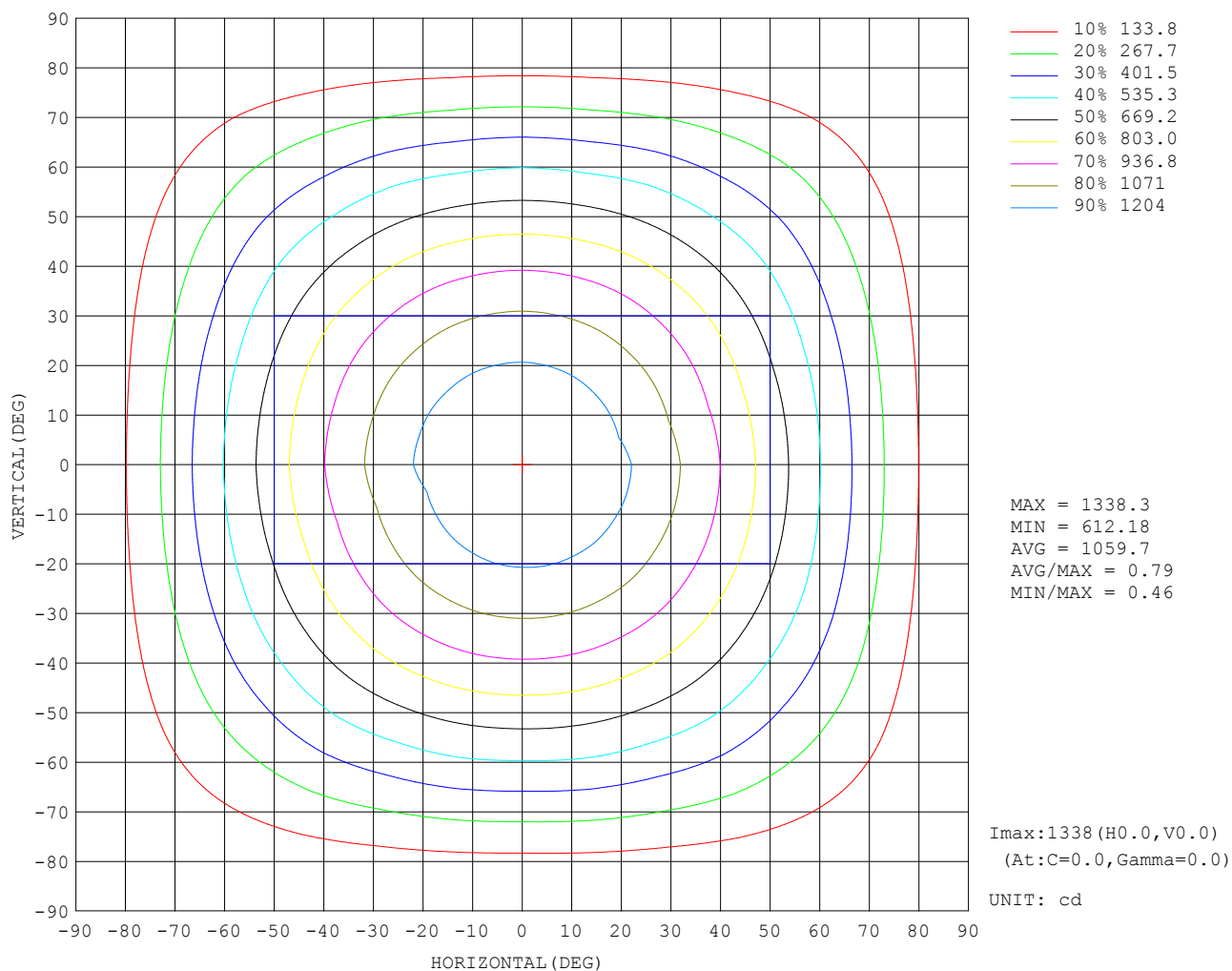
UTILIZATION FACTORS TABLE

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	57	46	40	34
0.80	69	57	50	68	57	50	66	56	49	43
1.00	77	66	59	76	65	59	74	67	58	51
1.25	84	74	67	83	73	66	80	72	66	58
1.50	89	79	73	87	78	72	84	77	71	64
2.00	96	87	81	94	86	80	90	84	79	71
2.50	100	92	86	98	91	85	94	88	83	75
3.00	103	96	91	101	95	90	97	92	88	79
4.00	107	101	97	104	100	95	100	96	93	84
5.00	109	104	101	107	103	99	102	99	96	87
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: 10.0deg/s
 Temperature: 25.3°C
 Operators: DAMIN
 Test Date: 2023-09-05

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-3000H_V1 SYSTEM V2.00.463
 Humidity: 65.0%
 Test Distance: 9.000m [K=1.0000]
 Remarks:

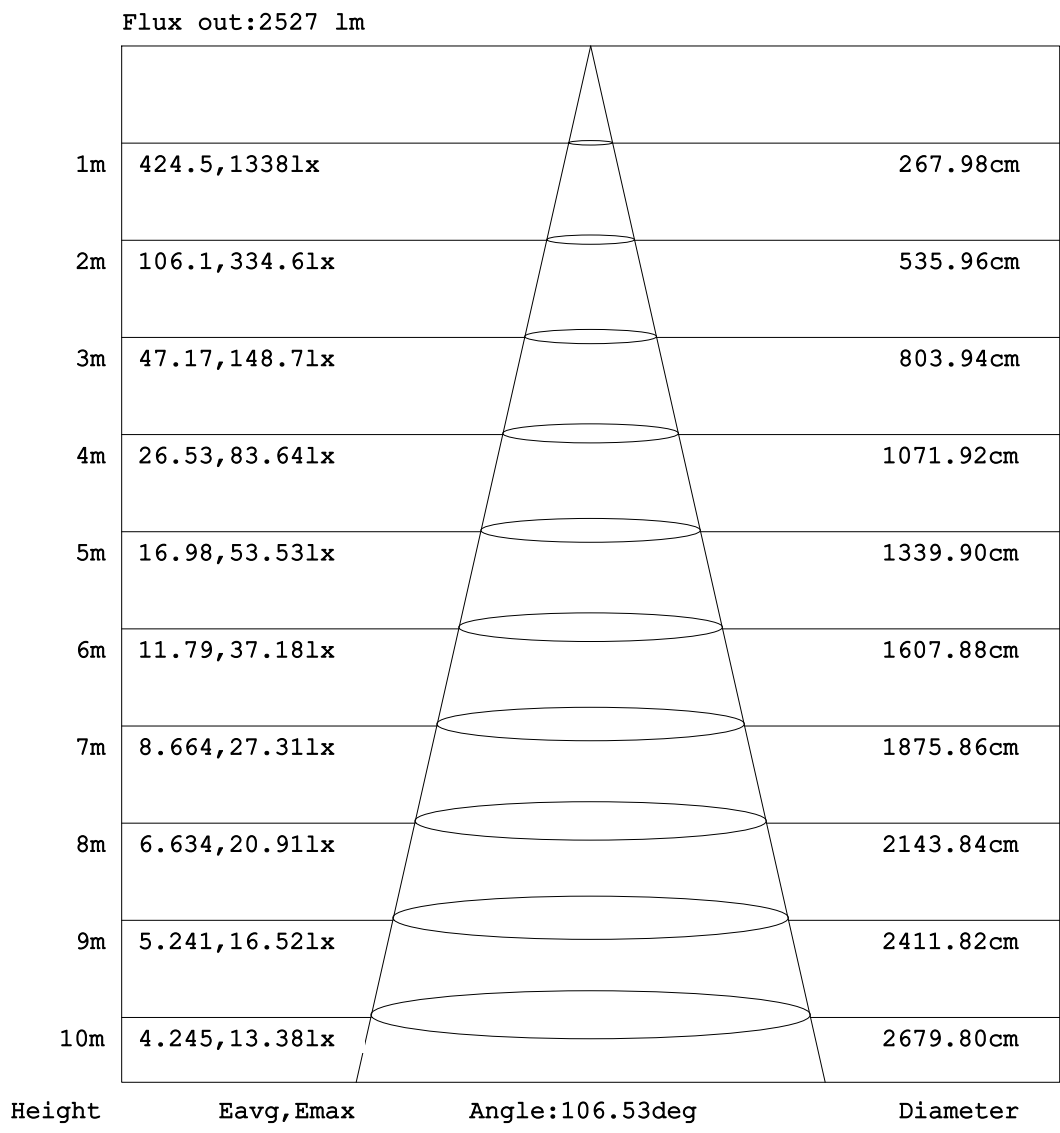
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: 10.0deg/s
 Temperature: 25.3°C
 Operators: DAMIN
 Test Date: 2023-09-05

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-3000H_V1 SYSTEM V2.00.463
 Humidity: 65.0%
 Test Distance: 9.000m [K=1.0000]
 Remarks:

AAI Figure

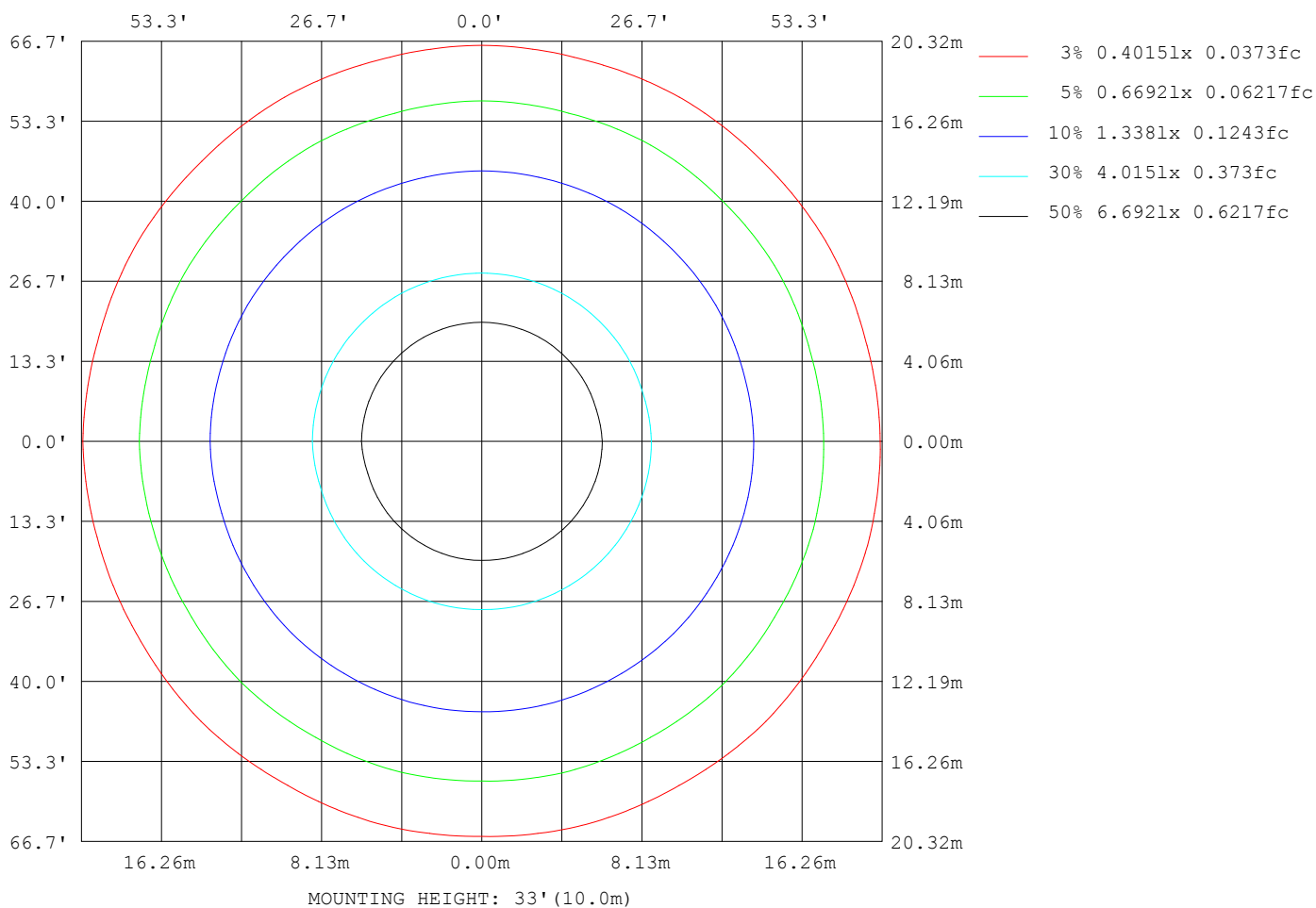


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: 10.0deg/s
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2023-09-05

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.463
 Humidity:65.0%
 Test Distance:9.000m [K=1.0000]
 Remarks:

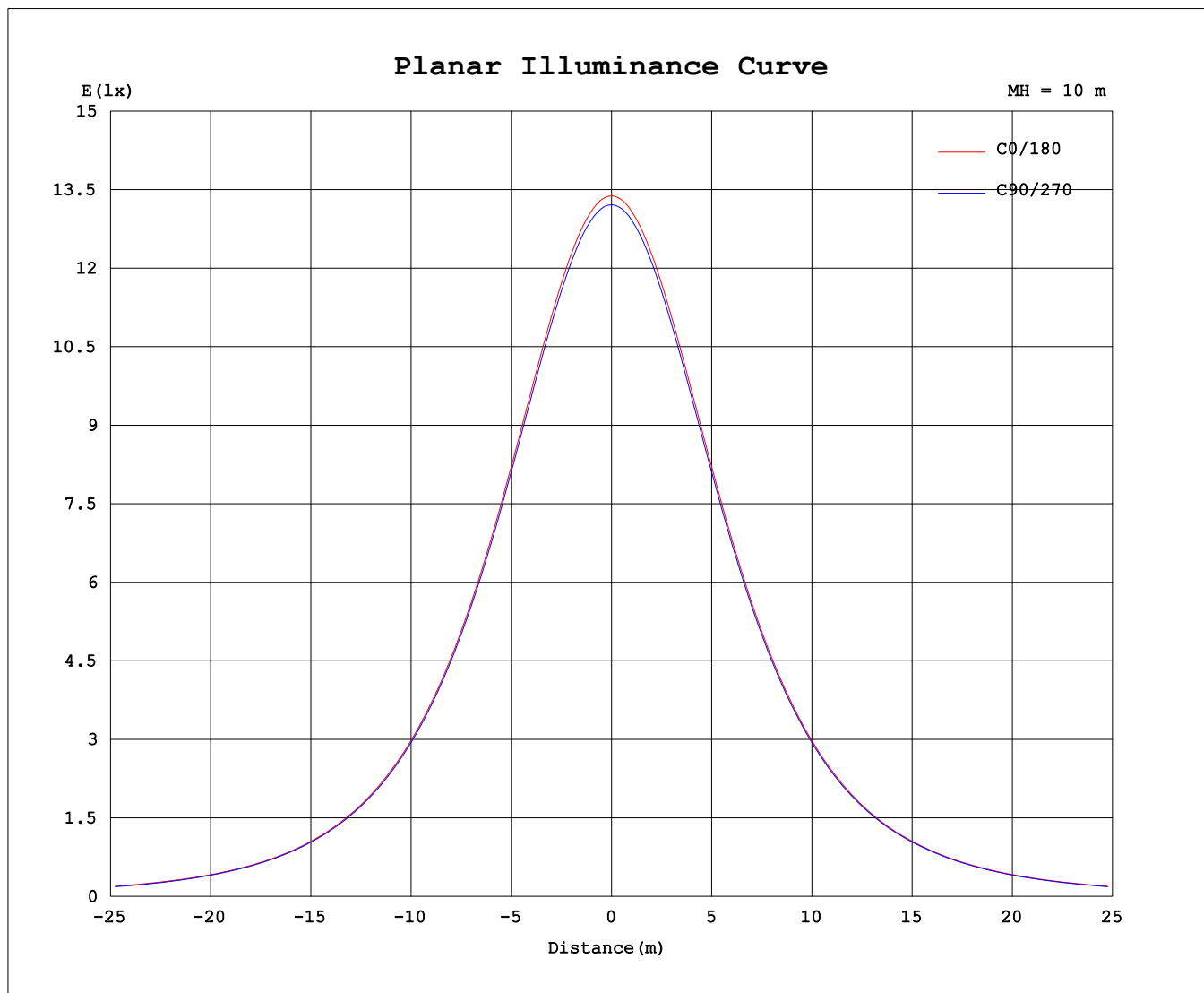
ISOLUX DIAGRAM



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: 10.0deg/s
 Temperature: 25.3°C
 Operators: DAMIN
 Test Date: 2023-09-05

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-3000H_V1 SYSTEM V2.00.463
 Humidity: 65.0%
 Test Distance: 9.000m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: 10.0deg/s
Temperature:25.3°C
Operators:DAMIN
Test Date:2023-09-05

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.463
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

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	1338	1334	1330	1327	1325	1323	1321	1320	1318	1317	1316	1314	1338	1334	1330	1327	1325	1323	1321
5	1331	1327	1323	1321	1318	1316	1314	1313	1311	1310	1308	1307	1331	1326	1323	1320	1318	1316	1314
10	1310	1306	1303	1300	1297	1295	1293	1292	1290	1289	1287	1286	1310	1304	1302	1298	1296	1294	1293
15	1275	1272	1268	1266	1263	1261	1259	1258	1255	1254	1252	1251	1274	1269	1266	1263	1261	1259	1258
20	1227	1225	1221	1219	1216	1215	1212	1211	1208	1207	1205	1204	1227	1221	1219	1215	1214	1212	1211
25	1168	1166	1163	1161	1158	1157	1154	1153	1150	1149	1146	1146	1168	1162	1160	1156	1155	1153	1153
30	1099	1097	1094	1093	1089	1088	1086	1085	1082	1081	1078	1077	1098	1093	1091	1087	1086	1084	1084
35	1021	1020	1016	1016	1012	1011	1009	1008	1005	1004	1001	1000	1020	1014	1013	1009	1009	1007	1007
40	935	934	931	930	927	926	924	923	920	919	916	916	934	929	927	924	924	922	922
45	843	842	839	839	835	835	832	832	828	828	825	825	841	836	835	832	832	830	831
50	745	745	742	742	738	738	735	735	731	731	728	728	743	738	738	734	735	733	734
55	643	645	640	643	637	639	634	636	631	633	628	631	643	637	638	633	635	632	635
60	538	544	537	541	533	536	528	533	527	532	525	530	541	533	536	529	534	527	532
65	433	438	432	436	426	427	420	424	420	426	421	425	435	427	431	424	426	419	424
70	329	333	328	328	319	318	311	315	312	320	318	321	329	323	326	319	319	311	314
75	228	231	226	223	213	210	204	207	207	215	217	221	227	223	223	216	212	205	206
80	133	135	128	122	110	105	99.9	103	106	116	121	127	131	128	126	115	109	101	101
85	47.0	46.5	38.8	27.5	17.5	11.8	10.3	11.9	17.0	25.1	34.3	41.0	43.7	42.7	35.6	26.9	16.5	11.2	9.62
90	1.84	1.90	1.90	1.88	1.75	1.68	1.66	1.67	1.73	1.86	1.87	1.87	2.27	2.31	2.32	2.28	2.13	2.05	2.03

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: 10.0deg/s
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2023-09-05

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.463
 Humidity:65.0%
 Test Distance:9.000m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Table--2

UNIT: cd

C (DEG) \ γ (DEG)	285	300	315	330	345														
0	1320	1318	1317	1316	1314														
5	1313	1312	1310	1309	1308														
10	1291	1291	1289	1289	1287														
15	1257	1256	1255	1254	1253														
20	1210	1209	1208	1208	1206														
25	1151	1151	1150	1150	1149														
30	1083	1083	1082	1082	1081														
35	1006	1006	1005	1006	1004														
40	921	922	921	922	920														
45	830	831	830	831	829														
50	733	735	734	735	734														
55	632	636	633	637	633														
60	527	535	530	536	531														
65	420	427	425	432	427														
70	311	319	320	327	324														
75	205	212	216	225	225														
80	101	109	116	127	131														
85	11.5	17.3	28.5	37.6	45.4														
90	2.04	2.12	2.27	2.30	2.30														

C Range: 0 - 360DEG	γ Range: 0 - 90DEG
C Interval: 15.0DEG	γ Interval: 1.0DEG
Test Speed: 10.0deg/s	Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.463
Temperature:25.3°C	Humidity:65.0%
Operators:DAMIN	Test Distance:9.000m [K=1.0000]
Test Date:2023-09-05	Remarks: