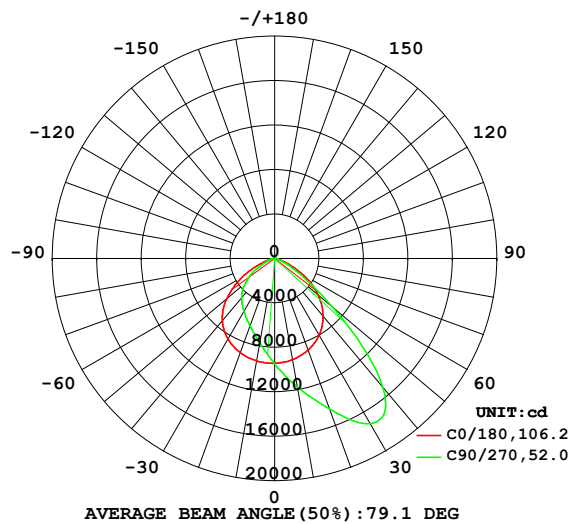


LUMINAIRE PHOTOMETRIC TEST REPORT

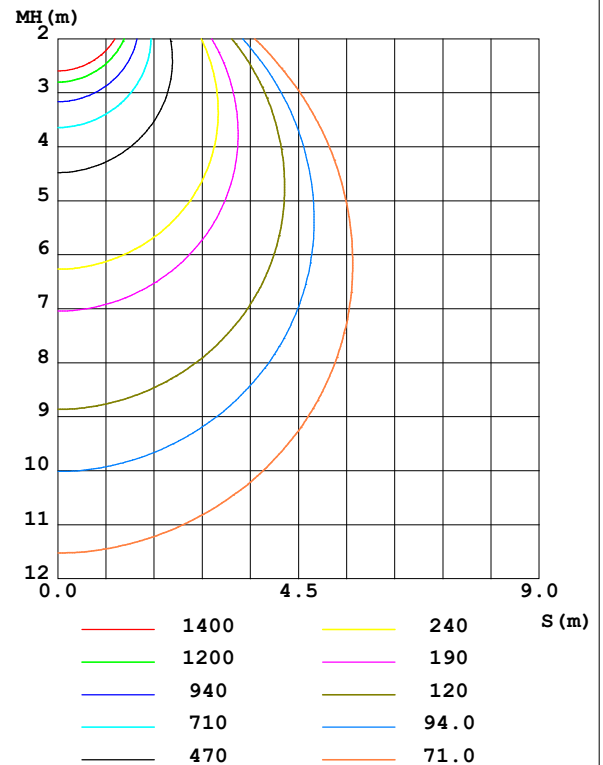
Test:U:230.52V I:0.8838A P:199.79W PF:0.9806 Freq:50.01Hz Lamp Flux:26610x1 lm		
NAME: HLK-200W	TYPE: Glass-50*100D	WEIGHT:
SPEC.: 5000K-RA80	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.221m*0.121m	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 133.19 lm/W
MODEL	SMD3030	I _{max} (cd)	17340	S/MH (C0/180)	1.32	
NOMINAL POWER(W)	200	LOR (%)	100.0	S/MH (C90/270)	0.87	
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	26610	η UP,DN (C0-180)	0.3,63.8	
NOMINAL FLUX(lm)	26610	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.4,35.4	
LAMPS INSIDE	1	η up (%)	0.8	CIBSE SHR NOM	1.25	
TEST VOLTAGE (V)	230	η down (%)	99.2	CIBSE SHR MAX	1.30	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.1℃
Operators:
Test Date: 2024-07-18

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.462
Humidity: 50.0%
Test Distance: 10.026m [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	925.3	1094	1173	1077	936.4	818.5	773.2	798.3	0- 10	903.1	903.1	3.39, 3.39
20	878.8	1239	1440	1234	903.0	699.9	648.7	683.0	10- 20	2715	3619	13.6, 13.6
30	799.9	1370	1715	1390	839.5	593.0	553.4	582.4	20- 30	4518	8136	30.6, 30.6
40	679.0	1368	1517	1392	733.4	491.5	464.5	485.2	30- 40	5964	14100	53, 53
50	512.9	1011	677.7	968.9	561.8	379.0	341.3	375.2	40- 50	5850	19950	75, 75
60	298.1	468.5	222.3	412.5	337.7	226.1	187.3	225.7	50- 60	3972	23922	89.9, 89.9
70	100.5	147.4	66.75	129.4	118.8	97.18	69.37	98.56	60- 70	1862	25785	96.9, 96.9
80	16.53	18.16	14.85	14.56	21.25	18.60	20.31	20.35	70- 80	563.0	26348	99, 99
90	0.4474	0.3782	0.3064	0.3825	0.3506	0.5563	0.4653	0.5494	80- 90	61.82	26409	99.2, 99.2
100	1.131	0.8472	0.7034	0.8489	0.8357	1.161	0.7872	1.095	90-100	6.719	26416	99.3, 99.3
110	2.238	1.547	1.353	1.537	1.610	2.377	2.112	2.322	100-110	14.52	26431	99.3, 99.3
120	3.436	2.316	2.098	2.295	2.537	3.750	4.064	3.775	110-120	24.35	26455	99.4, 99.4
130	4.383	2.980	2.794	3.010	3.536	4.866	5.649	4.922	120-130	31.75	26487	99.5, 99.5
140	5.283	3.707	3.491	3.783	4.584	5.921	6.373	5.680	130-140	34.29	26521	99.7, 99.7
150	6.183	4.618	4.377	4.681	5.628	7.153	7.021	6.389	140-150	33.13	26554	99.8, 99.8
160	6.844	5.663	5.503	5.702	6.472	8.077	8.061	7.163	150-160	28.71	26583	99.9, 99.9
170	7.180	6.672	6.697	6.637	7.068	8.308	8.530	7.804	160-170	19.89	26603	100, 100
180	7.233	7.642	7.977	7.480	7.292	7.596	7.952	7.468	170-180	7.147	26610	100, 100
DEG	LUMINOUS INTENSITY:X10cd									UNIT: lm		

Conical surface Flux(90deg): 17181 lm

%lum = 64.6%

%lamp = 64.6%

Conical surface Flux(120deg): 23922 lm

%lum = 89.9%

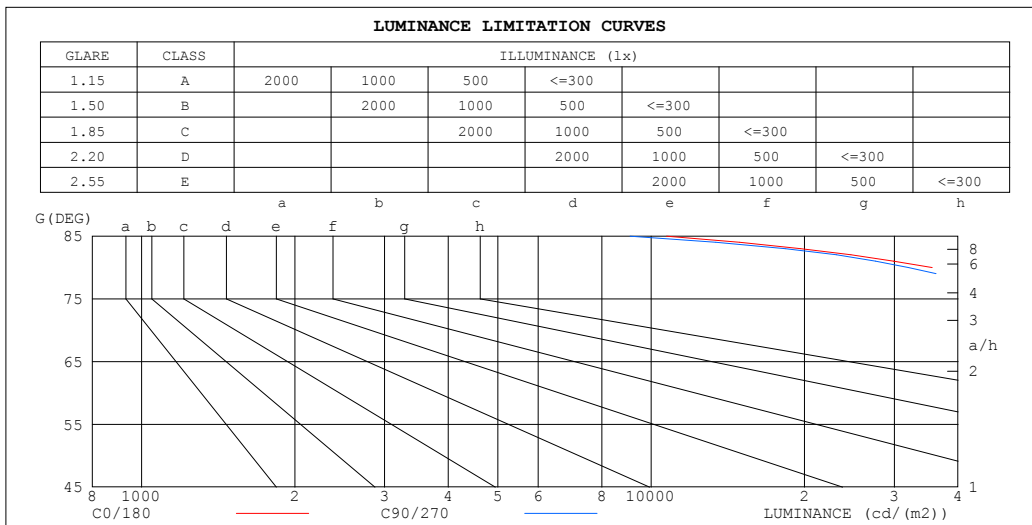
%lamp = 89.9%

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.1℃
 Operators:
 Test Date: 2024-07-18

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.462
 Humidity: 50.0%
 Test Distance: 10.026m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:230.52V I:0.8838A P:199.79W PF:0.9806 Freq:50.01Hz Lamp Flux:26610x1 lm		
NAME: HLK-200W	TYPE: Glass-50*100D	WEIGHT:
SPEC.: 5000K-RA80	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.221m*0.121m	Shielding Angle:



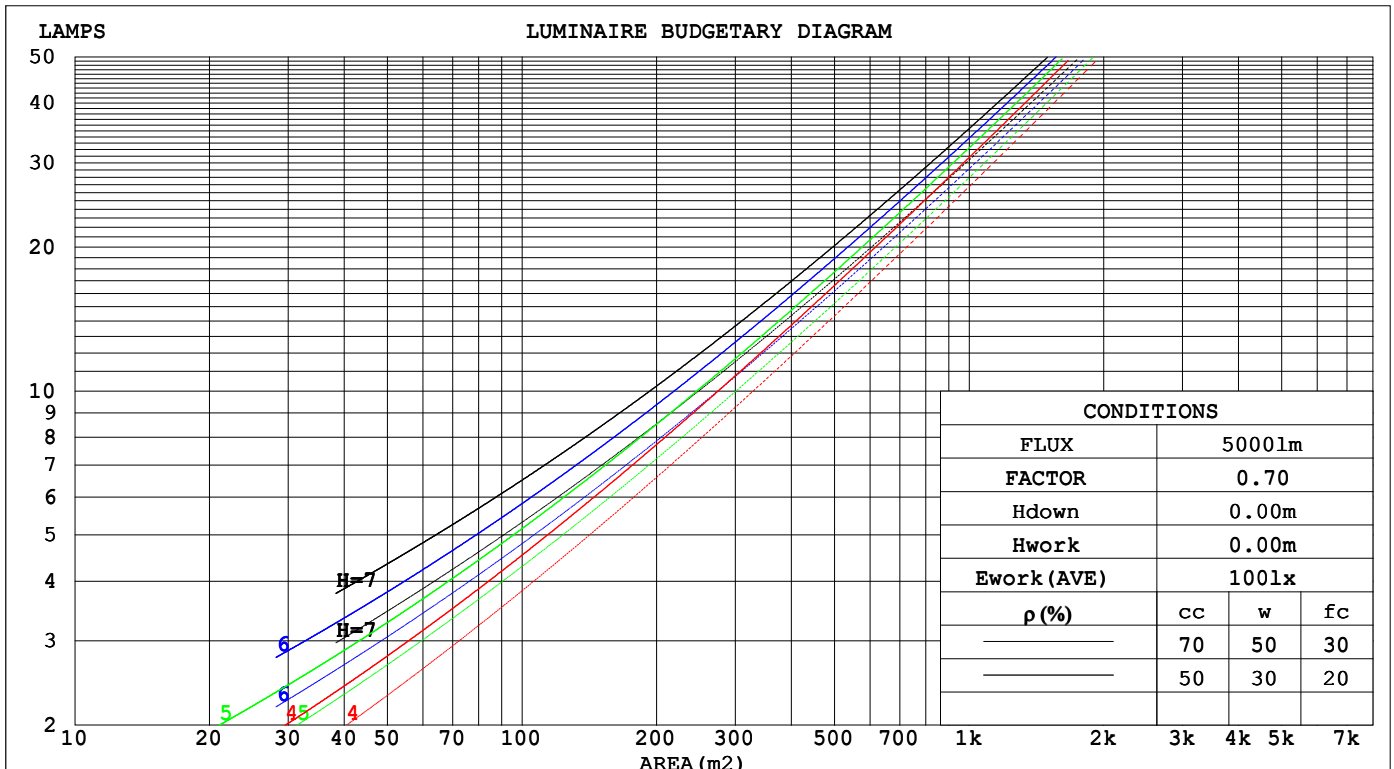
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.1℃
Operators:
Test Date: 2024-07-18

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.462
Humidity: 50.0%
Test Distance: 10.026m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:230.52V I:0.8838A P:199.79W PF:0.9806 Freq:50.01Hz Lamp Flux:26610x1 lm		
NAME: HLK-200W	TYPE: Glass-50*100D	WEIGHT:
SPEC.: 5000K-RA80	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.221m*0.121m	Shielding Angle:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.1℃
Operators:
Test Date:2024-07-18

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.462
Humidity:50.0%
Test Distance:10.026m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:230.52V I:0.8838A P:199.79W PF:0.9806 Freq:50.01Hz Lamp Flux:26610x1 lm					
NAME: HLK-200W			TYPE: Glass-50*100D		WEIGHT:
SPEC.: 5000K-RA80			DIM.:		SERIAL No.:
MFR.:			SUR.: 0.221m*0.121m		Shielding 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	.255	.145	.046	.248	.141	.045	.234	.134	.043	.222	.128	.041	.211	.122	.039	
2.0	.250	.137	.042	.243	.134	.041	.232	.129	.040	.221	.124	.039	.211	.119	.038	
3.0	.238	.126	.038	.232	.124	.037	.222	.120	.037	.212	.116	.036	.203	.113	.035	
4.0	.224	.117	.034	.219	.115	.034	.210	.112	.033	.202	.108	.033	.194	.105	.032	
5.0	.211	.108	.031	.207	.106	.031	.199	.103	.030	.191	.101	.030	.184	.098	.030	
6.0	.198	.100	.028	.195	.098	.028	.187	.096	.028	.181	.094	.028	.174	.092	.027	
7.0	.187	.092	.026	.183	.091	.026	.177	.089	.026	.171	.088	.025	.165	.086	.025	
8.0	.176	.086	.024	.173	.085	.024	.167	.083	.024	.162	.082	.024	.156	.080	.023	
9.0	.166	.080	.022	.163	.080	.022	.158	.078	.022	.153	.077	.022	.148	.075	.022	
10.0	.157	.075	.021	.155	.075	.021	.150	.073	.021	.145	.072	.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	.196	.196	.196	.168	.168	.168	.114	.114	.114	.066	.066	.066	.021	.021	.021	
1.0	.182	.162	.145	.156	.139	.124	.107	.096	.086	.061	.055	.050	.020	.018	.016	
2.0	.172	.138	.109	.148	.119	.094	.101	.082	.066	.058	.048	.039	.019	.015	.013	
3.0	.164	.120	.085	.141	.103	.073	.097	.072	.052	.056	.042	.030	.018	.014	.010	
4.0	.157	.106	.068	.134	.092	.059	.092	.064	.042	.053	.038	.025	.017	.012	.008	
5.0	.150	.096	.056	.128	.083	.049	.089	.058	.034	.051	.034	.020	.017	.011	.007	
6.0	.143	.087	.047	.123	.076	.041	.085	.053	.029	.049	.031	.017	.016	.010	.006	
7.0	.137	.080	.041	.118	.070	.036	.081	.049	.025	.047	.029	.015	.015	.009	.005	
8.0	.131	.075	.036	.113	.065	.031	.078	.045	.022	.045	.027	.013	.015	.009	.004	
9.0	.125	.070	.032	.108	.060	.028	.075	.043	.020	.044	.025	.012	.014	.008	.004	
10.0	.120	.065	.029	.104	.057	.025	.072	.040	.018	.042	.024	.011	.014	.008	.004	

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.1℃
Operators:
Test Date:2024-07-18

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.462
Humidity:50.0%
Test Distance:10.026m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:230.52V I:0.8838A P:199.79W PF:0.9806 Freq:50.01Hz Lamp Flux:26610x1 lm											
NAME: HLK-200W					TYPE: Glass-50*100D			WEIGHT:			
SPEC.: 5000K-RA80					DIM.:			SERIAL No.:			
MFR.:					SUR.: 0.221m*0.121m			Shielding 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		33.3	34.8	33.7	35.1	35.4	31.0	32.5	31.4	32.8	33.2
3H		33.7	35.0	34.1	35.4	35.8	31.3	32.6	31.7	33.0	33.4
4H		33.7	35.0	34.2	35.3	35.7	31.3	32.6	31.7	32.9	33.3
6H		33.7	34.8	34.1	35.2	35.6	31.3	32.4	31.7	32.8	33.2
8H		33.7	34.8	34.1	35.2	35.6	31.3	32.4	31.7	32.8	33.2
12H		33.6	34.7	34.1	35.1	35.5	31.2	32.3	31.7	32.7	33.1
4H 2H		33.6	34.8	34.0	35.2	35.6	31.5	32.8	31.9	33.1	33.5
3H		34.1	35.1	34.5	35.5	36.0	31.9	32.9	32.3	33.3	33.8
4H		34.2	35.1	34.6	35.5	36.0	32.0	32.9	32.4	33.3	33.8
6H		34.2	34.9	34.6	35.4	35.9	32.0	32.7	32.4	33.2	33.7
8H		34.1	34.8	34.6	35.3	35.8	31.9	32.6	32.4	33.1	33.6
12H		34.1	34.7	34.6	35.2	35.7	31.9	32.5	32.4	33.0	33.5
8H 4H		34.1	34.9	34.6	35.3	35.8	32.0	32.7	32.5	33.2	33.7
6H		34.1	34.7	34.6	35.2	35.7	32.0	32.6	32.5	33.1	33.6
8H		34.1	34.6	34.6	35.1	35.6	31.9	32.5	32.4	33.0	33.5
12H		34.0	34.5	34.6	35.0	35.6	31.9	32.4	32.4	32.9	33.4
12H 4H		34.1	34.8	34.6	35.2	35.7	31.9	32.6	32.4	33.1	33.6
6H		34.1	34.6	34.6	35.1	35.6	31.9	32.5	32.5	32.9	33.5
8H		34.0	34.5	34.6	35.0	35.6	31.9	32.4	32.4	32.9	33.5
CIE190: 2010											

CIE190: 2010
Area: 0.026741 m2

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.1℃
Operators:
Test Date:2024-07-18

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.462
Humidity:50.0%
Test Distance:10.026m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:230.52V I:0.8838A P:199.79W PF:0.9806 Freq:50.01Hz Lamp Flux:26610x1 lm		
NAME: HLK-200W	TYPE: Glass-50*100D	WEIGHT:
SPEC.: 5000K-RA80	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.221m*0.121m	Shielding Angle:

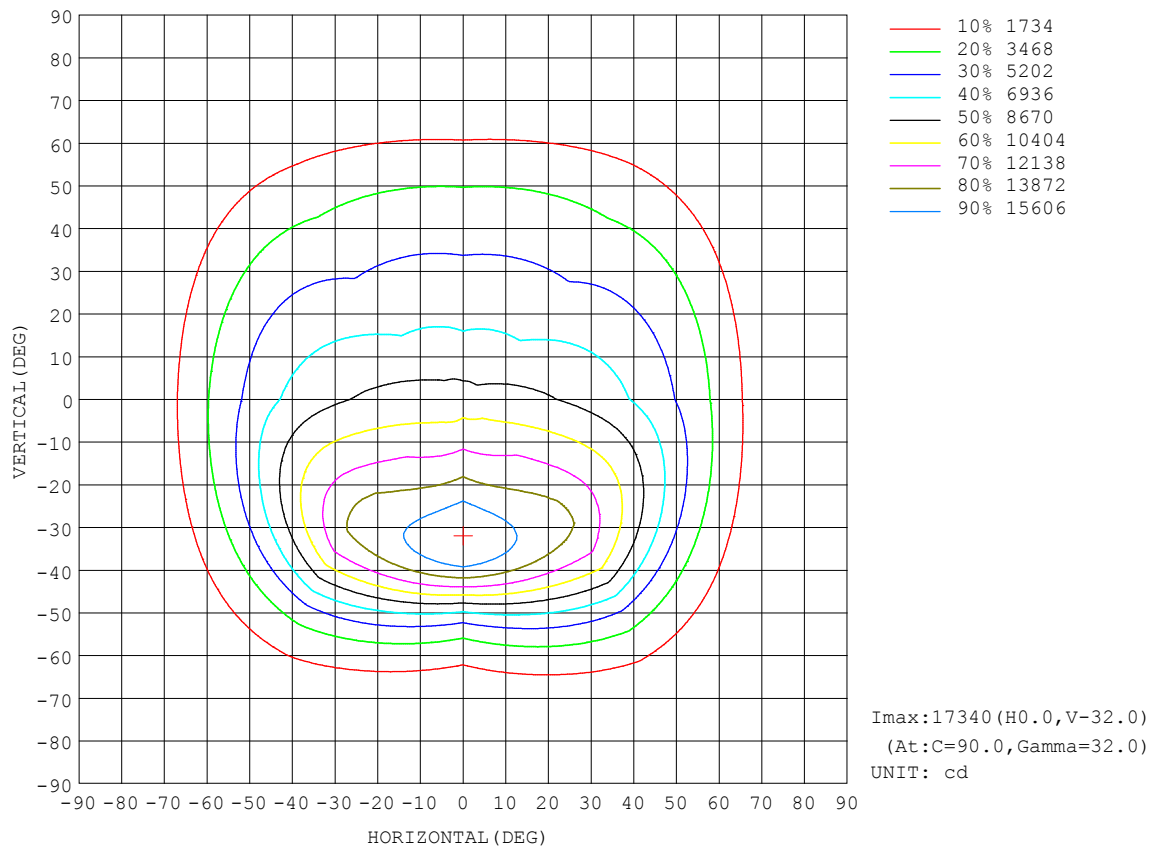
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	62	51	44	61	51	44	60	50	44	38
0.80	72	62	55	71	61	55	70	61	54	48
1.00	81	71	65	80	71	65	78	72	64	58
1.25	88	79	73	87	79	73	84	77	72	65
1.50	93	85	79	91	84	78	89	82	77	70
2.00	99	92	87	97	91	86	94	89	84	77
2.50	102	96	91	100	95	90	97	92	88	80
3.00	105	100	95	103	98	94	99	95	92	84
4.00	109	104	100	106	102	99	102	99	96	87
5.00	110	106	103	108	104	101	104	101	98	89
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.1℃
Operators:
Test Date: 2024-07-18

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.462
Humidity: 50.0%
Test Distance: 10.026m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:230.52V I:0.8838A P:199.79W PF:0.9806 Freq:50.01Hz Lamp Flux:26610x1 lm		
NAME: HLK-200W	TYPE: Glass-50*100D	WEIGHT:
SPEC.: 5000K-RA80	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.221m*0.121m	Shielding Angle:

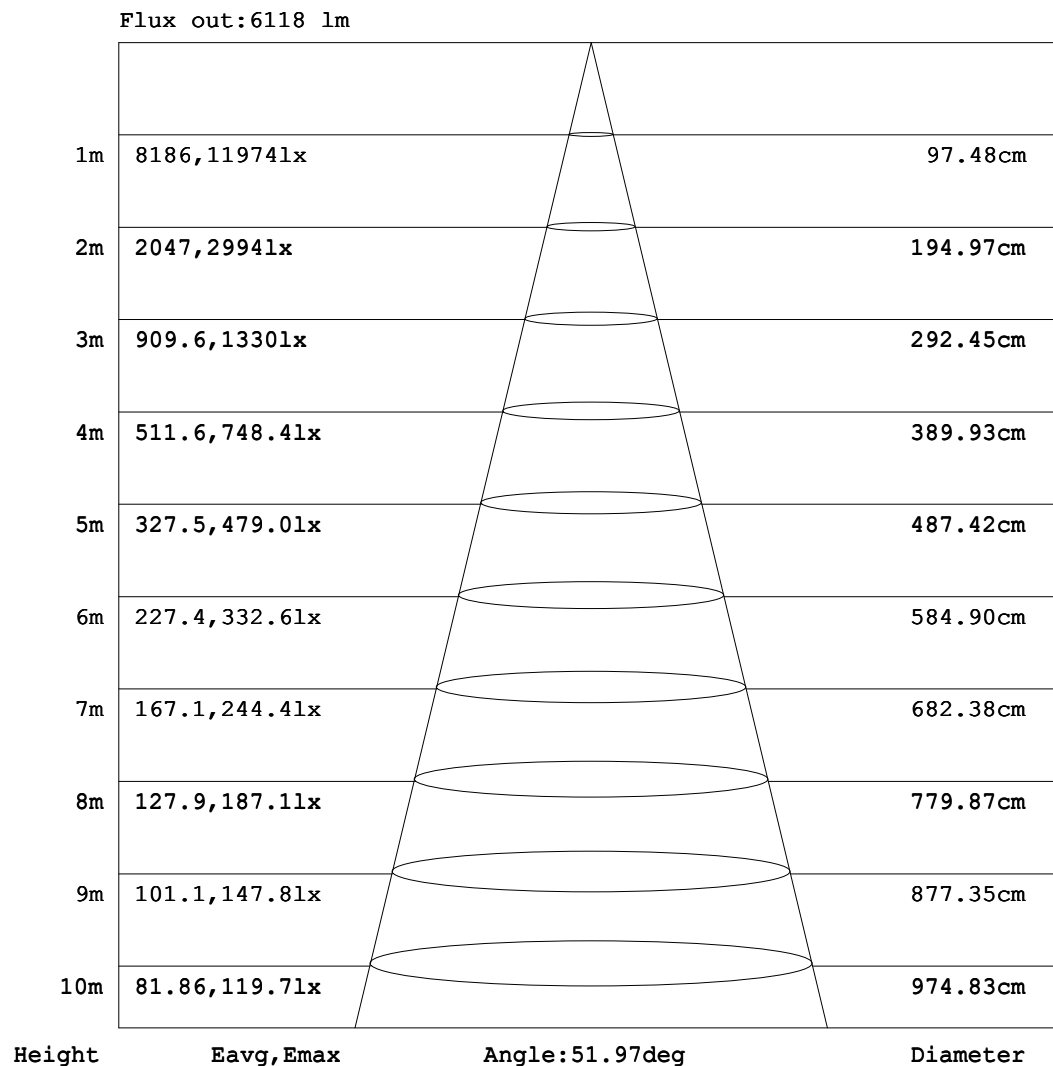


C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.1℃
Operators:
Test Date:2024-07-18

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.462
Humidity:50.0%
Test Distance:10.026m [K=1.0000]
Remarks:

AAI Figure

Test:U:230.52V I:0.8838A P:199.79W PF:0.9806 Freq:50.01Hz Lamp Flux:26610x1 lm		
NAME: HLK-200W	TYPE: Glass-50*100D	WEIGHT:
SPEC.: 5000K-RA80	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.221m*0.121m	Shielding Angle:



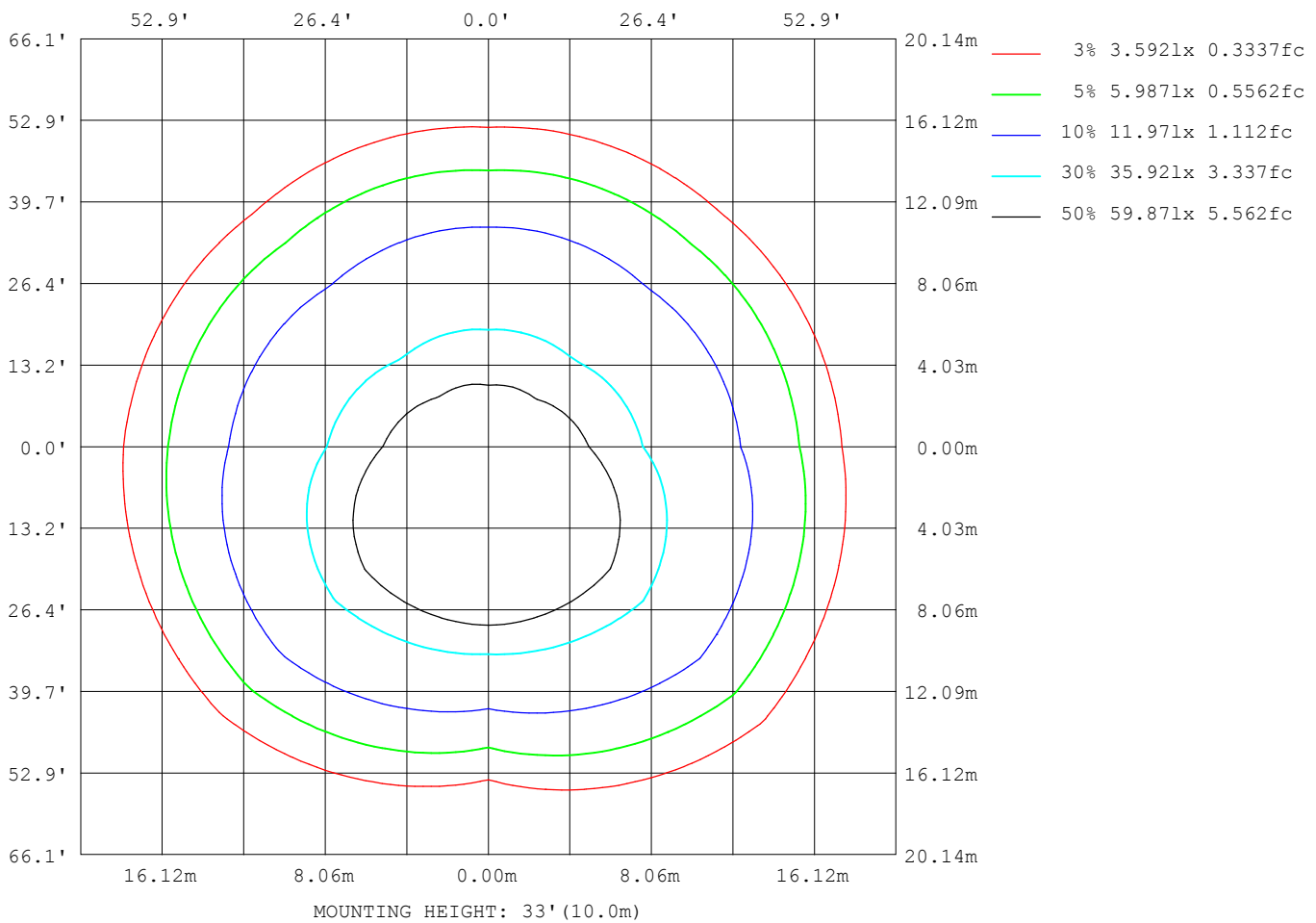
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.1℃
Operators:
Test Date:2024-07-18

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.462
Humidity:50.0%
Test Distance:10.026m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:230.52V I:0.8838A P:199.79W PF:0.9806 Freq:50.01Hz Lamp Flux:26610x1 lm		
NAME: HLK-200W	TYPE: Glass-50*100D	WEIGHT:
SPEC.: 5000K-RA80	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.221m*0.121m	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.1°C
Operators:
Test Date: 2024-07-18

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.462
Humidity: 50.0%
Test Distance: 10.026m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:230.52V I:0.8838A P:199.79W PF:0.9806 Freq:50.01Hz Lamp Flux:26610x1 lm		
NAME: HLK-200W	TYPE: Glass-50*100D	WEIGHT:
SPEC.: 5000K-RA80	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.221m*0.121m	Shielding Angle:

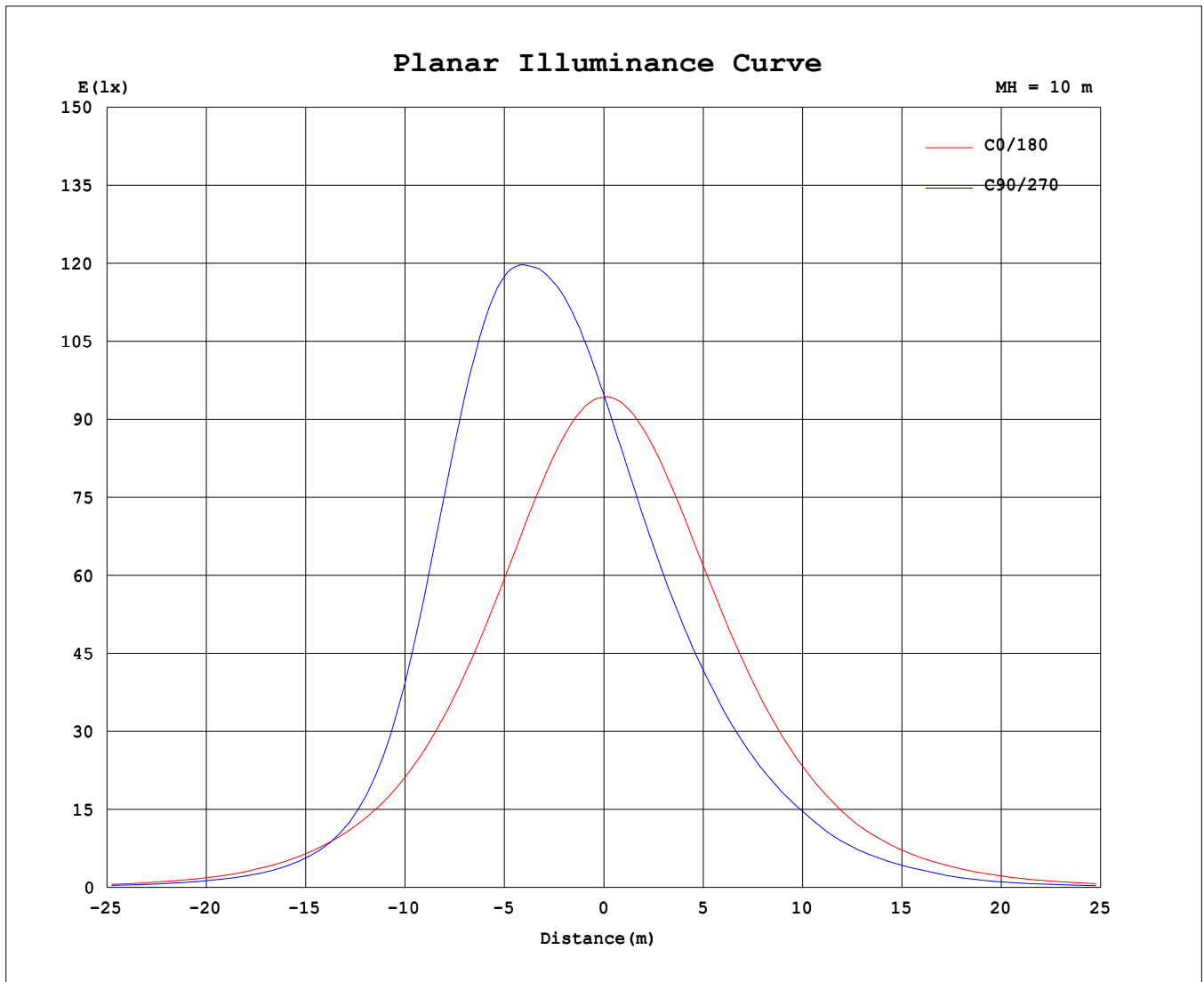
AvgL	cd/m2
L_0~180 (65) av	175983
L_0~180 (75) av	74770
L_0~180 (85) av	15445
L_90~270 (65) av	103087
L_90~270 (75) av	56162
L_90~270 (85) av	17227
L_45 (65) av	184455
L_45 (75) av	78287
L_45 (85) av	16365

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.1℃
Operators:
Test Date:2024-07-18

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.462
Humidity:50.0%
Test Distance:10.026m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.1°C
Operators:
Test Date: 2024-07-18

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.462
Humidity: 50.0%
Test Distance: 10.026m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.52V I:0.8838A P:199.79W PF:0.9806 Freq:50.01Hz Lamp Flux:26610x1 lm		
NAME: HLK-200W	TYPE: Glass-50*100D	WEIGHT:
SPEC.: 5000K-RA80	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.221m*0.121m	Shielding Angle:

Table--1

UNIT: X10cd

C (DEG) γ (DEG)	0	45	90	135	180	225	270	315										
0	942	949	948	929	942	949	948	929										
5	938	1021	1055	1000	944	882	855	861										
10	925	1094	1173	1077	936	818	773	798										
15	906	1167	1299	1156	924	758	706	739										
20	879	1239	1440	1234	903	700	649	683										
25	843	1308	1598	1314	875	646	599	631										
30	800	1370	1715	1390	840	593	553	582										
35	745	1404	1714	1435	793	543	508	534										
40	679	1368	1517	1392	733	492	464	485										
45	601	1234	1113	1231	660	438	415	432										
50	513	1011	678	969	562	379	341	375										
55	412	734	385	673	453	312	272	309										
60	298	469	222	412	338	226	187	226										
65	182	279	125	244	216	155	108	157										
70	100	147	66.8	129	119	97.2	69.4	98.6										
75	47.0	63.4	35.7	54.8	56.5	48.1	42.0	50.4										
80	16.5	18.2	14.9	14.6	21.2	18.6	20.3	20.4										
85	2.50	2.75	2.12	2.07	4.70	4.81	5.91	5.63										
90	0.45	0.38	0.31	0.38	0.35	0.56	0.47	0.55										
95	0.73	0.57	0.47	0.58	0.55	0.73	0.46	0.67										
100	1.13	0.85	0.70	0.85	0.84	1.16	0.79	1.10										
105	1.64	1.18	1.00	1.17	1.19	1.72	1.33	1.65										
110	2.24	1.55	1.35	1.54	1.61	2.38	2.11	2.32										
115	2.85	1.94	1.73	1.92	2.06	3.08	3.06	3.06										
120	3.44	2.32	2.10	2.30	2.54	3.75	4.06	3.78										
125	3.95	2.66	2.45	2.67	3.02	4.34	4.96	4.41										
130	4.38	2.98	2.79	3.01	3.54	4.87	5.65	4.92										
135	4.85	3.32	3.14	3.38	4.06	5.38	6.09	5.35										
140	5.28	3.71	3.49	3.78	4.58	5.92	6.37	5.68										
145	5.75	4.14	3.89	4.21	5.12	6.54	6.63	5.99										
150	6.18	4.62	4.38	4.68	5.63	7.15	7.02	6.39										
155	6.57	5.15	4.94	5.22	6.08	7.68	7.52	6.76										
160	6.84	5.66	5.50	5.70	6.47	8.08	8.06	7.16										
165	7.04	6.17	6.00	6.16	6.80	8.31	8.57	7.56										
170	7.18	6.67	6.70	6.64	7.07	8.31	8.53	7.80										
175	7.25	7.18	7.36	7.11	7.22	8.03	8.44	7.80										
180	7.23	7.64	7.98	7.48	7.29	7.60	7.95	7.47										

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.1℃
Operators:
Test Date:2024-07-18

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.462
Humidity:50.0%
Test Distance:10.026m [K=1.0000]
Remarks: