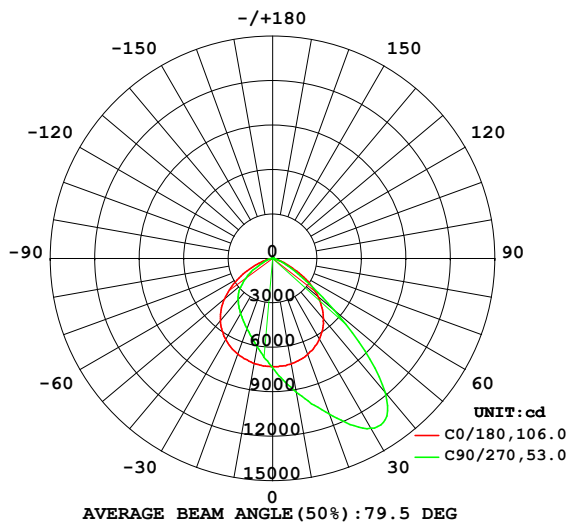


## LUMINAIRE PHOTOMETRIC TEST REPORT

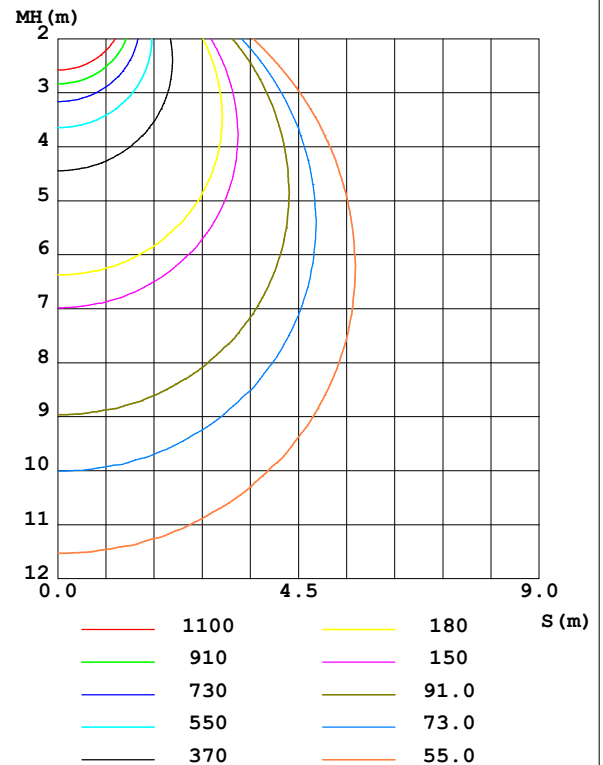
Test:U:230.55V I:0.6398A P:145.89W PF:0.9890 Freq:50.01Hz Lamp Flux:19497.7x1 lm		
NAME: HLK-150W	TYPE: Glass-50*100D	WEIGHT:
SPEC.: 5000K-RA80	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.221m*0.121m	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 133.65 lm/W
MODEL	SMD3030	I <sub>max</sub> (cd)	13397	S/MH (C0/180)	1.29	
NOMINAL POWER(W)	150	LOR (%)	100.0	S/MH (C90/270)	0.87	
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	19498	η UP,DN (C0-180)	0.4,59.3	
NOMINAL FLUX(lm)	19497.7	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.4,39.9	
LAMPS INSIDE	1	η up (%)	0.8	CIBSE SHR NOM	1.25	
TEST VOLTAGE (V)	230	η down (%)	99.2	CIBSE SHR MAX	1.25	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
C Interval: 90.0DEG  
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:

$\gamma$	C0	C90	C180	C270					$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	723.8	915.7	720.8	607.0					0- 10	704.8	704.8	3.61, 3.61
20	689.0	1118	687.4	505.3					10- 20	2112	2817	14.4, 14.4
30	630.4	1323	633.1	432.8					20- 30	3500	6317	32.4, 32.4
40	534.8	1183	548.2	363.1					30- 40	4511	10828	55.5, 55.5
50	400.7	541.0	424.8	266.8					40- 50	4145	14973	76.8, 76.8
60	225.1	178.6	263.9	141.7					50- 60	2666	17639	90.5, 90.5
70	72.84	53.41	99.42	53.42					60- 70	1258	18896	96.9, 96.9
80	11.46	11.98	18.73	15.36					70- 80	397.2	19293	99, 99
90	0.3559	0.2370	0.2665	0.2795					80- 90	48.80	19342	99.2, 99.2
100	0.8788	0.5388	0.6423	0.6403					90-100	4.837	19347	99.2, 99.2
110	1.720	1.045	1.244	1.675					100-110	10.77	19358	99.3, 99.3
120	2.622	1.630	1.981	3.176					110-120	18.63	19377	99.4, 99.4
130	3.328	2.175	2.755	4.383					120-130	24.83	19401	99.5, 99.5
140	4.020	2.708	3.567	4.962					130-140	27.01	19428	99.6, 99.6
150	4.724	3.408	4.380	5.477					140-150	25.96	19454	99.8, 99.8
160	5.241	4.262	5.017	6.244					150-160	22.34	19477	99.9, 99.9
170	5.544	5.179	5.460	6.615					160-170	15.45	19492	100, 100
180	5.611	6.172	5.605	6.156					170-180	5.532	19498	100, 100
DEG	LUMINOUS INTENSITY:X10cd									UNIT: lm		

Conical surface Flux(90deg): 13057 lm

%lum = 67.0%

%lamp = 67.0%

Conical surface Flux(120deg): 17639 lm

%lum = 90.5%

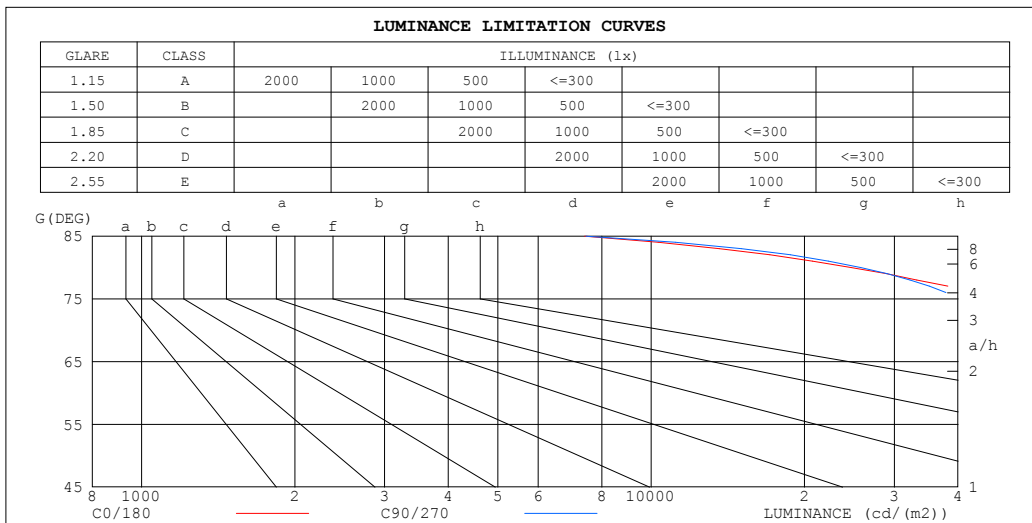
%lamp = 90.5%

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature: 25.1℃  
Operators:  
Test Date: 2024-07-18

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  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:230.55V I:0.6398A P:145.89W PF:0.9890 Freq:50.01Hz Lamp Flux:19497.7x1 lm		
NAME: HLK-150W	TYPE: Glass-50*100D	WEIGHT:
SPEC.: 5000K-RA80	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.221m*0.121m	Shielding Angle:



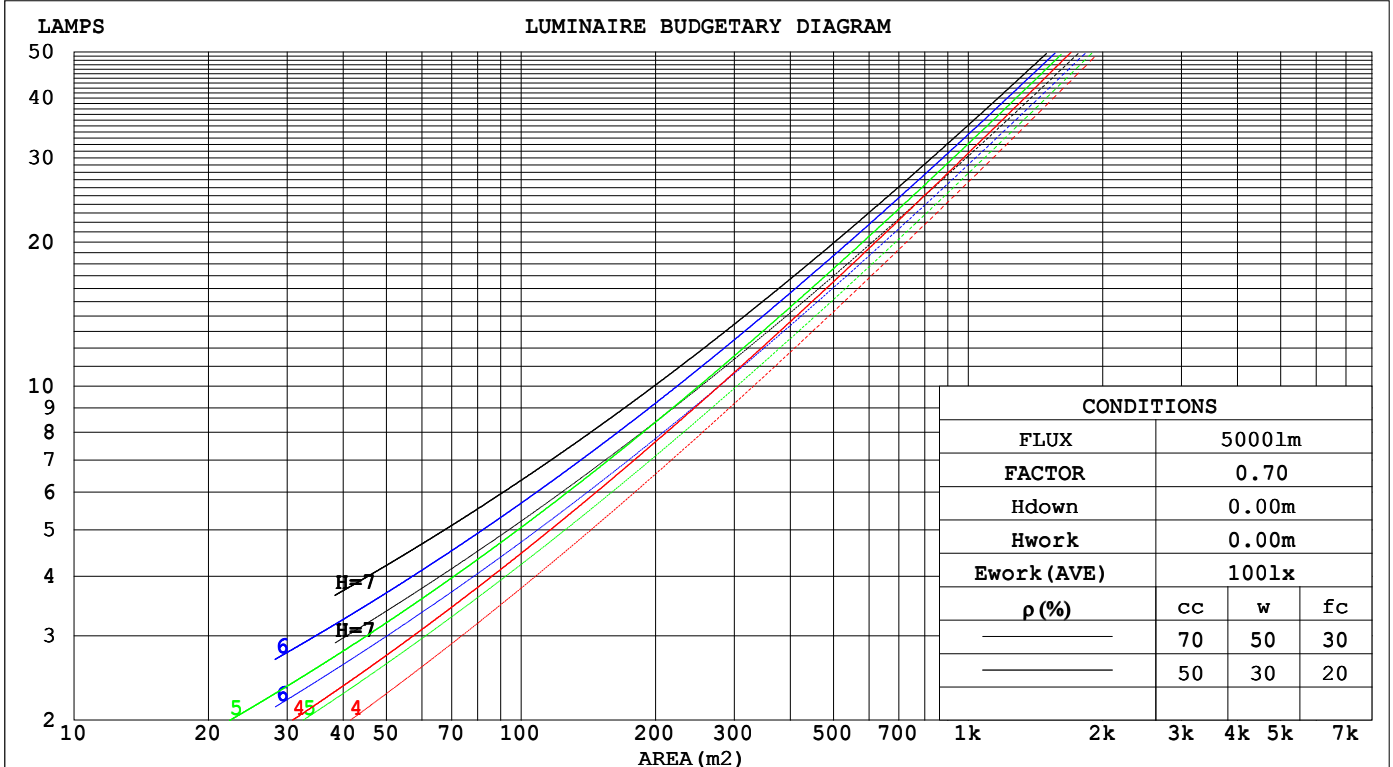
C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature: 25.1°C  
Operators:  
Test Date: 2024-07-18

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:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:230.55V I:0.6398A P:145.89W PF:0.9890 Freq:50.01Hz Lamp Flux:19497.7x1 lm		
NAME: HLK-150W	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															



C Range: 0 - 360DEG  
C Interval: 90.0DEG  
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:230.55V I:0.6398A P:145.89W PF:0.9890 Freq:50.01Hz Lamp Flux:19497.7x1 lm					
NAME: HLK-150W			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	.251	.143	.045	.243	.139	.044	.230	.132	.042	.218	.126	.040	.206	.120	.039		
2.0	.245	.134	.041	.239	.132	.041	.227	.126	.039	.216	.121	.038	.206	.117	.037		
3.0	.233	.124	.037	.228	.122	.037	.218	.118	.036	.208	.114	.035	.199	.110	.034		
4.0	.220	.115	.034	.216	.113	.033	.206	.109	.033	.198	.106	.032	.190	.103	.031		
5.0	.208	.106	.031	.203	.104	.030	.195	.102	.030	.188	.099	.029	.180	.096	.029		
6.0	.195	.098	.028	.192	.097	.028	.184	.094	.027	.177	.092	.027	.171	.090	.027		
7.0	.184	.091	.026	.181	.090	.026	.174	.088	.025	.168	.086	.025	.162	.084	.025		
8.0	.174	.085	.024	.171	.084	.024	.165	.082	.023	.159	.081	.023	.154	.079	.023		
9.0	.164	.079	.022	.161	.079	.022	.156	.077	.022	.151	.076	.022	.146	.074	.021		
10.0	.155	.074	.021	.153	.074	.021	.148	.073	.020	.144	.071	.020	.139	.070	.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	.197	.197	.197	.168	.168	.168	.115	.115	.115	.066	.066	.066	.021	.021	.021	
1.0	.182	.163	.145	.156	.140	.125	.107	.096	.086	.061	.056	.050	.020	.018	.016	
2.0	.172	.138	.110	.147	.119	.095	.101	.082	.066	.058	.048	.039	.019	.015	.013	
3.0	.164	.120	.086	.140	.104	.074	.096	.072	.052	.056	.042	.031	.018	.014	.010	
4.0	.156	.107	.069	.134	.092	.060	.092	.064	.042	.053	.038	.025	.017	.012	.008	
5.0	.149	.096	.057	.128	.083	.049	.088	.058	.035	.051	.034	.021	.016	.011	.007	
6.0	.142	.087	.048	.122	.076	.042	.084	.053	.030	.049	.031	.018	.016	.010	.006	
7.0	.136	.080	.041	.117	.070	.036	.081	.049	.026	.047	.029	.015	.015	.009	.005	
8.0	.130	.075	.037	.112	.065	.032	.078	.045	.023	.045	.027	.013	.015	.009	.004	
9.0	.125	.070	.033	.107	.061	.028	.074	.043	.020	.043	.025	.012	.014	.008	.004	
10.0	.120	.066	.030	.103	.057	.026	.072	.040	.018	.042	.024	.011	.014	.008	.004	

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
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:230.55V I:0.6398A P:145.89W PF:0.9890 Freq:50.01Hz Lamp Flux:19497.7x1 lm											
NAME: HLK-150W					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		29.5	31.0	29.9	31.3	31.6	29.3	30.7	29.7	31.1	31.4
3H		30.0	31.3	30.4	31.6	32.0	29.7	31.0	30.1	31.3	31.7
4H		30.1	31.3	30.5	31.6	32.0	29.7	30.9	30.1	31.3	31.7
6H		30.1	31.2	30.5	31.6	32.0	29.7	30.8	30.1	31.2	31.6
8H		30.0	31.1	30.5	31.5	31.9	29.7	30.7	30.1	31.1	31.6
12H		30.0	31.0	30.4	31.4	31.9	29.7	30.7	30.1	31.1	31.5
4H 2H		29.6	30.8	30.0	31.2	31.6	29.6	30.8	30.0	31.2	31.6
3H		30.2	31.2	30.6	31.6	32.0	30.1	31.1	30.6	31.5	32.0
4H		30.3	31.2	30.7	31.6	32.0	30.2	31.1	30.7	31.5	32.0
6H		30.3	31.0	30.8	31.5	32.0	30.2	31.0	30.7	31.5	31.9
8H		30.2	31.0	30.7	31.4	31.9	30.2	30.9	30.7	31.4	31.9
12H		30.2	30.8	30.7	31.3	31.8	30.2	30.8	30.7	31.3	31.8
8H 4H		30.2	30.9	30.7	31.4	31.9	30.2	31.0	30.7	31.4	31.9
6H		30.2	30.8	30.7	31.3	31.8	30.3	30.9	30.8	31.4	31.9
8H		30.2	30.7	30.7	31.2	31.7	30.2	30.8	30.8	31.3	31.8
12H		30.2	30.6	30.7	31.1	31.7	30.2	30.7	30.7	31.2	31.8
12H 4H		30.2	30.8	30.7	31.3	31.8	30.2	30.9	30.7	31.3	31.8
6H		30.2	30.7	30.7	31.2	31.8	30.2	30.8	30.8	31.3	31.8
8H		30.2	30.6	30.7	31.1	31.7	30.2	30.7	30.8	31.2	31.8
CIE190: 2010											

CIE190: 2010  
Area: 0.026741 m2

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
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:230.55V I:0.6398A P:145.89W PF:0.9890 Freq:50.01Hz Lamp Flux:19497.7x1 lm		
NAME: HLK-150W	TYPE: Glass-50*100D	WEIGHT:
SPEC.: 5000K-RA80	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.221m*0.121m	Shielding Angle:

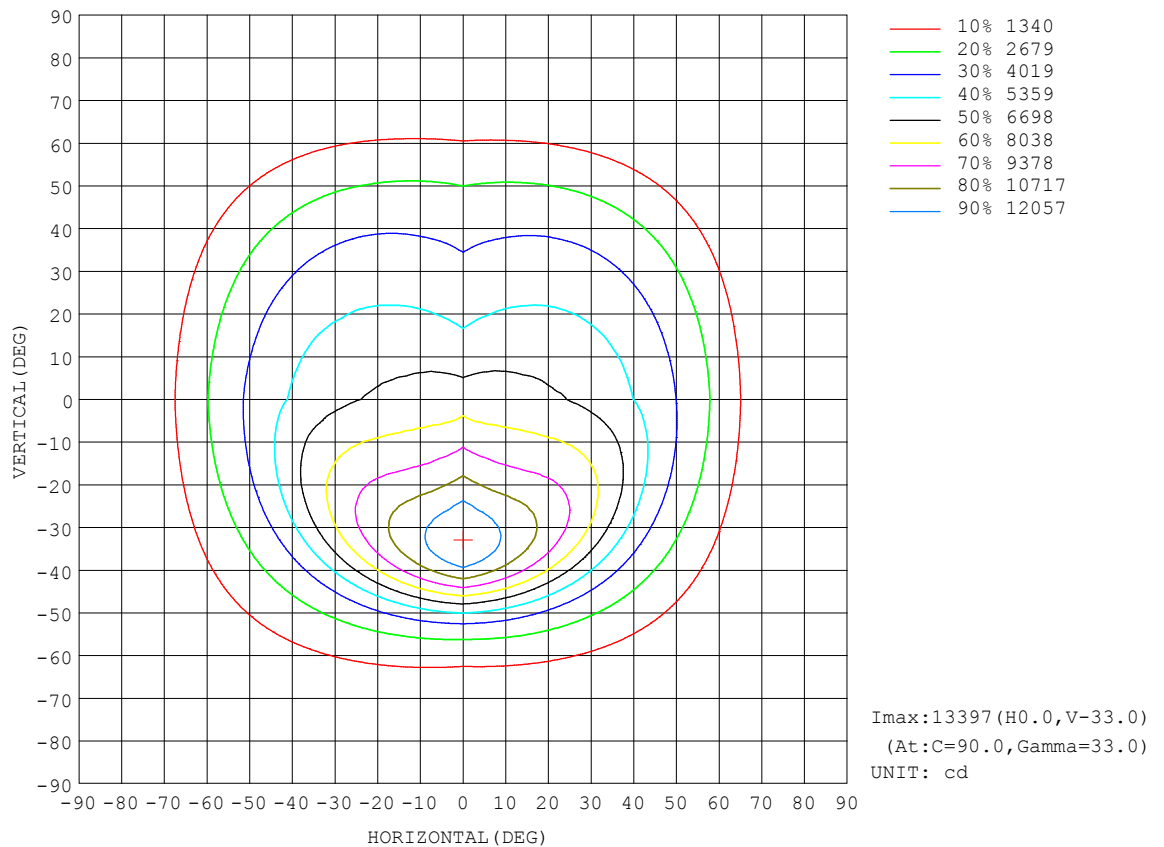
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	63	53	46	63	53	46	61	52	46	40
0.80	74	64	57	73	63	57	71	62	56	50
1.00	82	73	67	81	72	66	79	73	66	59
1.25	89	80	74	88	80	74	85	78	73	67
1.50	94	86	80	92	85	79	89	83	78	72
2.00	100	93	88	98	92	87	95	89	85	78
2.50	103	97	92	101	95	91	97	93	89	81
3.00	106	100	96	104	99	95	100	96	92	84
4.00	109	104	101	107	102	99	102	99	96	88
5.00	111	107	104	108	105	102	104	101	99	90
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
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:230.55V I:0.6398A P:145.89W PF:0.9890 Freq:50.01Hz Lamp Flux:19497.7x1 lm		
NAME: HLK-150W	TYPE: Glass-50*100D	WEIGHT:
SPEC.: 5000K-RA80	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.221m*0.121m	Shielding Angle:



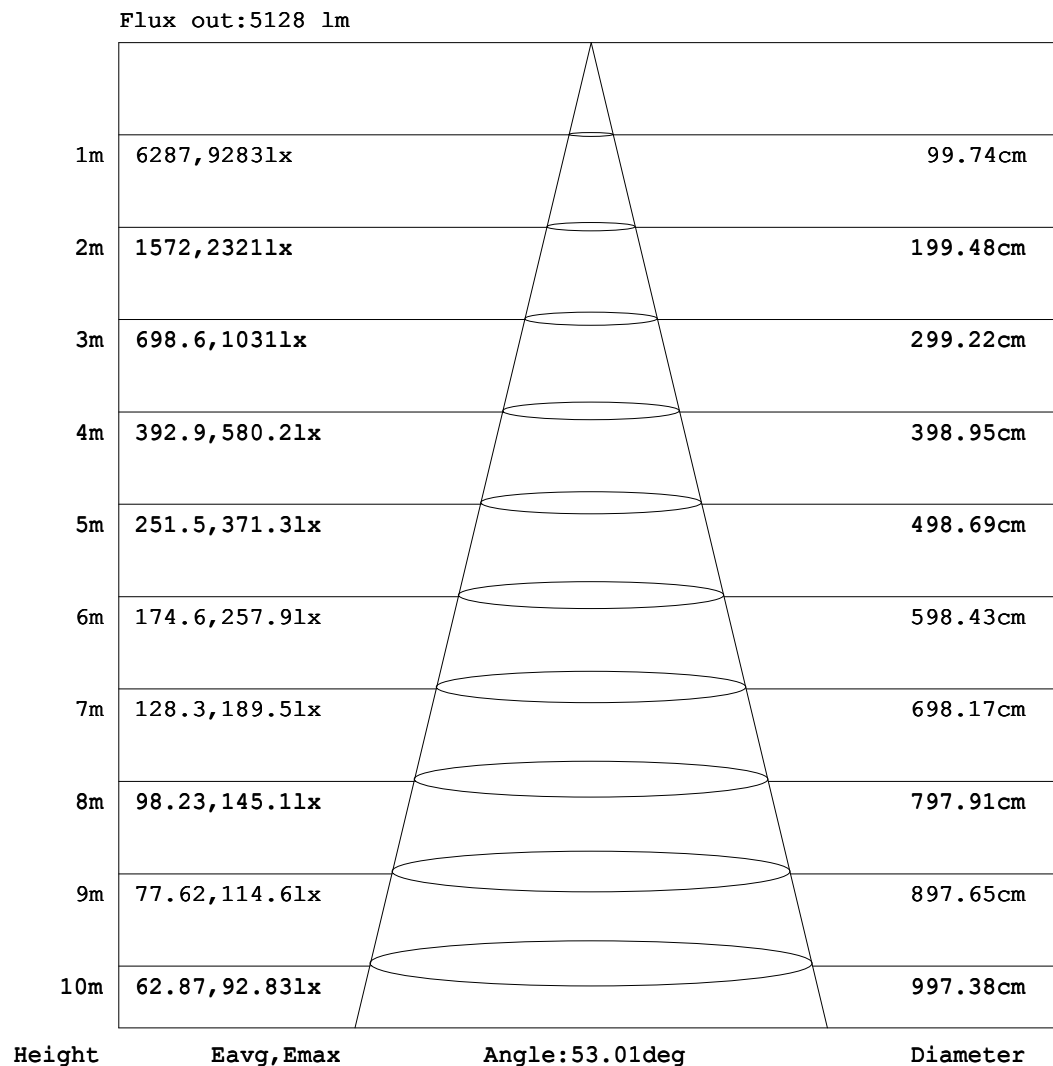
C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.1℃  
Operators:  
Test Date:2024-07-18

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:230.55V I:0.6398A P:145.89W PF:0.9890 Freq:50.01Hz Lamp Flux:19497.7x1 lm		
NAME: HLK-150W	TYPE: Glass-50*100D	WEIGHT:
SPEC.: 5000K-RA80	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.221m*0.121m	Shielding Angle:



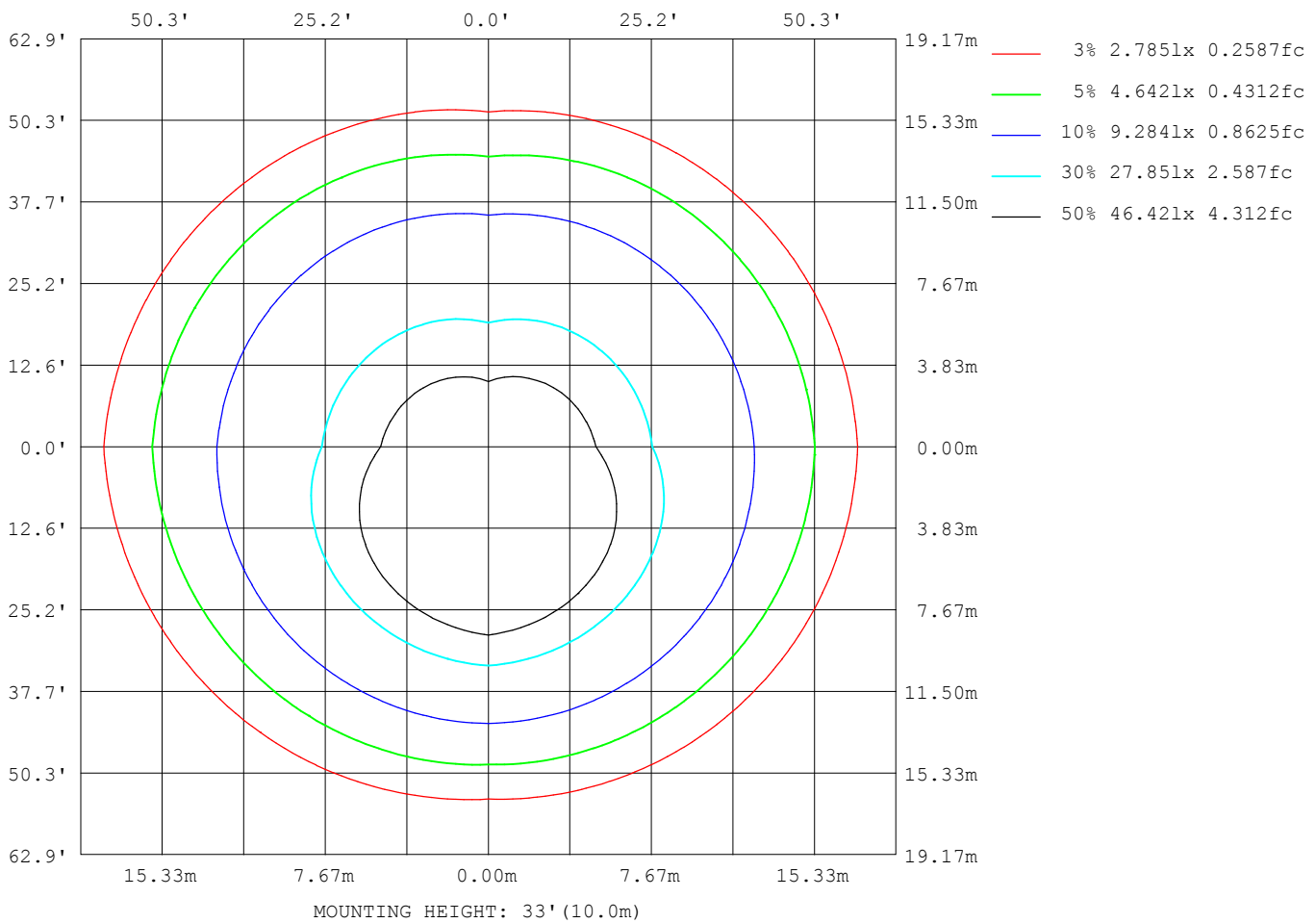
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
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:230.55V I:0.6398A P:145.89W PF:0.9890 Freq:50.01Hz Lamp Flux:19497.7x1 lm		
NAME: HLK-150W	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: 90.0DEG  
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:230.55V I:0.6398A P:145.89W PF:0.9890 Freq:50.01Hz Lamp Flux:19497.7x1 lm		
NAME: HLK-150W	TYPE: Glass-50*100D	WEIGHT:
SPEC.: 5000K-RA80	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.221m*0.121m	Shielding Angle:

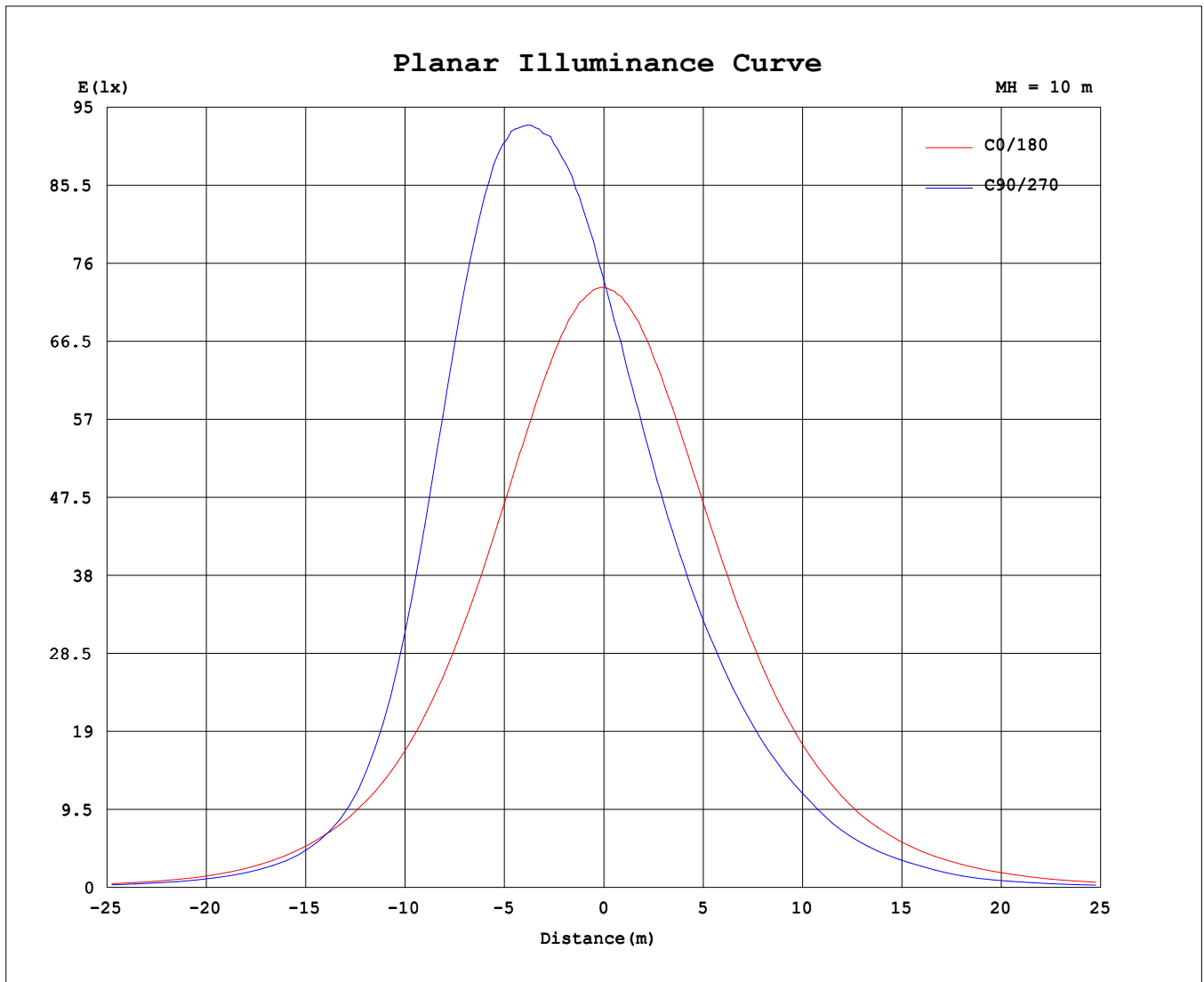
AvgL	cd/m2
L_0~180 (65) av	137456
L_0~180 (75) av	59227
L_0~180 (85) av	12451
L_90~270 (65) av	80823
L_90~270 (75) av	43977
L_90~270 (85) av	12723
L_45 (65) av	103195
L_45 (75) av	50401
L_45 (85) av	12937

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
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: 90.0DEG  
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:230.55V I:0.6398A P:145.89W PF:0.9890 Freq:50.01Hz Lamp Flux:19497.7x1 lm		
NAME: HLK-150W	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	90	180	270															
0	731	740	731	740															
5	729	823	728	671															
10	724	916	721	607															
15	708	1015	705	549															
20	689	1118	687	505															
25	664	1237	664	467															
30	630	1323	633	433															
35	588	1327	596	398															
40	535	1183	548	363															
45	472	879	493	325															
50	401	541	425	267															
55	320	307	347	210															
60	225	179	264	142															
65	135	99.6	176	83.1															
70	72.8	53.4	99.4	53.4															
75	33.2	28.2	48.8	32.6															
80	11.5	12.0	18.7	15.4															
85	1.72	1.74	4.08	4.20															
90	0.36	0.24	0.27	0.28															
95	0.57	0.36	0.42	0.37															
100	0.88	0.54	0.64	0.64															
105	1.27	0.77	0.92	1.07															
110	1.72	1.04	1.24	1.67															
115	2.18	1.34	1.60	2.41															
120	2.62	1.63	1.98	3.18															
125	3.00	1.91	2.36	3.87															
130	3.33	2.18	2.76	4.38															
135	3.69	2.44	3.15	4.73															
140	4.02	2.71	3.57	4.96															
145	4.38	3.02	3.98	5.18															
150	4.72	3.41	4.38	5.48															
155	5.03	3.83	4.71	5.84															
160	5.24	4.26	5.02	6.24															
165	5.40	4.70	5.25	6.63															
170	5.54	5.18	5.46	6.62															
175	5.59	5.70	5.58	6.52															
180	5.61	6.17	5.61	6.16															

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.1℃  
Operators:  
Test Date:2024-07-18

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
γ Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.462  
Humidity:50.0%  
Test Distance:10.026m [K=1.0000]  
Remarks: