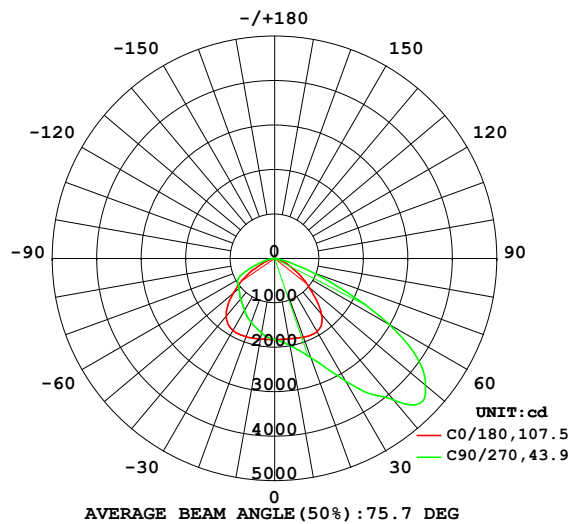


## LUMINAIRE PHOTOMETRIC TEST REPORT

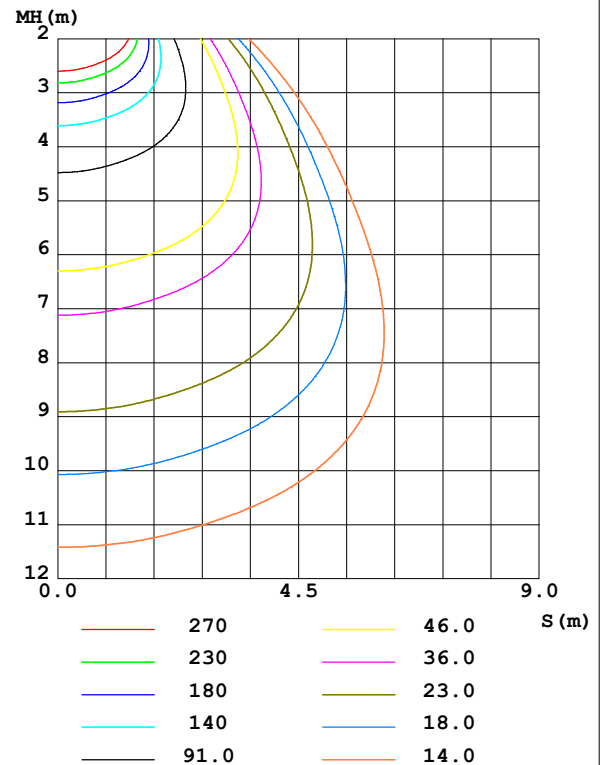
Test:U:230.43V I:0.2366A P:49.804W PF:0.9135 Freq:50.01Hz Lamp Flux:7074.01x1 lm		
NAME: HLK-50W	TYPE: 50*100D	WEIGHT:
SPEC.: 5000K-RA80-170L	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.221m*0.121m	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 142.04 lm/W
MODEL	ShineOn3030	Imax(cd)	4629	S/MH(C0/180)	1.50	
NOMINAL POWER(W)	50	LOR(%)	100.0	S/MH(C90/270)	1.12	
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	7074.0	$\eta$ UP,DN(C0-180)	0.0,66.8	
NOMINAL FLUX(lm)	7074.01	CIE CLASS	DIRECT	$\eta$ UP,DN(C180-360)	0.0,33.2	
LAMPS INSIDE	1	$\eta$ up(%)	0.0	CIBSE SHR NOM	1.50	
TEST VOLTAGE(V)	230	$\eta$ down(%)	100.0	CIBSE SHR MAX	1.55	

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:2024-12-19

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.462  
Humidity:50.0%  
Test Distance:10.026m [K=1.0000]  
Remarks:

## ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	1839	1921	1989	1919	1842	1757	1706	1748	0- 10	175.0	175.0	2.47, 2.47
20	1886	2158	2370	2128	1876	1588	1535	1599	10- 20	528.0	703.0	9.94, 9.94
30	1904	2611	3178	2553	1875	1349	1355	1354	20- 30	905.9	1609	22.7, 22.7
40	1644	3126	4155	3084	1696	1079	1189	1069	30- 40	1310	2919	41.3, 41.3
50	1019	3115	4428	3302	1215	880.0	1046	884.4	40- 50	1631	4550	64.3, 64.3
60	512.6	1717	2976	1770	660.8	628.1	957.9	655.5	50- 60	1485	6035	85.3, 85.3
70	197.8	439.3	852.2	397.0	232.6	342.6	480.6	375.7	60- 70	790.1	6825	96.5, 96.5
80	44.88	57.60	87.11	53.22	65.66	91.13	122.2	101.4	70- 80	222.2	7047	99.6, 99.6
90	1.193	1.327	1.739	1.352	0.8064	2.108	3.091	2.621	80- 90	26.97	7074	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): 3712.9 lm

%lum = 52.5%

%lamp = 52.5%

Conical surface Flux(120deg): 6034.8 lm

%lum = 85.3%

%lamp = 85.3%

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:25.1℃  
 Operators:  
 Test Date:2024-12-19

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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:230.43V I:0.2366A P:49.804W PF:0.9135 Freq:50.01Hz  
Lamp Flux:7074.01x1 lm

NAME: HLK-50W

TYPE: 50\*100D

WEIGHT:

SPEC.: 5000K-RA80-170L

DIM.:

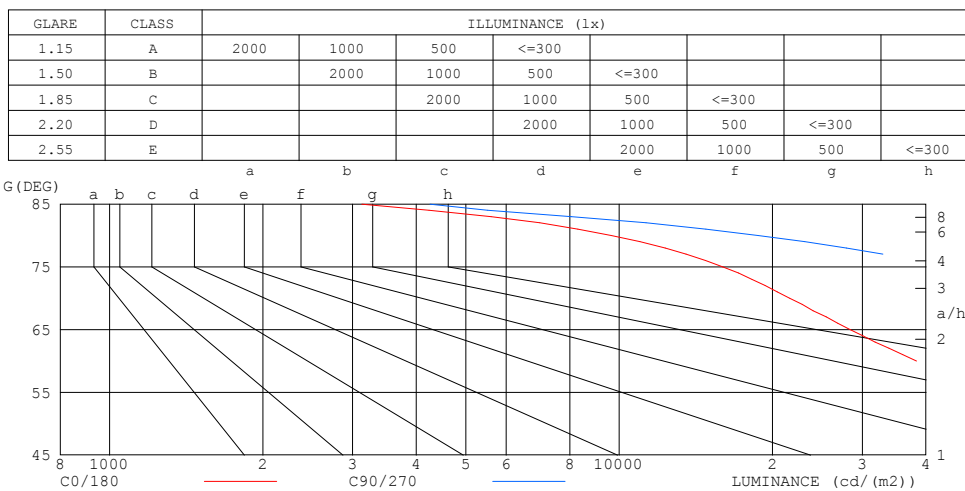
SERIAL No.:

MFR.:

SUR.: 0.221m\*0.121m

Shielding Angle:

LUMINANCE LIMITATION CURVES



LUMINANCE cd/(m2)

G (DEG)	C0/180	C90/270
85	3127	4256
80	9666	18760
75	15987	46979
70	21626	93176
65	28432	158381
60	38338	222545
55	49239	255502
50	59270	257638
45	70578	243996

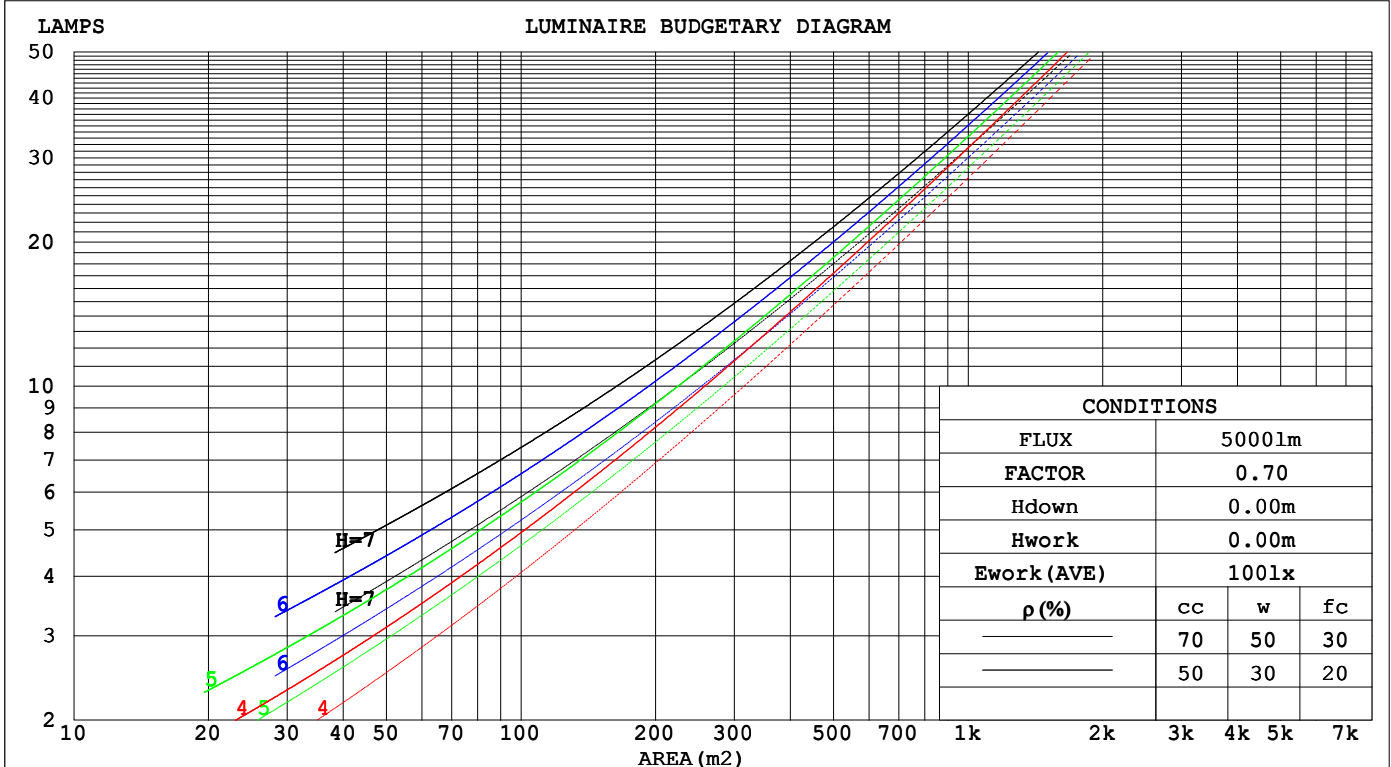
C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.1℃  
Operators:  
Test Date:2024-12-19

γ Range: 0 - 90DEG  
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:230.43V I:0.2366A P:49.804W PF:0.9135 Freq:50.01Hz Lamp Flux:7074.01x1 lm		
NAME: HLK-50W	TYPE: 50*100D	WEIGHT:
SPEC.: 5000K-RA80-170L	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.221m*0.121m	Shielding 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	1.19	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	.99	.96	.99	.96	.93	.95	.93	.90	.91	.89	.88	.86
2.0	.92	.85	.80	.90	.84	.79	.87	.82	.77	.83	.79	.75	.80	.77	.74	.72
3.0	.81	.73	.66	.79	.72	.66	.76	.70	.64	.73	.68	.63	.71	.66	.62	.60
4.0	.71	.62	.55	.70	.61	.55	.67	.60	.54	.65	.59	.54	.63	.57	.53	.51
5.0	.63	.54	.47	.62	.53	.47	.60	.52	.46	.58	.51	.46	.56	.50	.45	.43
6.0	.56	.47	.41	.55	.47	.40	.53	.46	.40	.52	.45	.40	.50	.44	.39	.37
7.0	.50	.41	.35	.50	.41	.35	.48	.40	.35	.47	.40	.35	.45	.39	.34	.32
8.0	.46	.37	.31	.45	.37	.31	.44	.36	.31	.42	.35	.30	.41	.35	.30	.28
9.0	.41	.33	.27	.41	.33	.27	.40	.32	.27	.39	.32	.27	.38	.31	.27	.25
10.0	.38	.30	.25	.37	.30	.24	.36	.29	.24	.35	.29	.24	.35	.28	.24	.22



C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.1℃  
Operators:  
Test Date:2024-12-19

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.462  
Humidity:50.0%  
Test Distance:10.026m [K=1.0000]  
Remarks:

## WEC AND CCEC

Test:U:230.43V I:0.2366A P:49.804W PF:0.9135 Freq:50.01Hz Lamp Flux:7074.01x1 lm		
NAME: HLK-50W	TYPE: 50*100D	WEIGHT:
SPEC.: 5000K-RA80-170L	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.221m*0.121m	Shielding Angle:

pcc	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						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.282	.161	.051	.275	.157	.050	.262	.150	.048	.250	.144	.046	.239	.139	.045		
2.0	.277	.152	.047	.271	.149	.046	.259	.144	.045	.248	.139	.044	.238	.135	.043		
3.0	.262	.140	.042	.257	.138	.041	.247	.134	.041	.237	.130	.040	.228	.126	.039		
4.0	.246	.128	.038	.241	.126	.037	.232	.123	.037	.224	.120	.036	.216	.117	.036		
5.0	.230	.117	.034	.226	.116	.034	.218	.113	.033	.210	.111	.033	.203	.108	.033		
6.0	.215	.108	.031	.211	.107	.031	.204	.104	.030	.197	.102	.030	.191	.100	.030		
7.0	.201	.099	.028	.198	.098	.028	.191	.097	.028	.185	.095	.028	.179	.093	.027		
8.0	.188	.092	.026	.185	.091	.026	.179	.090	.026	.174	.088	.025	.169	.087	.025		
9.0	.177	.086	.024	.174	.085	.024	.169	.084	.024	.164	.082	.024	.159	.081	.023		
10.0	.167	.080	.022	.164	.079	.022	.159	.078	.022	.155	.077	.022	.151	.076	.022		

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	.178	.156	.137	.153	.134	.118	.104	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.170	.132	.100	.146	.114	.086	.100	.079	.060	.058	.046	.035	.018	.015	.011	
3.0	.163	.114	.075	.140	.099	.065	.096	.068	.046	.055	.040	.027	.018	.013	.009	
4.0	.156	.101	.059	.134	.087	.051	.092	.061	.036	.053	.036	.021	.017	.012	.007	
5.0	.149	.091	.047	.128	.078	.041	.088	.055	.029	.051	.032	.017	.016	.010	.006	
6.0	.143	.082	.039	.123	.071	.034	.085	.050	.024	.049	.029	.014	.016	.010	.005	
7.0	.136	.075	.033	.117	.065	.029	.081	.046	.020	.047	.027	.012	.015	.009	.004	
8.0	.130	.070	.028	.112	.061	.025	.077	.042	.018	.045	.025	.010	.015	.008	.003	
9.0	.124	.065	.025	.107	.056	.022	.074	.040	.015	.043	.023	.009	.014	.008	.003	
10.0	.119	.061	.022	.102	.053	.019	.071	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.1℃  
Operators:  
Test Date:2024-12-19

γ Range: 0 - 90DEG  
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:230.43V I:0.2366A P:49.804W PF:0.9135 Freq:50.01Hz Lamp Flux:7074.01x1 lm										
NAME: HLK-50W					TYPE: 50*100D			WEIGHT:		
SPEC.: 5000K-RA80-170L					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	28.0	29.7	28.4	30.0	30.3	34.3	36.0	34.7	36.3	36.6
3H	28.3	29.8	28.7	30.1	30.5	34.8	36.3	35.2	36.6	37.0
4H	28.3	29.7	28.7	30.1	30.4	34.9	36.3	35.3	36.6	37.0
6H	28.3	29.6	28.7	30.0	30.3	34.8	36.1	35.2	36.5	36.9
8H	28.3	29.5	28.7	29.9	30.3	34.8	36.0	35.2	36.4	36.8
12H	28.3	29.4	28.7	29.8	30.2	34.8	35.9	35.2	36.3	36.8
4H 2H	28.8	30.2	29.2	30.6	30.9	34.4	35.8	34.8	36.1	36.5
3H	29.2	30.3	29.6	30.7	31.1	34.9	36.1	35.3	36.5	36.9
4H	29.2	30.2	29.6	30.6	31.0	35.0	36.0	35.4	36.4	36.8
6H	29.2	30.1	29.6	30.5	31.0	34.9	35.8	35.4	36.3	36.7
8H	29.1	30.0	29.6	30.4	30.9	34.9	35.7	35.4	36.2	36.6
12H	29.1	29.9	29.6	30.3	30.8	34.9	35.6	35.4	36.1	36.6
8H 4H	29.2	30.0	29.7	30.5	31.0	34.9	35.7	35.3	36.2	36.6
6H	29.2	29.9	29.7	30.4	30.9	34.8	35.5	35.3	36.0	36.5
8H	29.2	29.8	29.7	30.3	30.8	34.8	35.4	35.3	35.9	36.4
12H	29.1	29.7	29.7	30.2	30.7	34.8	35.3	35.3	35.8	36.4
12H 4H	29.2	29.9	29.7	30.4	30.9	34.9	35.6	35.3	36.1	36.5
6H	29.2	29.8	29.7	30.3	30.8	34.8	35.4	35.3	35.9	36.4
8H	29.2	29.7	29.7	30.2	30.8	34.8	35.3	35.3	35.8	36.4
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:2024-12-19

γ Range: 0 - 90DEG  
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:230.43V I:0.2366A P:49.804W PF:0.9135 Freq:50.01Hz Lamp Flux:7074.01x1 lm		
NAME: HLK-50W	TYPE: 50*100D	WEIGHT:
SPEC.: 5000K-RA80-170L	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.221m*0.121m	Shielding Angle:

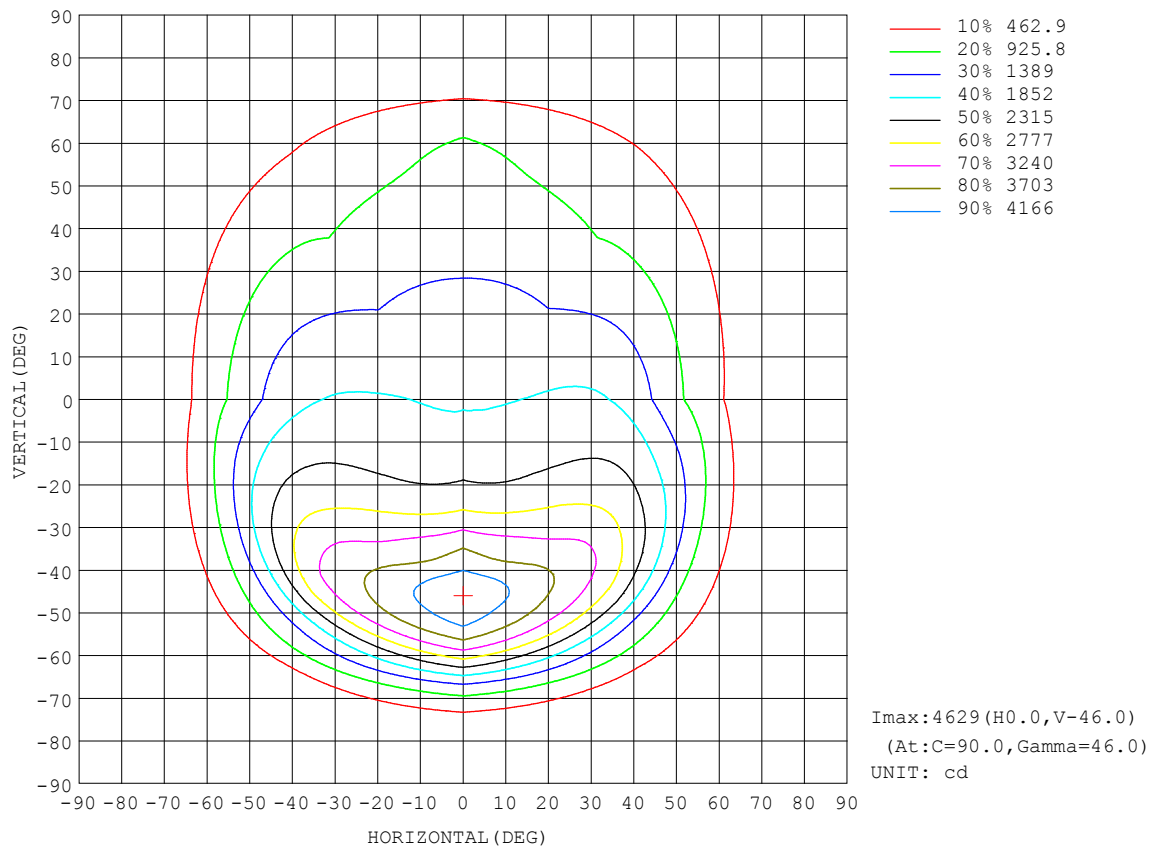
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	54	42	35	54	42	35	52	41	35	28
0.80	66	54	46	65	53	46	63	52	45	38
1.00	76	64	57	74	64	57	72	65	56	49
1.25	83	73	66	82	72	66	79	71	65	57
1.50	89	79	72	87	78	72	84	76	71	63
2.00	96	88	82	94	87	81	91	85	79	72
2.50	100	92	87	98	91	86	94	88	84	76
3.00	103	97	92	101	95	91	97	92	88	80
4.00	107	102	97	105	100	96	101	97	93	85
5.00	109	105	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: 45.0DEG  
Test Speed: HIGH  
Temperature: 25.1℃  
Operators:  
Test Date: 2024-12-19

γ Range: 0 - 90DEG  
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:230.43V I:0.2366A P:49.804W PF:0.9135 Freq:50.01Hz Lamp Flux:7074.01x1 lm		
NAME: HLK-50W	TYPE: 50*100D	WEIGHT:
SPEC.: 5000K-RA80-170L	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.221m*0.121m	Shielding Angle:



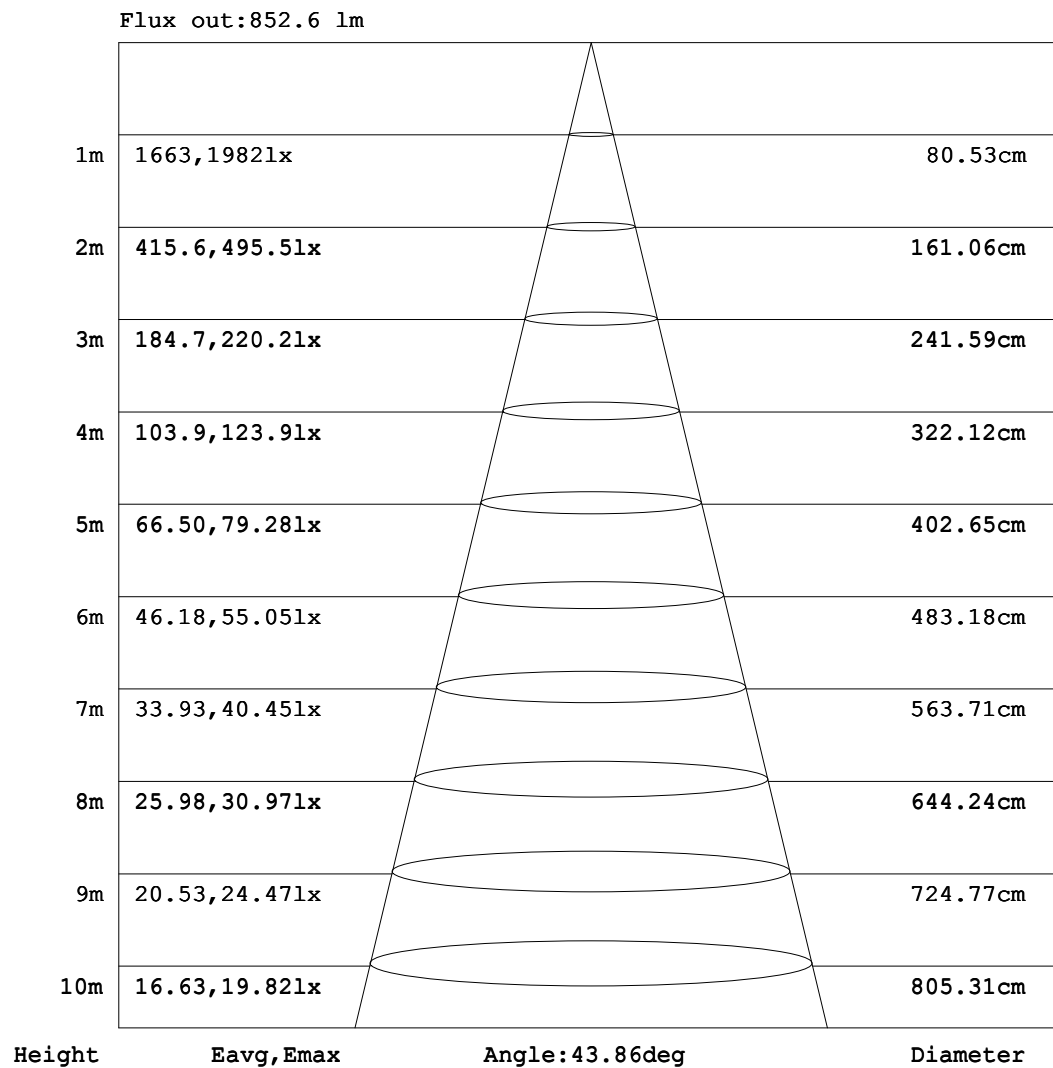
C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.1℃  
Operators:  
Test Date:2024-12-19

γ Range: 0 - 90DEG  
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:230.43V I:0.2366A P:49.804W PF:0.9135 Freq:50.01Hz Lamp Flux:7074.01x1 lm		
NAME: HLK-50W	TYPE: 50*100D	WEIGHT:
SPEC.: 5000K-RA80-170L	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.221m*0.121m	Shielding Angle:



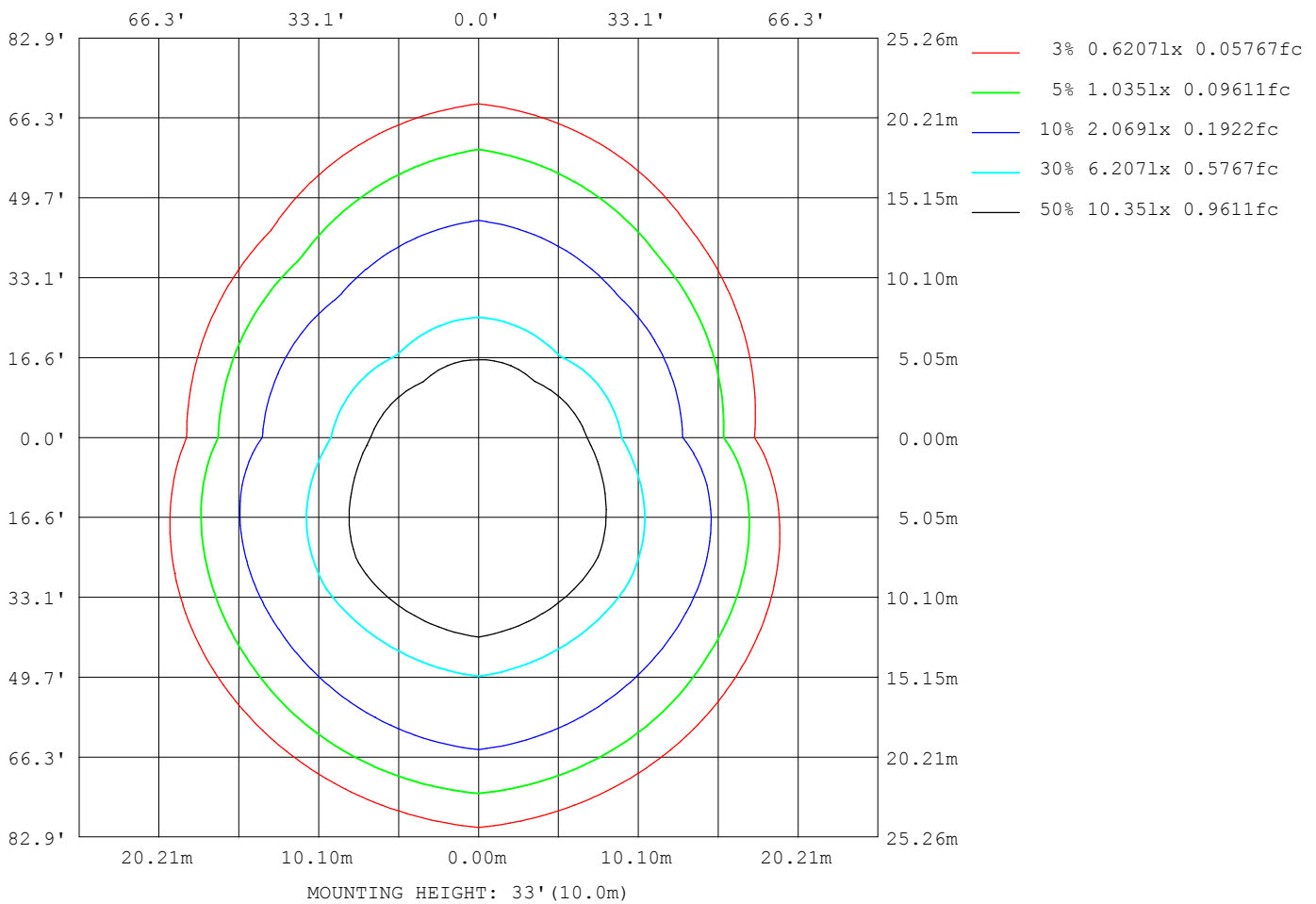
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.1℃  
Operators:  
Test Date:2024-12-19

γ Range: 0 - 90DEG  
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:230.43V I:0.2366A P:49.804W PF:0.9135 Freq:50.01Hz Lamp Flux:7074.01x1 lm		
NAME: HLK-50W	TYPE: 50*100D	WEIGHT:
SPEC.: 5000K-RA80-170L	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: 2024-12-19

γ Range: 0 - 90DEG  
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:230.43V I:0.2366A P:49.804W PF:0.9135 Freq:50.01Hz Lamp Flux:7074.01x1 lm		
NAME: HLK-50W	TYPE: 50*100D	WEIGHT:
SPEC.: 5000K-RA80-170L	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.221m*0.121m	Shielding Angle:

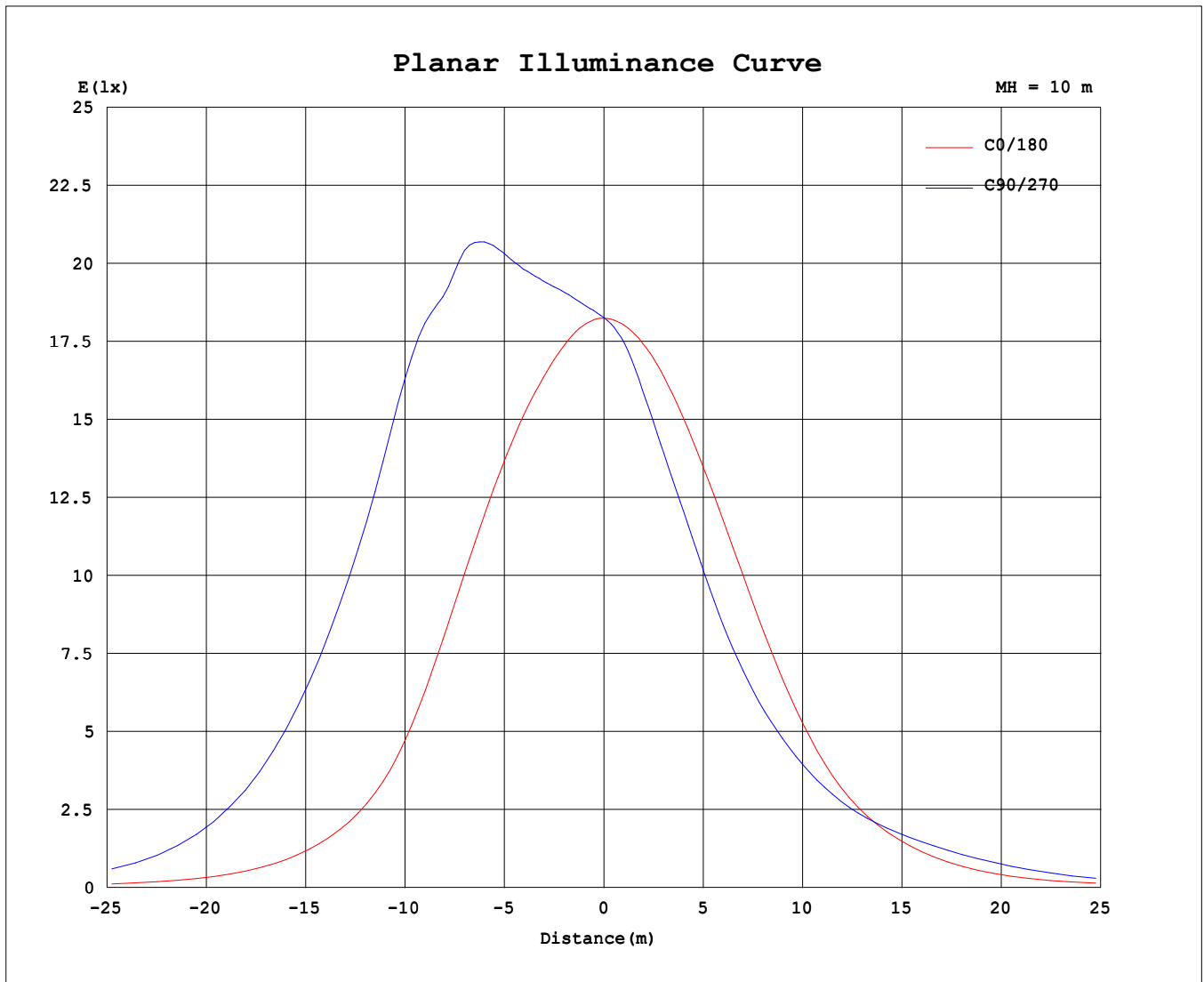
AvgL	cd/m2
L_0~180 (65) av	31579
L_0~180 (75) av	17879
L_0~180 (85) av	5347
L_90~270 (65) av	113286
L_90~270 (75) av	42781
L_90~270 (85) av	8892
L_45 (65) av	67932
L_45 (75) av	25793
L_45 (85) av	7208

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.1℃  
Operators:  
Test Date:2024-12-19

γ Range: 0 - 90DEG  
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: 2024-12-19

γ Range: 0 - 90DEG  
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:

```

γ Range: 0 - 90DEG
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:

```