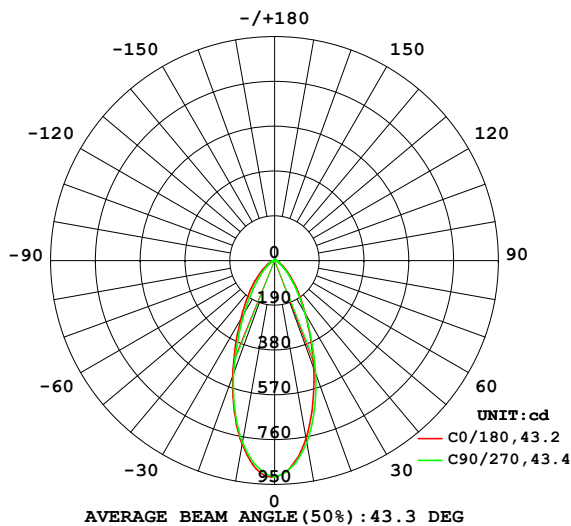


## LUMINAIRE PHOTOMETRIC TEST REPORT

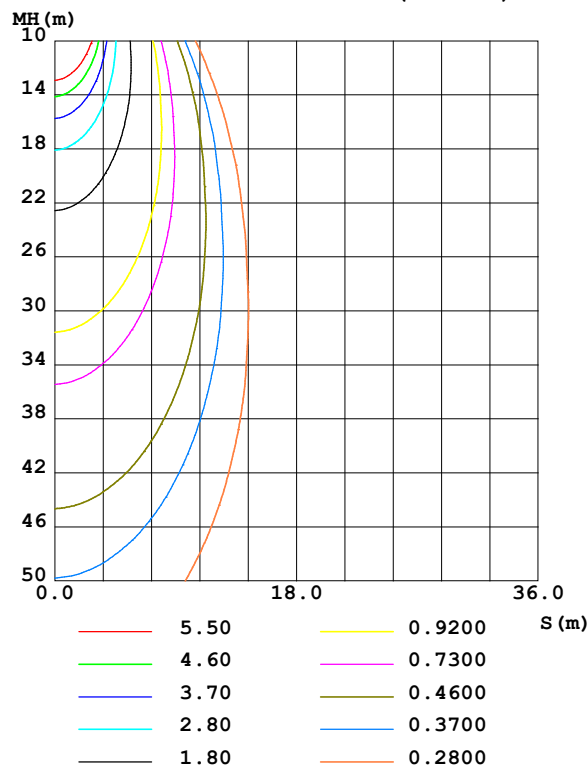
Test:U:120.03V I:0.0759A P:8.8860W PF:0.9754 Freq:60.60Hz Lamp Flux:716.04lx1 lm		
NAME: DL04-148 9W 30K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 80.58 lm/W
MODEL	3000K	I <sub>max</sub> (cd)	919.1	S/MH(C0/180)	0.70	
NOMINAL POWER(W)	9	LOR(%)	100.0	S/MH(C90/270)	0.68	
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	716.04	η UP,DN(C0-180)	1.4,47.4	
NOMINAL FLUX(lm)	716.041	CIE CLASS	DIRECT	η UP,DN(C180-360)	1.4,49.8	
LAMPS INSIDE	1	η up(%)	2.7	CIBSE SHR NOM	0.75	
TEST VOLTAGE(V)	120	η down(%)	97.3	CIBSE SHR MAX	0.75	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 180DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature: 25.3 °C  
Operators: DAMIN  
Test Date: 22 April 2024

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.471  
Humidity: 65.0%  
Test Distance: 7.382m [K=1.0000]  
Remarks:

## ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

$\gamma$	C0	C90	C180	C270					$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	766.2	785.1	791.7	785.1					0- 10	80.69	80.69	11.3,11.3
20	486.5	509.1	520.3	509.1					10- 20	179.4	260.1	36.3,36.3
30	260.9	260.3	290.3	260.3					20- 30	171.2	431.3	60.2,60.2
40	135.3	122.3	156.7	122.3					30- 40	120.2	551.6	77,77
50	64.88	54.36	76.75	54.36					40- 50	72.27	623.8	87.1,87.1
60	30.22	24.87	36.27	24.87					50- 60	38.73	662.6	92.5,92.5
70	14.18	13.00	17.39	13.00					60- 70	20.56	683.1	95.4,95.4
80	3.621	6.154	4.684	6.154					70- 80	9.917	693.0	96.8,96.8
90	1.618	2.382	1.613	2.382					80- 90	3.414	696.5	97.3,97.3
100	1.896	2.090	1.855	2.090					90-100	2.129	698.6	97.6,97.6
110	2.367	2.461	2.315	2.461					100-110	2.291	700.9	97.9,97.9
120	2.998	3.092	2.942	3.092					110-120	2.684	703.6	98.3,98.3
130	3.640	3.868	3.603	3.868					120-130	3.030	706.6	98.7,98.7
140	4.127	4.235	4.119	4.235					130-140	3.062	709.7	99.1,99.1
150	4.361	4.428	4.379	4.428					140-150	2.706	712.4	99.5,99.5
160	4.372	4.439	4.405	4.439					150-160	2.048	714.4	99.8,99.8
170	4.220	4.257	4.238	4.257					160-170	1.233	715.6	99.9,99.9
180	4.153	4.160	4.190	4.160					170-180	0.4009	716.0	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 592.97 lm

%lum = 82.8%

%lamp = 82.8%

Conical surface Flux(120deg): 662.56 lm

%lum = 92.5%

%lamp = 92.5%

C Range: 0 - 180DEG

C Interval: 90.0DEG

Test Speed: HIGH

Temperature:25.3℃

Operators:DAMIN

Test Date:22 April 2024

 $\gamma$  Range: 0 - 180DEG $\gamma$  Interval: 1.0DEG

Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.471

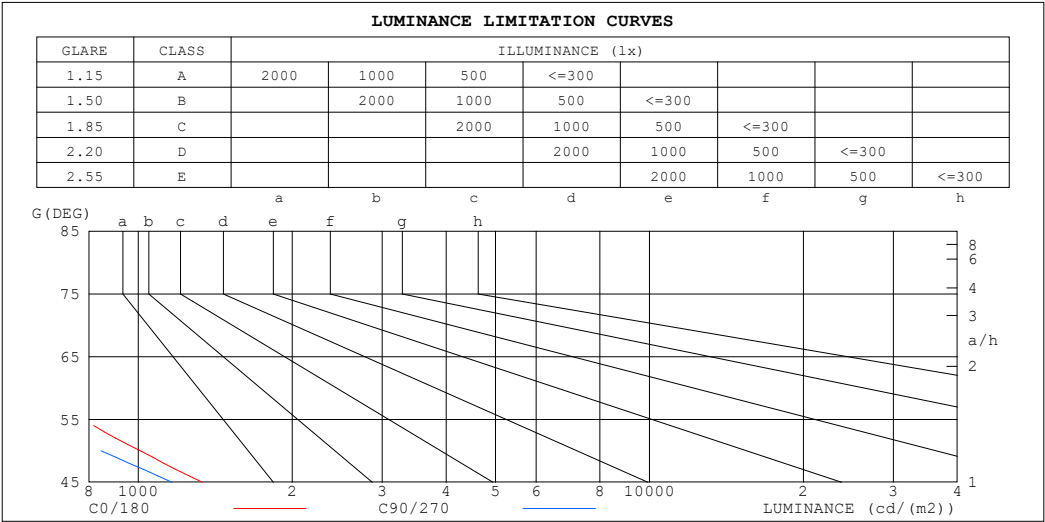
Humidity:65.0%

Test Distance:7.382m [K=1.0000]

Remarks:

LUMINANCE LIMITATION CURVES

Test:U:120.03V I:0.0759A P:8.8860W PF:0.9754 Freq:60.60Hz Lamp Flux:716.04lx1 lm		
NAME: DL04-148 9W 30K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:



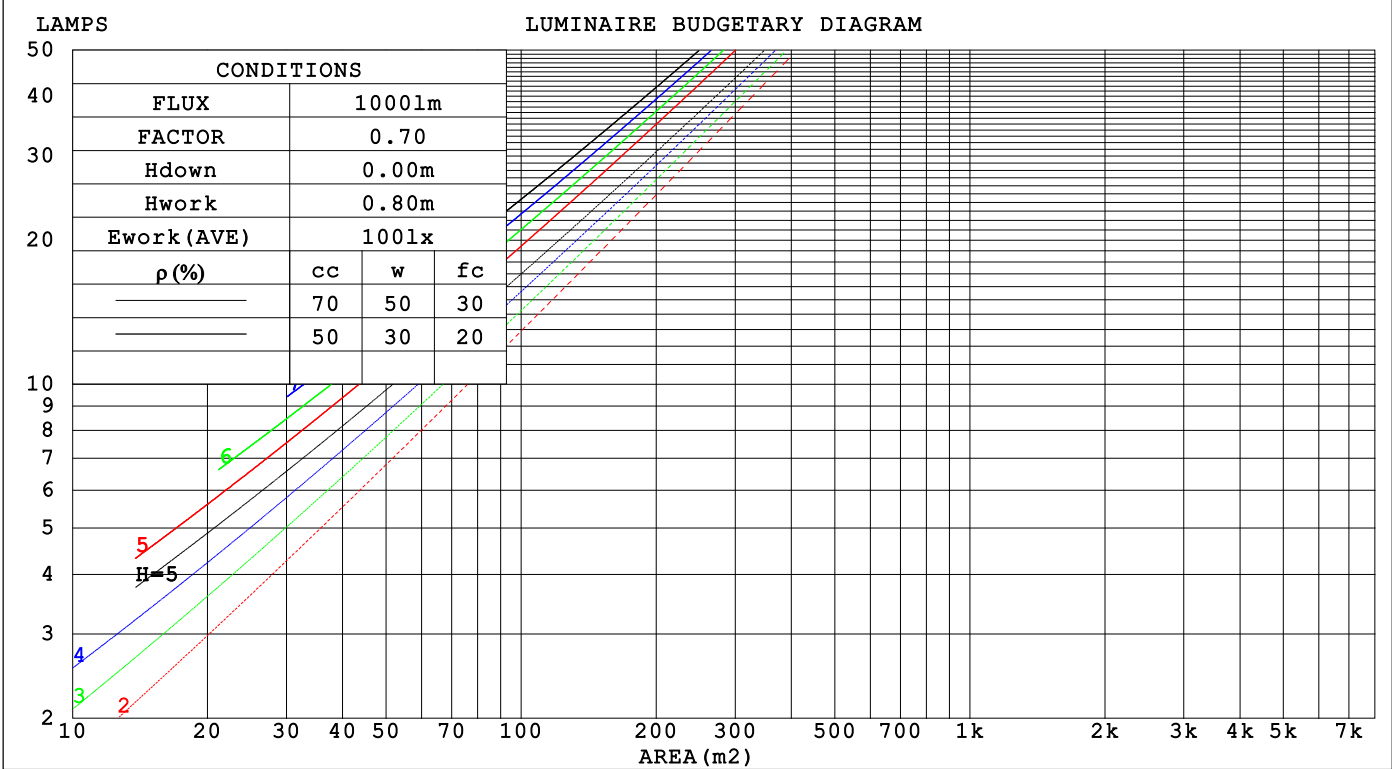
LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	259	353
80	209	354
75	302	370
70	415	380
65	489	422
60	604	497
55	778	629
50	1009	846
45	1334	1163

C Range: 0 - 180DEG	γ Range: 0 - 180DEG
C Interval: 90.0DEG	γ Interval: 1.0DEG
Test Speed: HIGH	Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.471
Temperature:25.3℃	Humidity:65.0%
Operators:DAMIN	Test Distance:7.382m [K=1.0000]
Test Date:22 April 2024	Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.03V I:0.0759A P:8.8860W PF:0.9754 Freq:60.60Hz		
Lamp Flux:716.04lx1 lm		
NAME: DL04-148 9W 30K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	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 - 180DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:DAMIN  
Test Date:22 April 2024

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.471  
Humidity:65.0%  
Test Distance:7.382m [K=1.0000]  
Remarks:

## WEC AND CCEC

Test:U:120.03V I:0.0759A P:8.8860W PF:0.9754 Freq:60.60Hz Lamp Flux:716.041x1 lm		
NAME: DL04-148 9W 30K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	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	.207	.117	.037	.199	.113	.036	.185	.106	.034	.171	.099	.032	.159	.092	.030		
2.0	.197	.108	.033	.190	.105	.032	.178	.099	.031	.166	.093	.029	.156	.088	.028		
3.0	.185	.099	.030	.180	.096	.029	.169	.092	.028	.159	.087	.027	.150	.083	.026		
4.0	.175	.091	.027	.170	.089	.026	.160	.085	.025	.152	.082	.025	.144	.078	.024		
5.0	.165	.084	.024	.161	.082	.024	.152	.079	.023	.145	.076	.023	.137	.073	.022		
6.0	.156	.078	.022	.152	.077	.022	.145	.074	.022	.138	.072	.021	.131	.069	.021		
7.0	.148	.073	.021	.144	.072	.020	.138	.070	.020	.131	.067	.020	.126	.065	.019		
8.0	.140	.068	.019	.137	.067	.019	.131	.065	.019	.125	.064	.018	.120	.062	.018		
9.0	.133	.064	.018	.130	.064	.018	.125	.062	.018	.120	.060	.017	.115	.058	.017		
10.0	.127	.061	.017	.124	.060	.017	.119	.059	.016	.115	.057	.016	.110	.056	.016		

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	.211	.211	.211	.181	.181	.181	.123	.123	.123	.071	.071	.071	.023	.023	.023		
1.0	.194	.178	.164	.166	.153	.141	.114	.105	.097	.065	.061	.057	.021	.020	.018		
2.0	.181	.154	.131	.155	.132	.113	.106	.091	.079	.061	.053	.046	.020	.017	.015		
3.0	.169	.135	.108	.145	.116	.093	.100	.081	.065	.058	.047	.039	.019	.015	.013		
4.0	.160	.121	.091	.137	.104	.079	.094	.073	.056	.055	.043	.033	.018	.014	.011		
5.0	.152	.109	.078	.130	.095	.068	.090	.066	.048	.052	.039	.029	.017	.013	.009		
6.0	.144	.100	.069	.124	.087	.060	.085	.061	.042	.050	.036	.025	.016	.012	.008		
7.0	.138	.093	.062	.118	.081	.054	.082	.057	.038	.048	.033	.023	.015	.011	.008		
8.0	.132	.087	.056	.113	.075	.049	.078	.053	.035	.046	.031	.021	.015	.010	.007		
9.0	.126	.082	.052	.109	.071	.045	.075	.050	.032	.044	.029	.019	.014	.010	.006		
10.0	.122	.077	.048	.105	.067	.042	.073	.047	.030	.042	.028	.018	.014	.009	.006		

C Range: 0 - 180DEG

C Interval: 90.0DEG

Test Speed: HIGH

Temperature:25.3℃

Operators:DAMIN

Test Date:22 April 2024

 $\gamma$  Range: 0 - 180DEG $\gamma$  Interval: 1.0DEG

Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.471

Humidity:65.0%

Test Distance:7.382m [K=1.0000]

Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.03V I:0.0759A P:8.8860W PF:0.9754 Freq:60.60Hz Lamp Flux:716.041x1 lm										
NAME: DL04-148 9W 30K					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.: 1		
MFR.: EVERFINE					SUR.:			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	10.6	11.6	10.9	11.8	12.1	10.1	11.1	10.3	11.3	11.5
3H	11.0	11.9	11.3	12.2	12.4	10.4	11.4	10.7	11.6	11.9
4H	11.1	12.0	11.4	12.3	12.5	10.6	11.5	10.9	11.8	12.1
6H	11.1	11.9	11.4	12.2	12.5	10.8	11.6	11.1	11.9	12.2
8H	11.1	11.9	11.4	12.2	12.5	10.8	11.7	11.2	12.0	12.3
12H	11.1	11.9	11.4	12.2	12.5	10.9	11.7	11.3	12.0	12.3
4H 2H	10.6	11.5	11.0	11.8	12.1	10.2	11.1	10.5	11.4	11.6
3H	11.2	12.0	11.5	12.3	12.6	10.7	11.5	11.1	11.8	12.1
4H	11.4	12.1	11.7	12.4	12.8	11.0	11.7	11.4	12.1	12.4
6H	11.4	12.0	11.8	12.4	12.8	11.2	11.9	11.7	12.3	12.7
8H	11.4	12.0	11.9	12.4	12.8	11.3	11.9	11.8	12.3	12.8
12H	11.4	12.0	11.9	12.4	12.8	11.4	12.0	11.9	12.4	12.8
8H 4H	11.4	11.9	11.8	12.3	12.8	11.0	11.6	11.5	12.0	12.4
6H	11.5	12.0	12.0	12.4	12.9	11.4	11.8	11.8	12.3	12.8
8H	11.5	12.0	12.0	12.4	12.9	11.5	12.0	12.0	12.4	12.9
12H	11.6	12.0	12.1	12.4	13.0	11.7	12.0	12.2	12.5	13.1
12H 4H	11.3	11.9	11.8	12.3	12.7	11.0	11.5	11.4	11.9	12.4
6H	11.5	11.9	12.0	12.4	12.9	11.4	11.8	11.8	12.2	12.7
8H	11.6	11.9	12.1	12.4	12.9	11.5	11.9	12.1	12.4	12.9
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 1.0 / - 1.3					+ 0.9 / - 1.2				
1.5H	+ 1.3 / - 1.0					+ 1.2 / - 0.9				
2.0H	+ 2.1 / - 1.4					+ 1.8 / - 1.2				

CIE Pub.117, 716.0 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -1.2)  
Area: 0.1 m2

C Range: 0 - 180DEG

C Interval: 90.0DEG

Test Speed: HIGH

Temperature:25.3℃

Operators:DAMIN

Test Date:22 April 2024

γ Range: 0 - 180DEG

γ Interval: 1.0DEG

Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.471

Humidity:65.0%

Test Distance:7.382m [K=1.0000]

Remarks:

## UTILIZATION FACTORS TABLE

Test:U:120.03V I:0.0759A P:8.8860W PF:0.9754 Freq:60.60Hz Lamp Flux:716.04lx1 lm		
NAME: DL04-148 9W 30K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

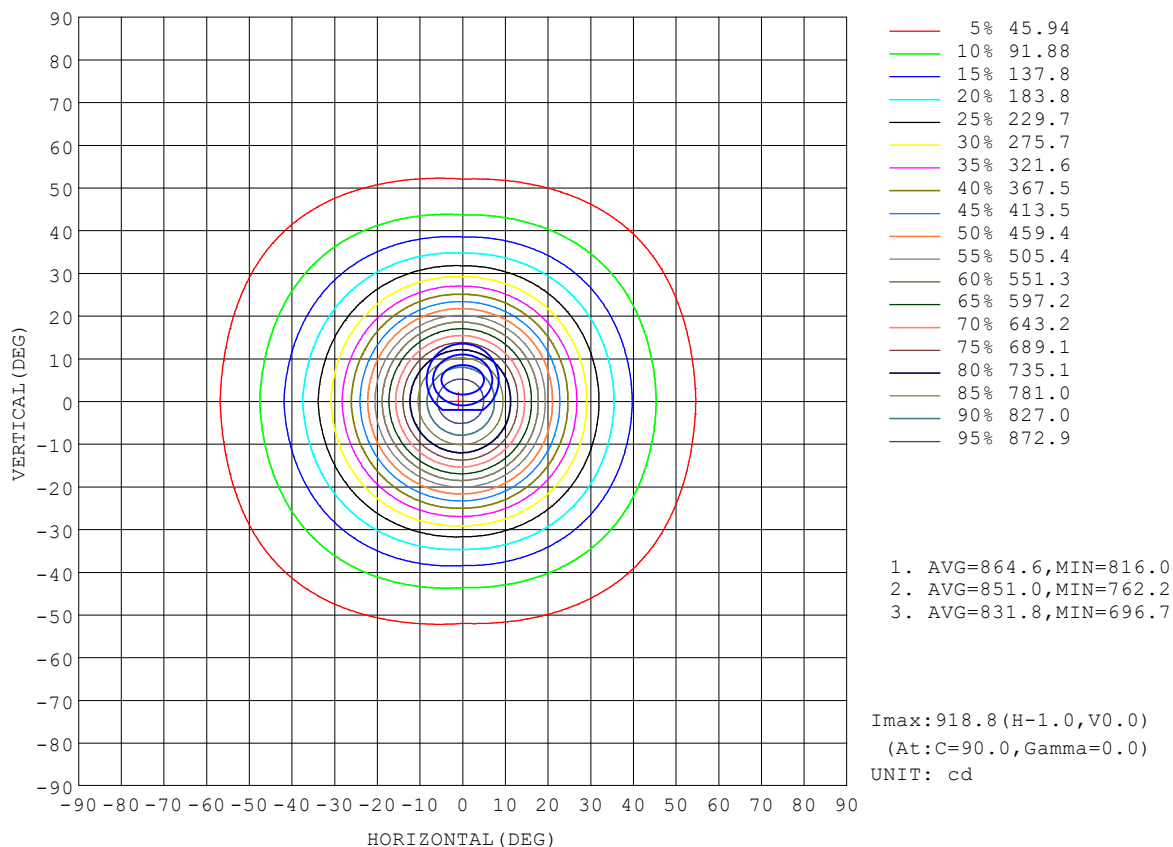
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	77	69	64	76	69	64	75	68	64	60
0.80	86	78	73	85	78	73	83	77	72	68
1.00	92	84	80	90	84	79	88	84	79	73
1.25	97	90	85	95	89	85	93	88	84	78
1.50	100	94	89	98	93	89	96	91	87	82
2.00	104	99	94	102	97	93	99	95	92	85
2.50	106	101	97	104	100	96	101	97	94	87
3.00	108	104	100	106	102	99	102	99	97	89
4.00	111	107	104	109	105	103	104	102	100	91
5.00	112	109	107	110	107	105	105	103	102	93
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 180DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators: DAMIN  
Test Date: 22 April 2024

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.471  
Humidity: 65.0%  
Test Distance: 7.382m [K=1.0000]  
Remarks:

## ISOCANDELA DIAGRAM

Test:U:120.03V I:0.0759A P:8.8860W PF:0.9754 Freq:60.60Hz Lamp Flux:716.04lx1 lm		
NAME: DL04-148 9W 30K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:



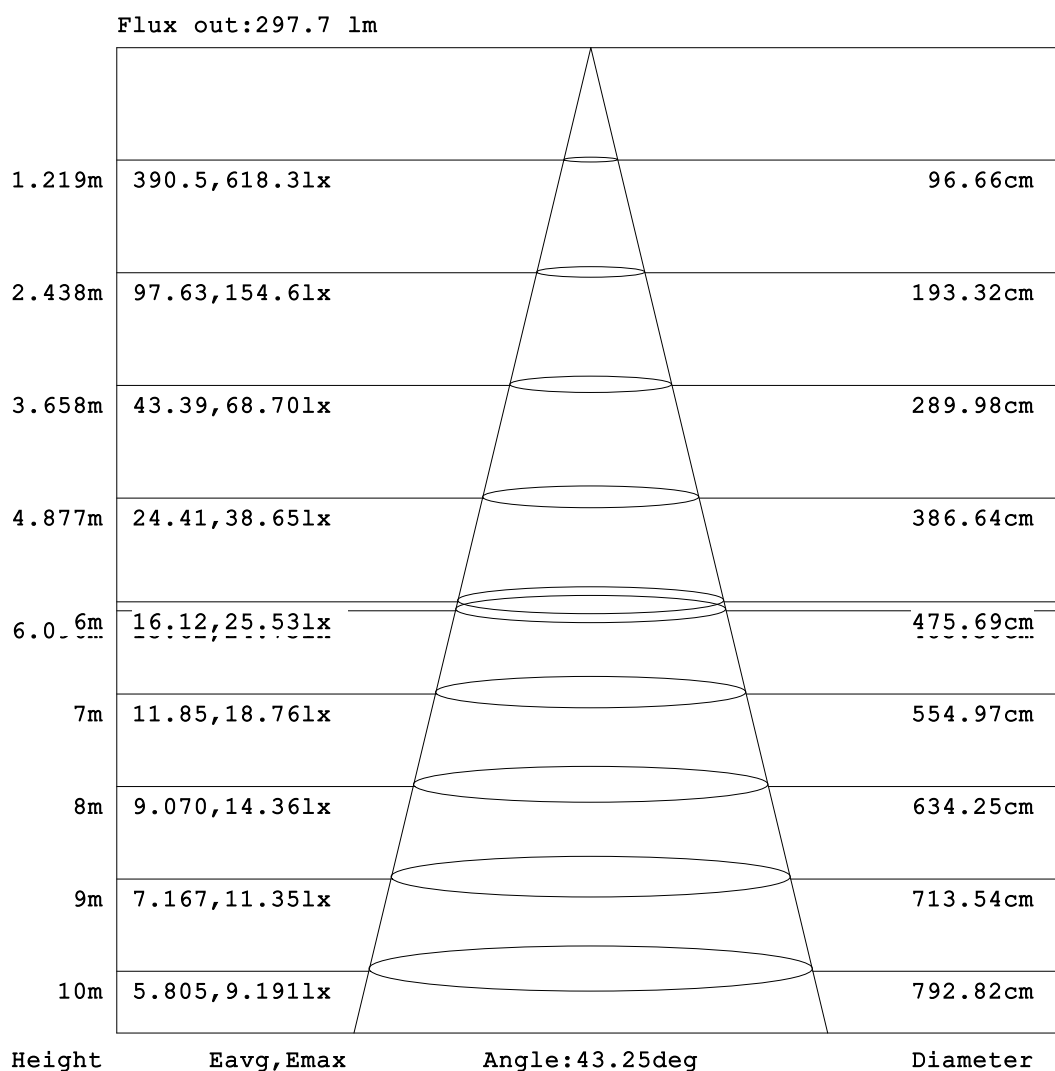
C Range: 0 - 180DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:DAMIN  
Test Date:22 April 2024

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.471  
Humidity:65.0%  
Test Distance:7.382m [K=1.0000]  
Remarks:



## AAI Figure

Test:U:120.03V I:0.0759A P:8.8860W PF:0.9754 Freq:60.60Hz Lamp Flux:716.04lx1 lm		
NAME: DL04-148 9W 30K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:



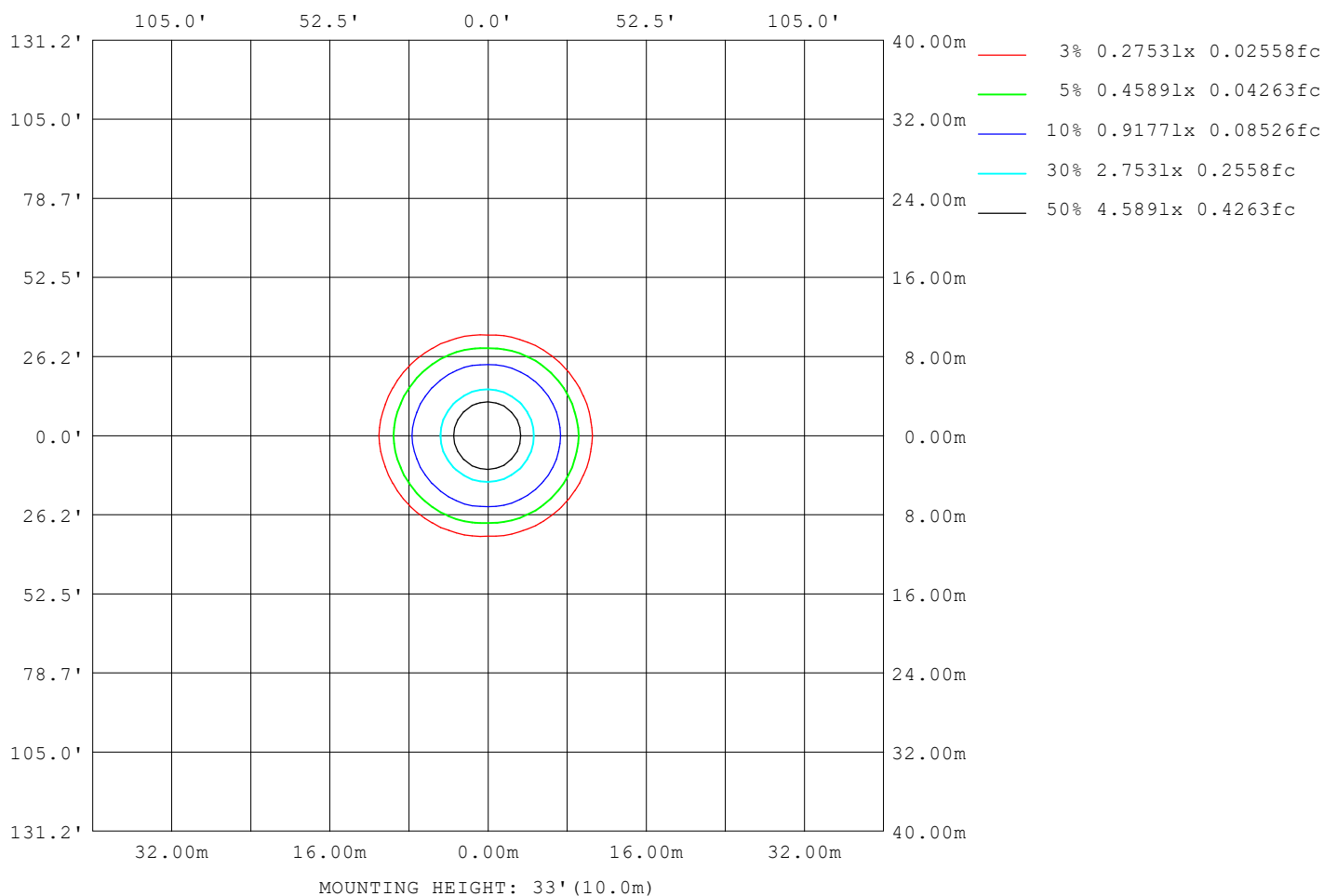
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 180DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature: 25.3 °C  
Operators: DAMIN  
Test Date: 22 April 2024

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.471  
Humidity: 65.0%  
Test Distance: 7.382m [K=1.0000]  
Remarks:

## ISOLUX DIAGRAM

Test:U:120.03V I:0.0759A P:8.8860W PF:0.9754 Freq:60.60Hz Lamp Flux:716.04lx1 lm		
NAME: DL04-148 9W 30K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:



C Range: 0 - 180DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:DAMIN  
Test Date:22 April 2024

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.471  
Humidity:65.0%  
Test Distance:7.382m [K=1.0000]  
Remarks:

## LED Avg.L Report

Test:U:120.03V I:0.0759A P:8.8860W PF:0.9754 Freq:60.60Hz Lamp Flux:716.041x1 lm		
NAME: DL04-148 9W 30K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

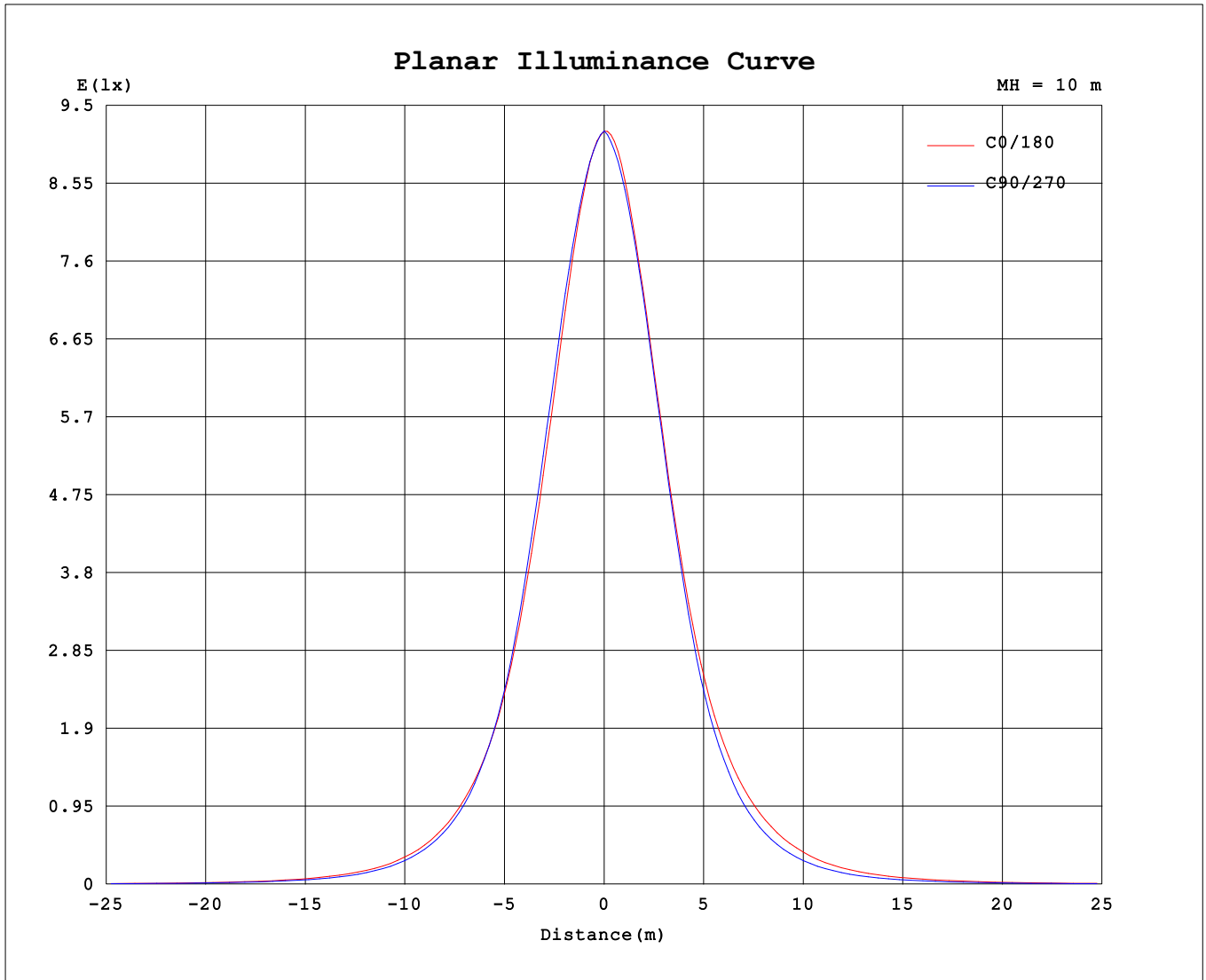
AvgL	cd/m2
L_0~180 (65) av	541
L_0~180 (75) av	338
L_0~180 (85) av	293
L_90~270 (65) av	422
L_90~270 (75) av	370
L_90~270 (85) av	353
L_45 (65) av	470
L_45 (75) av	360
L_45 (85) av	333

Standard: GB/T 29293-2012

C Range: 0 - 180DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:DAMIN  
Test Date:22 April 2024

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.471  
Humidity:65.0%  
Test Distance:7.382m [K=1.0000]  
Remarks:

### Planar Illuminance Curve



C Range: 0 - 180DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3 °C  
 Operators: DAMIN  
 Test Date: 22 April 2024

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.471  
 Humidity: 65.0%  
 Test Distance: 7.382m [K=1.0000]  
 Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.03V I:0.0759A P:8.8860W PF:0.9754 Freq:60.60Hz Lamp Flux:716.041x1 lm		
NAME: DL04-148 9W 30K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	90	180	270														
0	918	919	919	919														
5	872	875	888	875														
10	766	785	792	785														
15	628	655	663	655														
20	487	509	520	509														
25	360	369	392	369														
30	261	260	290	260														
35	190	180	215	180														
40	135	122	157	122														
45	94.3	82.3	111	82.3														
50	64.9	54.4	76.8	54.4														
55	44.6	36.1	52.8	36.1														
60	30.2	24.9	36.3	24.9														
65	20.7	17.8	25.1	17.8														
70	14.2	13.0	17.4	13.0														
75	7.83	9.58	9.64	9.58														
80	3.62	6.15	4.68	6.15														
85	2.25	3.08	2.86	3.08														
90	1.62	2.38	1.61	2.38														
95	1.73	2.14	1.70	2.14														
100	1.90	2.09	1.86	2.09														
105	2.11	2.20	2.07	2.20														
110	2.37	2.46	2.32	2.46														
115	2.68	2.77	2.61	2.77														
120	3.00	3.09	2.94	3.09														
125	3.32	3.46	3.28	3.46														
130	3.64	3.87	3.60	3.87														
135	3.91	4.00	3.89	4.00														
140	4.13	4.24	4.12	4.24														
145	4.27	4.36	4.28	4.36														
150	4.36	4.43	4.38	4.43														
155	4.39	4.46	4.43	4.46														
160	4.37	4.44	4.41	4.44														
165	4.30	4.39	4.32	4.39														
170	4.22	4.26	4.24	4.26														
175	4.17	4.19	4.18	4.19														
180	4.15	4.16	4.19	4.16														

C Range: 0 - 180DEG

C Interval: 90.0DEG

Test Speed: HIGH

Temperature:25.3℃

Operators:DAMIN

Test Date:22 April 2024

γ Range: 0 - 180DEG

γ Interval: 1.0DEG

Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.471

Humidity:65.0%

Test Distance:7.382m [K=1.0000]

Remarks: