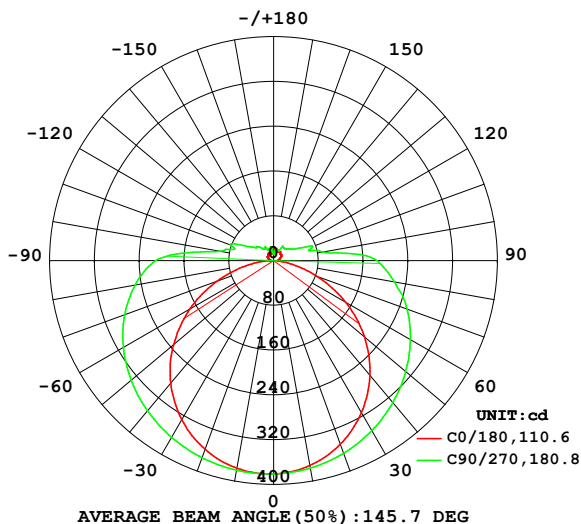


LUMINAIRE PHOTOMETRIC TEST REPORT

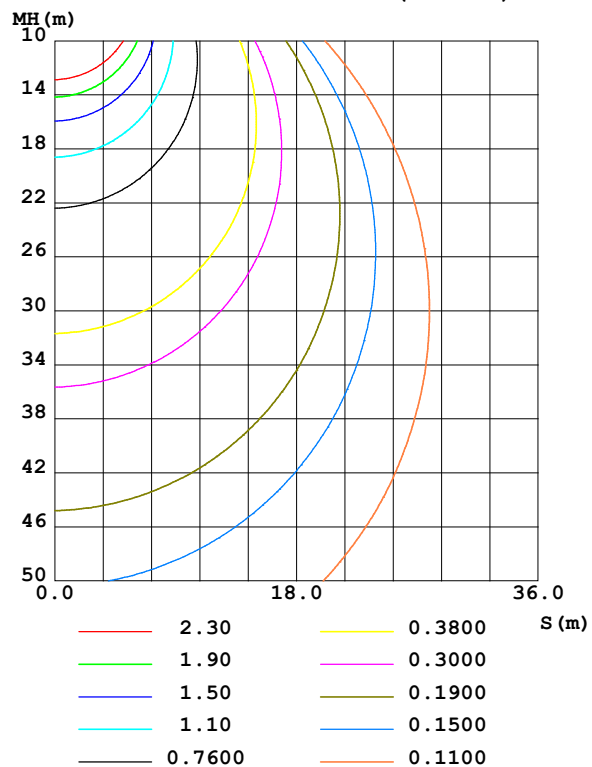
Test:U:120.11V I:0.2158A P:24.319W PF:0.9380 Freq:59.98Hz Lamp Flux:1697.1x1 lm		
NAME: WS24-033B-BN 24W 30K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 69.78 lm/W
MODEL	3000K	I _{max} (cd)	381.4	S/MH(C0/180)	1.28	
NOMINAL POWER(W)	24	LOR(%)	100.0	S/MH(C90/270)	1.44	
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	1697.1	η UP,DN(C0-180)	6.9,40.9	
NOMINAL FLUX(lm)	1697.1	CIE CLASS	SEMI-D.	η UP,DN(C180-360)	7.4,44.8	
LAMPS INSIDE	1	η up(%)	14.3	CIBSE SHR NOM	1.50	
TEST VOLTAGE(V)	120	η down(%)	85.7	CIBSE SHR MAX	1.55	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:DAMIN
Test Date:10 February 2026

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.459
Humidity:65.0%
Test Distance:7.380m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C90	C180	C270					γ	Φ zone	Φ total	%lum, lamp
10	371.6	376.5	376.8	380.2					0- 10	36.15	36.15	2.13,2.13
20	348.9	366.2	358.7	374.6					10- 20	104.7	140.8	8.3,8.3
30	314.0	350.9	328.1	364.7					20- 30	162.3	303.1	17.9,17.9
40	267.7	331.2	286.2	350.3					30- 40	203.6	506.7	29.9,29.9
50	212.1	308.0	233.2	332.2					40- 50	224.7	731.5	43.1,43.1
60	149.0	282.3	172.4	309.9					50- 60	224.1	955.5	56.3,56.3
70	82.26	253.8	107.5	283.1					60- 70	203.4	1159	68.3,68.3
80	25.91	219.0	45.80	251.0					70- 80	167.2	1326	78.1,78.1
90	7.148	185.0	8.014	211.1					80- 90	128.0	1454	85.7,85.7
100	9.325	90.15	7.581	98.02					90-100	85.28	1539	90.7,90.7
110	12.43	74.72	10.06	82.57					100-110	46.86	1586	93.5,93.5
120	15.65	41.33	13.25	50.37					110-120	37.44	1624	95.7,95.7
130	17.08	33.16	13.76	39.00					120-130	24.59	1648	97.1,97.1
140	18.76	29.17	15.66	28.17					130-140	18.56	1667	98.2,98.2
150	18.77	21.25	15.74	26.25					140-150	14.45	1681	99.1,99.1
160	17.40	19.76	13.89	21.91					150-160	8.789	1690	99.6,99.6
170	18.08	19.33	15.34	23.88					160-170	5.312	1695	99.9,99.9
180	21.22	13.75	21.21	13.77					170-180	1.698	1697	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 617.8 lm

%lum = 36.4%

%lamp = 36.4%

Conical surface Flux(120deg): 955.55 lm

%lum = 56.3%

%lamp = 56.3%

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:DAMIN
Test Date:10 February 2026

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.459
Humidity:65.0%
Test Distance:7.380m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:120.11V I:0.2158A P:24.319W PF:0.9380 Freq:59.98Hz

Lamp Flux:1697.1x1 lm

NAME: WS24-033B-BN 24W 30K

TYPE:

WEIGHT:

SPEC.:

DIM.:

SERIAL No.: 1

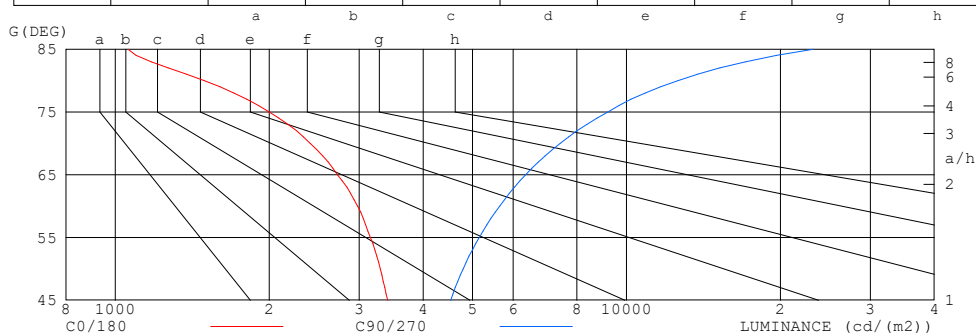
MFR.: EVERFINE

SUR.:

Shielding Angle:

LUMINANCE LIMITATION CURVES

GLARE	CLASS	ILLUMINANCE (lx)							
1.15	A	2000	1000	500	<=300				
1.50	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.20	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300



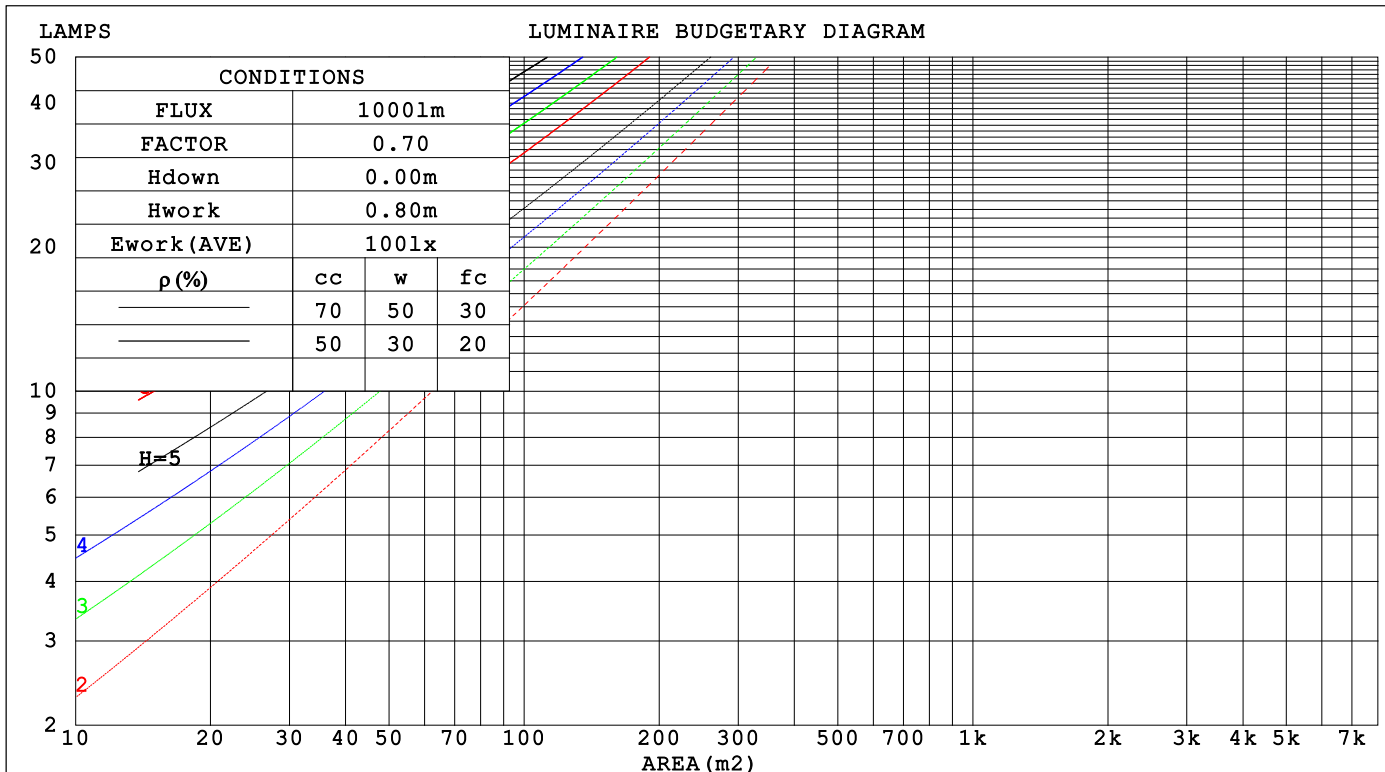
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:DAMIN
Test Date:10 February 2026

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.459
Humidity:65.0%
Test Distance:7.380m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.11V I:0.2158A P:24.319W PF:0.9380 Freq:59.98Hz Lamp Flux:1697.1x1 lm		
NAME: WS24-033B-BN 24W 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															Coefficients of Utilization(CU)														
0.0	1.16	1.16	1.16	1.11	1.11	1.11	1.03	1.03	1.03	.96	.96	.96	.89	.89	.89	.86														
1.0	.96	.91	.86	.93	.88	.83	.86	.82	.78	.79	.76	.73	.73	.71	.68	.65														
2.0	.82	.74	.68	.79	.72	.66	.73	.67	.62	.68	.63	.58	.63	.59	.55	.52														
3.0	.71	.62	.55	.69	.60	.54	.63	.56	.51	.59	.53	.48	.54	.50	.45	.42														
4.0	.63	.53	.46	.60	.51	.45	.56	.48	.42	.52	.45	.40	.48	.43	.38	.35														
5.0	.56	.46	.39	.54	.45	.38	.50	.42	.36	.46	.40	.34	.43	.37	.33	.30														
6.0	.50	.40	.33	.48	.39	.33	.45	.37	.31	.42	.35	.30	.39	.33	.29	.26														
7.0	.45	.36	.29	.43	.35	.29	.40	.33	.27	.38	.31	.26	.35	.29	.25	.23														
8.0	.41	.32	.26	.39	.31	.25	.37	.30	.24	.35	.28	.23	.32	.27	.22	.20														
9.0	.37	.29	.23	.36	.28	.23	.34	.27	.22	.32	.25	.21	.30	.24	.20	.18														
10.0	.34	.26	.21	.33	.26	.20	.31	.24	.20	.29	.23	.19	.28	.22	.18	.16														



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:DAMIN
Test Date:10 February 2026

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.459
Humidity:65.0%
Test Distance:7.380m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:120.11V I:0.2158A P:24.319W PF:0.9380 Freq:59.98Hz Lamp Flux:1697.1x1 lm		
NAME: WS24-033B-BN 24W 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	.388	.221	.070	.377	.215	.068	.355	.204	.065	.335	.193	.062	.317	.184	.059		
2.0	.337	.184	.057	.326	.180	.055	.307	.170	.053	.288	.162	.051	.272	.154	.048		
3.0	.299	.159	.048	.290	.155	.047	.272	.147	.045	.256	.140	.043	.240	.133	.041		
4.0	.269	.140	.041	.261	.136	.040	.245	.130	.039	.230	.123	.037	.216	.117	.036		
5.0	.245	.125	.036	.237	.122	.035	.222	.116	.034	.209	.110	.033	.196	.105	.032		
6.0	.224	.112	.032	.217	.110	.032	.204	.105	.030	.192	.100	.029	.180	.095	.028		
7.0	.207	.102	.029	.200	.100	.028	.188	.095	.027	.177	.091	.026	.166	.086	.025		
8.0	.192	.094	.026	.186	.091	.026	.175	.087	.025	.164	.083	.024	.155	.079	.023		
9.0	.178	.086	.024	.173	.084	.024	.163	.081	.023	.154	.077	.022	.145	.073	.021		
10.0	.167	.080	.022	.162	.078	.022	.153	.075	.021	.144	.072	.020	.136	.068	.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	.300	.300	.300	.256	.256	.256	.175	.175	.175	.100	.100	.100	.032	.032	.032		
1.0	.296	.265	.238	.253	.228	.205	.173	.157	.142	.100	.091	.082	.032	.029	.027		
2.0	.289	.242	.203	.247	.209	.176	.170	.144	.123	.098	.084	.072	.031	.027	.023		
3.0	.281	.226	.181	.241	.195	.157	.166	.135	.110	.096	.079	.065	.031	.026	.021		
4.0	.274	.213	.167	.235	.184	.145	.161	.128	.102	.093	.075	.060	.030	.024	.020		
5.0	.266	.203	.157	.228	.176	.137	.157	.123	.097	.091	.072	.057	.029	.024	.019		
6.0	.258	.195	.150	.222	.169	.131	.153	.118	.093	.089	.070	.055	.029	.023	.018		
7.0	.251	.189	.145	.216	.164	.126	.149	.115	.090	.087	.068	.053	.028	.022	.018		
8.0	.244	.183	.141	.210	.159	.123	.146	.112	.087	.085	.066	.052	.027	.022	.017		
9.0	.238	.178	.138	.205	.155	.120	.142	.109	.085	.083	.064	.051	.027	.021	.017		
10.0	.232	.174	.135	.200	.151	.118	.139	.106	.084	.081	.063	.050	.026	.021	.017		

C Range: 0 - 360DEG

C Interval: 90.0DEG

Test Speed: HIGH

Temperature:25.3℃

Operators:DAMIN

Test Date:10 February 2026

γ Range: 0 - 180DEG

γ Interval: 1.0DEG

Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.459

Humidity:65.0%

Test Distance:7.380m [K=1.0000]

Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.11V I:0.2158A P:24.319W PF:0.9380 Freq:59.98Hz Lamp Flux:1697.1x1 lm										
NAME: WS24-033B-BN 24W 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	13.8	15.2	14.2	15.7	16.2	16.0	17.4	16.5	17.9	18.4
3H	15.1	16.5	15.6	16.9	17.5	18.8	20.1	19.3	20.6	21.1
4H	15.6	16.9	16.1	17.4	17.9	20.3	21.6	20.8	22.1	22.6
6H	15.9	17.1	16.4	17.6	18.2	22.0	23.2	22.5	23.7	24.3
8H	15.9	17.1	16.5	17.6	18.2	23.0	24.1	23.5	24.6	25.2
12H	16.0	17.1	16.5	17.6	18.2	24.1	25.2	24.6	25.7	26.3
4H 2H	14.9	16.1	15.4	16.6	17.2	16.5	17.8	17.0	18.3	18.8
3H	16.5	17.6	17.1	18.2	18.8	19.4	20.6	20.0	21.1	21.7
4H	17.2	18.2	17.8	18.8	19.4	21.2	22.2	21.7	22.7	23.4
6H	17.7	18.6	18.3	19.2	19.9	23.1	24.0	23.7	24.6	25.3
8H	17.8	18.7	18.5	19.3	20.0	24.2	25.0	24.8	25.6	26.3
12H	17.9	18.7	18.6	19.3	20.1	25.4	26.2	26.1	26.8	27.5
8H 4H	18.2	19.1	18.8	19.7	20.4	21.4	22.3	22.0	22.9	23.6
6H	19.1	19.8	19.7	20.4	21.2	23.6	24.3	24.2	24.9	25.7
8H	19.4	20.1	20.1	20.7	21.5	24.9	25.5	25.5	26.2	26.9
12H	19.7	20.3	20.4	21.0	21.7	26.4	27.0	27.1	27.6	28.4
12H 4H	18.5	19.3	19.2	19.9	20.7	21.4	22.2	22.0	22.8	23.5
6H	19.6	20.3	20.3	20.9	21.7	23.6	24.3	24.3	25.0	25.7
8H	20.2	20.7	20.8	21.4	22.2	25.0	25.6	25.7	26.3	27.0
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.1				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.2				
2.0H	+ 0.2 / - 0.5					+ 0.2 / - 0.3				

CIE Pub.117, 1697 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 1.8)
Area: 0.1 m2

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:DAMIN
Test Date:10 February 2026

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.459
Humidity:65.0%
Test Distance:7.380m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:120.11V I:0.2158A P:24.319W PF:0.9380 Freq:59.98Hz Lamp Flux:1697.1x1 lm		
NAME: WS24-033B-BN 24W 30K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

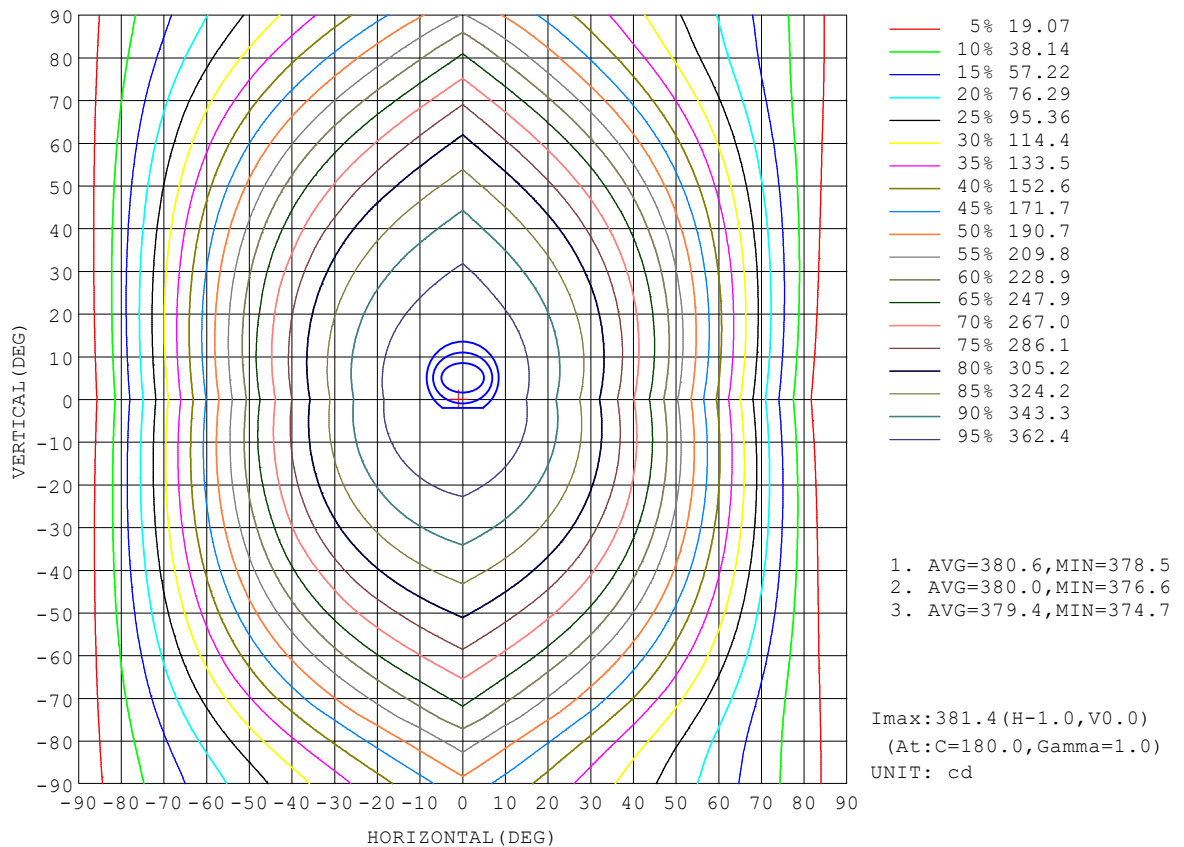
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	49	36	29	48	36	29	46	35	28	21
0.80	58	45	37	56	44	36	54	43	36	28
1.00	66	53	44	64	52	44	61	53	43	34
1.25	73	60	52	70	59	51	66	57	49	40
1.50	78	66	57	75	64	56	71	61	54	44
2.00	85	74	66	82	72	65	77	69	62	51
2.50	90	79	72	86	77	70	81	73	67	55
3.00	93	84	77	90	82	75	84	77	71	59
4.00	98	90	84	94	87	81	88	82	77	64
5.00	101	94	88	97	91	86	90	85	81	67
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: 25.3°C
Operators: DAMIN
Test Date: 10 February 2026

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.459
Humidity: 65.0%
Test Distance: 7.380m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:120.11V I:0.2158A P:24.319W PF:0.9380 Freq:59.98Hz Lamp Flux:1697.1x1 lm		
NAME: WS24-033B-BN 24W 30K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

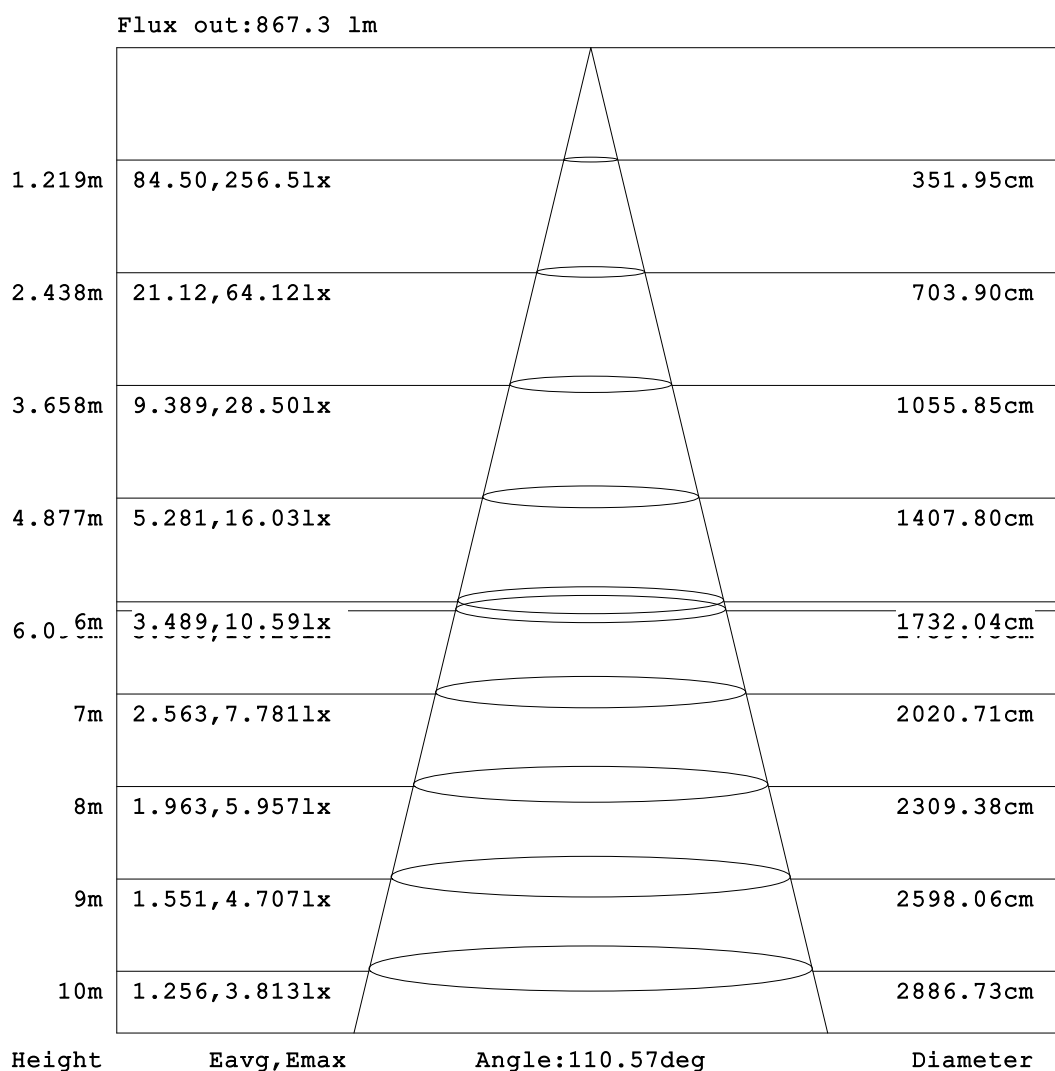


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:DAMIN
Test Date:10 February 2026

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.459
Humidity:65.0%
Test Distance:7.380m [K=1.0000]
Remarks:

AAI Figure

Test:U:120.11V I:0.2158A P:24.319W PF:0.9380 Freq:59.98Hz Lamp Flux:1697.1x1 lm		
NAME: WS24-033B-BN 24W 30K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:



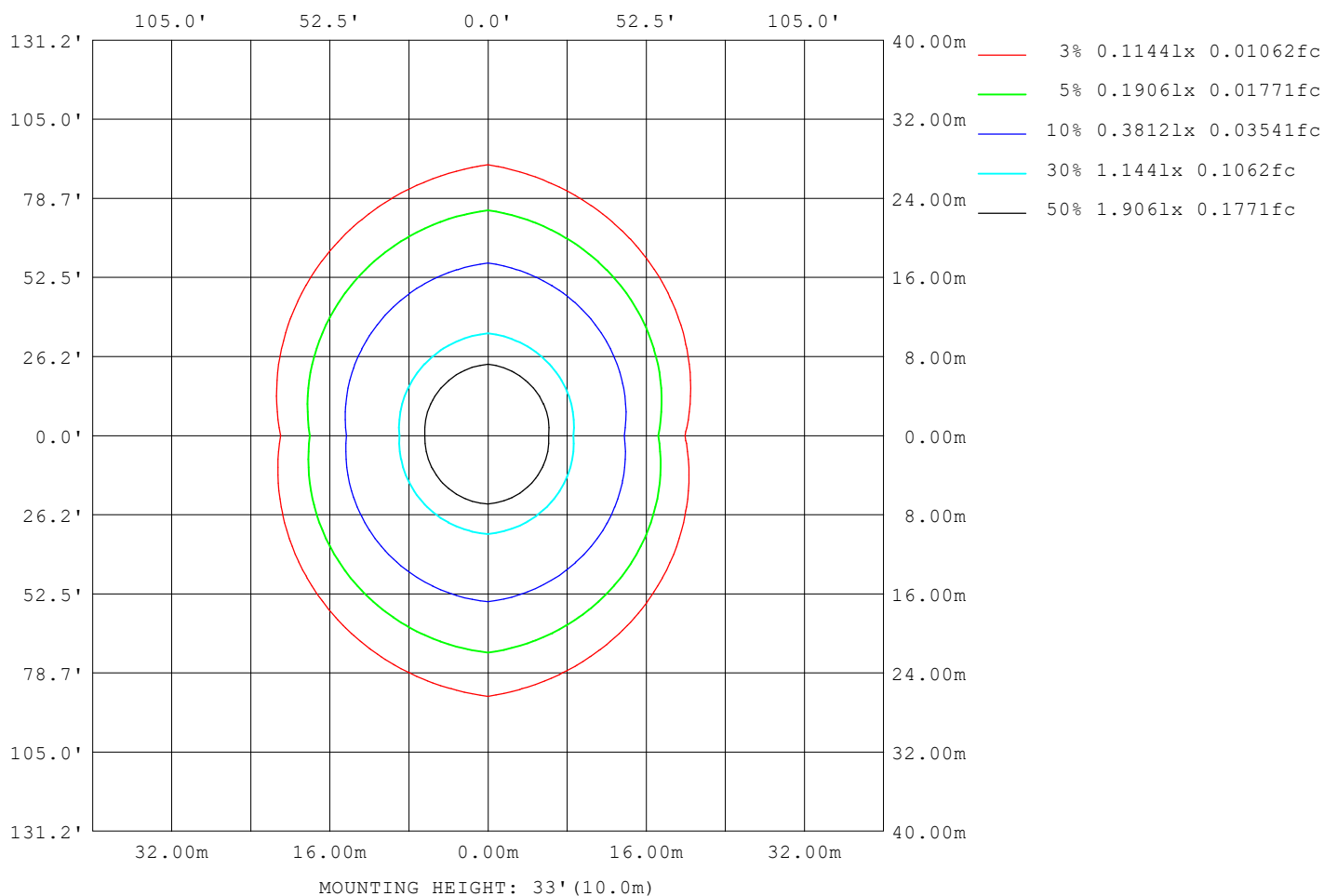
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:DAMIN
Test Date:10 February 2026

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.459
Humidity:65.0%
Test Distance:7.380m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:120.11V I:0.2158A P:24.319W PF:0.9380 Freq:59.98Hz Lamp Flux:1697.1x1 lm		
NAME: WS24-033B-BN 24W 30K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: DAMIN
Test Date: 10 February 2026

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.459
Humidity: 65.0%
Test Distance: 7.380m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:120.11V I:0.2158A P:24.319W PF:0.9380 Freq:59.98Hz Lamp Flux:1697.1x1 lm		
NAME: WS24-033B-BN 24W 30K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

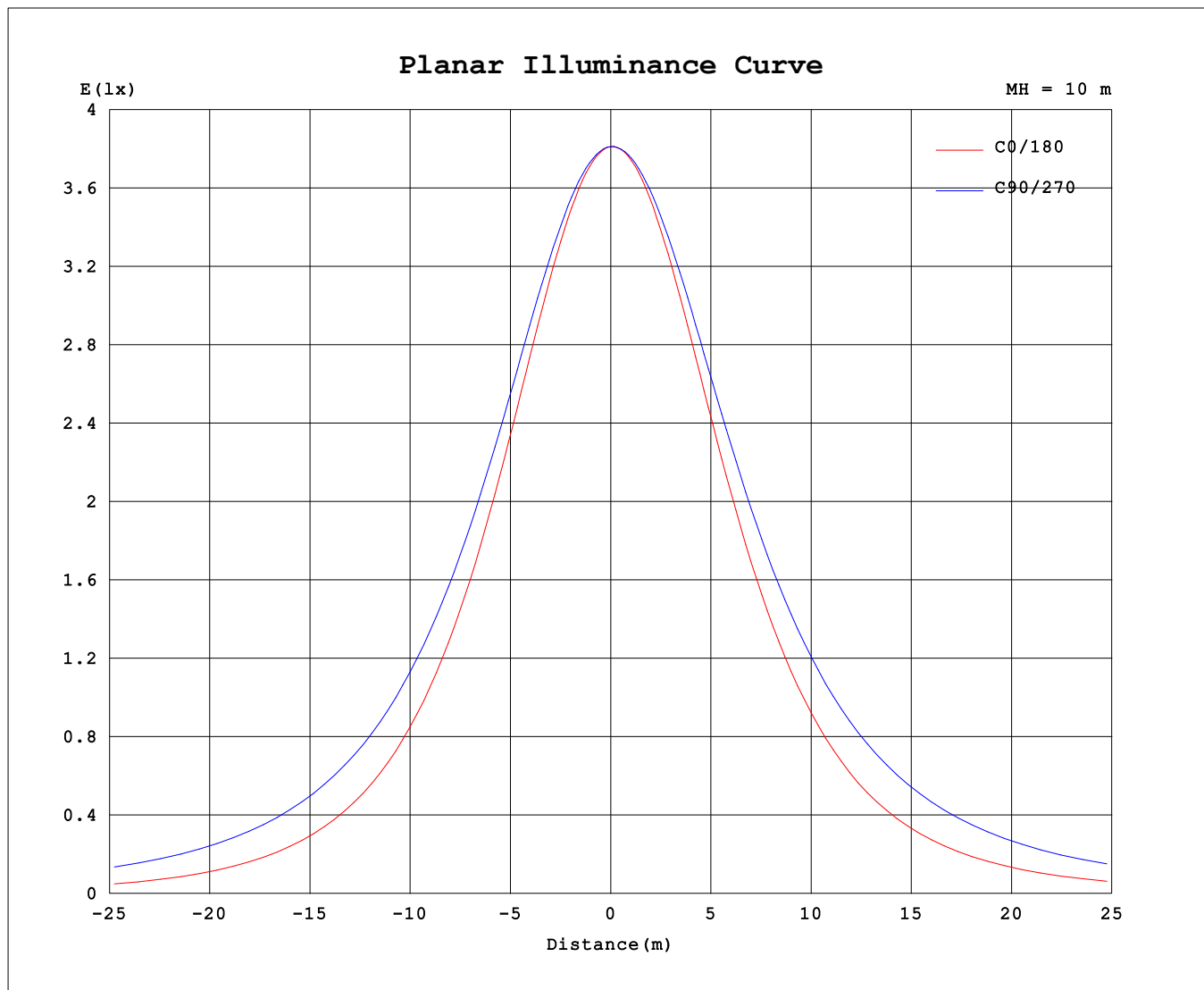
AvgL	cd/m2
L_0~180 (65) av	3019
L_0~180 (75) av	2457
L_0~180 (85) av	1773
L_90~270 (65) av	6694
L_90~270 (75) av	9767
L_90~270 (85) av	24934
L_45 (65) av	5335
L_45 (75) av	7054
L_45 (85) av	16293

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:DAMIN
Test Date:10 February 2026

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.459
Humidity:65.0%
Test Distance:7.380m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3 °C
Operators: DAMIN
Test Date: 10 February 2026

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.459
Humidity: 65.0%
Test Distance: 7.380m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.11V I:0.2158A P:24.319W PF:0.9380 Freq:59.98Hz Lamp Flux:1697.1x1 lm		
NAME: WS24-033B-BN 24W 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	381	381	381	381														
5	378	379	381	381														
10	372	377	377	380														
15	362	372	369	378														
20	349	366	359	375														
25	333	359	345	370														
30	314	351	328	365														
35	292	342	308	358														
40	268	331	286	350														
45	241	320	261	342														
50	212	308	233	332														
55	181	296	203	322														
60	149	282	172	310														
65	115	268	140	297														
70	82.3	254	108	283														
75	51.7	238	75.4	267														
80	25.9	219	45.8	251														
85	9.22	202	21.7	233														
90	7.15	185	8.01	211														
95	8.14	143	6.79	160														
100	9.32	90.1	7.58	98.0														
105	10.7	68.6	8.20	79.1														
110	12.4	74.7	10.1	82.6														
115	14.1	54.8	11.5	68.3														
120	15.7	41.3	13.3	50.4														
125	16.8	36.6	13.3	41.5														
130	17.1	33.2	13.8	39.0														
135	17.1	30.4	14.2	33.6														
140	18.8	29.2	15.7	28.2														
145	19.7	29.7	16.5	27.2														
150	18.8	21.3	15.7	26.3														
155	18.3	20.1	15.2	22.4														
160	17.4	19.8	13.9	21.9														
165	16.7	22.9	13.3	24.1														
170	18.1	19.3	15.3	23.9														
175	20.2	13.0	18.8	15.3														
180	21.2	13.8	21.2	13.8														

C Range: 0 - 360DEG

C Interval: 90.0DEG

Test Speed: HIGH

Temperature:25.3℃

Operators:DAMIN

Test Date:10 February 2026

γ Range: 0 - 180DEG

γ Interval: 1.0DEG

Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.459

Humidity:65.0%

Test Distance:7.380m [K=1.0000]

Remarks: