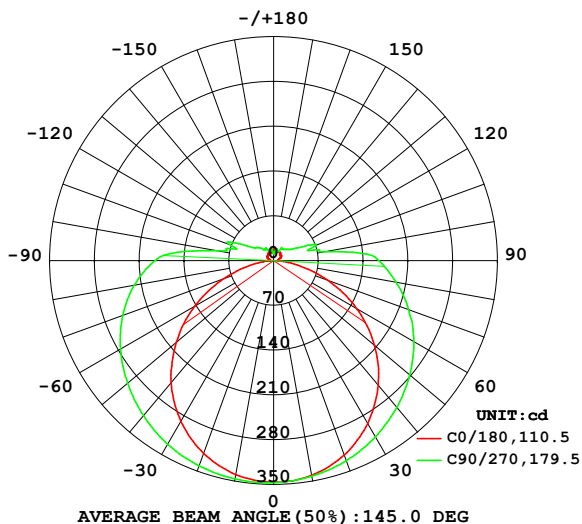


LUMINAIRE PHOTOMETRIC TEST REPORT

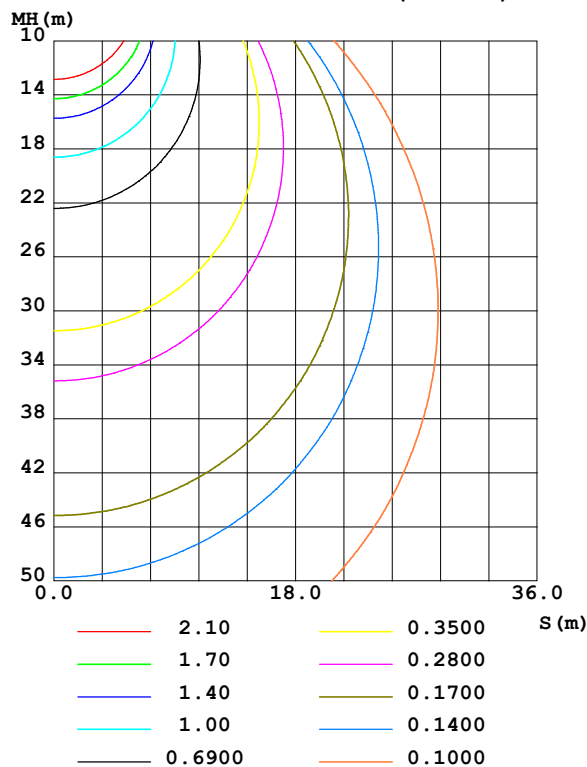
Test:U:120.08V I:0.2149A P:24.195W PF:0.9376 Freq:59.98Hz Lamp Flux:1526.31x1 lm		
NAME: WS24-033B-BK 24W 27K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 63.08 lm/W			
MODEL	2700K	I _{max} (cd)	347.5	S/MH(C0/180)	1.24
NOMINAL POWER(W)	24	LOR(%)	100.0	S/MH(C90/270)	1.44
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	1526.3	η UP,DN(C0-180)	6.9,42.1
NOMINAL FLUX(lm)	1526.31	CIE CLASS	SEMI-D.	η UP,DN(C180-360)	7.4,43.7
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	341.0	342.3	339.7	346.5					0- 10	32.89	32.89	2.16,2.16
20	323.3	332.8	320.4	341.3					10- 20	95.20	128.1	8.39,8.39
30	294.0	318.3	290.0	331.5					20- 30	147.6	275.7	18.1,18.1
40	254.5	299.7	249.6	316.6					30- 40	184.8	460.5	30.2,30.2
50	206.0	277.9	198.6	298.1					40- 50	203.3	663.8	43.5,43.5
60	150.1	253.1	142.1	276.4					50- 60	202.1	865.8	56.7,56.7
70	89.96	224.5	82.48	251.0					60- 70	182.3	1048	68.7,68.7
80	33.33	194.3	28.60	221.0					70- 80	148.4	1196	78.4,78.4
90	6.030	164.6	6.238	185.5					80- 90	112.3	1309	85.7,85.7
100	7.655	79.56	6.808	90.43					90-100	79.38	1388	90.9,90.9
110	10.37	70.50	9.568	71.48					100-110	41.29	1429	93.7,93.7
120	12.92	38.24	12.36	44.76					110-120	35.32	1465	96,96
130	13.91	27.73	12.45	32.29					120-130	21.10	1486	97.3,97.3
140	15.59	23.25	14.02	22.67					130-140	15.39	1501	98.4,98.4
150	15.51	17.74	14.14	21.45					140-150	11.87	1513	99.1,99.1
160	14.68	16.25	12.92	17.44					150-160	7.312	1520	99.6,99.6
170	14.39	15.70	13.92	19.53					160-170	4.467	1525	99.9,99.9
180	18.12	12.12	18.12	12.09					170-180	1.428	1526	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 561.06 lm

%lum = 36.8%

%lamp = 36.8%

Conical surface Flux(120deg): 865.82 lm

%lum = 56.7%

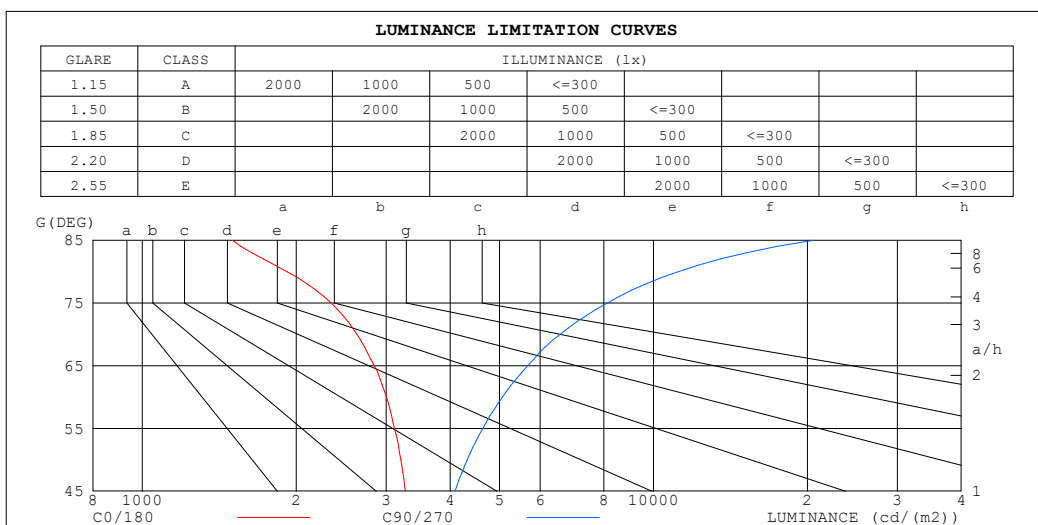
%lamp = 56.7%

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:120.08V I:0.2149A P:24.195W PF:0.9376 Freq:59.98Hz Lamp Flux:1526.31x1 lm		
NAME: WS24-033B-BK 24W 27K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	1502	20576
80	1919	11189
75	2341	8118
70	2630	6565
65	2844	5674
60	3002	5062
55	3115	4633
50	3204	4323
45	3272	4089

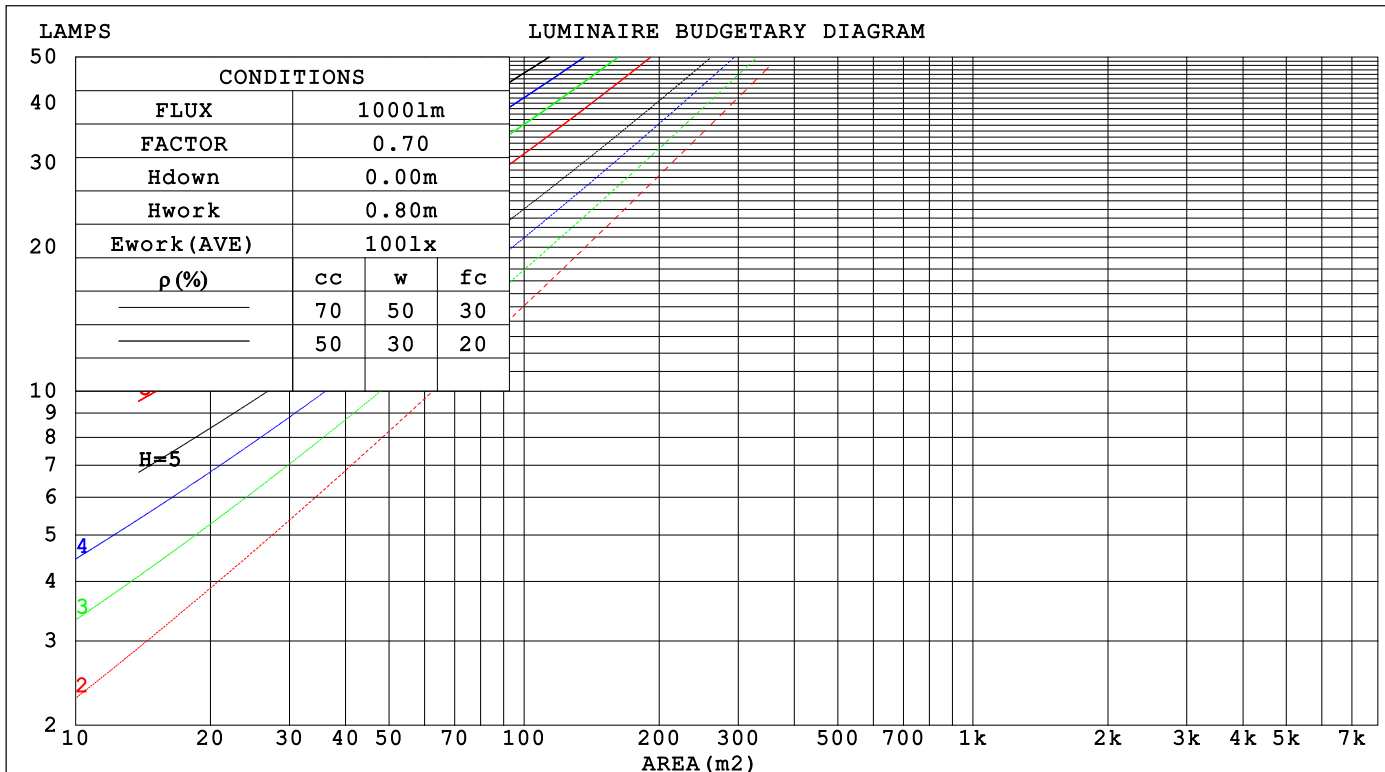
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: DAMIN
Test Date: 10 February 2026

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:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.08V I:0.2149A P:24.195W PF:0.9376 Freq:59.98Hz Lamp Flux:1526.31x1 lm		
NAME: WS24-033B-BK 24W 27K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0														
p _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0														
p _{fc}	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	.84	.86	.82	.78	.79	.76	.73	.73	.71	.69	.65														
2.0	.82	.75	.68	.79	.72	.66	.73	.67	.62	.68	.63	.59	.63	.59	.55	.52														
3.0	.72	.62	.55	.69	.60	.54	.64	.57	.51	.59	.53	.48	.55	.50	.46	.43														
4.0	.63	.53	.46	.60	.52	.45	.56	.49	.43	.52	.46	.41	.48	.43	.39	.36														
5.0	.56	.46	.39	.54	.45	.38	.50	.42	.36	.46	.40	.35	.43	.38	.33	.30														
6.0	.50	.40	.34	.48	.39	.33	.45	.37	.32	.42	.35	.30	.39	.33	.29	.26														
7.0	.45	.36	.29	.43	.35	.29	.41	.33	.28	.38	.31	.26	.35	.30	.25	.23														
8.0	.41	.32	.26	.40	.31	.26	.37	.30	.24	.35	.28	.23	.32	.27	.23	.20														
9.0	.37	.29	.23	.36	.28	.23	.34	.27	.22	.32	.26	.21	.30	.24	.20	.18														
10.0	.34	.26	.21	.33	.26	.21	.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:120.08V I:0.2149A P:24.195W PF:0.9376 Freq:59.98Hz Lamp Flux:1526.31x1 lm		
NAME: WS24-033B-BK 24W 27K	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	.386	.219	.069	.374	.213	.068	.352	.202	.065	.332	.192	.062	.314	.182	.059		
2.0	.335	.184	.056	.325	.179	.055	.305	.170	.053	.287	.161	.050	.270	.153	.048		
3.0	.298	.159	.047	.289	.155	.047	.271	.147	.045	.255	.139	.043	.239	.133	.041		
4.0	.268	.139	.041	.260	.136	.040	.244	.129	.039	.229	.123	.037	.215	.117	.036		
5.0	.244	.124	.036	.236	.121	.035	.222	.116	.034	.208	.110	.033	.196	.105	.031		
6.0	.224	.112	.032	.217	.109	.031	.204	.104	.030	.191	.099	.029	.180	.095	.028		
7.0	.206	.102	.029	.200	.100	.028	.188	.095	.027	.177	.091	.026	.166	.086	.025		
8.0	.191	.093	.026	.185	.091	.026	.175	.087	.025	.164	.083	.024	.155	.079	.023		
9.0	.178	.086	.024	.173	.084	.024	.163	.081	.023	.153	.077	.022	.144	.073	.021		
10.0	.167	.080	.022	.162	.078	.022	.153	.075	.021	.144	.071	.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	.299	.299	.299	.256	.256	.256	.174	.174	.174	.100	.100	.100	.032	.032	.032		
1.0	.295	.265	.238	.252	.227	.205	.173	.156	.142	.099	.091	.082	.032	.029	.027		
2.0	.288	.242	.203	.247	.208	.175	.169	.144	.122	.098	.084	.072	.031	.027	.023		
3.0	.281	.225	.181	.241	.194	.157	.165	.135	.110	.095	.079	.065	.031	.026	.021		
4.0	.273	.213	.167	.234	.184	.145	.161	.128	.102	.093	.075	.060	.030	.024	.020		
5.0	.265	.203	.157	.228	.175	.136	.157	.123	.096	.091	.072	.057	.029	.023	.019		
6.0	.258	.195	.150	.221	.169	.130	.153	.118	.092	.089	.069	.055	.029	.023	.018		
7.0	.251	.188	.144	.215	.163	.126	.149	.114	.089	.087	.067	.053	.028	.022	.018		
8.0	.244	.183	.141	.210	.158	.123	.145	.111	.087	.084	.066	.052	.027	.022	.017		
9.0	.237	.178	.137	.205	.154	.120	.142	.108	.085	.083	.064	.051	.027	.021	.017		
10.0	.232	.174	.135	.200	.151	.118	.138	.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:120.08V I:0.2149A P:24.195W PF:0.9376 Freq:59.98Hz Lamp Flux:1526.31x1 lm										
NAME: WS24-033B-BK 24W 27K					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	14.3	15.7	14.7	16.1	16.6	16.1	17.5	16.5	18.0	18.5
3H	15.8	17.1	16.3	17.6	18.1	18.8	20.1	19.3	20.6	21.1
4H	16.3	17.6	16.9	18.1	18.7	20.3	21.6	20.8	22.1	22.6
6H	16.7	17.9	17.2	18.4	19.0	22.0	23.2	22.5	23.7	24.3
8H	16.8	18.0	17.4	18.5	19.1	22.9	24.1	23.5	24.6	25.2
12H	16.9	18.0	17.4	18.5	19.1	24.0	25.1	24.6	25.7	26.3
4H 2H	15.3	16.5	15.8	17.0	17.6	16.6	17.9	17.1	18.4	18.9
3H	17.1	18.2	17.6	18.7	19.3	19.5	20.6	20.1	21.2	21.8
4H	17.8	18.8	18.4	19.4	20.0	21.2	22.2	21.8	22.8	23.4
6H	18.4	19.3	19.0	19.9	20.6	23.1	24.0	23.7	24.6	25.2
8H	18.6	19.5	19.2	20.1	20.7	24.1	25.0	24.8	25.6	26.3
12H	18.7	19.5	19.4	20.1	20.8	25.4	26.2	26.0	26.8	27.5
8H 4H	18.7	19.6	19.3	20.2	20.9	21.5	22.3	22.1	22.9	23.6
6H	19.7	20.4	20.3	21.0	21.7	23.6	24.3	24.2	25.0	25.7
8H	20.0	20.7	20.7	21.4	22.1	24.9	25.5	25.5	26.2	26.9
12H	20.4	20.9	21.0	21.6	22.4	26.4	26.9	27.0	27.6	28.4
12H 4H	19.0	19.8	19.6	20.4	21.1	21.5	22.3	22.1	22.9	23.6
6H	20.1	20.8	20.8	21.4	22.2	23.7	24.3	24.3	25.0	25.7
8H	20.7	21.3	21.4	21.9	22.7	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, 1526 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 1.5)
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:120.08V I:0.2149A P:24.195W PF:0.9376 Freq:59.98Hz Lamp Flux:1526.31x1 lm		
NAME: WS24-033B-BK 24W 27K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

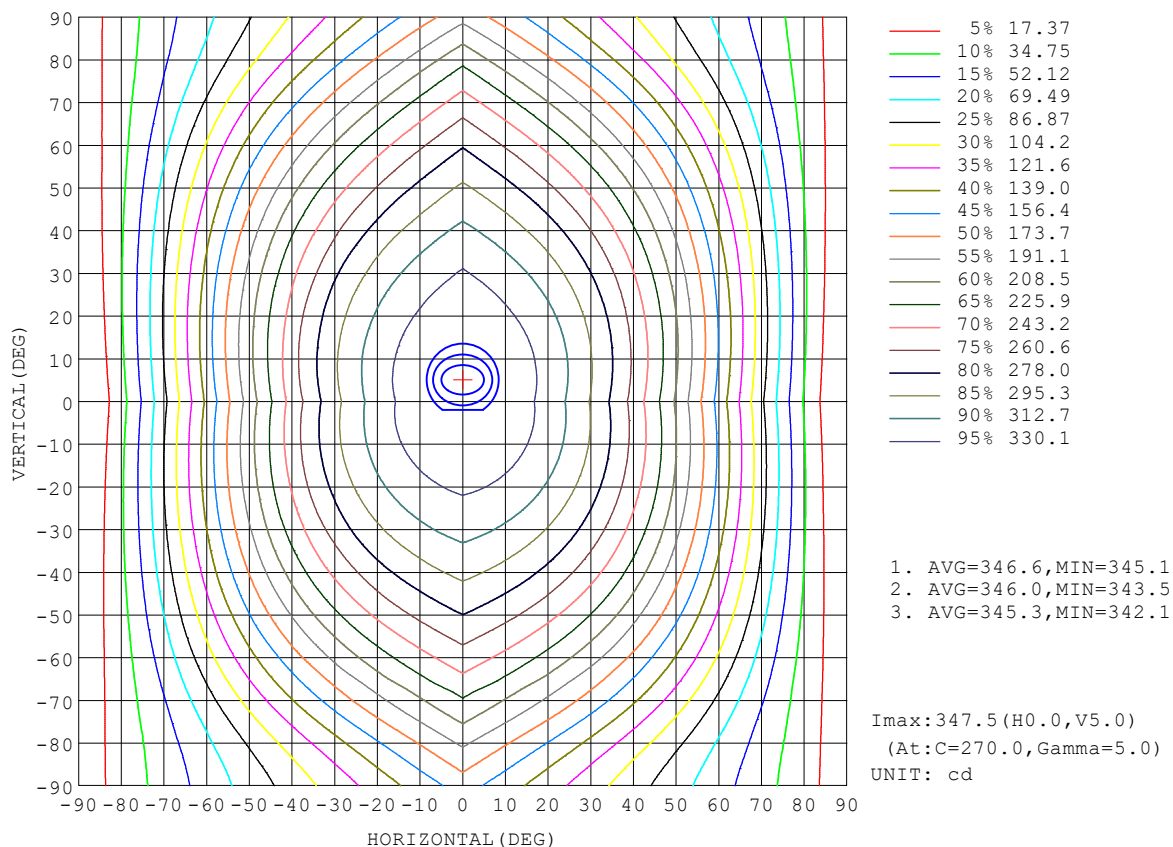
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	49	36	29	48	36	29	46	35	28	22
0.80	58	45	37	57	44	37	54	43	36	28
1.00	66	53	45	64	52	44	61	53	43	35
1.25	73	60	52	71	59	51	67	57	50	40
1.50	78	66	57	75	64	56	71	62	55	45
2.00	85	74	66	82	72	65	77	69	62	51
2.50	90	80	72	87	77	70	81	73	67	55
3.00	93	84	77	90	82	75	84	77	72	59
4.00	98	90	84	94	87	82	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:120.08V I:0.2149A P:24.195W PF:0.9376 Freq:59.98Hz Lamp Flux:1526.31x1 lm		
NAME: WS24-033B-BK 24W 27K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

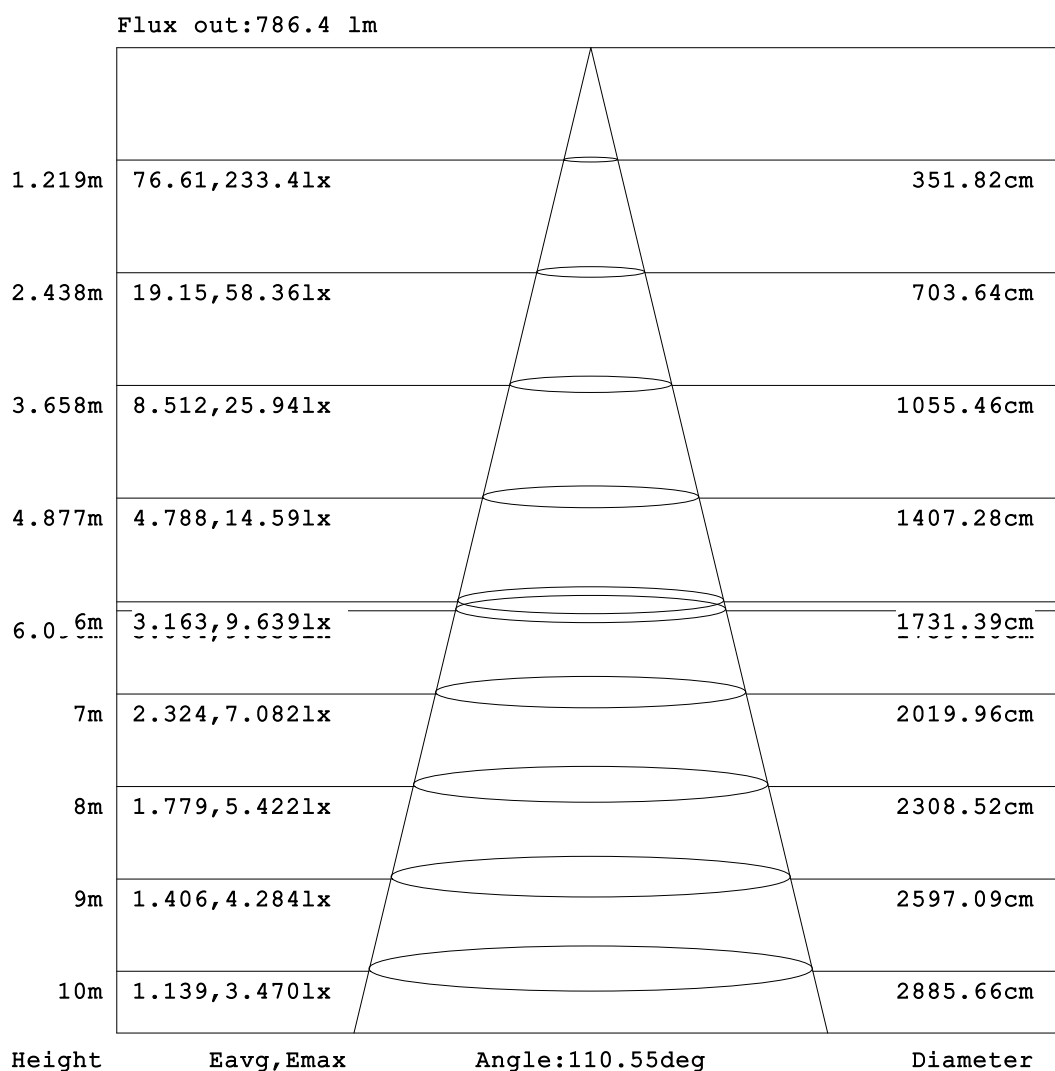


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: DAMIN
Test Date: 10 February 2026

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:

AAI Figure

Test:U:120.08V I:0.2149A P:24.195W PF:0.9376 Freq:59.98Hz Lamp Flux:1526.31x1 lm		
NAME: WS24-033B-BK 24W 27K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:



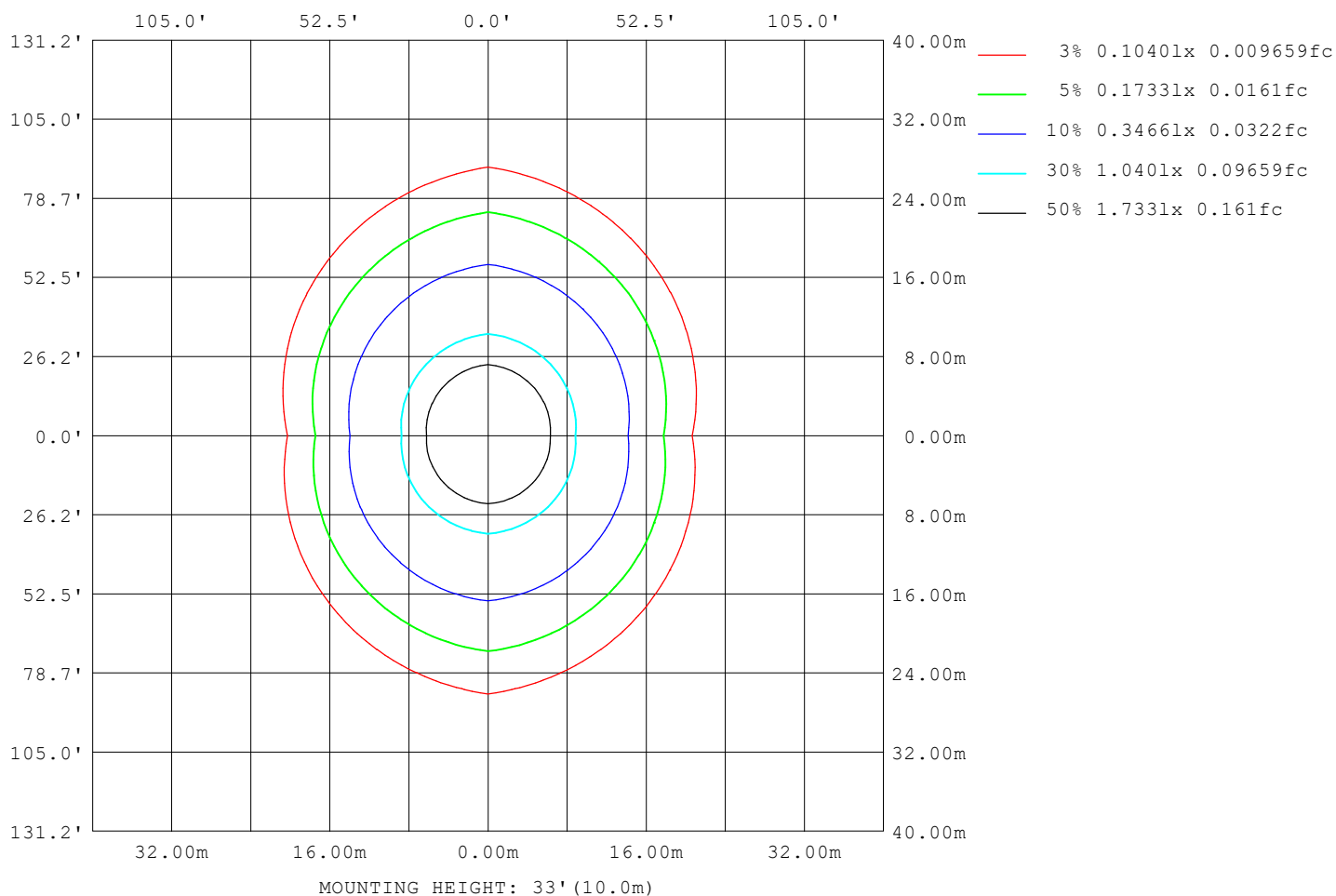
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:120.08V I:0.2149A P:24.195W PF:0.9376 Freq:59.98Hz Lamp Flux:1526.31x1 lm		
NAME: WS24-033B-BK 24W 27K	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:120.08V I:0.2149A P:24.195W PF:0.9376 Freq:59.98Hz Lamp Flux:1526.31x1 lm		
NAME: WS24-033B-BK 24W 27K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

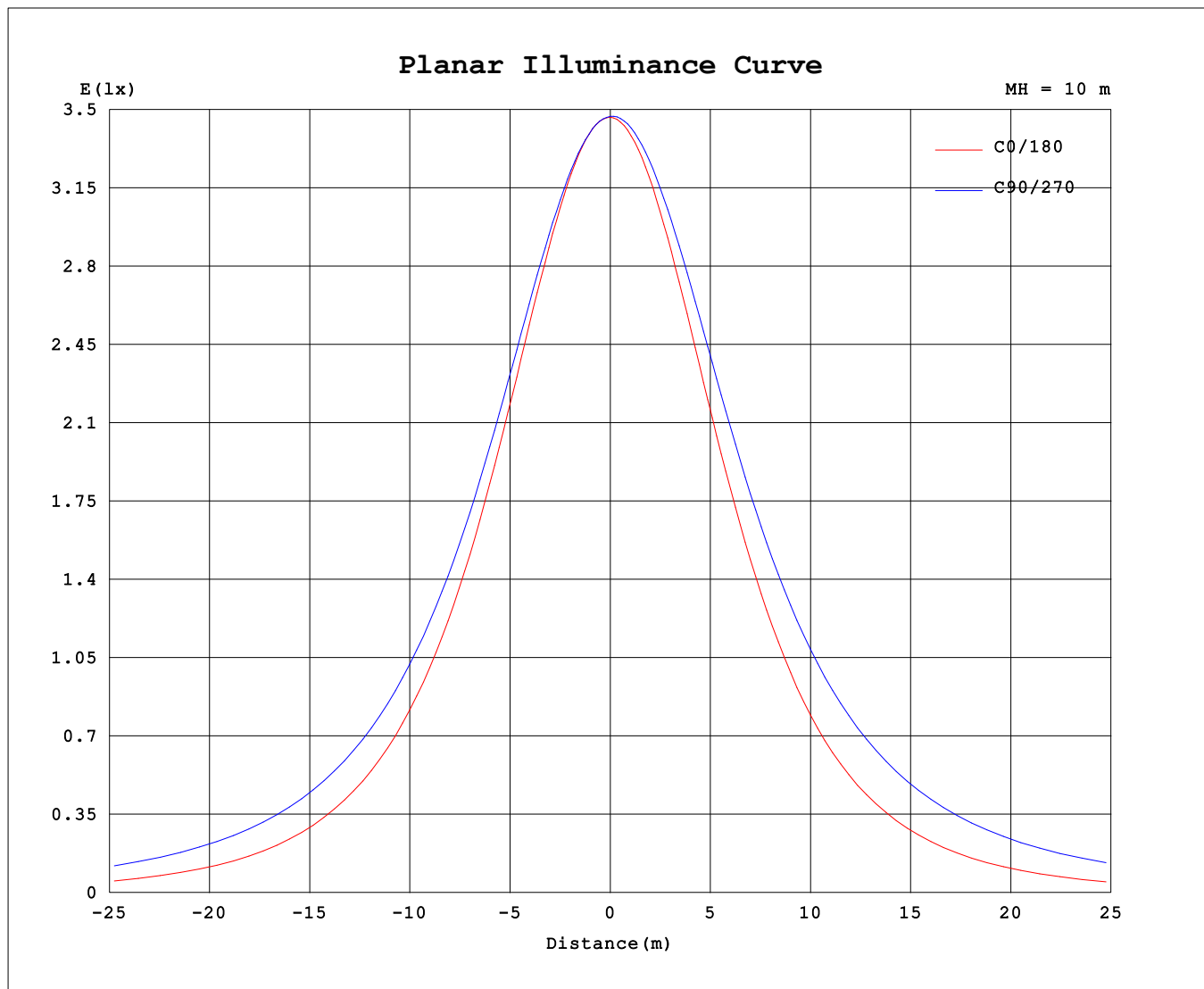
AvgL	cd/m2
L_0~180 (65) av	2750
L_0~180 (75) av	2211
L_0~180 (85) av	1398
L_90~270 (65) av	5963
L_90~270 (75) av	8633
L_90~270 (85) av	21974
L_45 (65) av	4752
L_45 (75) av	6217
L_45 (85) av	14251

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:120.08V I:0.2149A P:24.195W PF:0.9376 Freq:59.98Hz Lamp Flux:1526.31x1 lm		
NAME: WS24-033B-BK 24W 27K	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	347	347	347	347														
5	345	345	345	347														
10	341	342	340	347														
15	333	338	332	344														
20	323	333	320	341														
25	310	326	306	337														
30	294	318	290	331														
35	275	309	271	325														
40	254	300	250	317														
45	231	289	224	308														
50	206	278	199	298														
55	179	266	171	288														
60	150	253	142	276														
65	120	240	112	264														
70	90.0	225	82.5	251														
75	60.6	210	53.8	237														
80	33.3	194	28.6	221														
85	13.1	179	11.3	204														
90	6.03	165	6.24	185														
95	6.72	137	6.33	151														
100	7.65	79.6	6.81	90.4														
105	8.96	64.4	7.99	74.9														
110	10.4	70.5	9.57	71.5														
115	11.6	54.2	11.3	65.4														
120	12.9	38.2	12.4	44.8														
125	13.8	31.1	12.4	34.3														
130	13.9	27.7	12.4	32.3														
135	14.0	24.9	12.5	27.6														
140	15.6	23.2	14.0	22.7														
145	16.3	22.7	14.7	22.0														
150	15.5	17.7	14.1	21.5														
155	15.3	16.1	13.8	17.8														
160	14.7	16.3	12.9	17.4														
165	13.9	19.1	12.5	19.5														
170	14.4	15.7	13.9	19.5														
175	16.8	11.2	16.2	13.4														
180	18.1	12.1	18.1	12.1														

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: