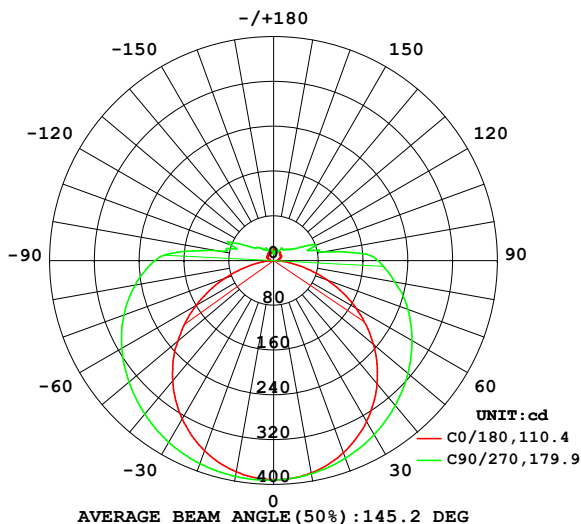


LUMINAIRE PHOTOMETRIC TEST REPORT

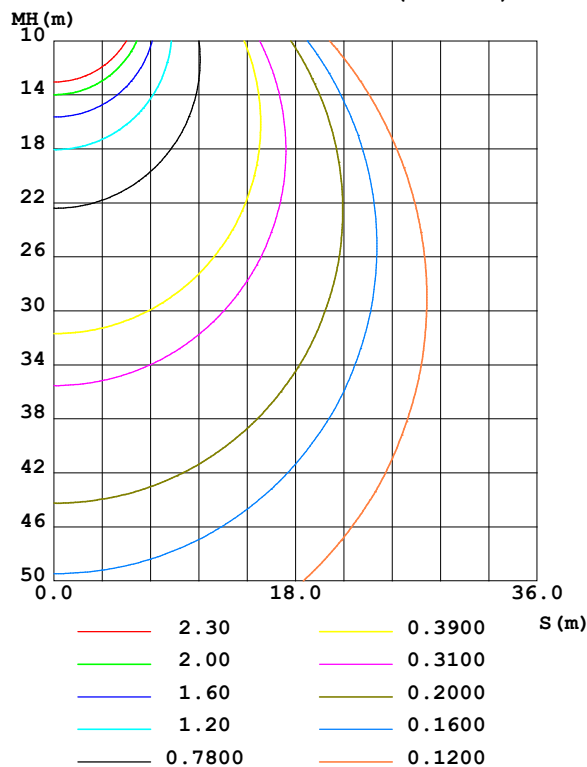
Test:U:120.07V I:0.2171A P:24.519W PF:0.9405 Freq:59.98Hz Lamp Flux:1727.08x1 lm		
NAME: WS24-033B-BK 24W 35K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 70.44 lm/W			
MODEL	3500K	I _{max} (cd)	392.7	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)	1727.1	η UP,DN(C0-180)	6.9,42.0
NOMINAL FLUX(lm)	1727.08	CIE CLASS	SEMI-D.	η UP,DN(C180-360)	7.4,43.6
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 °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:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C90	C180	C270					γ	Φ zone	Φ total	%lum, lamp
10	385.2	386.8	383.1	391.5					0- 10	37.15	37.15	2.15,2.15
20	365.2	375.7	361.4	386.0					10- 20	107.5	144.7	8.38,8.38
30	332.5	359.1	326.7	375.0					20- 30	166.7	311.4	18,18
40	287.8	338.0	280.6	358.0					30- 40	208.6	520.0	30.1,30.1
50	233.0	313.4	223.3	337.4					40- 50	229.7	749.7	43.4,43.4
60	170.2	285.5	159.6	313.3					50- 60	228.2	977.9	56.6,56.6
70	101.8	255.4	92.89	284.6					60- 70	206.3	1184	68.6,68.6
80	37.54	219.8	32.36	251.2					70- 80	168.2	1352	78.3,78.3
90	6.894	186.2	7.456	212.1					80- 90	127.7	1480	85.7,85.7
100	8.651	89.93	7.890	103.1					90-100	90.36	1570	90.9,90.9
110	11.79	79.85	10.92	81.42					100-110	46.88	1617	93.6,93.6
120	14.84	43.25	14.05	51.03					110-120	40.08	1657	96,96
130	15.82	31.38	14.03	36.72					120-130	23.95	1681	97.3,97.3
140	17.77	26.40	15.74	25.88					130-140	17.43	1699	98.4,98.4
150	17.64	19.99	15.79	24.48					140-150	13.43	1712	99.1,99.1
160	16.56	18.37	14.77	19.80					150-160	8.280	1720	99.6,99.6
170	16.38	17.70	15.55	22.22					160-170	5.064	1725	99.9,99.9
180	20.47	13.74	20.45	13.74					170-180	1.615	1727	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 633.6 lm

%lum = 36.7%

%lamp = 36.7%

Conical surface Flux(120deg): 977.88 lm

%lum = 56.6%

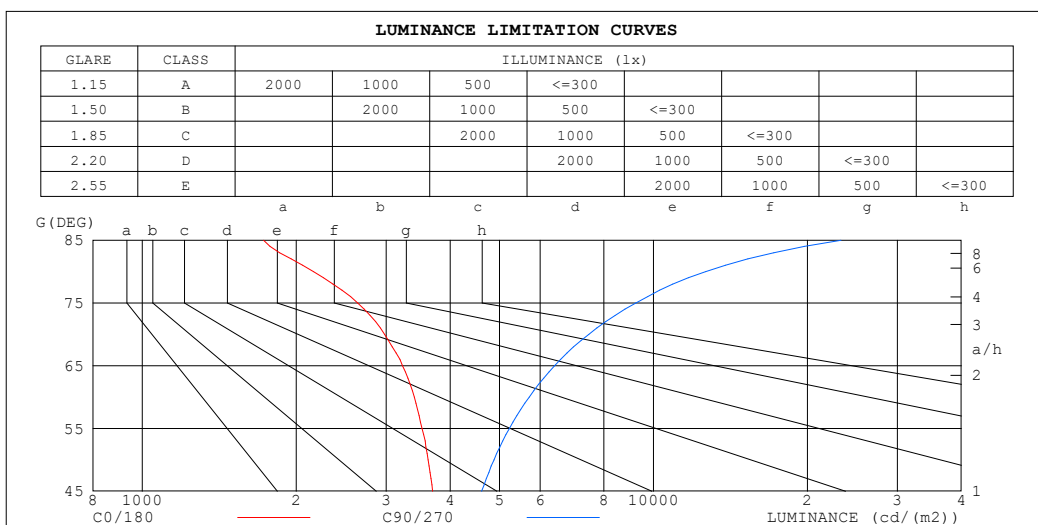
%lamp = 56.6%

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:120.07V I:0.2171A P:24.519W PF:0.9405 Freq:59.98Hz Lamp Flux:1727.08x1 lm		
NAME: WS24-033B-BK 24W 35K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	1727	23281
80	2162	12655
75	2638	9230
70	2976	7467
65	3229	6406
60	3404	5710
55	3528	5227
50	3626	4875
45	3699	4611

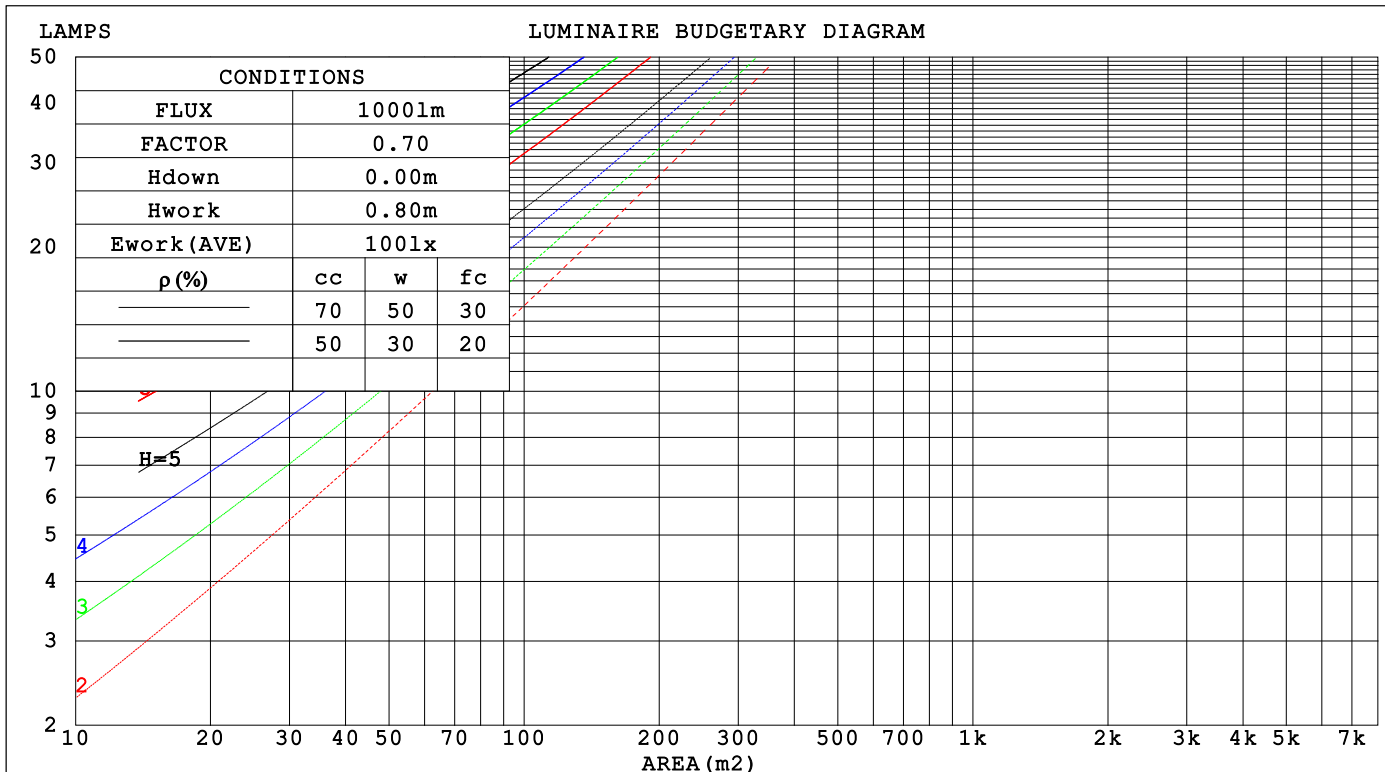
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:DAMIN
Test Date:10 February 2026

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:120.07V I:0.2171A P:24.519W PF:0.9405 Freq:59.98Hz Lamp Flux:1727.08x1 lm		
NAME: WS24-033B-BK 24W 35K	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	.69	.65														
2.0	.82	.75	.68	.79	.72	.66	.73	.67	.62	.68	.63	.59	.63	.59	.55	.52														
3.0	.71	.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	.38	.36														
5.0	.56	.46	.39	.54	.45	.38	.50	.42	.36	.46	.40	.35	.43	.37	.33	.30														
6.0	.50	.40	.34	.48	.39	.33	.45	.37	.31	.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	.25	.37	.30	.24	.35	.28	.23	.32	.27	.22	.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	.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:120.07V I:0.2171A P:24.519W PF:0.9405 Freq:59.98Hz Lamp Flux:1727.08x1 lm		
NAME: WS24-033B-BK 24W 35K	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	.220	.070	.374	.214	.068	.353	.202	.065	.333	.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	.048	.289	.155	.047	.271	.147	.045	.255	.140	.043	.239	.133	.041		
4.0	.268	.140	.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	.032	.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	.186	.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	.175	.175	.175	.100	.100	.100	.032	.032	.032		
1.0	.295	.265	.238	.253	.228	.205	.173	.157	.142	.100	.091	.082	.032	.029	.027		
2.0	.289	.242	.203	.247	.209	.176	.169	.144	.123	.098	.084	.072	.031	.027	.023		
3.0	.281	.226	.182	.241	.195	.157	.165	.135	.110	.096	.079	.065	.031	.026	.021		
4.0	.273	.213	.167	.235	.184	.145	.161	.128	.102	.093	.075	.061	.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	.163	.126	.149	.115	.089	.087	.068	.053	.028	.022	.018		
8.0	.244	.183	.141	.210	.159	.123	.145	.111	.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:120.07V I:0.2171A P:24.519W PF:0.9405 Freq:59.98Hz Lamp Flux:1727.08x1 lm										
NAME: WS24-033B-BK 24W 35K					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	17.9	18.4
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	20.1	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	25.3
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	27.1
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, 1727 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 1.9)
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:120.07V I:0.2171A P:24.519W PF:0.9405 Freq:59.98Hz Lamp Flux:1727.08x1 lm		
NAME: WS24-033B-BK 24W 35K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

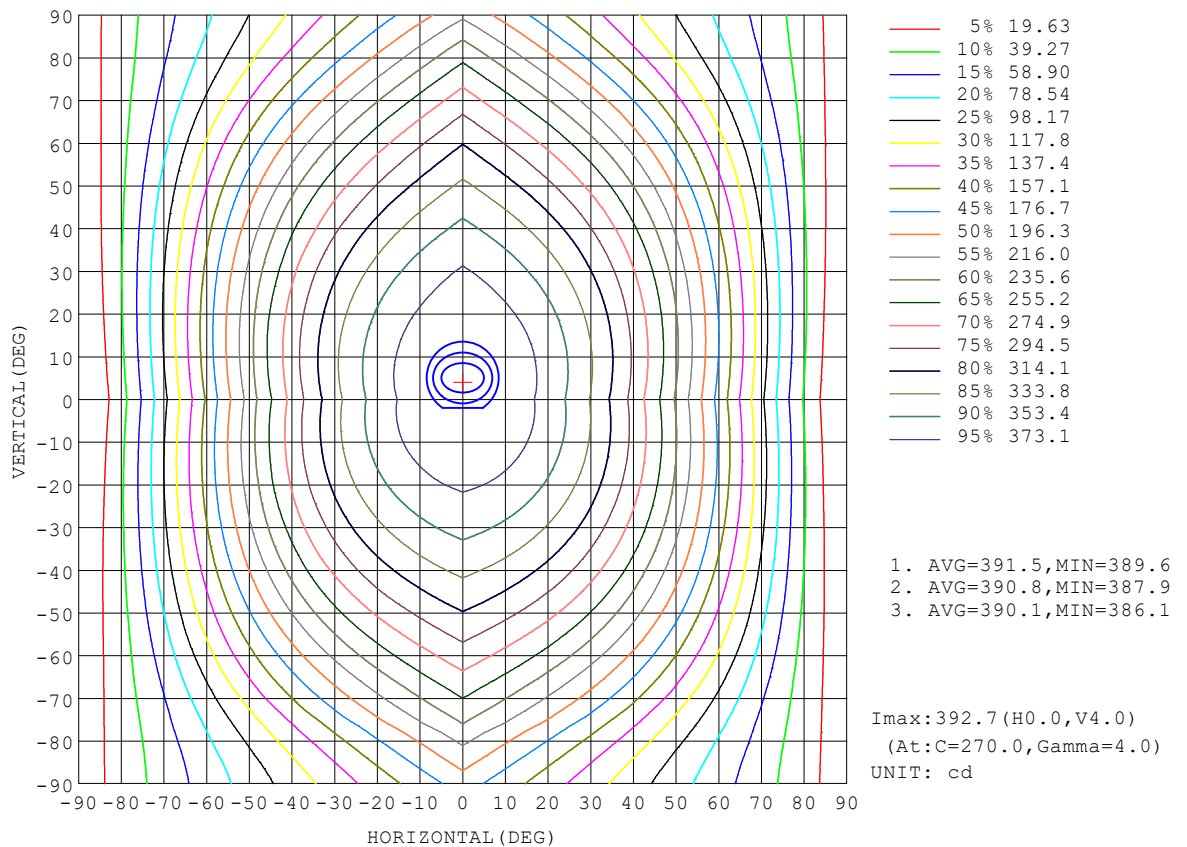
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	49	36	29	48	36	29	46	35	28	22
0.80	58	45	37	57	44	37	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	61	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	71	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:120.07V I:0.2171A P:24.519W PF:0.9405 Freq:59.98Hz Lamp Flux:1727.08x1 lm		
NAME: WS24-033B-BK 24W 35K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

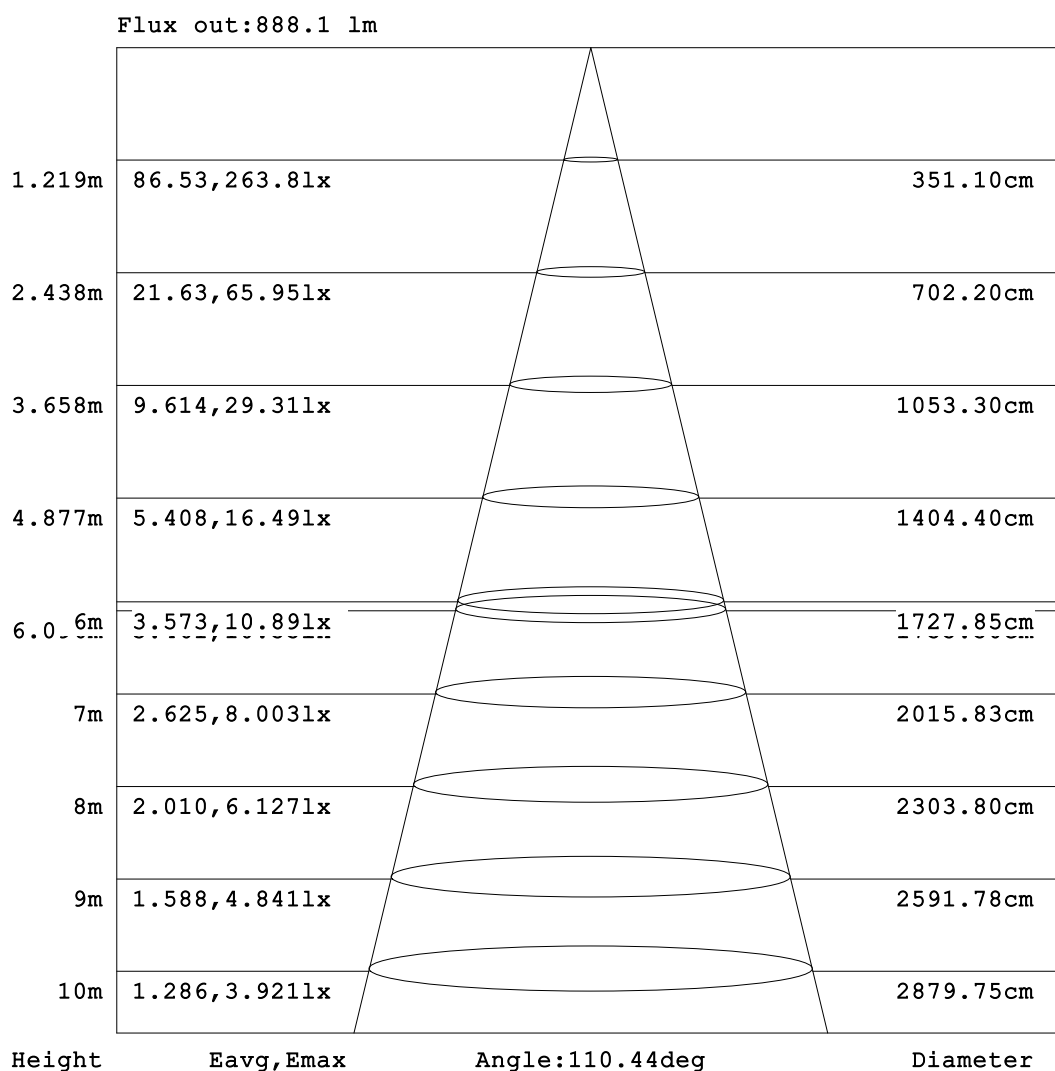


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:DAMIN
Test Date:10 February 2026

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:120.07V I:0.2171A P:24.519W PF:0.9405 Freq:59.98Hz Lamp Flux:1727.08x1 lm		
NAME: WS24-033B-BK 24W 35K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:



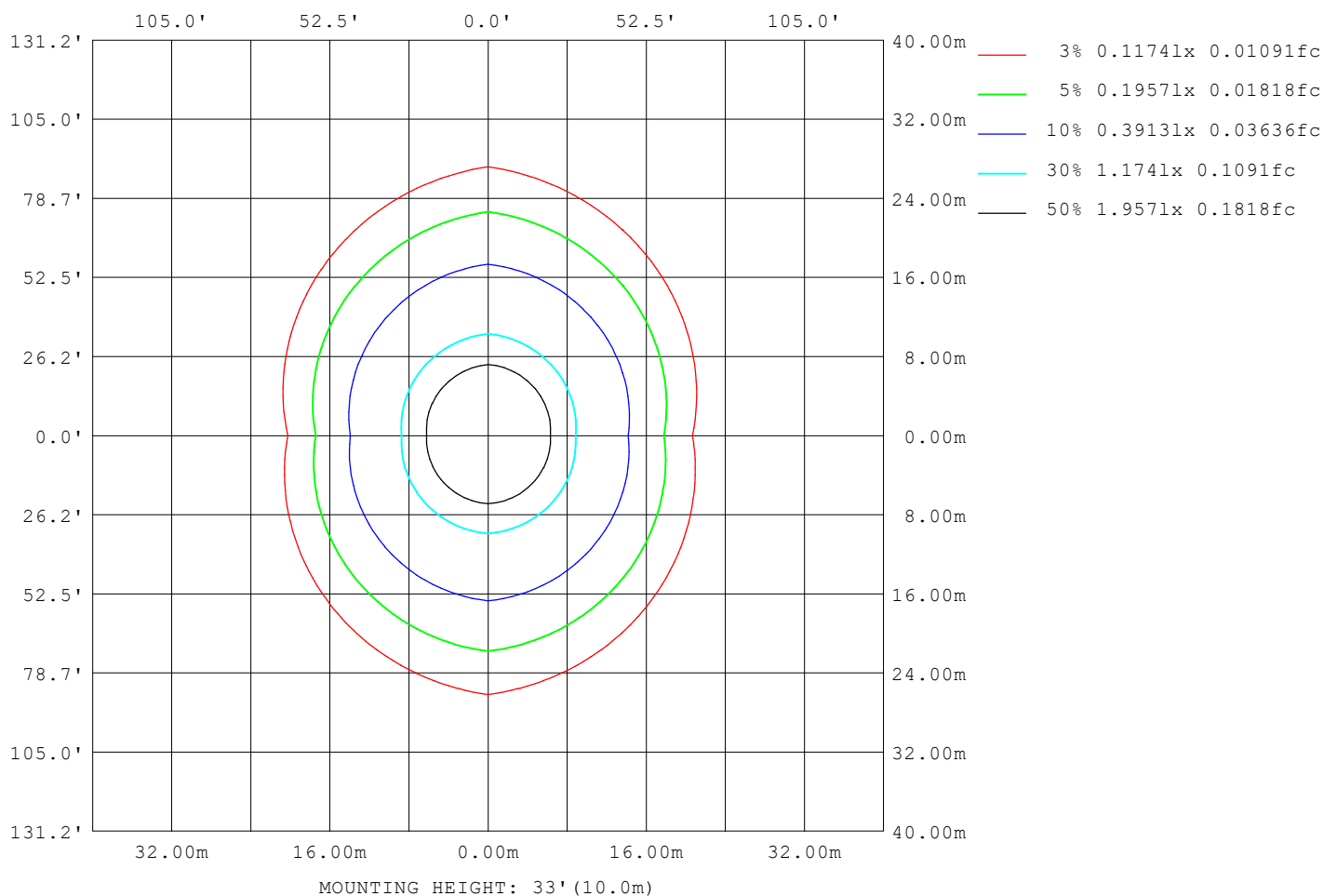
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:120.07V I:0.2171A P:24.519W PF:0.9405 Freq:59.98Hz Lamp Flux:1727.08x1 lm		
NAME: WS24-033B-BK 24W 35K	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:120.07V I:0.2171A P:24.519W PF:0.9405 Freq:59.98Hz Lamp Flux:1727.08x1 lm		
NAME: WS24-033B-BK 24W 35K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

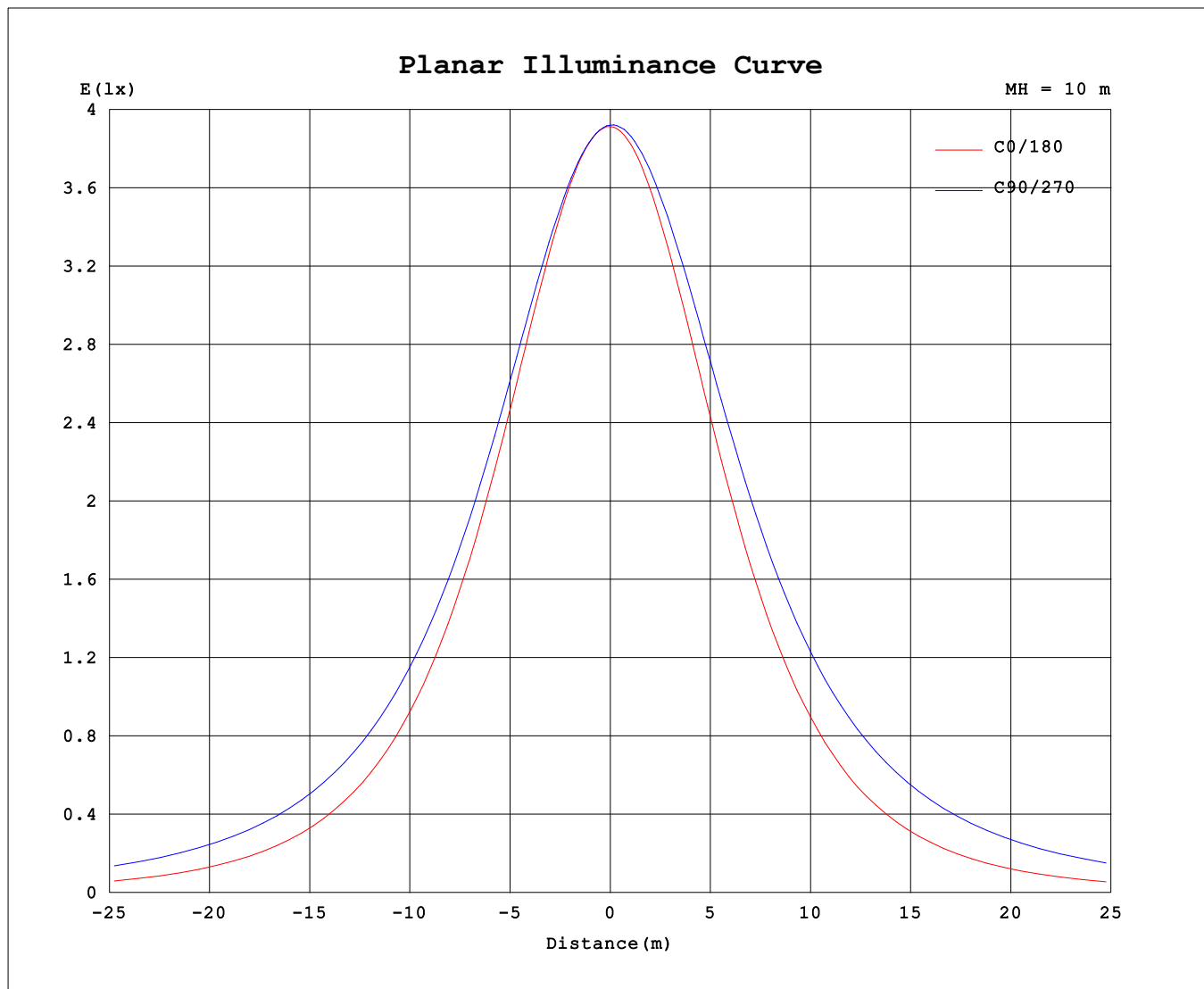
AvgL	cd/m2
L_0~180 (65) av	3108
L_0~180 (75) av	2493
L_0~180 (85) av	1632
L_90~270 (65) av	6748
L_90~270 (75) av	9801
L_90~270 (85) av	24967
L_45 (65) av	5376
L_45 (75) av	7051
L_45 (85) av	16210

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:120.07V I:0.2171A P:24.519W PF:0.9405 Freq:59.98Hz Lamp Flux:1727.08x1 lm		
NAME: WS24-033B-BK 24W 35K	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	391	392	391	392															
5	390	390	389	393															
10	385	387	383	392															
15	377	382	374	389															
20	365	376	361	386															
25	350	368	346	381															
30	332	359	327	375															
35	311	349	305	367															
40	288	338	281	358															
45	262	326	254	348															
50	233	313	223	337															
55	202	300	192	326															
60	170	286	160	313															
65	136	271	126	300															
70	102	255	92.9	285															
75	68.3	239	60.8	268															
80	37.5	220	32.4	251															
85	15.1	203	13.4	232															
90	6.89	186	7.46	212															
95	7.54	154	7.41	173															
100	8.65	89.9	7.89	103															
105	10.1	72.8	9.09	85.3															
110	11.8	79.8	10.9	81.4															
115	13.2	61.2	12.8	74.3															
120	14.8	43.2	14.0	51.0															
125	15.8	35.3	14.1	38.5															
130	15.8	31.4	14.0	36.7															
135	15.9	28.2	14.1	31.2															
140	17.8	26.4	15.7	25.9															
145	18.5	25.8	16.4	25.1															
150	17.6	20.0	15.8	24.5															
155	17.4	18.3	15.5	20.2															
160	16.6	18.4	14.8	19.8															
165	15.8	21.6	14.1	22.3															
170	16.4	17.7	15.5	22.2															
175	19.0	12.7	18.1	15.2															
180	20.5	13.7	20.5	13.7															

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: