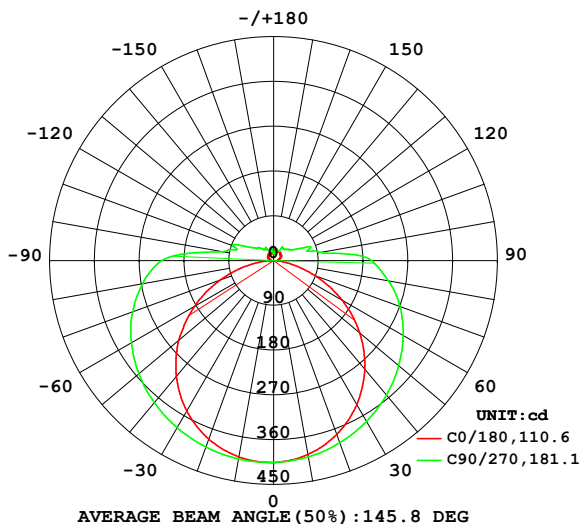


LUMINAIRE PHOTOMETRIC TEST REPORT

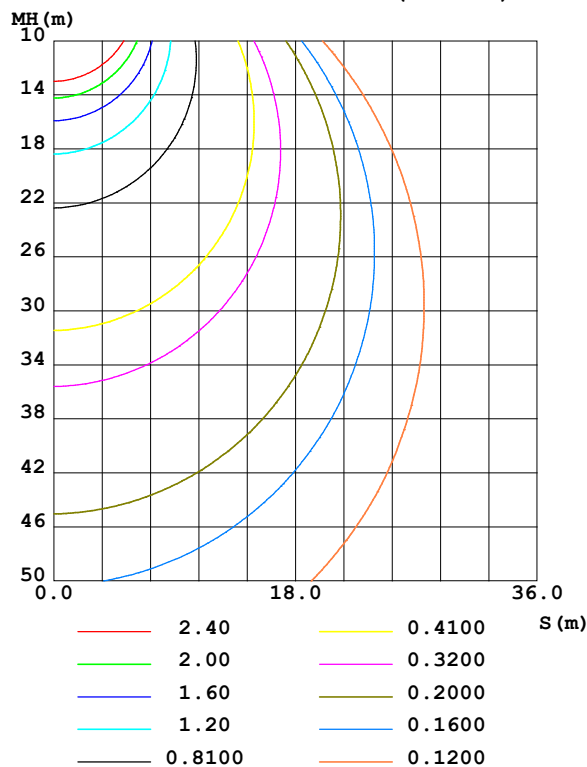
Test:U:120.12V I:0.2180A P:24.640W PF:0.9411 Freq:59.98Hz Lamp Flux:1808.13x1 lm		
NAME: WS24-033B-BN 24W 40K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 73.38 lm/W			
MODEL	4000K	I _{max} (cd)	405.9	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)	1808.1	η UP,DN(C0-180)	7.0,40.9
NOMINAL FLUX(lm)	1808.13	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	395.7	400.7	400.9	404.8					0- 10	38.47	38.47	2.13,2.13
20	371.7	389.6	381.6	398.8					10- 20	111.4	149.9	8.29,8.29
30	334.5	373.5	348.9	387.9					20- 30	172.8	322.6	17.8,17.8
40	285.3	352.7	304.1	372.9					30- 40	216.7	539.3	29.8,29.8
50	226.2	328.1	248.8	353.7					40- 50	239.3	778.6	43.1,43.1
60	158.9	300.8	183.2	330.1					50- 60	238.6	1017	56.3,56.3
70	88.09	270.3	114.1	301.6					60- 70	216.7	1234	68.2,68.2
80	27.86	234.2	48.50	267.4					70- 80	178.3	1412	78.1,78.1
90	7.632	197.3	8.478	225.6					80- 90	136.5	1549	85.7,85.7
100	9.936	96.32	8.161	104.8					90-100	91.16	1640	90.7,90.7
110	13.23	79.99	10.82	88.03					100-110	50.04	1690	93.5,93.5
120	16.70	44.18	14.16	53.50					110-120	40.00	1730	95.7,95.7
130	18.24	35.44	14.69	41.33					120-130	26.23	1756	97.1,97.1
140	20.02	31.14	16.75	30.41					130-140	19.73	1776	98.2,98.2
150	20.00	22.74	16.77	28.13					140-150	15.38	1791	99.1,99.1
160	18.35	21.11	15.00	23.24					150-160	9.363	1801	99.6,99.6
170	19.34	20.67	16.27	25.35					160-170	5.660	1806	99.9,99.9
180	22.59	14.85	22.58	14.84					170-180	1.811	1808	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 657.55 lm

%lum = 36.4%

%lamp = 36.4%

Conical surface Flux(120deg): 1017.2 lm

%lum = 56.3%

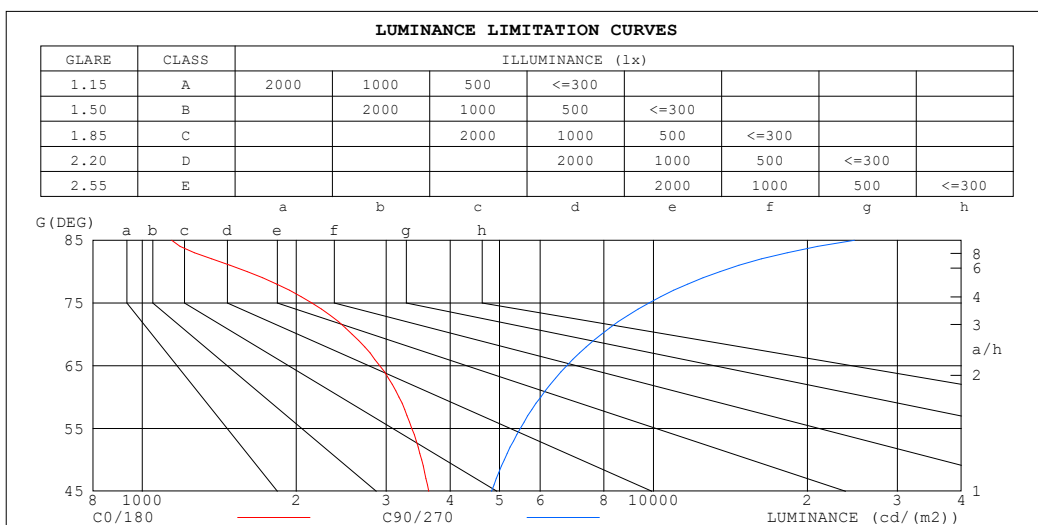
%lamp = 56.3%

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:120.12V I:0.2180A P:24.640W PF:0.9411 Freq:59.98Hz Lamp Flux:1808.13x1 lm		
NAME: WS24-033B-BN 24W 40K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	1141	24712
80	1605	13488
75	2145	9800
70	2575	7904
65	2915	6768
60	3179	6016
55	3366	5488
50	3519	5104
45	3635	4823

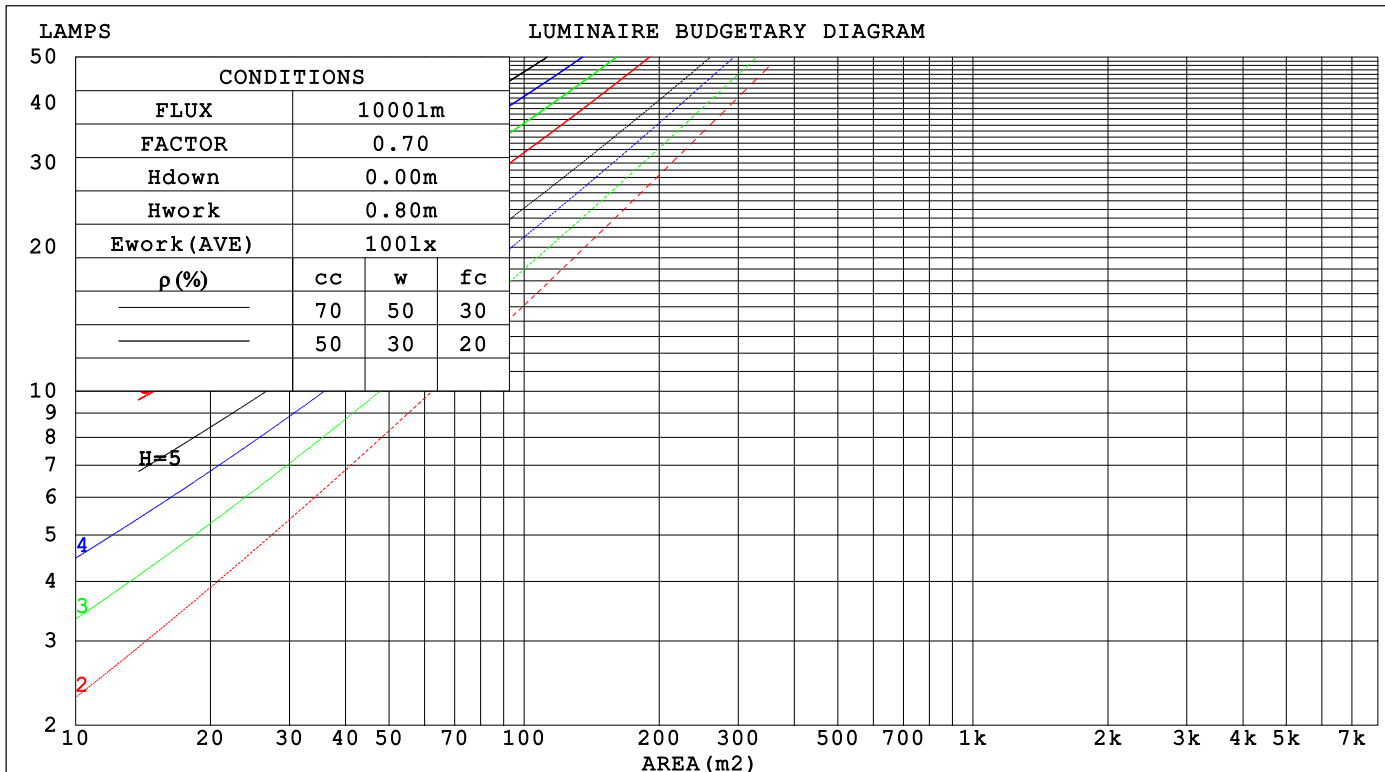
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:DAMIN
Test Date:10 February 2026

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:120.12V I:0.2180A P:24.640W PF:0.9411 Freq:59.98Hz Lamp Flux:1808.13x1 lm		
NAME: WS24-033B-BN 24W 40K	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	.62	.59	.55	.52														
3.0	.71	.62	.55	.69	.60	.53	.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	.34	.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:120.12V I:0.2180A P:24.640W PF:0.9411 Freq:59.98Hz Lamp Flux:1808.13x1 lm		
NAME: WS24-033B-BN 24W 40K	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	.389	.221	.070	.377	.215	.068	.355	.204	.065	.335	.193	.062	.317	.184	.059		
2.0	.337	.185	.057	.326	.180	.055	.307	.171	.053	.289	.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	.223	.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	.179	.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	.266	.238	.253	.228	.205	.173	.157	.142	.100	.091	.082	.032	.029	.027		
2.0	.289	.243	.203	.248	.209	.176	.170	.144	.123	.098	.084	.072	.031	.027	.023		
3.0	.282	.226	.182	.241	.195	.158	.166	.135	.111	.096	.079	.065	.031	.026	.021		
4.0	.274	.213	.167	.235	.184	.145	.162	.129	.102	.093	.075	.061	.030	.025	.020		
5.0	.266	.204	.157	.229	.176	.137	.157	.123	.097	.091	.072	.057	.029	.024	.019		
6.0	.259	.196	.150	.222	.169	.131	.153	.119	.093	.089	.070	.055	.029	.023	.018		
7.0	.251	.189	.145	.216	.164	.127	.149	.115	.090	.087	.068	.053	.028	.022	.018		
8.0	.245	.183	.141	.211	.159	.123	.146	.112	.087	.085	.066	.052	.027	.022	.017		
9.0	.238	.178	.138	.205	.155	.120	.142	.109	.086	.083	.064	.051	.027	.021	.017		
10.0	.232	.174	.136	.200	.151	.118	.139	.107	.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:120.12V I:0.2180A P:24.640W PF:0.9411 Freq:59.98Hz Lamp Flux:1808.13x1 lm										
NAME: WS24-033B-BN 24W 40K					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	14.3	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	22.6	23.7	24.3
8H	16.0	17.1	16.5	17.6	18.2	23.0	24.1	23.5	24.7	25.3
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	22.8	23.4
6H	17.7	18.6	18.3	19.2	19.9	23.1	24.0	23.7	24.6	25.3
8H	17.9	18.7	18.5	19.3	20.0	24.2	25.0	24.8	25.6	26.3
12H	18.0	18.7	18.6	19.4	20.1	25.4	26.2	26.1	26.9	27.6
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	20.5	21.2	23.6	24.3	24.2	25.0	25.7
8H	19.5	20.1	20.1	20.8	21.5	24.9	25.5	25.5	26.2	26.9
12H	19.7	20.3	20.4	21.0	21.8	26.4	27.0	27.1	27.6	28.4
12H 4H	18.5	19.3	19.2	20.0	20.7	21.4	22.2	22.0	22.8	23.5
6H	19.6	20.3	20.3	20.9	21.7	23.7	24.3	24.3	25.0	25.7
8H	20.2	20.7	20.9	21.4	22.2	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, 1808 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 2.1)
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:120.12V I:0.2180A P:24.640W PF:0.9411 Freq:59.98Hz Lamp Flux:1808.13x1 lm		
NAME: WS24-033B-BN 24W 40K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

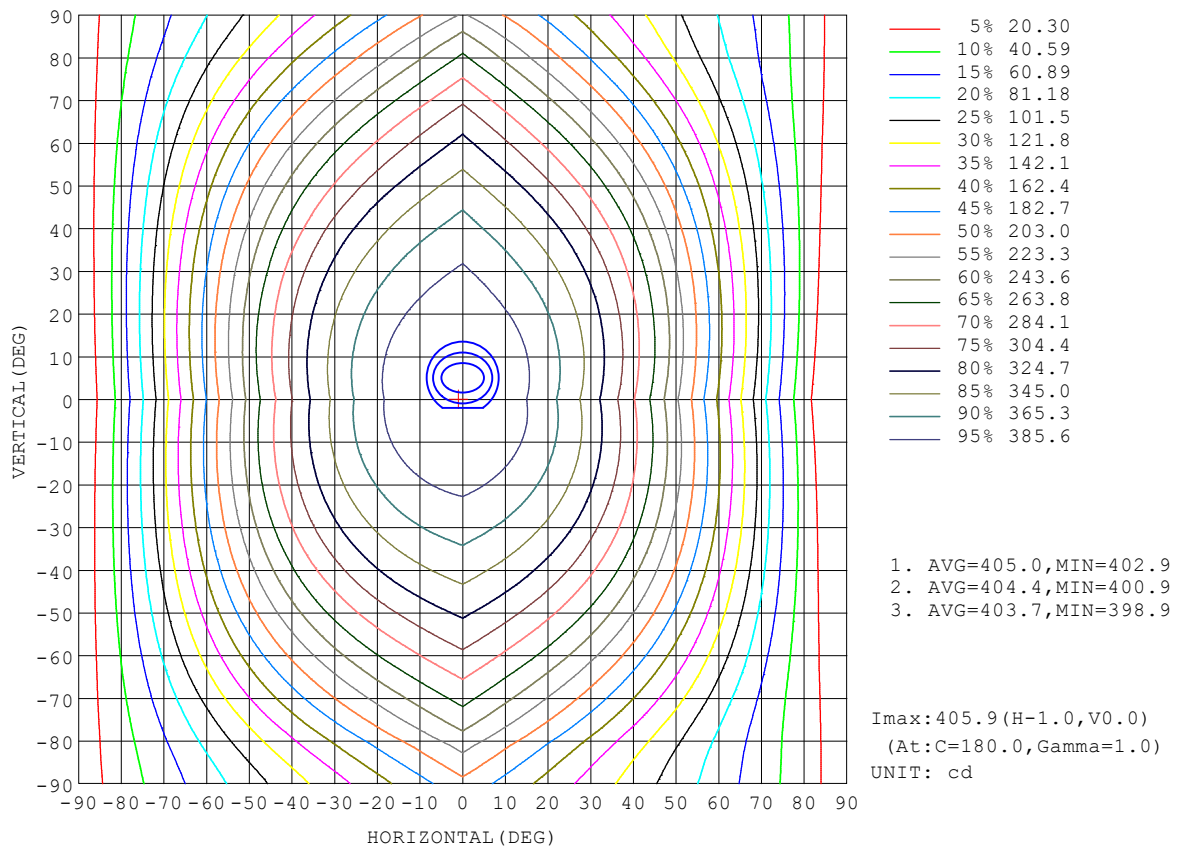
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	49	36	29	48	36	29	46	35	28	21
0.80	58	45	37	56	44	36	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	89	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:120.12V I:0.2180A P:24.640W PF:0.9411 Freq:59.98Hz Lamp Flux:1808.13x1 lm		
NAME: WS24-033B-BN 24W 40K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

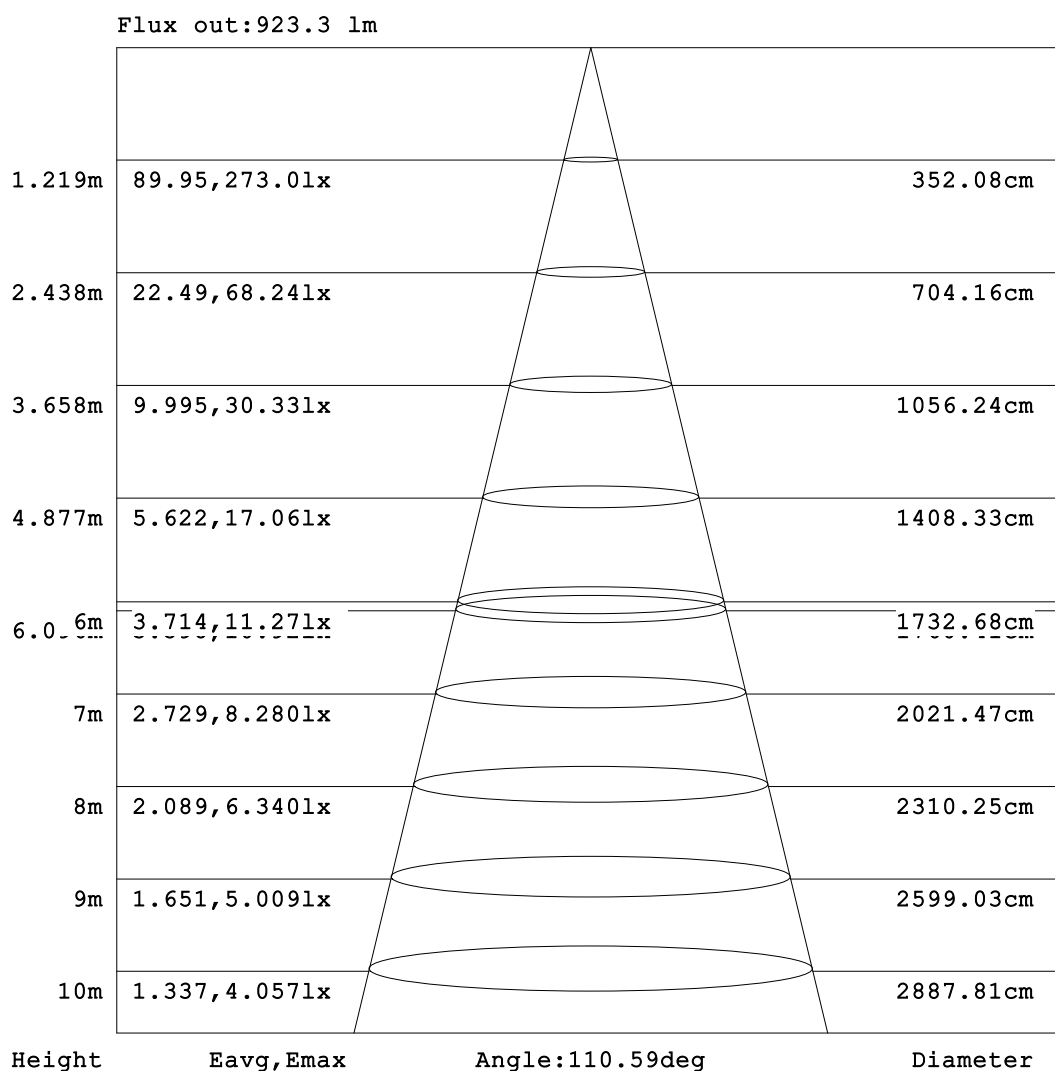


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:DAMIN
Test Date:10 February 2026

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:120.12V I:0.2180A P:24.640W PF:0.9411 Freq:59.98Hz Lamp Flux:1808.13x1 lm		
NAME: WS24-033B-BN 24W 40K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:



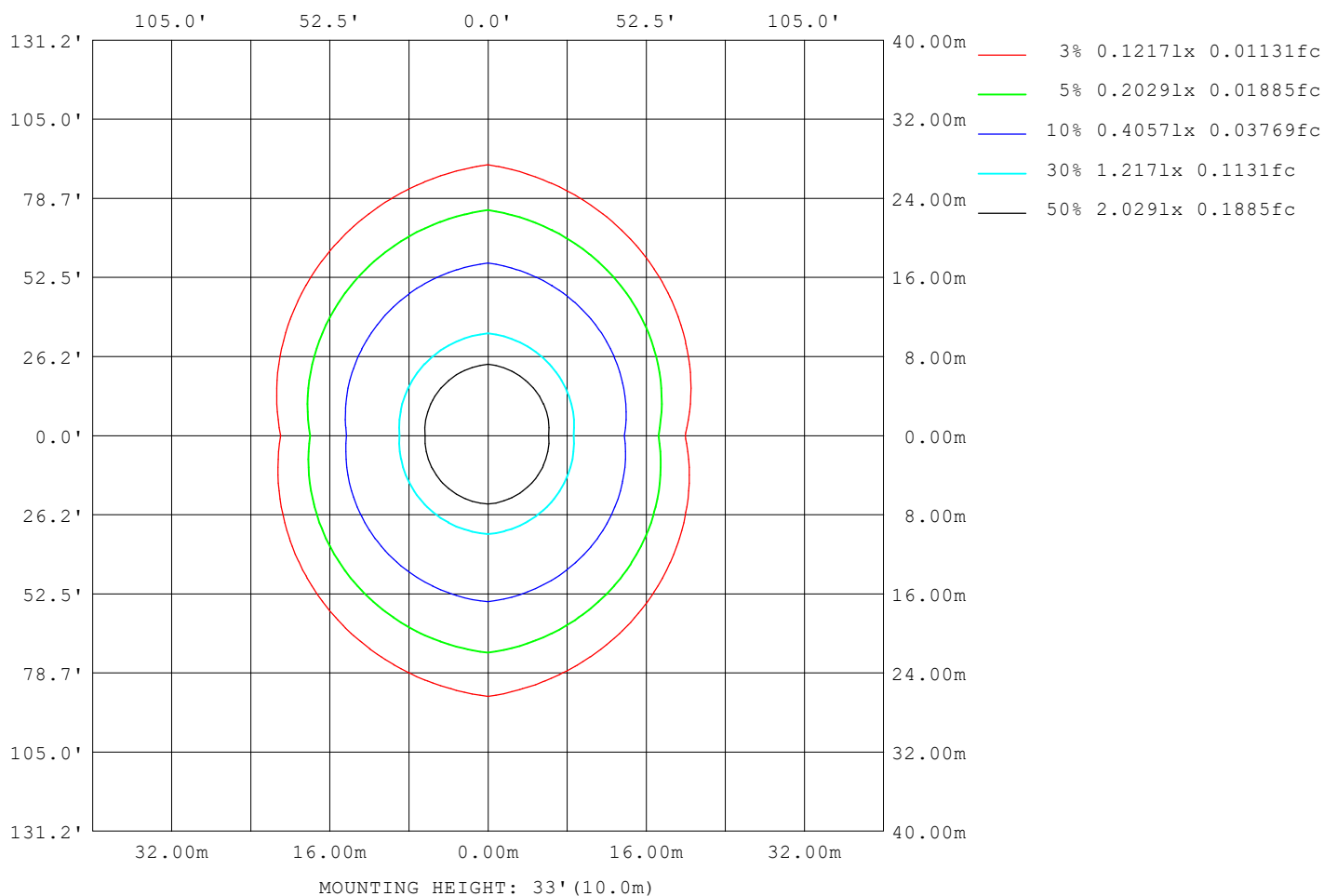
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:120.12V I:0.2180A P:24.640W PF:0.9411 Freq:59.98Hz Lamp Flux:1808.13x1 lm		
NAME: WS24-033B-BN 24W 40K	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:120.12V I:0.2180A P:24.640W PF:0.9411 Freq:59.98Hz Lamp Flux:1808.13x1 lm		
NAME: WS24-033B-BN 24W 40K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

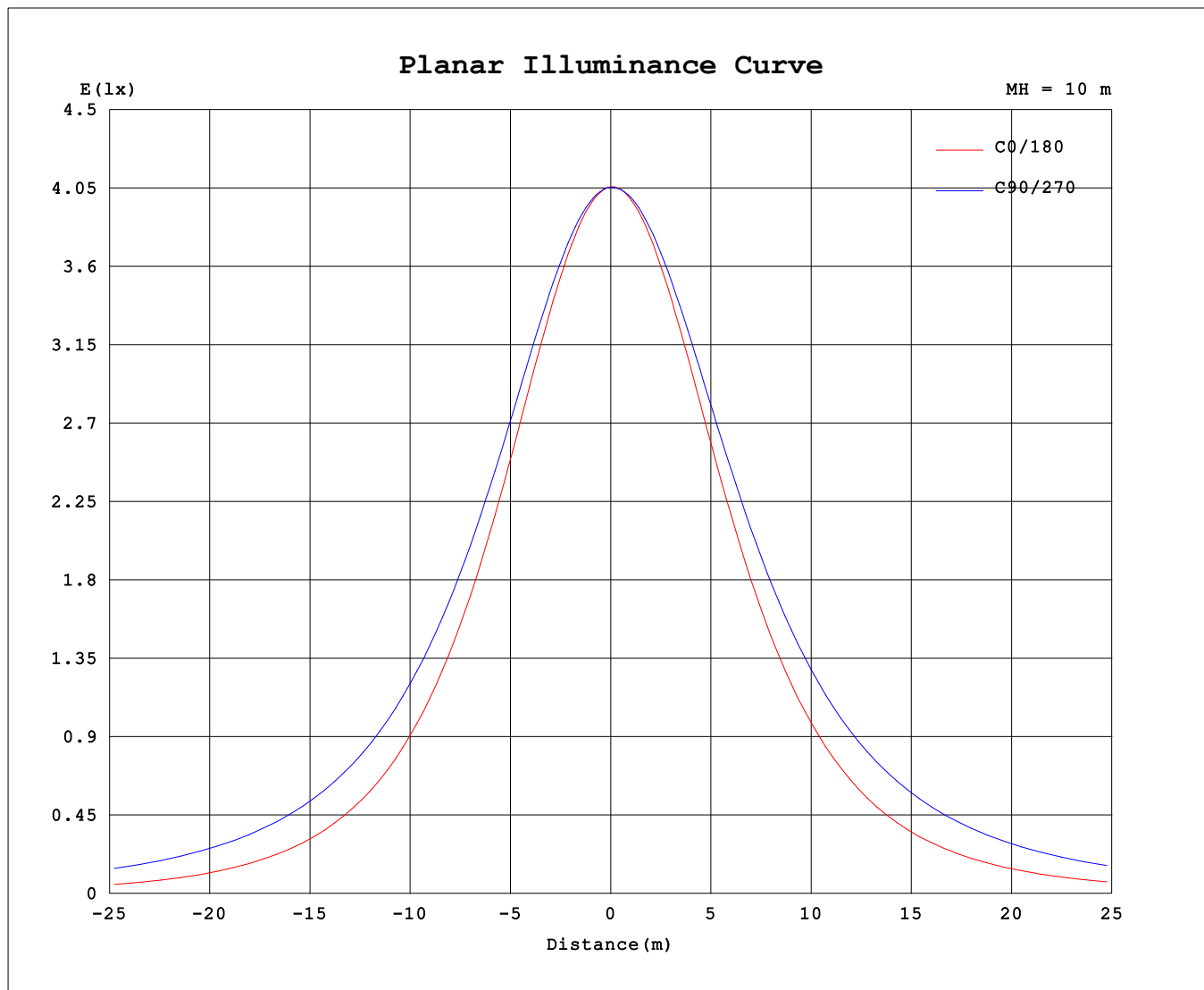
AvgL	cd/m2
L_0~180 (65) av	3220
L_0~180 (75) av	2619
L_0~180 (85) av	1881
L_90~270 (65) av	7131
L_90~270 (75) av	10409
L_90~270 (85) av	26592
L_45 (65) av	5684
L_45 (75) av	7517
L_45 (85) av	17372

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:120.12V I:0.2180A P:24.640W PF:0.9411 Freq:59.98Hz Lamp Flux:1808.13x1 lm		
NAME: WS24-033B-BN 24W 40K	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	406	405	406	405														
5	403	404	405	406														
10	396	401	401	405														
15	386	396	393	403														
20	372	390	382	399														
25	354	382	367	394														
30	334	373	349	388														
35	311	364	328	381														
40	285	353	304	373														
45	257	341	278	364														
50	226	328	249	354														
55	193	315	216	342														
60	159	301	183	330														
65	123	286	149	317														
70	88.1	270	114	302														
75	55.5	254	80.0	285														
80	27.9	234	48.5	267														
85	9.94	215	22.9	248														
90	7.63	197	8.48	226														
95	8.66	153	7.30	171														
100	9.94	96.3	8.16	105														
105	11.3	73.6	8.87	84.5														
110	13.2	80.0	10.8	88.0														
115	15.0	58.7	12.4	72.6														
120	16.7	44.2	14.2	53.5														
125	17.9	39.1	14.3	44.4														
130	18.2	35.4	14.7	41.3														
135	18.3	32.5	15.2	35.1														
140	20.0	31.1	16.7	30.4														
145	20.9	31.6	17.6	29.0														
150	20.0	22.7	16.8	28.1														
155	19.4	21.5	16.3	23.8														
160	18.4	21.1	15.0	23.2														
165	17.6	24.4	14.3	25.6														
170	19.3	20.7	16.3	25.3														
175	21.5	14.0	20.0	16.3														
180	22.6	14.9	22.6	14.8														

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: