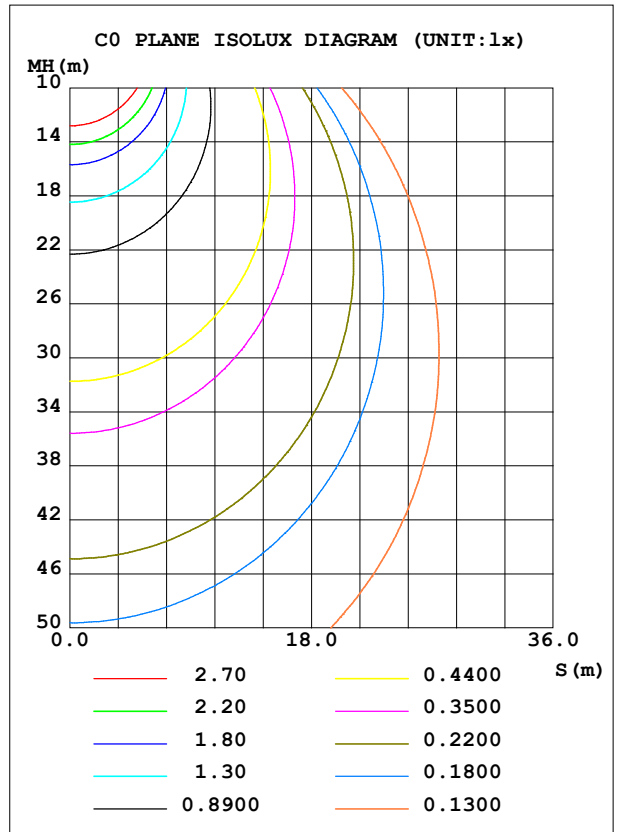
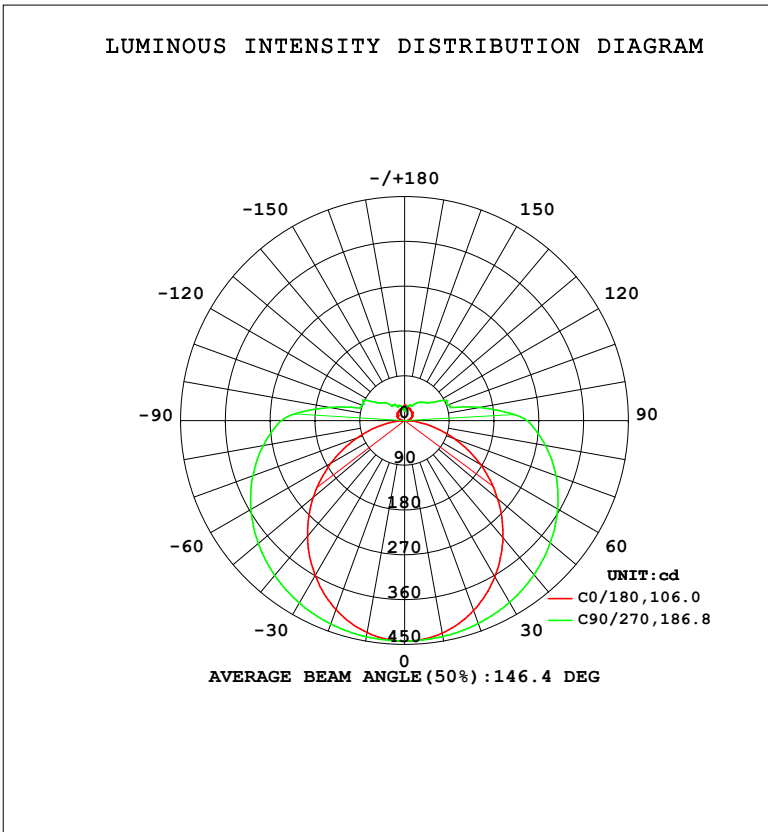


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:119.92V I:0.2166A P:23.782W PF:0.9154 Freq:59.98Hz Lamp Flux:2037.96x1 lm		
NAME: WS24-085-BN 24W 35K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 85.69 lm/W
MODEL	3500K	I <sub>max</sub> (cd)	443.3	S/MH (C0/180)	1.21	
NOMINAL POWER (W)	24	LOR (%)	100.0	S/MH (C90/270)	1.44	
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	2038.0	η UP, DN (C0-180)	8.5, 41.7	
NOMINAL FLUX (lm)	2037.96	CIE CLASS	SEMI-D.	η UP, DN (C180-360)	8.3, 41.5	
LAMPS INSIDE	1	η up (%)	16.7	CIBSE SHR NOM	1.50	
TEST VOLTAGE (V)	120	η down (%)	83.3	CIBSE SHR MAX	1.55	



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3 °C  
 Operators: DAMIN  
 Test Date: 20 April 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:

$\gamma$	C0	C90	C180	C270				$\gamma$	$\Phi$ zone	$\Phi$ total	%lum,lamp
10	433.9	440.7	432.7	441.0				0- 10	42.01	42.01	2.06,2.06
20	405.9	433.5	403.9	434.8				10- 20	121.4	163.4	8.02,8.02
30	362.6	421.9	359.5	423.2				20- 30	187.8	351.2	17.2,17.2
40	307.7	404.5	303.8	406.2				30- 40	234.6	585.8	28.7,28.7
50	244.0	382.2	239.9	383.8				40- 50	258.5	844.3	41.4,41.4
60	176.1	355.3	170.8	356.6				50- 60	258.7	1103	54.1,54.1
70	106.6	323.8	101.6	324.6				60- 70	237.4	1340	65.8,65.8
80	43.50	287.2	39.14	288.1				70- 80	199.7	1540	75.6,75.6
90	6.758	246.3	5.970	247.9				80- 90	156.9	1697	83.3,83.3
100	8.901	153.2	8.128	153.7				90-100	115.1	1812	88.9,88.9
110	12.86	93.65	12.68	92.35				100-110	64.59	1877	92.1,92.1
120	18.31	78.47	18.09	78.19				110-120	52.27	1929	94.6,94.6
130	20.92	56.75	18.95	56.03				120-130	37.20	1966	96.5,96.5
140	22.90	47.99	21.47	37.78				130-140	27.81	1994	97.8,97.8
150	24.56	37.47	23.11	36.75				140-150	20.03	2014	98.8,98.8
160	26.39	32.99	24.69	32.34				150-160	13.45	2027	99.5,99.5
170	26.62	26.88	25.40	27.84				160-170	8.037	2035	99.9,99.9
180	30.60	19.66	30.61	19.66				170-180	2.535	2038	100,100
DEG	LUMINOUS INTENSITY:cd								UNIT:lm		

Conical surface Flux(90deg): 713.58 lm

%lum = 35.0%

%lamp = 35.0%

Conical surface Flux(120deg): 1103.1 lm

%lum = 54.1%

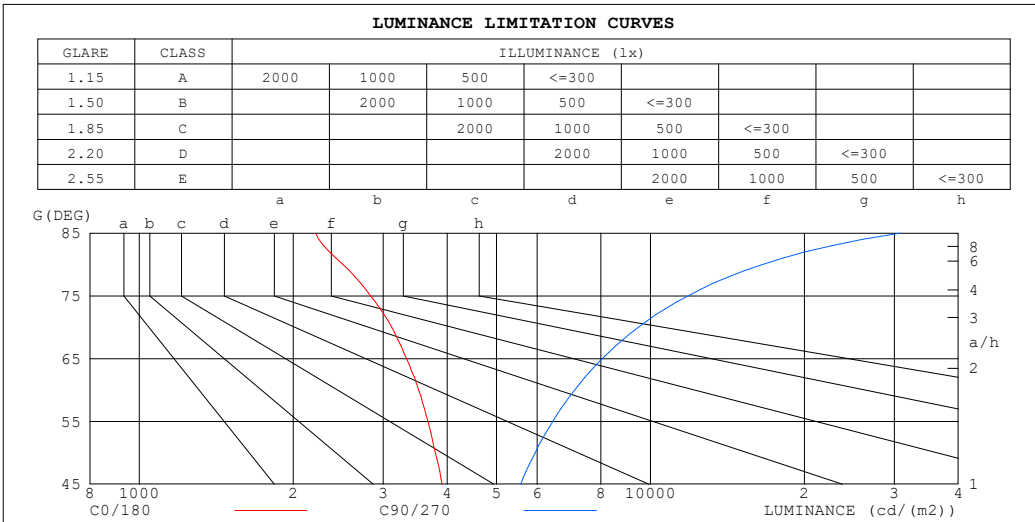
%lamp = 54.1%

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3℃  
 Operators:DAMIN  
 Test Date:20 April 2026

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  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:119.92V I:0.2166A P:23.782W PF:0.9154 Freq:59.98Hz Lamp Flux:2037.96x1 lm		
NAME: WS24-085-BN 24W 35K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	2213	30709
80	2505	16539
75	2835	11829
70	3118	9468
65	3334	8045
60	3522	7106
55	3671	6439
50	3797	5947
45	3911	5573

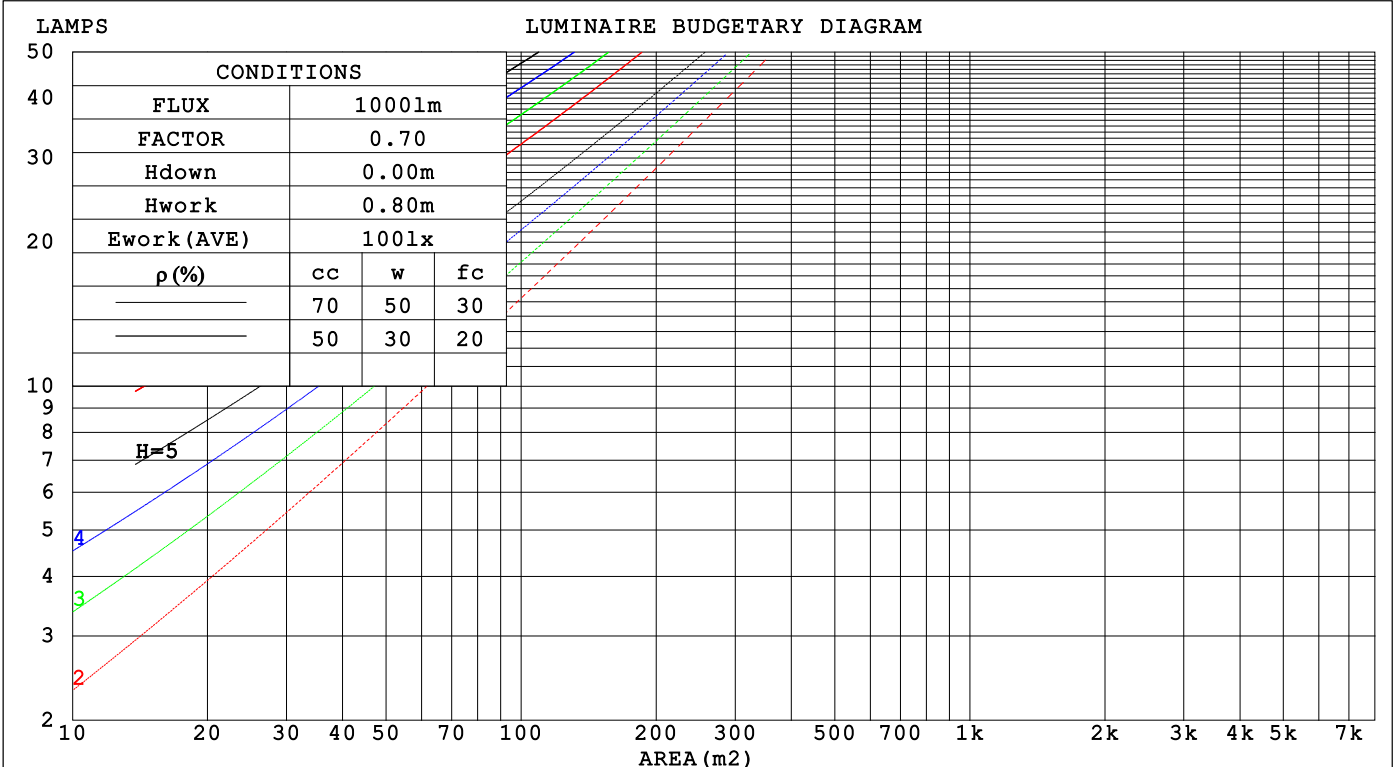
C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3 °C  
 Operators:DAMIN  
 Test Date:20 April 2026

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:119.92V I:0.2166A P:23.782W PF:0.9154 Freq:59.98Hz Lamp Flux:2037.96x1 lm		
NAME: WS24-085-BN 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	1.15	1.15	1.15	1.10	1.10	1.10	1.02	1.02	1.02	.94	.94	.94	.87	.87	.87	.83
1.0	.96	.90	.85	.92	.87	.82	.84	.80	.77	.77	.74	.71	.71	.69	.66	.63
2.0	.82	.74	.67	.78	.71	.65	.72	.66	.61	.66	.61	.57	.61	.57	.53	.50
3.0	.71	.62	.54	.68	.60	.53	.62	.56	.50	.57	.52	.47	.53	.48	.44	.41
4.0	.62	.53	.45	.60	.51	.44	.55	.48	.42	.51	.44	.39	.47	.41	.37	.34
5.0	.55	.46	.38	.53	.44	.37	.49	.41	.36	.45	.39	.34	.42	.36	.32	.29
6.0	.49	.40	.33	.47	.39	.32	.44	.36	.31	.41	.34	.29	.38	.32	.28	.25
7.0	.45	.35	.29	.43	.34	.28	.40	.32	.27	.37	.30	.26	.34	.29	.24	.22
8.0	.40	.32	.26	.39	.31	.25	.36	.29	.24	.34	.27	.23	.31	.26	.22	.19
9.0	.37	.29	.23	.36	.28	.22	.33	.26	.21	.31	.25	.20	.29	.23	.19	.17
10.0	.34	.26	.21	.33	.25	.20	.31	.24	.19	.29	.23	.18	.27	.21	.18	.16



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3 °C  
 Operators:DAMIN  
 Test Date:20 April 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:119.92V I:0.2166A P:23.782W PF:0.9154 Freq:59.98Hz Lamp Flux:2037.96x1 lm		
NAME: WS24-085-BN 24W 35K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

$\rho_{CC}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.390	.221	.070	.377	.215	.068	.354	.203	.065	.333	.192	.062	.313	.182	.059	
2.0	.337	.184	.057	.325	.179	.055	.305	.169	.053	.285	.160	.050	.267	.151	.048	
3.0	.299	.159	.048	.289	.155	.047	.270	.146	.044	.252	.138	.042	.236	.131	.040	
4.0	.269	.140	.041	.259	.136	.040	.242	.129	.038	.226	.122	.037	.212	.115	.035	
5.0	.244	.124	.036	.236	.121	.035	.220	.115	.034	.206	.109	.032	.192	.103	.031	
6.0	.223	.112	.032	.216	.109	.031	.202	.103	.030	.189	.098	.029	.176	.093	.028	
7.0	.206	.102	.029	.199	.099	.028	.186	.094	.027	.174	.089	.026	.163	.085	.025	
8.0	.191	.093	.026	.185	.091	.026	.173	.086	.025	.162	.082	.024	.151	.078	.023	
9.0	.178	.086	.024	.172	.084	.024	.161	.080	.023	.151	.076	.022	.141	.072	.021	
10.0	.166	.080	.022	.161	.078	.022	.151	.074	.021	.142	.070	.020	.133	.067	.019	

$\rho_{CC}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.318	.318	.318	.272	.272	.272	.185	.185	.185	.107	.107	.107	.034	.034	.034	
1.0	.314	.284	.257	.269	.244	.221	.184	.168	.153	.106	.097	.089	.034	.031	.029	
2.0	.308	.261	.222	.263	.225	.192	.181	.155	.134	.104	.090	.078	.033	.029	.026	
3.0	.300	.245	.200	.257	.211	.174	.177	.147	.122	.102	.086	.072	.033	.028	.024	
4.0	.292	.232	.186	.251	.201	.162	.172	.140	.114	.100	.082	.067	.032	.027	.022	
5.0	.285	.222	.176	.244	.192	.153	.168	.134	.108	.098	.079	.064	.031	.026	.021	
6.0	.277	.214	.169	.238	.186	.147	.164	.130	.104	.095	.076	.062	.031	.025	.020	
7.0	.270	.208	.164	.232	.180	.143	.160	.126	.101	.093	.074	.060	.030	.024	.020	
8.0	.263	.202	.160	.227	.175	.140	.157	.123	.099	.091	.073	.059	.030	.024	.020	
9.0	.257	.197	.157	.221	.171	.137	.153	.120	.097	.089	.071	.058	.029	.023	.019	
10.0	.251	.193	.155	.216	.168	.135	.150	.118	.096	.088	.070	.057	.028	.023	.019	

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3℃  
 Operators:DAMIN  
 Test Date:20 April 2026

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  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:119.92V I:0.2166A P:23.782W PF:0.9154 Freq:59.98Hz										
Lamp Flux:2037.96x1 lm										
NAME: WS24-085-BN 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	13.7	15.1	14.2	15.6	16.2	16.2	17.6	16.7	18.1	18.6
3H	15.2	16.5	15.7	17.0	17.6	19.0	20.3	19.6	20.9	21.4
4H	15.8	17.0	16.4	17.6	18.2	20.7	21.9	21.2	22.4	23.0
6H	16.2	17.4	16.8	18.0	18.6	22.4	23.6	23.0	24.2	24.8
8H	16.4	17.5	17.0	18.1	18.7	23.4	24.6	24.0	25.1	25.8
12H	16.5	17.5	17.0	18.1	18.8	24.6	25.7	25.2	26.2	26.9
4H 2H	14.9	16.1	15.4	16.7	17.3	16.7	17.9	17.2	18.5	19.1
3H	16.7	17.8	17.3	18.4	19.0	19.7	20.8	20.3	21.4	22.1
4H	17.5	18.5	18.1	19.1	19.8	21.5	22.5	22.1	23.1	23.8
6H	18.2	19.0	18.8	19.7	20.4	23.5	24.4	24.1	25.0	25.7
8H	18.4	19.2	19.0	19.9	20.6	24.6	25.5	25.3	26.1	26.9
12H	18.6	19.3	19.2	20.0	20.7	25.9	26.7	26.6	27.4	28.1
8H 4H	18.6	19.4	19.2	20.1	20.8	21.8	22.6	22.4	23.3	24.0
6H	19.6	20.3	20.3	21.0	21.8	24.0	24.7	24.7	25.4	26.2
8H	20.1	20.7	20.8	21.4	22.2	25.4	26.0	26.1	26.7	27.5
12H	20.5	21.0	21.2	21.7	22.5	26.9	27.5	27.6	28.2	29.0
12H 4H	18.9	19.7	19.6	20.4	21.1	21.8	22.6	22.5	23.2	24.0
6H	20.2	20.8	20.9	21.5	22.3	24.1	24.8	24.8	25.4	26.2
8H	20.8	21.4	21.5	22.1	22.9	25.5	26.1	26.3	26.8	27.6
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.1				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.2				
2.0H	+ 0.3 / - 0.5					+ 0.2 / - 0.3				

CIE Pub.117, 2038 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 2.5)  
Area: 0.1 m2

C Range: 0 - 360DEG	γ Range: 0 - 180DEG
C Interval: 90.0DEG	γ Interval: 1.0DEG
Test Speed: HIGH	Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.459
Temperature:25.3℃	Humidity:65.0%
Operators:DAMIN	Test Distance:7.380m [K=1.0000]
Test Date:20 April 2026	Remarks:

**UTILIZATION FACTORS TABLE**

Test:U:119.92V I:0.2166A P:23.782W PF:0.9154 Freq:59.98Hz Lamp Flux:2037.96x1 lm		
NAME: WS24-085-BN 24W 35K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

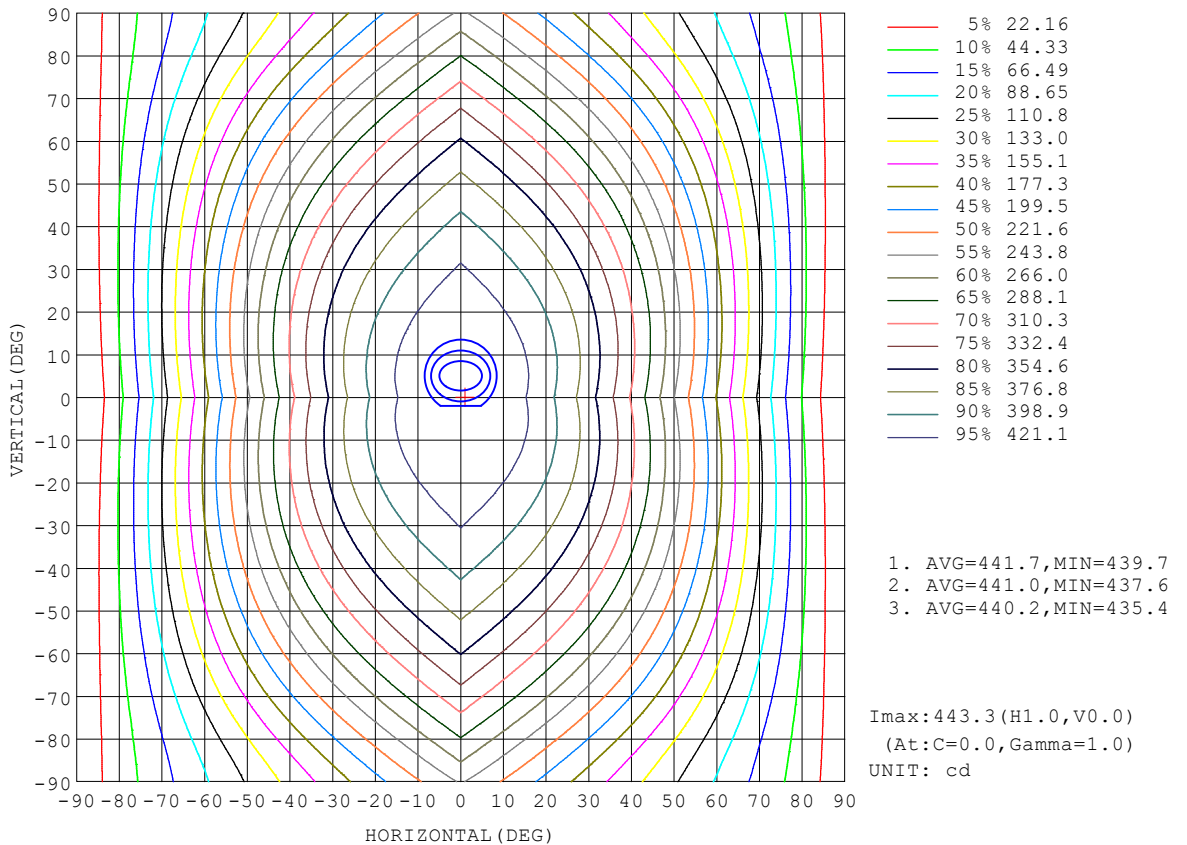
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	48	36	28	47	35	28	45	34	28	21
0.80	57	44	36	56	43	36	53	42	35	27
1.00	65	52	43	63	51	43	59	51	42	33
1.25	72	59	51	69	58	50	65	55	48	39
1.50	77	65	56	74	63	55	69	60	53	43
2.00	84	73	65	81	71	63	76	67	61	49
2.50	89	78	70	85	76	69	79	72	65	53
3.00	92	83	76	89	80	74	82	76	70	57
4.00	97	89	83	93	86	80	86	81	76	61
5.00	100	93	87	96	90	85	89	84	79	65
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:20 April 2026

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  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:119.92V I:0.2166A P:23.782W PF:0.9154 Freq:59.98Hz Lamp Flux:2037.96x1 lm		
NAME: WS24-085-BN 24W 35K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

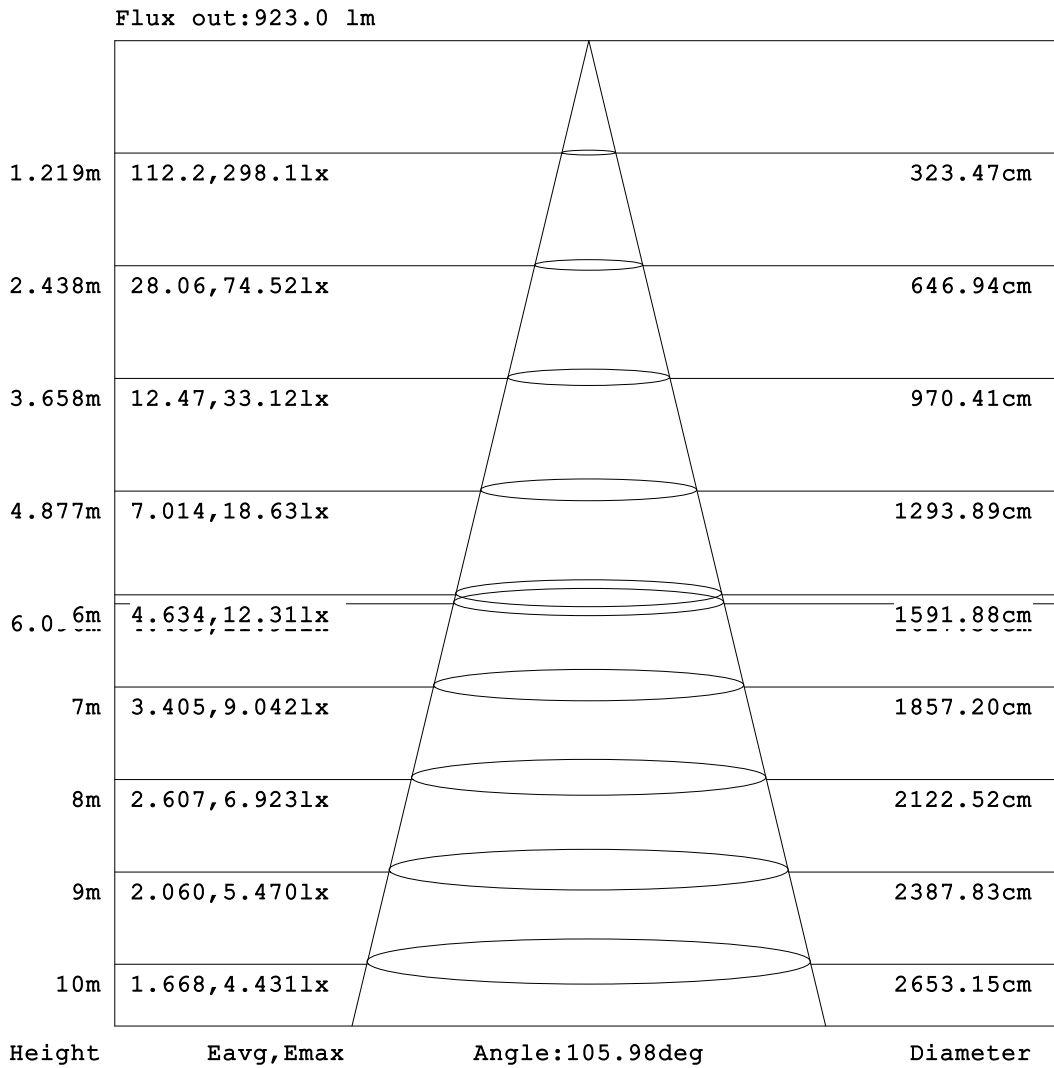


C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature: 25.3 °C  
Operators: DAMIN  
Test Date: 20 April 2026

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:119.92V I:0.2166A P:23.782W PF:0.9154 Freq:59.98Hz Lamp Flux:2037.96x1 lm		
NAME: WS24-085-BN 24W 35K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:



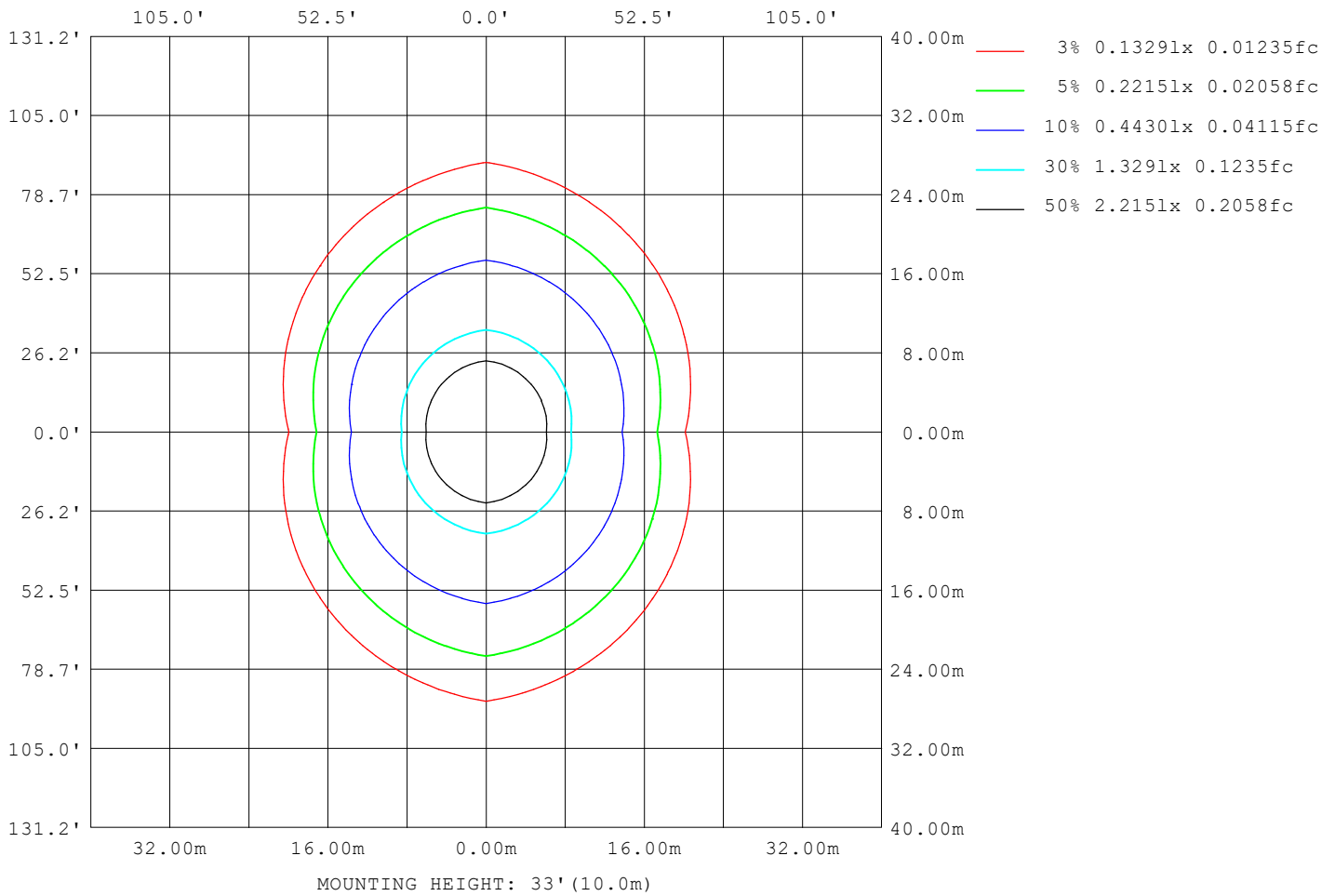
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3 °C  
Operators:DAMIN  
Test Date:20 April 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:119.92V I:0.2166A P:23.782W PF:0.9154 Freq:59.98Hz Lamp Flux:2037.96x1 lm		
NAME: WS24-085-BN 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:20 April 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:119.92V I:0.2166A P:23.782W PF:0.9154 Freq:59.98Hz Lamp Flux:2037.96x1 lm		
NAME: WS24-085-BN 24W 35K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

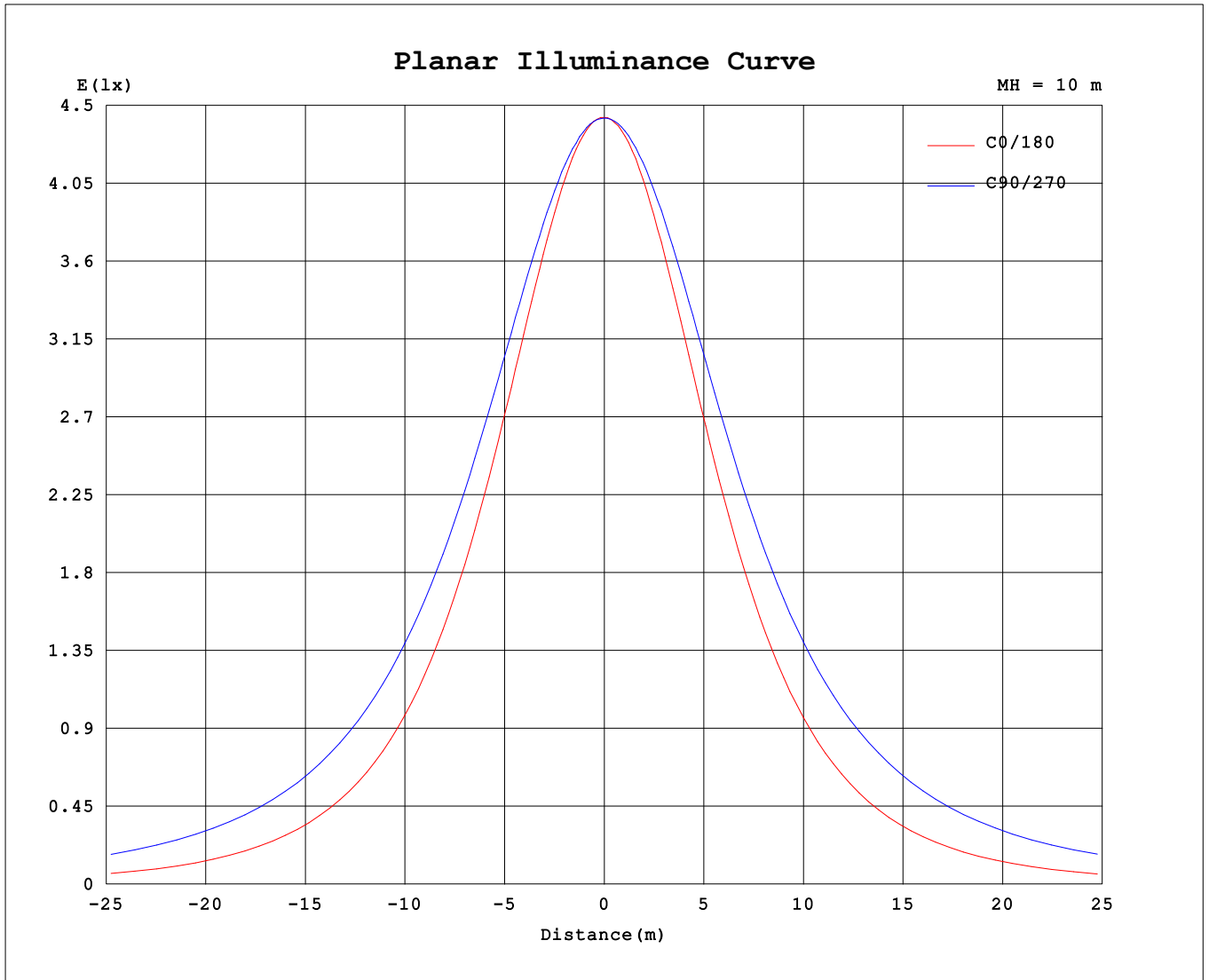
AvgL	cd/m2
L_0~180 (65) av	3275
L_0~180 (75) av	2746
L_0~180 (85) av	2023
L_90~270 (65) av	8058
L_90~270 (75) av	11843
L_90~270 (85) av	30775
L_45 (65) av	6260
L_45 (75) av	8426
L_45 (85) av	19981

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3℃  
 Operators:DAMIN  
 Test Date:20 April 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: 20 April 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:119.92V I:0.2166A P:23.782W PF:0.9154 Freq:59.98Hz Lamp Flux:2037.96x1 lm		
NAME: WS24-085-BN 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	443	443	443	443															
5	441	442	440	442															
10	434	441	433	441															
15	422	438	420	438															
20	406	433	404	435															
25	386	428	384	430															
30	363	422	360	423															
35	336	414	333	415															
40	308	405	304	406															
45	277	394	273	396															
50	244	382	240	384															
55	211	369	205	371															
60	176	355	171	357															
65	141	340	136	341															
70	107	324	102	325															
75	73.4	306	68.8	307															
80	43.5	287	39.1	288															
85	19.3	268	16.0	269															
90	6.76	246	5.97	248															
95	7.33	203	6.74	207															
100	8.90	153	8.13	154															
105	10.7	102	10.1	101															
110	12.9	93.7	12.7	92.4															
115	15.7	95.2	15.5	93.4															
120	18.3	78.5	18.1	78.2															
125	18.6	63.4	17.1	61.8															
130	20.9	56.7	19.0	56.0															
135	22.7	51.9	21.0	49.8															
140	22.9	48.0	21.5	37.8															
145	23.6	43.4	22.1	38.4															
150	24.6	37.5	23.1	36.7															
155	25.6	33.7	24.0	31.4															
160	26.4	33.0	24.7	32.3															
165	26.5	31.1	25.2	30.5															
170	26.6	26.9	25.4	27.8															
175	30.7	22.9	29.2	25.2															
180	30.6	19.7	30.6	19.7															

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3℃  
 Operators:DAMIN  
 Test Date:20 April 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: