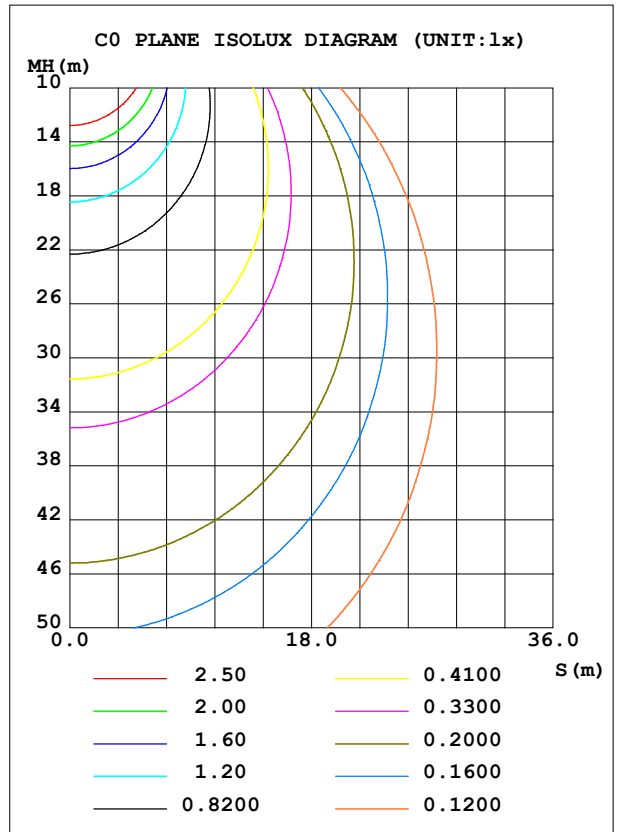
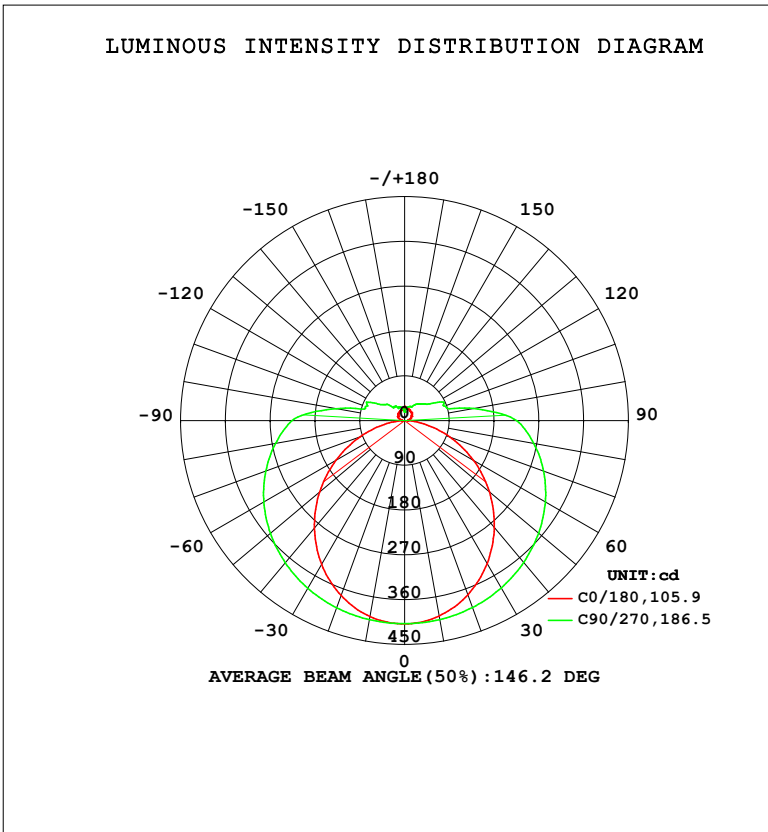


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:119.94V I:0.2222A P:24.101W PF:0.9044 Freq:59.98Hz Lamp Flux:1871.92x1 lm		
NAME: WS24-085-BN 24W 27K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 77.67 lm/W
MODEL	2700K	I _{max} (cd)	408.6	S/MH (C0/180)	1.22	
NOMINAL POWER (W)	24	LOR (%)	100.0	S/MH (C90/270)	1.44	
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	1871.9	η UP, DN (C0-180)	8.5, 41.7	
NOMINAL FLUX (lm)	1871.92	CIE CLASS	SEMI-D.	η UP, DN (C180-360)	8.2, 41.6	
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:

γ	C0	C90	C180	C270				γ	Φ zone	Φ total	%lum,lamp
10	398.9	406.1	399.9	406.2				0- 10	38.71	38.71	2.07,2.07
20	372.3	399.5	374.0	400.2				10- 20	111.9	150.6	8.04,8.04
30	331.9	388.3	333.7	389.4				20- 30	172.9	323.5	17.3,17.3
40	280.8	372.3	282.3	373.1				30- 40	216.0	539.5	28.8,28.8
50	222.4	351.7	222.8	352.1				40- 50	237.8	777.2	41.5,41.5
60	160.0	326.6	158.9	326.8				50- 60	237.8	1015	54.2,54.2
70	96.87	297.4	94.70	297.1				60- 70	218.0	1233	65.9,65.9
80	39.51	263.6	36.67	263.2				70- 80	183.1	1416	75.6,75.6
90	6.354	225.0	5.535	226.3				80- 90	143.7	1560	83.3,83.3
100	8.226	140.8	7.479	140.3				90-100	105.3	1665	88.9,88.9
110	11.85	86.43	11.57	83.98				100-110	59.16	1724	92.1,92.1
120	16.76	72.36	16.65	70.98				110-120	47.87	1772	94.7,94.7
130	19.23	52.43	17.27	50.83				120-130	34.07	1806	96.5,96.5
140	21.16	44.30	19.49	34.04				130-140	25.45	1832	97.8,97.8
150	22.77	34.54	20.93	33.34				140-150	18.32	1850	98.8,98.8
160	24.50	30.39	22.33	29.34				150-160	12.31	1862	99.5,99.5
170	24.59	24.61	23.10	25.33				160-170	7.357	1870	99.9,99.9
180	28.02	17.65	28.02	17.64				170-180	2.313	1872	100,100
DEG	LUMINOUS INTENSITY:cd								UNIT:lm		

Conical surface Flux(90deg): 656.99 lm

%lum = 35.1%
 %lamp = 35.1%

Conical surface Flux(120deg): 1015 lm

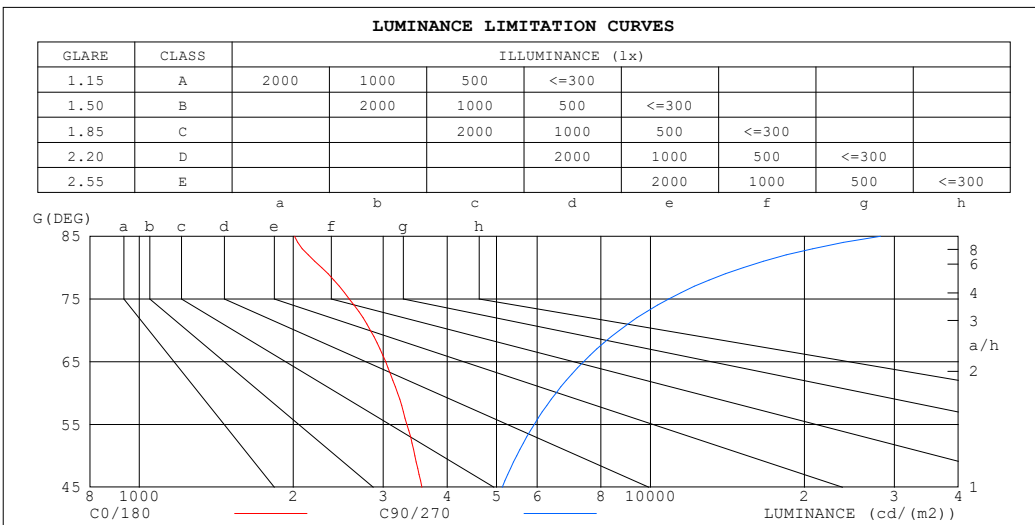
%lum = 54.2%
 %lamp = 54.2%

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:

LUMINANCE LIMITATION CURVES

Test:U:119.94V I:0.2222A P:24.101W PF:0.9044 Freq:59.98Hz Lamp Flux:1871.92x1 lm		
NAME: WS24-085-BN 24W 27K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	2013	28190
80	2276	15182
75	2575	10860
70	2832	8696
65	3032	7395
60	3200	6533
55	3336	5923
50	3460	5471
45	3569	5127

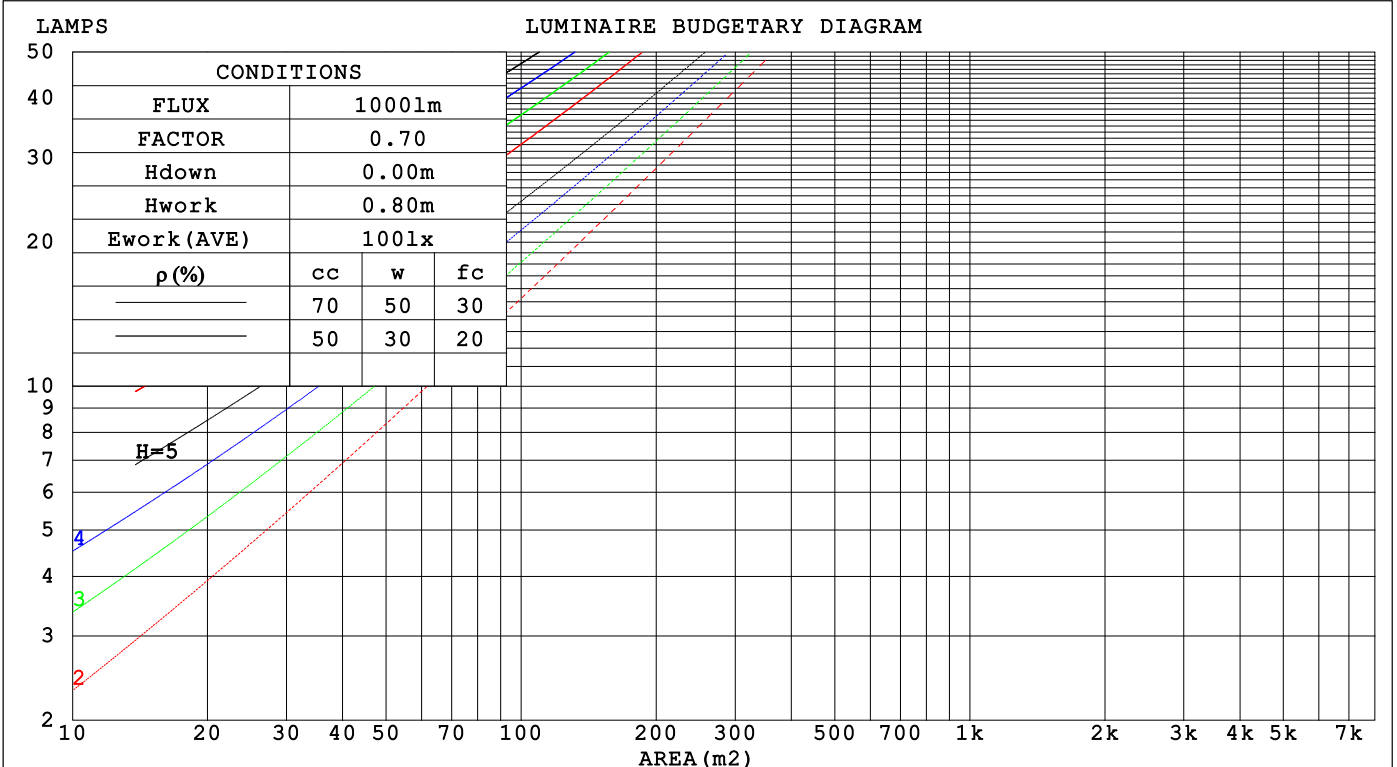
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3 °C
 Operators: DAMIN
 Test Date: 20 April 2026

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:119.94V I:0.2222A P:24.101W PF:0.9044 Freq:59.98Hz Lamp Flux:1871.92x1 lm		
NAME: WS24-085-BN 24W 27K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	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	.78	.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	.55	.68	.60	.53	.63	.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	.39	.53	.44	.38	.49	.41	.36	.45	.39	.34	.42	.36	.32	.29
6.0	.49	.40	.33	.48	.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:119.94V I:0.2222A P:24.101W PF:0.9044 Freq:59.98Hz Lamp Flux:1871.92x1 lm		
NAME: WS24-085-BN 24W 27K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

ρ _{CC}	80%			70%			50%			30%			10%			0
ρ _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ _{fc}	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	.354	.203	.065	.333	.192	.062	.313	.181	.058	
2.0	.336	.184	.057	.325	.179	.055	.304	.169	.053	.285	.160	.050	.267	.151	.048	
3.0	.298	.159	.048	.288	.154	.046	.270	.146	.044	.252	.138	.042	.236	.131	.040	
4.0	.268	.139	.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	

ρ _{CC}	80%			70%			50%			30%			10%			0
ρ _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ _{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.318	.318	.318	.271	.271	.271	.185	.185	.185	.106	.106	.106	.034	.034	.034	
1.0	.314	.284	.256	.269	.243	.220	.184	.167	.152	.106	.097	.089	.034	.031	.029	
2.0	.307	.261	.222	.263	.224	.192	.180	.155	.134	.104	.090	.078	.033	.029	.026	
3.0	.300	.244	.200	.257	.211	.173	.176	.146	.122	.102	.085	.072	.033	.028	.023	
4.0	.292	.232	.186	.250	.200	.161	.172	.139	.114	.100	.082	.067	.032	.027	.022	
5.0	.284	.222	.176	.244	.192	.153	.168	.134	.108	.097	.079	.064	.031	.026	.021	
6.0	.277	.214	.169	.238	.185	.147	.164	.130	.104	.095	.076	.062	.031	.025	.020	
7.0	.269	.207	.164	.232	.180	.143	.160	.126	.101	.093	.074	.060	.030	.024	.020	
8.0	.263	.202	.160	.226	.175	.139	.156	.123	.099	.091	.072	.059	.029	.024	.019	
9.0	.256	.197	.157	.221	.171	.137	.153	.120	.097	.089	.071	.058	.029	.023	.019	
10.0	.251	.193	.154	.216	.167	.135	.150	.118	.096	.087	.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

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:119.94V I:0.2222A P:24.101W PF:0.9044 Freq:59.98Hz Lamp Flux:1871.92x1 lm		
NAME: WS24-085-BN 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	13.7	15.1	14.2	15.6	16.1	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	16.3	17.5	18.1	20.7	21.9	21.2	22.4	23.0
6H	16.2	17.4	16.8	17.9	18.5	22.4	23.6	23.0	24.2	24.8
8H	16.3	17.5	16.9	18.0	18.7	23.4	24.6	24.0	25.1	25.8
12H	16.4	17.5	17.0	18.1	18.7	24.6	25.7	25.2	26.2	26.9
4H 2H	14.9	16.1	15.4	16.6	17.2	16.7	17.9	17.2	18.5	19.1
3H	16.7	17.7	17.2	18.3	19.0	19.7	20.8	20.3	21.4	22.1
4H	17.5	18.5	18.1	19.1	19.7	21.5	22.5	22.1	23.1	23.8
6H	18.1	19.0	18.7	19.6	20.4	23.5	24.4	24.1	25.0	25.7
8H	18.4	19.2	19.0	19.8	20.6	24.6	25.5	25.3	26.1	26.8
12H	18.5	19.3	19.2	19.9	20.7	25.9	26.7	26.6	27.4	28.1
8H 4H	18.6	19.4	19.2	20.0	20.8	21.8	22.6	22.4	23.3	24.0
6H	19.6	20.3	20.3	21.0	21.7	24.0	24.7	24.7	25.4	26.2
8H	20.0	20.7	20.7	21.4	22.2	25.4	26.0	26.1	26.7	27.5
12H	20.4	21.0	21.1	21.7	22.5	26.9	27.5	27.6	28.2	29.0
12H 4H	18.9	19.7	19.6	20.3	21.1	21.8	22.6	22.4	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	26.2	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, 1872 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 2.2)
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:119.94V I:0.2222A P:24.101W PF:0.9044 Freq:59.98Hz Lamp Flux:1871.92x1 lm		
NAME: WS24-085-BN 24W 27K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

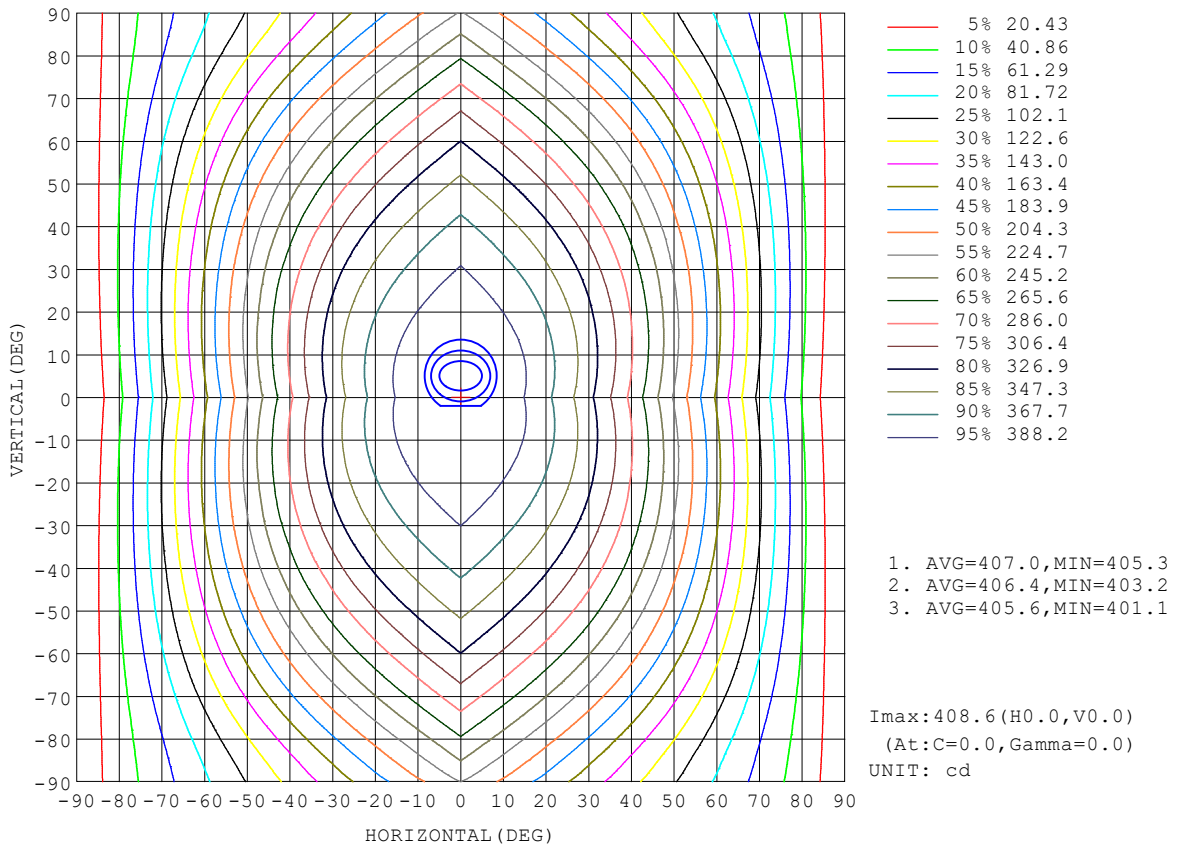
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	48	36	28	47	35	28	45	34	28	21
0.80	57	44	36	56	43	36	53	42	35	27
1.00	65	52	44	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	62
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

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:119.94V I:0.2222A P:24.101W PF:0.9044 Freq:59.98Hz Lamp Flux:1871.92x1 lm		
NAME: WS24-085-BN 24W 27K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

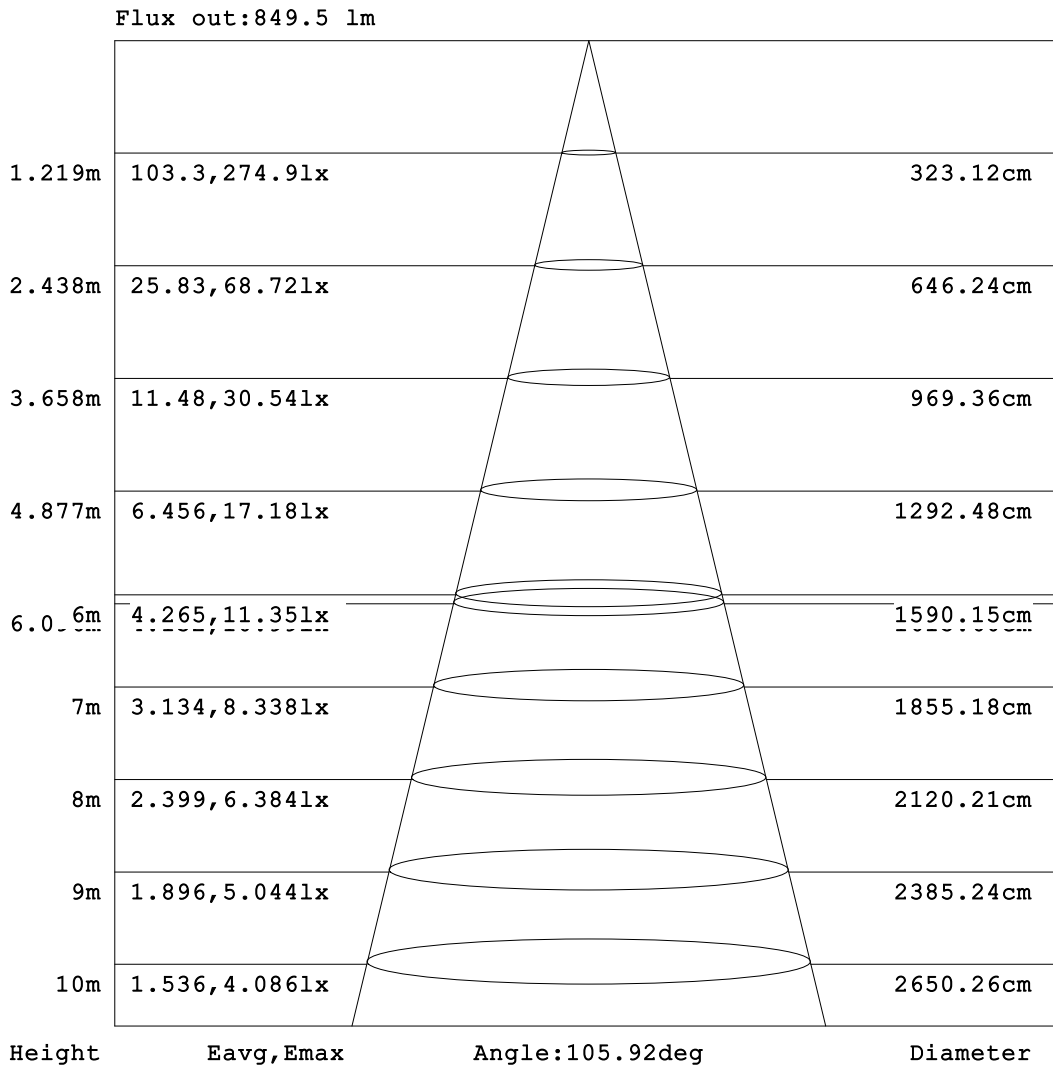


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3 °C
Operators: DAMIN
Test Date: 20 April 2026

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:119.94V I:0.2222A P:24.101W PF:0.9044 Freq:59.98Hz Lamp Flux:1871.92x1 lm		
NAME: WS24-085-BN 24W 27K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:



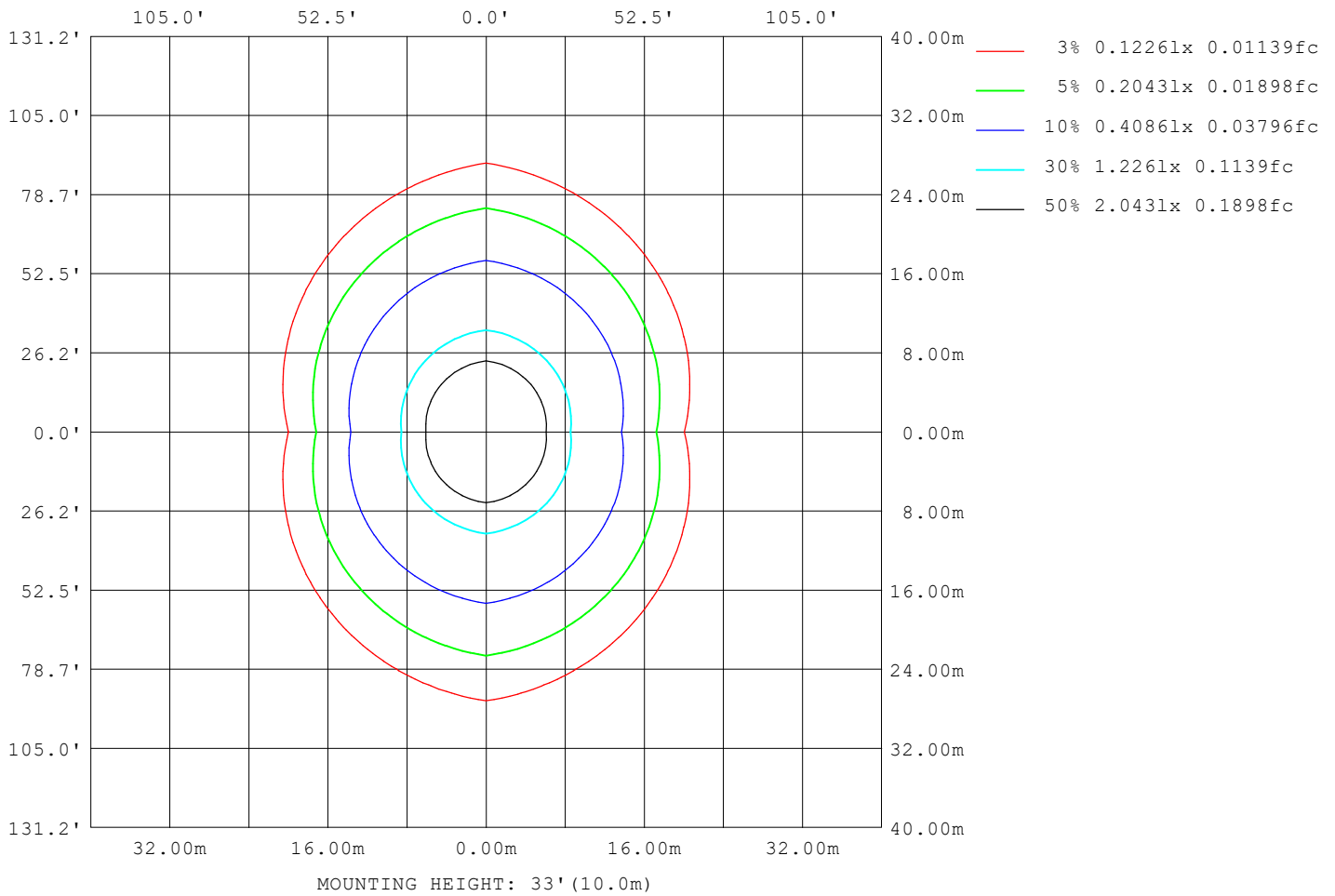
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3°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:119.94V I:0.2222A P:24.101W PF:0.9044 Freq:59.98Hz Lamp Flux:1871.92x1 lm		
NAME: WS24-085-BN 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: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:119.94V I:0.2222A P:24.101W PF:0.9044 Freq:59.98Hz Lamp Flux:1871.92x1 lm		
NAME: WS24-085-BN 24W 27K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

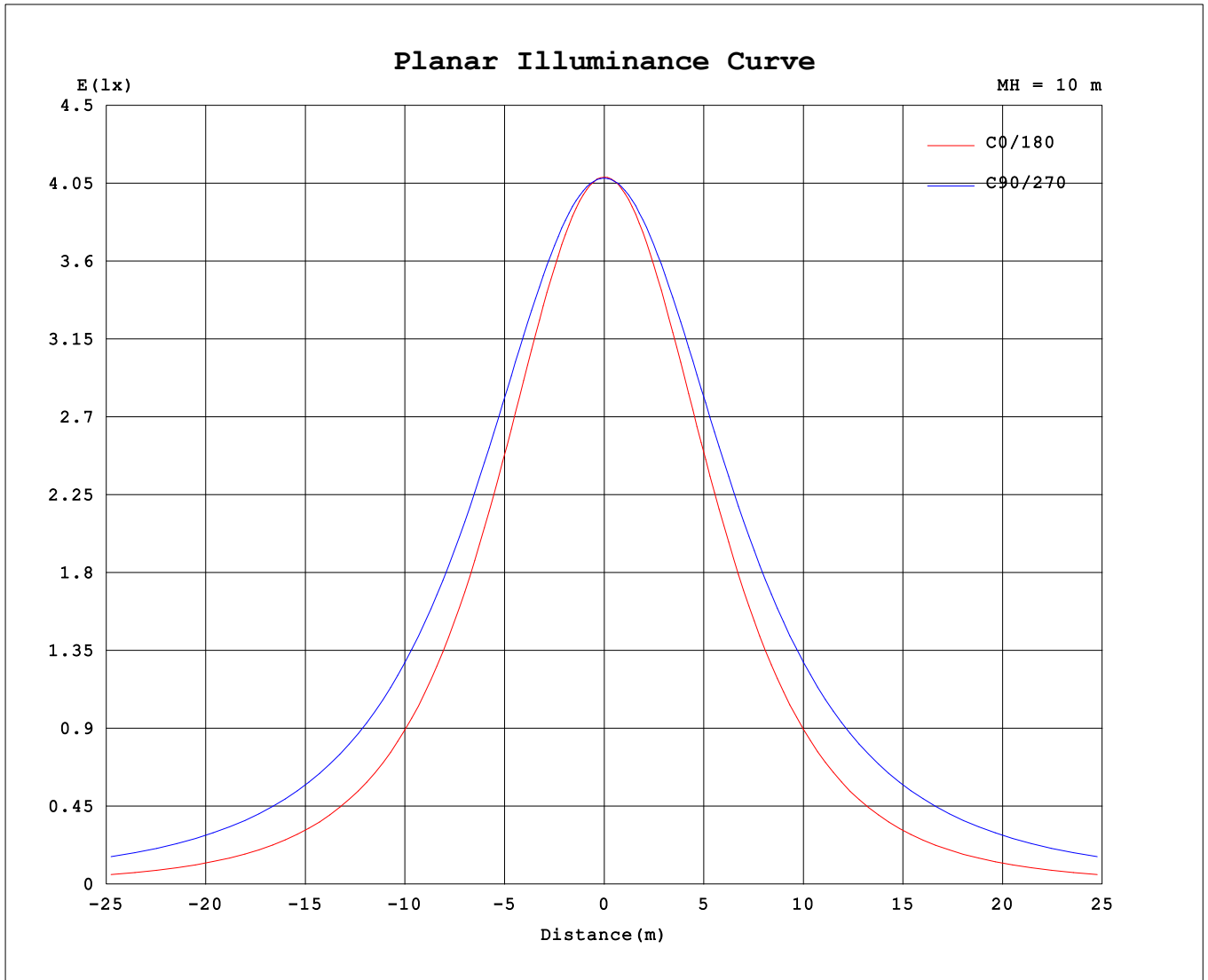
AvgL	cd/m2
L_0~180 (65) av	3014
L_0~180 (75) av	2528
L_0~180 (85) av	1867
L_90~270 (65) av	7395
L_90~270 (75) av	10852
L_90~270 (85) av	28180
L_45 (65) av	5751
L_45 (75) av	7728
L_45 (85) av	18303

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:119.94V I:0.2222A P:24.101W PF:0.9044 Freq:59.98Hz Lamp Flux:1871.92x1 lm		
NAME: WS24-085-BN 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	409	408	409	408															
5	406	408	406	408															
10	399	406	400	406															
15	388	403	389	404															
20	372	400	374	400															
25	353	395	355	395															
30	332	388	334	389															
35	307	381	309	382															
40	281	372	282	373															
45	252	363	253	363															
50	222	352	223	352															
55	191	340	191	340															
60	160	327	159	327															
65	128	313	127	313															
70	96.9	297	94.7	297															
75	66.6	281	64.2	281															
80	39.5	264	36.7	263															
85	17.5	246	15.0	246															
90	6.35	225	5.53	226															
95	6.78	186	6.22	189															
100	8.23	141	7.48	140															
105	9.85	94.2	9.28	91.7															
110	11.9	86.4	11.6	84.0															
115	14.4	87.7	14.2	84.9															
120	16.8	72.4	16.6	71.0															
125	17.1	58.6	15.6	56.0															
130	19.2	52.4	17.3	50.8															
135	21.0	47.9	19.1	45.2															
140	21.2	44.3	19.5	34.0															
145	21.8	40.0	20.0	34.6															
150	22.8	34.5	20.9	33.3															
155	23.8	31.0	21.7	28.4															
160	24.5	30.4	22.3	29.3															
165	24.6	28.7	22.7	27.7															
170	24.6	24.6	23.1	25.3															
175	28.2	20.6	26.7	22.8															
180	28.0	17.6	28.0	17.6															

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
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