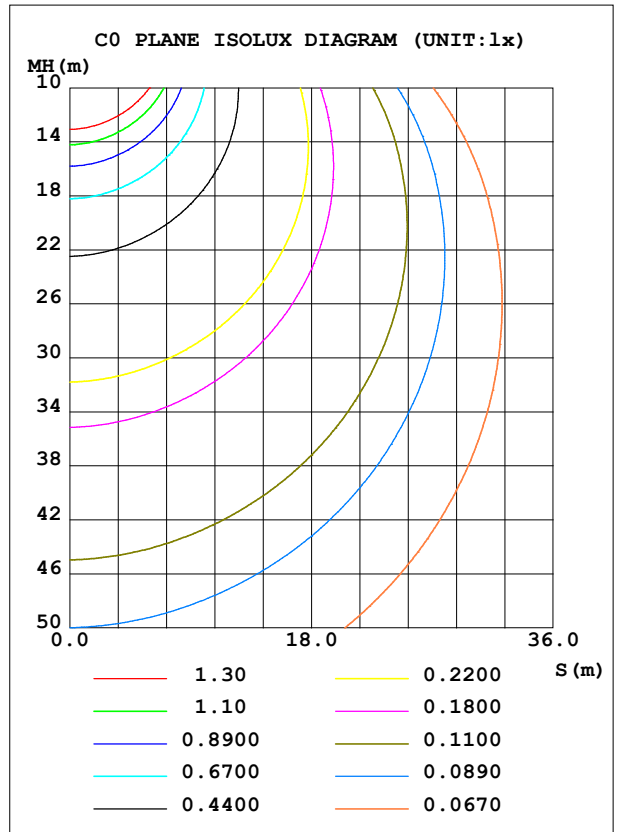
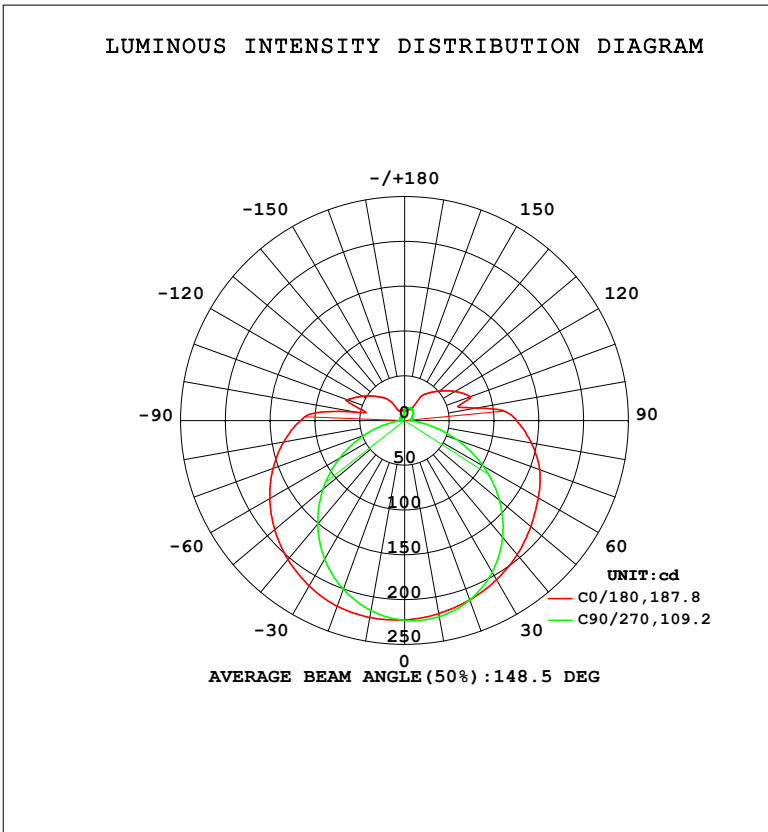


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.12V I:0.1451A P:16.363W PF:0.9388 Freq:59.98Hz Lamp Flux:1052.47x1 lm		
NAME: WS14-033B-BK 16W 30K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 64.32 lm/W
MODEL	3000K	I _{max} (cd)	223.8	S/MH (C0/180)	1.44	
NOMINAL POWER (W)	16	LOR (%)	100.0	S/MH (C90/270)	1.20	
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	1052.5	η UP, DN (C0-180)	10.7, 41.4	
NOMINAL FLUX (lm)	1052.47	CIE CLASS	SEMI-D.	η UP, DN (C180-360)	8.4, 39.5	
LAMPS INSIDE	1	η up (%)	19.1	CIBSE SHR NOM	1.50	
TEST VOLTAGE (V)	120	η down (%)	80.9	CIBSE SHR MAX	1.50	



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	218.8	222.3	223.2	215.5				0- 10	21.13	21.13	2.01,2.01
20	213.0	213.1	220.5	200.4				10- 20	61.18	82.31	7.82,7.82
30	205.3	195.6	213.1	178.6				20- 30	94.86	177.2	16.8,16.8
40	195.5	170.2	202.6	151.0				30- 40	118.7	295.9	28.1,28.1
50	184.0	138.2	189.5	118.9				40- 50	130.6	426.5	40.5,40.5
60	172.5	101.1	173.8	83.69				50- 60	130.1	556.7	52.9,52.9
70	160.5	61.50	156.4	48.01				60- 70	118.7	675.4	64.2,64.2
80	143.6	25.07	137.1	17.12				70- 80	98.72	774.1	73.6,73.6
90	125.0	6.677	116.0	4.653				80- 90	77.18	851.3	80.9,80.9
100	81.51	7.028	55.15	4.818				90-100	58.85	910.1	86.5,86.5
110	78.24	8.451	68.24	5.328				100-110	36.45	946.6	89.9,89.9
120	65.34	10.19	54.58	6.390				110-120	36.92	983.5	93.4,93.4
130	51.64	12.15	42.39	5.280				120-130	27.84	1011	96.1,96.1
140	39.96	14.02	32.43	5.989				130-140	19.66	1031	98,98
150	15.50	15.48	13.18	4.919				140-150	11.63	1043	99.1,99.1
160	13.42	15.42	11.87	5.066				150-160	5.505	1048	99.6,99.6
170	13.71	12.74	12.21	6.413				160-170	3.254	1051	99.9,99.9
180	12.19	12.07	12.14	12.12				170-180	1.065	1052	100,100
DEG	LUMINOUS INTENSITY:cd								UNIT:lm		

Conical surface Flux(90deg): 360.51 lm

%lum = 34.3%

%lamp = 34.3%

Conical surface Flux(120deg): 556.68 lm

%lum = 52.9%

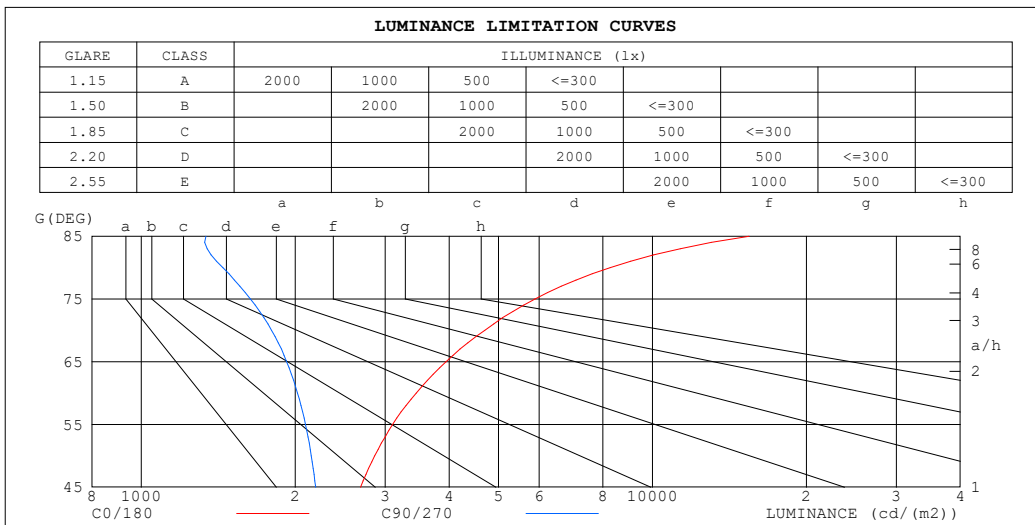
%lamp = 52.9%

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:

LUMINANCE LIMITATION CURVES

Test:U:120.12V I:0.1451A P:16.363W PF:0.9388 Freq:59.98Hz Lamp Flux:1052.47x1 lm		
NAME: WS14-033B-BK 16W 30K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	15464	1338
80	8271	1444
75	5892	1635
70	4694	1798
65	3947	1924
60	3450	2022
55	3102	2094
50	2862	2150
45	2686	2192

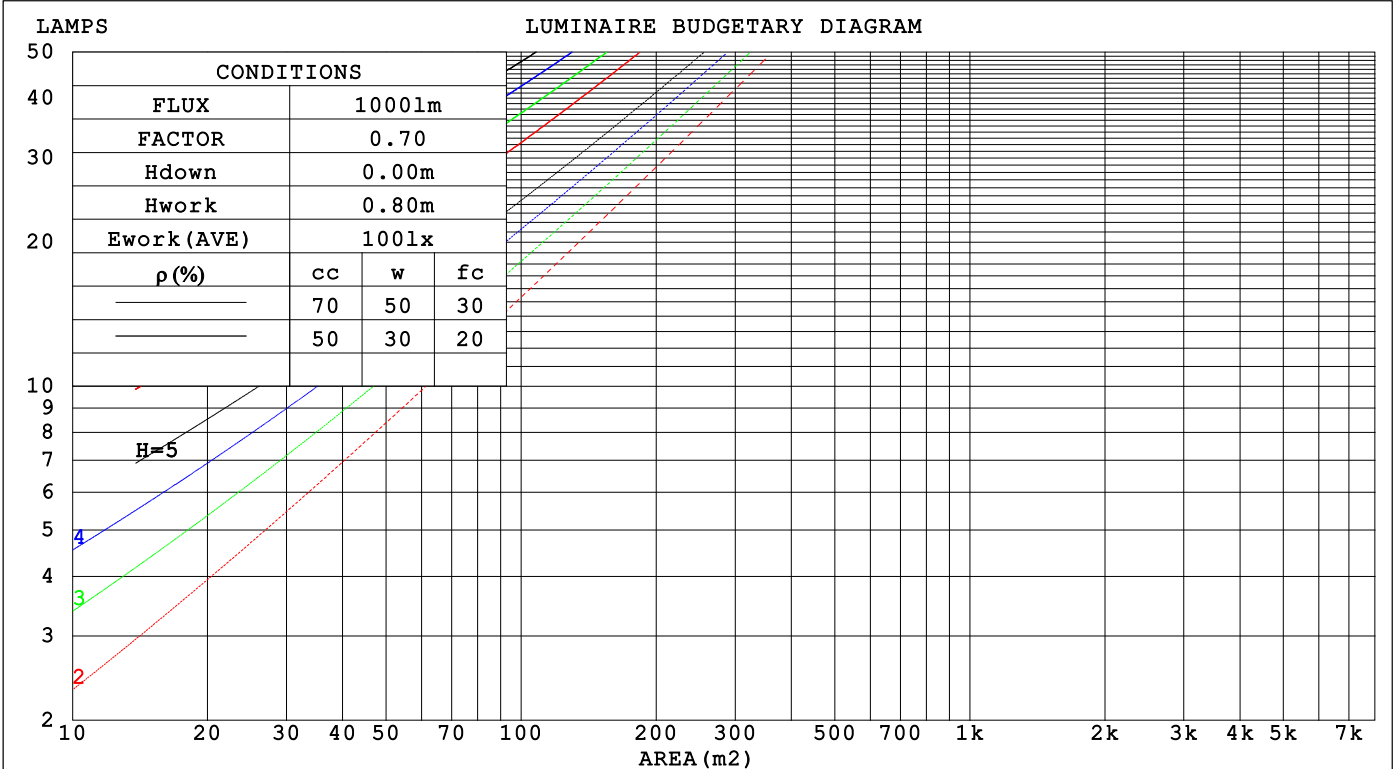
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3 °C
 Operators: DAMIN
 Test Date: 10 February 2026

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:120.12V I:0.1451A P:16.363W PF:0.9388 Freq:59.98Hz Lamp Flux:1052.47x1 lm		
NAME: WS14-033B-BK 16W 30K	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	1.14	1.14	1.14	1.10	1.10	1.10	1.00	1.00	1.00	.92	.92	.92	.84	.84	.84	.81
1.0	.95	.90	.85	.91	.86	.82	.83	.80	.76	.76	.73	.70	.70	.67	.65	.61
2.0	.82	.74	.67	.78	.71	.65	.71	.65	.60	.65	.60	.56	.59	.56	.52	.49
3.0	.71	.62	.55	.68	.59	.53	.62	.55	.49	.57	.51	.46	.52	.47	.43	.40
4.0	.62	.53	.45	.59	.51	.44	.54	.47	.41	.50	.44	.39	.46	.40	.36	.33
5.0	.55	.46	.39	.53	.44	.37	.48	.41	.35	.44	.38	.33	.41	.35	.31	.28
6.0	.49	.40	.33	.47	.39	.32	.44	.36	.31	.40	.34	.29	.37	.31	.27	.25
7.0	.44	.35	.29	.43	.34	.28	.39	.32	.27	.36	.30	.25	.33	.28	.24	.21
8.0	.40	.32	.26	.39	.31	.25	.36	.29	.24	.33	.27	.22	.31	.25	.21	.19
9.0	.37	.29	.23	.36	.28	.22	.33	.26	.21	.31	.24	.20	.28	.23	.19	.17
10.0	.34	.26	.21	.33	.25	.20	.30	.24	.19	.28	.22	.18	.26	.21	.17	.15



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:

WEC AND CCEC

Test:U:120.12V I:0.1451A P:16.363W PF:0.9388 Freq:59.98Hz Lamp Flux:1052.47x1 lm		
NAME: WS14-033B-BK 16W 30K	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	.383	.218	.069	.370	.211	.067	.346	.198	.063	.323	.187	.060	.303	.176	.057	
2.0	.332	.182	.056	.321	.177	.054	.298	.166	.052	.278	.156	.049	.259	.147	.046	
3.0	.295	.157	.047	.285	.152	.046	.265	.143	.044	.246	.135	.041	.229	.127	.039	
4.0	.266	.138	.041	.256	.134	.040	.238	.126	.038	.221	.119	.036	.206	.112	.034	
5.0	.242	.123	.036	.233	.120	.035	.217	.113	.033	.201	.106	.032	.187	.100	.030	
6.0	.222	.111	.032	.214	.108	.031	.199	.102	.030	.185	.096	.028	.171	.090	.027	
7.0	.204	.101	.029	.197	.098	.028	.183	.093	.027	.170	.087	.025	.158	.082	.024	
8.0	.190	.093	.026	.183	.090	.025	.170	.085	.024	.158	.080	.023	.147	.076	.022	
9.0	.177	.085	.024	.171	.083	.023	.159	.079	.022	.148	.074	.021	.138	.070	.020	
10.0	.165	.079	.022	.160	.077	.022	.149	.073	.021	.139	.069	.020	.129	.065	.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																
1.0	.336	.336	.336	.287	.287	.287	.196	.196	.196	.113	.113	.113	.036	.036	.036	
2.0	.332	.302	.275	.284	.259	.237	.194	.179	.164	.112	.103	.095	.036	.033	.031	
3.0	.325	.280	.241	.279	.241	.208	.191	.166	.145	.110	.097	.085	.035	.031	.028	
4.0	.318	.263	.219	.273	.227	.190	.187	.158	.133	.108	.092	.079	.035	.030	.026	
5.0	.310	.251	.205	.266	.217	.178	.183	.151	.125	.106	.088	.074	.034	.029	.024	
6.0	.303	.241	.195	.260	.208	.170	.179	.146	.120	.104	.085	.071	.033	.028	.023	
7.0	.295	.233	.188	.254	.202	.164	.175	.141	.116	.102	.083	.069	.033	.027	.023	
8.0	.288	.226	.183	.248	.196	.160	.171	.138	.113	.099	.081	.067	.032	.027	.022	
9.0	.281	.221	.179	.242	.192	.156	.168	.134	.111	.098	.079	.066	.032	.026	.022	
10.0	.275	.216	.176	.237	.187	.154	.164	.132	.109	.096	.078	.065	.031	.026	.022	
10.0	.269	.212	.174	.232	.184	.152	.161	.129	.108	.094	.077	.064	.030	.025	.021	

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:10 February 2026	Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.12V I:0.1451A P:16.363W PF:0.9388 Freq:59.98Hz										
Lamp Flux:1052.47x1 lm										
NAME: WS14-033B-BK 16W 30K					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	15.9	17.2	16.4	17.7	18.3	14.0	15.4	14.5	15.9	16.5
3H	18.7	20.0	19.3	20.5	21.2	15.6	16.8	16.1	17.4	18.0
4H	20.4	21.5	20.9	22.1	22.8	16.2	17.4	16.7	17.9	18.6
6H	22.1	23.3	22.7	23.9	24.5	16.6	17.7	17.2	18.3	19.0
8H	23.2	24.2	23.8	24.8	25.5	16.8	17.8	17.4	18.4	19.1
12H	24.3	25.4	24.9	26.0	26.7	16.8	17.9	17.5	18.5	19.2
4H 2H	16.4	17.6	17.0	18.2	18.8	15.1	16.3	15.6	16.8	17.5
3H	19.5	20.5	20.1	21.1	21.8	16.9	17.9	17.5	18.6	19.3
4H	21.2	22.2	21.9	22.8	23.6	17.7	18.7	18.4	19.3	20.0
6H	23.2	24.1	23.9	24.8	25.5	18.4	19.2	19.0	19.9	20.7
8H	24.4	25.2	25.0	25.8	26.6	18.6	19.4	19.3	20.1	20.9
12H	25.7	26.4	26.4	27.1	27.9	18.8	19.5	19.5	20.2	21.0
8H 4H	21.5	22.3	22.2	23.0	23.8	18.7	19.5	19.4	20.2	20.9
6H	23.8	24.5	24.5	25.2	26.0	19.7	20.4	20.4	21.1	21.9
8H	25.1	25.7	25.8	26.4	27.3	20.2	20.8	20.9	21.5	22.3
12H	26.7	27.2	27.4	27.9	28.8	20.6	21.1	21.3	21.8	22.7
12H 4H	21.5	22.3	22.2	23.0	23.8	19.0	19.7	19.7	20.4	21.2
6H	23.9	24.5	24.6	25.2	26.0	20.2	20.8	21.0	21.6	22.4
8H	25.3	25.8	26.0	26.6	27.4	20.9	21.4	21.6	22.1	23.0
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 / - 0.2					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.4				

CIE Pub.117, 1052 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.2)
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:10 February 2026	Remarks:

UTILIZATION FACTORS TABLE

Test:U:120.12V I:0.1451A P:16.363W PF:0.9388 Freq:59.98Hz Lamp Flux:1052.47x1 lm		
NAME: WS14-033B-BK 16W 30K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

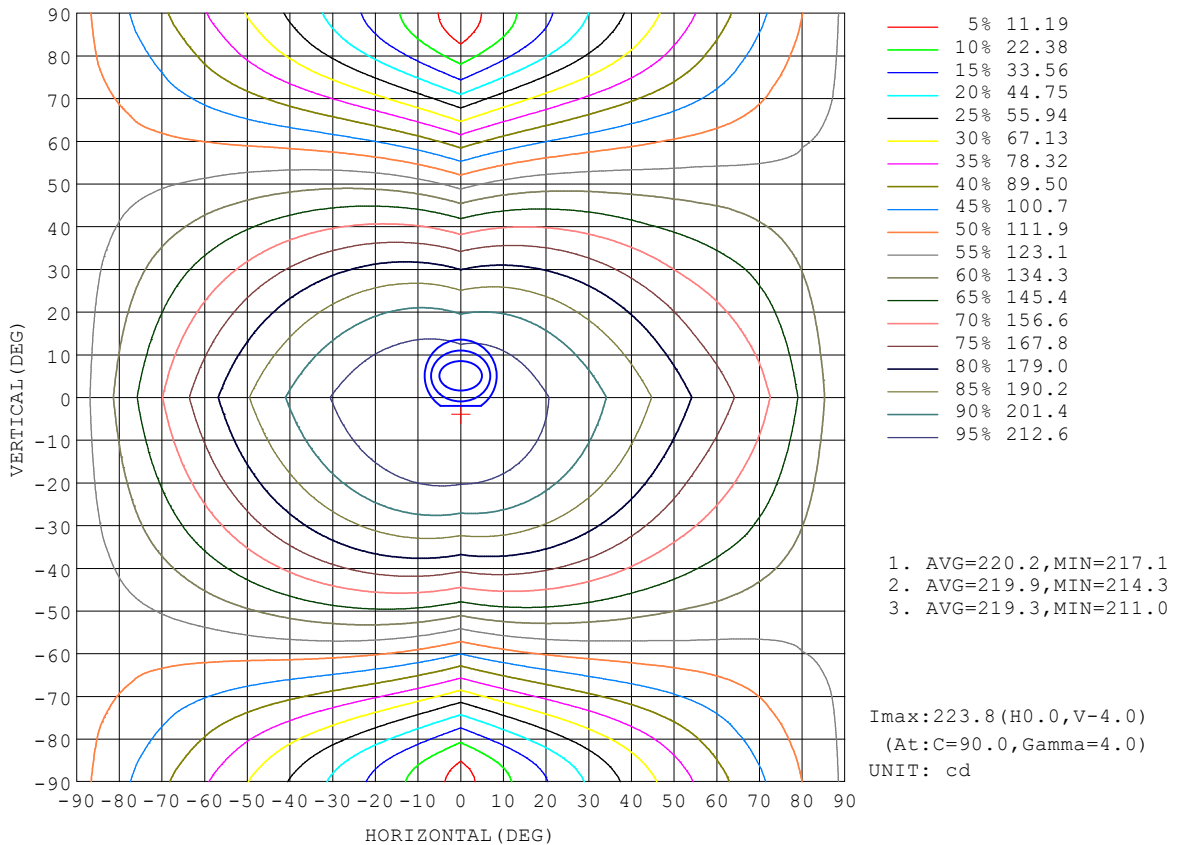
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	47	35	28	46	35	28	44	34	27	20
0.80	57	44	36	55	43	35	52	41	34	26
1.00	64	51	43	62	50	42	59	51	41	32
1.25	71	59	50	69	57	49	64	55	48	38
1.50	76	64	56	74	63	55	69	59	52	42
2.00	84	73	64	81	70	63	75	66	60	48
2.50	88	78	70	85	76	68	78	71	65	52
3.00	92	83	75	88	80	73	81	75	69	55
4.00	97	89	82	93	86	80	85	80	75	60
5.00	100	93	87	95	89	84	88	83	78	63
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:0.1451A P:16.363W PF:0.9388 Freq:59.98Hz Lamp Flux:1052.47x1 lm		
NAME: WS14-033B-BK 16W 30K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

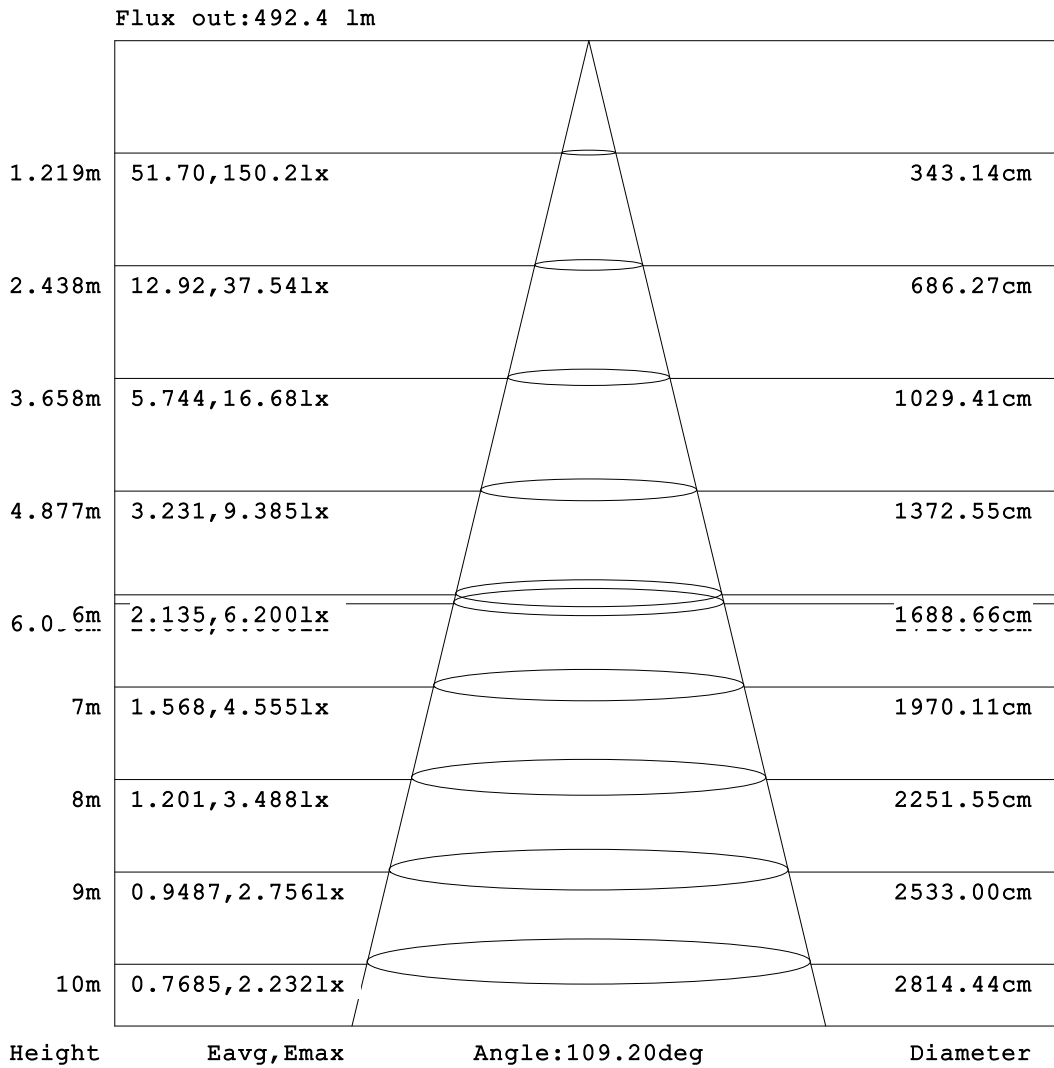


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3 °C
Operators: DAMIN
Test Date: 10 February 2026

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:120.12V I:0.1451A P:16.363W PF:0.9388 Freq:59.98Hz Lamp Flux:1052.47x1 lm		
NAME: WS14-033B-BK 16W 30K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:



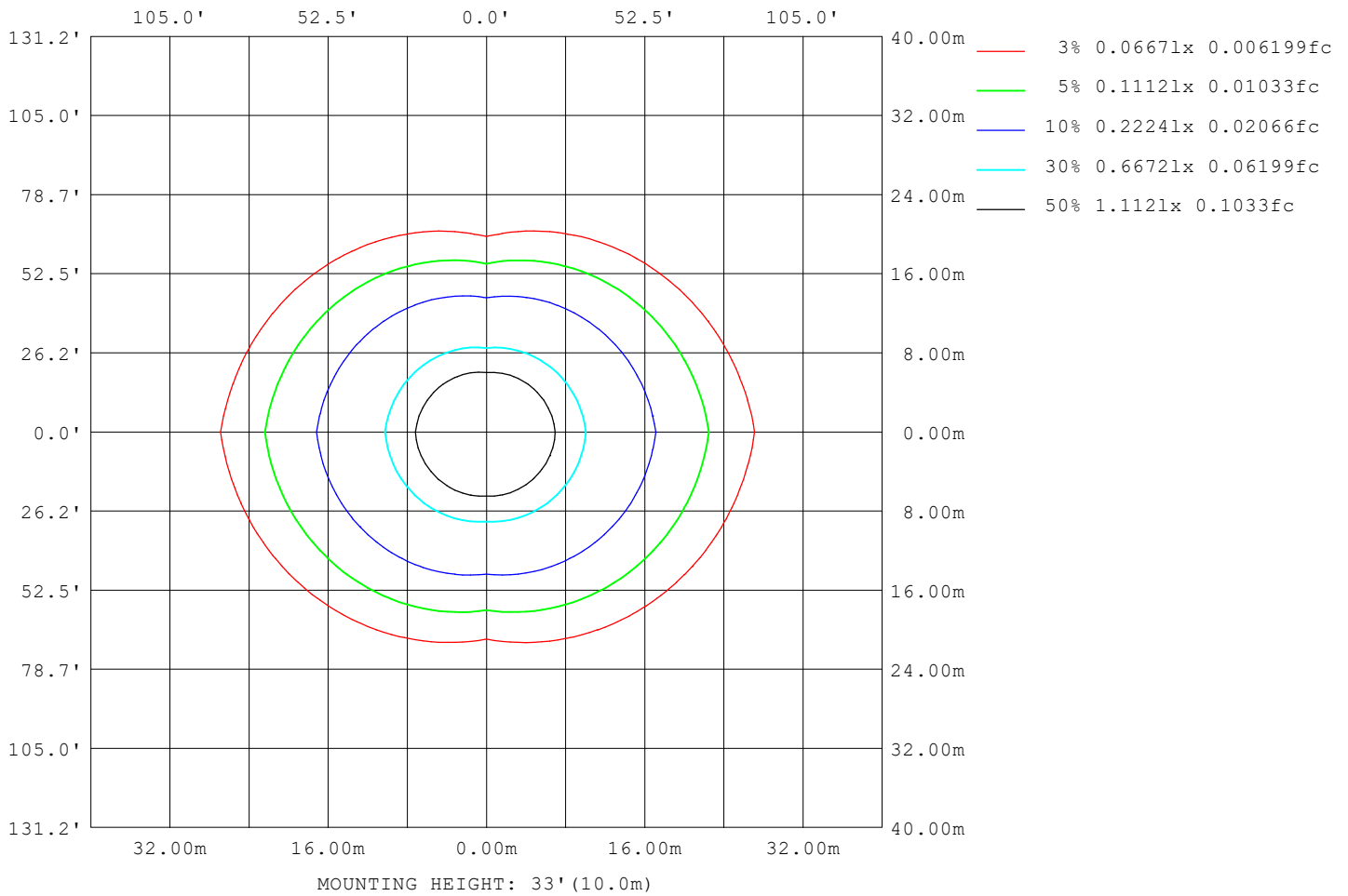
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:DAMIN
Test Date: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:0.1451A P:16.363W PF:0.9388 Freq:59.98Hz Lamp Flux:1052.47x1 lm		
NAME: WS14-033B-BK 16W 30K	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:0.1451A P:16.363W PF:0.9388 Freq:59.98Hz Lamp Flux:1052.47x1 lm		
NAME: WS14-033B-BK 16W 30K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

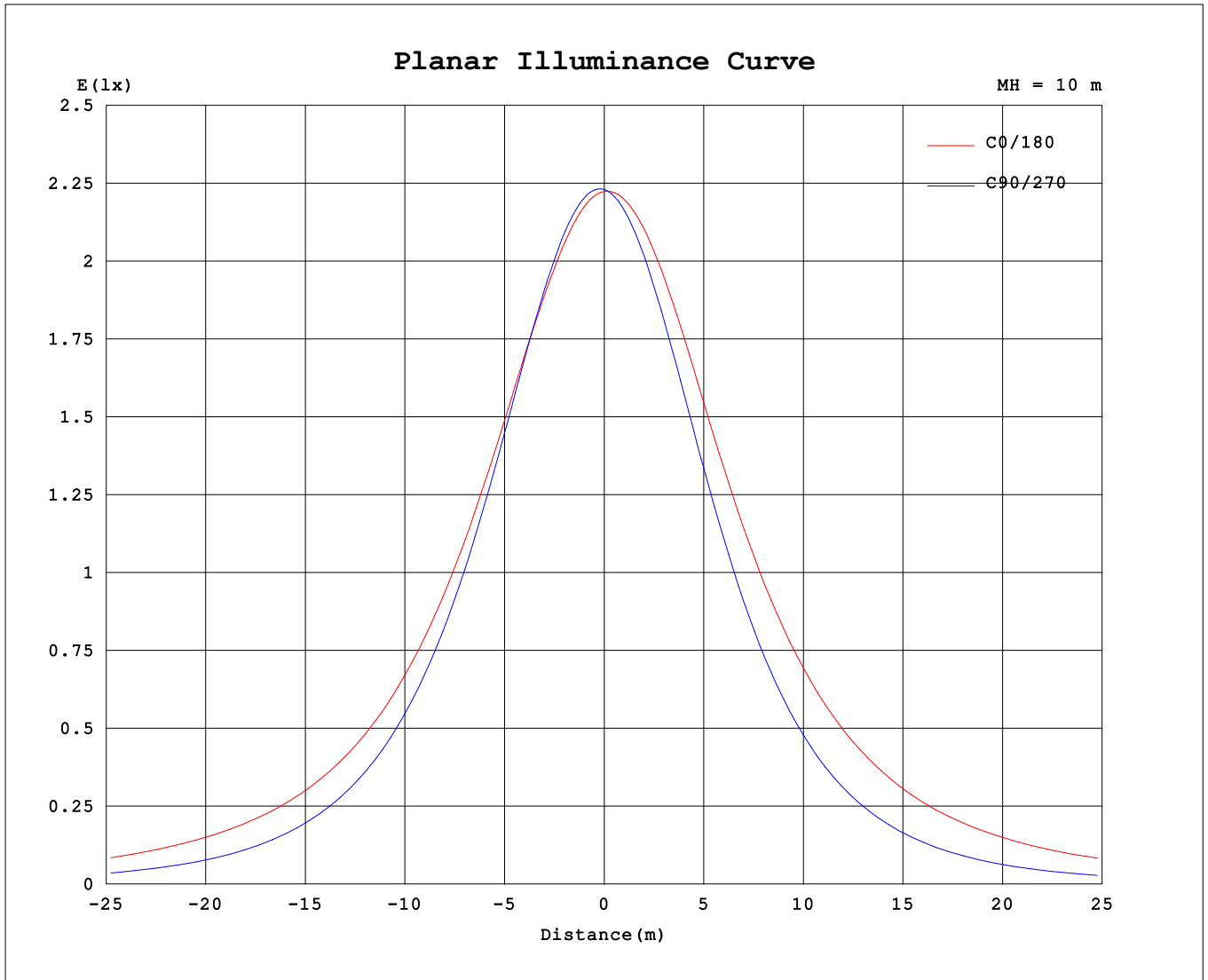
AvgL	cd/m2
L_0~180 (65) av	3930
L_0~180 (75) av	5786
L_0~180 (85) av	15017
L_90~270 (65) av	1739
L_90~270 (75) av	1424
L_90~270 (85) av	1099
L_45 (65) av	2560
L_45 (75) av	3053
L_45 (85) av	6290

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:0.1451A P:16.363W PF:0.9388 Freq:59.98Hz Lamp Flux:1052.47x1 lm		
NAME: WS14-033B-BK 16W 30K	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	222	223	222	223															
5	221	224	223	220															
10	219	222	223	215															
15	216	219	222	209															
20	213	213	220	200															
25	209	205	217	190															
30	205	196	213	179															
35	201	184	208	166															
40	196	170	203	151															
45	190	155	196	135															
50	184	138	189	119															
55	178	120	182	102															
60	172	101	174	83.7															
65	167	81.3	165	65.7															
70	161	61.5	156	48.0															
75	153	42.3	147	31.4															
80	144	25.1	137	17.1															
85	135	11.7	127	7.49															
90	125	6.68	116	4.65															
95	114	6.36	100	5.00															
100	81.5	7.03	55.2	4.82															
105	61.5	7.77	52.3	4.79															
110	78.2	8.45	68.2	5.33															
115	72.2	9.28	61.2	6.01															
120	65.3	10.2	54.6	6.39															
125	58.3	11.2	48.2	6.25															
130	51.6	12.2	42.4	5.28															
135	45.5	13.1	37.1	4.80															
140	40.0	14.0	32.4	5.99															
145	34.1	14.8	25.0	5.68															
150	15.5	15.5	13.2	4.92															
155	14.2	16.1	12.4	4.97															
160	13.4	15.4	11.9	5.07															
165	14.8	14.0	13.1	5.18															
170	13.7	12.7	12.2	6.41															
175	11.5	13.3	11.5	9.06															
180	12.2	12.1	12.1	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: