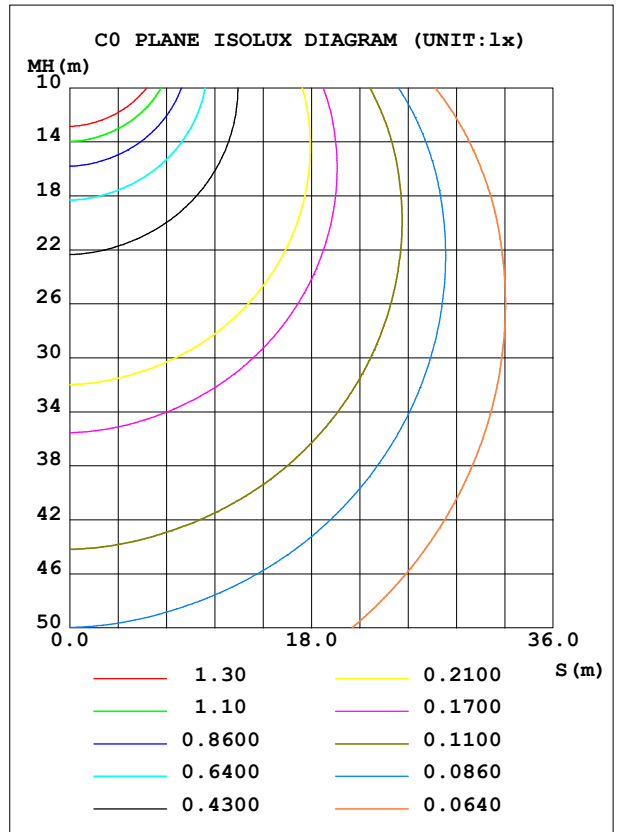
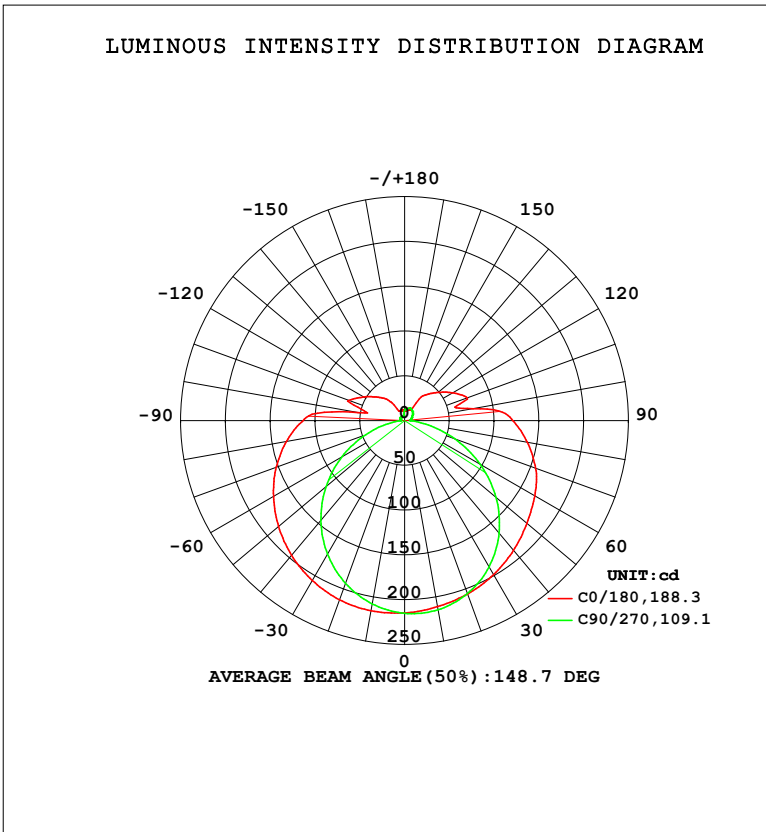


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.06V I:0.1447A P:16.292W PF:0.9380 Freq:59.98Hz Lamp Flux:1018.57x1 lm		
NAME: WS14-033B-BK 16W 50K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 62.52 lm/W
MODEL	5000K	I <sub>max</sub> (cd)	215.9	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)	1018.6	η UP, DN (C0-180)	10.6, 41.4	
NOMINAL FLUX (lm)	1018.57	CIE CLASS	SEMI-D.	η UP, DN (C180-360)	8.5, 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:

$\gamma$	C0	C90	C180	C270				$\gamma$	$\Phi$ zone	$\Phi$ total	%lum,lamp
10	211.0	214.4	215.6	207.8				0- 10	20.39	20.39	2,2
20	206.0	205.6	212.9	193.2				10- 20	59.06	79.44	7.8,7.8
30	198.7	188.7	206.2	172.2				20- 30	91.62	171.1	16.8,16.8
40	189.2	164.1	196.4	145.6				30- 40	114.7	285.8	28.1,28.1
50	178.4	133.2	183.9	114.5				40- 50	126.3	412.1	40.5,40.5
60	168.0	97.39	169.0	80.65				50- 60	126.1	538.2	52.8,52.8
70	155.7	59.32	152.4	46.36				60- 70	115.3	653.4	64.1,64.1
80	139.1	24.23	133.9	16.57				70- 80	95.82	749.2	73.6,73.6
90	120.9	6.461	113.5	4.803				80- 90	75.04	824.3	80.9,80.9
100	77.71	6.827	53.04	4.988				90-100	57.12	881.4	86.5,86.5
110	74.69	8.215	66.32	5.328				100-110	34.98	916.4	90,90
120	62.17	9.913	53.02	6.312				110-120	35.60	952.0	93.5,93.5
130	49.17	11.88	41.22	5.295				120-130	26.84	978.8	96.1,96.1
140	38.11	13.71	31.61	6.067				130-140	19.01	997.8	98,98
150	14.55	15.12	12.77	4.954				140-150	11.27	1009	99.1,99.1
160	12.70	14.94	11.56	5.085				150-160	5.325	1014	99.6,99.6
170	13.19	12.28	11.87	6.251				160-170	3.150	1018	99.9,99.9
180	11.84	11.70	11.88	11.75				170-180	1.030	1019	100,100
DEG	LUMINOUS INTENSITY:cd								UNIT:lm		

Conical surface Flux(90deg): 348.23 lm

%lum = 34.2%

%lamp = 34.2%

Conical surface Flux(120deg): 538.16 lm

%lum = 52.8%

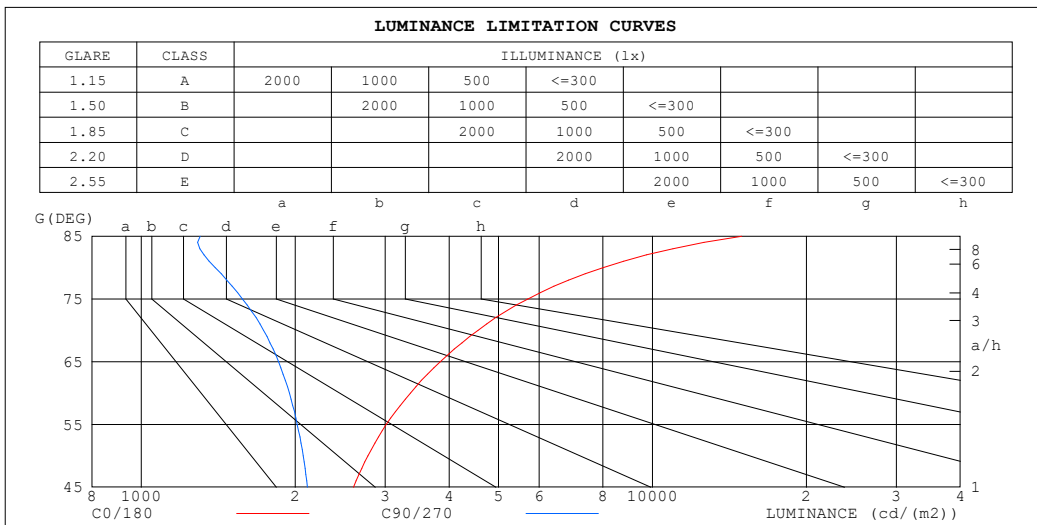
%lamp = 52.8%

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:DAMIN  
 Test Date:10 February 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:120.06V I:0.1447A P:16.292W PF:0.9380 Freq:59.98Hz Lamp Flux:1018.57x1 lm		
NAME: WS14-033B-BK 16W 50K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	14952	1303
80	8012	1396
75	5702	1578
70	4554	1734
65	3846	1855
60	3360	1948
55	3014	2018
50	2775	2072
45	2600	2113

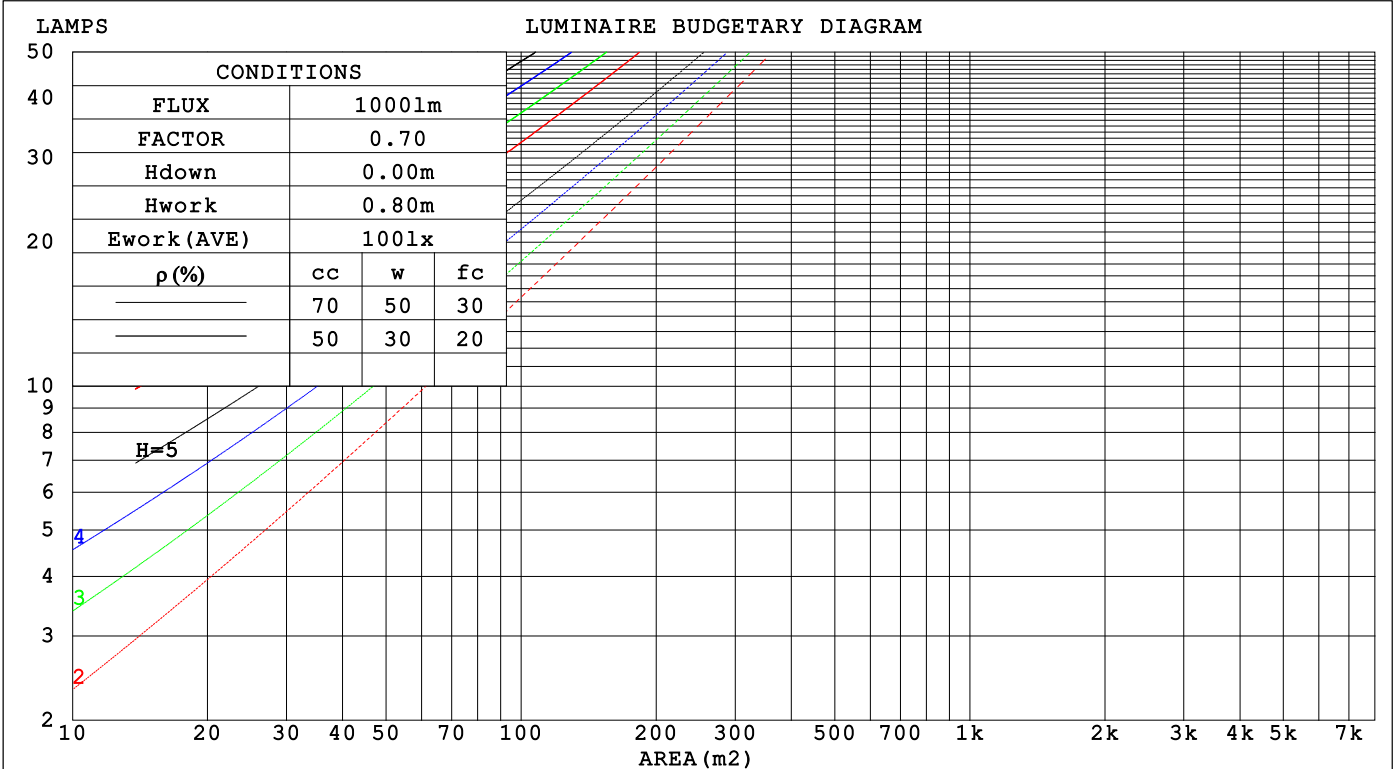
C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:DAMIN  
 Test Date:10 February 2026

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:120.06V I:0.1447A P:16.292W PF:0.9380 Freq:59.98Hz Lamp Flux:1018.57x1 lm		
NAME: WS14-033B-BK 16W 50K	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	1.01	1.01	1.01	.92	.92	.92	.85	.85	.85	.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	.24
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	.28	.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:120.06V I:0.1447A P:16.292W PF:0.9380 Freq:59.98Hz Lamp Flux:1018.57x1 lm		
NAME: WS14-033B-BK 16W 50K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

ρ <sub>CC</sub>	80%			70%			50%			30%			10%			0
ρ <sub>w</sub>	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ <sub>fc</sub>	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.384	.218	.069	.371	.212	.067	.347	.199	.063	.324	.187	.060	.303	.176	.057	
2.0	.333	.182	.056	.321	.177	.054	.299	.166	.052	.278	.156	.049	.260	.147	.046	
3.0	.296	.157	.047	.285	.153	.046	.265	.144	.044	.247	.135	.041	.229	.127	.039	
4.0	.266	.138	.041	.257	.134	.040	.238	.126	.038	.222	.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	.172	.090	.027	
7.0	.205	.101	.029	.197	.098	.028	.184	.093	.027	.171	.087	.025	.158	.082	.024	
8.0	.190	.093	.026	.183	.090	.025	.170	.085	.024	.159	.080	.023	.147	.076	.022	
9.0	.177	.086	.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 <sub>CC</sub>	80%			70%			50%			30%			10%			0
ρ <sub>w</sub>	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ <sub>fc</sub>	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.336	.336	.336	.287	.287	.287	.196	.196	.196	.113	.113	.113	.036	.036	.036	
1.0	.332	.302	.275	.284	.259	.237	.194	.178	.164	.112	.103	.095	.036	.033	.031	
2.0	.325	.279	.241	.279	.240	.208	.191	.166	.145	.110	.097	.085	.035	.031	.028	
3.0	.318	.263	.219	.272	.227	.190	.187	.157	.133	.108	.092	.078	.035	.030	.026	
4.0	.310	.250	.205	.266	.216	.178	.183	.151	.125	.106	.088	.074	.034	.029	.024	
5.0	.302	.241	.195	.260	.208	.170	.179	.145	.120	.104	.085	.071	.033	.028	.023	
6.0	.295	.233	.188	.254	.201	.164	.175	.141	.116	.101	.083	.069	.033	.027	.023	
7.0	.288	.226	.183	.248	.196	.159	.171	.137	.113	.099	.081	.067	.032	.026	.022	
8.0	.281	.220	.179	.242	.191	.156	.167	.134	.111	.097	.079	.066	.032	.026	.022	
9.0	.275	.216	.176	.237	.187	.153	.164	.132	.109	.096	.078	.065	.031	.026	.022	
10.0	.269	.212	.173	.232	.184	.151	.161	.129	.107	.094	.076	.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:120.06V I:0.1447A P:16.292W PF:0.9380 Freq:59.98Hz										
Lamp Flux:1018.57x1 lm										
NAME: WS14-033B-BK 16W 50K					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	17.8	18.4	14.0	15.4	14.5	15.9	16.5
3H	18.8	20.0	19.3	20.6	21.2	15.5	16.8	16.1	17.4	18.0
4H	20.4	21.6	20.9	22.1	22.8	16.2	17.4	16.7	17.9	18.6
6H	22.2	23.3	22.8	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	16.7	17.8	17.3	18.4	19.1
12H	24.3	25.4	24.9	26.0	26.7	16.8	17.9	17.4	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	21.3	22.2	21.9	22.8	23.6	17.7	18.7	18.3	19.3	20.0
6H	23.2	24.1	23.9	24.8	25.5	18.4	19.2	19.0	19.9	20.6
8H	24.4	25.2	25.0	25.9	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					+ 0.3 / - 0.4				

CIE Pub.117, 1019 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.1)  
 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:120.06V I:0.1447A P:16.292W PF:0.9380 Freq:59.98Hz Lamp Flux:1018.57x1 lm		
NAME: WS14-033B-BK 16W 50K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

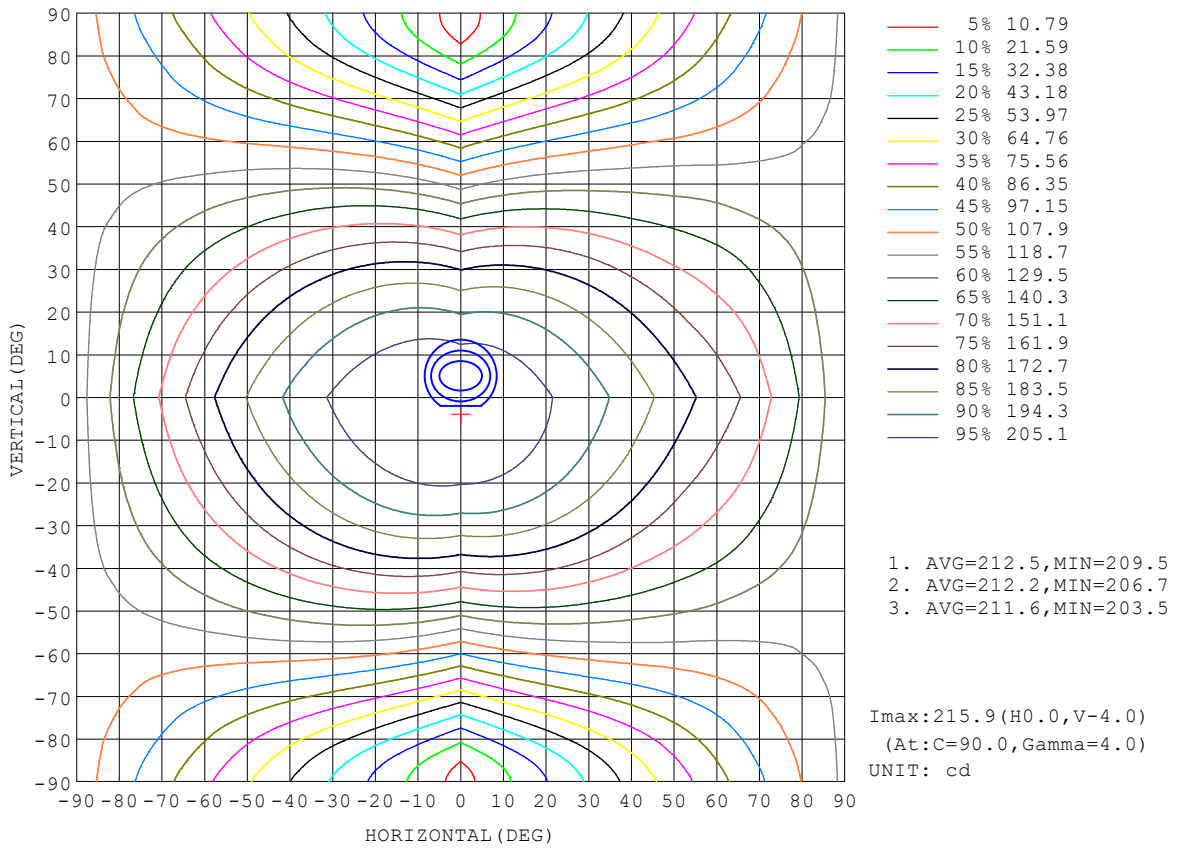
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	47	35	28	46	35	28	44	34	27	20
0.80	57	44	36	55	43	35	52	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	47	38
1.50	76	64	56	74	62	55	69	59	52	42
2.00	84	73	64	81	70	63	75	66	60	48
2.50	88	78	70	85	75	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

$\gamma$  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:120.06V I:0.1447A P:16.292W PF:0.9380 Freq:59.98Hz Lamp Flux:1018.57x1 lm		
NAME: WS14-033B-BK 16W 50K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

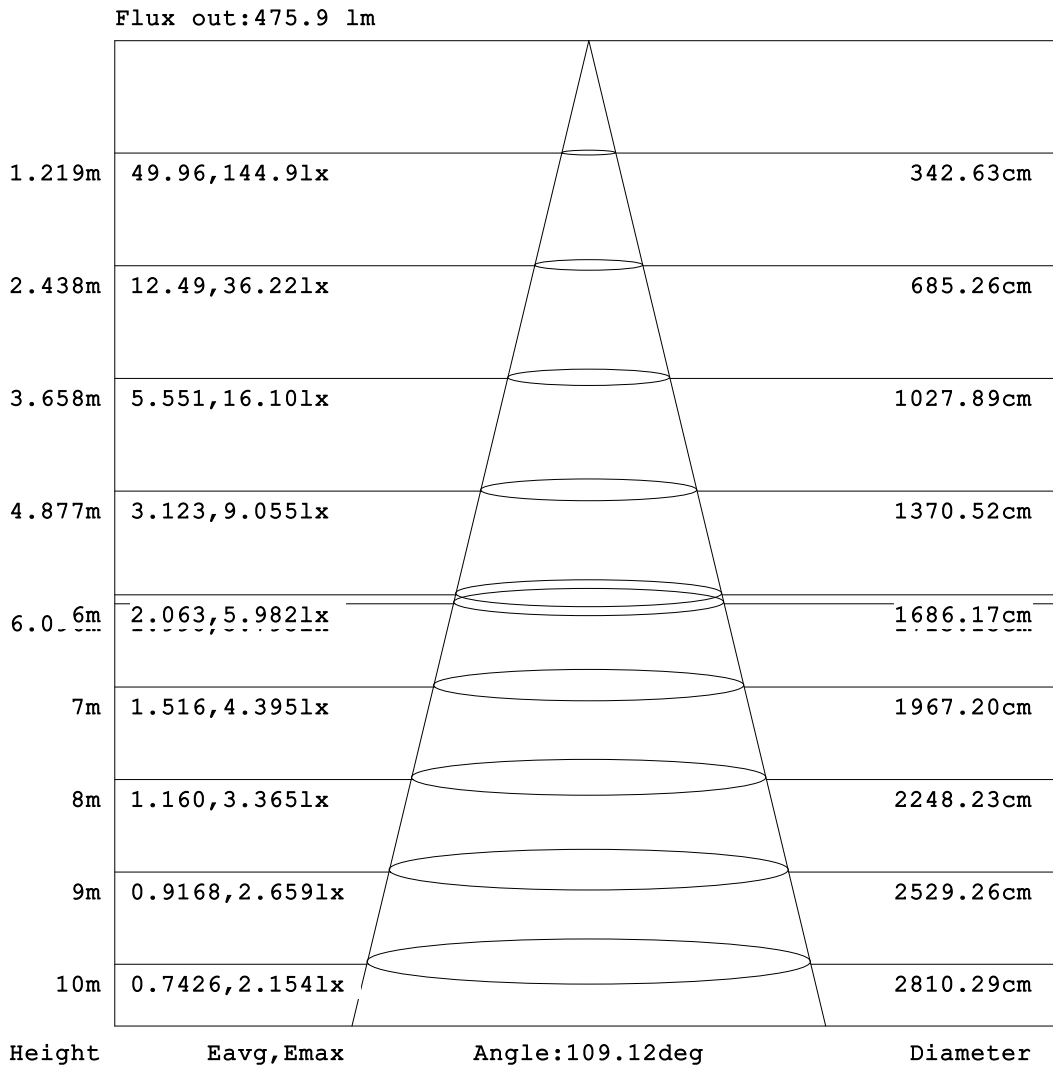


C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:DAMIN  
Test Date:10 February 2026

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:120.06V I:0.1447A P:16.292W PF:0.9380 Freq:59.98Hz Lamp Flux:1018.57x1 lm		
NAME: WS14-033B-BK 16W 50K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:



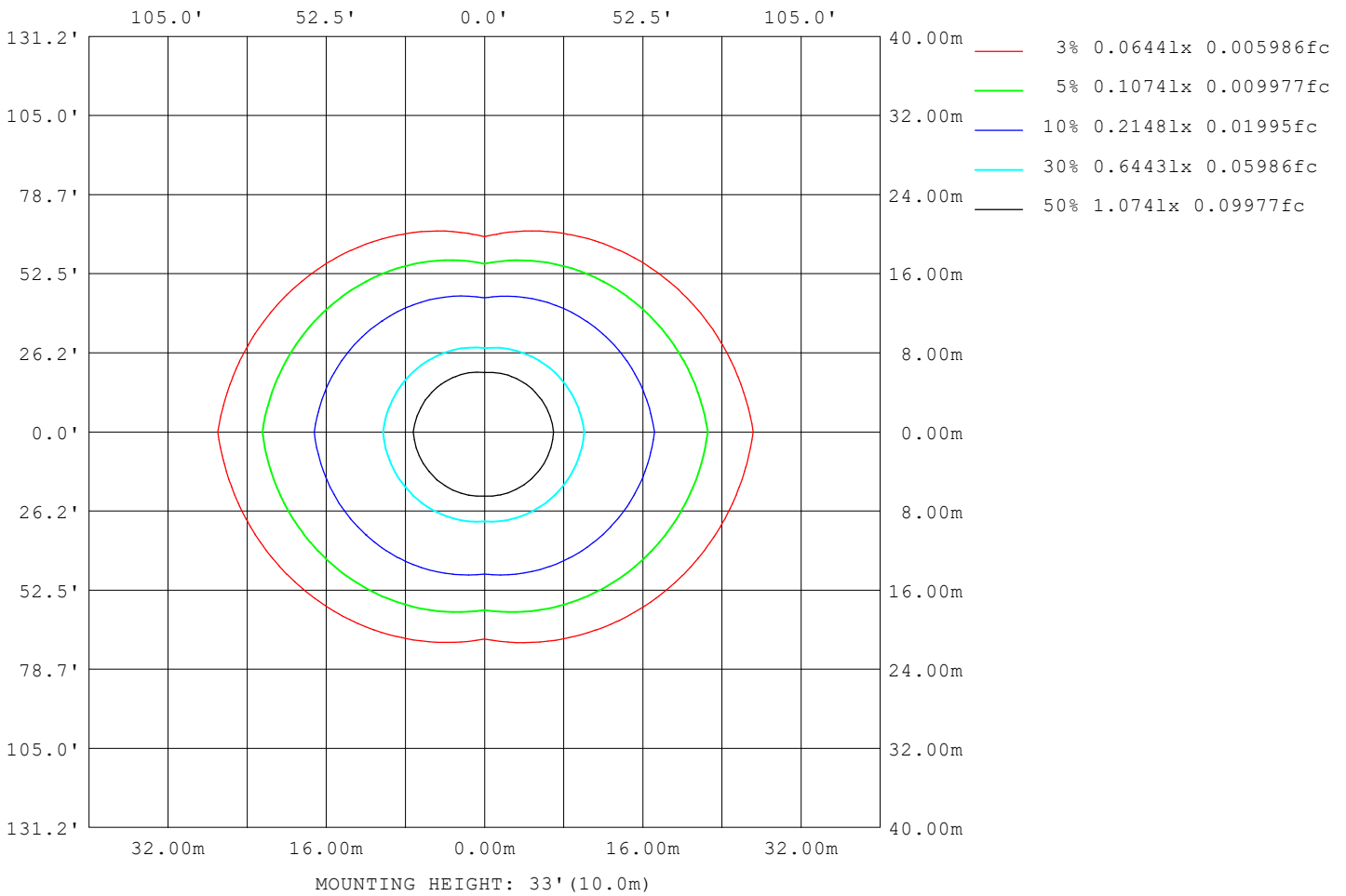
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:120.06V I:0.1447A P:16.292W PF:0.9380 Freq:59.98Hz Lamp Flux:1018.57x1 lm		
NAME: WS14-033B-BK 16W 50K	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:120.06V I:0.1447A P:16.292W PF:0.9380 Freq:59.98Hz Lamp Flux:1018.57x1 lm		
NAME: WS14-033B-BK 16W 50K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

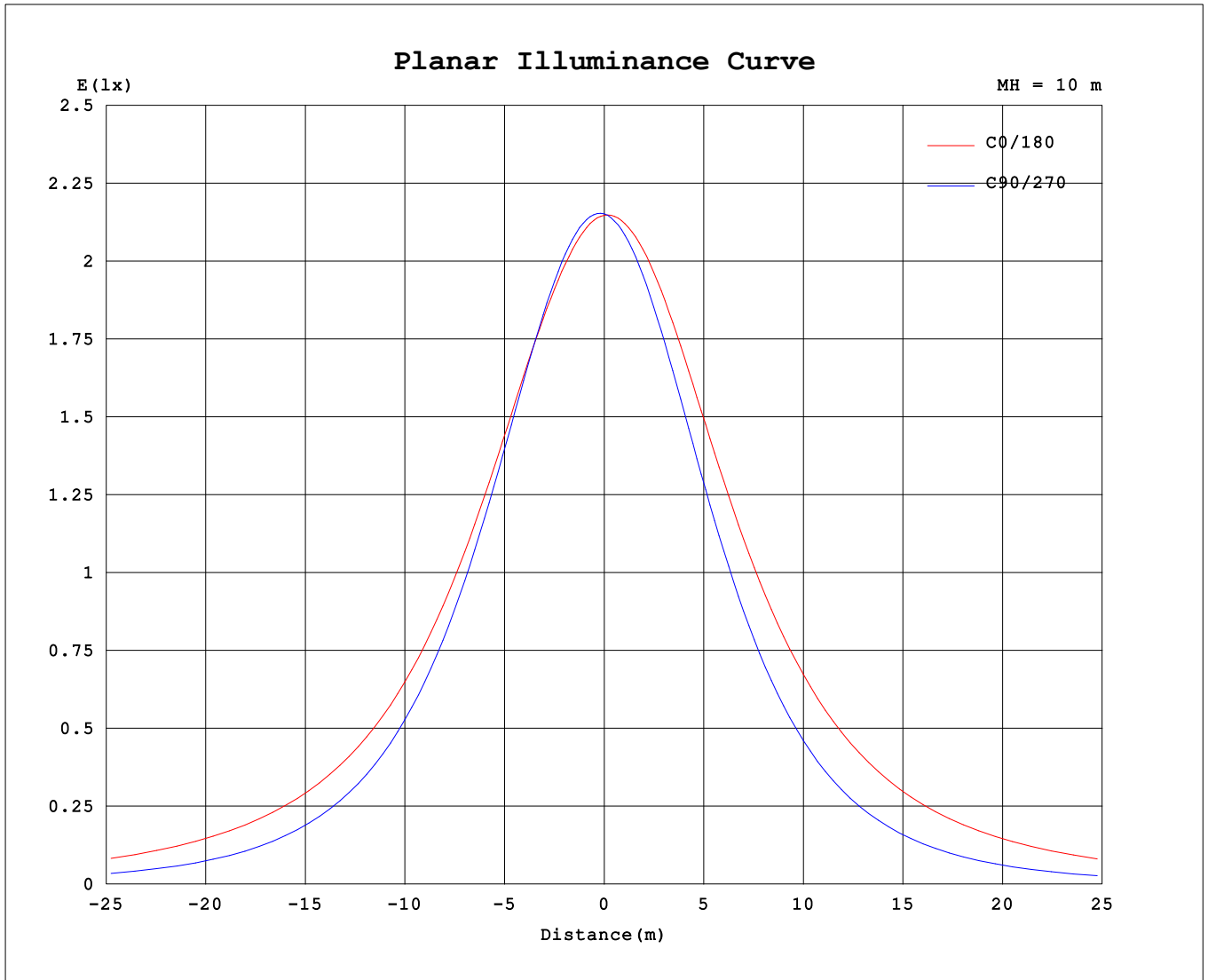
AvgL	cd/m2
L_0~180 (65) av	3829
L_0~180 (75) av	5621
L_0~180 (85) av	14595
L_90~270 (65) av	1677
L_90~270 (75) av	1375
L_90~270 (85) av	1067
L_45 (65) av	2483
L_45 (75) av	2962
L_45 (85) av	6118

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:120.06V I:0.1447A P:16.292W PF:0.9380 Freq:59.98Hz Lamp Flux:1018.57x1 lm		
NAME: WS14-033B-BK 16W 50K	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	215	215	215	215															
5	213	216	215	213															
10	211	214	216	208															
15	209	211	215	201															
20	206	206	213	193															
25	203	198	210	183															
30	199	189	206	172															
35	194	177	202	160															
40	189	164	196	146															
45	184	149	190	131															
50	178	133	184	115															
55	173	116	177	97.8															
60	168	97.4	169	80.6															
65	163	78.4	161	63.4															
70	156	59.3	152	46.4															
75	148	40.8	143	30.3															
80	139	24.2	134	16.6															
85	130	11.4	124	7.24															
90	121	6.46	113	4.80															
95	110	6.20	97.8	5.22															
100	77.7	6.83	53.0	4.99															
105	58.1	7.55	50.6	4.80															
110	74.7	8.22	66.3	5.33															
115	68.9	9.01	59.5	5.91															
120	62.2	9.91	53.0	6.31															
125	55.4	11.0	46.9	6.23															
130	49.2	11.9	41.2	5.30															
135	43.3	12.8	36.2	4.82															
140	38.1	13.7	31.6	6.07															
145	32.6	14.4	24.4	5.70															
150	14.5	15.1	12.8	4.95															
155	13.4	15.7	12.0	5.00															
160	12.7	14.9	11.6	5.09															
165	14.1	13.5	12.8	5.21															
170	13.2	12.3	11.9	6.25															
175	11.0	12.9	11.1	8.73															
180	11.8	11.7	11.9	11.7															

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: