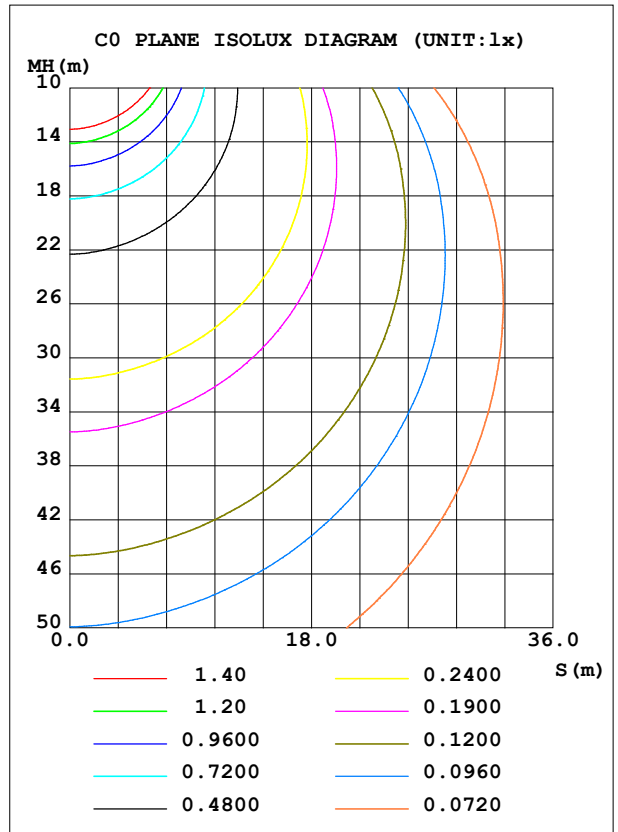
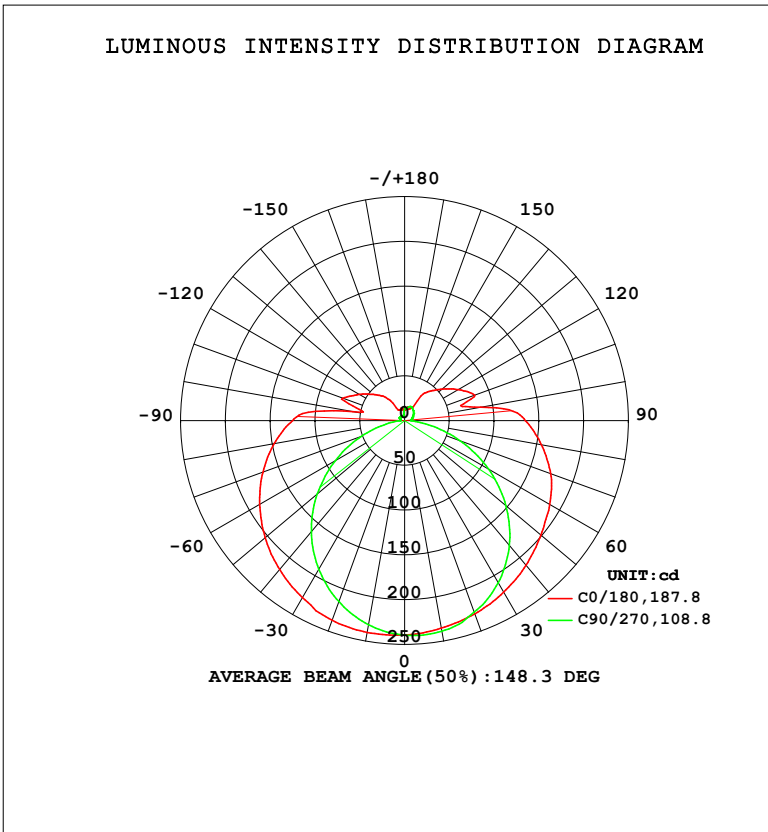


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.07V I:0.1467A P:16.580W PF:0.9415 Freq:59.98Hz Lamp Flux:1131.35x1 lm		
NAME: WS14-033B-BK 16W 40K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 68.23 lm/W
MODEL	4000K	I _{max} (cd)	240.4	S/MH (C0/180)	1.43	
NOMINAL POWER (W)	16	LOR (%)	100.0	S/MH (C90/270)	1.20	
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	1131.3	η UP, DN (C0-180)	10.7, 41.5	
NOMINAL FLUX (lm)	1131.35	CIE CLASS	SEMI-D.	η UP, DN (C180-360)	8.4, 39.4	
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	235.3	238.8	240.1	231.5					0- 10	22.71	22.71	2.01,2.01
20	229.6	227.6	237.1	215.0					10- 20	65.75	88.46	7.82,7.82
30	221.3	209.1	228.2	191.8					20- 30	101.8	190.3	16.8,16.8
40	210.9	182.0	217.2	162.2					30- 40	127.4	317.7	28.1,28.1
50	198.7	147.8	203.3	127.7					40- 50	140.3	458.0	40.5,40.5
60	187.2	108.0	186.8	89.30					50- 60	139.8	597.8	52.8,52.8
70	173.6	65.86	168.3	51.35					60- 70	127.8	725.7	64.1,64.1
80	155.1	26.96	147.7	18.42					70- 80	106.3	832.0	73.5,73.5
90	135.0	7.308	125.2	5.252					80- 90	83.31	915.3	80.9,80.9
100	86.67	7.701	58.89	5.464					90-100	63.38	978.7	86.5,86.5
110	83.31	9.244	73.40	5.869					100-110	38.97	1018	90,90
120	69.37	11.11	58.70	6.962					110-120	39.58	1057	93.4,93.4
130	54.89	13.27	45.59	5.852					120-130	29.83	1087	96.1,96.1
140	42.53	15.30	34.96	6.689					130-140	21.13	1108	98,98
150	16.44	16.86	14.23	5.441					140-150	12.54	1121	99.1,99.1
160	14.30	16.70	12.89	5.603					150-160	5.951	1127	99.6,99.6
170	14.80	13.73	13.22	6.943					160-170	3.519	1130	99.9,99.9
180	13.29	13.11	13.10	13.00					170-180	1.150	1131	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 387.06 lm

%lum = 34.2%

%lamp = 34.2%

Conical surface Flux(120deg): 597.82 lm

%lum = 52.8%

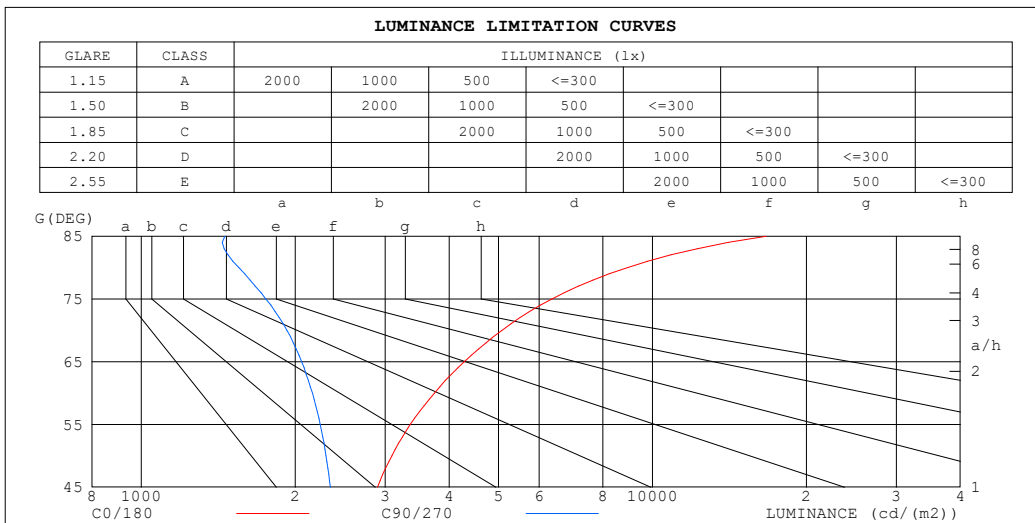
%lamp = 52.8%

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

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:120.07V I:0.1467A P:16.580W PF:0.9415 Freq:59.98Hz Lamp Flux:1131.35x1 lm		
NAME: WS14-033B-BK 16W 40K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	16678	1456
80	8930	1552
75	6357	1753
70	5077	1926
65	4284	2058
60	3743	2161
55	3359	2239
50	3091	2299
45	2897	2343

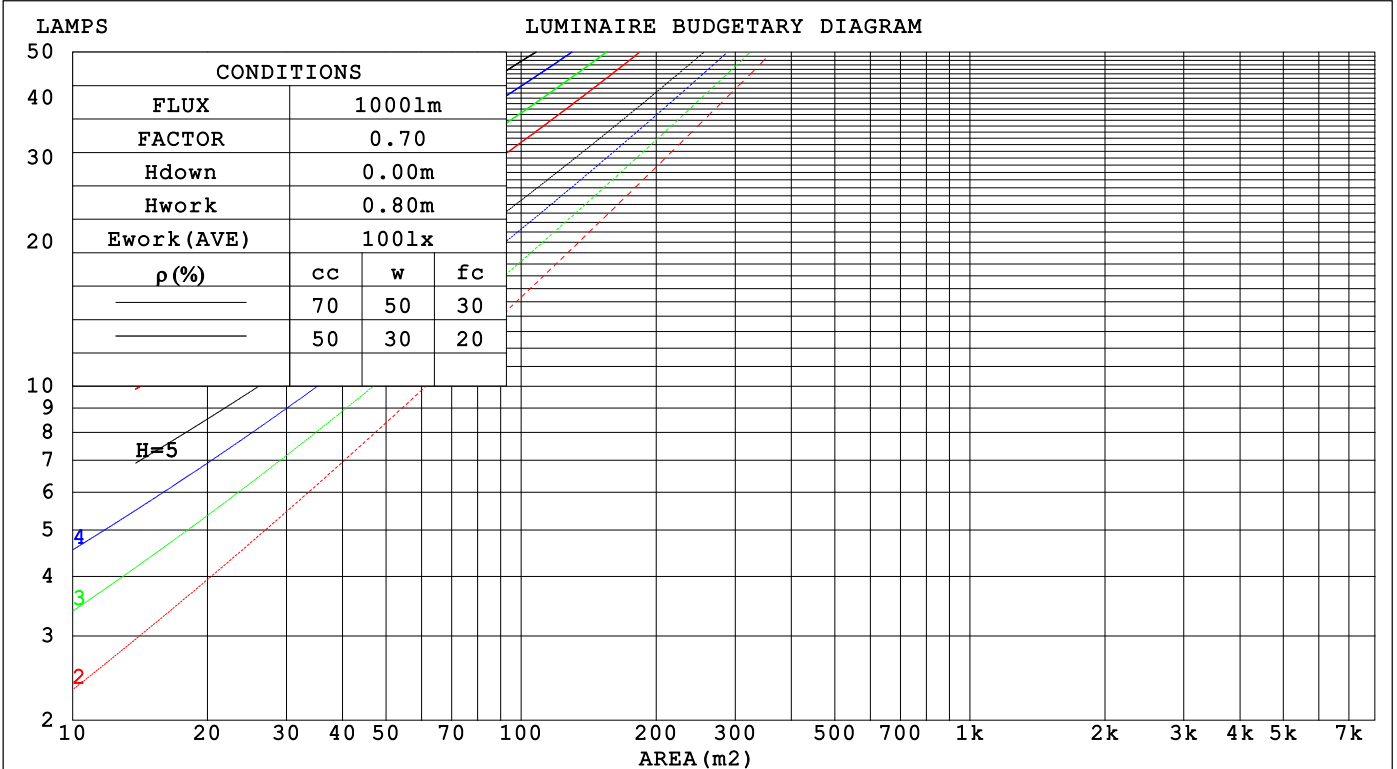
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3 °C
 Operators: DAMIN
 Test Date: 10 February 2026

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:120.07V I:0.1467A P:16.580W PF:0.9415 Freq:59.98Hz Lamp Flux:1131.35x1 lm		
NAME: WS14-033B-BK 16W 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	1.15	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	.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:120.07V I:0.1467A P:16.580W PF:0.9415 Freq:59.98Hz Lamp Flux:1131.35x1 lm		
NAME: WS14-033B-BK 16W 40K	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	.384	.218	.069	.371	.212	.067	.346	.199	.063	.324	.187	.060	.303	.176	.057	
2.0	.333	.182	.056	.321	.177	.054	.299	.166	.052	.278	.156	.049	.259	.147	.046	
3.0	.296	.157	.047	.285	.153	.046	.265	.144	.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	.171	.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	.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	.241	.208	.191	.166	.145	.110	.097	.085	.035	.031	.028	
3.0	.318	.263	.219	.273	.227	.190	.187	.158	.133	.108	.092	.079	.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	.202	.164	.175	.141	.116	.102	.083	.069	.033	.027	.023	
7.0	.288	.226	.183	.248	.196	.159	.171	.137	.113	.099	.081	.067	.032	.027	.022	
8.0	.281	.221	.179	.242	.191	.156	.168	.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	.108	.094	.076	.064	.030	.025	.021	

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:120.07V I:0.1467A P:16.580W PF:0.9415 Freq:59.98Hz										
Lamp Flux:1131.35x1 lm										
NAME: WS14-033B-BK 16W 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	15.9	17.3	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	21.0	22.2	22.8	16.2	17.4	16.7	17.9	18.6
6H	22.2	23.3	22.8	23.9	24.6	16.6	17.7	17.2	18.3	19.0
8H	23.2	24.3	23.8	24.9	25.6	16.7	17.8	17.3	18.4	19.1
12H	24.3	25.4	25.0	26.0	26.7	16.8	17.9	17.5	18.5	19.2
4H 2H	16.5	17.6	17.0	18.2	18.9	15.1	16.3	15.6	16.8	17.5
3H	19.5	20.6	20.1	21.2	21.9	16.9	17.9	17.5	18.6	19.3
4H	21.3	22.2	21.9	22.9	23.6	17.7	18.7	18.4	19.3	20.0
6H	23.3	24.1	23.9	24.8	25.6	18.4	19.2	19.0	19.9	20.7
8H	24.4	25.2	25.1	25.9	26.7	18.6	19.4	19.3	20.1	20.9
12H	25.7	26.5	26.4	27.1	27.9	18.8	19.5	19.5	20.2	21.0
8H 4H	21.6	22.4	22.2	23.0	23.8	18.7	19.5	19.4	20.2	21.0
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	25.9	26.5	27.3	20.2	20.8	20.9	21.5	22.3
12H	26.7	27.2	27.4	28.0	28.8	20.6	21.1	21.3	21.8	22.7
12H 4H	21.6	22.3	22.3	23.0	23.8	19.0	19.8	19.7	20.4	21.2
6H	23.9	24.5	24.6	25.2	26.1	20.3	20.9	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, 1131 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.4)
 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:120.07V I:0.1467A P:16.580W PF:0.9415 Freq:59.98Hz Lamp Flux:1131.35x1 lm		
NAME: WS14-033B-BK 16W 40K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

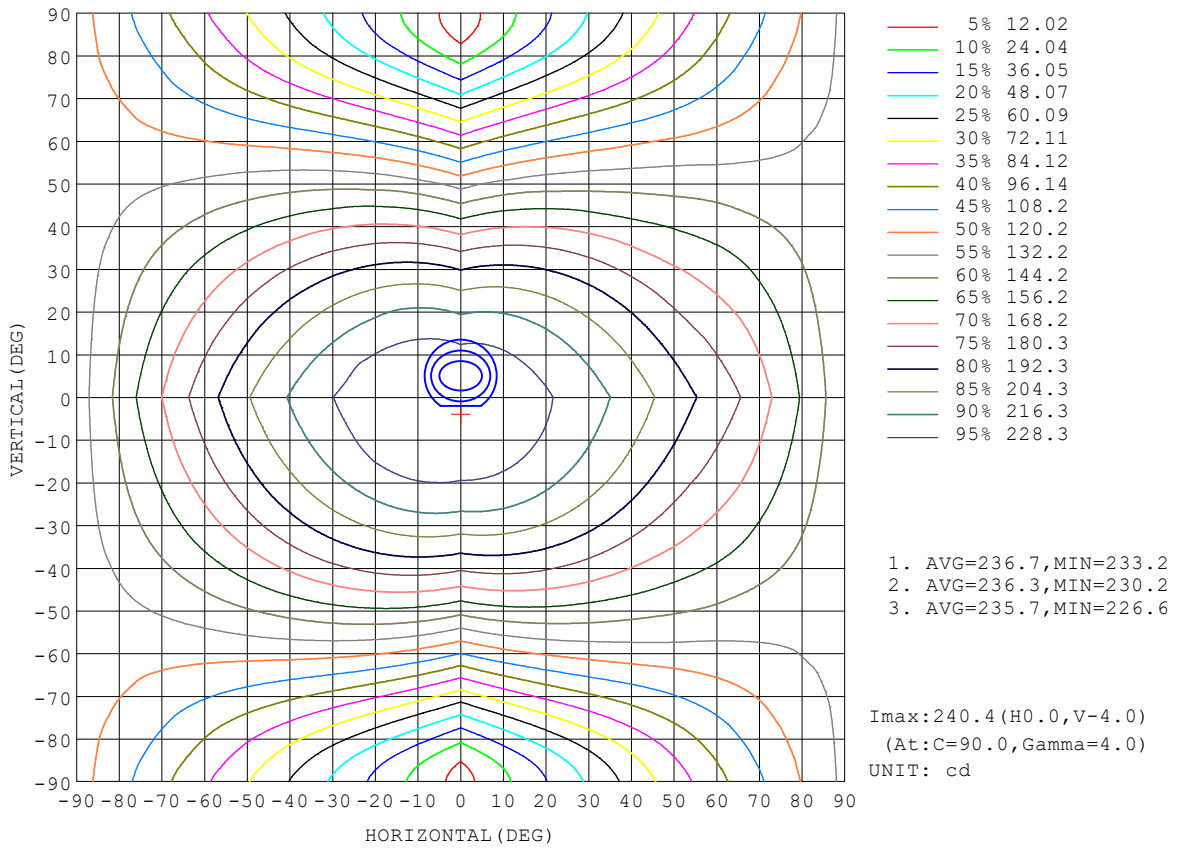
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	47	35	28	46	35	28	44	34	27	20
0.80	57	44	36	55	43	35	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

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:120.07V I:0.1467A P:16.580W PF:0.9415 Freq:59.98Hz Lamp Flux:1131.35x1 lm		
NAME: WS14-033B-BK 16W 40K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

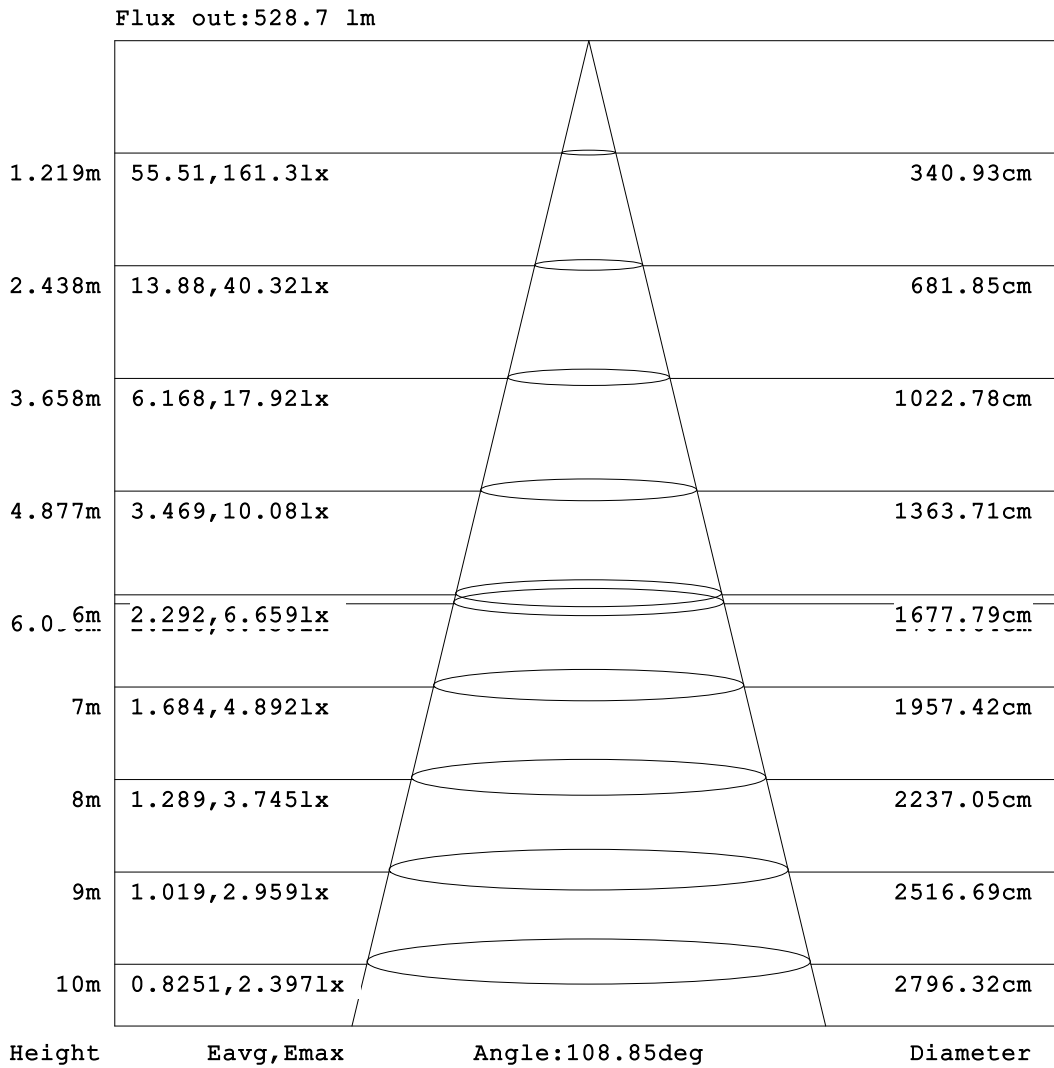


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:DAMIN
Test Date:10 February 2026

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:

AAI Figure

Test:U:120.07V I:0.1467A P:16.580W PF:0.9415 Freq:59.98Hz Lamp Flux:1131.35x1 lm		
NAME: WS14-033B-BK 16W 40K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:



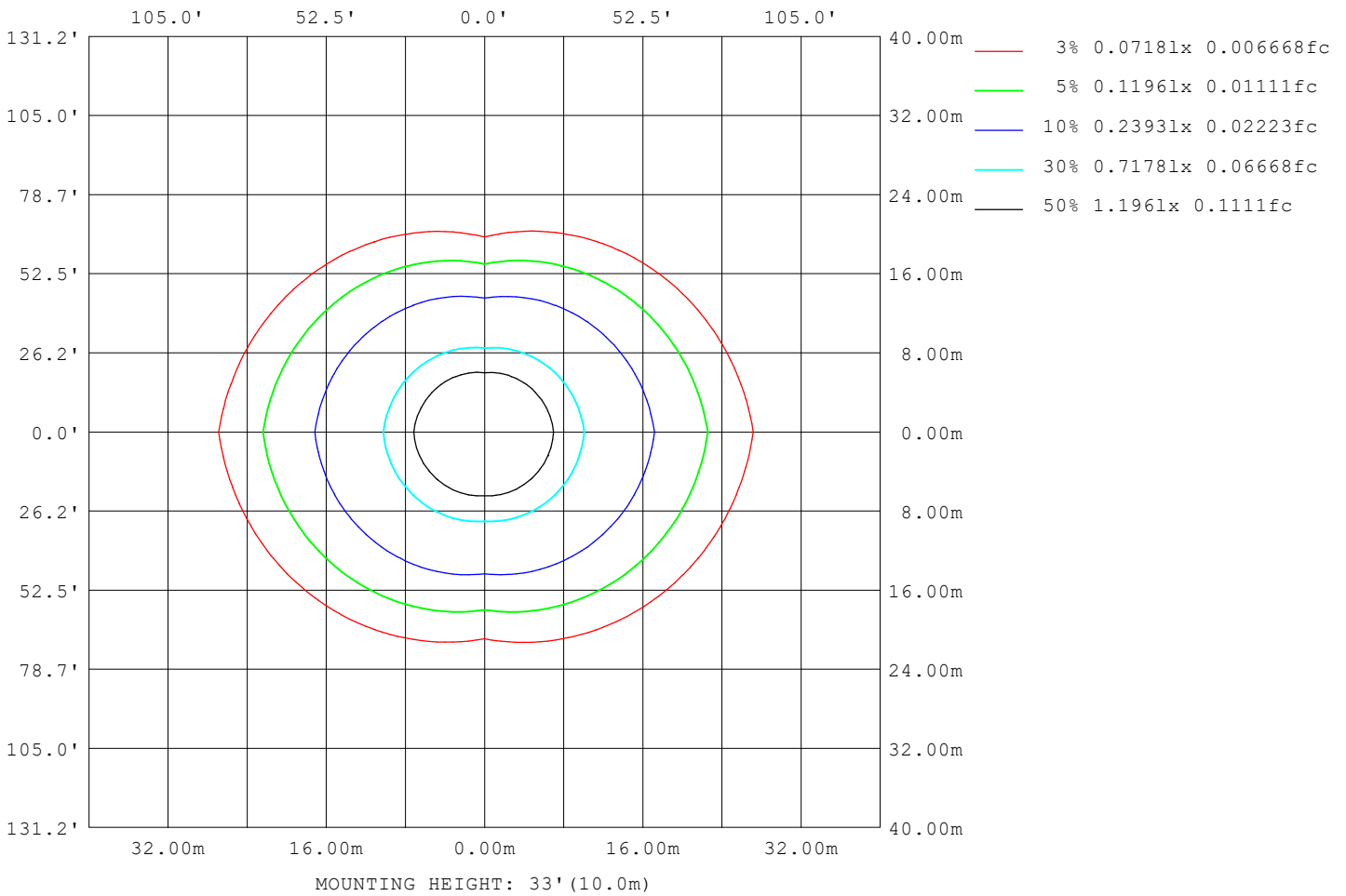
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3°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:120.07V I:0.1467A P:16.580W PF:0.9415 Freq:59.98Hz Lamp Flux:1131.35x1 lm		
NAME: WS14-033B-BK 16W 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:120.07V I:0.1467A P:16.580W PF:0.9415 Freq:59.98Hz Lamp Flux:1131.35x1 lm		
NAME: WS14-033B-BK 16W 40K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.: 1
MFR.: EVERFINE	SUR.:	Shielding Angle:

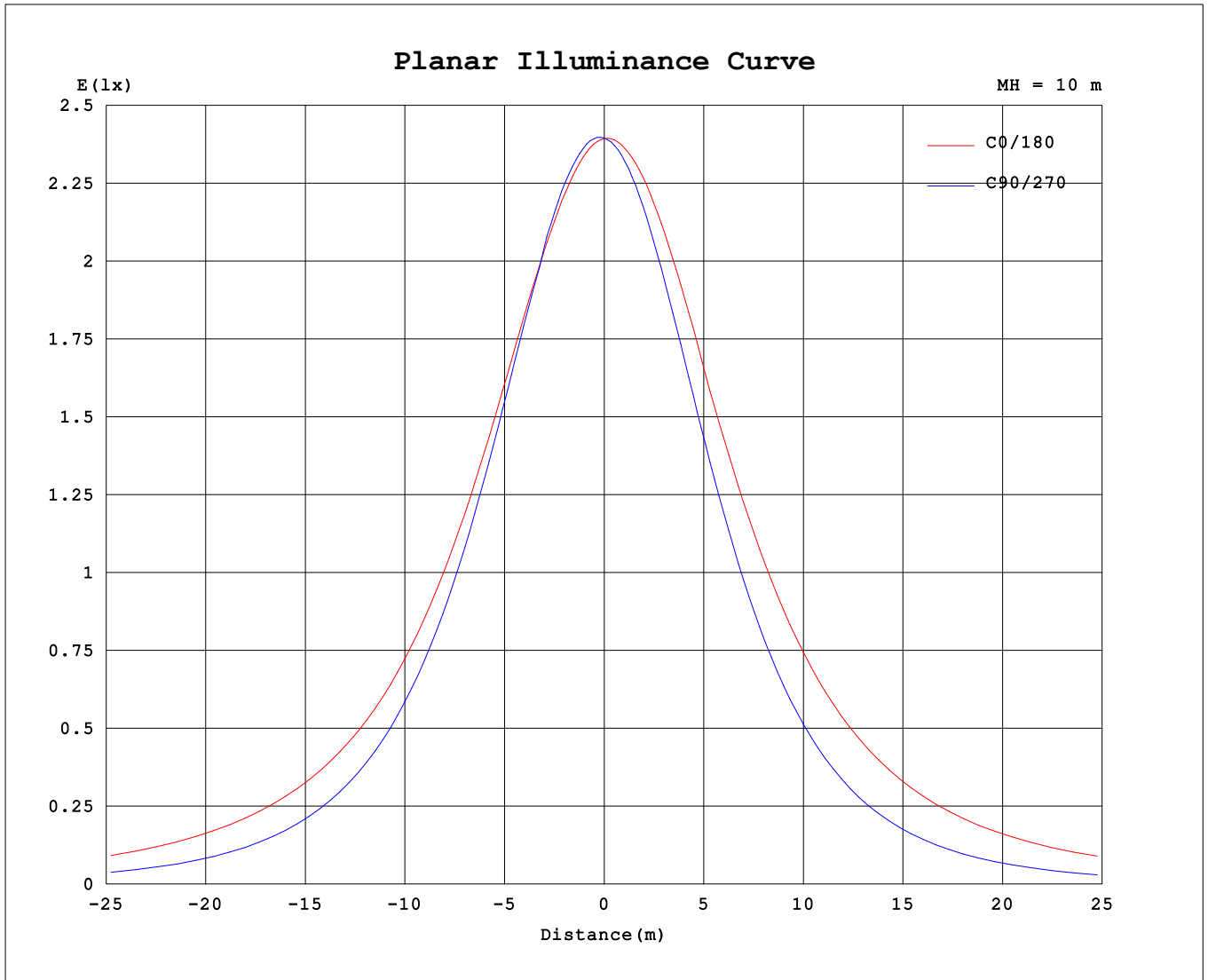
AvgL	cd/m2
L_0~180 (65) av	4247
L_0~180 (75) av	6237
L_0~180 (85) av	16194
L_90~270 (65) av	1859
L_90~270 (75) av	1527
L_90~270 (85) av	1193
L_45 (65) av	2752
L_45 (75) av	3286
L_45 (85) av	6788

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:120.07V I:0.1467A P:16.580W PF:0.9415 Freq:59.98Hz Lamp Flux:1131.35x1 lm		
NAME: WS14-033B-BK 16W 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	239	240	239	240															
5	238	240	240	237															
10	235	239	240	231															
15	233	235	239	224															
20	230	228	237	215															
25	226	220	234	204															
30	221	209	228	192															
35	216	196	223	178															
40	211	182	217	162															
45	205	166	211	145															
50	199	148	203	128															
55	193	128	195	108															
60	187	108	187	89.3															
65	181	87.0	178	70.2															
70	174	65.9	168	51.3															
75	165	45.4	158	33.7															
80	155	27.0	148	18.4															
85	145	12.7	137	8.10															
90	135	7.31	125	5.25															
95	122	7.00	108	5.68															
100	86.7	7.70	58.9	5.46															
105	65.0	8.53	56.1	5.28															
110	83.3	9.24	73.4	5.87															
115	76.9	10.1	65.8	6.52															
120	69.4	11.1	58.7	6.96															
125	61.9	12.3	51.8	6.85															
130	54.9	13.3	45.6	5.85															
135	48.4	14.3	40.0	5.31															
140	42.5	15.3	35.0	6.69															
145	36.4	16.1	27.0	6.28															
150	16.4	16.9	14.2	5.44															
155	15.1	17.5	13.4	5.50															
160	14.3	16.7	12.9	5.60															
165	15.8	15.1	14.2	5.71															
170	14.8	13.7	13.2	6.94															
175	12.4	14.4	12.4	9.68															
180	13.3	13.1	13.1	13.0															

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: