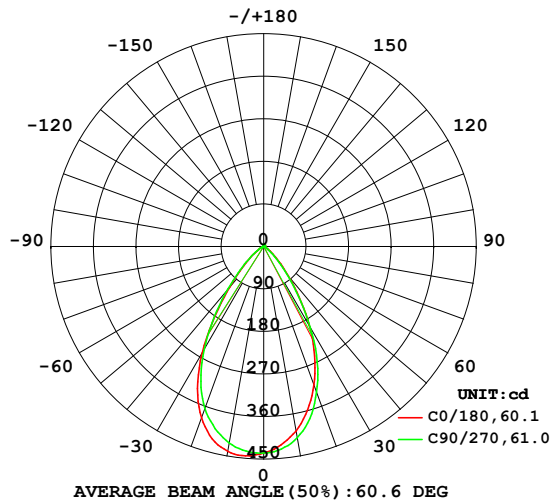


LUMINAIRE PHOTOMETRIC TEST REPORT

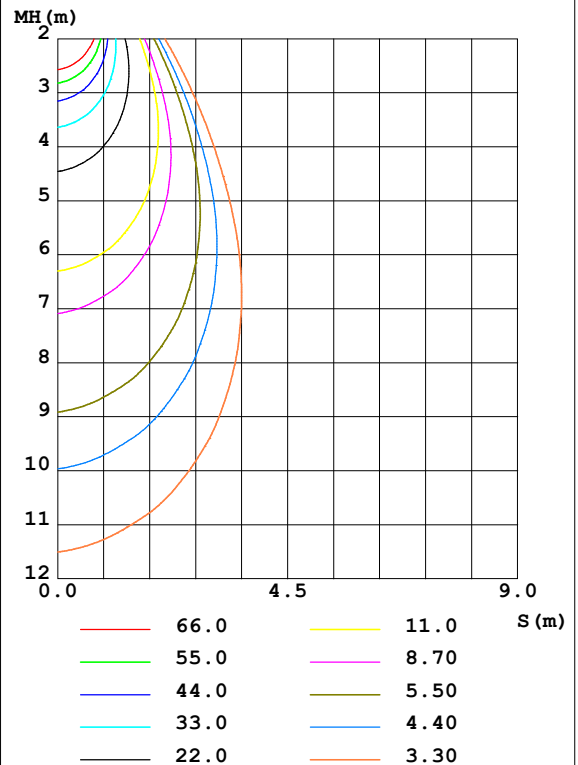
Test:U:12.15V I:0.6255A P:5.190W PF:0.6828 Freq:59.99Hz Lamp Flux:452.615x1 lm		
NAME: LED LAMP	TYPE:MR16 CW BLACK PCB	WEIGHT:
SPEC.:5.5W 2700K 60°LENS	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 87.21 lm/W			
MOLIB-PRO-5.5W-MR16-60-8-TW		I _{max} (cd)	444.6	S/MH (C0/180)	0.96
NOMINAL POWER (W)	5.5	LOR (%)	100.0	S/MH (C90/270)	0.96
RATED VOLTAGE (V)	12	TOTAL FLUX (lm)	452.62	η UP, DN (C0-180)	0.8, 43.8
NOMINAL FLUX (lm)	452.615	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.5, 54.9
LAMPS INSIDE	1	η up (%)	1.3	CIBSE SHR NOM	0.75
TEST VOLTAGE (V)	12	η down (%)	98.7	CIBSE SHR MAX	0.95

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: ADMIN
Test Date: 2025-05-16

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.352
Humidity: 65.0%
Test Distance: 13.563m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

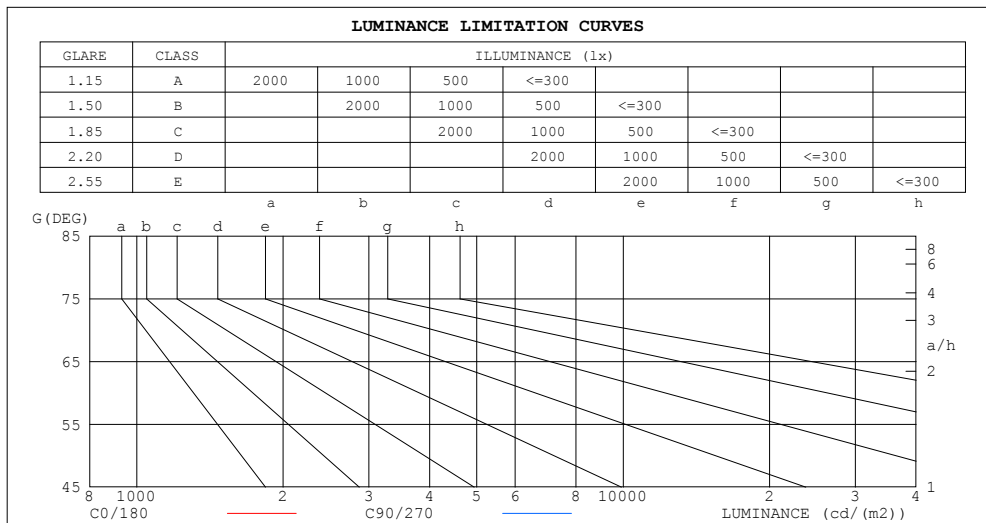
γ	C0	C90	C180	C270					γ	Φ zone	Φ total	%lum, lamp
10	396.6	410.6	439.9	422.2					0- 10	40.82	40.82	9.02,9.02
20	311.0	327.4	385.7	364.1					10- 20	108.5	149.3	33,33
30	194.8	197.0	260.8	252.4					20- 30	132.8	282.2	62.3,62.3
40	81.34	76.49	112.2	118.3					30- 40	97.42	379.6	83.9,83.9
50	25.90	23.26	36.41	38.77					40- 50	45.01	424.6	93.8,93.8
60	7.406	6.466	10.26	11.05					50- 60	15.73	440.3	97.3,97.3
70	2.079	1.701	2.655	3.047					60- 70	4.843	445.2	98.4,98.4
80	0.6414	0.4288	0.7461	0.9568					70- 80	1.449	446.6	98.7,98.7
90	0	0	0	0					80- 90	0.2547	446.9	98.7,98.7
100	0	0	0	0					90-100	0	446.9	98.7,98.7
110	0	0.0480	0	0					100-110	0.0009	446.9	98.7,98.7
120	0.4304	0.4595	0.0099	0					110-120	0.0987	447.0	98.8,98.8
130	1.166	1.215	0.4409	0.4208					120-130	0.4298	447.4	98.8,98.8
140	2.162	2.192	1.168	1.128					130-140	0.9359	448.3	99.1,99.1
150	3.204	3.185	2.105	2.104					140-150	1.343	449.7	99.3,99.3
160	3.960	4.018	3.052	3.060					150-160	1.419	451.1	99.7,99.7
170	4.552	4.621	4.028	3.998					160-170	1.100	452.2	99.9,99.9
180	4.745	4.735	4.735	4.735					170-180	0.4292	452.6	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ADMIN
Test Date:2025-05-16

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.352
Humidity:65.0%
Test Distance:13.563m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:12.15V I:0.6255A P:5.190W PF:0.6828 Freq:59.99Hz Lamp Flux:452.615x1 lm		
NAME: LED LAMP	TYPE:MR16 CW BLACK PCB	WEIGHT:
SPEC.:5.5W 2700K 60°LENS	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	20	0
80	37	25
75	45	37
70	61	50
65	93	77
60	148	129
55	242	215
50	403	362
45	665	609

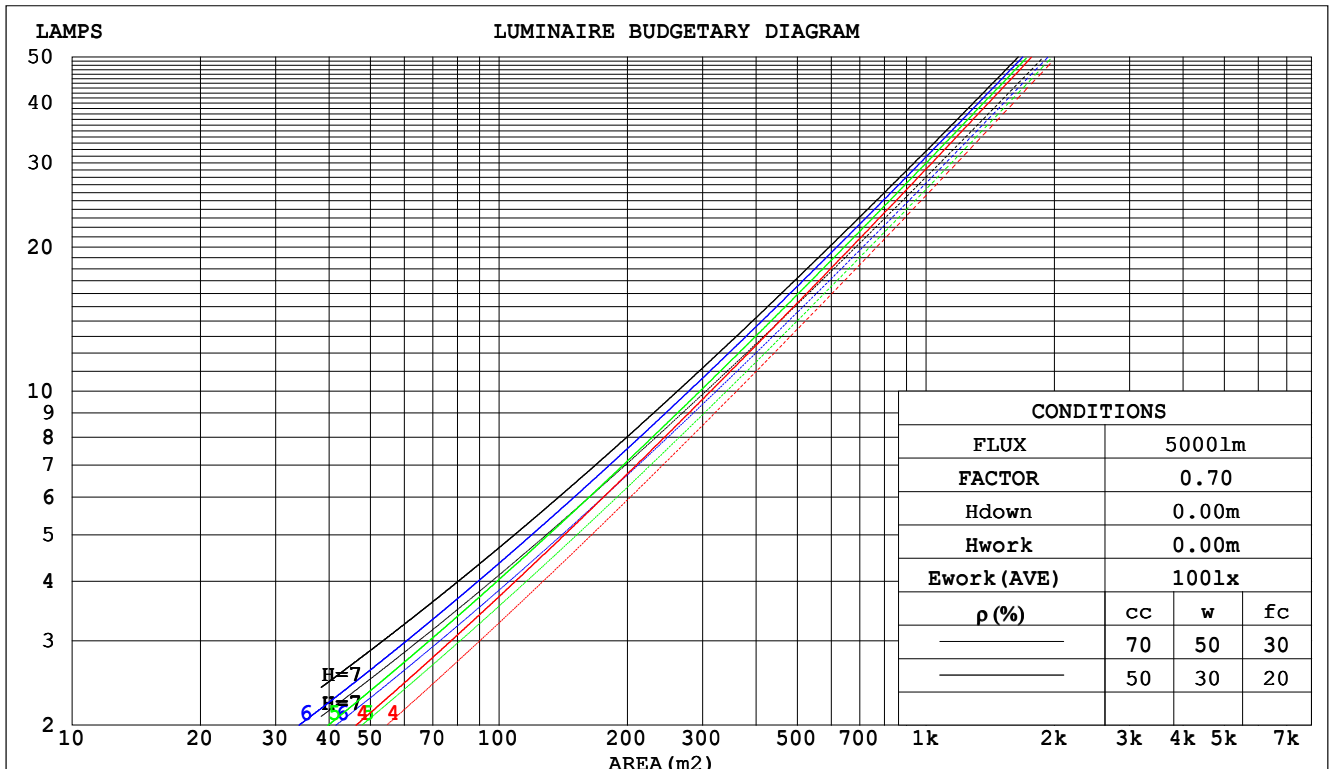
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ADMIN
Test Date:2025-05-16

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.352
Humidity:65.0%
Test Distance:13.563m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:12.15V I:0.6255A P:5.190W PF:0.6828 Freq:59.99Hz Lamp Flux:452.615x1 lm		
NAME: LED LAMP	TYPE:MR16 CW BLACK PCB	WEIGHT:
SPEC.:5.5W 2700K 60°LENS	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
p _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
p _{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.10	1.10	1.10	1.05	1.05	1.05	1.01	1.01	1.01	.99
1.0	1.10	1.07	1.05	1.07	1.05	1.03	1.03	1.01	.99	.99	.98	.96	.96	.94	.93	.91
2.0	1.01	.97	.93	.99	.95	.92	.96	.93	.90	.93	.90	.88	.90	.88	.86	.84
3.0	.94	.88	.84	.92	.87	.83	.89	.85	.82	.87	.83	.80	.84	.81	.79	.77
4.0	.87	.81	.76	.86	.80	.76	.83	.78	.75	.81	.77	.74	.79	.76	.73	.71
5.0	.81	.74	.70	.80	.74	.69	.78	.73	.69	.76	.71	.68	.74	.70	.67	.66
6.0	.75	.69	.64	.74	.68	.64	.73	.67	.63	.71	.66	.63	.70	.65	.62	.61
7.0	.70	.64	.59	.69	.63	.59	.68	.63	.59	.67	.62	.58	.65	.61	.58	.56
8.0	.66	.59	.55	.65	.59	.55	.64	.58	.55	.63	.58	.54	.62	.57	.54	.52
9.0	.62	.56	.51	.61	.55	.51	.60	.55	.51	.59	.54	.51	.58	.54	.50	.49
10.0	.58	.52	.48	.58	.52	.48	.57	.51	.48	.56	.51	.47	.55	.51	.47	.46



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ADMIN
Test Date:2025-05-16

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.352
Humidity:65.0%
Test Distance:13.563m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:12.15V I:0.6255A P:5.190W PF:0.6828 Freq:59.99Hz Lamp Flux:452.615x1 lm					
NAME: LED LAMP			TYPE:MR16 CW BLACK PCB		WEIGHT:
SPEC.:5.5W 2700K 60°LENS			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						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.192	.109	.035	.184	.105	.033	.171	.098	.031	.159	.092	.029	.147	.085	.028	
2.0	.185	.101	.031	.179	.098	.030	.167	.093	.029	.157	.088	.028	.147	.083	.026	
3.0	.176	.094	.028	.171	.092	.028	.161	.087	.027	.152	.083	.026	.144	.080	.025	
4.0	.168	.087	.026	.164	.086	.025	.155	.082	.025	.147	.079	.024	.140	.076	.023	
5.0	.160	.082	.024	.156	.080	.023	.148	.077	.023	.141	.075	.022	.135	.072	.022	
6.0	.152	.076	.022	.149	.075	.022	.142	.073	.021	.136	.071	.021	.130	.068	.020	
7.0	.145	.072	.020	.142	.071	.020	.136	.069	.020	.130	.067	.019	.125	.065	.019	
8.0	.139	.068	.019	.136	.067	.019	.130	.065	.019	.125	.064	.018	.121	.062	.018	
9.0	.132	.064	.018	.130	.063	.018	.125	.062	.018	.120	.060	.017	.116	.059	.017	
10.0	.127	.061	.017	.124	.060	.017	.120	.059	.017	.116	.058	.016	.112	.056	.016	

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						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.200	.200	.200	.171	.171	.171	.117	.117	.117	.067	.067	.067	.021	.021	.021	
1.0	.182	.167	.153	.156	.143	.132	.106	.099	.091	.061	.057	.053	.020	.018	.017	
2.0	.168	.142	.121	.144	.122	.104	.099	.085	.073	.057	.049	.043	.018	.016	.014	
3.0	.156	.124	.097	.134	.107	.084	.092	.074	.059	.053	.043	.035	.017	.014	.011	
4.0	.147	.109	.080	.126	.094	.070	.087	.066	.049	.050	.038	.029	.016	.013	.010	
5.0	.139	.098	.068	.119	.085	.059	.082	.059	.042	.048	.035	.025	.015	.011	.008	
6.0	.131	.089	.058	.113	.077	.050	.078	.054	.036	.045	.032	.021	.015	.010	.007	
7.0	.125	.081	.051	.108	.070	.044	.074	.049	.031	.043	.029	.019	.014	.010	.006	
8.0	.120	.075	.045	.103	.065	.039	.071	.046	.028	.041	.027	.016	.013	.009	.005	
9.0	.115	.070	.040	.099	.061	.035	.068	.043	.025	.040	.025	.015	.013	.008	.005	
10.0	.110	.066	.036	.095	.057	.032	.066	.040	.023	.038	.024	.014	.012	.008	.004	

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:ADMIN
 Test Date:2025-05-16

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.352
 Humidity:65.0%
 Test Distance:13.563m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:12.15V I:0.6255A P:5.190W PF:0.6828 Freq:59.99Hz Lamp Flux:452.615x1 lm										
NAME: LED LAMP					TYPE:MR16 CW BLACK PCB			WEIGHT:		
SPEC.:5.5W 2700K 60°LENS					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	6.2	7.2	6.4	7.4	7.6	6.0	7.0	6.2	7.2	7.4
3H	6.1	7.0	6.4	7.2	7.5	5.9	6.8	6.1	7.0	7.3
4H	6.0	6.9	6.3	7.1	7.4	5.8	6.7	6.1	6.9	7.2
6H	5.9	6.8	6.2	7.0	7.3	5.7	6.5	6.0	6.8	7.1
8H	5.9	6.7	6.2	7.0	7.3	5.6	6.4	6.0	6.7	7.0
12H	5.8	6.6	6.2	6.9	7.2	5.6	6.4	5.9	6.7	7.0
4H 2H	6.0	6.9	6.3	7.1	7.4	5.8	6.7	6.1	6.9	7.2
3H	5.9	6.7	6.2	7.0	7.3	5.7	6.4	6.0	6.7	7.0
4H	5.8	6.5	6.2	6.8	7.2	5.6	6.3	6.0	6.6	7.0
6H	5.8	6.4	6.2	6.7	7.1	5.5	6.1	5.9	6.5	6.9
8H	5.7	6.3	6.1	6.6	7.0	5.5	6.0	5.9	6.4	6.8
12H	5.7	6.2	6.1	6.6	7.0	5.4	5.9	5.9	6.3	6.7
8H 4H	5.7	6.3	6.1	6.6	7.0	5.5	6.0	5.9	6.4	6.8
6H	5.6	6.1	6.1	6.5	6.9	5.4	5.8	5.8	6.3	6.7
8H	5.6	6.0	6.1	6.4	6.9	5.3	5.7	5.8	6.2	6.7
12H	5.5	5.9	6.0	6.3	6.8	5.3	5.6	5.8	6.1	6.6
12H 4H	5.6	6.2	6.1	6.6	7.0	5.4	5.9	5.9	6.3	6.7
6H	5.6	6.0	6.0	6.4	6.9	5.3	5.7	5.8	6.2	6.7
8H	5.5	5.9	6.0	6.3	6.8	5.3	5.6	5.8	6.1	6.6
Variations with the observer position at spacings:										
S = 1.0H	+ 2.4 / - 5.6					+ 2.4 / - 6.0				
1.5H	+ 3.7 / - 4.4					+ 3.7 / - 4.4				
2.0H	+ 4.7 / - 5.2					+ 4.6 / - 5.2				

CIE Pub.117 Corrected 452.6 lm Total Lamp Luminous Flux. (8log(F/F0) = -2.8)

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:ADMIN
 Test Date:2025-05-16

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.352
 Humidity:65.0%
 Test Distance:13.563m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:12.15V I:0.6255A P:5.190W PF:0.6828 Freq:59.99Hz Lamp Flux:452.615x1 lm		
NAME: LED LAMP	TYPE:MR16 CW BLACK PCB	WEIGHT:
SPEC.:5.5W 2700K 60°LENS	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:

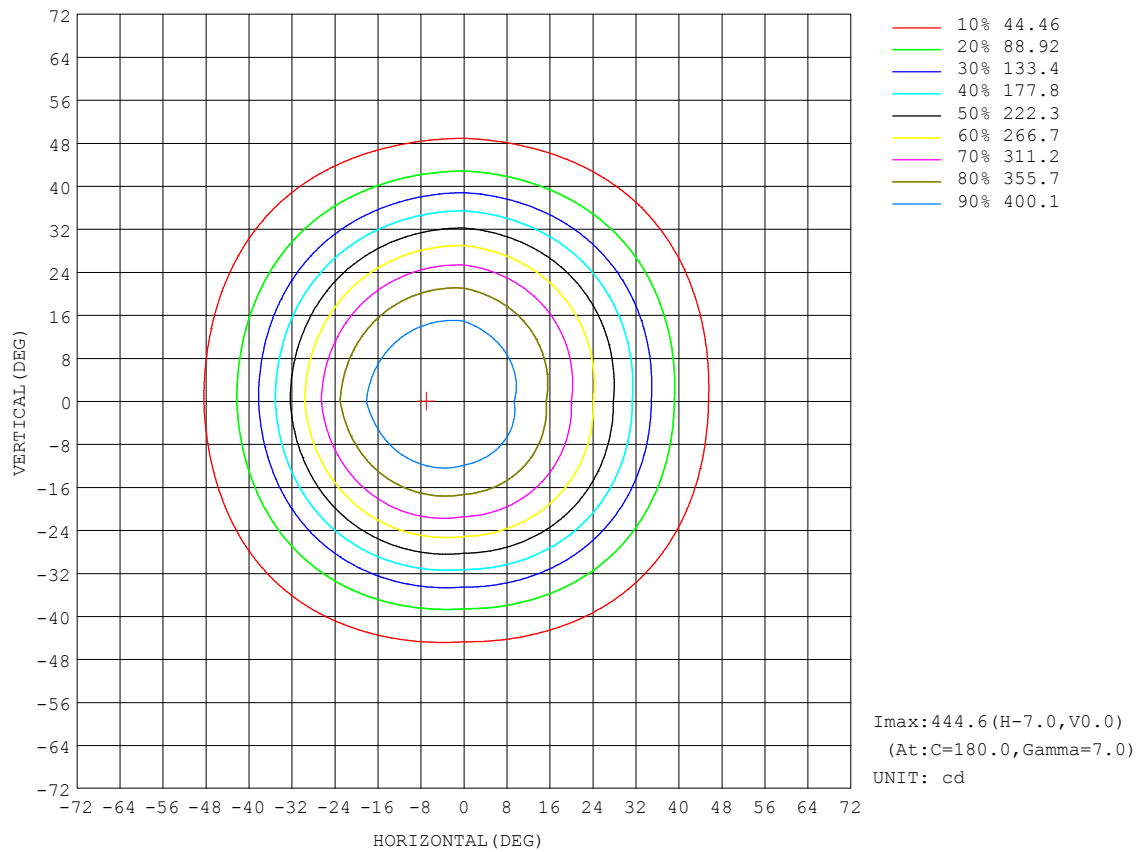
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	81	74	70	81	74	69	80	73	69	65
0.80	90	83	78	89	82	78	87	82	78	73
1.00	95	89	85	94	88	84	92	88	84	79
1.25	100	94	90	99	93	89	96	92	89	84
1.50	103	98	94	102	97	93	99	95	92	87
2.00	106	102	98	105	101	97	102	98	96	90
2.50	108	104	101	107	103	100	103	100	98	91
3.00	110	106	103	108	105	102	105	102	100	93
4.00	112	109	107	110	108	105	106	104	102	95
5.00	114	111	109	111	109	107	107	106	104	96
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:25.3DEG
Operators:ADMIN
Test Date:2025-05-16

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.352
Humidity:65.0%
Test Distance:13.563m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:12.15V I:0.6255A P:5.190W PF:0.6828 Freq:59.99Hz Lamp Flux:452.615x1 lm		
NAME: LED LAMP	TYPE:MR16 CW BLACK PCB	WEIGHT:
SPEC.:5.5W 2700K 60°LENS	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:

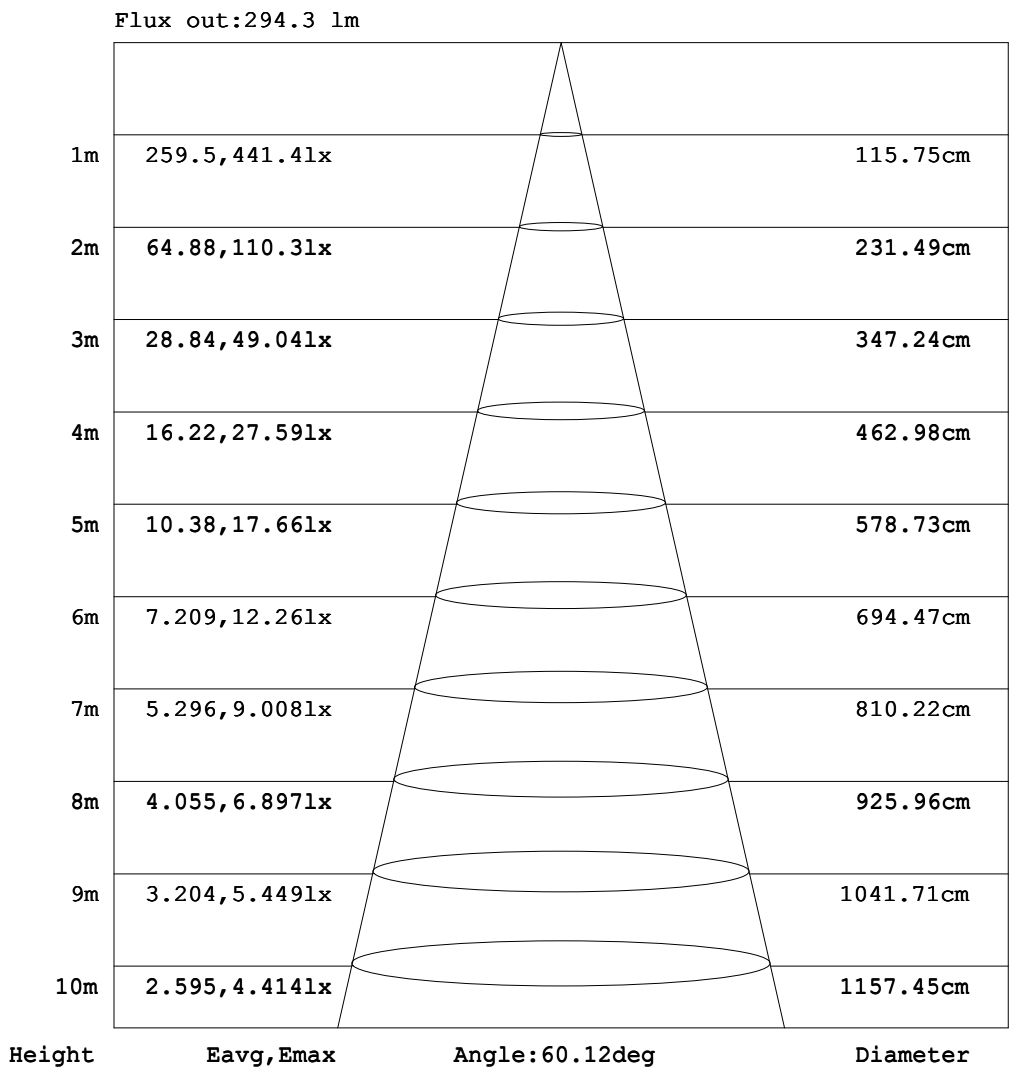


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ADMIN
Test Date:2025-05-16

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.352
Humidity:65.0%
Test Distance:13.563m [K=1.0000]
Remarks:

AAI Figure

Test:U:12.15V I:0.6255A P:5.190W PF:0.6828 Freq:59.99Hz Lamp Flux:452.615x1 lm		
NAME: LED LAMP	TYPE:MR16 CW BLACK PCB	WEIGHT:
SPEC.:5.5W 2700K 60°LENS	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:



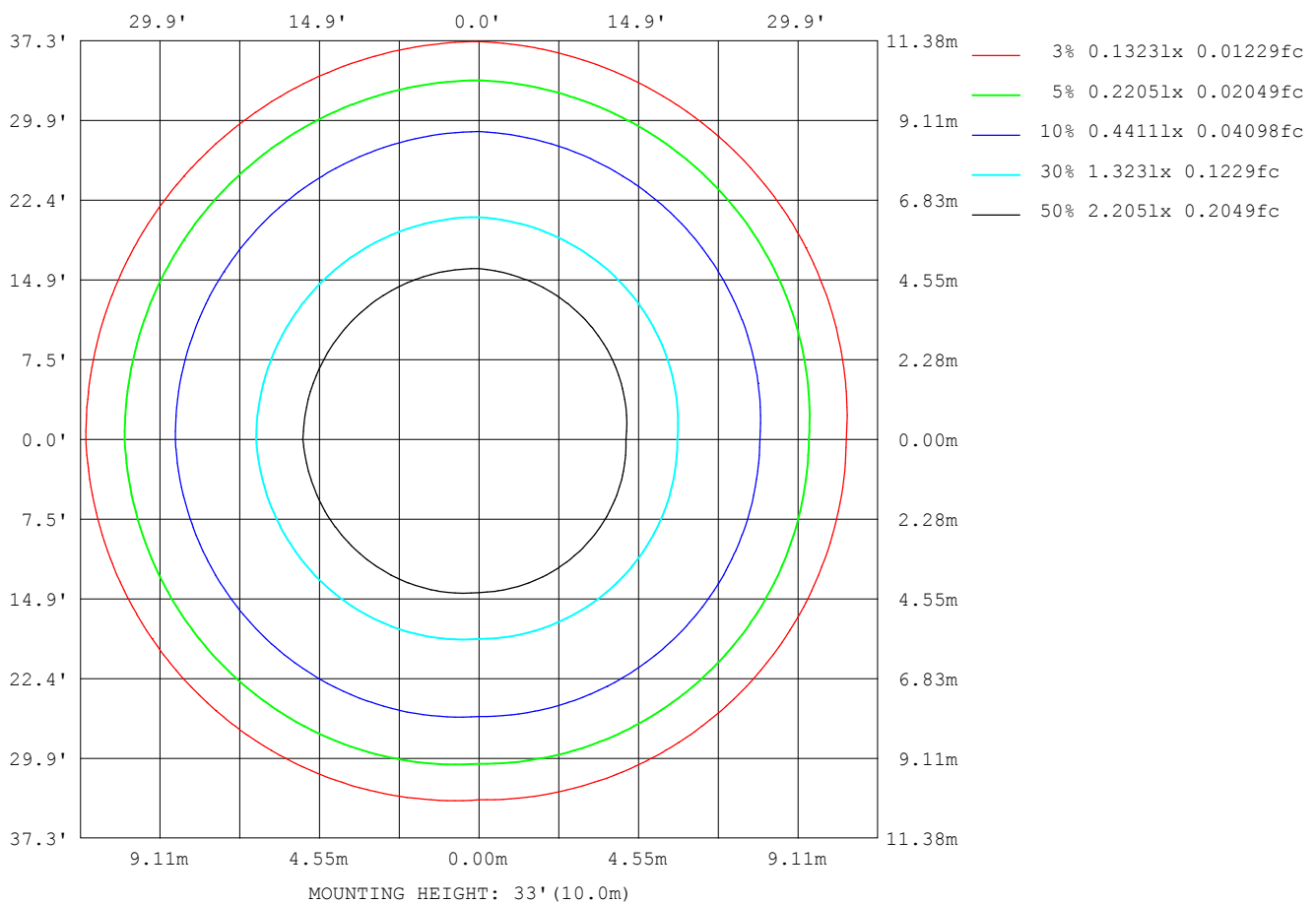
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:ADMIN
 Test Date:2025-05-16

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.352
 Humidity:65.0%
 Test Distance:13.563m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:12.15V I:0.6255A P:5.190W PF:0.6828 Freq:59.99Hz Lamp Flux:452.615x1 lm		
NAME: LED LAMP	TYPE:MR16 CW BLACK PCB	WEIGHT:
SPEC.:5.5W 2700K 60°LENS	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ADMIN
Test Date:2025-05-16

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.352
Humidity:65.0%
Test Distance:13.563m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:12.15V I:0.6255A P:5.190W PF:0.6828 Freq:59.99Hz Lamp Flux:452.615x1 lm		
NAME: LED LAMP	TYPE:MR16 CW BLACK PCB	WEIGHT:
SPEC.:5.5W 2700K 60°LENS	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:

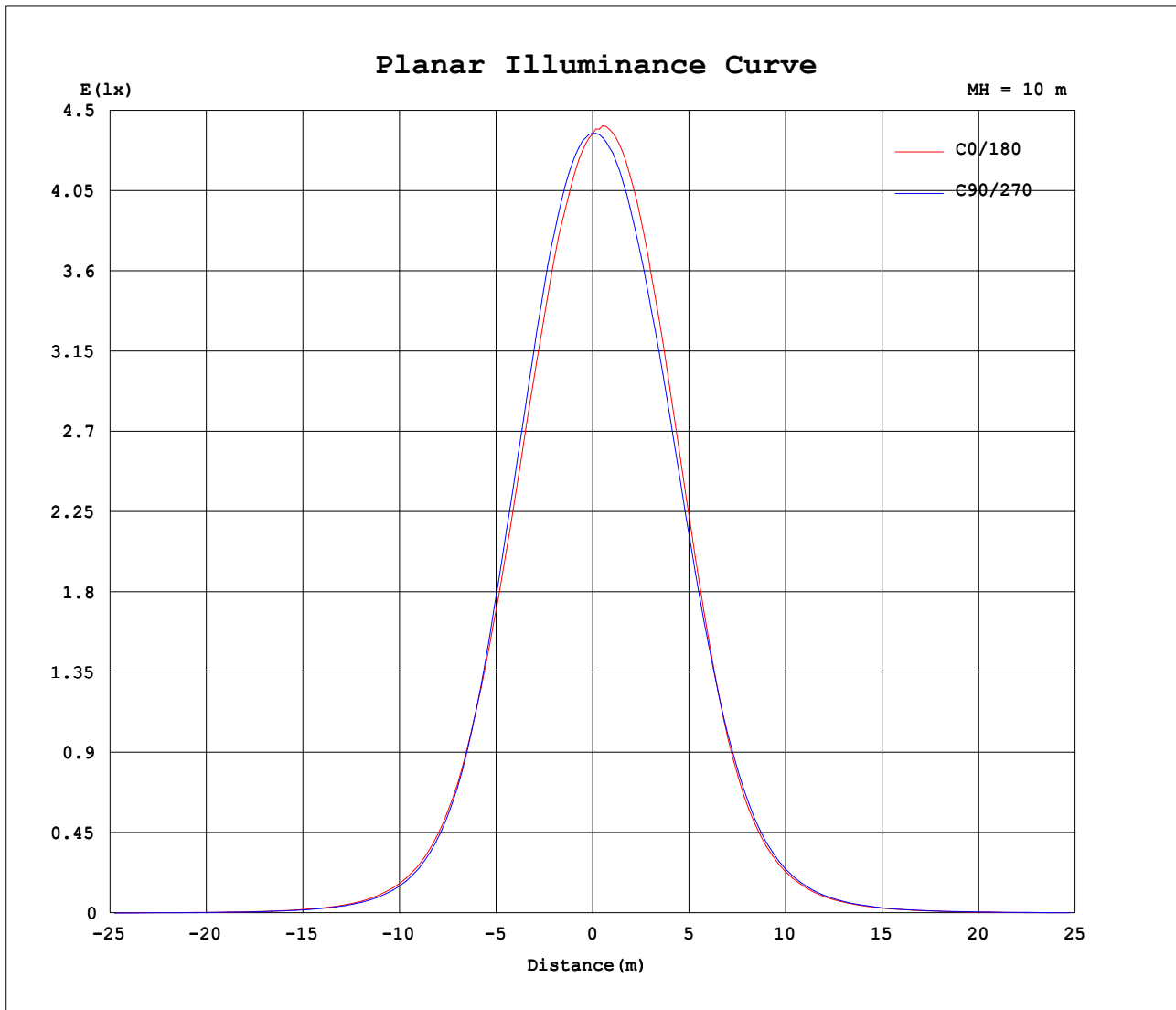
AvgL	cd/m2
L_0~180 (65) av	109
L_0~180 (75) av	50
L_0~180 (85) av	18
L_90~270 (65) av	108
L_90~270 (75) av	51
L_90~270 (85) av	23
L_45 (65) av	109
L_45 (75) av	50
L_45 (85) av	21

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ADMIN
Test Date:2025-05-16

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.352
Humidity:65.0%
Test Distance:13.563m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: ADMIN
Test Date: 2025-05-16

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.352
Humidity: 65.0%
Test Distance: 13.563m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:12.15V I:0.6255A P:5.190W PF:0.6828 Freq:59.99Hz Lamp Flux:452.615x1 lm		
NAME: LED LAMP	TYPE:MR16 CW BLACK PCB	WEIGHT:
SPEC.:5.5W 2700K 60°LENS	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	90	180	270															
0	437	437	437	437															
5	421	430	445	434															
10	397	411	440	422															
15	358	377	422	399															
20	311	327	386	364															
25	256	269	332	315															
30	195	197	261	252															
35	132	128	180	183															
40	81.3	76.5	112	118															
45	47.0	43.1	65.8	70.1															
50	25.9	23.3	36.4	38.8															
55	13.9	12.3	19.5	20.9															
60	7.41	6.47	10.3	11.1															
65	3.92	3.26	5.32	5.86															
70	2.08	1.70	2.65	3.05															
75	1.17	0.96	1.41	1.66															
80	0.64	0.43	0.75	0.96															
85	0.17	0.00	0.14	0.40															
90	0.00	0.00	0.00	0.00															
95	0.00	0.00	0.00	0.00															
100	0.00	0.00	0.00	0.00															
105	0.00	0.00	0.00	0.00															
110	0.00	0.05	0.00	0.00															
115	0.16	0.21	0.00	0.00															
120	0.43	0.46	0.01	0.00															
125	0.75	0.81	0.20	0.15															
130	1.17	1.22	0.44	0.42															
135	1.65	1.67	0.79	0.75															
140	2.16	2.19	1.17	1.13															
145	2.72	2.71	1.63	1.63															
150	3.20	3.19	2.10	2.10															
155	3.61	3.63	2.57	2.58															
160	3.96	4.02	3.05	3.06															
165	4.27	4.35	3.54	3.51															
170	4.55	4.62	4.03	4.00															
175	4.73	4.75	4.46	4.46															
180	4.74	4.74	4.74	4.74															

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:ADMIN
 Test Date:2025-05-16

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.352
 Humidity:65.0%
 Test Distance:13.563m [K=1.0000]
 Remarks: