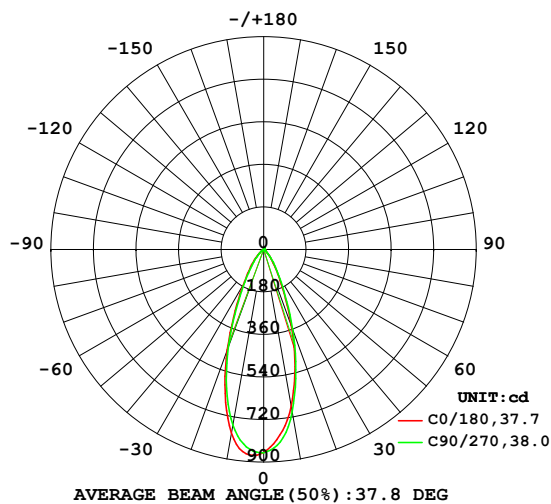


LUMINAIRE PHOTOMETRIC TEST REPORT

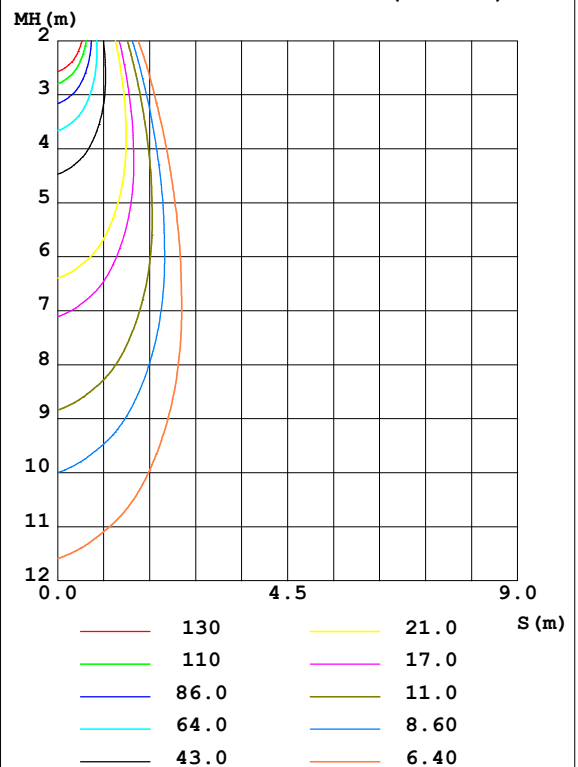
Test:U:12.11V I:0.6269A P:5.206W PF:0.6858 Freq:59.98Hz Lamp Flux:449.35x1 lm		
NAME: LED LAMP	TYPE:MR16 CW BLACK PCB	WEIGHT:
SPEC.:5.5W 2700K 40°LENS	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 86.31 lm/W			
MOLIB-PRO-5.5W-MR16-40-8-TW		Imax(cd)	872.6	S/MH(C0/180)	0.66
NOMINAL POWER(W)	5.5	LOR(%)	100.0	S/MH(C90/270)	0.65
RATED VOLTAGE(V)	12	TOTAL FLUX(lm)	449.35	η UP,DN(C0-180)	0.8,44.1
NOMINAL FLUX(lm)	449.35	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.5,54.6
LAMPS INSIDE	1	η up(%)	1.3	CIBSE SHR NOM	0.50
TEST VOLTAGE(V)	12	η down(%)	98.7	CIBSE SHR MAX	0.65

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:

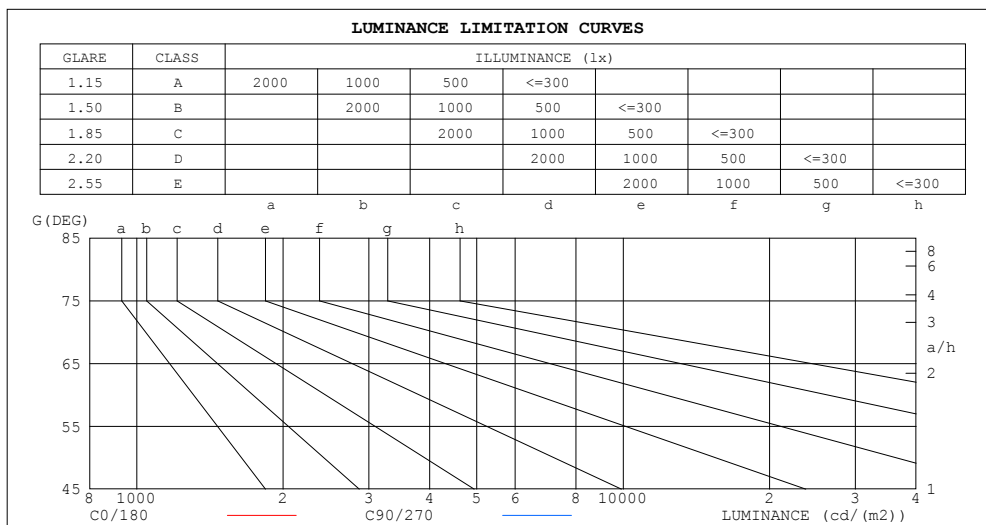
γ	C0	C90	C180	C270					γ	Φ zone	Φ total	%lum, lamp
10	672.4	695.7	788.1	754.6					0- 10	75.93	75.93	16.9,16.9
20	341.6	358.0	451.6	435.5					10- 20	155.8	231.8	51.6,51.6
30	120.8	129.4	175.1	160.5					20- 30	114.4	346.2	77,77
40	43.75	47.62	69.07	59.73					30- 40	57.66	403.8	89.9,89.9
50	13.74	14.78	21.55	18.66					40- 50	25.10	428.9	95.5,95.5
60	4.741	5.168	6.996	5.894					50- 60	9.058	438.0	97.5,97.5
70	2.089	2.121	2.867	2.529					60- 70	3.734	441.7	98.3,98.3
80	0.6813	0.5535	0.8213	0.9013					70- 80	1.583	443.3	98.7,98.7
90	0	0	0	0					80- 90	0.2582	443.6	98.7,98.7
100	0	0	0	0					90-100	0	443.6	98.7,98.7
110	0	0	0	0					100-110	0	443.6	98.7,98.7
120	0.1531	0.1630	0	0					110-120	0.0216	443.6	98.7,98.7
130	0.8034	0.7750	0.1532	0.1626					120-130	0.2080	443.8	98.8,98.8
140	2.065	1.981	0.8232	0.8703					130-140	0.6870	444.5	98.9,98.9
150	3.662	3.587	2.097	2.132					140-150	1.315	445.8	99.2,99.2
160	5.050	5.032	3.683	3.777					150-160	1.667	447.5	99.6,99.6
170	5.624	5.644	4.956	5.049					160-170	1.375	448.8	99.9,99.9
180	5.701	5.787	5.672	5.787					170-180	0.5244	449.3	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:12.11V I:0.6269A P:5.206W PF:0.6858 Freq:59.98Hz Lamp Flux:449.35x1 lm		
NAME: LED LAMP	TYPE:MR16 CW BLACK PCB	WEIGHT:
SPEC.:5.5W 2700K 40°LENS	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	21	0
80	39	32
75	51	47
70	61	62
65	73	79
60	95	103
55	136	148
50	214	230
45	351	379

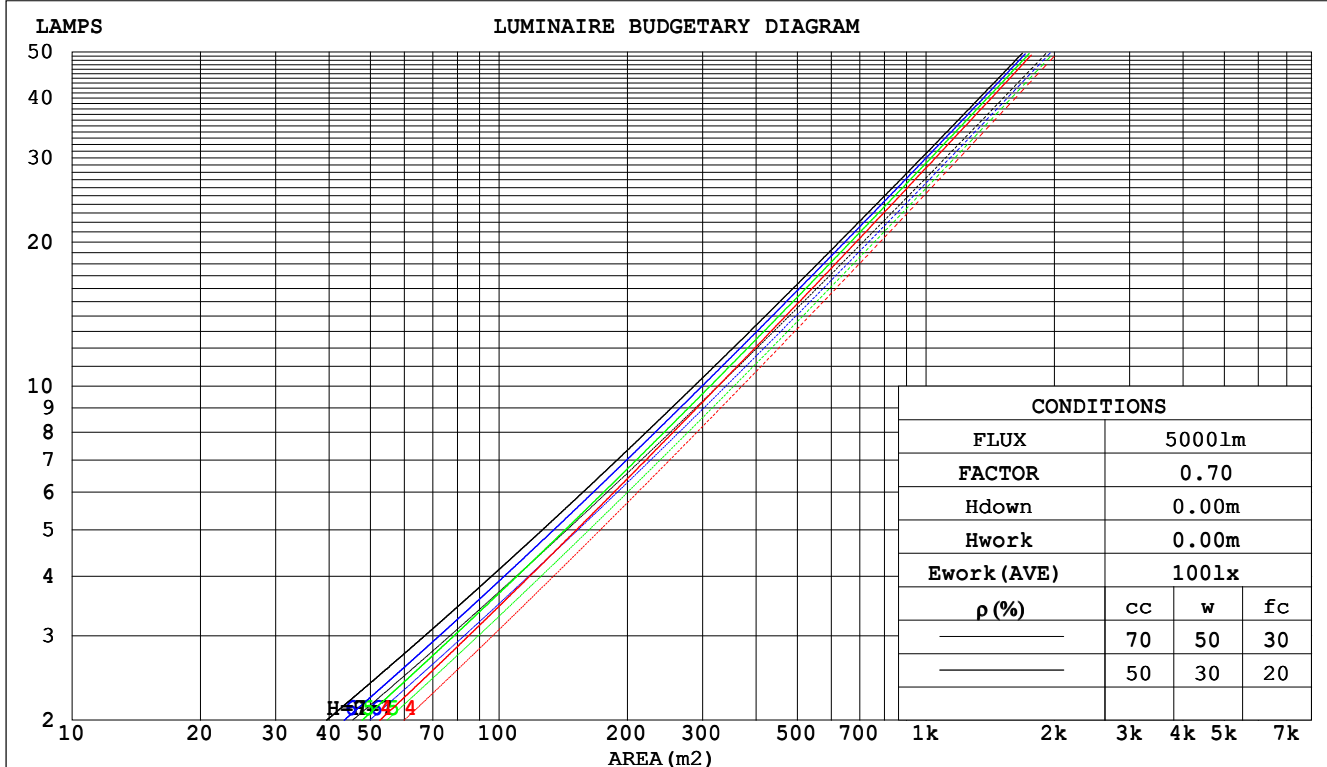
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ADMIN
Test Date:2025-05-16

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:12.11V I:0.6269A P:5.206W PF:0.6858 Freq:59.98Hz Lamp Flux:449.35x1 lm		
NAME: LED LAMP	TYPE:MR16 CW BLACK PCB	WEIGHT:
SPEC.:5.5W 2700K 40°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	1.11	1.08	1.06	1.09	1.06	1.04	1.04	1.03	1.01	1.00	.99	.98	.97	.96	.95	.93
2.0	1.04	.90	.96	1.02	.98	.95	.98	.95	.93	.95	.93	.91	.92	.90	.89	.87
3.0	.97	.92	.89	.96	.91	.88	.93	.89	.86	.90	.87	.85	.88	.85	.83	.82
4.0	.91	.86	.82	.90	.85	.82	.88	.84	.81	.86	.82	.80	.84	.81	.78	.77
5.0	.86	.81	.77	.85	.80	.76	.83	.79	.76	.82	.78	.75	.80	.77	.74	.73
6.0	.82	.76	.72	.81	.76	.72	.79	.75	.71	.78	.74	.71	.76	.73	.70	.69
7.0	.77	.72	.68	.77	.71	.68	.75	.71	.67	.74	.70	.67	.73	.69	.66	.65
8.0	.74	.68	.64	.73	.68	.64	.72	.67	.64	.71	.67	.63	.70	.66	.63	.62
9.0	.70	.65	.61	.70	.64	.61	.69	.64	.61	.68	.63	.60	.67	.63	.60	.59
10.0	.67	.62	.58	.67	.61	.58	.66	.61	.58	.65	.61	.58	.64	.60	.57	.56



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:12.11V I:0.6269A P:5.206W PF:0.6858 Freq:59.98Hz Lamp Flux:449.35x1 lm					
NAME: LED LAMP			TYPE:MR16 CW BLACK PCB		WEIGHT:
SPEC.:5.5W 2700K 40°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 Coeffcients(WEC)										
0.0																	
1.0	.171	.098	.031	.164	.094	.030	.151	.087	.028	.139	.080	.026	.128	.074	.024		
2.0	.163	.089	.027	.157	.086	.027	.146	.081	.025	.135	.076	.024	.126	.071	.022		
3.0	.154	.082	.025	.149	.080	.024	.140	.076	.023	.131	.072	.022	.122	.068	.021		
4.0	.146	.076	.022	.142	.074	.022	.133	.071	.021	.126	.067	.020	.119	.064	.020		
5.0	.139	.071	.020	.135	.069	.020	.127	.066	.020	.121	.064	.019	.114	.061	.018		
6.0	.132	.066	.019	.128	.065	.019	.122	.062	.018	.116	.060	.018	.110	.058	.017		
7.0	.125	.062	.018	.122	.061	.017	.117	.059	.017	.112	.057	.017	.107	.055	.016		
8.0	.120	.058	.016	.117	.058	.016	.112	.056	.016	.107	.054	.016	.103	.053	.015		
9.0	.114	.055	.015	.112	.055	.015	.108	.053	.015	.103	.052	.015	.099	.050	.015		
10.0	.110	.053	.015	.107	.052	.014	.103	.051	.014	.099	.049	.014	.096	.048	.014		

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	.181	.167	.155	.155	.144	.134	.106	.099	.092	.061	.057	.054	.019	.018	.017	
2.0	.165	.143	.124	.141	.123	.107	.097	.085	.075	.056	.049	.044	.018	.016	.014	
3.0	.152	.124	.101	.130	.107	.087	.090	.074	.061	.052	.043	.036	.017	.014	.012	
4.0	.142	.109	.084	.121	.094	.073	.083	.065	.051	.048	.038	.030	.016	.012	.010	
5.0	.132	.097	.071	.114	.084	.062	.078	.059	.044	.045	.034	.026	.015	.011	.009	
6.0	.125	.088	.061	.107	.076	.053	.074	.053	.038	.043	.031	.022	.014	.010	.007	
7.0	.118	.080	.053	.101	.069	.047	.070	.049	.033	.041	.029	.020	.013	.009	.006	
8.0	.112	.074	.047	.096	.064	.041	.067	.045	.029	.039	.026	.017	.013	.009	.006	
9.0	.107	.068	.042	.092	.059	.037	.064	.042	.026	.037	.025	.016	.012	.008	.005	
10.0	.102	.064	.038	.088	.055	.034	.061	.039	.024	.036	.023	.014	.012	.008	.005	

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:12.11V I:0.6269A P:5.206W PF:0.6858 Freq:59.98Hz Lamp Flux:449.35x1 lm										
NAME: LED LAMP					TYPE:MR16 CW BLACK PCB			WEIGHT:		
SPEC.:5.5W 2700K 40°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	2.4	3.3	2.6	3.4	3.6	2.7	3.6	2.9	3.8	3.9
3H	2.4	3.2	2.7	3.4	3.6	2.7	3.5	3.0	3.7	3.9
4H	2.4	3.1	2.7	3.4	3.6	2.7	3.4	3.0	3.7	3.9
6H	2.3	3.0	2.6	3.3	3.6	2.6	3.3	2.9	3.6	3.9
8H	2.3	3.0	2.6	3.3	3.5	2.6	3.3	2.9	3.5	3.8
12H	2.3	2.9	2.6	3.2	3.5	2.5	3.2	2.9	3.5	3.8
4H 2H	2.3	3.0	2.6	3.3	3.5	2.6	3.3	2.8	3.6	3.8
3H	2.3	3.0	2.6	3.3	3.6	2.6	3.3	2.9	3.5	3.8
4H	2.3	2.9	2.7	3.2	3.6	2.6	3.2	3.0	3.5	3.8
6H	2.3	2.8	2.7	3.2	3.6	2.5	3.1	2.9	3.4	3.8
8H	2.3	2.8	2.7	3.1	3.5	2.5	3.0	2.9	3.4	3.8
12H	2.2	2.7	2.7	3.1	3.5	2.5	2.9	2.9	3.3	3.7
8H 4H	2.2	2.7	2.6	3.1	3.5	2.5	3.0	2.9	3.4	3.7
6H	2.2	2.6	2.7	3.0	3.5	2.5	2.9	2.9	3.3	3.7
8H	2.2	2.6	2.7	3.0	3.5	2.4	2.8	2.9	3.2	3.7
12H	2.2	2.5	2.6	2.9	3.4	2.4	2.7	2.9	3.1	3.6
12H 4H	2.2	2.6	2.6	3.0	3.4	2.4	2.9	2.9	3.3	3.7
6H	2.2	2.5	2.6	3.0	3.4	2.4	2.8	2.9	3.2	3.7
8H	2.1	2.5	2.6	2.9	3.4	2.4	2.7	2.9	3.1	3.6
Variations with the observer position at spacings:										
S = 1.0H	+ 2.0 / - 4.0					+ 2.3 / - 4.1				
1.5H	+ 3.3 / - 3.3					+ 3.6 / - 3.4				
2.0H	+ 3.8 / - 2.9					+ 4.1 / - 3.1				

CIE Pub.117 Corrected 449.3 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:12.11V I:0.6269A P:5.206W PF:0.6858 Freq:59.98Hz Lamp Flux:449.35x1 lm		
NAME: LED LAMP	TYPE:MR16 CW BLACK PCB	WEIGHT:
SPEC.:5.5W 2700K 40°LENS	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:

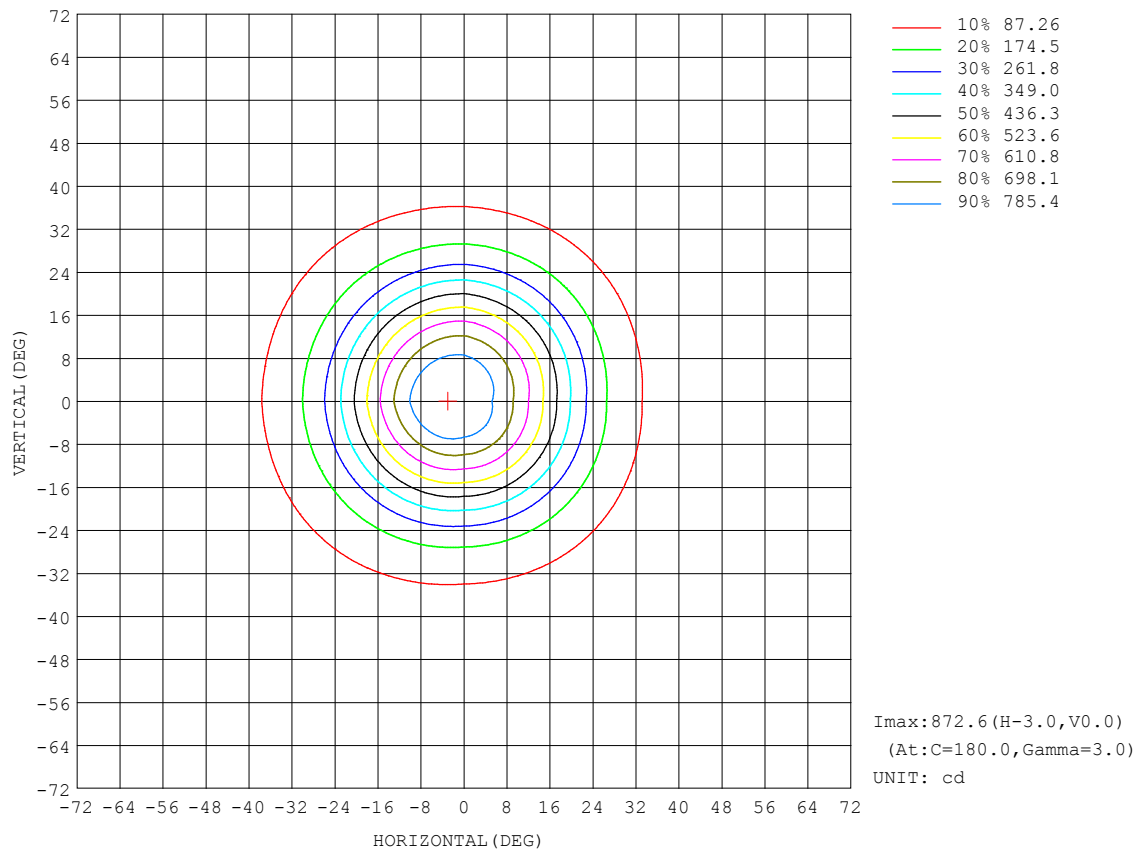
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	85	79	75	85	78	74	84	78	74	71
0.80	93	87	83	92	86	83	91	86	82	78
1.00	98	92	88	97	91	88	95	91	87	83
1.25	102	96	93	101	96	92	99	94	91	87
1.50	105	100	96	103	99	96	101	97	94	90
2.00	108	103	100	106	102	99	103	100	97	92
2.50	109	105	102	108	104	101	104	101	99	93
3.00	111	107	105	109	106	103	105	103	101	94
4.00	113	110	108	111	108	106	107	105	103	96
5.00	114	112	110	112	110	108	108	106	105	97
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:12.11V I:0.6269A P:5.206W PF:0.6858 Freq:59.98Hz Lamp Flux:449.35x1 lm		
NAME: LED LAMP	TYPE:MR16 CW BLACK PCB	WEIGHT:
SPEC.:5.5W 2700K 40°LENS	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:

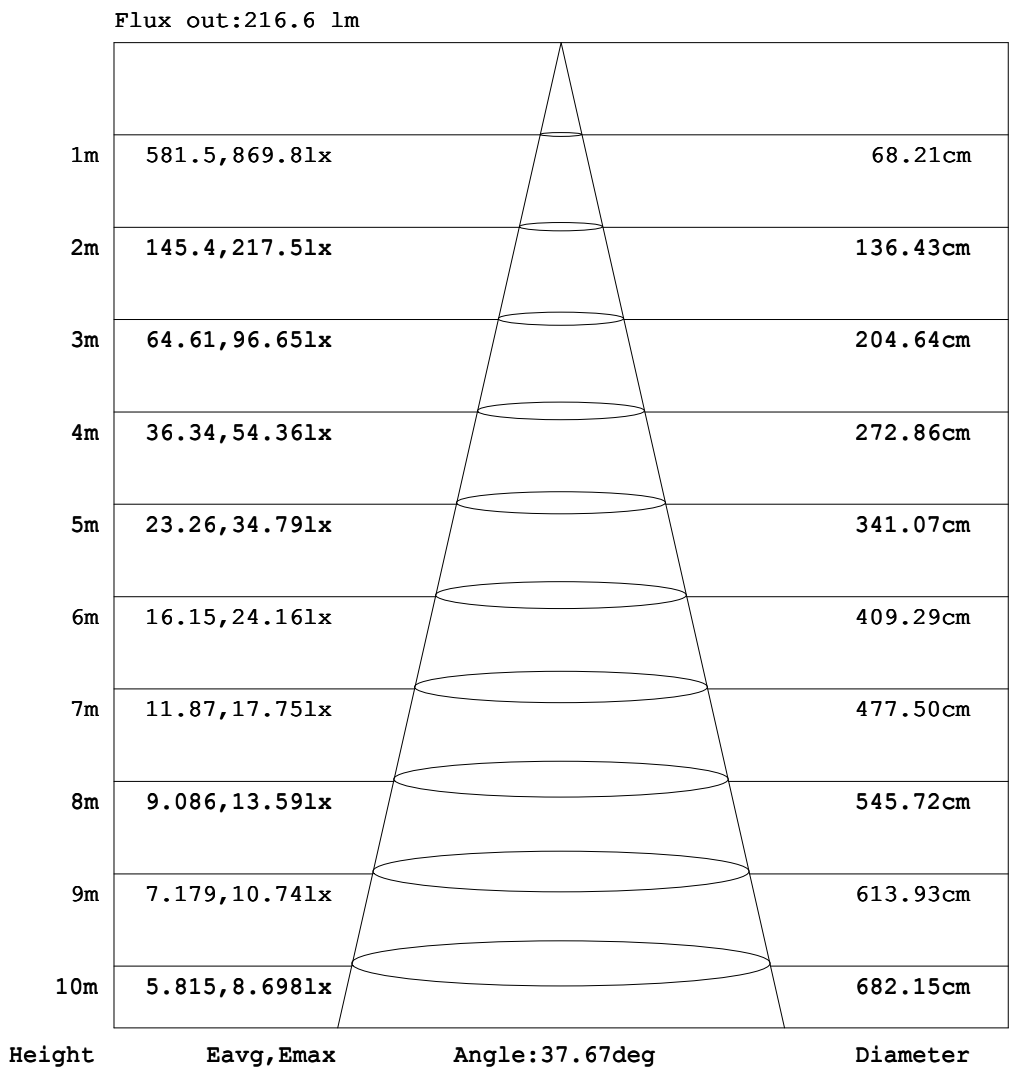


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ADMIN
Test Date:2025-05-16

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:12.11V I:0.6269A P:5.206W PF:0.6858 Freq:59.98Hz Lamp Flux:449.35x1 lm		
NAME: LED LAMP	TYPE:MR16 CW BLACK PCB	WEIGHT:
SPEC.:5.5W 2700K 40°LENS	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:



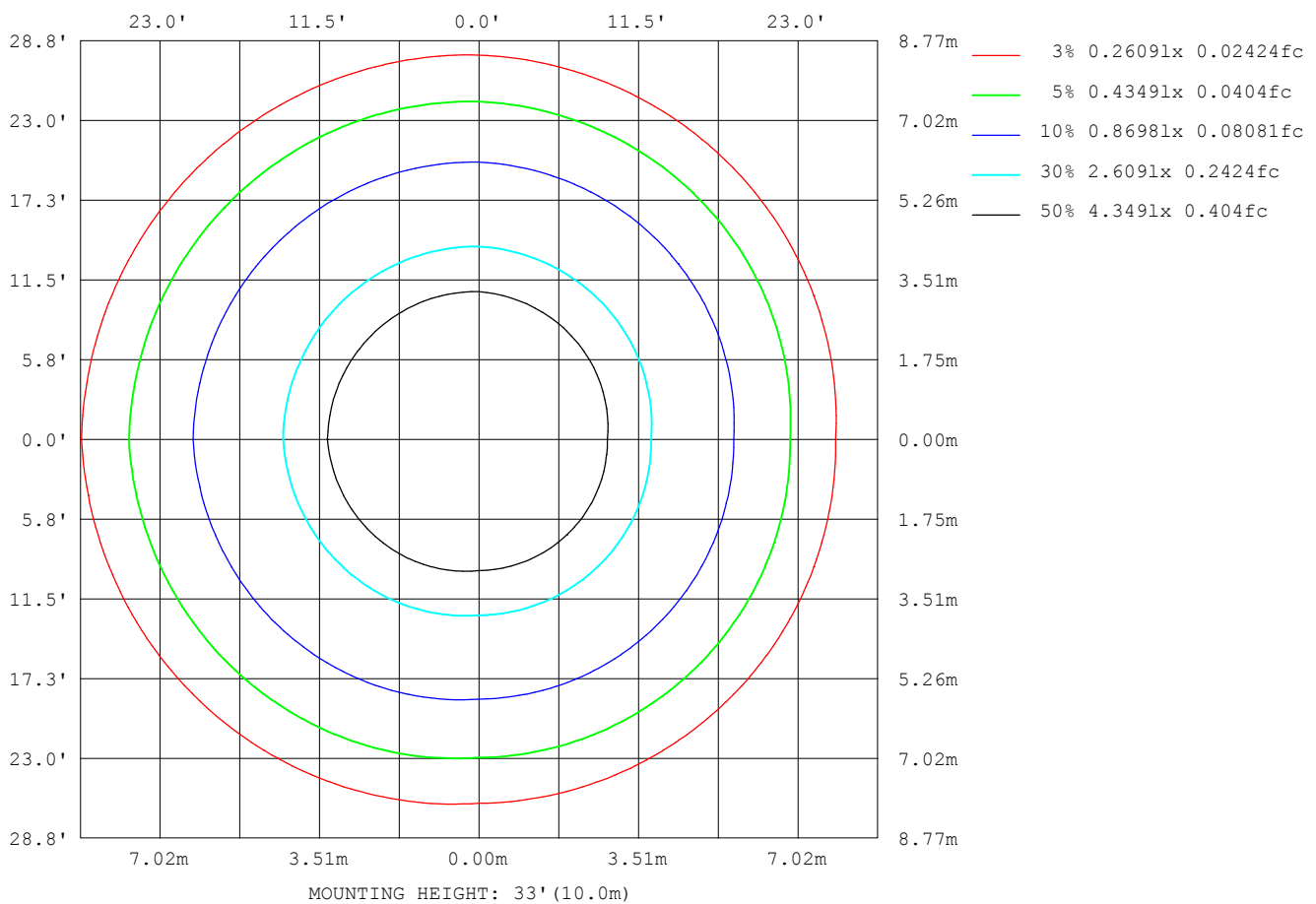
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:12.11V I:0.6269A P:5.206W PF:0.6858 Freq:59.98Hz Lamp Flux:449.35x1 lm		
NAME: LED LAMP	TYPE:MR16 CW BLACK PCB	WEIGHT:
SPEC.:5.5W 2700K 40°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:12.11V I:0.6269A P:5.206W PF:0.6858 Freq:59.98Hz Lamp Flux:449.35x1 lm		
NAME: LED LAMP	TYPE:MR16 CW BLACK PCB	WEIGHT:
SPEC.:5.5W 2700K 40°LENS	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:

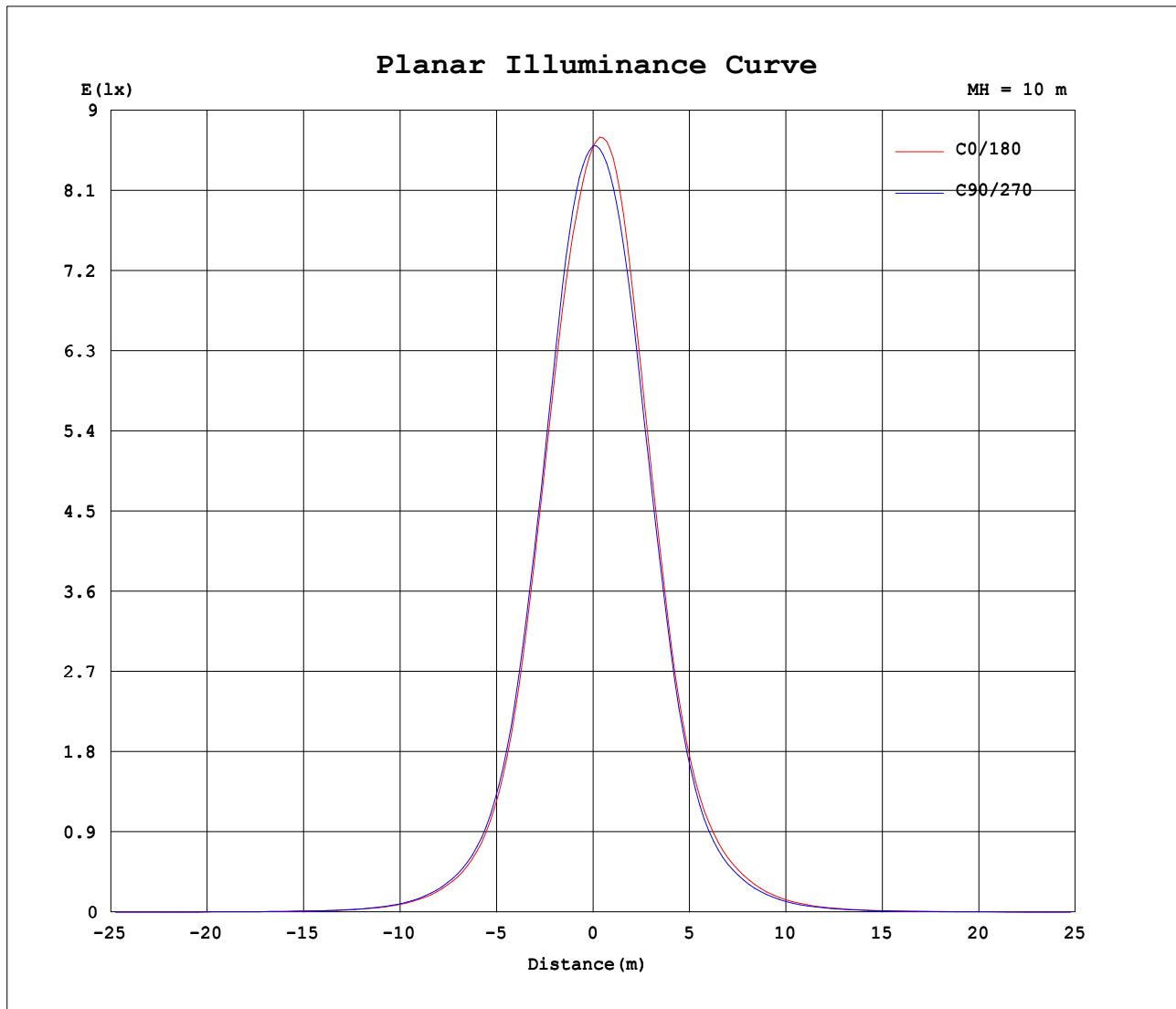
AvgL	cd/m2
L_0~180 (65) av	89
L_0~180 (75) av	58
L_0~180 (85) av	19
L_90~270 (65) av	84
L_90~270 (75) av	55
L_90~270 (85) av	17
L_45 (65) av	87
L_45 (75) av	57
L_45 (85) av	18

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:12.11V I:0.6269A P:5.206W PF:0.6858 Freq:59.98Hz Lamp Flux:449.35x1 lm		
NAME: LED LAMP	TYPE:MR16 CW BLACK PCB	WEIGHT:
SPEC.:5.5W 2700K 40°LENS	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	90	180	270															
0	859	860	859	860															
5	789	817	867	839															
10	672	696	788	755															
15	514	528	631	607															
20	342	358	452	435															
25	206	218	286	274															
30	121	129	175	160															
35	72.7	79.0	111	97.9															
40	43.8	47.6	69.1	59.7															
45	24.8	26.8	39.5	34.1															
50	13.7	14.8	21.6	18.7															
55	7.79	8.46	11.9	10.2															
60	4.74	5.17	7.00	5.89															
65	3.10	3.32	4.39	3.77															
70	2.09	2.12	2.87	2.53															
75	1.32	1.21	1.69	1.64															
80	0.68	0.55	0.82	0.90															
85	0.18	0.00	0.15	0.30															
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	0.00	0.00	0.00															
115	0.00	0.01	0.00	0.00															
120	0.15	0.16	0.00	0.00															
125	0.46	0.39	0.00	0.00															
130	0.80	0.77	0.15	0.16															
135	1.37	1.29	0.40	0.44															
140	2.07	1.98	0.82	0.87															
145	2.88	2.77	1.39	1.43															
150	3.66	3.59	2.10	2.13															
155	4.44	4.38	2.90	2.94															
160	5.05	5.03	3.68	3.78															
165	5.43	5.43	4.39	4.45															
170	5.62	5.64	4.96	5.05															
175	5.67	5.78	5.41	5.48															
180	5.70	5.79	5.67	5.79															

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