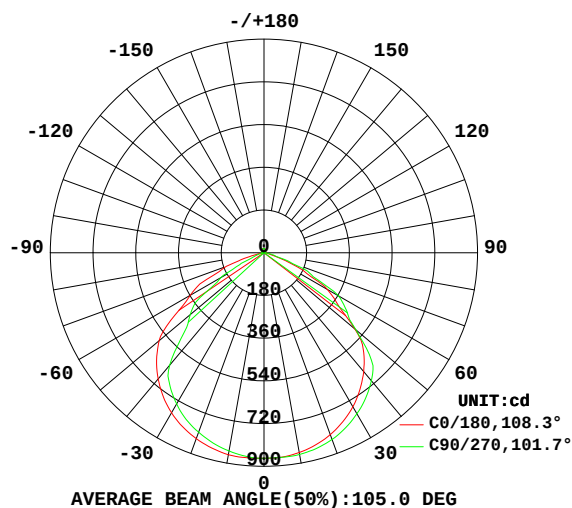


LUMINAIRE PHOTOMETRIC TEST REPORT

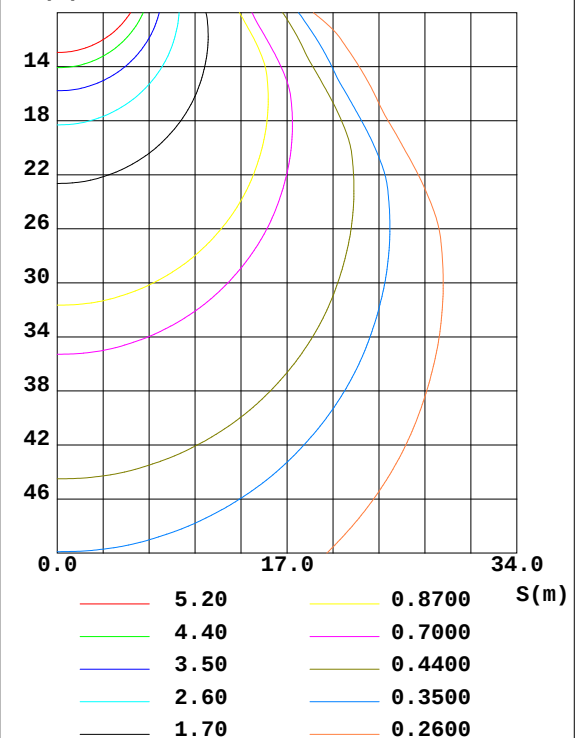
Test:U:230.6V I:0.1690A P:20.60W PF:0.5270 Lamp Flux:2262.56x1 lm		
NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 109.83 lm/W			
MODEL	20W泛光灯	I _{max} (cd)	866.9	S/MH(C0/180)	1.28
NOMINAL POWER(W)	22	LOR(%)	100.0	S/MH(C90/270)	1.34
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	2262.6	η UP, DN(C0-180)	1.3, 49.5
NOMINAL FLUX(lm)	2262.56	CIE CLASS	DIRECT	η UP, DN(C180-360)	1.6, 47.6
LAMPS INSIDE	1	η up(%)	2.9	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	230.5	η down(%)	97.1	CIBSE SHR MAX	1.35

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: DAMIN
 Test Date: 2021-03-13

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.267
 Humidity: 65.0%
 Test Distance: 8.250m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C90	C180	C270					γ	Φ zone	Φ total	%lum, lamp
10	854.9	862.9	864.0	848.0					0- 10	82.31	82.31	3.64, 3.64
20	815.9	837.5	833.7	804.7					10- 20	238.2	320.6	14.2, 14.2
30	749.2	783.2	779.2	736.2					20- 30	367.1	687.6	30.4, 30.4
40	653.5	703.8	693.8	618.5					30- 40	450.3	1138	50.3, 50.3
50	500.6	505.5	576.5	406.3					40- 50	452.3	1590	70.3, 70.3
60	308.0	362.9	358.2	209.7					50- 60	355.2	1945	86, 86
70	96.71	116.2	169.4	39.94					60- 70	195.5	2141	94.6, 94.6
80	10.24	22.20	20.63	7.793					70- 80	48.00	2189	96.7, 96.7
90	4.691	4.682	5.612	5.768					80- 90	8.710	2198	97.1, 97.1
100	5.968	5.193	7.072	7.701					90-100	6.234	2204	97.4, 97.4
110	7.453	6.519	9.151	9.790					100-110	7.759	2212	97.7, 97.7
120	9.029	8.017	11.21	11.75					110-120	9.043	2221	98.1, 98.1
130	10.59	9.559	12.99	13.39					120-130	9.699	2230	98.6, 98.6
140	12.26	11.13	14.55	14.84					130-140	9.596	2240	99, 99
150	14.13	12.89	16.03	16.16					140-150	8.769	2249	99.4, 99.4
160	16.12	14.97	17.47	17.40					150-160	7.219	2256	99.7, 99.7
170	17.83	16.96	18.59	18.17					160-170	4.864	2261	99.9, 99.9
180	18.80	18.37	19.00	18.13					170-180	1.737	2263	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

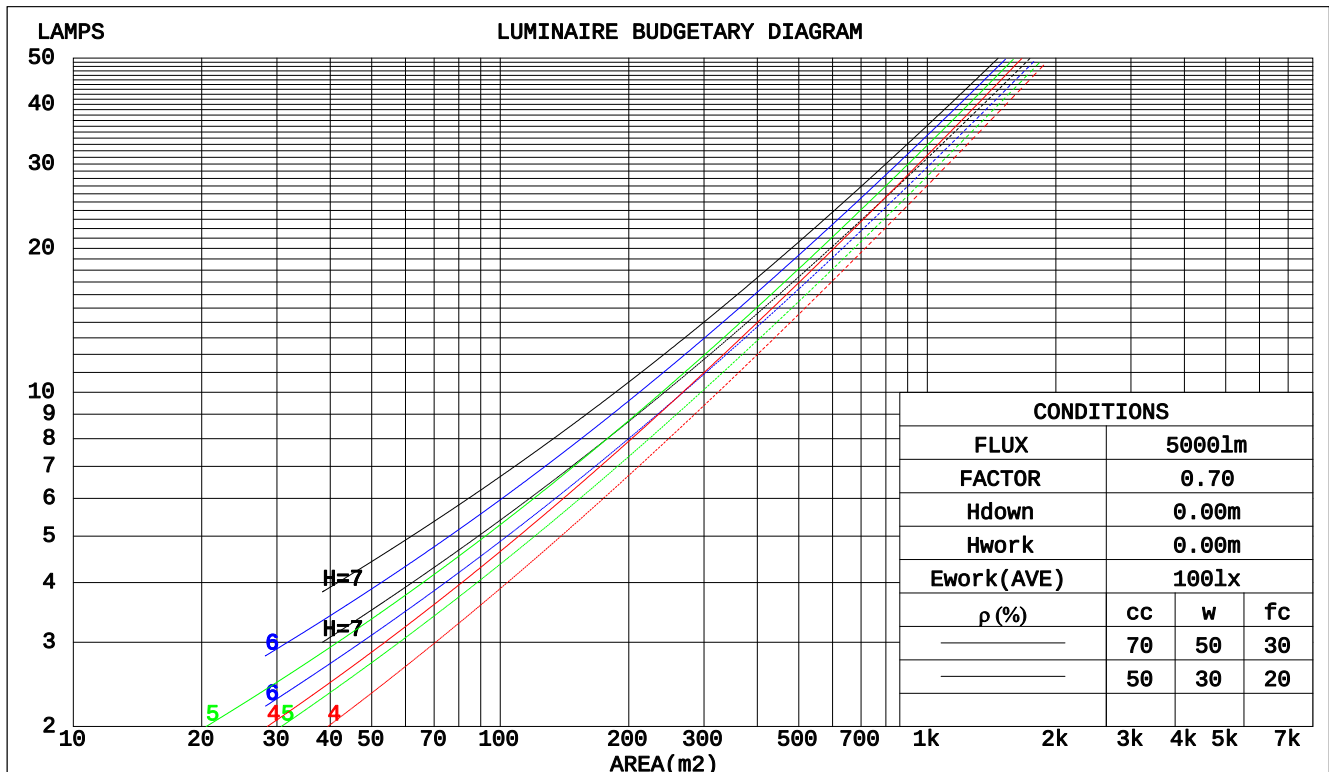
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2021-03-13

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 γ Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.267
 Humidity: 65.0%
 Test Distance: 8.250m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:230.6V I:0.1690A P:20.60W PF:0.5270 Lamp Flux:2262.56x1 lm		
NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	PROTECTION 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						Coefficients of Utilization(CU)									
0.0	1.18	1.18	1.18	1.15	1.15	1.15	1.10	1.10	1.10	1.04	1.04	1.04	.99	.99	.99	.97
1.0	1.06	1.02	.99	1.03	.99	.97	.99	.96	.93	.94	.92	.90	.90	.89	.87	.85
2.0	.94	.88	.83	.92	.86	.81	.88	.83	.79	.84	.80	.77	.81	.78	.75	.73
3.0	.83	.76	.70	.81	.75	.69	.78	.72	.68	.75	.70	.66	.72	.68	.65	.62
4.0	.74	.66	.60	.73	.65	.59	.70	.63	.58	.67	.62	.57	.65	.60	.56	.54
5.0	.67	.58	.52	.65	.57	.52	.63	.56	.51	.61	.55	.50	.59	.53	.49	.47
6.0	.60	.52	.46	.59	.51	.45	.57	.50	.45	.55	.49	.44	.53	.48	.43	.41
7.0	.55	.46	.40	.54	.46	.40	.52	.45	.40	.50	.44	.39	.49	.43	.39	.37
8.0	.50	.42	.36	.49	.41	.36	.47	.40	.36	.46	.40	.35	.45	.39	.35	.33
9.0	.46	.38	.32	.45	.37	.32	.44	.37	.32	.42	.36	.32	.41	.36	.31	.30
10.0	.42	.35	.29	.42	.34	.29	.40	.34	.29	.39	.33	.29	.38	.33	.29	.27



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2021-03-13

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.267
 Humidity: 65.0%
 Test Distance: 8.250m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:230.6V I:0.1690A P:20.60W PF:0.5270 Lamp Flux:2262.56x1 lm									
NAME:				TYPE:			WEIGHT:		
DIM.:				SPEC.:			SERIAL No.:		
MFR.: EVERFINE				SUR.:			PROTECTION 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	.261	.148	.047	.253	.144	.046	.238	.137	.044	.225	.130	.042	.212	.123	.040		
2.0	.254	.139	.043	.247	.136	.042	.235	.130	.041	.223	.125	.039	.212	.120	.038		
3.0	.241	.128	.038	.235	.126	.038	.224	.121	.037	.213	.117	.036	.204	.113	.035		
4.0	.227	.118	.035	.222	.116	.034	.212	.112	.034	.202	.109	.033	.193	.105	.032		
5.0	.213	.109	.031	.208	.107	.031	.199	.104	.031	.191	.101	.030	.183	.098	.029		
6.0	.200	.100	.029	.196	.099	.028	.187	.096	.028	.180	.093	.027	.173	.091	.027		
7.0	.188	.093	.026	.184	.092	.026	.176	.089	.026	.170	.087	.025	.163	.085	.025		
8.0	.176	.086	.024	.173	.085	.024	.166	.083	.024	.160	.081	.023	.154	.079	.023		
9.0	.166	.080	.022	.163	.080	.022	.157	.078	.022	.151	.076	.022	.146	.074	.021		
10.0	.157	.075	.021	.154	.075	.021	.149	.073	.021	.144	.071	.020	.139	.070	.020		

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.212	.212	.212	.181	.181	.181	.124	.124	.124	.071	.071	.071	.023	.023	.023	
1.0	.199	.179	.160	.170	.153	.138	.116	.105	.095	.067	.061	.055	.021	.020	.018	
2.0	.189	.154	.125	.162	.133	.108	.111	.092	.075	.064	.053	.044	.021	.017	.014	
3.0	.181	.136	.101	.155	.118	.087	.107	.082	.061	.062	.048	.036	.020	.016	.012	
4.0	.174	.123	.084	.149	.106	.073	.103	.074	.051	.059	.043	.030	.019	.014	.010	
5.0	.167	.112	.072	.143	.097	.063	.099	.068	.044	.057	.040	.026	.018	.013	.009	
6.0	.160	.104	.064	.138	.090	.055	.095	.063	.039	.055	.037	.023	.018	.012	.008	
7.0	.154	.097	.057	.132	.084	.050	.091	.059	.035	.053	.035	.021	.017	.011	.007	
8.0	.148	.091	.053	.127	.079	.046	.088	.056	.032	.051	.033	.019	.017	.011	.006	
9.0	.142	.086	.049	.122	.075	.043	.085	.053	.030	.049	.031	.018	.016	.010	.006	
10.0	.137	.082	.046	.118	.071	.040	.082	.050	.028	.048	.030	.017	.015	.010	.006	

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2021-03-13

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:8.250m [K=1.0000]
Remarks:

Uncorrected UGR Table

Test:U:230.6V I:0.1690A P:20.60W PF:0.5270 Lamp Flux:2262.56x1 lm											
NAME:					TYPE:			WEIGHT:			
DIM.:					SPEC.:			SERIAL No.:			
MFR.: EVERFINE					SUR.:			PROTECTION 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		30.3	31.7	30.6	31.9	32.2	30.6	32.0	30.9	32.3	32.5
3H		30.7	32.0	31.1	32.3	32.6	31.3	32.5	31.6	32.8	33.1
4H		30.7	31.9	31.0	32.2	32.5	31.2	32.4	31.6	32.7	33.0
6H		30.6	31.7	31.0	32.0	32.4	31.2	32.3	31.6	32.6	33.0
8H		30.5	31.6	30.9	31.9	32.3	31.2	32.2	31.5	32.6	32.9
12H		30.5	31.5	30.9	31.9	32.2	31.1	32.1	31.5	32.5	32.8
4H	2H	30.6	31.8	31.0	32.1	32.4	30.9	32.1	31.3	32.4	32.7
	3H	31.1	32.2	31.5	32.5	32.9	31.6	32.6	32.0	33.0	33.3
	4H	31.1	32.0	31.5	32.4	32.8	31.6	32.5	32.0	32.9	33.3
	6H	31.0	31.8	31.5	32.2	32.7	31.6	32.4	32.0	32.8	33.2
	8H	31.0	31.7	31.4	32.2	32.6	31.5	32.3	32.0	32.7	33.2
	12H	30.9	31.6	31.4	32.1	32.5	31.5	32.2	32.0	32.6	33.1
8H	4H	31.0	31.8	31.5	32.2	32.6	31.5	32.3	32.0	32.7	33.1
	6H	31.0	31.6	31.5	32.0	32.5	31.5	32.1	32.0	32.6	33.1
	8H	30.9	31.5	31.4	32.0	32.5	31.5	32.0	32.0	32.5	33.0
	12H	30.9	31.4	31.4	31.9	32.4	31.5	31.9	32.0	32.4	33.0
12H	4H	31.0	31.7	31.4	32.1	32.6	31.5	32.2	31.9	32.6	33.0
	6H	30.9	31.5	31.4	32.0	32.5	31.5	32.0	32.0	32.5	33.0
	8H	30.9	31.4	31.4	31.9	32.4	31.5	31.9	32.0	32.4	33.0
Variations with the observer position at spacings:											
S = 1.0H		+ 0.7 / - 0.6					+ 0.5 / - 0.6				
1.5H		+ 0.2 / - 0.5					+ 0.2 / - 0.5				
2.0H		+ 0.6 / - 1.4					+ 0.6 / - 1.4				

CIE Pub.117 Corrected 2263 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:DAMIN
Test Date:2021-03-13

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:8.250m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:230.6V I:0.1690A P:20.60W PF:0.5270 Lamp Flux:2262.56x1 lm		
NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:

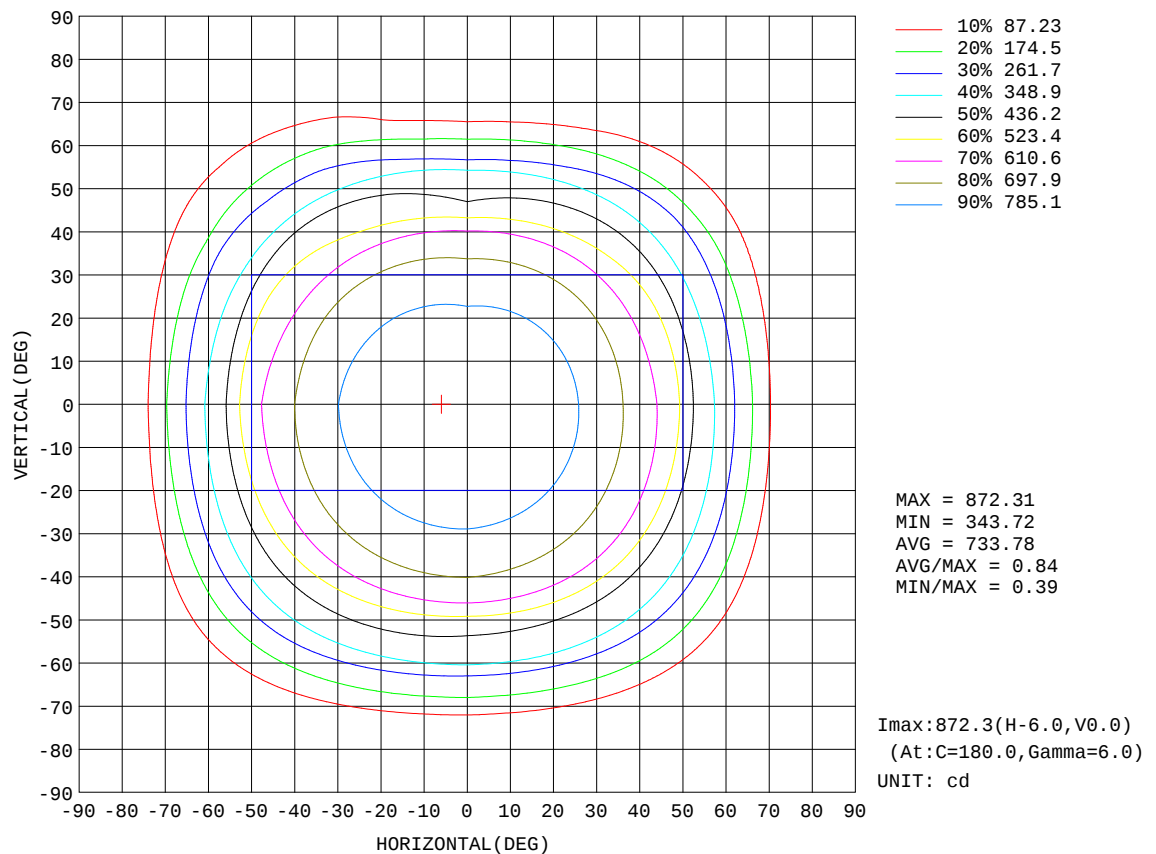
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	60	49	43	59	49	42	58	48	42	36
0.80	71	60	53	70	59	53	68	58	52	46
1.00	79	69	63	78	69	62	76	70	62	55
1.25	87	77	71	85	76	70	82	75	69	62
1.50	91	83	76	90	82	76	86	80	74	67
2.00	98	90	85	96	89	84	92	86	82	74
2.50	101	94	89	99	93	88	95	90	86	78
3.00	104	98	93	102	97	92	98	93	90	81
4.00	108	103	99	105	101	97	101	97	94	85
5.00	110	105	102	107	103	100	102	99	97	87
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:DAMIN
Test Date:2021-03-13

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:8.250m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:230.6V I:0.1690A P:20.60W PF:0.5270 Lamp Flux:2262.56x1 lm		
NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:

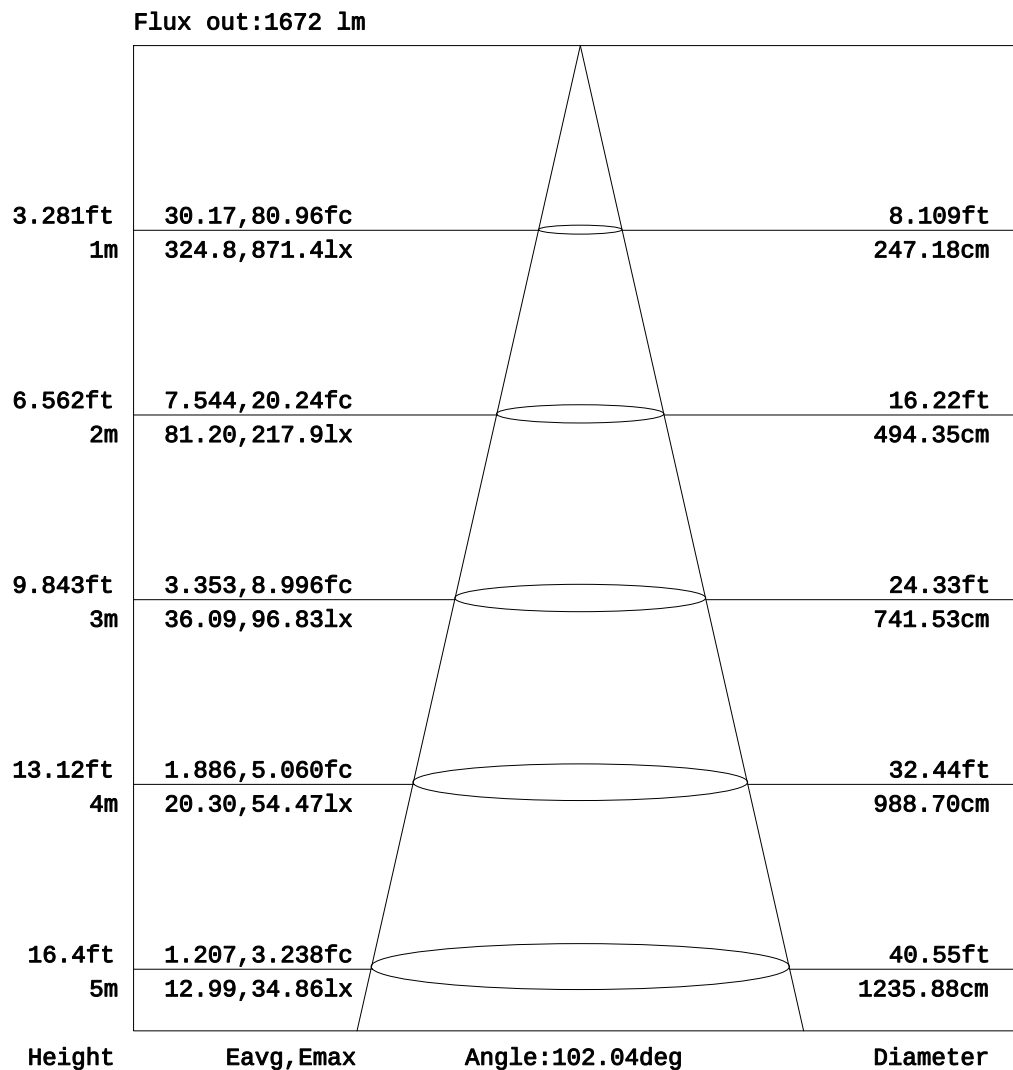


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2021-03-13

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:8.250m [K=1.0000]
Remarks:

AAI Figure

Test:U:230.6V I:0.1690A P:20.60W PF:0.5270 Lamp Flux:2262.56x1 lm		
NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:



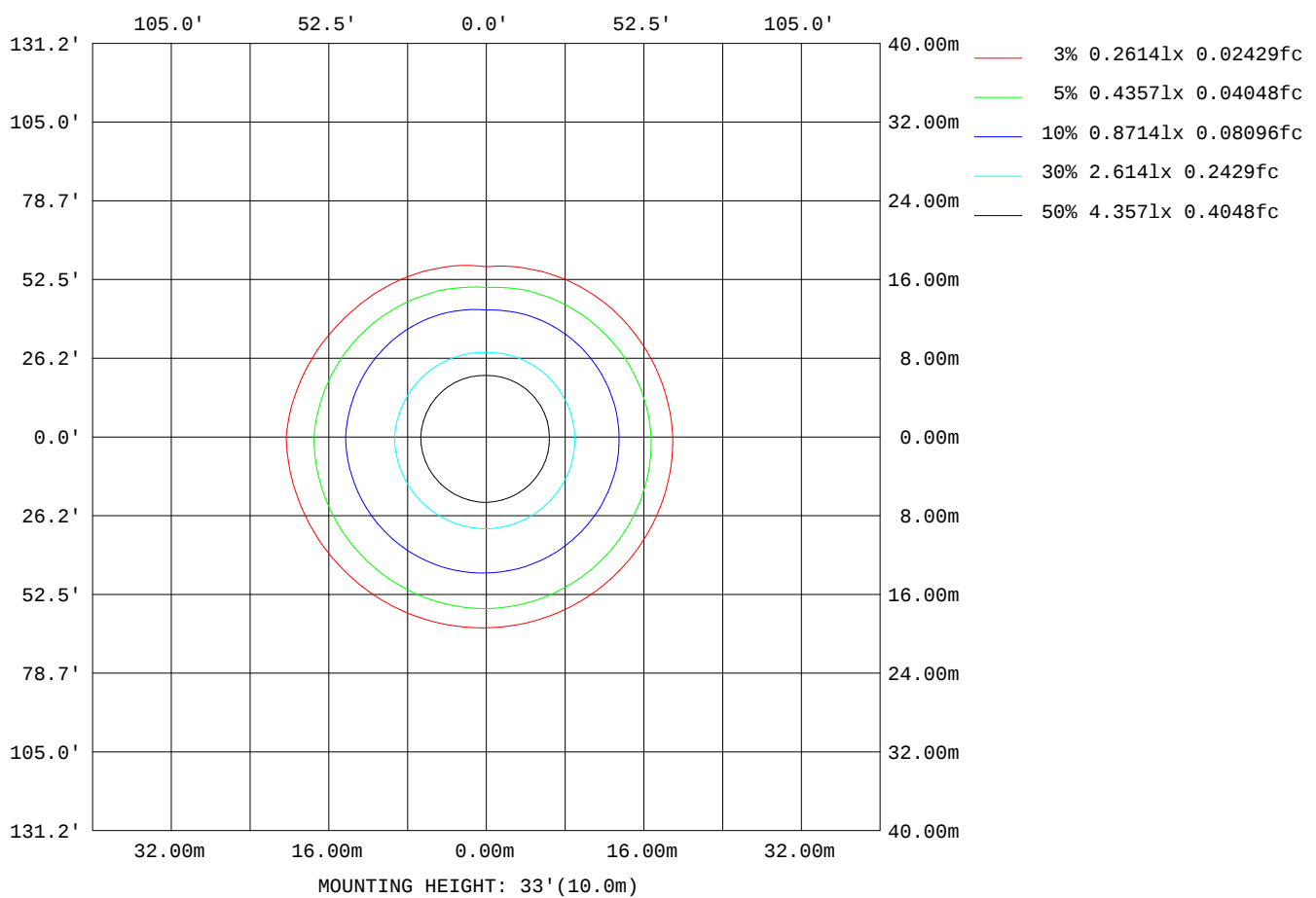
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2021-03-13

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:8.250m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

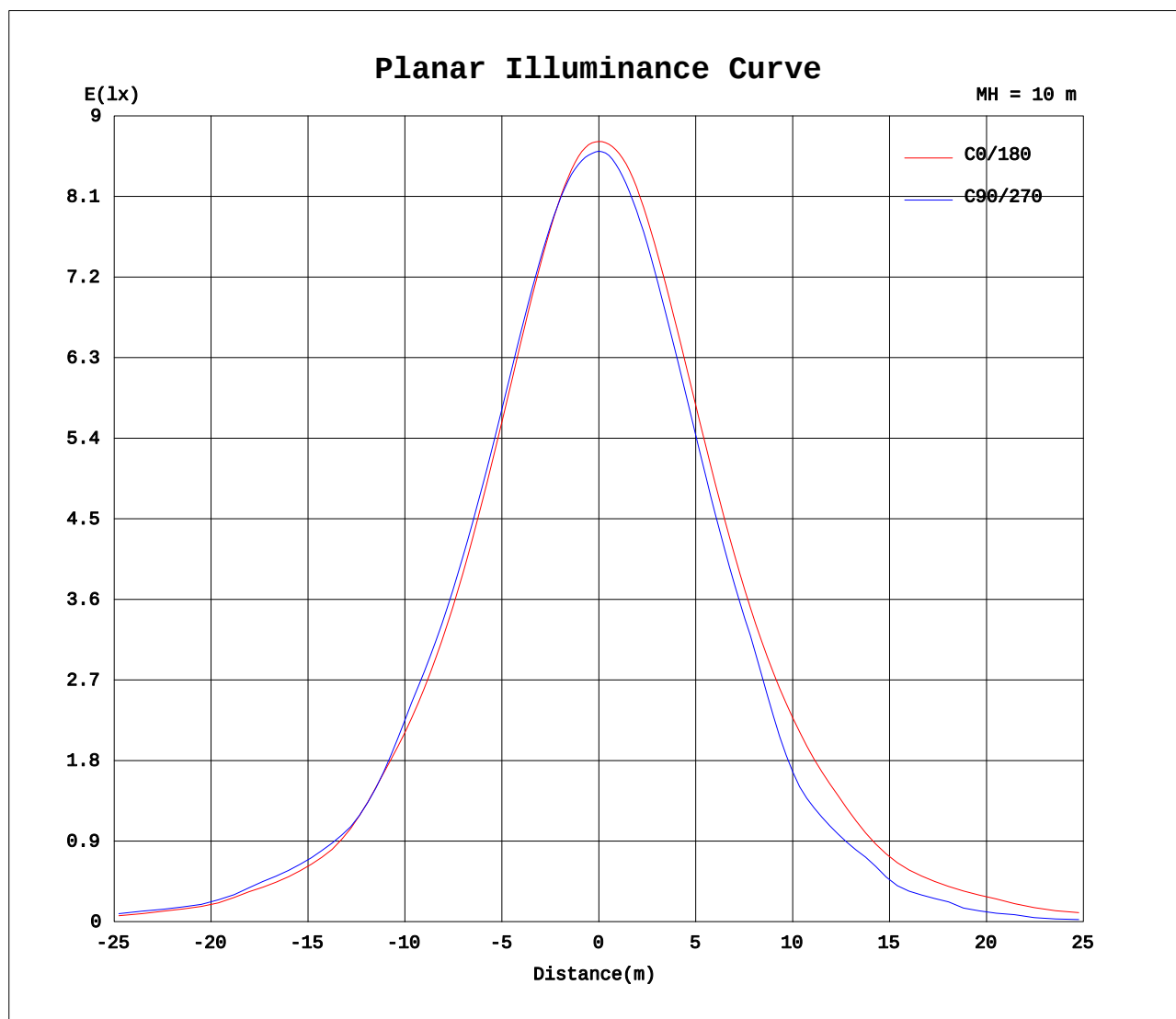
Test:U:230.6V I:0.1690A P:20.60W PF:0.5270 Lamp Flux:2262.56x1 lm		
NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2021-03-13

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.267
Humidity: 65.0%
Test Distance: 8.250m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2021-03-13

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.267
Humidity: 65.0%
Test Distance: 8.250m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.6V I:0.1690A P:20.60W PF:0.5270 Lamp Flux:2262.56x1 lm		
NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	90	180	270															
0	866	866	866	866															
5	865	865	867	861															
10	855	863	864	848															
15	839	854	852	830															
20	816	838	834	805															
25	786	814	810	775															
30	749	783	779	736															
35	704	747	740	689															
40	654	704	694	618															
45	594	641	640	477															
50	501	505	577	406															
55	379	425	458	330															
60	308	363	358	210															
65	189	222	267	106															
70	96.7	116	169	39.9															
75	25.4	46.6	61.2	17.8															
80	10.2	22.2	20.6	7.79															
85	5.02	8.76	8.43	5.30															
90	4.69	4.68	5.61	5.77															
95	5.31	4.60	6.11	6.70															
100	5.97	5.19	7.07	7.70															
105	6.68	5.82	8.09	8.73															
110	7.45	6.52	9.15	9.79															
115	8.23	7.25	10.2	10.8															
120	9.03	8.02	11.2	11.7															
125	9.80	8.79	12.1	12.6															
130	10.6	9.56	13.0	13.4															
135	11.4	10.3	13.8	14.2															
140	12.3	11.1	14.6	14.8															
145	13.2	12.0	15.3	15.5															
150	14.1	12.9	16.0	16.2															
155	15.1	13.9	16.8	16.8															
160	16.1	15.0	17.5	17.4															
165	17.0	16.0	18.1	17.9															
170	17.8	17.0	18.6	18.2															
175	18.4	17.8	18.9	18.3															
180	18.8	18.4	19.0	18.1															

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2021-03-13

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:8.250m [K=1.0000]
Remarks: