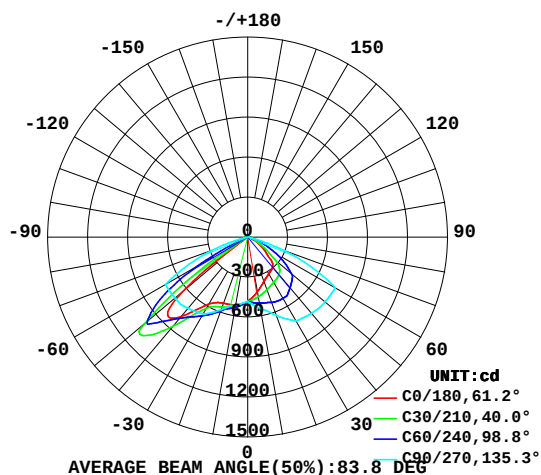


LUMINAIRE PHOTOMETRIC TEST REPORT

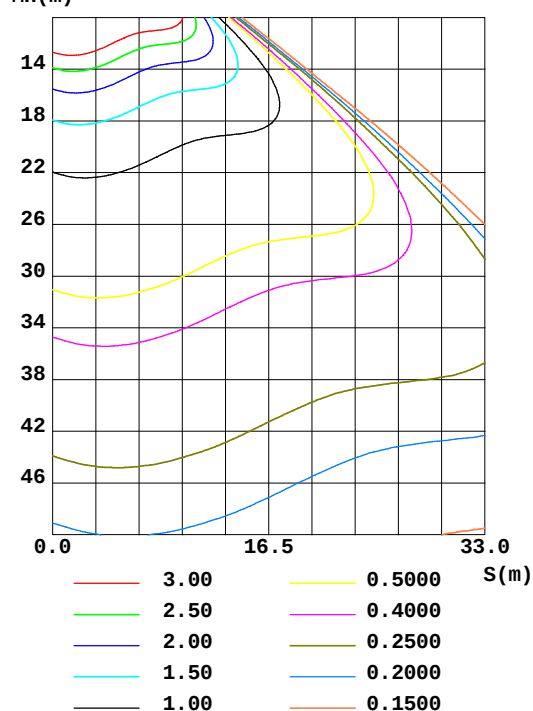
Test:U:230.5V I:0.1880A P:20.40W PF:0.4690 Lamp Flux:2015.24x1 lm		
NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 98.79 lm/W
MODEL	20W路灯	I _{max} (cd)	1212	S/MH(C0/180)	1.77	
NOMINAL POWER(W)	22	LOR(%)	100.0	S/MH(C90/270)	2.06	
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	2015.2	η UP, DN(C0-180)	0.0, 48.9	
NOMINAL FLUX(lm)	2015.24	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 51.1	
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.50	
TEST VOLTAGE(V)	230.5	η down(%)	100.0	CIBSE SHR MAX	1.50	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2020-04-25

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE G0-2000H_V1 SYSTEM V2.0.267
Humidity: 65.0%
Test Distance: 8.250m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	ϕ zone	ϕ total	%lum,lamp
5	507.1	512.8	499.9	474.2	452.1	482.9	512.6	522.0	0- 5	11.76	11.76	0.58,0.58
10	519.4	536.2	517.9	463.0	419.0	479.8	543.3	555.1	5- 10	35.90	47.65	2.36,2.36
15	524.4	553.8	535.8	450.3	385.5	474.3	574.0	582.8	10- 15	60.41	108.1	5.36,5.36
20	528.9	568.9	579.8	436.6	356.7	467.2	625.0	608.4	15- 20	85.45	193.5	9.6,9.6
25	542.8	605.7	623.7	430.0	334.8	459.5	676.0	651.1	20- 25	112.1	305.6	15.2,15.2
30	581.5	653.2	667.7	423.1	318.8	450.3	727.0	702.3	25- 30	140.7	446.3	22.1,22.1
35	663.9	721.9	682.8	416.2	307.3	441.5	736.8	772.3	30- 35	171.6	617.9	30.7,30.7
40	778.7	832.4	697.8	406.1	293.1	429.9	746.6	883.1	35- 40	206.0	823.9	40.9,40.9
45	844.8	977.6	712.9	370.2	256.7	388.6	756.4	1024	40- 45	243.9	1068	53,53
50	640.0	1016	712.8	323.6	179.9	333.8	757.8	1058	45- 50	266.8	1335	66.2,66.2
55	92.36	796.0	712.8	261.2	133.1	260.7	759.3	846.4	50- 55	235.3	1570	77.9,77.9
60	52.10	328.5	712.7	158.5	89.87	154.0	760.7	383.4	55- 60	177.1	1747	86.7,86.7
65	44.38	85.73	487.8	90.24	46.36	87.66	519.0	101.8	60- 65	129.8	1877	93.1,93.1
70	33.93	45.12	262.9	51.77	33.08	49.73	277.3	44.62	65- 70	79.61	1956	97.1,97.1
75	27.13	44.28	38.03	34.37	26.11	33.49	35.61	44.99	70- 75	39.90	1996	99.1,99.1
80	20.53	34.13	0	16.76	18.37	16.47	0	35.70	75- 80	13.61	2010	99.7,99.7
85	13.36	0	0	0	4.863	0	0	0	80- 85	4.702	2015	100,100
90	6.748	0	0	0	4.254	0	0	0	85- 90	0.7065	2015	100,100
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

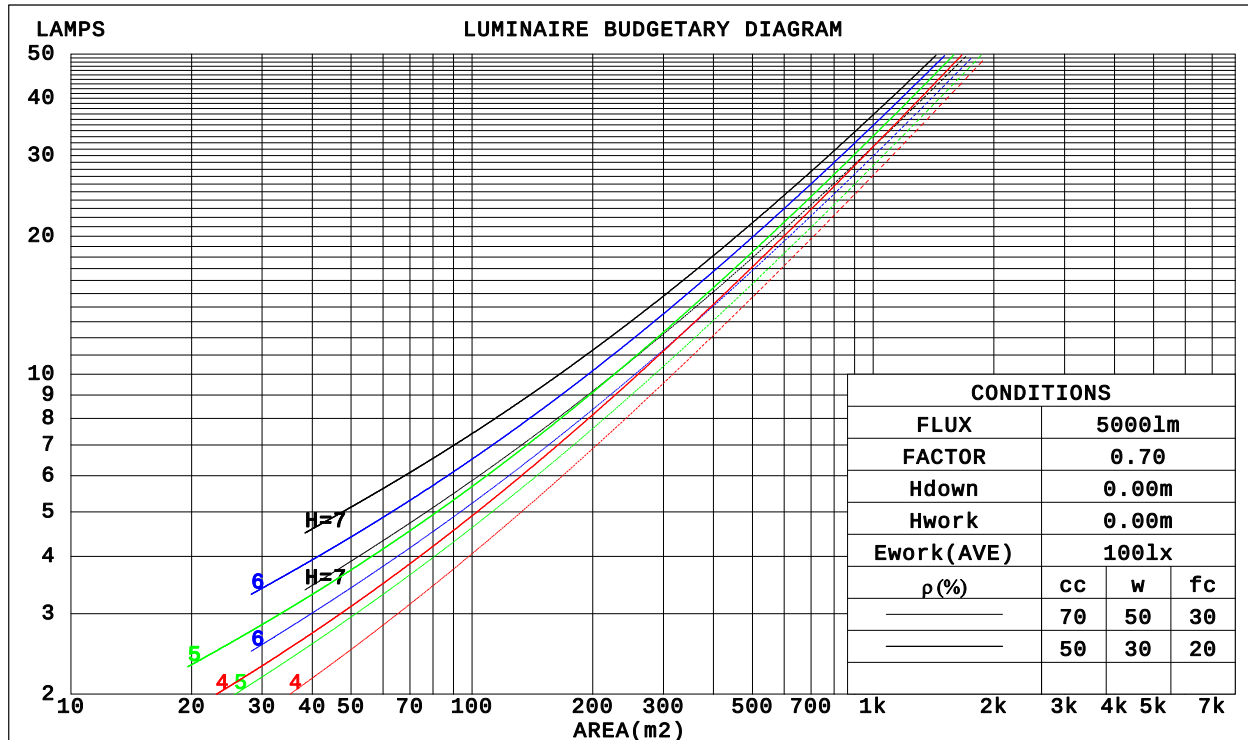
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2020-04-25

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE G0-2000H_V1 SYSTEM V2.0.267
 Humidity:65.0%
 Test Distance:8.250m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:230.5V I:0.1880A P:20.40W PF:0.4690 Lamp Flux:2015.24x1 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	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1.0	1.06	1.02	.98	1.03	.99	.97	.99	.96	.94	.95	.93	.91	.92	.90	.88	.86
2.0	.92	.86	.81	.91	.85	.80	.87	.82	.78	.84	.80	.76	.81	.77	.74	.72
3.0	.81	.73	.67	.79	.72	.66	.76	.70	.65	.74	.68	.64	.71	.67	.63	.61
4.0	.71	.63	.56	.70	.62	.56	.67	.60	.55	.65	.59	.54	.63	.58	.53	.51
5.0	.63	.54	.48	.62	.54	.47	.60	.52	.47	.58	.51	.46	.56	.50	.46	.44
6.0	.56	.47	.41	.55	.47	.41	.54	.46	.40	.52	.45	.40	.50	.44	.40	.37
7.0	.51	.42	.35	.50	.41	.35	.48	.41	.35	.47	.40	.35	.45	.39	.34	.32
8.0	.46	.37	.31	.45	.37	.31	.44	.36	.31	.42	.36	.31	.41	.35	.30	.28
9.0	.42	.33	.27	.41	.33	.27	.40	.32	.27	.39	.32	.27	.38	.31	.27	.25
10.0	.38	.30	.24	.37	.30	.24	.36	.29	.24	.35	.29	.24	.35	.28	.24	.22



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2020-04-25

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000H_V1 SYSTEM V2.0.267
 Humidity: 65.0%
 Test Distance: 8.250m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:230.5V I:0.1880A P:20.40W PF:0.4690 Lamp Flux:2015.24x1 lm														
NAME:					TYPE:					WEIGHT:				
DIM.:					SPEC.:					SERIAL No.:				
MFR.: EVERFINE					SUR.:					PROTECTION ANGLE:				

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						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.278	.158	.050	.271	.154	.049	.258	.148	.047	.246	.142	.045	.234	.136	.044		
2.0	.273	.150	.046	.267	.147	.045	.256	.142	.044	.245	.137	.043	.235	.133	.042		
3.0	.260	.138	.041	.254	.136	.041	.244	.132	.040	.235	.129	.039	.226	.125	.039		
4.0	.244	.127	.037	.240	.125	.037	.230	.122	.036	.222	.119	.036	.214	.116	.035		
5.0	.229	.117	.034	.225	.115	.034	.216	.113	.033	.209	.110	.033	.202	.108	.032		
6.0	.214	.107	.031	.210	.106	.031	.203	.104	.030	.196	.102	.030	.190	.100	.030		
7.0	.201	.099	.028	.197	.098	.028	.191	.096	.028	.185	.095	.028	.179	.093	.027		
8.0	.188	.092	.026	.185	.091	.026	.179	.090	.026	.174	.088	.025	.169	.087	.025		
9.0	.177	.086	.024	.174	.085	.024	.169	.083	.024	.164	.082	.024	.159	.081	.023		
10.0	.167	.080	.022	.164	.079	.022	.159	.078	.022	.155	.077	.022	.151	.076	.022		

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	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.178	.156	.137	.152	.134	.118	.104	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.170	.132	.100	.145	.114	.087	.100	.079	.060	.057	.046	.035	.018	.015	.012	
3.0	.163	.114	.076	.139	.099	.066	.096	.068	.046	.055	.040	.027	.018	.013	.009	
4.0	.156	.101	.059	.134	.087	.051	.092	.061	.036	.053	.036	.021	.017	.012	.007	
5.0	.149	.091	.047	.128	.078	.041	.088	.055	.029	.051	.032	.017	.016	.010	.006	
6.0	.142	.082	.039	.122	.071	.034	.084	.050	.024	.049	.029	.014	.016	.010	.005	
7.0	.136	.075	.033	.117	.065	.029	.081	.046	.020	.047	.027	.012	.015	.009	.004	
8.0	.130	.070	.028	.112	.061	.025	.077	.042	.018	.045	.025	.010	.015	.008	.003	
9.0	.124	.065	.025	.107	.056	.022	.074	.040	.015	.043	.023	.009	.014	.008	.003	
10.0	.119	.061	.022	.102	.053	.019	.071	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2020-04-25

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:8.250m [K=1.0000]
Remarks:

Uncorrected UGR Table

Test:U:230.5V I:0.1880A P:20.40W PF:0.4690 Lamp Flux:2015.24x1 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	24.3	25.8	24.5	26.0	26.2	29.7	31.2	29.9	31.4	31.6	
	3H	24.1	25.5	24.4	25.7	26.0	31.0	32.4	31.3	32.6	32.8
	4H	24.0	25.4	24.3	25.6	25.9	30.9	32.3	31.3	32.5	32.8
	6H	24.0	25.2	24.3	25.5	25.8	30.8	32.1	31.2	32.3	32.6
	8H	24.0	25.1	24.3	25.4	25.7	30.8	32.0	31.1	32.3	32.6
	12H	23.9	25.1	24.3	25.4	25.7	30.7	31.9	31.1	32.2	32.5
4H	2H	24.8	26.1	25.1	26.3	26.6	29.4	30.8	29.7	31.0	31.3
	3H	24.6	25.8	25.0	26.1	26.4	30.8	31.9	31.1	32.2	32.5
	4H	24.6	25.6	25.0	25.9	26.3	30.8	31.8	31.2	32.1	32.5
	6H	24.6	25.5	25.0	25.8	26.2	30.7	31.6	31.1	32.0	32.3
	8H	24.6	25.4	25.0	25.8	26.2	30.7	31.5	31.1	31.9	32.3
	12H	24.6	25.4	25.0	25.7	26.1	30.6	31.4	31.0	31.8	32.2
8H	4H	24.6	25.5	25.0	25.8	26.2	30.7	31.5	31.1	31.9	32.3
	6H	24.7	25.4	25.1	25.8	26.2	30.6	31.3	31.0	31.7	32.1
	8H	24.7	25.3	25.2	25.7	26.2	30.6	31.2	31.0	31.6	32.0
	12H	24.8	25.3	25.2	25.7	26.2	30.5	31.0	31.0	31.5	32.0
12H	4H	24.6	25.4	25.0	25.7	26.1	30.6	31.4	31.1	31.8	32.2
	6H	24.7	25.3	25.1	25.7	26.1	30.6	31.2	31.0	31.6	32.0
	8H	24.7	25.2	25.2	25.7	26.1	30.5	31.0	31.0	31.5	32.0
Variations with the observer position at spacings:											
S = 1.0H	+ 2.3 / - 5.2					+ 1.7 / - 2.1					
1.5H	+ 2.3 / - 3.1					+ 2.0 / - 3.1					
2.0H	+ 4.2 / - 7.5					+ 2.9 / - 8.3					

CIE Pub.117 Corrected 2015 lm Total Lamp Luminous Flux.(8log(F/F0) = 2.4)

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2020-04-25

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:8.250m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:230.5V I:0.1880A P:20.40W PF:0.4690 Lamp Flux:2015.24x1 lm		
NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:

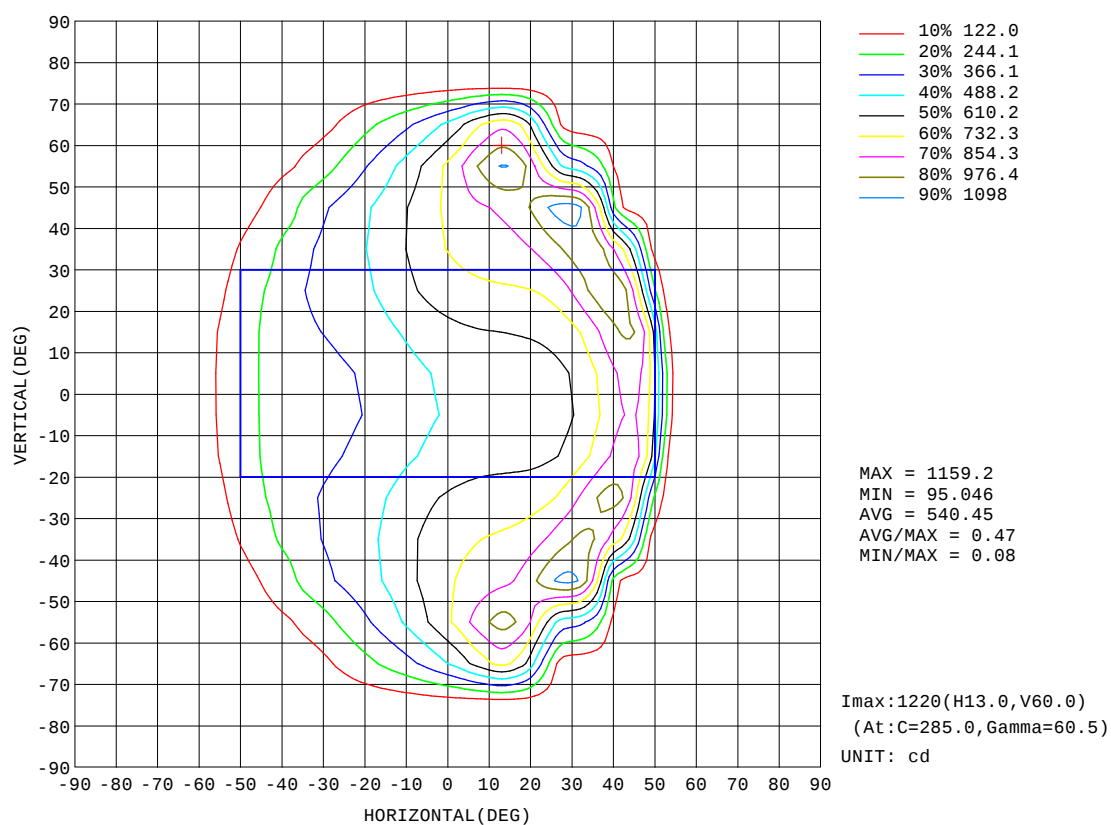
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	54	42	34	53	41	34	52	41	34	27
0.80	66	53	46	65	53	46	63	52	45	38
1.00	76	65	57	74	64	57	72	65	56	49
1.25	84	73	66	82	73	66	80	71	65	58
1.50	89	79	73	87	78	72	84	77	71	64
2.00	96	88	82	95	87	81	91	85	80	72
2.50	100	93	87	98	91	86	94	89	84	76
3.00	103	97	92	101	96	91	97	93	89	80
4.00	107	102	97	105	100	96	101	97	93	85
5.00	109	105	101	107	103	99	102	99	96	87
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2020-04-25

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE G0-2000H_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:8.250m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:230.5V I:0.1880A P:20.40W PF:0.4690 Lamp Flux:2015.24x1 lm		
NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:

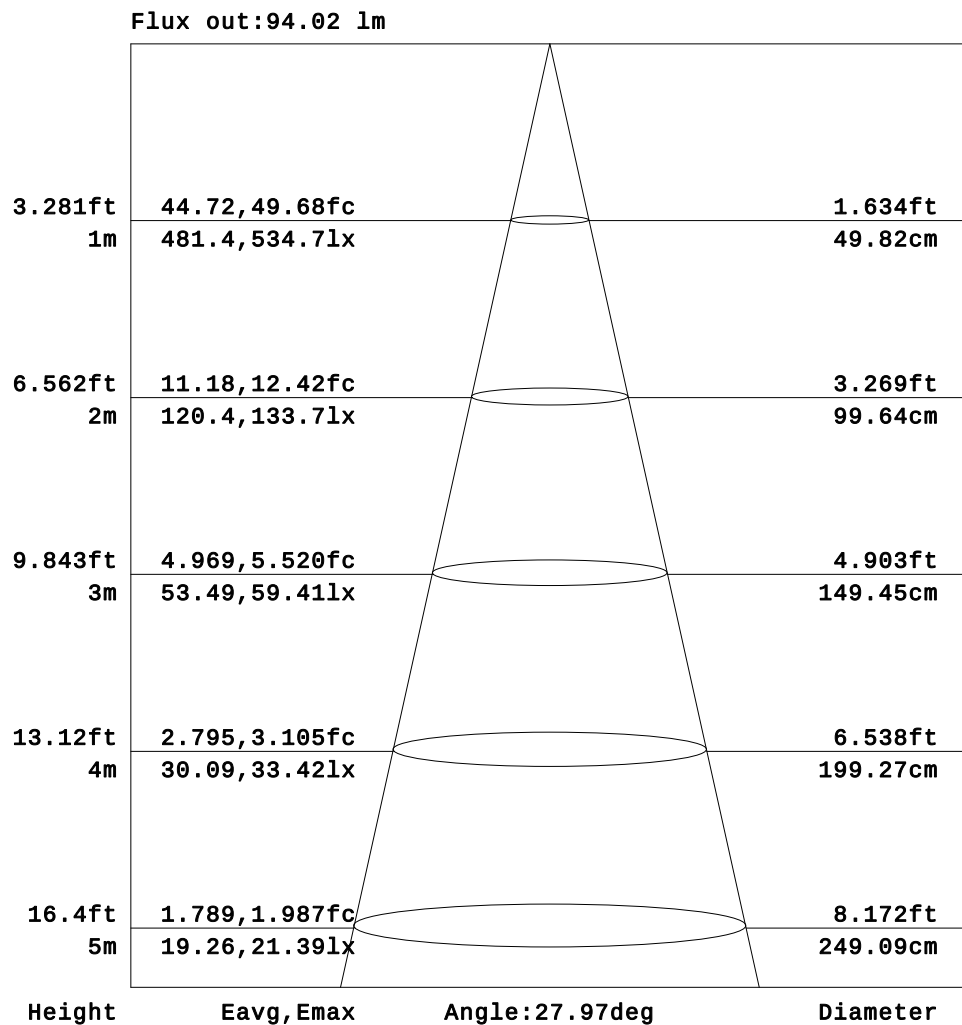


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2020-04-25

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE G0-2000H_V1 SYSTEM V2.0.267
Humidity: 65.0%
Test Distance: 8.250m [K=1.0000]
Remarks:

AAI Figure

Test:U:230.5V I:0.1880A P:20.40W PF:0.4690 Lamp Flux:2015.24x1 lm		
NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:



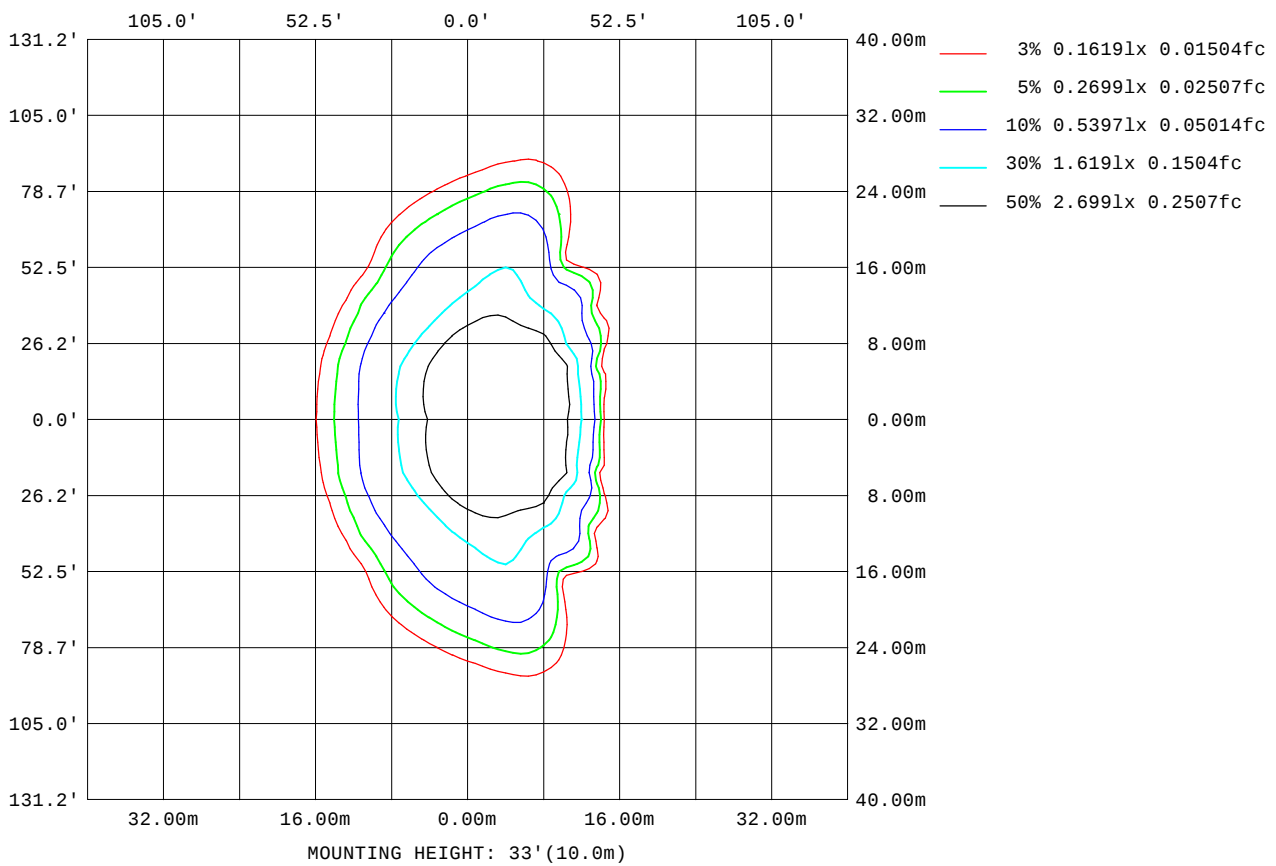
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2020-04-25

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE G0-2000H_V1 SYSTEM V2.0.267
Humidity: 65.0%
Test Distance: 8.250m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

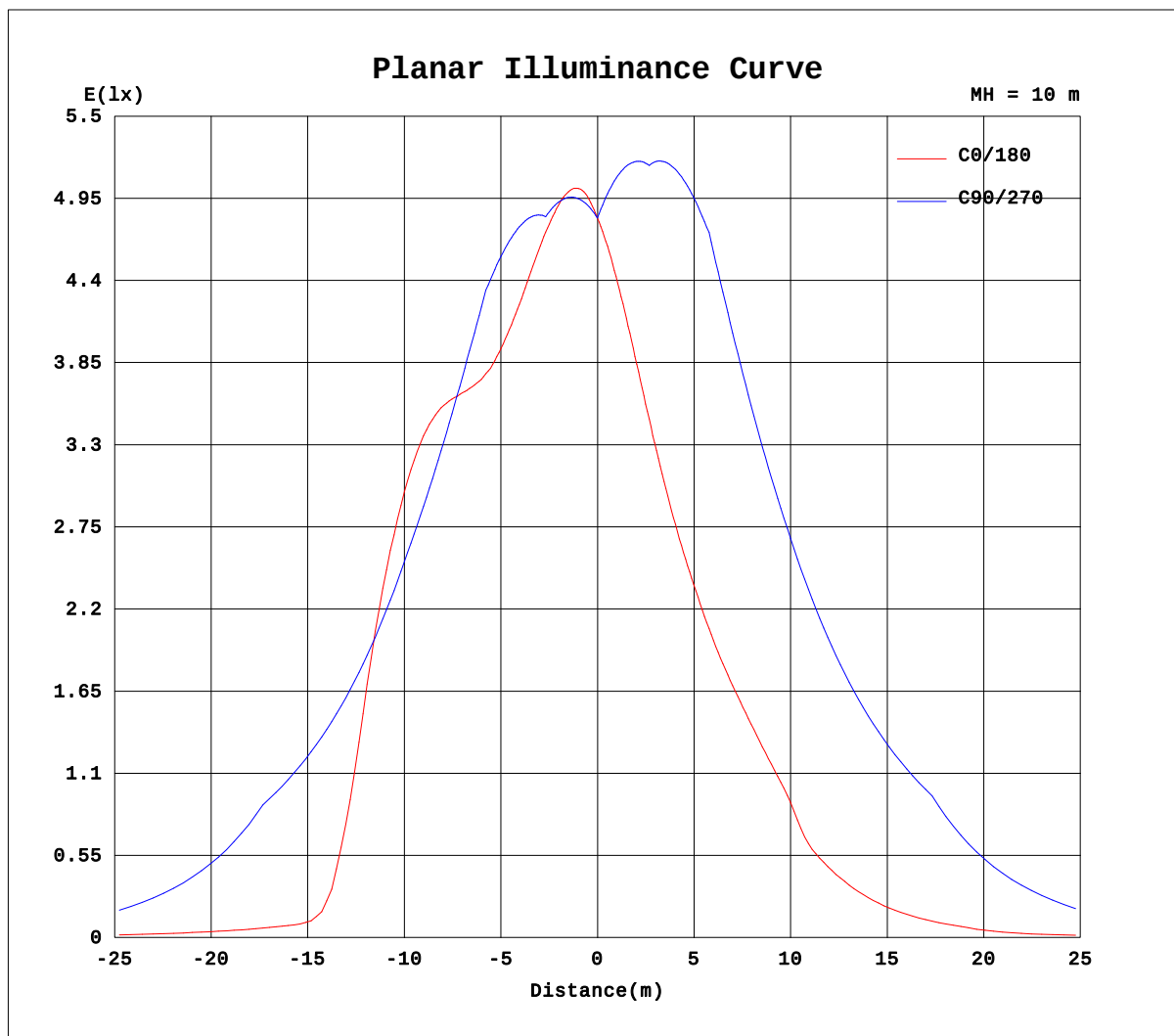
Test:U:230.5V I:0.1880A P:20.40W PF:0.4690 Lamp Flux:2015.24x1 lm		
NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2020-04-25

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE G0-2000H_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: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2020-04-25

γ Range: 0 - 90DEG
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Test System: EVERFINE G0-2000H_V1 SYSTEM V2.0.267
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Test Distance: 8.250m [K=1.0000]
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
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Humidity: 65.0%
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```

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```

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Test System: EVERFINE GO-2000H_V1 SYSTEM V2.0.267
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γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE GO-2000H_V1 SYSTEM V2.0.267
Humidity: 65.0%
Test Distance: 8.250m [K=1.0000]
Remarks:

```