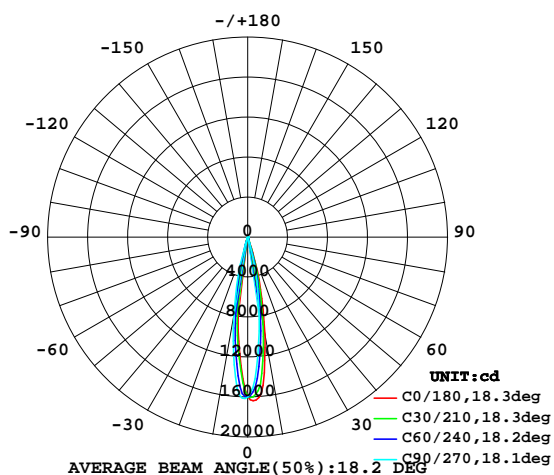


LUMINAIRE PHOTOMETRIC TEST REPORT

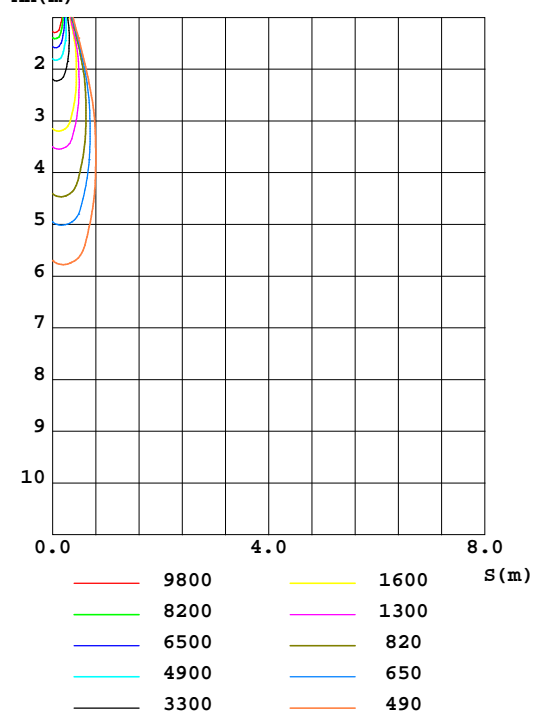
Test:U:230.7V I:0.1680A P:35.60W PF:0.9200 Lamp Flux:1977.27x1 lm		
NAME: TL17A-35W	TYPE:35W	WEIGHT:
DIM.:	SPEC.:2700K	SERIAL No.:1
MFR.:	SUR.:0.04	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 55.54 lm/W			
MODEL	TL17A-35W	Imax(cd)	16386	S/MH(C0/180)	0.38
NOMINAL POWER(W)	36	LOR(%)	100.0	S/MH(C90/270)	0.28
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	1977.3	η UP,DN(C0-180)	0.0,49.1
NOMINAL FLUX(lm)	1977.27	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.9
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE(V)	230.7	η down(%)	100.0	CIBSE SHR MAX	1.00

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2016-08-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:9.480m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	Φ lum, lamp
10	995.6	799.5	610.9	521.0	504.2	612.3	799.8	946.5	0- 10	1042	1042	52.7,52.7
20	73.95	49.85	36.12	26.40	25.36	31.33	45.85	66.28	10- 20	748.2	1790	90.5,90.5
30	7.994	6.956	5.942	5.326	7.671	8.184	9.270	10.23	20- 30	77.51	1867	94.4,94.4
40	3.085	2.957	2.772	2.655	4.100	4.322	4.670	4.928	30- 40	32.07	1899	96.1,96.1
50	2.813	2.734	2.522	2.401	2.749	2.923	3.154	3.313	40- 50	24.91	1924	97.3,97.3
60	2.133	2.023	1.816	1.709	1.626	1.743	1.915	1.998	50- 60	20.96	1945	98.4,98.4
70	1.423	1.335	1.218	1.154	1.002	1.072	1.163	1.204	60- 70	14.88	1960	99.1,99.1
80	0.9525	0.8897	0.8165	0.7784	0.6640	0.7022	0.7553	0.7818	70- 80	10.36	1970	99.7,99.7
90	0.5373	0.5046	0.4778	0.4712	0.4986	0.4998	0.5058	0.5087	80- 90	6.804	1977	100,100
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:×10cd									UNIT:lm		

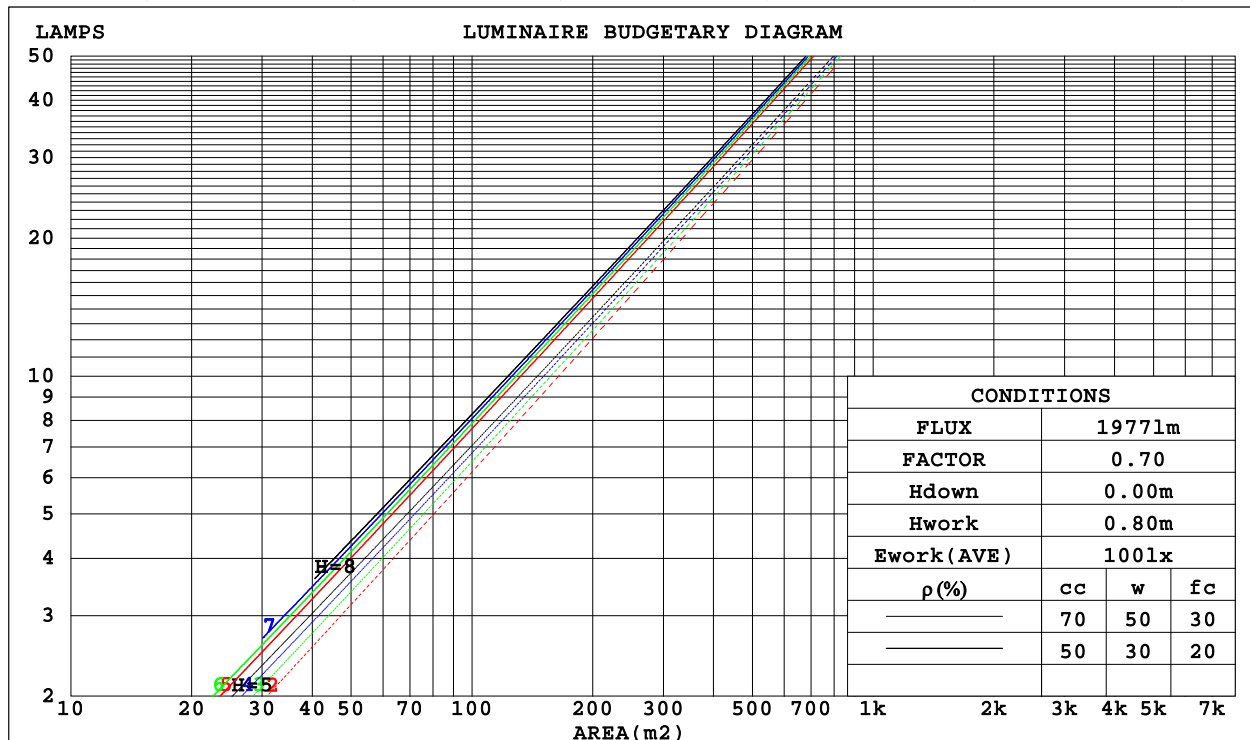
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2016-08-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.480m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:230.7V I:0.1680A P:35.60W PF:0.9200 Lamp Flux:1977.27x1 lm		
NAME: TL17A-35W	TYPE:35W	WEIGHT:
DIM.:	SPEC.:2700K	SERIAL No.:1
MFR.:	SUR.:0.04	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															



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2016-08-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.480m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:230.7V I:0.1680A P:35.60W PF:0.9200 Lamp Flux:1977.27x1 lm		
NAME: TL17A-35W	TYPE:35W	WEIGHT:
DIM.:	SPEC.:2700K	SERIAL No.:1
MFR.:	SUR.:0.04	PROTECTION 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	.132	.075	.024	.125	.072	.023	.113	.065	.021	.102	.059	.019	.091	.053	.017	
2.0	.120	.066	.020	.114	.063	.019	.104	.058	.018	.095	.053	.017	.086	.049	.015	
3.0	.110	.058	.017	.105	.056	.017	.097	.052	.016	.089	.049	.015	.082	.045	.014	
4.0	.101	.052	.015	.097	.051	.015	.090	.048	.014	.084	.045	.014	.078	.042	.013	
5.0	.094	.048	.014	.091	.047	.014	.085	.044	.013	.079	.042	.012	.074	.040	.012	
6.0	.088	.044	.013	.085	.043	.012	.080	.041	.012	.075	.039	.011	.071	.037	.011	
7.0	.082	.041	.012	.080	.040	.011	.076	.038	.011	.072	.037	.011	.068	.035	.010	
8.0	.078	.038	.011	.076	.037	.011	.072	.036	.010	.068	.035	.010	.065	.033	.010	
9.0	.074	.036	.010	.072	.035	.010	.068	.034	.010	.065	.033	.009	.062	.032	.009	
10.0	.070	.034	.009	.068	.033	.009	.065	.032	.009	.063	.031	.009	.060	.030	.009	

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	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.168	.158	.148	.144	.135	.128	.098	.093	.088	.057	.054	.051	.018	.017	.017	
2.0	.149	.133	.119	.128	.114	.103	.088	.079	.072	.051	.046	.042	.016	.015	.014	
3.0	.134	.113	.097	.115	.098	.084	.079	.068	.059	.045	.040	.035	.015	.013	.011	
4.0	.120	.098	.080	.103	.084	.070	.071	.059	.049	.041	.034	.029	.013	.011	.010	
5.0	.109	.085	.067	.094	.074	.059	.065	.051	.041	.037	.030	.025	.012	.010	.008	
6.0	.100	.075	.057	.086	.065	.050	.059	.045	.035	.034	.027	.021	.011	.009	.007	
7.0	.091	.067	.049	.079	.058	.043	.054	.040	.030	.032	.024	.018	.010	.008	.006	
8.0	.084	.060	.042	.073	.052	.037	.050	.036	.026	.029	.021	.016	.009	.007	.005	
9.0	.078	.054	.037	.067	.047	.032	.047	.033	.023	.027	.019	.014	.009	.006	.005	
10.0	.073	.049	.033	.063	.042	.028	.044	.030	.020	.025	.018	.012	.008	.006	.004	

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2016-08-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.480m [K=1.0000]
 Remarks:

Uncorrected UGR Table

Test:U:230.7V I:0.1680A P:35.60W PF:0.9200 Lamp Flux:1977.27x1 lm											
NAME: TL17A-35W					TYPE:35W			WEIGHT:			
DIM.:					SPEC.:2700K			SERIAL No.:1			
MFR.:					SUR.:0.04			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	11.2	11.8	11.4	12.0	12.1	10.6	11.2	10.8	11.3	11.5	
	3H	13.0	13.5	13.2	13.7	13.9	12.3	12.8	12.5	13.0	13.2
	4H	13.9	14.4	14.1	14.6	14.8	13.1	13.6	13.4	13.8	14.1
	6H	14.9	15.3	15.1	15.6	15.8	14.0	14.5	14.3	14.8	15.0
	8H	15.4	15.9	15.7	16.1	16.3	14.5	15.0	14.8	15.3	15.5
	12H	16.0	16.4	16.3	16.7	16.9	15.1	15.5	15.4	15.8	16.0
4H	2H	11.9	12.4	12.2	12.7	12.9	11.4	12.0	11.7	12.2	12.4
	3H	13.9	14.3	14.2	14.6	14.9	13.3	13.7	13.6	14.0	14.3
	4H	14.9	15.4	15.3	15.6	15.9	14.3	14.7	14.6	15.0	15.3
	6H	16.1	16.5	16.4	16.8	17.1	15.4	15.8	15.7	16.1	16.4
	8H	16.7	17.0	17.1	17.4	17.8	15.9	16.3	16.3	16.6	17.0
	12H	17.4	17.7	17.8	18.1	18.5	16.6	16.9	17.0	17.3	17.6
8H	4H	15.3	15.7	15.7	16.0	16.4	14.8	15.1	15.1	15.5	15.8
	6H	16.7	17.0	17.1	17.4	17.8	16.1	16.4	16.5	16.8	17.2
	8H	17.5	17.7	17.9	18.2	18.6	16.8	17.1	17.3	17.5	17.9
	12H	18.4	18.6	18.8	19.0	19.5	17.6	17.8	18.1	18.3	18.8
12H	4H	15.4	15.7	15.8	16.1	16.4	14.9	15.2	15.3	15.6	15.9
	6H	16.8	17.1	17.3	17.5	17.9	16.3	16.5	16.7	17.0	17.4
	8H	17.7	17.9	18.2	18.4	18.8	17.1	17.3	17.6	17.8	18.2
Variations with the observer position at spacings:											
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.2					
1.5H	+ 0.2 / - 0.3					+ 0.3 / - 0.3					
2.0H	+ 0.1 / - 0.4					+ 0.1 / - 0.4					

CIE Pub.117 Corrected 1977 lm Total Lamp Luminous Flux.(8log(F/F0) = 2.4)

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2016-08-04

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:9.480m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:230.7V I:0.1680A P:35.60W PF:0.9200 Lamp Flux:1977.27x1 lm		
NAME: TL17A-35W	TYPE:35W	WEIGHT:
DIM.:	SPEC.:2700K	SERIAL No.:1
MFR.:	SUR.:0.04	PROTECTION ANGLE:

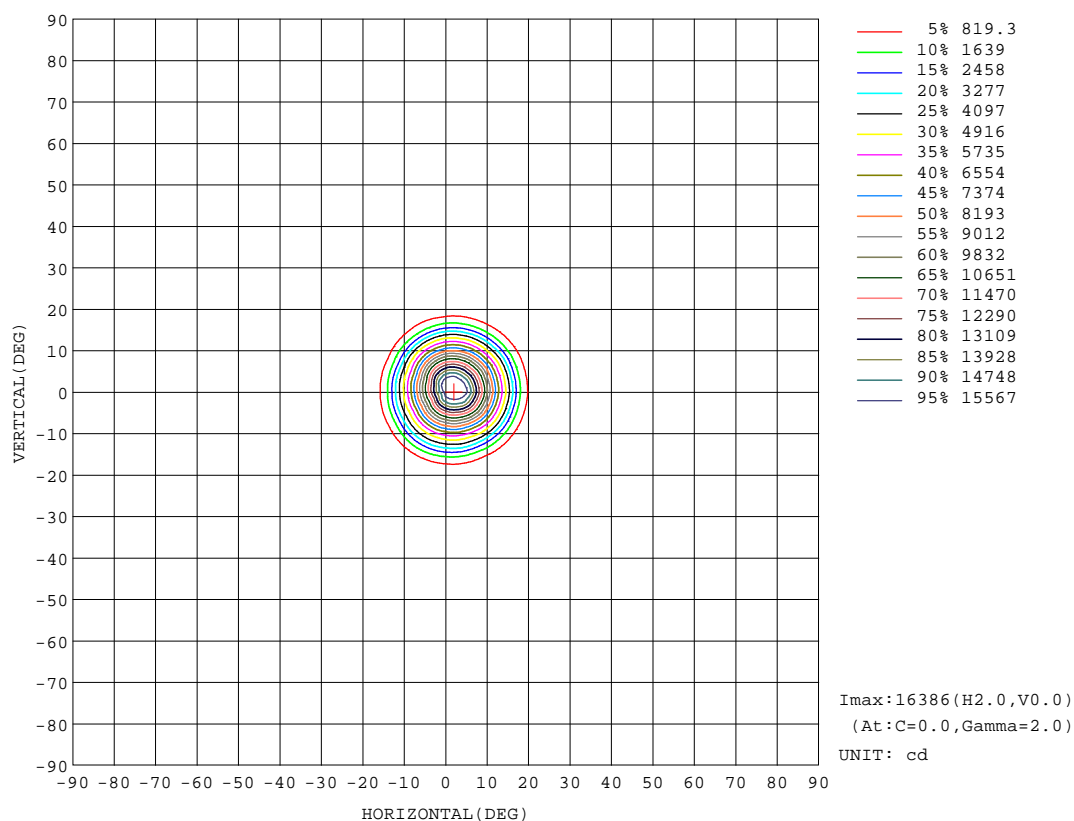
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	89	83	80	89	83	79	88	83	79	76
0.80	96	91	87	96	90	87	94	90	87	83
1.00	100	95	91	99	94	91	98	94	91	87
1.25	104	99	96	103	98	95	101	97	94	90
1.50	106	102	99	105	101	98	103	100	97	93
2.00	109	105	102	107	104	101	105	102	99	94
2.50	110	107	104	109	106	103	106	103	101	95
3.00	112	109	106	110	107	105	107	105	103	96
4.00	114	111	109	112	110	108	108	107	105	98
5.00	115	113	111	113	111	110	109	108	107	99
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2016-08-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.480m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:230.7V I:0.1680A P:35.60W PF:0.9200 Lamp Flux:1977.27x1 lm		
NAME: TL17A-35W	TYPE:35W	WEIGHT:
DIM.:	SPEC.:2700K	SERIAL No.:1
MFR.:	SUR.:0.04	PROTECTION ANGLE:

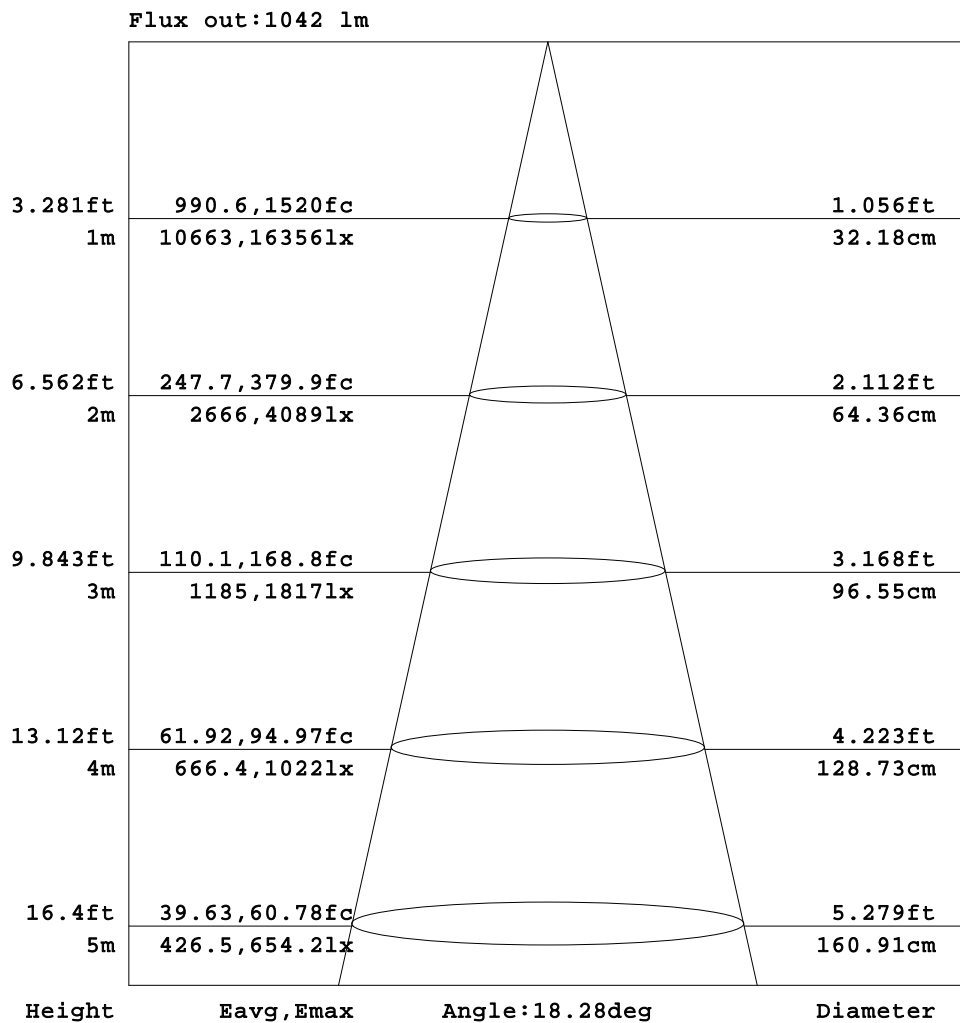


C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2016-08-04

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:9.480m [K=1.0000]
Remarks:

AAI Figure

Test:U:230.7V I:0.1680A P:35.60W PF:0.9200 Lamp Flux:1977.27x1 lm		
NAME: TL17A-35W	TYPE:35W	WEIGHT:
DIM.:	SPEC.:2700K	SERIAL No.:1
MFR.:	SUR.:0.04	PROTECTION ANGLE:



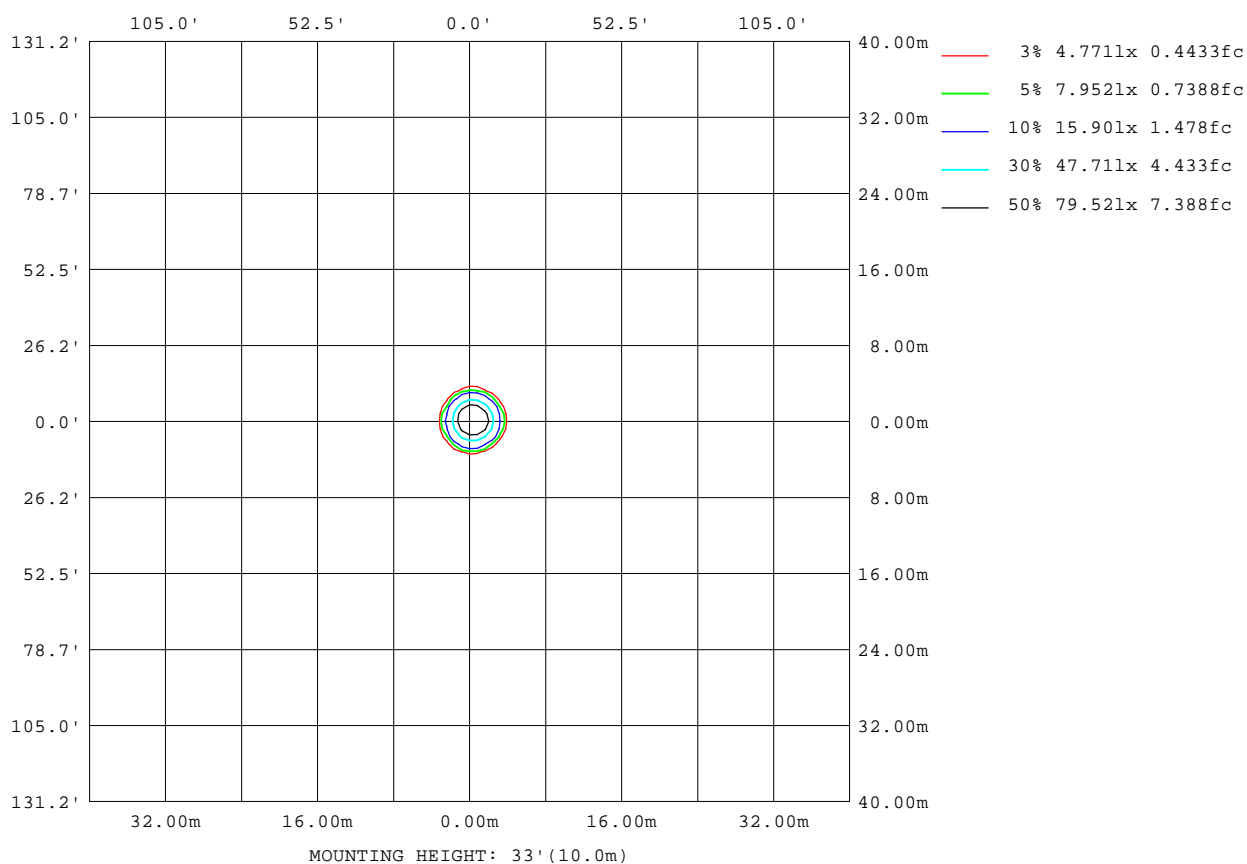
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2016-08-04

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:9.480m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

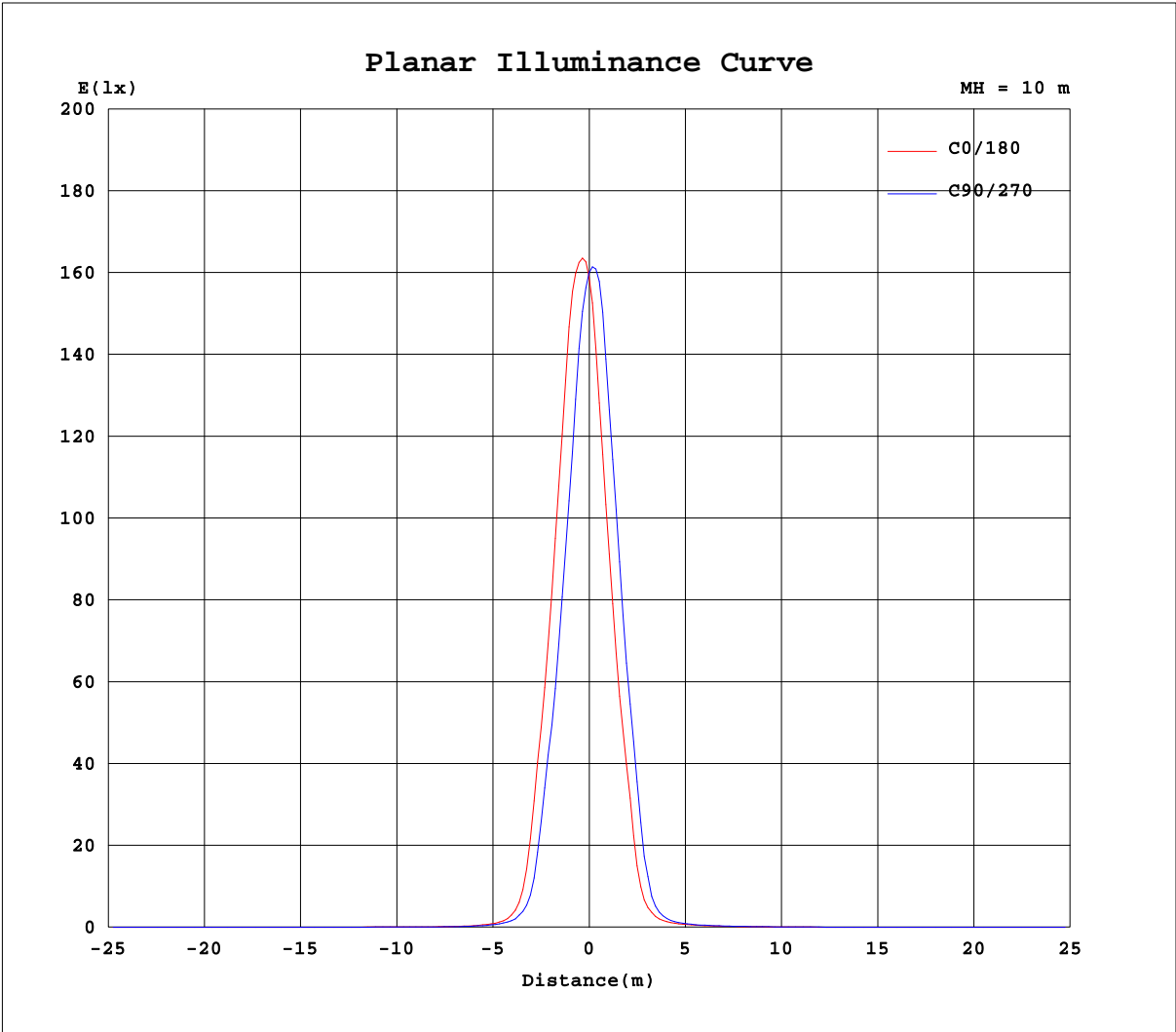
Test:U:230.7V I:0.1680A P:35.60W PF:0.9200 Lamp Flux:1977.27x1 lm		
NAME: TL17A-35W	TYPE:35W	WEIGHT:
DIM.:	SPEC.:2700K	SERIAL No.:1
MFR.:	SUR.:0.04	PROTECTION ANGLE:



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2016-08-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:9.480m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2016-08-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.276
Humidity: 65.0%
Test Distance: 9.480m [K=1.0000]
Remarks:

Test:U:230.7V I:0.1680A P:35.60W PF:0.9200 Lamp Flux:1977.27x1 1m		
NAME: TL17A-35W	TYPE:35W	WEIGHT:
DIM.:	SPEC.:2700K	SERIAL No.:1
MFR.:	SUR.:0.04	PROTECTION ANGLE:

UNIT: $\times 10 \text{cd}$

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2016-08-04

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γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.276
Humidity: 65.0%
Test Distance: 9.480m [K=1.0000]
Remarks:

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