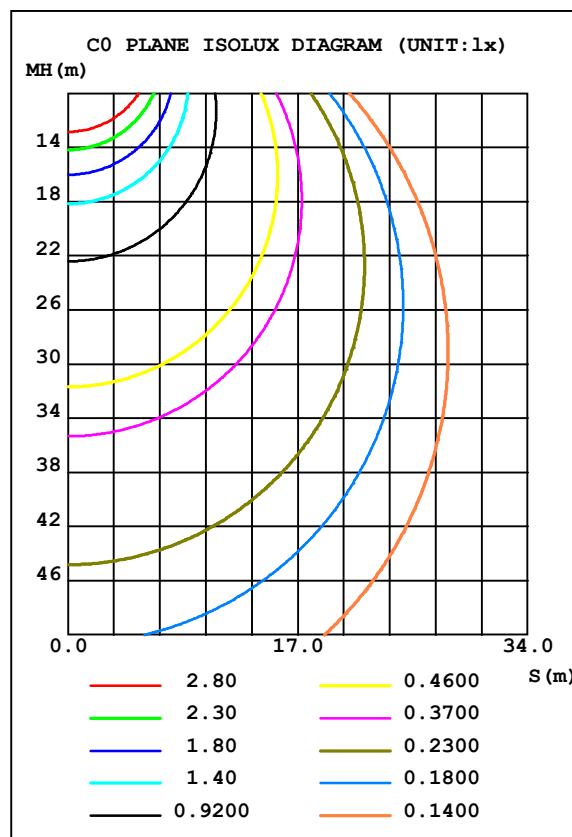
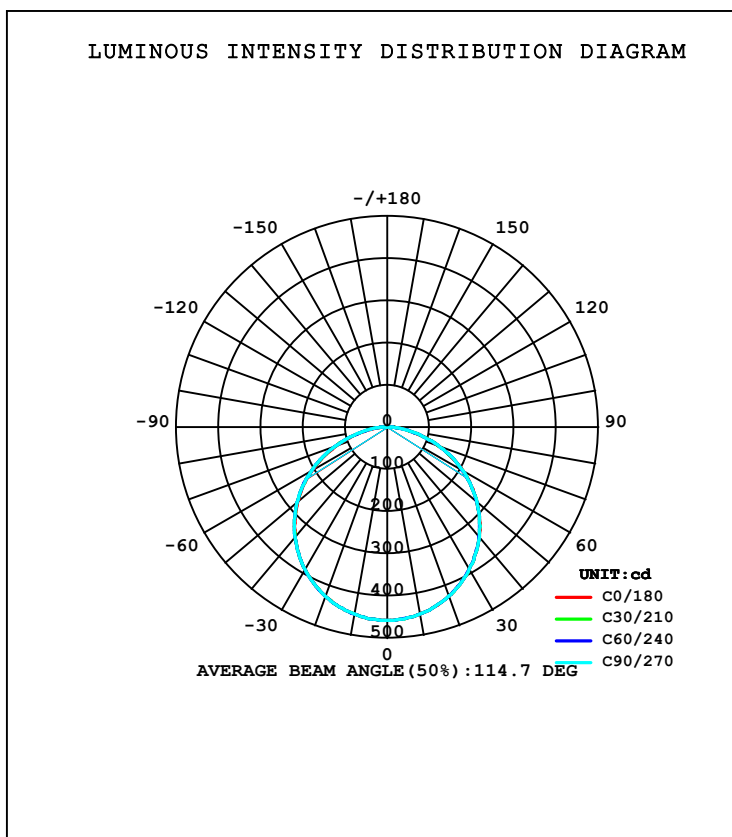


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: LEDP17W-3030-830SM	TYPE:	WEIGHT:2.5kg
DIMENSION: 300*300*8MM	SPECIFICATION:2835	SERIAL No.:001
MANUFACTURER: EVERFINE	SURFACE:0.25	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 68.50 lm/W			
MODEL	LEDP17W-3030-830SM	I <sub>max</sub> (cd)	458.4	S/MH (C0/180)	1.26
NOMINAL POWER (W)	20	LOR (%)	88.6	S/MH (C90/270)	1.27
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	1328.9	η UP, DN (C0-180)	0.0, 44.3
NOMINAL FLUX (lm)	1500	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 44.3
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	219.7	η down (%)	88.6	CIBSE SHR MAX	1.35



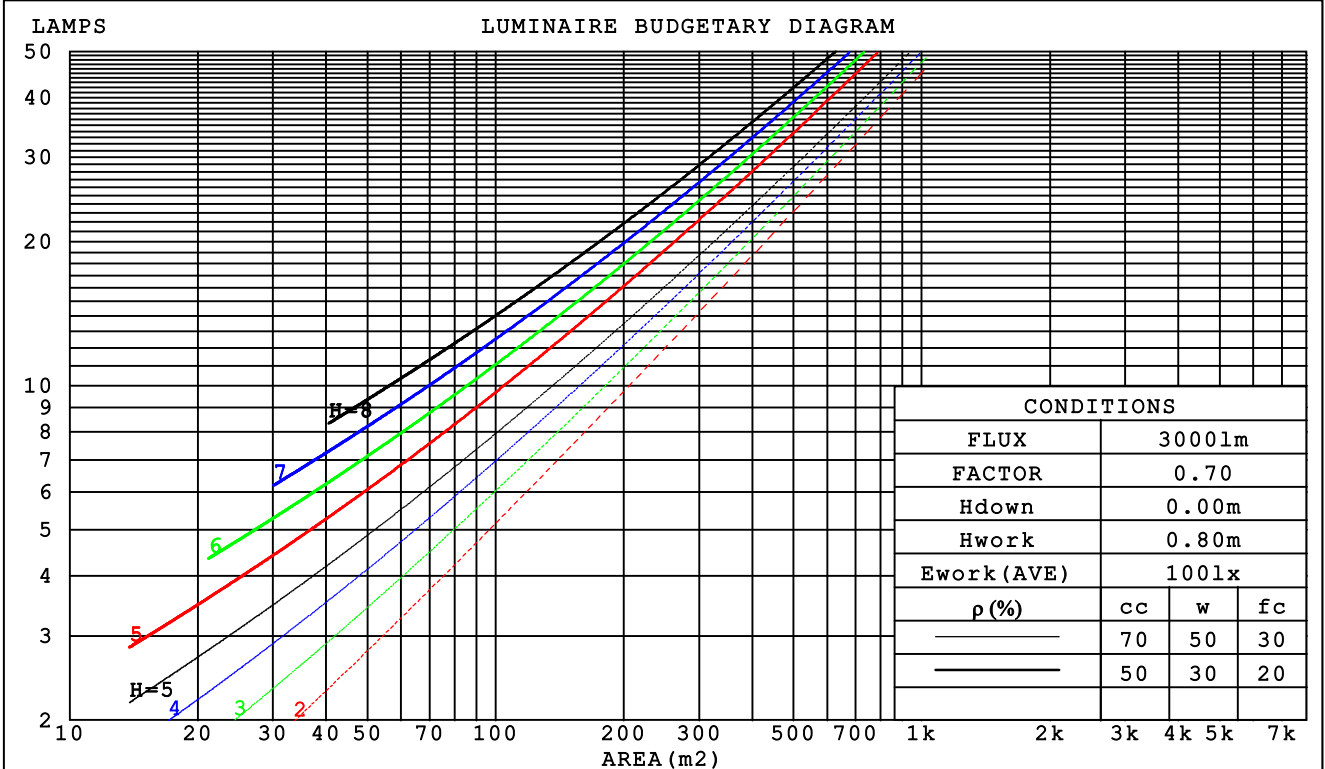
C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2013-08-28

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.256  
 Humidity:65.0%  
 Test Distance:8.000m [K=1.0625]  
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: LEDP17W-3030-830SM	TYPE:	WEIGHT:2.5kg
DIMENSION: 300*300*8MM	SPECIFICATION:2835	SERIAL No.:001
MANUFACTURER: EVERFINE	SURFACE:0.25	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						Coefficients of Utilization(CU)									
0.0	1.05	1.05	1.05	1.03	1.03	1.03	.98	.98	.98	.94	.94	.94	.90	.90	.90	.89
1.0	.92	.88	.85	.90	.86	.83	.86	.83	.81	.83	.80	.78	.80	.78	.76	.74
2.0	.80	.74	.69	.78	.73	.68	.75	.70	.66	.72	.68	.65	.70	.66	.63	.61
3.0	.70	.63	.57	.69	.62	.56	.66	.60	.55	.64	.59	.54	.61	.57	.54	.52
4.0	.62	.54	.48	.61	.54	.48	.59	.52	.47	.57	.51	.47	.55	.50	.46	.44
5.0	.55	.47	.41	.54	.47	.41	.52	.46	.41	.51	.45	.40	.49	.44	.40	.38
6.0	.50	.42	.36	.49	.41	.36	.47	.41	.36	.46	.40	.35	.44	.39	.35	.33
7.0	.45	.37	.32	.44	.37	.32	.43	.36	.31	.42	.36	.31	.41	.35	.31	.29
8.0	.41	.34	.28	.41	.33	.28	.39	.33	.28	.38	.32	.28	.37	.32	.28	.26
9.0	.38	.30	.25	.37	.30	.25	.36	.30	.25	.35	.29	.25	.34	.29	.25	.23
10.0	.35	.28	.23	.34	.28	.23	.33	.27	.23	.33	.27	.23	.32	.27	.23	.21



C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2013-08-28

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.256  
 Humidity:65.0%  
 Test Distance:8.000m [K=1.0625]  
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%
10	450.5	450.7	450.7	450.5	450.5	450.3	450.3	450.5	0- 10	43.38	43.38	3.26
20	427.4	427.7	427.6	427.4	427.1	427.0	427.1	427.3	10- 20	124.4	167.8	12.63
30	390.0	390.5	390.4	390.0	389.7	389.5	389.7	390.0	20- 30	189.1	356.9	26.86
40	339.8	340.5	340.6	339.9	339.8	339.3	339.5	340.0	30- 40	229.2	586.2	44.11
50	277.5	279.1	279.3	278.4	278.6	277.9	278.0	278.7	40- 50	239.5	825.6	62.13
60	205.1	207.8	207.9	207.1	207.1	206.4	206.5	207.1	50- 60	217.8	1043	78.52
70	125.8	129.4	129.4	128.6	129.0	128.1	127.9	128.7	60- 70	166.4	1210	91.04
80	49.30	53.02	52.19	52.07	52.93	51.85	50.67	51.95	70- 80	94.31	1304	98.13
90	0.6228	0.5929	0.5350	0.5615	0.5975	0.5294	0.5095	0.4935	80- 90	24.78	1329	100.00
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:cd									UNIT:lm		

C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2013-08-28

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.256  
 Humidity:65.0%  
 Test Distance:8.000m [K=1.0625]  
 Remarks:

WEC AND CCEC

NAME: LEDP17W-3030-830SM	TYPE:	WEIGHT:2.5kg
DIMENSION: 300*300*8MM	SPECIFICATION:2835	SERIAL No.:001
MANUFACTURER: EVERFINE	SURFACE:0.25	PROTECTION ANGLE:

$\rho_{cc}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)									
0.0																
1.0	.276	.157	.050	.269	.154	.049	.257	.148	.047	.247	.142	.046	.237	.137	.044	
2.0	.260	.142	.044	.254	.140	.043	.244	.135	.042	.234	.131	.041	.225	.127	.040	
3.0	.240	.128	.038	.235	.126	.038	.226	.123	.037	.218	.119	.037	.210	.116	.036	
4.0	.222	.115	.034	.217	.114	.034	.209	.111	.033	.202	.108	.033	.195	.106	.032	
5.0	.205	.104	.030	.201	.103	.030	.194	.101	.030	.187	.099	.029	.181	.097	.029	
6.0	.190	.095	.027	.187	.094	.027	.180	.092	.027	.174	.090	.027	.168	.089	.026	
7.0	.177	.087	.025	.174	.087	.025	.168	.085	.024	.163	.083	.024	.158	.082	.024	
8.0	.165	.081	.023	.162	.080	.023	.157	.079	.022	.152	.077	.022	.148	.076	.022	
9.0	.155	.075	.021	.152	.074	.021	.148	.073	.021	.143	.072	.021	.139	.071	.020	
10.0	.145	.070	.019	.143	.069	.019	.139	.068	.019	.135	.067	.019	.131	.066	.019	

$\rho_{cc}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients (CCEC)									
0.0	.169	.169	.169	.144	.144	.144	.098	.098	.098	.057	.057	.057	.018	.018	.018	
1.0	.160	.138	.119	.137	.119	.102	.094	.082	.071	.054	.047	.041	.017	.015	.013	
2.0	.153	.117	.087	.131	.101	.075	.090	.070	.052	.052	.040	.031	.017	.013	.010	
3.0	.146	.101	.066	.125	.087	.057	.086	.061	.040	.050	.035	.024	.016	.012	.008	
4.0	.139	.089	.052	.119	.077	.045	.082	.054	.032	.048	.032	.019	.015	.010	.006	
5.0	.133	.080	.042	.114	.069	.036	.078	.049	.026	.045	.028	.015	.015	.009	.005	
6.0	.126	.073	.035	.109	.063	.030	.075	.044	.021	.043	.026	.013	.014	.008	.004	
7.0	.120	.067	.029	.103	.058	.026	.071	.041	.018	.042	.024	.011	.013	.008	.004	
8.0	.114	.062	.025	.099	.053	.022	.068	.038	.016	.040	.022	.009	.013	.007	.003	
9.0	.109	.057	.022	.094	.050	.019	.065	.035	.014	.038	.021	.008	.012	.007	.003	
10.0	.104	.053	.020	.090	.046	.017	.062	.033	.012	.036	.019	.007	.012	.006	.002	

C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2013-08-28

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.256  
 Humidity:65.0%  
 Test Distance:8.000m [K=1.0625]  
 Remarks:

Uncorrected UGR Table

NAME: LEDP17W-3030-830SM					TYPE:					WEIGHT:2.5kg				
DIMENSION: 300*300*8MM					SPECIFICATION:2835					SERIAL No.:001				
MANUFACTURER: EVERFINE					SURFACE:0.25					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	18.7	20.3	19.0	20.5	20.7	18.7	20.3	19.0	20.5	20.7				
3H	20.2	21.6	20.5	21.9	22.1	20.3	21.7	20.6	21.9	22.2				
4H	20.8	22.1	21.1	22.4	22.7	20.9	22.2	21.2	22.5	22.7				
6H	21.2	22.5	21.5	22.7	23.0	21.3	22.5	21.6	22.8	23.1				
8H	21.3	22.5	21.6	22.8	23.1	21.4	22.6	21.7	22.9	23.2				
12H	21.3	22.5	21.7	22.8	23.1	21.4	22.6	21.8	22.9	23.2				
4H 2H	19.4	20.7	19.7	20.9	21.2	19.4	20.7	19.7	21.0	21.2				
3H	21.0	22.2	21.4	22.5	22.8	21.1	22.2	21.4	22.5	22.8				
4H	21.7	22.8	22.1	23.1	23.5	21.8	22.9	22.2	23.2	23.5				
6H	22.2	23.2	22.6	23.5	23.9	22.3	23.3	22.7	23.6	24.0				
8H	22.4	23.3	22.8	23.7	24.0	22.5	23.4	22.9	23.7	24.1				
12H	22.5	23.3	22.9	23.7	24.1	22.6	23.4	23.0	23.8	24.2				
8H 4H	22.0	22.9	22.4	23.3	23.6	22.0	22.9	22.5	23.3	23.7				
6H	22.7	23.4	23.1	23.8	24.2	22.7	23.4	23.1	23.9	24.3				
8H	22.9	23.6	23.4	24.0	24.4	22.9	23.6	23.4	24.0	24.5				
12H	23.1	23.6	23.5	24.1	24.6	23.1	23.7	23.6	24.1	24.6				
12H 4H	22.0	22.8	22.4	23.2	23.6	22.1	22.9	22.5	23.3	23.7				
6H	22.7	23.4	23.2	23.8	24.2	22.8	23.4	23.2	23.8	24.3				
8H	23.0	23.6	23.5	24.0	24.5	23.0	23.6	23.5	24.1	24.5				
Variations with the observer position at spacings:														
S = 1.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.2								
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3								
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3								

CIE Pub.117 Corrected 1500 lm Total Lamp Luminous Flux. (8log(F/F0) = 1.4)

C Range: 0 - 360DEG	γ Range: 0 - 90DEG
C Interval: 10.0DEG	γ Interval: 1.0DEG
Test Speed: HIGH	Test System:EVERFINE GO-2000B_V1 SYSTEM V1.0.256
Temperature:25.3DEG	Humidity:65.0%
Operators:DAMIN	Test Distance:8.000m [K=1.0625]
Test Date:2013-08-28	Remarks:

UTILIZATION FACTORS TABLE

NAME: LEDP17W-3030-830SM	TYPE:	WEIGHT:2.5kg
DIMENSION: 300*300*8MM	SPECIFICATION:2835	SERIAL No.:001
MANUFACTURER: EVERFINE	SURFACE:0.25	PROTECTION ANGLE:

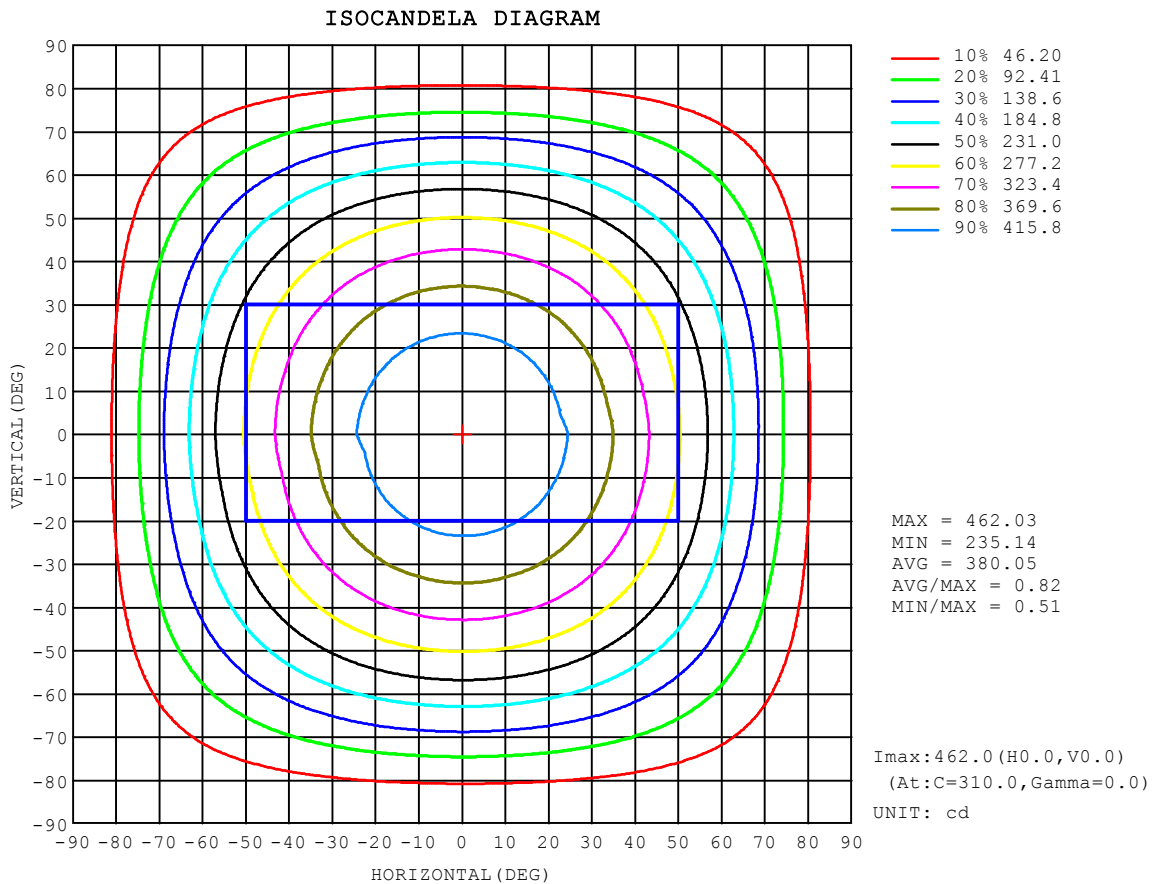
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	51	40	34	50	40	34	49	40	34	28
0.80	60	49	43	59	49	43	57	48	42	36
1.00	67	57	51	66	57	50	64	58	50	44
1.25	73	64	58	72	63	57	70	62	57	50
1.50	78	69	63	76	68	62	74	67	61	55
2.00	84	76	71	82	75	70	79	73	69	62
2.50	87	81	75	86	79	74	82	77	73	65
3.00	90	84	79	89	83	78	85	80	77	69
4.00	94	89	85	92	87	84	88	84	81	73
5.00	96	92	88	94	90	87	90	87	84	76
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2013-08-28

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.256  
 Humidity:65.0%  
 Test Distance:8.000m [K=1.0625]  
 Remarks:

ISOCANDELA DIAGRAM

NAME: LEDP17W-3030-830SM	TYPE:	WEIGHT:2.5kg
DIMENSION: 300*300*8MM	SPECIFICATION:2835	SERIAL No.:001
MANUFACTURER: EVERFINE	SURFACE:0.25	PROTECTION ANGLE:

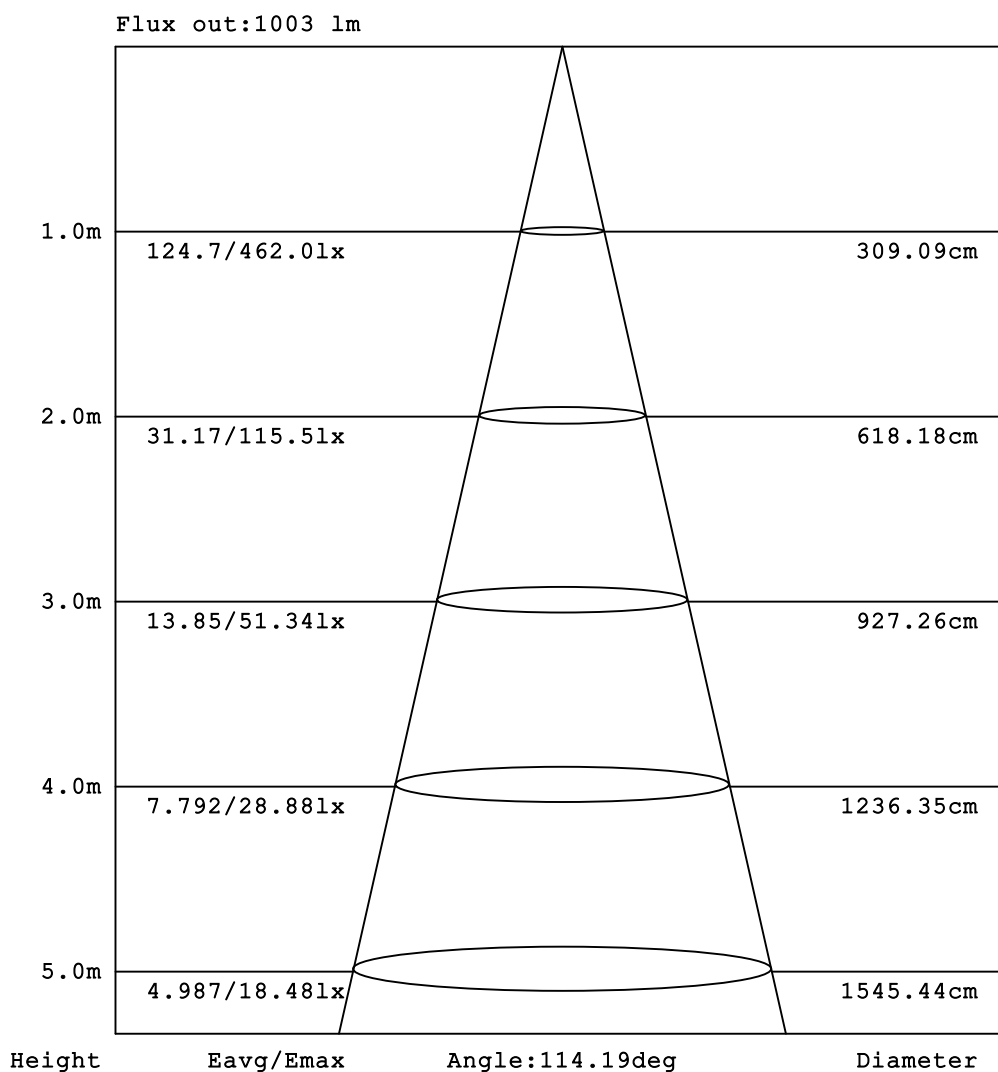


C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2013-08-28

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.256  
 Humidity:65.0%  
 Test Distance:8.000m [K=1.0625]  
 Remarks:

AAI Figure

NAME: LEDP17W-3030-830SM	TYPE:	WEIGHT:2.5kg
DIMENSION: 300*300*8MM	SPECIFICATION:2835	SERIAL No.:001
MANUFACTURER: EVERFINE	SURFACE:0.25	PROTECTION ANGLE:



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

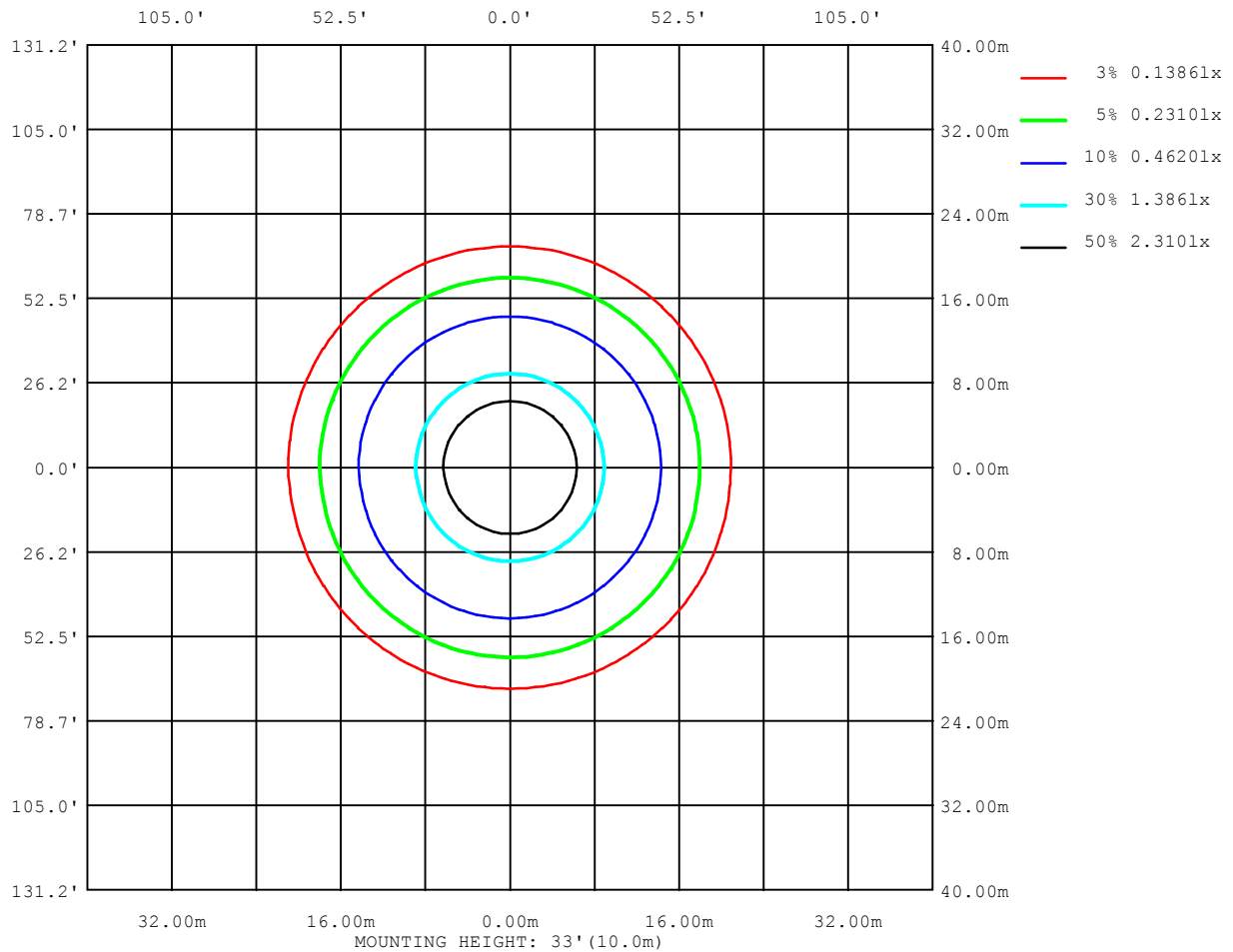
C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2013-08-28

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.256  
 Humidity:65.0%  
 Test Distance:8.000m [K=1.0625]  
 Remarks:



ISOLUX DIAGRAM

NAME: LEDP17W-3030-830SM	TYPE:	WEIGHT: 2.5kg
DIMENSION: 300*300*8MM	SPECIFICATION: 2835	SERIAL No. : 001
MANUFACTURER: EVERFINE	SURFACE: 0.25	PROTECTION ANGLE:



C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DAMIN  
 Test Date: 2013-08-28

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V1.0.256  
 Humidity: 65.0%  
 Test Distance: 8.000m [K=1.0625]  
 Remarks:

**Average Luminance Table (CIBSE)**

NAME: LEDP17W-3030-830SM	TYPE:	WEIGHT:2.5kg
DIMENSION: 300*300*8MM	SPECIFICATION:2835	SERIAL No.:001
MANUFACTURER: EVERFINE	SURFACE:0.25	PROTECTION ANGLE:

Parameter description for average Luminance	Symbol	Value	Unit
Luminance in Azimuth Plane	Bc	refer Table 2	cd/sq.m.
Intensity at angle Gamma in given azimuth plane	I	from data	cd/klm
Number of lamps	N	1	
Output of each lamp(initial lumens as specified)	F	1500	lm
Multiplying factor	K	1	
Luminous area in horizontal plane used in calculations	A	0.08	sq.m.
Angle to the downward vertical from light centre	Gamma	from data	deg

Table 1. Calculation parameters for determination of CIBSE LG3:1996 Average Luminance

G deg	C plane(deg)																		
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
55	5328	5323	5334	5341	5339	5338	5338	5335	5334	5329	5327	5321	5312	5305	5298	5289	5282	5275	5361
60	5169	5166	5185	5198	5203	5201	5203	5199	5200	5192	5193	5182	5177	5165	5160	5148	5142	5131	5220
65	4945	4949	4973	4998	5008	5009	5009	5005	5006	5000	4996	4986	4980	4968	4960	4949	4942	4938	5025
70	4634	4655	4689	4721	4738	4737	4735	4732	4728	4724	4717	4711	4701	4692	4682	4676	4667	4660	4751
75	4195	4250	4297	4339	4344	4355	4338	4341	4323	4324	4307	4313	4292	4300	4285	4292	4277	4282	4369
80	3577	3701	3778	3836	3820	3825	3787	3789	3751	3753	3723	3742	3724	3745	3730	3757	3739	3755	3841
85	2781	3129	3238	3274	3230	3212	3140	3098	3028	3009	2977	3015	3032	3091	3094	3128	3102	3110	3198

Table 2. Average Luminance(cd/sq.m.) for defined C plane,Gamma angle

CIBSE Category	Gamma (deg)	Average Luminance		Patch Luminance	
		maximum	specified	maximum	specified
		calculated	maximum	measured	maximum
Category 1	55 to 90	5361	500		1500
Category 2	65 to 90	5025	500		1500
Category 3	75 to 90	4369	500		1500

Table 3. Tabulation of Average and Patch Luminance(cd/sq.m.) for defined CIBSE categories

C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2013-08-28

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.256  
 Humidity:65.0%  
 Test Distance:8.000m [K=1.0625]  
 Remarks:



