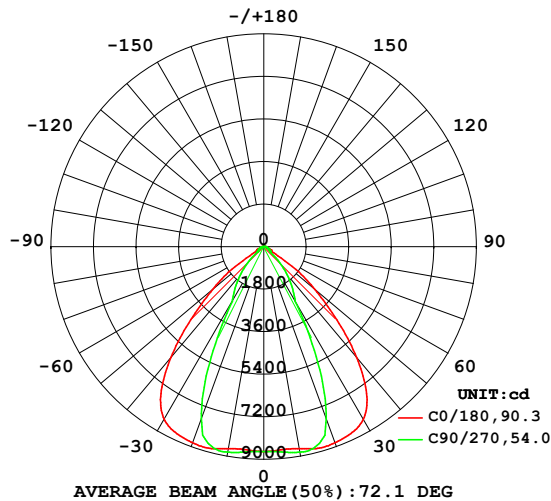


LUMINAIRE PHOTOMETRIC TEST REPORT

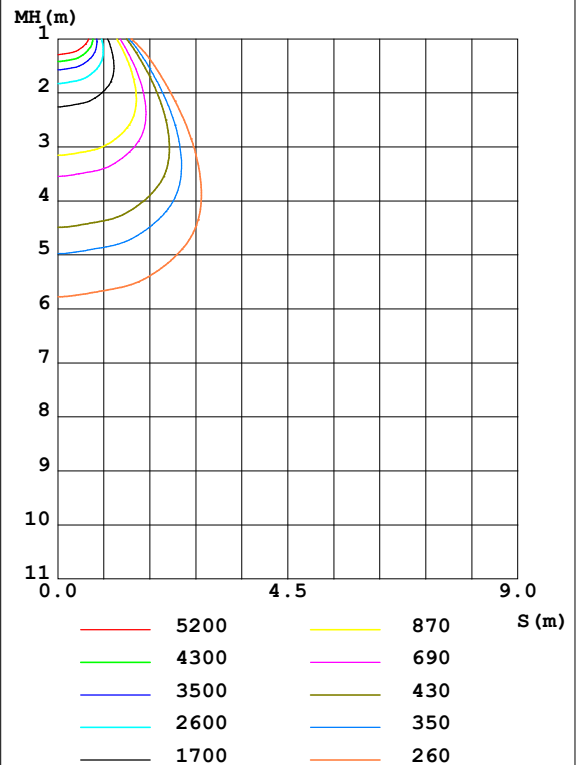
Test:U:230.0V I:0.5253A P:119.7W PF:0.9911 Lamp Flux:14995.9x1 lm		
NAME: LHB01-120	TYPE:120W	WEIGHT:
SPEC.:5000K Ra80 6090DEG L02802	DIM.: 0.948*0.137*0.102	SERIAL No.:
MFR.:	SUR.:0.92*0.1	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 125.24 lm/W			
MODEL	LHB01-120	I _{max} (cd)	10574	S/MH(C0/180)	1.29
NOMINAL POWER(W)	120	LOR(%)	100.0	S/MH(C90/270)	0.78
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	14996	η UP,DN(C0-180)	0.0,50.0
NOMINAL FLUX(lm)	14995.9	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.0
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.00
TEST VOLTAGE(V)	230	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: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2017-04-07

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [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	862.3	866.1	871.8	866.1	862.3	866.8	871.8	866.8	0- 5	207.1	207.1	1.38,1.38
10	867.6	878.6	882.9	878.6	867.6	879.7	882.9	879.7	5- 10	623.4	830.6	5.54,5.54
15	883.3	915.0	871.0	915.0	883.3	914.0	871.0	914.0	10- 15	1052	1883	12.6,12.6
20	882.8	970.6	773.9	970.6	882.8	964.2	773.9	964.2	15- 20	1483	3366	22.4,22.4
25	872.4	997.9	543.7	997.9	872.4	993.5	543.7	993.5	20- 25	1829	5196	34.6,34.6
30	843.1	886.9	267.8	886.9	843.1	884.0	267.8	884.0	25- 30	1979	7174	47.8,47.8
35	758.9	659.8	210.0	659.8	758.9	653.0	210.0	653.0	30- 35	1937	9111	60.8,60.8
40	611.6	403.1	152.3	403.1	611.6	396.7	152.3	396.7	35- 40	1803	10915	72.8,72.8
45	438.3	321.5	94.50	321.5	438.3	318.2	94.50	318.2	40- 45	1525	12440	83,83
50	283.5	226.4	36.74	226.4	283.5	224.5	36.74	224.5	45- 50	1109	13548	90.3,90.3
55	147.7	123.0	31.12	123.0	147.7	122.4	31.12	122.4	50- 55	658.0	14206	94.7,94.7
60	35.72	33.90	25.49	33.90	35.72	34.62	25.49	34.62	55- 60	324.2	14531	96.9,96.9
65	31.51	26.49	19.87	26.49	31.51	27.02	19.87	27.02	60- 65	173.7	14704	98.1,98.1
70	17.85	18.87	14.25	18.87	17.85	19.06	14.25	19.06	65- 70	114.9	14819	98.8,98.8
75	11.30	11.36	10.81	11.36	11.30	11.10	10.81	11.10	70- 75	78.25	14897	99.3,99.3
80	6.201	7.500	7.373	7.500	6.201	7.256	7.373	7.256	75- 80	53.11	14951	99.7,99.7
85	1.336	4.016	3.937	4.016	1.336	3.861	3.937	3.861	80- 85	33.02	14984	99.9,99.9
90	0.2095	0.4819	0.5000	0.4819	0.2095	0.4179	0.5000	0.4179	85- 90	12.38	14996	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:×10cd									UNIT:lm		

Conical surface Flux(90deg): 12440 lm

%lum = 83.0%

%lamp = 83.0%

Conical surface Flux(120deg): 14531 lm

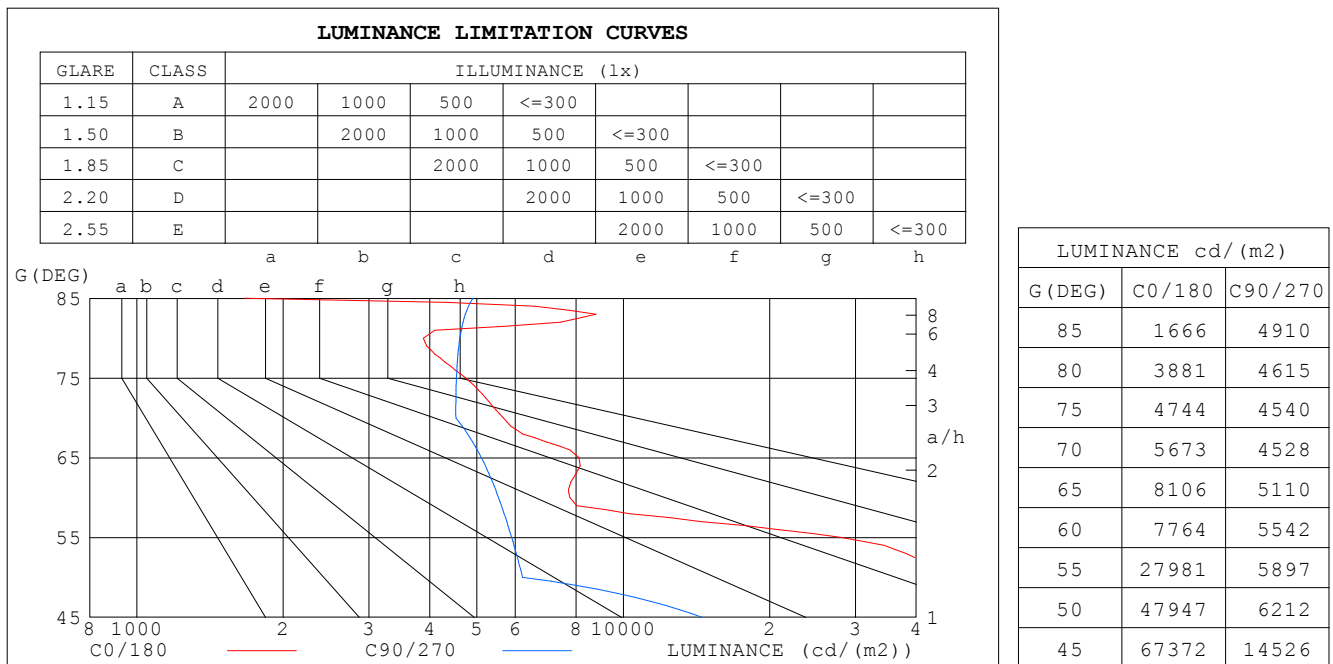
%lum = 96.9%

%lamp = 96.9%

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-04-07

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:9.500m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

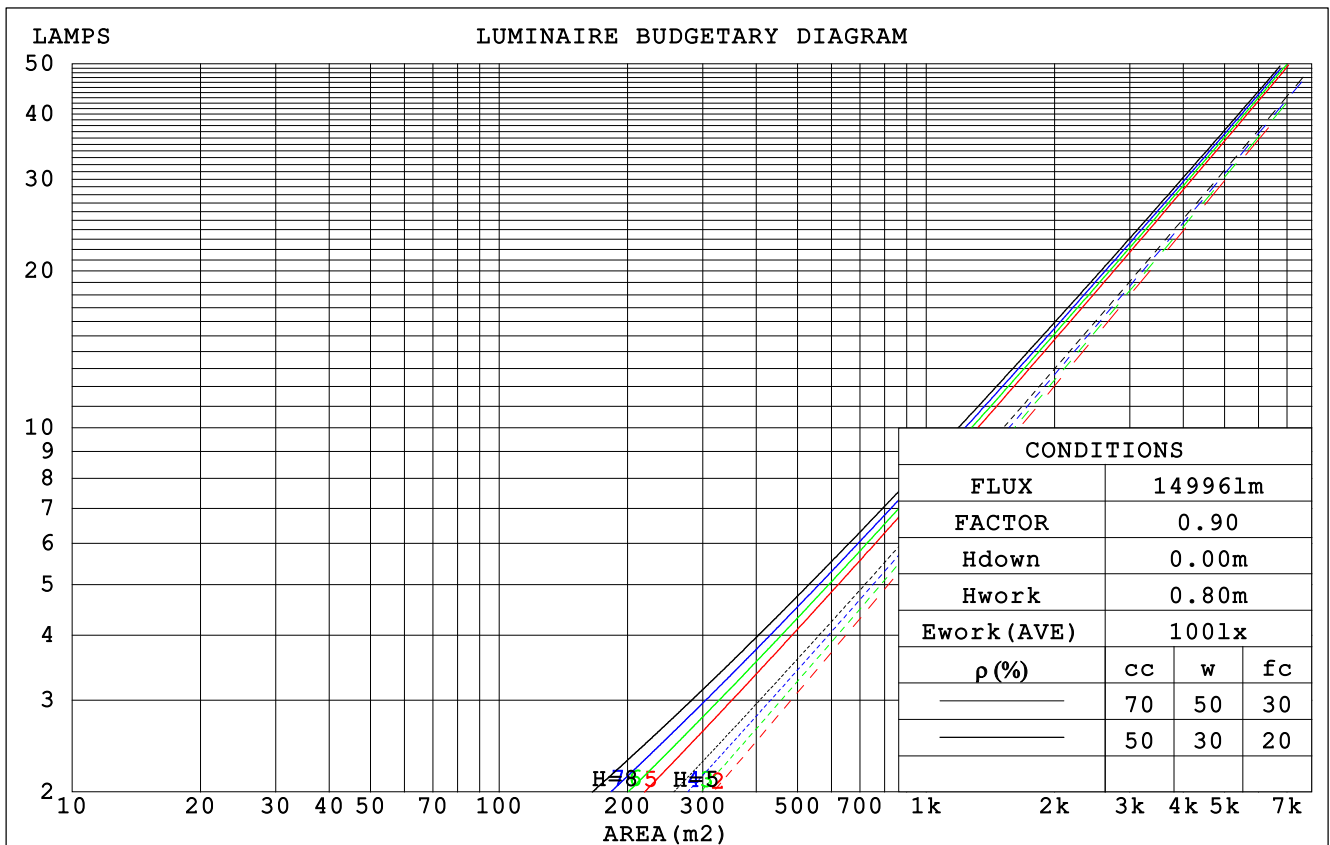


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2017-04-07

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity: 65.0%
Test Distance: 9.500m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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	.00
1.0	1.09	1.06	1.03	1.07	1.04	1.01	1.02	1.00	.98	.99	.97	.95	.95	.94	.93	.91
2.0	.99	.94	.90	.97	.93	.89	.94	.90	.87	.91	.88	.85	.88	.85	.83	.81
3.0	.90	.84	.79	.89	.83	.79	.86	.81	.77	.84	.79	.76	.81	.78	.75	.73
4.0	.82	.76	.71	.81	.75	.70	.79	.74	.69	.77	.72	.68	.75	.71	.68	.66
5.0	.76	.69	.63	.75	.68	.63	.73	.67	.62	.71	.66	.62	.69	.65	.61	.59
6.0	.70	.62	.57	.69	.62	.57	.67	.61	.56	.65	.60	.56	.64	.59	.56	.54
7.0	.64	.57	.52	.63	.57	.52	.62	.56	.51	.61	.55	.51	.59	.54	.51	.49
8.0	.59	.52	.47	.59	.52	.47	.57	.51	.47	.56	.51	.47	.55	.50	.46	.45
9.0	.55	.48	.43	.55	.48	.43	.53	.47	.43	.53	.47	.43	.52	.46	.43	.41
10.0	.51	.44	.40	.51	.44	.40	.50	.44	.40	.49	.43	.40	.48	.43	.39	.38



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2017-04-07

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity: 65.0%
 Test Distance: 9.500m [K=1.0000]
 Remarks:

WEC AND CCEC

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	.216	.123	.039	.209	.119	.038	.196	.113	.036	.185	.106	.034	.174	.101	.032	
2.0	.209	.115	.035	.204	.112	.035	.193	.107	.033	.182	.102	.032	.173	.098	.031	
3.0	.200	.106	.032	.195	.104	.031	.186	.101	.031	.177	.097	.030	.169	.093	.029	
4.0	.190	.099	.029	.186	.097	.029	.178	.094	.028	.170	.091	.028	.163	.088	.027	
5.0	.181	.092	.027	.177	.091	.026	.170	.088	.026	.163	.086	.026	.156	.084	.025	
6.0	.172	.086	.025	.168	.085	.024	.162	.083	.024	.156	.081	.024	.150	.079	.023	
7.0	.163	.081	.023	.160	.080	.023	.154	.078	.022	.149	.076	.022	.144	.075	.022	
8.0	.155	.076	.021	.152	.075	.021	.147	.073	.021	.142	.072	.021	.138	.071	.021	
9.0	.148	.071	.020	.145	.071	.020	.140	.069	.020	.136	.068	.020	.132	.067	.019	
10.0	.141	.067	.019	.139	.067	.019	.134	.066	.019	.130	.065	.018	.126	.064	.018	

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	.174	.157	.142	.149	.135	.122	.102	.093	.084	.059	.054	.049	.019	.017	.016		
2.0	.161	.132	.108	.138	.114	.093	.095	.079	.065	.055	.046	.038	.018	.015	.012		
3.0	.151	.114	.084	.129	.098	.073	.089	.068	.051	.051	.040	.030	.016	.013	.010		
4.0	.142	.100	.067	.122	.086	.058	.084	.060	.041	.049	.035	.024	.016	.011	.008		
5.0	.135	.089	.055	.116	.077	.047	.080	.054	.034	.046	.031	.020	.015	.010	.007		
6.0	.128	.080	.045	.110	.069	.039	.076	.048	.028	.044	.028	.017	.014	.009	.005		
7.0	.122	.073	.038	.105	.063	.033	.072	.044	.024	.042	.026	.014	.014	.009	.005		
8.0	.116	.067	.033	.100	.058	.028	.069	.041	.020	.040	.024	.012	.013	.008	.004		
9.0	.111	.062	.028	.096	.054	.025	.066	.038	.018	.039	.022	.010	.013	.007	.003		
10.0	.106	.057	.025	.092	.050	.022	.064	.035	.015	.037	.021	.009	.012	.007	.003		

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2017-04-07

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

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	25.8	27.0	26.1	27.2	27.4	18.4	19.6	18.7	19.8	20.0
3H	25.7	26.8	26.0	27.0	27.2	18.5	19.6	18.8	19.8	20.0
4H	25.6	26.7	25.9	26.9	27.1	18.6	19.6	18.9	19.8	20.1
6H	25.6	26.5	25.9	26.8	27.0	18.6	19.6	18.9	19.8	20.1
8H	25.5	26.5	25.9	26.7	27.0	18.6	19.5	19.0	19.8	20.1
12H	25.5	26.4	25.8	26.7	26.9	18.6	19.5	19.0	19.8	20.1
4H 2H	25.6	26.6	25.9	26.9	27.1	18.8	19.8	19.1	20.1	20.3
3H	25.5	26.4	25.8	26.7	27.0	18.9	19.8	19.3	20.1	20.4
4H	25.5	26.3	25.8	26.6	26.9	19.1	19.8	19.4	20.2	20.5
6H	25.4	26.1	25.8	26.4	26.8	19.2	19.9	19.6	20.2	20.6
8H	25.4	26.0	25.8	26.4	26.7	19.2	19.9	19.6	20.2	20.6
12H	25.3	25.9	25.8	26.3	26.7	19.3	19.9	19.7	20.2	20.6
8H 4H	25.3	26.0	25.7	26.3	26.7	19.1	19.7	19.5	20.1	20.4
6H	25.3	25.8	25.7	26.2	26.6	19.3	19.8	19.7	20.2	20.6
8H	25.3	25.8	25.7	26.2	26.6	19.4	19.8	19.8	20.3	20.7
12H	25.3	25.7	25.7	26.1	26.6	19.5	19.9	19.9	20.3	20.8
12H 4H	25.3	25.9	25.7	26.3	26.7	19.0	19.6	19.5	20.0	20.4
6H	25.3	25.7	25.7	26.1	26.6	19.3	19.7	19.7	20.2	20.6
8H	25.3	25.7	25.7	26.1	26.6	19.4	19.8	19.9	20.2	20.7
Variations with the observer position at spacings:										
S = 1.0H	+ 2.3 / - 4.9					+ 1.9 / - 3.2				
1.5H	+ 2.4 / - 3.2					+ 3.3 / - 3.9				
2.0H	+ 5.2 / - 7.7					+ 3.7 / - 1.9				

CIE Pub.117 Corrected 14996 lm Total Lamp Luminous Flux.(8log(F/F0) = 9.4)

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2017-04-07

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks:

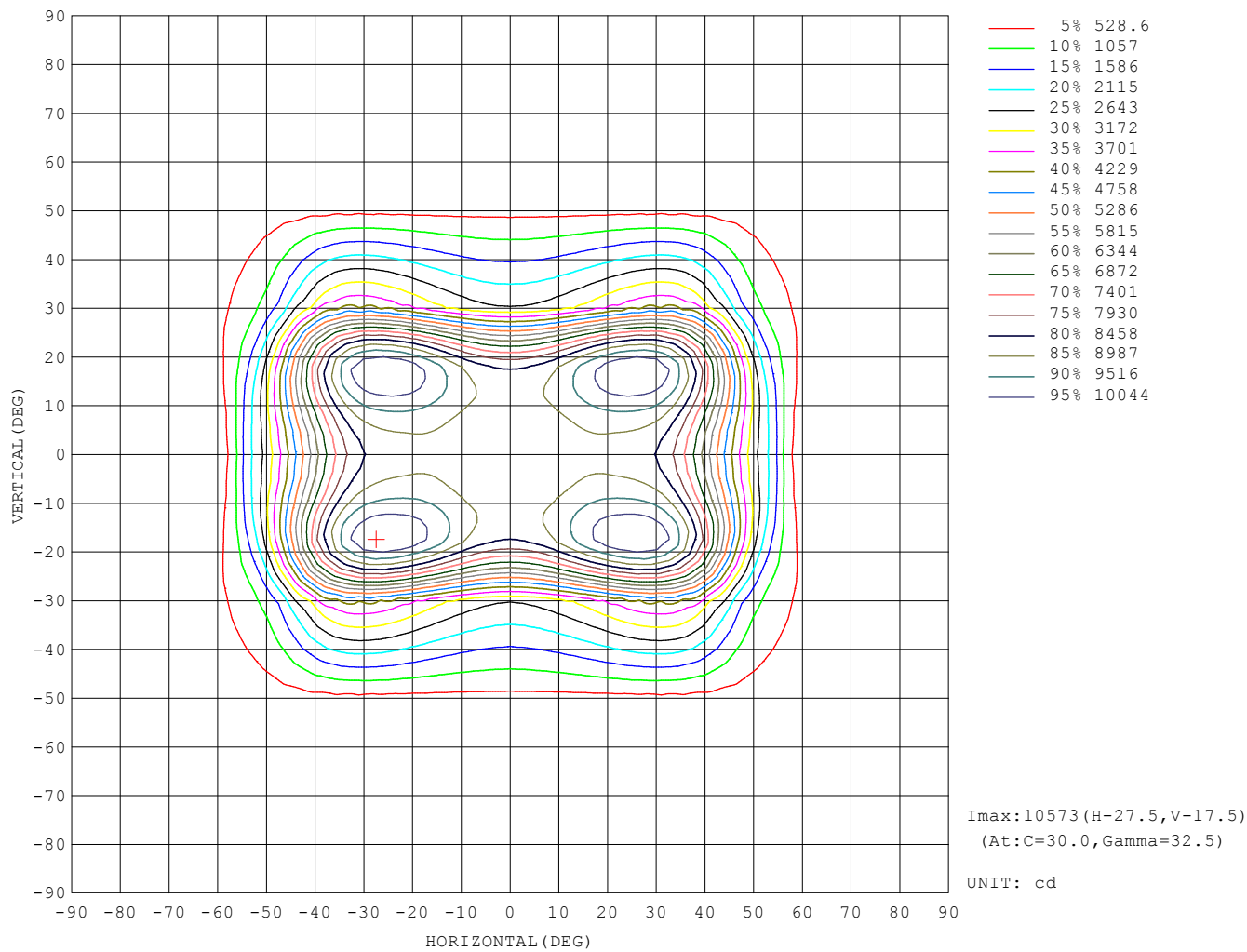
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	74	65	60	74	65	60	73	65	60	55
0.80	84	75	70	83	75	70	81	74	70	65
1.00	91	83	78	90	82	78	88	83	77	72
1.25	96	89	84	95	89	84	93	87	83	78
1.50	100	93	89	99	93	88	96	91	87	82
2.00	104	99	95	103	98	94	100	96	92	86
2.50	107	102	98	105	100	97	102	98	95	88
3.00	109	104	101	107	103	100	103	100	97	90
4.00	111	108	105	109	106	103	105	103	100	93
5.00	113	110	107	111	108	105	106	104	102	94
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:
Test Date: 2017-04-07

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity: 65.0%
Test Distance: 9.500m [K=1.0000]
Remarks:

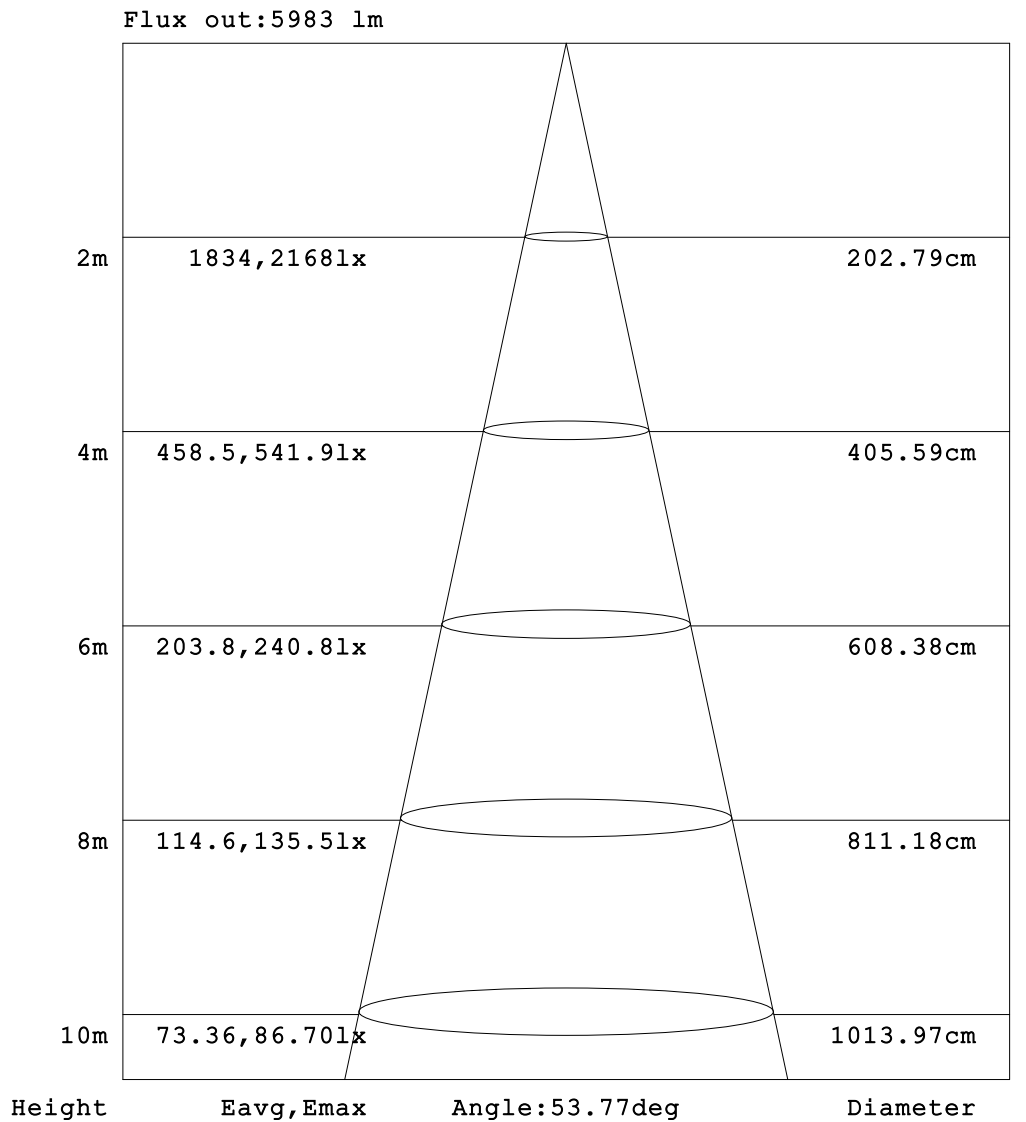
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2017-04-07

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks:

AAI Figure

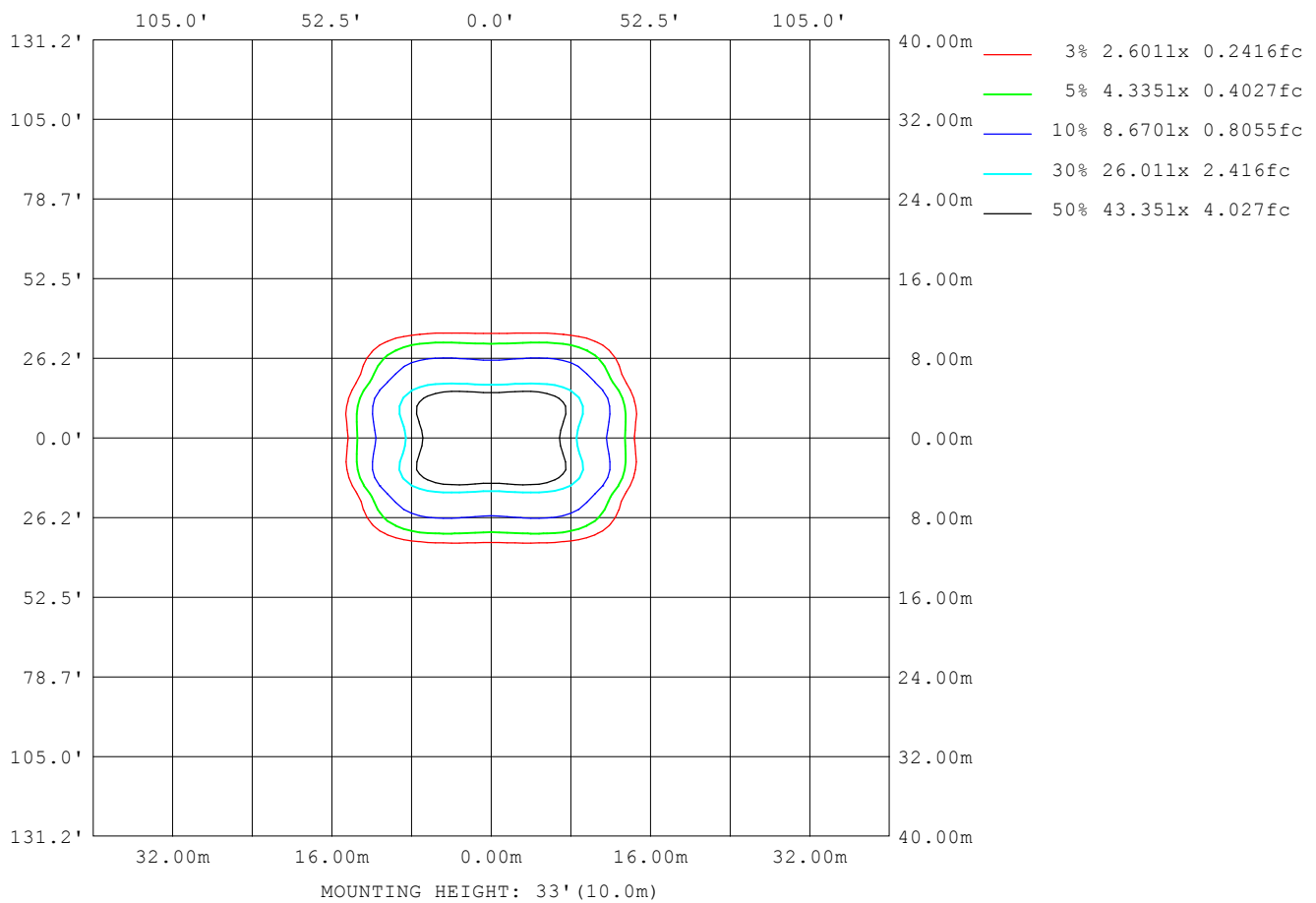


Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2017-04-07

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity: 65.0%
Test Distance: 9.500m [K=1.0000]
Remarks:

ISOLUX DIAGRAM



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2017-04-07

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:230.0V I:0.5253A P:119.7W PF:0.9911 Lamp Flux:14995.9x1 lm		
NAME: LHB01-120	TYPE:120W	WEIGHT:
SPEC.:5000K Ra80 6090DEG L02802	DIM.: 0.948*0.137*0.102	SERIAL No.:
MFR.:	SUR.:0.92*0.1	Shielding Angle:

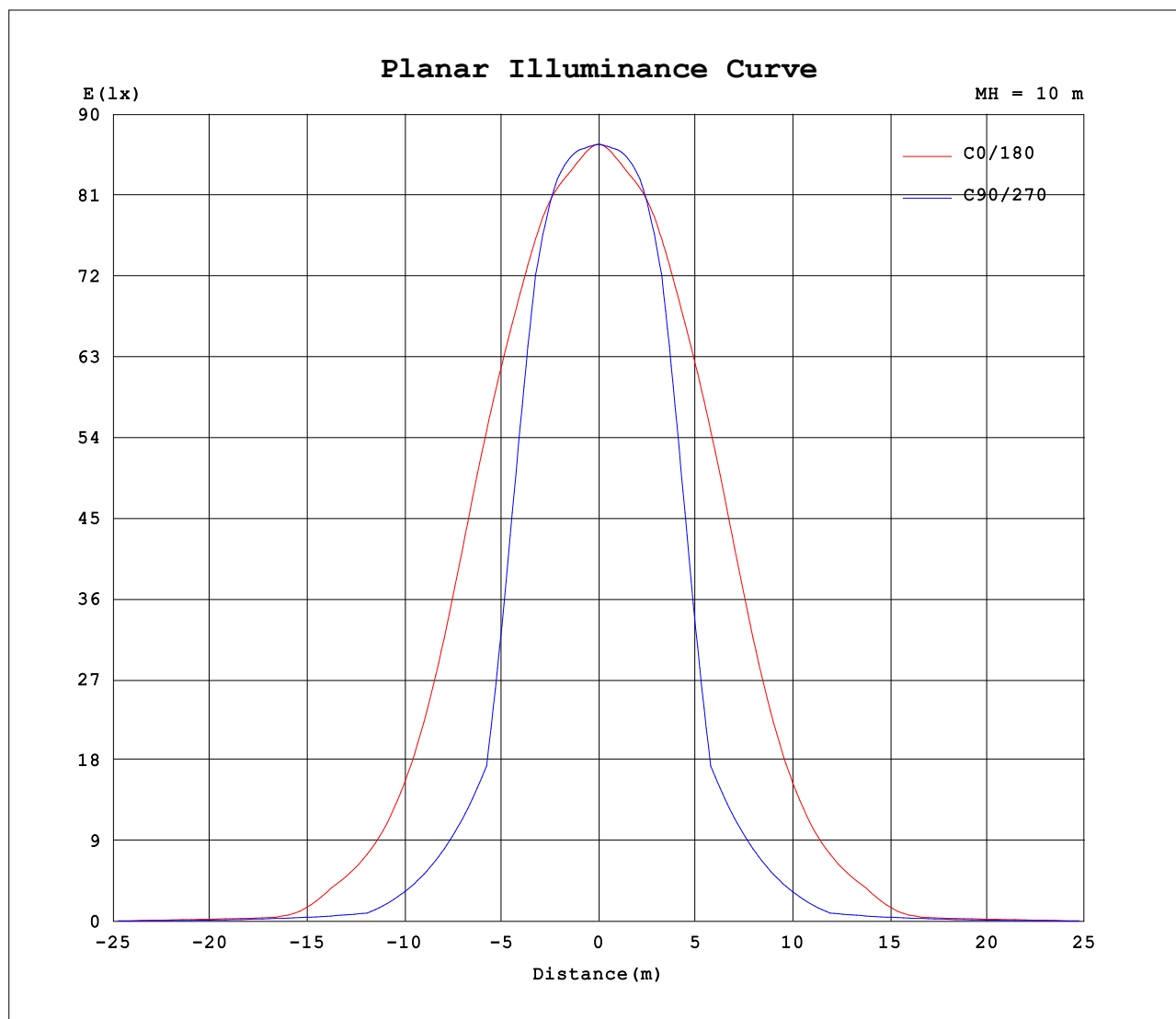
AvgL	cd/m2
L_0~180 (65) av	8106
L_0~180 (75) av	4744
L_0~180 (85) av	1666
L_90~270 (65) av	5110
L_90~270 (75) av	4540
L_90~270 (85) av	4910
L_45 (65) av	6880
L_45 (75) av	4717
L_45 (85) av	4912

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2017-04-07

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2017-04-07

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity: 65.0%
Test Distance: 9.500m [K=1.0000]
Remarks:

```

Range: 0 - 90DEG
Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks:

```

```

Range: 0 - 90DEG
Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks:

```

```

Range: 0 - 90DEG
Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks:

```

```

Range: 0 - 90DEG
Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks:

```