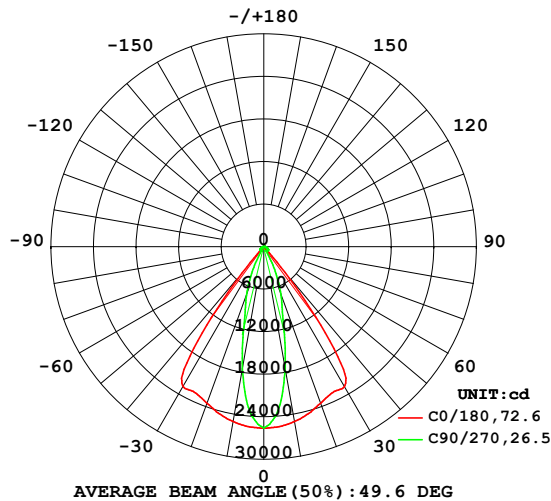


LUMINAIRE PHOTOMETRIC TEST REPORT

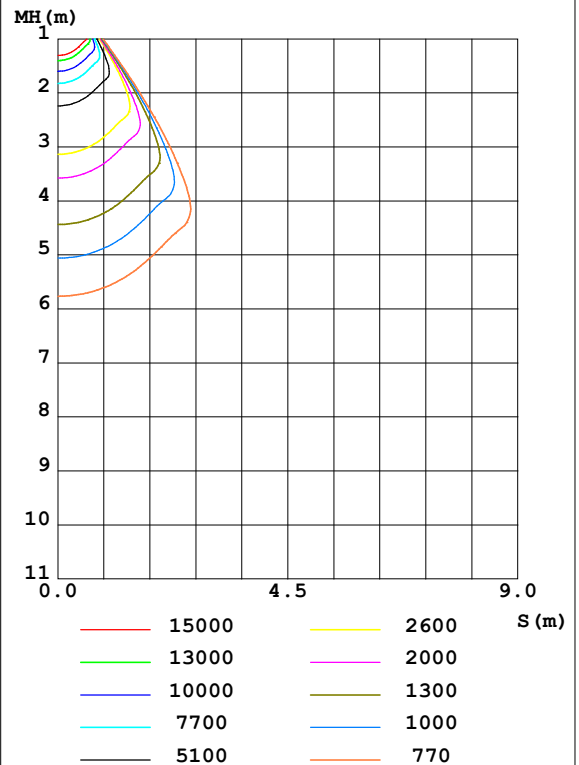
Test:U:230.1V I:0.5359A P:120.1W PF:0.9745 Lamp Flux:15996.6x1 lm		
NAME: LHB01-120	TYPE:120W	WEIGHT:
SPEC.:5000K Ra70 3070DEG L02801	DIM.: 0.948*0.137*0.102	SERIAL No.:
MFR.:	SUR.:0.92*0.1	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 133.14 lm/W			
MODEL	LHB01-120	Imax(cd)	25603	S/MH(C0/180)	1.05
NOMINAL POWER(W)	120	LOR(%)	100.0	S/MH(C90/270)	0.45
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	15997	η UP,DN(C0-180)	0.0,50.0
NOMINAL FLUX(lm)	15996.6	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.0
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE(V)	230	η down(%)	100.0	CIBSE SHR MAX	0.50

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:
Test Date:2017-03-31

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	2548	2415	2319	2418	2548	2418	2319	2415	0- 5	593.0	593.0	3.71,3.71
10	2505	2085	1745	2097	2505	2097	1745	2085	5- 10	1617	2210	13.8,13.8
15	2439	1599	1063	1608	2439	1608	1063	1599	10- 15	2227	4437	27.7,27.7
20	2349	1051	705.0	1060	2349	1060	705.0	1051	15- 20	2431	6869	42.9,42.9
25	2278	733.8	389.4	741.0	2278	741.0	389.4	733.8	20- 25	2439	9308	58.2,58.2
30	2279	495.7	73.79	502.3	2279	502.3	73.79	495.7	25- 30	2274	11581	72.4,72.4
35	1625	265.9	73.74	269.1	1625	269.1	73.74	265.9	30- 35	1935	13516	84.5,84.5
40	377.1	71.89	73.68	71.83	377.1	71.83	73.68	71.89	35- 40	1137	14653	91.6,91.6
45	44.68	57.74	73.63	59.11	44.68	59.11	73.63	57.74	40- 45	375.6	15029	94,94
50	33.97	43.08	73.57	44.13	33.97	44.13	73.57	43.08	45- 50	196.1	15225	95.2,95.2
55	28.49	33.45	62.38	33.93	28.49	33.93	62.38	33.45	50- 55	170.9	15396	96.2,96.2
60	24.73	28.63	51.18	28.72	24.73	28.72	51.18	28.63	55- 60	152.2	15548	97.2,97.2
65	20.94	23.12	39.98	23.19	20.94	23.19	39.98	23.12	60- 65	134.7	15683	98,98
70	16.79	17.75	28.79	17.83	16.79	17.83	28.79	17.75	65- 70	113.4	15796	98.7,98.7
75	11.87	12.35	21.74	12.44	11.87	12.44	21.74	12.35	70- 75	88.05	15884	99.3,99.3
80	5.716	8.280	14.70	8.371	5.716	8.371	14.70	8.280	75- 80	61.50	15946	99.7,99.7
85	1.112	4.409	7.649	4.488	1.112	4.488	7.649	4.409	80- 85	36.81	15983	99.9,99.9
90	0.1228	0.5502	0.6034	0.6061	0.1228	0.6061	0.6034	0.5502	85- 90	13.88	15997	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): 15029 lm

%lum = 94.0%

%lamp = 94.0%

Conical surface Flux(120deg): 15548 lm

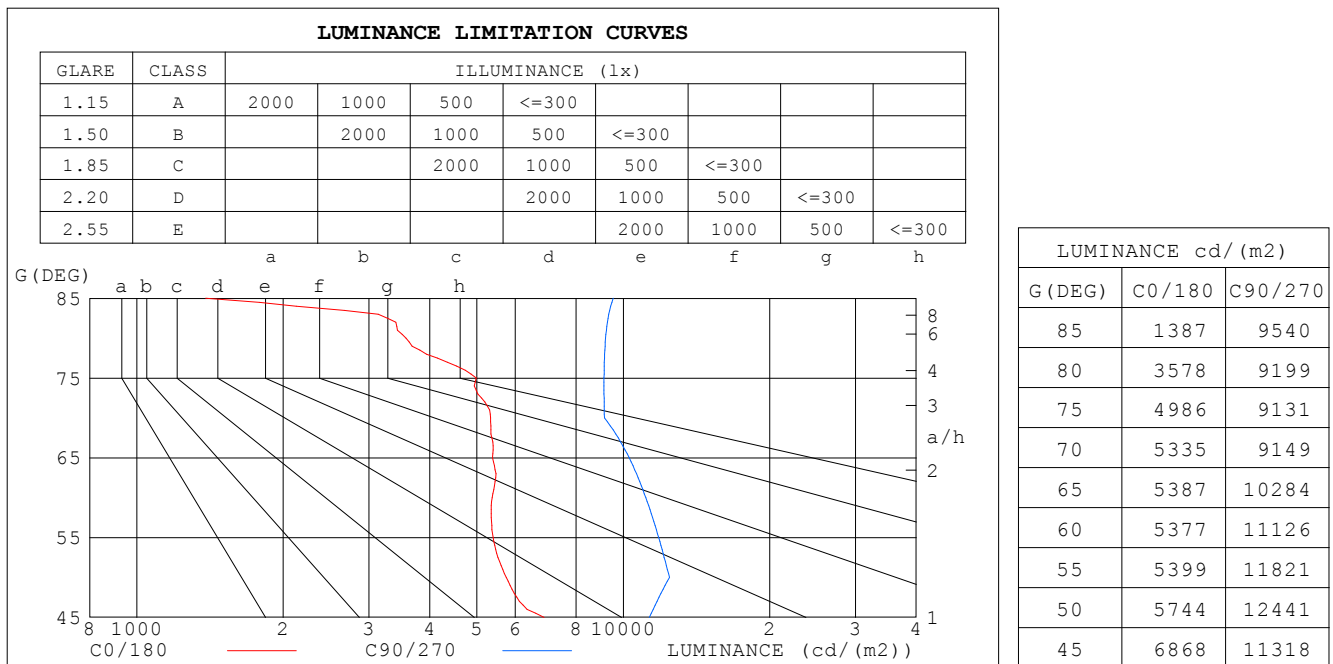
%lum = 97.2%

%lamp = 97.2%

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-03-31

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: 2017-03-31

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:

```

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	.184	.105	.033	.177	.101	.032	.165	.094	.030	.153	.088	.028	.142	.082	.027	
2.0	.174	.095	.029	.169	.093	.029	.158	.088	.027	.148	.083	.026	.139	.079	.025	
3.0	.164	.088	.026	.160	.086	.026	.151	.082	.025	.142	.078	.024	.134	.074	.023	
4.0	.156	.081	.024	.151	.079	.023	.144	.076	.023	.136	.073	.022	.130	.070	.021	
5.0	.147	.075	.022	.144	.074	.021	.137	.071	.021	.131	.069	.020	.125	.067	.020	
6.0	.140	.070	.020	.137	.069	.020	.131	.067	.020	.125	.065	.019	.120	.063	.019	
7.0	.133	.066	.019	.130	.065	.019	.125	.063	.018	.120	.062	.018	.116	.060	.018	
8.0	.127	.062	.017	.125	.061	.017	.120	.060	.017	.116	.059	.017	.111	.057	.017	
9.0	.122	.059	.016	.119	.058	.016	.115	.057	.016	.111	.056	.016	.107	.055	.016	
10.0	.116	.056	.015	.114	.055	.015	.111	.054	.015	.107	.053	.015	.104	.052	.015	

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	.172	.157	.144	.147	.135	.124	.100	.093	.086	.058	.054	.050	.019	.017	.016	
2.0	.157	.132	.112	.134	.114	.097	.092	.079	.068	.053	.046	.040	.017	.015	.013	
3.0	.144	.114	.089	.124	.098	.077	.085	.068	.054	.049	.040	.032	.016	.013	.010	
4.0	.134	.099	.072	.115	.085	.063	.079	.060	.044	.046	.035	.026	.015	.011	.009	
5.0	.125	.087	.060	.107	.076	.052	.074	.053	.037	.043	.031	.022	.014	.010	.007	
6.0	.117	.078	.050	.101	.068	.043	.070	.047	.031	.040	.028	.018	.013	.009	.006	
7.0	.111	.070	.042	.095	.061	.037	.066	.043	.026	.038	.025	.015	.012	.008	.005	
8.0	.105	.064	.036	.090	.056	.032	.062	.039	.022	.036	.023	.013	.012	.008	.004	
9.0	.100	.059	.031	.086	.051	.027	.059	.036	.019	.035	.021	.012	.011	.007	.004	
10.0	.095	.054	.028	.082	.047	.024	.057	.033	.017	.033	.020	.010	.011	.006	.003	

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2017-03-31

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	23.2	24.2	23.5	24.3	24.5	13.9	14.9	14.2	15.0	15.2
3H	23.1	24.0	23.4	24.2	24.4	15.6	16.5	15.9	16.7	16.9
4H	23.1	23.9	23.4	24.1	24.3	16.4	17.2	16.7	17.5	17.7
6H	23.0	23.8	23.3	24.0	24.3	17.1	17.9	17.4	18.2	18.4
8H	23.0	23.7	23.3	24.0	24.2	17.4	18.2	17.7	18.4	18.7
12H	22.9	23.6	23.3	23.9	24.2	17.7	18.4	18.0	18.7	18.9
4H 2H	23.0	23.8	23.3	24.1	24.3	14.2	15.1	14.5	15.3	15.5
3H	23.0	23.7	23.3	23.9	24.2	16.0	16.8	16.4	17.0	17.3
4H	22.9	23.6	23.3	23.9	24.2	16.9	17.6	17.3	17.9	18.2
6H	22.9	23.5	23.3	23.8	24.1	17.8	18.4	18.2	18.7	19.0
8H	22.8	23.4	23.2	23.7	24.1	18.2	18.7	18.6	19.0	19.4
12H	22.8	23.3	23.2	23.7	24.1	18.5	19.0	18.9	19.3	19.7
8H 4H	22.8	23.4	23.2	23.7	24.1	17.1	17.6	17.5	18.0	18.3
6H	22.8	23.3	23.2	23.7	24.1	18.0	18.5	18.5	18.9	19.3
8H	22.8	23.2	23.3	23.6	24.1	18.5	18.9	18.9	19.3	19.7
12H	22.8	23.1	23.2	23.5	24.0	18.9	19.2	19.4	19.7	20.1
12H 4H	22.8	23.3	23.2	23.7	24.0	17.1	17.6	17.5	17.9	18.3
6H	22.8	23.2	23.2	23.6	24.0	18.0	18.4	18.5	18.9	19.3
8H	22.8	23.1	23.3	23.6	24.0	18.5	18.9	19.0	19.3	19.8
Variations with the observer position at spacings:										
S = 1.0H	+ 5.3 / - 6.3					+ 0.1 / - 0.2				
1.5H	+ 8.0 / - 6.2					+ 0.7 / - 0.3				
2.0H	+ 0.2 / - 0.1					+ 1.1 / - 0.9				

CIE Pub.117 Corrected 15997 lm Total Lamp Luminous Flux.(8log(F/F0) = 9.6)

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2017-03-31

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:

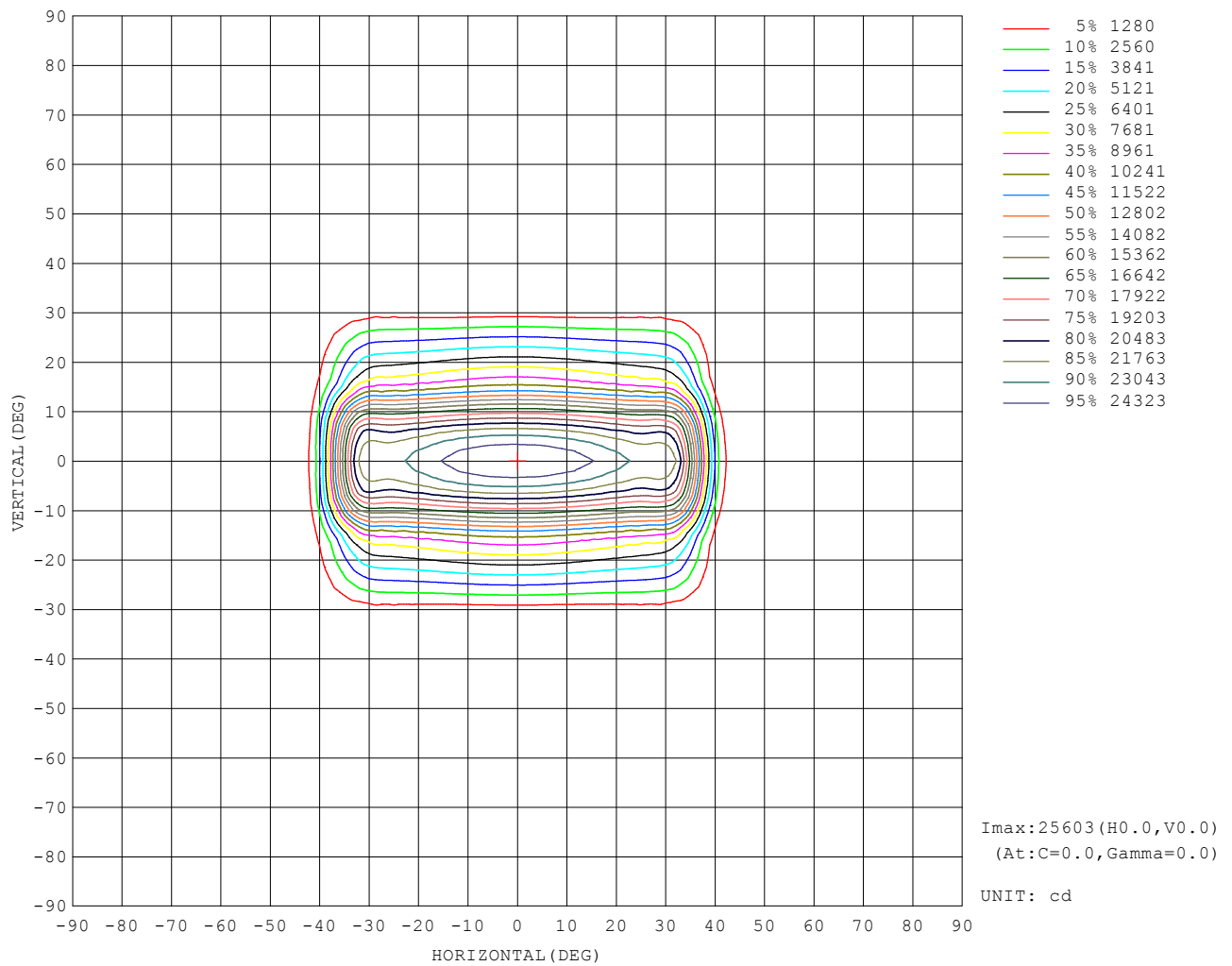
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	86	80	76	86	80	76	85	79	76	72
0.80	94	88	84	93	87	84	92	87	83	80
1.00	98	92	89	97	92	88	96	92	88	84
1.25	102	97	93	101	96	93	99	95	92	88
1.50	105	100	97	104	99	96	102	98	95	90
2.00	108	103	100	106	102	99	104	100	98	92
2.50	110	106	102	108	104	102	105	102	100	94
3.00	111	108	105	109	106	104	106	104	101	95
4.00	113	110	108	111	109	107	108	106	104	97
5.00	115	112	110	113	111	109	109	107	106	98
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: 2017-03-31

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:

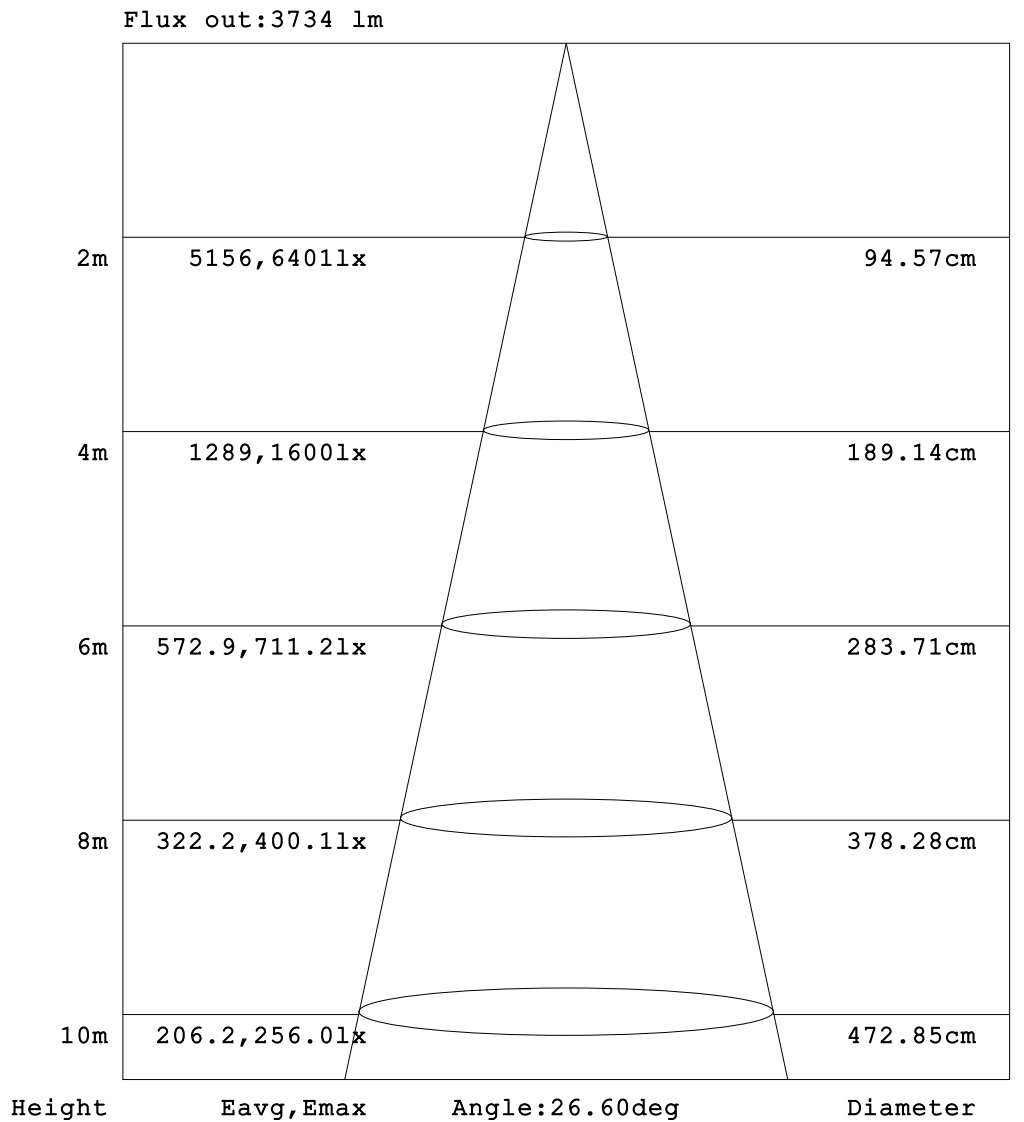
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2017-03-31

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

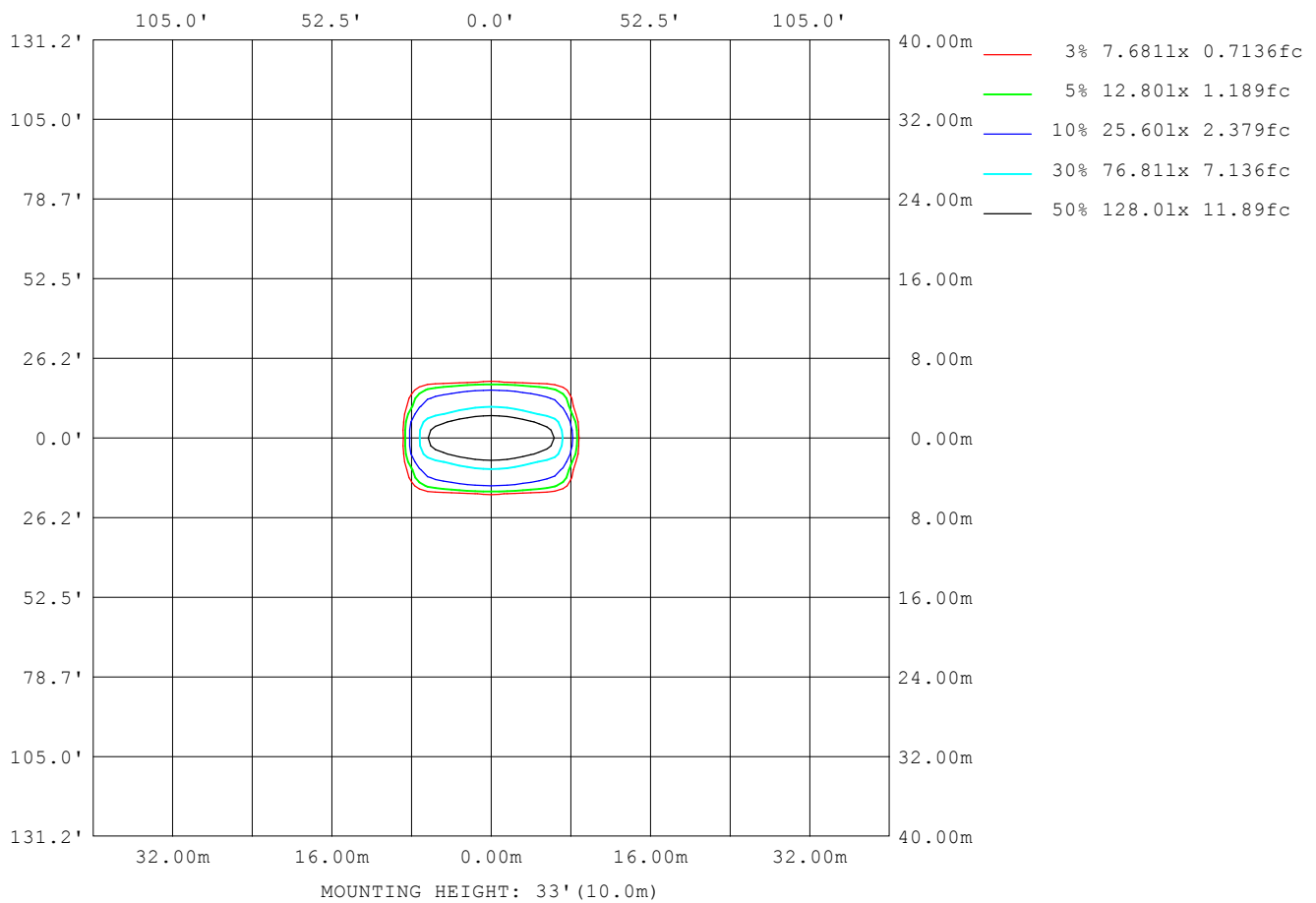


Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2017-03-31

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:2017-03-31

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:230.1V I:0.5359A P:120.1W PF:0.9745 Lamp Flux:15996.6x1 lm		
NAME: LHB01-120	TYPE:120W	WEIGHT:
SPEC.:5000K Ra70 3070DEG L02801	DIM.: 0.948*0.137*0.102	SERIAL No.:
MFR.:	SUR.:0.92*0.1	Shielding Angle:

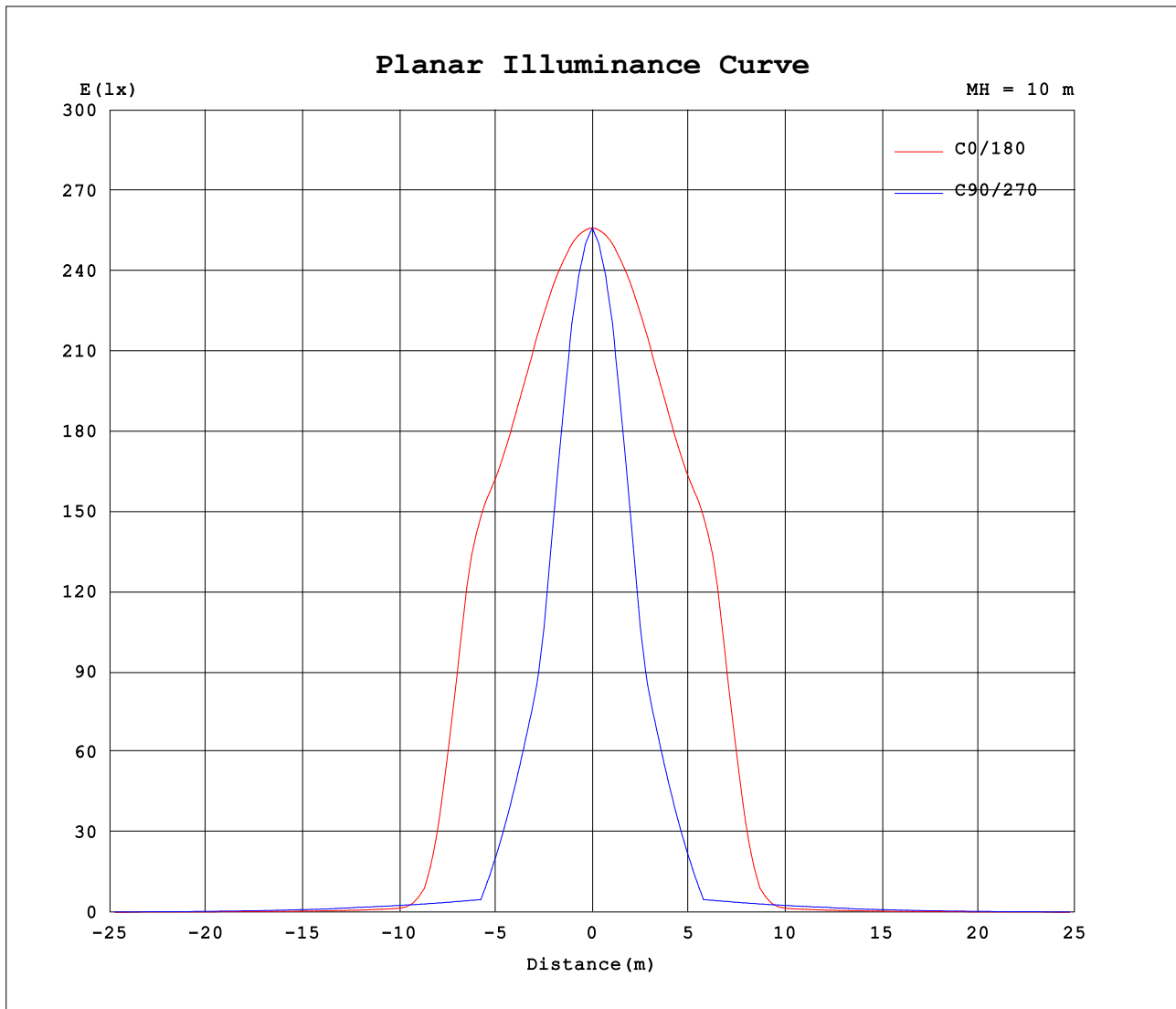
AvgL	cd/m2
L_0~180 (65) av	5387
L_0~180 (75) av	4986
L_0~180 (85) av	1387
L_90~270 (65) av	10284
L_90~270 (75) av	9131
L_90~270 (85) av	9540
L_45 (65) av	5955
L_45 (75) av	5206
L_45 (85) av	5548

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2017-03-31

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: 2017-03-31

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:

```

```

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:

```

```

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:

```