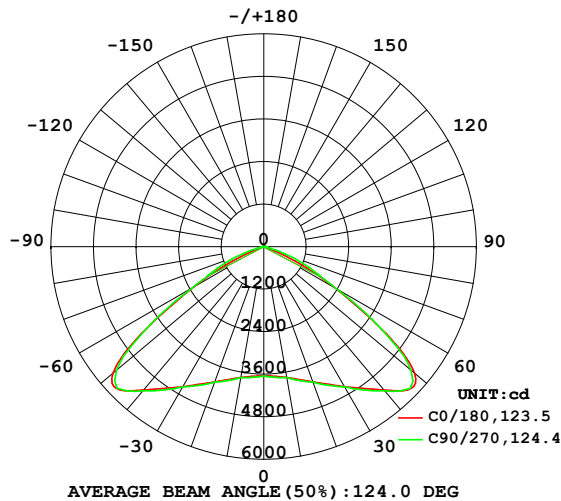


LUMINAIRE PHOTOMETRIC TEST REPORT

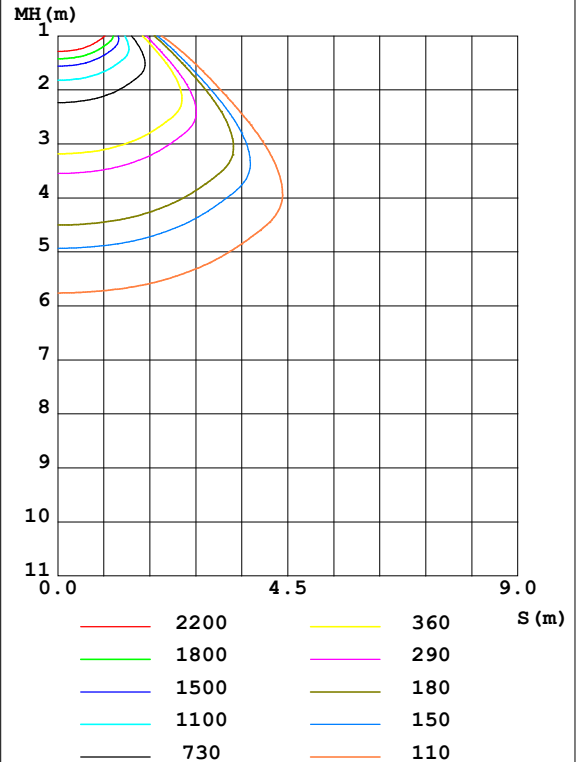
Test:U:230.0V I:0.5363A P:120.2W PF:0.9743 Lamp Flux:15890.2x1 lm		
NAME: LHB01-120	TYPE:120W	WEIGHT:
SPEC.:5000K Ra70 120DEG L02803	DIM.: 0.948*0.137*0.102	SERIAL No.:
MFR.:	SUR.:0.92*0.1	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 132.19 lm/W			
MODEL	LHB01-120	I _{max} (cd)	5791	S/MH(C0/180)	1.95
NOMINAL POWER(W)	120	LOR(%)	100.0	S/MH(C90/270)	1.94
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	15890	η UP,DN(C0-180)	0.0,50.0
NOMINAL FLUX(lm)	15890.2	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.0
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	2.00
TEST VOLTAGE(V)	230	η down(%)	100.0	CIBSE SHR MAX	0.00

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: 2017-04-01

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	3674	3699	3701	3699	3674	3699	3701	3699	0- 5	87.94	87.94	0.55,0.55
10	3751	3775	3752	3775	3751	3779	3752	3779	5- 10	267.1	355.0	2.23,2.23
15	3883	3893	3910	3893	3883	3901	3910	3901	10- 15	455.2	810.2	5.1,5.1
20	4060	4088	4068	4088	4060	4100	4068	4100	15- 20	658.5	1469	9.24,9.24
25	4283	4301	4316	4301	4283	4324	4316	4324	20- 25	879.9	2349	14.8,14.8
30	4561	4573	4565	4573	4561	4605	4565	4605	25- 30	1125	3474	21.9,21.9
35	4881	4895	4937	4895	4881	4941	4937	4941	30- 35	1398	4872	30.7,30.7
40	5279	5243	5308	5243	5279	5305	5308	5305	35- 40	1704	6576	41.4,41.4
45	5717	5530	5695	5530	5717	5579	5695	5579	40- 45	2037	8612	54.2,54.2
50	5549	5521	5422	5521	5549	5522	5422	5522	45- 50	2280	10892	68.5,68.5
55	4059	4111	4039	4111	4059	4052	4039	4052	50- 55	2102	12994	81.8,81.8
60	2288	2275	2331	2275	2288	2256	2331	2256	55- 60	1453	14447	90.9,90.9
65	976.8	995.8	1450	995.8	976.8	993.0	1450	993.0	60- 65	802.9	15250	96,96
70	172.6	371.4	775.3	371.4	172.6	390.0	775.3	390.0	65- 70	378.8	15629	98.4,98.4
75	111.3	193.6	164.5	193.6	111.3	202.6	164.5	202.6	70- 75	162.3	15791	99.4,99.4
80	68.28	68.49	68.65	68.49	68.28	68.81	68.65	68.81	75- 80	58.37	15850	99.7,99.7
85	14.51	37.11	37.13	37.11	14.51	37.75	37.13	37.75	80- 85	29.44	15879	99.9,99.9
90	4.555	5.491	5.607	5.491	4.555	6.457	5.607	6.457	85- 90	11.21	15890	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		

Conical surface Flux(90deg): 8612.3 lm

%lum = 54.2%

%lamp = 54.2%

Conical surface Flux(120deg): 14447 lm

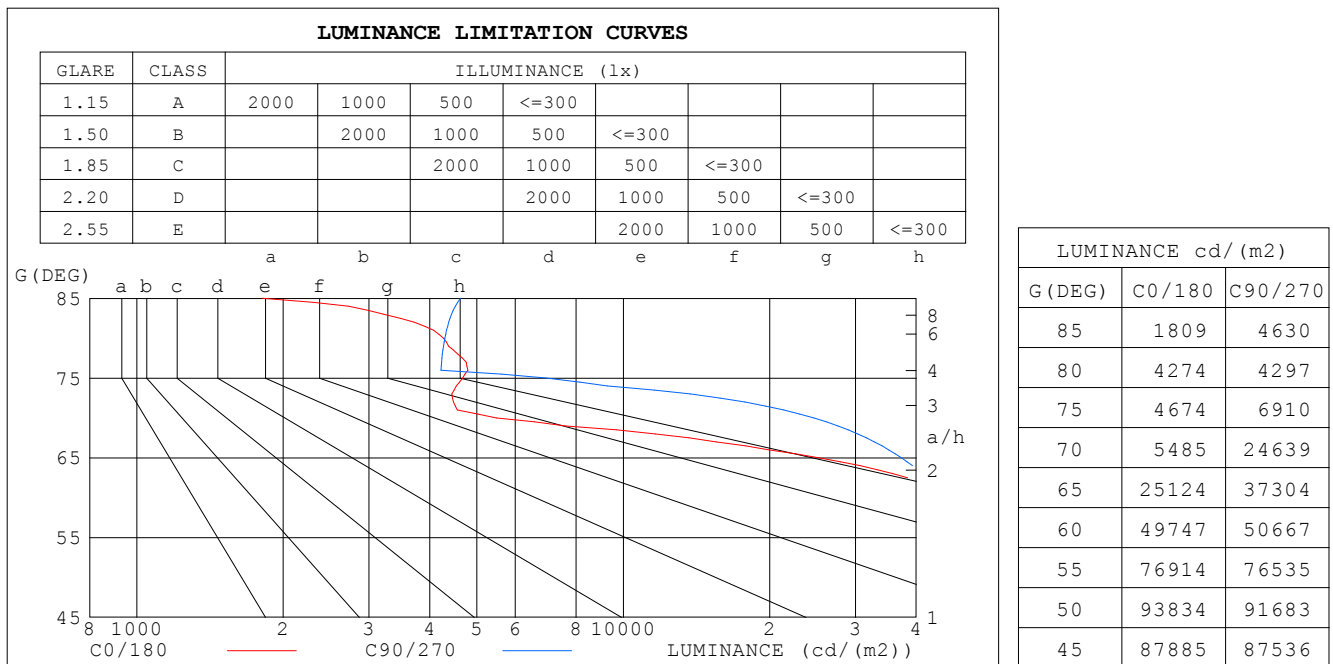
%lum = 90.9%

%lamp = 90.9%

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-04-01

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

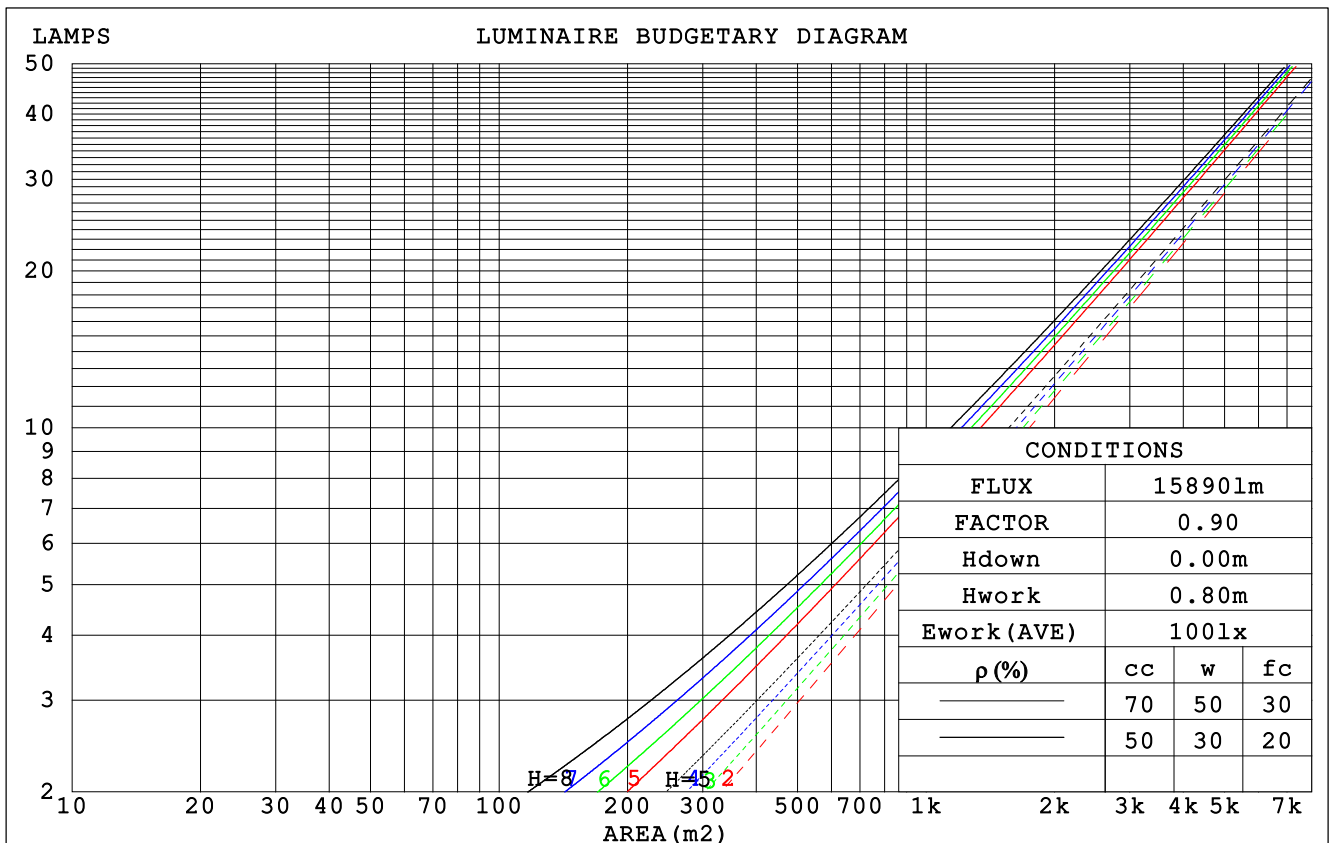


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2017-04-01

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

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	1.19	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	.99	1.04	1.00	.97	.00	.97	.94	.96	.94	.91	.92	.90	.89	.87
2.0	.93	.87	.82	.91	.86	.81	.88	.83	.79	.85	.81	.77	.82	.78	.75	.73
3.0	.82	.74	.68	.80	.73	.67	.77	.71	.66	.75	.70	.65	.72	.68	.64	.62
4.0	.72	.64	.57	.71	.63	.57	.68	.62	.56	.66	.60	.55	.64	.59	.55	.52
5.0	.64	.55	.49	.63	.55	.48	.61	.53	.48	.59	.52	.47	.57	.51	.47	.45
6.0	.57	.48	.42	.56	.48	.41	.54	.47	.41	.53	.46	.41	.51	.45	.40	.38
7.0	.51	.42	.36	.50	.42	.36	.49	.41	.36	.47	.40	.35	.46	.40	.35	.33
8.0	.46	.37	.32	.45	.37	.31	.44	.37	.31	.43	.36	.31	.42	.35	.31	.29
9.0	.42	.33	.28	.41	.33	.28	.40	.33	.28	.39	.32	.27	.38	.32	.27	.25
10.0	.38	.30	.25	.38	.30	.25	.37	.30	.25	.36	.29	.24	.35	.29	.24	.23



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2017-04-01

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	.267	.152	.048	.260	.149	.047	.247	.142	.045	.235	.136	.044	.224	.130	.042	
2.0	.265	.145	.044	.258	.142	.044	.247	.137	.043	.236	.133	.042	.227	.128	.040	
3.0	.253	.135	.040	.248	.133	.040	.238	.129	.039	.228	.125	.038	.220	.122	.038	
4.0	.240	.125	.037	.235	.123	.036	.226	.120	.036	.217	.117	.035	.210	.114	.035	
5.0	.226	.115	.033	.221	.114	.033	.213	.111	.033	.206	.109	.032	.199	.106	.032	
6.0	.212	.106	.030	.208	.105	.030	.201	.103	.030	.194	.101	.030	.188	.099	.029	
7.0	.199	.098	.028	.196	.097	.028	.189	.096	.028	.183	.094	.027	.177	.092	.027	
8.0	.187	.091	.026	.184	.091	.026	.178	.089	.025	.173	.088	.025	.168	.086	.025	
9.0	.176	.085	.024	.173	.085	.024	.168	.083	.024	.163	.082	.023	.159	.081	.023	
10.0	.166	.080	.022	.164	.079	.022	.159	.078	.022	.155	.077	.022	.150	.076	.022	

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	.177	.157	.138	.152	.134	.119	.104	.092	.082	.060	.053	.048	.019	.017	.015	
2.0	.169	.132	.101	.144	.114	.088	.099	.079	.061	.057	.046	.036	.018	.015	.012	
3.0	.161	.114	.077	.138	.099	.066	.095	.068	.047	.055	.040	.027	.018	.013	.009	
4.0	.155	.101	.060	.133	.087	.052	.091	.061	.037	.053	.036	.022	.017	.012	.007	
5.0	.148	.090	.048	.127	.078	.042	.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	.135	.075	.033	.117	.065	.029	.081	.046	.020	.047	.027	.012	.015	.009	.004	
8.0	.130	.070	.029	.112	.060	.025	.077	.042	.018	.045	.025	.011	.015	.008	.003	
9.0	.124	.065	.025	.107	.056	.022	.074	.040	.015	.043	.023	.009	.014	.008	.003	
10.0	.118	.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:
Test Date:2017-04-01

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	28.2	29.7	28.5	29.9	30.1	28.3	29.8	28.6	30.0	30.2
3H	28.1	29.5	28.4	29.7	30.0	28.6	29.9	28.8	30.2	30.4
4H	28.0	29.3	28.4	29.6	29.8	28.5	29.8	28.8	30.0	30.3
6H	27.9	29.2	28.3	29.4	29.7	28.4	29.6	28.7	29.9	30.2
8H	27.9	29.1	28.2	29.3	29.6	28.3	29.5	28.7	29.8	30.1
12H	27.8	29.0	28.2	29.3	29.6	28.3	29.4	28.6	29.7	30.0
4H 2H	28.3	29.6	28.6	29.8	30.1	28.4	29.7	28.7	29.9	30.2
3H	28.2	29.3	28.6	29.6	29.9	28.7	29.8	29.0	30.1	30.4
4H	28.1	29.2	28.5	29.5	29.8	28.6	29.6	29.0	29.9	30.3
6H	28.1	29.0	28.5	29.3	29.7	28.5	29.4	28.9	29.8	30.1
8H	28.0	28.8	28.4	29.2	29.6	28.5	29.3	28.9	29.7	30.1
12H	28.0	28.7	28.4	29.1	29.5	28.5	29.2	28.9	29.6	30.0
8H 4H	28.0	28.9	28.5	29.2	29.6	28.5	29.3	28.9	29.7	30.1
6H	28.0	28.7	28.4	29.1	29.5	28.4	29.1	28.9	29.5	29.9
8H	28.0	28.5	28.4	29.0	29.4	28.4	29.0	28.9	29.4	29.9
12H	27.9	28.4	28.4	28.9	29.3	28.4	28.9	28.9	29.3	29.8
12H 4H	28.0	28.7	28.4	29.1	29.5	28.5	29.2	28.9	29.6	30.0
6H	28.0	28.5	28.4	29.0	29.4	28.4	29.0	28.9	29.4	29.9
8H	27.9	28.4	28.4	28.9	29.3	28.4	28.9	28.9	29.3	29.8
Variations with the observer position at spacings:										
S = 1.0H	+ 0.4 / - 0.6					+ 0.2 / - 0.4				
1.5H	+ 1.1 / - 2.8					+ 0.9 / - 2.3				
2.0H	+ 2.1 / - 3.8					+ 2.0 / - 3.9				

CIE Pub.117 Corrected 15890 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:2017-04-01

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:

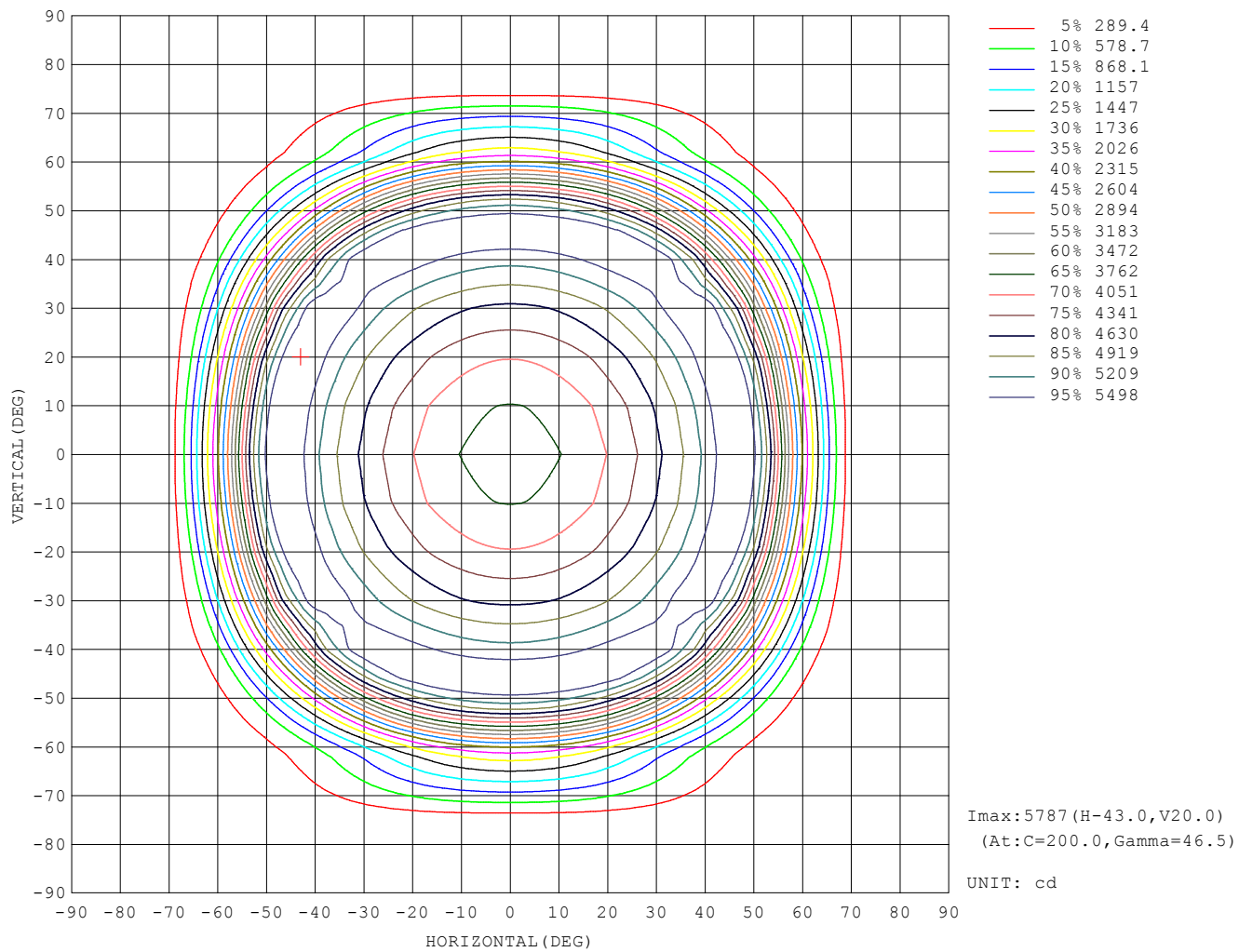
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	54	41	34	53	41	34	52	40	34	27
0.80	66	54	46	65	53	46	63	52	46	38
1.00	76	65	58	75	65	58	73	66	57	50
1.25	85	75	68	83	74	67	81	72	66	59
1.50	90	81	74	88	80	74	85	78	72	65
2.00	97	90	84	96	88	83	92	86	81	74
2.50	101	94	88	99	92	87	95	90	85	78
3.00	104	98	93	102	96	92	98	93	90	82
4.00	107	102	98	105	101	97	101	97	94	85
5.00	109	105	101	107	103	100	103	99	96	88
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: 2017-04-01

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:

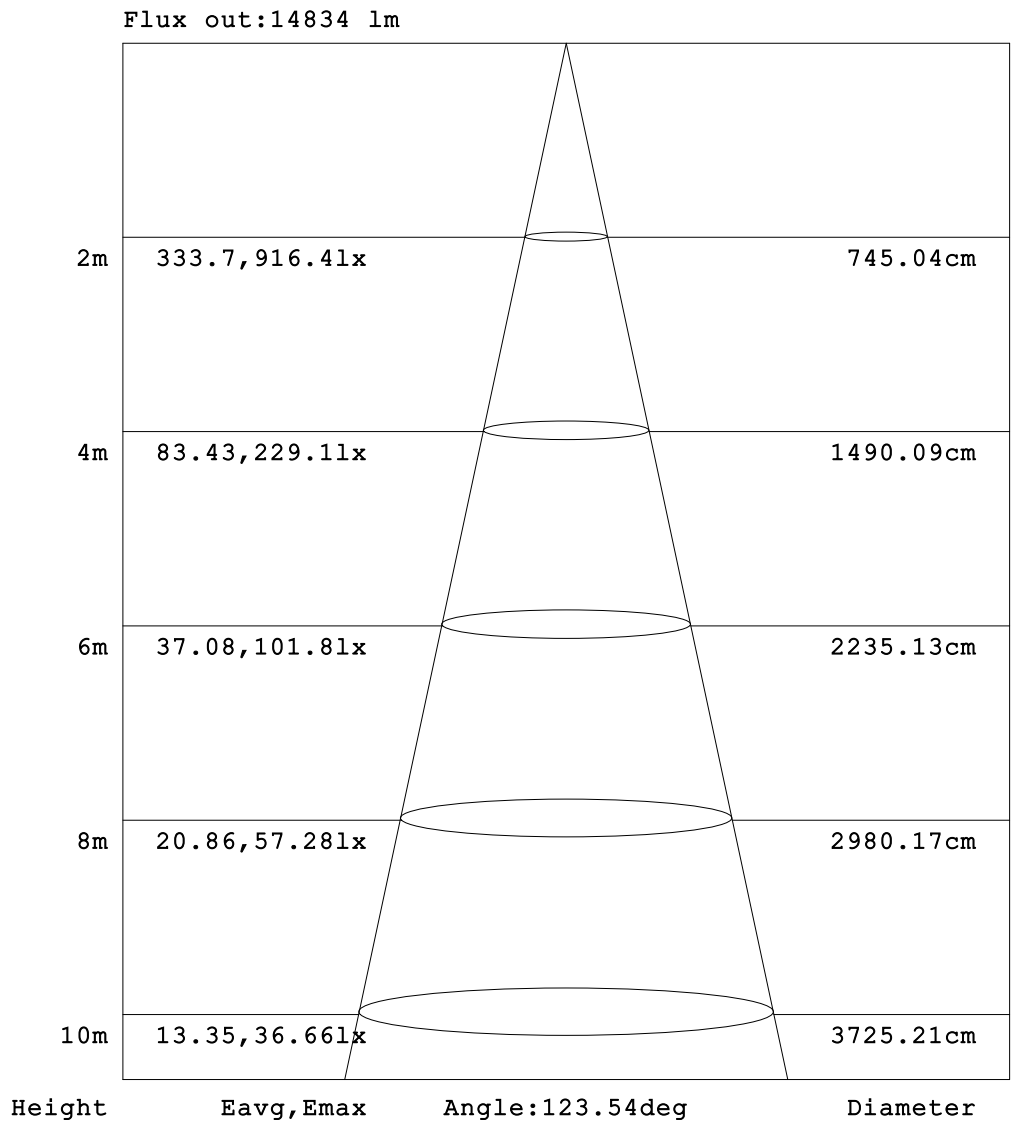
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2017-04-01

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

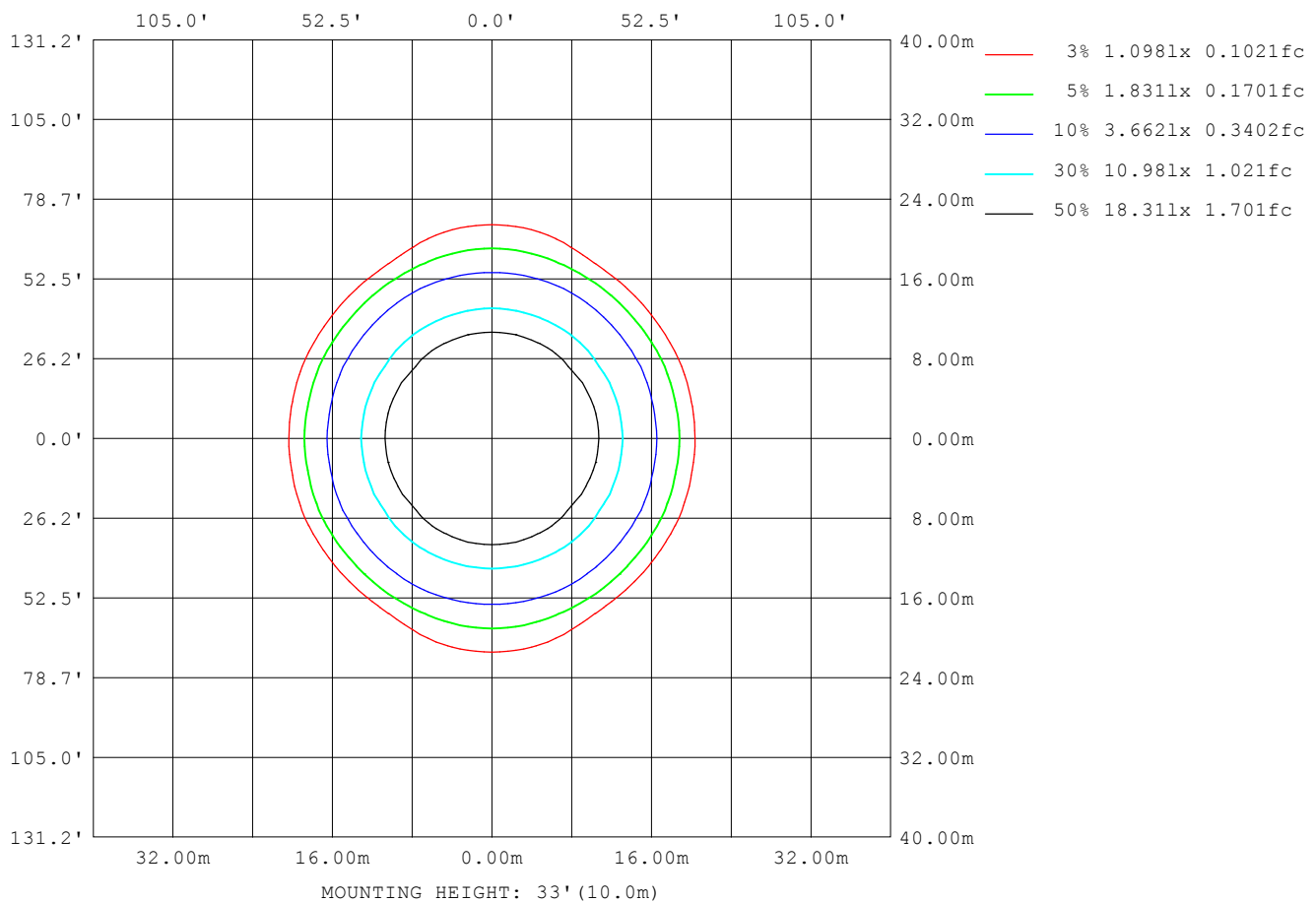


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2017-04-01

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: 2017-04-01

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:0.5363A P:120.2W PF:0.9743 Lamp Flux:15890.2x1 lm		
NAME: LHB01-120	TYPE:120W	WEIGHT:
SPEC.:5000K Ra70 120DEG L02803	DIM.: 0.948*0.137*0.102	SERIAL No.:
MFR.:	SUR.:0.92*0.1	Shielding Angle:

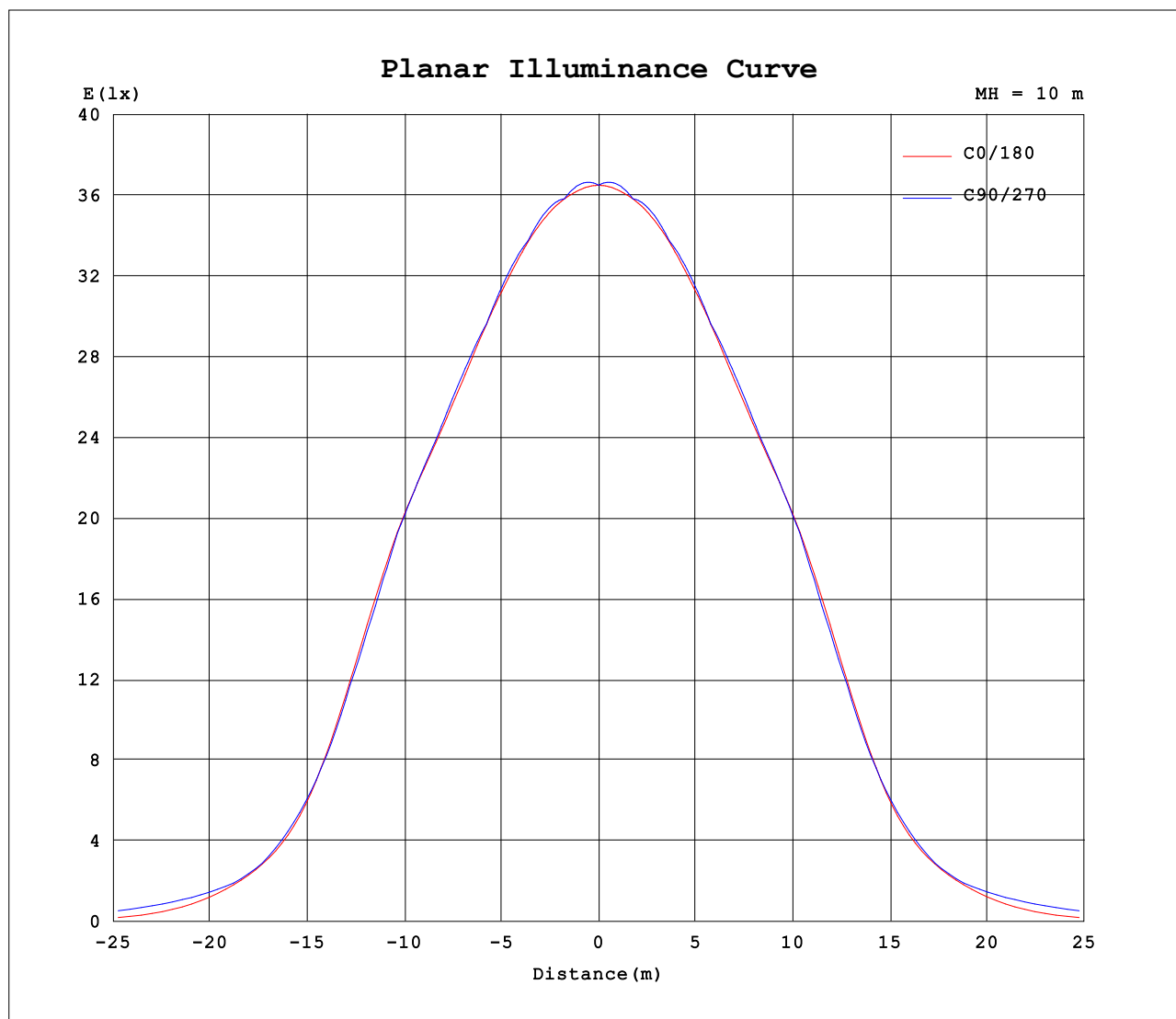
AvgL	cd/m2
L_0~180 (65) av	25124
L_0~180 (75) av	4674
L_0~180 (85) av	1809
L_90~270 (65) av	37304
L_90~270 (75) av	6910
L_90~270 (85) av	4630
L_45 (65) av	25576
L_45 (75) av	8320
L_45 (85) av	4668

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-04-01

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: 2017-04-01

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:

```

UNIT: cd

```

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:

```