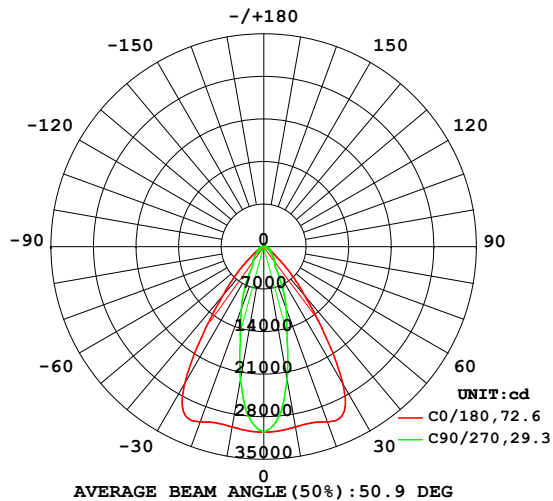


LUMINAIRE PHOTOMETRIC TEST REPORT

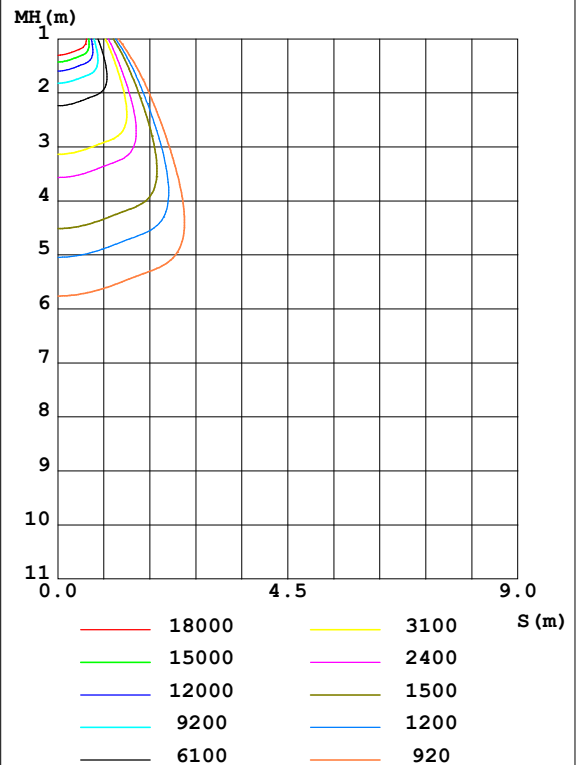
NAME: LHB01-180H	TYPE:180W	WEIGHT:
SPEC.:4000K Ra80 3070DEG L06401	DIM.: 0.718*0.275*0.102	SERIAL No.:
MFR.:	SUR.:0.255*0.69	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 145.54 lm/W			
MODEL	LHB01-180H	Imax(cd)	30961	S/MH(C0/180)	1.05
NOMINAL POWER(W)	180	LOR(%)	100.0	S/MH(C90/270)	0.49
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	26486	η UP,DN(C0-180)	0.0,50.0
NOMINAL FLUX(lm)	26486	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	0.65

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:2017-06-02

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	3040	2914	2814	2910	3040	2910	2814	2914	0- 5	711.4	711.4	2.69,2.69
10	3012	2587	2215	2577	3012	2577	2215	2587	5- 10	1969	2681	10.1,10.1
15	3004	2096	1485	2089	3004	2089	1485	2096	10- 15	2807	5488	20.7,20.7
20	3068	1561	1086	1568	3068	1568	1086	1561	15- 20	3265	8753	33,33
25	3063	1246	730.7	1263	3063	1263	730.7	1246	20- 25	3572	12325	46.5,46.5
30	2605	969.1	375.2	987.2	2605	987.2	375.2	969.1	25- 30	3534	15859	59.9,59.9
35	1734	643.3	317.0	649.4	1734	649.4	317.0	643.3	30- 35	2948	18807	71,71
40	1054	328.7	258.9	325.0	1054	325.0	258.9	328.7	35- 40	2176	20983	79.2,79.2
45	637.4	266.1	200.7	263.6	637.4	263.6	200.7	266.1	40- 45	1572	22554	85.2,85.2
50	336.0	207.5	142.6	205.7	336.0	205.7	142.6	207.5	45- 50	1133	23687	89.4,89.4
55	179.2	151.8	124.2	150.3	179.2	150.3	124.2	151.8	50- 55	796.3	24484	92.4,92.4
60	112.9	102.8	105.8	101.3	112.9	101.3	105.8	102.8	55- 60	589.5	25073	94.7,94.7
65	79.33	81.33	87.43	80.07	79.33	80.07	87.43	81.33	60- 65	459.0	25532	96.4,96.4
70	55.07	59.47	69.05	58.67	55.07	58.67	69.05	59.47	65- 70	357.6	25890	97.7,97.7
75	38.73	37.73	52.06	37.58	38.73	37.58	52.06	37.73	70- 75	266.4	26156	98.8,98.8
80	24.08	24.48	35.07	24.48	24.08	24.48	35.07	24.48	75- 80	183.3	26339	99.4,99.4
85	7.145	12.66	18.07	12.72	7.145	12.72	18.07	12.66	80- 85	108.3	26448	99.9,99.9
90	0.4178	1.033	1.082	1.141	0.4178	1.141	1.082	1.033	85- 90	38.21	26486	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): 22554 lm

%lum = 85.2%

%lamp = 85.2%

Conical surface Flux(120deg): 25073 lm

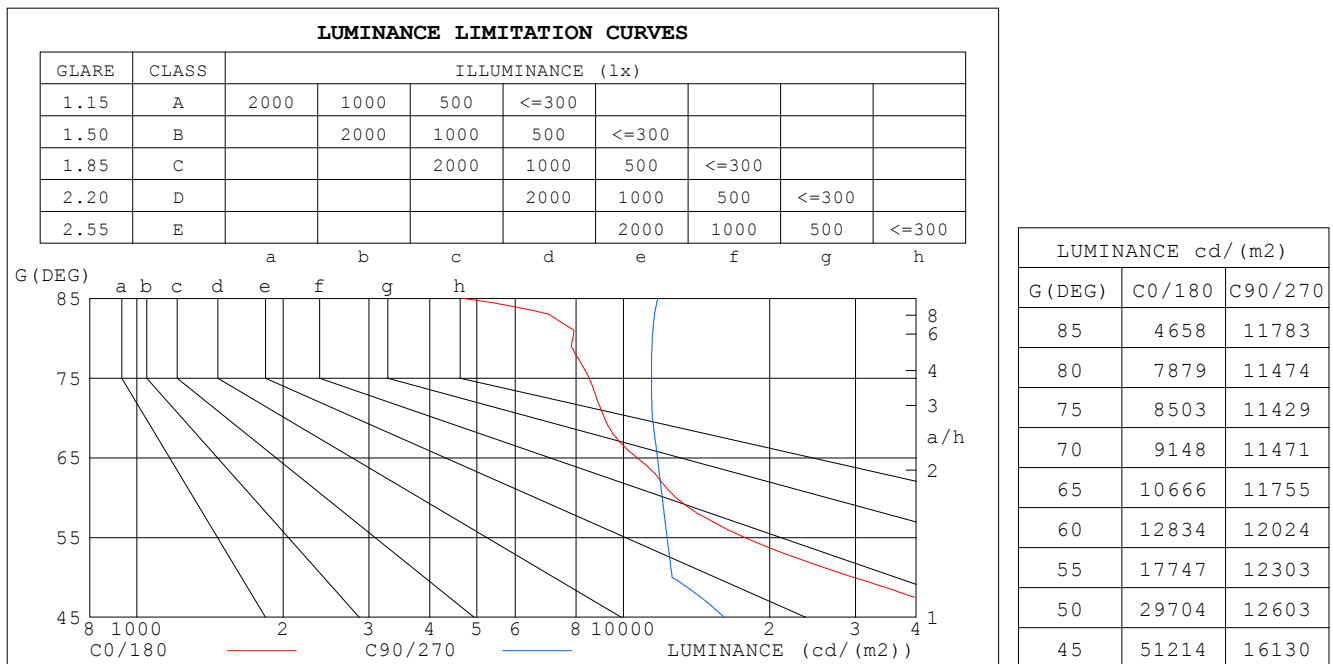
%lum = 94.7%

%lamp = 94.7%

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-06-02

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

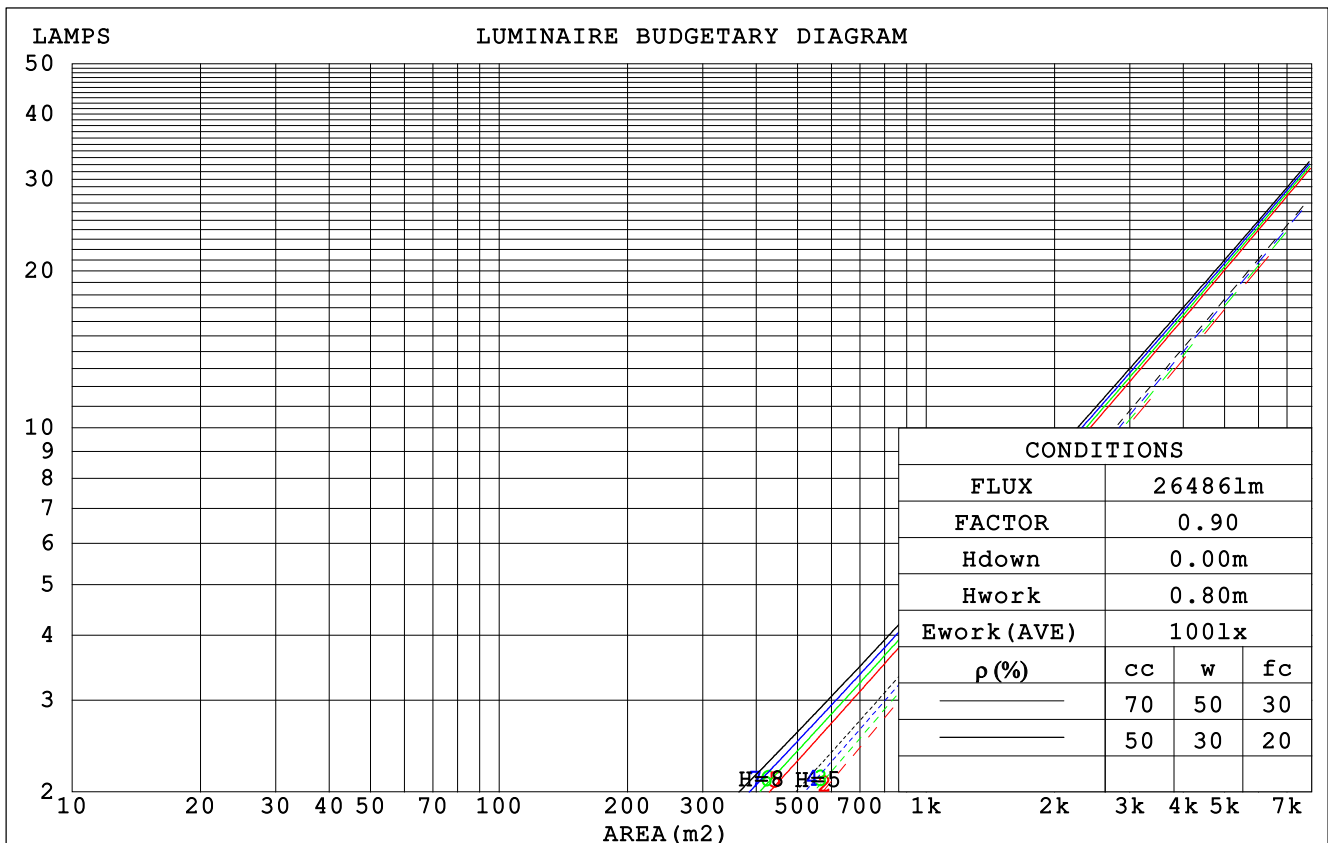


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2017-06-02

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	1.09	1.06	1.04	1.07	1.04	1.02	1.03	1.01	.99	.99	.97	.96	.96	.94	.93	.91
2.0	.00	.95	.91	.98	.94	.90	.95	.91	.88	.92	.89	.86	.89	.87	.85	.83
3.0	.92	.86	.82	.91	.85	.81	.88	.83	.80	.85	.82	.78	.83	.80	.77	.75
4.0	.85	.79	.74	.84	.78	.73	.82	.77	.73	.80	.75	.72	.78	.74	.71	.69
5.0	.79	.72	.67	.78	.72	.67	.76	.71	.66	.74	.70	.66	.73	.69	.65	.64
6.0	.73	.67	.62	.73	.66	.62	.71	.65	.61	.70	.65	.61	.68	.64	.60	.59
7.0	.69	.62	.57	.68	.62	.57	.67	.61	.57	.65	.60	.56	.64	.60	.56	.55
8.0	.64	.58	.53	.64	.57	.53	.63	.57	.53	.62	.56	.53	.60	.56	.52	.51
9.0	.60	.54	.50	.60	.54	.50	.59	.53	.49	.58	.53	.49	.57	.52	.49	.48
10.0	.57	.51	.47	.57	.51	.46	.56	.50	.46	.55	.50	.46	.54	.49	.46	.45



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2017-06-02

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	.210	.119	.038	.203	.116	.037	.191	.109	.035	.179	.103	.033	.168	.097	.031		
2.0	.200	.110	.034	.194	.107	.033	.183	.102	.032	.173	.097	.030	.164	.093	.029		
3.0	.189	.100	.030	.184	.098	.030	.174	.095	.029	.166	.091	.028	.158	.087	.027		
4.0	.178	.093	.027	.174	.091	.027	.166	.088	.026	.158	.085	.026	.151	.082	.025		
5.0	.168	.086	.025	.164	.084	.025	.157	.082	.024	.150	.079	.024	.144	.077	.023		
6.0	.159	.080	.023	.156	.079	.023	.149	.076	.022	.143	.074	.022	.138	.073	.022		
7.0	.151	.074	.021	.148	.074	.021	.142	.072	.021	.137	.070	.020	.132	.068	.020		
8.0	.143	.070	.020	.140	.069	.020	.135	.068	.019	.131	.066	.019	.126	.065	.019		
9.0	.136	.066	.018	.134	.065	.018	.129	.064	.018	.125	.063	.018	.121	.061	.018		
10.0	.130	.062	.017	.127	.062	.017	.123	.060	.017	.120	.059	.017	.116	.058	.017		

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	.173	.157	.142	.148	.135	.122	.101	.093	.085	.058	.054	.049	.019	.017	.016	
2.0	.160	.132	.109	.137	.114	.094	.094	.079	.066	.054	.046	.039	.017	.015	.013	
3.0	.149	.114	.086	.128	.098	.074	.088	.068	.052	.051	.040	.031	.016	.013	.010	
4.0	.139	.099	.069	.120	.086	.060	.082	.060	.042	.048	.035	.025	.015	.011	.008	
5.0	.131	.088	.056	.113	.076	.049	.078	.053	.035	.045	.031	.021	.014	.010	.007	
6.0	.124	.079	.047	.106	.068	.041	.073	.048	.029	.043	.028	.017	.014	.009	.006	
7.0	.117	.072	.040	.101	.062	.035	.070	.044	.025	.040	.026	.015	.013	.008	.005	
8.0	.111	.066	.034	.096	.057	.030	.066	.040	.021	.039	.024	.013	.012	.008	.004	
9.0	.106	.060	.030	.091	.052	.026	.063	.037	.018	.037	.022	.011	.012	.007	.004	
10.0	.101	.056	.026	.087	.049	.023	.061	.034	.016	.035	.020	.010	.011	.007	.003	

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2017-06-02

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	23.1	24.2	23.3	24.3	24.5	17.8	18.9	18.0	19.0	19.2
3H	23.2	24.2	23.5	24.4	24.6	19.1	20.1	19.3	20.3	20.5
4H	23.2	24.2	23.5	24.4	24.6	19.7	20.7	20.0	20.9	21.1
6H	23.3	24.1	23.6	24.4	24.6	20.3	21.2	20.6	21.4	21.7
8H	23.3	24.1	23.6	24.4	24.6	20.5	21.4	20.8	21.6	21.9
12H	23.2	24.1	23.6	24.3	24.6	20.7	21.5	21.0	21.8	22.0
4H 2H	23.0	23.9	23.3	24.1	24.4	18.3	19.2	18.6	19.5	19.7
3H	23.2	24.0	23.5	24.3	24.6	19.7	20.5	20.0	20.8	21.1
4H	23.3	24.1	23.7	24.4	24.7	20.4	21.2	20.8	21.5	21.8
6H	23.4	24.1	23.8	24.4	24.8	21.2	21.8	21.5	22.2	22.5
8H	23.4	24.1	23.8	24.4	24.8	21.5	22.1	21.9	22.4	22.8
12H	23.4	24.0	23.9	24.4	24.8	21.7	22.3	22.1	22.6	23.0
8H 4H	23.3	23.9	23.7	24.3	24.6	20.6	21.2	21.0	21.6	21.9
6H	23.5	24.0	23.9	24.4	24.8	21.4	21.9	21.9	22.3	22.8
8H	23.5	24.0	24.0	24.4	24.8	21.8	22.3	22.3	22.7	23.1
12H	23.6	23.9	24.0	24.4	24.9	22.2	22.6	22.7	23.0	23.5
12H 4H	23.3	23.8	23.7	24.2	24.6	20.6	21.1	21.0	21.5	21.9
6H	23.5	23.9	23.9	24.3	24.8	21.5	21.9	21.9	22.3	22.8
8H	23.5	23.9	24.0	24.4	24.8	21.9	22.3	22.4	22.7	23.2
Variations with the observer position at spacings:										
S = 1.0H	+ 2.6 / - 2.3					+ 0.4 / - 0.4				
1.5H	+ 3.9 / - 2.7					+ 0.3 / - 0.4				
2.0H	+ 4.1 / - 1.9					+ 0.4 / - 0.2				

CIE Pub.117 Corrected 26486 lm Total Lamp Luminous Flux.(8log(F/F0) = 11.4)

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2017-06-02

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:

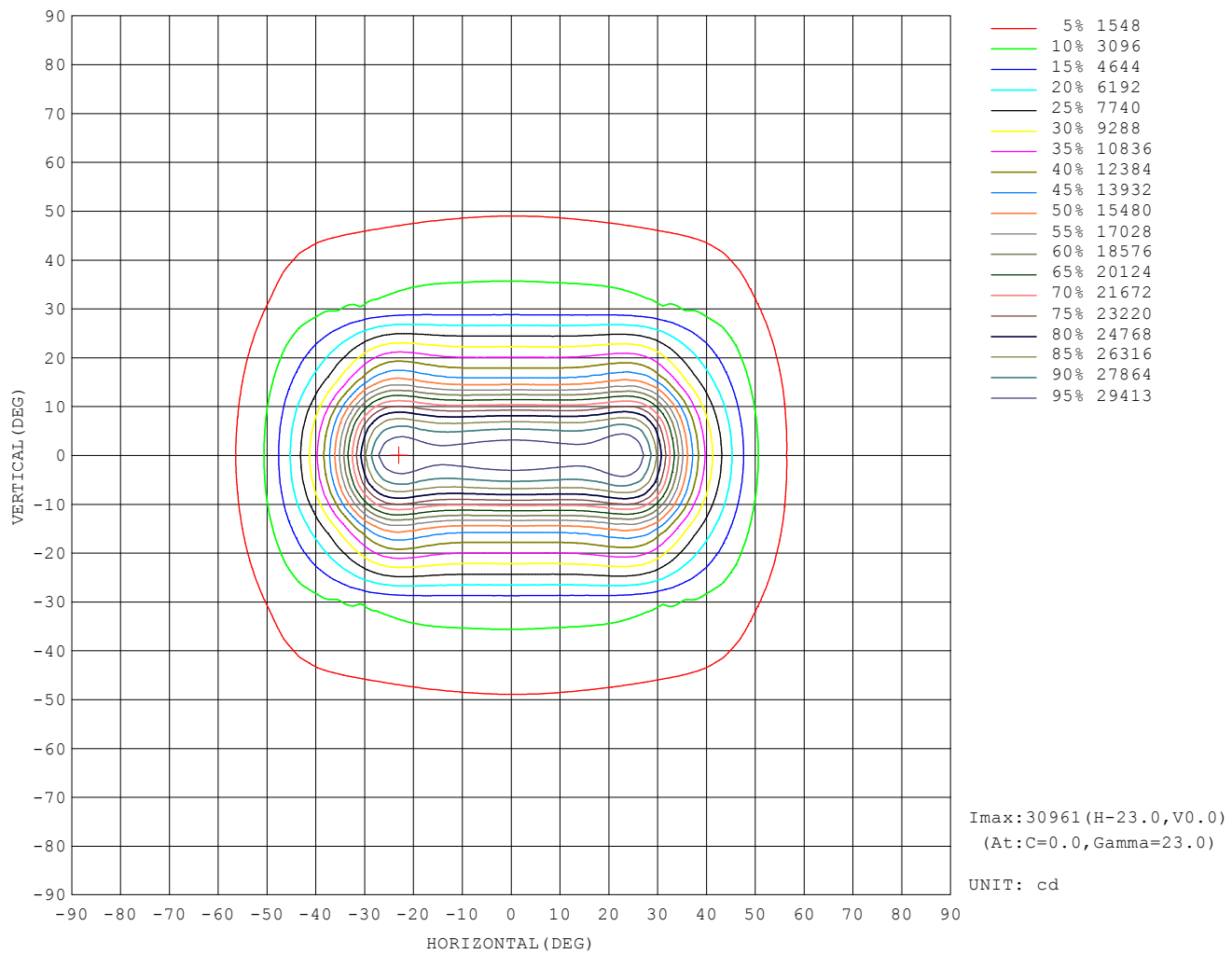
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	79	71	66	78	71	66	77	70	66	61
0.80	87	79	75	86	79	75	85	78	74	70
1.00	93	86	81	92	85	81	90	85	80	75
1.25	98	91	87	97	91	86	94	89	85	80
1.50	101	95	91	100	94	90	97	93	89	84
2.00	105	100	96	103	99	95	101	97	93	87
2.50	107	102	99	106	101	98	102	99	96	89
3.00	109	105	101	107	103	100	104	101	98	91
4.00	112	108	105	110	107	104	106	103	101	94
5.00	113	110	108	111	108	106	107	105	103	95
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: 2017-06-02

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:

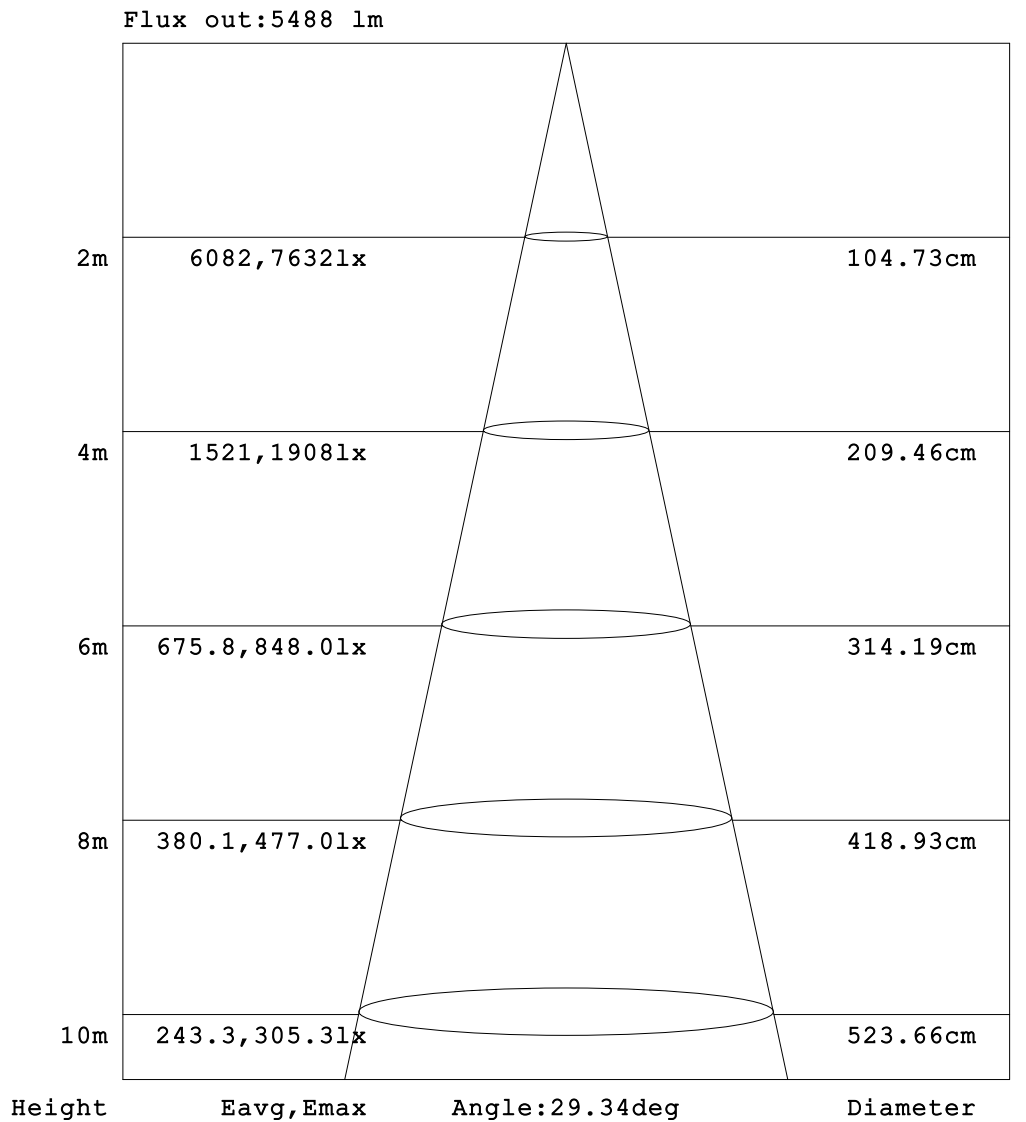
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2017-06-02

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

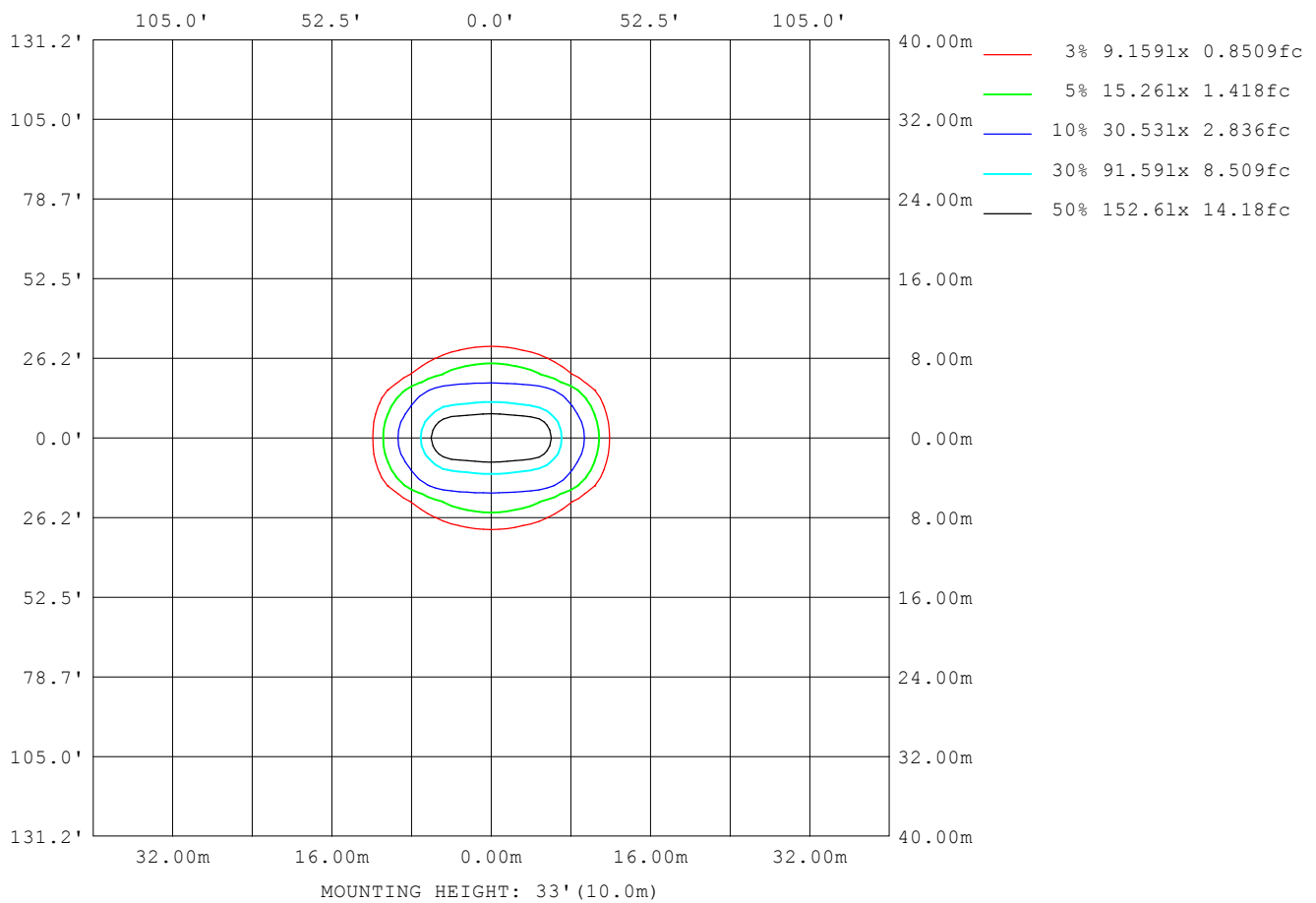


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2017-06-02

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: 2017-06-02

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

NAME: LHB01-180H	TYPE:180W	WEIGHT:
SPEC.:4000K Ra80 3070DEG L06401	DIM.: 0.718*0.275*0.102	SERIAL No.:
MFR.:	SUR.:0.255*0.69	Shielding Angle:

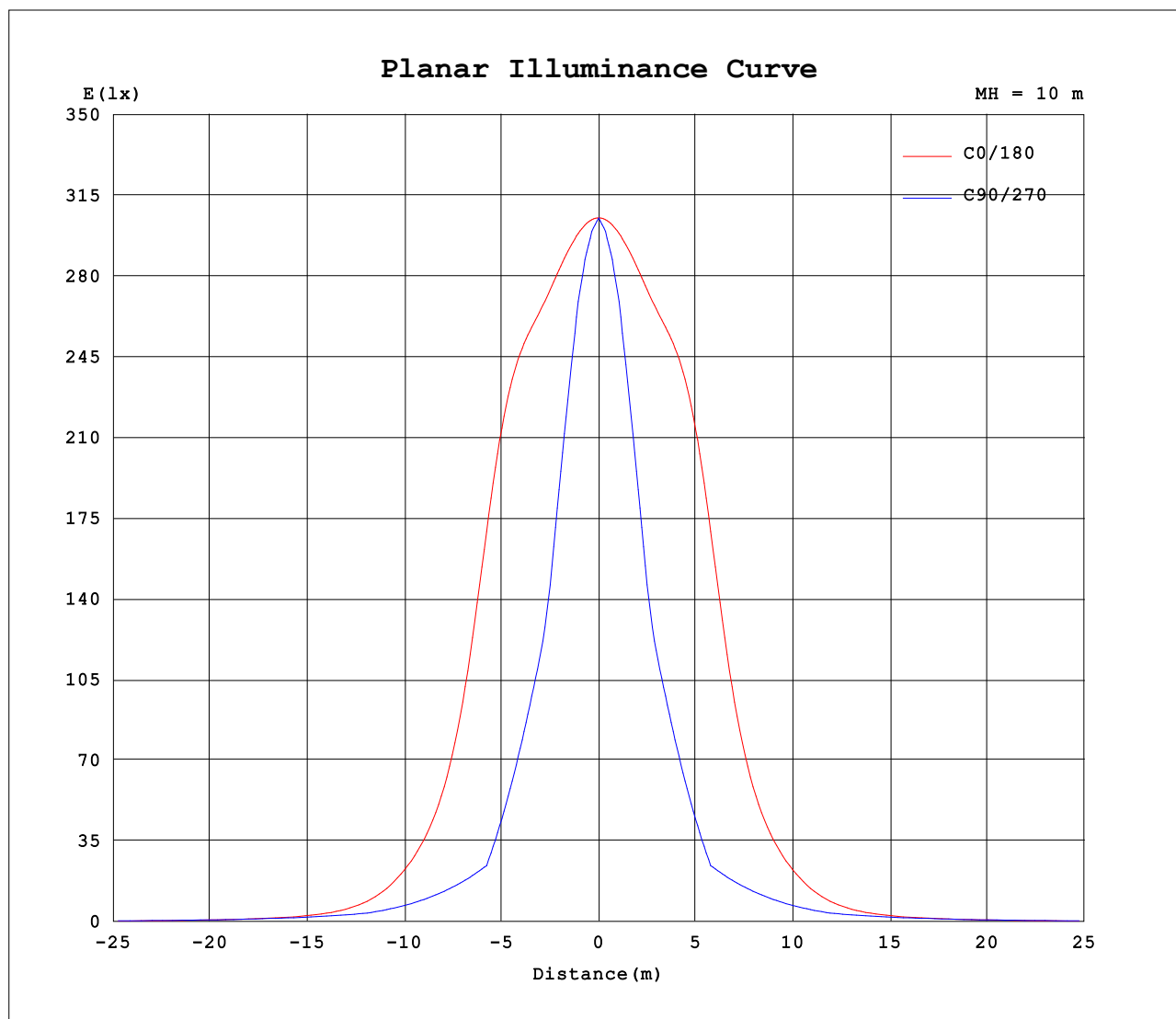
AvgL	cd/m2
L_0~180 (65) av	10666
L_0~180 (75) av	8503
L_0~180 (85) av	4658
L_90~270 (65) av	11755
L_90~270 (75) av	11429
L_90~270 (85) av	11783
L_45 (65) av	10850
L_45 (75) av	8266
L_45 (85) av	8273

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2017-06-02

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: 2017-06-02

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:

```

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

```

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:

```