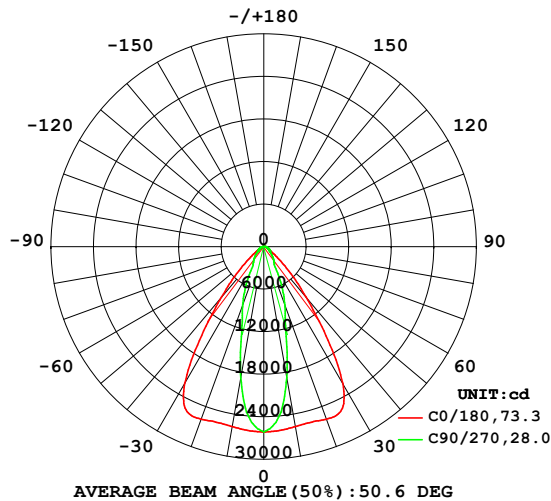


LUMINAIRE PHOTOMETRIC TEST REPORT

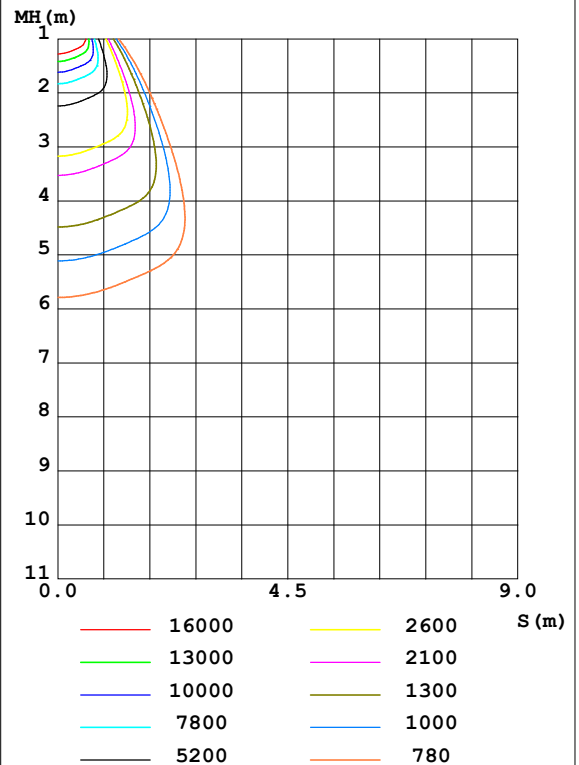
NAME: LHB01-150H	TYPE:150W	WEIGHT:
SPEC.:4000K Ra80 3070DEG L06401	DIM.: 1.178*0.137*0.102	SERIAL No.:
MFR.:	SUR.:1.17*0.1	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 147.02 lm/W			
MODEL	LHB01-150H	I _{max} (cd)	26128	S/MH (C0/180)	1.06
NOMINAL POWER(W)	150	LOR(%)	100.0	S/MH (C90/270)	0.47
RATED VOLTAGE(V)	230	TOTAL FLUX (lm)	22042	η UP,DN (C0-180)	0.0,49.7
NOMINAL FLUX (lm)	22042.5	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0,50.3
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	230	η down (%)	100.0	CIBSE SHR MAX	0.60

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	2601	2495	2416	2495	2601	2501	2416	2501	0- 5	609.7	609.7	2.77,2.77
10	2576	2209	1878	2209	2576	2221	1878	2221	5- 10	1688	2298	10.4,10.4
15	2565	1768	1205	1768	2565	1771	1205	1771	10- 15	2385	4682	21.2,21.2
20	2589	1295	874.5	1295	2589	1272	874.5	1272	15- 20	2738	7420	33.7,33.7
25	2564	1032	587.7	1032	2564	997.0	587.7	997.0	20- 25	2962	10382	47.1,47.1
30	2229	797.1	301.0	797.1	2229	768.3	301.0	768.3	25- 30	2913	13295	60.3,60.3
35	1532	515.6	254.1	515.6	1532	509.5	254.1	509.5	30- 35	2448	15743	71.4,71.4
40	926.7	256.1	207.2	256.1	926.7	262.0	207.2	262.0	35- 40	1820	17563	79.7,79.7
45	553.9	208.9	160.3	208.9	553.9	212.1	160.3	212.1	40- 45	1304	18867	85.6,85.6
50	291.8	163.9	113.4	163.9	291.8	164.7	113.4	164.7	45- 50	931.2	19798	89.8,89.8
55	150.1	120.4	98.77	120.4	150.1	119.8	98.77	119.8	50- 55	648.3	20446	92.8,92.8
60	91.85	81.68	84.10	81.68	91.85	80.19	84.10	80.19	55- 60	474.3	20920	94.9,94.9
65	63.01	64.46	69.43	64.46	63.01	63.52	69.43	63.52	60- 65	365.9	21286	96.6,96.6
70	43.23	47.02	54.76	47.02	43.23	46.66	54.76	46.66	65- 70	283.3	21570	97.9,97.9
75	29.93	29.72	41.26	29.72	29.93	29.94	41.26	29.94	70- 75	210.6	21780	98.8,98.8
80	18.46	19.25	27.77	19.25	18.46	19.48	27.77	19.48	75- 80	145.2	21925	99.5,99.5
85	5.581	9.930	14.27	9.930	5.581	10.09	14.27	10.09	80- 85	86.53	22012	99.9,99.9
90	0.3303	0.7540	0.7740	0.7540	0.3303	0.8344	0.7740	0.8344	85- 90	30.56	22042	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): 18867 lm

%lum = 85.6%

%lamp = 85.6%

Conical surface Flux(120deg): 20920 lm

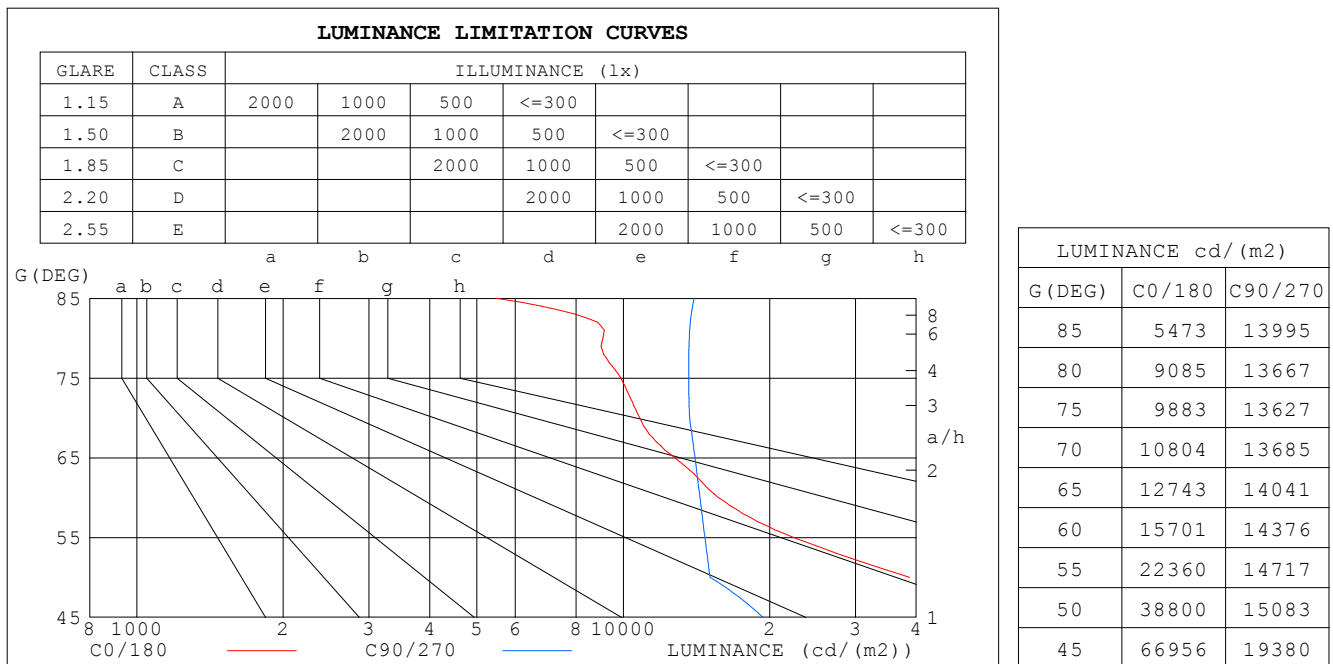
%lum = 94.9%

%lamp = 94.9%

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

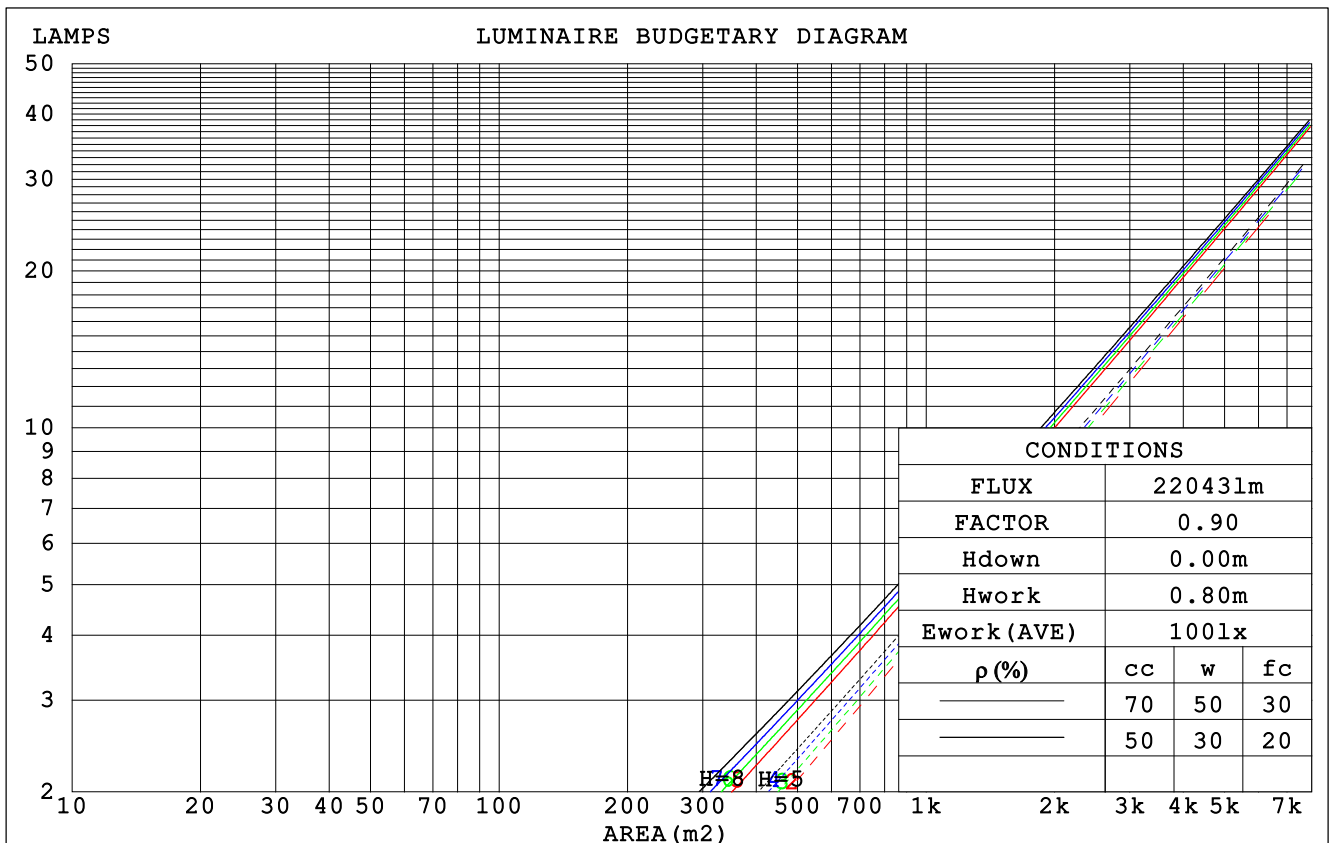


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2017-06-02

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	.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	1.00	.95	.92	.98	.94	.91	.95	.92	.88	.92	.89	.87	.89	.87	.85	.83
3.0	.92	.87	.82	.91	.86	.81	.88	.84	.80	.86	.82	.79	.83	.80	.77	.76
4.0	.85	.79	.74	.84	.78	.74	.82	.77	.73	.80	.75	.72	.78	.74	.71	.69
5.0	.79	.73	.68	.78	.72	.67	.76	.71	.67	.75	.70	.66	.73	.69	.66	.64
6.0	.74	.67	.62	.73	.67	.62	.71	.66	.62	.70	.65	.61	.69	.64	.61	.59
7.0	.69	.62	.58	.68	.62	.58	.67	.61	.57	.66	.61	.57	.65	.60	.57	.55
8.0	.65	.58	.54	.64	.58	.54	.63	.57	.53	.62	.57	.53	.61	.56	.53	.51
9.0	.61	.54	.50	.60	.54	.50	.59	.54	.50	.58	.53	.50	.58	.53	.49	.48
10.0	.57	.51	.47	.57	.51	.47	.56	.51	.47	.55	.50	.47	.54	.50	.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	.208	.119	.038	.202	.115	.037	.189	.108	.035	.177	.102	.033	.166	.096	.031		
2.0	.198	.109	.033	.193	.106	.033	.182	.101	.031	.172	.096	.030	.163	.092	.029		
3.0	.187	.100	.030	.182	.098	.029	.173	.094	.029	.164	.090	.028	.156	.087	.027		
4.0	.177	.092	.027	.172	.090	.027	.164	.087	.026	.157	.084	.025	.150	.081	.025		
5.0	.167	.085	.025	.163	.084	.024	.156	.081	.024	.149	.079	.023	.143	.077	.023		
6.0	.158	.079	.023	.155	.078	.022	.148	.076	.022	.142	.074	.022	.137	.072	.021		
7.0	.150	.074	.021	.147	.073	.021	.141	.071	.021	.136	.070	.020	.131	.068	.020		
8.0	.142	.069	.020	.139	.069	.019	.134	.067	.019	.130	.066	.019	.125	.064	.019		
9.0	.135	.065	.018	.133	.065	.018	.128	.063	.018	.124	.062	.018	.120	.061	.018		
10.0	.129	.062	.017	.127	.061	.017	.123	.060	.017	.119	.059	.017	.115	.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	.123	.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	.127	.098	.075	.087	.068	.052	.051	.040	.031	.016	.013	.010	
4.0	.139	.099	.069	.119	.086	.060	.082	.060	.042	.047	.035	.025	.015	.011	.008	
5.0	.131	.088	.057	.112	.076	.049	.077	.053	.035	.045	.031	.021	.014	.010	.007	
6.0	.123	.079	.047	.106	.068	.041	.073	.048	.029	.042	.028	.017	.014	.009	.006	
7.0	.117	.072	.040	.101	.062	.035	.069	.044	.025	.040	.026	.015	.013	.008	.005	
8.0	.111	.065	.034	.096	.057	.030	.066	.040	.021	.038	.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	.060	.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	23.7	24.8	24.0	25.0	25.2	18.2	19.3	18.4	19.5	19.6
3H	23.8	24.8	24.1	25.0	25.2	19.5	20.5	19.7	20.7	20.9
4H	23.9	24.8	24.2	25.0	25.3	20.1	21.0	20.4	21.2	21.5
6H	23.9	24.8	24.2	25.0	25.3	20.6	21.5	20.9	21.8	22.0
8H	23.9	24.7	24.2	25.0	25.3	20.9	21.7	21.2	22.0	22.2
12H	23.9	24.7	24.2	25.0	25.2	21.0	21.8	21.4	22.1	22.4
4H 2H	23.6	24.6	23.9	24.8	25.0	18.7	19.7	19.0	19.9	20.1
3H	23.8	24.7	24.2	24.9	25.2	20.1	20.9	20.4	21.2	21.5
4H	23.9	24.7	24.3	25.0	25.3	20.8	21.6	21.2	21.9	22.2
6H	24.0	24.7	24.4	25.0	25.4	21.5	22.2	21.9	22.5	22.9
8H	24.1	24.7	24.5	25.0	25.4	21.8	22.4	22.2	22.8	23.1
12H	24.1	24.6	24.5	25.0	25.4	22.1	22.6	22.5	23.0	23.4
8H 4H	23.9	24.5	24.3	24.9	25.3	21.0	21.6	21.4	21.9	22.3
6H	24.1	24.6	24.5	25.0	25.4	21.8	22.3	22.2	22.7	23.1
8H	24.1	24.6	24.6	25.0	25.4	22.2	22.6	22.6	23.0	23.5
12H	24.2	24.6	24.7	25.0	25.5	22.5	22.9	23.0	23.4	23.8
12H 4H	23.9	24.5	24.3	24.8	25.2	21.0	21.5	21.4	21.9	22.3
6H	24.1	24.5	24.5	24.9	25.4	21.8	22.3	22.3	22.7	23.1
8H	24.2	24.5	24.6	25.0	25.4	22.2	22.6	22.7	23.1	23.5
Variations with the observer position at spacings:										
S = 1.0H	+ 3.1 / - 2.4					+ 0.4 / - 0.4				
1.5H	+ 4.4 / - 2.9					+ 0.2 / - 0.4				
2.0H	+ 4.5 / - 1.9					+ 0.4 / - 0.3				

CIE Pub.117 Corrected 22042 lm Total Lamp Luminous Flux.(8log(F/F0) = 10.7)

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:

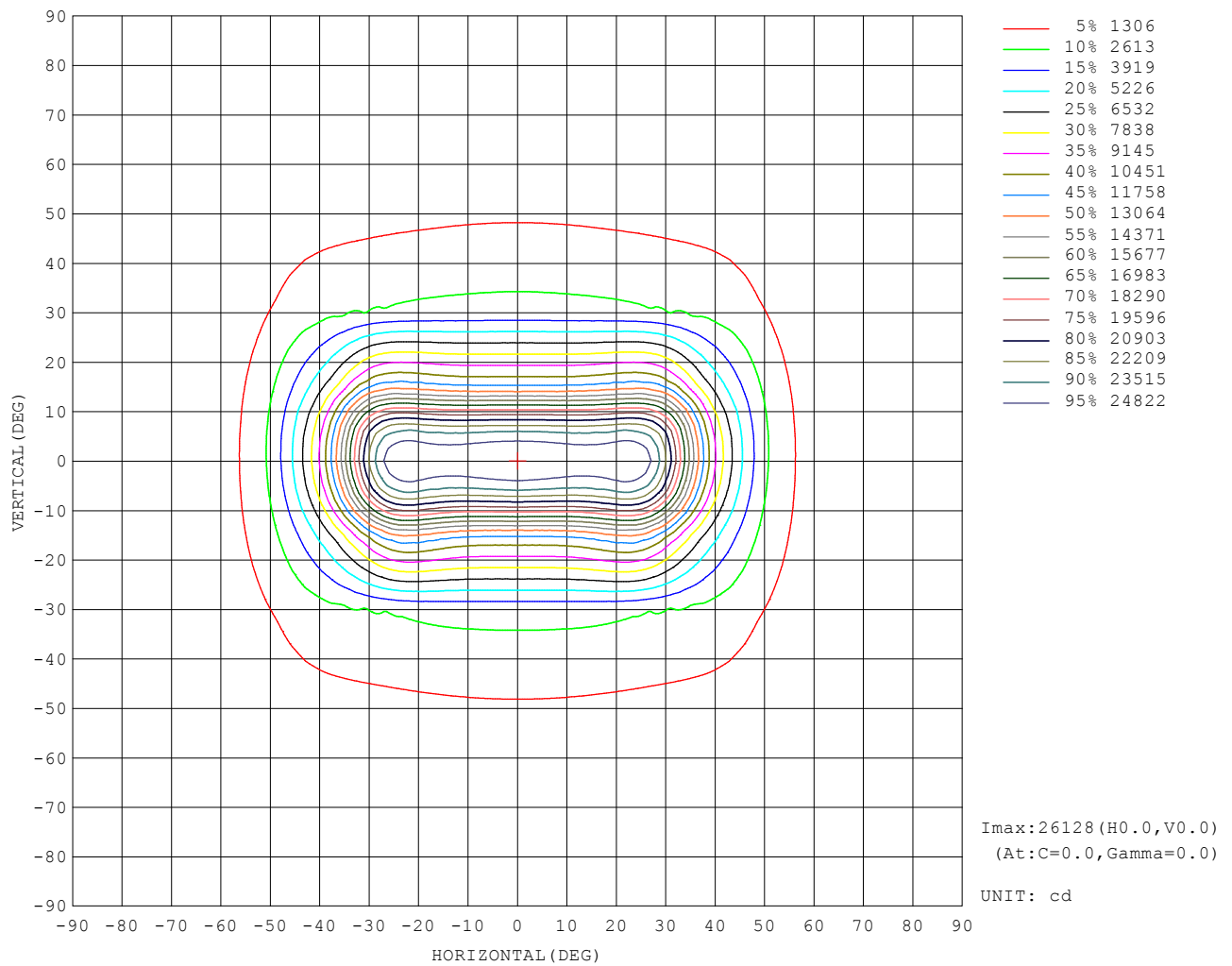
UTILIZATION FACTORS TABLE

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	62
0.80	87	80	75	86	79	75	85	79	75	70
1.00	93	86	81	92	85	81	90	86	81	76
1.25	98	91	87	97	91	87	95	90	86	81
1.50	101	95	91	100	94	90	98	93	89	84
2.00	105	100	96	104	99	95	101	97	94	88
2.50	107	103	99	106	101	98	102	99	96	89
3.00	109	105	102	107	104	101	104	101	98	91
4.00	112	108	105	110	107	104	106	103	101	94
5.00	113	110	108	111	109	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:

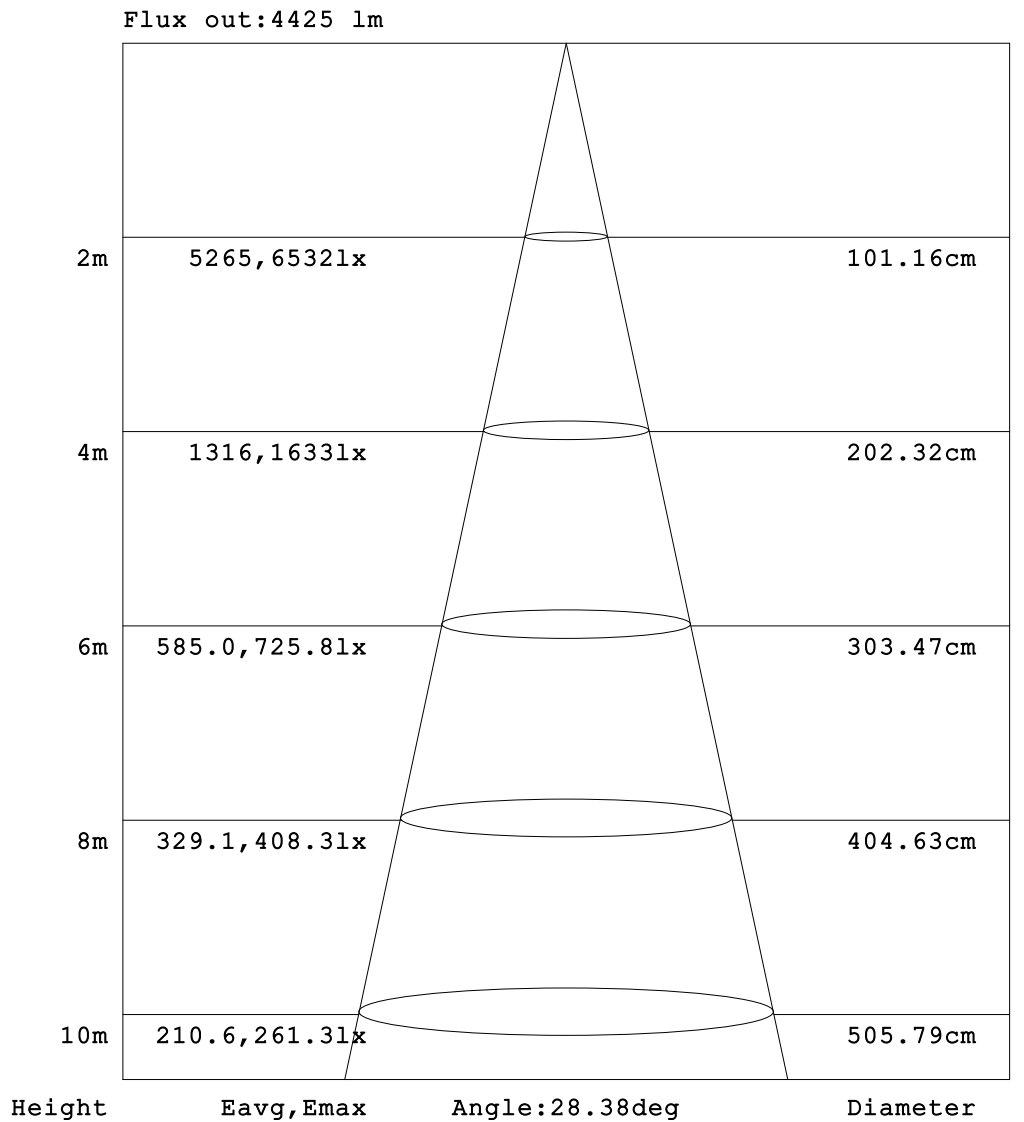
ISOCANDELA DIAGRAM



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

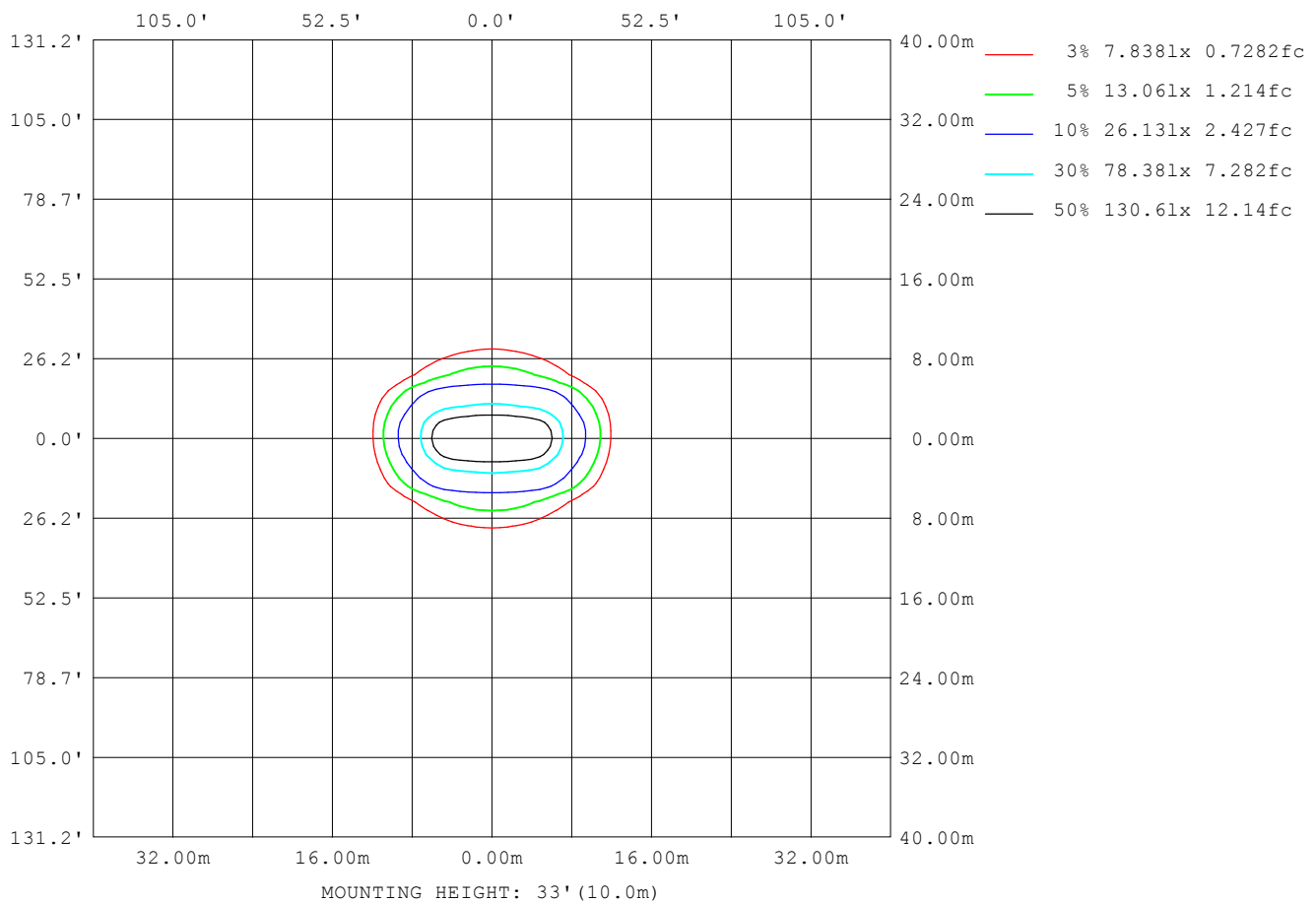


Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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: LHB01-150H	TYPE:150W	WEIGHT:
SPEC.:4000K Ra80 3070DEG L06401	DIM.: 1.178*0.137*0.102	SERIAL No.:
MFR.:	SUR.:1.17*0.1	Shielding Angle:

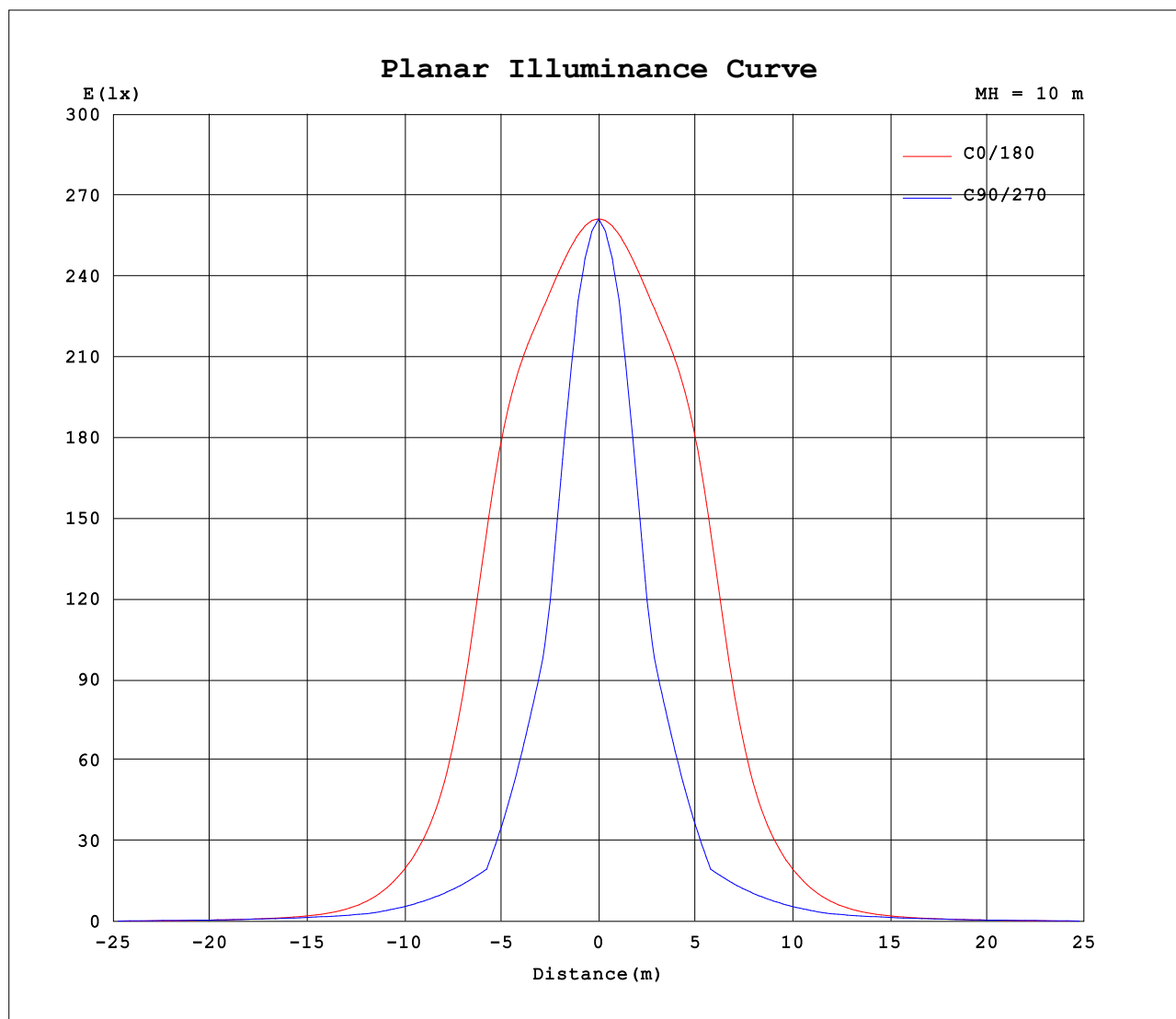
AvgL	cd/m2
L_0~180 (65) av	12743
L_0~180 (75) av	9883
L_0~180 (85) av	5473
L_90~270 (65) av	14041
L_90~270 (75) av	13627
L_90~270 (85) av	13995
L_45 (65) av	12941
L_45 (75) av	9851
L_45 (85) av	9815

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:


```

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:

```

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:

```