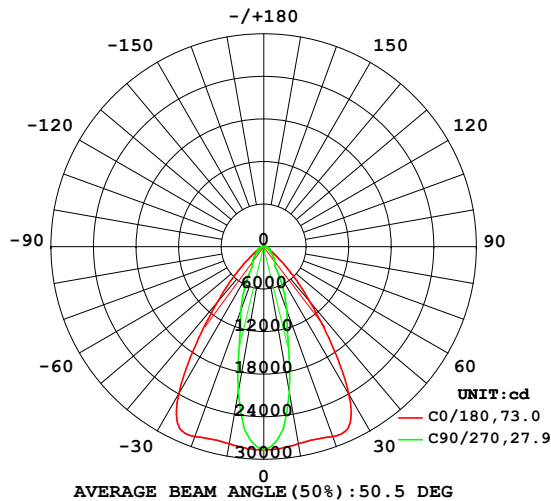


LUMINAIRE PHOTOMETRIC TEST REPORT

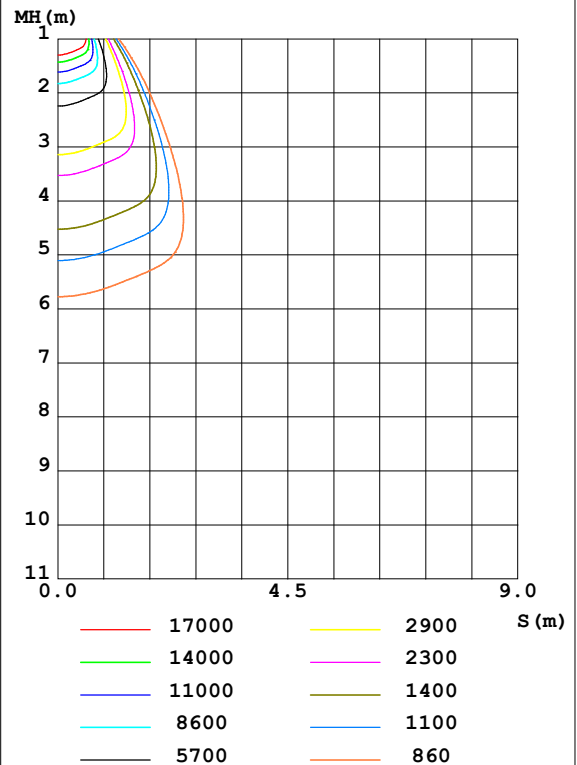
Test:U:229.8V I:0.6840A P:151.8W PF:0.9655 Lamp Flux:24315.7x1 lm		
NAME: LHB01-150H	TYPE:150W	WEIGHT:
SPEC.:5000K Ra70 3070DEG L06401	DIM.: 1.178*0.137*0.102	SERIAL No.:
MFR.:	SUR.:1.17*0.1	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 160.21 lm/W			
MODEL	LHB01-150H	Imax(cd)	28667	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)	24316	η UP,DN(C0-180)	0.0,50.0
NOMINAL FLUX(lm)	24315.7	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	0.60

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	2853	2747	2666	2747	2853	2750	2666	2750	0- 5	670.0	670.0	2.76,2.76
10	2824	2448	2078	2448	2824	2454	2078	2454	5- 10	1861	2531	10.4,10.4
15	2813	1961	1315	1961	2813	1956	1315	1956	10- 15	2629	5160	21.2,21.2
20	2848	1420	953.4	1420	2848	1397	953.4	1397	15- 20	3015	8175	33.6,33.6
25	2819	1130	643.4	1130	2819	1100	643.4	1100	20- 25	3270	11445	47.1,47.1
30	2399	875.9	333.4	875.9	2399	851.5	333.4	851.5	25- 30	3208	14653	60.3,60.3
35	1651	569.4	281.9	569.4	1651	561.1	281.9	561.1	30- 35	2676	17329	71.3,71.3
40	1013	284.5	230.3	284.5	1013	285.5	230.3	285.5	35- 40	1994	19323	79.5,79.5
45	605.4	232.9	178.8	232.9	605.4	232.2	178.8	232.2	40- 45	1437	20759	85.4,85.4
50	322.2	183.3	127.2	183.3	322.2	181.5	127.2	181.5	45- 50	1029	21788	89.6,89.6
55	169.9	135.2	110.8	135.2	169.9	133.1	110.8	133.1	50- 55	722.2	22510	92.6,92.6
60	104.7	92.33	94.46	92.33	104.7	90.08	94.46	90.08	55- 60	533.3	23043	94.8,94.8
65	72.13	72.98	78.09	72.98	72.13	71.38	78.09	71.38	60- 65	413.2	23456	96.5,96.5
70	49.44	53.40	61.72	53.40	49.44	52.46	61.72	52.46	65- 70	320.9	23777	97.8,97.8
75	34.45	33.94	46.53	33.94	34.45	33.73	46.53	33.73	70- 75	239.2	24017	98.8,98.8
80	21.57	22.04	31.34	22.04	21.57	21.96	31.34	21.96	75- 80	165.4	24182	99.4,99.4
85	6.475	11.39	16.15	11.39	6.475	11.38	16.15	11.38	80- 85	98.77	24281	99.9,99.9
90	0.3693	0.8947	0.9651	0.8947	0.3693	0.9678	0.9651	0.9678	85- 90	34.95	24316	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): 20759 lm

%lum = 85.4%

%lamp = 85.4%

Conical surface Flux(120deg): 23043 lm

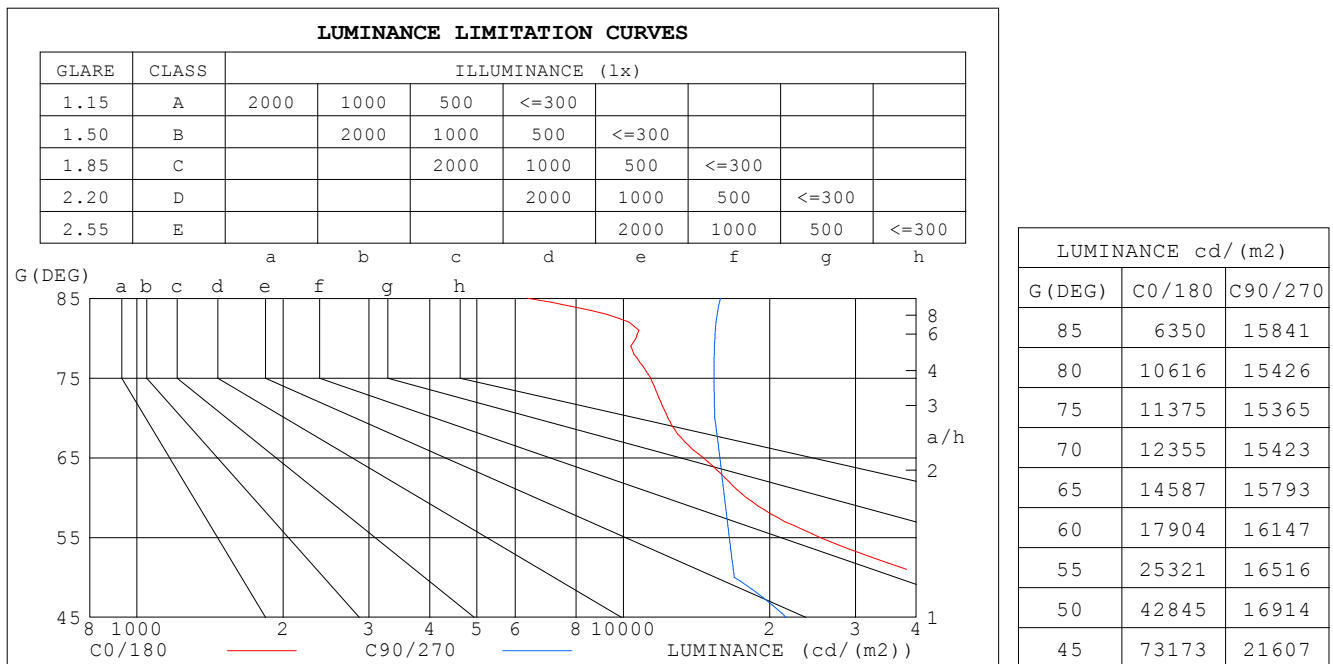
%lum = 94.8%

%lamp = 94.8%

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

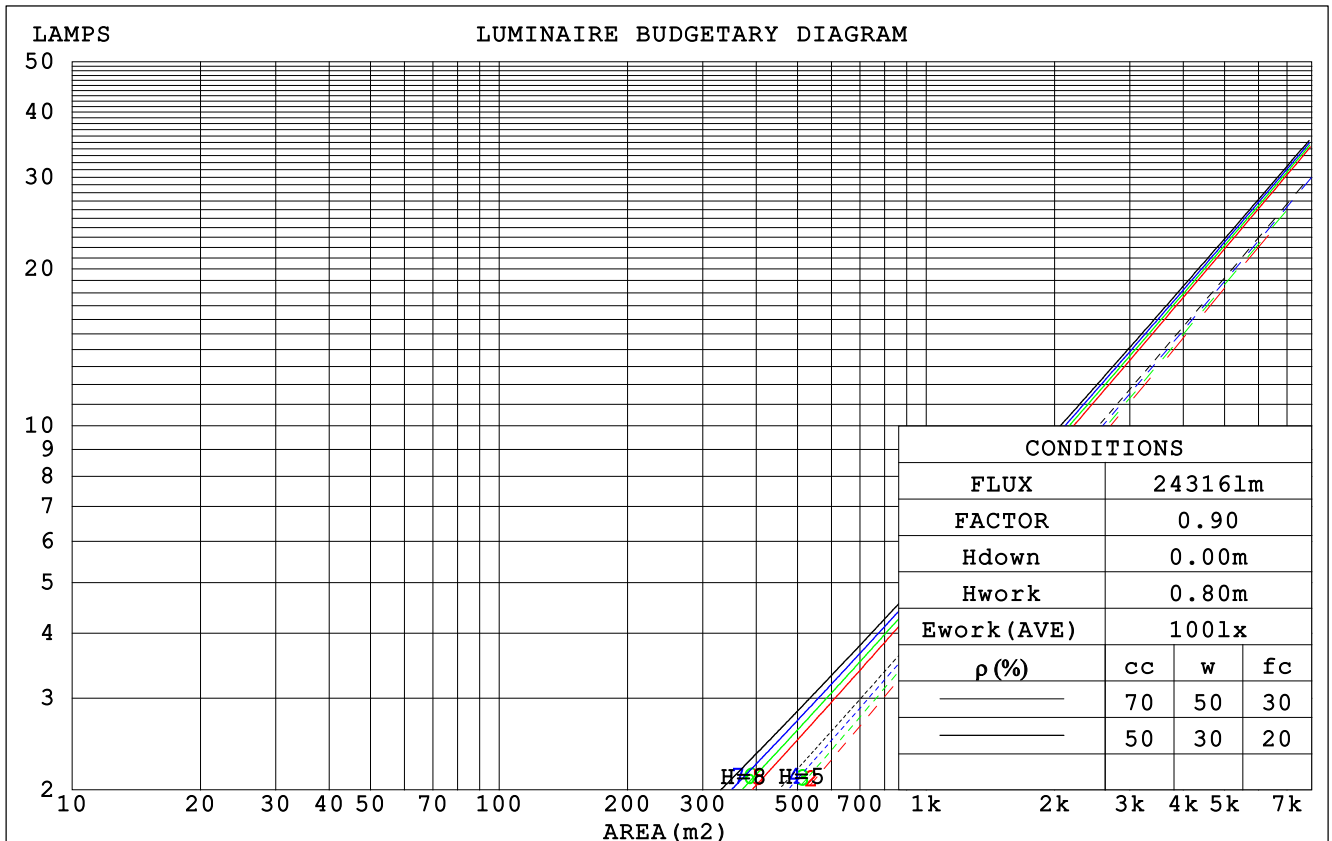


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2017-06-02

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	.91	.98	.94	.90	.95	.91	.88	.92	.89	.86	.89	.87	.85	.83
3.0	.92	.86	.82	.91	.85	.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	.68	.64	.61	.59
7.0	.69	.62	.58	.68	.62	.57	.67	.61	.57	.66	.61	.57	.64	.60	.56	.55
8.0	.65	.58	.54	.64	.58	.53	.63	.57	.53	.62	.57	.53	.61	.56	.53	.51
9.0	.61	.54	.50	.60	.54	.50	.59	.54	.50	.58	.53	.50	.57	.53	.49	.48
10.0	.57	.51	.47	.57	.51	.47	.56	.50	.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	.209	.119	.038	.202	.115	.037	.190	.109	.035	.178	.103	.033	.167	.097	.031	
2.0	.199	.109	.033	.193	.106	.033	.182	.101	.032	.172	.097	.030	.163	.092	.029	
3.0	.188	.100	.030	.183	.098	.029	.174	.094	.029	.165	.090	.028	.157	.087	.027	
4.0	.177	.092	.027	.173	.090	.027	.165	.087	.026	.157	.084	.025	.150	.082	.025	
5.0	.167	.085	.025	.163	.084	.024	.156	.081	.024	.150	.079	.023	.143	.077	.023	
6.0	.158	.079	.023	.155	.078	.023	.149	.076	.022	.143	.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	.070	.020	.140	.069	.019	.135	.067	.019	.130	.066	.019	.126	.064	.019	
9.0	.135	.065	.018	.133	.065	.018	.129	.064	.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	.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	.127	.098	.074	.088	.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	.066	.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	24.2	25.3	24.4	25.4	25.6	18.7	19.7	18.9	19.9	20.1
3H	24.3	25.3	24.6	25.5	25.7	19.9	20.9	20.2	21.1	21.4
4H	24.3	25.3	24.6	25.5	25.7	20.6	21.5	20.9	21.7	22.0
6H	24.4	25.2	24.7	25.5	25.8	21.1	22.0	21.4	22.3	22.5
8H	24.4	25.2	24.7	25.5	25.7	21.4	22.2	21.7	22.5	22.7
12H	24.3	25.2	24.7	25.4	25.7	21.5	22.3	21.9	22.6	22.9
4H 2H	24.1	25.0	24.4	25.2	25.5	19.2	20.1	19.5	20.4	20.6
3H	24.3	25.1	24.6	25.4	25.7	20.6	21.4	20.9	21.7	22.0
4H	24.4	25.2	24.8	25.5	25.8	21.3	22.1	21.7	22.4	22.7
6H	24.5	25.2	24.9	25.5	25.9	22.0	22.7	22.4	23.0	23.4
8H	24.6	25.2	25.0	25.5	25.9	22.3	22.9	22.7	23.3	23.7
12H	24.6	25.1	25.0	25.5	25.9	22.6	23.1	23.0	23.5	23.9
8H 4H	24.4	25.0	24.8	25.4	25.7	21.5	22.1	21.9	22.5	22.8
6H	24.6	25.1	25.0	25.5	25.9	22.3	22.8	22.7	23.2	23.6
8H	24.6	25.1	25.1	25.5	25.9	22.7	23.2	23.2	23.6	24.0
12H	24.7	25.1	25.2	25.5	26.0	23.1	23.4	23.5	23.9	24.4
12H 4H	24.4	24.9	24.8	25.3	25.7	21.5	22.0	21.9	22.4	22.8
6H	24.6	25.0	25.0	25.4	25.9	22.3	22.8	22.8	23.2	23.6
8H	24.7	25.0	25.1	25.5	25.9	22.8	23.2	23.2	23.6	24.1
Variations with the observer position at spacings:										
S = 1.0H	+ 2.9 / - 2.3					+ 0.4 / - 0.4				
1.5H	+ 4.2 / - 2.8					+ 0.2 / - 0.4				
2.0H	+ 4.3 / - 1.8					+ 0.4 / - 0.3				

CIE Pub.117 Corrected 24316 lm Total Lamp Luminous Flux.(8log(F/F0) = 11.1)

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:

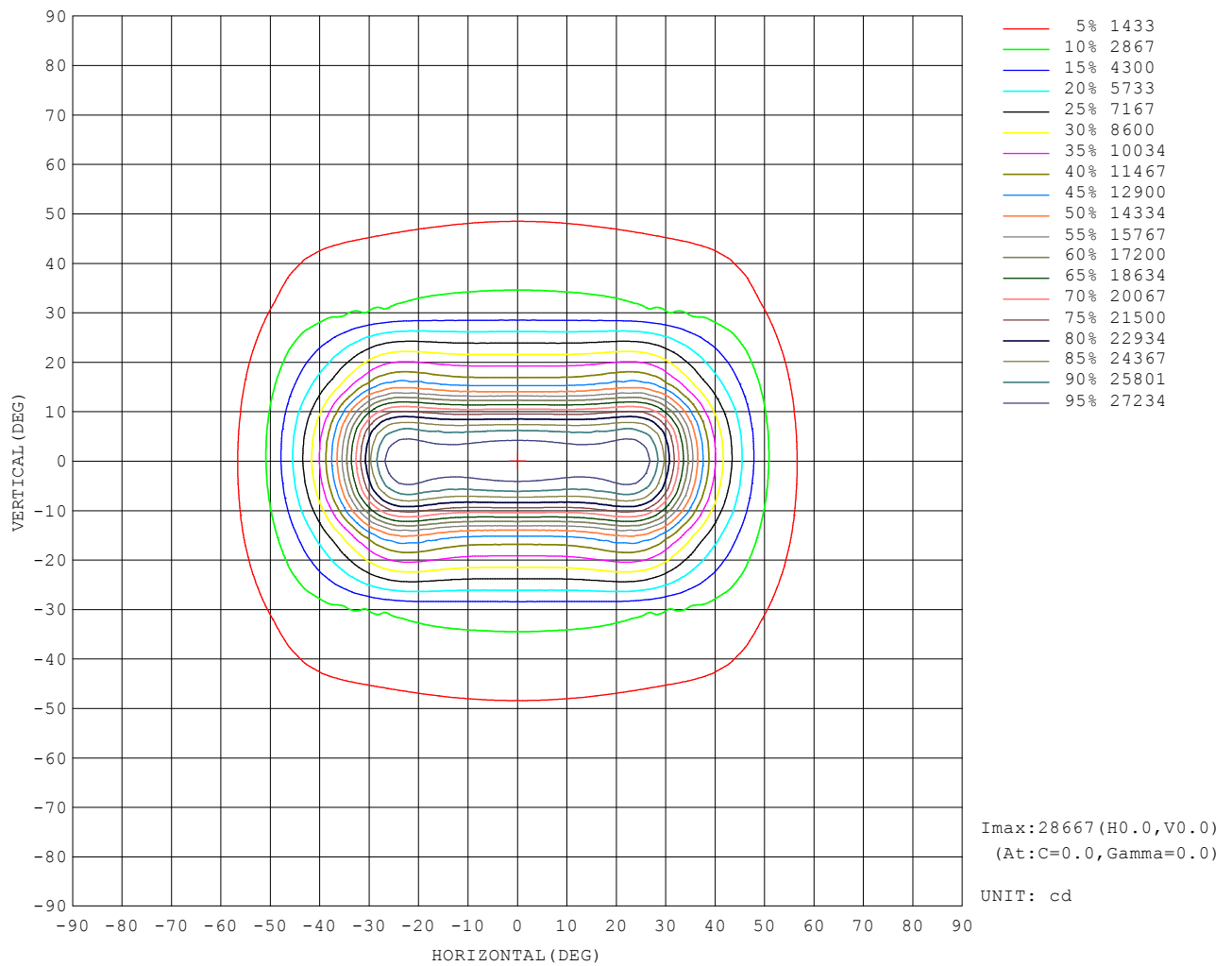
UTILIZATION FACTORS TABLE

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	74	70
1.00	93	86	81	92	85	81	90	86	80	76
1.25	98	91	87	97	91	86	95	89	86	81
1.50	101	95	91	100	94	90	97	93	89	84
2.00	105	100	96	104	99	95	101	97	93	88
2.50	107	102	99	106	101	98	102	99	96	89
3.00	109	105	102	107	104	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:

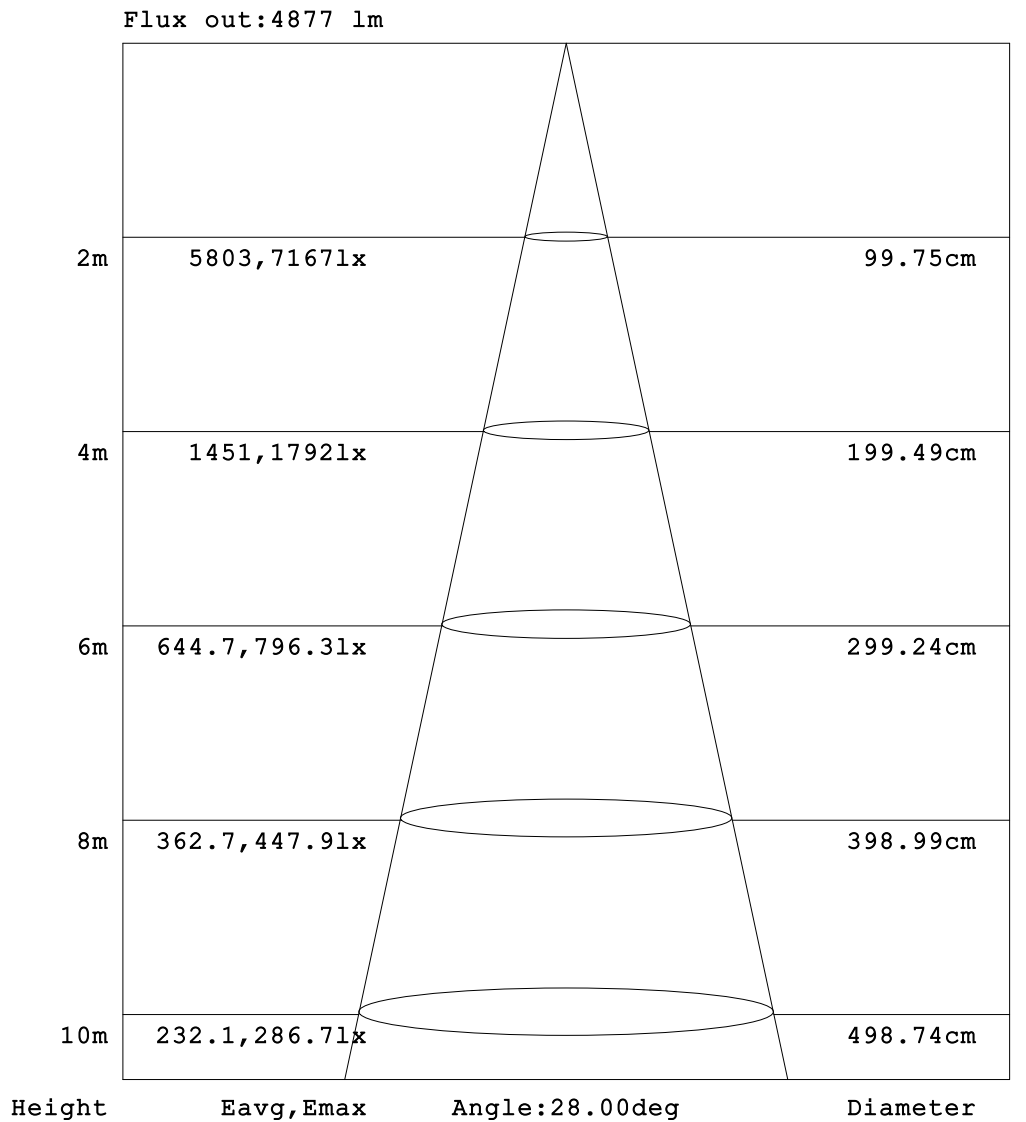
ISOCANDELA DIAGRAM



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

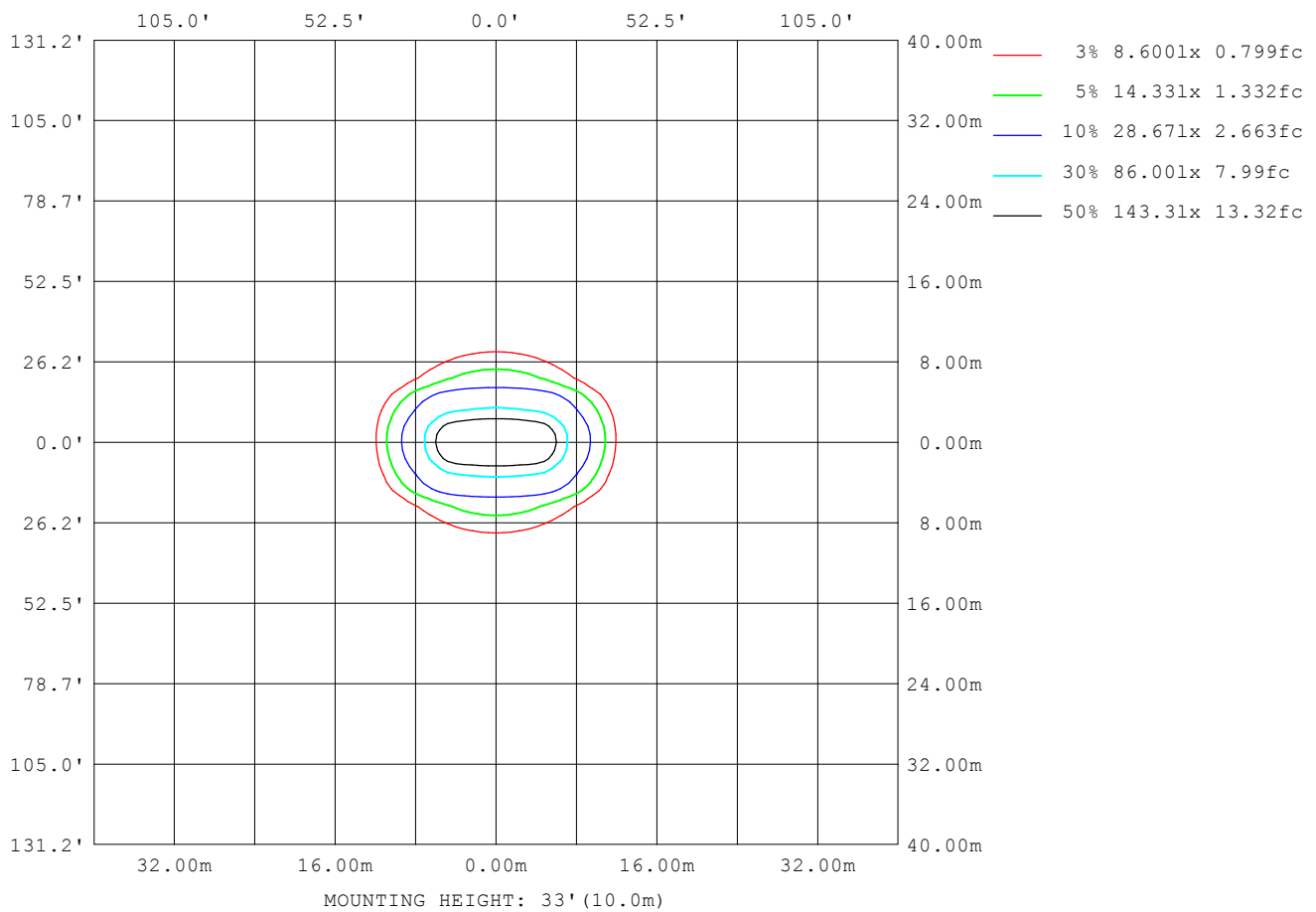


Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

Test:U:229.8V I:0.6840A P:151.8W PF:0.9655 Lamp Flux:24315.7x1 lm		
NAME: LHB01-150H	TYPE:150W	WEIGHT:
SPEC.:5000K Ra70 3070DEG L06401	DIM.: 1.178*0.137*0.102	SERIAL No.:
MFR.:	SUR.:1.17*0.1	Shielding Angle:

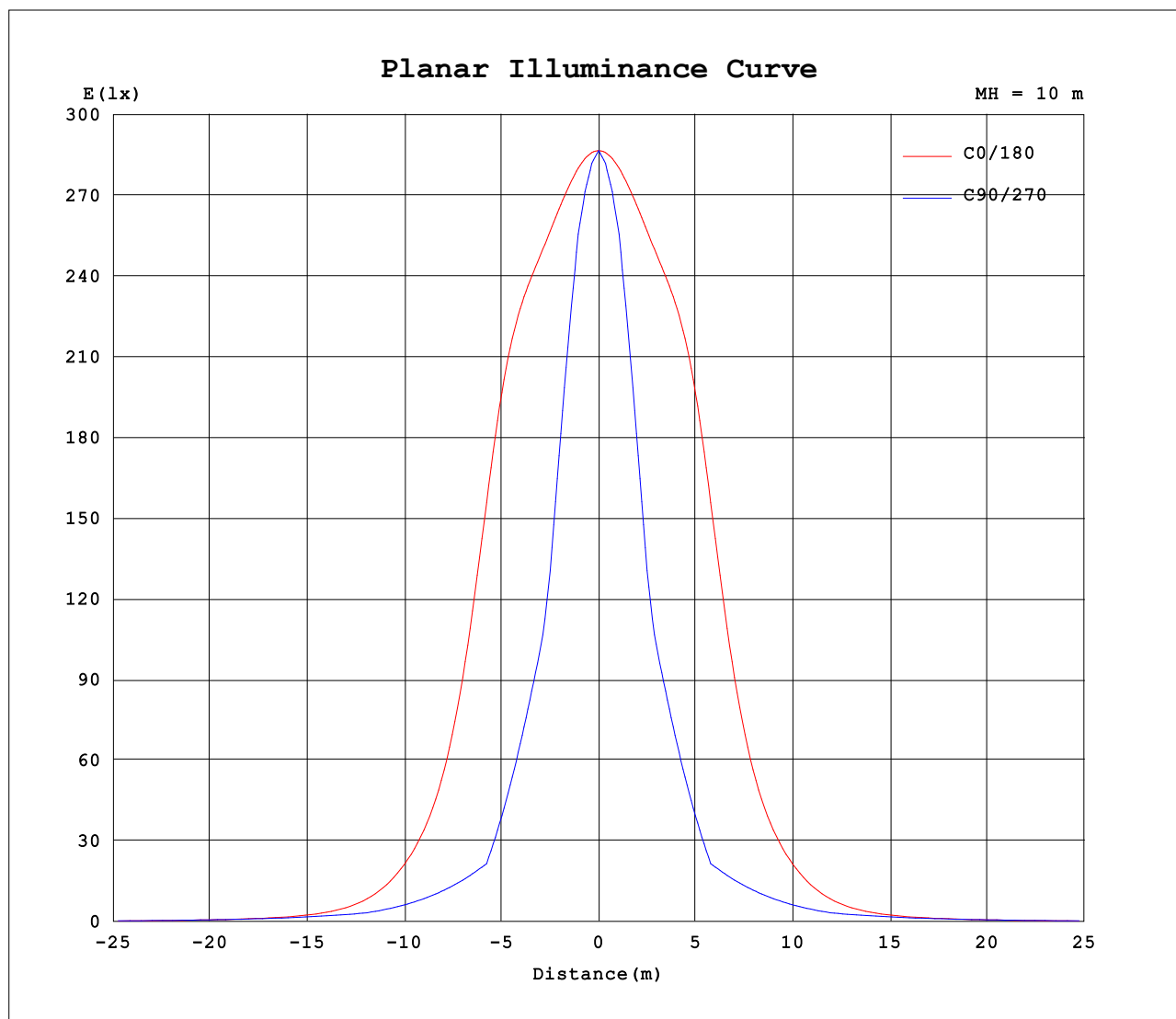
AvgL	cd/m2
L_0~180 (65) av	14587
L_0~180 (75) av	11375
L_0~180 (85) av	6350
L_90~270 (65) av	15793
L_90~270 (75) av	15365
L_90~270 (85) av	15841
L_45 (65) av	14598
L_45 (75) av	11173
L_45 (85) av	11167

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:

```

```

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:

```

```

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:

```