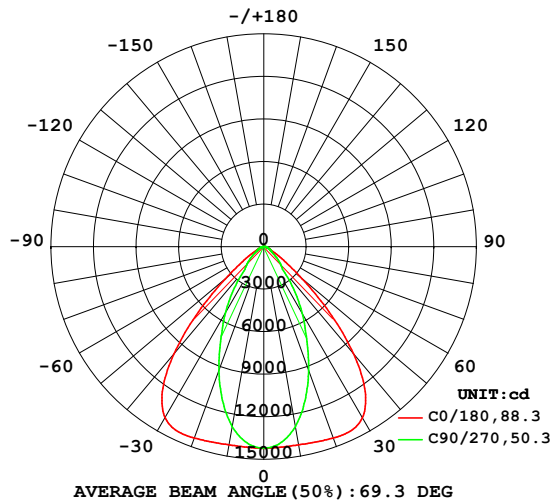


LUMINAIRE PHOTOMETRIC TEST REPORT

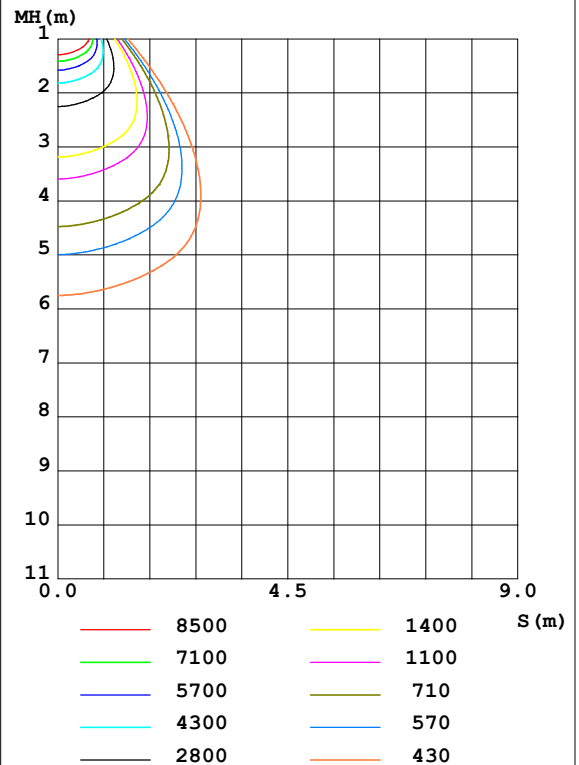
Test:U:230.0V I:0.5460A P:121.9W PF:0.9708 Lamp Flux:18089.6x1 lm		
NAME: LHB01-120H	TYPE:120W	WEIGHT:
SPEC.:4000K Ra80 5090DEG L06402	DIM.: 0.948*0.137*0.102	SERIAL No.:
MFR.:	SUR.:0.92*0.1	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 148.34 lm/W			
MODEL	LHB01-120H	I _{max} (cd)	14398	S/MH(C0/180)	1.27
NOMINAL POWER(W)	120	LOR(%)	100.0	S/MH(C90/270)	0.78
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	18090	η UP,DN(C0-180)	0.0,49.9
NOMINAL FLUX(lm)	18089.6	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.1
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE(V)	230	η down(%)	100.0	CIBSE SHR MAX	0.85

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:2017-06-05

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	1419	1401	1387	1401	1419	1405	1387	1405	0- 5	337.5	337.5	1.87,1.87
10	1419	1345	1288	1345	1419	1351	1288	1351	5- 10	984.8	1322	7.31,7.31
15	1426	1257	1125	1257	1426	1261	1125	1261	10- 15	1552	2875	15.9,15.9
20	1436	1129	927.4	1129	1436	1130	927.4	1130	15- 20	1995	4869	26.9,26.9
25	1438	959.1	717.3	959.1	1438	956.3	717.3	956.3	20- 25	2275	7144	39.5,39.5
30	1392	748.7	543.8	748.7	1392	746.3	543.8	746.3	25- 30	2368	9512	52.6,52.6
35	1248	546.4	375.0	546.4	1248	545.3	375.0	545.3	30- 35	2265	11777	65.1,65.1
40	985.2	401.5	206.3	401.5	985.2	401.1	206.3	401.1	35- 40	1949	13726	75.9,75.9
45	653.0	264.9	159.9	264.9	653.0	265.3	159.9	265.3	40- 45	1489	15216	84.1,84.1
50	354.7	140.2	113.5	140.2	354.7	140.9	113.5	140.9	45- 50	1037	16253	89.8,89.8
55	180.9	103.9	70.42	103.9	180.9	104.3	70.42	104.3	50- 55	662.3	16915	93.5,93.5
60	88.91	70.06	54.30	70.06	88.91	69.68	54.30	69.68	55- 60	416.7	17332	95.8,95.8
65	48.33	43.70	41.55	43.70	48.33	42.74	41.55	42.74	60- 65	275.9	17608	97.3,97.3
70	31.06	31.43	28.79	31.43	31.06	30.80	28.79	30.80	65- 70	191.9	17800	98.4,98.4
75	17.46	19.59	21.74	19.59	17.46	19.29	21.74	19.29	70- 75	132.7	17932	99.1,99.1
80	8.328	12.73	14.69	12.73	8.328	12.56	14.69	12.56	75- 80	87.75	18020	99.6,99.6
85	1.662	6.631	7.639	6.631	1.662	6.565	7.639	6.565	80- 85	50.92	18071	99.9,99.9
90	0.2702	0.6085	0.5882	0.6085	0.2702	0.6490	0.5882	0.6490	85- 90	18.57	18090	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): 15216 lm

%lum = 84.1%

%lamp = 84.1%

Conical surface Flux(120deg): 17332 lm

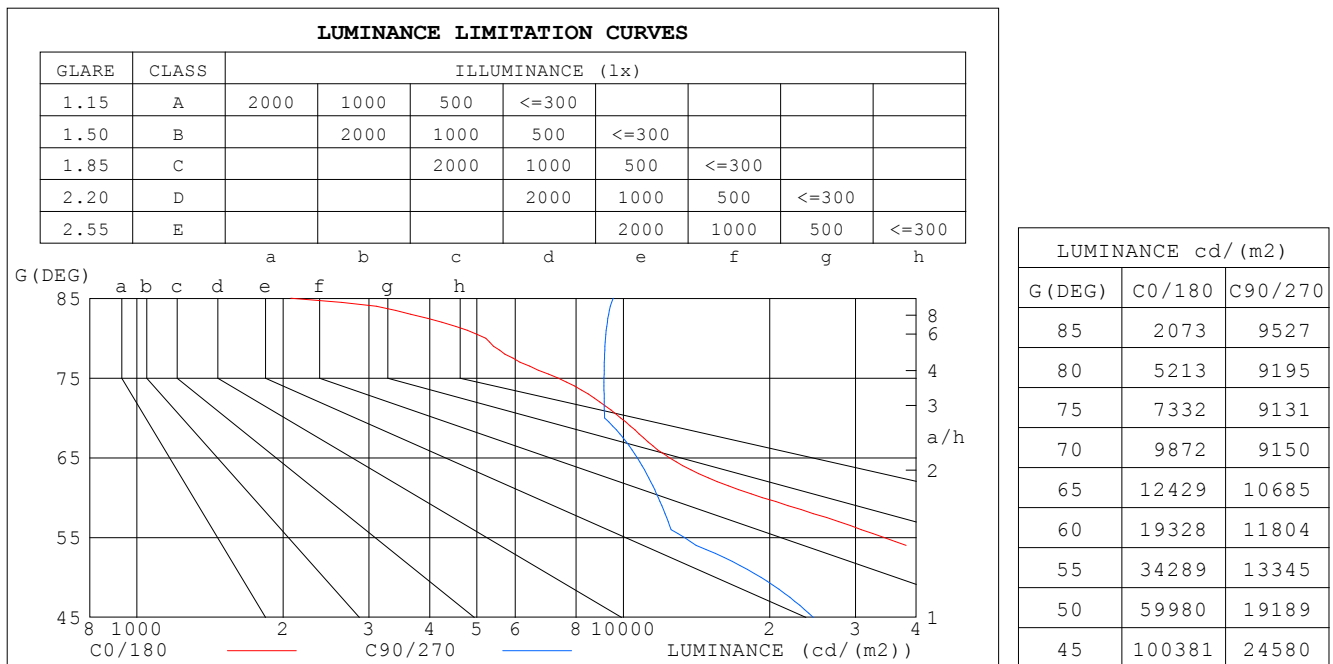
%lum = 95.8%

%lamp = 95.8%

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-06-05

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

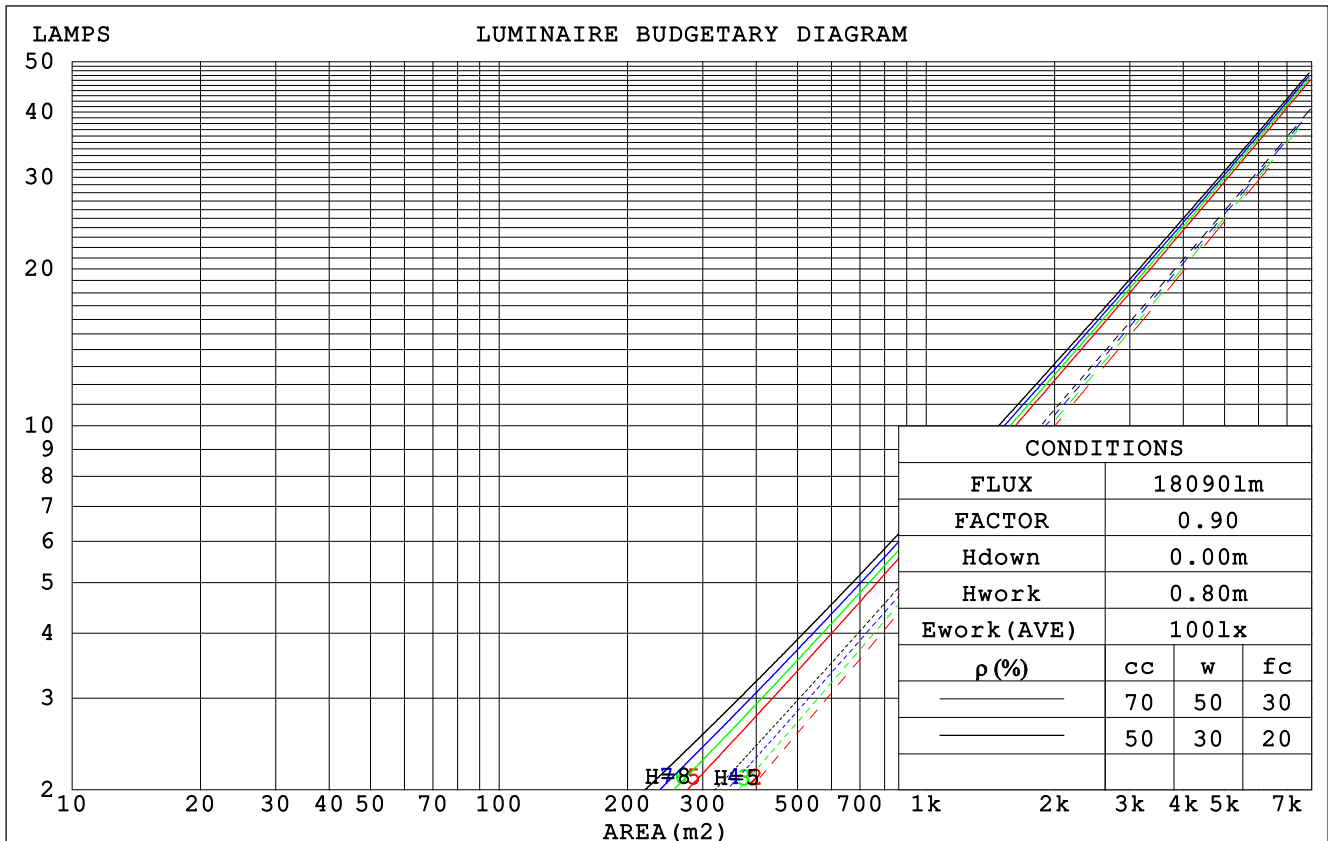


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2017-06-05

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	1.03	1.07	1.04	1.02	1.03	1.00	.98	.99	.97	.95	.95	.94	.93	.91
2.0	.99	.95	.90	.98	.93	.89	.94	.91	.87	.91	.88	.86	.88	.86	.84	.82
3.0	.91	.85	.80	.90	.84	.80	.87	.82	.78	.84	.80	.77	.82	.79	.76	.74
4.0	.84	.77	.72	.82	.76	.71	.80	.75	.71	.78	.73	.70	.76	.72	.69	.67
5.0	.77	.70	.65	.76	.69	.65	.74	.68	.64	.72	.67	.63	.71	.66	.63	.61
6.0	.71	.64	.59	.70	.64	.59	.69	.63	.58	.67	.62	.58	.66	.61	.58	.56
7.0	.66	.59	.54	.65	.59	.54	.64	.58	.54	.63	.57	.53	.61	.57	.53	.51
8.0	.61	.54	.50	.61	.54	.50	.60	.54	.49	.58	.53	.49	.57	.53	.49	.47
9.0	.57	.51	.46	.57	.50	.46	.56	.50	.46	.55	.49	.45	.54	.49	.45	.44
10.0	.54	.47	.43	.53	.47	.43	.52	.46	.42	.51	.46	.42	.51	.46	.42	.41



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2017-06-05

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	.214	.121	.038	.207	.118	.037	.194	.111	.036	.182	.105	.034	.171	.099	.032	
2.0	.206	.113	.035	.200	.110	.034	.189	.105	.033	.179	.100	.031	.170	.096	.030	
3.0	.196	.104	.031	.191	.102	.031	.181	.098	.030	.172	.094	.029	.164	.091	.028	
4.0	.185	.096	.028	.181	.095	.028	.173	.092	.027	.165	.089	.027	.158	.086	.026	
5.0	.176	.089	.026	.172	.088	.026	.164	.086	.025	.158	.083	.025	.151	.081	.024	
6.0	.166	.083	.024	.163	.082	.024	.157	.080	.023	.151	.078	.023	.145	.076	.023	
7.0	.158	.078	.022	.155	.077	.022	.149	.075	.022	.144	.074	.021	.139	.072	.021	
8.0	.150	.073	.021	.147	.073	.021	.142	.071	.020	.137	.070	.020	.133	.068	.020	
9.0	.143	.069	.019	.140	.068	.019	.136	.067	.019	.131	.066	.019	.127	.065	.019	
10.0	.136	.065	.018	.134	.065	.018	.130	.064	.018	.126	.063	.018	.122	.061	.018	

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	.174	.157	.142	.149	.135	.122	.102	.093	.085	.058	.054	.049	.019	.017	.016	
2.0	.161	.132	.108	.138	.114	.094	.094	.079	.065	.054	.046	.038	.017	.015	.012	
3.0	.150	.114	.085	.129	.098	.074	.088	.068	.052	.051	.040	.030	.016	.013	.010	
4.0	.141	.100	.068	.121	.086	.059	.083	.060	.041	.048	.035	.025	.016	.011	.008	
5.0	.133	.088	.055	.114	.076	.048	.079	.053	.034	.046	.031	.020	.015	.010	.007	
6.0	.126	.079	.046	.109	.069	.040	.075	.048	.028	.043	.028	.017	.014	.009	.006	
7.0	.120	.072	.039	.103	.063	.034	.071	.044	.024	.041	.026	.014	.013	.008	.005	
8.0	.114	.066	.033	.098	.057	.029	.068	.040	.021	.040	.024	.012	.013	.008	.004	
9.0	.109	.061	.029	.094	.053	.025	.065	.037	.018	.038	.022	.011	.012	.007	.004	
10.0	.104	.057	.025	.090	.049	.022	.062	.035	.016	.036	.021	.009	.012	.007	.003	

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2017-06-05

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	25.2	26.3	25.4	26.5	26.7	19.5	20.6	19.7	20.8	21.0
3H	25.2	26.2	25.4	26.4	26.6	19.9	21.0	20.2	21.2	21.4
4H	25.1	26.1	25.4	26.4	26.6	20.1	21.1	20.4	21.3	21.6
6H	25.1	26.0	25.4	26.3	26.5	20.3	21.3	20.6	21.5	21.8
8H	25.0	25.9	25.4	26.2	26.5	20.4	21.3	20.7	21.6	21.8
12H	25.0	25.9	25.3	26.1	26.4	20.5	21.3	20.8	21.6	21.9
4H 2H	25.0	26.0	25.3	26.2	26.5	19.8	20.7	20.0	21.0	21.2
3H	25.0	25.9	25.4	26.2	26.5	20.3	21.1	20.6	21.4	21.7
4H	25.1	25.8	25.4	26.1	26.5	20.6	21.4	21.0	21.7	22.0
6H	25.0	25.7	25.4	26.1	26.4	20.9	21.6	21.3	21.9	22.3
8H	25.0	25.6	25.4	26.0	26.4	21.1	21.7	21.5	22.1	22.4
12H	25.0	25.6	25.4	25.9	26.3	21.2	21.8	21.6	22.1	22.5
8H 4H	25.0	25.6	25.4	26.0	26.3	20.7	21.3	21.1	21.7	22.0
6H	25.0	25.5	25.4	25.9	26.3	21.1	21.6	21.5	22.0	22.4
8H	25.0	25.4	25.4	25.9	26.3	21.3	21.8	21.8	22.2	22.6
12H	25.0	25.4	25.4	25.8	26.3	21.5	21.9	22.0	22.4	22.8
12H 4H	24.9	25.5	25.3	25.9	26.3	20.6	21.2	21.1	21.6	22.0
6H	25.0	25.4	25.4	25.8	26.3	21.1	21.6	21.6	22.0	22.4
8H	25.0	25.4	25.4	25.8	26.3	21.4	21.8	21.8	22.2	22.7
Variations with the observer position at spacings:										
S = 1.0H	+ 2.8 / - 3.2					+ 1.0 / - 1.3				
1.5H	+ 3.7 / - 3.8					+ 1.0 / - 1.0				
2.0H	+ 5.6 / - 4.0					+ 1.2 / - 0.9				

CIE Pub.117 Corrected 18090 lm Total Lamp Luminous Flux.(8log(F/F0) = 10.1)

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2017-06-05

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:

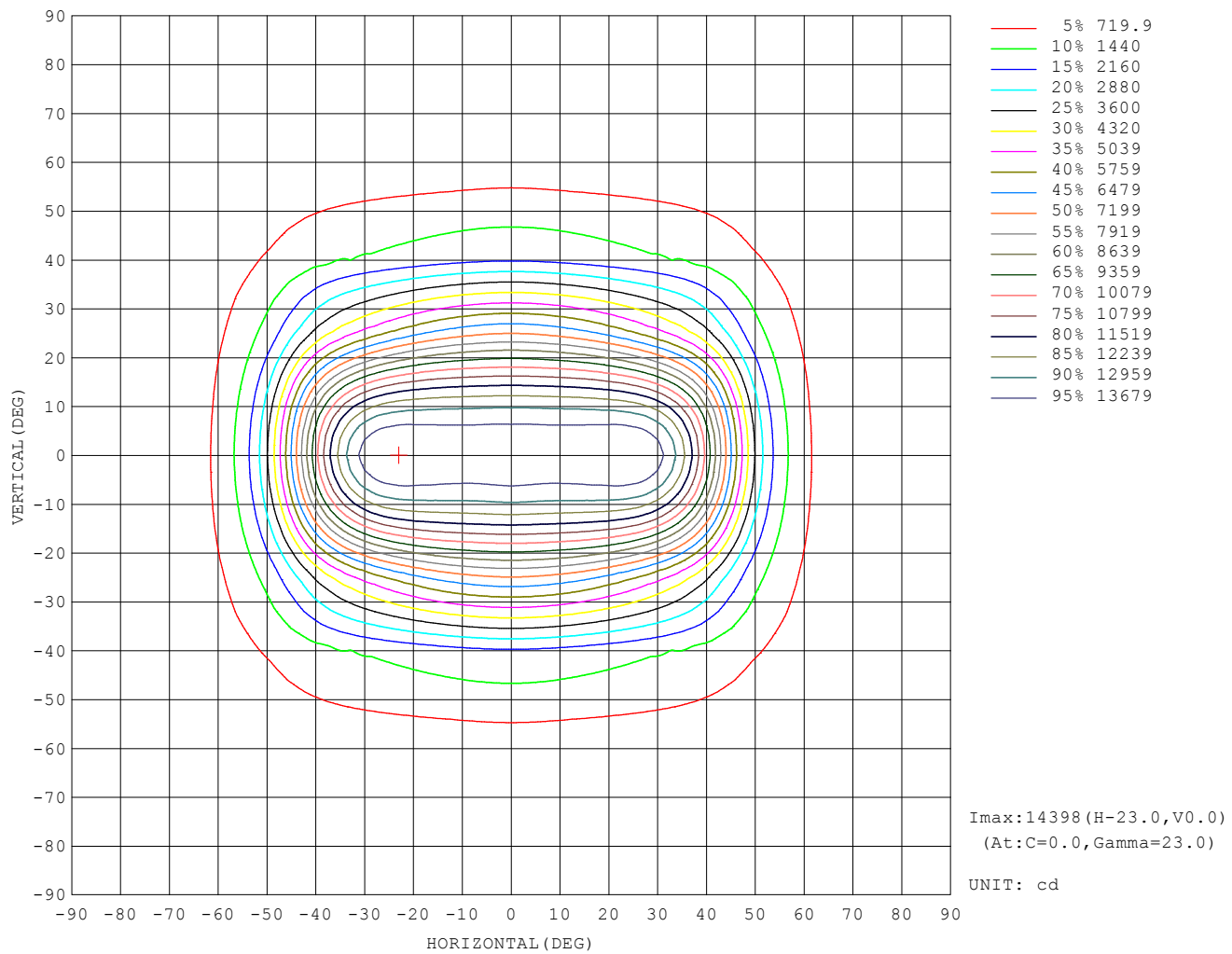
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	76	68	63	76	68	63	75	67	63	58
0.80	85	77	72	84	77	72	83	76	72	67
1.00	92	84	79	91	84	79	89	84	79	74
1.25	97	90	86	96	90	85	94	88	84	79
1.50	101	94	90	99	93	89	97	92	88	83
2.00	105	99	95	103	98	94	100	96	93	87
2.50	107	102	98	105	101	97	102	98	95	89
3.00	109	105	101	107	103	100	104	100	98	91
4.00	112	108	105	109	106	104	106	103	101	93
5.00	113	110	107	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: 2017-06-05

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:

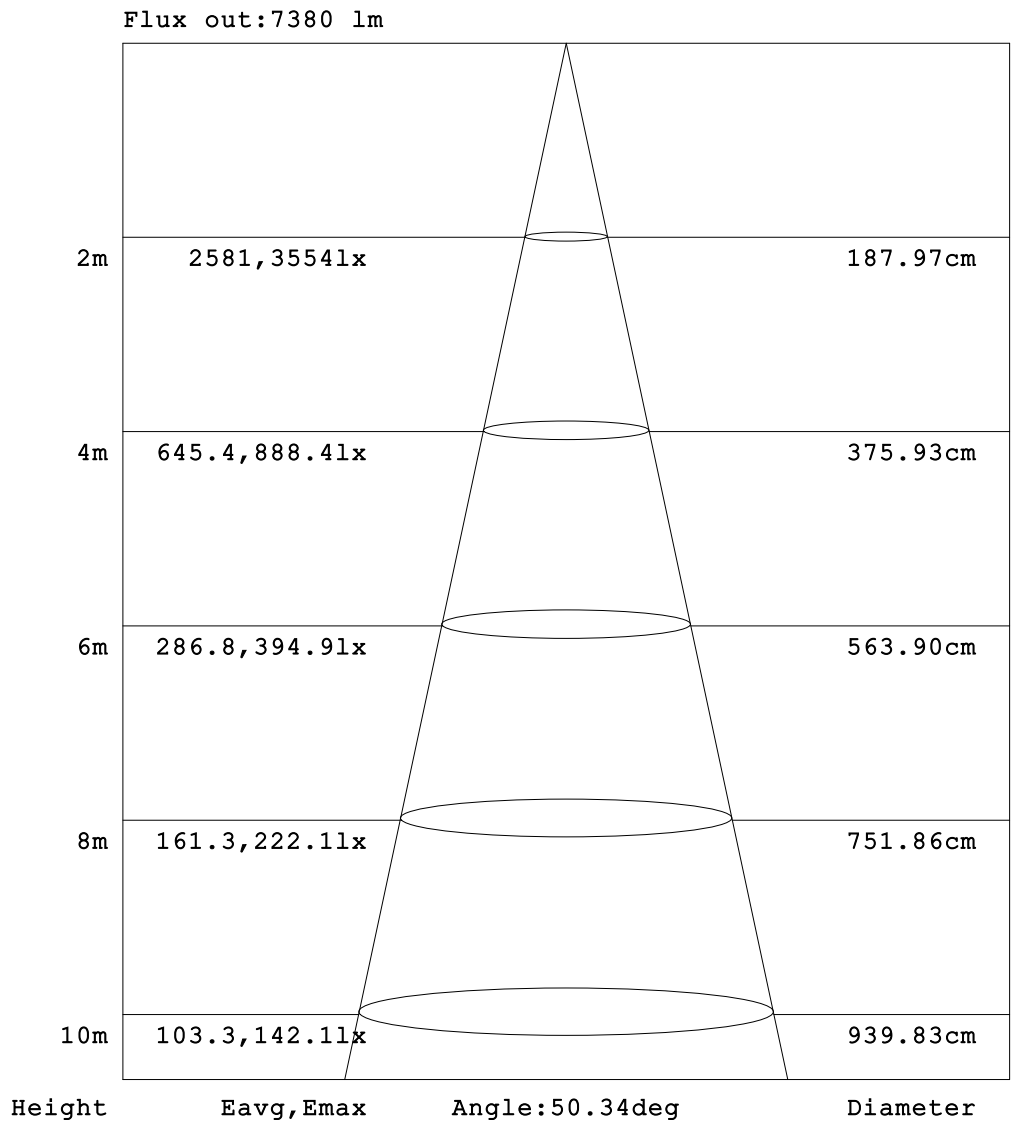
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2017-06-05

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

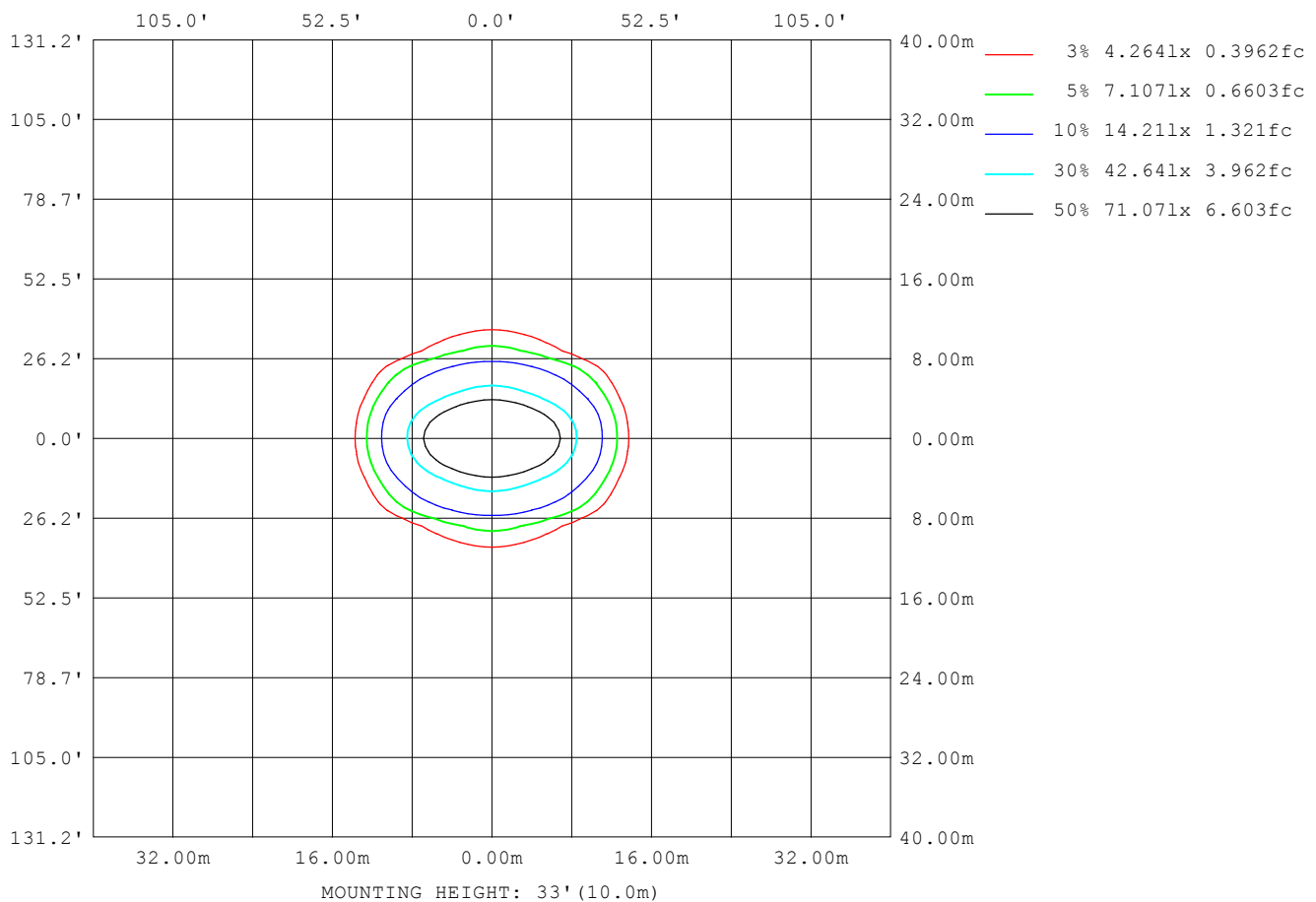


Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2017-06-05

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: 2017-06-05

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:0.5460A P:121.9W PF:0.9708 Lamp Flux:18089.6x1 lm		
NAME: LHB01-120H	TYPE:120W	WEIGHT:
SPEC.:4000K Ra80 5090DEG L06402	DIM.: 0.948*0.137*0.102	SERIAL No.:
MFR.:	SUR.:0.92*0.1	Shielding Angle:

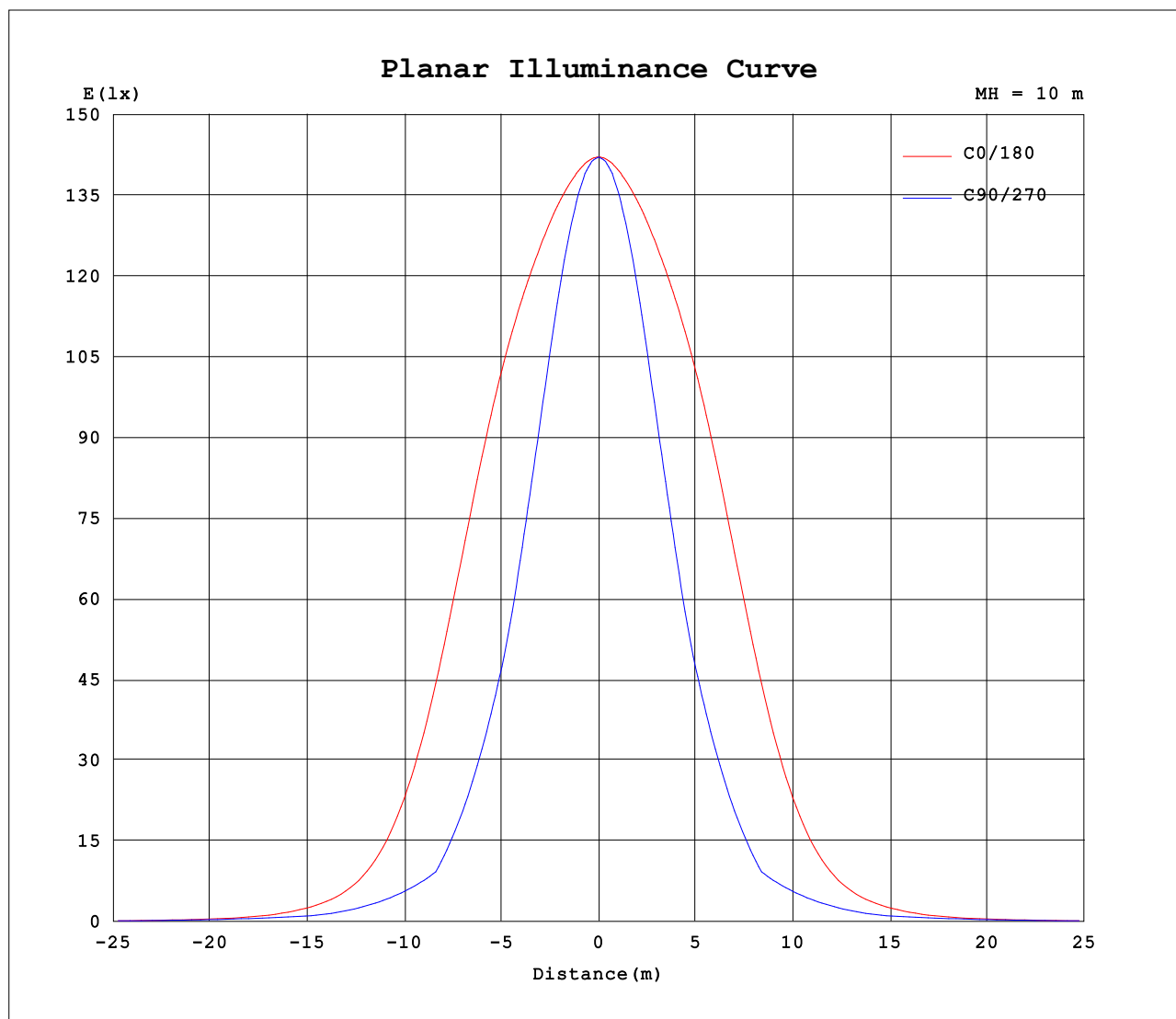
AvgL	cd/m2
L_0~180 (65) av	12429
L_0~180 (75) av	7332
L_0~180 (85) av	2073
L_90~270 (65) av	10685
L_90~270 (75) av	9131
L_90~270 (85) av	9527
L_45 (65) av	11115
L_45 (75) av	8162
L_45 (85) av	8229

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2017-06-05

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: 2017-06-05

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:

```

```

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:

```