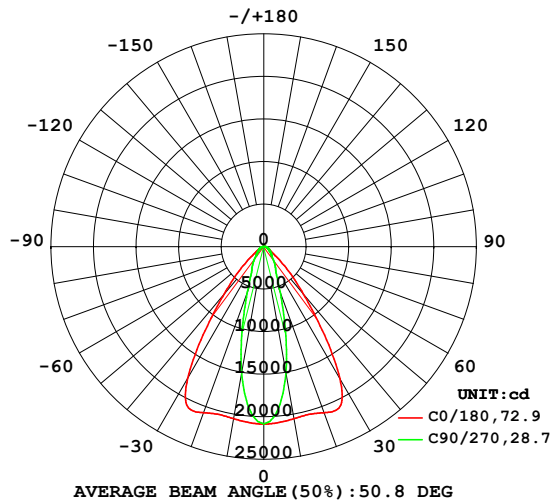


LUMINAIRE PHOTOMETRIC TEST REPORT

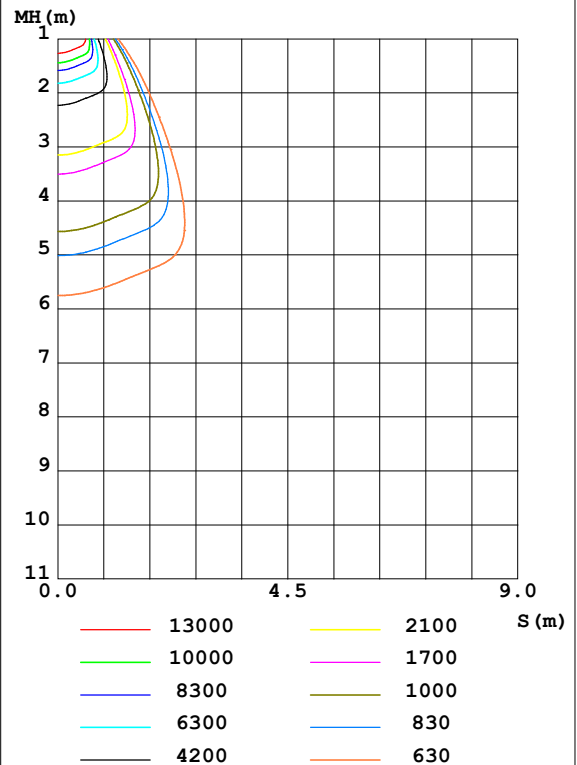
Test:U:230.0V I:0.5466A P:122.1W PF:0.9710 Lamp Flux:17145.3x1 lm		
NAME: LHB01-120H	TYPE:120W	WEIGHT:
SPEC.:4000K Ra80 3070DEG L06401	DIM.: 0.948*0.137*0.102	SERIAL No.:
MFR.:	SUR.:0.92*0.1	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 140.48 lm/W			
MODEL	LHB01-120H	I _{max} (cd)	21031	S/MH (C0/180)	1.06
NOMINAL POWER(W)	120	LOR(%)	100.0	S/MH (C90/270)	0.48
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	17145	η UP,DN (C0-180)	0.0,50.0
NOMINAL FLUX(lm)	17145.3	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	0.55

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	2075	1996	1922	1996	2075	1995	1922	1995	0- 5	487.0	487.0	2.84,2.84
10	2053	1760	1509	1760	2053	1755	1509	1755	5- 10	1344	1831	10.7,10.7
15	2043	1425	978.7	1425	2043	1415	978.7	1415	10- 15	1908	3739	21.8,21.8
20	2077	1051	562.9	1051	2077	1040	562.9	1040	15- 20	2164	5903	34.4,34.4
25	2093	719.0	352.4	719.0	2093	711.1	352.4	711.1	20- 25	2254	8157	47.6,47.6
30	1790	472.7	274.7	472.7	1790	470.3	274.7	470.3	25- 30	2211	10369	60.5,60.5
35	1202	323.5	209.7	323.5	1202	325.2	209.7	325.2	30- 35	1884	12253	71.5,71.5
40	723.4	248.9	144.7	248.9	723.4	251.3	144.7	251.3	35- 40	1396	13649	79.6,79.6
45	433.3	175.3	121.4	175.3	433.3	176.6	121.4	176.6	40- 45	999.5	14649	85.4,85.4
50	226.1	108.8	98.15	108.8	226.1	108.4	98.15	108.4	45- 50	720.4	15369	89.6,89.6
55	117.0	88.34	76.24	88.34	117.0	88.06	76.24	88.06	50- 55	509.1	15878	92.6,92.6
60	72.13	67.92	65.04	67.92	72.13	67.65	65.04	67.65	55- 60	370.6	16249	94.8,94.8
65	49.67	49.91	55.18	49.91	49.67	49.55	55.18	49.55	60- 65	288.0	16537	96.5,96.5
70	33.86	37.20	45.33	37.20	33.86	36.93	45.33	36.93	65- 70	225.3	16762	97.8,97.8
75	22.84	24.43	34.16	24.43	22.84	24.28	34.16	24.28	70- 75	169.8	16932	98.8,98.8
80	13.95	15.94	22.99	15.94	13.95	15.88	22.99	15.88	75- 80	118.0	17050	99.4,99.4
85	2.428	8.224	11.81	8.224	2.428	8.231	11.81	8.231	80- 85	70.44	17120	99.9,99.9
90	0.2586	0.6347	0.6428	0.6347	0.2586	0.6973	0.6428	0.6973	85- 90	24.92	17145	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): 14649 lm

%lum = 85.4%

%lamp = 85.4%

Conical surface Flux(120deg): 16249 lm

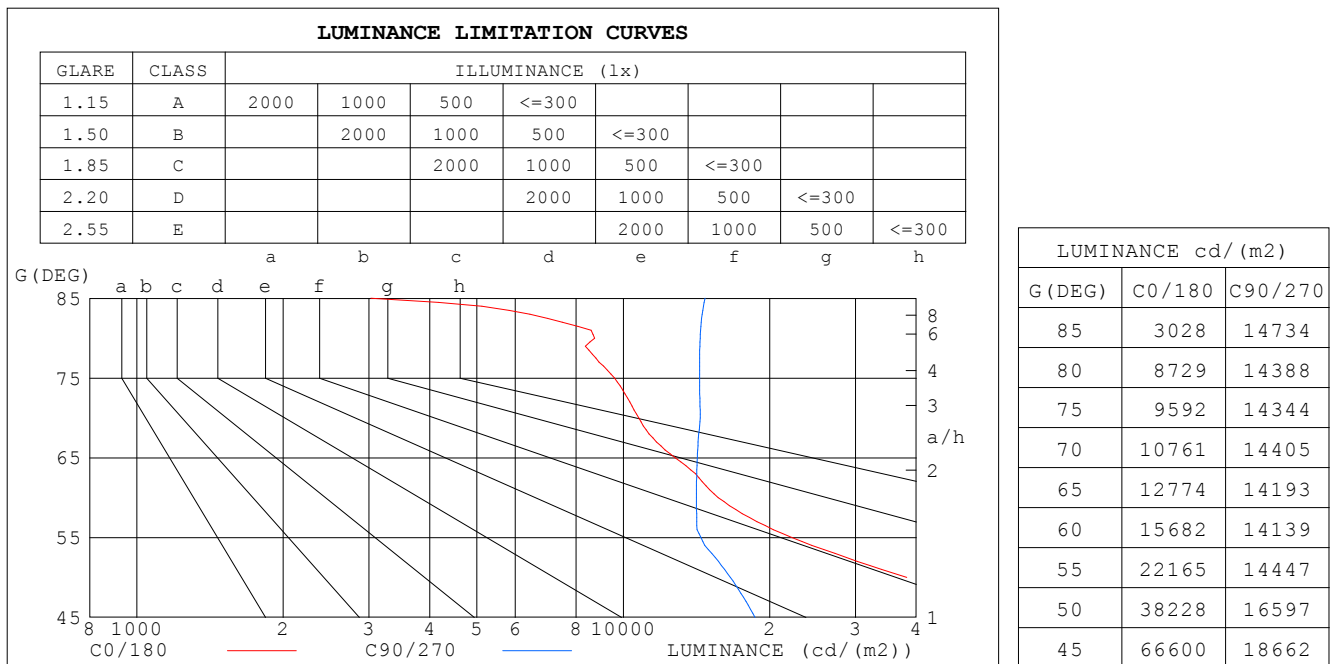
%lum = 94.8%

%lamp = 94.8%

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

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

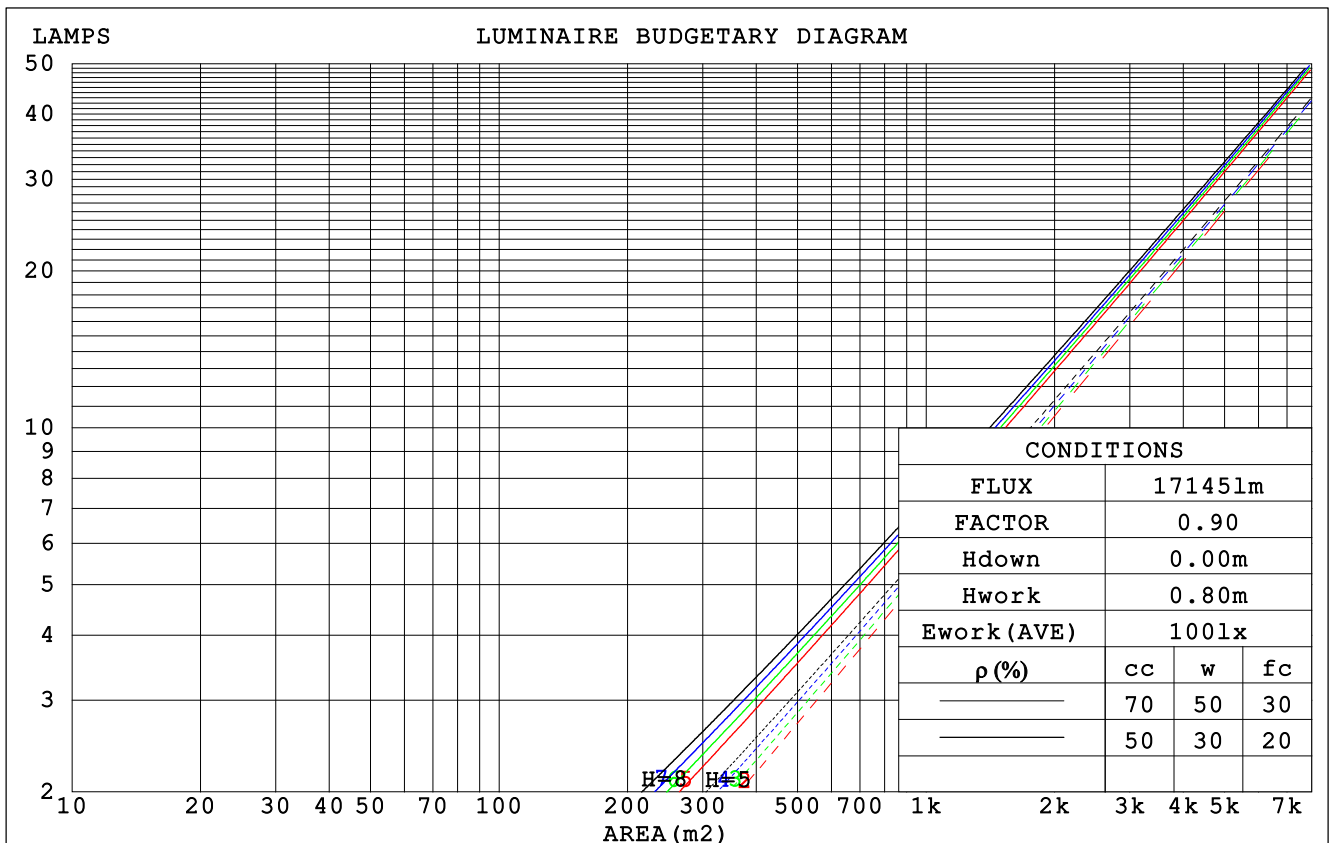


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2017-06-05

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	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	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	.76	.72	.78	.74	.71	.70
5.0	.79	.73	.68	.78	.72	.68	.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	.63	.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	.52
9.0	.61	.55	.50	.61	.54	.50	.60	.54	.50	.59	.54	.50	.58	.53	.50	.48
10.0	.58	.51	.47	.57	.51	.47	.56	.51	.47	.55	.50	.47	.55	.50	.47	.45



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	.209	.119	.038	.202	.115	.037	.189	.108	.035	.177	.102	.033	.167	.097	.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	.028	.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	.076	.023		
6.0	.158	.079	.023	.154	.078	.022	.148	.076	.022	.142	.074	.022	.137	.072	.021		
7.0	.149	.074	.021	.146	.073	.021	.141	.071	.020	.135	.069	.020	.131	.068	.020		
8.0	.142	.069	.019	.139	.068	.019	.134	.067	.019	.129	.066	.019	.125	.064	.019		
9.0	.135	.065	.018	.132	.065	.018	.128	.063	.018	.124	.062	.018	.120	.061	.018		
10.0	.128	.062	.017	.126	.061	.017	.122	.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	.050	.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	.100	.062	.035	.069	.044	.025	.040	.026	.015	.013	.008	.005	
8.0	.111	.065	.034	.095	.057	.030	.066	.040	.021	.038	.024	.013	.012	.008	.004	
9.0	.105	.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:2017-06-05

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	23.9	24.9	24.1	25.1	25.3	18.3	19.4	18.5	19.5	19.7
3H	23.9	24.9	24.2	25.1	25.4	19.6	20.6	19.9	20.8	21.0
4H	24.0	24.9	24.3	25.2	25.4	20.3	21.2	20.6	21.4	21.7
6H	24.0	24.9	24.3	25.1	25.4	20.9	21.8	21.2	22.0	22.3
8H	24.0	24.8	24.3	25.1	25.4	21.1	22.0	21.4	22.2	22.5
12H	24.0	24.8	24.3	25.1	25.3	21.3	22.1	21.6	22.4	22.7
4H 2H	23.7	24.7	24.0	24.9	25.1	18.8	19.7	19.1	19.9	20.2
3H	24.0	24.8	24.3	25.0	25.3	20.2	21.0	20.6	21.3	21.6
4H	24.1	24.8	24.4	25.1	25.4	21.0	21.8	21.4	22.1	22.4
6H	24.2	24.8	24.5	25.1	25.5	21.7	22.4	22.1	22.7	23.1
8H	24.2	24.8	24.6	25.1	25.5	22.1	22.7	22.5	23.0	23.4
12H	24.2	24.7	24.6	25.1	25.5	22.3	22.9	22.7	23.2	23.6
8H 4H	24.0	24.7	24.4	25.0	25.4	21.2	21.8	21.6	22.1	22.5
6H	24.2	24.7	24.6	25.1	25.5	22.0	22.5	22.5	22.9	23.3
8H	24.3	24.7	24.7	25.1	25.6	22.4	22.9	22.9	23.3	23.7
12H	24.3	24.7	24.8	25.1	25.6	22.8	23.2	23.3	23.6	24.1
12H 4H	24.0	24.6	24.4	25.0	25.3	21.2	21.7	21.6	22.1	22.5
6H	24.2	24.6	24.6	25.1	25.5	22.1	22.5	22.5	22.9	23.4
8H	24.3	24.7	24.8	25.1	25.6	22.5	22.9	23.0	23.3	23.8
Variations with the observer position at spacings:										
S = 1.0H	+ 2.9 / - 2.5					+ 0.4 / - 0.4				
1.5H	+ 4.3 / - 2.9					+ 0.2 / - 0.3				
2.0H	+ 4.4 / - 2.0					+ 0.3 / - 0.3				

CIE Pub.117 Corrected 17145 lm Total Lamp Luminous Flux.(8log(F/F0) = 9.9)

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:

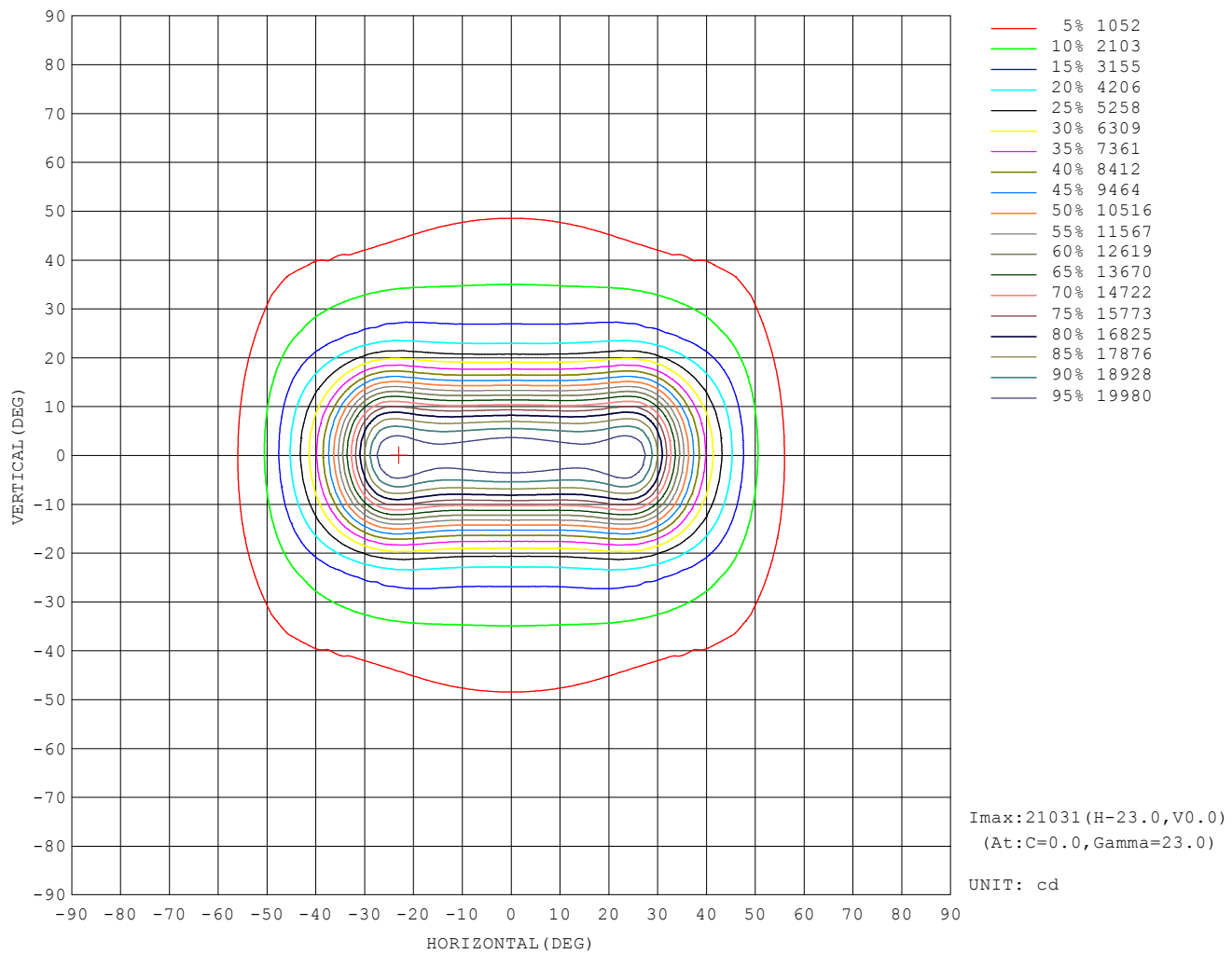
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	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	94	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	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: 2017-06-05

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:

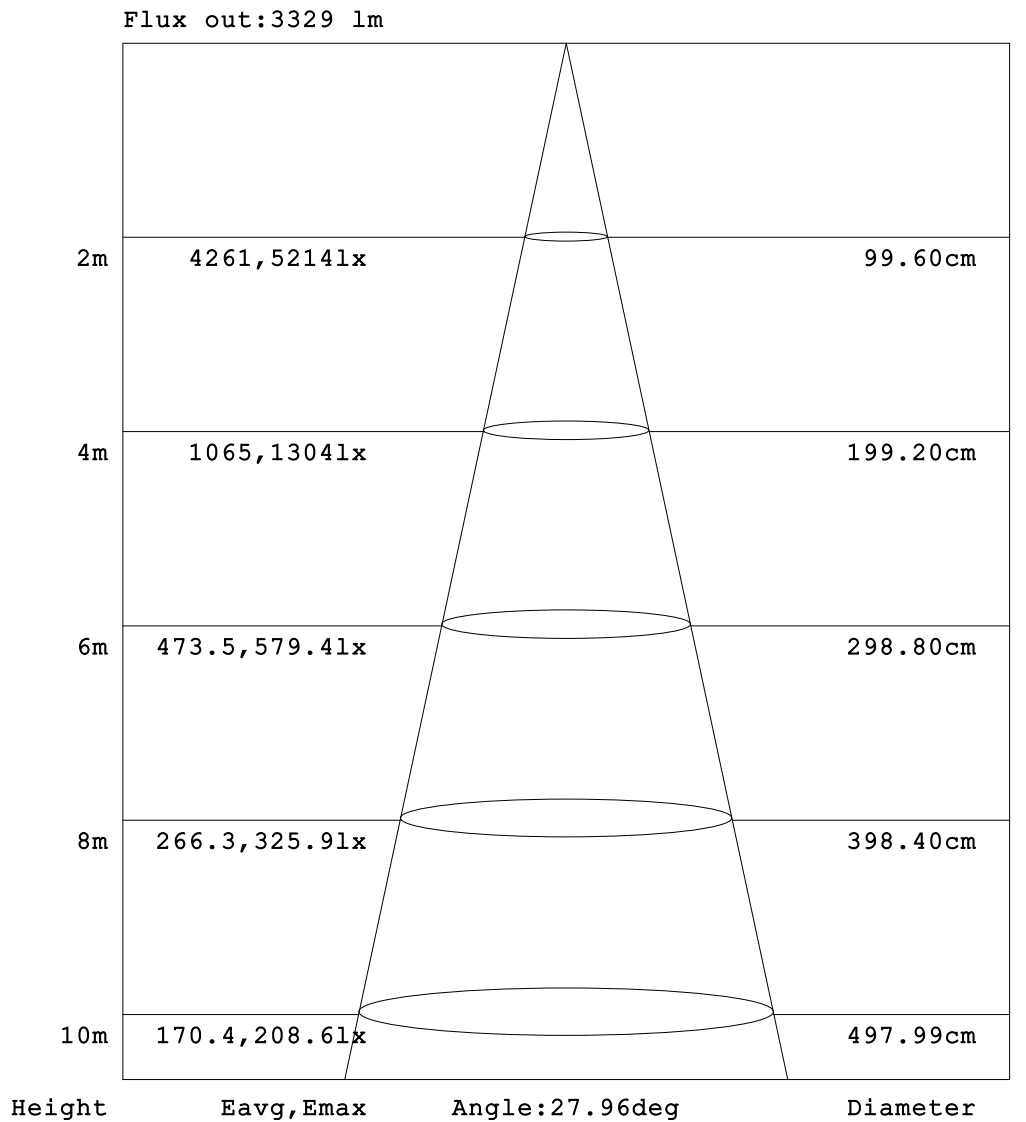
ISOCANDELA DIAGRAM



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

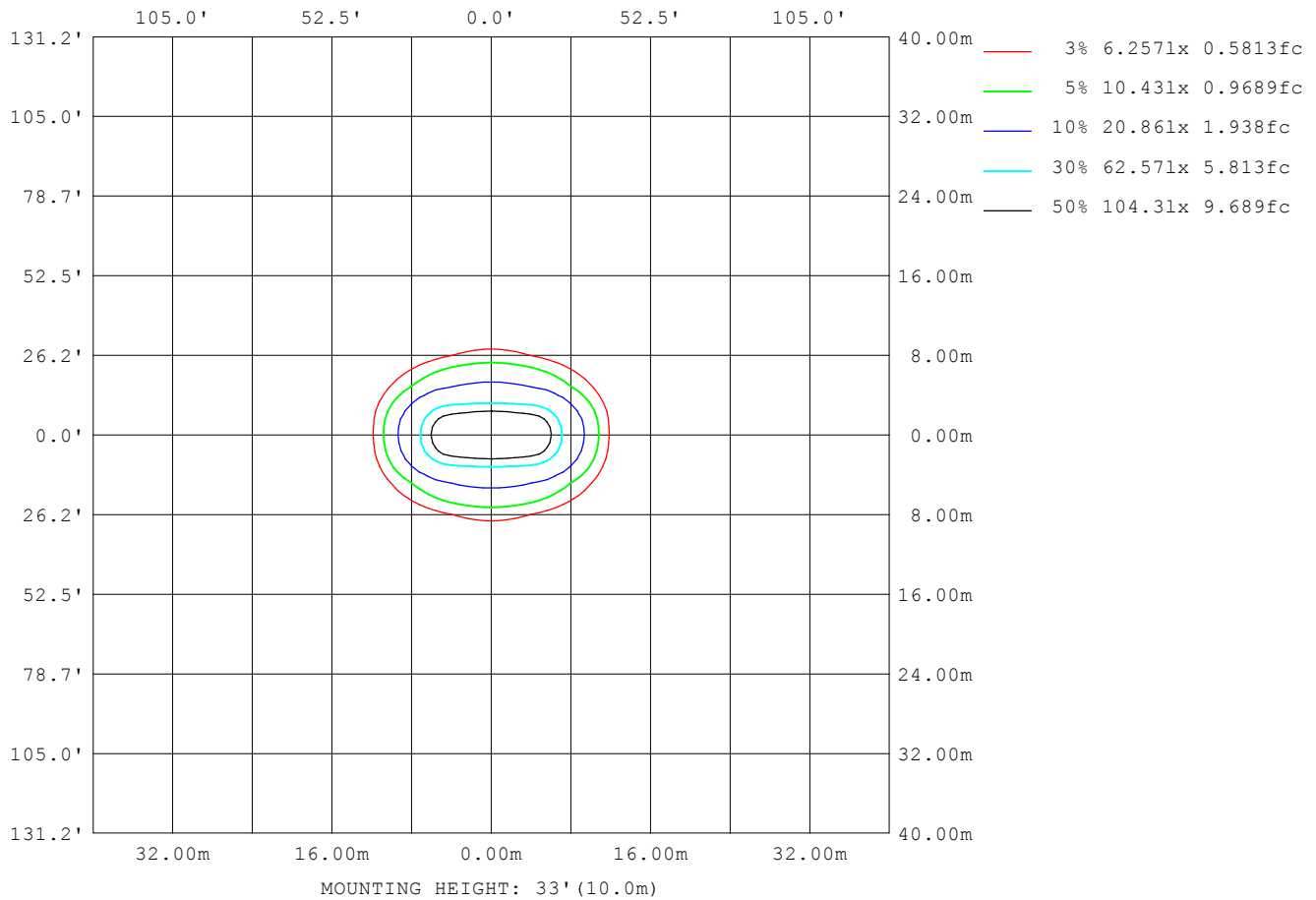


Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:0.5466A P:122.1W PF:0.9710 Lamp Flux:17145.3x1 lm		
NAME: LHB01-120H	TYPE:120W	WEIGHT:
SPEC.:4000K Ra80 3070DEG L06401	DIM.: 0.948*0.137*0.102	SERIAL No.:
MFR.:	SUR.:0.92*0.1	Shielding Angle:

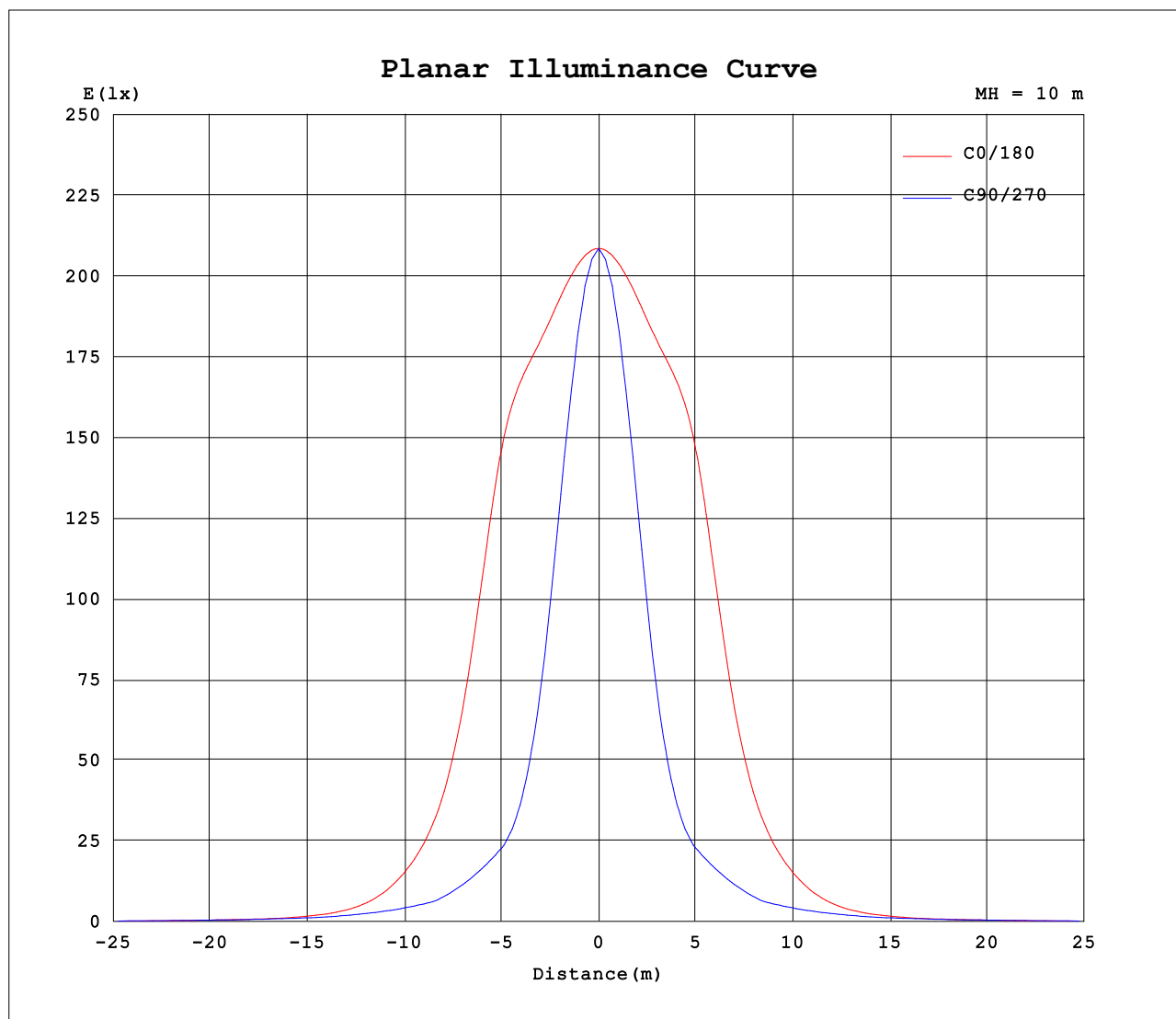
AvgL	cd/m2
L_0~180 (65) av	12774
L_0~180 (75) av	9592
L_0~180 (85) av	3028
L_90~270 (65) av	14193
L_90~270 (75) av	14344
L_90~270 (85) av	14734
L_45 (65) av	12790
L_45 (75) av	10227
L_45 (85) av	10261

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:

```

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:

```