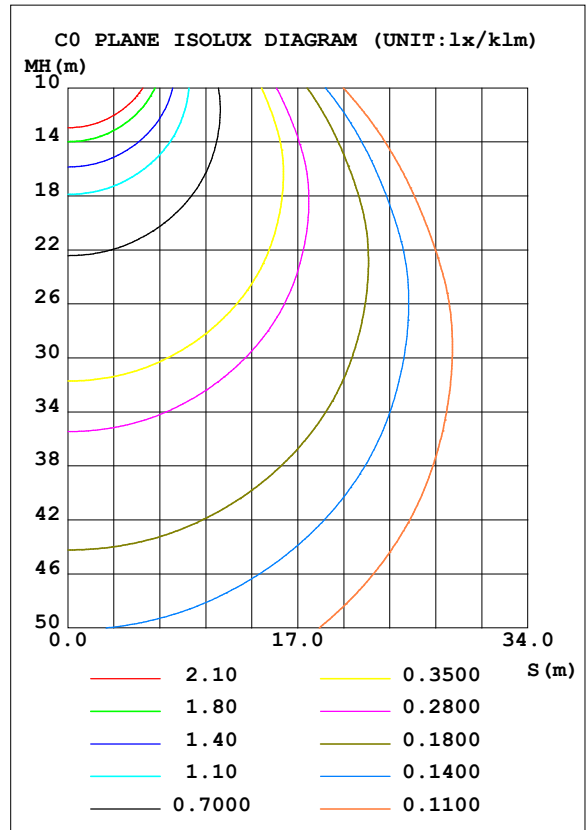
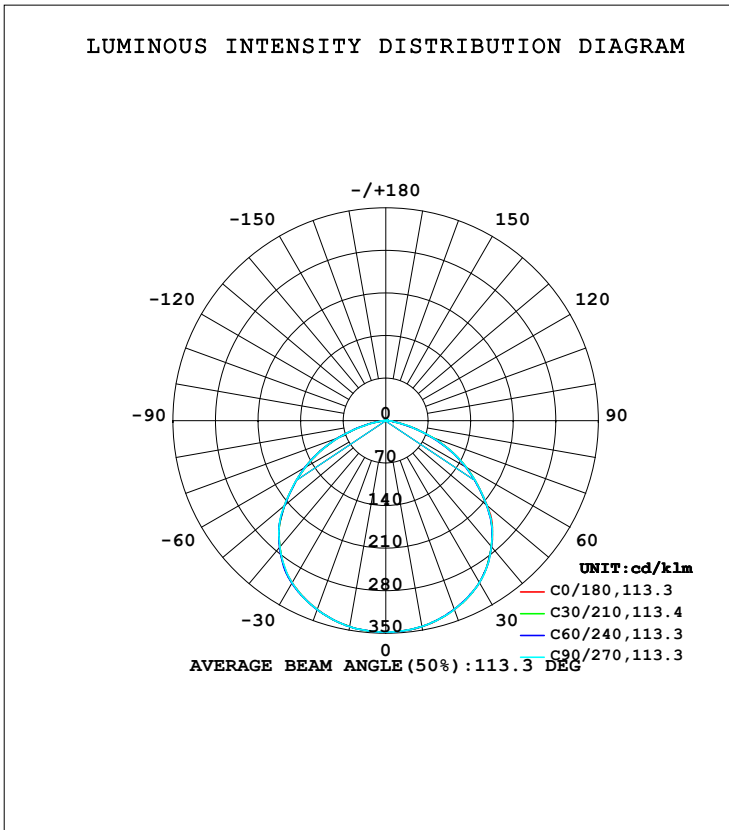


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:119.81V I:1.9674A P:235.17W PF:0.9977 Freq:59.98Hz Lamp Flux:30258.7x1 lm		
NAME: ULHB-240W-50K	TYPE:	WEIGHT:
SPEC.:240W, AC100-277V, 130lm/W, 5000K	DIM.:	SERIAL No.:20171209001
MFR.: WESTGATE MFG INC	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 128.67 lm/W			
MODEL	ULHB-240W-50K	I <sub>max</sub> (cd/klm)	347.8	S/MH (C0/180)	1.32
NOMINAL POWER (W)	240	LOR (%)	100.0	S/MH (C90/270)	1.32
RATED VOLTAGE (V)	120	TOTAL FLUX (lm/klm)	1000.0	η UP, DN (C0-180)	0.5, 49.3
NOMINAL FLUX (lm)	30258.7	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.6, 49.6
LAMPS INSIDE	1	η up (%)	1.1	CIBSE SHR NOM	1.50
TEST VOLTAGE (V)	120	η down (%)	98.9	CIBSE SHR MAX	1.50



C Range: 0 - 360DEG  
C Interval: 10.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Admin  
Test Date: 2017-12-09

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.402  
Humidity: 65.0%  
Test Distance: 7.495m [K=1.0000]  
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

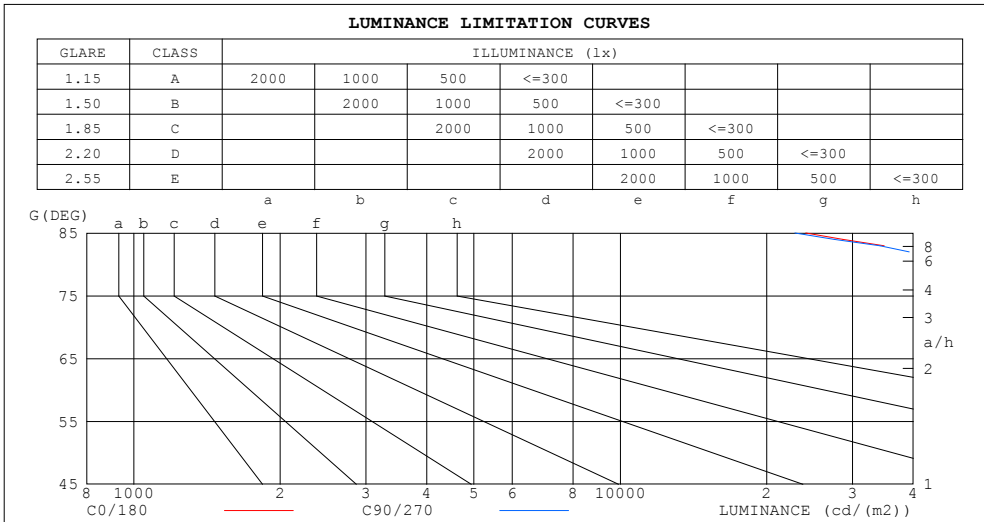
$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	344.1	343.9	343.9	343.9	344.0	344.0	344.0	344.0	0- 10	33.02	33.02	3.3,3.3
20	330.6	330.4	330.5	330.4	330.5	330.8	330.6	330.6	10- 20	95.60	128.6	12.9,12.9
30	307.8	307.9	307.9	307.9	308.1	308.8	308.2	307.6	20- 30	147.9	276.5	27.6,27.6
40	270.8	270.3	270.6	270.3	271.5	271.9	271.2	270.8	30- 40	182.1	458.6	45.9,45.9
50	218.2	216.6	217.2	216.2	218.0	217.2	218.1	219.1	40- 50	190.3	648.9	64.9,64.9
60	152.7	151.1	152.0	152.4	152.1	152.7	152.4	153.4	50- 60	165.3	814.2	81.4,81.4
70	82.10	81.09	82.19	82.77	82.94	83.59	82.69	83.10	60- 70	116.8	931.1	93.1,93.1
80	19.66	18.47	18.98	19.77	19.68	19.94	19.19	19.15	70- 80	51.16	982.2	98.2,98.2
90	1.537	1.535	1.535	1.533	1.531	1.527	1.525	1.524	80- 90	6.914	989.2	98.9,98.9
100	1.538	1.538	1.539	1.537	1.563	1.558	1.557	1.557	90-100	1.675	990.8	99.1,99.1
110	1.571	1.573	1.579	1.574	1.633	1.628	1.628	1.629	100-110	1.664	992.5	99.2,99.2
120	1.615	1.621	1.630	1.624	1.723	1.716	1.718	1.718	110-120	1.621	994.1	99.4,99.4
130	1.679	1.691	1.693	1.700	1.813	1.808	1.811	1.812	120-130	1.532	995.6	99.6,99.6
140	1.773	1.784	1.786	1.779	1.904	1.909	1.906	1.912	130-140	1.389	997.0	99.7,99.7
150	1.898	1.908	1.917	1.903	2.029	2.028	2.011	2.030	140-150	1.193	998.2	99.8,99.8
160	2.070	2.070	2.070	2.066	2.166	2.159	2.140	2.169	150-160	0.9417	999.2	99.9,99.9
170	2.215	2.212	2.204	2.200	2.254	2.252	2.250	2.266	160-170	0.6157	999.8	100,100
180	2.292	2.284	2.286	2.287	2.297	2.285	2.285	2.287	170-180	0.2152	1000	100,100
DEG	LUMINOUS INTENSITY:cd/klm									UNIT:lm/klm		

C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Admin  
 Test Date:2017-12-09

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.402  
 Humidity:65.0%  
 Test Distance:7.495m [K=1.0000]  
 Remarks:

**LUMINANCE LIMITATION CURVES**

Test:U:119.81V I:1.9674A P:235.17W PF:0.9977 Freq:59.98Hz Lamp Flux:30258.7x1 lm		
NAME: ULHB-240W-50K	TYPE:	WEIGHT:
SPEC.:240W, AC100-277V, 130lm/W, 5000K	DIM.:	SERIAL No.:20171209001
MFR.: WESTGATE MFG INC	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	24076	22848
80	55914	53245
75	91659	89016
70	118575	117056
65	138717	135939
60	150867	148108
55	158899	156515
50	167672	164587
45	173349	170570

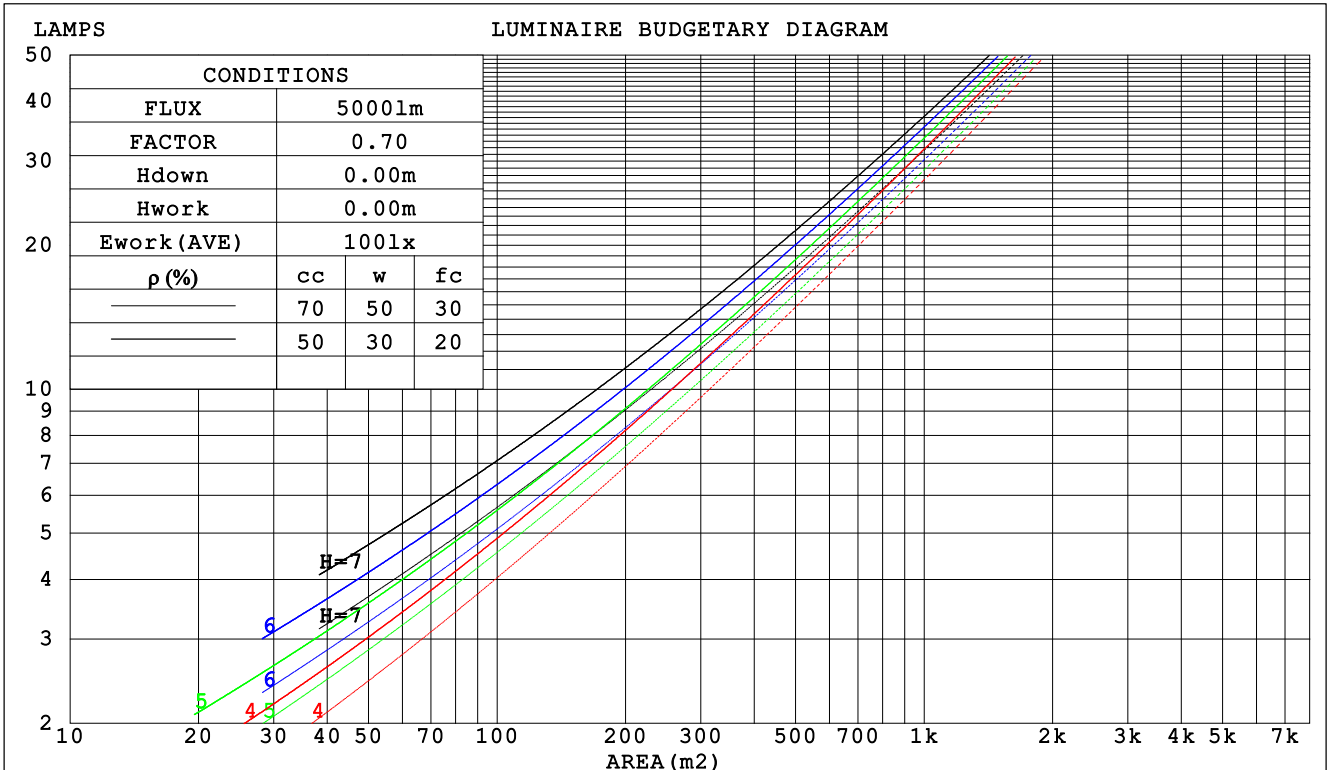
C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Admin  
 Test Date:2017-12-09

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.402  
 Humidity:65.0%  
 Test Distance:7.495m [K=1.0000]  
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:119.81V I:1.9674A P:235.17W PF:0.9977 Freq:59.98Hz Lamp Flux:30258.7x1 lm		
NAME: ULHB-240W-50K	TYPE:	WEIGHT:
SPEC.:240W, AC100-277V, 130lm/W, 5000K	DIM.:	SERIAL No.:20171209001
MFR.: WESTGATE MFG INC	SUR.:	Shielding Angle:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	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	1.01	1.01	1.01	.99
1.0	1.05	1.01	.97	1.02	.99	.95	.98	.95	.92	.94	.92	.89	.90	.88	.86	.84
2.0	.92	.85	.80	.90	.84	.79	.86	.81	.77	.83	.78	.75	.79	.76	.73	.71
3.0	.81	.73	.66	.79	.72	.66	.76	.70	.64	.73	.68	.63	.70	.66	.62	.60
4.0	.72	.63	.56	.70	.62	.56	.67	.61	.55	.65	.59	.54	.63	.58	.53	.51
5.0	.64	.55	.49	.63	.54	.48	.60	.53	.48	.58	.52	.47	.56	.51	.46	.44
6.0	.57	.49	.42	.56	.48	.42	.55	.47	.42	.53	.46	.41	.51	.45	.41	.39
7.0	.52	.43	.37	.51	.43	.37	.50	.42	.37	.48	.41	.36	.47	.41	.36	.34
8.0	.47	.39	.33	.47	.39	.33	.45	.38	.33	.44	.37	.33	.43	.37	.32	.30
9.0	.44	.35	.30	.43	.35	.30	.42	.35	.30	.40	.34	.29	.39	.33	.29	.27
10.0	.40	.32	.27	.40	.32	.27	.38	.32	.27	.37	.31	.27	.37	.31	.26	.25



C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Admin  
 Test Date:2017-12-09

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.402  
 Humidity:65.0%  
 Test Distance:7.495m [K=1.0000]  
 Remarks:

WEC AND CCEC

Test:U:119.81V I:1.9674A P:235.17W PF:0.9977 Freq:59.98Hz Lamp Flux:30258.7x1 lm		
NAME: ULHB-240W-50K	TYPE:	WEIGHT:
SPEC.:240W, AC100-277V, 130lm/W, 5000K	DIM.:	SERIAL No.:20171209001
MFR.: WESTGATE MFG INC	SUR.:	Shielding Angle:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)									
0.0																
1.0	.287	.163	.052	.280	.160	.051	.266	.153	.049	.254	.146	.047	.242	.140	.045	
2.0	.277	.152	.047	.271	.149	.046	.258	.144	.045	.247	.139	.043	.237	.134	.042	
3.0	.260	.138	.041	.254	.136	.041	.243	.132	.040	.233	.128	.039	.224	.124	.038	
4.0	.242	.126	.037	.237	.124	.037	.227	.121	.036	.218	.117	.035	.210	.114	.035	
5.0	.225	.115	.033	.220	.113	.033	.212	.110	.032	.204	.108	.032	.197	.105	.032	
6.0	.210	.105	.030	.206	.104	.030	.198	.101	.030	.191	.099	.029	.184	.097	.029	
7.0	.196	.097	.027	.192	.096	.027	.185	.094	.027	.179	.092	.027	.173	.090	.026	
8.0	.183	.090	.025	.180	.089	.025	.174	.087	.025	.168	.085	.025	.163	.084	.024	
9.0	.172	.083	.023	.169	.082	.023	.164	.081	.023	.158	.079	.023	.153	.078	.023	
10.0	.162	.078	.022	.159	.077	.021	.154	.076	.021	.150	.074	.021	.145	.073	.021	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients (CCEC)									
0.0	.199	.199	.199	.170	.170	.170	.116	.116	.116	.067	.067	.067	.021	.021	.021	
1.0	.187	.165	.144	.160	.141	.124	.109	.097	.086	.063	.056	.050	.020	.018	.016	
2.0	.179	.140	.108	.153	.121	.094	.105	.084	.065	.060	.049	.038	.019	.016	.012	
3.0	.171	.123	.084	.147	.106	.073	.101	.074	.051	.058	.043	.030	.019	.014	.010	
4.0	.164	.109	.068	.140	.094	.059	.096	.066	.042	.056	.039	.025	.018	.013	.008	
5.0	.156	.099	.056	.134	.086	.049	.092	.060	.035	.054	.035	.021	.017	.011	.007	
6.0	.149	.091	.048	.128	.078	.042	.089	.055	.030	.051	.032	.018	.017	.011	.006	
7.0	.143	.084	.042	.123	.072	.037	.085	.051	.026	.049	.030	.016	.016	.010	.005	
8.0	.136	.078	.038	.117	.068	.033	.081	.047	.023	.047	.028	.014	.015	.009	.005	
9.0	.131	.073	.034	.112	.063	.030	.078	.044	.021	.045	.026	.013	.015	.009	.004	
10.0	.125	.069	.031	.108	.060	.027	.075	.042	.019	.044	.025	.012	.014	.008	.004	

C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Admin  
 Test Date:2017-12-09

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.402  
 Humidity:65.0%  
 Test Distance:7.495m [K=1.0000]  
 Remarks:

**UGR(Unified Glare Rating) Table**

Test:U:119.81V I:1.9674A P:235.17W PF:0.9977 Freq:59.98Hz Lamp Flux:30258.7x1 lm										
NAME: ULHB-240W-50K					TYPE:			WEIGHT:		
SPEC.:240W, AC100-277V , 130lm/W, 5000K					DIM.:			SERIAL No.:20171209001		
MFR.: WESTGATE MFG INC					SUR.:			Shielding Angle:		
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	30.5	32.0	30.8	32.2	32.4	30.4	31.9	30.7	32.1	32.3
3H	31.7	33.1	32.0	33.3	33.6	31.6	33.0	31.9	33.2	33.5
4H	32.0	33.3	32.4	33.6	33.9	31.9	33.2	32.3	33.5	33.8
6H	32.2	33.4	32.5	33.7	34.0	32.0	33.2	32.4	33.5	33.8
8H	32.1	33.3	32.5	33.6	33.9	32.0	33.2	32.4	33.5	33.8
12H	32.1	33.2	32.5	33.5	33.9	32.0	33.1	32.3	33.4	33.7
4H 2H	31.0	32.3	31.3	32.6	32.9	31.0	32.2	31.3	32.5	32.8
3H	32.4	33.5	32.7	33.8	34.1	32.3	33.4	32.6	33.7	34.0
4H	32.8	33.8	33.2	34.1	34.5	32.7	33.7	33.1	34.0	34.4
6H	32.9	33.8	33.3	34.2	34.6	32.8	33.7	33.2	34.1	34.5
8H	32.9	33.8	33.4	34.2	34.6	32.8	33.7	33.2	34.0	34.4
12H	32.9	33.7	33.3	34.1	34.5	32.8	33.6	33.2	34.0	34.4
8H 4H	32.9	33.7	33.3	34.1	34.5	32.8	33.6	33.2	34.0	34.4
6H	33.1	33.8	33.5	34.2	34.6	33.0	33.7	33.4	34.1	34.5
8H	33.1	33.7	33.6	34.2	34.6	33.0	33.6	33.5	34.1	34.5
12H	33.1	33.6	33.6	34.1	34.6	33.0	33.5	33.5	34.0	34.5
12H 4H	32.8	33.6	33.3	34.0	34.4	32.7	33.5	33.2	33.9	34.3
6H	33.1	33.7	33.5	34.1	34.6	33.0	33.6	33.4	34.0	34.5
8H	33.1	33.6	33.6	34.1	34.6	33.0	33.5	33.5	34.0	34.5
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
1.5H	+ 0.2 / - 0.4					+ 0.2 / - 0.4				
2.0H	+ 0.4 / - 0.4					+ 0.4 / - 0.4				

CIE Pub.117, 30259 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 11.8)

C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Admin  
 Test Date:2017-12-09

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.402  
 Humidity:65.0%  
 Test Distance:7.495m [K=1.0000]  
 Remarks:

**UTILIZATION FACTORS TABLE**

Test:U:119.81V I:1.9674A P:235.17W PF:0.9977 Freq:59.98Hz Lamp Flux:30258.7x1 lm		
NAME: ULHB-240W-50K	TYPE:	WEIGHT:
SPEC.:240W, AC100-277V , 130lm/W, 5000K	DIM.:	SERIAL No.:20171209001
MFR.: WESTGATE MFG INC	SUR.:	Shielding Angle:

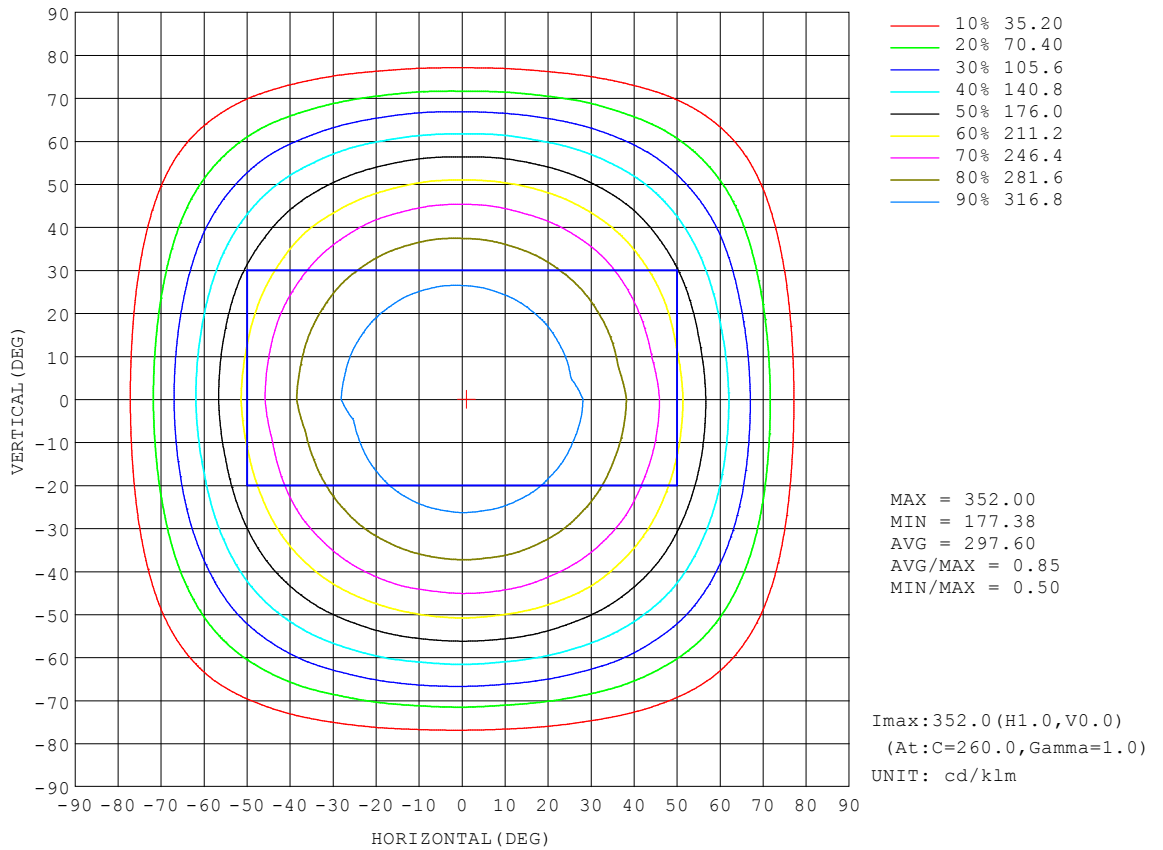
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	58	46	40	57	46	39	56	46	39	33
0.80	68	57	50	67	56	49	65	56	49	42
1.00	77	66	59	76	65	59	73	67	58	51
1.25	84	74	67	83	73	67	80	72	66	58
1.50	89	80	73	87	79	72	84	77	71	64
2.00	96	88	82	94	87	81	91	84	79	71
2.50	100	92	87	98	91	86	94	88	84	75
3.00	103	97	91	101	95	90	97	92	88	79
4.00	107	102	97	104	100	96	100	96	93	84
5.00	109	105	101	107	103	99	102	99	96	87
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Admin  
 Test Date:2017-12-09

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.402  
 Humidity:65.0%  
 Test Distance:7.495m [K=1.0000]  
 Remarks:

**ISOCANDELA DIAGRAM**

Test:U:119.81V I:1.9674A P:235.17W PF:0.9977 Freq:59.98Hz Lamp Flux:30258.7x1 lm		
NAME: ULHB-240W-50K	TYPE:	WEIGHT:
SPEC.:240W, AC100-277V, 130lm/W, 5000K	DIM.:	SERIAL No.:20171209001
MFR.: WESTGATE MFG INC	SUR.:	Shielding Angle:



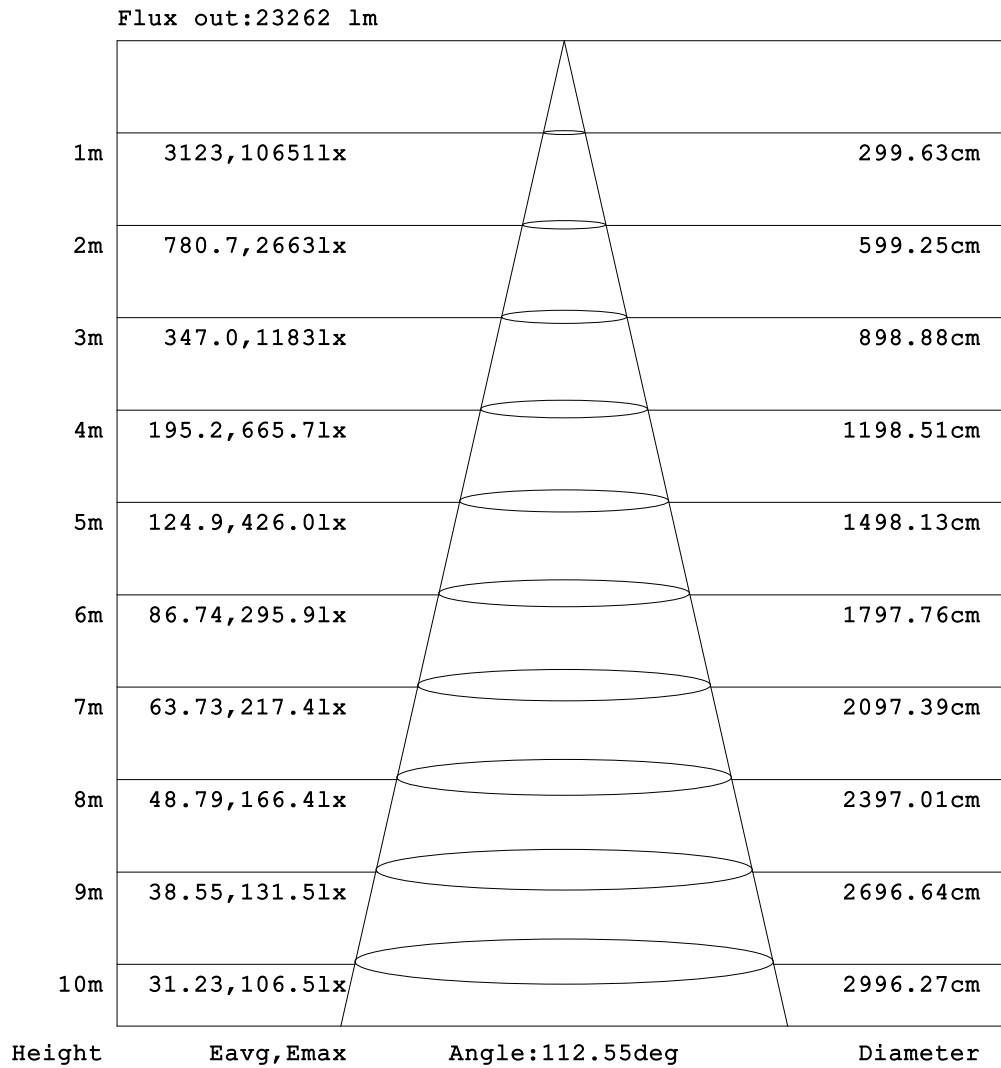
C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Admin  
 Test Date:2017-12-09

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.402  
 Humidity:65.0%  
 Test Distance:7.495m [K=1.0000]  
 Remarks:



AAI Figure

Test:U:119.81V I:1.9674A P:235.17W PF:0.9977 Freq:59.98Hz Lamp Flux:30258.7x1 lm		
NAME: ULHB-240W-50K	TYPE:	WEIGHT:
SPEC.:240W, AC100-277V, 130lm/W, 5000K	DIM.:	SERIAL No.:20171209001
MFR.: WESTGATE MFG INC	SUR.:	Shielding Angle:



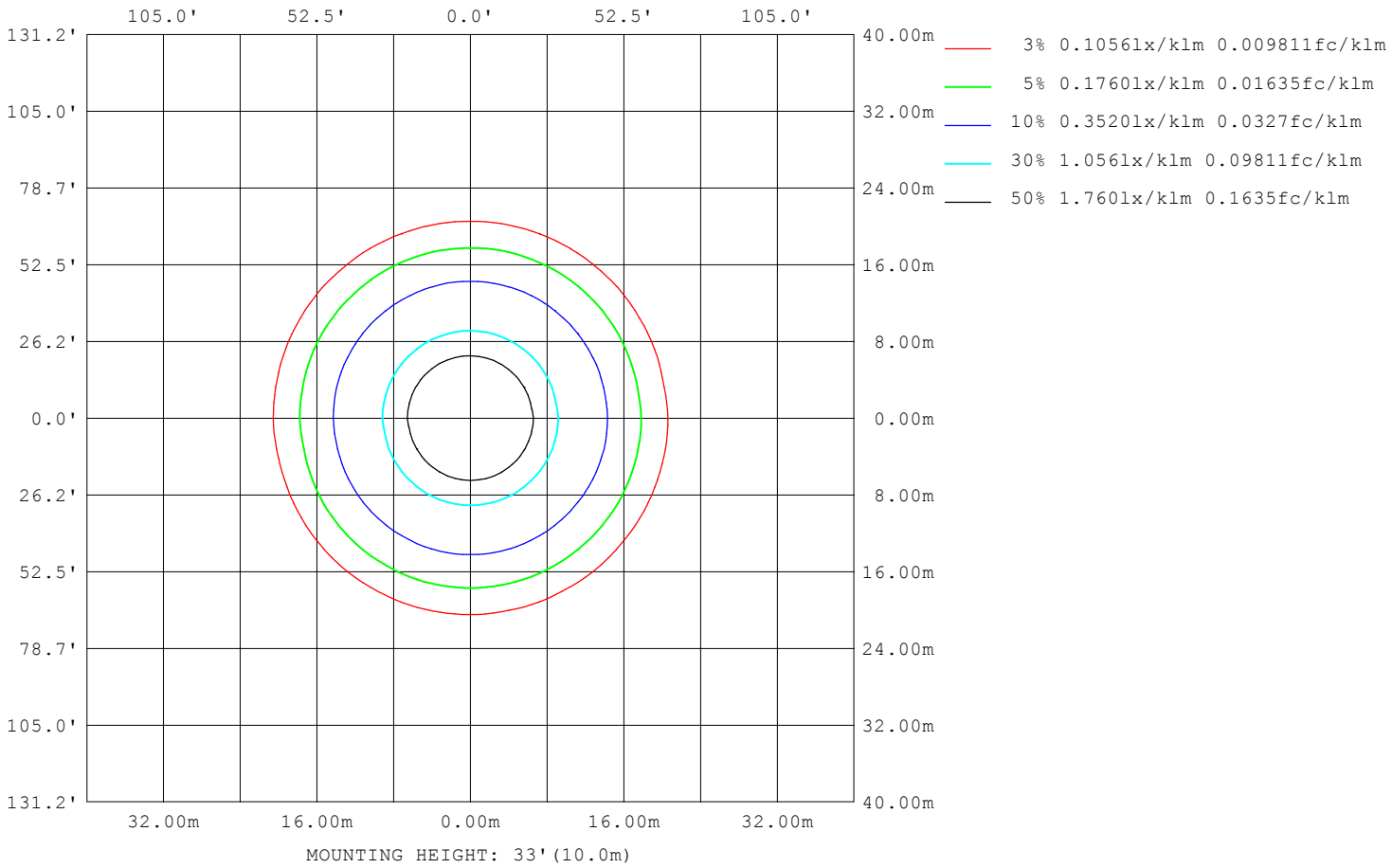
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Admin  
 Test Date:2017-12-09

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.402  
 Humidity:65.0%  
 Test Distance:7.495m [K=1.0000]  
 Remarks:

ISOLUX DIAGRAM

Test:U:119.81V I:1.9674A P:235.17W PF:0.9977 Freq:59.98Hz Lamp Flux:30258.7x1 lm		
NAME: ULHB-240W-50K	TYPE:	WEIGHT:
SPEC.:240W, AC100-277V, 130lm/W, 5000K	DIM.:	SERIAL No.:20171209001
MFR.: WESTGATE MFG INC	SUR.:	Shielding Angle:



C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Admin  
 Test Date:2017-12-09

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.402  
 Humidity:65.0%  
 Test Distance:7.495m [K=1.0000]  
 Remarks:

LED Avg.L Report

Test:U:119.81V I:1.9674A P:235.17W PF:0.9977 Freq:59.98Hz Lamp Flux:30258.7x1 lm		
NAME: ULHB-240W-50K	TYPE:	WEIGHT:
SPEC.:240W, AC100-277V , 130lm/W, 5000K	DIM.:	SERIAL No.:20171209001
MFR.: WESTGATE MFG INC	SUR.:	Shielding Angle:

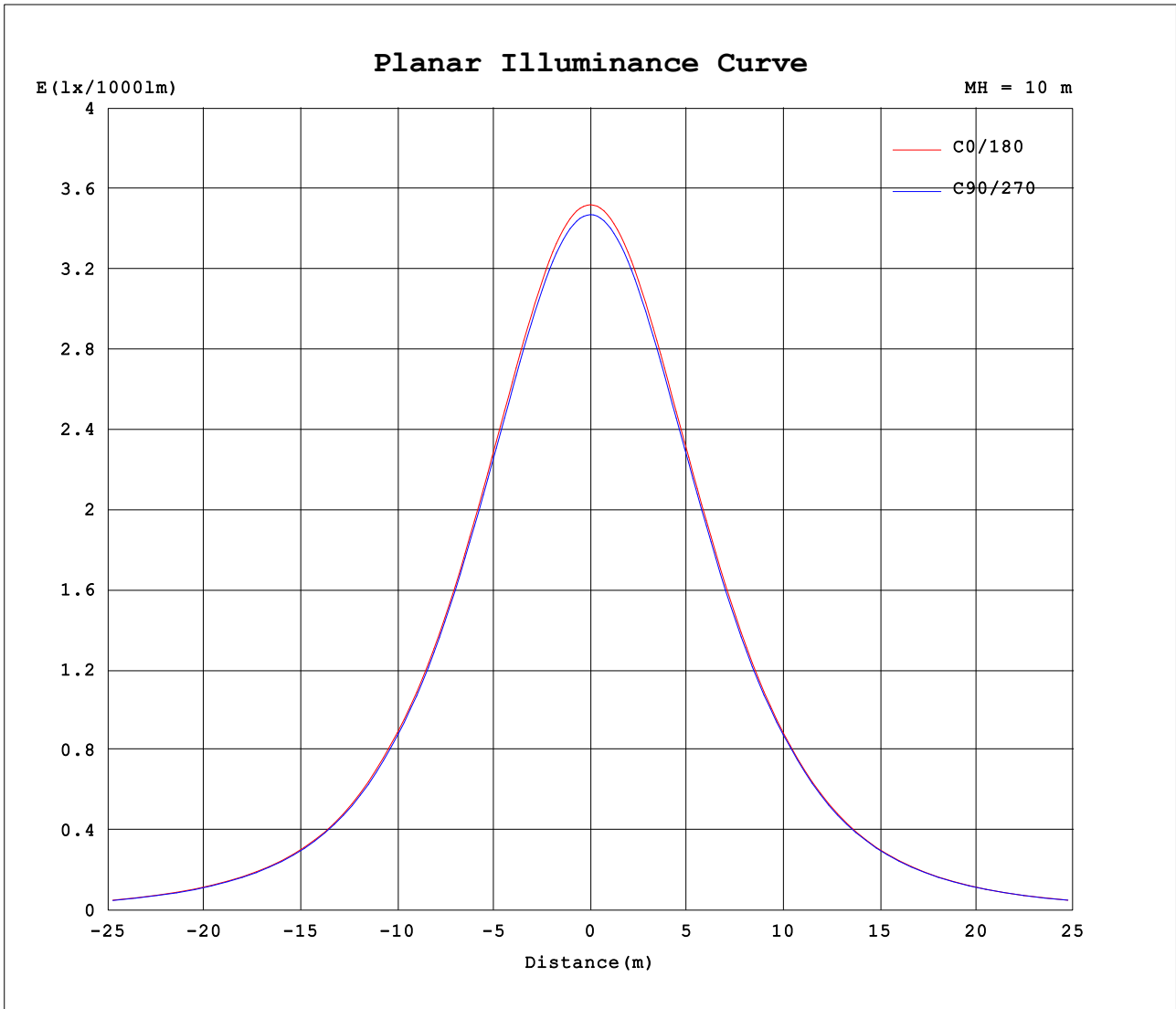
AvgL	cd/m2
L_0~180 (65) av	136608
L_0~180 (75) av	90405
L_0~180 (85) av	23746
L_90~270 (65) av	136645
L_90~270 (75) av	89750
L_90~270 (85) av	22959
L_45 (65) av	137014
L_45 (75) av	89610
L_45 (85) av	22946

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Admin  
 Test Date:2017-12-09

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.402  
 Humidity:65.0%  
 Test Distance:7.495m [K=1.0000]  
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: Admin  
 Test Date: 2017-12-09

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.402  
 Humidity: 65.0%  
 Test Distance: 7.495m [K=1.0000]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:119.81V I:1.9674A P:235.17W PF:0.9977 Freq:59.98Hz Lamp Flux:30258.7x1 lm		
NAME: ULHB-240W-50K	TYPE:	WEIGHT:
SPEC.:240W, AC100-277V, 130lm/W, 5000K	DIM.:	SERIAL No.:20171209001
MFR.: WESTGATE MFG INC	SUR.:	Shielding Angle:

Table--1

UNIT: cd/klm

C (DEG) \ γ (DEG)	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
0	348	348	348	348	348	348	348	348	348	348	348	348	348	348	348	348	348	348	348
5	347	347	347	347	347	347	347	347	347	347	347	347	347	347	347	347	347	347	347
10	344	344	344	344	344	344	344	344	344	344	344	344	344	344	344	344	344	344	344
15	338	338	338	338	338	338	338	338	338	338	338	338	338	338	338	338	338	338	338
20	331	331	330	330	330	330	330	330	330	331	331	331	330	331	330	330	330	330	330
25	321	321	320	321	320	320	320	320	320	320	320	321	321	321	320	320	320	320	320
30	308	308	308	308	308	308	308	308	308	308	308	308	308	308	308	308	308	308	308
35	291	291	291	291	291	291	291	292	291	291	291	291	291	291	290	291	291	291	292
40	271	270	270	270	270	271	270	271	270	271	270	271	270	271	270	270	271	271	272
45	248	248	247	247	247	247	247	248	248	248	247	248	248	248	247	248	248	248	248
50	218	217	216	216	216	217	216	216	216	217	216	216	216	216	216	217	217	218	218
55	185	185	184	184	184	184	184	185	184	184	184	184	184	185	185	185	184	185	184
60	153	153	152	152	151	151	151	152	151	152	151	153	152	152	152	152	152	151	152
65	119	119	118	118	117	118	117	117	117	118	118	119	118	119	119	118	117	118	118
70	82.1	82.8	81.2	81.4	80.7	81.5	80.6	81.3	80.8	82.2	82.1	83.0	82.1	83.4	82.1	82.6	82.0	82.3	82.9
75	48.0	47.5	46.4	46.9	46.0	46.1	46.0	46.8	46.6	47.3	46.9	48.1	48.2	48.4	47.6	48.3	47.3	47.2	47.9
80	19.7	19.5	18.7	18.8	18.4	18.6	18.1	18.4	18.4	19.0	19.0	19.8	19.7	20.0	19.5	19.8	19.2	19.1	19.7
85	4.25	4.17	4.00	4.02	3.86	4.01	3.91	3.96	3.91	4.09	4.08	4.23	4.16	4.26	4.12	4.22	4.05	4.14	4.23
90	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53
95	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.54
100	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.56
105	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.56	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.60
110	1.57	1.57	1.57	1.57	1.57	1.57	1.57	1.58	1.58	1.58	1.57	1.57	1.57	1.57	1.57	1.57	1.57	1.57	1.63
115	1.59	1.59	1.59	1.60	1.59	1.60	1.59	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.59	1.60	1.59	1.59	1.68
120	1.62	1.62	1.62	1.62	1.62	1.62	1.62	1.62	1.62	1.63	1.62	1.62	1.62	1.62	1.63	1.63	1.62	1.62	1.72
125	1.64	1.65	1.65	1.65	1.65	1.66	1.65	1.66	1.65	1.66	1.65	1.65	1.66	1.66	1.66	1.66	1.64	1.65	1.77
130	1.68	1.68	1.68	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.68	1.68	1.69	1.70	1.70	1.70	1.68	1.68	1.81
135	1.72	1.72	1.72	1.73	1.73	1.73	1.74	1.73	1.74	1.74	1.73	1.72	1.73	1.74	1.75	1.74	1.72	1.73	1.86
140	1.77	1.77	1.77	1.78	1.78	1.78	1.79	1.78	1.79	1.79	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.90
145	1.84	1.83	1.83	1.83	1.84	1.85	1.84	1.83	1.85	1.85	1.84	1.84	1.84	1.84	1.83	1.84	1.83	1.84	1.96
150	1.90	1.90	1.89	1.90	1.90	1.91	1.90	1.90	1.92	1.92	1.91	1.91	1.91	1.90	1.90	1.90	1.90	1.91	2.03
155	1.99	1.98	1.98	1.98	1.98	1.98	1.98	1.98	2.00	2.00	1.99	1.98	1.98	1.98	1.98	1.98	1.98	1.99	2.10
160	2.07	2.07	2.07	2.07	2.07	2.07	2.07	2.07	2.07	2.07	2.07	2.07	2.07	2.07	2.06	2.06	2.06	2.07	2.17
165	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.15	2.21
170	2.21	2.22	2.21	2.21	2.21	2.21	2.21	2.21	2.21	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.21	2.21	2.25
175	2.26	2.26	2.26	2.26	2.26	2.26	2.26	2.26	2.25	2.25	2.24	2.24	2.25	2.25	2.24	2.24	2.25	2.25	2.28
180	2.29	2.30	2.28	2.28	2.29	2.28	2.28	2.27	2.27	2.29	2.28	2.29	2.29	2.29	2.28	2.28	2.26	2.26	2.30

C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Admin  
 Test Date:2017-12-09

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.402  
 Humidity:65.0%  
 Test Distance:7.495m [K=1.0000]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:119.81V I:1.9674A P:235.17W PF:0.9977 Freq:59.98Hz Lamp Flux:30258.7x1 lm		
NAME: ULHB-240W-50K	TYPE:	WEIGHT:
SPEC.:240W, AC100-277V, 130lm/W, 5000K	DIM.:	SERIAL No.:20171209001
MFR.: WESTGATE MFG INC	SUR.:	Shielding Angle:

Table--2

UNIT: cd/klm

C (DEG) \ γ (DEG)	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350		
0	348	348	348	348	348	348	348	348	348	348	348	348	348	348	348	348	348		
5	347	347	347	347	347	347	347	347	347	347	347	347	347	347	347	347	347		
10	344	344	344	344	344	344	344	344	344	344	344	344	344	344	344	344	344		
15	338	339	338	339	338	339	338	339	338	339	338	339	338	338	338	338	338		
20	330	331	331	331	331	331	331	331	331	331	331	331	331	331	331	331	331		
25	320	321	321	321	321	321	321	321	321	321	321	321	320	321	321	321	321		
30	308	309	309	309	309	309	309	309	308	308	308	308	307	308	308	308	308		
35	292	292	292	293	292	293	293	293	292	291	291	291	290	291	291	291	291		
40	271	272	272	272	272	272	271	272	271	271	271	271	271	271	271	271	271		
45	248	249	248	248	248	249	248	249	249	249	248	248	248	249	248	248	248		
50	217	217	217	218	216	217	217	218	218	219	219	219	219	219	219	220	219		
55	185	186	185	186	185	185	185	186	185	186	186	186	186	187	186	187	186		
60	152	153	153	153	152	153	152	153	152	154	153	154	153	154	153	152	153		
65	118	119	119	120	119	119	119	119	119	119	119	119	119	119	119	119	118		
70	82.6	83.5	83.0	84.1	83.1	83.0	82.8	83.6	82.7	83.2	83.0	83.7	82.8	83.4	82.5	83.3	82.2		
75	47.8	48.3	48.1	48.4	47.9	48.8	47.9	48.4	47.9	48.2	47.5	48.2	47.8	48.2	47.6	47.8	47.3		
80	19.4	19.9	19.7	20.1	19.7	20.0	19.5	19.7	19.2	19.5	18.9	19.2	19.0	19.3	19.1	19.5	19.2		
85	4.14	4.28	4.27	4.41	4.27	4.37	4.23	4.29	4.11	4.10	3.96	4.02	3.87	3.99	3.94	4.09	4.00		
90	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.52	1.52	1.52	1.52	1.52	1.52	1.52		
95	1.54	1.54	1.54	1.54	1.53	1.54	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53		
100	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.55		
105	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59		
110	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63		
115	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67		
120	1.72	1.72	1.72	1.72	1.72	1.72	1.71	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72		
125	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76		
130	1.81	1.81	1.80	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.80	1.81	1.81	1.81	1.81	1.81		
135	1.85	1.86	1.85	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86		
140	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.90	1.91	1.92	1.91	1.91	1.91	1.91	1.91		
145	1.97	1.97	1.96	1.97	1.97	1.97	1.96	1.96	1.95	1.96	1.96	1.97	1.97	1.97	1.97	1.97	1.96		
150	2.02	2.03	2.02	2.03	2.03	2.03	2.03	2.01	2.01	2.01	2.03	2.03	2.03	2.03	2.03	2.03	2.02		
155	2.09	2.10	2.10	2.10	2.09	2.10	2.09	2.08	2.08	2.09	2.10	2.10	2.10	2.10	2.09	2.09	2.10		
160	2.16	2.17	2.16	2.15	2.17	2.16	2.15	2.15	2.14	2.16	2.15	2.17	2.17	2.17	2.15	2.15	2.16		
165	2.21	2.22	2.22	2.22	2.21	2.21	2.19	2.19	2.21	2.21	2.23	2.23	2.23	2.23	2.21	2.22	2.21		
170	2.26	2.27	2.27	2.25	2.25	2.26	2.24	2.24	2.25	2.26	2.27	2.27	2.27	2.26	2.26	2.26	2.23		
175	2.28	2.29	2.28	2.29	2.27	2.29	2.27	2.27	2.28	2.28	2.29	2.30	2.30	2.29	2.28	2.28	2.26		
180	2.29	2.28	2.28	2.29	2.28	2.28	2.27	2.27	2.28	2.29	2.29	2.29	2.29	2.29	2.28	2.26	2.26		

C Range: 0 - 360DEG  
 C Interval: 10.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Admin  
 Test Date:2017-12-09

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.402  
 Humidity:65.0%  
 Test Distance:7.495m [K=1.0000]  
 Remarks: