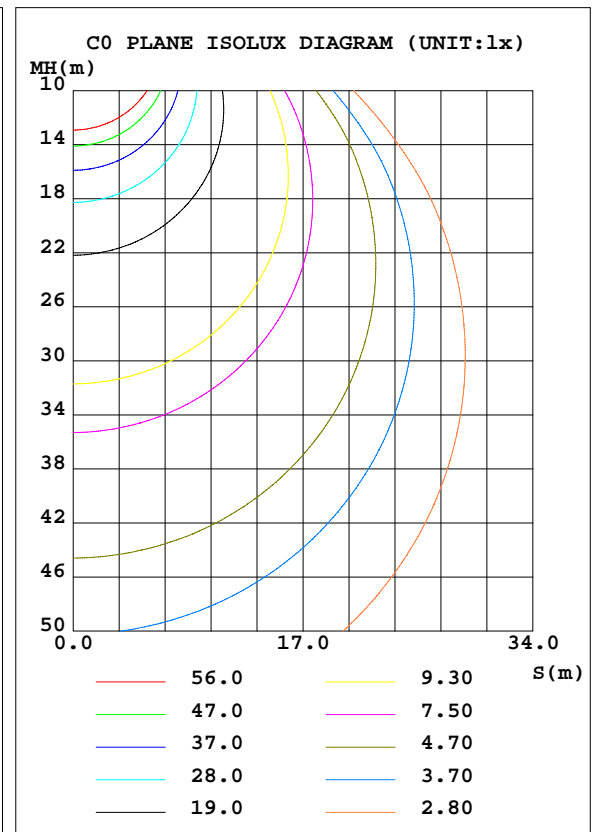
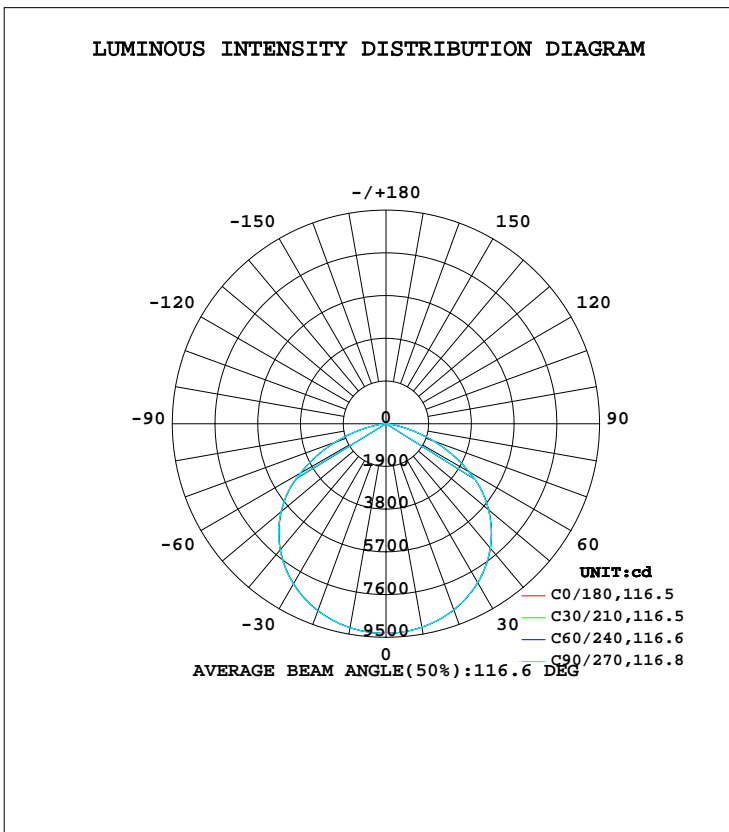


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:277.0V I:0.7027A P:186.0W PF:0.9556 Freq:60.01Hz Lamp Flux:29200x1 lm		
NAME: ASD-UHB2-FS-200D50	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 145.20 lm/W			
MODEL	ASD-UHB2-FS-200D50	I _{max} (cd)	9327	S/MH(C0/180)	1.31
NOMINAL POWER(W)	200	LOR(%)	100.0	S/MH(C90/270)	1.31
RATED VOLTAGE(V)	100-277	TOTAL FLUX(lm)	29200	η UP, DN(C0-180)	0.0,49.5
NOMINAL FLUX(lm)	29200	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.1,50.4
LAMPS INSIDE	1	η up(%)	0.1	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	277	η down(%)	99.9	CIBSE SHR MAX	1.50



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.6DEG
 Operators:Derek Lai
 Test Date:03 January 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.362
 Humidity: 41.7%
 Test Distance:2.500m [K=0.9886]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	9187	9186	9182	9186	9205	9208	9211	9205	0- 10	883.8	883.8	3.27,3.27
20	8811	8810	8801	8806	8841	8849	8859	8842	10- 20	2555	3439	12.7,12.7
30	8168	8168	8152	8168	8213	8225	8240	8212	20- 30	3941	7380	27.3,27.3
40	7231	7226	7207	7236	7306	7312	7327	7295	30- 40	4860	12240	45.3,45.3
50	5967	5967	5944	5983	6071	6081	6099	6060	40- 50	5153	17393	64.4,64.4
60	4257	4264	4262	4259	4380	4368	4410	4385	50- 60	4678	22071	81.7,81.7
70	2272	2279	2255	2294	2395	2417	2443	2388	60- 70	3296	25367	93.9,93.9
80	455.9	503.8	474.3	515.7	588.1	597.0	610.0	574.7	70- 80	1454	26821	99.3,99.3
90	0.5977	0.5892	0.6732	0.5884	1.767	4.955	1.436	1.909	80- 90	163.4	26984	99.9,99.9
100	0.9709	0.9793	0.9983	0.9959	2.496	2.535	2.520	2.548	90-100	1.516	26986	99.9,99.9
110	1.487	1.412	1.488	1.525	3.028	3.111	3.165	3.120	100-110	2.173	26988	99.9,99.9
120	2.485	2.213	2.319	2.363	3.619	3.523	3.525	3.471	110-120	2.547	26991	99.9,99.9
130	3.622	3.292	3.355	3.395	4.849	4.890	4.912	4.592	120-130	3.120	26994	100,100
140	4.575	4.360	4.384	4.362	6.096	6.489	6.225	6.108	130-140	3.676	26997	100,100
150	4.996	4.899	4.752	4.930	7.319	7.694	7.579	7.481	140-150	3.617	27001	100,100
160	5.794	5.526	5.025	5.774	8.467	8.794	8.226	8.373	150-160	3.056	27004	100,100
170	6.434	6.531	6.106	6.325	8.529	8.829	8.411	8.187	160-170	2.048	27006	100,100
180	7.812	7.925	7.598	7.450	7.805	7.911	7.606	7.444	170-180	0.7142	27007	100,100
DEG	LUMINOUS INTENSITY:cd Less than 35% Percent = 10.9 %									UNIT:lm		

Conical surface Flux(90deg): 14824 lm

%lum = 54.9%
 %lamp = 54.9%

Conical surface Flux(120deg): 22071 lm

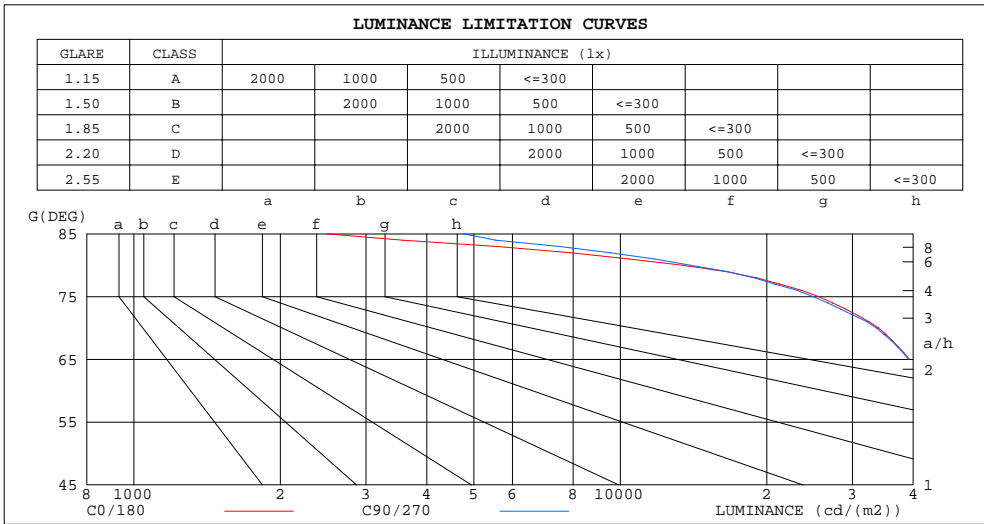
%lum = 81.7%
 %lamp = 81.7%

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.6DEG
 Operators:Derek Lai
 Test Date:03 January 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.362
 Humidity: 41.7%
 Test Distance:2.500m [K=0.9886]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:277.0V I:0.7027A P:186.0W PF:0.9556 Freq:60.01Hz Lamp Flux:29200x1 lm		
NAME: ASD-UHB2-FS-200D50	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	2493	4756
80	13409	13915
75	25564	24907
70	33923	33587
65	39326	39145
60	43484	43421
55	46346	46026
50	47411	47107
45	47963	47659

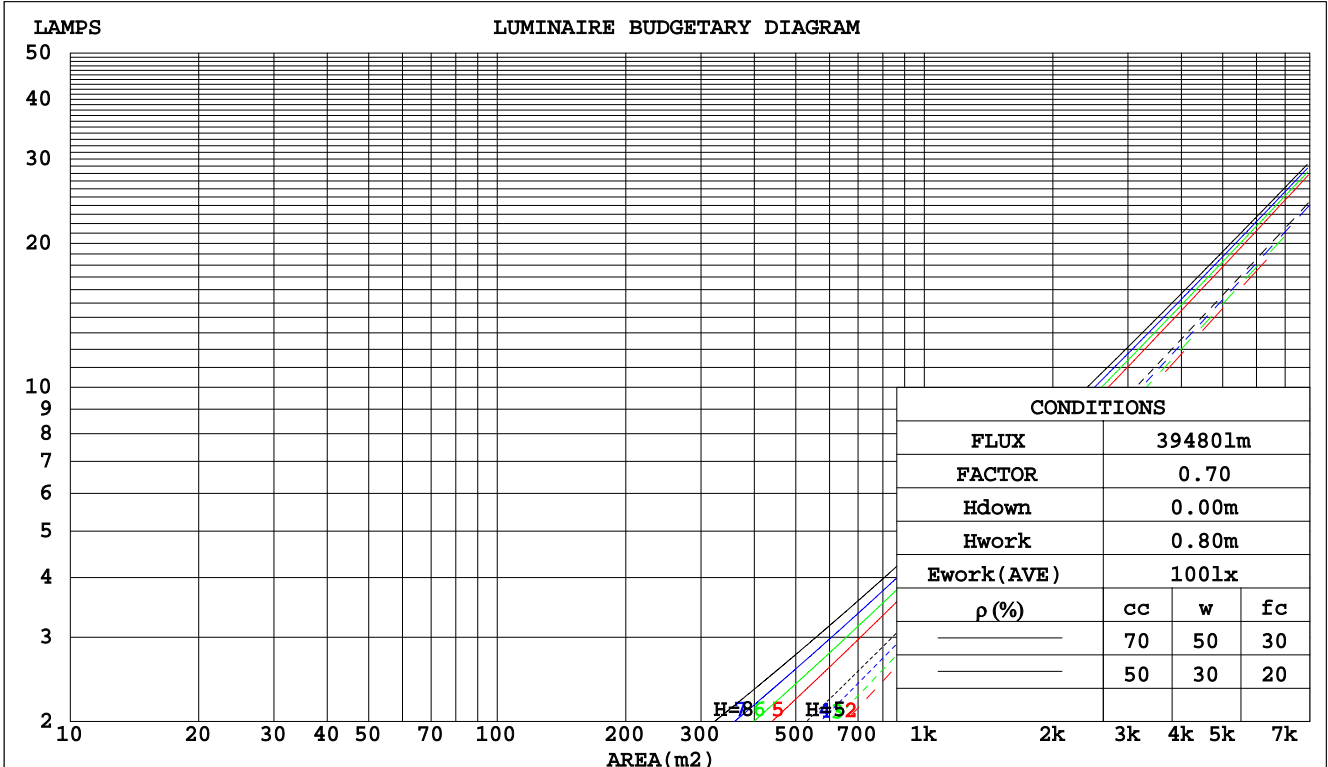
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.6DEG
 Operators:Derek Lai
 Test Date:03 January 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.362
 Humidity: 41.7%
 Test Distance:2.500m [K=0.9886]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:277.0V I:0.7027A P:186.0W PF:0.9556 Freq:60.01Hz Lamp Flux:29200x1 lm		
NAME: ASD-UHB2-FS-200D50	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

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	1.05	1.01	.97	1.03	.99	.96	.98	.95	.93	.94	.92	.90	.91	.89	.87	.85
2.0	.92	.85	.80	.90	.84	.79	.86	.81	.77	.83	.79	.75	.80	.76	.73	.71
3.0	.81	.73	.66	.79	.72	.66	.76	.70	.64	.73	.68	.63	.71	.66	.62	.60
4.0	.71	.63	.56	.70	.62	.56	.67	.60	.55	.65	.59	.54	.63	.58	.53	.51
5.0	.64	.55	.48	.62	.54	.48	.60	.53	.47	.58	.52	.47	.56	.51	.46	.44
6.0	.57	.48	.42	.56	.48	.42	.54	.47	.41	.53	.46	.41	.51	.45	.41	.38
7.0	.52	.43	.37	.51	.43	.37	.49	.42	.36	.48	.41	.36	.47	.41	.36	.34
8.0	.47	.39	.33	.46	.38	.33	.45	.38	.32	.44	.37	.32	.43	.37	.32	.30
9.0	.43	.35	.29	.43	.35	.29	.41	.34	.29	.40	.34	.29	.39	.33	.29	.27
10.0	.40	.32	.27	.39	.32	.27	.38	.31	.26	.37	.31	.26	.36	.30	.26	.24



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.6DEG
 Operators:Derek Lai
 Test Date:03 January 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.362
 Humidity: 41.7%
 Test Distance:2.500m [K=0.9886]
 Remarks:

WEC AND CCEC

Test:U:277.0V I:0.7027A P:186.0W PF:0.9556 Freq:60.01Hz Lamp Flux:29200x1 lm		
NAME:ASD-UHB2-FS-200D50	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:ASD Lighting Corp	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	.290	.165	.052	.283	.161	.051	.270	.155	.049	.257	.148	.048	.246	.143	.046	
2.0	.280	.153	.047	.274	.151	.046	.262	.146	.045	.251	.141	.044	.241	.137	.043	
3.0	.262	.140	.042	.257	.138	.041	.247	.134	.041	.237	.130	.040	.228	.126	.039	
4.0	.244	.127	.037	.239	.125	.037	.230	.122	.036	.222	.119	.036	.214	.116	.035	
5.0	.227	.116	.034	.223	.114	.033	.215	.112	.033	.207	.109	.032	.200	.107	.032	
6.0	.211	.106	.030	.207	.105	.030	.200	.103	.030	.193	.101	.030	.187	.099	.029	
7.0	.197	.097	.028	.194	.097	.028	.187	.095	.027	.181	.093	.027	.176	.091	.027	
8.0	.185	.090	.025	.181	.089	.025	.176	.088	.025	.170	.086	.025	.165	.085	.025	
9.0	.173	.084	.023	.170	.083	.023	.165	.082	.023	.160	.080	.023	.156	.079	.023	
10.0	.163	.078	.022	.161	.078	.022	.156	.076	.022	.151	.075	.021	.147	.074	.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	.191	.191	.191	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.180	.157	.137	.154	.135	.118	.105	.093	.081	.060	.054	.047	.019	.017	.015	
2.0	.171	.133	.100	.147	.114	.087	.101	.079	.060	.058	.046	.035	.019	.015	.012	
3.0	.164	.115	.076	.140	.099	.066	.096	.069	.046	.056	.040	.027	.018	.013	.009	
4.0	.156	.102	.060	.134	.088	.052	.092	.061	.037	.053	.036	.022	.017	.012	.007	
5.0	.149	.091	.048	.128	.079	.042	.088	.055	.030	.051	.032	.018	.016	.011	.006	
6.0	.142	.083	.040	.122	.072	.035	.084	.050	.025	.049	.030	.015	.016	.010	.005	
7.0	.135	.076	.034	.117	.066	.030	.081	.046	.021	.047	.027	.013	.015	.009	.004	
8.0	.129	.070	.029	.111	.061	.026	.077	.043	.018	.045	.025	.011	.014	.008	.004	
9.0	.123	.065	.026	.106	.057	.023	.074	.040	.016	.043	.023	.010	.014	.008	.003	
10.0	.118	.061	.023	.101	.053	.020	.070	.037	.014	.041	.022	.009	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.6DEG
 Operators:Derek Lai
 Test Date:03 January 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.362
 Humidity: 41.7%
 Test Distance:2.500m [K=0.9886]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:277.0V I:0.7027A P:186.0W PF:0.9556 Freq:60.01Hz Lamp Flux:29200x1 lm										
NAME: ASD-UHB2-FS-200D50					TYPE:LED			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.: ASD Lighting Corp					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	14.8	16.3	15.1	16.5	16.7	14.8	16.3	15.1	16.5	16.7
3H	16.0	17.4	16.3	17.7	17.9	16.0	17.4	16.3	17.6	17.8
4H	16.4	17.7	16.7	17.9	18.2	16.3	17.6	16.6	17.9	18.1
6H	16.4	17.7	16.8	18.0	18.2	16.4	17.6	16.7	17.9	18.2
8H	16.4	17.6	16.8	17.9	18.2	16.3	17.5	16.7	17.8	18.1
12H	16.4	17.5	16.7	17.8	18.1	16.3	17.4	16.6	17.7	18.0
4H 2H	15.4	16.7	15.7	16.9	17.2	15.3	16.6	15.6	16.9	17.2
3H	16.7	17.8	17.1	18.1	18.4	16.6	17.8	17.0	18.1	18.4
4H	17.1	18.1	17.5	18.5	18.8	17.0	18.1	17.4	18.4	18.7
6H	17.2	18.2	17.6	18.5	18.9	17.2	18.1	17.6	18.4	18.8
8H	17.2	18.1	17.6	18.5	18.8	17.2	18.0	17.6	18.4	18.8
12H	17.2	18.0	17.6	18.4	18.8	17.1	17.9	17.6	18.3	18.7
8H 4H	17.2	18.1	17.6	18.4	18.8	17.1	18.0	17.6	18.4	18.7
6H	17.4	18.1	17.8	18.5	18.9	17.3	18.0	17.8	18.4	18.9
8H	17.4	18.0	17.9	18.4	18.9	17.3	18.0	17.8	18.4	18.8
12H	17.4	17.9	17.9	18.4	18.8	17.3	17.8	17.8	18.3	18.8
12H 4H	17.2	18.0	17.6	18.3	18.8	17.1	17.9	17.5	18.3	18.7
6H	17.4	18.0	17.8	18.4	18.9	17.3	17.9	17.8	18.4	18.8
8H	17.4	17.9	17.9	18.4	18.8	17.3	17.9	17.8	18.3	18.8
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
1.5H	+ 0.3 / - 0.5					+ 0.3 / - 0.5				
2.0H	+ 0.4 / - 0.4					+ 0.3 / - 0.4				

CIE Pub.117, 27007 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 11.5)

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.6DEG
 Operators:Derek Lai
 Test Date:03 January 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.362
 Humidity: 41.7%
 Test Distance:2.500m [K=0.9886]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:277.0V I:0.7027A P:186.0W PF:0.9556 Freq:60.01Hz Lamp Flux:29200x1 lm		
NAME: ASD-UHB2-FS-200D50	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

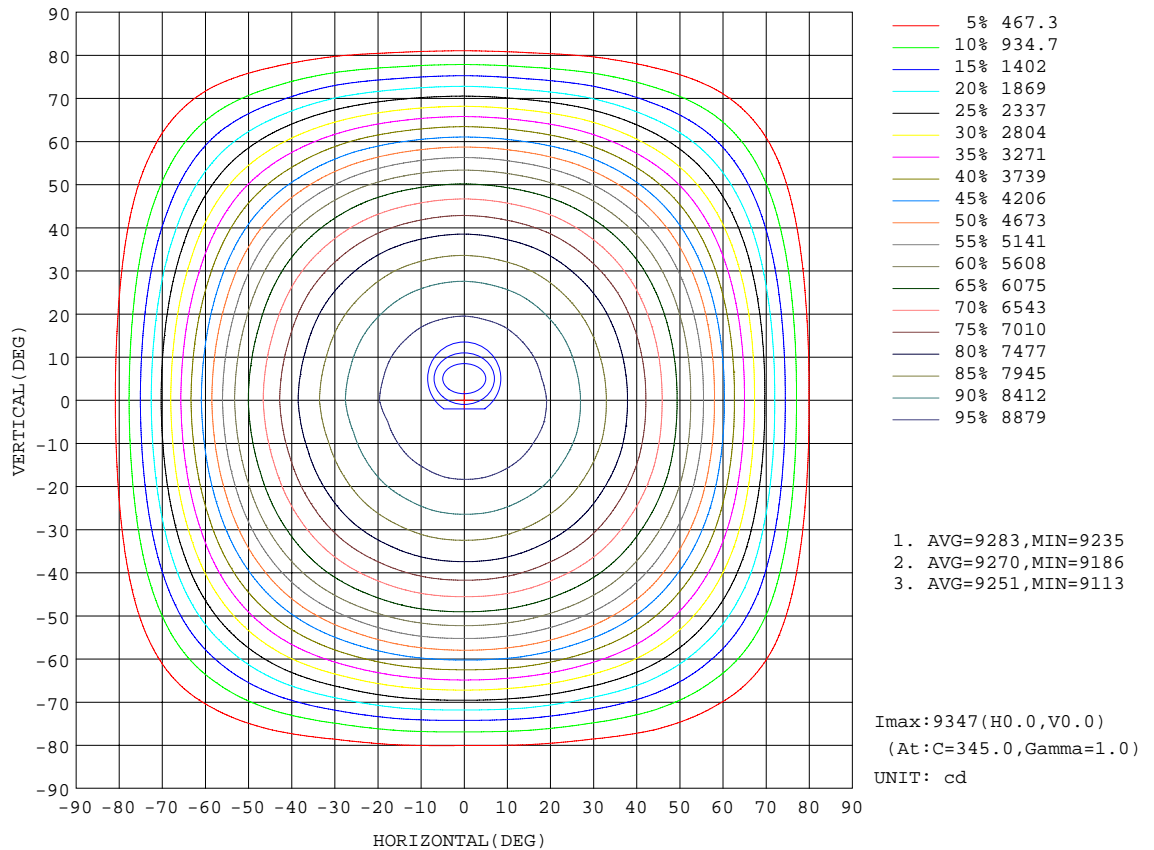
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	58	46	39	57	46	39	56	45	39	32
0.80	68	56	49	67	56	49	65	55	49	42
1.00	77	66	59	76	65	58	73	67	58	51
1.25	84	74	67	83	73	66	80	72	66	58
1.50	89	79	73	87	79	72	84	77	71	64
2.00	96	88	82	94	87	81	91	84	79	72
2.50	100	92	87	98	91	86	94	88	84	76
3.00	103	97	91	101	95	90	97	92	88	80
4.00	107	102	97	105	100	96	100	97	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: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.6DEG
 Operators:Derek Lai
 Test Date:03 January 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.362
 Humidity: 41.7%
 Test Distance:2.500m [K=0.9886]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:277.0V I:0.7027A P:186.0W PF:0.9556 Freq:60.01Hz Lamp Flux:29200x1 lm		
NAME:ASD-UHB2-FS-200D50	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:ASD Lighting Corp	SUR.:	Shielding Angle:

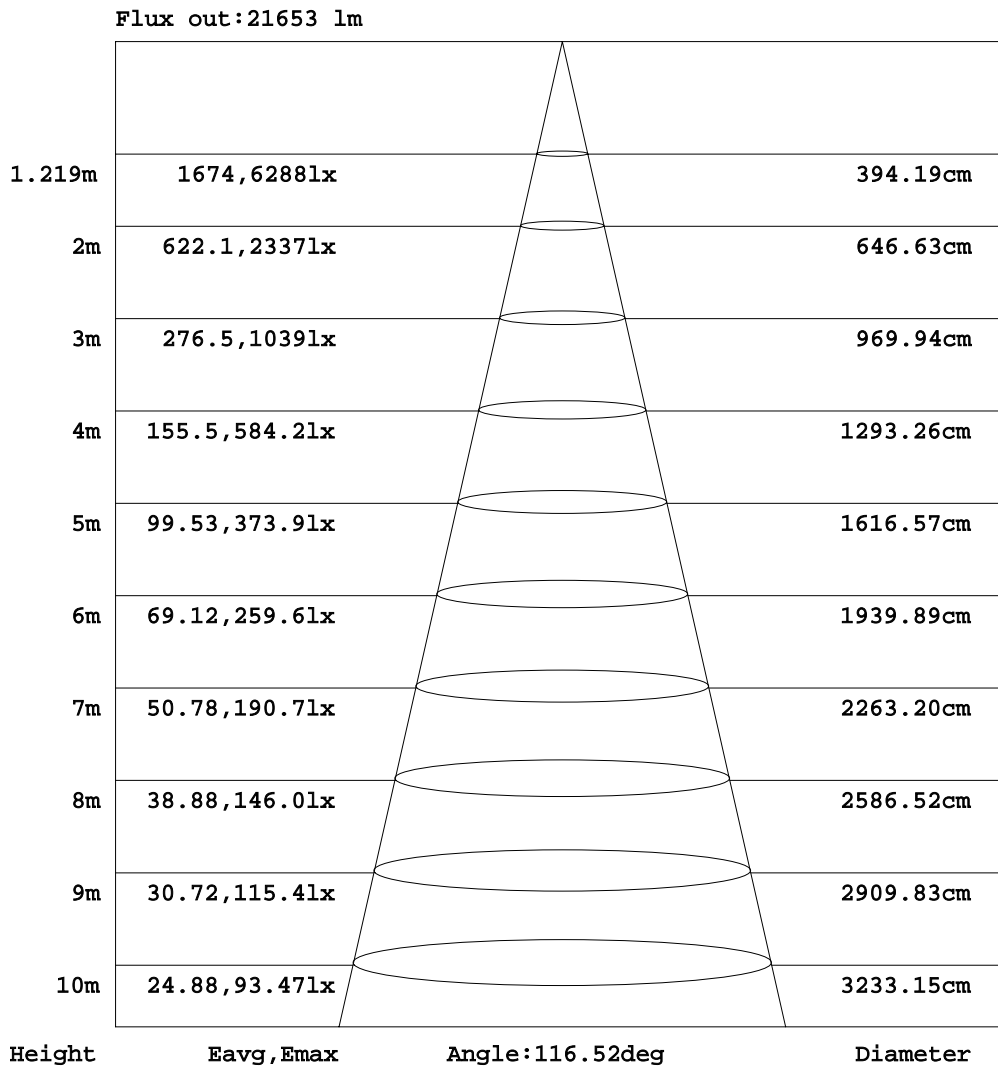


C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.6DEG
 Operators:Derek Lai
 Test Date:03 January 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.362
 Humidity: 41.7%
 Test Distance:2.500m [K=0.9886]
 Remarks:

AAI Figure

Test:U:277.0V I:0.7027A P:186.0W PF:0.9556 Freq:60.01Hz Lamp Flux:29200x1 lm		
NAME: ASD-UHB2-FS-200D50	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



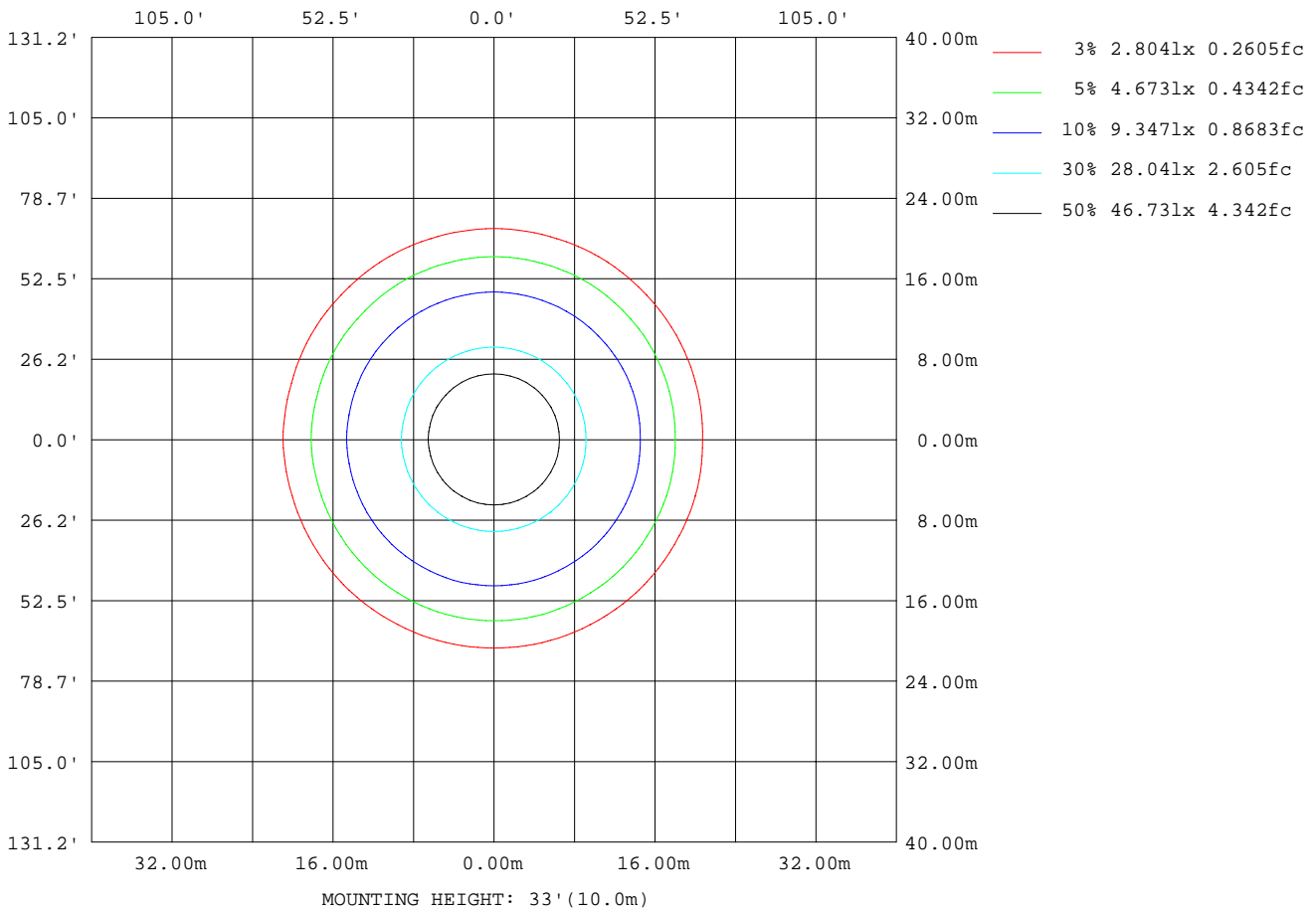
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.6DEG
 Operators:Derek Lai
 Test Date:03 January 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.362
 Humidity: 41.7%
 Test Distance:2.500m [K=0.9886]
 Remarks:

ISOLUX DIAGRAM

Test:U:277.0V I:0.7027A P:186.0W PF:0.9556 Freq:60.01Hz Lamp Flux:29200x1 lm		
NAME: ASD-UHB2-FS-200D50	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.6DEG
 Operators:Derek Lai
 Test Date:03 January 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.362
 Humidity: 41.7%
 Test Distance:2.500m [K=0.9886]
 Remarks:

LED Avg.L Report

Test:U:277.0V I:0.7027A P:186.0W PF:0.9556 Freq:60.01Hz Lamp Flux:29200x1 lm		
NAME: ASD-UHB2-FS-200D50	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:ASD Lighting Corp	SUR.:	Shielding Angle:

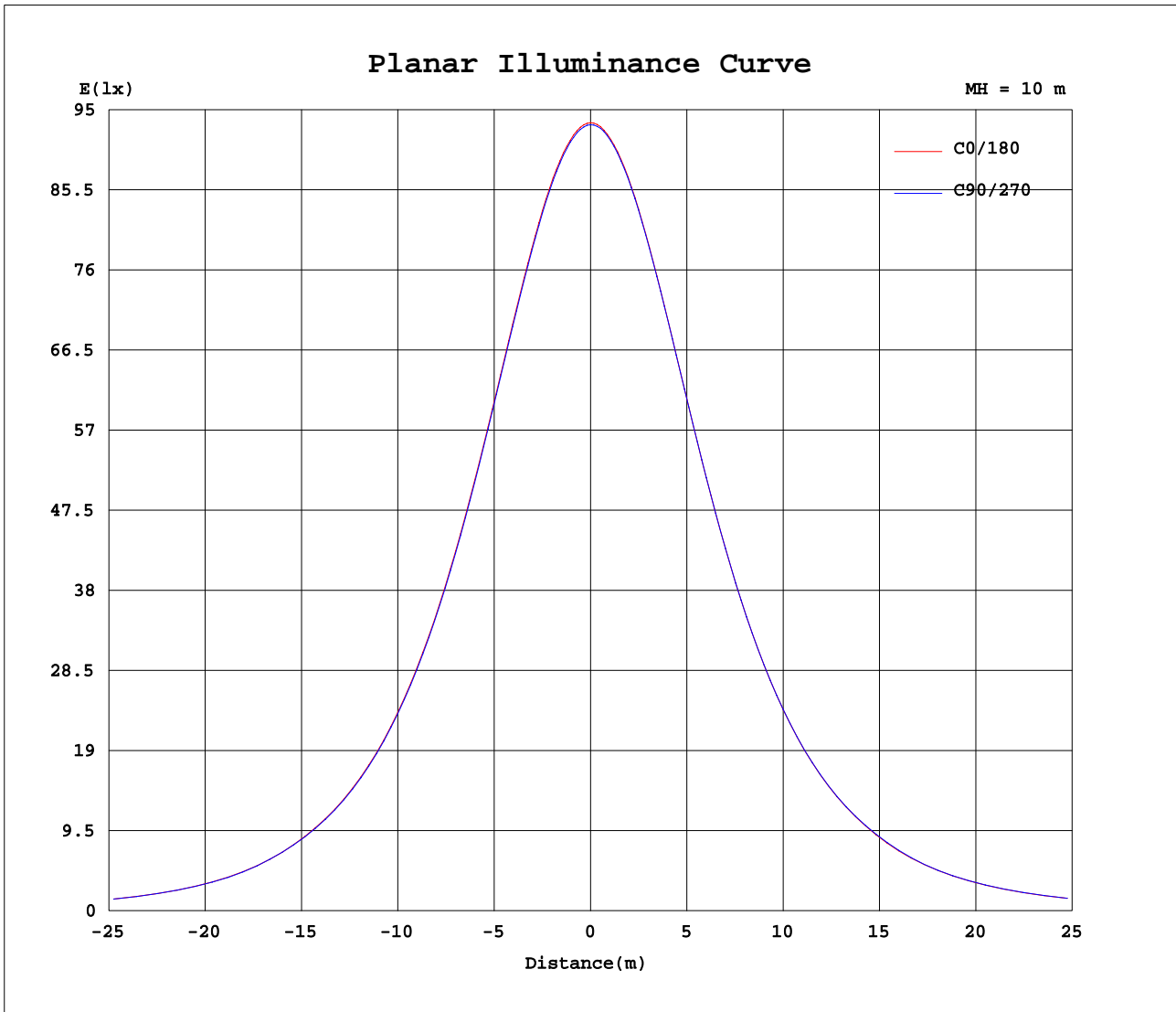
AvgL	cd/m2
L_0~180(65)av	40153
L_0~180(75)av	26696
L_0~180(85)av	3518
L_90~270(65)av	40244
L_90~270(75)av	26721
L_90~270(85)av	5651
L_45(65)av	40227
L_45(75)av	26684
L_45(85)av	4537

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.6DEG
 Operators:Derek Lai
 Test Date:03 January 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.362
 Humidity: 41.7%
 Test Distance:2.500m [K=0.9886]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 24.6DEG
Operators: Derek Lai
Test Date: 03 January 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.0.362
Humidity: 41.7%
Test Distance: 2.500m [K=0.9886]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:277.0V I:0.7027A P:186.0W PF:0.9556 Freq:60.01Hz Lamp Flux:29200x1 lm		
NAME: ASD-UHB2-FS-200D50	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	9325	9325	9325	9325	9325	9325	9325	9325	9325	9325	9325	9325	9325	9325	9325	9325	9325	9325	9325
5	9286	9289	9283	9286	9284	9283	9282	9286	9282	9286	9287	9292	9292	9292	9292	9299	9298	9294	9298
10	9187	9193	9188	9186	9184	9185	9182	9184	9182	9186	9188	9195	9205	9200	9205	9208	9211	9207	9211
15	9033	9041	9033	9034	9027	9026	9024	9029	9020	9029	9030	9040	9054	9050	9055	9059	9065	9058	9065
20	8811	8822	8807	8810	8802	8805	8801	8808	8796	8806	8811	8822	8841	8835	8847	8849	8856	8849	8859
25	8522	8537	8518	8525	8514	8516	8510	8521	8511	8524	8526	8541	8561	8554	8568	8572	8582	8576	8584
30	8168	8186	8164	8168	8151	8156	8152	8163	8153	8168	8174	8190	8213	8204	8226	8225	8239	8232	8240
35	7739	7754	7731	7734	7716	7723	7720	7733	7721	7742	7745	7769	7802	7782	7805	7802	7822	7811	7822
40	7231	7252	7221	7226	7207	7214	7207	7221	7211	7236	7240	7267	7306	7284	7313	7312	7327	7314	7327
45	6640	6665	6633	6639	6618	6629	6616	6634	6625	6652	6657	6681	6730	6707	6740	6735	6754	6740	6755
50	5967	6001	5958	5967	5947	5955	5944	5964	5953	5983	5987	6016	6071	6044	6082	6081	6101	6086	6099
55	5205	5243	5203	5206	5184	5191	5182	5207	5190	5219	5228	5257	5313	5281	5332	5330	5354	5343	5359
60	4257	4284	4243	4264	4257	4285	4262	4270	4244	4259	4262	4304	4380	4345	4373	4368	4403	4393	4410
65	3254	3291	3263	3276	3258	3256	3248	3260	3255	3296	3304	3330	3406	3363	3402	3397	3417	3405	3428
70	2272	2313	2275	2279	2245	2263	2255	2278	2252	2294	2295	2327	2395	2360	2419	2417	2438	2431	2443
75	1295	1337	1288	1301	1262	1283	1265	1301	1288	1325	1319	1356	1417	1376	1432	1411	1463	1426	1449
80	456	500	475	504	477	494	474	503	485	516	509	537	588	565	597	597	618	603	610
85	42.5	50.2	64.3	64.2	81.9	75.4	81.4	76.1	72.3	72.8	78.4	63.7	77.8	69.8	91.1	96.2	113	106	112
90	0.60	0.59	0.60	0.59	0.71	0.59	0.67	0.59	0.61	0.59	0.61	0.64	1.77	1.72	1.84	4.95	1.49	1.24	1.44
95	0.77	0.76	0.77	0.77	0.79	0.78	0.79	0.78	0.78	0.77	0.76	0.74	1.97	2.00	1.97	1.99	1.97	1.98	1.97
100	0.97	0.96	0.96	0.98	1.00	0.99	1.00	0.99	1.00	1.00	0.99	0.95	2.50	2.51	2.50	2.53	2.53	2.54	2.52
105	1.19	1.20	1.16	1.18	1.21	1.21	1.21	1.21	1.23	1.22	1.22	1.17	2.93	2.93	2.91	2.95	2.97	2.99	2.98
110	1.49	1.46	1.43	1.41	1.47	1.49	1.49	1.51	1.52	1.53	1.52	1.45	3.03	3.04	3.07	3.11	3.15	3.17	3.17
115	1.95	1.84	1.81	1.74	1.81	1.87	1.87	1.90	1.91	1.91	1.89	1.85	3.20	3.19	3.18	3.22	3.27	3.28	3.29
120	2.48	2.41	2.32	2.21	2.30	2.29	2.32	2.33	2.35	2.36	2.41	2.37	3.62	3.60	3.52	3.52	3.51	3.53	3.52
125	3.10	3.01	2.86	2.77	2.88	2.73	2.80	2.80	2.85	2.91	2.96	2.92	4.14	4.17	4.04	4.11	4.06	4.08	4.08
130	3.62	3.56	3.53	3.29	3.52	3.44	3.35	3.32	3.47	3.39	3.52	3.52	4.85	4.96	4.90	4.89	4.90	4.86	4.91
135	4.16	4.12	4.07	3.77	3.87	4.04	3.97	3.95	3.94	3.89	3.95	4.07	5.52	5.67	5.68	5.78	5.70	5.64	5.67
140	4.58	4.59	4.45	4.36	4.36	4.46	4.38	4.34	4.33	4.36	4.24	4.43	6.10	6.26	6.28	6.49	6.45	6.36	6.23
145	4.74	4.87	4.81	4.61	4.73	4.67	4.64	4.66	4.72	4.58	4.55	4.69	6.71	6.91	6.89	7.05	7.16	7.07	7.02
150	5.00	5.16	5.12	4.90	4.72	4.86	4.75	4.86	4.86	4.93	4.85	4.89	7.32	7.39	7.39	7.69	7.71	7.63	7.58
155	5.34	5.55	5.59	5.14	4.99	5.10	4.87	5.12	5.22	5.31	5.44	5.13	7.76	7.86	8.16	8.22	8.20	8.12	7.93
160	5.79	5.92	5.82	5.53	5.19	5.22	5.03	5.49	5.61	5.77	5.77	5.63	8.47	8.51	8.62	8.79	8.65	8.52	8.23
165	6.04	6.22	6.17	6.05	5.71	5.70	5.62	5.91	6.10	6.15	6.02	5.98	8.45	8.61	8.72	8.94	8.89	8.63	8.41
170	6.43	6.59	6.58	6.53	5.99	6.07	6.11	6.12	6.33	6.32	6.30	6.35	8.53	8.61	8.72	8.83	8.82	8.40	8.41
175	7.35	7.45	7.44	7.38	6.96	6.90	6.67	6.73	7.00	7.02	7.10	7.18	8.37	8.46	8.50	8.44	8.48	8.05	7.88
180	7.81	7.94	7.93	7.93	7.74	7.63	7.60	7.25	7.34	7.45	7.46	7.66	7.80	7.92	7.91	7.91	7.74	7.63	7.61

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.6DEG
 Operators:Derek Lai
 Test Date:03 January 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.362
 Humidity: 41.7%
 Test Distance:2.500m [K=0.9886]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:277.0V I:0.7027A P:186.0W PF:0.9556 Freq:60.01Hz Lamp Flux:29200x1 lm		
NAME: ASD-UHB2-FS-200D50	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

Table--2

UNIT: cd

C(DEG) γ (DEG)	285	300	315	330	345														
0	9325	9325	9325	9325	9325														
5	9296	9293	9293	9294	9293														
10	9210	9210	9205	9207	9203														
15	9061	9062	9055	9055	9050														
20	8853	8855	8842	8842	8834														
25	8575	8575	8562	8560	8549														
30	8227	8229	8212	8211	8200														
35	7810	7810	7793	7790	7776														
40	7314	7317	7295	7294	7275														
45	6739	6746	6722	6715	6690														
50	6082	6087	6060	6055	6024														
55	5332	5340	5310	5301	5272														
60	4398	4419	4385	4368	4333														
65	3400	3412	3376	3370	3335														
70	2417	2427	2388	2380	2352														
75	1408	1433	1385	1394	1354														
80	593	605	575	563	524														
85	103	107	77.3	67.4	76.2														
90	1.48	1.43	1.91	1.45	1.47														
95	1.99	1.97	2.00	1.99	2.01														
100	2.54	2.52	2.55	2.53	2.53														
105	2.98	2.98	2.97	2.98	2.96														
110	3.15	3.13	3.12	3.07	3.04														
115	3.27	3.25	3.23	3.18	3.21														
120	3.50	3.48	3.47	3.48	3.59														
125	4.02	3.89	3.92	3.91	4.11														
130	4.82	4.69	4.59	4.76	4.84														
135	5.49	5.31	5.39	5.44	5.53														
140	6.05	6.09	6.11	6.09	6.19														
145	6.73	6.76	6.76	6.74	6.82														
150	7.47	7.34	7.48	7.45	7.43														
155	7.99	7.98	8.01	8.26	7.93														
160	8.28	8.25	8.37	8.60	8.53														
165	8.38	8.23	8.39	8.49	8.51														
170	8.31	7.90	8.19	8.39	8.31														
175	7.95	7.67	8.02	8.14	8.21														
180	7.24	7.34	7.44	7.46	7.65														

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.6DEG
 Operators:Derek Lai
 Test Date:03 January 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.362
 Humidity: 41.7%
 Test Distance:2.500m [K=0.9886]
 Remarks:

Photometric Data Table [cd]

G/C	0.0	15.0	30.0	45.0	60.0	75.0	90.0	105.0	120.0	135.0
0.0	9325	9325	9325	9325	9325	9325	9325	9325	9325	9325
3.0	9309	9312	9309	9312	9308	9307	9308	9309	9306	9309
6.0	9267	9273	9269	9271	9268	9267	9269	9270	9265	9270
9.0	9210	9216	9211	9212	9207	9205	9207	9209	9204	9207
12.0	9135	9140	9133	9134	9129	9128	9127	9132	9127	9131
15.0	9033	9041	9033	9034	9027	9026	9024	9029	9020	9029
18.0	8909	8918	8904	8907	8901	8898	8898	8905	8894	8904
21.0	8762	8771	8756	8760	8751	8753	8749	8755	8745	8756
24.0	8585	8599	8582	8588	8577	8579	8575	8582	8572	8586
27.0	8388	8404	8385	8391	8377	8380	8376	8386	8374	8390
30.0	8168	8186	8164	8168	8151	8156	8152	8163	8153	8168
33.0	7921	7938	7913	7912	7903	7903	7901	7913	7902	7922
36.0	7644	7662	7635	7638	7623	7628	7623	7634	7628	7647
39.0	7339	7359	7329	7334	7315	7324	7318	7330	7319	7344
42.0	7005	7028	6996	7001	6980	6989	6981	6995	6987	7012
45.0	6640	6665	6633	6639	6618	6629	6616	6634	6625	6652
48.0	6245	6277	6239	6246	6227	6235	6223	6242	6233	6262
51.0	5821	5856	5817	5822	5800	5809	5798	5818	5810	5837
54.0	5363	5401	5362	5365	5345	5349	5343	5365	5354	5384
57.0	4857	4893	4855	4855	4840	4852	4853	4861	4829	4853
60.0	4257	4284	4243	4264	4257	4285	4262	4270	4244	4259
63.0	3656	3691	3659	3677	3666	3662	3642	3661	3659	3682
66.0	3053	3096	3066	3077	3052	3055	3048	3062	3054	3098
69.0	2466	2510	2475	2480	2446	2457	2451	2474	2451	2502
72.0	1861	1907	1842	1867	1824	1859	1830	1876	1847	1889
75.0	1295	1337	1288	1301	1262	1283	1265	1301	1288	1325
78.0	775.9	808.4	774.7	782.4	764.7	772.2	769.0	784.0	778.4	801.0
81.0	318.8	363.3	350.2	383.8	362.0	377.0	360.6	386.2	369.7	398.7
84.0	73.21	94.20	93.35	112.3	114.9	120.7	113.9	123.5	116.8	124.9
87.0	8.394	16.99	6.956	22.73	17.32	37.79	16.36	38.16	17.29	26.56
90.0	0.5977	0.5870	0.5978	0.5892	0.7076	0.5921	0.6732	0.5883	0.6119	0.5884
93.0	0.6896	0.6820	0.6923	0.6962	0.7063	0.6983	0.7041	0.6927	0.6981	0.6859
96.0	0.8081	0.7986	0.8110	0.8136	0.8288	0.8209	0.8275	0.8169	0.8211	0.8087
99.0	0.9287	0.9226	0.9242	0.9401	0.9581	0.9514	0.9556	0.9497	0.9591	0.9501
102.0	1.059	1.057	1.037	1.059	1.078	1.082	1.088	1.083	1.094	1.090
105.0	1.193	1.195	1.165	1.183	1.211	1.212	1.211	1.211	1.229	1.224
108.0	1.347	1.339	1.312	1.321	1.360	1.362	1.364	1.376	1.396	1.382
111.0	1.561	1.530	1.489	1.461	1.529	1.554	1.557	1.574	1.593	1.588
114.0	1.831	1.734	1.719	1.653	1.712	1.786	1.786	1.815	1.827	1.826
117.0	2.155	2.069	2.010	1.921	2.007	2.038	2.048	2.059	2.088	2.085
120.0	2.485	2.409	2.324	2.213	2.304	2.290	2.319	2.328	2.355	2.363
123.0	2.851	2.759	2.673	2.540	2.641	2.520	2.610	2.597	2.645	2.660
126.0	3.211	3.134	2.969	2.873	3.004	2.860	2.913	2.893	2.937	3.033
129.0	3.516	3.455	3.393	3.194	3.405	3.275	3.232	3.193	3.326	3.305
132.0	3.843	3.792	3.761	3.496	3.672	3.738	3.642	3.616	3.676	3.596
135.0	4.163	4.121	4.066	3.773	3.870	4.039	3.972	3.949	3.936	3.894
138.0	4.420	4.423	4.315	4.178	4.191	4.285	4.232	4.165	4.174	4.181
141.0	4.630	4.662	4.532	4.400	4.434	4.521	4.474	4.416	4.403	4.436
144.0	4.711	4.821	4.737	4.538	4.694	4.646	4.574	4.603	4.672	4.542
147.0	4.824	4.980	4.928	4.734	4.738	4.735	4.691	4.773	4.783	4.700
150.0	4.996	5.160	5.117	4.899	4.719	4.858	4.752	4.858	4.863	4.930
153.0	5.210	5.398	5.432	5.069	4.841	4.986	4.865	5.009	5.077	5.177
156.0	5.439	5.630	5.665	5.185	5.025	5.145	4.861	5.189	5.295	5.372
159.0	5.759	5.884	5.793	5.430	5.149	5.200	4.966	5.427	5.544	5.679
162.0	5.824	5.985	5.893	5.711	5.330	5.286	5.136	5.582	5.747	5.911
165.0	6.037	6.223	6.167	6.054	5.705	5.695	5.623	5.907	6.100	6.153
168.0	6.351	6.529	6.483	6.425	6.032	6.008	5.982	6.210	6.380	6.344
171.0	6.423	6.577	6.556	6.527	5.994	6.114	6.107	6.020	6.290	6.292
174.0	7.065	7.122	7.105	7.086	6.652	6.629	6.440	6.454	6.741	6.758
177.0	7.595	7.774	7.713	7.703	7.337	7.337	7.048	6.994	7.286	7.249
180.0	7.812	7.944	7.927	7.925	7.736	7.632	7.598	7.252	7.337	7.450
G/C	150.0	165.0	180.0	195.0	210.0	225.0	240.0	255.0	270.0	285.0
0.0	9325	9325	9325	9325	9325	9325	9325	9325	9325	9325
3.0	9310	9313	9314	9314	9315	9315	9319	9314	9320	9315
6.0	9271	9276	9278	9278	9280	9282	9283	9282	9285	9282
9.0	9210	9218	9227	9223	9229	9231	9233	9230	9233	9231
12.0	9132	9142	9151	9149	9156	9158	9161	9158	9163	9158
15.0	9030	9040	9054	9050	9055	9059	9065	9058	9065	9061
18.0	8906	8917	8935	8927	8938	8940	8946	8942	8949	8944
21.0	8758	8773	8793	8783	8800	8797	8805	8800	8808	8803
24.0	8586	8604	8624	8614	8632	8632	8642	8636	8643	8637
27.0	8394	8406	8432	8423	8437	8440	8452	8448	8455	8445
30.0	8174	8190	8213	8204	8226	8225	8239	8232	8240	8227

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.6DEG
 Operators:Derek Lai
 Test Date:03 January 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.362
 Humidity: 41.7%
 Test Distance:2.500m [K=0.9886]
 Remarks:

Photometric Data Table [cd]

33.0	7926	7944	7974	7961	7981	7980	8000	7991	7996	7984
36.0	7652	7673	7708	7689	7712	7710	7728	7718	7729	7714
39.0	7348	7374	7412	7391	7417	7415	7430	7421	7431	7419
42.0	7016	7044	7086	7062	7091	7091	7106	7095	7109	7093
45.0	6657	6681	6730	6707	6740	6735	6754	6740	6755	6739
48.0	6267	6291	6344	6320	6355	6350	6371	6357	6371	6355
51.0	5844	5873	5929	5902	5941	5939	5961	5944	5958	5939
54.0	5395	5421	5476	5446	5490	5492	5512	5501	5513	5490
57.0	4859	4890	4955	4923	4968	4972	4999	4991	5013	4987
60.0	4262	4304	4380	4345	4373	4368	4403	4393	4410	4398
63.0	3698	3728	3800	3762	3800	3781	3816	3802	3827	3802
66.0	3104	3128	3206	3164	3205	3201	3216	3210	3228	3201
69.0	2510	2540	2608	2569	2619	2616	2629	2629	2638	2610
72.0	1872	1916	1973	1937	1979	1992	2026	2011	2019	1988
75.0	1319	1356	1417	1376	1432	1411	1463	1426	1449	1408
78.0	807.3	827.3	887.1	847.3	888.1	881.8	913.6	890.9	905.2	877.6
81.0	391.2	408.5	453.8	424.0	463.2	455.0	479.6	460.1	472.8	450.9
84.0	111.8	116.8	161.2	126.0	177.2	161.4	197.1	167.3	194.1	161.1
87.0	12.34	22.21	28.37	14.79	33.01	40.12	47.24	43.16	46.30	37.22
90.0	0.6069	0.6434	1.767	1.720	1.837	4.955	1.495	1.243	1.436	1.476
93.0	0.6815	0.6638	1.751	1.780	1.751	1.765	1.744	1.753	1.744	1.762
96.0	0.8106	0.7825	2.083	2.109	2.087	2.100	2.080	2.094	2.082	2.103
99.0	0.9448	0.9087	2.402	2.420	2.411	2.438	2.428	2.434	2.418	2.436
102.0	1.083	1.038	2.678	2.692	2.678	2.718	2.718	2.732	2.715	2.732
105.0	1.216	1.166	2.932	2.925	2.913	2.955	2.974	2.988	2.979	2.984
108.0	1.384	1.331	2.994	2.999	3.024	3.070	3.097	3.111	3.113	3.108
111.0	1.588	1.522	3.050	3.058	3.088	3.133	3.168	3.189	3.187	3.175
114.0	1.813	1.757	3.147	3.150	3.153	3.196	3.239	3.256	3.261	3.244
117.0	2.084	2.044	3.300	3.316	3.281	3.306	3.334	3.357	3.360	3.339
120.0	2.406	2.369	3.619	3.597	3.515	3.523	3.509	3.525	3.525	3.500
123.0	2.728	2.693	3.896	3.910	3.789	3.826	3.806	3.800	3.791	3.781
126.0	3.068	3.034	4.277	4.324	4.185	4.257	4.204	4.221	4.281	4.167
129.0	3.404	3.402	4.705	4.791	4.722	4.715	4.713	4.686	4.755	4.640
132.0	3.742	3.771	5.169	5.259	5.247	5.247	5.224	5.227	5.268	5.146
135.0	3.950	4.067	5.517	5.670	5.681	5.780	5.702	5.642	5.673	5.490
138.0	4.122	4.307	5.852	6.024	6.045	6.231	6.164	6.076	5.948	5.801
141.0	4.304	4.479	6.200	6.386	6.403	6.602	6.594	6.509	6.364	6.169
144.0	4.506	4.647	6.548	6.763	6.785	6.935	7.038	6.918	6.867	6.565
147.0	4.646	4.764	6.973	7.151	7.076	7.300	7.397	7.308	7.301	7.129
150.0	4.851	4.886	7.319	7.395	7.392	7.694	7.712	7.631	7.579	7.474
153.0	5.203	5.021	7.566	7.616	7.873	8.020	7.992	7.941	7.816	7.773
156.0	5.553	5.247	7.867	8.020	8.294	8.325	8.294	8.168	7.965	8.051
159.0	5.747	5.585	8.340	8.444	8.577	8.687	8.576	8.443	8.156	8.257
162.0	5.824	5.702	8.471	8.511	8.632	8.859	8.732	8.556	8.238	8.241
165.0	6.021	5.979	8.452	8.611	8.717	8.941	8.891	8.626	8.406	8.378
168.0	6.292	6.316	8.546	8.717	8.837	8.958	8.958	8.583	8.507	8.366
171.0	6.269	6.318	8.492	8.578	8.685	8.763	8.747	8.313	8.315	8.268
174.0	6.785	6.862	8.396	8.500	8.535	8.488	8.548	8.136	7.895	8.035
177.0	7.402	7.533	8.185	8.296	8.337	8.269	8.248	7.896	7.816	7.706
180.0	7.460	7.657	7.805	7.924	7.915	7.911	7.744	7.632	7.606	7.237
G/C	300.0	315.0	330.0	345.0						
0.0	9325	9325	9325	9325						
3.0	9314	9316	9315	9316						
6.0	9282	9280	9280	9279						
9.0	9231	9226	9228	9226						
12.0	9160	9154	9154	9150						
15.0	9062	9055	9055	9050						
18.0	8946	8936	8936	8927						
21.0	8805	8792	8790	8782						
24.0	8635	8624	8622	8610						
27.0	8446	8431	8428	8419						
30.0	8229	8212	8211	8200						
33.0	7987	7970	7967	7955						
36.0	7718	7700	7696	7682						
39.0	7423	7401	7402	7382						
42.0	7099	7073	7074	7052						
45.0	6746	6722	6715	6690						
48.0	6361	6334	6329	6300						
51.0	5946	5919	5911	5880						
54.0	5495	5467	5458	5429						
57.0	5002	4968	4961	4936						
60.0	4419	4385	4368	4333						
63.0	3818	3781	3770	3727						
66.0	3212	3172	3168	3136						

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.6DEG
 Operators:Derek Lai
 Test Date:03 January 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.362
 Humidity: 41.7%
 Test Distance:2.500m [K=0.9886]
 Remarks:

Photometric Data Table [cd]

69.0	2622	2582	2575	2548
72.0	2002	1963	1953	1931
75.0	1433	1385	1394	1354
78.0	891.9	855.1	863.3	825.9
81.0	469.1	434.6	422.0	372.7
84.0	189.9	135.6	120.2	95.11
87.0	42.47	46.73	23.40	39.04
90.0	1.431	1.909	1.450	1.472
93.0	1.747	1.775	1.767	1.786
96.0	2.086	2.113	2.104	2.123
99.0	2.419	2.447	2.432	2.440
102.0	2.714	2.731	2.734	2.716
105.0	2.976	2.970	2.978	2.957
108.0	3.090	3.075	3.038	3.009
111.0	3.154	3.144	3.084	3.062
114.0	3.223	3.202	3.152	3.165
117.0	3.316	3.295	3.281	3.342
120.0	3.480	3.471	3.477	3.593
123.0	3.698	3.686	3.698	3.856
126.0	4.013	4.042	4.072	4.247
129.0	4.514	4.447	4.582	4.677
132.0	4.919	4.899	5.052	5.165
135.0	5.312	5.391	5.439	5.530
138.0	5.750	5.876	5.792	5.890
141.0	6.258	6.230	6.220	6.303
144.0	6.703	6.618	6.626	6.660
147.0	6.959	7.057	6.967	7.059
150.0	7.335	7.481	7.445	7.428
153.0	7.736	7.816	7.970	7.749
156.0	8.045	8.087	8.404	8.088
159.0	8.169	8.297	8.574	8.471
162.0	8.276	8.389	8.520	8.522
165.0	8.226	8.385	8.495	8.509
168.0	8.120	8.301	8.496	8.425
171.0	7.873	8.171	8.375	8.315
174.0	7.754	8.072	8.206	8.258
177.0	7.545	7.793	7.826	7.927
180.0	7.335	7.444	7.462	7.647

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.6DEG
 Operators: Derek Lai
 Test Date: 03 January 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.0.362
 Humidity: 41.7%
 Test Distance: 2.500m [K=0.9886]
 Remarks: