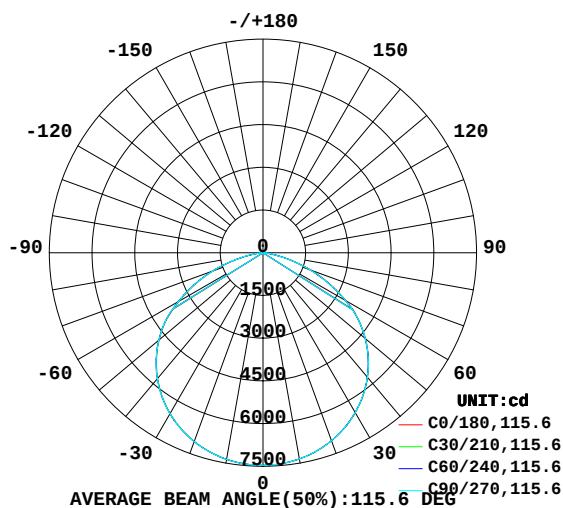


LUMINAIRE PHOTOMETRIC TEST REPORT

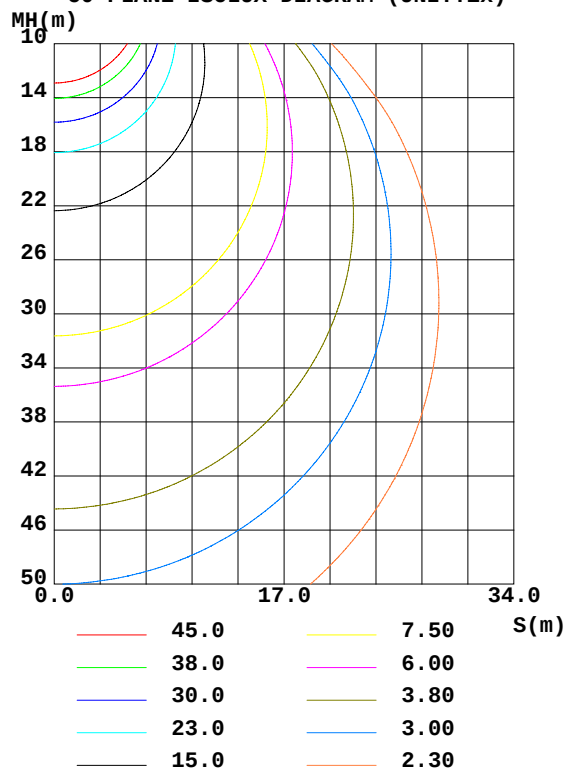
Test:U:277.0V I:0.5761A P:149.1W PF:0.9344 Freq:60.01Hz Lamp Flux:21900x1 lm		
NAME:ASD-UHB2-FS-150D50	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:ASD Lighting Corp	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 142.80 lm/W			
MODEL	ASD-UHB2-FS-150D50	I _{max} (cd)	7465	S/MH(C0/180)	1.30
NOMINAL POWER(W)	150	LOR(%)	100.0	S/MH(C90/270)	1.30
RATED VOLTAGE(V)	100-277	TOTAL FLUX(lm)	21900	η UP, DN(C0-180)	0.0, 49.6
NOMINAL FLUX(lm)	21900	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.1, 50.3
LAMPS INSIDE	1	η up(%)	0.1	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	277	η down(%)	99.9	CIBSE SHR MAX	1.35

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators:Derek Lai
 Test Date:03 January 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-R5000_V2 SYSTEM V2.0.362
 Humidity: 44.8%
 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	7353	7355	7349	7356	7366	7366	7370	7362	0- 10	707.4	707.4	3.32, 3.32
20	7028	7032	7024	7038	7051	7051	7058	7043	10- 20	2041	2749	12.9, 12.9
30	6484	6488	6478	6500	6519	6519	6529	6507	20- 30	3135	5884	27.6, 27.6
40	5712	5716	5702	5732	5761	5759	5770	5743	30- 40	3847	9731	45.7, 45.7
50	4698	4701	4686	4722	4760	4759	4776	4736	40- 50	4058	13789	64.8, 64.8
60	3362	3347	3330	3362	3404	3415	3426	3388	50- 60	3668	17457	82, 82
70	1795	1806	1765	1815	1856	1866	1892	1842	60- 70	2574	20030	94.1, 94.1
80	348.4	393.3	371.0	409.0	436.0	427.5	459.9	413.8	70- 80	1128	21158	99.4, 99.4
90	0.4296	0.4258	0.4361	0.4260	1.269	1.240	1.095	1.116	80- 90	119.1	21277	99.9, 99.9
100	0.7152	0.7241	0.7405	0.7353	1.931	1.953	1.942	1.968	90-100	1.144	21278	99.9, 99.9
110	1.117	1.055	1.118	1.139	2.338	2.404	2.445	2.413	100-110	1.660	21280	99.9, 99.9
120	1.897	1.679	1.766	1.796	2.802	2.726	2.722	2.684	110-120	1.953	21282	99.9, 99.9
130	2.800	2.532	2.586	2.613	3.772	3.804	3.809	3.581	120-130	2.408	21284	100, 100
140	3.555	3.385	3.403	3.386	4.768	5.078	4.865	4.784	130-140	2.858	21287	100, 100
150	3.896	3.827	3.709	3.845	5.763	6.064	5.955	5.904	140-150	2.830	21290	100, 100
160	4.544	4.338	3.941	4.524	6.681	6.954	6.500	6.610	150-160	2.404	21292	100, 100
170	5.060	5.138	4.801	4.974	6.743	6.981	6.652	6.493	160-170	1.615	21294	100, 100
180	6.153	6.249	6.008	5.880	6.157	6.235	6.013	5.876	170-180	0.5636	21294	100, 100
DEG	LUMINOUS INTENSITY:cd Less than 35% Percent = 11.1 %									UNIT:lm		

Conical surface Flux(90deg): 11768 lm

%lum = 55.3%

%lamp = 55.3%

Conical surface Flux(120deg): 17457 lm

%lum = 82.0%

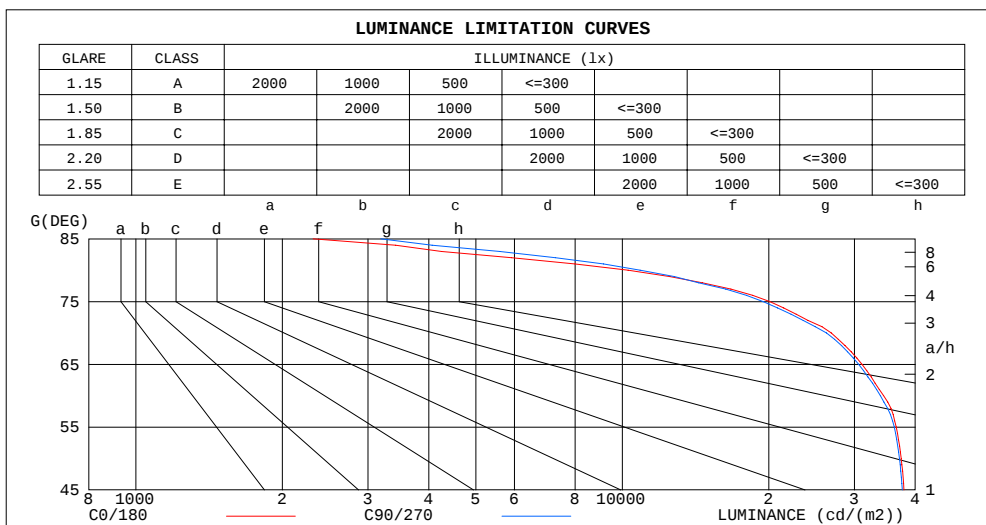
%lamp = 82.0%

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators:Derek Lai
 Test Date:03 January 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-R5000_V2 SYSTEM V2.0.362
 Humidity: 44.8%
 Test Distance:2.500m [K=0.9886]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:277.0V I:0.5761A P:149.1W PF:0.9344 Freq:60.01Hz Lamp Flux:21900x1 lm		
NAME: ASD-UHB2-FS-150D50	TYPE: LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	2314	3188
80	10277	10880
75	20100	19469
70	26875	26279
65	31101	30596
60	34437	33922
55	36552	36222
50	37434	37128
45	37925	37631

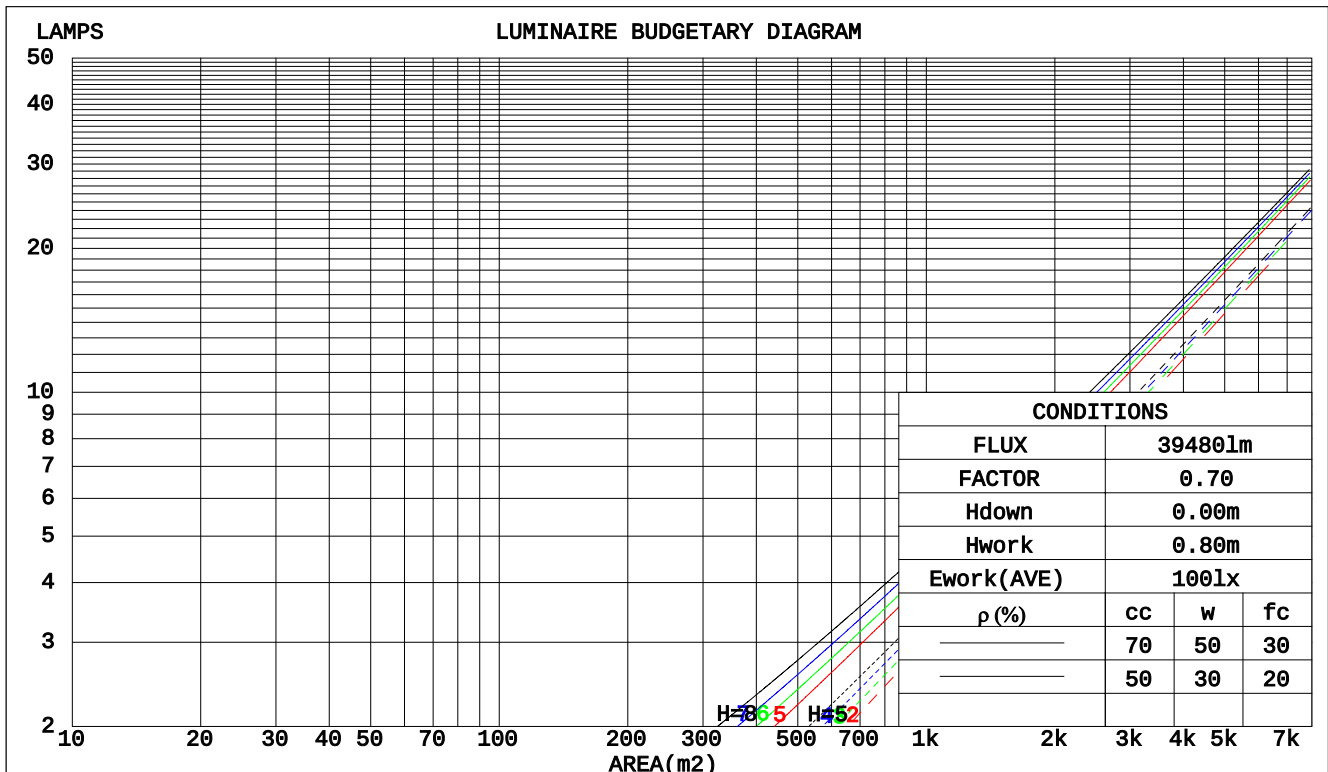
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators: Derek Lai
 Test Date: 03 January 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE G0-R5000_V2 SYSTEM V2.0.362
 Humidity: 44.8%
 Test Distance: 2.50m [K=0.9886]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:277.0V I:0.5761A P:149.1W PF:0.9344 Freq:60.01Hz Lamp Flux:21900x1 lm		
NAME.: ASD-UHB2-FS-150D50	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	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	.95	.92	.90	.91	.89	.87	.85
2.0	.92	.85	.80	.90	.84	.79	.86	.81	.77	.83	.79	.75	.80	.77	.73	.71
3.0	.81	.73	.66	.79	.72	.66	.76	.70	.65	.73	.68	.63	.71	.66	.62	.60
4.0	.71	.63	.56	.70	.62	.56	.68	.61	.55	.65	.59	.54	.63	.58	.54	.51
5.0	.64	.55	.48	.63	.54	.48	.61	.53	.48	.59	.52	.47	.57	.51	.46	.44
6.0	.57	.48	.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	.43	.35	.30	.43	.35	.30	.42	.34	.29	.41	.34	.29	.40	.34	.29	.27
10.0	.40	.32	.27	.39	.32	.27	.38	.31	.27	.38	.31	.27	.37	.31	.26	.25



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.0DEG
Operators:Derek Lai
Test Date:03 January 2019

```

Range: 0 - 180DEG
Interval: 1.0DEG
Test System:EVERFINE G0-R5000_V2 SYSTEM V2.0.362
Humidity: 44.8%
Test Distance:2.500m [K=0.9886]
Remarks:

```

WEC AND CCEC

Test:U:277.0V I:0.5761A P:149.1W PF:0.9344 Freq:60.01Hz Lamp Flux:21900x1 lm					
NAME: : ASD-UHB2-FS-150D50			TYPE:LED		WEIGHT:
SPEC.:			DIM.:		SERIAL No.:
MFR.: ASD Lighting Corp			SUR.:		Shielding Angle:

ρ _{CC}	80%			70%			50%			30%			10%			0	
ρ _W	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
ρ _{fc}	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.288	.164	.052	.281	.160	.051	.268	.154	.049	.256	.148	.047	.245	.142	.046		
2.0	.279	.153	.047	.272	.150	.046	.261	.145	.045	.250	.140	.044	.240	.136	.043		
3.0	.261	.139	.042	.256	.137	.041	.246	.133	.040	.236	.129	.040	.227	.126	.039		
4.0	.243	.126	.037	.239	.125	.037	.229	.122	.036	.221	.119	.036	.213	.116	.035		
5.0	.226	.115	.033	.222	.114	.033	.214	.111	.033	.206	.109	.032	.199	.106	.032		
6.0	.211	.106	.030	.207	.105	.030	.200	.102	.030	.193	.100	.029	.187	.098	.029		
7.0	.197	.097	.028	.193	.096	.027	.187	.094	.027	.181	.093	.027	.175	.091	.027		
8.0	.184	.090	.025	.181	.089	.025	.175	.088	.025	.170	.086	.025	.165	.085	.025		
9.0	.173	.084	.023	.170	.083	.023	.165	.082	.023	.160	.080	.023	.155	.079	.023		
10.0	.163	.078	.022	.160	.077	.022	.156	.076	.021	.151	.075	.021	.147	.074	.021		

ρ _{CC}	80%			70%			50%			30%			10%			0
ρ _W	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ _{fc}	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	.179	.157	.137	.154	.135	.118	.105	.093	.081	.060	.054	.047	.019	.017	.015	
2.0	.171	.133	.100	.147	.114	.087	.100	.079	.060	.058	.046	.035	.019	.015	.012	
3.0	.163	.115	.076	.140	.099	.066	.096	.069	.046	.056	.040	.027	.018	.013	.009	
4.0	.156	.101	.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	.029	.015	.016	.010	.005	
7.0	.135	.076	.034	.116	.066	.030	.080	.046	.021	.047	.027	.013	.015	.009	.004	
8.0	.129	.070	.030	.111	.061	.026	.077	.043	.018	.045	.025	.011	.014	.008	.004	
9.0	.123	.065	.026	.106	.056	.023	.073	.040	.016	.043	.023	.010	.014	.008	.003	
10.0	.117	.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: 25.0DEG
 Operators:Derek Lai
 Test Date:03 January 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-R5000_V2 SYSTEM V2.0.362
 Humidity: 44.8%
 Test Distance:2.500m [K=0.9886]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:277.0V I:0.5761A P:149.1W PF:0.9344 Freq:60.01Hz Lamp Flux:21900x1 lm										
NAME: : ASD-UHB2-FS-150D50					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	15.0	16.5	16.7
3H	16.0	17.4	16.3	17.7	17.9	16.0	17.3	16.3	17.6	17.8
4H	16.4	17.7	16.7	17.9	18.2	16.3	17.6	16.6	17.8	18.1
6H	16.4	17.7	16.8	17.9	18.2	16.3	17.6	16.7	17.8	18.1
8H	16.4	17.6	16.7	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	17.1
3H	16.7	17.8	17.0	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	17.1	18.1	17.5	18.4	18.8
8H	17.2	18.1	17.6	18.4	18.8	17.1	18.0	17.6	18.4	18.7
12H	17.2	18.0	17.6	18.3	18.8	17.1	17.9	17.5	18.3	18.7
8H 4H	17.2	18.1	17.6	18.4	18.8	17.1	18.0	17.5	18.3	18.7
6H	17.4	18.1	17.8	18.5	18.9	17.3	18.0	17.8	18.4	18.8
8H	17.4	18.0	17.8	18.4	18.9	17.3	17.9	17.8	18.4	18.8
12H	17.4	17.9	17.8	18.3	18.8	17.3	17.8	17.8	18.3	18.7
12H 4H	17.2	18.0	17.6	18.3	18.7	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	18.3	18.8
8H	17.4	17.9	17.9	18.4	18.8	17.3	17.8	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	+ 0.3 / - 0.4					+ 0.4 / - 0.4				

CIE Pub.117, 21294 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 10.6$)

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators:Derek Lai
 Test Date:03 January 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-R5000_V2 SYSTEM V2.0.362
 Humidity: 44.8%
 Test Distance:2.500m [K=0.9886]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:277.0V I:0.5761A P:149.1W PF:0.9344 Freq:60.01Hz Lamp Flux:21900x1 lm		
NAME: : ASD-UHB2-FS-150D50	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

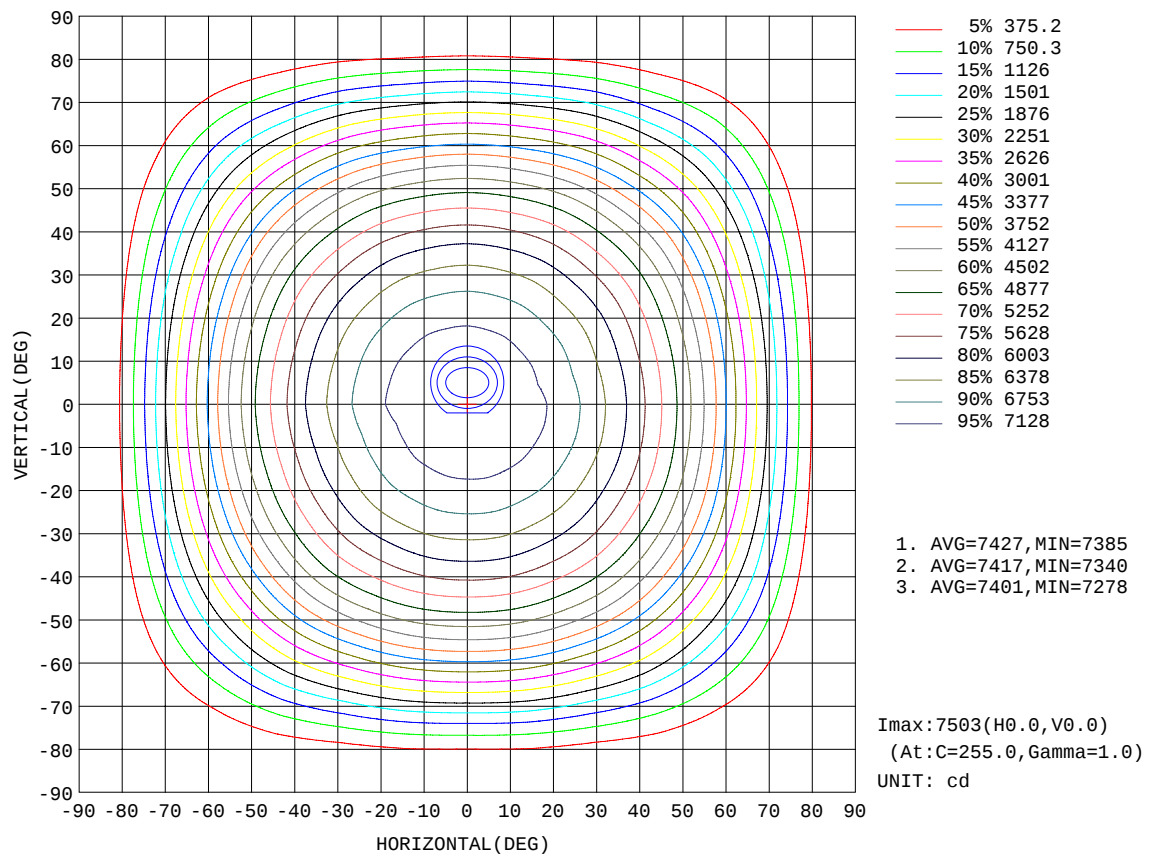
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	58	46	39	57	46	39	56	46	39	33
0.80	68	57	49	67	56	49	65	55	49	42
1.00	77	66	59	76	65	59	74	67	58	51
1.25	84	74	67	83	73	67	80	72	66	59
1.50	89	80	73	88	79	72	85	77	71	64
2.00	96	88	82	94	87	81	91	85	79	72
2.50	100	93	87	98	91	86	94	89	84	76
3.00	103	97	92	101	95	90	97	92	88	80
4.00	107	102	97	105	100	96	101	97	93	85
5.00	109	105	101	107	103	100	103	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: 25.0DEG
 Operators:Derek Lai
 Test Date:03 January 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-R5000_V2 SYSTEM V2.0.362
 Humidity: 44.8%
 Test Distance:2.500m [K=0.9886]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:277.0V I:0.5761A P:149.1W PF:0.9344 Freq:60.01Hz Lamp Flux:21900x1 lm		
NAME.: ASD-UHB2-FS-150D50	TYPE: LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

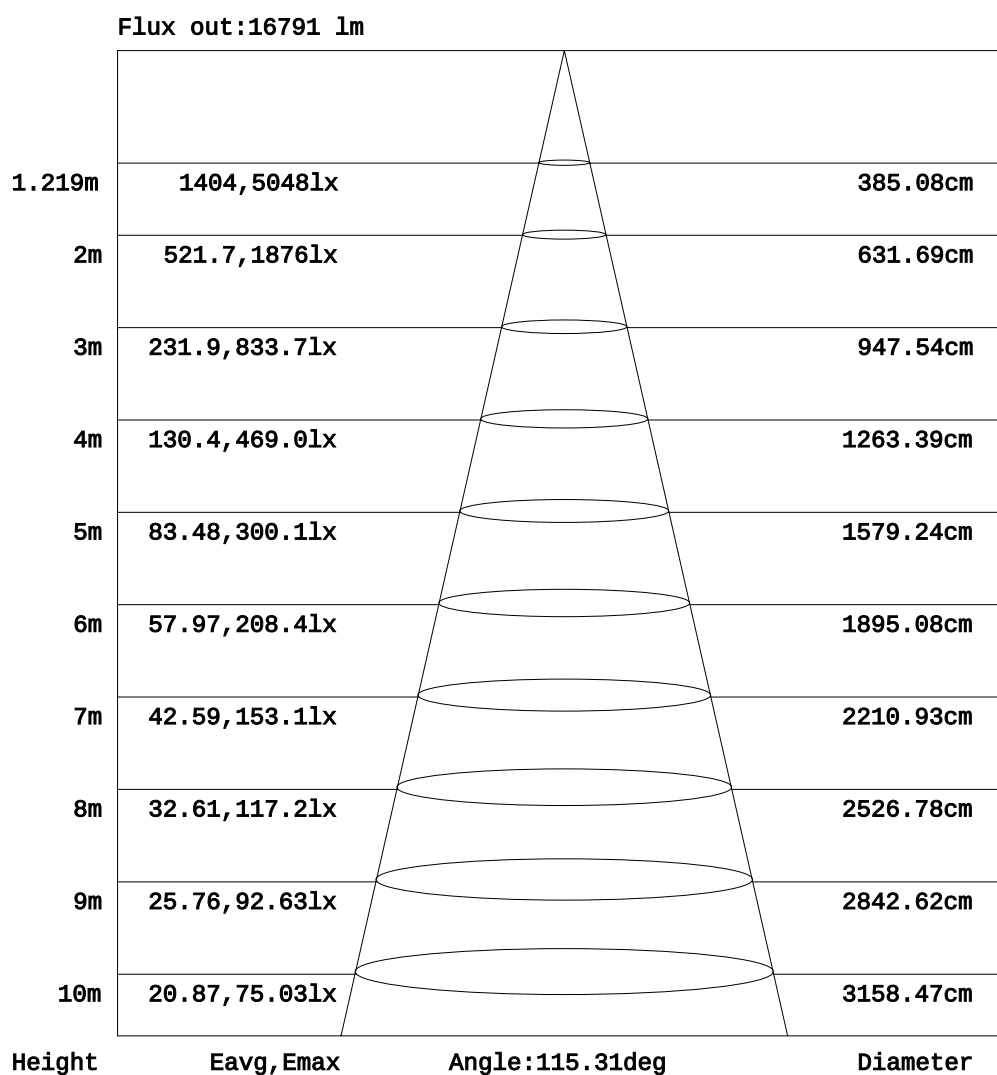


C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators: Derek Lai
 Test Date: 03 January 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE G0-R5000_V2 SYSTEM V2.0.362
 Humidity: 44.8%
 Test Distance: 2.500m [K=0.9886]
 Remarks:

AAI Figure

Test:U:277.0V I:0.5761A P:149.1W PF:0.9344 Freq:60.01Hz Lamp Flux:21900x1 lm		
NAME.: ASD-UHB2-FS-150D50	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



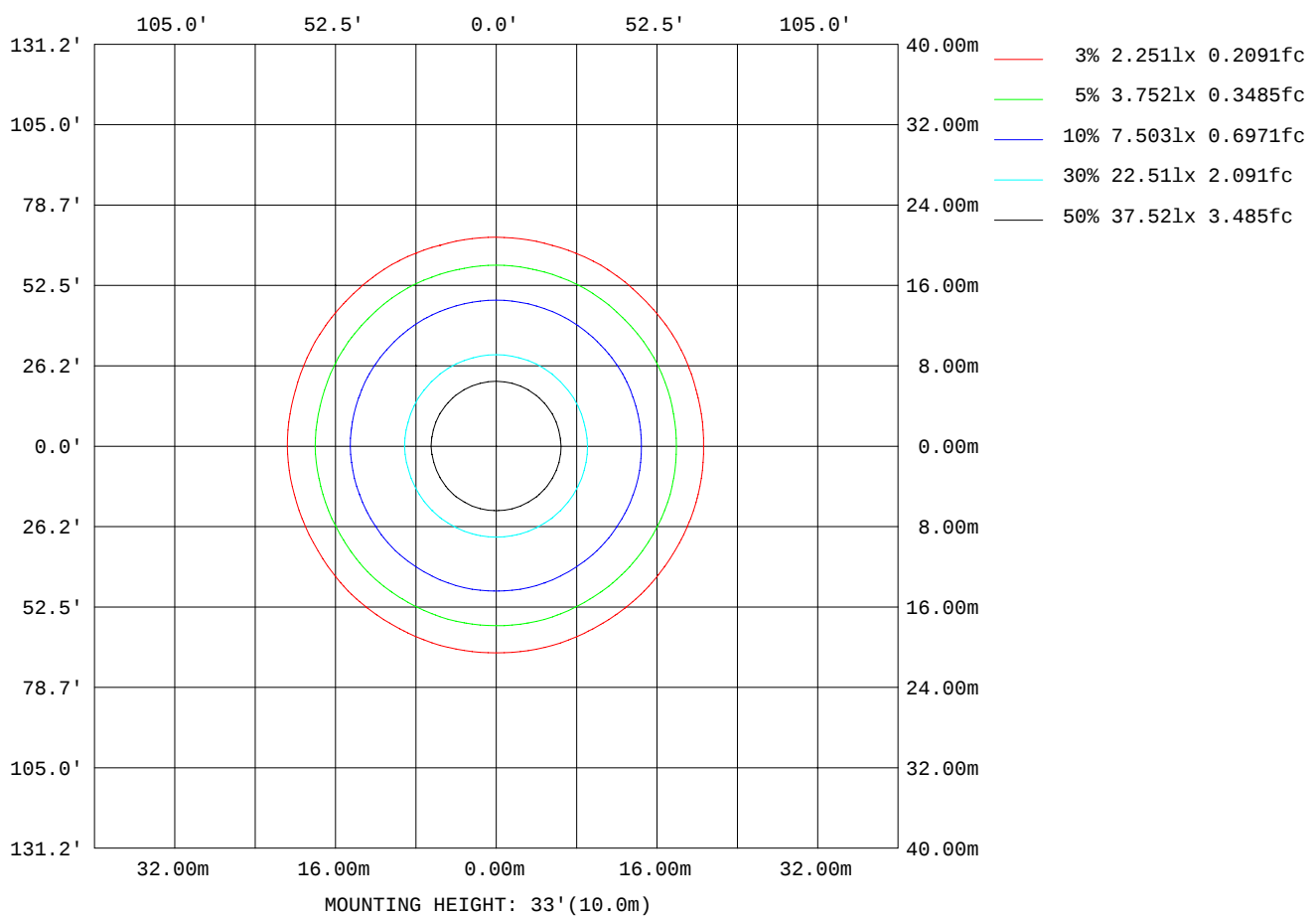
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators: Derek Lai
 Test Date: 03 January 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE G0-R5000_V2 SYSTEM V2.0.362
 Humidity: 44.8%
 Test Distance: 2.500m [K=0.9886]
 Remarks:

ISOLUX DIAGRAM

Test:U:277.0V I:0.5761A P:149.1W PF:0.9344 Freq:60.01Hz Lamp Flux:21900x1 lm		
NAME.: ASD-UHB2-FS-150D50	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: 25.0DEG
Operators:Derek Lai
Test Date:03 January 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 γ Test System:EVERFINE G0-R5000_V2 SYSTEM V2.0.362
Humidity: 44.8%
Test Distance:2.500m [K=0.9886]
Remarks:

LED Avg.L Report

Test:U:277.0V I:0.5761A P:149.1W PF:0.9344 Freq:60.01Hz Lamp Flux:21900x1 lm		
NAME: : ASD-UHB2-FS-150D50	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

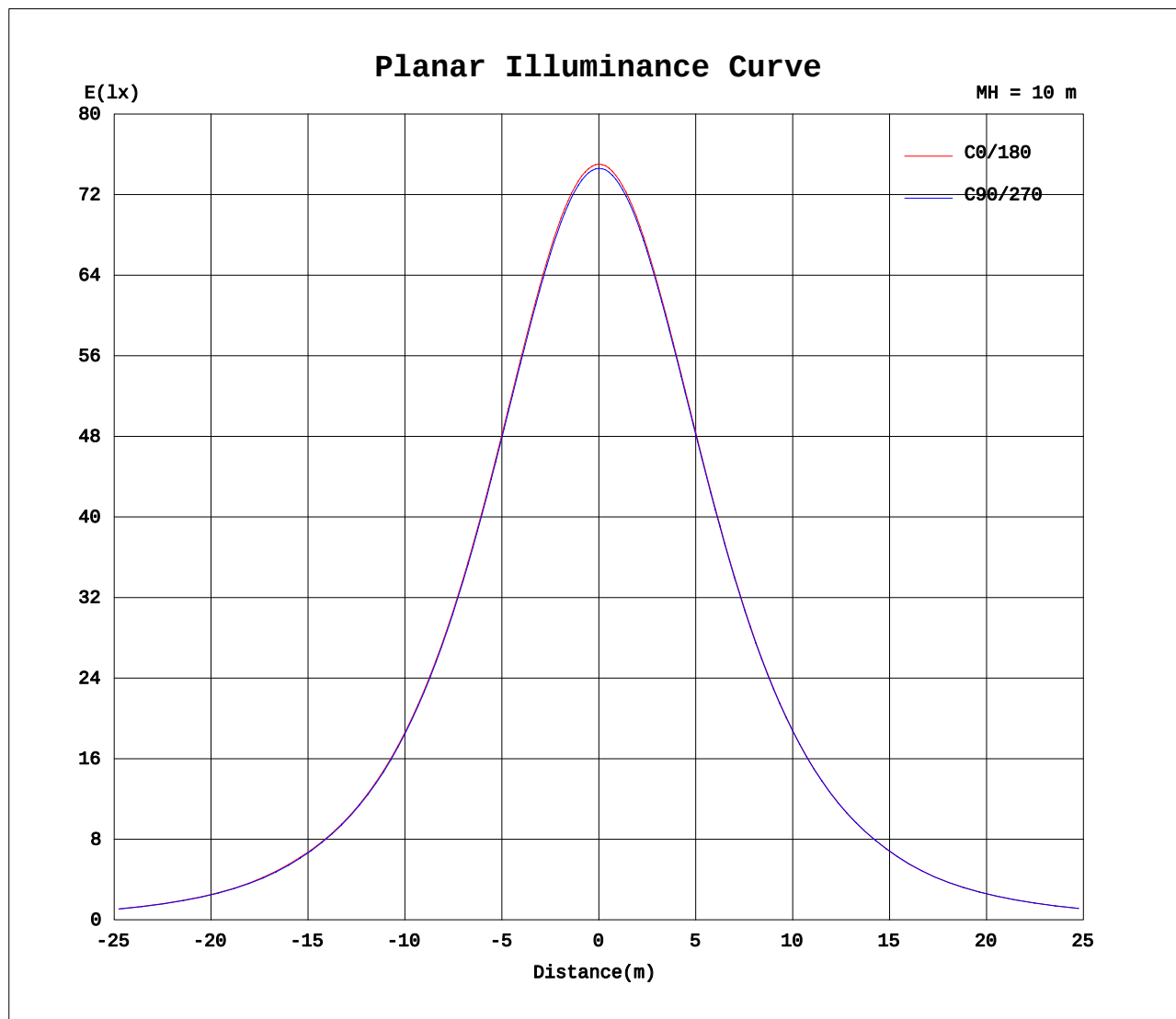
AvgL	cd/m2
L_0~180(65)av	31422
L_0~180(75)av	20735
L_0~180(85)av	2692
L_90~270(65)av	31352
L_90~270(75)av	20705
L_90~270(85)av	3733
L_45(65)av	31392
L_45(75)av	20673
L_45(85)av	3553

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators:Derek Lai
 Test Date:03 January 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-R5000_V2 SYSTEM V2.0.362
 Humidity: 44.8%
 Test Distance:2.500m [K=0.9886]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.0DEG
Operators: Derek Lai
Test Date: 03 January 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-R5000_V2 SYSTEM V2.0.362
Humidity: 44.8%
Test Distance: 2.500m [K=0.9886]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:277.0V I:0.5761A P:149.1W PF:0.9344 Freq:60.01Hz Lamp Flux:21900x1 lm																		
NAME: : ASD-UHB2-FS-150D50										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	7465	7465	7465	7465	7465	7465	7465	7465	7465	7465	7465	7465	7465	7465	7465	7465	7465	7465	7465
5	7433	7435	7432	7435	7431	7434	7433	7433	7433	7436	7435	7437	7439	7438	7439	7439	7440	7439	7443
10	7353	7356	7352	7355	7350	7354	7349	7352	7350	7356	7354	7359	7366	7363	7366	7366	7368	7366	7370
15	7218	7224	7217	7220	7214	7220	7214	7218	7216	7224	7219	7228	7234	7229	7235	7234	7239	7234	7239
20	7028	7038	7028	7032	7023	7032	7024	7030	7026	7038	7030	7041	7051	7046	7054	7051	7059	7053	7058
25	6784	6793	6783	6789	6776	6786	6780	6787	6781	6796	6789	6803	6815	6805	6816	6813	6822	6815	6822
30	6484	6496	6481	6488	6474	6488	6478	6488	6481	6500	6490	6506	6519	6509	6523	6519	6532	6521	6529
35	6128	6141	6123	6131	6114	6130	6120	6129	6123	6145	6134	6153	6170	6158	6174	6168	6182	6168	6179
40	5712	5727	5707	5716	5697	5714	5702	5713	5706	5732	5718	5740	5761	5747	5764	5759	5777	5763	5770
45	5236	5251	5232	5239	5220	5240	5225	5238	5228	5257	5242	5267	5291	5276	5296	5290	5308	5292	5305
50	4698	4715	4693	4701	4680	4699	4686	4700	4690	4722	4703	4733	4760	4742	4765	4759	4780	4761	4776
55	4094	4113	4088	4096	4074	4095	4079	4098	4086	4121	4099	4130	4159	4142	4171	4161	4186	4166	4182
60	3362	3387	3349	3347	3317	3352	3330	3344	3325	3362	3330	3367	3404	3386	3420	3415	3436	3409	3426
65	2566	2581	2552	2561	2536	2558	2539	2557	2542	2578	2554	2600	2646	2624	2653	2649	2679	2648	2662
70	1795	1817	1777	1806	1765	1802	1765	1799	1772	1815	1786	1822	1856	1833	1870	1866	1896	1871	1892
75	1016	1047	1014	1028	993	1017	989	1016	999	1045	1017	1058	1091	1058	1089	1073	1114	1085	1114
80	348	386	368	393	367	390	371	389	373	409	382	415	436	412	443	427	458	436	460
85	39.4	46.4	47.2	59.4	52.5	52.9	54.6	53.6	54.5	52.2	56.6	59.6	52.7	62.2	62.3	77.6	75.9	80.5	73.1
90	0.43	0.42	0.43	0.43	0.44	0.43	0.44	0.42	0.43	0.43	0.44	0.47	1.27	1.24	1.35	1.24	1.13	1.25	1.09
95	0.56	0.55	0.57	0.57	0.58	0.57	0.58	0.57	0.57	0.56	0.56	0.55	1.52	1.54	1.52	1.53	1.51	1.53	1.51
100	0.72	0.71	0.71	0.72	0.74	0.73	0.74	0.74	0.75	0.74	0.74	0.71	1.93	1.93	1.93	1.95	1.95	1.96	1.94
105	0.89	0.89	0.87	0.88	0.90	0.90	0.90	0.90	0.92	0.91	0.91	0.87	2.27	2.25	2.25	2.28	2.29	2.31	2.30
110	1.12	1.10	1.07	1.06	1.10	1.11	1.12	1.13	1.15	1.14	1.15	1.09	2.34	2.35	2.37	2.40	2.43	2.45	2.45
115	1.48	1.39	1.37	1.31	1.37	1.41	1.42	1.43	1.45	1.44	1.44	1.41	2.47	2.46	2.46	2.49	2.52	2.54	2.54
120	1.90	1.83	1.77	1.68	1.75	1.73	1.77	1.77	1.80	1.80	1.85	1.81	2.80	2.78	2.72	2.73	2.71	2.73	2.72
125	2.38	2.32	2.19	2.12	2.21	2.09	2.14	2.14	2.19	2.23	2.28	2.24	3.21	3.23	3.13	3.19	3.15	3.17	3.16
130	2.80	2.75	2.73	2.53	2.71	2.65	2.59	2.57	2.68	2.61	2.73	2.72	3.77	3.85	3.82	3.80	3.81	3.79	3.81
135	3.22	3.20	3.15	2.91	2.99	3.12	3.07	3.06	3.05	3.01	3.06	3.15	4.30	4.42	4.43	4.51	4.44	4.40	4.41
140	3.56	3.57	3.46	3.39	3.39	3.46	3.40	3.37	3.36	3.39	3.30	3.44	4.77	4.90	4.92	5.08	5.04	4.98	4.87
145	3.69	3.79	3.75	3.60	3.69	3.63	3.61	3.63	3.68	3.57	3.54	3.65	5.27	5.42	5.41	5.54	5.62	5.55	5.52
150	3.90	4.03	4.00	3.83	3.69	3.79	3.71	3.79	3.80	3.84	3.80	3.81	5.76	5.82	5.82	6.06	6.06	6.01	5.96
155	4.17	4.35	4.38	4.03	3.90	3.99	3.80	4.01	4.09	4.15	4.27	4.01	6.12	6.20	6.44	6.50	6.47	6.41	6.25
160	4.54	4.65	4.56	4.34	4.07	4.09	3.94	4.29	4.41	4.52	4.52	4.42	6.68	6.72	6.81	6.95	6.83	6.74	6.50
165	4.74	4.89	4.84	4.76	4.49	4.47	4.42	4.64	4.80	4.83	4.74	4.69	6.67	6.80	6.89	7.07	7.03	6.82	6.65
170	5.06	5.18	5.18	5.14	4.70	4.78	4.80	4.80	4.98	4.97	4.95	5.00	6.74	6.81	6.90	6.98	6.97	6.63	6.65
175	5.78	5.87	5.86	5.80	5.49	5.43	5.25	5.29	5.52	5.51	5.60	5.65	6.60	6.68	6.71	6.66	6.70	6.35	6.24
180	6.15	6.26	6.24	6.25	6.10	6.02	6.01	5.73	5.79	5.88	5.90	6.05	6.16	6.24	6.24	6.23	6.11	6.01	6.01

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators:Derek Lai
 Test Date:03 January 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-R5000_V2 SYSTEM V2.0.362
 Humidity: 44.8%
 Test Distance:2.500m [K=0.9886]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:277.0V I:0.5761A P:149.1W PF:0.9344 Freq:60.01Hz Lamp Flux:21900x1 lm		
NAME: ASD-UHB2-FS-150D50	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	7465	7465	7465	7465	7465													
5	7439	7440	7437	7437	7436													
10	7367	7369	7362	7367	7362													
15	7234	7238	7226	7234	7226													
20	7052	7058	7043	7051	7040													
25	6815	6821	6804	6813	6799													
30	6522	6527	6507	6520	6502													
35	6170	6178	6154	6168	6147													
40	5760	5770	5743	5758	5735													
45	5293	5302	5271	5287	5263													
50	4764	4771	4736	4755	4726													
55	4163	4174	4136	4157	4125													
60	3406	3418	3388	3431	3406													
65	2644	2670	2627	2653	2603													
70	1872	1886	1842	1865	1826													
75	1084	1108	1054	1084	1041													
80	436	451	414	432	378													
85	80.0	71.7	53.9	60.1	46.0													
90	1.19	1.09	1.12	1.10	1.12													
95	1.53	1.51	1.54	1.52	1.54													
100	1.96	1.94	1.97	1.94	1.95													
105	2.31	2.30	2.30	2.29	2.27													
110	2.43	2.42	2.41	2.37	2.34													
115	2.53	2.51	2.49	2.45	2.47													
120	2.70	2.68	2.68	2.68	2.78													
125	3.11	3.00	3.04	3.02	3.19													
130	3.74	3.64	3.58	3.68	3.77													
135	4.27	4.14	4.22	4.22	4.31													
140	4.73	4.77	4.78	4.75	4.84													
145	5.29	5.30	5.32	5.28	5.35													
150	5.88	5.77	5.90	5.85	5.85													
155	6.30	6.29	6.32	6.50	6.25													
160	6.54	6.51	6.61	6.79	6.75													
165	6.63	6.51	6.63	6.72	6.73													
170	6.58	6.28	6.49	6.66	6.58													
175	6.29	6.08	6.35	6.46	6.50													
180	5.72	5.79	5.88	5.90	6.04													

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators:Derek Lai
 Test Date:03 January 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-R5000_V2 SYSTEM V2.0.362
 Humidity: 44.8%
 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	7465	7465	7465	7465	7465	7465	7465	7465	7465	7465
3.0	7451	7452	7451	7452	7450	7452	7452	7452	7452	7453
6.0	7420	7424	7420	7423	7419	7423	7420	7420	7420	7424
9.0	7373	7377	7374	7374	7370	7373	7370	7372	7371	7374
12.0	7306	7310	7305	7307	7302	7307	7302	7305	7302	7309
15.0	7218	7224	7217	7220	7214	7220	7214	7218	7216	7224
18.0	7111	7118	7110	7115	7106	7113	7107	7112	7109	7119
21.0	6986	6994	6984	6988	6978	6987	6978	6986	6982	6995
24.0	6838	6847	6836	6841	6829	6839	6832	6840	6835	6849
27.0	6671	6680	6669	6675	6663	6675	6666	6673	6667	6685
30.0	6484	6496	6481	6488	6474	6488	6478	6488	6481	6500
33.0	6277	6289	6274	6280	6266	6279	6270	6279	6273	6293
36.0	6050	6062	6046	6054	6037	6050	6041	6051	6043	6068
39.0	5799	5814	5796	5804	5785	5802	5790	5802	5794	5819
42.0	5529	5544	5524	5533	5514	5532	5518	5531	5522	5549
45.0	5236	5251	5232	5239	5220	5240	5225	5238	5228	5257
48.0	4923	4938	4916	4925	4905	4924	4909	4923	4913	4943
51.0	4581	4599	4576	4586	4565	4586	4570	4585	4575	4607
54.0	4220	4239	4214	4222	4201	4221	4207	4223	4212	4246
57.0	3834	3848	3815	3825	3801	3822	3804	3820	3806	3846
60.0	3362	3387	3349	3347	3317	3352	3330	3344	3325	3362
63.0	2879	2895	2872	2871	2846	2871	2851	2868	2857	2888
66.0	2410	2428	2393	2405	2380	2399	2384	2400	2384	2423
69.0	1944	1967	1931	1954	1922	1948	1921	1946	1927	1967
72.0	1453	1500	1462	1476	1423	1461	1428	1457	1431	1494
75.0	1016	1047	1014	1028	992.7	1017	989.5	1016	999.2	1045
78.0	593.6	630.2	603.1	615.9	584.5	611.1	586.1	608.8	592.7	632.4
81.0	244.1	296.5	268.7	307.3	274.7	307.6	281.1	307.4	281.8	311.7
84.0	69.78	67.68	79.74	78.62	81.36	89.36	83.42	90.38	83.67	96.23
87.0	4.649	3.982	9.617	20.87	9.339	18.86	10.16	18.76	9.914	19.27
90.0	0.4296	0.4214	0.4335	0.4258	0.4379	0.4265	0.4361	0.4240	0.4349	0.4260
93.0	0.5010	0.4923	0.5065	0.5060	0.5161	0.5076	0.5157	0.5064	0.5126	0.4969
96.0	0.5901	0.5841	0.5972	0.5993	0.6104	0.6016	0.6082	0.6026	0.6060	0.5942
99.0	0.6835	0.6798	0.6846	0.6931	0.7069	0.7012	0.7070	0.7038	0.7111	0.7013
102.0	0.7829	0.7855	0.7728	0.7850	0.7992	0.8013	0.8078	0.8065	0.8142	0.8089
105.0	0.8863	0.8908	0.8681	0.8812	0.8989	0.9005	0.9012	0.9040	0.9171	0.9095
108.0	1.007	1.001	0.9827	0.9848	1.012	1.014	1.016	1.029	1.049	1.030
111.0	1.172	1.150	1.121	1.092	1.140	1.161	1.173	1.182	1.204	1.189
114.0	1.384	1.309	1.298	1.243	1.291	1.344	1.348	1.372	1.386	1.375
117.0	1.639	1.573	1.526	1.453	1.520	1.539	1.554	1.561	1.588	1.576
120.0	1.897	1.835	1.773	1.679	1.752	1.731	1.766	1.769	1.796	1.796
123.0	2.185	2.115	2.043	1.939	2.016	1.913	1.991	1.982	2.026	2.027
126.0	2.471	2.409	2.285	2.203	2.301	2.192	2.231	2.217	2.259	2.322
129.0	2.714	2.665	2.620	2.455	2.619	2.524	2.490	2.462	2.566	2.541
132.0	2.976	2.936	2.905	2.693	2.830	2.884	2.814	2.795	2.840	2.771
135.0	3.225	3.197	3.151	2.915	2.994	3.125	3.073	3.059	3.050	3.010
138.0	3.431	3.435	3.347	3.241	3.254	3.320	3.280	3.232	3.240	3.234
141.0	3.596	3.626	3.523	3.420	3.448	3.509	3.474	3.429	3.420	3.450
144.0	3.665	3.753	3.690	3.539	3.656	3.611	3.554	3.581	3.634	3.538
147.0	3.755	3.880	3.841	3.697	3.691	3.687	3.650	3.717	3.724	3.663
150.0	3.896	4.033	4.003	3.827	3.686	3.793	3.709	3.788	3.799	3.845
153.0	4.070	4.226	4.256	3.968	3.788	3.898	3.803	3.913	3.970	4.046
156.0	4.253	4.413	4.440	4.067	3.931	4.026	3.801	4.058	4.151	4.205
159.0	4.512	4.620	4.545	4.263	4.036	4.073	3.894	4.247	4.353	4.447
162.0	4.569	4.701	4.624	4.483	4.184	4.145	4.028	4.374	4.510	4.639
165.0	4.740	4.893	4.843	4.759	4.468	4.468	4.419	4.637	4.798	4.829
168.0	4.989	5.136	5.099	5.055	4.738	4.723	4.701	4.881	5.017	4.985
171.0	5.051	5.175	5.160	5.134	4.709	4.808	4.801	4.725	4.949	4.946
174.0	5.550	5.615	5.596	5.574	5.243	5.210	5.067	5.074	5.310	5.296
177.0	5.982	6.126	6.069	6.066	5.779	5.785	5.564	5.508	5.743	5.702
180.0	6.153	6.257	6.243	6.249	6.102	6.020	6.008	5.732	5.790	5.800
G/C	150.0	165.0	180.0	195.0	210.0	225.0	240.0	255.0	270.0	285.0
0.0	7465	7465	7465	7465	7465	7465	7465	7465	7465	7465
3.0	7453	7455	7456	7456	7456	7456	7457	7456	7458	7457
6.0	7422	7426	7429	7426	7428	7428	7430	7428	7431	7428
9.0	7372	7379	7385	7383	7385	7384	7387	7386	7388	7386
12.0	7306	7312	7320	7317	7322	7320	7324	7319	7324	7321
15.0	7219	7228	7234	7229	7235	7234	7239	7234	7239	7234
18.0	7114	7123	7131	7125	7133	7131	7138	7132	7138	7132
21.0	6986	6999	7009	7002	7011	7009	7017	7008	7015	7010
24.0	6842	6854	6865	6857	6868	6865	6875	6866	6873	6866
27.0	6676	6690	6703	6694	6707	6703	6714	6703	6712	6705
30.0	6490	6506	6519	6509	6523	6519	6532	6521	6529	6522

C Range: 0 - 360DEG

C Interval: 15.0DEG

Test Speed: HIGH

Temperature: 25.0DEG

Operators:Derek Lai

Test Date:03 January 2019

γ Range: 0 - 180DEG

γ Interval: 1.0DEG

Test System:EVERFINE G0-R5000_V2 SYSTEM V2.0.362

Humidity: 44.8%

Test Distance:2.500m [K=0.9886]

Remarks:

Photometric Data Table [cd]

33.0	6282	6299	6316	6304	6319	6315	6329	6317	6326	6318
36.0	6055	6075	6093	6061	6097	6091	6107	6093	6105	6093
39.0	5807	5828	5846	5835	5851	5845	5861	5848	5859	5848
42.0	5535	5558	5580	5565	5584	5578	5596	5581	5592	5579
45.0	5242	5267	5291	5276	5296	5290	5308	5292	5305	5293
48.0	4927	4955	4983	4963	4986	4978	5000	4982	4996	4983
51.0	4588	4619	4645	4628	4651	4643	4669	4649	4662	4647
54.0	4226	4259	4286	4270	4294	4287	4313	4292	4306	4292
57.0	3814	3838	3869	3855	3895	3886	3910	3887	3908	3882
60.0	3330	3367	3404	3386	3420	3415	3436	3409	3426	3406
63.0	2866	2911	2958	2933	2960	2953	2987	2948	2968	2946
66.0	2399	2445	2488	2466	2498	2494	2524	2494	2504	2492
69.0	1940	1981	2016	1993	2028	2024	2053	2028	2043	2026
72.0	1456	1504	1532	1493	1543	1519	1563	1536	1569	1540
75.0	1017	1058	1091	1058	1089	1073	1114	1085	1114	1084
78.0	604.0	643.0	668.0	641.0	674.6	675.8	694.5	681.4	692.3	682.4
81.0	290.0	323.6	332.4	313.5	343.5	330.6	354.7	334.9	351.9	336.5
84.0	93.19	85.47	96.52	88.76	106.2	109.2	124.7	112.4	121.0	113.1
87.0	12.96	8.109	19.17	9.504	23.98	16.52	30.07	17.29	28.33	14.58
90.0	0.4381	0.4659	1.269	1.236	1.350	1.240	1.135	1.255	1.095	1.189
93.0	0.5030	0.4840	1.346	1.362	1.345	1.357	1.333	1.351	1.335	1.350
96.0	0.5987	0.5778	1.607	1.623	1.609	1.621	1.595	1.618	1.599	1.618
99.0	0.7027	0.6743	1.856	1.862	1.857	1.879	1.866	1.882	1.863	1.876
102.0	0.8088	0.7715	2.071	2.076	2.066	2.096	2.093	2.109	2.094	2.108
105.0	0.9107	0.8729	2.267	2.254	2.250	2.281	2.291	2.311	2.301	2.307
108.0	1.046	1.000	2.310	2.315	2.337	2.372	2.388	2.404	2.407	2.399
111.0	1.203	1.147	2.356	2.359	2.386	2.419	2.444	2.465	2.461	2.450
114.0	1.381	1.330	2.432	2.431	2.435	2.468	2.500	2.518	2.519	2.504
117.0	1.598	1.554	2.551	2.562	2.535	2.554	2.574	2.597	2.598	2.578
120.0	1.850	1.809	2.802	2.781	2.717	2.726	2.712	2.728	2.722	2.702
123.0	2.103	2.065	3.018	3.026	2.933	2.964	2.942	2.946	2.931	2.920
126.0	2.368	2.334	3.319	3.350	3.252	3.305	3.254	3.280	3.315	3.225
129.0	2.639	2.626	3.656	3.720	3.674	3.665	3.659	3.647	3.686	3.596
132.0	2.906	2.916	4.022	4.090	4.087	4.092	4.061	4.074	4.085	3.994
135.0	3.064	3.154	4.303	4.418	4.433	4.511	4.444	4.399	4.409	4.274
138.0	3.206	3.347	4.576	4.702	4.727	4.874	4.812	4.743	4.636	4.527
141.0	3.353	3.484	4.859	4.999	5.015	5.173	5.160	5.096	4.982	4.826
144.0	3.508	3.621	5.142	5.306	5.327	5.448	5.517	5.432	5.394	5.153
147.0	3.620	3.712	5.487	5.618	5.565	5.746	5.804	5.744	5.734	5.608
150.0	3.796	3.813	5.763	5.817	5.825	6.064	6.063	6.010	5.955	5.882
153.0	4.078	3.925	5.965	6.005	6.216	6.327	6.299	6.266	6.156	6.124
156.0	4.357	4.106	6.203	6.328	6.547	6.579	6.550	6.454	6.288	6.355
159.0	4.508	4.384	6.585	6.667	6.775	6.870	6.779	6.676	6.450	6.521
162.0	4.568	4.471	6.679	6.720	6.816	7.003	6.907	6.772	6.510	6.511
165.0	4.739	4.695	6.672	6.804	6.890	7.065	7.031	6.820	6.652	6.631
168.0	4.952	4.968	6.749	6.888	6.986	7.076	7.084	6.772	6.719	6.620
171.0	4.929	4.974	6.722	6.788	6.873	6.928	6.918	6.561	6.575	6.548
174.0	5.359	5.398	6.629	6.709	6.742	6.704	6.750	6.421	6.245	6.360
177.0	5.838	5.939	6.454	6.541	6.578	6.525	6.517	6.229	6.187	6.099
180.0	5.895	6.051	6.157	6.242	6.235	6.235	6.111	6.013	6.013	5.720
G/C	300.0	315.0	330.0	345.0						
0.0	7465	7465	7465	7465						
3.0	7457	7455	7457	7454						
6.0	7431	7426	7428	7425						
9.0	7388	7382	7387	7383						
12.0	7325	7314	7321	7314						
15.0	7238	7226	7234	7226						
18.0	7136	7123	7132	7121						
21.0	7013	6998	7008	6996						
24.0	6872	6854	6865	6851						
27.0	6709	6692	6702	6685						
30.0	6527	6507	6520	6502						
33.0	6325	6302	6316	6295						
36.0	6100	6076	6090	6069						
39.0	5856	5828	5844	5822						
42.0	5589	5561	5577	5553						
45.0	5302	5271	5287	5263						
48.0	4992	4959	4976	4948						
51.0	4657	4624	4642	4611						
54.0	4301	4263	4282	4252						
57.0	3891	3854	3888	3861						
60.0	3418	3388	3431	3406						
63.0	2973	2934	2967	2922						
66.0	2512	2471	2491	2443						

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators:Derek Lai
 Test Date:03 January 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-R5000_V2 SYSTEM V2.0.362
 Humidity: 44.8%
 Test Distance:2.500m [K=0.9886]
 Remarks:

Photometric Data Table [cd]

69.0	2042	1999	2020	1977
72.0	1556	1494	1538	1491
75.0	1108	1054	1084	1041
78.0	682.5	639.2	670.7	628.2
81.0	347.8	316.4	320.7	272.4
84.0	121.1	85.07	86.49	80.19
87.0	26.68	8.888	7.409	8.157
90.0	1.091	1.116	1.099	1.122
93.0	1.336	1.367	1.343	1.367
96.0	1.598	1.635	1.608	1.630
99.0	1.861	1.891	1.864	1.875
102.0	2.092	2.111	2.102	2.089
105.0	2.297	2.295	2.289	2.273
108.0	2.385	2.378	2.341	2.314
111.0	2.434	2.430	2.380	2.358
114.0	2.487	2.474	2.432	2.437
117.0	2.562	2.547	2.533	2.580
120.0	2.684	2.684	2.681	2.776
123.0	2.851	2.855	2.855	2.986
126.0	3.101	3.140	3.148	3.292
129.0	3.501	3.464	3.547	3.636
132.0	3.821	3.825	3.915	4.018
135.0	4.144	4.216	4.225	4.309
138.0	4.495	4.600	4.510	4.602
141.0	4.905	4.884	4.857	4.933
144.0	5.261	5.206	5.188	5.223
147.0	5.464	5.556	5.465	5.551
150.0	5.771	5.904	5.850	5.853
153.0	6.097	6.163	6.276	6.113
156.0	6.346	6.383	6.620	6.384
159.0	6.446	6.553	6.772	6.699
162.0	6.535	6.615	6.737	6.742
165.0	6.508	6.626	6.722	6.732
168.0	6.431	6.594	6.732	6.662
171.0	6.254	6.493	6.649	6.596
174.0	6.145	6.411	6.510	6.536
177.0	5.973	6.164	6.210	6.267
180.0	5.794	5.876	5.901	6.041

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators:Derek Lai
 Test Date:03 January 2019

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-R5000_V2 SYSTEM V2.0.362
 Humidity: 44.8%
 Test Distance:2.500m [K=0.9886]
 Remarks: