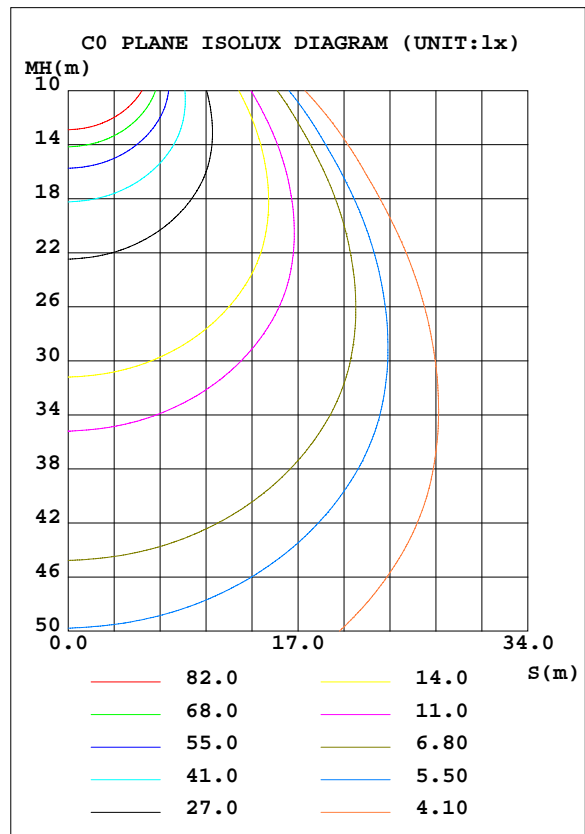
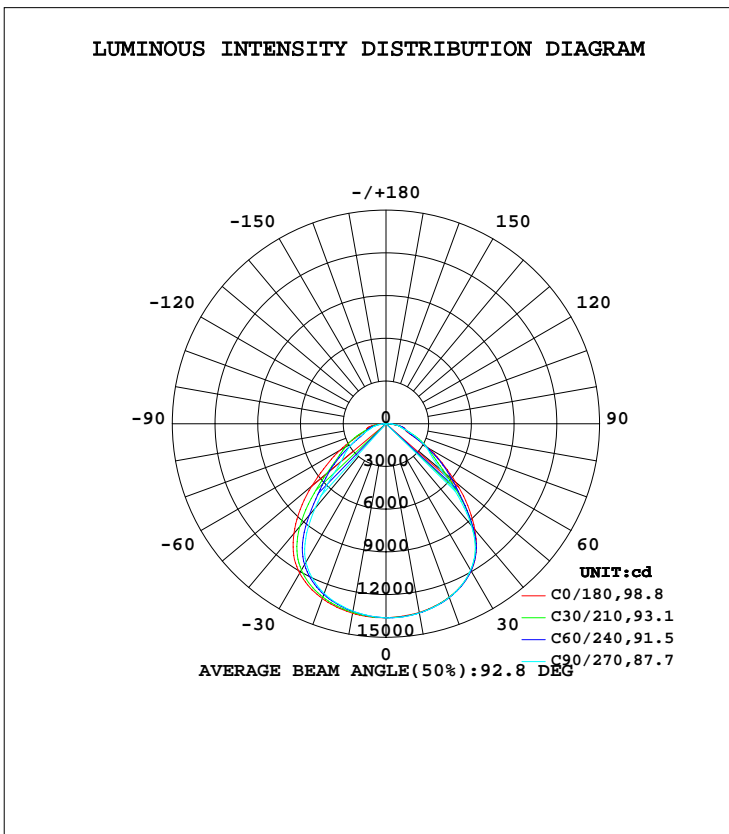


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.00V I:1.8405A P:220.28W PF:0.9974 Freq:60.00Hz Lamp Flux:30580x1 lm		
NAME: ASD Lighting Corp	TYPE: LED	WEIGHT:
SPEC.: ASD-WHB5M-4D22050	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 141.27 lm/W			
MODEL	ASD-WHB5M-4D22050	I _{max} (cd)	13634	S/MH(C0/180)	1.31
NOMINAL POWER(W)	220	LOR(%)	100.0	S/MH(C90/270)	1.20
RATED VOLTAGE(V)	120-277	TOTAL FLUX(lm)	30580	η UP, DN(C0-180)	0.1,51.9
NOMINAL FLUX(lm)	30580	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.1,47.9
LAMPS INSIDE	1	η up(%)	0.1	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	120	η down(%)	99.9	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.7DEG
 Operators: Alan Wang
 Test Date: 05 June 2021

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
 Humidity: 49.4%
 Test Distance: 2.500m [K=1.0462]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	1345	1349	1349	1350	1351	1341	1336	1338	0- 10	1292	1292	4.15,4.15
20	1296	1300	1298	1304	1307	1283	1268	1277	10- 20	3738	5030	16.2,16.2
30	1194	1196	1188	1206	1213	1158	1125	1146	20- 30	5731	10762	34.6,34.6
40	970.6	963.1	932.8	984.3	1006	874.0	775.3	847.2	30- 40	6667	17429	56,56
50	640.0	592.8	505.5	610.5	680.3	533.1	410.8	513.7	40- 50	5632	23061	74.1,74.1
60	344.1	363.6	324.0	372.9	375.5	301.6	267.0	288.4	50- 60	3832	26893	86.4,86.4
70	150.8	177.4	174.3	184.1	160.6	157.4	134.6	155.6	60- 70	2342	29235	93.9,93.9
80	104.1	101.8	92.95	107.3	116.6	76.42	65.43	71.05	70- 80	1357	30592	98.3,98.3
90	5.623	7.614	8.787	12.35	6.154	0.2997	0.2593	0.2580	80- 90	487.8	31080	99.9,99.9
100	0.2156	0.1407	0.1089	0.1409	0.2985	0.2424	0.2314	0.2463	90-100	9.424	31089	99.9,99.9
110	0.2076	0.1851	0.1868	0.2014	0.3414	0.3326	0.3203	0.3519	100-110	2.547	31092	99.9,99.9
120	0.3041	0.2884	0.2855	0.3229	0.4258	0.4835	0.4736	0.4871	110-120	3.132	31095	99.9,99.9
130	0.5118	0.4013	0.4249	0.4690	0.6461	0.7389	0.7768	0.7012	120-130	4.351	31099	99.9,99.9
140	0.6068	0.5340	0.5803	0.5967	0.7871	0.9041	0.9630	0.8788	130-140	5.071	31104	100,100
150	0.7505	0.6805	0.6952	0.7216	0.9304	1.049	1.087	1.084	140-150	5.051	31109	100,100
160	0.9363	0.8456	0.8215	0.8650	1.122	1.206	1.199	1.201	150-160	4.385	31114	100,100
170	1.134	0.9850	0.9538	1.021	1.214	1.253	1.222	1.230	160-170	3.057	31117	100,100
180	0.7728	0.7728	0.7728	0.7728	1.105	1.105	1.105	1.105	170-180	1.085	31118	100,100
DEG	LUMINOUS INTENSITY: $\times 10\text{cd}$									UNIT:lm		

Conical surface Flux(90deg): 20479 lm

%lum = 65.8%

%lamp = 65.8%

Conical surface Flux(120deg): 26893 lm

%lum = 86.4%

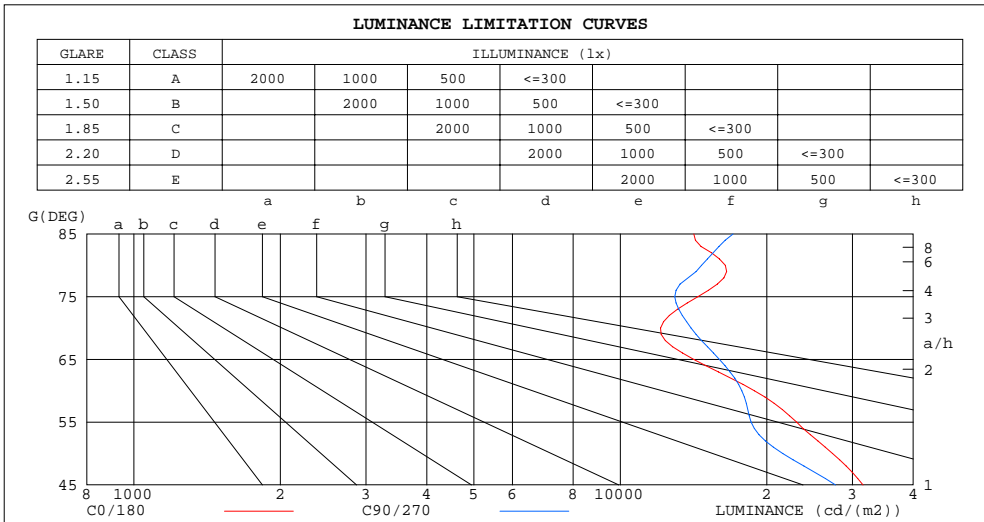
%lamp = 86.4%

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.7DEG
 Operators: Alan Wang
 Test Date: 05 June 2021

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
 Humidity: 49.4%
 Test Distance: 2.500m [K=1.0462]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:120.00V I:1.8405A P:220.28W PF:0.9974 Freq:60.00Hz Lamp Flux:30580x1 lm		
NAME: ASD Lighting Corp	TYPE: LED	WEIGHT:
SPEC.: ASD-WHB5M-4D22050	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	14162	17049
80	16445	14683
75	14436	12942
70	12092	13982
65	14164	15987
60	18875	17774
55	23041	18577
50	27310	21573
45	31538	27689

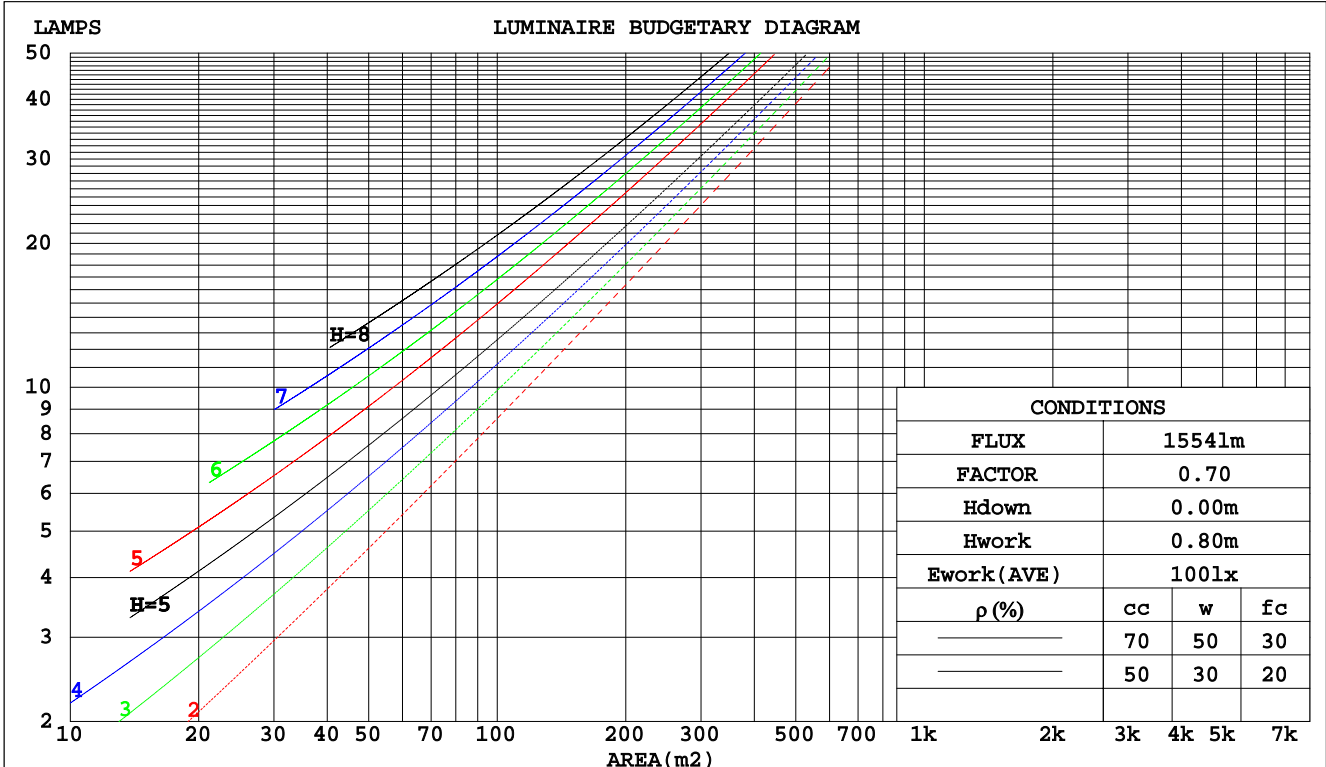
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.7DEG
 Operators: Alan Wang
 Test Date: 05 June 2021

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
 Humidity: 49.4%
 Test Distance: 2.500m [K=1.0462]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.00V I:1.8405A P:220.28W PF:0.9974 Freq:60.00Hz Lamp Flux:30580x1 lm		
NAME: ASD Lighting Corp	TYPE: LED	WEIGHT:
SPEC.: ASD-WHB5M-4D22050	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	1.06	1.02	.98	1.03	1.00	.97	.99	.96	.94	.95	.93	.91	.92	.90	.88	.86
2.0	.94	.88	.83	.92	.86	.82	.88	.84	.80	.85	.81	.78	.82	.79	.76	.74
3.0	.84	.76	.70	.82	.75	.70	.79	.73	.69	.77	.72	.67	.74	.70	.66	.64
4.0	.75	.67	.61	.74	.66	.61	.71	.65	.60	.69	.64	.59	.67	.62	.58	.56
5.0	.68	.60	.53	.67	.59	.53	.65	.58	.53	.63	.57	.52	.61	.56	.52	.50
6.0	.62	.53	.47	.61	.53	.47	.59	.52	.47	.57	.51	.46	.56	.50	.46	.44
7.0	.56	.48	.42	.55	.48	.42	.54	.47	.42	.53	.46	.42	.51	.46	.41	.39
8.0	.52	.44	.38	.51	.43	.38	.50	.43	.38	.48	.42	.38	.47	.42	.37	.36
9.0	.48	.40	.35	.47	.40	.34	.46	.39	.34	.45	.39	.34	.44	.38	.34	.32
10.0	.44	.37	.32	.44	.36	.31	.43	.36	.31	.42	.36	.31	.41	.35	.31	.29



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.7DEG
 Operators: Alan Wang
 Test Date: 05 June 2021

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
 Humidity: 49.4%
 Test Distance: 2.500m [K=1.0462]
 Remarks:

WEC AND CCEC

Test:U:120.00V I:1.8405A P:220.28W PF:0.9974 Freq:60.00Hz Lamp Flux:30580x1 lm		
NAME: ASD Lighting Corp	TYPE: LED	WEIGHT:
SPEC.: ASD-WHB5M-4D22050	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	.274	.156	.049	.267	.152	.048	.254	.145	.046	.242	.139	.045	.230	.134	.043	
2.0	.259	.142	.044	.253	.139	.043	.241	.134	.042	.231	.129	.041	.221	.125	.039	
3.0	.242	.129	.039	.237	.127	.038	.227	.123	.037	.217	.119	.037	.209	.115	.036	
4.0	.226	.117	.034	.221	.116	.034	.212	.112	.034	.204	.109	.033	.196	.107	.032	
5.0	.211	.107	.031	.206	.106	.031	.199	.103	.030	.191	.101	.030	.184	.099	.030	
6.0	.197	.099	.028	.193	.098	.028	.186	.095	.028	.180	.093	.027	.174	.091	.027	
7.0	.185	.091	.026	.181	.090	.026	.175	.089	.026	.169	.087	.025	.164	.085	.025	
8.0	.174	.085	.024	.171	.084	.024	.165	.083	.024	.160	.081	.023	.155	.080	.023	
9.0	.164	.079	.022	.161	.079	.022	.156	.077	.022	.151	.076	.022	.147	.075	.022	
10.0	.155	.074	.021	.152	.074	.021	.148	.072	.020	.144	.071	.020	.139	.070	.020	

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	.164	.164	.164	.112	.112	.112	.064	.064	.064	.021	.021	.021	
1.0	.179	.157	.138	.153	.135	.119	.105	.093	.082	.060	.054	.048	.019	.017	.015	
2.0	.169	.133	.103	.145	.115	.089	.099	.079	.062	.057	.046	.036	.018	.015	.012	
3.0	.160	.115	.079	.137	.099	.069	.094	.069	.048	.054	.040	.028	.017	.013	.009	
4.0	.152	.101	.063	.130	.088	.055	.090	.061	.038	.052	.036	.023	.017	.012	.007	
5.0	.145	.091	.051	.124	.079	.044	.086	.055	.031	.050	.032	.019	.016	.011	.006	
6.0	.138	.082	.042	.118	.071	.037	.082	.050	.026	.047	.029	.016	.015	.010	.005	
7.0	.131	.075	.036	.113	.065	.031	.078	.046	.022	.045	.027	.013	.015	.009	.004	
8.0	.125	.069	.031	.108	.060	.027	.074	.042	.019	.043	.025	.011	.014	.008	.004	
9.0	.119	.064	.027	.103	.056	.024	.071	.039	.017	.041	.023	.010	.013	.008	.003	
10.0	.114	.060	.024	.098	.052	.021	.068	.037	.015	.040	.022	.009	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.7DEG
 Operators: Alan Wang
 Test Date: 05 June 2021

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
 Humidity: 49.4%
 Test Distance: 2.500m [K=1.0462]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.00V I:1.8405A P:220.28W PF:0.9974 Freq:60.00Hz Lamp Flux:30580x1 lm										
NAME: ASD Lighting Corp					TYPE: LED			WEIGHT:		
SPEC.: ASD-WHB5M-4D22050					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	21.6	23.1	22.0	23.4	23.7	21.5	23.0	21.9	23.3	23.7
3H	23.0	24.4	23.4	24.7	25.1	22.8	24.2	23.2	24.5	24.9
4H	23.6	24.9	24.0	25.2	25.6	23.4	24.6	23.8	25.0	25.4
6H	24.3	25.4	24.7	25.8	26.2	23.9	25.1	24.3	25.4	25.8
8H	24.5	25.6	24.9	26.0	26.4	24.1	25.2	24.6	25.6	26.0
12H	24.6	25.7	25.0	26.0	26.5	24.4	25.4	24.8	25.8	26.2
4H 2H	22.1	23.3	22.5	23.7	24.1	22.1	23.3	22.5	23.7	24.1
3H	23.7	24.7	24.1	25.1	25.5	23.5	24.6	24.0	25.0	25.4
4H	24.4	25.3	24.8	25.8	26.2	24.2	25.2	24.7	25.6	26.0
6H	25.2	26.0	25.6	26.4	26.9	25.0	25.8	25.4	26.2	26.7
8H	25.4	26.2	25.9	26.6	27.1	25.3	26.1	25.8	26.5	27.0
12H	25.6	26.3	26.1	26.8	27.3	25.6	26.3	26.1	26.8	27.2
8H 4H	24.7	25.4	25.2	25.9	26.4	24.6	25.4	25.1	25.8	26.3
6H	25.6	26.2	26.1	26.7	27.2	25.6	26.2	26.1	26.7	27.2
8H	26.0	26.5	26.5	27.0	27.5	26.0	26.6	26.5	27.1	27.6
12H	26.2	26.7	26.7	27.2	27.8	26.4	26.9	26.9	27.4	28.0
12H 4H	24.7	25.4	25.2	25.9	26.4	24.7	25.4	25.2	25.8	26.3
6H	25.7	26.3	26.2	26.7	27.3	25.7	26.2	26.2	26.7	27.3
8H	26.1	26.6	26.6	27.1	27.7	26.2	26.7	26.7	27.2	27.8
CIE190: 2010										

CIE190: 2010
Area: 0.36456 m2

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 24.7DEG
Operators: Alan Wang
Test Date: 05 June 2021

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
Humidity: 49.4%
Test Distance: 2.500m [K=1.0462]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:120.00V I:1.8405A P:220.28W PF:0.9974 Freq:60.00Hz Lamp Flux:30580x1 lm		
NAME: ASD Lighting Corp	TYPE: LED	WEIGHT:
SPEC.: ASD-WHB5M-4D22050	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

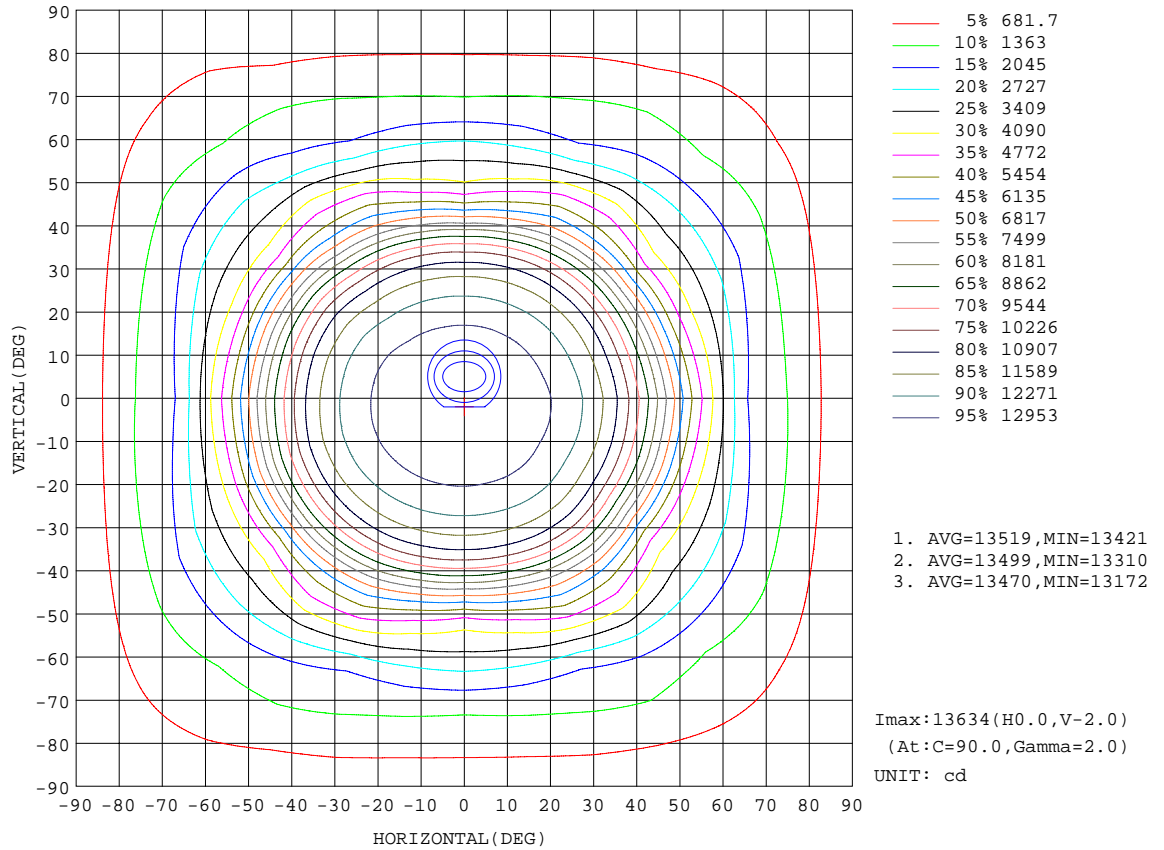
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	64	54	47	63	53	47	62	53	47	41
0.80	74	64	57	73	63	57	71	63	57	51
1.00	82	72	66	81	72	66	79	73	65	59
1.25	88	79	73	87	79	73	85	77	72	66
1.50	93	84	78	91	84	78	89	82	77	70
2.00	99	91	86	97	90	85	94	88	84	76
2.50	102	95	90	100	94	89	96	91	87	80
3.00	105	99	94	103	97	93	99	95	91	83
4.00	108	103	99	106	102	98	102	98	95	87
5.00	110	106	102	108	104	101	103	100	98	89
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: 24.7DEG
 Operators: Alan Wang
 Test Date: 05 June 2021

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
 Humidity: 49.4%
 Test Distance: 2.500m [K=1.0462]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:120.00V I:1.8405A P:220.28W PF:0.9974 Freq:60.00Hz Lamp Flux:30580x1 lm		
NAME: ASD Lighting Corp	TYPE: LED	WEIGHT:
SPEC.: ASD-WHB5M-4D22050	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



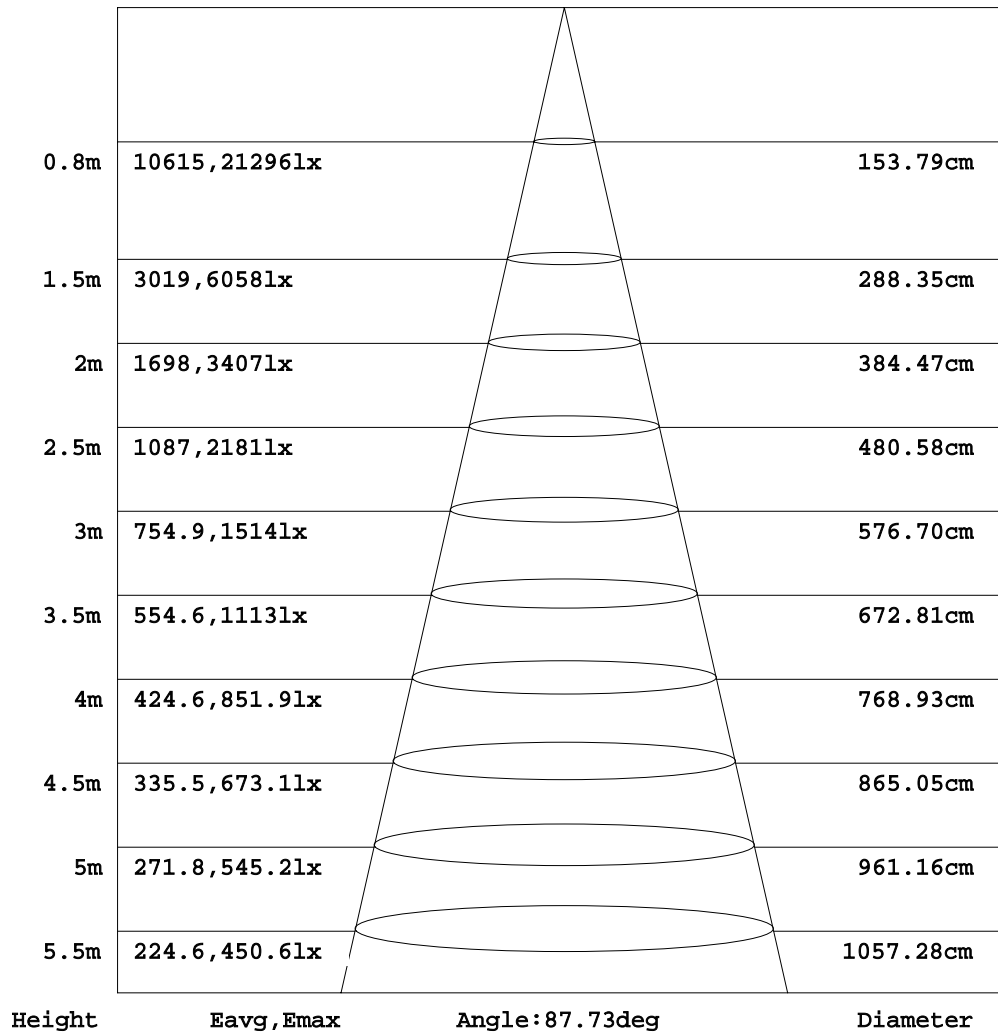
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.7DEG
 Operators: Alan Wang
 Test Date: 05 June 2021

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
 Humidity: 49.4%
 Test Distance: 2.500m [K=1.0462]
 Remarks:

AAI Figure

Test:U:120.00V I:1.8405A P:220.28W PF:0.9974 Freq:60.00Hz Lamp Flux:30580x1 lm		
NAME: ASD Lighting Corp	TYPE: LED	WEIGHT:
SPEC.: ASD-WHB5M-4D22050	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

Flux out:19904 lm



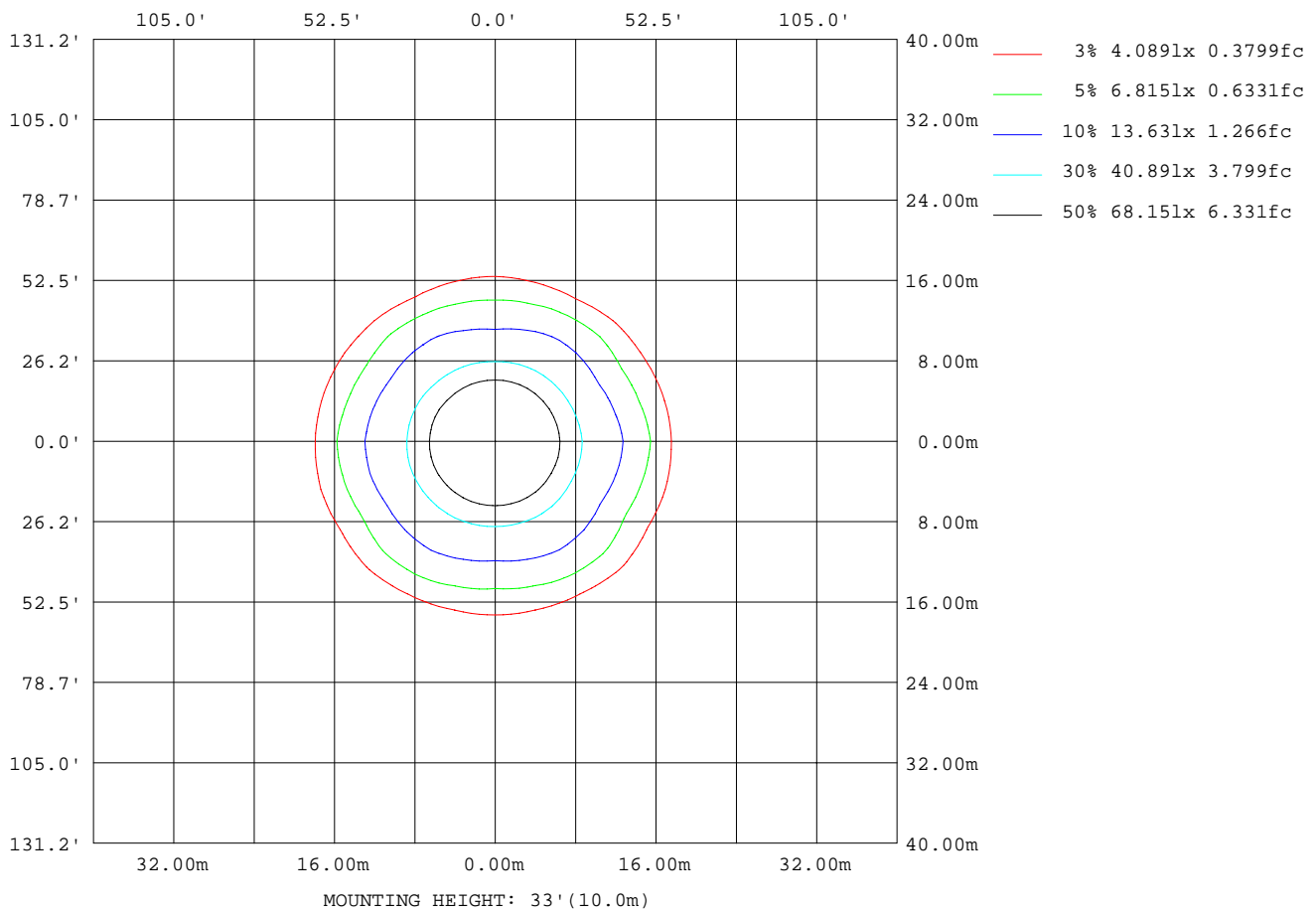
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.7DEG
 Operators: Alan Wang
 Test Date: 05 June 2021

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
 Humidity: 49.4%
 Test Distance: 2.500m [K=1.0462]
 Remarks:

ISOLUX DIAGRAM

Test:U:120.00V I:1.8405A P:220.28W PF:0.9974 Freq:60.00Hz Lamp Flux:30580x1 lm		
NAME: ASD Lighting Corp	TYPE: LED	WEIGHT:
SPEC.: ASD-WHB5M-4D22050	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.7DEG
 Operators: Alan Wang
 Test Date: 05 June 2021

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
 Humidity: 49.4%
 Test Distance: 2.500m [K=1.0462]
 Remarks:

LED Avg.L Report

Test:U:120.00V I:1.8405A P:220.28W PF:0.9974 Freq:60.00Hz Lamp Flux:30580x1 lm		
NAME: ASD Lighting Corp	TYPE: LED	WEIGHT:
SPEC.: ASD-WHB5M-4D22050	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

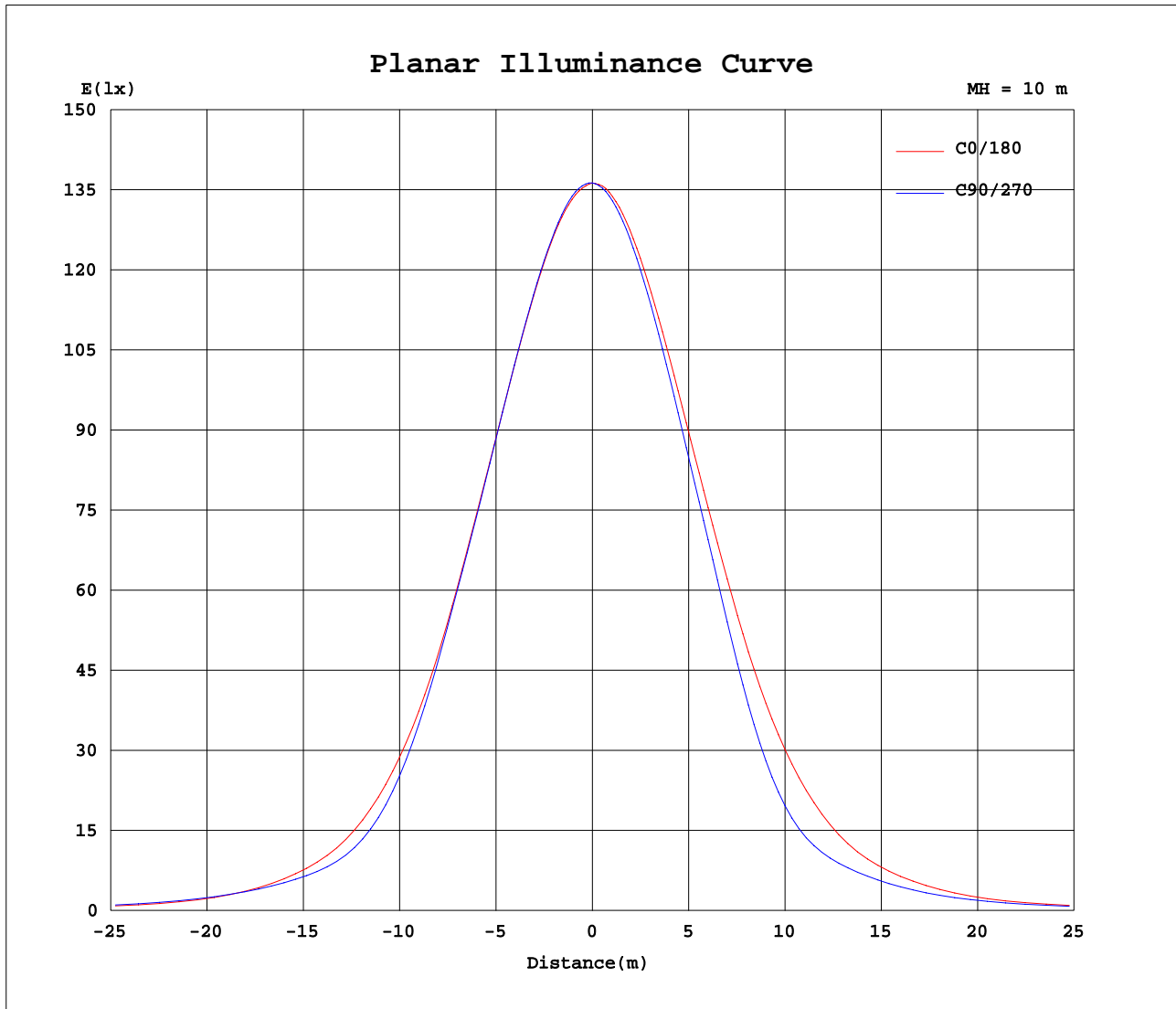
AvgL	cd/m2
L_0~180(65)av	14949
L_0~180(75)av	14562
L_0~180(85)av	15726
L_90~270(65)av	14223
L_90~270(75)av	11791
L_90~270(85)av	11639
L_45(65)av	14976
L_45(75)av	14026
L_45(85)av	13623

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.7DEG
 Operators: Alan Wang
 Test Date: 05 June 2021

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
 Humidity: 49.4%
 Test Distance: 2.500m [K=1.0462]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 24.7DEG
Operators: Alan Wang
Test Date: 05 June 2021

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
Humidity: 49.4%
Test Distance: 2.500m [K=1.0462]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.00V I:1.8405A P:220.28W PF:0.9974 Freq:60.00Hz Lamp Flux:30580x1 lm		
NAME: ASD Lighting Corp	TYPE: LED	WEIGHT:
SPEC.: ASD-WHB5M-4D22050	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

Table--1

UNIT: x10cd

C(DEG) γ (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	1363	1363	1363	1363	1363	1363	1363	1363	1363	1363	1363	1363	1363	1363	1363	1363	1363	1363	1363
5	1356	1359	1359	1360	1360	1361	1362	1361	1360	1360	1361	1362	1361	1360	1358	1356	1355	1354	1354
10	1345	1348	1348	1349	1349	1349	1349	1349	1349	1350	1351	1351	1351	1349	1346	1341	1338	1336	1336
15	1326	1328	1327	1329	1329	1328	1329	1329	1331	1332	1334	1334	1333	1331	1325	1317	1313	1310	1308
20	1296	1298	1297	1300	1300	1298	1298	1299	1302	1304	1308	1309	1307	1303	1296	1283	1276	1271	1268
25	1254	1256	1254	1258	1256	1253	1253	1255	1259	1264	1270	1271	1268	1262	1252	1232	1221	1213	1209
30	1194	1195	1190	1196	1194	1189	1188	1192	1199	1206	1214	1218	1213	1203	1188	1158	1143	1131	1125
35	1102	1102	1094	1106	1102	1095	1093	1099	1110	1120	1132	1140	1130	1115	1091	1045	1022	999	983
40	971	964	947	963	954	937	933	947	969	984	1002	1018	1006	980	941	874	838	800	775
45	813	791	749	769	762	733	714	740	779	798	820	856	853	808	743	679	656	600	555
50	640	602	548	593	604	548	506	548	608	611	610	668	680	617	544	533	517	443	411
55	482	444	413	475	468	414	388	419	476	489	448	491	512	453	412	423	382	352	342
60	344	345	333	364	333	323	324	324	343	373	354	373	375	353	331	302	260	265	267
65	218	264	257	250	221	237	246	239	228	262	282	295	242	275	256	208	180	192	192
70	151	192	177	177	161	172	174	177	165	184	201	220	161	202	179	157	146	142	135
75	136	141	120	140	136	129	122	131	138	145	139	158	139	147	120	125	119	106	100
80	104	95.0	92.4	102	103	94.7	93.0	97.2	106	107	102	111	117	101	92.2	76.4	74.1	68.3	65.4
85	45.0	41.4	44.3	53.6	57.3	54.7	54.2	56.9	61.5	59.6	63.7	61.2	54.9	47.2	44.7	33.9	31.8	27.4	19.8
90	5.62	4.57	1.52	7.61	8.45	9.98	8.79	10.1	15.4	12.4	12.7	12.1	6.15	3.92	3.82	0.30	0.28	0.26	0.26
95	0.21	0.23	0.18	0.16	0.16	0.16	0.15	0.15	0.31	0.21	0.18	0.20	0.32	0.28	0.25	0.21	0.19	0.19	0.19
100	0.22	0.24	0.23	0.14	0.11	0.11	0.11	0.11	0.12	0.14	0.18	0.29	0.30	0.33	0.28	0.24	0.24	0.23	0.23
105	0.23	0.22	0.21	0.15	0.15	0.14	0.14	0.15	0.16	0.16	0.31	0.21	0.34	0.32	0.30	0.29	0.30	0.29	0.29
110	0.21	0.20	0.19	0.19	0.20	0.19	0.19	0.19	0.21	0.20	0.19	0.20	0.34	0.33	0.31	0.33	0.33	0.32	0.32
115	0.28	0.26	0.24	0.24	0.23	0.22	0.23	0.24	0.25	0.27	0.24	0.24	0.34	0.37	0.37	0.39	0.38	0.38	0.38
120	0.30	0.31	0.32	0.29	0.28	0.28	0.29	0.30	0.31	0.32	0.33	0.30	0.43	0.46	0.48	0.48	0.47	0.47	0.47
125	0.42	0.40	0.37	0.35	0.34	0.34	0.36	0.37	0.38	0.40	0.39	0.41	0.60	0.59	0.60	0.62	0.61	0.61	0.61
130	0.51	0.43	0.43	0.40	0.41	0.41	0.42	0.44	0.45	0.47	0.45	0.46	0.65	0.67	0.70	0.74	0.76	0.77	0.78
135	0.55	0.52	0.51	0.46	0.48	0.49	0.51	0.52	0.54	0.53	0.52	0.52	0.75	0.73	0.79	0.83	0.86	0.88	0.89
140	0.61	0.60	0.58	0.53	0.54	0.57	0.58	0.60	0.60	0.60	0.59	0.61	0.79	0.80	0.85	0.90	0.93	0.95	0.96
145	0.70	0.68	0.64	0.60	0.61	0.63	0.64	0.65	0.66	0.65	0.67	0.68	0.90	0.91	0.92	0.98	1.02	1.03	1.04
150	0.75	0.74	0.70	0.68	0.67	0.68	0.70	0.71	0.72	0.72	0.71	0.69	0.93	0.95	0.95	1.05	1.08	1.09	1.09
155	0.83	0.86	0.84	0.77	0.75	0.74	0.73	0.76	0.80	0.81	0.80	0.78	1.00	1.02	1.07	1.15	1.16	1.18	1.17
160	0.94	0.95	0.92	0.85	0.85	0.85	0.82	0.83	0.88	0.87	0.89	0.89	1.12	1.12	1.15	1.21	1.20	1.21	1.20
165	1.06	1.06	1.00	0.96	0.89	0.87	0.86	0.88	0.92	0.94	0.96	0.97	1.13	1.15	1.19	1.21	1.26	1.28	1.26
170	1.13	1.11	1.04	0.99	0.97	0.98	0.95	0.99	1.00	1.02	1.04	1.06	1.21	1.23	1.24	1.25	1.25	1.24	1.22
175	1.19	1.17	1.11	1.03	0.98	0.97	0.96	1.00	1.03	1.06	1.08	1.09	1.22	1.23	1.24	1.25	1.26	1.24	1.19
180	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	1.11	1.11	1.11	1.11	1.11	1.11	1.11

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.7DEG
 Operators: Alan Wang
 Test Date: 05 June 2021

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
 Humidity: 49.4%
 Test Distance: 2.500m [K=1.0462]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.00V I:1.8405A P:220.28W PF:0.9974 Freq:60.00Hz Lamp Flux:30580x1 lm		
NAME: ASD Lighting Corp	TYPE: LED	WEIGHT:
SPEC.: ASD-WHB5M-4D22050	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

Table--2

UNIT: x10cd

C(DEG) γ (DEG)	285	300	315	330	345														
0	1363	1363	1363	1363	1363														
5	1354	1354	1354	1354	1355														
10	1336	1336	1338	1340	1341														
15	1309	1310	1314	1316	1319														
20	1269	1272	1277	1282	1287														
25	1211	1216	1224	1233	1241														
30	1128	1136	1146	1159	1174														
35	995	1010	1026	1046	1069														
40	794	823	847	878	920														
45	593	644	651	670	739														
50	450	508	514	487	553														
55	347	375	404	377	414														
60	258	250	288	304	325														
65	191	175	204	224	248														
70	143	144	156	154	181														
75	106	117	119	111	130														
80	66.9	71.7	71.0	80.2	81.0														
85	21.7	29.1	26.0	26.8	31.4														
90	0.25	0.23	0.26	0.26	0.27														
95	0.19	0.19	0.22	0.26	0.37														
100	0.24	0.25	0.25	0.33	0.31														
105	0.29	0.31	0.29	0.28	0.32														
110	0.33	0.34	0.35	0.31	0.31														
115	0.39	0.40	0.40	0.38	0.37														
120	0.48	0.48	0.49	0.48	0.48														
125	0.61	0.61	0.59	0.57	0.56														
130	0.76	0.73	0.70	0.68	0.67														
135	0.86	0.82	0.78	0.76	0.75														
140	0.94	0.91	0.88	0.85	0.79														
145	1.03	1.02	0.98	0.96	0.91														
150	1.08	1.08	1.08	1.06	0.98														
155	1.17	1.16	1.14	1.15	1.04														
160	1.20	1.21	1.20	1.22	1.11														
165	1.27	1.27	1.23	1.25	1.21														
170	1.23	1.24	1.23	1.23	1.17														
175	1.21	1.22	1.23	1.22	1.20														
180	1.11	1.11	1.11	1.11	1.11														

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 24.7DEG
 Operators: Alan Wang
 Test Date: 05 June 2021

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.442T2
 Humidity: 49.4%
 Test Distance: 2.500m [K=1.0462]
 Remarks: