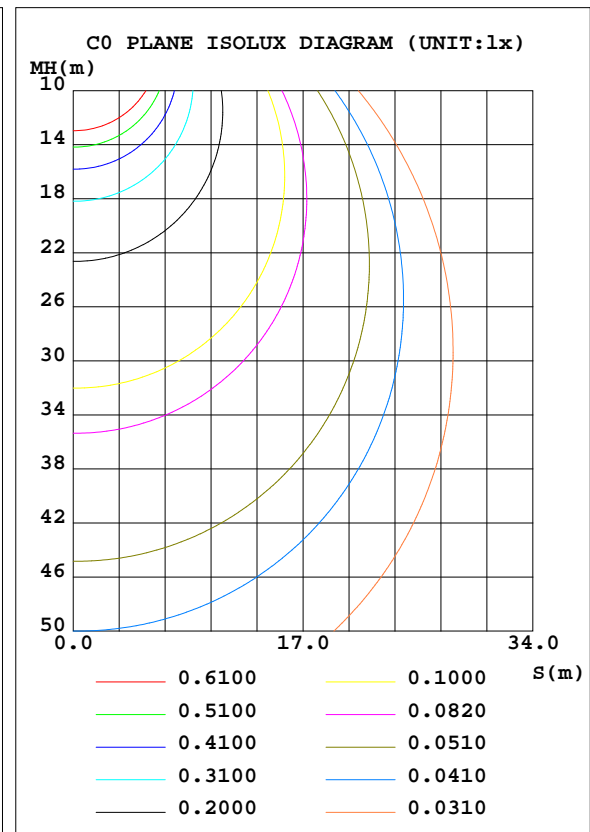
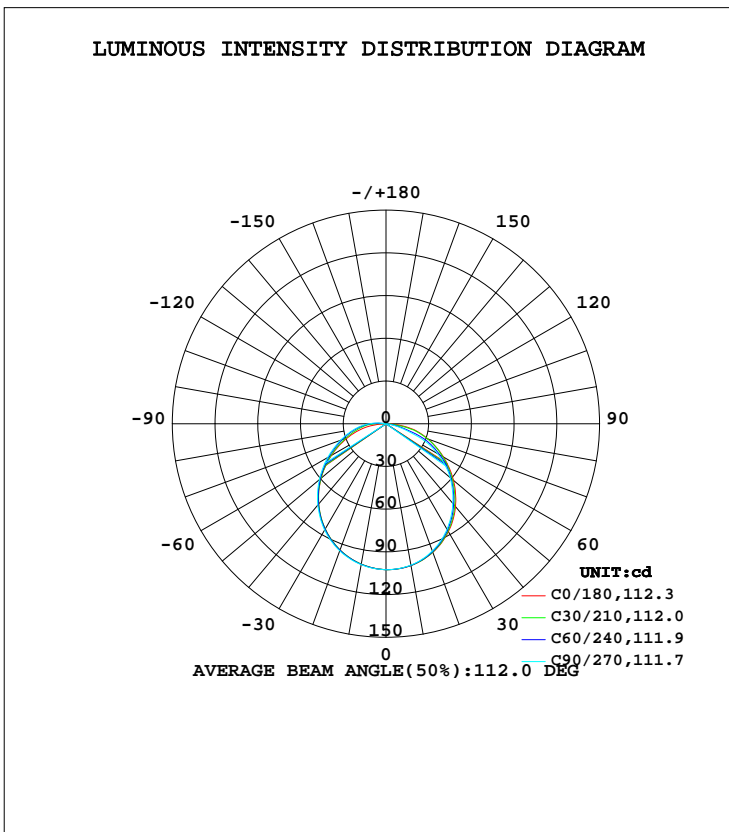


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:12.000V I:0.3625A P:4.3500W PF:1.0000 Freq:0Hz Lamp Flux:300.998x1 lm		
NAME: ASD-HSLS-7N5AC-BK 5000K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:ASD Lighting Corp	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 69.20 lm/W			
MODEL	ASD-HSLS-7N5AC-BK	I <sub>max</sub> (cd)	102.5	S/MH(C0/180)	1.24
NOMINAL POWER(W)	4.5	LOR(%)	100.0	S/MH(C90/270)	1.25
RATED VOLTAGE(V)	12	TOTAL FLUX(lm)	301.00	η UP, DN(C0-180)	0.0,47.5
NOMINAL FLUX(lm)	300.998	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.7,51.7
LAMPS INSIDE	1	η up(%)	0.8	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	12	η down(%)	99.2	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators:Alan Wang  
 Test Date:10 June 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 41.9%  
 Test Distance:2.500m [K=1.0391]  
 Remarks:

## ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum,lamp
10	101.1	101.0	100.8	100.4	100.1	100.2	100.5	100.9	0- 10	9.693	9.693	3.22,3.22
20	96.12	95.81	95.14	94.70	94.38	94.41	95.00	95.84	10- 20	27.75	37.45	12.4,12.4
30	87.61	86.75	85.65	85.40	85.41	85.41	86.18	87.28	20- 30	41.98	79.43	26.4,26.4
40	75.91	74.48	73.05	73.14	73.56	73.62	74.48	75.70	30- 40	50.38	129.8	43.1,43.1
50	61.85	60.26	58.85	59.10	59.58	59.86	61.12	61.84	40- 50	52.03	181.8	60.4,60.4
60	46.51	45.34	41.73	44.43	44.04	45.32	47.18	46.97	50- 60	47.23	229.1	76.1,76.1
70	31.39	28.67	19.09	28.19	28.73	31.67	34.09	32.87	60- 70	36.98	266.1	88.4,88.4
80	16.41	7.806	3.543	7.943	14.23	20.38	22.58	21.13	70- 80	23.00	289.1	96,96
90	0.0158	0.0212	0.0232	0.0214	0.0302	9.599	11.87	9.767	80- 90	9.652	298.7	99.2,99.2
100	0.0194	0.0235	0.0261	0.0230	0.0362	0.0635	1.262	0.0515	90-100	1.994	300.7	99.9,99.9
110	0.0286	0.0336	0.0360	0.0341	0.0447	0.0391	0.0355	0.0385	100-110	0.0535	300.8	99.9,99.9
120	0.0414	0.0445	0.0469	0.0456	0.0477	0.0432	0.0398	0.0418	110-120	0.0394	300.8	99.9,99.9
130	0.0542	0.0558	0.0568	0.0563	0.0572	0.0554	0.0534	0.0538	120-130	0.0440	300.8	99.9,99.9
140	0.0611	0.0625	0.0634	0.0629	0.0726	0.0715	0.0710	0.0703	130-140	0.0475	300.9	100,100
150	0.0660	0.0663	0.0663	0.0662	0.0894	0.0891	0.0885	0.0871	140-150	0.0451	300.9	100,100
160	0.0772	0.0769	0.0770	0.0767	0.0990	0.0984	0.0981	0.0970	150-160	0.0381	301.0	100,100
170	0.0854	0.0860	0.0861	0.0849	0.0978	0.0982	0.0978	0.0972	160-170	0.0254	301.0	100,100
180	0.0901	0.0901	0.0901	0.0901	0.0924	0.0924	0.0924	0.0924	170-180	0.0088	301.0	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 156.04 lm

%lum = 51.8%

%lamp = 51.8%

Conical surface Flux(120deg): 229.07 lm

%lum = 76.1%

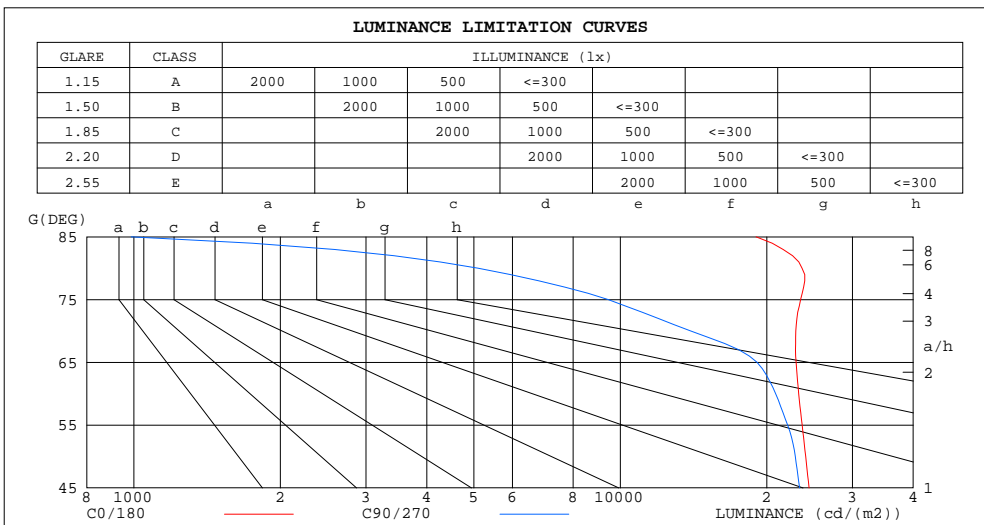
%lamp = 76.1%

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 10 June 2023

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 41.9%  
 Test Distance: 2.500m [K=1.0391]  
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:12.000V I:0.3625A P:4.3500W PF:1.0000 Freq:0Hz Lamp Flux:300.998x1 lm		
NAME:ASD-HSLs-7N5AC-BK 5000K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	19013	987
80	23632	5101
75	23480	9439
70	22943	13952
65	22979	19101
60	23257	20864
55	23647	22073
50	24055	22888
45	24437	23359

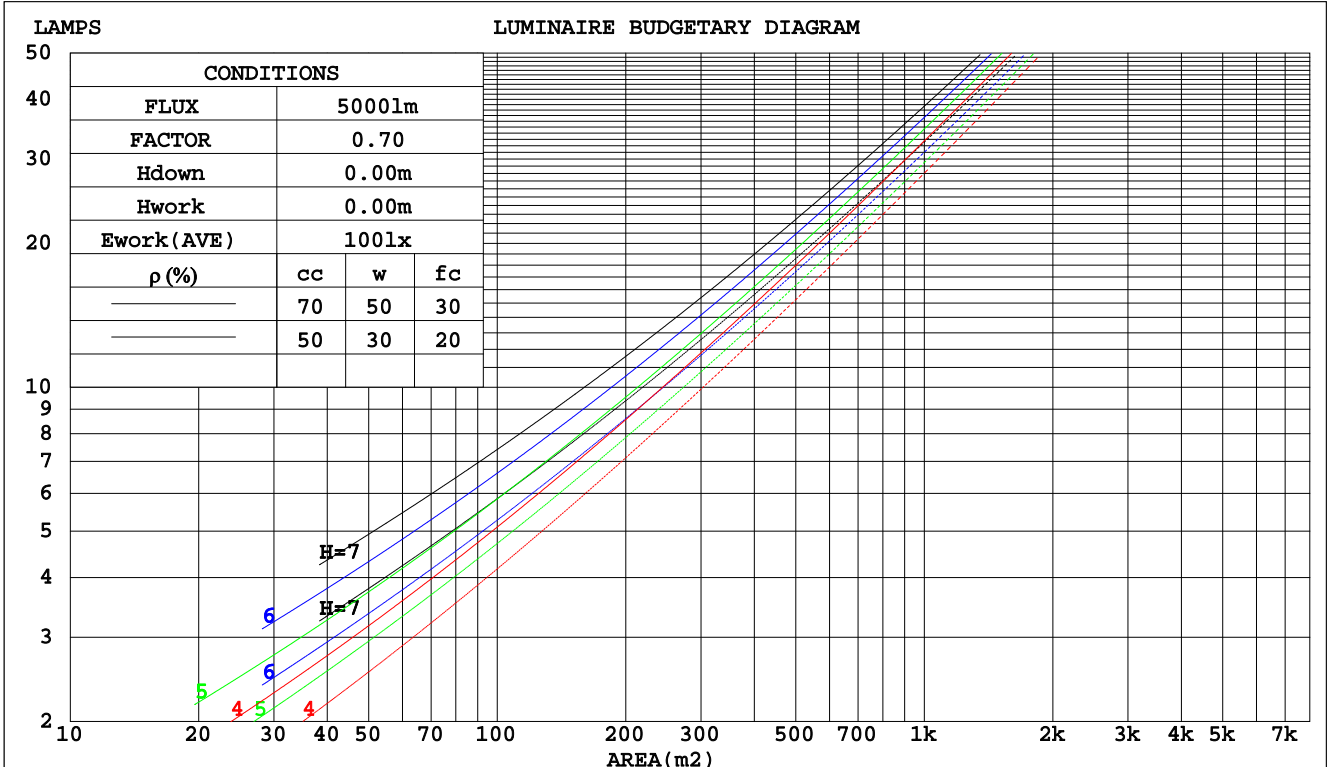
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 10 June 2023

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 41.9%  
 Test Distance: 2.500m [K=1.0391]  
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:12.000V I:0.3625A P:4.3500W PF:1.0000 Freq:0Hz Lamp Flux:300.998x1 lm		
NAME: ASD-HSLS-7N5AC-BK 5000K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:ASD Lighting Corp	SUR.:	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pw																
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	1.01	1.01	1.01	.99
1.0	1.03	.98	.94	1.00	.96	.93	.96	.93	.89	.92	.89	.87	.88	.86	.84	.82
2.0	.89	.82	.76	.87	.81	.75	.84	.78	.73	.80	.76	.72	.77	.73	.70	.68
3.0	.78	.70	.63	.77	.69	.62	.73	.67	.61	.71	.65	.60	.68	.63	.59	.57
4.0	.69	.60	.53	.68	.59	.53	.65	.58	.52	.63	.56	.51	.60	.55	.50	.48
5.0	.62	.53	.46	.61	.52	.46	.58	.51	.45	.56	.50	.44	.54	.49	.44	.42
6.0	.56	.46	.40	.55	.46	.40	.53	.45	.39	.51	.44	.39	.49	.43	.38	.36
7.0	.50	.41	.35	.50	.41	.35	.48	.40	.35	.46	.40	.34	.45	.39	.34	.32
8.0	.46	.37	.31	.45	.37	.31	.44	.36	.31	.43	.36	.31	.41	.35	.31	.29
9.0	.42	.34	.28	.42	.34	.28	.40	.33	.28	.39	.33	.28	.38	.32	.28	.26
10.0	.39	.31	.26	.38	.31	.26	.37	.30	.25	.36	.30	.25	.35	.29	.25	.23



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 10 June 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 41.9%  
 Test Distance: 2.500m [K=1.0391]  
 Remarks:

WEC AND CCEC

Test:U:12.000V I:0.3625A P:4.3500W PF:1.0000 Freq:0Hz Lamp Flux:300.998x1 lm		
NAME: ASD-HSLS-7N5AC-BK 5000K	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	.327	.186	.059	.319	.182	.058	.306	.175	.056	.293	.169	.054	.281	.163	.053	
2.0	.301	.165	.051	.295	.162	.050	.282	.157	.049	.271	.152	.048	.261	.148	.047	
3.0	.276	.147	.044	.270	.145	.044	.260	.141	.043	.250	.137	.042	.240	.133	.041	
4.0	.253	.132	.039	.248	.130	.038	.239	.127	.038	.230	.123	.037	.222	.120	.037	
5.0	.233	.119	.034	.229	.117	.034	.220	.115	.034	.212	.112	.033	.205	.110	.033	
6.0	.216	.108	.031	.212	.107	.031	.204	.105	.030	.197	.102	.030	.191	.100	.030	
7.0	.201	.099	.028	.197	.098	.028	.190	.096	.028	.184	.094	.027	.178	.092	.027	
8.0	.187	.091	.026	.184	.091	.026	.178	.089	.025	.172	.087	.025	.167	.086	.025	
9.0	.175	.085	.024	.172	.084	.024	.167	.082	.023	.162	.081	.023	.157	.080	.023	
10.0	.164	.079	.022	.162	.078	.022	.157	.077	.022	.152	.076	.021	.148	.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	.196	.196	.196	.168	.168	.168	.115	.115	.115	.066	.066	.066	.021	.021	.021	
1.0	.187	.162	.139	.160	.139	.120	.110	.096	.083	.063	.055	.048	.020	.018	.016	
2.0	.179	.138	.103	.154	.119	.089	.105	.082	.062	.061	.048	.036	.019	.015	.012	
3.0	.172	.120	.079	.147	.104	.069	.101	.072	.048	.058	.042	.028	.019	.014	.009	
4.0	.164	.107	.064	.141	.092	.055	.097	.064	.039	.056	.038	.023	.018	.012	.008	
5.0	.156	.097	.053	.134	.084	.046	.092	.058	.032	.054	.034	.019	.017	.011	.006	
6.0	.149	.088	.045	.128	.077	.039	.088	.054	.028	.051	.032	.016	.017	.010	.005	
7.0	.142	.081	.039	.122	.071	.034	.084	.050	.024	.049	.029	.014	.016	.010	.005	
8.0	.136	.076	.035	.117	.066	.030	.081	.046	.021	.047	.027	.013	.015	.009	.004	
9.0	.129	.071	.031	.111	.061	.027	.077	.043	.019	.045	.025	.011	.015	.008	.004	
10.0	.124	.066	.028	.107	.058	.025	.074	.041	.018	.043	.024	.010	.014	.008	.003	

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 10 June 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 41.9%  
 Test Distance: 2.500m [K=1.0391]  
 Remarks:

## UGR(Unified Glare Rating) Table

Test:U:12.000V I:0.3625A P:4.3500W PF:1.0000 Freq:0Hz Lamp Flux:300.998x1 lm										
NAME:ASD-HSLS-7N5AC-BK 5000K					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	23.8	25.3	24.1	25.6	25.8	23.4	24.9	23.7	25.1	25.4
3H	25.5	27.0	25.8	27.2	27.5	24.5	25.9	24.8	26.1	26.4
4H	26.3	27.7	26.7	28.0	28.2	24.6	26.0	25.0	26.3	26.5
6H	27.1	28.3	27.4	28.6	28.9	24.6	25.9	25.0	26.2	26.5
8H	27.3	28.6	27.7	28.9	29.2	24.6	25.8	25.0	26.1	26.5
12H	27.5	28.7	27.8	29.0	29.3	24.6	25.7	24.9	26.1	26.4
4H 2H	24.4	25.8	24.7	26.0	26.3	24.1	25.4	24.4	25.7	26.0
3H	26.3	27.5	26.7	27.8	28.2	25.3	26.5	25.7	26.8	27.1
4H	27.3	28.4	27.7	28.7	29.1	25.6	26.6	25.9	27.0	27.3
6H	28.2	29.2	28.6	29.5	29.9	25.6	26.6	26.0	26.9	27.3
8H	28.6	29.5	29.0	29.9	30.3	25.6	26.5	26.0	26.9	27.3
12H	28.8	29.6	29.2	30.0	30.4	25.5	26.4	26.0	26.8	27.2
8H 4H	27.5	28.4	27.9	28.7	29.2	25.9	26.8	26.3	27.2	27.6
6H	28.5	29.3	29.0	29.7	30.1	26.0	26.7	26.4	27.2	27.6
8H	29.0	29.6	29.4	30.1	30.6	26.0	26.6	26.4	27.1	27.5
12H	29.3	29.9	29.8	30.4	30.8	25.9	26.5	26.4	27.0	27.5
12H 4H	27.4	28.3	27.9	28.7	29.1	25.9	26.7	26.4	27.1	27.6
6H	28.5	29.2	29.0	29.6	30.1	26.0	26.7	26.5	27.2	27.6
8H	29.0	29.6	29.5	30.0	30.5	26.0	26.6	26.5	27.1	27.6
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.2					+ 0.2 / - 0.3				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.1 / - 0.3					+ 0.3 / - 0.5				

CIE Pub.117, 301.0 lm Total Lamp Luminous Flux Corrected ( $8\log(F/F_0) = -4.2$ )  
Area: 0.004 m<sup>2</sup>

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.0DEG  
Operators: Alan Wang  
Test Date: 10 June 2023

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
Humidity: 41.9%  
Test Distance: 2.500m [K=1.0391]  
Remarks:

UTILIZATION FACTORS TABLE

Test:U:12.000V I:0.3625A P:4.3500W PF:1.0000 Freq:0Hz Lamp Flux:300.998x1 lm		
NAME: ASD-HSLS-7N5AC-BK 5000K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

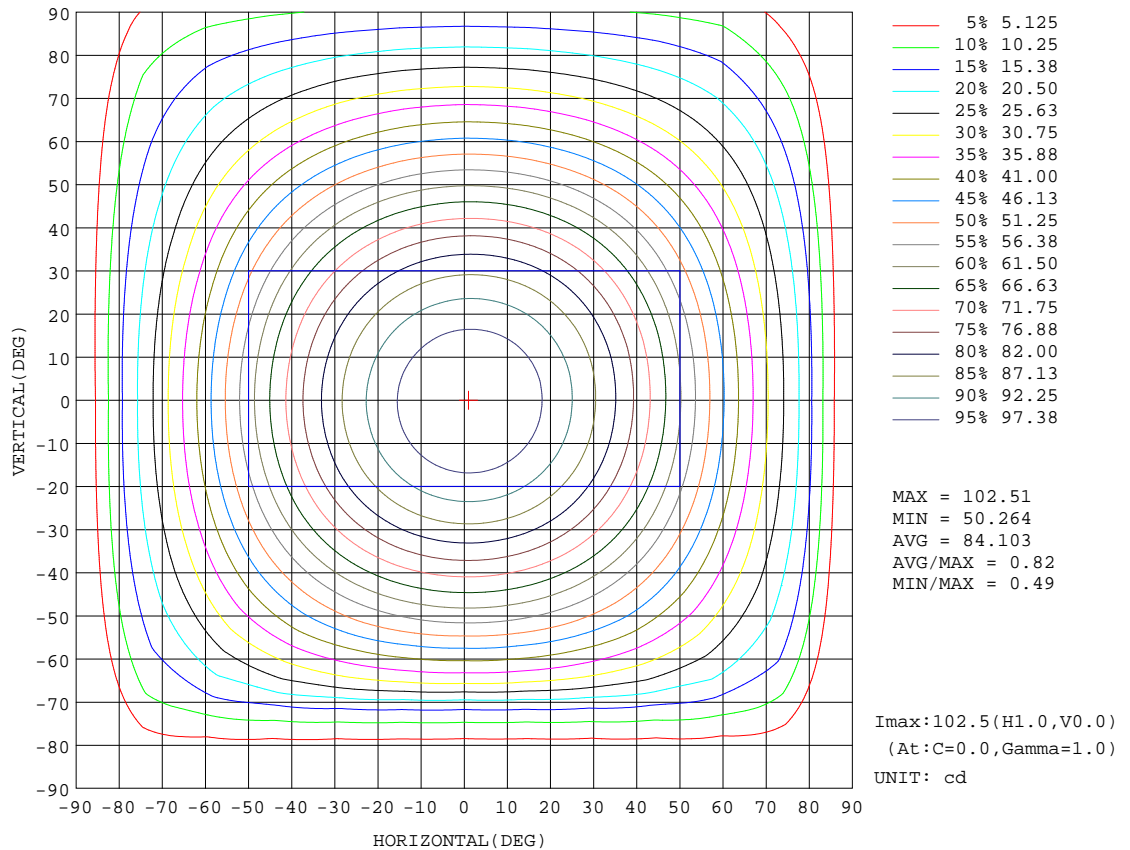
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	57	45	38	56	45	38	55	44	38	31
0.80	67	55	47	66	54	47	64	54	47	40
1.00	75	64	56	74	63	56	71	64	55	48
1.25	82	71	64	80	70	63	78	69	63	55
1.50	87	77	69	85	76	69	82	74	68	60
2.00	94	85	78	92	84	77	88	81	76	68
2.50	98	90	83	96	88	82	92	85	80	72
3.00	101	94	88	99	92	87	95	89	85	76
4.00	105	99	94	103	97	93	98	94	90	81
5.00	108	103	98	105	101	97	101	97	93	84
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: Alan Wang  
 Test Date: 10 June 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 41.9%  
 Test Distance: 2.500m [K=1.0391]  
 Remarks:

ISOCANDELA DIAGRAM

Test:U:12.000V I:0.3625A P:4.3500W PF:1.0000 Freq:0Hz Lamp Flux:300.998x1 lm		
NAME:ASD-HSLS-7N5AC-BK 5000K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



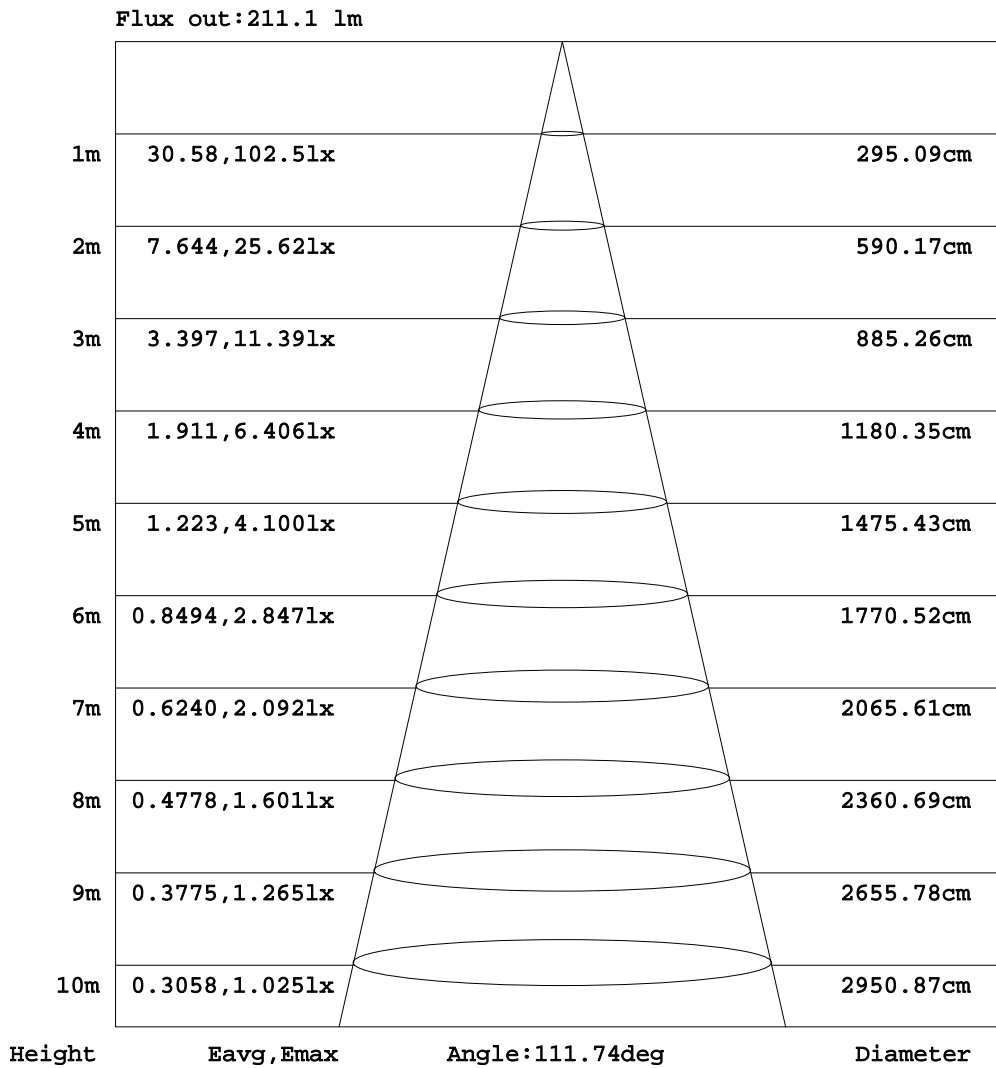
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 10 June 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 41.9%  
 Test Distance: 2.500m [K=1.0391]  
 Remarks:



AAI Figure

Test:U:12.000V I:0.3625A P:4.3500W PF:1.0000 Freq:0Hz Lamp Flux:300.998x1 lm		
NAME:ASD-HSLS-7N5AC-BK 5000K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:ASD Lighting Corp	SUR.:	Shielding Angle:



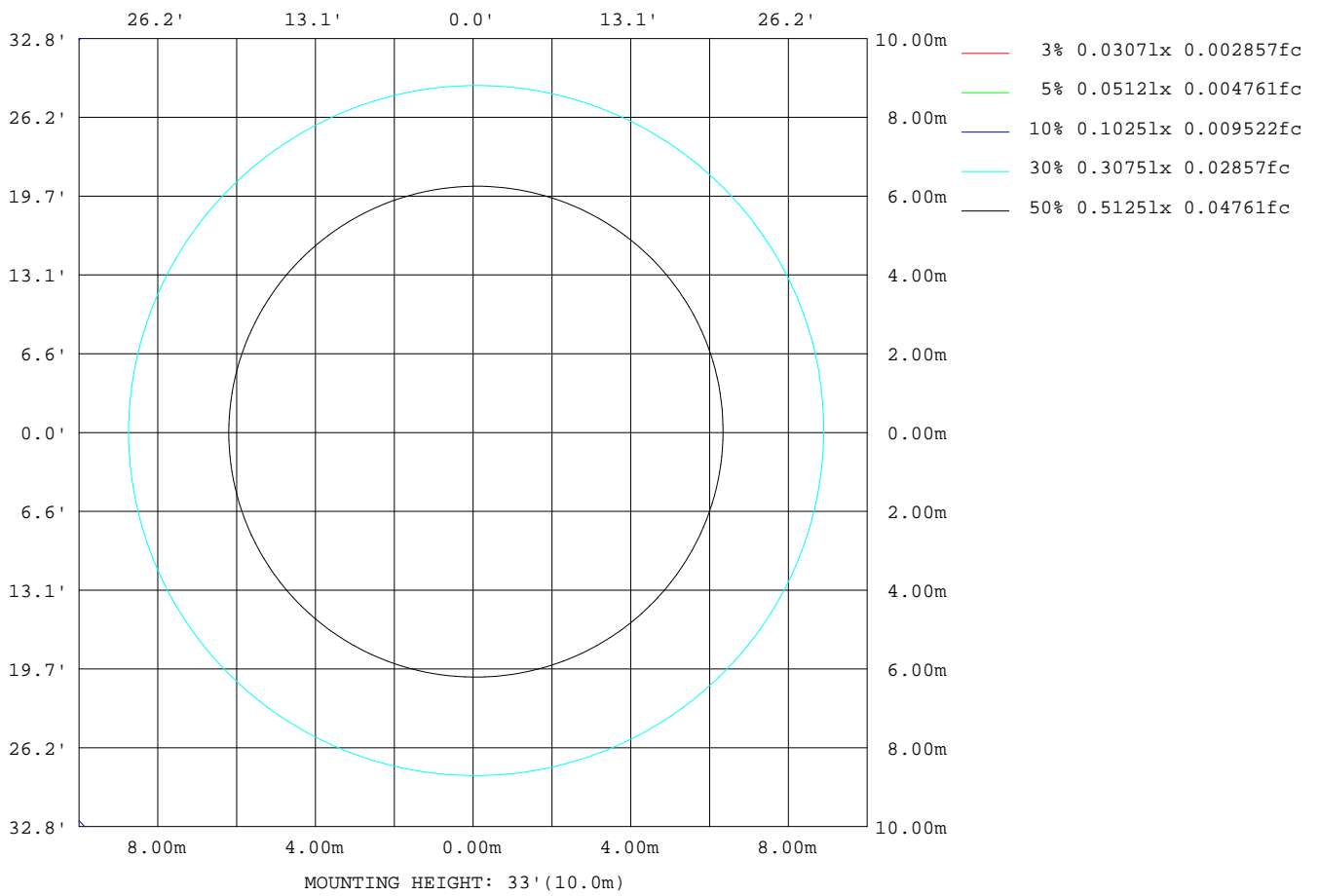
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators:Alan Wang  
 Test Date:10 June 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 41.9%  
 Test Distance:2.500m [K=1.0391]  
 Remarks:

ISOLUX DIAGRAM

Test:U:12.000V I:0.3625A P:4.3500W PF:1.0000 Freq:0Hz Lamp Flux:300.998x1 lm		
NAME: ASD-HSLS-7N5AC-BK 5000K	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: Alan Wang  
 Test Date: 10 June 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 41.9%  
 Test Distance: 2.500m [K=1.0391]  
 Remarks:

## LED Avg.L Report

Test:U:12.000V I:0.3625A P:4.3500W PF:1.0000 Freq:0Hz Lamp Flux:300.998x1 lm		
NAME: ASD-HSLS-7N5AC-BK 5000K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:ASD Lighting Corp	SUR.:	Shielding Angle:

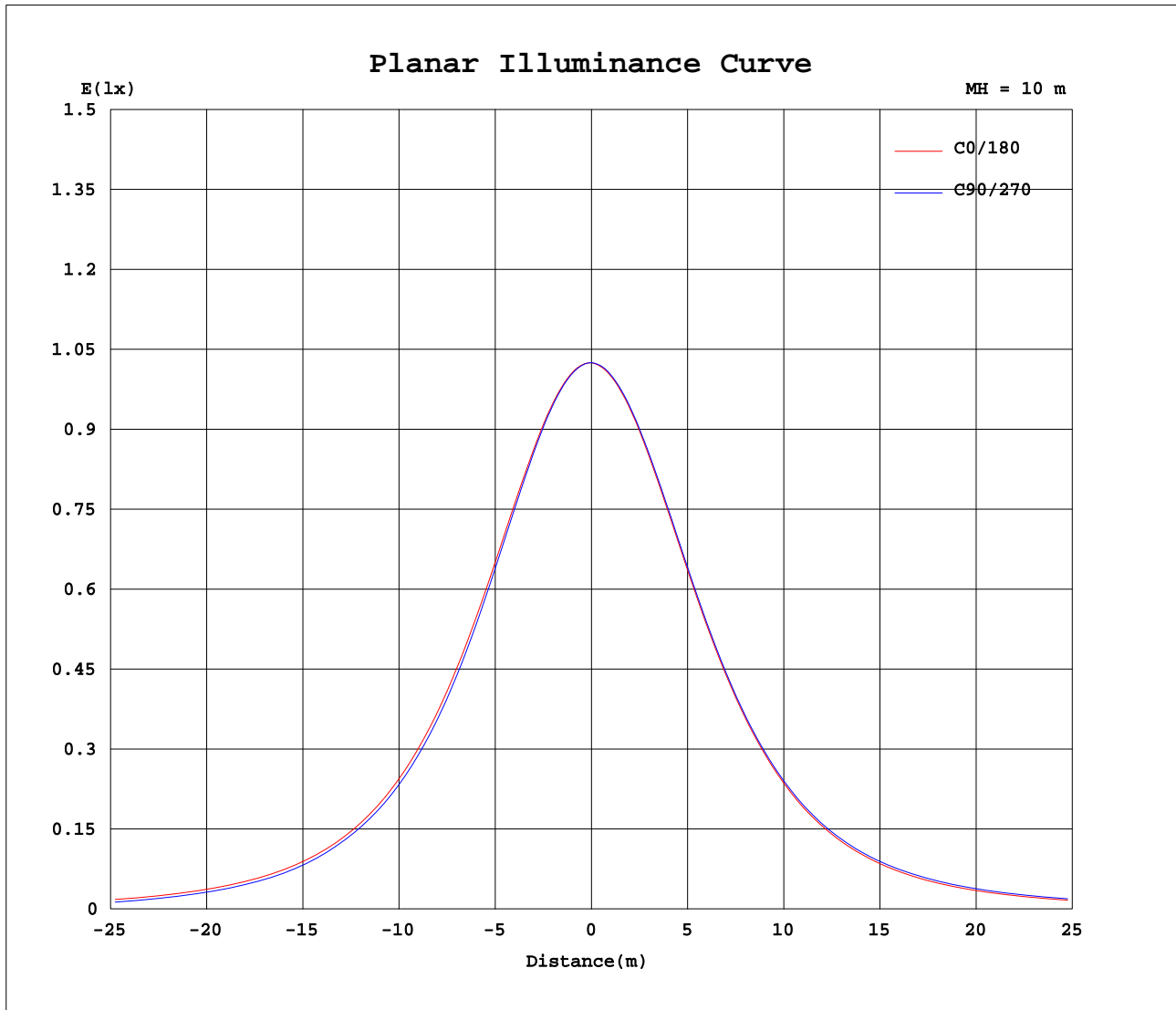
AvgL	cd/m2
L_0~180(65)av	22239
L_0~180(75)av	22160
L_0~180(85)av	18071
L_90~270(65)av	21503
L_90~270(75)av	18299
L_90~270(85)av	25150
L_45(65)av	22389
L_45(75)av	21354
L_45(85)av	23949

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.0DEG  
Operators:Alan Wang  
Test Date:10 June 2023

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
Humidity: 41.9%  
Test Distance:2.500m [K=1.0391]  
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 10 June 2023

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 41.9%  
 Test Distance: 2.500m [K=1.0391]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:12.000V I:0.3625A P:4.3500W PF:1.0000 Freq:0Hz Lamp Flux:300.998x1 lm		
NAME:ASD-HSLS-7N5AC-BK 5000K	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	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102
5	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102
10	101	101	101	101	101	101	101	101	101	100	100	100	100	100	100	100	100	100	100
15	99.1	99.1	99.0	98.9	98.8	98.6	98.5	98.3	98.1	98.0	97.9	97.8	97.7	97.7	97.6	97.7	97.8	98.0	98.2
20	96.1	96.1	96.0	95.8	95.6	95.4	95.1	95.0	94.8	94.7	94.6	94.4	94.4	94.3	94.3	94.4	94.5	94.7	95.0
25	92.3	92.2	92.0	91.7	91.4	91.1	90.9	90.7	90.6	90.5	90.4	90.3	90.3	90.2	90.2	90.3	90.5	90.7	91.0
30	87.6	87.5	87.1	86.7	86.3	85.9	85.6	85.5	85.4	85.4	85.4	85.4	85.4	85.3	85.3	85.4	85.6	85.9	86.2
35	82.2	81.9	81.5	81.0	80.4	80.0	79.6	79.5	79.5	79.6	79.7	79.7	79.8	79.8	79.7	79.8	80.0	80.3	80.6
40	75.9	75.6	75.1	74.5	73.9	73.4	73.1	73.0	73.0	73.1	73.3	73.4	73.6	73.5	73.5	73.6	73.8	74.1	74.5
45	69.1	68.7	68.2	67.5	66.9	66.4	66.1	66.0	66.1	66.3	66.5	66.6	66.8	66.7	66.7	66.9	67.2	67.6	68.0
50	61.8	61.4	60.9	60.3	59.6	59.2	58.8	58.8	58.9	59.1	59.2	59.4	59.6	59.5	59.6	59.9	60.3	60.7	61.1
55	54.3	53.9	53.4	52.9	52.2	51.2	50.6	51.0	51.6	51.8	51.9	51.8	51.9	51.9	52.2	52.6	53.1	53.7	54.1
60	46.5	46.3	45.9	45.3	43.7	42.3	41.7	42.1	43.3	44.4	44.4	44.2	44.0	44.2	44.7	45.3	46.1	46.7	47.2
65	38.8	38.7	38.5	37.0	35.0	33.1	32.3	33.1	34.7	36.4	37.1	36.6	36.3	36.4	37.3	38.3	39.2	40.0	40.4
70	31.4	31.4	31.0	28.7	24.6	20.5	19.1	20.7	24.7	28.2	29.8	29.2	28.7	29.1	30.4	31.7	32.8	33.7	34.1
75	24.3	24.6	23.2	17.9	12.9	10.4	9.77	10.5	13.0	18.0	22.2	22.4	21.6	22.5	24.3	25.8	27.0	27.8	28.1
80	16.4	17.9	13.3	7.81	4.99	3.88	3.54	3.93	5.11	7.94	13.2	16.2	14.2	16.8	19.1	20.4	21.5	22.3	22.6
85	6.63	7.78	3.12	1.26	0.64	0.42	0.34	0.42	0.65	1.33	3.35	8.06	5.97	11.5	14.0	15.2	16.2	16.9	17.2
90	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.04	0.03	5.18	7.96	9.60	10.8	11.6	11.9
95	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.08	1.29	3.59	5.27	6.23	6.53
100	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.04	0.04	0.04	0.06	0.44	1.07	1.26
105	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04
110	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04
115	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.04	0.04	0.04	0.04	0.04	0.04
120	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0.05	0.05	0.04	0.04	0.04	0.04	0.04
125	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
130	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.05	0.05	0.05
135	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
140	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.07
145	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.08	0.08	0.08	0.08	0.08	0.08	0.08
150	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.09	0.09	0.09	0.09	0.09	0.09	0.09
155	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.09	0.09	0.09	0.09	0.09	0.09	0.09
160	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.10	0.10	0.10	0.10	0.10	0.10	0.10
165	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.10	0.10	0.10	0.10	0.10	0.10	0.10
170	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.10	0.10	0.10	0.10	0.10	0.10	0.10
175	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.10
180	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 10 June 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 41.9%  
 Test Distance: 2.500m [K=1.0391]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:12.000V I:0.3625A P:4.3500W PF:1.0000 Freq:0Hz Lamp Flux:300.998x1 lm		
NAME: ASD-HSLS-7N5AC-BK 5000K	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	102	102	102	102	102														
5	102	102	102	102	102														
10	101	101	101	101	101														
15	98.4	98.6	98.8	99.0	99.1														
20	95.3	95.6	95.8	96.0	96.2														
25	91.3	91.7	92.0	92.2	92.4														
30	86.5	86.9	87.3	87.6	87.7														
35	81.0	81.5	81.9	82.2	82.3														
40	74.9	75.3	75.7	76.0	76.2														
45	68.3	68.6	69.0	69.3	69.4														
50	61.4	61.6	61.8	62.0	62.2														
55	54.3	54.4	54.4	54.5	54.6														
60	47.3	47.1	47.0	46.9	46.9														
65	40.4	40.1	39.7	39.4	39.2														
70	34.0	33.5	32.9	32.3	31.8														
75	28.0	27.5	26.7	25.8	25.0														
80	22.4	21.9	21.1	20.3	18.3														
85	17.0	16.4	15.7	14.4	10.7														
90	11.6	10.9	9.77	8.05	3.52														
95	6.14	5.08	3.30	0.92	0.06														
100	0.97	0.34	0.05	0.03	0.03														
105	0.04	0.04	0.04	0.04	0.04														
110	0.04	0.04	0.04	0.04	0.04														
115	0.04	0.04	0.04	0.04	0.04														
120	0.04	0.04	0.04	0.04	0.04														
125	0.05	0.05	0.05	0.05	0.05														
130	0.05	0.05	0.05	0.05	0.06														
135	0.06	0.06	0.06	0.06	0.06														
140	0.07	0.07	0.07	0.07	0.07														
145	0.08	0.08	0.08	0.08	0.08														
150	0.09	0.09	0.09	0.09	0.08														
155	0.09	0.09	0.09	0.09	0.09														
160	0.10	0.10	0.10	0.10	0.09														
165	0.10	0.10	0.10	0.10	0.09														
170	0.10	0.10	0.10	0.10	0.09														
175	0.10	0.10	0.10	0.10	0.09														
180	0.09	0.09	0.09	0.09	0.09														

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 10 June 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 41.9%  
 Test Distance: 2.500m [K=1.0391]  
 Remarks: