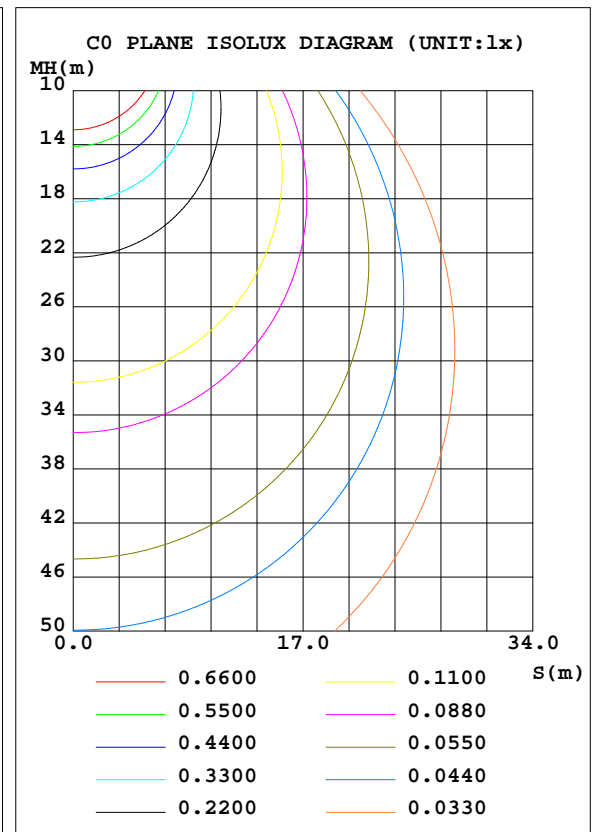
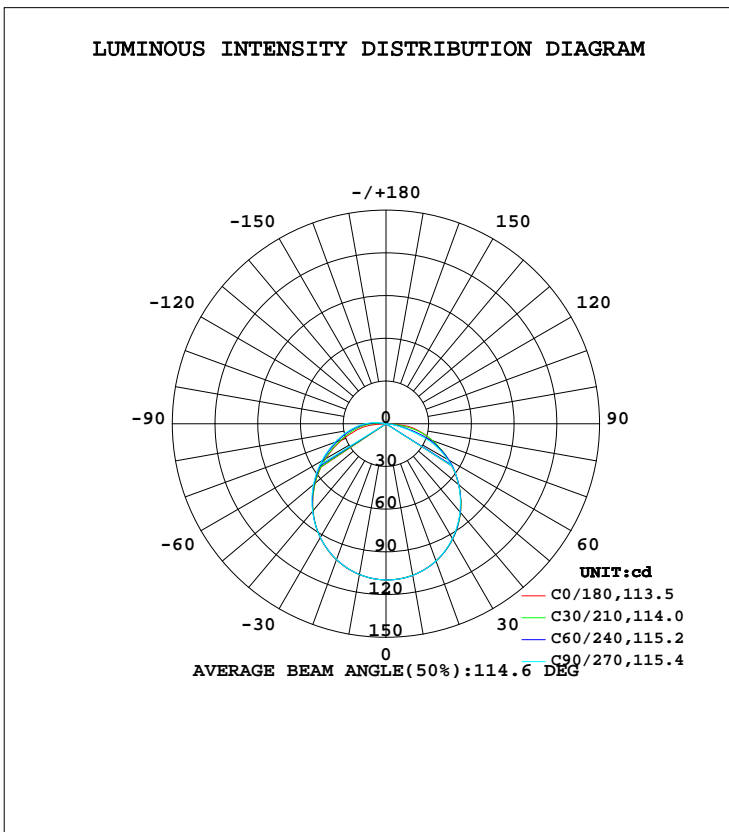


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:12.000V I:0.3758A P:4.5100W PF:1.0000 Freq:0Hz Lamp Flux:333.515x1 lm		
NAME: ASD-HSLS-12N5AC-BK 5000K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:ASD Lighting Corp	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 73.95 lm/W			
MODEL	ASD-HSLS-12N5AC-BK	I _{max} (cd)	109.7	S/MH(C0/180)	1.25
NOMINAL POWER(W)	5	LOR(%)	100.0	S/MH(C90/270)	1.25
RATED VOLTAGE(V)	12	TOTAL FLUX(lm)	333.51	η UP, DN(C0-180)	0.1,47.9
NOMINAL FLUX(lm)	333.515	CIE CLASS	DIRECT	η UP, DN(C180-360)	1.0,51.0
LAMPS INSIDE	1	η up(%)	1.1	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	12	η down(%)	98.9	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators: Alan Wang
 Test Date: 09 June 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 41.4%
 Test Distance: 2.500m [K=1.0391]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	107.9	108.1	108.1	107.8	107.6	107.5	107.5	107.7	0- 10	10.38	10.38	3.11,3.11
20	102.5	102.7	102.5	102.2	101.8	101.5	101.6	102.1	10- 20	29.75	40.13	12,12
30	93.56	93.55	93.19	92.75	92.38	92.18	92.33	92.95	20- 30	45.12	85.25	25.6,25.6
40	81.35	81.31	80.81	80.18	79.79	79.84	80.24	80.84	30- 40	54.45	139.7	41.9,41.9
50	66.62	66.85	66.57	65.46	64.93	65.42	66.57	66.54	40- 50	56.74	196.4	58.9,58.9
60	50.37	51.31	49.72	49.85	48.80	50.12	52.15	51.17	50- 60	52.23	248.7	74.6,74.6
70	34.57	33.86	27.91	32.92	32.56	35.42	38.19	36.21	60- 70	41.86	290.5	87.1,87.1
80	20.55	11.83	6.859	11.58	18.33	22.84	25.73	23.50	70- 80	27.15	317.7	95.3,95.3
90	0.1261	0.2033	0.0730	0.2394	0.1095	11.71	14.77	12.10	80- 90	12.28	330.0	98.9,98.9
100	0.0287	0.0644	0.0522	0.0708	0.0443	0.6955	3.937	0.5334	90-100	3.063	333.0	99.9,99.9
110	0.0374	0.0547	0.0548	0.0567	0.0522	0.0626	0.0533	0.0633	100-110	0.1930	333.2	99.9,99.9
120	0.0502	0.0577	0.0614	0.0590	0.0569	0.0549	0.0501	0.0531	110-120	0.0534	333.3	99.9,99.9
130	0.0639	0.0641	0.0690	0.0649	0.0691	0.0657	0.0637	0.0636	120-130	0.0536	333.3	99.9,99.9
140	0.0720	0.0699	0.0732	0.0699	0.0843	0.0812	0.0798	0.0796	130-140	0.0549	333.4	100,100
150	0.0759	0.0723	0.0745	0.0723	0.1020	0.0990	0.0982	0.0970	140-150	0.0505	333.4	100,100
160	0.0878	0.0837	0.0844	0.0822	0.1097	0.1091	0.1075	0.1079	150-160	0.0421	333.5	100,100
170	0.0951	0.0937	0.0949	0.0925	0.1076	0.1096	0.1067	0.1078	160-170	0.0279	333.5	100,100
180	0.0975	0.0975	0.0975	0.0975	0.1005	0.1005	0.1005	0.1005	170-180	0.0096	333.5	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 168.23 lm

%lum = 50.4%

%lamp = 50.4%

Conical surface Flux(120deg): 248.67 lm

%lum = 74.6%

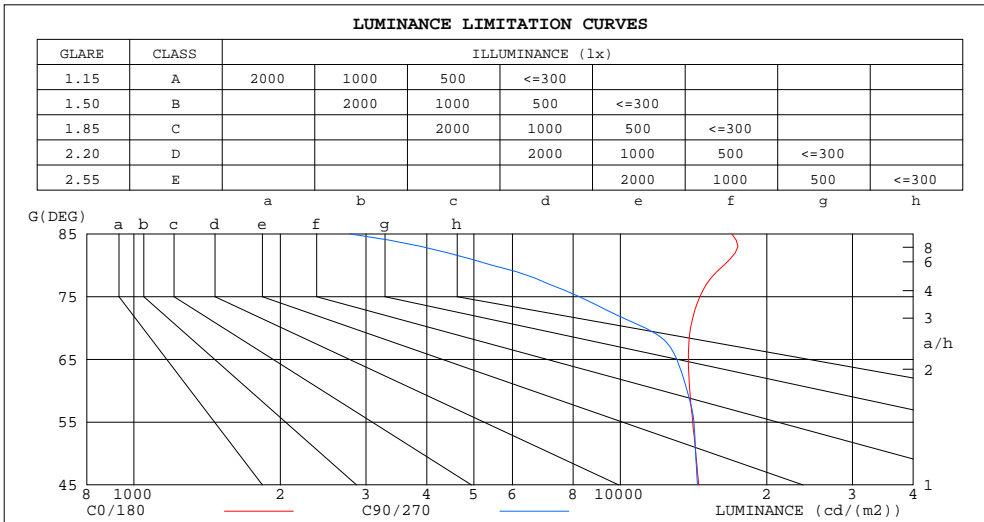
%lamp = 74.6%

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators: Alan Wang
 Test Date: 09 June 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 41.4%
 Test Distance: 2.500m [K=1.0391]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:12.000V I:0.3758A P:4.5100W PF:1.0000 Freq:0Hz Lamp Flux:333.515x1 lm		
NAME: ASD-HSLS-12N5AC-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	16942	2777
80	16323	5448
75	14571	8223
70	13940	11257
65	13796	13064
60	13895	13717
55	14088	14167
50	14294	14285
45	14490	14404

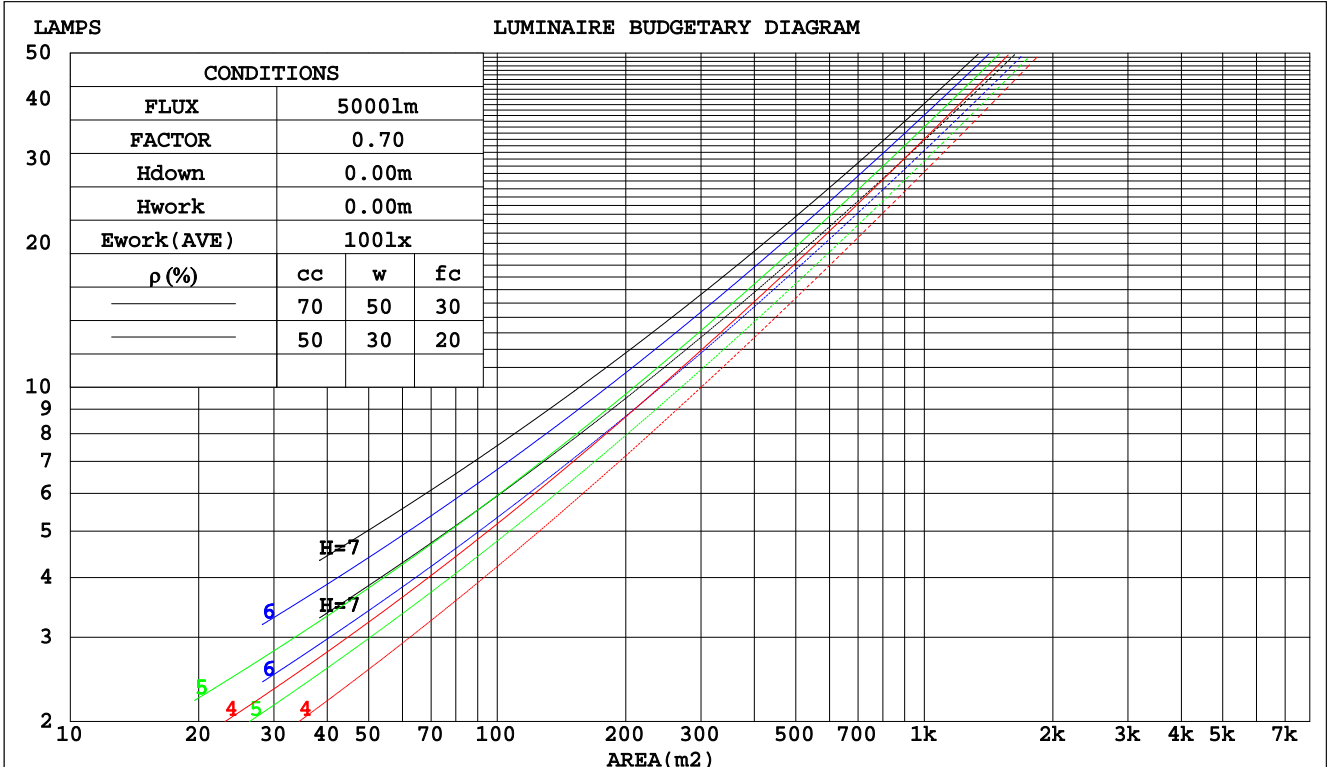
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators: Alan Wang
 Test Date: 09 June 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 41.4%
 Test Distance: 2.500m [K=1.0391]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:12.000V I:0.3758A P:4.5100W PF:1.0000 Freq:0Hz Lamp Flux:333.515x1 lm		
NAME: ASD-HSL5-12N5AC-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																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	1.01	1.01	1.01	.99
1.0	1.02	.98	.93	.90	.96	.92	.95	.92	.89	.91	.88	.86	.87	.85	.83	.81
2.0	.89	.81	.75	.87	.80	.74	.83	.77	.72	.79	.75	.71	.76	.72	.69	.67
3.0	.78	.69	.62	.76	.68	.62	.73	.66	.60	.70	.64	.59	.67	.62	.58	.56
4.0	.68	.59	.52	.67	.59	.52	.64	.57	.51	.62	.55	.50	.60	.54	.50	.47
5.0	.61	.52	.45	.60	.51	.45	.58	.50	.44	.55	.49	.43	.54	.48	.43	.41
6.0	.55	.46	.39	.54	.45	.39	.52	.44	.38	.50	.43	.38	.48	.42	.38	.35
7.0	.50	.41	.35	.49	.40	.34	.47	.40	.34	.46	.39	.34	.44	.38	.33	.31
8.0	.45	.37	.31	.45	.36	.31	.43	.36	.30	.42	.35	.30	.41	.34	.30	.28
9.0	.42	.33	.28	.41	.33	.28	.40	.32	.27	.39	.32	.27	.37	.31	.27	.25
10.0	.38	.30	.25	.38	.30	.25	.37	.30	.25	.36	.29	.25	.35	.29	.24	.23



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators: Alan Wang
 Test Date: 09 June 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 41.4%
 Test Distance: 2.500m [K=1.0391]
 Remarks:

WEC AND CCEC

Test:U:12.000V I:0.3758A P:4.5100W PF:1.0000 Freq:0Hz Lamp Flux:333.515x1 lm		
NAME: ASD-HSLS-12N5AC-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	.335	.191	.060	.328	.187	.059	.314	.180	.057	.301	.174	.056	.289	.168	.054	
2.0	.307	.168	.052	.300	.165	.051	.288	.160	.050	.276	.155	.049	.266	.150	.047	
3.0	.280	.149	.045	.274	.147	.044	.263	.143	.043	.253	.139	.043	.244	.135	.042	
4.0	.256	.133	.039	.251	.131	.039	.241	.128	.038	.232	.125	.038	.224	.122	.037	
5.0	.236	.120	.035	.231	.119	.035	.222	.116	.034	.214	.113	.034	.207	.111	.033	
6.0	.218	.109	.031	.214	.108	.031	.206	.106	.031	.199	.103	.030	.192	.101	.030	
7.0	.202	.100	.028	.198	.099	.028	.191	.097	.028	.185	.095	.028	.179	.093	.027	
8.0	.188	.092	.026	.185	.091	.026	.179	.089	.026	.173	.088	.025	.167	.086	.025	
9.0	.176	.085	.024	.173	.084	.024	.168	.083	.023	.162	.081	.023	.157	.080	.023	
10.0	.165	.079	.022	.163	.079	.022	.158	.077	.022	.153	.076	.022	.148	.075	.021	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.199	.199	.199	.170	.170	.170	.116	.116	.116	.067	.067	.067	.021	.021	.021	
1.0	.190	.164	.141	.163	.141	.121	.111	.097	.084	.064	.056	.049	.021	.018	.016	
2.0	.182	.140	.104	.156	.121	.090	.107	.083	.063	.062	.049	.037	.020	.016	.012	
3.0	.175	.123	.081	.150	.106	.070	.103	.073	.049	.059	.043	.029	.019	.014	.010	
4.0	.167	.109	.066	.143	.095	.057	.099	.066	.040	.057	.039	.024	.018	.013	.008	
5.0	.159	.099	.055	.137	.086	.048	.094	.060	.034	.055	.035	.020	.018	.011	.007	
6.0	.152	.091	.047	.131	.079	.041	.090	.055	.029	.052	.032	.017	.017	.011	.006	
7.0	.145	.084	.041	.125	.073	.036	.086	.051	.025	.050	.030	.015	.016	.010	.005	
8.0	.138	.078	.037	.119	.068	.032	.082	.048	.023	.048	.028	.014	.016	.009	.004	
9.0	.132	.073	.033	.114	.064	.029	.079	.045	.021	.046	.026	.012	.015	.009	.004	
10.0	.126	.069	.031	.109	.060	.027	.076	.042	.019	.044	.025	.011	.014	.008	.004	

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators: Alan Wang
 Test Date: 09 June 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 41.4%
 Test Distance: 2.500m [K=1.0391]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:12.000V I:0.3758A P:4.5100W PF:1.0000 Freq:0Hz Lamp Flux:333.515x1 lm										
NAME:			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	22.0	23.5	22.3	23.8	24.0	22.0	23.5	22.3	23.7	24.0
3H	23.7	25.2	24.1	25.4	25.7	23.4	24.8	23.7	25.1	25.3
4H	24.6	25.9	24.9	26.2	26.5	23.7	25.1	24.0	25.3	25.6
6H	25.4	26.7	25.7	27.0	27.3	23.8	25.1	24.2	25.4	25.7
8H	25.8	27.0	26.1	27.3	27.6	23.8	25.1	24.2	25.4	25.7
12H	26.0	27.2	26.4	27.6	27.9	23.8	25.0	24.2	25.3	25.6
4H 2H	22.7	24.0	23.0	24.3	24.6	22.6	24.0	23.0	24.3	24.6
3H	24.6	25.8	25.0	26.1	26.5	24.2	25.4	24.6	25.7	26.1
4H	25.6	26.7	26.0	27.0	27.4	24.7	25.8	25.1	26.1	26.5
6H	26.6	27.6	27.0	27.9	28.3	24.8	25.8	25.3	26.2	26.6
8H	27.1	28.0	27.5	28.4	28.8	24.9	25.8	25.3	26.2	26.6
12H	27.4	28.3	27.9	28.7	29.1	24.8	25.7	25.3	26.1	26.5
8H 4H	25.9	26.8	26.3	27.2	27.6	25.0	25.9	25.4	26.3	26.7
6H	27.0	27.8	27.5	28.2	28.6	25.3	26.0	25.7	26.5	26.9
8H	27.6	28.3	28.1	28.7	29.2	25.3	26.0	25.8	26.5	26.9
12H	28.1	28.7	28.6	29.2	29.7	25.3	25.9	25.8	26.4	26.9
12H 4H	25.8	26.7	26.3	27.1	27.5	25.0	25.9	25.5	26.3	26.7
6H	27.0	27.7	27.5	28.1	28.6	25.4	26.0	25.8	26.5	27.0
8H	27.6	28.2	28.1	28.7	29.2	25.4	26.0	25.9	26.5	27.0
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.1 / - 0.3					+ 0.2 / - 0.4				

CIE Pub.117, 333.5 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = -3.8)
 Area: 0.00725 m2

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators: Alan Wang
 Test Date: 09 June 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 41.4%
 Test Distance: 2.500m [K=1.0391]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:12.000V I:0.3758A P:4.5100W PF:1.0000 Freq:0Hz Lamp Flux:333.515x1 lm		
NAME: ASD-HSLS-12N5AC-BK 5000K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:ASD Lighting Corp	SUR.:	Shielding Angle:

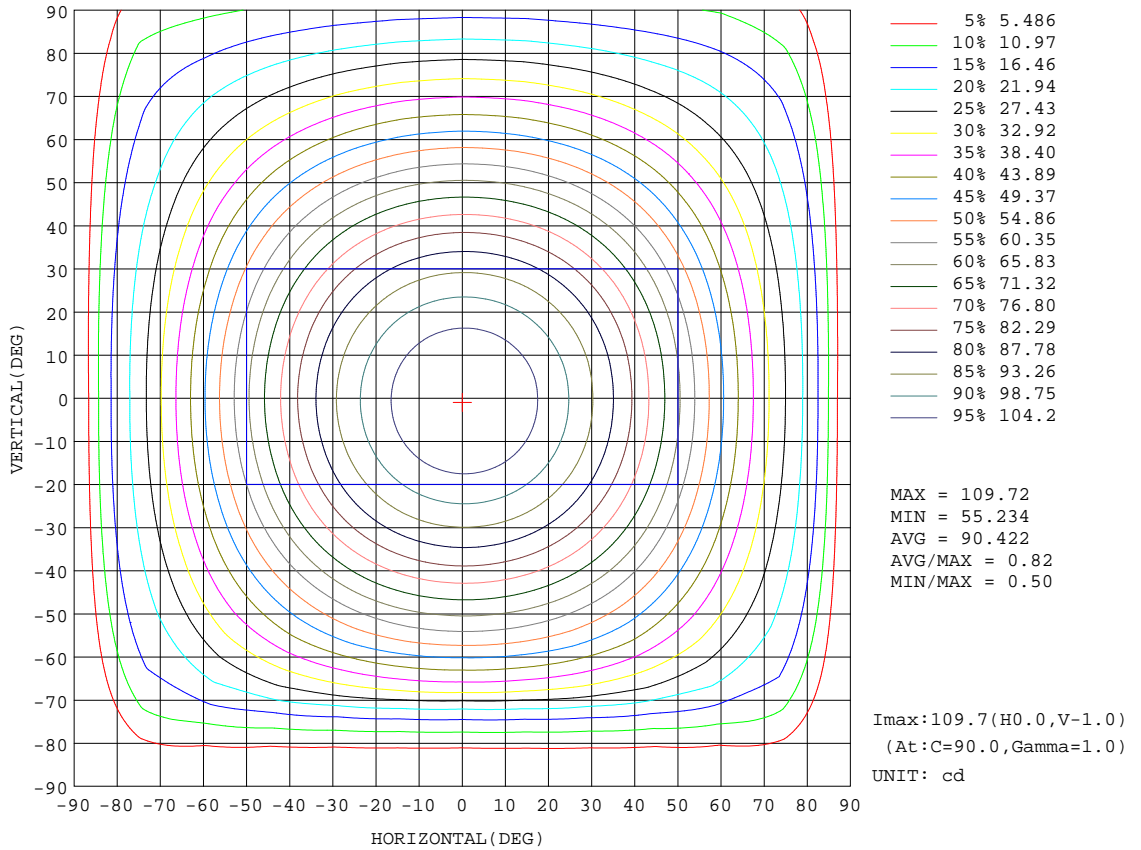
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	56	44	37	55	44	37	54	43	37	30
0.80	66	54	46	65	53	46	63	53	46	39
1.00	74	63	55	73	62	55	70	63	54	47
1.25	81	70	63	80	69	62	77	68	61	54
1.50	86	76	68	84	75	68	81	73	67	59
2.00	93	84	77	91	83	76	87	80	75	66
2.50	97	89	82	95	87	81	91	85	79	71
3.00	101	93	87	98	91	86	94	88	84	75
4.00	105	98	93	102	97	92	98	93	89	80
5.00	107	102	97	105	100	96	100	96	93	83
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: 09 June 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 41.4%
 Test Distance: 2.500m [K=1.0391]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:12.000V I:0.3758A P:4.5100W PF:1.0000 Freq:0Hz Lamp Flux:333.515x1 lm		
NAME: ASD-HSLS-12N5AC-BK 5000K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

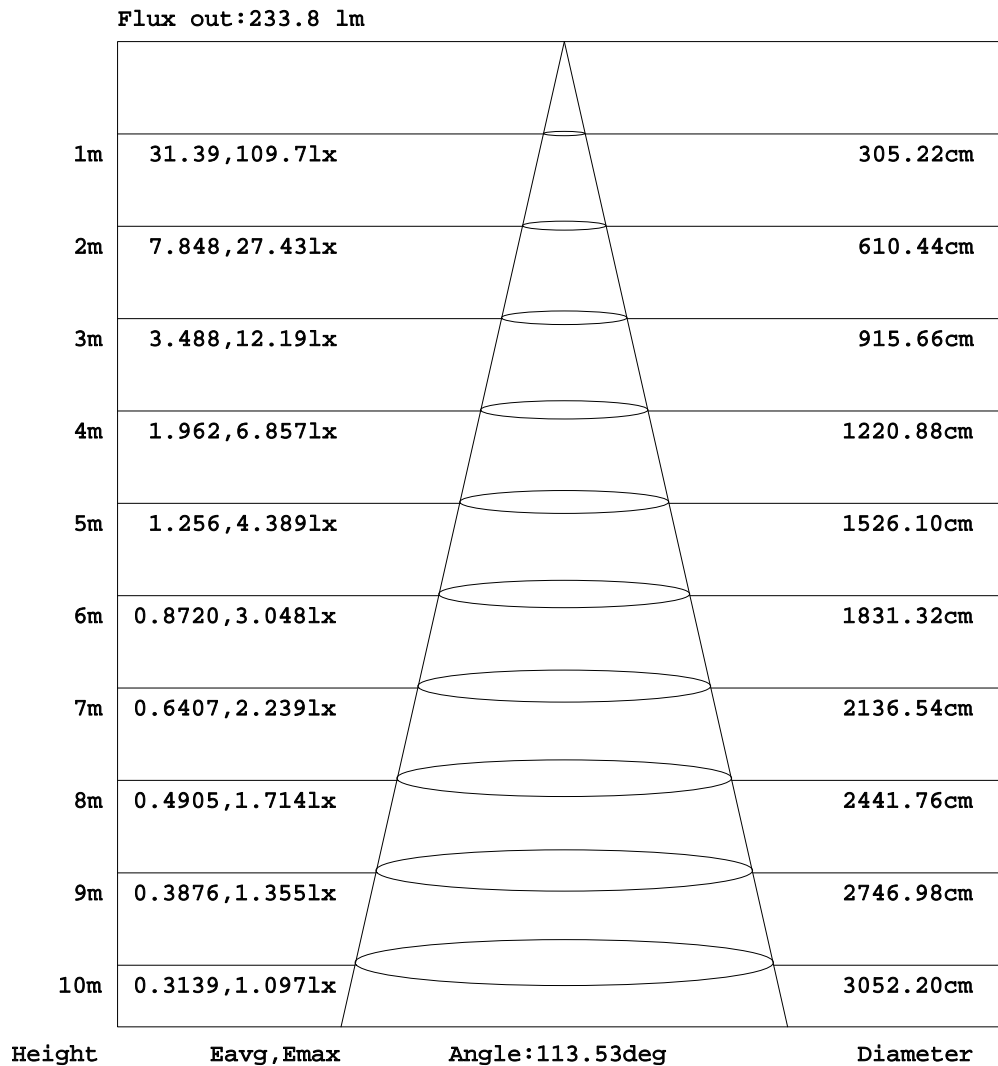


C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators: Alan Wang
 Test Date: 09 June 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 41.4%
 Test Distance: 2.500m [K=1.0391]
 Remarks:

AAI Figure

Test:U:12.000V I:0.3758A P:4.5100W PF:1.0000 Freq:0Hz Lamp Flux:333.515x1 lm		
NAME: ASD-HSLS-12N5AC-BK 5000K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:ASD Lighting Corp	SUR.:	Shielding Angle:



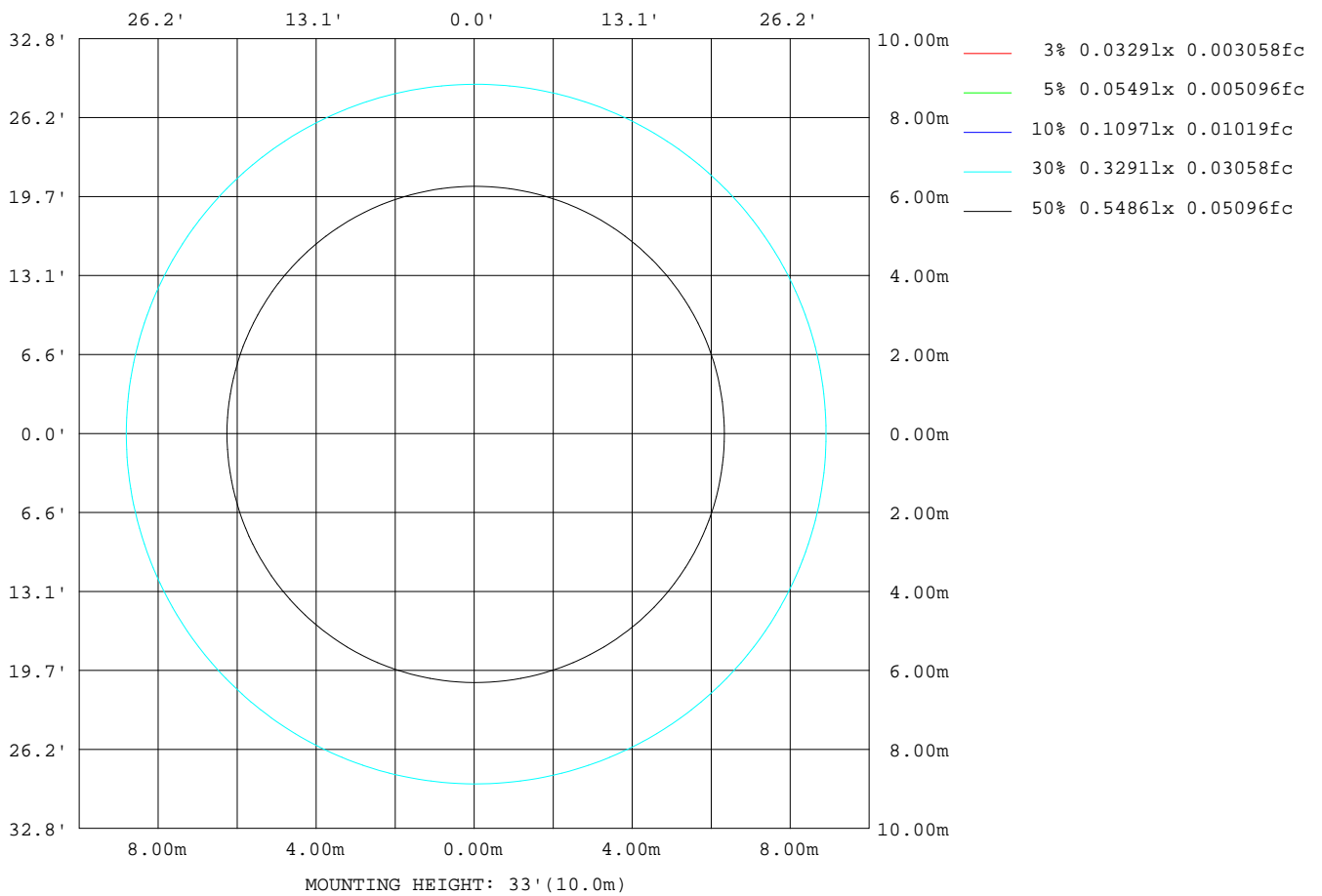
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators:Alan Wang
 Test Date:09 June 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 41.4%
 Test Distance:2.500m [K=1.0391]
 Remarks:

ISOLUX DIAGRAM

Test:U:12.000V I:0.3758A P:4.5100W PF:1.0000 Freq:0Hz Lamp Flux:333.515x1 lm		
NAME: ASD-HSLS-12N5AC-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: 09 June 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 41.4%
 Test Distance: 2.500m [K=1.0391]
 Remarks:

LED Avg.L Report

Test:U:12.000V I:0.3758A P:4.5100W PF:1.0000 Freq:0Hz Lamp Flux:333.515x1 lm		
NAME: ASD-HSL5-12N5AC-BK 5000K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:ASD Lighting Corp	SUR.:	Shielding Angle:

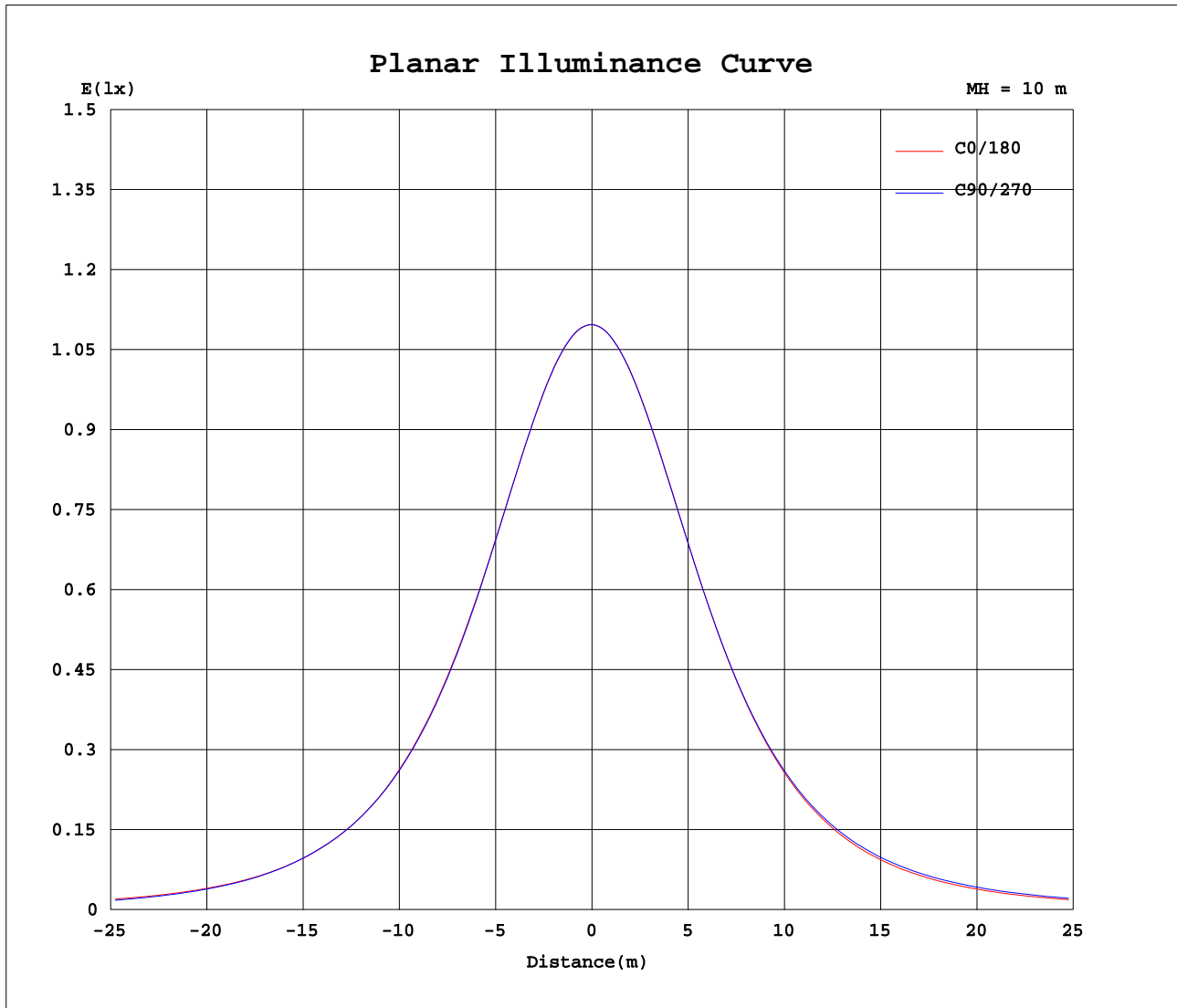
AvgL	cd/m2
L_0~180(65)av	13529
L_0~180(75)av	13884
L_0~180(85)av	15862
L_90~270(65)av	13869
L_90~270(75)av	12583
L_90~270(85)av	17265
L_45(65)av	13950
L_45(75)av	14046
L_45(85)av	16458

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators: Alan Wang
 Test Date: 09 June 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 41.4%
 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: 09 June 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 41.4%
 Test Distance: 2.500m [K=1.0391]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:12.000V I:0.3758A P:4.5100W PF:1.0000 Freq:0Hz Lamp Flux:333.515x1 lm		
NAME: ASD-HSLS-12N5AC-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	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110
5	109	109	109	109	109	109	109	109	109	109	109	109	109	109	109	109	109	109	109
10	108	108	108	108	108	108	108	108	108	108	108	108	108	108	107	107	107	107	107
15	106	106	106	106	106	106	106	106	106	105	105	105	105	105	105	105	105	105	105
20	103	103	103	103	103	103	103	102	102	102	102	102	102	102	102	102	102	102	102
25	98.5	98.6	98.6	98.5	98.5	98.4	98.3	98.2	98.0	97.9	97.7	97.6	97.5	97.4	97.3	97.3	97.3	97.3	97.4
30	93.6	93.7	93.6	93.6	93.5	93.3	93.2	93.1	92.9	92.7	92.6	92.4	92.4	92.3	92.2	92.2	92.2	92.2	92.3
35	87.8	87.9	87.9	87.8	87.6	87.5	87.3	87.2	87.0	86.8	86.6	86.4	86.4	86.3	86.3	86.3	86.4	86.5	86.6
40	81.4	81.4	81.4	81.3	81.2	81.0	80.8	80.7	80.5	80.2	79.9	79.8	79.8	79.7	79.7	79.8	80.0	80.1	80.2
45	74.3	74.3	74.3	74.3	74.2	74.0	73.8	73.7	73.4	73.0	72.7	72.5	72.6	72.5	72.6	72.8	73.1	73.4	73.6
50	66.6	66.7	66.8	66.9	66.8	66.7	66.6	66.4	66.0	65.5	65.1	64.8	64.9	64.9	65.1	65.4	65.9	66.3	66.6
55	58.6	58.7	58.9	59.1	59.3	59.1	58.9	58.8	58.3	57.7	57.2	56.9	56.9	56.9	57.3	57.8	58.5	59.1	59.4
60	50.4	50.5	50.8	51.3	51.2	50.2	49.7	49.9	50.3	49.8	49.3	48.8	48.8	48.8	49.3	50.1	51.1	51.8	52.2
65	42.3	42.4	42.7	43.0	41.9	40.6	40.0	40.3	41.0	41.8	41.5	40.8	40.6	40.8	41.5	42.6	43.7	44.6	45.0
70	34.6	34.7	35.0	33.9	32.0	29.2	27.9	29.1	31.3	32.9	33.8	32.8	32.6	33.0	34.1	35.4	36.7	37.8	38.2
75	27.3	27.4	26.8	23.8	19.0	16.3	15.4	16.2	18.6	23.3	25.6	25.2	24.8	25.8	27.4	28.8	30.2	31.3	31.8
80	20.5	20.7	17.3	11.8	8.94	7.42	6.86	7.30	8.66	11.6	16.9	19.4	18.3	19.9	21.5	22.8	24.2	25.3	25.7
85	10.7	11.7	5.85	3.33	2.42	1.96	1.75	1.94	2.29	3.31	5.92	11.4	9.34	15.2	15.8	17.2	18.5	19.5	20.1
90	0.13	0.30	0.24	0.20	0.16	0.10	0.07	0.11	0.18	0.24	0.28	0.31	0.11	7.49	9.80	11.7	13.2	14.3	14.8
95	0.02	0.05	0.08	0.09	0.09	0.06	0.06	0.07	0.10	0.11	0.09	0.05	0.03	0.22	2.94	6.19	7.90	9.22	9.77
100	0.03	0.04	0.05	0.06	0.06	0.06	0.05	0.06	0.07	0.07	0.06	0.04	0.04	0.05	0.14	0.70	2.17	3.40	3.94
105	0.03	0.04	0.05	0.06	0.06	0.05	0.05	0.06	0.06	0.06	0.05	0.04	0.05	0.05	0.07	0.10	0.12	0.12	0.16
110	0.04	0.04	0.05	0.05	0.06	0.06	0.05	0.06	0.06	0.06	0.05	0.04	0.05	0.05	0.06	0.06	0.07	0.06	0.05
115	0.04	0.04	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.05	0.05	0.06	0.05	0.05	0.06	0.06	0.05	0.05
120	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.05	0.05	0.06	0.06	0.05	0.05	0.05	0.05	0.05
125	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
130	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.07	0.07	0.07	0.07	0.06	0.06	0.06
135	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.08	0.07	0.07	0.07	0.07	0.07	0.07
140	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.08	0.08	0.08	0.08	0.08	0.08	0.08
145	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
150	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.10	0.10	0.10	0.10	0.10	0.10	0.10
155	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.11	0.10	0.10	0.10	0.10	0.10	0.10
160	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.11	0.11	0.11	0.11	0.11	0.11	0.11
165	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.11	0.11	0.11	0.11	0.11	0.11	0.11
170	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.11	0.11	0.11	0.11	0.11	0.11	0.11
175	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.11	0.11	0.11	0.11	0.11	0.11	0.11
180	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators: Alan Wang
 Test Date: 09 June 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 41.4%
 Test Distance: 2.500m [K=1.0391]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:12.000V I:0.3758A P:4.5100W PF:1.0000 Freq:0Hz Lamp Flux:333.515x1 lm		
NAME: ASD-HSLS-12N5AC-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	110	110	110	110	110														
5	109	109	109	109	109														
10	108	108	108	108	108														
15	105	105	105	106	106														
20	102	102	102	102	102														
25	97.5	97.7	97.9	98.2	98.4														
30	92.5	92.7	93.0	93.3	93.5														
35	86.7	87.0	87.2	87.6	87.8														
40	80.4	80.6	80.8	81.1	81.4														
45	73.7	73.8	73.9	74.1	74.3														
50	66.7	66.6	66.5	66.6	66.7														
55	59.4	59.2	58.9	58.8	58.7														
60	52.1	51.7	51.2	50.8	50.6														
65	44.9	44.3	43.5	42.9	42.6														
70	38.0	37.3	36.2	35.4	35.0														
75	31.6	30.7	29.5	28.6	28.0														
80	25.5	24.6	23.5	22.6	21.7														
85	19.8	18.8	17.8	16.7	15.5														
90	14.5	13.5	12.1	10.5	6.98														
95	9.40	8.05	5.92	2.93	0.18														
100	3.51	2.11	0.53	0.12	0.05														
105	0.14	0.13	0.10	0.06	0.05														
110	0.07	0.07	0.06	0.05	0.05														
115	0.05	0.06	0.06	0.05	0.05														
120	0.05	0.06	0.05	0.05	0.05														
125	0.06	0.06	0.06	0.06	0.06														
130	0.06	0.07	0.06	0.06	0.06														
135	0.07	0.07	0.07	0.07	0.07														
140	0.08	0.08	0.08	0.08	0.08														
145	0.09	0.09	0.09	0.09	0.09														
150	0.10	0.10	0.10	0.10	0.09														
155	0.10	0.10	0.10	0.10	0.10														
160	0.11	0.11	0.11	0.11	0.10														
165	0.11	0.11	0.11	0.11	0.10														
170	0.11	0.11	0.11	0.11	0.10														
175	0.11	0.11	0.11	0.11	0.10														
180	0.10	0.10	0.10	0.10	0.10														

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators: Alan Wang
 Test Date: 09 June 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 41.4%
 Test Distance: 2.500m [K=1.0391]
 Remarks: