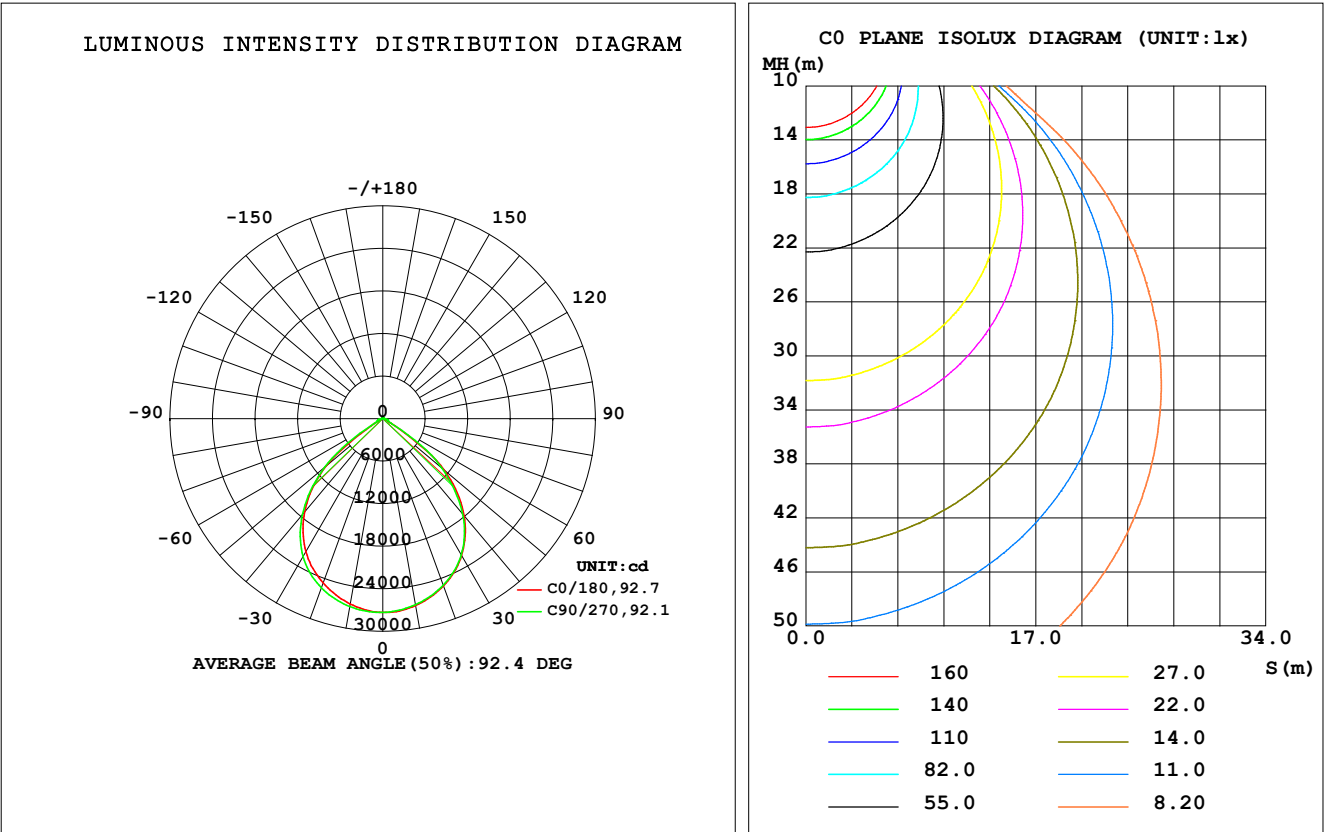


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:119.3V I:2.695A P:321.7W PF:0.9978 Freq:59.98Hz Lamp Flux:51952.5x1 lm		
NAME: ASD-NHB-ST-320	TYPE:	WEIGHT:
SPEC.:320W-5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp.	SUR.:0.76*0.2m	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 161.49 lm/W
MODEL	ASD-NHB-ST-320	I _{max} (cd)	27339	S/MH(C0/180)	1.19	
NOMINAL POWER(W)	320	LOR(%)	100.0	S/MH(C90/270)	1.22	
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	51952	□ UP,DN(C0-180)	0.3,50.0	
NOMINAL FLUX(lm)	51952.5	CIE CLASS	DIRECT	□ UP,DN(C180-360)	0.4,49.3	
LAMPS INSIDE	1	□ up(%)	0.7	CIBSE SHR NOM	1.25	
TEST VOLTAGE(V)	120	□ down(%)	99.3	CIBSE SHR MAX	1.30	



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:27DEG
Operators:lianghaizhu-1
Test Date:2025-06-05

□ Range: 0 - 180DEG
□ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.364
Humidity:56%
Test Distance:8.340m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

°	C0	C45	C90	C135	C180	C225	C270	C315	°	□ zone	□ total	%lum, lamp
10	2676	2670	2664	2652	2654	2669	2690	2690	0- 10	2579	2579	4.96,4.96
20	2510	2502	2499	2466	2465	2492	2538	2534	10- 20	7328	9907	19.1,19.1
30	2227	2216	2216	2164	2168	2182	2248	2242	20- 30	10913	20820	40.1,40.1
40	1785	1772	1754	1704	1717	1702	1764	1776	30- 40	12453	33274	64,64
50	1136	1151	1090	1064	1053	1035	1073	1123	40- 50	11046	44320	85.3,85.3
60	144.1	355.5	154.2	276.9	99.88	246.4	144.1	308.8	50- 60	5663	49983	96.2,96.2
70	50.18	69.09	73.38	61.05	46.97	61.39	77.07	73.50	60- 70	1061	51044	98.3,98.3
80	24.54	18.50	38.31	16.58	15.23	17.32	42.11	18.61	70- 80	445.3	51489	99.1,99.1
90	1.049	1.280	0.3664	0.4281	0.4272	0.8302	0.6158	1.362	80- 90	101.2	51590	99.3,99.3
100	0.5781	0.6279	0.7002	0.7239	1.377	1.640	1.584	1.471	90-100	7.846	51598	99.3,99.3
110	1.452	1.468	1.616	1.653	3.547	3.831	3.758	3.525	100-110	18.75	51617	99.4,99.4
120	2.873	2.828	3.061	3.089	6.658	6.799	6.719	6.406	110-120	36.30	51653	99.4,99.4
130	4.583	4.562	4.891	4.888	9.548	9.584	9.507	9.147	120-130	53.19	51706	99.5,99.5
140	6.559	6.699	6.991	7.012	12.01	11.95	11.87	11.54	130-140	63.28	51769	99.6,99.6
150	9.417	9.547	9.828	9.807	14.22	14.02	13.94	13.73	140-150	65.94	51835	99.8,99.8
160	12.66	12.49	12.77	12.65	15.84	15.42	15.43	15.27	150-160	59.82	51895	99.9,99.9
170	15.12	14.80	15.09	14.96	16.63	16.13	16.28	16.10	160-170	42.03	51937	100,100
180	16.57	16.07	16.34	16.16	16.58	16.07	16.34	16.16	170-180	15.23	51952	100,100
DEG	LUMINOUS INTENSITY:×10cd									UNIT:lm		

Conical surface Flux(90deg): 39190 lm

%lum = 75.4%

%lamp = 75.4%

Conical surface Flux(120deg): 49983 lm

%lum = 96.2%

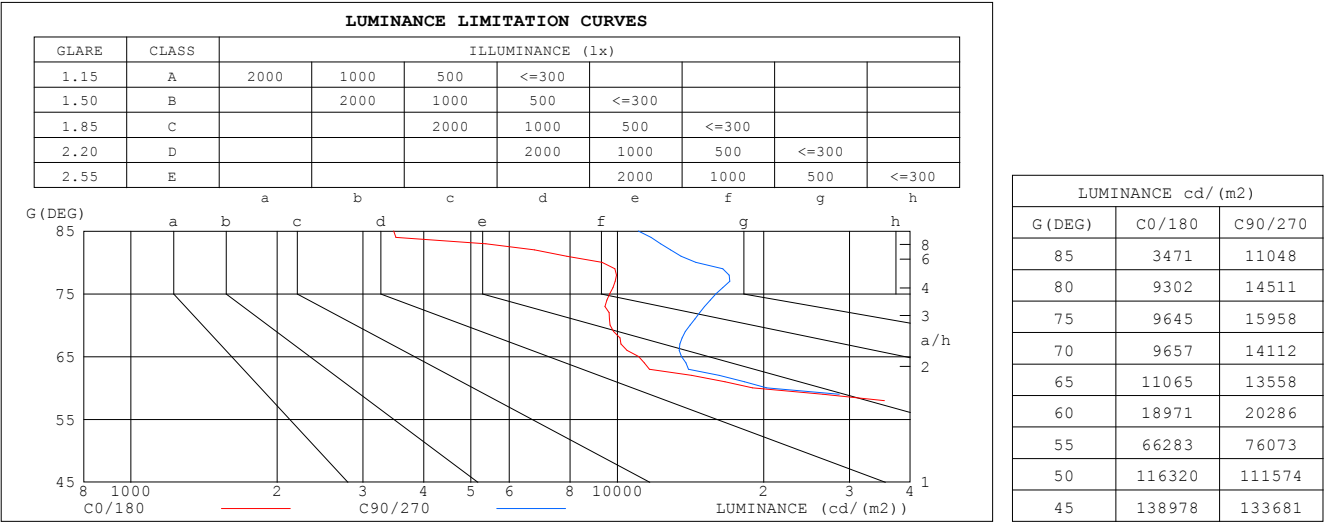
%lamp = 96.2%

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:27DEG
Operators:lianghaizhu-1
Test Date:2025-06-05

□ Range: 0 - 180DEG
□ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.364
Humidity:56%
Test Distance:8.340m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:119.3V I:2.695A P:321.7W PF:0.9978 Freq:59.98Hz Lamp Flux:51952.5x1 lm		
NAME: ASD-NHB-ST-320	TYPE:	WEIGHT:
SPEC.:320W-5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp.	SUR.:0.76*0.2m	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:27DEG
Operators:lianghaizhu-1
Test Date:2025-06-05

☐ Range: 0 - 180DEG
☐ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.364
Humidity:56%
Test Distance:8.340m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:119.3V I:2.695A P:321.7W PF:0.9978 Freq:59.98Hz Lamp Flux:51952.5x1 lm					
NAME: ASD-NHB-ST-320			TYPE:		WEIGHT:
SPEC.:320W-5000K			DIM.:		SERIAL No.:
MFR.: ASD Lighting Corp.			SUR.:0.76*0.2m		Shielding Angle:

☐ cc	80%			70%			50%			30%			10%			0														
☐ w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0														
☐ fc	20%			20%			20%			20%			20%			0														
RCR	RCR:Room Cavity Ratio															Wall Exitance Coefficients(WEC)														
0.0																														
1.0	.226	.128	.041	.219	.125	.040	.205	.118	.038	.193	.111	.036	.182	.106	.034															
2.0	.221	.121	.037	.215	.118	.036	.203	.113	.035	.193	.108	.034	.183	.104	.033															
3.0	.212	.113	.034	.206	.110	.033	.196	.106	.032	.187	.103	.031	.179	.099	.031															
4.0	.201	.105	.031	.197	.103	.030	.188	.100	.030	.180	.097	.029	.172	.094	.028															
5.0	.191	.097	.028	.187	.096	.028	.179	.093	.027	.172	.091	.027	.165	.088	.027															
6.0	.181	.091	.026	.177	.090	.026	.170	.087	.025	.164	.085	.025	.158	.083	.025															
7.0	.172	.085	.024	.168	.084	.024	.162	.082	.024	.156	.080	.023	.151	.078	.023															
8.0	.163	.080	.022	.160	.079	.022	.154	.077	.022	.149	.075	.022	.144	.074	.022															
9.0	.155	.075	.021	.152	.074	.021	.147	.073	.021	.142	.071	.020	.138	.070	.020															
10.0	.147	.070	.020	.145	.070	.019	.140	.069	.019	.136	.067	.019	.132	.066	.019															

☐ cc	80%			70%			50%			30%			10%			0
☐ w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
☐ fc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio			Ceiling Cavity Exitance Coefficients(CCEC)												
0.0	.196	.196	.196	.167	.167	.167	.114	.114	.114	.066	.066	.066	.021	.021	.021	
1.0	.180	.162	.146	.154	.139	.126	.105	.096	.087	.061	.055	.051	.019	.018	.016	
2.0	.168	.138	.112	.144	.118	.097	.099	.082	.068	.057	.048	.040	.018	.015	.013	
3.0	.159	.119	.088	.136	.103	.076	.093	.072	.054	.054	.042	.032	.017	.014	.010	
4.0	.151	.105	.071	.129	.091	.062	.089	.063	.043	.051	.037	.026	.017	.012	.008	
5.0	.143	.094	.058	.123	.082	.051	.085	.057	.036	.049	.034	.021	.016	.011	.007	
6.0	.137	.086	.049	.118	.074	.043	.081	.052	.030	.047	.031	.018	.015	.010	.006	
7.0	.131	.079	.042	.112	.068	.037	.078	.048	.026	.045	.028	.016	.015	.009	.005	
8.0	.125	.073	.037	.108	.063	.032	.074	.044	.023	.043	.026	.014	.014	.009	.005	
9.0	.120	.068	.033	.103	.059	.029	.072	.041	.020	.042	.024	.012	.013	.008	.004	
10.0	.115	.064	.030	.099	.055	.026	.069	.039	.018	.040	.023	.011	.013	.008	.004	

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:27DEG
 Operators:lianghaizhu-1
 Test Date:2025-06-05

☐ Range: 0 - 180DEG
☐ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.364
 Humidity:56%
 Test Distance:8.340m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:119.3V I:2.695A P:321.7W PF:0.9978 Freq:59.98Hz Lamp Flux:51952.5x1 lm										
NAME: ASD-NHB-ST-320					TYPE:			WEIGHT:		
SPEC.:320W-5000K					DIM.:			SERIAL No.:		
MFR.: ASD Lighting Corp.					SUR.:0.76*0.2m			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	27.3	28.6	27.6	28.8	29.0	27.4	28.6	27.6	28.8	29.0
3H	27.2	28.3	27.5	28.5	28.8	27.2	28.4	27.5	28.6	28.8
4H	27.1	28.2	27.4	28.4	28.7	27.2	28.3	27.5	28.5	28.8
6H	27.0	28.0	27.4	28.3	28.6	27.2	28.2	27.5	28.4	28.7
8H	27.0	28.0	27.3	28.2	28.5	27.1	28.1	27.5	28.4	28.7
12H	26.9	27.9	27.3	28.2	28.5	27.1	28.0	27.4	28.3	28.6
4H 2H	27.2	28.3	27.5	28.6	28.8	27.3	28.3	27.6	28.6	28.8
3H	27.1	28.0	27.5	28.3	28.6	27.2	28.1	27.5	28.4	28.7
4H	27.1	27.9	27.4	28.2	28.5	27.2	28.0	27.5	28.3	28.6
6H	27.0	27.7	27.4	28.1	28.5	27.2	27.9	27.6	28.2	28.6
8H	27.0	27.6	27.4	28.0	28.4	27.1	27.8	27.5	28.2	28.6
12H	26.9	27.5	27.4	27.9	28.3	27.1	27.7	27.5	28.1	28.5
8H 4H	26.9	27.6	27.4	28.0	28.4	27.0	27.7	27.5	28.1	28.5
6H	26.9	27.5	27.3	27.9	28.3	27.1	27.6	27.5	28.0	28.4
8H	26.9	27.4	27.3	27.8	28.2	27.1	27.5	27.5	28.0	28.4
12H	26.8	27.2	27.3	27.7	28.2	27.0	27.4	27.5	27.9	28.4
12H 4H	26.9	27.5	27.3	27.9	28.3	27.0	27.6	27.4	28.0	28.4
6H	26.9	27.3	27.3	27.8	28.2	27.0	27.5	27.5	27.9	28.4
8H	26.8	27.2	27.3	27.7	28.2	27.0	27.4	27.5	27.9	28.4
Variations with the observer position at spacings:										
S = 1.0H	+ 1.6 / - 3.0					+ 1.5 / - 2.3				
1.5H	+ 0.7 / - 1.2					+ 0.6 / - 0.8				
2.0H	+ 3.2 / - 7.9					+ 3.0 / - 6.8				

CIE Pub.117, 51952 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 13.7$)

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:27DEG
 Operators:lianghaizhu-1
 Test Date:2025-06-05

☐ Range: 0 - 180DEG
☐ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.364
 Humidity:56%
 Test Distance:8.340m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:119.3V I:2.695A P:321.7W PF:0.9978 Freq:59.98Hz Lamp Flux:51952.5x1 lm		
NAME: ASD-NHB-ST-320	TYPE:	WEIGHT:
SPEC.:320W-5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp.	SUR.:0.76*0.2m	Shielding Angle:

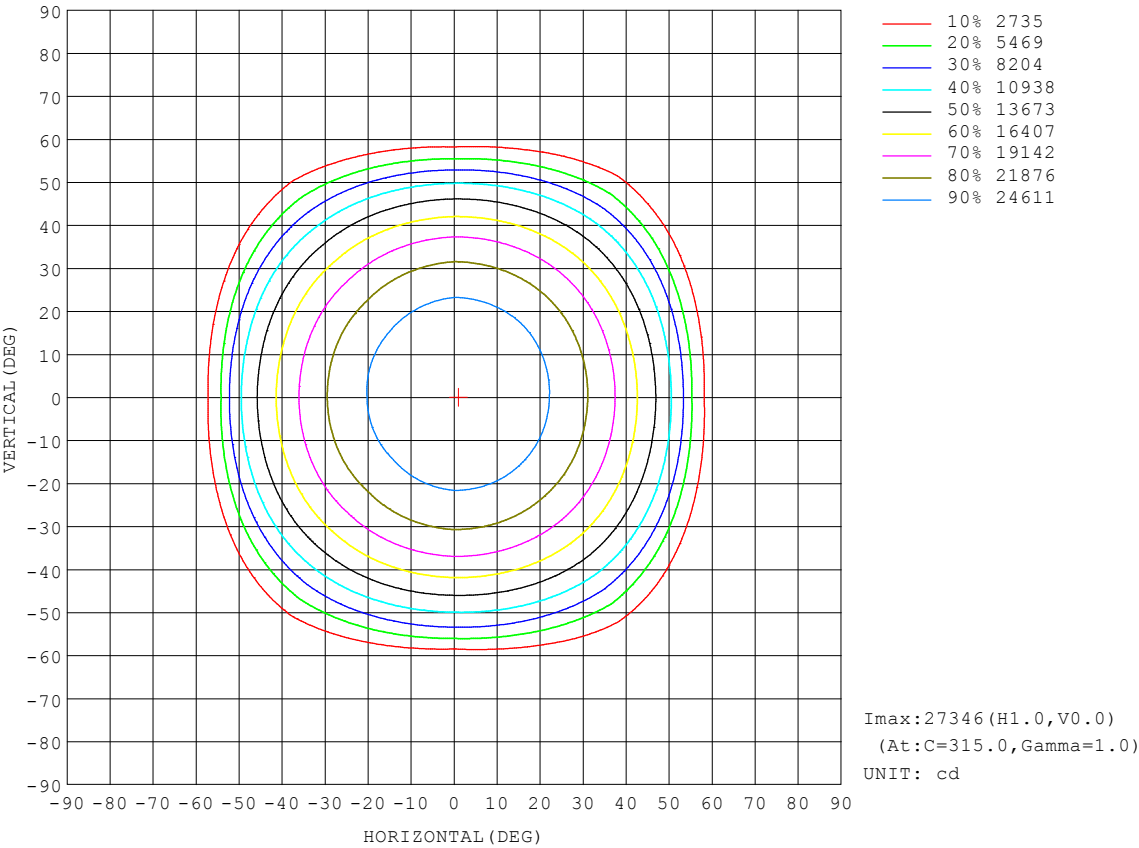
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	68	59	53	68	58	53	66	58	52	47
0.80	79	69	63	78	69	63	76	68	63	57
1.00	87	78	73	86	78	72	84	78	72	66
1.25	93	85	80	92	85	80	90	83	79	73
1.50	97	90	85	96	89	85	93	88	84	77
2.00	103	97	92	101	95	91	98	93	90	83
2.50	105	100	95	103	98	94	100	96	92	85
3.00	108	103	99	106	101	98	102	98	95	88
4.00	110	106	103	108	104	101	104	101	99	90
5.00	112	108	105	109	106	104	105	103	100	92
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 27DEG
 Operators: lianghaizhu-1
 Test Date: 2025-06-05

☐ Range: 0 - 180DEG
☐ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.364
 Humidity: 56%
 Test Distance: 8.340m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:119.3V I:2.695A P:321.7W PF:0.9978 Freq:59.98Hz Lamp Flux:51952.5x1 lm		
NAME: ASD-NHB-ST-320	TYPE:	WEIGHT:
SPEC.:320W-5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp.	SUR.:0.76*0.2m	Shielding Angle:

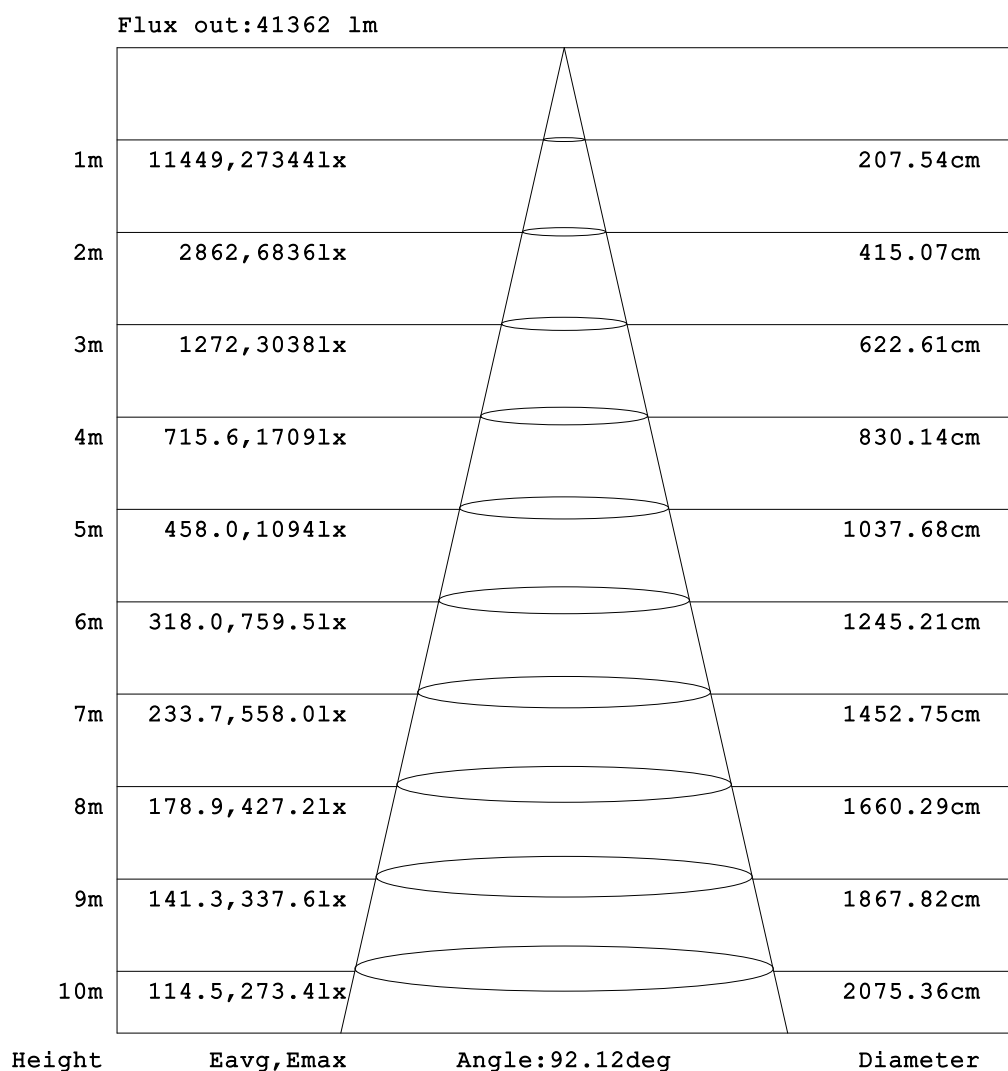


C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:27DEG
Operators:lianghaizhu-1
Test Date:2025-06-05

☐ Range: 0 - 180DEG
☐ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.364
Humidity:56%
Test Distance:8.340m [K=1.0000]
Remarks:

AAI Figure

Test:U:119.3V I:2.695A P:321.7W PF:0.9978 Freq:59.98Hz Lamp Flux:51952.5x1 lm		
NAME: ASD-NHB-ST-320	TYPE:	WEIGHT:
SPEC.:320W-5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp.	SUR.:0.76*0.2m	Shielding Angle:

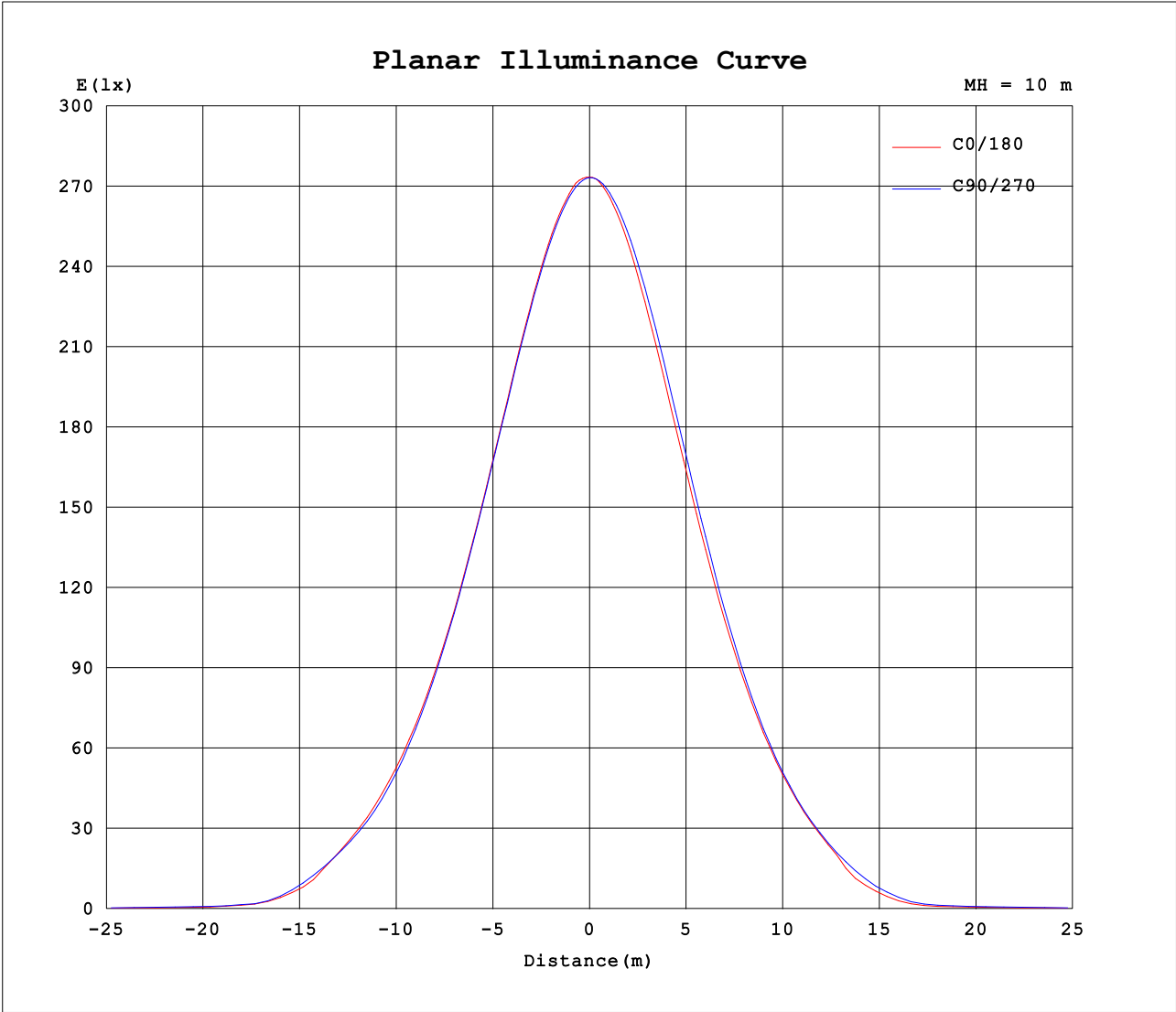


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:27DEG
 Operators:lianghaizhu-1
 Test Date:2025-06-05

☐ Range: 0 - 180DEG
☐ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.364
 Humidity:56%
 Test Distance:8.340m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:27DEG
Operators:lianghaizhu-1
Test Date:2025-06-05

☐ Range: 0 - 180DEG
☐ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.364
Humidity:56%
Test Distance:8.340m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:119.3V I:2.695A P:321.7W PF:0.9978 Freq:59.98Hz Lamp Flux:51952.5x1 lm								
NAME: ASD-NHB-ST-320					TYPE:			WEIGHT:
SPEC.:320W-5000K					DIM.:			SERIAL No.:
MFR.: ASD Lighting Corp.					SUR.:0.76*0.2m			Shielding Angle:

Table--1

UNIT: ×10cd

C (DEG) □ (DEG)	0	45	90	135	180	225	270	315										
0	2733	2733	2733	2733	2733	2733	2733	2733										
5	2723	2720	2711	2707	2709	2716	2725	2729										
10	2676	2670	2664	2652	2654	2669	2690	2690										
15	2606	2598	2594	2571	2571	2594	2629	2626										
20	2510	2502	2499	2466	2465	2492	2538	2534										
25	2385	2377	2377	2333	2334	2357	2414	2409										
30	2227	2216	2216	2164	2168	2182	2248	2242										
35	2026	2015	2010	1955	1962	1964	2032	2031										
40	1785	1772	1754	1704	1717	1702	1764	1776										
45	1493	1486	1437	1407	1419	1394	1446	1474										
50	1136	1151	1090	1064	1053	1035	1073	1123										
55	578	758	663	664	469	623	595	709										
60	144	356	154	277	99.9	246	144	309										
65	71.0	112	87.1	98.1	62.7	98.8	90.8	122										
70	50.2	69.1	73.4	61.1	47.0	61.4	77.1	73.5										
75	37.9	33.4	62.8	27.9	35.5	27.9	67.3	32.1										
80	24.5	18.5	38.3	16.6	15.2	17.3	42.1	18.6										
85	4.60	6.63	14.6	3.38	3.52	3.61	16.3	6.35										
90	1.05	1.28	0.37	0.43	0.43	0.83	0.62	1.36										
95	0.37	0.41	0.46	0.47	0.74	0.97	0.92	0.90										
100	0.58	0.63	0.70	0.72	1.38	1.64	1.58	1.47										
105	0.94	0.98	1.09	1.12	2.32	2.60	2.53	2.36										
110	1.45	1.47	1.62	1.65	3.55	3.83	3.76	3.53										
115	2.10	2.10	2.28	2.32	5.03	5.28	5.21	4.92										
120	2.87	2.83	3.06	3.09	6.66	6.80	6.72	6.41										
125	3.71	3.63	3.95	3.94	8.18	8.24	8.17	7.82										
130	4.58	4.56	4.89	4.89	9.55	9.58	9.51	9.15										
135	5.52	5.57	5.88	5.90	10.8	10.8	10.7	10.4										
140	6.56	6.70	6.99	7.01	12.0	11.9	11.9	11.5										
145	7.83	8.03	8.31	8.33	13.1	13.0	12.9	12.7										
150	9.42	9.55	9.83	9.81	14.2	14.0	13.9	13.7										
155	11.1	11.1	11.4	11.3	15.1	14.8	14.8	14.6										
160	12.7	12.5	12.8	12.7	15.8	15.4	15.4	15.3										
165	14.0	13.7	14.0	13.9	16.3	15.9	15.9	15.8										
170	15.1	14.8	15.1	15.0	16.6	16.1	16.3	16.1										
175	16.1	15.6	15.9	15.8	16.7	16.2	16.4	16.2										
180	16.6	16.1	16.3	16.2	16.6	16.1	16.3	16.2										

C Range: 0 - 360DEG

C Interval: 45.0DEG

Test Speed: HIGH

Temperature:27DEG

Operators:lianghaizhu-1

Test Date:2025-06-05

□ Range: 0 - 180DEG

□ Interval: 1.0DEG

Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.364

Humidity:56%

Test Distance:8.340m [K=1.0000]

Remarks: