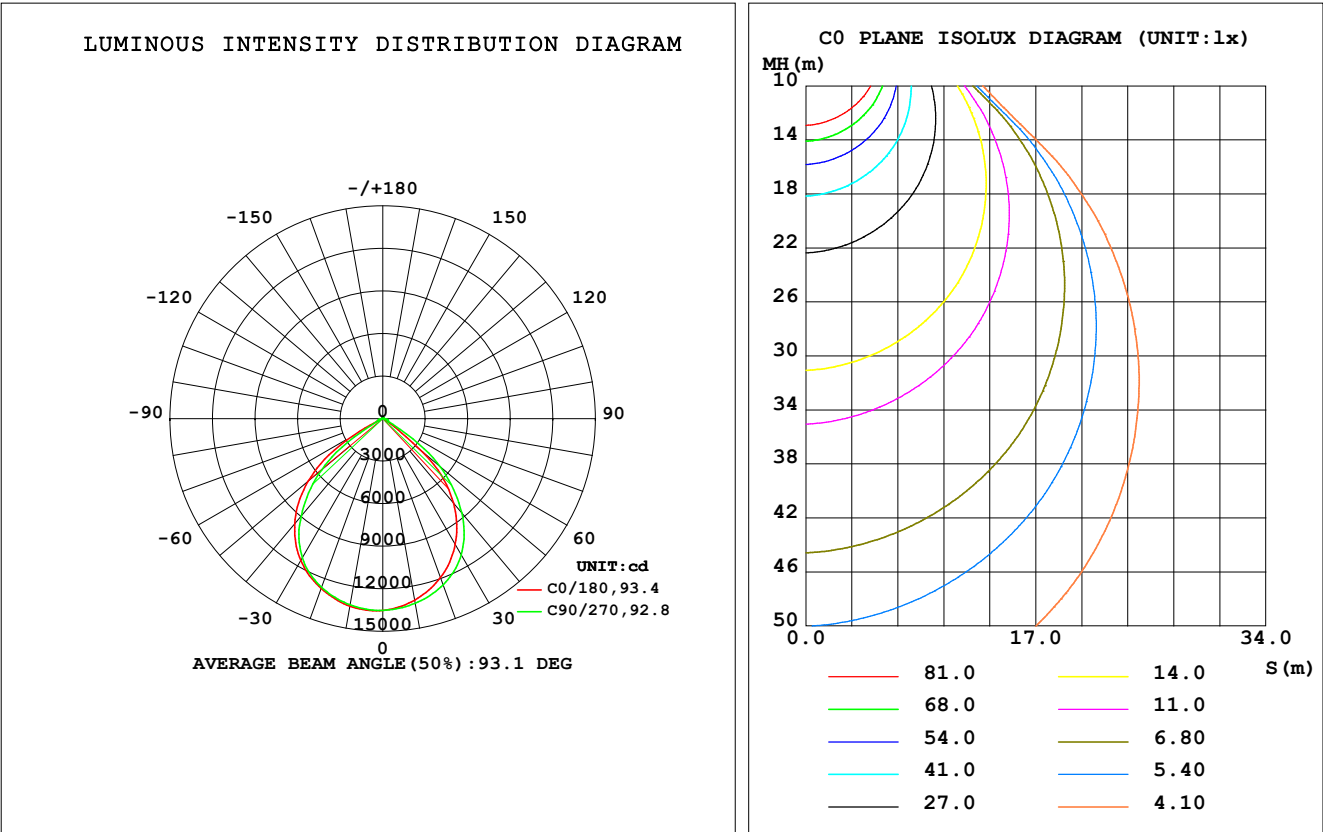


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:119.6V I:1.354A P:161.4W PF:0.9973 Freq:59.98Hz Lamp Flux:26100.4x1 lm		
NAME: ASD-NHB-ST-160	TYPE:	WEIGHT:
SPEC.:160W-5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp.	SUR.:0.76*0.12m	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 161.68 lm/W			
MODEL	ASD-NHB-ST-160	I _{max} (cd)	13567	S/MH (C0/180)	1.26
NOMINAL POWER (W)	160	LOR (%)	100.0	S/MH (C90/270)	1.24
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	26100	□ UP, DN (C0-180)	0.3, 47.3
NOMINAL FLUX (lm)	26100.4	CIE CLASS	DIRECT	□ UP, DN (C180-360)	0.4, 52.0
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: 2025-06-06

□ 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	1299	1305	1322	1336	1342	1341	1333	1314	0- 10	1277	1277	4.89,4.89
20	1192	1205	1247	1268	1274	1274	1265	1224	10- 20	3639	4916	18.8,18.8
30	1022	1040	1108	1141	1156	1149	1134	1065	20- 30	5436	10352	39.7,39.7
40	775.6	796.8	866.8	930.9	966.3	943.8	893.6	819.2	30- 40	6228	16580	63.5,63.5
50	370.9	450.8	531.2	630.4	687.6	646.2	565.2	469.8	40- 50	5533	22113	84.7,84.7
60	27.71	78.93	85.25	242.1	241.1	267.0	96.26	93.84	50- 60	2986	25099	96.2,96.2
70	5.903	13.91	33.71	44.18	27.40	44.62	34.66	16.95	60- 70	604.3	25703	98.5,98.5
80	2.175	2.145	16.35	7.982	6.083	8.494	19.65	2.192	70- 80	175.8	25879	99.2,99.2
90	0.1754	0.1920	0.1780	0.9316	1.594	1.141	0.3247	0.3419	80- 90	36.96	25916	99.3,99.3
100	0.4625	0.4609	0.4029	0.3033	0.3840	0.5612	0.7498	0.9809	90-100	4.346	25920	99.3,99.3
110	1.020	1.008	0.9122	0.7245	1.254	1.484	1.822	2.163	100-110	9.315	25930	99.3,99.3
120	1.818	1.780	1.694	1.415	2.666	2.894	3.321	3.663	110-120	18.12	25948	99.4,99.4
130	2.752	2.762	2.657	2.287	4.214	4.361	4.783	5.062	120-130	26.89	25975	99.5,99.5
140	3.887	3.940	3.743	3.325	5.496	5.634	6.015	6.247	130-140	32.36	26007	99.6,99.6
150	5.409	5.377	5.149	4.667	6.685	6.763	7.057	7.244	140-150	33.82	26041	99.8,99.8
160	6.813	6.678	6.574	6.192	7.675	7.626	7.816	7.893	150-160	30.50	26071	99.9,99.9
170	7.886	7.710	7.719	7.446	8.273	8.147	8.266	8.209	160-170	21.38	26093	100,100
180	8.448	8.262	8.331	8.168	8.445	8.264	8.336	8.167	170-180	7.755	26100	100,100
DEG	LUMINOUS INTENSITY:×10cd									UNIT:lm		

Conical surface Flux(90deg): 19542 lm

%lum = 74.9%

%lamp = 74.9%

Conical surface Flux(120deg): 25099 lm

%lum = 96.2%

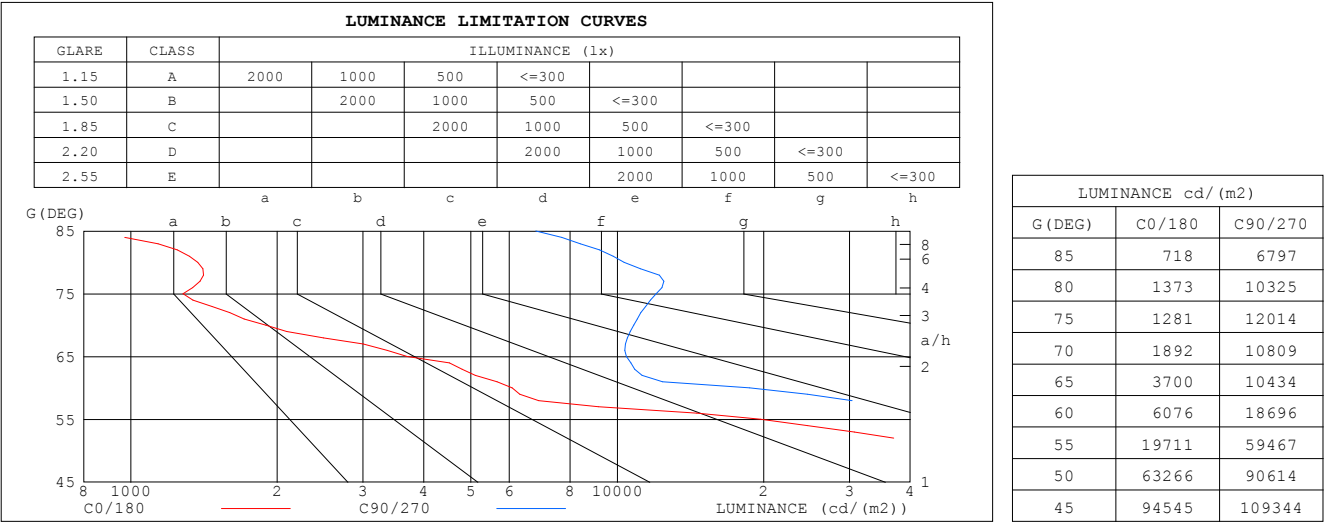
%lamp = 96.2%

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

□ 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:119.6V I:1.354A P:161.4W PF:0.9973 Freq:59.98Hz Lamp Flux:26100.4x1 lm		
NAME: ASD-NHB-ST-160	TYPE:	WEIGHT:
SPEC.:160W-5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp.	SUR.:0.76*0.12m	Shielding Angle:



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

☐ 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:119.6V I:1.354A P:161.4W PF:0.9973 Freq:59.98Hz Lamp Flux:26100.4x1 lm					
NAME: ASD-NHB-ST-160			TYPE:		WEIGHT:
SPEC.:160W-5000K			DIM.:		SERIAL No.:
MFR.: ASD Lighting Corp.			SUR.:0.76*0.12m		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	.105	.034	
2.0	.221	.121	.037	.215	.119	.037	.204	.113	.035	.193	.108	.034	.183	.104	.033	
3.0	.212	.113	.034	.207	.111	.033	.197	.107	.032	.188	.103	.032	.179	.099	.031	
4.0	.202	.105	.031	.198	.103	.031	.189	.100	.030	.180	.097	.029	.173	.094	.029	
5.0	.192	.098	.028	.188	.096	.028	.180	.094	.028	.173	.091	.027	.166	.089	.027	
6.0	.182	.091	.026	.178	.090	.026	.171	.088	.026	.165	.086	.025	.159	.083	.025	
7.0	.172	.085	.024	.169	.084	.024	.163	.082	.024	.157	.080	.023	.151	.079	.023	
8.0	.163	.080	.022	.160	.079	.022	.155	.077	.022	.150	.076	.022	.145	.074	.022	
9.0	.155	.075	.021	.152	.074	.021	.147	.073	.021	.143	.071	.020	.138	.070	.020	
10.0	.147	.071	.020	.145	.070	.020	.140	.069	.019	.136	.068	.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	.119	.097	.099	.082	.068	.057	.048	.040	.018	.015	.013	
3.0	.159	.119	.088	.136	.103	.076	.094	.072	.053	.054	.042	.032	.017	.014	.010	
4.0	.151	.105	.071	.129	.091	.062	.089	.064	.043	.051	.037	.026	.017	.012	.008	
5.0	.144	.095	.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	.113	.068	.037	.078	.048	.026	.045	.028	.016	.015	.009	.005	
8.0	.125	.073	.037	.108	.063	.032	.075	.044	.023	.043	.026	.014	.014	.009	.005	
9.0	.120	.068	.033	.103	.059	.029	.072	.042	.020	.042	.025	.012	.014	.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:2025-06-06

☐ 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:119.6V I:1.354A P:161.4W PF:0.9973 Freq:59.98Hz Lamp Flux:26100.4x1 lm										
NAME: ASD-NHB-ST-160					TYPE:			WEIGHT:		
SPEC.:160W-5000K					DIM.:			SERIAL No.:		
MFR.: ASD Lighting Corp.					SUR.:0.76*0.12m			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	24.7	26.0	25.0	26.2	26.4	25.8	27.1	26.1	27.3	27.5
3H	24.5	25.7	24.8	25.9	26.1	25.7	26.9	26.0	27.1	27.3
4H	24.4	25.5	24.7	25.7	26.0	25.7	26.7	26.0	27.0	27.3
6H	24.3	25.3	24.6	25.6	25.9	25.6	26.6	25.9	26.9	27.2
8H	24.3	25.2	24.6	25.5	25.8	25.6	26.6	25.9	26.8	27.1
12H	24.2	25.1	24.6	25.4	25.7	25.6	26.5	25.9	26.8	27.1
4H 2H	24.5	25.6	24.9	25.9	26.1	25.6	26.7	25.9	27.0	27.2
3H	24.4	25.3	24.7	25.6	25.9	25.5	26.4	25.9	26.7	27.0
4H	24.3	25.1	24.6	25.4	25.8	25.5	26.3	25.9	26.6	27.0
6H	24.2	24.9	24.6	25.3	25.6	25.5	26.2	25.9	26.6	26.9
8H	24.1	24.8	24.6	25.2	25.6	25.4	26.1	25.9	26.5	26.9
12H	24.1	24.7	24.5	25.1	25.5	25.4	26.0	25.8	26.4	26.8
8H 4H	24.1	24.8	24.6	25.2	25.6	25.4	26.0	25.8	26.4	26.8
6H	24.1	24.6	24.5	25.0	25.5	25.3	25.9	25.8	26.3	26.7
8H	24.0	24.5	24.5	24.9	25.4	25.3	25.8	25.8	26.2	26.7
12H	24.0	24.4	24.5	24.8	25.3	25.3	25.7	25.8	26.2	26.7
12H 4H	24.1	24.7	24.5	25.1	25.5	25.3	25.9	25.7	26.3	26.7
6H	24.0	24.5	24.5	24.9	25.4	25.3	25.8	25.8	26.2	26.7
8H	24.0	24.4	24.5	24.8	25.3	25.3	25.7	25.8	26.2	26.6
Variations with the observer position at spacings:										
S = 1.0H	+ 2.4 / - 9.2					+ 1.6 / - 3.1				
1.5H	+ 1.3 / - 3.7					+ 0.9 / - 2.1				
2.0H	+ 4.9 / -11.6					+ 3.7 / - 8.3				

CIE Pub.117, 26100 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 11.3$)

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

☐ 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:119.6V I:1.354A P:161.4W PF:0.9973 Freq:59.98Hz Lamp Flux:26100.4x1 lm		
NAME: ASD-NHB-ST-160	TYPE:	WEIGHT:
SPEC.:160W-5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp.	SUR.:0.76*0.12m	Shielding Angle:

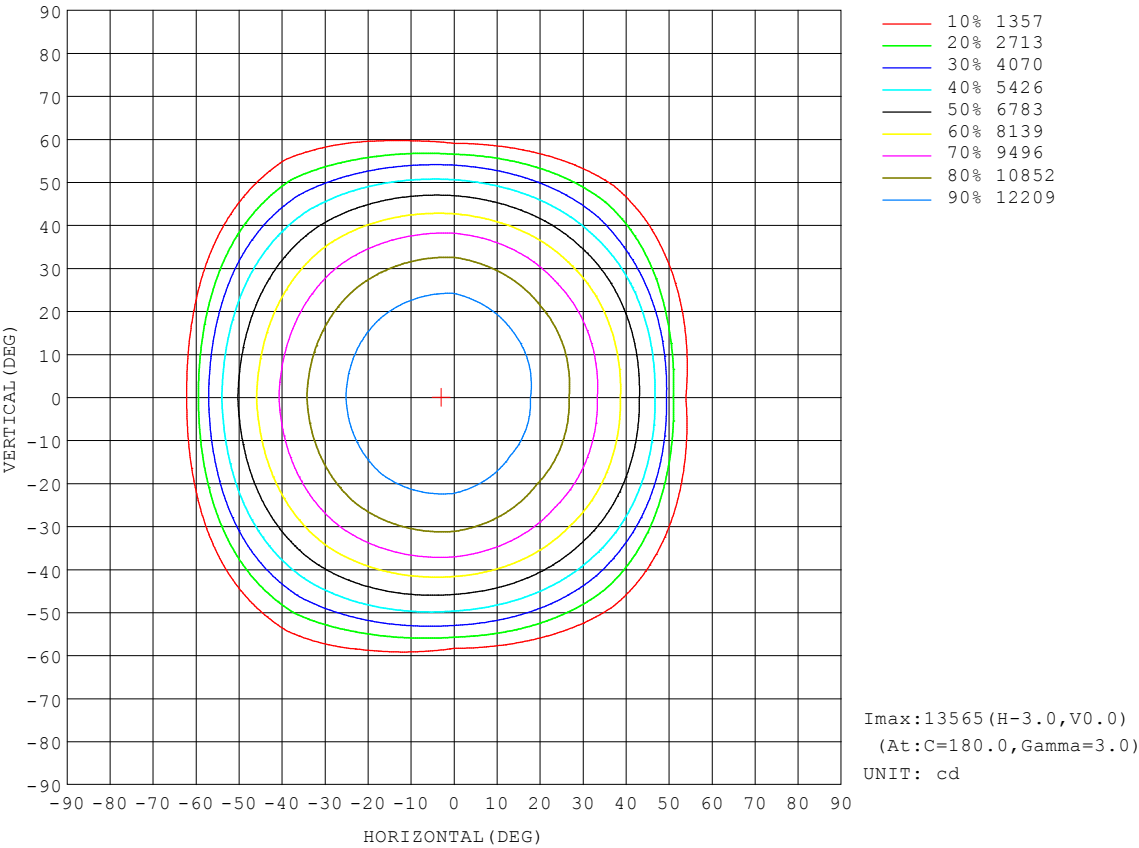
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	68	58	52	67	58	52	66	57	52	47
0.80	78	69	63	77	69	63	76	68	62	57
1.00	87	78	72	86	77	72	84	78	72	66
1.25	93	85	80	92	85	79	89	83	79	73
1.50	97	90	85	96	89	84	93	87	83	77
2.00	102	96	92	101	95	91	98	93	89	83
2.50	105	100	95	103	98	94	100	96	92	85
3.00	107	103	99	105	101	98	102	98	95	88
4.00	110	106	103	108	104	101	104	101	98	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: 2025-06-06

☐ 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:119.6V I:1.354A P:161.4W PF:0.9973 Freq:59.98Hz Lamp Flux:26100.4x1 lm		
NAME: ASD-NHB-ST-160	TYPE:	WEIGHT:
SPEC.:160W-5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp.	SUR.:0.76*0.12m	Shielding Angle:

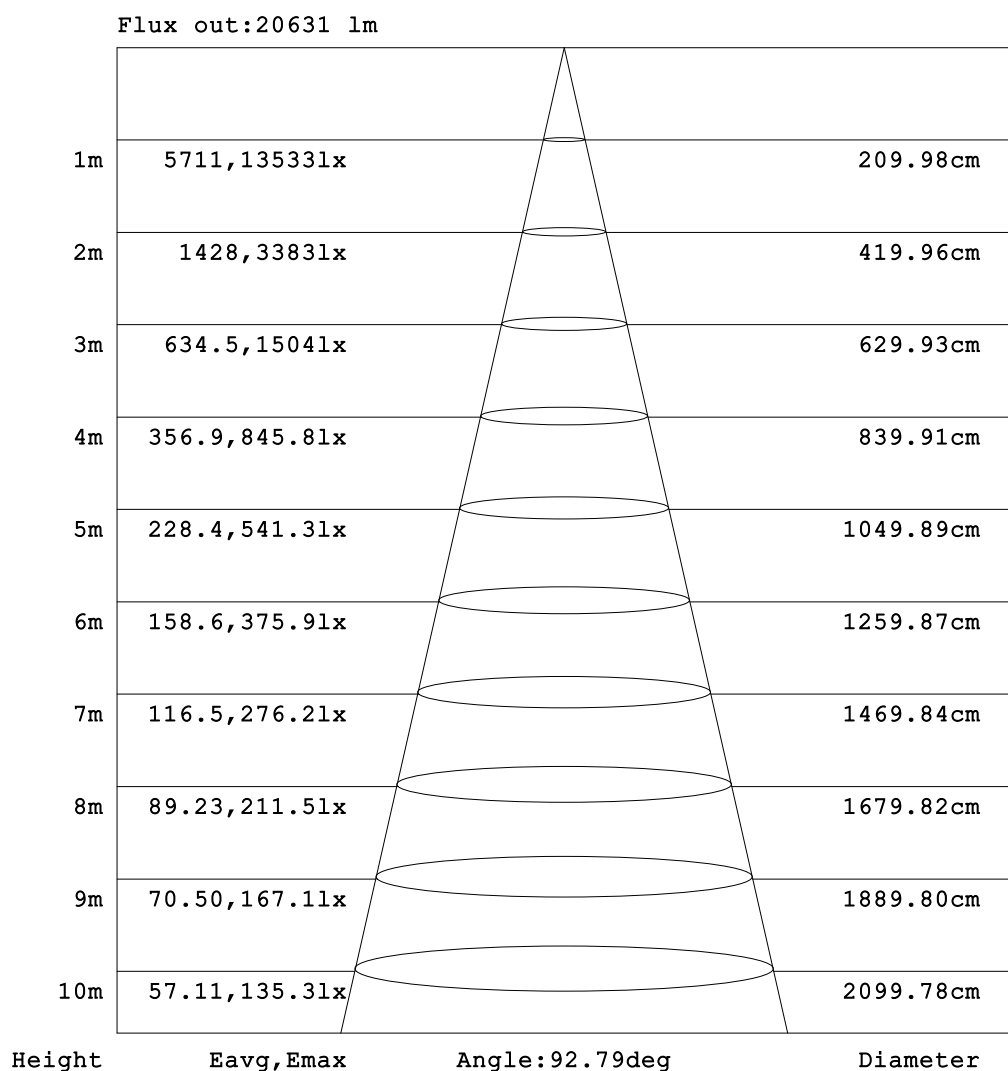


C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:27DEG
Operators:lianghaizhu-1
Test Date:2025-06-06

☐ 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:119.6V I:1.354A P:161.4W PF:0.9973 Freq:59.98Hz Lamp Flux:26100.4x1 lm		
NAME: ASD-NHB-ST-160	TYPE:	WEIGHT:
SPEC.:160W-5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp.	SUR.:0.76*0.12m	Shielding Angle:

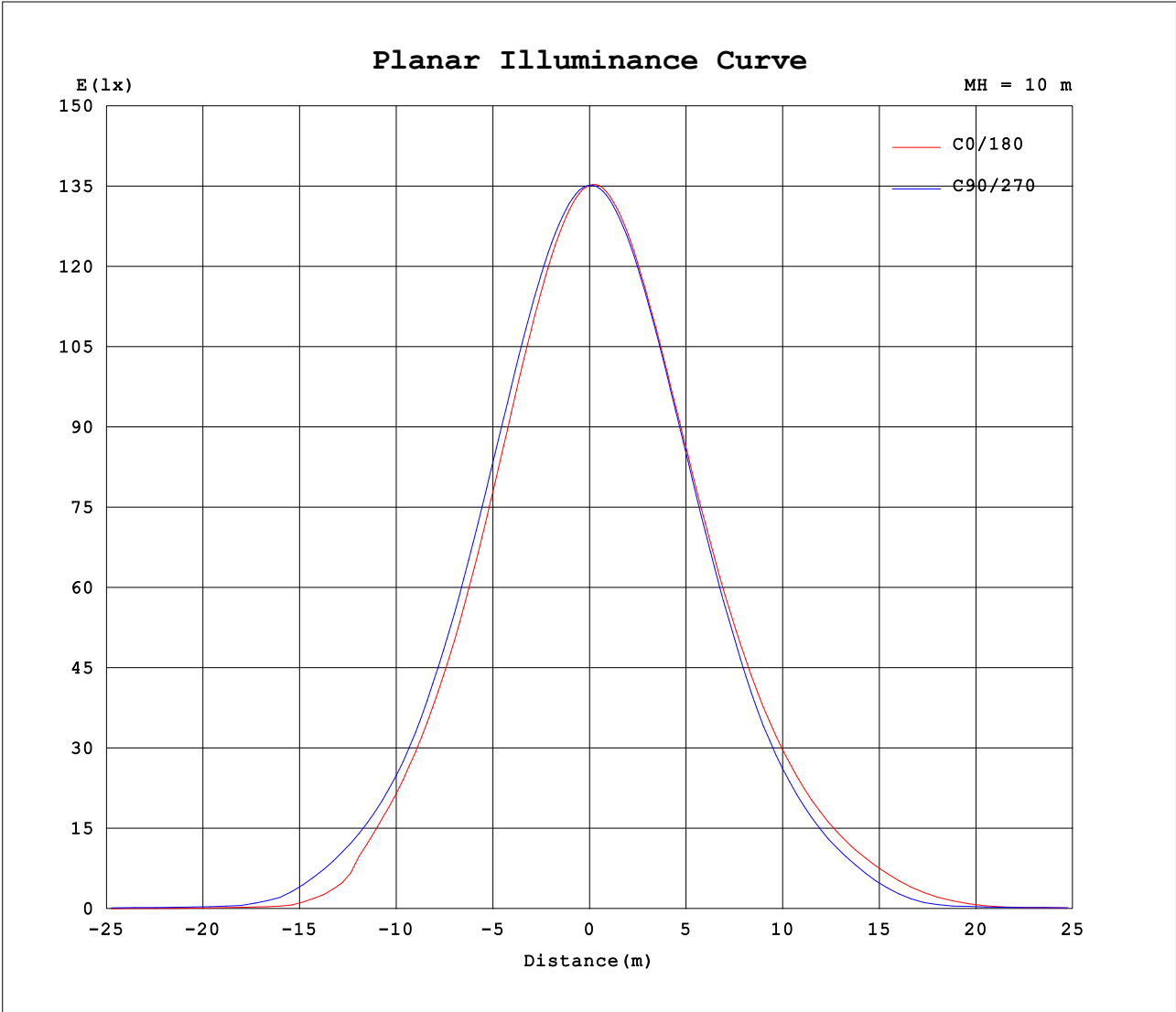


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

☐ 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:2025-06-06

☐ 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:119.6V I:1.354A P:161.4W PF:0.9973 Freq:59.98Hz Lamp Flux:26100.4x1 lm		
NAME: ASD-NHB-ST-160	TYPE:	WEIGHT:
SPEC.:160W-5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp.	SUR.:0.76*0.12m	Shielding Angle:

Table--1

UNIT: ×10cd

C (DEG) □ (DEG)	0	45	90	135	180	225	270	315										
0	1352	1352	1352	1352	1352	1352	1352	1352										
5	1333	1335	1342	1351	1356	1354	1349	1340										
10	1299	1305	1322	1336	1342	1341	1333	1314										
15	1252	1262	1291	1308	1314	1314	1305	1276										
20	1192	1205	1247	1268	1274	1274	1265	1224										
25	1116	1132	1188	1214	1223	1220	1210	1154										
30	1022	1040	1108	1141	1156	1149	1134	1065										
35	909	930	1002	1047	1071	1057	1032	953										
40	776	797	867	931	966	944	894	819										
45	610	638	705	793	840	808	741	659										
50	371	451	531	630	688	646	565	470										
55	103	247	311	447	502	467	351	269										
60	27.7	78.9	85.2	242	241	267	96.3	93.8										
65	14.3	31.8	40.2	88.3	47.1	106	42.3	33.6										
70	5.90	13.9	33.7	44.2	27.4	44.6	34.7	16.9										
75	3.03	4.66	28.4	20.5	14.8	22.0	29.7	5.25										
80	2.18	2.14	16.4	7.98	6.08	8.49	19.7	2.19										
85	0.57	0.92	5.40	2.69	3.44	2.81	6.93	1.12										
90	0.18	0.19	0.18	0.93	1.59	1.14	0.32	0.34										
95	0.28	0.29	0.25	0.20	0.20	0.32	0.43	0.59										
100	0.46	0.46	0.40	0.30	0.38	0.56	0.75	0.98										
105	0.71	0.70	0.62	0.48	0.74	0.95	1.21	1.51										
110	1.02	1.01	0.91	0.72	1.25	1.48	1.82	2.16										
115	1.40	1.37	1.27	1.04	1.90	2.14	2.55	2.91										
120	1.82	1.78	1.69	1.41	2.67	2.89	3.32	3.66										
125	2.27	2.25	2.16	1.82	3.48	3.65	4.07	4.39										
130	2.75	2.76	2.66	2.29	4.21	4.36	4.78	5.06										
135	3.27	3.31	3.17	2.79	4.87	5.03	5.42	5.68										
140	3.89	3.94	3.74	3.33	5.50	5.63	6.01	6.25										
145	4.62	4.65	4.41	3.94	6.10	6.21	6.55	6.78										
150	5.41	5.38	5.15	4.67	6.69	6.76	7.06	7.24										
155	6.15	6.06	5.89	5.44	7.22	7.24	7.48	7.61										
160	6.81	6.68	6.57	6.19	7.67	7.63	7.82	7.89										
165	7.40	7.24	7.19	6.87	8.01	7.93	8.08	8.09										
170	7.89	7.71	7.72	7.45	8.27	8.15	8.27	8.21										
175	8.27	8.09	8.13	7.91	8.42	8.26	8.36	8.24										
180	8.45	8.26	8.33	8.17	8.44	8.26	8.34	8.17										

C Range: 0 - 360DEG

C Interval: 45.0DEG

Test Speed: HIGH

Temperature:27DEG

Operators:lianghaizhu-1

Test Date:2025-06-06

□ 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: