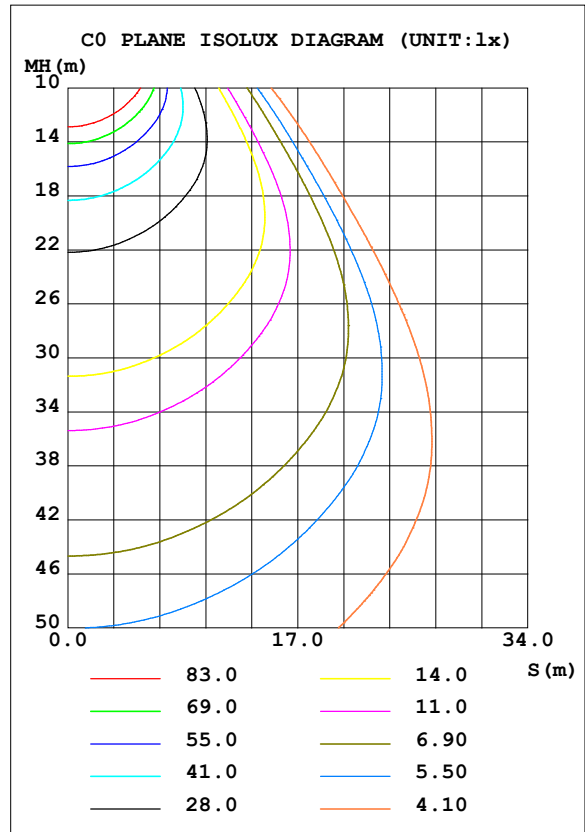
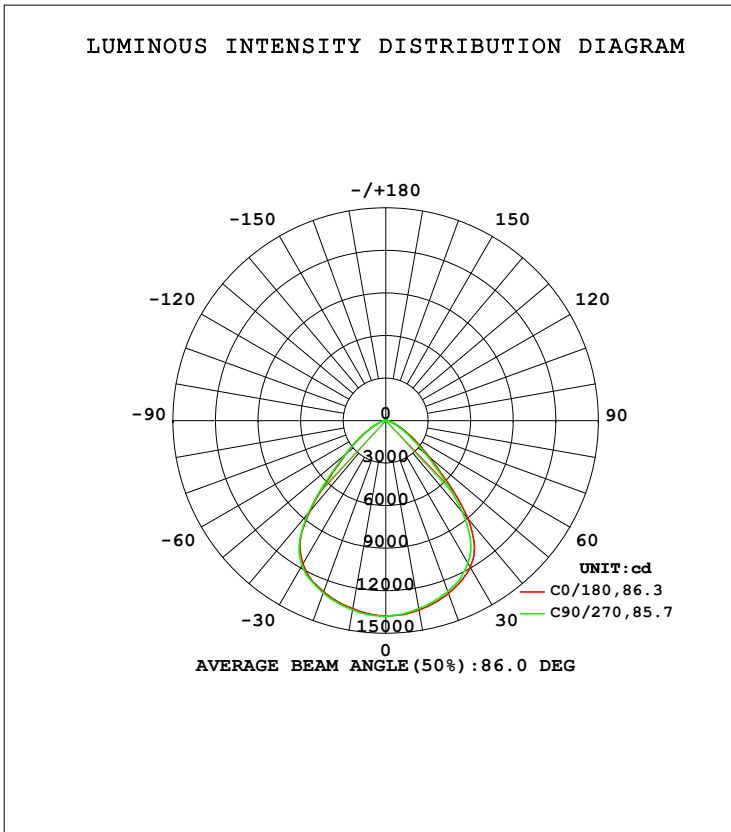


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:280.9V I:0.5012A P:138.9W PF:0.9869 Freq:59.97Hz Lamp Flux:25841.9x1 lm
NAME: ASD-UHB5-HV-PRO-150BK
SPEC.: 4000K
MFR.: ASD Lighting Corp

DATA OF LAMP		PHOTOMETRIC DATA Eff: 185.98 lm/W			
MODEL	ASD-UHB5-HV-PRO-150BK	I <sub>max</sub> (cd)	13787	S/MH (C0/180)	1.22
NOMINAL POWER (W)	150	LOR (%)	100.0	S/MH (C90/270)	1.23
RATED VOLTAGE (V)	277	TOTAL FLUX (lm)	25842	<input type="checkbox"/> UP, DN (C0-180)	0.5, 49.4
NOMINAL FLUX (lm)	25842	CIE CLASS	DIRECT	<input type="checkbox"/> UP, DN (C180-360)	0.6, 49.6
LAMPS INSIDE	1	<input type="checkbox"/> up (%)	1.1	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	277	<input type="checkbox"/> down (%)	98.9	CIBSE SHR MAX	1.25



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: 27DEG  
 Operators: lianghaizhu  
 Test Date: 2023-11-13

Range: 0 - 180DEG  
 Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.364  
 Humidity: 56%  
 Test Distance: 6.500m [K=1.0000]  
 Remarks:

## ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

mm	C0	C45	C90	C135	C180	C225	C270	C315	mm	□ zone	□ total	%lum, lamp
10	1356	1346	1346	1347	1346	1353	1356	1360	0- 10	1302	1302	5.04,5.04
20	1295	1281	1281	1283	1284	1291	1292	1299	10- 20	3740	5043	19.5,19.5
30	1192	1162	1159	1165	1167	1179	1180	1193	20- 30	5719	10762	41.6,41.6
40	900.0	827.3	839.2	846.6	834.8	859.4	850.4	892.1	30- 40	6539	17301	66.9,66.9
50	399.4	373.7	372.7	348.2	368.1	384.3	375.0	366.5	40- 50	4521	21822	84.4,84.4
60	176.2	168.8	151.1	138.8	164.0	174.5	152.2	138.6	50- 60	2246	24068	93.1,93.1
70	65.24	63.04	58.16	54.18	60.24	65.30	59.29	54.13	60- 70	1008	25076	97,97
80	20.91	20.09	20.22	19.23	19.18	21.19	19.63	19.79	70- 80	392.5	25468	98.6,98.6
90	0.8619	1.236	0.7854	1.197	1.298	1.301	0.8460	1.265	80- 90	94.16	25562	98.9,98.9
100	1.192	1.337	1.248	1.312	1.666	1.623	1.587	1.617	90-100	12.92	25575	99,99
110	2.141	2.234	2.224	2.255	2.953	2.806	2.825	2.805	100-110	20.63	25596	99,99
120	3.383	3.495	3.497	3.531	4.335	4.170	4.196	4.173	110-120	31.42	25627	99.2,99.2
130	4.786	4.902	4.923	4.952	5.880	5.683	5.738	5.689	120-130	40.90	25668	99.3,99.3
140	6.178	6.286	6.314	6.320	7.437	7.219	7.303	7.211	130-140	46.77	25715	99.5,99.5
150	7.460	7.596	7.590	7.601	8.787	8.607	8.694	8.627	140-150	46.69	25762	99.7,99.7
160	8.950	9.033	9.070	9.025	10.18	9.993	10.10	10.01	150-160	40.61	25802	99.8,99.8
170	10.55	10.53	10.64	10.58	11.38	11.20	11.34	11.22	160-170	28.87	25831	100,100
180	11.72	11.63	11.77	11.69	11.72	11.64	11.76	11.69	170-180	10.76	25842	100,100
DEG	LUMINOUS INTENSITY:×10cd									UNIT:lm		

Conical surface Flux(90deg): 19943 lm

%lum = 77.2%

%lamp = 77.2%

Conical surface Flux(120deg): 24068 lm

%lum = 93.1%

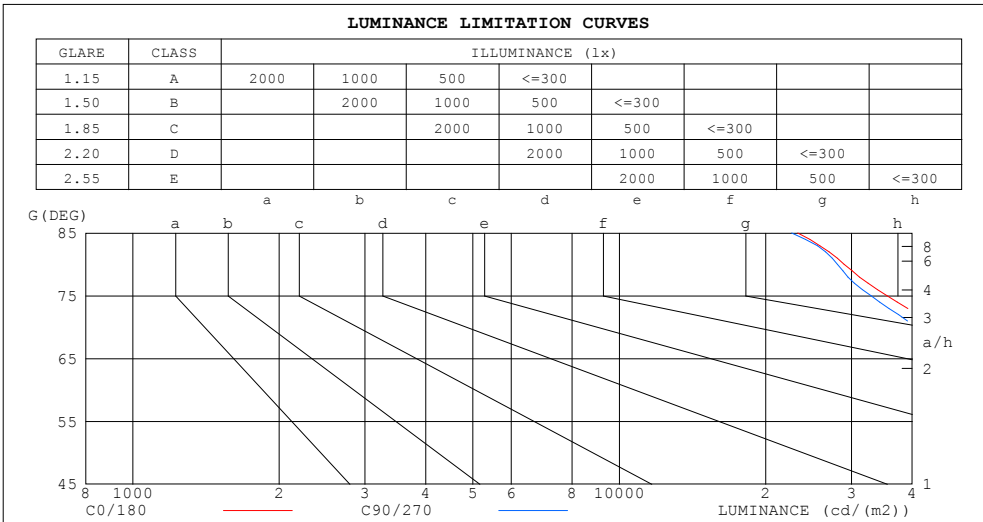
%lamp = 93.1%

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:27DEG  
 Operators:lianghaizhu  
 Test Date:2023-11-13

□ Range: 0 - 180DEG  
 □ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.364  
 Humidity:56%  
 Test Distance:6.500m [K=1.0000]  
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:280.9V I:0.5012A P:138.9W PF:0.9869 Freq:59.97Hz Lamp Flux:25841.9x1 lm
NAME: ASD-UHB5-HV-PRO-150BK
SPEC.: 4000K
MFR.: ASD Lighting Corp



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	23273	22603
80	29009	28062
75	35512	32945
70	45960	40975
65	62698	54426
60	84922	72815
55	112838	99320
50	149727	139710
45	211348	196041

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: 27DEG  
 Operators: lianghaizhu  
 Test Date: 2023-11-13

Range: 0 - 180DEG  
 Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.364  
 Humidity: 56%  
 Test Distance: 6.500m [K=1.0000]  
 Remarks:

WEC AND CCEC

Test:U:280.9V I:0.5012A P:138.9W PF:0.9869 Freq:59.97Hz Lamp Flux:25841.9x1 lm
NAME: ASD-UHB5-HV-PRO-150BK
SPEC.: 4000K
MFR.: ASD Lighting Corp

<input type="checkbox"/> cc	80%			70%			50%			30%			10%			0
<input type="checkbox"/> w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
<input type="checkbox"/> fc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)									
0.0																
1.0	.231	.131	.042	.223	.127	.040	.210	.120	.038	.198	.114	.037	.186	.108	.035	
2.0	.224	.123	.038	.217	.120	.037	.206	.114	.036	.195	.109	.034	.185	.105	.033	
3.0	.213	.113	.034	.207	.111	.033	.197	.107	.032	.188	.103	.032	.179	.099	.031	
4.0	.202	.105	.031	.197	.103	.030	.188	.100	.030	.179	.096	.029	.172	.093	.028	
5.0	.191	.097	.028	.186	.096	.028	.178	.093	.027	.171	.090	.027	.164	.088	.026	
6.0	.180	.090	.026	.176	.089	.026	.169	.087	.025	.163	.085	.025	.156	.082	.024	
7.0	.171	.084	.024	.167	.083	.024	.161	.081	.023	.155	.079	.023	.149	.078	.023	
8.0	.162	.079	.022	.159	.078	.022	.153	.076	.022	.147	.075	.022	.142	.073	.021	
9.0	.153	.074	.021	.151	.073	.021	.145	.072	.020	.141	.070	.020	.136	.069	.020	
10.0	.146	.070	.019	.143	.069	.019	.139	.068	.019	.134	.067	.019	.130	.065	.019	

<input type="checkbox"/> cc	80%			70%			50%			30%			10%			0
<input type="checkbox"/> w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
<input type="checkbox"/> fc	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	.183	.165	.149	.157	.142	.128	.107	.098	.089	.062	.056	.052	.020	.018	.017	
2.0	.172	.141	.115	.147	.121	.099	.101	.084	.069	.058	.049	.041	.019	.016	.013	
3.0	.162	.122	.091	.139	.106	.079	.095	.073	.055	.055	.043	.033	.018	.014	.011	
4.0	.154	.108	.074	.132	.094	.064	.091	.065	.045	.052	.038	.027	.017	.012	.009	
5.0	.146	.097	.062	.126	.084	.054	.086	.059	.038	.050	.035	.022	.016	.011	.007	
6.0	.139	.089	.052	.120	.077	.046	.083	.054	.032	.048	.032	.019	.015	.010	.006	
7.0	.133	.082	.046	.115	.071	.040	.079	.050	.028	.046	.029	.017	.015	.010	.006	
8.0	.128	.076	.040	.110	.066	.035	.076	.046	.025	.044	.027	.015	.014	.009	.005	
9.0	.122	.071	.036	.105	.062	.032	.073	.043	.022	.043	.026	.013	.014	.008	.004	
10.0	.117	.067	.033	.101	.058	.029	.070	.041	.020	.041	.024	.012	.013	.008	.004	

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:27DEG  
 Operators:lianghaizhu  
 Test Date:2023-11-13

Range: 0 - 180DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.364  
 Humidity:56%  
 Test Distance:6.500m [K=1.0000]  
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:280.9V I:0.5012A P:138.9W PF:0.9869 Freq:59.97Hz Lamp Flux:25841.9x1 lm
NAME: ASD-UHB5-HV-PRO-150BK
SPEC.: 4000K
MFR.: ASD Lighting Corp

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	28.6	29.8	28.8	30.0	30.2	28.2	29.5	28.5	29.7	29.9
3H	28.8	29.9	29.1	30.1	30.4	28.4	29.5	28.7	29.7	30.0
4H	28.8	29.9	29.1	30.1	30.4	28.4	29.5	28.7	29.7	30.0
6H	28.8	29.8	29.1	30.1	30.3	28.4	29.4	28.7	29.7	30.0
8H	28.8	29.7	29.1	30.0	30.3	28.4	29.3	28.7	29.6	29.9
12H	28.7	29.7	29.1	30.0	30.3	28.4	29.3	28.7	29.6	29.9
4H 2H	28.6	29.7	28.9	29.9	30.2	28.3	29.3	28.6	29.6	29.9
3H	28.9	29.8	29.2	30.1	30.4	28.5	29.4	28.9	29.7	30.1
4H	28.9	29.8	29.3	30.1	30.4	28.6	29.4	29.0	29.8	30.1
6H	29.0	29.7	29.4	30.1	30.5	28.6	29.4	29.0	29.7	30.1
8H	29.0	29.7	29.4	30.0	30.4	28.6	29.3	29.1	29.7	30.1
12H	29.0	29.6	29.4	30.0	30.4	28.6	29.3	29.1	29.7	30.1
8H 4H	28.9	29.6	29.3	29.9	30.3	28.6	29.2	29.0	29.6	30.0
6H	29.0	29.5	29.4	30.0	30.4	28.7	29.2	29.1	29.6	30.1
8H	29.0	29.5	29.5	29.9	30.4	28.7	29.2	29.2	29.6	30.1
12H	29.0	29.4	29.5	29.9	30.4	28.7	29.1	29.2	29.6	30.1
12H 4H	28.9	29.5	29.3	29.9	30.3	28.5	29.1	29.0	29.5	30.0
6H	29.0	29.4	29.4	29.9	30.3	28.6	29.1	29.1	29.6	30.0
8H	29.0	29.4	29.5	29.9	30.4	28.7	29.1	29.2	29.6	30.0
Variations with the observer position at spacings:										
S = 1.0H	+ 1.1 / - 1.7					+ 1.2 / - 1.9				
1.5H	+ 1.4 / - 1.2					+ 1.4 / - 1.2				
2.0H	+ 2.7 / - 2.1					+ 2.5 / - 2.0				

CIE Pub.117, 25842 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 11.3)

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:27DEG  
 Operators:lianghaizhu  
 Test Date:2023-11-13

Range: 0 - 180DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.364  
 Humidity:56%  
 Test Distance:6.500m [K=1.0000]  
 Remarks:

## UTILIZATION FACTORS TABLE

Test:U:280.9V I:0.5012A P:138.9W PF:0.9869 Freq:59.97Hz Lamp Flux:25841.9x1 lm
NAME: ASD-UHB5-HV-PRO-150BK
SPEC.: 4000K
MFR.: ASD Lighting Corp

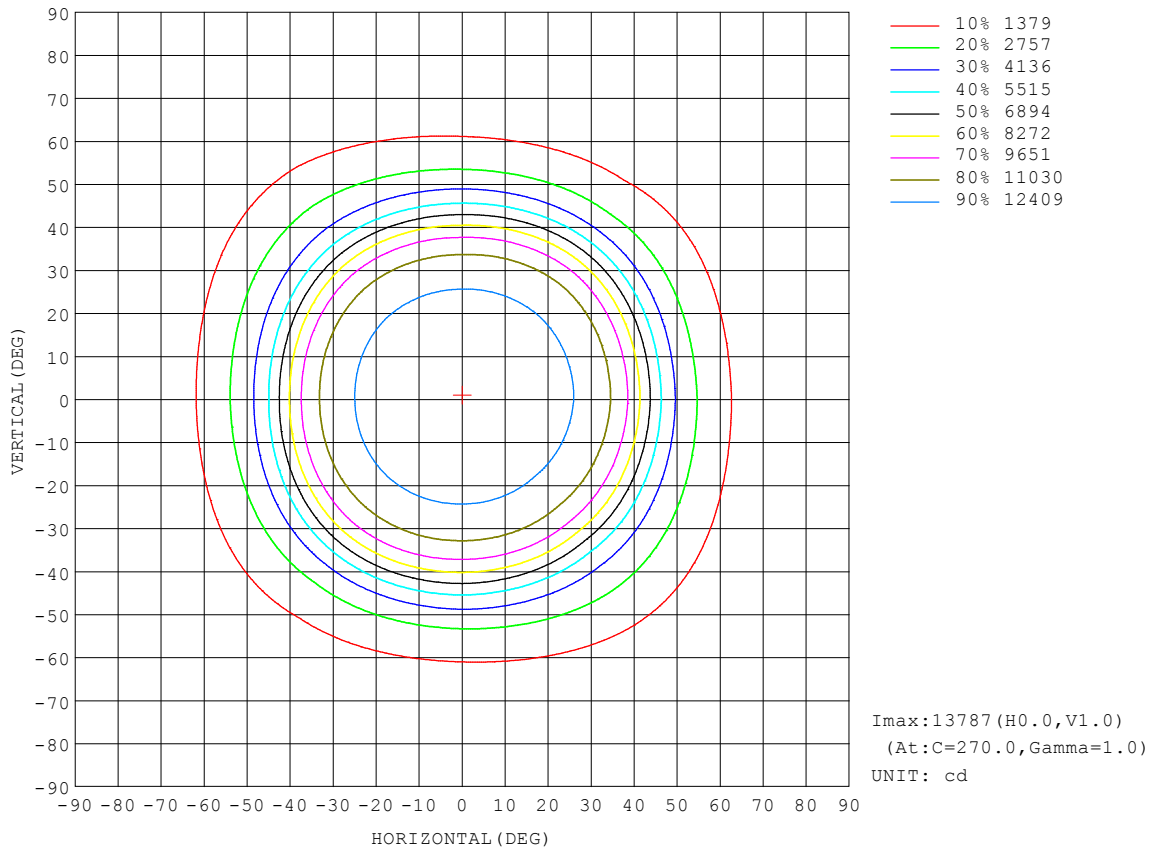
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	71	61	56	70	61	56	69	61	56	50
0.80	80	71	66	79	71	66	78	70	65	60
1.00	88	79	74	86	79	74	84	79	73	67
1.25	94	86	81	92	85	80	90	84	79	74
1.50	98	90	85	96	90	85	93	88	84	78
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	97	102	98	95	88
4.00	110	106	103	108	104	101	104	101	99	90
5.00	112	108	106	109	106	104	105	103	101	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  
 Test Date: 2023-11-13

Range: 0 - 180DEG  
 Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.364  
 Humidity: 56%  
 Test Distance: 6.500m [K=1.0000]  
 Remarks:

ISOCANDELA DIAGRAM

Test:U:280.9V I:0.5012A P:138.9W PF:0.9869 Freq:59.97Hz Lamp Flux:25841.9x1 lm
NAME: ASD-UHB5-HV-PRO-150BK
SPEC.: 4000K
MFR.: ASD Lighting Corp

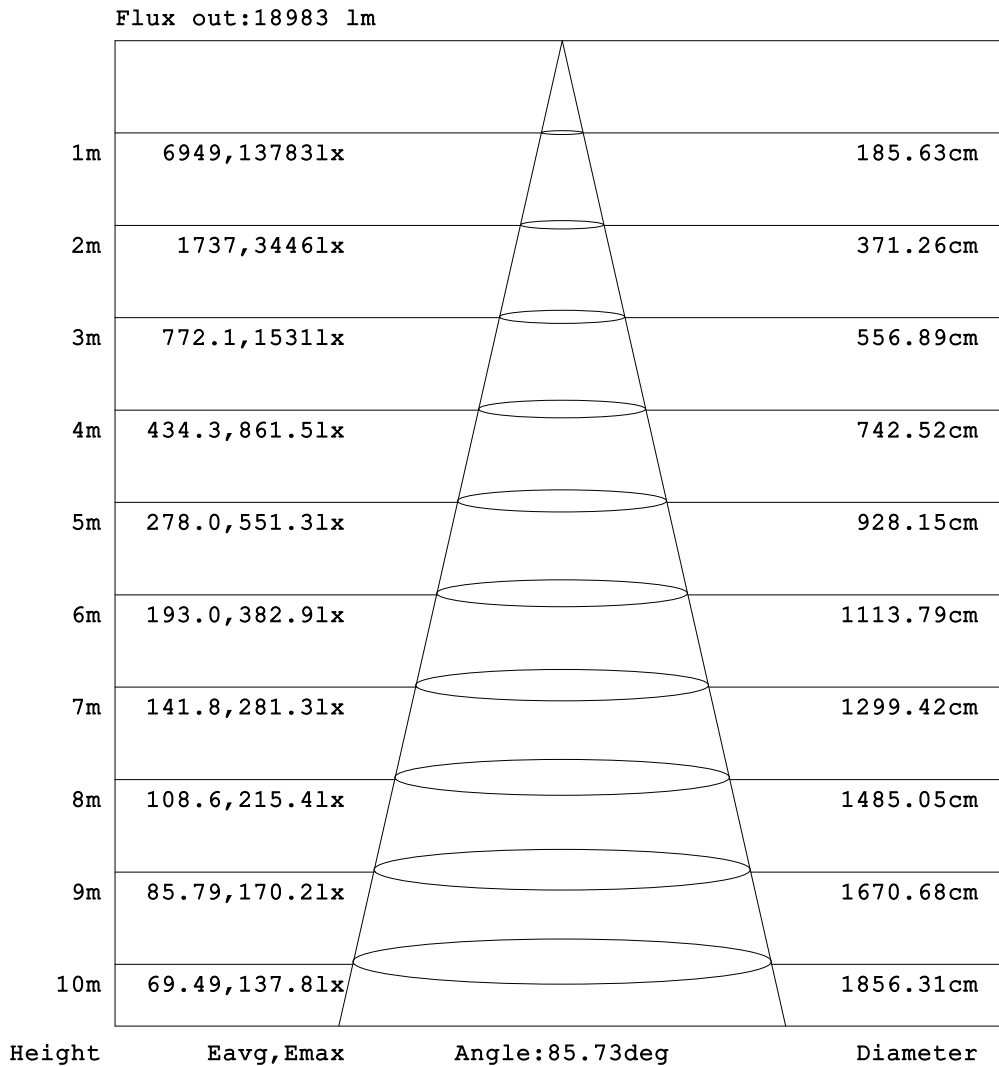


C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: 27DEG  
 Operators: lianghaizhu  
 Test Date: 2023-11-13

Range: 0 - 180DEG  
 Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.364  
 Humidity: 56%  
 Test Distance: 6.500m [K=1.0000]  
 Remarks:

AAI Figure

Test:U:280.9V I:0.5012A P:138.9W PF:0.9869 Freq:59.97Hz Lamp Flux:25841.9x1 lm
NAME: ASD-UHB5-HV-PRO-150BK
SPEC.: 4000K
MFR.: ASD Lighting Corp



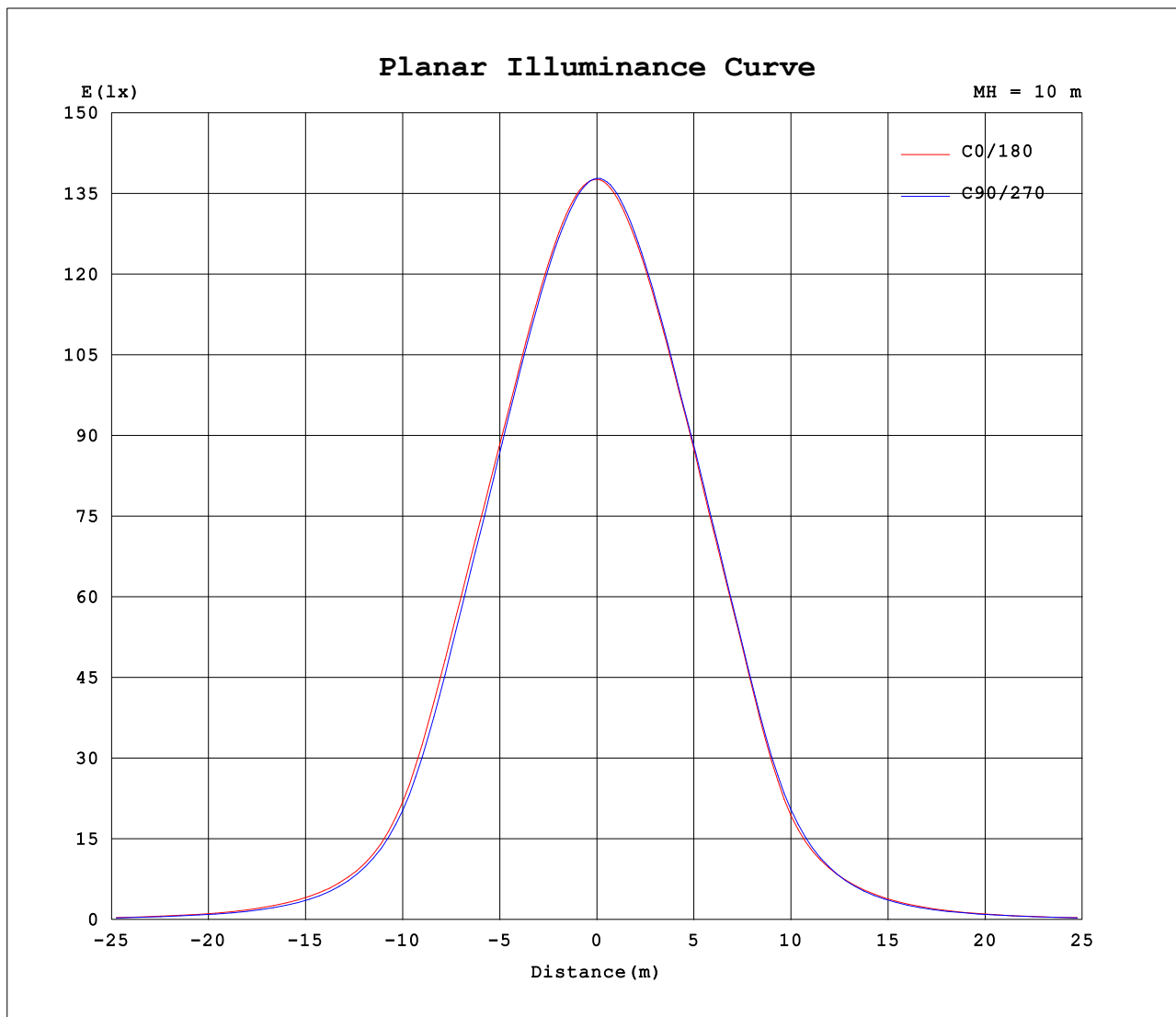
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:27DEG  
 Operators:lianghaizhu  
 Test Date:2023-11-13

Range: 0 - 180DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.364  
 Humidity:56%  
 Test Distance:6.500m [K=1.0000]  
 Remarks:



### Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature: 27DEG  
Operators: lianghaizhu  
Test Date: 2023-11-13

Range: 0 - 180DEG  
 Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.364  
Humidity: 56%  
Test Distance: 6.500m [K=1.0000]  
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:280.9V I:0.5012A P:138.9W PF:0.9869 Freq:59.97Hz Lamp Flux:25841.9x1 lm
NAME: ASD-UHB5-HV-PRO-150BK
SPEC.: 4000K
MFR.: ASD Lighting Corp

Table--1

UNIT: x10cd

C (DEG) □ (DEG)	0	45	90	135	180	225	270	315											
0	1377	1377	1378	1378	1377	1377	1378	1378											
5	1372	1367	1368	1368	1367	1372	1374	1375											
10	1356	1346	1346	1347	1346	1353	1356	1360											
15	1330	1318	1319	1321	1320	1327	1329	1334											
20	1295	1281	1281	1283	1284	1291	1292	1299											
25	1251	1235	1233	1238	1240	1247	1247	1253											
30	1192	1162	1159	1165	1167	1179	1180	1193											
35	1091	1045	1046	1057	1055	1071	1065	1092											
40	900	827	839	847	835	859	850	892											
45	620	552	575	557	549	575	579	597											
50	399	374	373	348	368	384	375	366											
55	269	259	236	218	254	264	240	225											
60	176	169	151	139	164	174	152	139											
65	110	105	95.5	87.0	101	109	96.0	86.1											
70	65.2	63.0	58.2	54.2	60.2	65.3	59.3	54.1											
75	38.1	37.0	35.4	33.1	34.9	38.4	35.8	33.9											
80	20.9	20.1	20.2	19.2	19.2	21.2	19.6	19.8											
85	8.42	7.64	8.18	7.86	7.25	8.46	6.69	7.69											
90	0.86	1.24	0.79	1.20	1.30	1.30	0.85	1.27											
95	0.90	1.19	0.93	1.11	1.23	1.32	1.14	1.33											
100	1.19	1.34	1.25	1.31	1.67	1.62	1.59	1.62											
105	1.62	1.69	1.69	1.71	2.29	2.16	2.18	2.15											
110	2.14	2.23	2.22	2.25	2.95	2.81	2.82	2.81											
115	2.73	2.84	2.83	2.87	3.63	3.47	3.49	3.47											
120	3.38	3.50	3.50	3.53	4.34	4.17	4.20	4.17											
125	4.07	4.19	4.20	4.23	5.09	4.90	4.95	4.91											
130	4.79	4.90	4.92	4.95	5.88	5.68	5.74	5.69											
135	5.50	5.60	5.63	5.65	6.67	6.47	6.53	6.46											
140	6.18	6.29	6.31	6.32	7.44	7.22	7.30	7.21											
145	6.82	6.96	6.96	6.96	8.13	7.93	8.02	7.93											
150	7.46	7.60	7.59	7.60	8.79	8.61	8.69	8.63											
155	8.17	8.27	8.29	8.27	9.47	9.29	9.38	9.33											
160	8.95	9.03	9.07	9.03	10.2	9.99	10.1	10.0											
165	9.76	9.79	9.87	9.80	10.8	10.6	10.8	10.7											
170	10.6	10.5	10.6	10.6	11.4	11.2	11.3	11.2											
175	11.3	11.2	11.3	11.3	11.7	11.6	11.7	11.6											
180	11.7	11.6	11.8	11.7	11.7	11.6	11.8	11.7											

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:27DEG  
 Operators:lianghaizhu  
 Test Date:2023-11-13

□ Range: 0 - 180DEG  
 □ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.364  
 Humidity:56%  
 Test Distance:6.500m [K=1.0000]  
 Remarks: