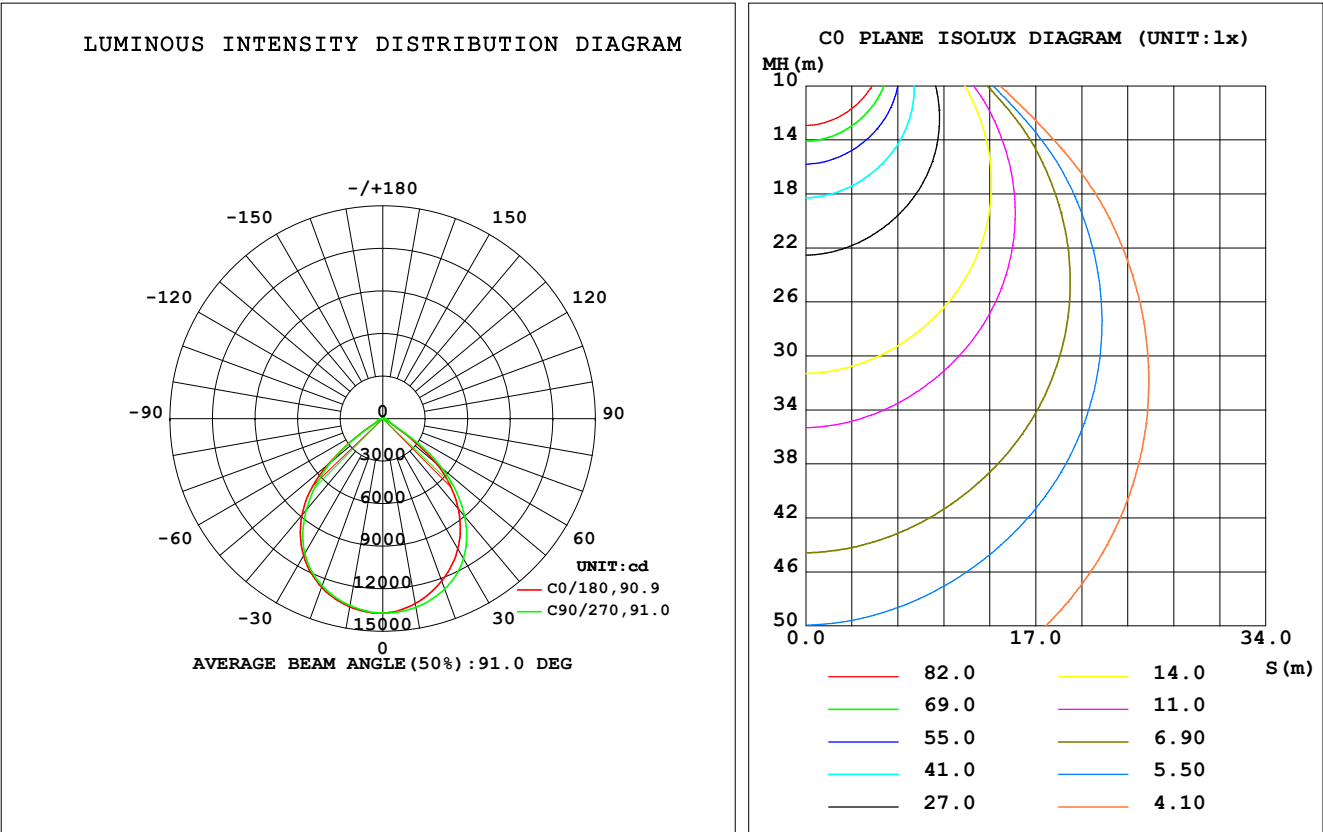


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.3V I:1.352A P:162.2W PF:0.9972 Freq:59.99Hz Lamp Flux:25521.6x1 lm		
NAME: ASD-WHB5B-PRO-160-160W-5000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp.	SUR.:0.38*0.25	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 157.30 lm/W
MODEL		Imax(cd)	13726	S/MH(C0/180)	1.21	
NOMINAL POWER(W)	160	LOR(%)	100.0	S/MH(C90/270)	1.20	
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	25522	□ UP,DN(C0-180)	0.5,50.3	
NOMINAL FLUX(lm)	25521.6	CIE CLASS	DIRECT	□ UP,DN(C180-360)	0.5,48.7	
LAMPS INSIDE	1	□ up(%)	1.0	CIBSE SHR NOM	1.25	
TEST VOLTAGE(V)	120	□ down(%)	99.0	CIBSE SHR MAX	1.30	



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:27DEG
Operators:lianghaizhu
Test Date:2024-05-29

□ 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:

°	C0	C45	C90	C135	C180	C225	C270	C315	°	□ zone	□ total	%lum, lamp
10	1324	1335	1351	1354	1347	1342	1337	1326	0- 10	1293	1293	5.07,5.07
20	1218	1244	1279	1281	1264	1257	1253	1225	10- 20	3673	4967	19.5,19.5
30	1060	1092	1140	1138	1117	1101	1100	1060	20- 30	5457	10423	40.8,40.8
40	828.5	855.4	898.5	904.1	887.3	857.8	839.1	811.7	30- 40	6179	16603	65.1,65.1
50	497.2	526.7	549.8	560.7	504.2	502.9	481.0	473.9	40- 50	5357	21960	86,86
60	48.93	127.4	78.57	145.6	58.68	111.8	56.68	91.54	50- 60	2514	24473	95.9,95.9
70	29.13	31.26	38.64	38.70	33.18	31.82	36.11	27.08	60- 70	504.8	24978	97.9,97.9
80	10.85	10.54	20.76	11.06	13.71	9.615	16.63	8.606	70- 80	237.1	25215	98.8,98.8
90	0.5898	0.6168	0.5748	0.5924	0.5632	0.6090	0.6217	0.6407	80- 90	50.95	25266	99,99
100	1.232	1.214	1.186	1.158	1.170	1.255	1.310	1.326	90-100	9.566	25276	99,99
110	2.248	2.194	2.161	2.100	2.163	2.266	2.370	2.375	100-110	18.00	25294	99.1,99.1
120	3.545	3.453	3.425	3.327	3.470	3.593	3.740	3.723	110-120	28.36	25322	99.2,99.2
130	4.929	4.779	4.799	4.635	4.893	4.972	5.217	5.118	120-130	37.82	25360	99.4,99.4
140	6.227	6.068	6.101	5.898	6.225	6.281	6.545	6.431	130-140	43.04	25403	99.5,99.5
150	7.566	7.380	7.429	7.209	7.650	7.673	7.939	7.795	140-150	43.12	25446	99.7,99.7
160	9.012	8.789	8.875	8.634	9.131	9.081	9.369	9.183	150-160	38.18	25484	99.9,99.9
170	10.31	10.07	10.21	9.963	10.32	10.20	10.49	10.26	160-170	27.20	25512	100,100
180	10.82	10.63	10.87	10.60	10.82	10.63	10.87	10.60	170-180	9.988	25522	100,100
DEG	LUMINOUS INTENSITY:×10cd									UNIT:lm		

Conical surface Flux(90deg): 19499 lm

%lum = 76.4%

%lamp = 76.4%

Conical surface Flux(120deg): 24473 lm

%lum = 95.9%

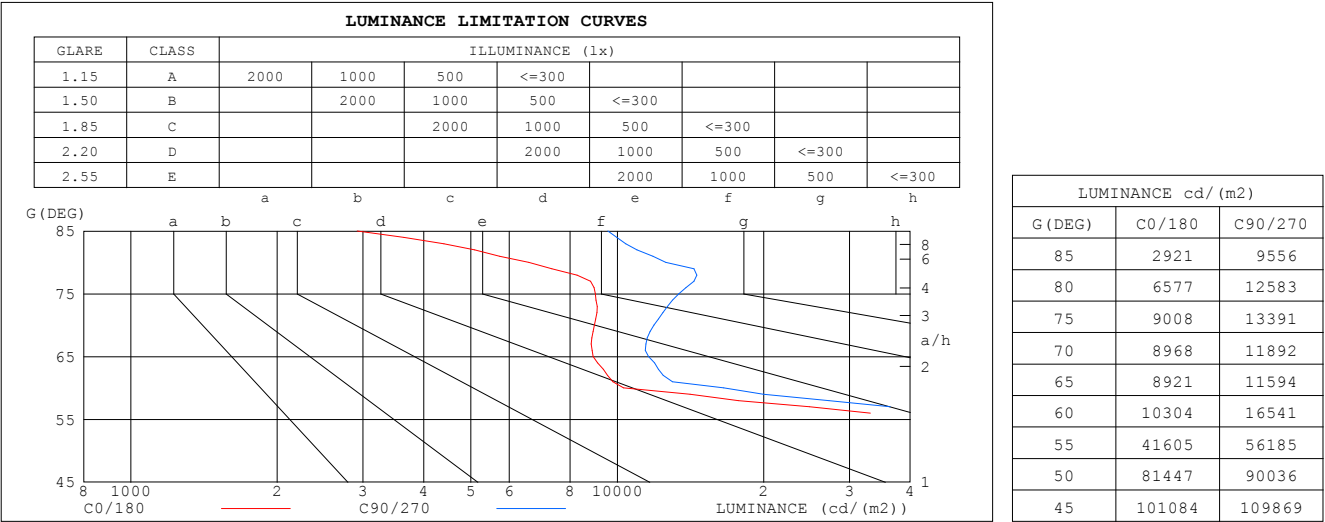
%lamp = 95.9%

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:27DEG
Operators:lianghaizhu
Test Date:2024-05-29

□ 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:120.3V I:1.352A P:162.2W PF:0.9972 Freq:59.99Hz Lamp Flux:25521.6x1 lm		
NAME: ASD-WHB5B-PRO-160-160W-5000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp.	SUR.:0.38*0.25	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:27DEG
Operators:lianghaizhu
Test Date:2024-05-29

☐ 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:120.3V I:1.352A P:162.2W PF:0.9972 Freq:59.99Hz Lamp Flux:25521.6x1 lm		
NAME: ASD-WHB5B-PRO-160-160W-5000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp.	SUR.:0.38*0.25	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	.224 .128 .040	.217 .124 .039	.204 .117 .037	.192 .110 .035	.180 .104 .034	
2.0	.219 .120 .037	.213 .117 .036	.201 .112 .035	.191 .107 .033	.181 .102 .032	
3.0	.210 .112 .033	.205 .110 .033	.194 .105 .032	.185 .101 .031	.176 .098 .030	
4.0	.200 .104 .031	.195 .102 .030	.186 .099 .029	.178 .095 .029	.170 .092 .028	
5.0	.189 .097 .028	.185 .095 .028	.177 .092 .027	.170 .090 .027	.163 .087 .026	
6.0	.180 .090 .026	.176 .089 .026	.169 .087 .025	.162 .084 .025	.156 .082 .024	
7.0	.170 .084 .024	.167 .083 .024	.161 .081 .023	.155 .079 .023	.149 .077 .023	
8.0	.162 .079 .022	.159 .078 .022	.153 .076 .022	.148 .075 .022	.143 .073 .021	
9.0	.154 .074 .021	.151 .074 .021	.146 .072 .020	.141 .071 .020	.136 .069 .020	
10.0	.146 .070 .019	.144 .069 .019	.139 .068 .019	.135 .067 .019	.130 .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	.198 .198 .198	.169 .169 .169	.116 .116 .116	.066 .066 .066	.021 .021 .021	
1.0	.182 .165 .149	.156 .141 .128	.107 .097 .089	.061 .056 .052	.020 .018 .017	
2.0	.170 .140 .115	.146 .121 .099	.100 .083 .069	.058 .049 .040	.018 .016 .013	
3.0	.161 .122 .091	.138 .105 .079	.095 .073 .055	.055 .043 .032	.018 .014 .011	
4.0	.152 .108 .073	.131 .093 .064	.090 .065 .045	.052 .038 .027	.017 .012 .009	
5.0	.145 .097 .061	.125 .084 .053	.086 .059 .038	.050 .034 .022	.016 .011 .007	
6.0	.139 .088 .052	.119 .076 .045	.082 .053 .032	.048 .031 .019	.015 .010 .006	
7.0	.133 .081 .045	.114 .070 .039	.079 .049 .028	.046 .029 .017	.015 .010 .005	
8.0	.127 .075 .040	.109 .065 .035	.076 .046 .025	.044 .027 .015	.014 .009 .005	
9.0	.122 .070 .036	.105 .061 .031	.073 .043 .022	.042 .025 .013	.014 .008 .004	
10.0	.117 .066 .032	.101 .057 .028	.070 .040 .020	.041 .024 .012	.013 .008 .004	

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:27DEG
Operators:lianghaizhu
Test Date:2024-05-29

☐ 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:120.3V I:1.352A P:162.2W PF:0.9972 Freq:59.99Hz Lamp Flux:25521.6x1 lm										
NAME: ASD-WHB5B-PRO-160-160W-5000K					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.: ASD Lighting Corp.					SUR.:0.38*0.25			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	25.8	27.1	26.1	27.3	27.5	26.3	27.6	26.6	27.8	28.0
3H	25.7	26.8	26.0	27.1	27.3	26.2	27.3	26.5	27.6	27.8
4H	25.7	26.7	26.0	27.0	27.2	26.2	27.2	26.5	27.5	27.7
6H	25.6	26.6	25.9	26.9	27.1	26.2	27.1	26.5	27.4	27.7
8H	25.5	26.5	25.9	26.8	27.1	26.1	27.1	26.5	27.4	27.7
12H	25.5	26.4	25.8	26.7	27.0	26.1	27.0	26.4	27.3	27.6
4H 2H	25.7	26.8	26.0	27.1	27.3	26.2	27.2	26.5	27.5	27.7
3H	25.6	26.5	26.0	26.8	27.2	26.1	27.0	26.4	27.3	27.6
4H	25.6	26.4	26.0	26.7	27.1	26.1	26.9	26.5	27.2	27.6
6H	25.5	26.3	25.9	26.6	27.0	26.1	26.8	26.5	27.2	27.6
8H	25.5	26.2	25.9	26.6	26.9	26.1	26.8	26.5	27.1	27.5
12H	25.5	26.1	25.9	26.5	26.9	26.1	26.7	26.5	27.1	27.5
8H 4H	25.5	26.1	25.9	26.5	26.9	26.0	26.6	26.4	27.0	27.4
6H	25.4	26.0	25.9	26.4	26.8	26.0	26.6	26.5	27.0	27.4
8H	25.4	25.9	25.9	26.3	26.8	26.0	26.5	26.5	26.9	27.4
12H	25.4	25.8	25.9	26.3	26.7	26.0	26.4	26.5	26.9	27.4
12H 4H	25.4	26.0	25.9	26.4	26.9	25.9	26.5	26.4	26.9	27.3
6H	25.4	25.9	25.9	26.3	26.8	26.0	26.5	26.4	26.9	27.4
8H	25.4	25.8	25.9	26.3	26.7	26.0	26.4	26.5	26.9	27.3
Variations with the observer position at spacings:										
S = 1.0H	+ 1.9 / - 4.0					+ 1.6 / - 2.7				
1.5H	+ 0.8 / - 1.7					+ 0.8 / - 1.5				
2.0H	+ 3.7 / - 8.1					+ 3.4 / - 6.7				

CIE Pub.117, 25522 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
 Test Date:2024-05-29

☐ 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:120.3V I:1.352A P:162.2W PF:0.9972 Freq:59.99Hz Lamp Flux:25521.6x1 lm		
NAME: ASD-WHB5B-PRO-160-160W-5000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp.	SUR.:0.38*0.25	Shielding Angle:

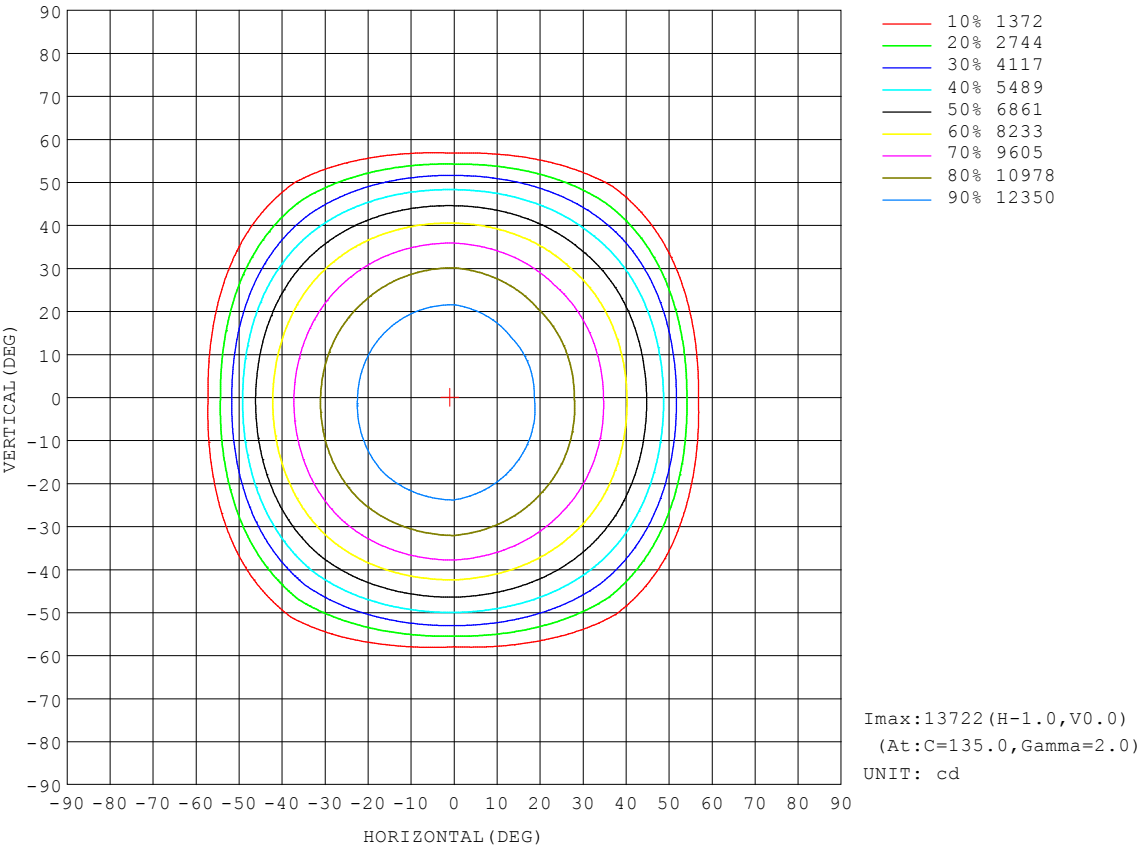
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	69	59	54	68	59	54	67	59	53	48
0.80	79	70	64	78	70	64	77	69	64	58
1.00	87	79	73	86	78	73	84	79	72	67
1.25	94	86	81	92	85	80	90	84	79	74
1.50	98	91	86	96	90	85	93	88	84	78
2.00	103	97	92	101	96	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
 Test Date: 2024-05-29

☐ 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:120.3V I:1.352A P:162.2W PF:0.9972 Freq:59.99Hz Lamp Flux:25521.6x1 lm		
NAME: ASD-WHB5B-PRO-160-160W-5000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp.	SUR.:0.38*0.25	Shielding Angle:

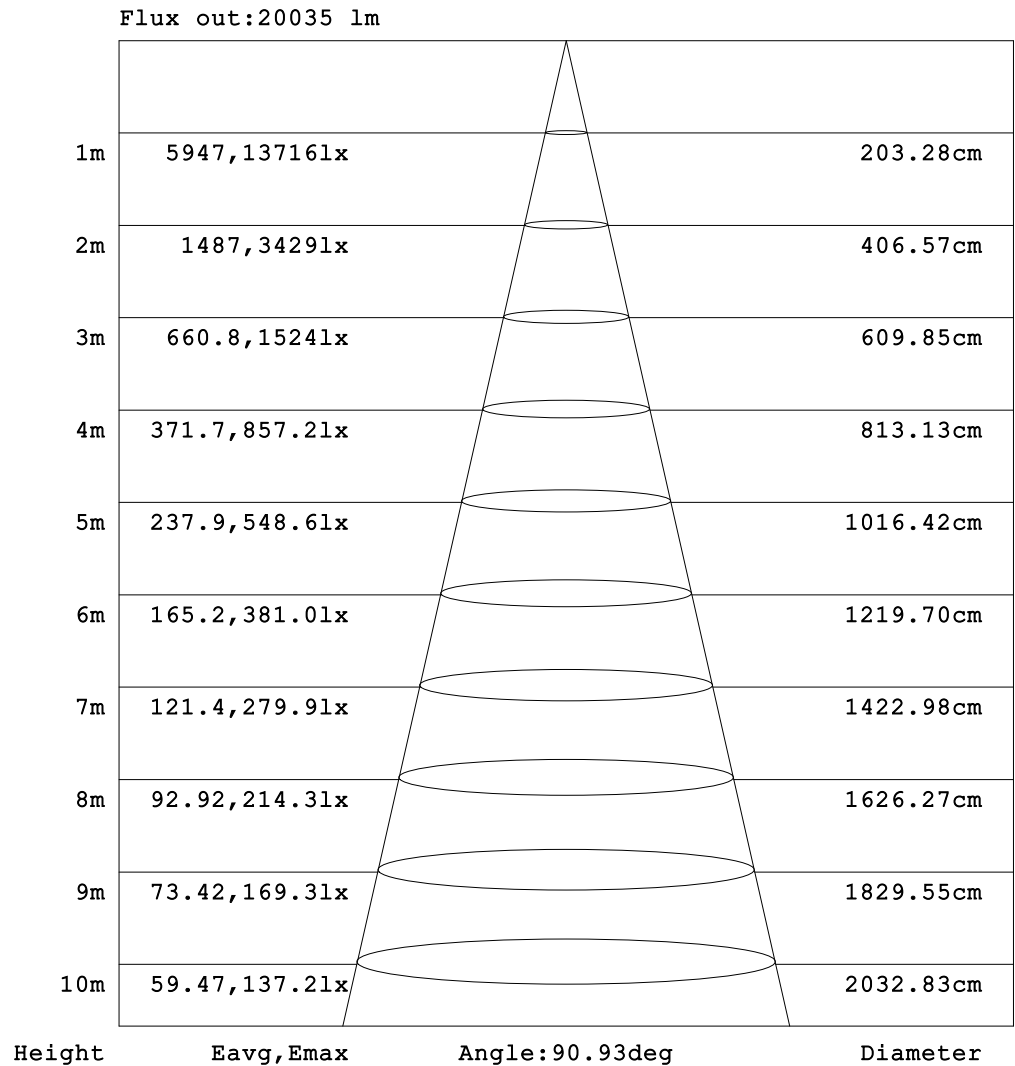


C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:27DEG
Operators:lianghaizhu
Test Date:2024-05-29

☐ 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:120.3V I:1.352A P:162.2W PF:0.9972 Freq:59.99Hz Lamp Flux:25521.6x1 lm		
NAME: ASD-WHB5B-PRO-160-160W-5000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp.	SUR.:0.38*0.25	Shielding Angle:

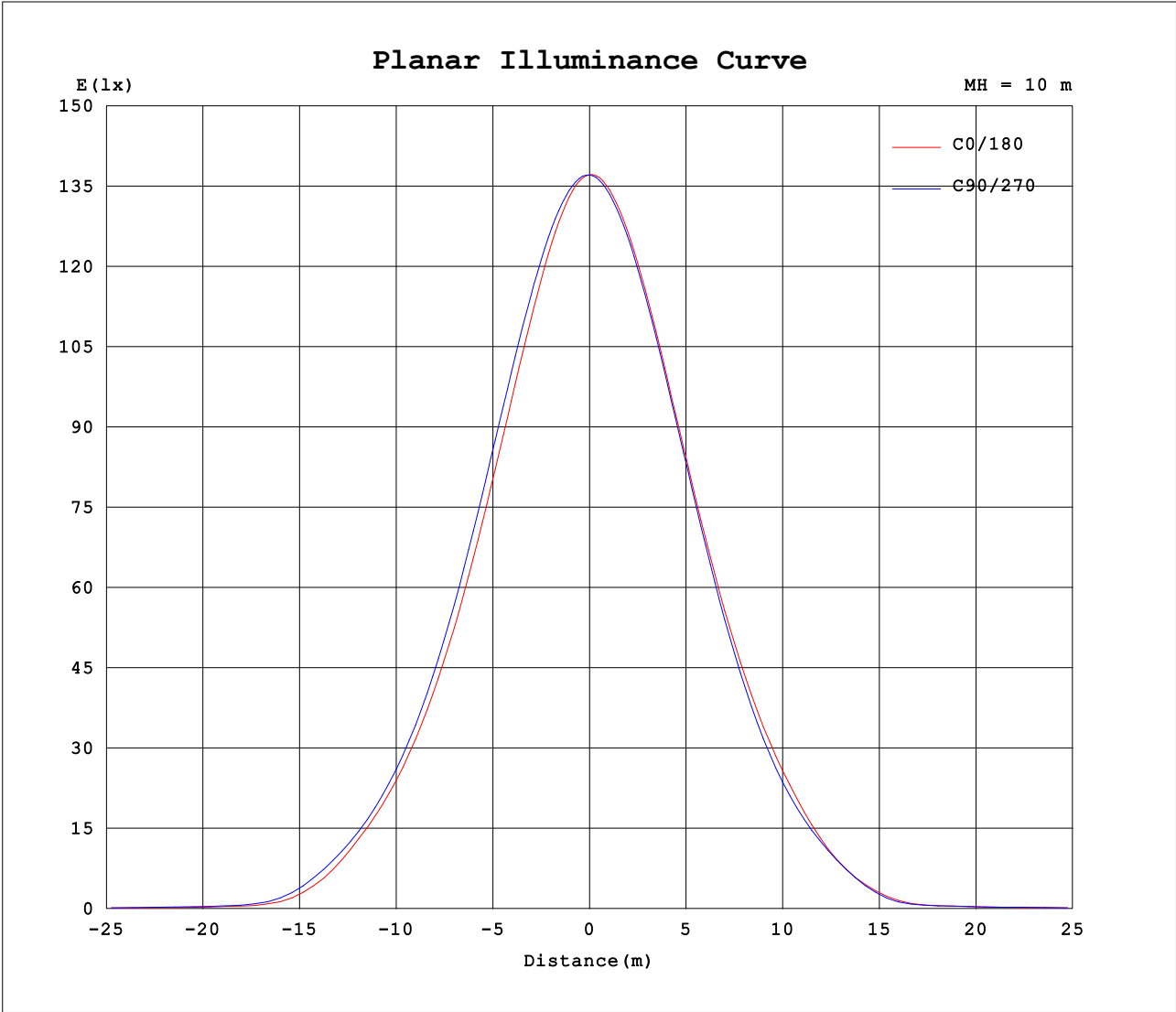


Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 27DEG
Operators: lianghaizhu
Test Date: 2024-05-29

☐ 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:2024-05-29

☐ 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:120.3V I:1.352A P:162.2W PF:0.9972 Freq:59.99Hz Lamp Flux:25521.6x1 lm		
NAME: ASD-WHB5B-PRO-160-160W-5000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp.	SUR.:0.38*0.25	Shielding Angle:

Table- 1									UNIT: ×10cd										
C (DEG) □ (DEG)	0	45	90	135	180	225	270	315											
0	1371	1371	1371	1371	1371	1371	1371	1371											
5	1356	1361	1367	1370	1367	1364	1361	1356											
10	1324	1335	1351	1354	1347	1342	1337	1326											
15	1276	1296	1321	1324	1313	1307	1302	1282											
20	1218	1244	1279	1281	1264	1257	1253	1225											
25	1147	1178	1221	1220	1200	1190	1188	1152											
30	1060	1092	1140	1138	1117	1101	1100	1060											
35	954	986	1033	1033	1014	991	983	947											
40	828	855	898	904	887	858	839	812											
45	679	702	738	749	729	696	669	653											
50	497	527	550	561	504	503	481	474											
55	227	324	306	343	240	291	229	268											
60	48.9	127	78.6	146	58.7	112	56.7	91.5											
65	35.8	49.5	46.6	63.5	41.3	51.7	42.2	43.6											
70	29.1	31.3	38.6	38.7	33.2	31.8	36.1	27.1											
75	22.1	16.5	32.9	17.9	25.7	15.7	30.6	14.3											
80	10.8	10.5	20.8	11.1	13.7	9.61	16.6	8.61											
85	2.42	3.02	7.91	3.49	2.85	2.40	5.52	1.81											
90	0.59	0.62	0.57	0.59	0.56	0.61	0.62	0.64											
95	0.85	0.85	0.83	0.82	0.81	0.88	0.92	0.93											
100	1.23	1.21	1.19	1.16	1.17	1.25	1.31	1.33											
105	1.70	1.66	1.63	1.59	1.62	1.72	1.80	1.81											
110	2.25	2.19	2.16	2.10	2.16	2.27	2.37	2.37											
115	2.87	2.80	2.76	2.69	2.78	2.90	3.02	3.02											
120	3.55	3.45	3.43	3.33	3.47	3.59	3.74	3.72											
125	4.24	4.11	4.11	3.98	4.20	4.30	4.50	4.42											
130	4.93	4.78	4.80	4.63	4.89	4.97	5.22	5.12											
135	5.60	5.43	5.47	5.27	5.57	5.63	5.90	5.78											
140	6.23	6.07	6.10	5.90	6.22	6.28	6.55	6.43											
145	6.87	6.71	6.75	6.54	6.92	6.97	7.23	7.10											
150	7.57	7.38	7.43	7.21	7.65	7.67	7.94	7.80											
155	8.28	8.08	8.14	7.91	8.39	8.38	8.66	8.50											
160	9.01	8.79	8.88	8.63	9.13	9.08	9.37	9.18											
165	9.72	9.49	9.60	9.35	9.81	9.72	10.0	9.80											
170	10.3	10.1	10.2	9.96	10.3	10.2	10.5	10.3											
175	10.7	10.4	10.6	10.4	10.7	10.5	10.8	10.5											
180	10.8	10.6	10.9	10.6	10.8	10.6	10.9	10.6											

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:27DEG
Operators:lianghaizhu
Test Date:2024-05-29

□ 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: