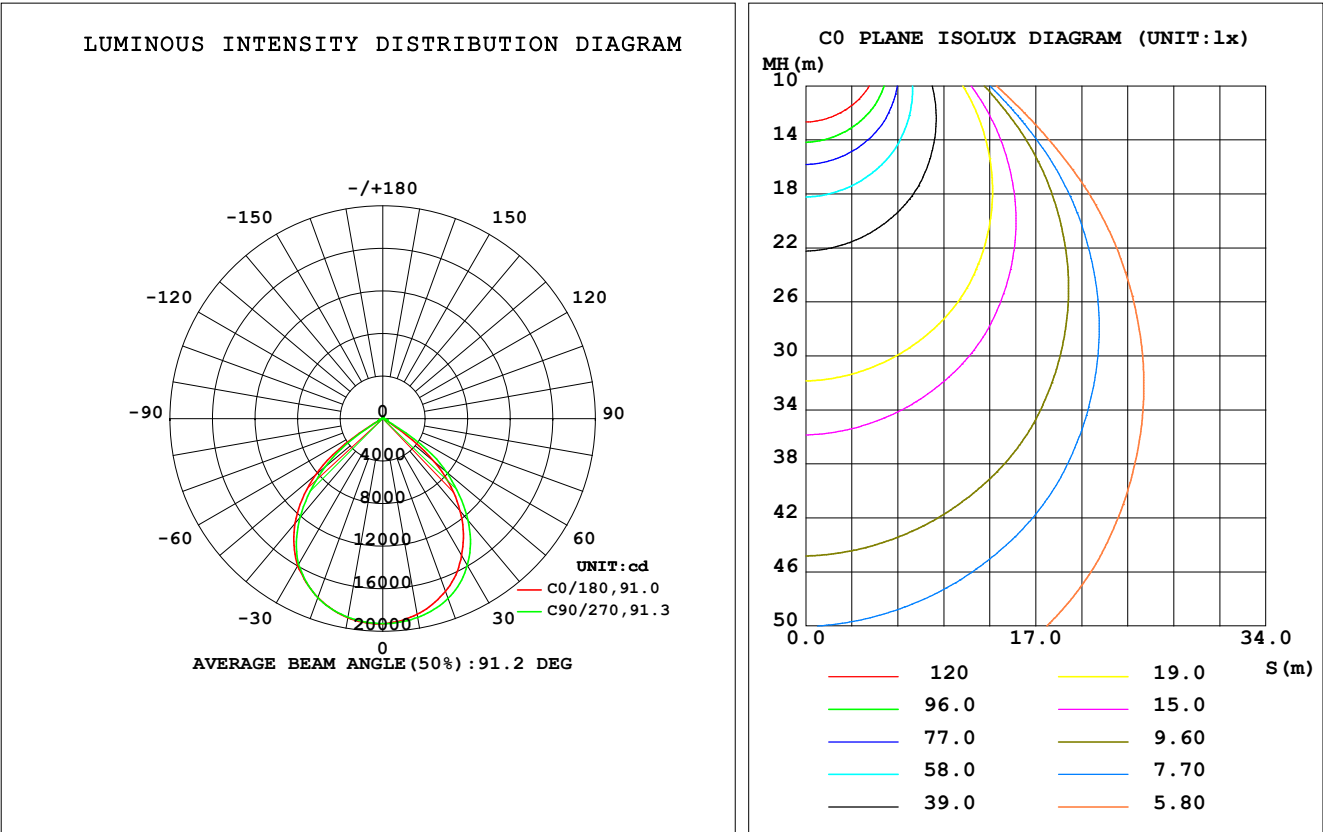


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.2V I:1.913A P:229.3W PF:0.9972 Freq:59.98Hz Lamp Flux:36274.5x1 lm		
NAME: ASD-WHB5B-ST-220	TYPE:	WEIGHT:
SPEC.: 220W-5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp.	SUR.:0.45*0.32	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 158.22 lm/W			
MODEL	ASD-WHB5B-ST-220	I _{max} (cd)	19304	S/MH (C0/180)	1.23
NOMINAL POWER (W)	220	LOR (%)	100.0	S/MH (C90/270)	1.22
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	36274	□ UP, DN (C0-180)	0.5, 49.5
NOMINAL FLUX (lm)	36274.5	CIE CLASS	DIRECT	□ UP, DN (C180-360)	0.5, 49.5
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: 2024-05-08

□ 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	1867	1875	1897	1906	1900	1900	1894	1874	0- 10	1821	1821	5.02,5.02
20	1728	1750	1798	1814	1788	1797	1790	1745	10- 20	5198	7019	19.4,19.4
30	1484	1529	1592	1617	1601	1581	1584	1500	20- 30	7731	14750	40.7,40.7
40	1132	1176	1245	1294	1283	1241	1209	1121	30- 40	8739	23488	64.8,64.8
50	635.8	705.7	783.0	836.7	827.4	765.3	712.7	638.2	40- 50	7566	31054	85.6,85.6
60	53.42	135.4	113.7	251.0	133.6	193.6	71.89	95.01	50- 60	3853	34908	96.2,96.2
70	37.43	33.45	41.98	41.43	42.82	39.11	37.86	30.60	60- 70	576.0	35484	97.8,97.8
80	8.551	27.83	19.73	37.82	17.33	30.75	14.40	22.68	70- 80	338.9	35823	98.8,98.8
90	0.9379	0.9802	0.8409	1.189	0.7449	0.7619	0.7991	0.8797	80- 90	91.25	35914	99,99
100	1.899	1.823	1.709	1.572	1.387	1.520	1.665	1.766	90-100	13.10	35927	99,99
110	3.363	3.250	3.101	2.873	2.631	2.805	3.036	3.194	100-110	24.34	35951	99.1,99.1
120	5.189	5.037	4.891	4.602	4.549	4.744	5.100	5.272	110-120	39.05	35990	99.2,99.2
130	7.093	6.901	6.818	6.447	6.679	6.799	7.260	7.316	120-130	52.96	36043	99.4,99.4
140	9.009	8.750	8.672	8.250	8.648	8.766	9.220	9.240	130-140	60.73	36104	99.5,99.5
150	11.23	10.92	10.83	10.35	10.67	10.67	11.24	11.16	140-150	61.39	36166	99.7,99.7
160	13.31	13.05	13.00	12.52	12.83	12.85	13.36	13.27	150-160	55.05	36221	99.9,99.9
170	15.00	14.84	14.93	14.48	14.80	14.71	15.13	14.93	160-170	39.40	36260	100,100
180	15.64	15.50	15.78	15.42	15.65	15.49	15.79	15.42	170-180	14.51	36274	100,100
DEG	LUMINOUS INTENSITY:×10cd									UNIT:lm		

Conical surface Flux(90deg): 27565 lm

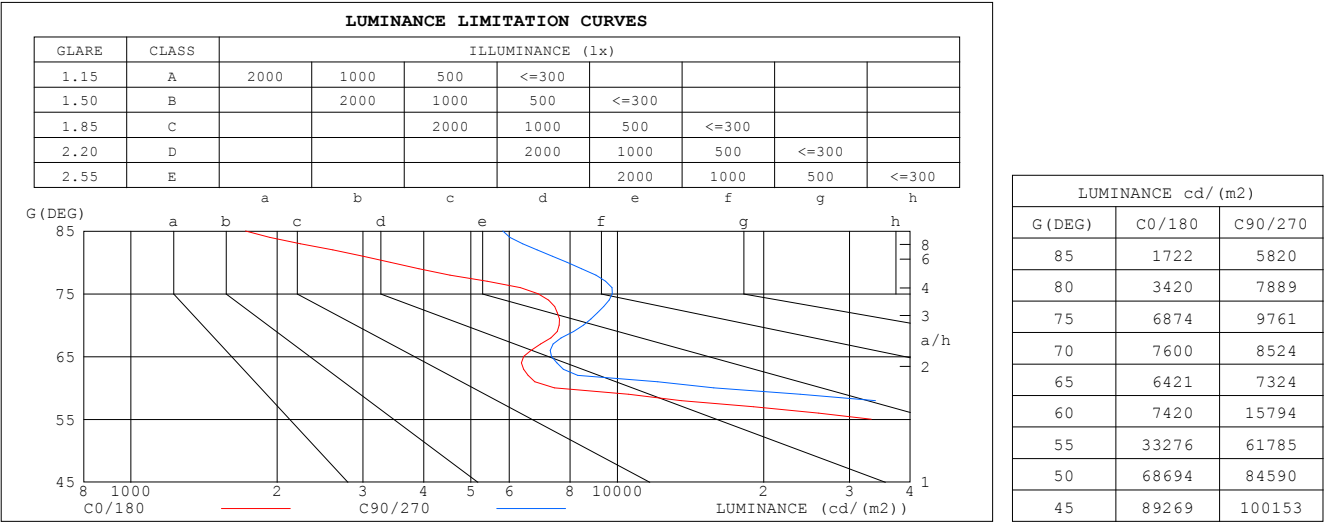
%lum = 76.0%
%lamp = 76.0%

Conical surface Flux(120deg): 34908 lm

%lum = 96.2%
%lamp = 96.2%

LUMINANCE LIMITATION CURVES

Test:U:120.2V I:1.913A P:229.3W PF:0.9972 Freq:59.98Hz Lamp Flux:36274.5x1 lm		
NAME: ASD-WHB5B-ST-220	TYPE:	WEIGHT:
SPEC.: 220W-5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp.	SUR.:0.45*0.32	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:27DEG
Operators:lianghaizhu
Test Date:2024-05-08

☐ 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:120.2V I:1.913A P:229.3W PF:0.9972 Freq:59.98Hz Lamp Flux:36274.5x1 lm		
NAME: ASD-WHB5B-ST-220	TYPE:	WEIGHT:
SPEC.: 220W-5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp.	SUR.:0.45*0.32	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	.225 .128 .041	.218 .124 .039	.204 .117 .037	.192 .111 .036	.181 .105 .034	
2.0	.220 .120 .037	.213 .118 .036	.202 .112 .035	.191 .107 .034	.181 .103 .032	
3.0	.210 .112 .034	.205 .110 .033	.195 .106 .032	.185 .102 .031	.177 .098 .030	
4.0	.200 .104 .031	.195 .102 .030	.186 .099 .030	.178 .096 .029	.170 .093 .028	
5.0	.190 .097 .028	.186 .095 .028	.178 .093 .027	.170 .090 .027	.163 .087 .026	
6.0	.180 .090 .026	.176 .089 .026	.169 .087 .025	.163 .084 .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 .077 .022	.148 .075 .022	.143 .073 .021	
9.0	.154 .074 .021	.151 .074 .021	.146 .072 .020	.141 .071 .020	.137 .069 .020	
10.0	.146 .070 .019	.144 .069 .019	.139 .068 .019	.135 .067 .019	.131 .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 .051	.020 .018 .017	
2.0	.170 .140 .114	.146 .120 .099	.100 .083 .069	.058 .048 .040	.018 .016 .013	
3.0	.161 .122 .090	.138 .105 .078	.095 .073 .055	.055 .043 .032	.018 .014 .011	
4.0	.153 .108 .073	.131 .093 .064	.090 .065 .045	.052 .038 .027	.017 .012 .009	
5.0	.145 .097 .061	.125 .084 .053	.086 .058 .037	.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 .016	.015 .009 .005	
8.0	.127 .075 .040	.109 .065 .035	.076 .046 .024	.044 .027 .015	.014 .009 .005	
9.0	.122 .070 .035	.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:2024-05-08

☐ 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:120.2V I:1.913A P:229.3W PF:0.9972 Freq:59.98Hz Lamp Flux:36274.5x1 lm										
NAME: ASD-WHB5B-ST-220					TYPE:			WEIGHT:		
SPEC.: 220W-5000K					DIM.:			SERIAL No.:		
MFR.: ASD Lighting Corp.					SUR.:0.45*0.32			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	25.1	26.4	25.4	26.6	26.8	26.0	27.2	26.2	27.4	27.6
3H	25.0	26.1	25.3	26.3	26.6	25.8	27.0	26.1	27.2	27.4
4H	24.9	26.0	25.2	26.2	26.5	25.8	26.8	26.1	27.1	27.4
6H	24.8	25.8	25.2	26.1	26.4	25.7	26.7	26.1	27.0	27.3
8H	24.8	25.8	25.1	26.0	26.3	25.7	26.7	26.0	26.9	27.2
12H	24.7	25.7	25.1	26.0	26.3	25.7	26.6	26.0	26.9	27.2
4H 2H	25.0	26.1	25.3	26.3	26.6	25.8	26.9	26.1	27.1	27.4
3H	24.9	25.8	25.2	26.1	26.4	25.7	26.6	26.0	26.9	27.2
4H	24.8	25.7	25.2	26.0	26.3	25.6	26.5	26.0	26.8	27.1
6H	24.8	25.5	25.2	25.9	26.2	25.6	26.4	26.0	26.7	27.1
8H	24.8	25.4	25.2	25.8	26.2	25.6	26.3	26.0	26.7	27.1
12H	24.7	25.3	25.1	25.7	26.1	25.6	26.2	26.0	26.6	27.0
8H 4H	24.8	25.4	25.2	25.8	26.2	25.6	26.2	26.0	26.6	27.0
6H	24.7	25.3	25.2	25.7	26.1	25.6	26.1	26.0	26.5	27.0
8H	24.7	25.2	25.2	25.6	26.1	25.6	26.1	26.0	26.5	27.0
12H	24.7	25.1	25.2	25.5	26.0	25.6	26.0	26.0	26.4	26.9
12H 4H	24.7	25.3	25.2	25.7	26.1	25.5	26.1	25.9	26.5	26.9
6H	24.7	25.2	25.2	25.6	26.1	25.6	26.0	26.0	26.5	26.9
8H	24.7	25.1	25.2	25.6	26.1	25.6	26.0	26.0	26.4	26.9
Variations with the observer position at spacings:										
S = 1.0H	+ 2.0 / - 4.6					+ 1.3 / - 2.1				
1.5H	+ 0.8 / - 2.0					+ 0.7 / - 1.4				
2.0H	+ 3.9 / - 8.1					+ 3.3 / - 7.7				

CIE Pub.117, 36274 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 12.5$)

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:27DEG
 Operators:lianghaizhu
 Test Date:2024-05-08

☐ 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:120.2V I:1.913A P:229.3W PF:0.9972 Freq:59.98Hz Lamp Flux:36274.5x1 lm		
NAME: ASD-WHB5B-ST-220	TYPE:	WEIGHT:
SPEC.: 220W-5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp.	SUR.:0.45*0.32	Shielding Angle:

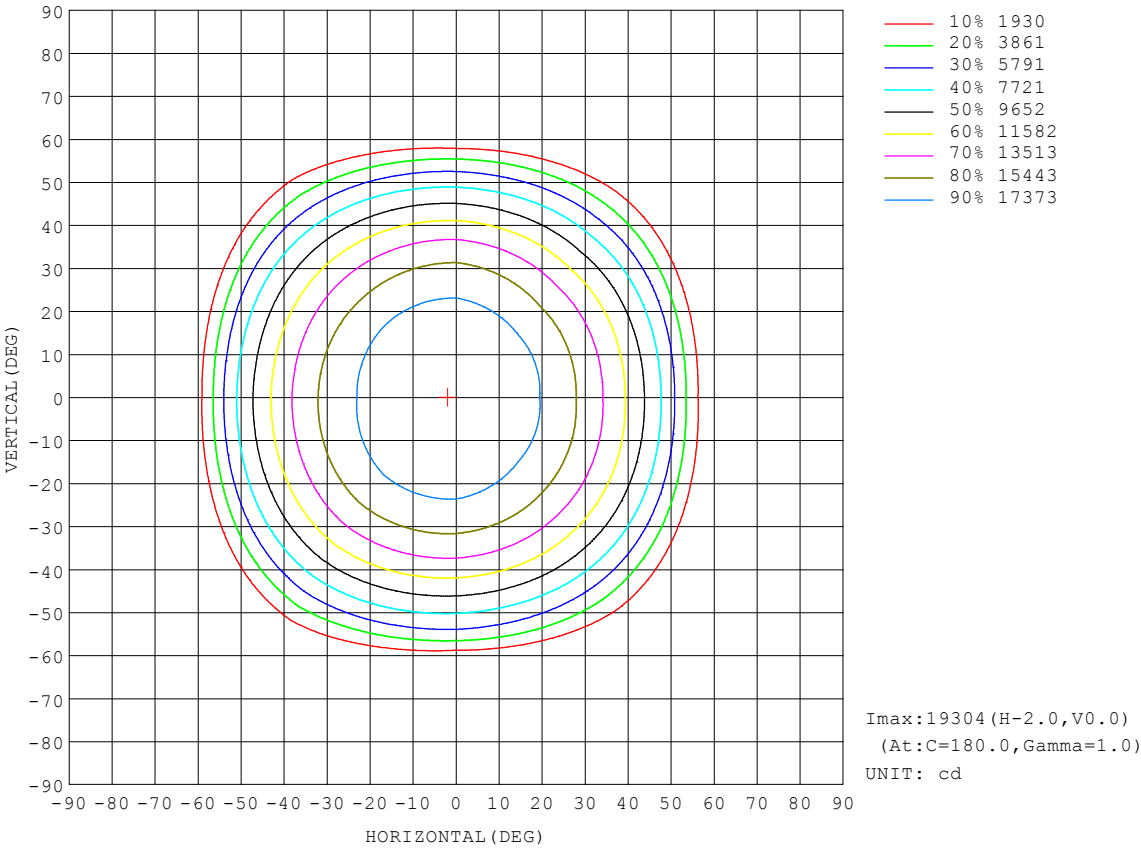
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	69	59	53	68	59	53	67	58	53	48
0.80	79	70	64	78	69	64	76	69	63	58
1.00	87	79	73	86	78	73	84	79	72	67
1.25	93	86	81	92	85	80	90	84	79	73
1.50	98	90	85	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	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	102	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: 2024-05-08

☐ 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:120.2V I:1.913A P:229.3W PF:0.9972 Freq:59.98Hz Lamp Flux:36274.5x1 lm		
NAME: ASD-WHB5B-ST-220	TYPE:	WEIGHT:
SPEC.: 220W-5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp.	SUR.:0.45*0.32	Shielding Angle:

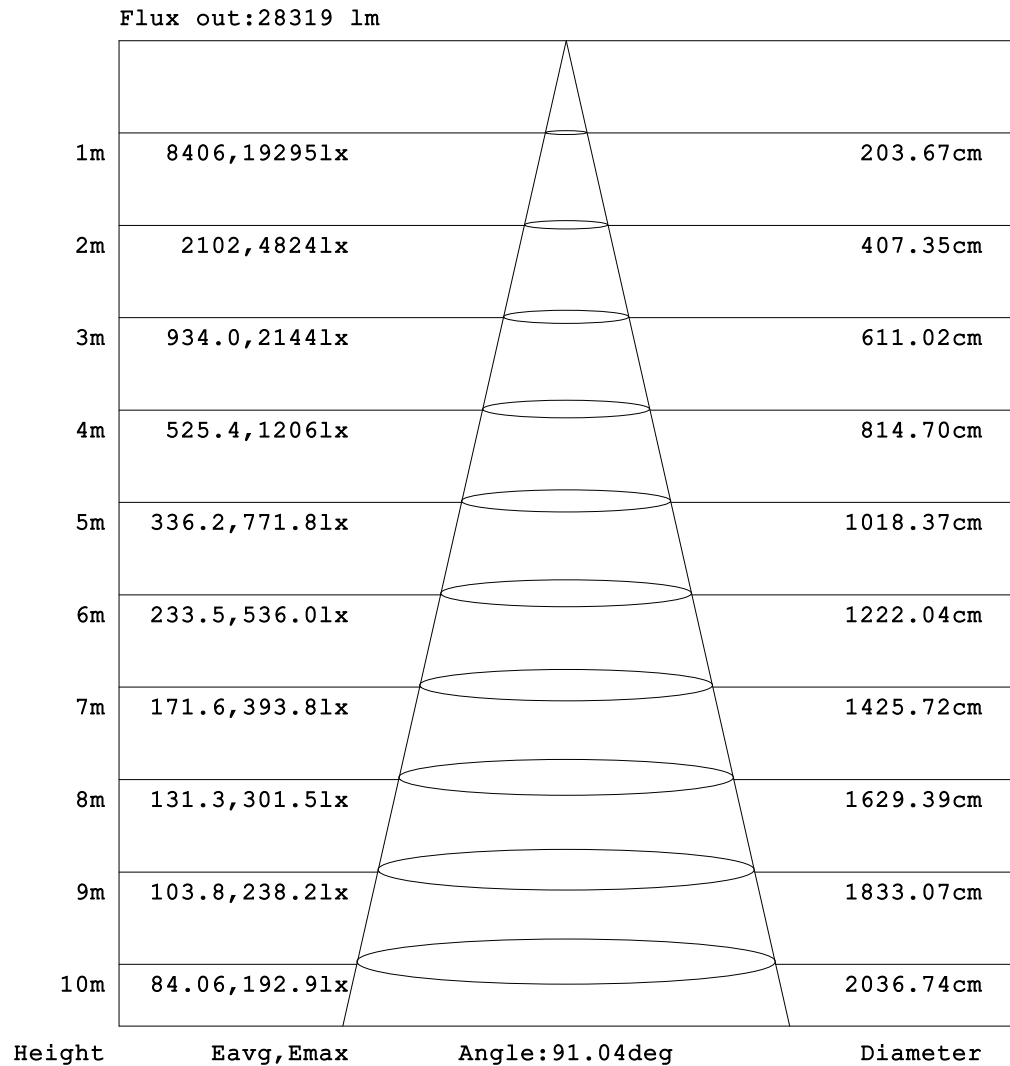


C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:27DEG
Operators:lianghaizhu
Test Date:2024-05-08

☐ 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:120.2V I:1.913A P:229.3W PF:0.9972 Freq:59.98Hz Lamp Flux:36274.5x1 lm		
NAME: ASD-WHB5B-ST-220	TYPE:	WEIGHT:
SPEC.: 220W-5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp.	SUR.:0.45*0.32	Shielding Angle:

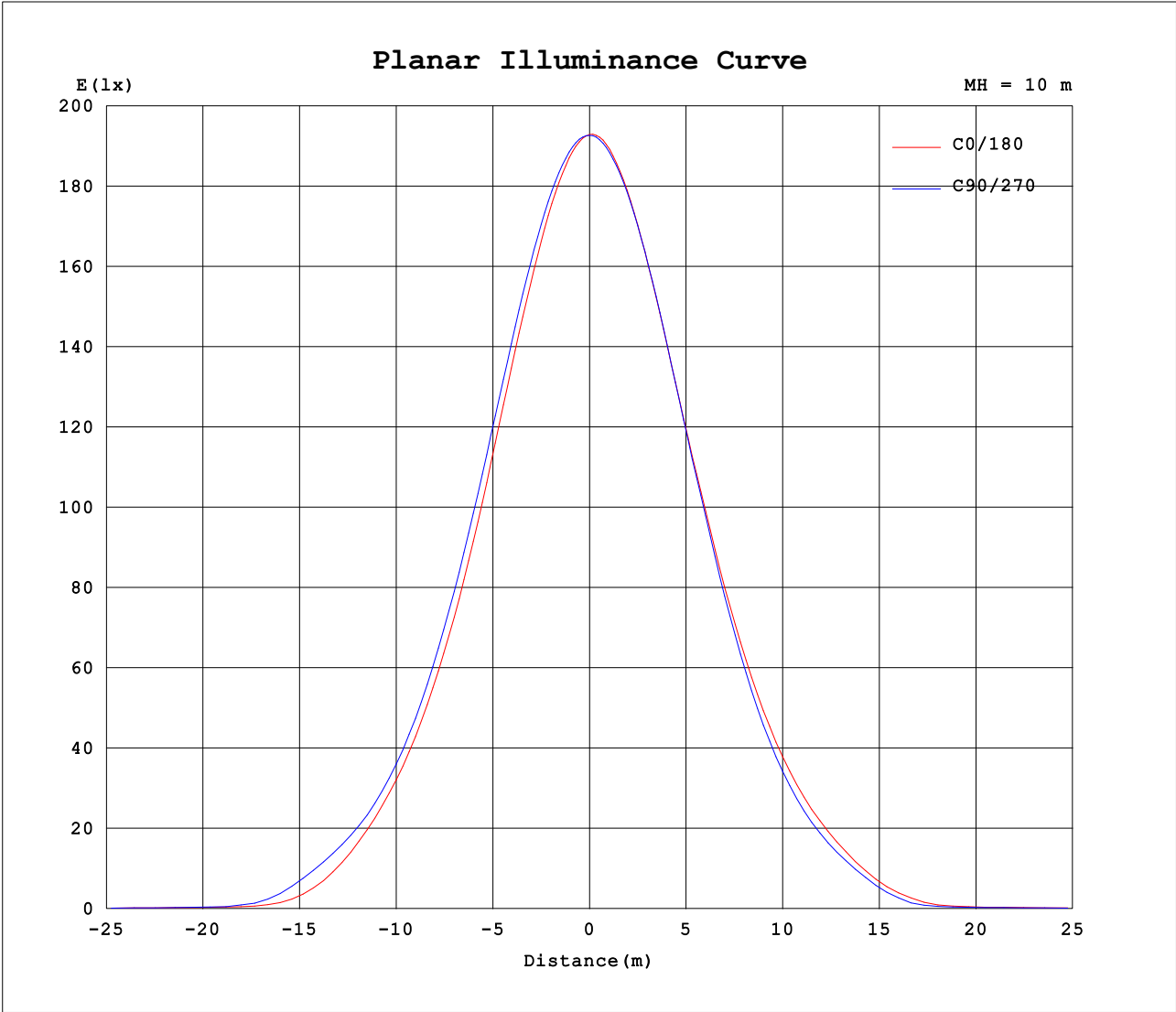


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:27DEG
 Operators:lianghaizhu
 Test Date:2024-05-08

☐ 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:2024-05-08

☐ 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:120.2V I:1.913A P:229.3W PF:0.9972 Freq:59.98Hz Lamp Flux:36274.5x1 lm		
NAME: ASD-WHB5B-ST-220	TYPE:	WEIGHT:
SPEC.: 220W-5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp.	SUR.:0.45*0.32	Shielding Angle:

Table--1									UNIT: ×10cd										
C (DEG) □ (DEG)	0	45	90	135	180	225	270	315											
0	1929	1928	1927	1926	1929	1928	1927	1926											
5	1908	1911	1920	1926	1926	1923	1918	1909											
10	1867	1875	1897	1906	1900	1900	1894	1874											
15	1807	1824	1858	1868	1854	1858	1854	1824											
20	1728	1750	1798	1814	1788	1797	1790	1745											
25	1624	1647	1711	1727	1701	1703	1699	1638											
30	1484	1529	1592	1617	1601	1581	1584	1500											
35	1322	1368	1438	1474	1457	1428	1417	1327											
40	1132	1176	1245	1294	1283	1241	1209	1121											
45	909	954	1020	1078	1071	1016	968	887											
50	636	706	783	837	827	765	713	638											
55	275	417	510	570	504	485	417	349											
60	53.4	135	114	251	134	194	71.9	95.0											
65	39.1	47.1	44.6	60.6	49.0	54.9	39.9	43.2											
70	37.4	33.4	42.0	41.4	42.8	39.1	37.9	30.6											
75	25.6	35.8	36.4	32.9	34.5	33.7	30.9	35.3											
80	8.55	27.8	19.7	37.8	17.3	30.8	14.4	22.7											
85	2.16	7.01	7.30	14.8	4.56	8.91	4.84	3.13											
90	0.94	0.98	0.84	1.19	0.74	0.76	0.80	0.88											
95	1.34	1.30	1.20	1.11	0.95	1.06	1.17	1.26											
100	1.90	1.82	1.71	1.57	1.39	1.52	1.66	1.77											
105	2.58	2.48	2.34	2.16	1.95	2.09	2.28	2.40											
110	3.36	3.25	3.10	2.87	2.63	2.80	3.04	3.19											
115	4.25	4.12	3.96	3.70	3.51	3.70	4.00	4.21											
120	5.19	5.04	4.89	4.60	4.55	4.74	5.10	5.27											
125	6.14	5.97	5.84	5.52	5.63	5.79	6.21	6.30											
130	7.09	6.90	6.82	6.45	6.68	6.80	7.26	7.32											
135	8.03	7.80	7.75	7.34	7.68	7.80	8.26	8.30											
140	9.01	8.75	8.67	8.25	8.65	8.77	9.22	9.24											
145	10.0	9.75	9.66	9.21	9.64	9.68	10.2	10.2											
150	11.2	10.9	10.8	10.4	10.7	10.7	11.2	11.2											
155	12.3	12.0	11.9	11.4	11.7	11.7	12.3	12.2											
160	13.3	13.1	13.0	12.5	12.8	12.8	13.4	13.3											
165	14.2	14.0	14.0	13.5	14.0	13.9	14.4	14.3											
170	15.0	14.8	14.9	14.5	14.8	14.7	15.1	14.9											
175	15.5	15.3	15.5	15.1	15.4	15.3	15.6	15.3											
180	15.6	15.5	15.8	15.4	15.6	15.5	15.8	15.4											

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:27DEG
Operators:lianghaizhu
Test Date:2024-05-08

□ 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: