

Floodlight Summary:

Report based on lamp delivering 1000 lumens.

Maximum Intensity	1620.5 cd per klm.
(Luminaire orientation as tested.)	0.0 degrees vertical
	0.0 degrees horizontal

Beam Spread	At 10% of Imax	74.0V x 74.0H
	At 50% of Imax	44.6V x 44.5H
	At 90% of Imax	17.8V x 18.5H

Beam Flux	Total	1000.3 lumens per klm.
	To 10% of Imax	883.1 lumens per klm.
	To 50% of Imax	560.7 lumens per klm.
	To 90% of Imax	116.8 lumens per klm.

Upward LOR	2.3 %
Downward LOR	97.7 %

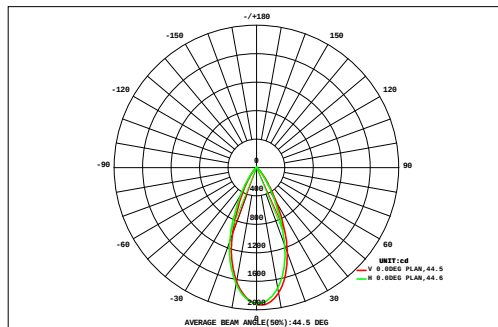
Luminaire Efficiency(Light Output Ratio)	100.0 %
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H_(b) Range:-90 - 90DEG
H_(b) Interval: 0.5DEG
Test Speed: LOW
Temperature:25.3DEG
Operators:Fan
Test Date:2023-08-05

V(B) Range:-180 - 180DEG
V(B) Interval: 0.5DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.351
Humidity:65.0%
Test Distance:8.630m [K=1.0000]
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

NAME:Astra D88-88mm-3000K-45D-REV2	TYPE:3000K	WEIGHT:
SPEC.:45 DEG	DIA.:88MM	SERIAL No.:IES001444
MFR.:	SUR.:	Shielding Angle:



DATA OF LAMP		Eff:65.56lm/W	
MODEL		Imax(cd)	1933
NOMINAL POWER(W)	18.2	AVAILABILITY(%)	88.3
RATED VOLTAGE(V)	220	Avai. FLUX(lm)	1054
NOMINAL FLUX(lm)	1193	LOR(%)	100.0
LAMPS INSIDE	1	TOTAL FLUX(lm)	1193
TEST VOLTAGE(V)	220	q @50%(H,V)	45,45DEG

72 64 56 48 40 32 24 <

one-half-peak spread: U:22.2,D:22.7 , L:22.5,R:22.3

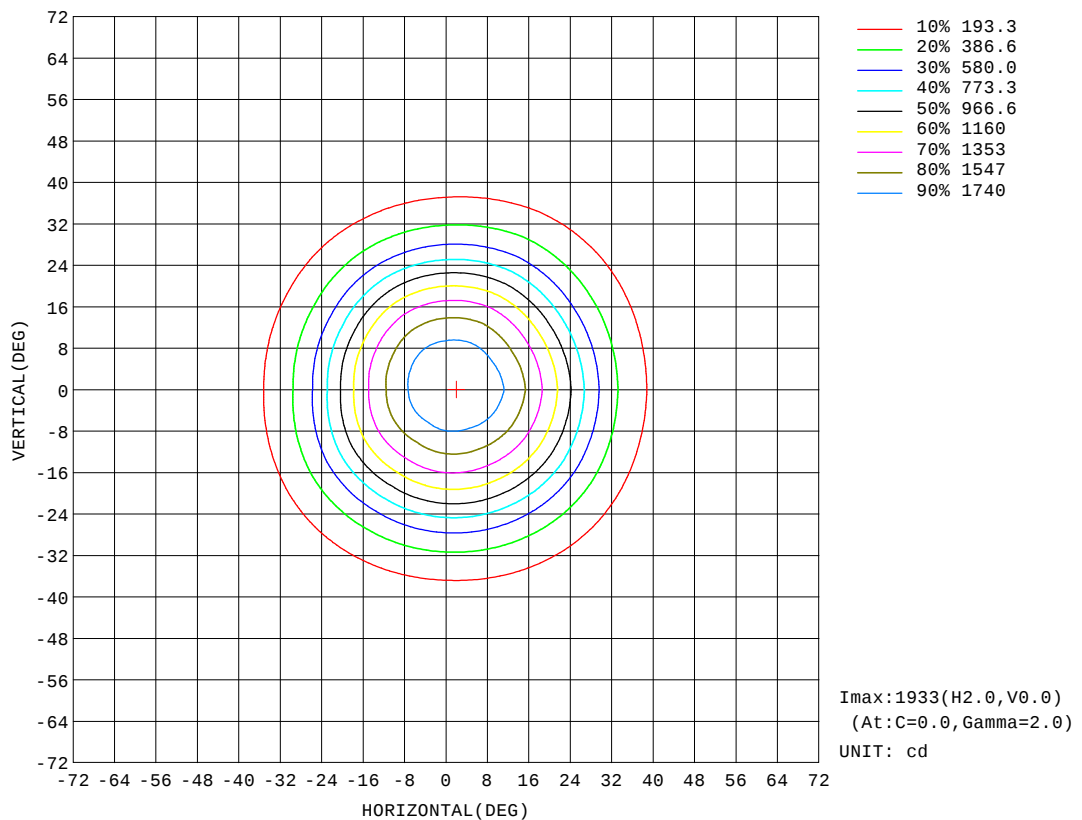
NEMA Beam Type: Type 5

H_(b) Range:-90 - 90DEG
H_(b) Interval: 0.5DEG
Test Speed: LOW
Temperature:25.3DEG
Operators:Fan
Test Date:2023-08-05

V(B) Range:-180 - 180DEG
V(B) Interval: 0.5DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.351
Humidity:65.0%
Test Distance:8.630m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

NAME:Astra D88-88mm-3000K-45D-REV2	TYPE:3000K	WEIGHT:
SPEC.:45 DEG	DIA.:88MM	SERIAL No.:IES001444
MFR.:	SUR.:	Shielding Angle:

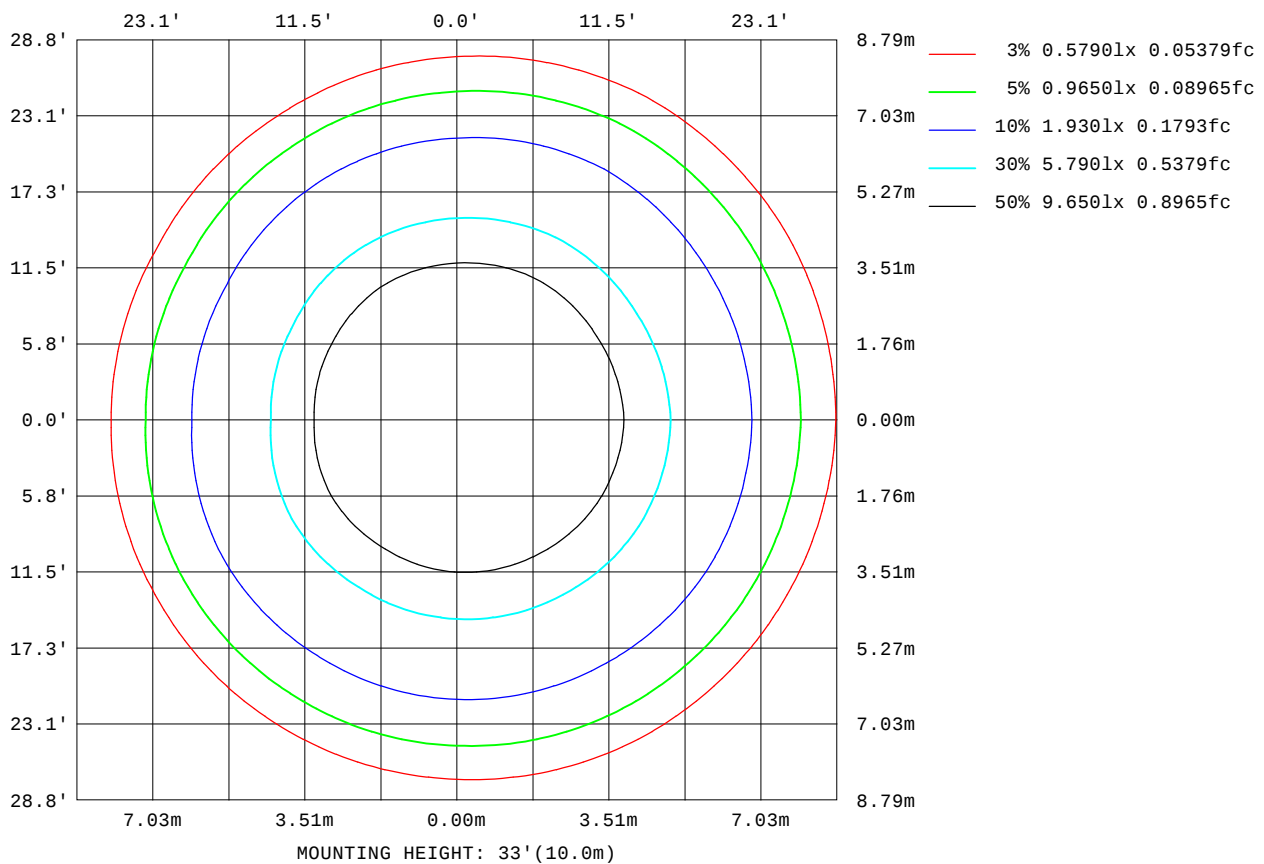


H_(b) Range:-90 - 90DEG
H_(b) Interval: 0.5DEG
Test Speed: LOW
Temperature:25.3DEG
Operators:Fan
Test Date:2023-08-05

V(B) Range:-180 - 180DEG
V(B) Interval: 0.5DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.351
Humidity:65.0%
Test Distance:8.630m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

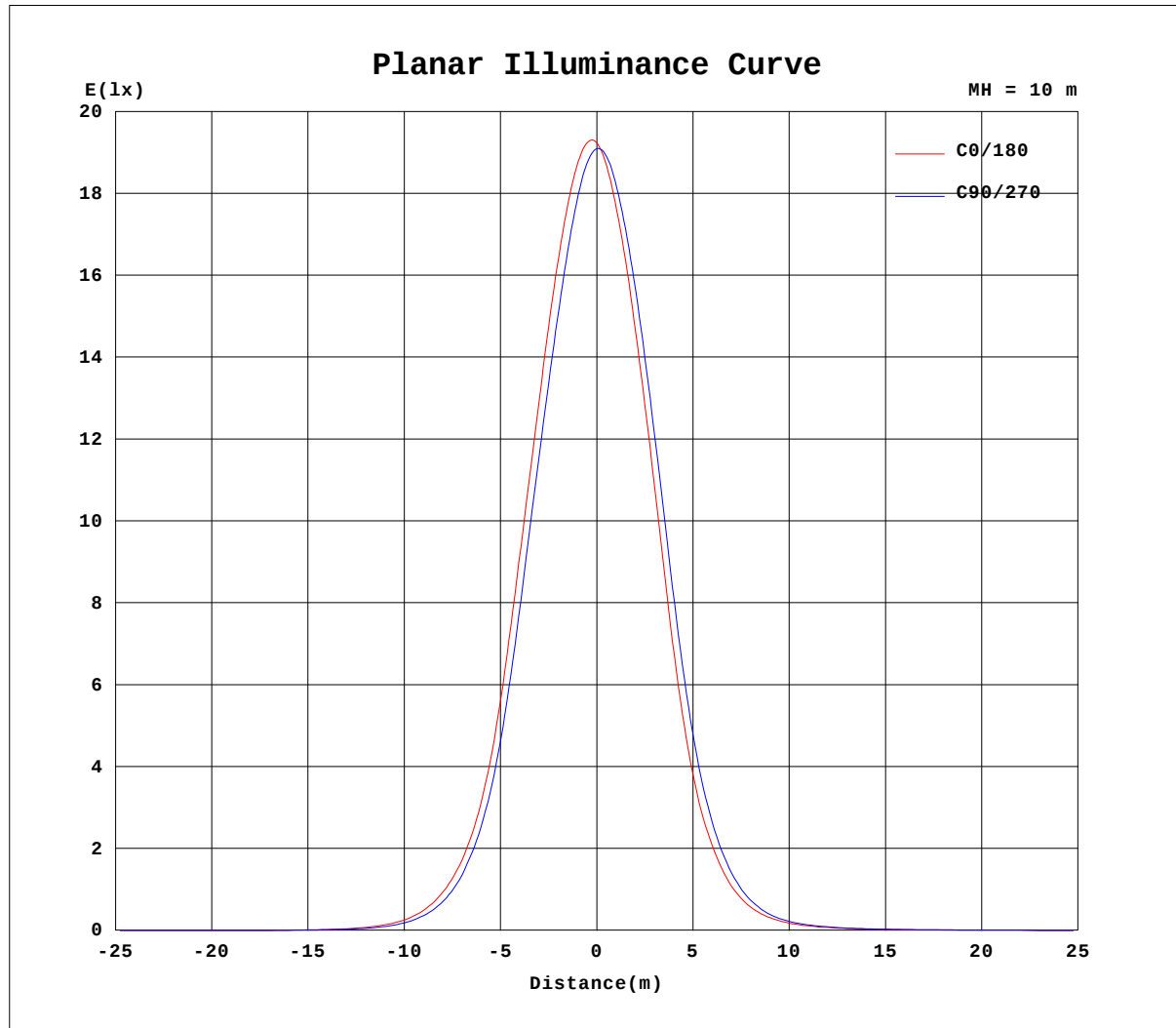
NAME:Astra D88-88mm-3000K-45D-REV2	TYPE:3000K	WEIGHT:
SPEC.:45 DEG	DIA.:88MM	SERIAL No.:IES001444
MFR.:	SUR.:	Shielding Angle:



H_(b) Range:-90 - 90DEG
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Test Date:2023-08-05

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V(B) Interval: 0.5DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.351
Humidity:65.0%
Test Distance:8.630m [K=1.0000]
Remarks:

Planar Illuminance Curve

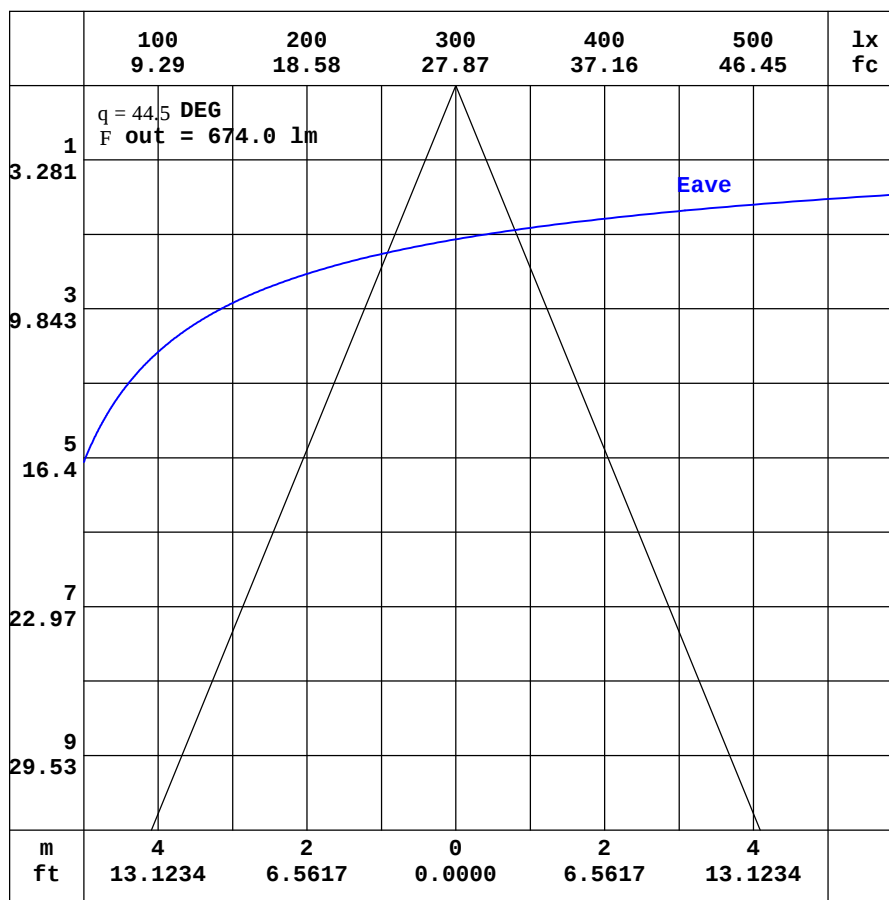


H_b Range: -90 - 90DEG
H_b Interval: 0.5DEG
Test Speed: LOW
Temperature: 25.3DEG
Operators: Fan
Test Date: 2023-08-05

V(B) Range: -180 - 180DEG
V(B) Interval: 0.5DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.351
Humidity: 65.0%
Test Distance: 8.630m [K=1.0000]
Remarks:

AAI CURVES

NAME:Astra D88-88mm-3000K-45D-REV2	TYPE:3000K	WEIGHT:
SPEC.:45 DEG	DIA.:88MM	SERIAL No.:IES001444
MFR.:	SUR.:	Shielding Angle:



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

H_(b) Range:-90 - 90DEG
H_(b) Interval: 0.5DEG
Test Speed: LOW
Temperature:25.3DEG
Operators:Fan
Test Date:2023-08-05

V(B) Range:-180 - 180DEG
V(B) Interval: 0.5DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.351
Humidity:65.0%
Test Distance:8.630m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME:Astra D88-88mm-3000K-45D-REV2	TYPE:3000K	WEIGHT:
SPEC.:45 DEG	DIA.:88MM	SERIAL No.:IES001444
MFR.:	SUR.:	Shielding Angle:

Table--1

UNIT: cd

H(°) \ V(°)	-90	-85	-80	-75	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
-180	4.10	3.77	3.61	3.63	3.83	4.31	5.03	5.92	6.92	7.92	8.81	9.52	10.00	10.1	10.0	9.71	9.37	9.15	9.42
-170	4.10	3.71	3.50	3.45	3.55	3.85	4.32	4.90	5.51	6.12	6.65	7.05	7.28	7.32	7.17	7.18	7.59	7.88	8.09
-160	4.10	3.67	3.39	3.28	3.26	3.37	3.57	3.81	4.05	4.25	4.39	4.43	4.49	5.22	5.85	6.36	6.72	6.91	6.96
-150	4.10	3.63	3.30	3.12	2.99	2.93	2.91	2.86	2.76	2.60	2.48	2.95	3.49	4.03	4.55	4.99	5.29	5.46	5.50
-140	4.10	3.60	3.24	2.99	2.77	2.58	2.40	2.16	1.85	1.77	1.95	2.19	2.48	2.79	3.09	3.34	3.53	3.64	3.66
-130	4.10	3.59	3.19	2.87	2.61	2.35	2.07	1.76	1.62	1.64	1.66	1.72	1.81	1.92	2.02	2.13	2.20	2.25	2.26
-120	4.10	3.59	3.16	2.81	2.50	2.21	1.90	1.66	1.65	1.64	1.63	1.63	1.64	1.64	1.65	1.65	1.66	1.67	1.68
-110	4.10	3.60	3.17	2.78	2.44	2.11	1.80	1.71	1.70	1.70	1.70	1.71	1.71	1.70	1.69	1.68	1.67	1.66	1.65
-100	4.10	3.62	3.19	2.78	2.40	2.03	1.70	1.68	1.69	1.70	1.71	1.71	1.72	1.72	1.72	1.73	1.73	1.74	1.74
-90	4.10	3.67	3.24	2.81	2.38	1.95	1.51	1.51	1.51	1.51	1.51	1.51	1.50	1.51	1.52	1.52	1.53	1.53	1.54
-80	4.10	3.73	3.33	2.89	2.44	2.02	1.58	1.63	1.72	1.78	1.81	1.85	1.89	1.91	1.92	1.93	1.93	1.94	1.94
-70	4.10	3.81	3.46	3.20	2.95	2.54	2.00	1.85	1.92	2.00	2.08	2.16	2.24	2.31	2.36	2.41	2.45	2.47	2.48
-60	4.10	3.90	3.75	3.74	3.50	3.10	2.56	2.09	2.25	2.44	2.64	2.85	3.07	3.28	3.48	3.67	3.83	3.94	4.00
-50	4.10	4.00	4.16	4.26	4.15	3.91	3.50	2.90	2.79	3.18	3.66	4.31	5.73	8.23	11.6	15.3	18.7	21.2	22.5
-40	4.10	4.13	4.57	4.83	4.97	5.03	4.94	4.67	4.15	4.62	7.89	14.7	25.0	39.0	57.0	78.0	98.1	114	121
-30	4.10	4.25	4.96	5.45	5.94	6.43	6.89	7.26	7.99	12.4	23.6	45.8	83.4	140	210	288	363	422	451
-20	4.10	4.40	5.32	6.10	7.00	8.03	9.22	10.7	15.3	27.9	53.9	108	201	338	512	711	901	1044	1110
-10	4.10	4.54	5.65	6.71	8.03	9.66	11.7	14.6	23.5	43.5	86.7	175	328	556	872	1188	1418	1571	1657
0	4.10	4.65	5.93	7.24	8.92	11.1	13.9	18.0	29.0	51.6	100	198	367	627	994	1348	1625	1819	1924
10	4.10	4.63	5.89	7.18	8.82	10.9	13.6	17.3	26.9	46.5	86.7	170	316	535	849	1196	1467	1649	1717
20	4.10	4.58	5.79	6.98	8.49	10.4	12.8	15.7	21.9	34.9	58.8	104	189	323	502	721	939	1089	1156
30	4.10	4.51	5.62	6.69	7.97	9.55	11.5	13.8	16.8	23.3	34.8	53.8	85.2	136	206	292	373	436	468
40	4.10	4.46	5.37	6.29	7.33	8.56	10.00	11.7	13.7	16.0	20.1	27.1	36.7	49.1	64.5	83.2	103	120	129
50	4.10	4.40	5.03	5.85	6.64	7.53	8.52	9.65	10.9	12.4	13.9	15.6	17.7	20.7	24.2	27.7	31.1	33.5	34.8
60	4.10	4.33	4.67	5.32	5.93	6.52	7.16	7.85	8.60	9.41	10.2	11.1	12.0	12.8	13.5	14.1	14.6	15.0	15.2
70	4.10	4.26	4.43	4.71	5.14	5.59	5.96	6.34	6.73	7.13	7.54	7.93	8.30	8.65	8.95	9.19	9.39	9.53	9.61
80	4.10	4.19	4.28	4.37	4.47	4.57	4.73	4.95	5.15	5.36	5.56	5.71	5.85	5.97	6.08	6.17	6.25	6.31	6.34
90	4.10	4.12	4.14	4.15	4.17	4.18	4.20	4.20	4.21	4.22	4.23	4.23	4.24	4.26	4.28	4.29	4.31	4.33	4.35
100	4.10	4.05	4.00	3.96	3.92	3.89	3.86	3.82	3.79	3.76	3.74	3.73	3.70	3.69	3.70	3.70	3.71	3.72	3.73
110	4.10	3.99	3.89	3.81	3.75	3.70	3.67	3.64	3.62	3.62	3.62	3.63	3.65	3.66	3.67	3.68	3.68	3.68	3.67
120	4.10	3.94	3.80	3.70	3.64	3.62	3.62	3.62	3.68	3.78	3.90	4.03	4.17	4.29	4.40	4.50	4.56	4.59	4.59
130	4.10	3.89	3.73	3.63	3.61	3.63	3.70	3.86	4.10	4.39	4.71	5.03	5.35	5.63	5.90	6.10	6.25	6.33	6.34
140	4.10	3.85	3.68	3.62	3.62	3.72	3.96	4.32	4.78	5.29	5.83	6.37	6.88	7.34	7.73	8.05	8.26	8.37	8.38
150	4.10	3.81	3.64	3.61	3.67	3.90	4.31	4.87	5.54	6.27	7.00	7.72	8.36	8.91	9.36	9.69	9.89	10.00	10.0
160	4.10	3.79	3.62	3.62	3.74	4.09	4.66	5.39	6.23	7.11	7.98	8.76	9.40	9.88	10.2	10.4	10.4	10.5	10.5
170	4.10	3.78	3.61	3.63	3.80	4.24	4.91	5.76	6.71	7.68	8.58	9.34	9.88	10.2	10.2	10.1	9.94	9.86	10.1
180	4.10	3.77	3.61	3.63	3.83	4.31	5.03	5.92	6.92	7.92	8.81	9.52	10.00	10.1	10.0	9.71	9.37	9.15	9.45

H_(b) Range:-90 - 90DEGH_(b) Interval: 0.5DEG

Test Speed: LOW

Temperature:25.3DEG

Operators:Fan

Test Date:2023-08-05

V(B) Range:-180 - 180DEG

V(B) Interval: 0.5DEG

Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.351

Humidity:65.0%

Test Distance:8.630m [K=1.0000]

Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME:Astra D88-88mm-3000K-45D-REV2	TYPE:3000K	WEIGHT:
SPEC.:45 DEG	DIA.:88MM	SERIAL No.:IES001444
MFR.:	SUR.:	Shielding Angle:

Table--2
UNIT: cd

H(°) \ V(°)	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
-180	8.20	7.59	7.04	6.40	5.61	4.72	3.83	3.04	2.41	1.96	1.71	1.66	1.69	1.74	1.73	1.70	1.55	1.42
-170	7.53	7.19	6.78	6.20	5.45	4.59	3.74	2.98	2.35	1.93	1.70	1.65	1.69	1.73	1.73	1.70	1.55	1.42
-160	6.75	6.44	6.02	5.45	4.75	3.99	3.28	2.64	2.15	1.83	1.67	1.65	1.69	1.72	1.73	1.68	1.55	1.42
-150	5.36	5.10	4.71	4.21	3.67	3.11	2.61	2.19	1.89	1.70	1.65	1.65	1.70	1.73	1.73	1.67	1.53	1.42
-140	3.57	3.40	3.15	2.86	2.54	2.25	1.99	1.80	1.69	1.64	1.64	1.66	1.71	1.73	1.71	1.65	1.51	1.42
-130	2.21	2.13	2.03	1.91	1.80	1.71	1.65	1.63	1.63	1.63	1.65	1.70	1.72	1.72	1.70	1.62	1.50	1.42
-120	1.67	1.65	1.64	1.63	1.62	1.63	1.63	1.65	1.66	1.69	1.72	1.72	1.72	1.71	1.66	1.58	1.46	1.42
-110	1.66	1.67	1.68	1.70	1.71	1.73	1.72	1.72	1.72	1.72	1.72	1.72	1.71	1.66	1.59	1.52	1.43	1.42
-100	1.74	1.74	1.73	1.73	1.72	1.71	1.71	1.70	1.69	1.68	1.66	1.63	1.59	1.55	1.50	1.45	1.42	1.42
-90	1.53	1.52	1.52	1.51	1.50	1.50	1.49	1.48	1.47	1.46	1.46	1.45	1.44	1.44	1.43	1.43	1.42	1.42
-80	1.95	1.96	1.97	1.97	1.97	1.97	1.94	1.92	1.89	1.86	1.82	1.79	1.77	1.72	1.64	1.57	1.51	1.42
-70	2.49	2.48	2.46	2.43	2.38	2.33	2.27	2.20	2.14	2.07	2.00	1.94	1.89	1.84	1.78	1.72	1.57	1.42
-60	3.98	3.89	3.76	3.60	3.41	3.22	3.02	2.83	2.64	2.45	2.29	2.15	2.04	1.94	1.85	1.78	1.63	1.42
-50	22.2	20.6	17.8	14.4	10.8	7.76	5.43	4.11	3.52	3.10	2.76	2.47	2.24	2.07	1.93	1.82	1.69	1.42
-40	121	110	92.2	71.2	50.9	34.2	21.8	12.9	7.08	4.24	3.40	2.89	2.50	2.21	2.01	1.86	1.74	1.42
-30	444	402	336	259	183	117	68.0	36.8	19.1	9.05	4.47	3.37	2.79	2.37	2.09	1.89	1.75	1.42
-20	1093	997	835	633	439	281	160	82.1	38.7	17.7	7.37	3.86	3.05	2.51	2.15	1.92	1.76	1.42
-10	1637	1530	1339	1077	747	461	263	136	61.6	26.4	10.8	4.43	3.25	2.61	2.20	1.94	1.77	1.42
0	1912	1787	1566	1267	903	554	313	162	73.3	30.7	12.5	4.78	3.33	2.65	2.22	1.94	1.77	1.42
10	1700	1573	1359	1067	736	458	265	140	65.7	30.3	13.9	6.67	4.73	3.53	2.74	2.22	1.88	1.42
20	1139	1038	854	638	440	284	168	90.1	47.3	25.2	13.1	8.01	5.79	4.24	3.18	2.46	1.97	1.42
30	465	426	363	279	195	129	80.4	50.6	31.6	19.1	12.1	8.77	6.41	4.71	3.50	2.65	2.05	1.42
40	130	120	106	86.7	66.3	49.3	36.5	26.8	19.9	15.3	11.7	8.80	6.59	4.93	3.69	2.78	2.11	1.42
50	35.3	34.3	31.8	28.6	24.9	21.1	18.0	15.8	14.1	12.6	10.6	8.28	6.40	4.92	3.75	2.85	2.12	1.42
60	15.3	15.1	14.8	14.4	13.8	13.1	12.3	11.4	10.6	9.73	8.91	7.44	5.96	4.72	3.70	2.86	2.09	1.42
70	9.67	9.66	9.58	9.44	9.24	8.96	8.63	8.27	7.89	7.50	7.11	6.47	5.37	4.41	3.55	2.77	2.05	1.42
80	6.38	6.39	6.39	6.36	6.31	6.25	6.16	6.05	5.94	5.81	5.68	5.47	4.67	3.94	3.24	2.59	2.01	1.42
90	4.36	4.36	4.37	4.38	4.38	4.39	4.40	4.41	4.42	4.43	4.44	4.45	3.94	3.44	2.93	2.43	1.92	1.42
100	3.73	3.73	3.73	3.74	3.75	3.77	3.80	3.83	3.88	3.92	3.98	4.00	3.63	3.24	2.82	2.36	1.89	1.42
110	3.67	3.66	3.66	3.65	3.63	3.63	3.62	3.62	3.62	3.65	3.70	3.65	3.37	3.06	2.72	2.33	1.87	1.42
120	4.56	4.48	4.39	4.27	4.14	4.01	3.88	3.75	3.66	3.61	3.60	3.41	3.15	2.90	2.61	2.27	1.85	1.42
130	6.27	6.13	5.92	5.66	5.36	5.05	4.72	4.40	4.10	3.86	3.56	3.22	2.96	2.73	2.49	2.20	1.83	1.42
140	8.30	8.11	7.81	7.43	6.98	6.48	5.94	5.38	4.85	4.22	3.54	3.08	2.77	2.56	2.36	2.11	1.78	1.42
150	9.93	9.76	9.47	9.05	8.53	7.91	7.20	6.45	5.27	4.21	3.43	2.90	2.58	2.38	2.21	2.02	1.74	1.42
160	10.4	10.4	10.3	10.00	9.56	8.96	7.55	6.11	4.84	3.83	3.08	2.61	2.33	2.18	2.06	1.91	1.68	1.42
170	9.91	10.1	10.2	9.58	8.50	7.29	6.05	4.87	3.84	3.04	2.48	2.18	2.03	1.96	1.90	1.82	1.62	1.42
180	8.20	7.59	7.04	6.40	5.61	4.72	3.83	3.04	2.41	1.96	1.71	1.66	1.69	1.74	1.73	1.70	1.55	1.42

H_(b) Range:-90 - 90DEG
H_(b) Interval: 0.5DEG
Test Speed: LOW
Temperature:25.3DEG
Operators:Fan
Test Date:2023-08-05

V(B) Range:-180 - 180DEG
V(B) Interval: 0.5DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.351
Humidity:65.0%
Test Distance:8.630m [K=1.0000]
Remarks: