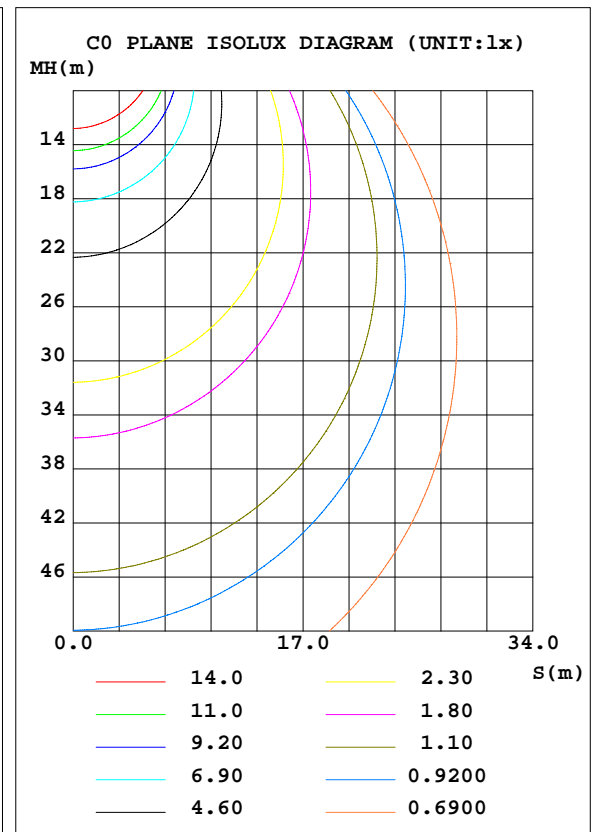
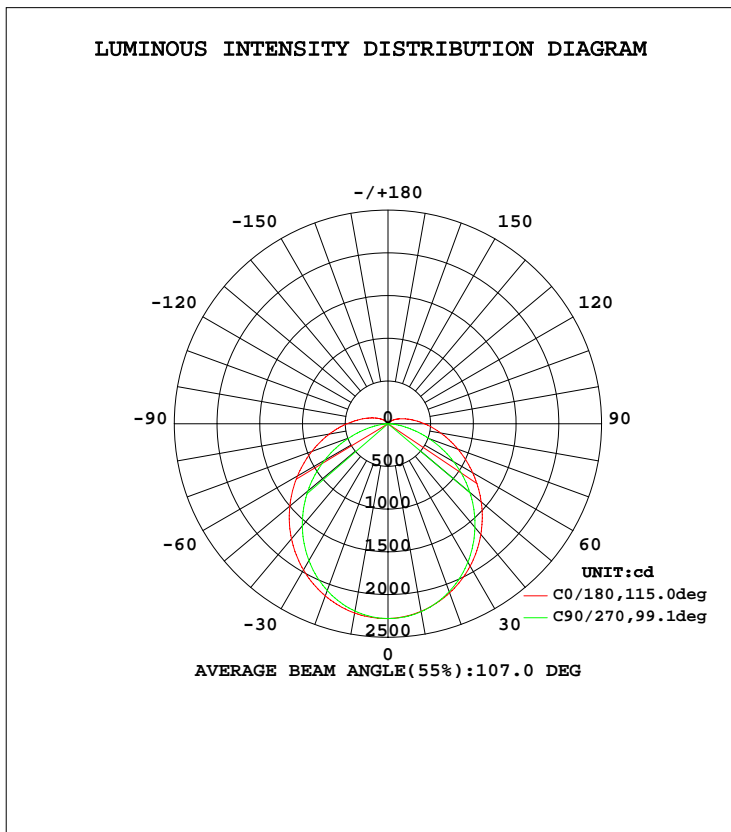


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.6V I:0.4773A P:56.95W PF:0.9893 Lamp Flux:6440x1 lm		
NAME: ASD Lighting Corp	TYPE:LED	WEIGHT:
DIM.: 1220*90*80mm	SPEC.:ASD-LVP2SM-4A56AC-10EM SERIAL No.:	
MFR.: ASD Lighting Corp	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 130.85 lm/W			
MODEL	ASD-LVP2SM-4A56AC-10EM	I _{max} (cd)	2285	S/MH(C0/180)	1.26
NOMINAL POWER(W)	56	LOR(%)	100.0	S/MH(C90/270)	1.23
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	6440	η UP, DN(C0-180)	3.0, 46.1
NOMINAL FLUX(lm)	6440	CIE CLASS	DIRECT	η UP, DN(C180-360)	3.5, 47.4
LAMPS INSIDE	1	η up(%)	6.5	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	120.6	η down(%)	93.5	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2021-11-17

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.100m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	Φ lum,lamp
10	2230	2253	2234	2205	2250	2218	2226	2266	0- 10	215.5	215.5	2.89,2.89
20	2108	2138	2092	2049	2145	2073	2078	2164	10- 20	615.1	830.6	11.1,11.1
30	1924	1947	1870	1828	1977	1859	1850	1984	20- 30	927.9	1758	23.6,23.6
40	1691	1698	1584	1558	1757	1595	1560	1743	30- 40	1115	2874	38.6,38.6
50	1425	1409	1251	1257	1500	1298	1224	1461	40- 50	1161	4035	54.1,54.1
60	1144	1098	888.0	946.2	1223	987.6	858.6	1155	50- 60	1071	5106	68.5,68.5
70	871.1	790.3	514.3	653.1	949.1	690.3	482.5	847.0	60- 70	871.7	5977	80.2,80.2
80	626.5	516.9	181.0	403.1	696.9	435.8	159.7	567.3	70- 80	615.3	6593	88.5,88.5
90	428.3	305.6	2.937	229.1	479.5	249.4	0.8528	347.0	80- 90	374.6	6967	93.5,93.5
100	280.1	174.4	1.781	127.4	318.5	141.1	1.280	203.2	90-100	221.1	7188	96.5,96.5
110	174.5	98.83	1.643	68.63	203.0	79.06	1.798	117.8	100-110	129.7	7318	98.2,98.2
120	105.7	47.68	2.098	34.73	124.3	42.78	2.459	60.25	110-120	71.36	7389	99.2,99.2
130	58.14	22.26	2.699	15.53	70.82	20.98	3.136	29.84	120-130	35.29	7425	99.6,99.6
140	27.35	10.77	3.385	6.300	35.52	9.287	3.772	14.50	130-140	15.81	7440	99.9,99.9
150	10.99	5.888	3.971	4.522	14.62	5.264	4.540	7.416	140-150	6.390	7447	99.9,99.9
160	5.485	5.040	4.548	4.757	6.087	5.113	5.058	5.645	150-160	2.766	7450	100,100
170	5.185	5.161	5.049	5.075	5.464	5.238	5.301	5.359	160-170	1.467	7451	100,100
180	5.426	5.311	5.384	5.410	5.442	5.327	5.393	5.393	170-180	0.5041	7452	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

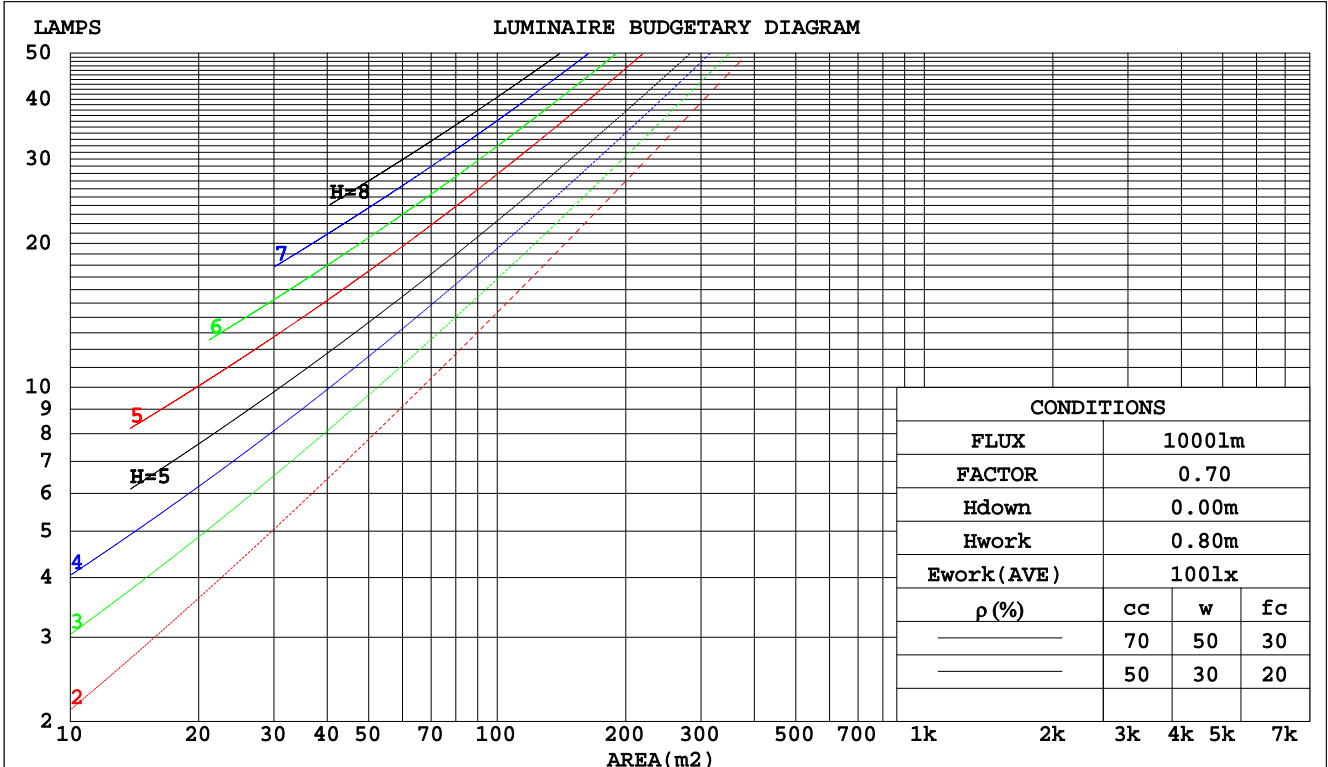
C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2021-11-17

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.100m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.6V I:0.4773A P:56.95W PF:0.9893 Lamp Flux:6440x1 lm		
NAME: ASD Lighting Corp	TYPE:LED	WEIGHT:
DIM.: 1220*90*80mm	SPEC.:ASD-LVP2SM-4A56AC-10EM SERIAL No.:	
MFR.: ASD Lighting Corp	SUR.:	PROTECTION ANGLE:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															
	Coefficients of Utilization(CU)															
0.0	1.17	1.17	1.17	1.14	1.14	1.14	1.07	1.07	1.07	1.02	1.02	1.02	.96	.96	.96	.93
1.0	1.00	.95	.91	.97	.93	.89	.92	.88	.85	.87	.84	.81	.82	.80	.78	.75
2.0	.87	.79	.73	.84	.77	.72	.80	.74	.69	.75	.71	.66	.71	.67	.64	.61
3.0	.76	.67	.60	.74	.66	.59	.70	.63	.57	.66	.60	.56	.63	.58	.54	.51
4.0	.67	.58	.51	.65	.57	.50	.62	.54	.49	.59	.52	.47	.56	.50	.46	.43
5.0	.60	.50	.44	.58	.49	.43	.55	.48	.42	.53	.46	.41	.50	.44	.40	.37
6.0	.54	.44	.38	.52	.44	.37	.50	.42	.37	.48	.41	.36	.45	.39	.35	.33
7.0	.49	.40	.33	.47	.39	.33	.45	.38	.32	.43	.37	.32	.41	.35	.31	.29
8.0	.44	.36	.30	.43	.35	.29	.41	.34	.29	.40	.33	.28	.38	.32	.28	.26
9.0	.41	.32	.27	.40	.32	.26	.38	.31	.26	.37	.30	.25	.35	.29	.25	.23
10.0	.37	.29	.24	.37	.29	.24	.35	.28	.23	.34	.28	.23	.33	.27	.23	.21



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2021-11-17

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.100m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:120.6V I:0.4773A P:56.95W PF:0.9893 Lamp Flux:6440x1 lm		
NAME: ASD Lighting Corp	TYPE:LED	WEIGHT:
DIM.: 1220*90*80mm	SPEC.:ASD-LVP2SM-4A56AC-10EM SERIAL No.:	
MFR.: ASD Lighting Corp	SUR.:	PROTECTION ANGLE:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.349	.199	.063	.340	.194	.062	.323	.185	.059	.307	.177	.057	.293	.170	.055	
2.0	.313	.171	.053	.305	.168	.052	.289	.161	.050	.275	.154	.048	.262	.148	.047	
3.0	.283	.151	.045	.276	.148	.044	.262	.142	.043	.249	.137	.042	.238	.132	.041	
4.0	.258	.134	.039	.251	.131	.039	.239	.127	.038	.228	.122	.037	.217	.118	.036	
5.0	.236	.120	.035	.230	.118	.034	.219	.114	.034	.209	.110	.033	.199	.107	.032	
6.0	.218	.109	.031	.212	.107	.031	.202	.104	.030	.193	.100	.030	.185	.097	.029	
7.0	.202	.100	.028	.197	.098	.028	.188	.095	.027	.180	.092	.027	.172	.089	.026	
8.0	.188	.092	.026	.183	.090	.026	.175	.088	.025	.168	.085	.024	.160	.082	.024	
9.0	.175	.085	.024	.172	.084	.023	.164	.081	.023	.157	.079	.023	.151	.076	.022	
10.0	.165	.079	.022	.161	.078	.022	.154	.076	.021	.148	.073	.021	.142	.071	.020	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.240	.240	.240	.205	.205	.205	.140	.140	.140	.080	.080	.080	.026	.026	.026	
1.0	.233	.206	.181	.199	.177	.156	.136	.121	.108	.078	.070	.063	.025	.023	.020	
2.0	.225	.182	.146	.193	.157	.126	.132	.108	.088	.076	.063	.052	.024	.020	.017	
3.0	.218	.165	.123	.186	.142	.107	.128	.099	.075	.074	.058	.044	.024	.019	.014	
4.0	.210	.152	.108	.180	.131	.094	.124	.091	.066	.072	.054	.039	.023	.017	.013	
5.0	.202	.142	.097	.174	.123	.085	.120	.086	.060	.069	.050	.035	.022	.016	.012	
6.0	.195	.134	.090	.167	.116	.078	.115	.081	.055	.067	.048	.033	.022	.016	.011	
7.0	.188	.127	.084	.161	.110	.073	.112	.077	.052	.065	.045	.031	.021	.015	.010	
8.0	.181	.121	.080	.156	.105	.070	.108	.074	.049	.063	.043	.029	.020	.014	.010	
9.0	.175	.116	.076	.151	.101	.067	.104	.071	.047	.061	.042	.028	.020	.014	.009	
10.0	.169	.112	.074	.146	.097	.064	.101	.068	.046	.059	.040	.027	.019	.013	.009	

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2021-11-17

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.100m [K=1.0000]
 Remarks:

Uncorrected UGR Table

Test:U:120.6V I:0.4773A P:56.95W PF:0.9893 Lamp Flux:6440x1 lm										
NAME: ASD Lighting Corp					TYPE:LED			WEIGHT:		
DIM.: 1220*90*80mm					SPEC.:ASD-LVP2SM-4A56AC-10			EM SERIAL No.:		
MFR.: ASD Lighting Corp					SUR.:			PROTECTION 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	15.2	16.7	15.6	17.0	17.4	14.4	15.9	14.7	16.2	16.5
3H	17.3	18.6	17.7	19.0	19.4	15.8	17.1	16.2	17.5	17.8
4H	18.4	19.7	18.8	20.0	20.4	16.3	17.6	16.7	17.9	18.3
6H	19.5	20.7	19.9	21.1	21.5	16.6	17.8	17.0	18.2	18.6
8H	20.1	21.3	20.6	21.7	22.2	16.7	17.9	17.1	18.3	18.7
12H	20.9	22.0	21.3	22.4	22.9	16.7	17.8	17.2	18.3	18.7
4H 2H	15.9	17.2	16.3	17.5	17.9	15.2	16.5	15.6	16.9	17.3
3H	18.1	19.3	18.6	19.7	20.1	16.9	18.0	17.3	18.4	18.9
4H	19.4	20.4	19.8	20.8	21.3	17.6	18.6	18.0	19.1	19.5
6H	20.7	21.6	21.2	22.1	22.6	18.1	19.0	18.6	19.5	20.0
8H	21.4	22.3	22.0	22.8	23.3	18.2	19.1	18.7	19.6	20.1
12H	22.3	23.1	22.8	23.6	24.1	18.3	19.1	18.8	19.6	20.2
8H 4H	19.7	20.6	20.2	21.1	21.6	18.2	19.1	18.7	19.6	20.1
6H	21.3	22.0	21.9	22.6	23.1	19.0	19.8	19.6	20.3	20.9
8H	22.2	22.9	22.8	23.4	24.0	19.4	20.0	19.9	20.6	21.2
12H	23.3	23.9	23.9	24.4	25.1	19.6	20.2	20.2	20.7	21.4
12H 4H	19.7	20.6	20.3	21.1	21.6	18.4	19.2	18.9	19.7	20.2
6H	21.4	22.1	22.0	22.6	23.2	19.4	20.0	19.9	20.6	21.1
8H	22.4	23.0	23.0	23.6	24.2	19.8	20.4	20.4	21.0	21.6
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.4				

CIE Pub.117 Corrected 7452 lm Total Lamp Luminous Flux.(8log(F/F0) = 7.0)

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2021-11-17

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.100m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:120.6V I:0.4773A P:56.95W PF:0.9893 Lamp Flux:6440x1 lm		
NAME: ASD Lighting Corp	TYPE:LED	WEIGHT:
DIM.: 1220*90*80mm	SPEC.:ASD-LVP2SM-4A56AC-10	EM SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	PROTECTION ANGLE:

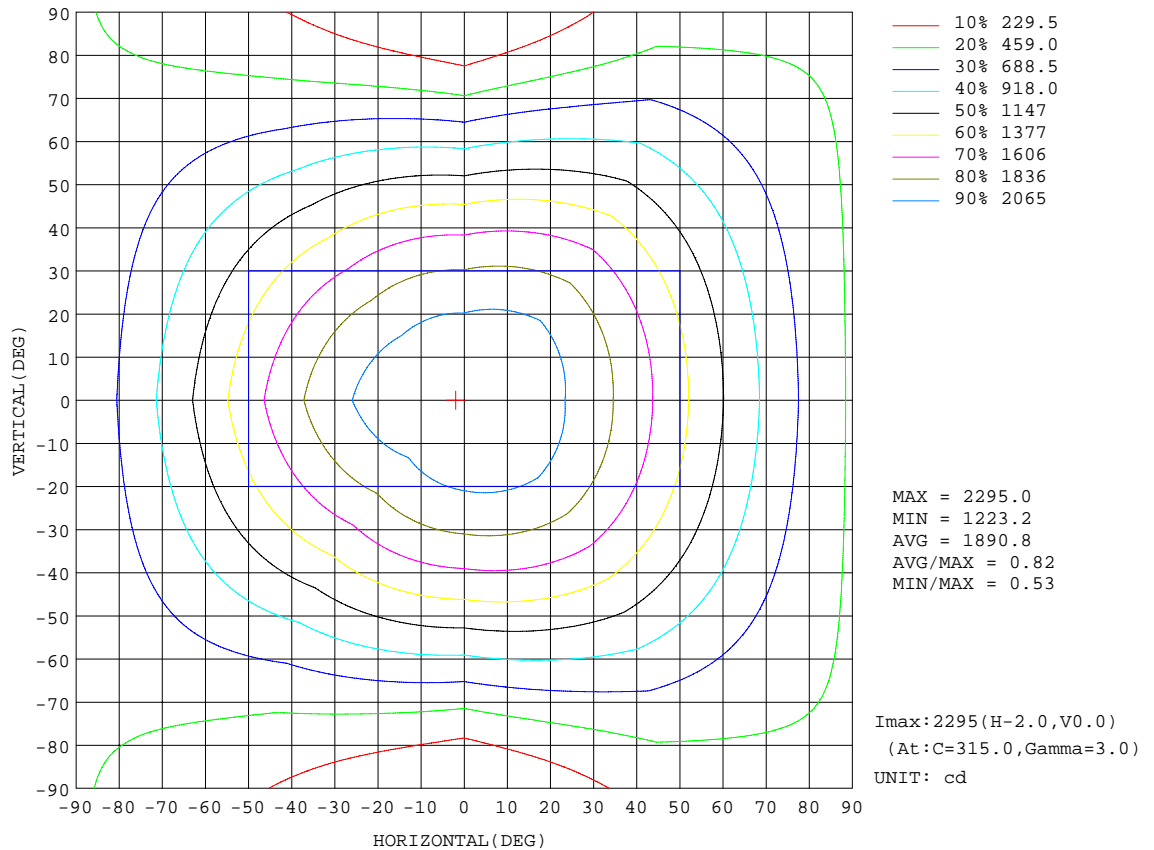
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	54	42	35	53	42	35	52	41	34	28
0.80	63	51	44	62	51	43	60	50	43	36
1.00	71	60	52	70	59	51	67	60	51	43
1.25	78	67	59	77	66	59	73	64	58	50
1.50	83	72	65	81	71	64	78	69	63	54
2.00	90	81	73	88	79	72	84	76	70	61
2.50	94	86	79	92	84	77	87	81	75	65
3.00	98	90	83	95	88	82	90	84	79	69
4.00	102	95	90	99	93	88	94	89	85	74
5.00	105	99	94	102	97	92	96	92	88	77
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:25.3DEG
 Operators:
 Test Date:2021-11-17

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.100m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:120.6V I:0.4773A P:56.95W PF:0.9893 Lamp Flux:6440x1 lm		
NAME: ASD Lighting Corp	TYPE:LED	WEIGHT:
DIM.: 1220*90*80mm	SPEC.:ASD-LVP2SM-4A56AC-10EM SERIAL No.:	
MFR.: ASD Lighting Corp	SUR.:	PROTECTION ANGLE:

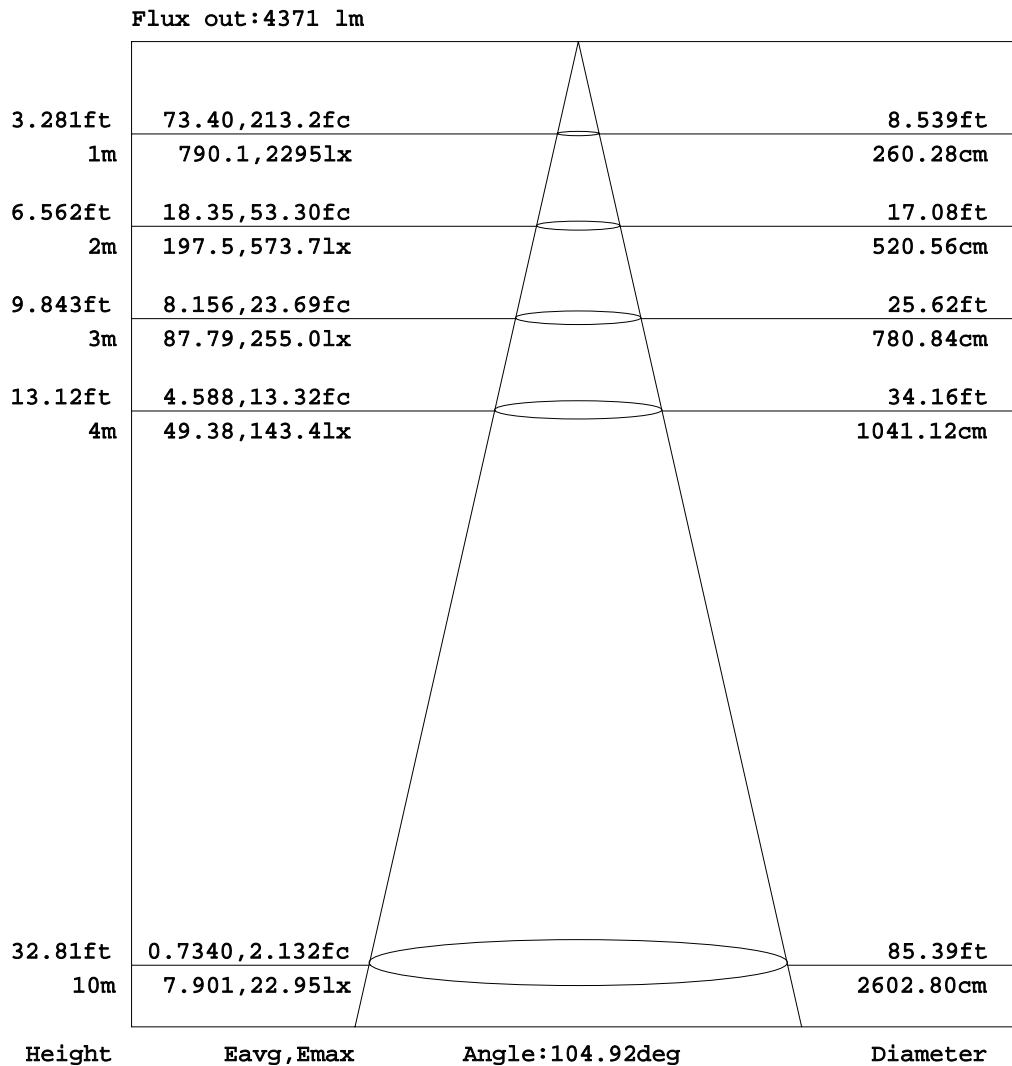


C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2021-11-17

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity: 65.0%
 Test Distance: 9.100m [K=1.0000]
 Remarks:

AAI Figure

Test:U:120.6V I:0.4773A P:56.95W PF:0.9893 Lamp Flux:6440x1 lm		
NAME: ASD Lighting Corp	TYPE:LED	WEIGHT:
DIM.: 1220*90*80mm	SPEC.:ASD-LVP2SM-4A56AC-10	EM SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	PROTECTION ANGLE:



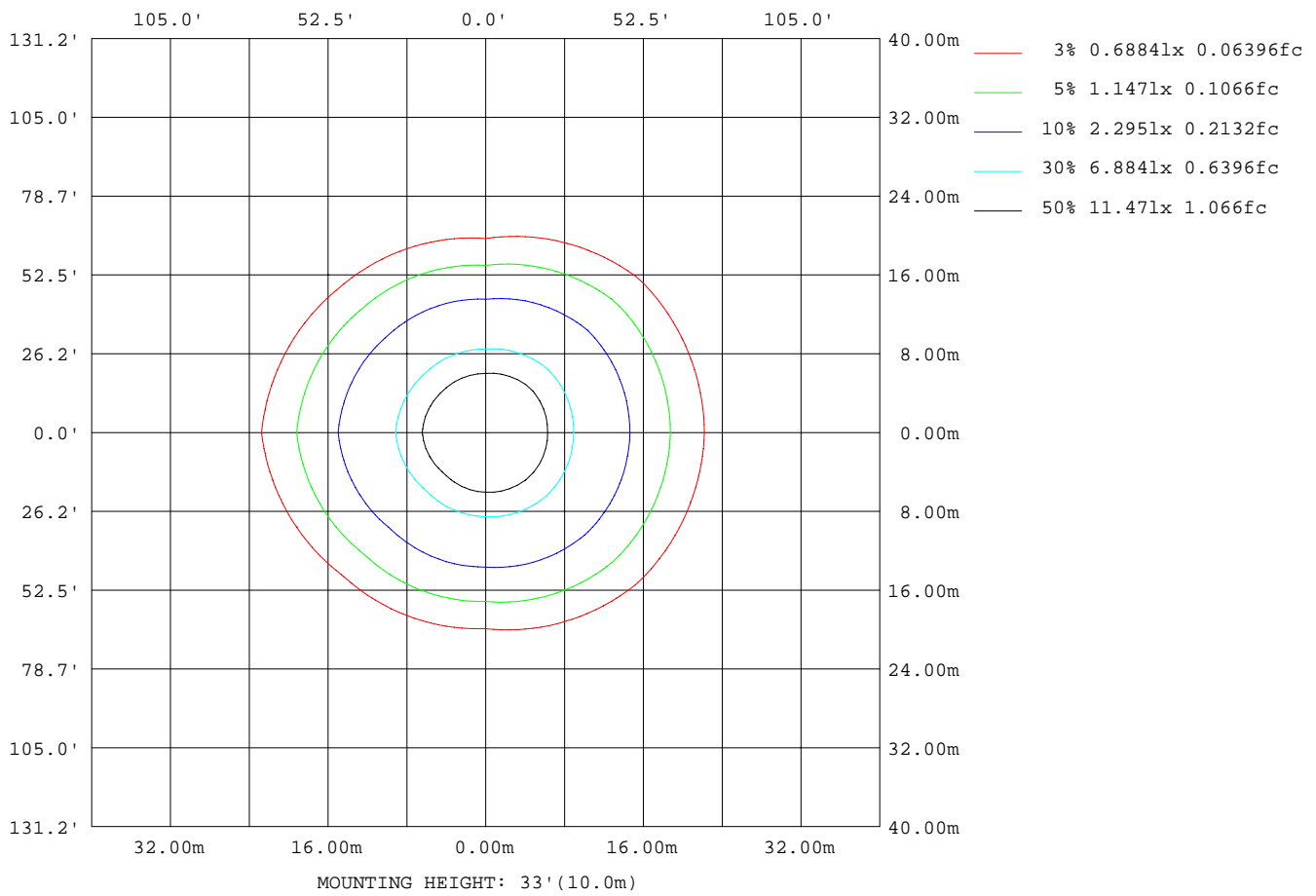
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2021-11-17

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.100m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

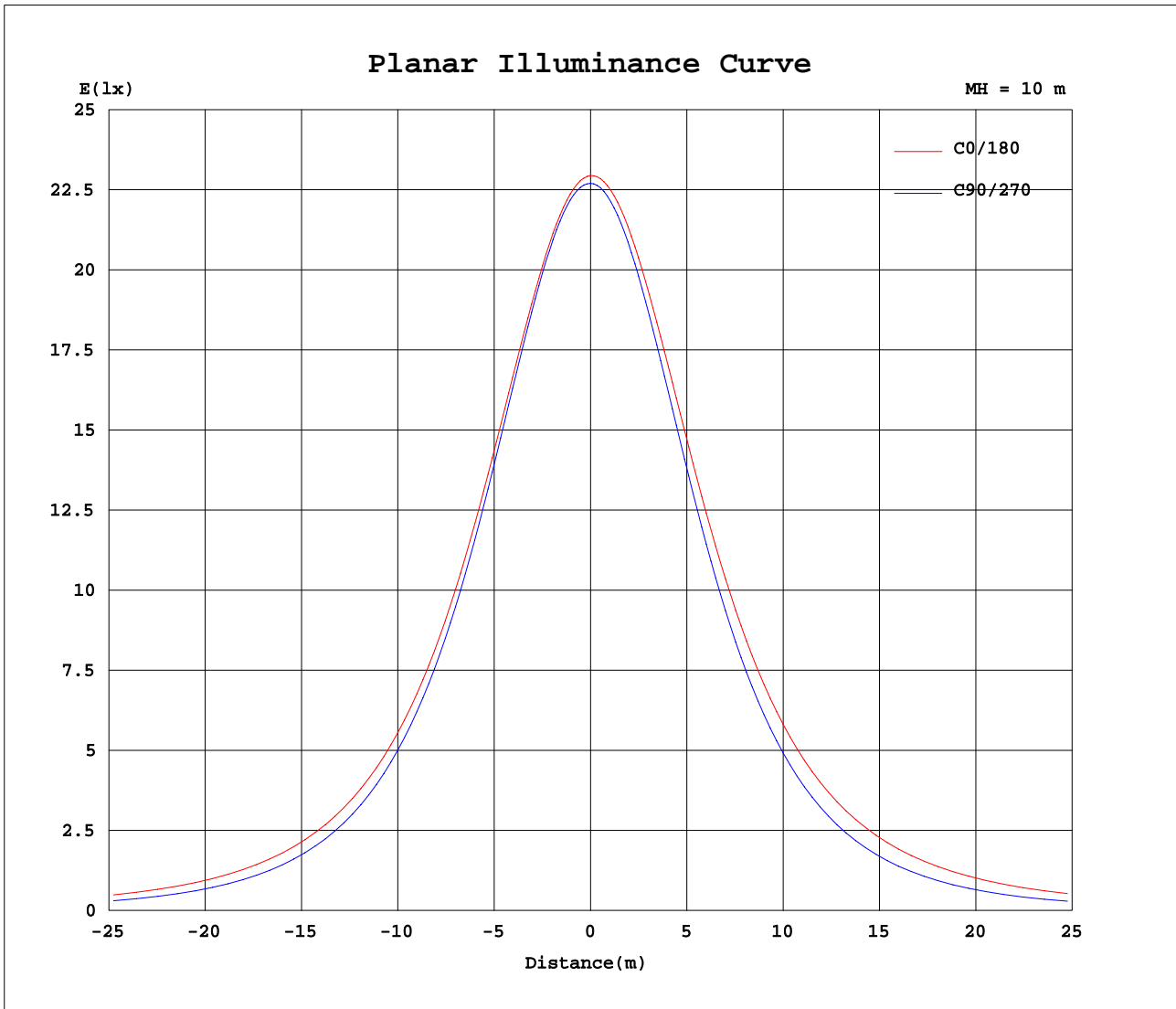
Test:U:120.6V I:0.4773A P:56.95W PF:0.9893 Lamp Flux:6440x1 lm		
NAME: ASD Lighting Corp	TYPE:LED	WEIGHT:
DIM.: 1220*90*80mm	SPEC.:ASD-LVP2SM-4A56AC-10	EM SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2021-11-17

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.100m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2021-11-17

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity: 65.0%
 Test Distance: 9.100m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.6V I:0.4773A P:56.95W PF:0.9893 Lamp Flux:6440x1 lm		
NAME: ASD Lighting Corp	TYPE:LED	WEIGHT:
DIM.: 1220*90*80mm	SPEC.:ASD-LVP2SM-4A56AC-10	EM SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	45	90	135	180	225	270	315											
0	2280	2280	2280	2280	2280	2280	2280	2280											
5	2264	2277	2269	2253	2274	2261	2265	2284											
10	2230	2253	2234	2205	2250	2218	2226	2266											
15	2176	2206	2175	2136	2206	2154	2163	2225											
20	2108	2138	2092	2049	2145	2073	2078	2164											
25	2022	2051	1990	1946	2068	1973	1973	2083											
30	1924	1947	1870	1828	1977	1859	1850	1984											
35	1812	1829	1733	1698	1873	1732	1712	1870											
40	1691	1698	1584	1558	1757	1595	1560	1743											
45	1561	1557	1423	1411	1632	1449	1397	1606											
50	1425	1409	1251	1257	1500	1298	1224	1461											
55	1285	1255	1073	1102	1363	1144	1044	1310											
60	1144	1098	888	946	1223	988	859	1155											
65	1005	942	700	795	1085	835	671	1000											
70	871	790	514	653	949	690	482	847											
75	744	647	338	522	819	556	310	702											
80	626	517	181	403	697	436	160	567											
85	521	400	64.4	306	584	334	51.0	448											
90	428	306	2.94	229	480	249	0.85	347											
95	348	232	1.91	172	392	188	1.03	267											
100	280	174	1.78	127	318	141	1.28	203											
105	221	131	1.62	94.0	256	106	1.53	155											
110	175	98.8	1.64	68.6	203	79.1	1.80	118											
115	137	71.2	1.81	49.3	160	58.7	2.10	87.0											
120	106	47.7	2.10	34.7	124	42.8	2.46	60.3											
125	79.6	30.8	2.41	23.7	95.1	30.4	2.80	42.6											
130	58.1	22.3	2.70	15.5	70.8	21.0	3.14	29.8											
135	40.7	15.3	3.03	9.80	51.2	14.1	3.47	20.7											
140	27.4	10.8	3.39	6.30	35.5	9.29	3.77	14.5											
145	17.6	7.72	3.68	4.76	23.5	6.45	4.21	10.2											
150	11.0	5.89	3.97	4.52	14.6	5.26	4.54	7.42											
155	7.11	5.20	4.26	4.60	8.89	5.08	4.84	6.32											
160	5.48	5.04	4.55	4.76	6.09	5.11	5.06	5.64											
165	5.14	5.05	4.80	4.92	5.50	5.19	5.23	5.43											
170	5.19	5.16	5.05	5.08	5.46	5.24	5.30	5.36											
175	5.25	5.27	5.23	5.25	5.43	5.26	5.36	5.40											
180	5.43	5.31	5.38	5.41	5.44	5.33	5.39	5.39											

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2021-11-17

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.100m [K=1.0000]
 Remarks: