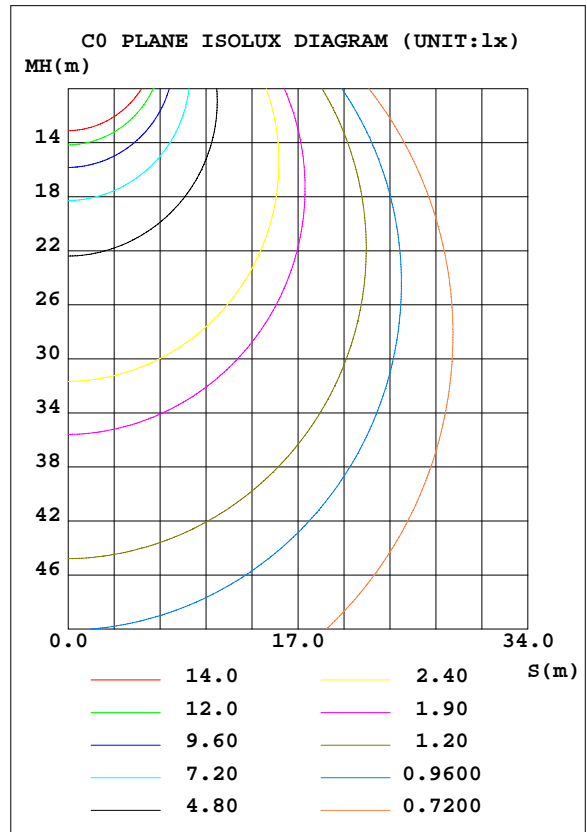
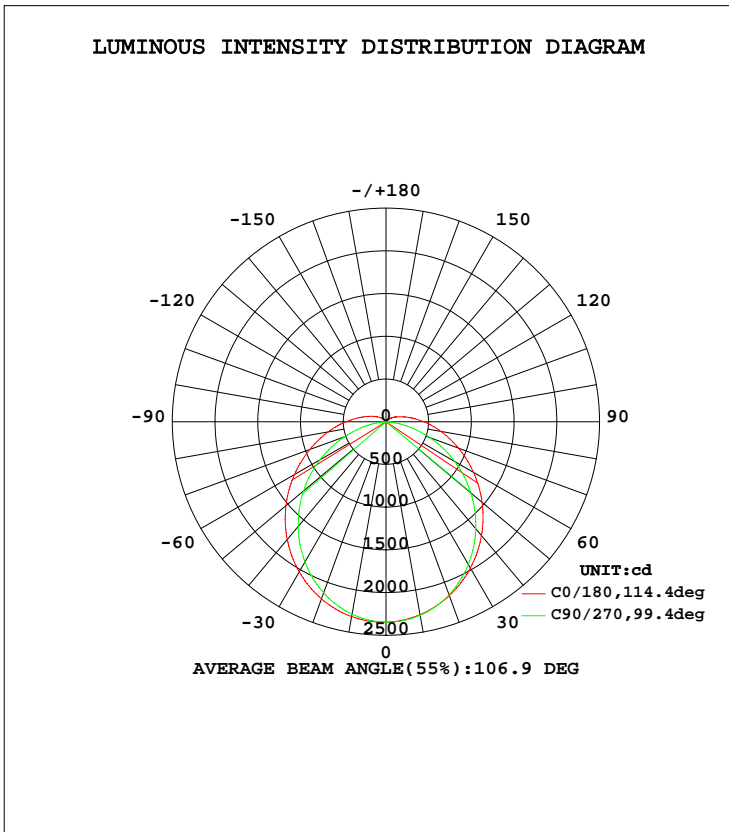


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.7V I:0.4475A P:53.53W PF:0.9912 Lamp Flux:7721.53x1 lm		
NAME: ASD Lighting Corp	TYPE:LED	WEIGHT:
DIM.: 1220*90*80mm	SPEC.:ASD-LVP2SM-4A56AC	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 144.24 lm/W			
MODEL	ASD-LVP2SM-4A56AC	I _{max} (cd)	2384	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)	7721.5	η UP, DN(C0-180)	3.0, 45.5
NOMINAL FLUX(lm)	7721.53	CIE CLASS	DIRECT	η UP, DN(C180-360)	3.6, 47.9
LAMPS INSIDE	1	η up(%)	6.6	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	120.7	η down(%)	93.4	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	Φlum,lamp
10	2293	2346	2301	2218	2316	2253	2287	2384	0- 10	221.7	221.7	2.87,2.87
20	2166	2255	2156	2012	2206	2078	2132	2329	10- 20	633.0	854.7	11.1,11.1
30	1977	2082	1929	1745	2030	1836	1896	2187	20- 30	954.8	1809	23.4,23.4
40	1739	1843	1636	1437	1799	1547	1599	1973	30- 40	1148	2957	38.3,38.3
50	1469	1559	1298	1108	1529	1232	1260	1705	40- 50	1196	4154	53.8,53.8
60	1181	1250	929.7	783.7	1237	909.5	894.5	1405	50- 60	1106	5260	68.1,68.1
70	902.0	934.9	549.2	500.5	947.8	608.9	516.8	1092	60- 70	906.8	6167	79.9,79.9
80	652.2	637.9	194.0	283.5	687.8	368.3	171.5	783.9	70- 80	646.7	6814	88.2,88.2
90	444.0	393.7	0.7676	148.2	467.8	201.3	0.7302	515.0	80- 90	397.8	7211	93.4,93.4
100	284.1	225.5	1.019	77.49	301.8	109.0	1.232	298.7	90-100	235.2	7447	96.4,96.4
110	175.1	127.7	1.418	35.31	189.0	58.42	1.894	178.2	100-110	135.4	7582	98.2,98.2
120	106.1	69.42	1.995	12.47	116.6	27.21	2.599	99.78	110-120	74.24	7656	99.2,99.2
130	57.19	33.19	2.666	4.754	64.58	10.56	3.261	55.46	120-130	36.80	7693	99.6,99.6
140	26.31	15.22	3.380	4.179	29.91	5.072	3.916	30.07	130-140	16.70	7710	99.8,99.8
150	9.102	6.880	3.991	4.638	10.77	4.633	4.493	15.35	140-150	6.772	7717	99.9,99.9
160	4.746	4.724	4.585	5.081	5.240	5.003	4.934	8.449	150-160	2.855	7720	100,100
170	5.224	4.979	5.078	5.421	5.338	5.241	5.231	5.635	160-170	1.488	7721	100,100
180	5.565	5.323	5.350	5.396	5.574	5.315	5.350	5.396	170-180	0.5085	7722	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

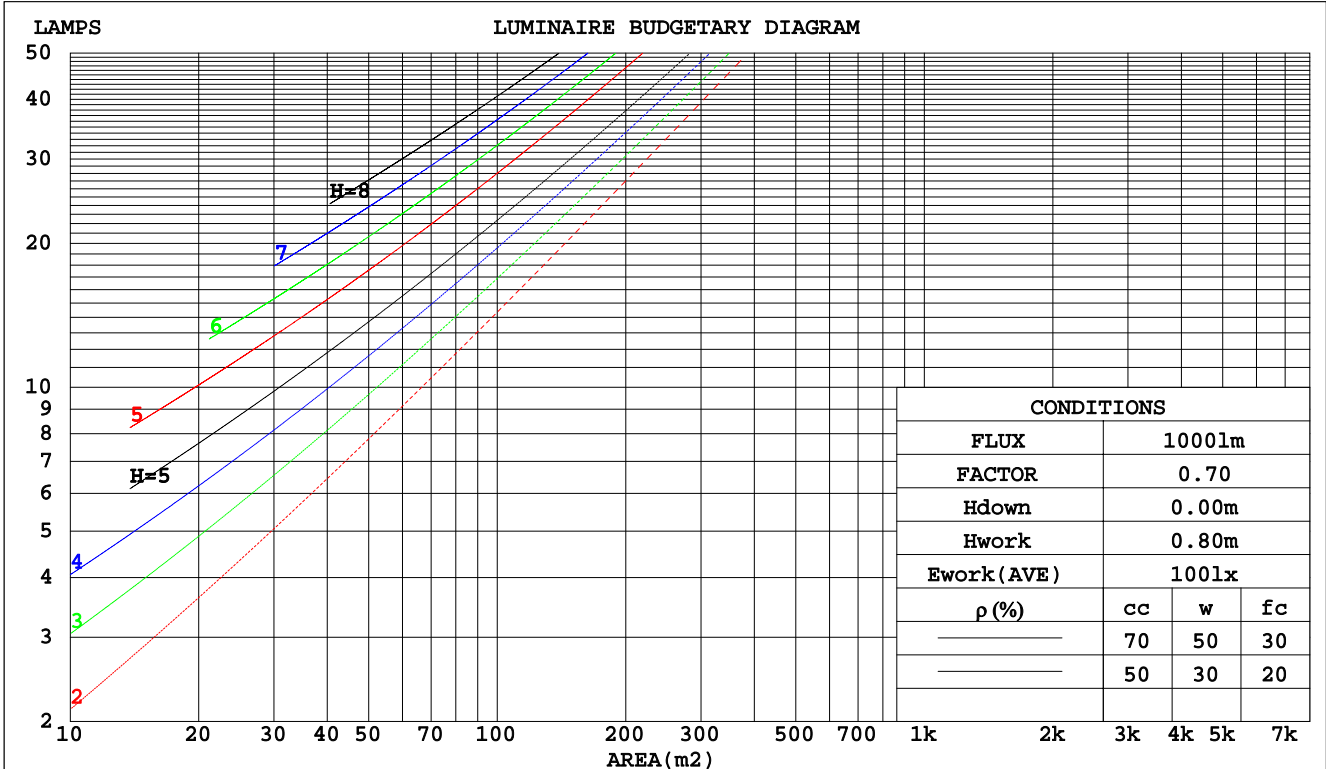
C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2021-11-17

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:120.7V I:0.4475A P:53.53W PF:0.9912 Lamp Flux:7721.53x1 lm		
NAME: ASD Lighting Corp	TYPE:LED	WEIGHT:
DIM.: 1220*90*80mm	SPEC.:ASD-LVP2SM-4A56AC	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	PROTECTION ANGLE:

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pw																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	1.01	1.01	1.01	.96	.96	.96	.93
1.0	1.00	.95	.91	.97	.93	.89	.92	.88	.85	.87	.84	.81	.82	.80	.77	.75
2.0	.87	.79	.73	.84	.77	.71	.79	.74	.69	.75	.70	.66	.71	.67	.64	.61
3.0	.76	.67	.60	.73	.65	.59	.69	.63	.57	.66	.60	.55	.62	.58	.54	.51
4.0	.67	.58	.51	.65	.56	.50	.62	.54	.48	.58	.52	.47	.55	.50	.46	.43
5.0	.60	.50	.43	.58	.49	.43	.55	.48	.42	.52	.46	.41	.50	.44	.40	.37
6.0	.53	.44	.38	.52	.44	.37	.50	.42	.36	.47	.41	.36	.45	.39	.35	.32
7.0	.48	.39	.33	.47	.39	.33	.45	.38	.32	.43	.36	.31	.41	.35	.31	.29
8.0	.44	.35	.30	.43	.35	.29	.41	.34	.29	.40	.33	.28	.38	.32	.28	.26
9.0	.40	.32	.27	.40	.32	.26	.38	.31	.26	.36	.30	.25	.35	.29	.25	.23
10.0	.37	.29	.24	.37	.29	.24	.35	.28	.23	.34	.27	.23	.32	.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:120.7V I:0.4475A P:53.53W PF:0.9912 Lamp Flux:7721.53x1 lm		
NAME: ASD Lighting Corp	TYPE:LED	WEIGHT:
DIM.: 1220*90*80mm	SPEC.:ASD-LVP2SM-4A56AC	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	.351	.200	.063	.342	.195	.062	.325	.186	.060	.309	.178	.057	.294	.171	.055	
2.0	.314	.172	.053	.306	.169	.052	.291	.162	.050	.276	.155	.049	.263	.149	.047	
3.0	.284	.151	.045	.277	.148	.045	.263	.142	.043	.250	.137	.042	.238	.132	.041	
4.0	.258	.134	.039	.252	.132	.039	.239	.127	.038	.228	.122	.037	.217	.118	.036	
5.0	.237	.121	.035	.231	.118	.035	.220	.114	.034	.209	.110	.033	.200	.107	.032	
6.0	.218	.109	.031	.213	.107	.031	.203	.104	.030	.193	.101	.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	.184	.090	.026	.175	.088	.025	.168	.085	.025	.161	.082	.024	
9.0	.176	.085	.024	.172	.084	.023	.164	.081	.023	.157	.079	.023	.151	.077	.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	.241	.241	.241	.206	.206	.206	.140	.140	.140	.081	.081	.081	.026	.026	.026	
1.0	.234	.207	.182	.200	.177	.156	.137	.122	.108	.079	.071	.063	.025	.023	.020	
2.0	.226	.183	.146	.194	.157	.127	.133	.109	.088	.077	.063	.052	.025	.020	.017	
3.0	.219	.166	.124	.187	.143	.107	.129	.099	.075	.074	.058	.044	.024	.019	.015	
4.0	.211	.153	.109	.181	.132	.094	.124	.092	.066	.072	.054	.039	.023	.018	.013	
5.0	.203	.143	.098	.174	.123	.085	.120	.086	.060	.070	.051	.036	.022	.017	.012	
6.0	.196	.134	.090	.168	.116	.079	.116	.081	.056	.067	.048	.033	.022	.016	.011	
7.0	.189	.128	.085	.162	.111	.074	.112	.078	.052	.065	.046	.031	.021	.015	.010	
8.0	.182	.122	.081	.157	.106	.070	.108	.074	.050	.063	.044	.030	.020	.014	.010	
9.0	.176	.117	.077	.151	.102	.067	.105	.071	.048	.061	.042	.029	.020	.014	.009	
10.0	.170	.113	.075	.147	.098	.065	.102	.069	.046	.059	.041	.028	.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:120.7V I:0.4475A P:53.53W PF:0.9912 Lamp Flux:7721.53x1 lm										
NAME: ASD Lighting Corp					TYPE:LED			WEIGHT:		
DIM.: 1220*90*80mm					SPEC.:ASD-LVP2SM-4A56AC			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	15.7	17.2	16.0	17.5	17.8	14.8	16.3	15.1	16.6	16.9
3H	17.7	19.1	18.1	19.4	19.8	16.2	17.6	16.6	17.9	18.3
4H	18.8	20.1	19.2	20.5	20.9	16.7	18.0	17.1	18.4	18.8
6H	19.9	21.2	20.4	21.6	22.0	17.1	18.3	17.5	18.7	19.1
8H	20.6	21.7	21.0	22.1	22.6	17.2	18.3	17.6	18.7	19.2
12H	21.3	22.4	21.7	22.8	23.3	17.2	18.3	17.6	18.7	19.2
4H 2H	16.4	17.7	16.8	18.1	18.5	15.8	17.1	16.2	17.4	17.8
3H	18.7	19.8	19.1	20.2	20.7	17.5	18.6	17.9	19.0	19.5
4H	19.9	21.0	20.4	21.4	21.9	18.2	19.2	18.7	19.7	20.2
6H	21.2	22.2	21.7	22.7	23.2	18.7	19.7	19.2	20.1	20.7
8H	22.0	22.8	22.5	23.3	23.9	18.9	19.8	19.4	20.3	20.8
12H	22.8	23.6	23.3	24.1	24.7	19.0	19.8	19.5	20.3	20.9
8H 4H	20.4	21.2	20.9	21.7	22.3	19.0	19.8	19.5	20.3	20.9
6H	22.0	22.7	22.5	23.2	23.8	19.9	20.6	20.4	21.1	21.7
8H	22.9	23.5	23.4	24.1	24.7	20.2	20.9	20.8	21.4	22.0
12H	23.9	24.5	24.5	25.1	25.7	20.5	21.1	21.1	21.6	22.2
12H 4H	20.4	21.2	20.9	21.7	22.3	19.1	20.0	19.7	20.5	21.0
6H	22.1	22.8	22.7	23.3	23.9	20.2	20.9	20.8	21.4	22.0
8H	23.1	23.7	23.7	24.3	24.9	20.8	21.3	21.3	21.9	22.5
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 / - 0.4				
2.0H	+ 0.2 / - 0.4					+ 0.2 / - 0.5				

CIE Pub.117 Corrected 7722 lm Total Lamp Luminous Flux.(8log(F/F0) = 7.1)

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:120.7V I:0.4475A P:53.53W PF:0.9912 Lamp Flux:7721.53x1 lm		
NAME: ASD Lighting Corp	TYPE:LED	WEIGHT:
DIM.: 1220*90*80mm	SPEC.:ASD-LVP2SM-4A56AC	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	PROTECTION ANGLE:

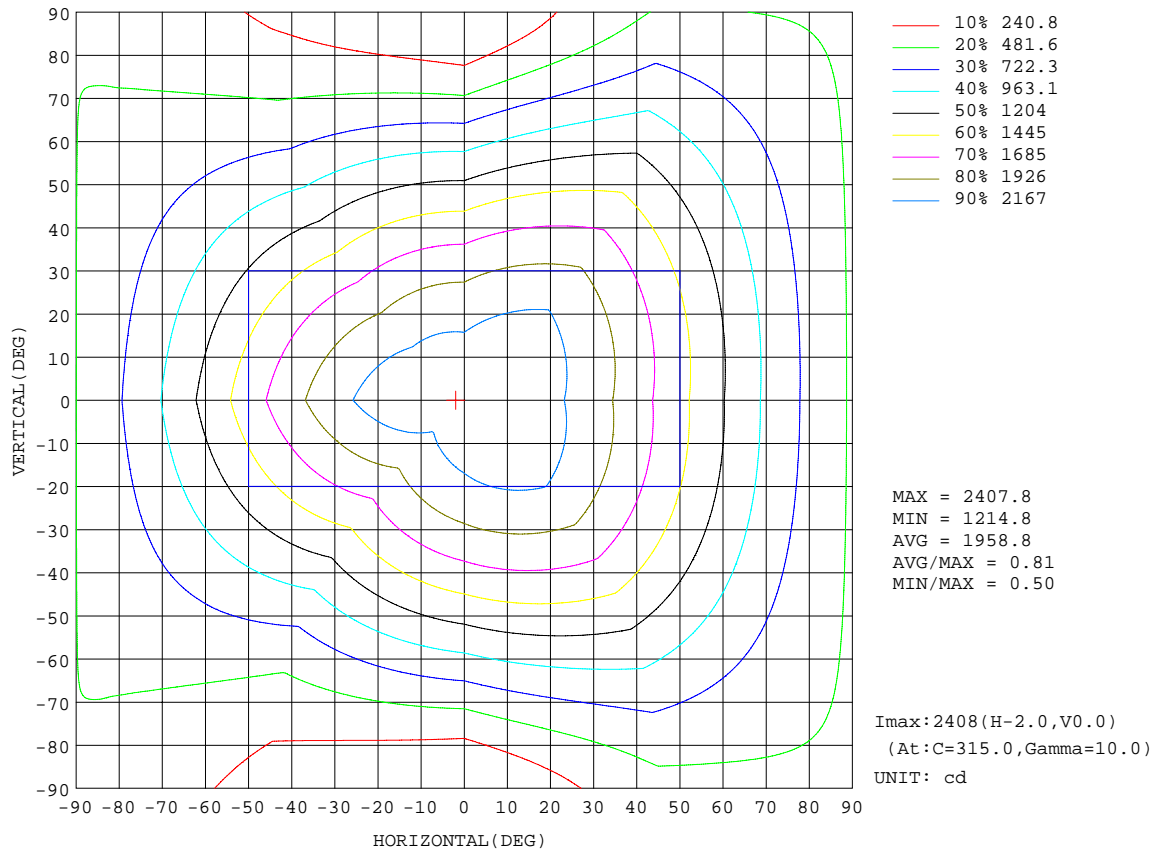
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	54	42	35	53	41	34	51	41	34	28
0.80	63	51	43	62	50	43	60	50	43	35
1.00	71	59	51	70	59	51	67	60	50	43
1.25	78	67	59	76	66	58	73	64	57	49
1.50	83	72	64	81	71	64	78	69	62	54
2.00	90	80	73	88	79	72	84	76	70	61
2.50	94	85	78	92	84	77	87	80	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	96	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:120.7V I:0.4475A P:53.53W PF:0.9912 Lamp Flux:7721.53x1 lm		
NAME: ASD Lighting Corp	TYPE:LED	WEIGHT:
DIM.: 1220*90*80mm	SPEC.:ASD-LVP2SM-4A56AC	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	PROTECTION ANGLE:

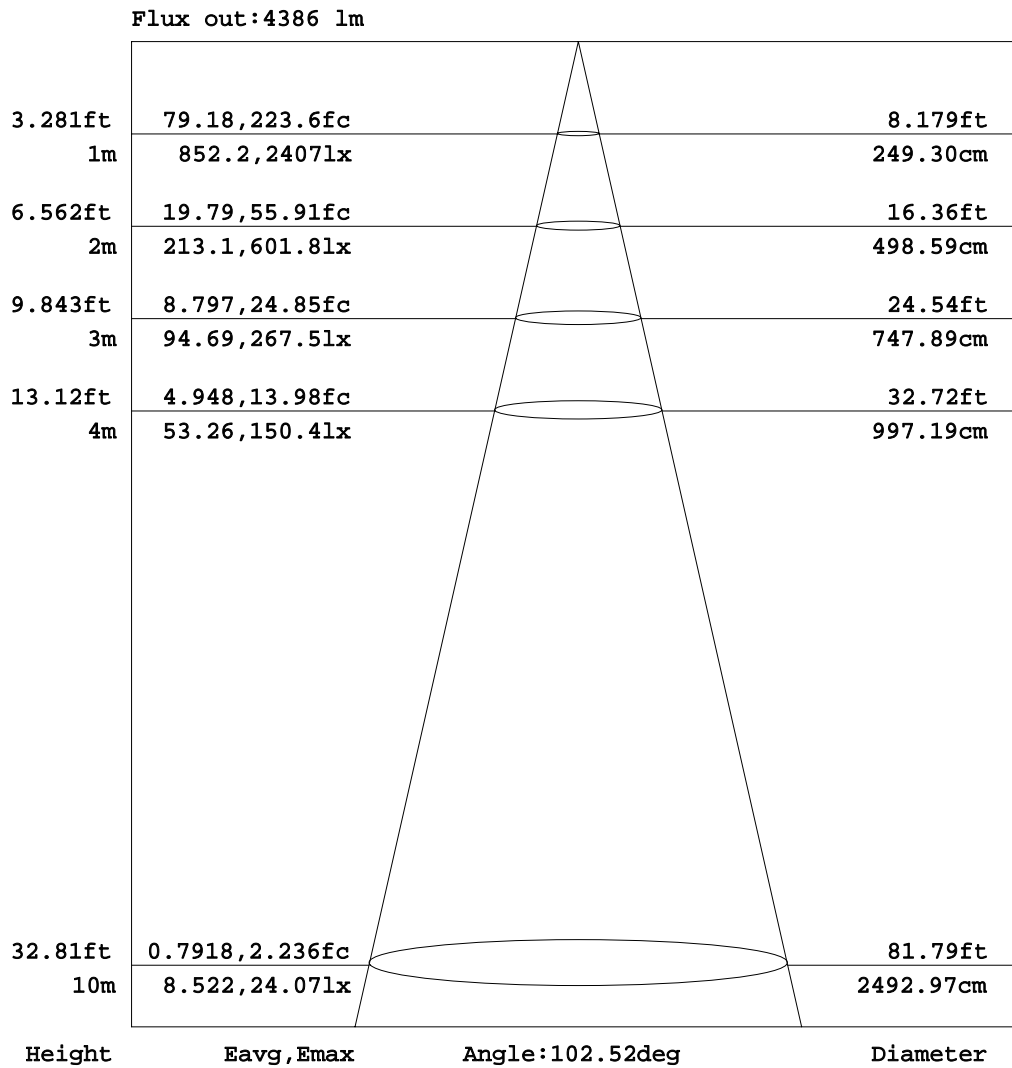


C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2021-11-17

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:120.7V I:0.4475A P:53.53W PF:0.9912 Lamp Flux:7721.53x1 lm		
NAME: ASD Lighting Corp	TYPE:LED	WEIGHT:
DIM.: 1220*90*80mm	SPEC.:ASD-LVP2SM-4A56AC	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	PROTECTION ANGLE:



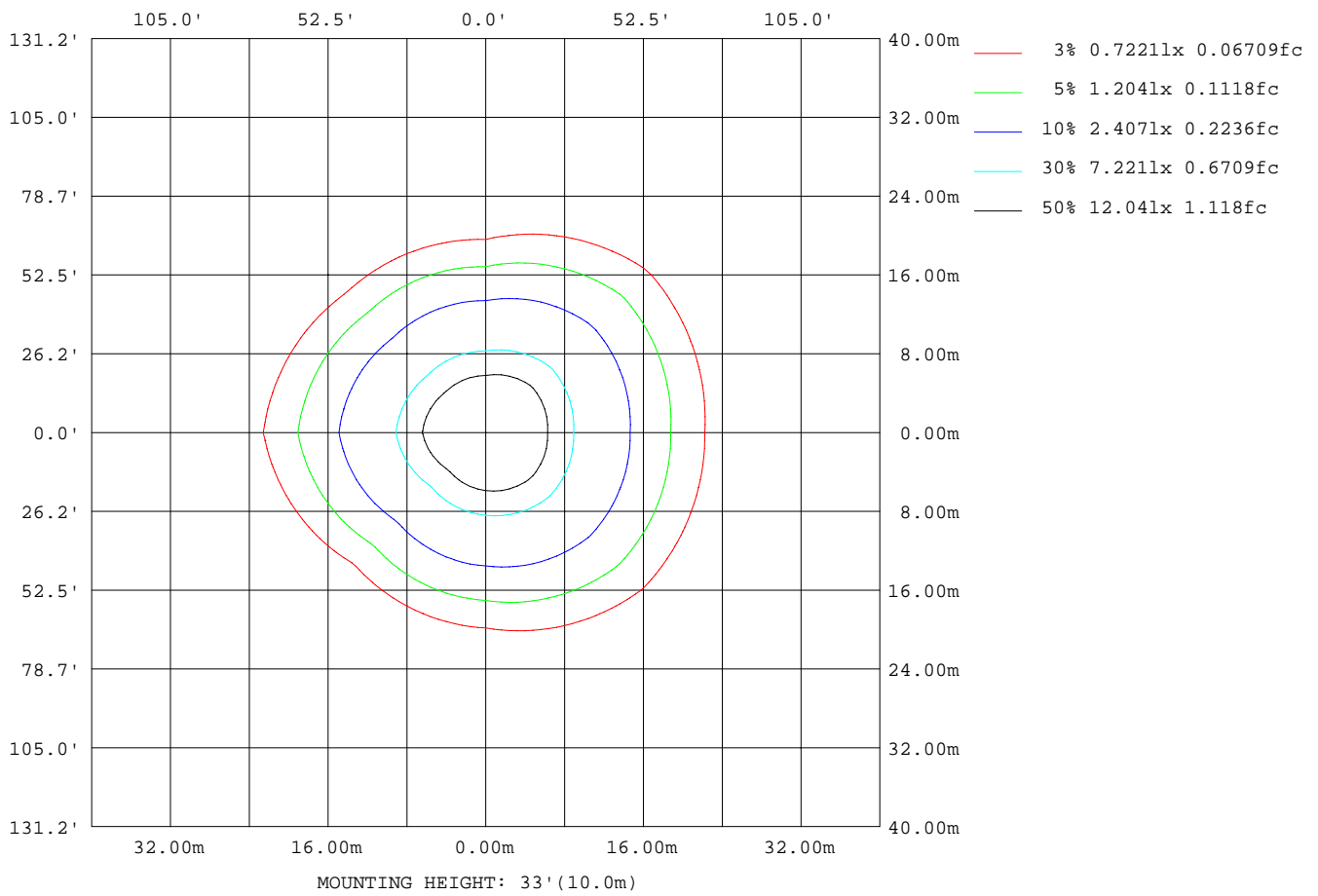
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

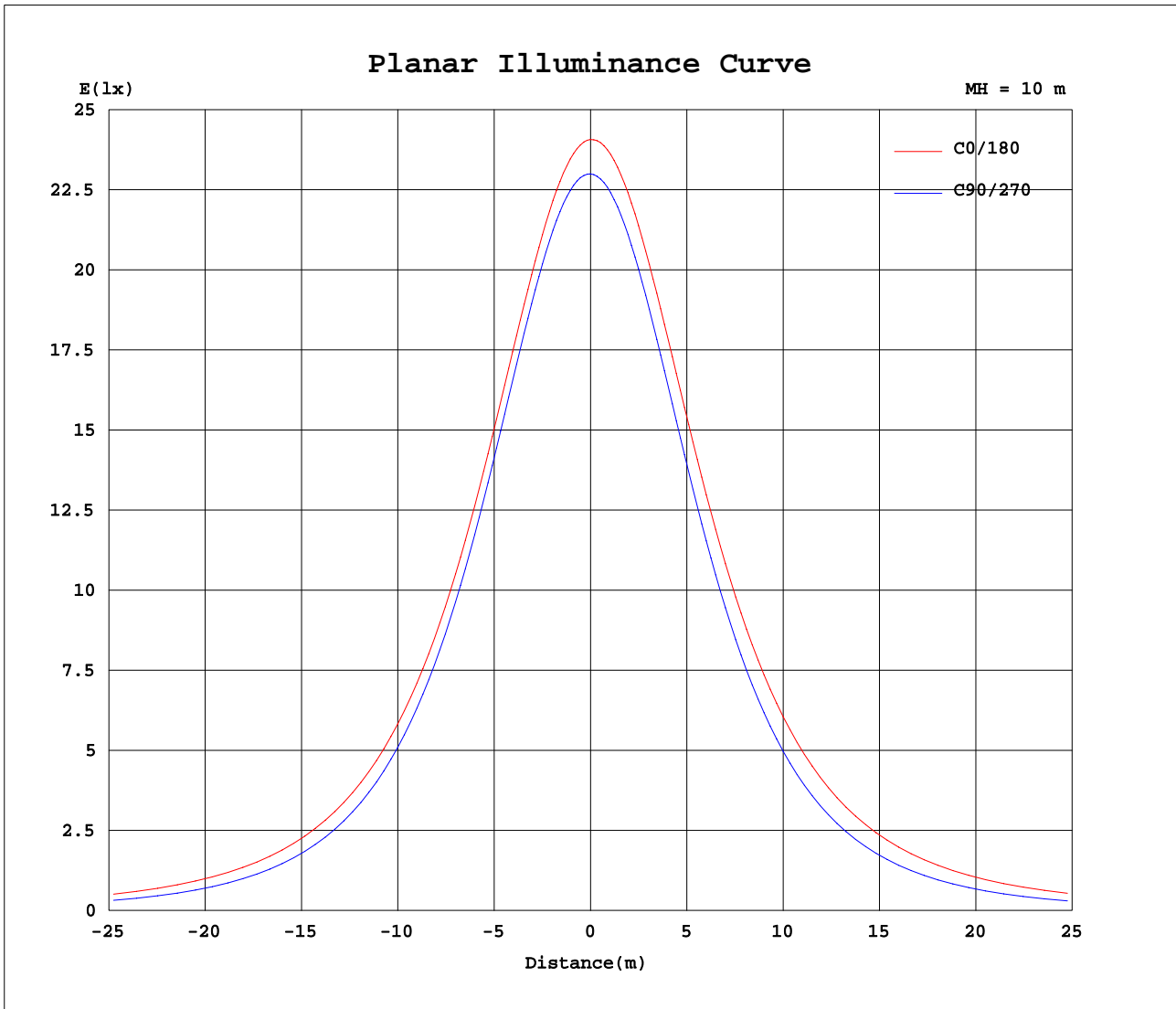
Test:U:120.7V I:0.4475A P:53.53W PF:0.9912 Lamp Flux:7721.53x1 lm		
NAME: ASD Lighting Corp	TYPE:LED	WEIGHT:
DIM.: 1220*90*80mm	SPEC.:ASD-LVP2SM-4A56AC	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	PROTECTION ANGLE:



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:120.7V I:0.4475A P:53.53W PF:0.9912 Lamp Flux:7721.53x1 lm		
NAME: ASD Lighting Corp	TYPE:LED	WEIGHT:
DIM.: 1220*90*80mm	SPEC.:ASD-LVP2SM-4A56AC	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	2346	2346	2346	2346	2346	2346	2346	2346											
5	2330	2357	2336	2292	2341	2311	2330	2376											
10	2293	2346	2301	2218	2316	2253	2287	2384											
15	2238	2312	2240	2124	2271	2175	2221	2368											
20	2166	2255	2156	2012	2206	2078	2132	2329											
25	2078	2177	2051	1885	2126	1964	2023	2269											
30	1977	2082	1929	1745	2030	1836	1896	2187											
35	1863	1968	1788	1595	1920	1696	1754	2088											
40	1739	1843	1636	1437	1799	1547	1599	1973											
45	1607	1705	1471	1274	1667	1391	1434	1843											
50	1469	1559	1298	1108	1529	1232	1260	1705											
55	1326	1406	1116	943	1385	1070	1080	1558											
60	1181	1250	930	784	1237	909	894	1405											
65	1040	1092	740	635	1090	754	706	1249											
70	902	935	549	500	948	609	517	1092											
75	773	781	364	382	813	480	334	936											
80	652	638	194	284	688	368	171	784											
85	543	509	62.8	206	573	276	49.3	642											
90	444	394	0.77	148	468	201	0.73	515											
95	358	300	0.80	108	378	147	0.92	405											
100	284	225	1.02	77.5	302	109	1.23	299											
105	222	168	1.25	53.7	239	80.8	1.55	234											
110	175	128	1.42	35.3	189	58.4	1.89	178											
115	138	96.3	1.69	21.9	150	40.6	2.23	135											
120	106	69.4	2.00	12.5	117	27.2	2.60	99.8											
125	78.2	46.2	2.34	7.20	88.5	17.1	2.92	73.5											
130	57.2	33.2	2.67	4.75	64.6	10.6	3.26	55.5											
135	40.0	22.7	3.01	4.03	45.2	6.79	3.61	41.0											
140	26.3	15.2	3.38	4.18	29.9	5.07	3.92	30.1											
145	15.7	9.95	3.69	4.41	18.1	4.55	4.21	21.5											
150	9.10	6.88	3.99	4.64	10.8	4.63	4.49	15.4											
155	5.65	5.35	4.30	4.87	6.77	4.85	4.74	11.1											
160	4.75	4.72	4.58	5.08	5.24	5.00	4.93	8.45											
165	4.93	4.74	4.85	5.29	5.14	5.14	5.10	6.66											
170	5.22	4.98	5.08	5.42	5.34	5.24	5.23	5.64											
175	5.48	5.20	5.26	5.48	5.48	5.31	5.31	5.32											
180	5.57	5.32	5.35	5.40	5.57	5.31	5.35	5.40											

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: