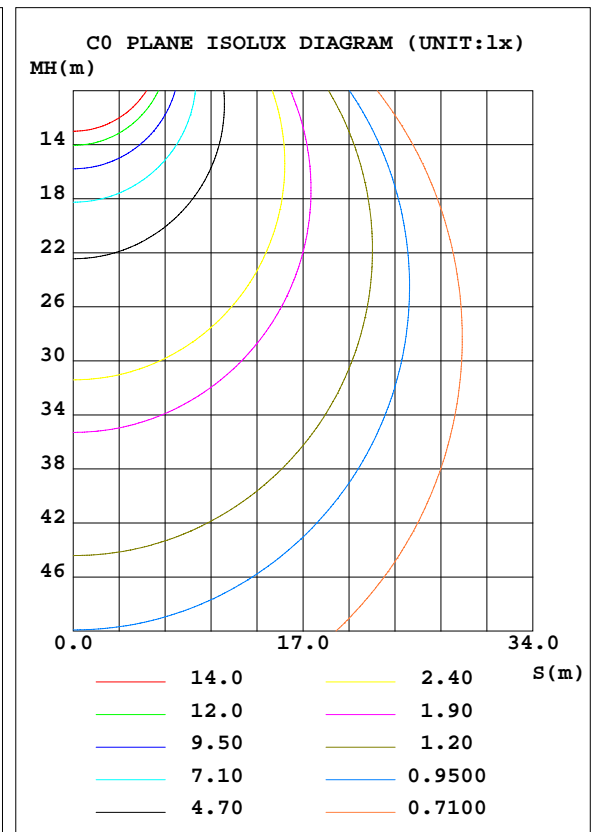
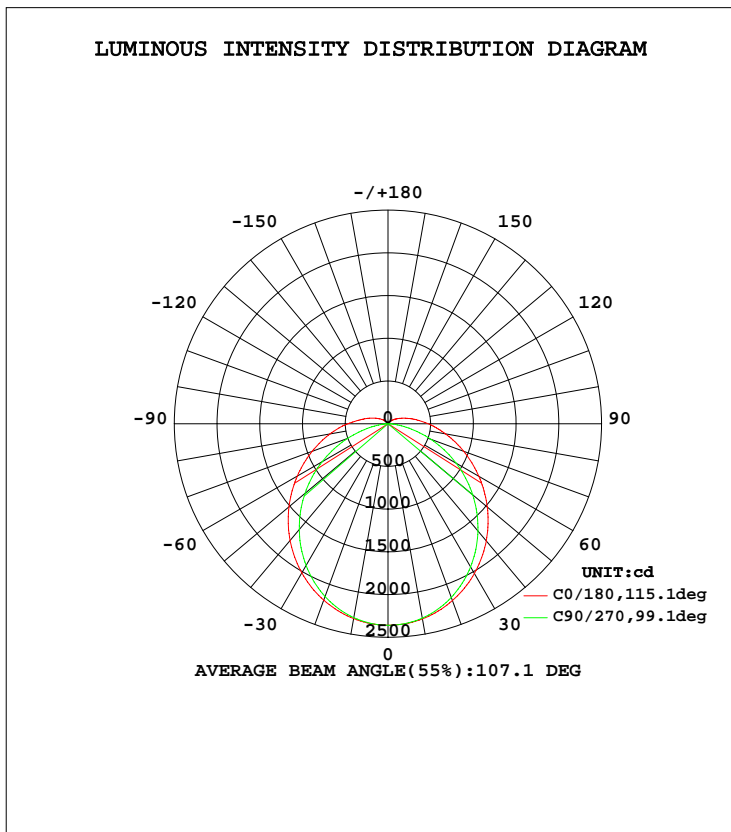


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.6V I:0.4680A P:55.81W PF:0.9889 Lamp Flux:7709.8x1 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: 138.13 lm/W			
MODEL	ASD-LVP2SM-4A56AC-10EM	I _{max} (cd)	2360	S/MH(C0/180)	1.28
NOMINAL POWER(W)	56	LOR(%)	100.0	S/MH(C90/270)	1.22
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	7709.8	η UP, DN(C0-180)	3.2, 46.9
NOMINAL FLUX(lm)	7709.8	CIE CLASS	DIRECT	η UP, DN(C180-360)	3.2, 46.6
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	Φlum,lamp
10	2320	2321	2310	2305	2316	2304	2305	2322	0- 10	223.0	223.0	2.89,2.89
20	2203	2195	2164	2165	2198	2162	2152	2195	10- 20	636.5	859.5	11.1,11.1
30	2023	1992	1934	1953	2016	1947	1916	1991	20- 30	960.2	1820	23.6,23.6
40	1790	1730	1638	1687	1783	1679	1616	1731	30- 40	1154	2974	38.6,38.6
50	1517	1428	1295	1384	1513	1374	1268	1431	40- 50	1202	4176	54.2,54.2
60	1228	1105	919.4	1065	1226	1054	889.9	1110	50- 60	1109	5285	68.5,68.5
70	942.6	788.3	534.4	755.8	945.4	742.7	502.6	796.0	60- 70	902.7	6187	80.3,80.3
80	683.8	507.9	189.3	485.2	689.1	474.4	164.8	518.6	70- 80	637.0	6824	88.5,88.5
90	470.7	298.4	3.206	283.4	468.7	275.4	0.8085	310.7	80- 90	387.0	7212	93.5,93.5
100	310.1	167.9	1.250	161.6	306.7	155.5	1.226	178.2	90-100	227.1	7439	96.5,96.5
110	194.0	93.93	1.409	90.96	196.1	88.12	1.784	98.80	100-110	132.9	7572	98.2,98.2
120	117.8	47.69	2.009	49.54	119.4	48.84	2.510	50.80	110-120	73.64	7645	99.2,99.2
130	65.84	21.19	2.625	24.78	67.12	25.19	3.210	23.38	120-130	37.01	7682	99.6,99.6
140	31.64	9.498	3.317	10.66	33.28	11.48	3.901	10.67	130-140	16.41	7699	99.9,99.9
150	12.73	5.248	3.942	5.233	13.52	5.819	4.576	5.972	140-150	6.501	7705	99.9,99.9
160	5.771	4.859	4.559	4.776	5.964	5.183	5.043	5.211	150-160	2.726	7708	100,100
170	5.343	5.183	5.092	5.136	5.410	5.250	5.343	5.361	160-170	1.464	7709	100,100
180	5.518	5.374	5.426	5.419	5.551	5.383	5.426	5.403	170-180	0.5097	7710	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

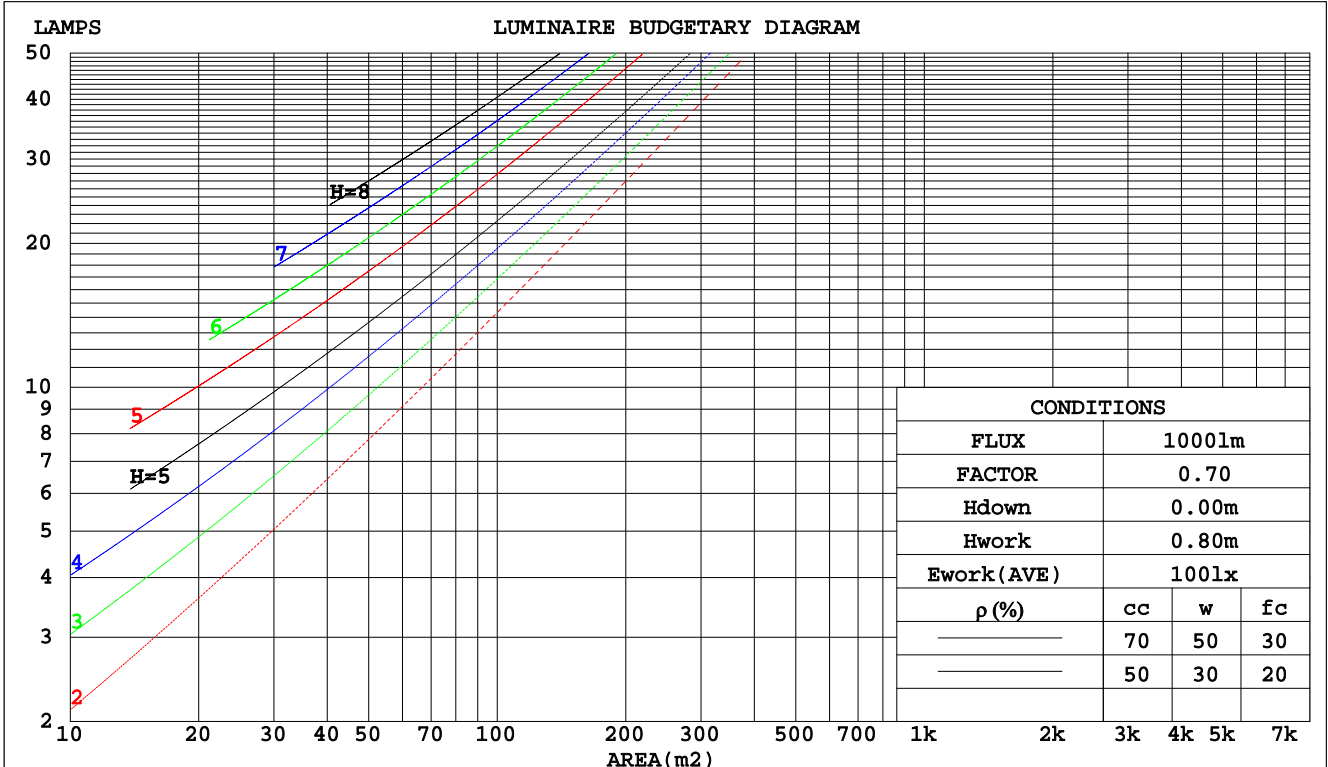
C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2021-11-17

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:0.4680A P:55.81W PF:0.9889 Lamp Flux:7709.8x1 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	1.18	1.18	1.18	1.14	1.14	1.14	1.08	1.08	1.08	1.02	1.02	1.02	.96	.96	.96	.94
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	.44
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	.40	.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:0.4680A P:55.81W PF:0.9889 Lamp Flux:7709.8x1 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	.200	.107	.032	
6.0	.218	.109	.031	.212	.107	.031	.203	.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	.025	.160	.082	.024	
9.0	.175	.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	.240	.240	.240	.205	.205	.205	.140	.140	.140	.080	.080	.080	.026	.026	.026	
1.0	.233	.205	.181	.199	.176	.156	.136	.121	.108	.078	.070	.063	.025	.023	.020	
2.0	.225	.182	.145	.193	.156	.126	.132	.108	.088	.076	.063	.051	.024	.020	.017	
3.0	.217	.165	.123	.186	.142	.106	.128	.099	.075	.074	.058	.044	.024	.019	.014	
4.0	.209	.152	.108	.180	.131	.093	.124	.091	.066	.071	.053	.039	.023	.017	.013	
5.0	.202	.141	.097	.173	.122	.084	.119	.086	.060	.069	.050	.035	.022	.016	.012	
6.0	.194	.133	.089	.167	.115	.078	.115	.081	.055	.067	.048	.033	.022	.016	.011	
7.0	.187	.126	.084	.161	.110	.073	.111	.077	.052	.065	.045	.031	.021	.015	.010	
8.0	.181	.121	.079	.156	.105	.069	.108	.074	.049	.063	.043	.029	.020	.014	.010	
9.0	.175	.116	.076	.150	.101	.066	.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:0.4680A P:55.81W PF:0.9889 Lamp Flux:7709.8x1 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	15.4	16.9	15.8	17.2	17.5	14.4	15.9	14.8	16.2	16.6
3H	17.5	18.9	17.9	19.2	19.6	15.8	17.2	16.2	17.5	17.9
4H	18.6	19.9	19.0	20.3	20.7	16.3	17.6	16.7	18.0	18.4
6H	19.8	21.0	20.2	21.4	21.8	16.7	17.9	17.1	18.3	18.7
8H	20.5	21.6	20.9	22.0	22.5	16.7	17.9	17.2	18.3	18.8
12H	21.2	22.3	21.7	22.8	23.2	16.8	17.9	17.2	18.3	18.8
4H 2H	16.0	17.3	16.4	17.6	18.0	15.2	16.5	15.6	16.9	17.3
3H	18.3	19.4	18.7	19.8	20.3	16.9	18.0	17.3	18.4	18.9
4H	19.6	20.6	20.0	21.0	21.5	17.6	18.6	18.0	19.1	19.5
6H	20.9	21.9	21.4	22.3	22.9	18.1	19.0	18.6	19.5	20.0
8H	21.7	22.6	22.2	23.1	23.6	18.2	19.1	18.8	19.6	20.1
12H	22.6	23.4	23.1	23.9	24.4	18.3	19.1	18.9	19.6	20.2
8H 4H	19.9	20.7	20.4	21.2	21.8	18.2	19.1	18.7	19.6	20.1
6H	21.5	22.2	22.0	22.8	23.3	19.0	19.7	19.6	20.3	20.8
8H	22.4	23.1	23.0	23.6	24.2	19.3	20.0	19.9	20.5	21.1
12H	23.6	24.1	24.1	24.7	25.3	19.6	20.1	20.1	20.7	21.3
12H 4H	19.9	20.7	20.4	21.2	21.7	18.4	19.2	18.9	19.7	20.2
6H	21.6	22.3	22.2	22.8	23.4	19.3	20.0	19.9	20.5	21.1
8H	22.6	23.2	23.2	23.8	24.4	19.8	20.3	20.3	20.9	21.5
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.2				
1.5H	+ 0.2 / - 0.2					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.4				

CIE Pub.117 Corrected 7710 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:120.6V I:0.4680A P:55.81W PF:0.9889 Lamp Flux:7709.8x1 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:

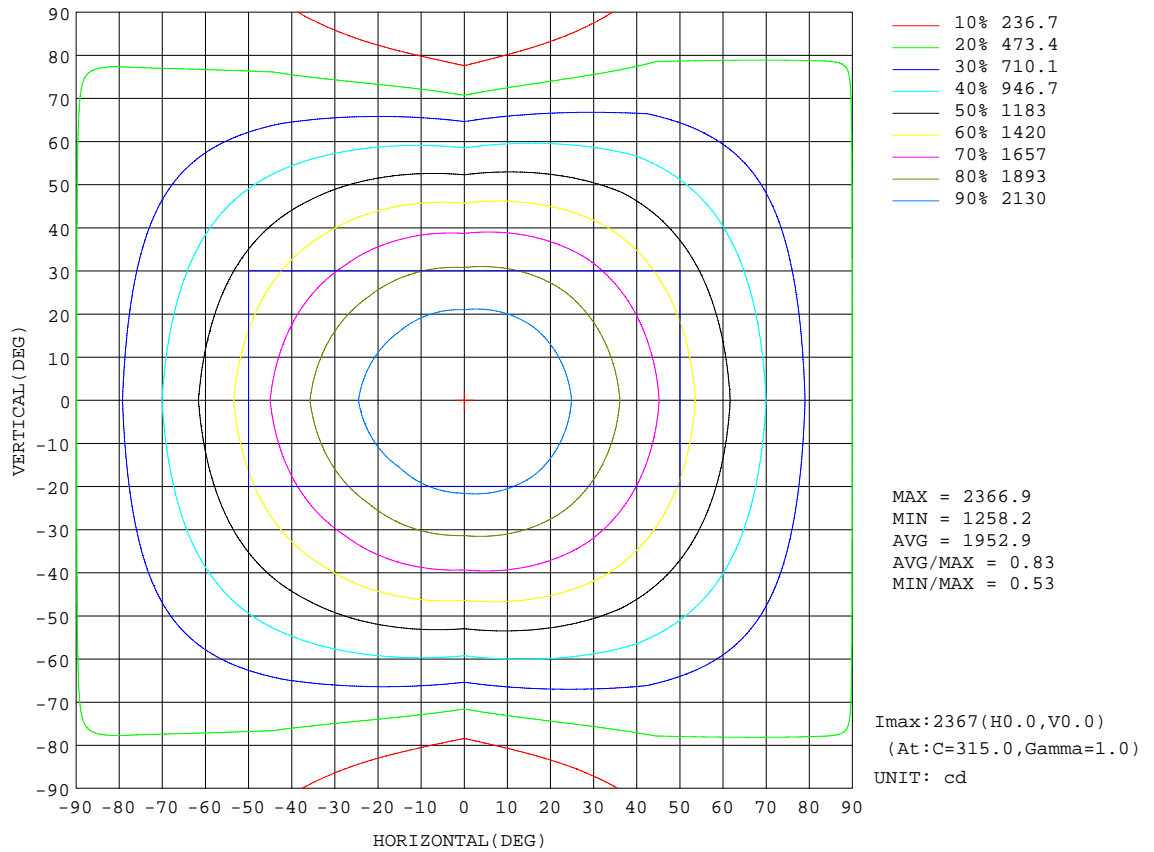
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	54	42	35	53	42	35	52	41	34	28
0.80	63	51	44	62	51	43	60	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:0.4680A P:55.81W PF:0.9889 Lamp Flux:7709.8x1 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:

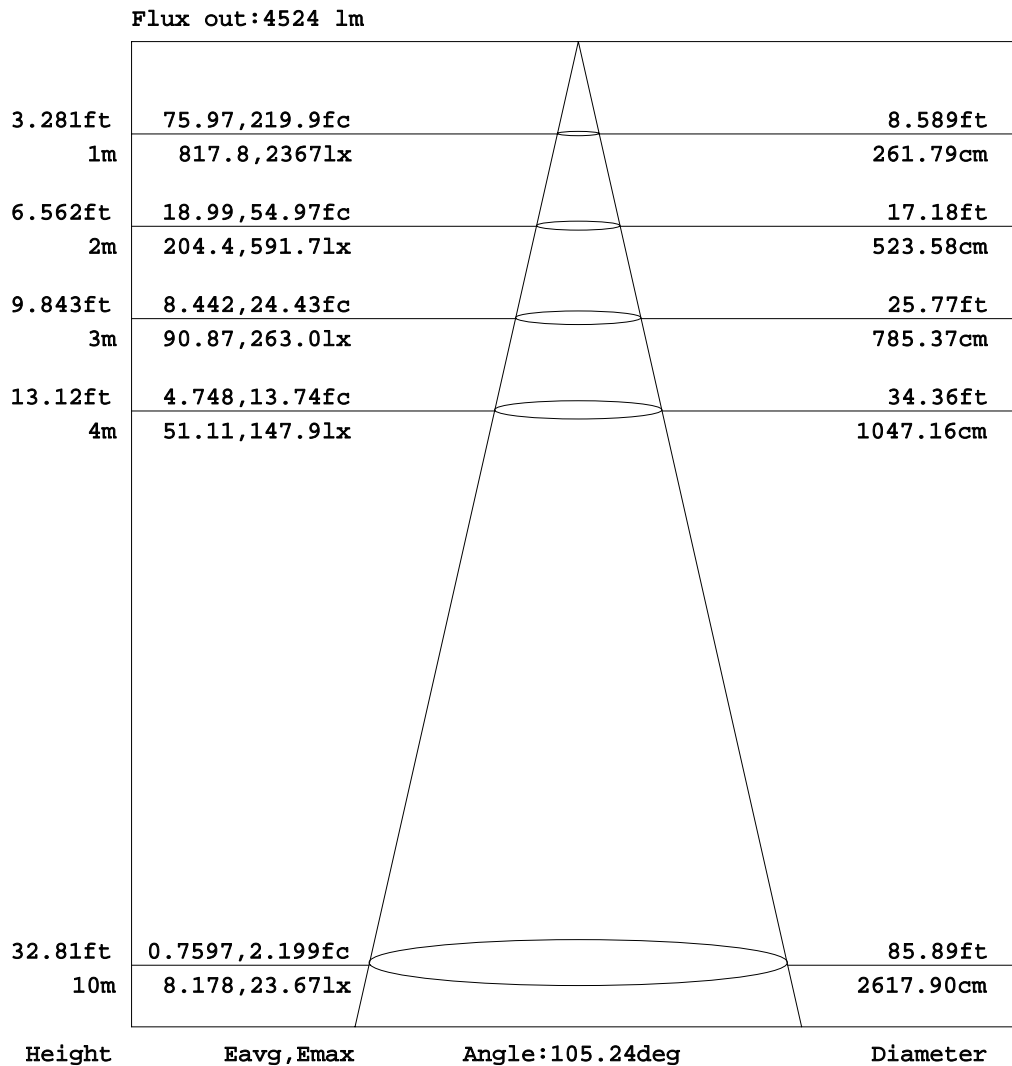


C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2021-11-17

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:0.4680A P:55.81W PF:0.9889 Lamp Flux:7709.8x1 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:



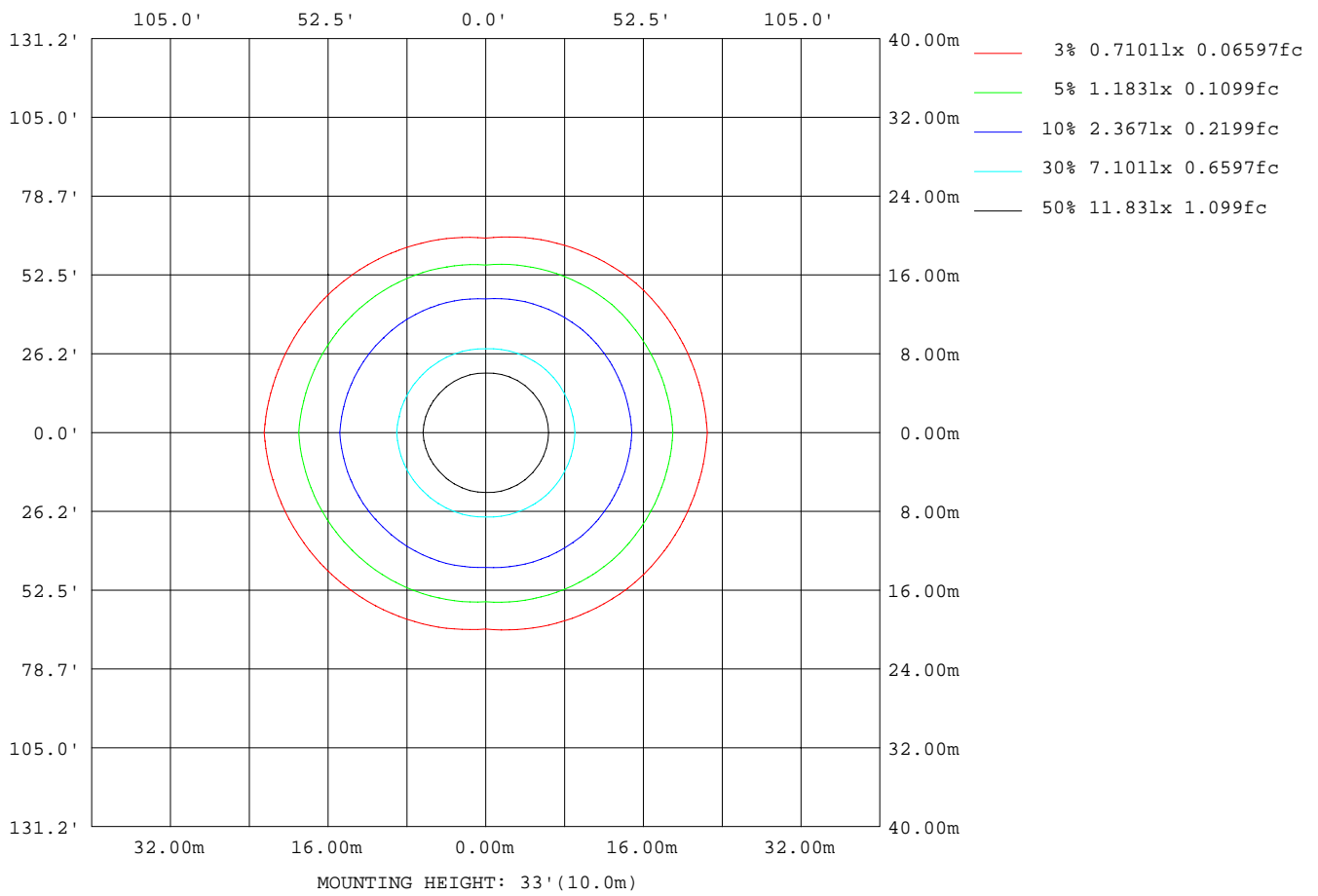
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

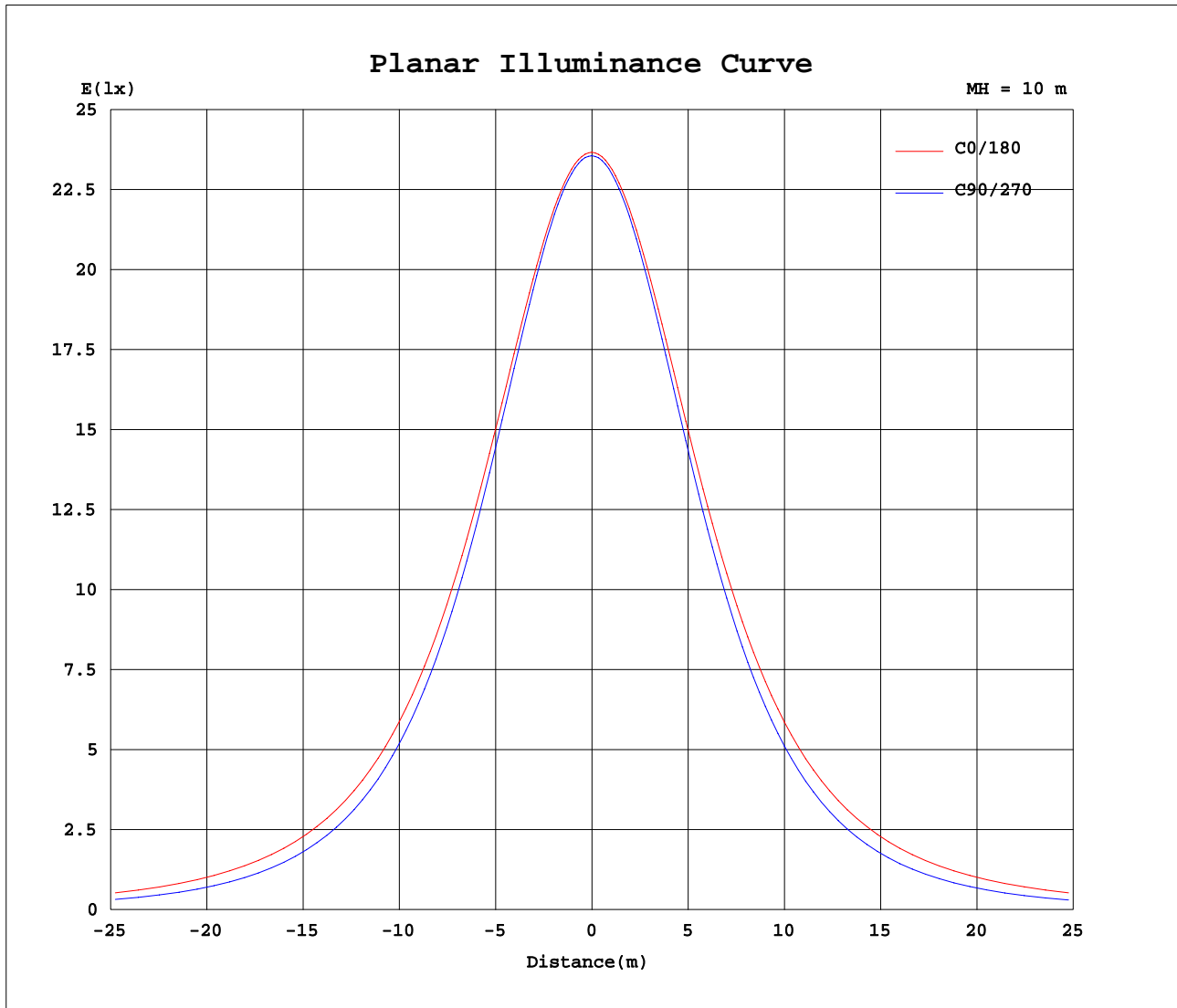
Test:U:120.6V I:0.4680A P:55.81W PF:0.9889 Lamp Flux:7709.8x1 lm		
NAME: ASD Lighting Corp	TYPE:LED	WEIGHT:
DIM.: 1220*90*80mm	SPEC.:ASD-LVP2SM-4A56AC-10	EM SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	PROTECTION ANGLE:



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:0.4680A P:55.81W PF:0.9889 Lamp Flux:7709.8x1 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	2359	2359	2359	2359	2359	2359	2359	2359											
5	2349	2351	2347	2343	2347	2343	2345	2352											
10	2320	2321	2310	2305	2316	2304	2305	2322											
15	2270	2268	2249	2245	2265	2243	2240	2268											
20	2203	2195	2164	2165	2198	2162	2152	2195											
25	2121	2101	2058	2067	2114	2062	2044	2101											
30	2023	1992	1934	1953	2016	1947	1916	1991											
35	1912	1867	1793	1826	1905	1819	1773	1867											
40	1790	1730	1638	1687	1783	1679	1616	1731											
45	1657	1582	1471	1539	1651	1530	1447	1584											
50	1517	1428	1295	1384	1513	1374	1268	1431											
55	1374	1268	1110	1225	1370	1215	1082	1271											
60	1228	1105	919	1065	1226	1054	890	1110											
65	1083	944	726	907	1084	895	696	951											
70	943	788	534	756	945	743	503	796											
75	809	642	352	615	813	602	321	651											
80	684	508	189	485	689	474	165	519											
85	571	391	67.5	374	575	365	51.7	404											
90	471	298	3.21	283	469	275	0.81	311											
95	384	225	1.47	214	379	206	0.97	236											
100	310	168	1.25	162	307	155	1.23	178											
105	246	125	1.22	122	247	117	1.53	128											
110	194	93.9	1.41	91.0	196	88.1	1.78	98.8											
115	152	68.8	1.68	67.7	154	66.1	2.13	73.3											
120	118	47.7	2.01	49.5	119	48.8	2.51	50.8											
125	89.3	32.4	2.32	35.6	91.1	35.6	2.85	34.5											
130	65.8	21.2	2.63	24.8	67.1	25.2	3.21	23.4											
135	46.7	14.0	2.98	16.6	47.9	17.2	3.57	15.6											
140	31.6	9.50	3.32	10.7	33.3	11.5	3.90	10.7											
145	20.4	6.74	3.63	6.96	21.9	7.62	4.29	7.67											
150	12.7	5.25	3.94	5.23	13.5	5.82	4.58	5.97											
155	8.05	4.86	4.26	4.78	7.90	5.27	4.83	5.34											
160	5.77	4.86	4.56	4.78	5.96	5.18	5.04	5.21											
165	5.28	4.99	4.83	4.94	5.53	5.17	5.21	5.26											
170	5.34	5.18	5.09	5.14	5.41	5.25	5.34	5.36											
175	5.48	5.32	5.29	5.33	5.50	5.32	5.40	5.39											
180	5.52	5.37	5.43	5.42	5.55	5.38	5.43	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: