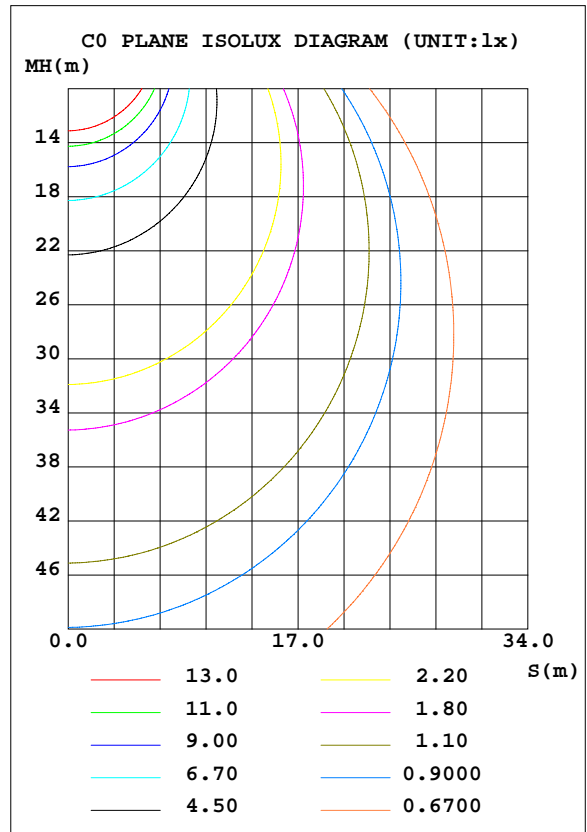
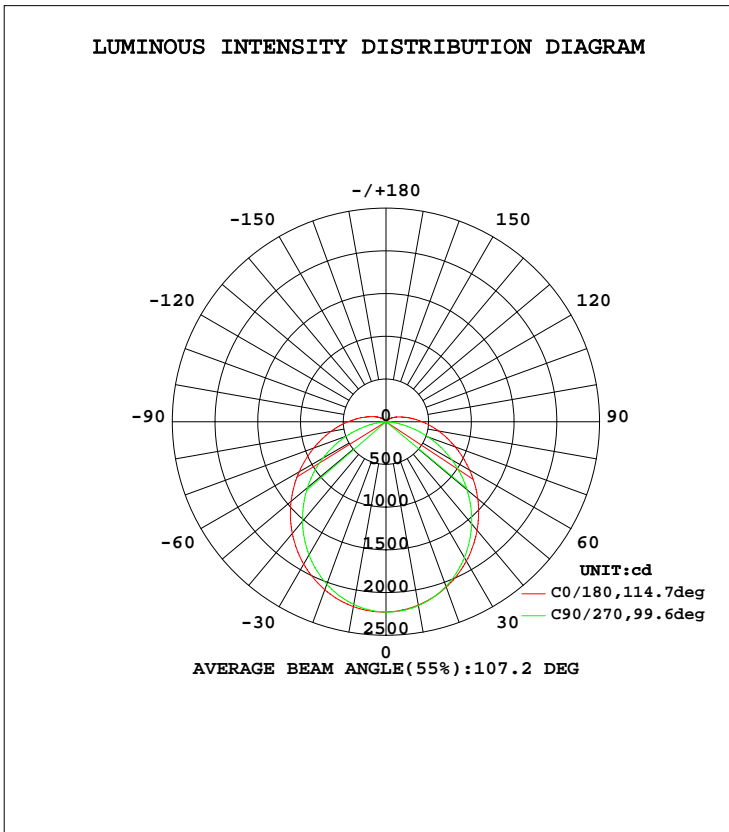


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.7V I:0.4860A P:58.19W PF:0.9919 Lamp Flux:7253.23x1 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: 124.66 lm/W			
MODEL	ASD-LVP2SM-4A56AC	I _{max} (cd)	2228	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)	7253.2	η UP, DN(C0-180)	3.0, 47.0
NOMINAL FLUX(lm)	7253.23	CIE CLASS	DIRECT	η UP, DN(C180-360)	3.1, 46.8
LAMPS INSIDE	1	η up(%)	6.2	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	120.7	η down(%)	93.8	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	lum, lamp
10	2180	2189	2186	2185	2197	2178	2172	2182	0- 10	210.5	210.5	2.9,2.9
20	2060	2067	2051	2059	2093	2045	2024	2054	10- 20	600.8	811.4	11.2,11.2
30	1883	1873	1836	1861	1925	1842	1801	1857	20- 30	906.0	1717	23.7,23.7
40	1659	1625	1559	1608	1706	1587	1520	1609	30- 40	1089	2806	38.7,38.7
50	1402	1343	1239	1321	1451	1300	1200	1329	40- 50	1134	3940	54.3,54.3
60	1130	1043	889.7	1018	1174	997.8	853.0	1033	50- 60	1048	4988	68.8,68.8
70	863.2	745.0	527.5	718.1	899.8	700.6	494.8	738.9	60- 70	855.0	5843	80.6,80.6
80	624.8	477.7	188.9	457.1	653.4	444.8	166.3	479.5	70- 80	601.9	6445	88.9,88.9
90	425.3	277.4	1.278	265.5	444.3	256.7	0.6261	282.1	80- 90	361.5	6807	93.8,93.8
100	272.4	149.7	0.7589	145.7	286.9	140.1	1.102	148.2	90-100	207.2	7014	96.7,96.7
110	167.9	83.64	1.259	82.39	179.5	79.82	1.769	85.59	100-110	118.4	7132	98.3,98.3
120	102.2	41.86	1.860	43.48	110.7	42.90	2.495	43.45	110-120	65.60	7198	99.2,99.2
130	55.78	17.32	2.485	19.57	61.43	20.17	3.113	19.53	120-130	32.41	7230	99.7,99.7
140	25.35	6.911	3.078	7.707	28.57	8.542	3.713	8.403	130-140	13.73	7244	99.9,99.9
150	8.631	4.050	3.662	4.297	10.40	4.876	4.263	4.926	140-150	5.138	7249	99.9,99.9
160	4.457	4.326	4.229	4.415	5.094	4.616	4.688	4.648	150-160	2.265	7251	100,100
170	4.862	4.791	4.713	4.891	5.144	4.890	4.972	4.974	160-170	1.332	7253	100,100
180	5.244	5.082	5.039	5.166	5.268	5.032	5.072	5.141	170-180	0.4781	7253	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

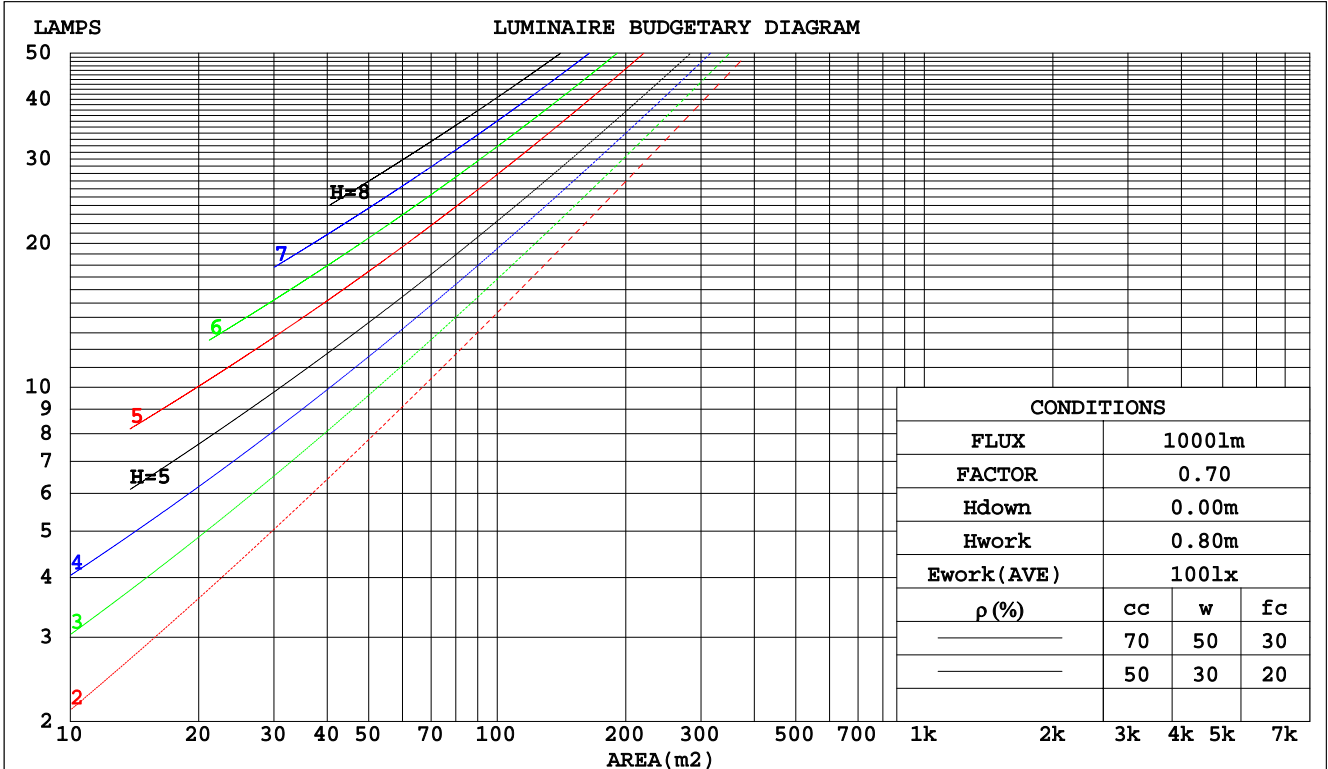
C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2021-11-17

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:0.4860A P:58.19W PF:0.9919 Lamp Flux:7253.23x1 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
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	.78	.72	.80	.74	.69	.75	.71	.67	.72	.68	.64	.62
3.0	.76	.67	.60	.74	.66	.59	.70	.63	.57	.66	.61	.56	.63	.58	.54	.51
4.0	.67	.58	.51	.65	.57	.50	.62	.55	.49	.59	.52	.47	.56	.51	.46	.44
5.0	.60	.50	.44	.58	.50	.43	.55	.48	.42	.53	.46	.41	.50	.45	.40	.38
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	.42	.36	.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	.26	.35	.29	.25	.23
10.0	.37	.29	.24	.37	.29	.24	.35	.28	.24	.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:120.7V I:0.4860A P:58.19W PF:0.9919 Lamp Flux:7253.23x1 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	.349	.198	.063	.340	.194	.062	.323	.185	.059	.307	.177	.057	.293	.170	.055	
2.0	.313	.172	.053	.305	.168	.052	.290	.161	.050	.276	.155	.048	.263	.149	.047	
3.0	.283	.151	.045	.276	.148	.044	.262	.142	.043	.250	.137	.042	.238	.132	.041	
4.0	.258	.134	.039	.251	.132	.039	.239	.127	.038	.228	.122	.037	.218	.118	.036	
5.0	.236	.120	.035	.231	.118	.034	.220	.114	.034	.210	.111	.033	.200	.107	.032	
6.0	.218	.109	.031	.213	.107	.031	.203	.104	.030	.194	.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	.176	.088	.025	.168	.085	.025	.161	.083	.024	
9.0	.176	.085	.024	.172	.084	.023	.164	.081	.023	.158	.079	.023	.151	.077	.022	
10.0	.165	.079	.022	.161	.078	.022	.155	.076	.021	.148	.074	.021	.142	.072	.021	

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	.237	.237	.237	.203	.203	.203	.138	.138	.138	.080	.080	.080	.025	.025	.025	
1.0	.230	.203	.179	.197	.174	.154	.135	.120	.106	.078	.069	.062	.025	.022	.020	
2.0	.223	.179	.143	.191	.154	.124	.131	.107	.086	.075	.062	.051	.024	.020	.016	
3.0	.215	.162	.120	.184	.140	.104	.126	.097	.073	.073	.057	.043	.023	.018	.014	
4.0	.207	.149	.105	.178	.129	.091	.122	.090	.064	.071	.053	.038	.023	.017	.013	
5.0	.199	.139	.095	.171	.120	.082	.118	.084	.058	.068	.049	.034	.022	.016	.011	
6.0	.192	.131	.087	.165	.113	.076	.114	.079	.054	.066	.047	.032	.021	.015	.011	
7.0	.185	.124	.081	.159	.108	.071	.110	.075	.050	.064	.044	.030	.021	.015	.010	
8.0	.178	.118	.077	.154	.103	.067	.106	.072	.048	.062	.043	.028	.020	.014	.009	
9.0	.172	.113	.074	.148	.098	.064	.103	.069	.046	.060	.041	.027	.019	.013	.009	
10.0	.166	.109	.071	.143	.095	.062	.100	.067	.044	.058	.039	.026	.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:0.4860A P:58.19W PF:0.9919 Lamp Flux:7253.23x1 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	15.1	16.6	15.5	16.9	17.2	14.3	15.8	14.7	16.1	16.4
3H	17.2	18.6	17.6	18.9	19.3	15.7	17.1	16.1	17.5	17.8
4H	18.3	19.6	18.7	20.0	20.4	16.3	17.6	16.7	18.0	18.3
6H	19.5	20.7	19.9	21.1	21.5	16.6	17.9	17.1	18.3	18.7
8H	20.1	21.3	20.5	21.7	22.1	16.7	17.9	17.2	18.3	18.7
12H	20.8	22.0	21.3	22.4	22.8	16.7	17.9	17.2	18.3	18.7
4H 2H	15.7	17.0	16.1	17.4	17.8	15.1	16.4	15.5	16.8	17.2
3H	18.0	19.2	18.5	19.6	20.0	16.8	17.9	17.2	18.3	18.8
4H	19.3	20.3	19.7	20.7	21.2	17.5	18.6	18.0	19.0	19.5
6H	20.6	21.6	21.1	22.0	22.5	18.0	19.0	18.5	19.4	19.9
8H	21.4	22.3	21.9	22.7	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	20.1
8H 4H	19.6	20.5	20.1	20.9	21.5	18.1	19.0	18.6	19.5	20.0
6H	21.2	21.9	21.7	22.5	23.0	18.9	19.7	19.5	20.2	20.7
8H	22.1	22.8	22.7	23.3	23.9	19.3	19.9	19.8	20.4	21.0
12H	23.2	23.8	23.8	24.4	25.0	19.5	20.1	20.1	20.6	21.2
12H 4H	19.6	20.4	20.1	20.9	21.5	18.3	19.1	18.8	19.6	20.1
6H	21.3	22.0	21.9	22.5	23.1	19.2	19.9	19.8	20.4	21.0
8H	22.3	22.9	22.9	23.5	24.1	19.7	20.3	20.3	20.8	21.4
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 7253 lm Total Lamp Luminous Flux.(8log(F/F0) = 6.9)

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:0.4860A P:58.19W PF:0.9919 Lamp Flux:7253.23x1 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:

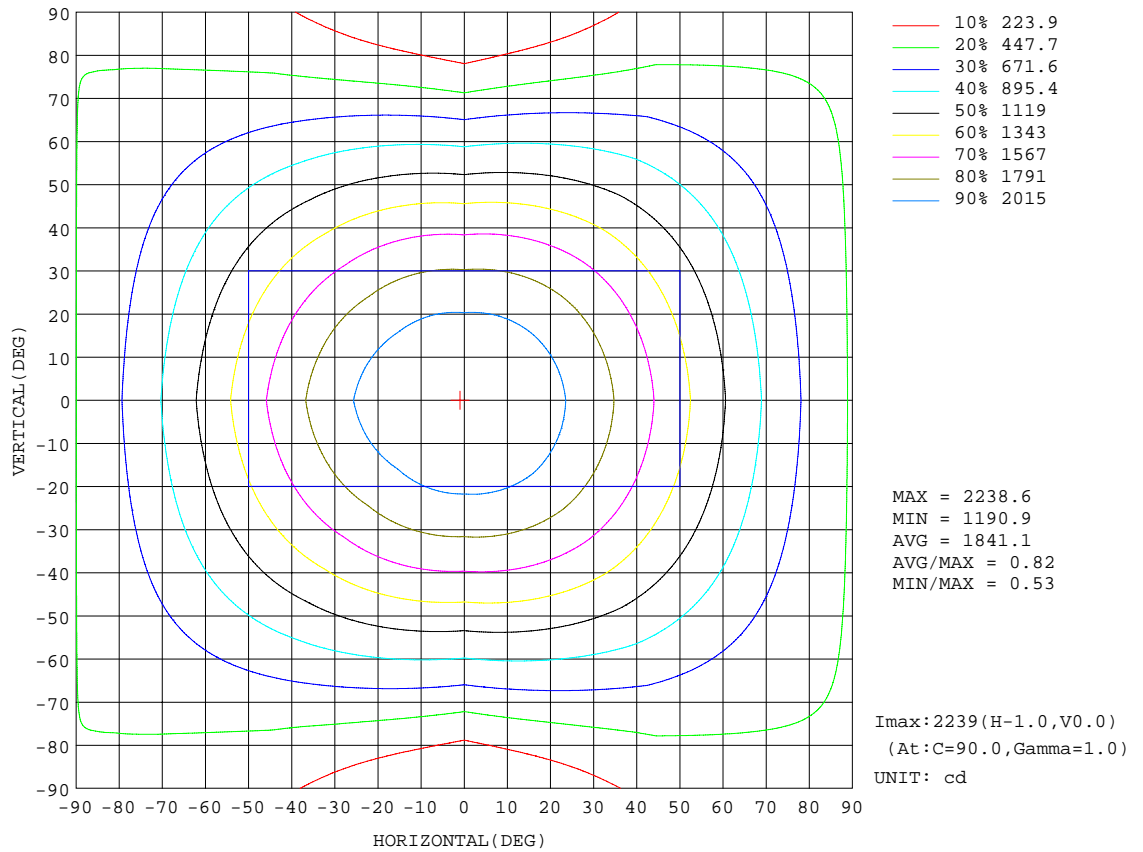
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	54	42	35	53	42	35	52	41	34	28
0.80	64	51	44	62	51	43	60	50	43	36
1.00	72	60	52	70	59	52	67	60	51	43
1.25	79	67	59	77	66	59	74	64	58	50
1.50	83	73	65	82	71	64	78	69	63	54
2.00	90	81	73	88	79	72	84	77	71	62
2.50	95	86	79	92	84	78	87	81	75	66
3.00	98	90	84	95	88	82	91	85	80	69
4.00	102	96	90	99	93	88	94	89	85	74
5.00	105	99	94	102	97	92	97	92	89	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:0.4860A P:58.19W PF:0.9919 Lamp Flux:7253.23x1 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:

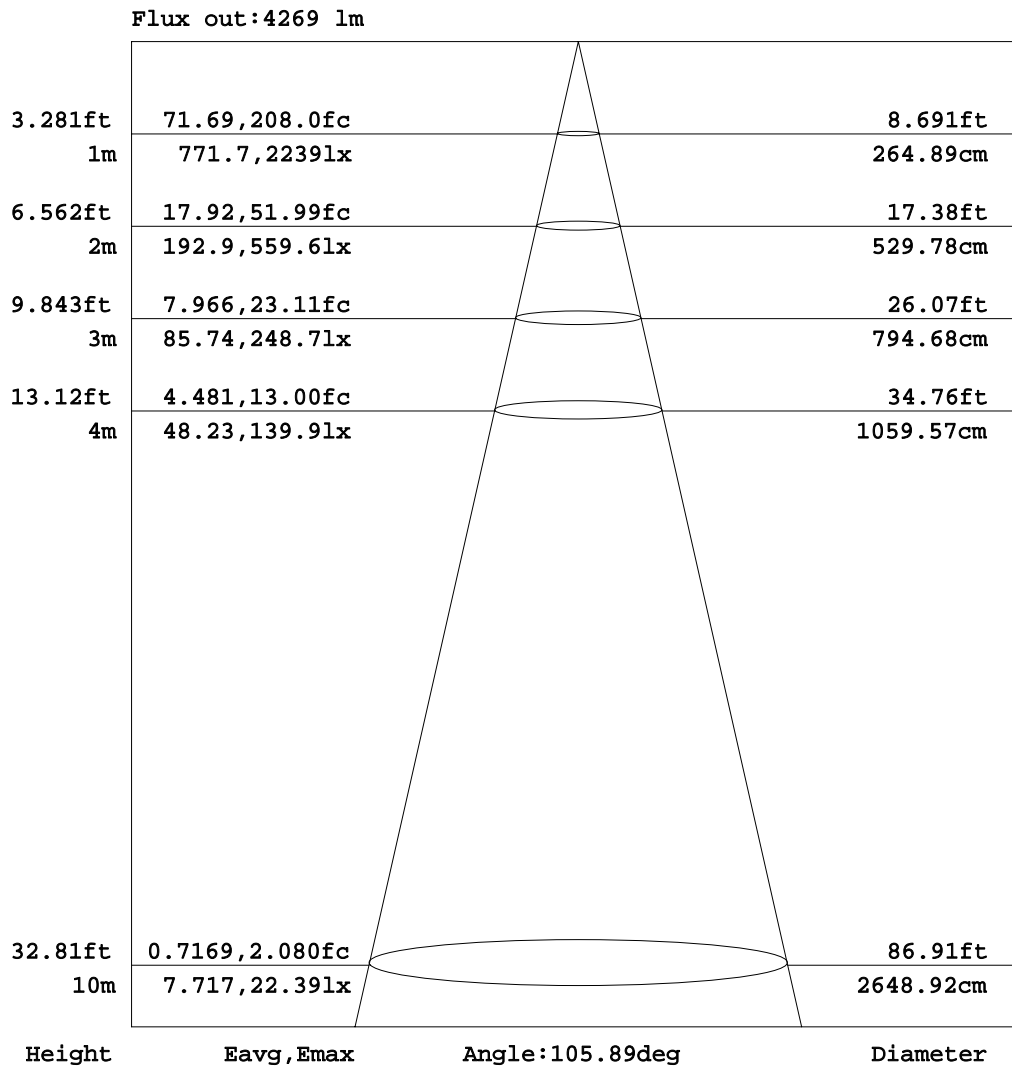


C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2021-11-17

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:0.4860A P:58.19W PF:0.9919 Lamp Flux:7253.23x1 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:



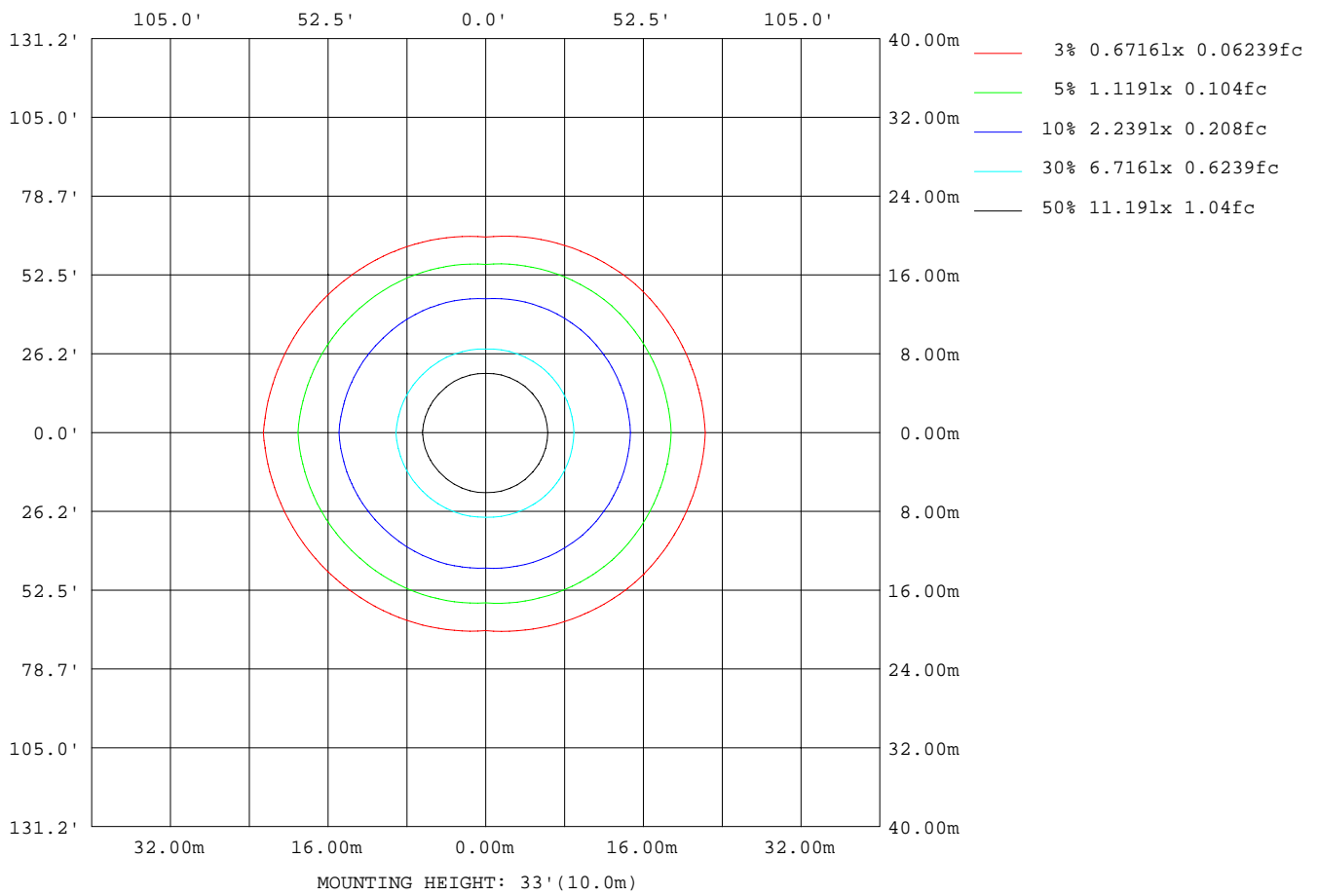
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

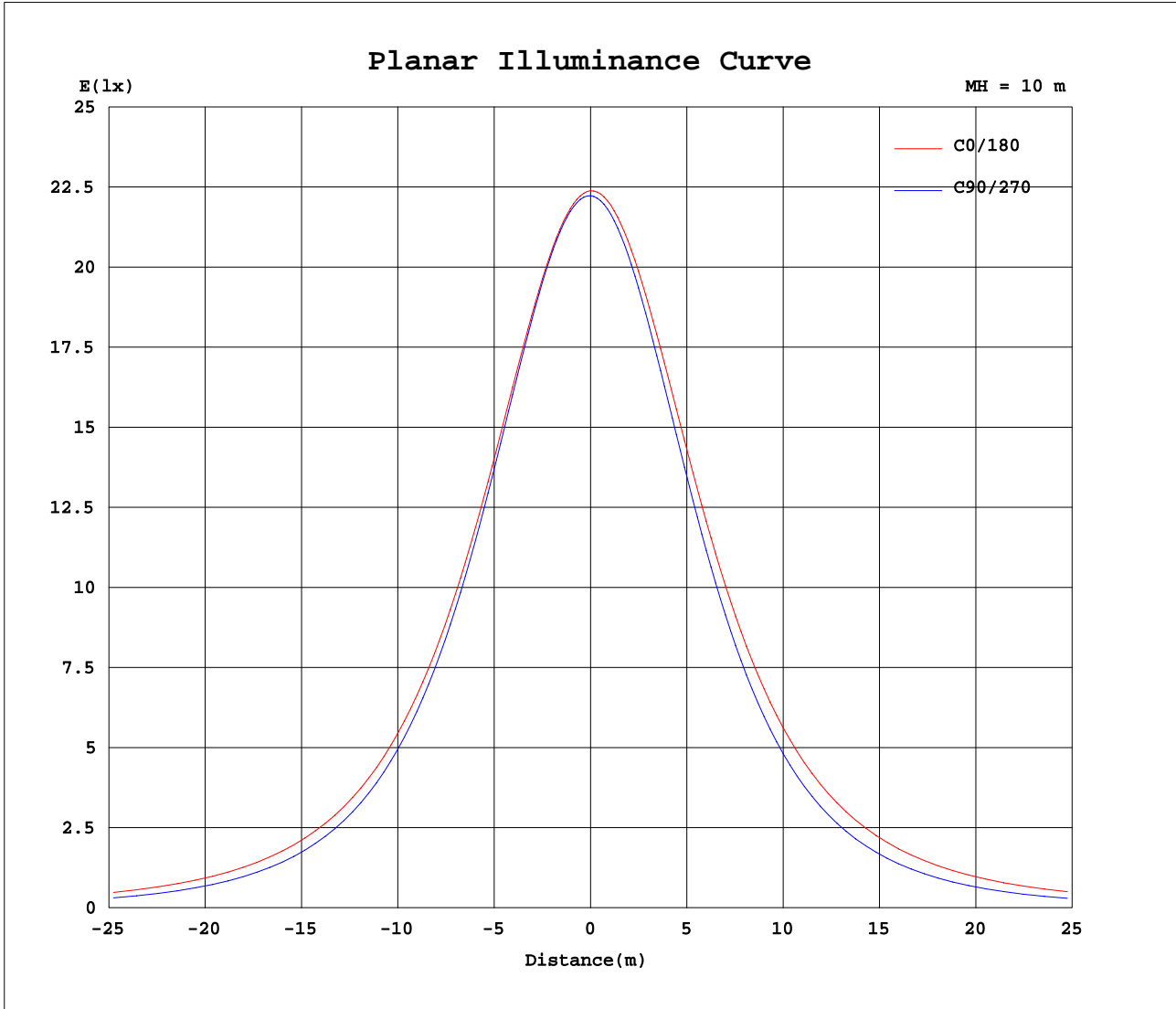
Test:U:120.7V I:0.4860A P:58.19W PF:0.9919 Lamp Flux:7253.23x1 lm		
NAME: ASD Lighting Corp	TYPE:LED	WEIGHT:
DIM.: 1220*90*80mm	SPEC.:ASD-LVP2SM-4A56AC	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	PROTECTION ANGLE:



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:0.4860A P:58.19W PF:0.9919 Lamp Flux:7253.23x1 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	2227	2227	2227	2227	2227	2227	2227	2227											
5	2213	2219	2218	2217	2222	2214	2211	2215											
10	2180	2189	2186	2185	2197	2178	2172	2182											
15	2128	2137	2129	2132	2154	2122	2108	2128											
20	2060	2067	2051	2059	2093	2045	2024	2054											
25	1978	1978	1952	1967	2016	1951	1921	1963											
30	1883	1873	1836	1861	1925	1842	1801	1857											
35	1776	1755	1704	1740	1821	1720	1667	1738											
40	1659	1625	1559	1608	1706	1587	1520	1609											
45	1533	1487	1404	1468	1582	1446	1364	1472											
50	1402	1343	1239	1321	1451	1300	1200	1329											
55	1267	1194	1067	1170	1314	1150	1030	1182											
60	1130	1043	890	1018	1174	998	853	1033											
65	994	892	709	865	1035	847	674	884											
70	863	745	528	718	900	701	495	739											
75	740	606	351	582	772	565	321	603											
80	625	478	189	457	653	445	166	479											
85	520	369	62.8	353	545	342	49.2	372											
90	425	277	1.28	266	444	257	0.63	282											
95	343	204	0.63	197	359	189	0.83	206											
100	272	150	0.76	146	287	140	1.10	148											
105	213	111	0.98	109	227	105	1.43	113											
110	168	83.6	1.26	82.4	179	79.8	1.77	85.6											
115	132	60.7	1.54	60.9	142	59.5	2.14	62.7											
120	102	41.9	1.86	43.5	111	42.9	2.50	43.4											
125	76.7	27.8	2.18	29.9	84.1	30.1	2.80	29.1											
130	55.8	17.3	2.49	19.6	61.4	20.2	3.11	19.5											
135	38.7	10.9	2.76	12.2	43.0	13.0	3.42	12.9											
140	25.3	6.91	3.08	7.71	28.6	8.54	3.71	8.40											
145	15.1	4.86	3.37	5.27	17.4	6.00	4.00	6.05											
150	8.63	4.05	3.66	4.30	10.4	4.88	4.26	4.93											
155	5.41	4.11	3.95	4.18	6.57	4.54	4.51	4.66											
160	4.46	4.33	4.23	4.41	5.09	4.62	4.69	4.65											
165	4.58	4.56	4.47	4.66	4.97	4.77	4.84	4.83											
170	4.86	4.79	4.71	4.89	5.14	4.89	4.97	4.97											
175	5.12	4.97	4.89	5.08	5.26	4.97	5.06	5.11											
180	5.24	5.08	5.04	5.17	5.27	5.03	5.07	5.14											

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: