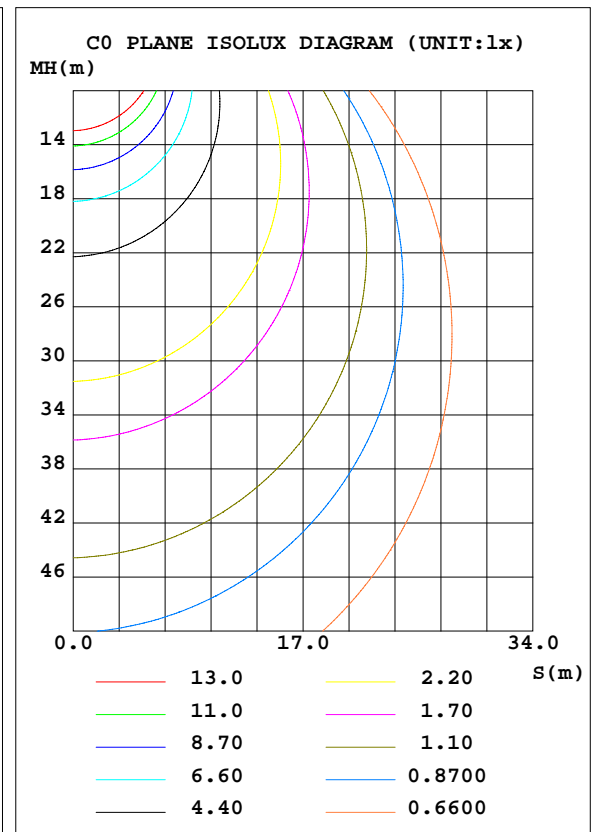
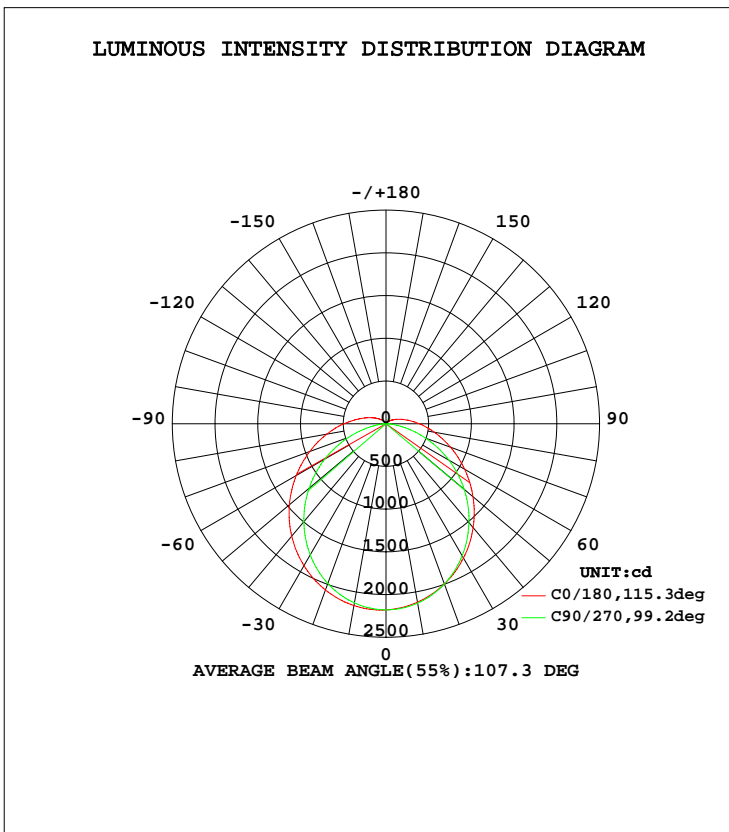


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.6V I:0.5046A P:60.26W PF:0.9902 Lamp Flux:7140.79x1 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: 118.50 lm/W			
MODEL	ASD-LVP2SM-4A56AC-10EM	I _{max} (cd)	2181	S/MH(C0/180)	1.24
NOMINAL POWER(W)	56	LOR(%)	100.0	S/MH(C90/270)	1.22
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	7140.8	η UP, DN(C0-180)	3.0, 46.1
NOMINAL FLUX(lm)	7140.79	CIE CLASS	DIRECT	η UP, DN(C180-360)	3.5, 47.4
LAMPS INSIDE	1	η up(%)	6.6	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	120.6	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	Flum, lamp
10	2121	2136	2133	2134	2161	2136	2129	2138	0- 10	205.9	205.9	2.88,2.88
20	1996	2011	1997	2010	2071	2013	1990	2016	10- 20	587.9	793.9	11.1,11.1
30	1815	1819	1784	1819	1920	1822	1773	1824	20- 30	887.1	1681	23.5,23.5
40	1587	1573	1511	1577	1717	1578	1496	1580	30- 40	1067	2748	38.5,38.5
50	1329	1293	1195	1301	1476	1300	1175	1300	40- 50	1112	3860	54,54
60	1062	995.3	849.7	1007	1213	1004	825.2	1004	50- 60	1026	4885	68.4,68.4
70	803.7	705.0	494.9	719.4	950.1	715.4	464.9	714.2	60- 70	836.2	5722	80.1,80.1
80	574.7	449.1	176.1	465.7	704.9	463.4	153.0	461.0	70- 80	590.9	6312	88.4,88.4
90	391.4	263.5	3.003	274.7	492.5	272.7	0.7916	274.0	80- 90	360.4	6673	93.4,93.4
100	252.7	147.5	1.508	157.3	326.5	155.3	1.134	155.9	90-100	212.3	6885	96.4,96.4
110	157.6	82.18	1.383	89.35	210.4	89.10	1.659	88.22	100-110	124.7	7010	98.2,98.2
120	94.41	41.27	1.874	49.77	129.9	50.51	2.334	43.39	110-120	69.17	7079	99.1,99.1
130	51.14	18.19	2.491	25.93	75.70	26.92	2.968	19.86	120-130	35.04	7114	99.6,99.6
140	23.54	8.159	3.116	11.83	38.68	12.78	3.583	9.123	130-140	15.84	7130	99.8,99.8
150	9.344	4.715	3.749	5.754	17.19	6.265	4.167	5.282	140-150	6.371	7136	99.9,99.9
160	5.080	4.683	4.299	4.963	6.723	5.090	4.608	4.933	150-160	2.702	7139	100,100
170	5.020	4.899	4.741	5.003	5.195	4.997	4.908	5.011	160-170	1.406	7140	100,100
180	5.154	5.024	4.992	5.136	5.213	4.999	5.025	5.128	170-180	0.4794	7141	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

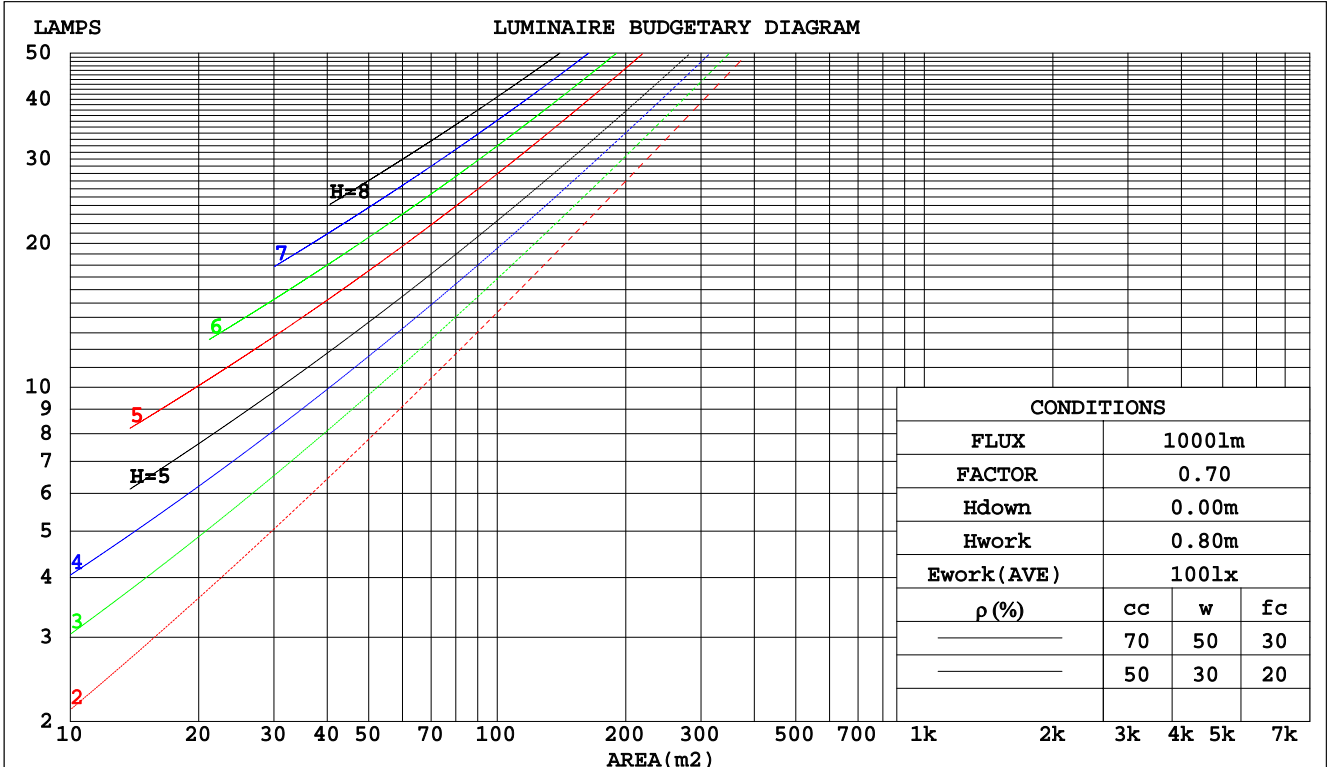
C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2021-11-17

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:0.5046A P:60.26W PF:0.9902 Lamp Flux:7140.79x1 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
	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	1.02	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	.79	.74	.69	.75	.71	.66	.71	.67	.64	.61
3.0	.76	.67	.60	.74	.66	.59	.70	.63	.57	.66	.60	.55	.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	.43	.58	.49	.43	.55	.48	.42	.52	.46	.41	.50	.44	.40	.37
6.0	.54	.44	.38	.52	.44	.37	.50	.42	.37	.47	.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:0.5046A P:60.26W PF:0.9902 Lamp Flux:7140.79x1 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	.350	.199	.063	.340	.194	.062	.323	.185	.059	.307	.177	.057	.293	.170	.055	
2.0	.313	.172	.053	.305	.168	.052	.290	.161	.050	.275	.155	.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	.132	.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	.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	.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	.081	.081	.081	.026	.026	.026	
1.0	.233	.206	.182	.200	.177	.156	.137	.122	.108	.079	.070	.063	.025	.023	.020	
2.0	.226	.182	.146	.193	.157	.126	.133	.109	.088	.076	.063	.052	.025	.020	.017	
3.0	.218	.165	.123	.187	.143	.107	.128	.099	.075	.074	.058	.044	.024	.019	.014	
4.0	.210	.152	.108	.180	.132	.094	.124	.092	.066	.072	.054	.039	.023	.017	.013	
5.0	.203	.142	.098	.174	.123	.085	.120	.086	.060	.069	.050	.036	.022	.016	.012	
6.0	.195	.134	.090	.168	.116	.078	.116	.081	.055	.067	.048	.033	.022	.016	.011	
7.0	.188	.127	.084	.162	.110	.074	.112	.077	.052	.065	.046	.031	.021	.015	.010	
8.0	.182	.121	.080	.156	.105	.070	.108	.074	.050	.063	.044	.030	.020	.014	.010	
9.0	.175	.117	.077	.151	.101	.067	.105	.071	.048	.061	.042	.028	.020	.014	.009	
10.0	.170	.112	.074	.146	.098	.065	.101	.069	.046	.059	.041	.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:0.5046A P:60.26W PF:0.9902 Lamp Flux:7140.79x1 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	14.8	16.3	15.2	16.6	16.9	14.1	15.5	14.4	15.9	16.2
3H	16.8	18.2	17.2	18.5	18.9	15.5	16.8	15.9	17.2	17.6
4H	17.9	19.2	18.3	19.6	20.0	16.0	17.3	16.4	17.7	18.0
6H	19.0	20.2	19.5	20.6	21.1	16.3	17.5	16.7	17.9	18.3
8H	19.6	20.8	20.1	21.2	21.7	16.4	17.6	16.8	18.0	18.4
12H	20.4	21.5	20.8	21.9	22.4	16.4	17.6	16.9	18.0	18.4
4H 2H	15.4	16.7	15.8	17.1	17.5	14.8	16.1	15.3	16.5	16.9
3H	17.6	18.8	18.1	19.2	19.6	16.5	17.6	16.9	18.0	18.5
4H	18.9	19.9	19.3	20.3	20.8	17.2	18.2	17.7	18.7	19.1
6H	20.2	21.1	20.7	21.6	22.1	17.7	18.6	18.2	19.1	19.6
8H	20.9	21.8	21.4	22.3	22.8	17.8	18.7	18.4	19.2	19.7
12H	21.8	22.6	22.3	23.1	23.6	17.9	18.7	18.5	19.2	19.8
8H 4H	19.2	20.1	19.7	20.5	21.1	17.8	18.7	18.3	19.1	19.7
6H	20.8	21.5	21.3	22.0	22.6	18.6	19.3	19.1	19.8	20.4
8H	21.7	22.3	22.2	22.9	23.5	18.9	19.5	19.5	20.1	20.7
12H	22.7	23.3	23.3	23.9	24.5	19.1	19.7	19.7	20.3	20.9
12H 4H	19.2	20.0	19.7	20.5	21.1	17.9	18.7	18.4	19.2	19.8
6H	20.9	21.5	21.4	22.1	22.7	18.9	19.5	19.4	20.1	20.7
8H	21.9	22.4	22.5	23.0	23.6	19.3	19.9	19.9	20.4	21.1
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 7141 lm Total Lamp Luminous Flux.(8log(F/F0) = 6.8)

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:0.5046A P:60.26W PF:0.9902 Lamp Flux:7140.79x1 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:

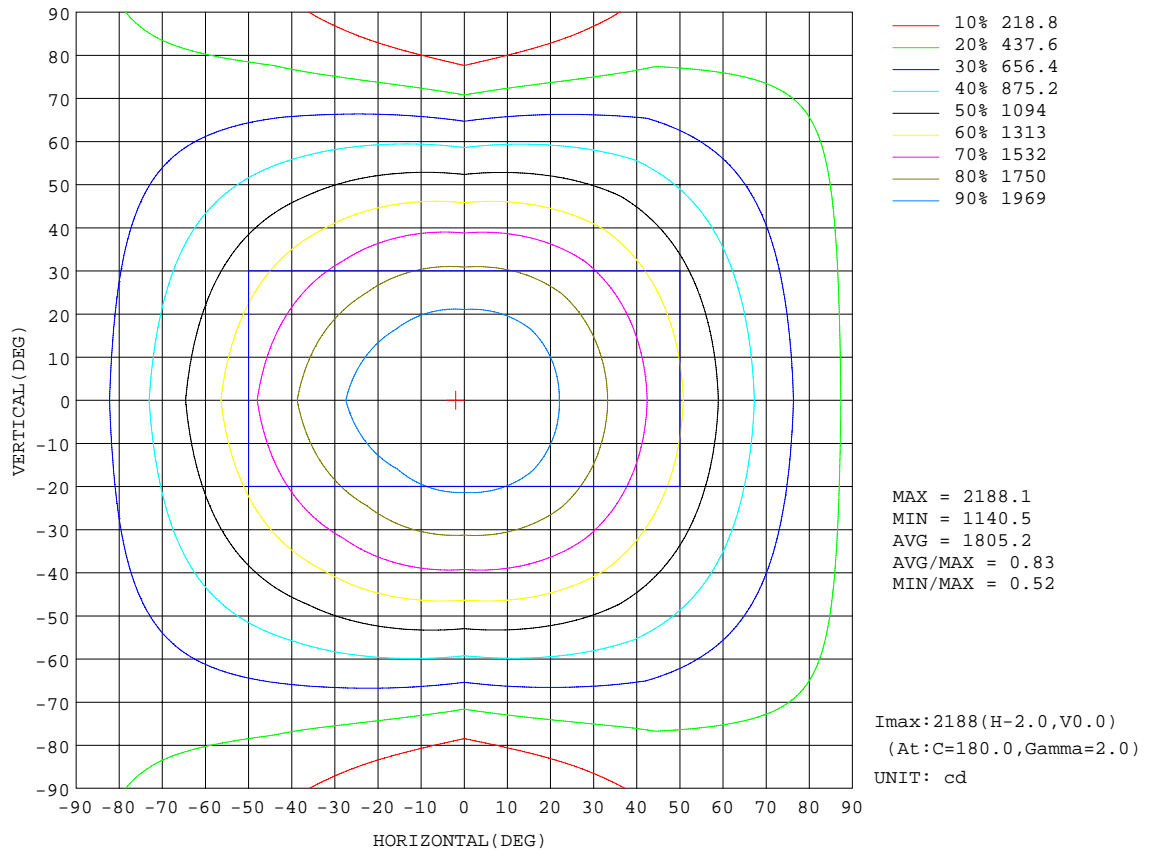
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	54	42	35	53	42	35	52	41	34	28
0.80	63	51	43	62	51	43	60	50	43	36
1.00	71	59	52	70	59	51	67	60	51	43
1.25	78	67	59	77	66	59	73	64	58	49
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	85	79	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	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:0.5046A P:60.26W PF:0.9902 Lamp Flux:7140.79x1 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:

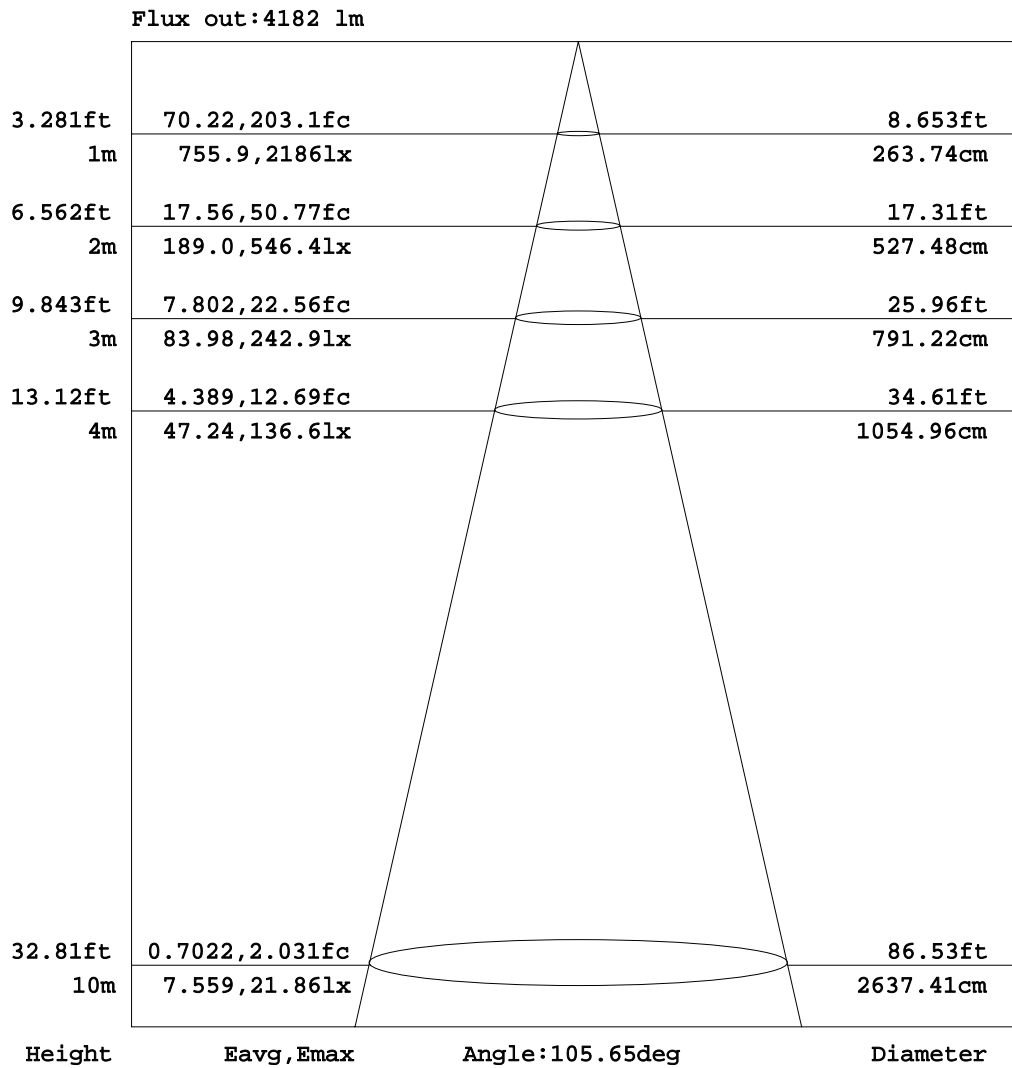


C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2021-11-17

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:0.5046A P:60.26W PF:0.9902 Lamp Flux:7140.79x1 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:



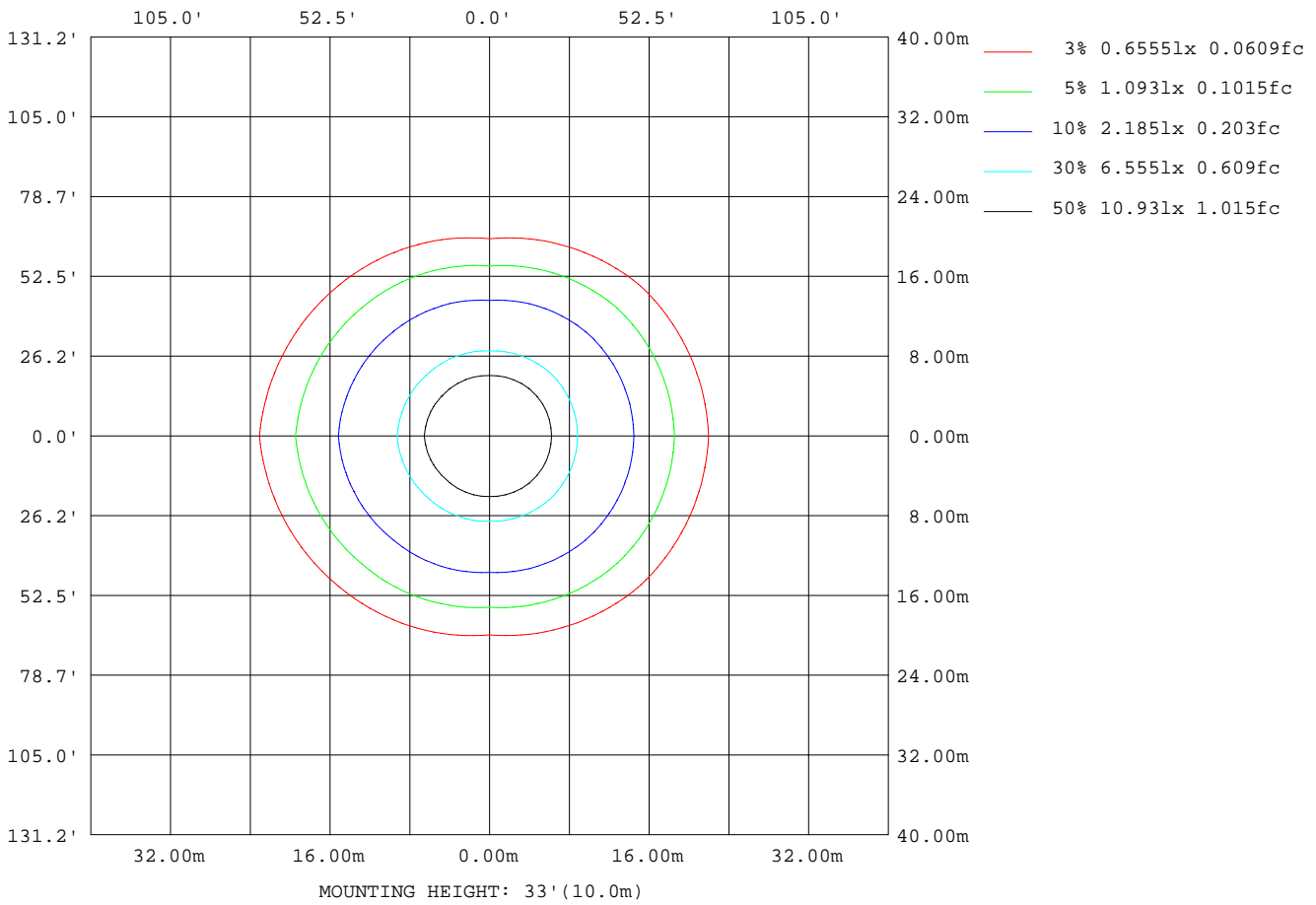
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

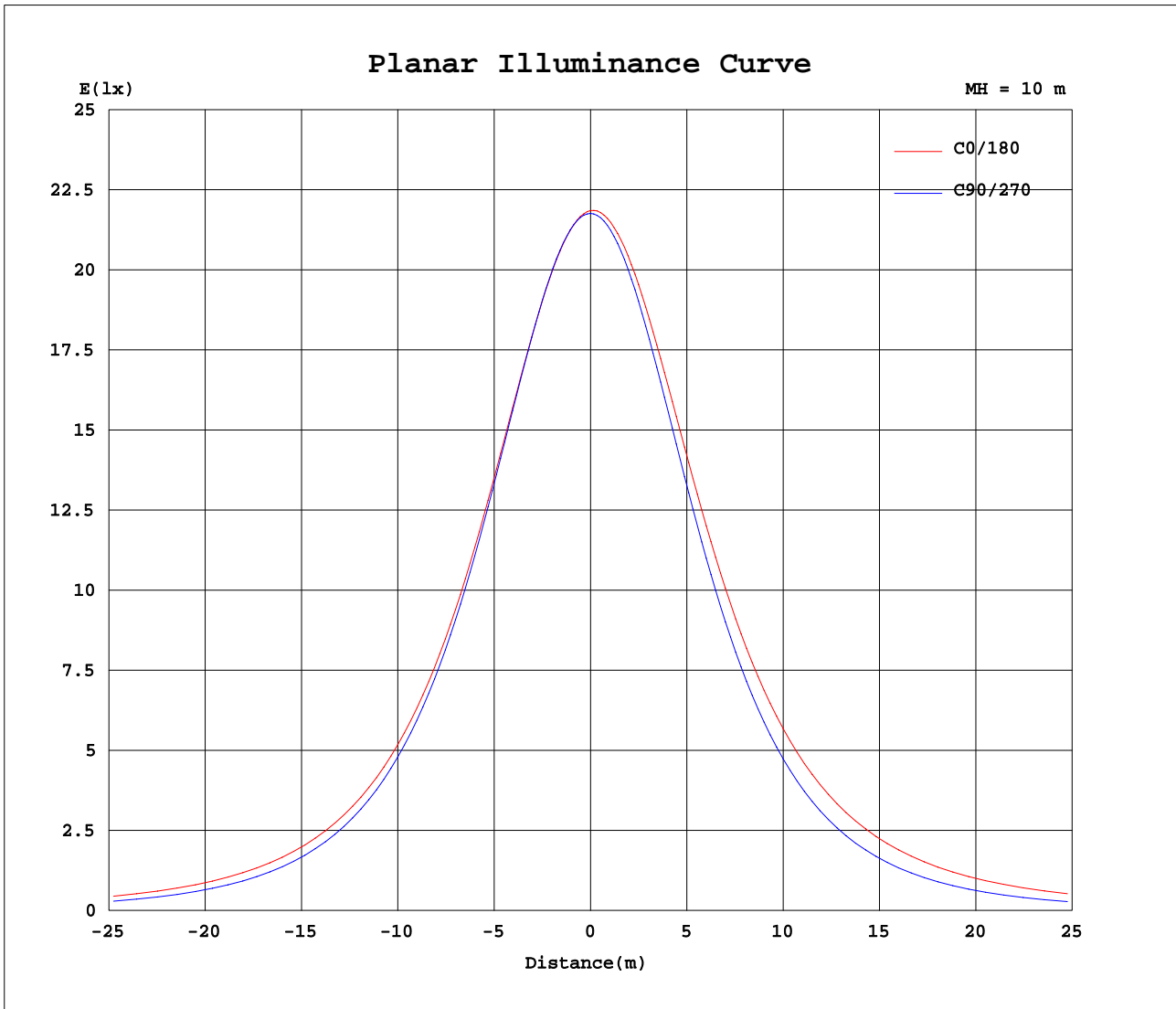
Test:U:120.6V I:0.5046A P:60.26W PF:0.9902 Lamp Flux:7140.79x1 lm		
NAME: ASD Lighting Corp	TYPE:LED	WEIGHT:
DIM.: 1220*90*80mm	SPEC.:ASD-LVP2SM-4A56AC-10	EM SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	PROTECTION ANGLE:



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:0.5046A P:60.26W PF:0.9902 Lamp Flux:7140.79x1 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:

Table--1

UNIT: cd

C(DEG)\γ (DEG)	0	45	90	135	180	225	270	315											
0	2178	2178	2178	2178	2178	2178	2178	2178											
5	2158	2168	2167	2167	2179	2168	2165	2169											
10	2121	2136	2133	2134	2161	2136	2129	2138											
15	2066	2083	2075	2082	2124	2084	2071	2087											
20	1996	2011	1997	2010	2071	2013	1990	2016											
25	1912	1923	1899	1922	2002	1925	1891	1928											
30	1815	1819	1784	1819	1920	1822	1773	1824											
35	1706	1701	1654	1704	1824	1705	1641	1708											
40	1587	1573	1511	1577	1717	1578	1496	1580											
45	1461	1437	1357	1442	1601	1442	1340	1443											
50	1329	1293	1195	1301	1476	1300	1175	1300											
55	1196	1145	1025	1155	1346	1153	1003	1153											
60	1062	995	850	1007	1213	1004	825	1004											
65	930	847	672	860	1080	857	645	856											
70	804	705	495	719	950	715	465	714											
75	685	572	326	588	824	583	298	581											
80	575	449	176	466	705	463	153	461											
85	477	347	63.5	361	594	359	47.9	358											
90	391	264	3.00	275	493	273	0.79	274											
95	317	198	1.67	208	402	205	0.93	207											
100	253	147	1.51	157	326	155	1.13	156											
105	201	110	1.32	119	263	118	1.40	117											
110	158	82.2	1.38	89.4	210	89.1	1.66	88.2											
115	123	59.8	1.59	67.0	166	67.3	1.99	61.5											
120	94.4	41.3	1.87	49.8	130	50.5	2.33	43.4											
125	70.6	27.8	2.17	36.4	100	37.2	2.68	29.4											
130	51.1	18.2	2.49	25.9	75.7	26.9	2.97	19.9											
135	35.5	12.0	2.78	17.9	55.6	18.9	3.28	13.2											
140	23.5	8.16	3.12	11.8	38.7	12.8	3.58	9.12											
145	15.0	5.84	3.47	7.84	26.7	8.60	3.94	6.69											
150	9.34	4.72	3.75	5.75	17.2	6.27	4.17	5.28											
155	6.21	4.68	4.03	5.01	10.5	5.31	4.41	4.93											
160	5.08	4.68	4.30	4.96	6.72	5.09	4.61	4.93											
165	4.98	4.78	4.55	4.94	5.45	5.02	4.76	4.97											
170	5.02	4.90	4.74	5.00	5.20	5.00	4.91	5.01											
175	5.10	5.02	4.92	5.11	5.17	4.99	5.01	5.09											
180	5.15	5.02	4.99	5.14	5.21	5.00	5.02	5.13											

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: