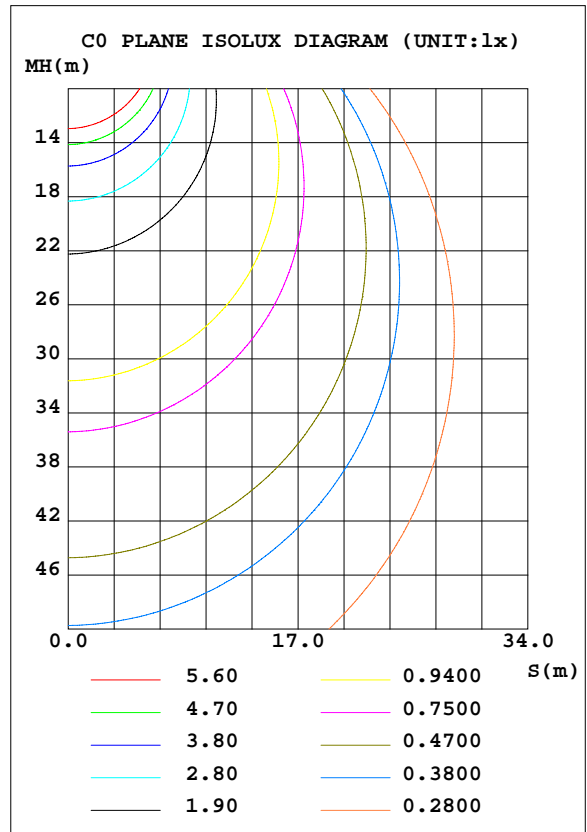
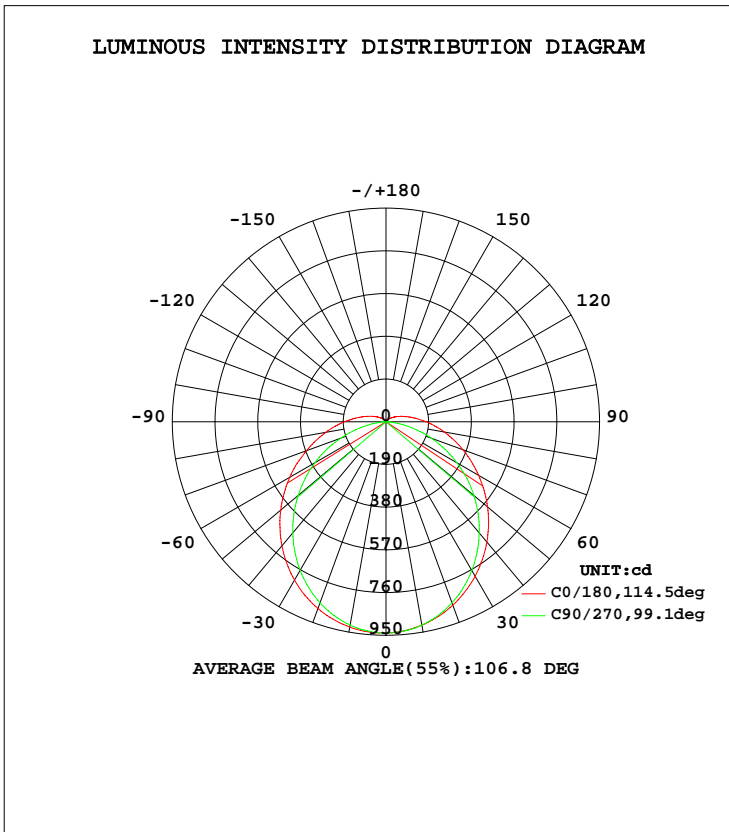


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.6V I:0.2294A P:27.49W PF:0.9941 Lamp Flux:3019.13x1 lm		
NAME: ASD-LVP2SM-2A28AC		
SPEC: 5000K		
MFR.: ASD Lighting Corp		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 109.83 lm/W			
MODEL	ASD-LVP2SM-2A28AC	I _{max} (cd)	939.6	S/MH(C0/180)	1.26
NOMINAL POWER(W)	28	LOR(%)	100.0	S/MH(C90/270)	1.22
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	3019.1	η UP, DN(C0-180)	3.0, 46.5
NOMINAL FLUX(lm)	3019.13	CIE CLASS	DIRECT	η UP, DN(C180-360)	3.1, 47.3
LAMPS INSIDE	1	η up(%)	6.1	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	120.6	η down(%)	93.9	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2024-09-21

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	C90	C180	C270				γ	Φ zone	Φ total	Φ lum,lamp
10	918.6	918.6	927.6	918.3				0- 10	88.79	88.79	2.94,2.94
20	868.1	857.5	884.2	857.4				10- 20	253.3	342.1	11.3,11.3
30	793.2	764.0	813.7	763.3				20- 30	381.7	723.8	24,24
40	698.0	645.4	720.2	644.7				30- 40	458.3	1182	39.2,39.2
50	589.9	511.0	611.2	510.3				40- 50	476.7	1659	54.9,54.9
60	475.3	363.7	494.3	365.1				50- 60	439.0	2098	69.5,69.5
70	363.9	215.7	376.0	213.5				60- 70	355.0	2453	81.2,81.2
80	263.6	77.09	271.9	75.02				70- 80	243.5	2696	89.3,89.3
90	178.4	0.3345	184.7	0.5365				80- 90	137.2	2834	93.9,93.9
100	114.8	0.3924	117.9	0.3352				90-100	80.57	2914	96.5,96.5
110	71.13	0.6205	72.24	0.5919				100-110	49.24	2963	98.2,98.2
120	42.89	0.8989	43.44	0.8983				110-120	28.50	2992	99.1,99.1
130	23.45	1.191	23.88	1.212				120-130	15.27	3007	99.6,99.6
140	10.97	1.491	11.27	1.505				130-140	7.125	3014	99.8,99.8
150	4.322	1.783	4.460	1.811				140-150	2.861	3017	99.9,99.9
160	2.230	2.061	2.281	2.047				150-160	1.151	3018	100,100
170	2.257	2.282	2.336	2.218				160-170	0.6231	3019	100,100
180	2.415	2.346	2.415	2.303				170-180	0.2211	3019	100,100
DEG	LUMINOUS INTENSITY:cd								UNIT:lm		

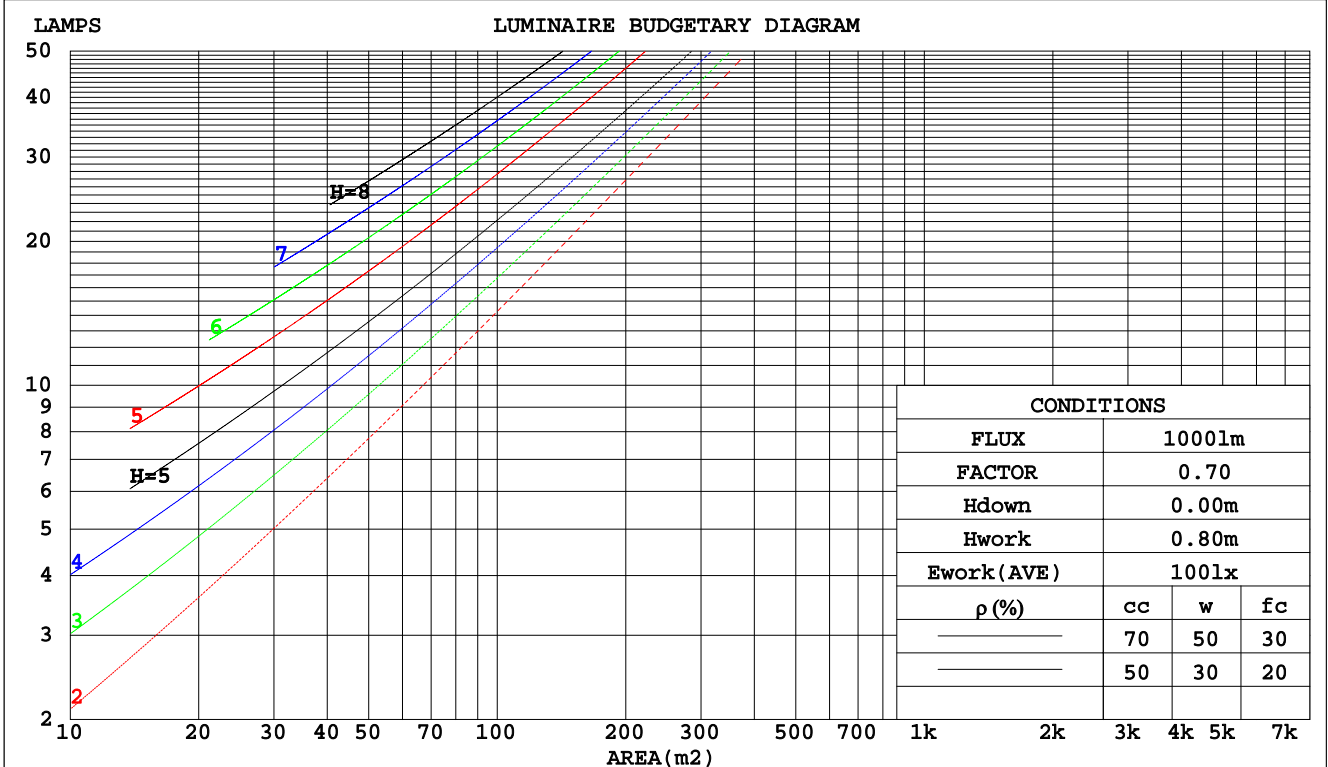
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2024-09-21

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:0.2294A P:27.49W PF:0.9941 Lamp Flux:3019.13x1 lm		
NAME: ASD-LVP2SM-2A28AC-5000K	TYPE:ASD-LVP2SM-2A28AC	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	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	1.18	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	1.01	.96	.92	.98	.93	.90	.92	.89	.86	.87	.84	.82	.83	.80	.78	.76
2.0	.87	.80	.74	.85	.78	.72	.80	.74	.70	.76	.71	.67	.72	.68	.65	.62
3.0	.76	.68	.61	.74	.66	.60	.70	.63	.58	.67	.61	.56	.63	.59	.54	.52
4.0	.67	.58	.51	.66	.57	.51	.62	.55	.49	.59	.53	.48	.56	.51	.47	.44
5.0	.60	.51	.44	.59	.50	.43	.56	.48	.42	.53	.46	.41	.51	.45	.40	.38
6.0	.54	.45	.38	.53	.44	.38	.50	.43	.37	.48	.41	.36	.46	.40	.35	.33
7.0	.49	.40	.34	.48	.39	.33	.46	.38	.33	.44	.37	.32	.42	.36	.31	.29
8.0	.45	.36	.30	.44	.35	.30	.42	.34	.29	.40	.33	.29	.38	.32	.28	.26
9.0	.41	.33	.27	.40	.32	.27	.38	.31	.26	.37	.30	.26	.35	.30	.25	.23
10.0	.38	.30	.24	.37	.29	.24	.35	.29	.24	.34	.28	.23	.33	.27	.23	.21



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2024-09-21

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:0.2294A P:27.49W PF:0.9941 Lamp Flux:3019.13x1 lm		
NAME: ASD-LVP2SM-2A28AC-5000K	TYPE:ASD-LVP2SM-2A28AC	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

ρ _{cc}	80%			70%			50%			30%			10%			0
ρ _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ _{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.343	.195	.062	.334	.191	.061	.317	.182	.058	.302	.174	.056	.287	.167	.054	
2.0	.310	.170	.052	.302	.166	.051	.286	.159	.049	.273	.153	.048	.260	.147	.046	
3.0	.281	.149	.045	.274	.147	.044	.260	.141	.043	.248	.136	.042	.236	.131	.040	
4.0	.256	.133	.039	.250	.131	.039	.238	.126	.038	.227	.122	.037	.216	.117	.036	
5.0	.235	.120	.035	.229	.118	.034	.219	.114	.033	.208	.110	.033	.199	.106	.032	
6.0	.217	.109	.031	.212	.107	.031	.202	.103	.030	.193	.100	.029	.184	.097	.029	
7.0	.201	.099	.028	.196	.098	.028	.188	.095	.027	.179	.092	.027	.172	.089	.026	
8.0	.187	.091	.026	.183	.090	.025	.175	.087	.025	.167	.085	.024	.160	.082	.024	
9.0	.175	.085	.024	.171	.083	.023	.164	.081	.023	.157	.079	.023	.151	.077	.022	
10.0	.164	.079	.022	.161	.078	.022	.154	.076	.021	.148	.073	.021	.142	.071	.020	

ρ _{cc}	80%			70%			50%			30%			10%			0
ρ _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ _{fc}	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	.107	.077	.069	.062	.025	.022	.020	
2.0	.222	.179	.143	.190	.154	.124	.130	.107	.086	.075	.062	.051	.024	.020	.017	
3.0	.214	.162	.121	.184	.140	.105	.126	.097	.073	.073	.057	.043	.023	.018	.014	
4.0	.207	.149	.105	.177	.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	.107	.071	.110	.075	.050	.064	.044	.030	.021	.015	.010	
8.0	.178	.118	.077	.153	.103	.067	.106	.072	.048	.062	.042	.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	.099	.067	.044	.058	.039	.026	.019	.013	.009	

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2024-09-21

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:0.2294A P:27.49W PF:0.9941 Lamp Flux:3019.13x1 lm										
NAME: ASD-LVP2SM-2A28AC-5000K					TYPE:ASD-LVP2SM-2A28AC			WEIGHT:		
DIM.:					SPEC.:			SERIAL No.:		
MFR.:					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	16.8	18.3	17.2	18.6	18.9	15.9	17.4	16.3	17.7	18.0
3H	18.9	20.2	19.3	20.6	21.0	17.3	18.7	17.7	19.0	19.4
4H	20.0	21.3	20.4	21.6	22.0	17.8	19.1	18.2	19.5	19.9
6H	21.2	22.4	21.6	22.8	23.2	18.2	19.4	18.6	19.8	20.2
8H	21.8	23.0	22.2	23.4	23.8	18.2	19.4	18.7	19.8	20.2
12H	22.5	23.7	23.0	24.1	24.5	18.3	19.4	18.7	19.8	20.2
4H 2H	17.4	18.6	17.8	19.0	19.4	16.7	18.0	17.1	18.3	18.7
3H	19.6	20.8	20.1	21.2	21.6	18.3	19.4	18.7	19.8	20.3
4H	20.9	21.9	21.3	22.3	22.8	19.0	20.0	19.5	20.5	20.9
6H	22.2	23.2	22.7	23.6	24.1	19.5	20.4	20.0	20.9	21.4
8H	23.0	23.9	23.5	24.3	24.9	19.6	20.5	20.1	21.0	21.5
12H	23.9	24.7	24.4	25.2	25.7	19.7	20.5	20.2	21.0	21.5
8H 4H	21.1	22.0	21.6	22.5	23.0	19.5	20.4	20.0	20.9	21.4
6H	22.7	23.5	23.3	24.0	24.5	20.3	21.0	20.8	21.5	22.1
8H	23.7	24.3	24.2	24.8	25.4	20.5	21.2	21.1	21.7	22.3
12H	24.7	25.3	25.3	25.9	26.5	20.7	21.3	21.3	21.8	22.4
12H 4H	21.1	21.9	21.7	22.4	23.0	19.7	20.5	20.2	21.0	21.5
6H	22.8	23.4	23.4	24.0	24.6	20.5	21.2	21.1	21.7	22.3
8H	23.8	24.4	24.4	24.9	25.5	20.9	21.5	21.5	22.0	22.6
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					+ 0.1 / - 0.4				

CIE Pub.117 Corrected 3019 lm Total Lamp Luminous Flux.(8log(F/F0) = 3.8)

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2024-09-21

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:0.2294A P:27.49W PF:0.9941 Lamp Flux:3019.13x1 lm		
NAME: ASD-LVP2SM-2A28AC-5000K	TYPE:ASD-LVP2SM-2A28AC	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

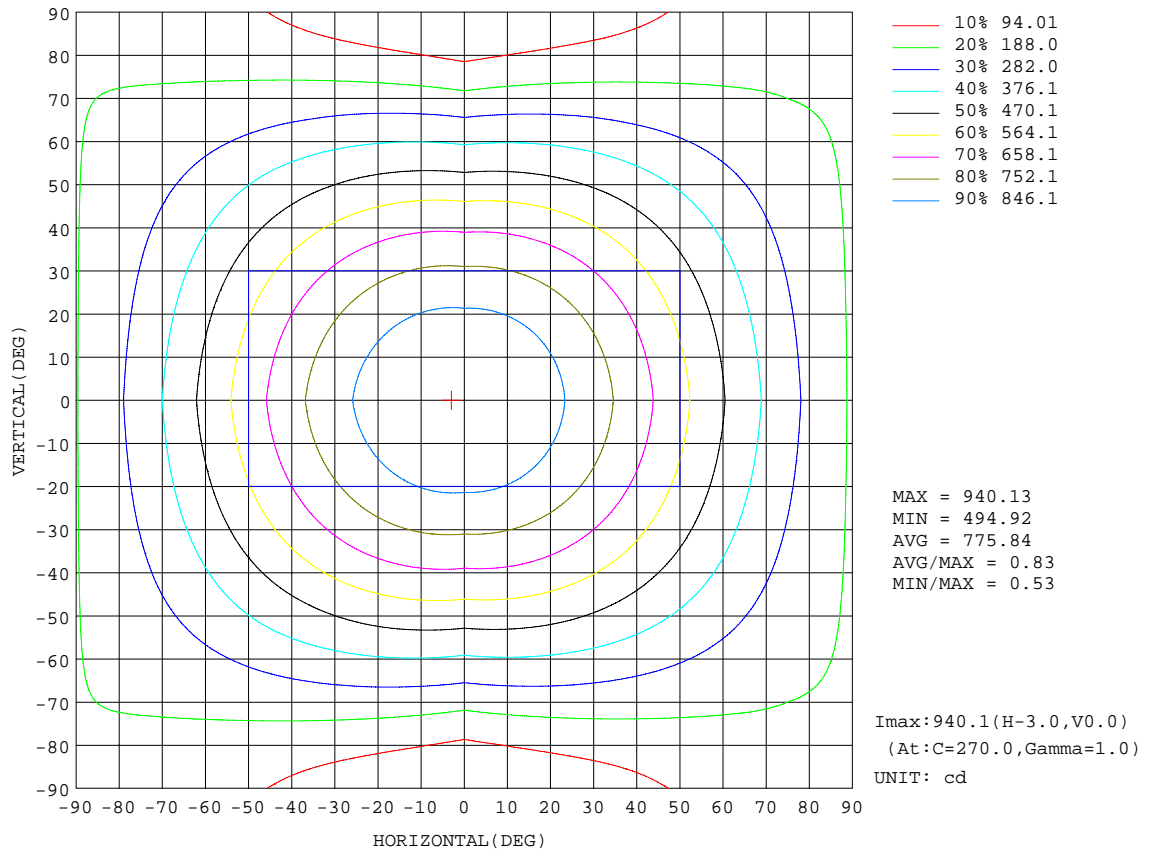
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	54	42	35	53	42	35	52	41	35	28
0.80	64	52	44	63	51	44	61	50	43	36
1.00	72	60	52	70	59	52	68	61	51	44
1.25	79	68	60	77	67	59	74	65	58	50
1.50	84	73	65	82	72	65	78	70	63	55
2.00	91	81	74	89	80	73	84	77	71	62
2.50	95	86	79	92	84	78	88	81	76	66
3.00	98	90	84	96	89	83	91	85	80	70
4.00	103	96	91	100	94	89	95	90	85	75
5.00	105	100	95	102	97	93	97	93	89	78
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2024-09-21

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:0.2294A P:27.49W PF:0.9941 Lamp Flux:3019.13x1 lm		
NAME: ASD-LVP2SM-2A28AC-5000K	TYPE:ASD-LVP2SM-2A28AC	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

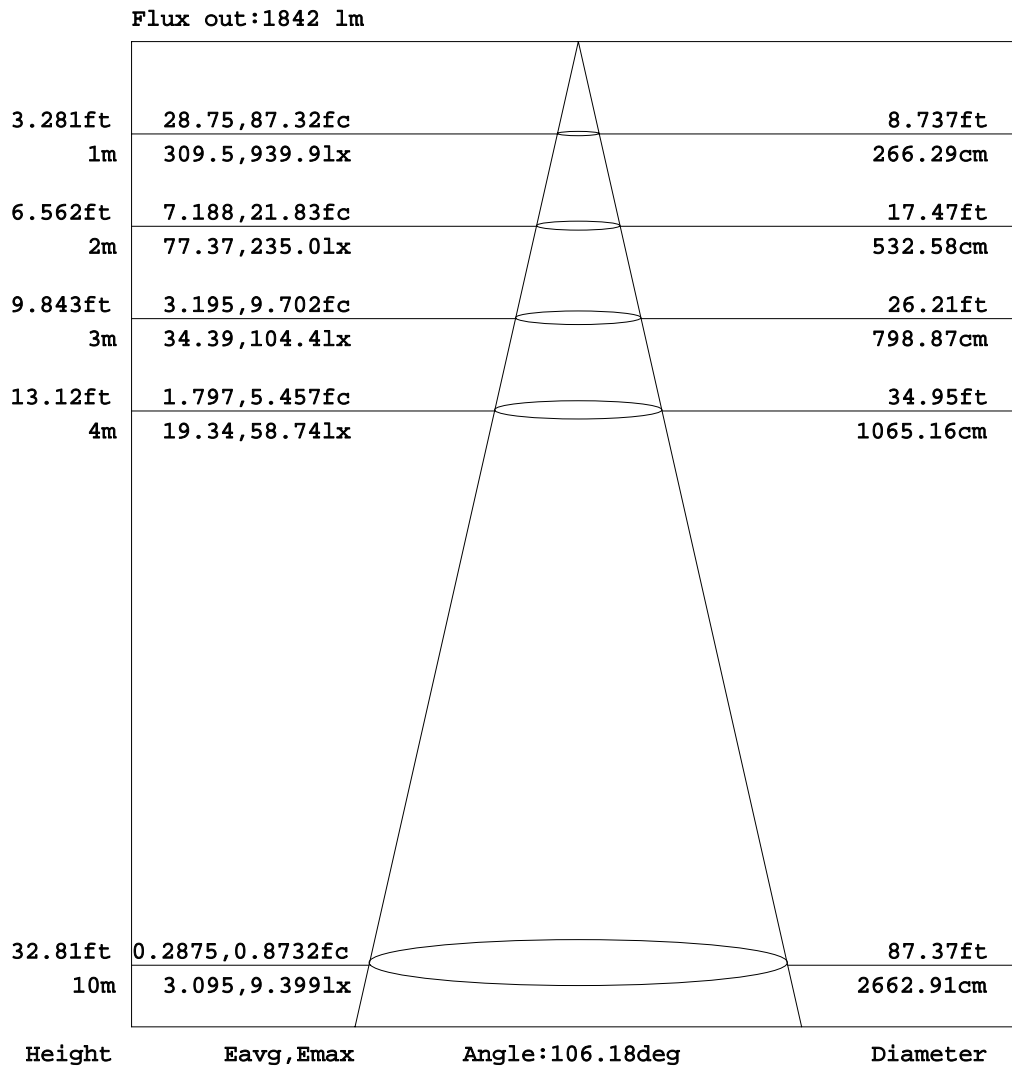


C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2024-09-21

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:0.2294A P:27.49W PF:0.9941 Lamp Flux:3019.13x1 lm		
NAME: ASD-LVP2SM-2A28AC-5000K	TYPE:ASD-LVP2SM-2A28AC	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:



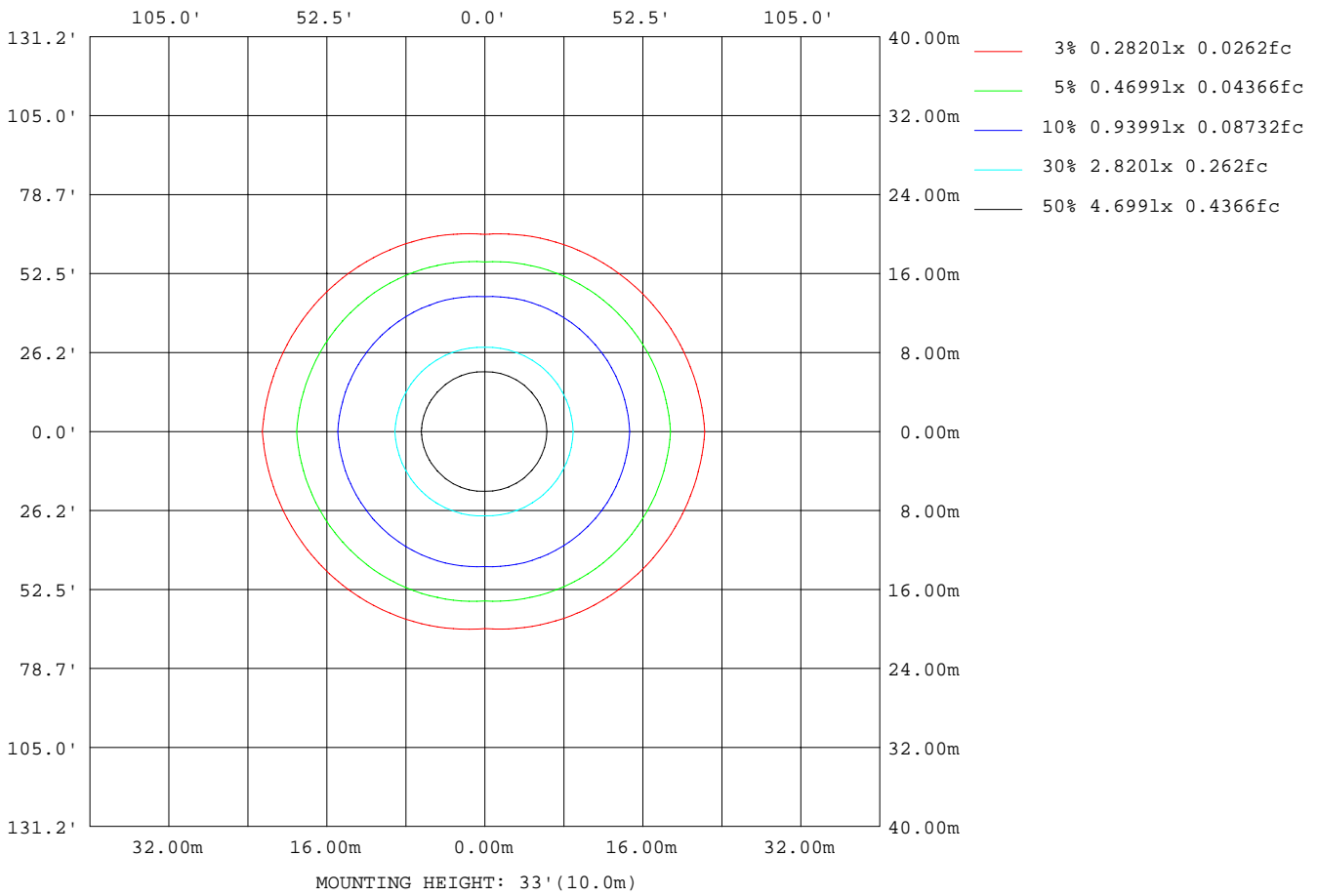
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2024-09-21

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

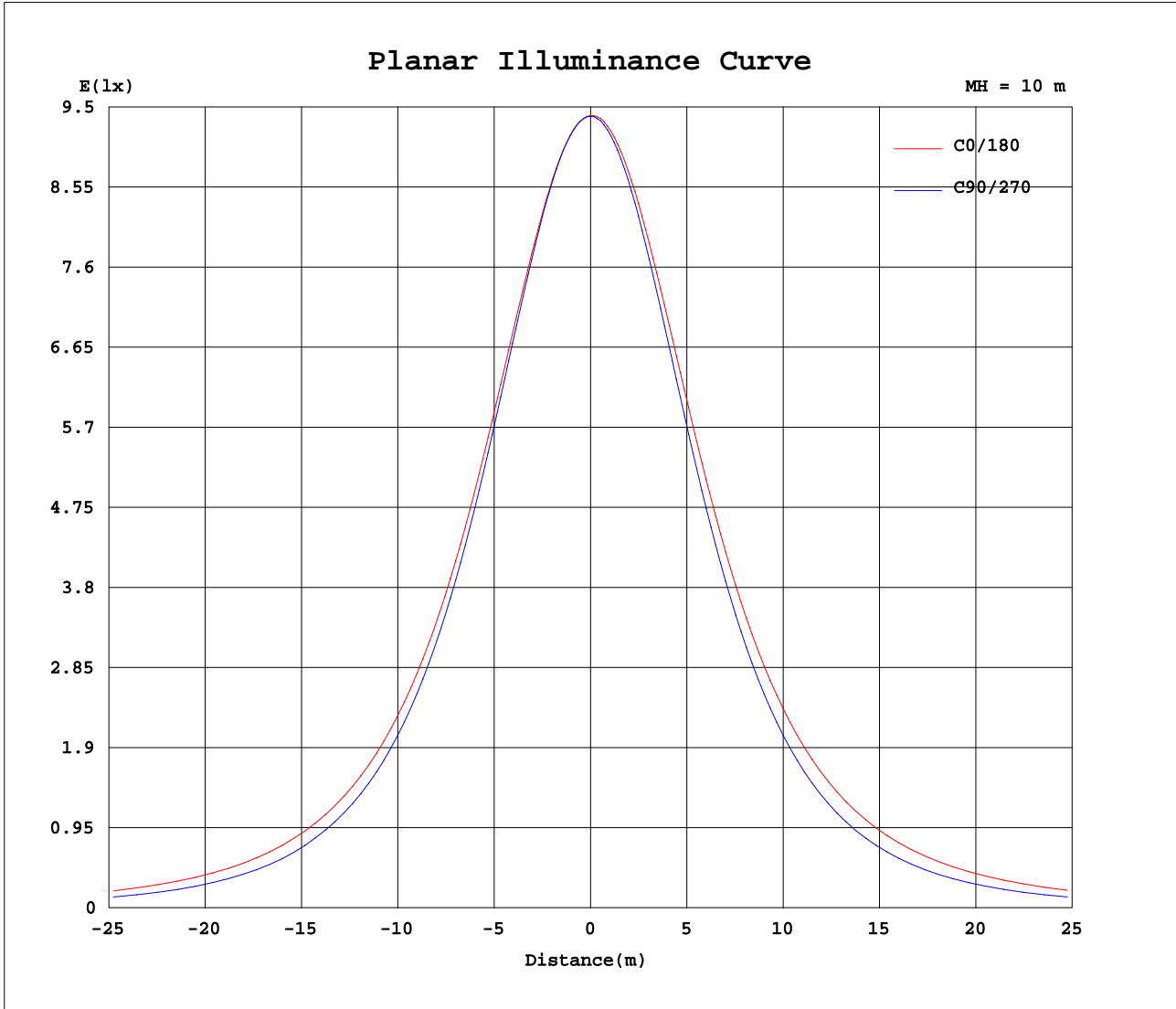
Test:U:120.6V I:0.2294A P:27.49W PF:0.9941 Lamp Flux:3019.13x1 lm		
NAME: ASD-LVP2SM-2A28AC-5000K	TYPE:ASD-LVP2SM-2A28AC	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2024-09-21

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: 90.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2024-09-21

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:0.2294A P:27.49W PF:0.9941 Lamp Flux:3019.13x1 lm		
NAME: ASD-LVP2SM-2A28AC-5000K	TYPE:ASD-LVP2SM-2A28AC	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	90	180	270															
0	939	939	939	939															
5	933	934	937	934															
10	919	919	928	918															
15	897	893	909	892															
20	868	857	884	857															
25	833	814	852	814															
30	793	764	814	763															
35	748	707	769	706															
40	698	645	720	645															
45	645	580	667	579															
50	590	511	611	510															
55	533	440	553	439															
60	475	364	494	365															
65	419	290	436	291															
70	364	216	376	214															
75	312	144	322	141															
80	264	77.1	272	75.0															
85	218	24.0	226	22.8															
90	178	0.33	185	0.54															
95	144	0.32	149	0.31															
100	115	0.39	118	0.34															
105	90.6	0.49	92.5	0.46															
110	71.1	0.62	72.2	0.59															
115	55.6	0.76	56.3	0.73															
120	42.9	0.90	43.4	0.90															
125	32.2	1.05	32.7	1.05															
130	23.4	1.19	23.9	1.21															
135	16.4	1.33	16.8	1.35															
140	11.0	1.49	11.3	1.50															
145	6.99	1.64	7.22	1.67															
150	4.32	1.78	4.46	1.81															
155	2.81	1.93	2.85	1.95															
160	2.23	2.06	2.28	2.05															
165	2.21	2.18	2.26	2.16															
170	2.26	2.28	2.34	2.22															
175	2.34	2.33	2.40	2.28															
180	2.41	2.35	2.41	2.30															

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2024-09-21

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: