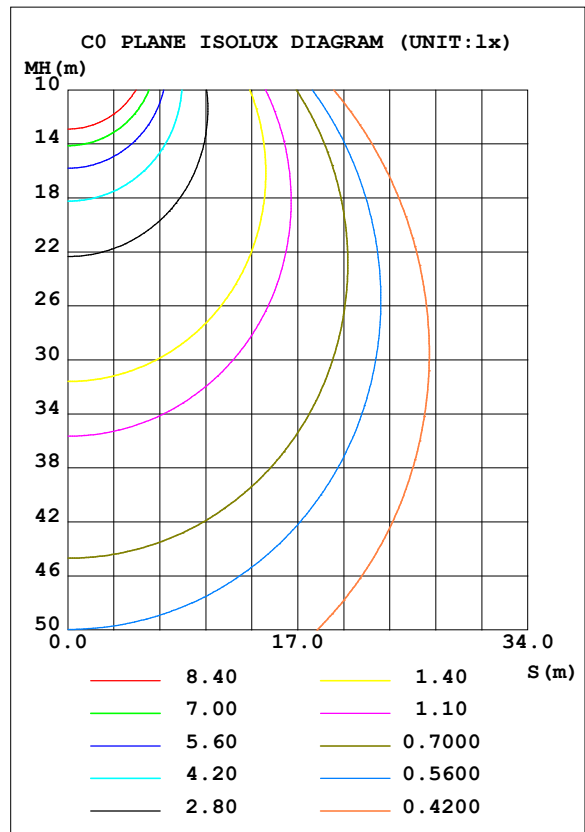
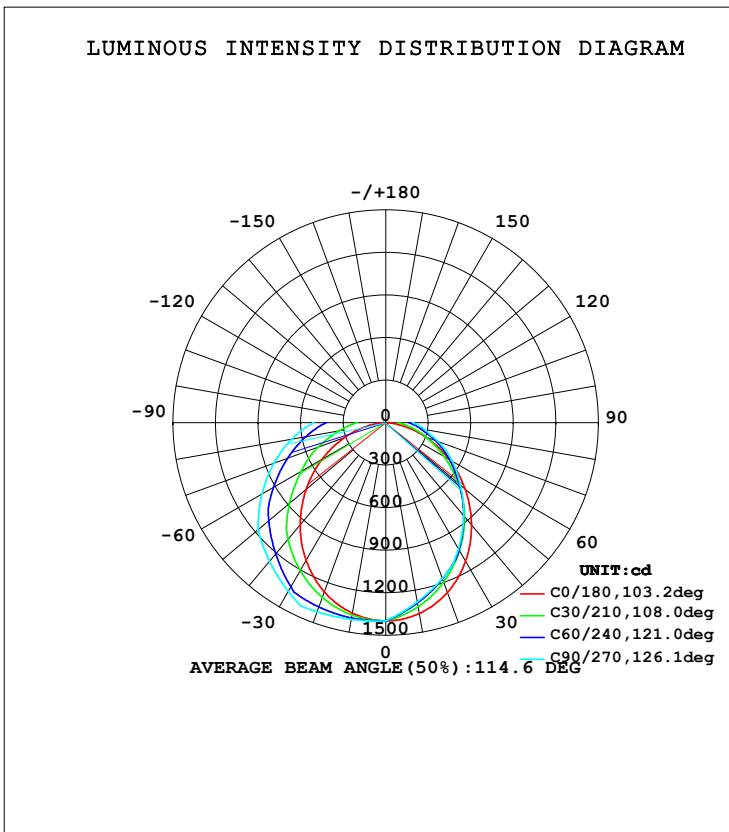


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.5V I:0.2773A P:33.40W PF:0.9941 Lamp Flux:4363.53x1 lm		
NAME: ASD-LVP-FS-4D3450	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD lighting corp	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 130.63 lm/W			
MODEL	ASD-LVP-FS-4D3450	I _{max} (cd)	1425	S/MH (C0/180)	1.20
NOMINAL POWER (W)	34	LOR (%)	100.0	S/MH (C90/270)	1.45
RATED VOLTAGE (V)	120-277	TOTAL FLUX (lm)	4363.5	η UP, DN (C0-180)	0.0, 41.2
NOMINAL FLUX (lm)	4363.53	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 58.8
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	120	η down (%)	100.0	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2019-07-01

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.290
 Humidity: 50%
 Test Distance: 8.600m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

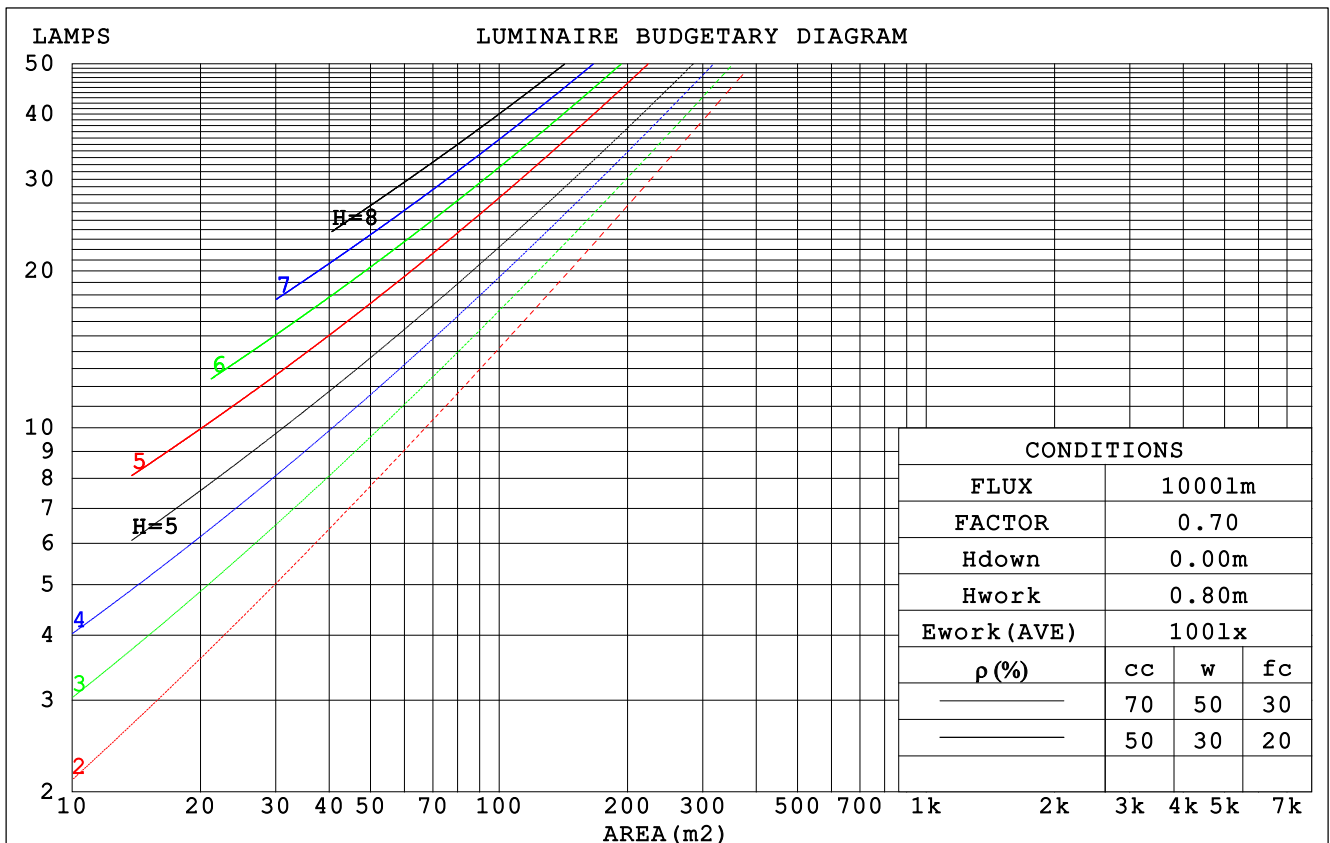
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
5	1390	1354	1341	1352	1389	1396	1403	1398	0- 5	33.10	33.10	0.76,0.76
10	1367	1302	1283	1300	1364	1388	1409	1390	5- 10	97.44	130.5	2.99,2.99
15	1327	1244	1226	1241	1324	1371	1414	1375	10- 15	157.8	288.4	6.61,6.61
20	1274	1179	1169	1177	1270	1348	1419	1352	15- 20	212.8	501.2	11.5,11.5
25	1206	1110	1112	1107	1202	1317	1425	1323	20- 25	261.2	762.4	17.5,17.5
30	1127	1037	1027	1034	1123	1282	1375	1288	25- 30	301.1	1063	24.4,24.4
35	1038	954.9	941.6	951.5	1035	1228	1325	1236	30- 35	329.4	1393	31.9,31.9
40	941.3	858.0	856.4	855.9	939.2	1145	1276	1153	35- 40	346.8	1740	39.9,39.9
45	838.9	762.7	771.3	761.0	838.2	1062	1226	1069	40- 45	354.0	2094	48,48
50	732.5	669.1	686.1	668.2	733.5	979.4	1176	985.7	45- 50	351.6	2445	56,56
55	624.6	578.4	613.3	578.3	627.2	898.9	1092	904.4	50- 55	340.3	2786	63.8,63.8
60	515.5	492.4	540.6	493.3	520.0	818.6	1008	822.9	55- 60	320.4	3106	71.2,71.2
65	407.4	417.4	467.8	418.3	413.7	720.9	924.2	725.9	60- 65	293.8	3400	77.9,77.9
70	301.2	345.5	395.1	346.9	309.0	628.8	840.3	634.8	65- 70	261.9	3662	83.9,83.9
75	199.0	277.0	322.4	278.9	207.6	542.8	756.3	549.7	70- 75	226.6	3888	89.1,89.1
80	106.2	214.7	277.9	216.7	116.3	463.0	673.2	470.8	75- 80	190.5	4079	93.5,93.5
85	36.38	171.1	233.5	173.0	45.40	390.3	590.1	397.1	80- 85	157.3	4236	97.1,97.1
90	13.27	129.1	189.0	130.9	18.27	322.0	506.9	327.6	85- 90	127.4	4364	100,100
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2019-07-01

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
 Humidity:50%
 Test Distance:8.600m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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						Coefficients of Utilization(CU)									
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	.00
1.0	1.01	.95	.91	.98	.94	.89	.94	.90	.86	.90	.87	.84	.86	.84	.81	.79
2.0	.87	.79	.72	.85	.78	.72	.81	.75	.70	.78	.73	.68	.75	.70	.67	.64
3.0	.76	.67	.59	.74	.66	.59	.71	.64	.58	.68	.62	.57	.65	.60	.56	.53
4.0	.67	.57	.50	.65	.56	.50	.63	.55	.49	.60	.54	.48	.58	.52	.48	.45
5.0	.59	.50	.43	.58	.49	.43	.56	.48	.42	.54	.47	.42	.52	.46	.41	.39
6.0	.53	.44	.37	.52	.44	.37	.51	.43	.37	.49	.42	.36	.47	.41	.36	.34
7.0	.48	.39	.33	.48	.39	.33	.46	.38	.32	.45	.37	.32	.43	.37	.32	.30
8.0	.44	.35	.29	.43	.35	.29	.42	.34	.29	.41	.34	.29	.40	.33	.29	.27
9.0	.41	.32	.26	.40	.32	.26	.39	.31	.26	.38	.31	.26	.37	.30	.26	.24
10.0	.37	.29	.24	.37	.29	.24	.36	.29	.24	.35	.28	.24	.34	.28	.23	.22



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2019-07-01

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
 Humidity:50%
 Test Distance:8.600m [K=1.0000]
 Remarks:

WEC AND CCEC

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	.372	.211	.067	.365	.208	.066	.351	.201	.064	.338	.195	.063	.327	.190	.061	
2.0	.328	.180	.055	.322	.177	.055	.309	.172	.053	.298	.167	.052	.288	.163	.051	
3.0	.294	.157	.047	.288	.154	.046	.278	.151	.046	.268	.147	.045	.259	.143	.044	
4.0	.266	.138	.041	.261	.137	.040	.252	.134	.040	.243	.131	.039	.235	.128	.039	
5.0	.243	.124	.036	.239	.123	.036	.230	.120	.035	.222	.117	.035	.215	.115	.035	
6.0	.223	.112	.032	.219	.111	.032	.212	.109	.032	.205	.107	.031	.199	.105	.031	
7.0	.206	.102	.029	.203	.101	.029	.196	.099	.029	.190	.097	.028	.184	.096	.028	
8.0	.192	.094	.026	.189	.093	.026	.183	.091	.026	.177	.090	.026	.172	.088	.026	
9.0	.179	.087	.024	.176	.086	.024	.171	.085	.024	.166	.083	.024	.161	.082	.024	
10.0	.168	.080	.022	.165	.080	.022	.161	.079	.022	.156	.077	.022	.152	.076	.022	

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	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.185	.156	.129	.158	.134	.111	.108	.092	.077	.062	.053	.045	.020	.017	.014	
2.0	.177	.132	.094	.152	.113	.081	.104	.078	.056	.060	.046	.033	.019	.015	.011	
3.0	.169	.114	.071	.145	.099	.061	.100	.069	.043	.057	.040	.025	.018	.013	.008	
4.0	.161	.101	.056	.138	.088	.048	.095	.061	.034	.055	.036	.020	.018	.012	.007	
5.0	.153	.091	.045	.132	.079	.039	.091	.055	.028	.052	.032	.016	.017	.011	.005	
6.0	.146	.083	.038	.125	.072	.033	.086	.050	.023	.050	.030	.014	.016	.010	.005	
7.0	.138	.076	.032	.119	.066	.028	.082	.046	.020	.048	.027	.012	.015	.009	.004	
8.0	.131	.070	.028	.113	.061	.024	.078	.043	.017	.046	.025	.010	.015	.008	.003	
9.0	.125	.065	.025	.108	.057	.021	.075	.040	.015	.043	.023	.009	.014	.008	.003	
10.0	.119	.061	.022	.103	.053	.019	.071	.037	.014	.042	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2019-07-01

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
Humidity:50%
Test Distance:8.600m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

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	16.1	17.7	16.4	17.9	18.1	16.6	18.2	16.8	18.4	18.6
3H	17.4	18.9	17.7	19.2	19.4	18.5	20.0	18.8	20.3	20.5
4H	17.9	19.3	18.2	19.6	19.9	19.5	20.9	19.8	21.2	21.4
6H	18.2	19.6	18.5	19.8	20.1	20.6	21.9	20.9	22.2	22.5
8H	18.3	19.6	18.6	19.9	20.2	21.2	22.5	21.6	22.8	23.1
12H	18.3	19.6	18.7	19.9	20.2	21.9	23.2	22.3	23.5	23.8
4H 2H	16.8	18.2	17.1	18.4	18.7	17.1	18.6	17.5	18.8	19.1
3H	18.3	19.6	18.7	19.9	20.2	19.3	20.6	19.7	20.9	21.2
4H	18.9	20.1	19.3	20.4	20.8	20.5	21.7	20.9	22.0	22.3
6H	19.4	20.4	19.8	20.8	21.2	21.8	22.8	22.2	23.2	23.6
8H	19.5	20.5	19.9	20.9	21.3	22.5	23.5	23.0	23.9	24.3
12H	19.6	20.5	20.0	20.9	21.3	23.4	24.3	23.8	24.7	25.1
8H 4H	19.5	20.5	19.9	20.8	21.2	20.8	21.8	21.2	22.2	22.6
6H	20.2	21.0	20.7	21.5	21.9	22.4	23.2	22.8	23.6	24.1
8H	20.5	21.2	21.0	21.7	22.1	23.3	24.1	23.8	24.5	25.0
12H	20.7	21.4	21.2	21.8	22.3	24.5	25.1	24.9	25.6	26.0
12H 4H	19.6	20.6	20.1	20.9	21.4	20.8	21.7	21.3	22.1	22.5
6H	20.5	21.3	21.0	21.7	22.1	22.5	23.3	23.0	23.7	24.1
8H	20.9	21.6	21.4	22.0	22.5	23.6	24.2	24.0	24.7	25.1
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.2				
1.5H	+ 0.1 / - 0.2					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				

CIE Pub.117 Corrected 4364 lm Total Lamp Luminous Flux. (8log(F/F0) = 5.1)

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2019-07-01

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
Humidity:50%
Test Distance:8.600m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	55	43	36	54	43	36	53	42	36	29
0.80	65	52	45	64	52	45	62	51	44	37
1.00	73	61	53	71	60	53	69	62	52	45
1.25	80	68	60	78	68	60	75	66	59	51
1.50	85	74	66	83	73	66	80	71	64	56
2.00	92	82	75	90	81	74	86	78	72	64
2.50	96	87	80	94	85	79	90	83	77	68
3.00	99	91	85	97	90	84	93	87	82	72
4.00	104	97	91	101	95	90	97	92	87	78
5.00	106	100	96	104	98	94	99	95	91	81
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2019-07-01

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.290
 Humidity: 50%
 Test Distance: 8.600m [K=1.0000]
 Remarks:

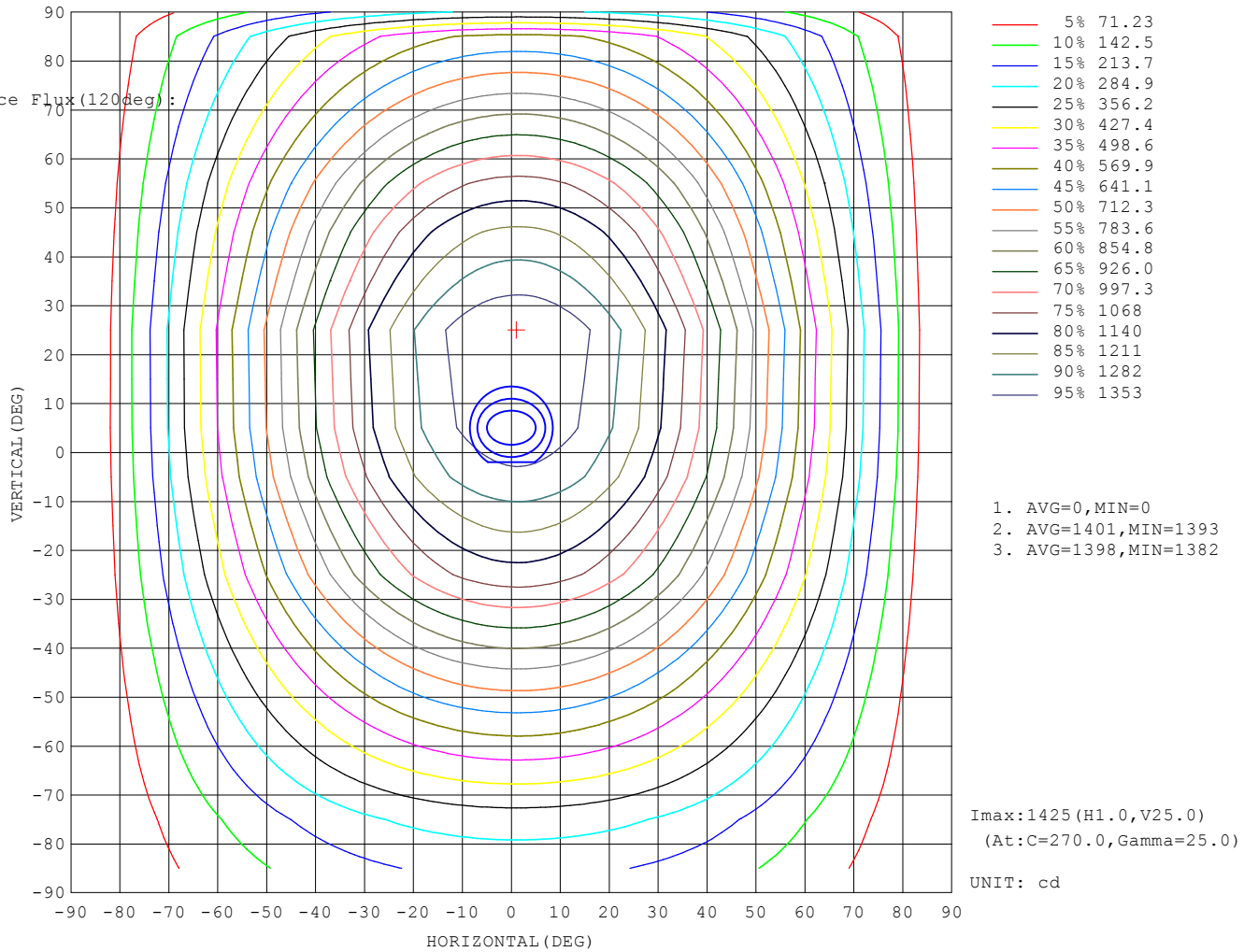
ISOCANDELA DIAGRAM

Conical surface Flux(90deg):

2093.6 lm
 %lum = 48.0%
 %lamp = 48.0%

Conical surface Flux(120deg):

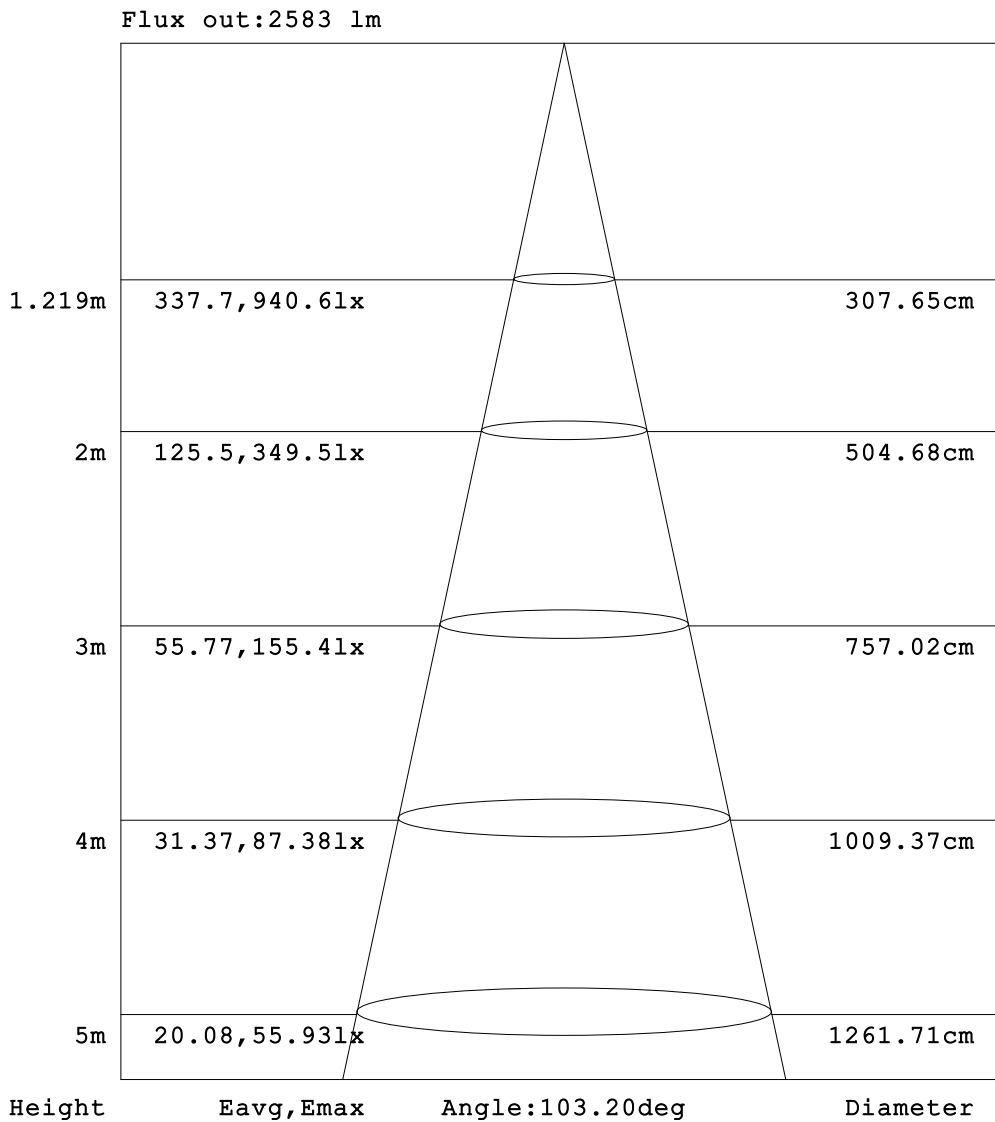
3106 lm
 %lum = 71.2%
 %lamp = 71.2%



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2019-07-01

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
 Humidity:50%
 Test Distance:8.600m [K=1.0000]
 Remarks:

AAI Figure

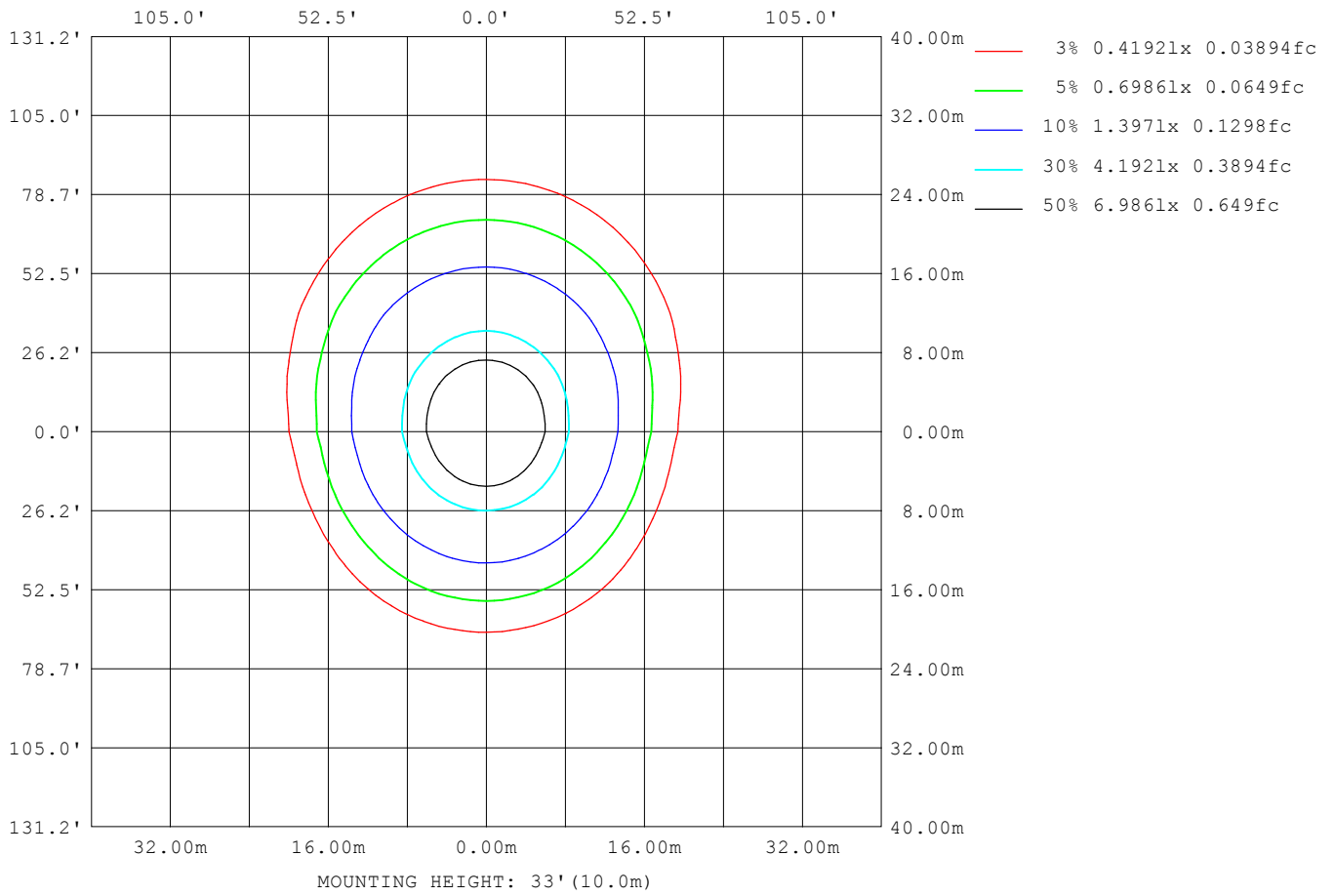


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2019-07-01

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
 Humidity:50%
 Test Distance:8.600m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2019-07-01

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.290
 Humidity: 50%
 Test Distance: 8.600m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:120.5V I:0.2773A P:33.40W PF:0.9941 Lamp Flux:4363.53x1 lm		
NAME: ASD-LVP-FS-4D3450	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD lighting corp	SUR.:	PROTECTION ANGLE:

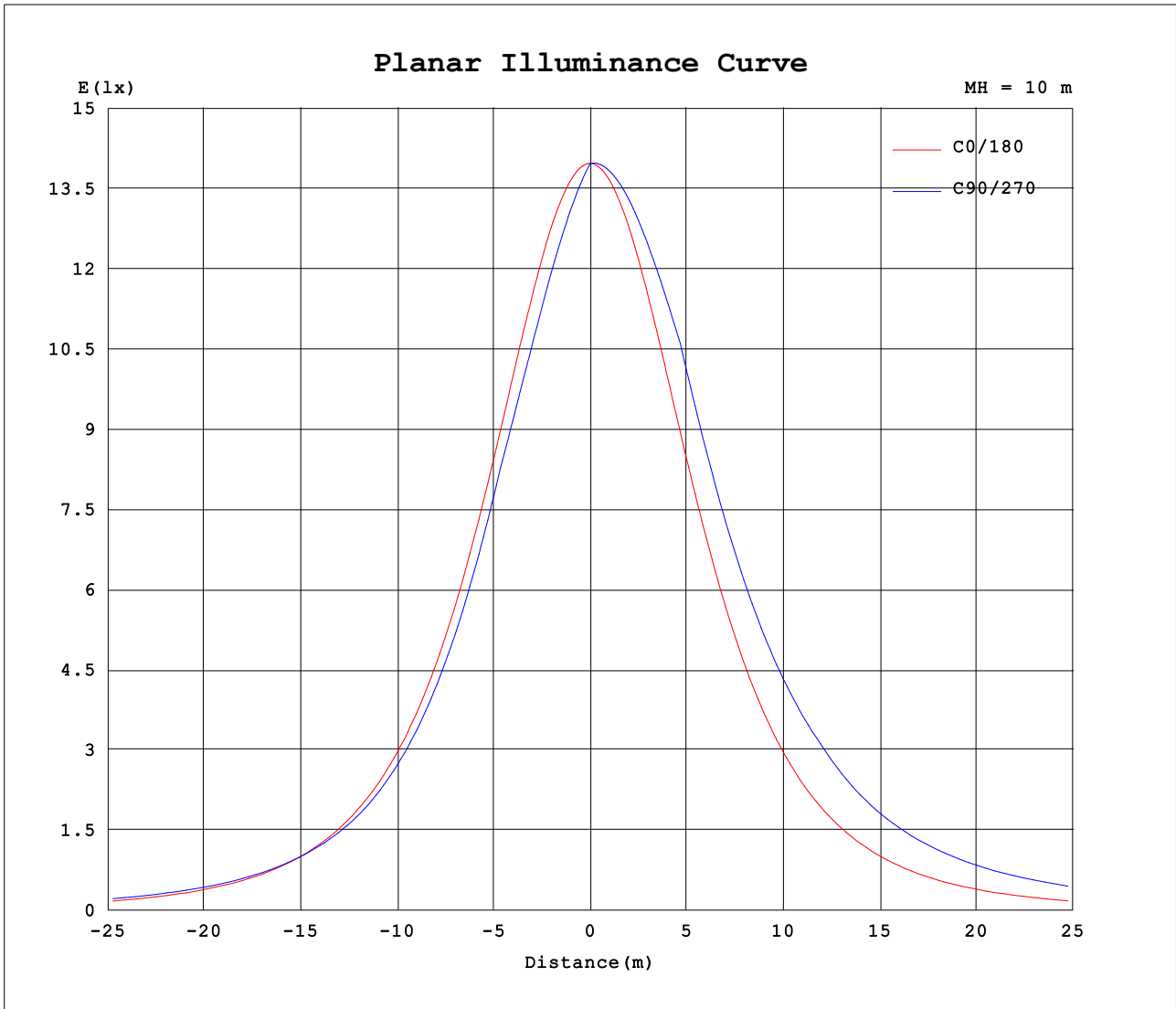
AvgL	cd/m2
L_0~180 (65) av	3350
L_0~180 (75) av	2708
L_0~180 (85) av	1618
L_90~270 (65) av	5679
L_90~270 (75) av	7186
L_90~270 (85) av	16291
L_45 (65) av	4656
L_45 (75) av	5491
L_45 (85) av	11192

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2019-07-01

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
Humidity:50%
Test Distance:8.600m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2019-07-01

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.290
 Humidity: 50%
 Test Distance: 8.600m [K=1.0000]
 Remarks:

