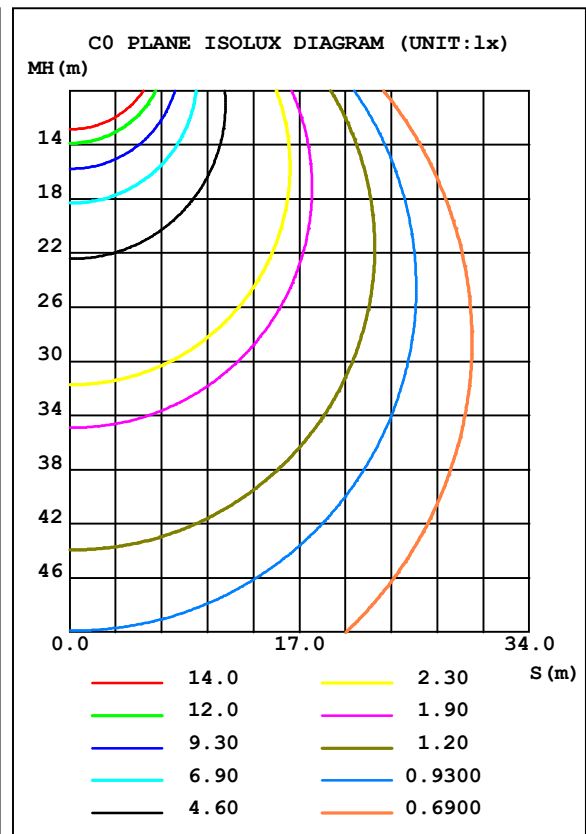
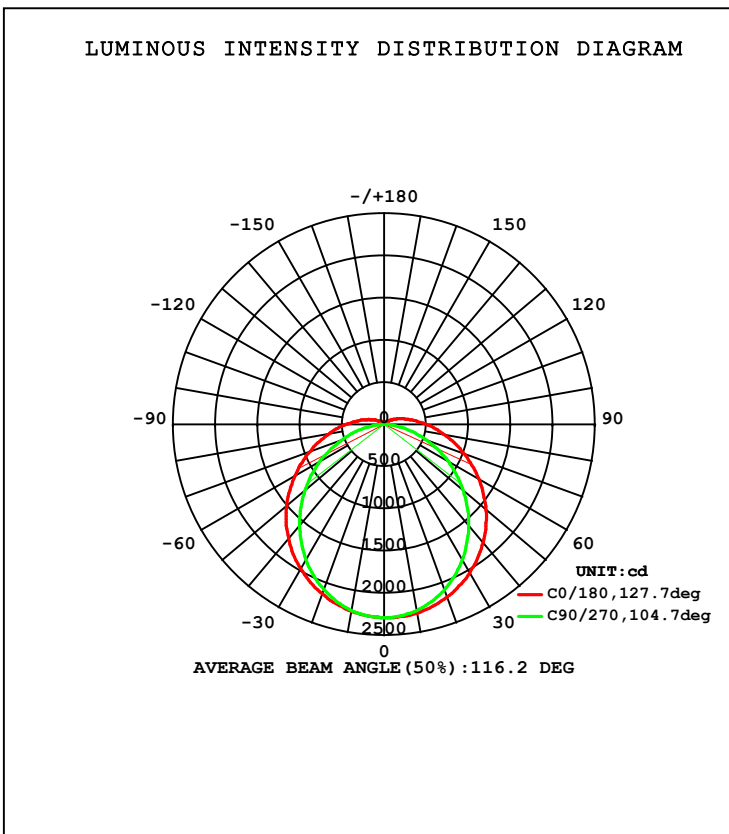


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.4V I:0.4953A P:59.13W PF:0.9912 Lamp Flux:7570.9x1 lm		
NAME: ASD-LVP2SM-8D6050PRM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:027
MFR.:	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 128.03 lm/W			
MODEL	ASD-LVP2SM-8D6050PRM	I _{max} (cd)	2294	S/MH (C0/180)	1.32
NOMINAL POWER (W)	60	LOR (%)	100.0	S/MH (C90/270)	1.21
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	7570.9	η UP, DN (C0-180)	3.5, 47.4
NOMINAL FLUX (lm)	7570.9	CIE CLASS	DIRECT	η UP, DN (C180-360)	3.0, 46.1
LAMPS INSIDE	1	η up (%)	6.5	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	120.4	η down (%)	93.5	CIBSE SHR MAX	1.35



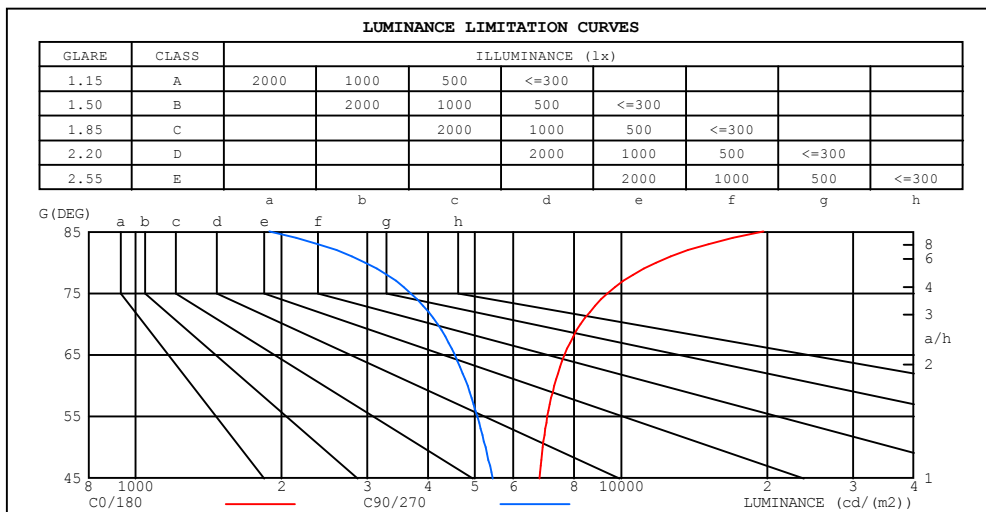
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2017-04-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.281
 Humidity: 65.0%
 Test Distance: 19.325m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM
AND LUMINANCE LIMITATION CURVES

ZONAL FLUX DIAGRAM:

γ	C0	C90	C180	C270				γ	Φ zone	Φ total	%lum, lamp	
10	2270	2240	2248	2239				0- 10	216.7	216.7	2.86,2.86	
20	2182	2090	2142	2088				10- 20	620.0	836.7	11.1,11.1	
30	2033	1857	1981	1853				20- 30	938.7	1775	23.5,23.5	
40	1829	1563	1767	1560				30- 40	1134	2909	38.4,38.4	
50	1580	1228	1510	1228				40- 50	1187	4097	54.1,54.1	
60	1298	877.1	1222	877.4				50- 60	1101	5198	68.7,68.7	
70	1006	520.3	932.3	518.8				60- 70	899.0	6097	80.5,80.5	
80	730.0	187.7	668.7	187.1				70- 80	625.8	6722	88.8,88.8	
90	502.3	0.8745	454.0	1.063				80- 90	360.2	7082	93.5,93.5	
100	329.6	1.104	292.3	0.8840				90-100	215.6	7298	96.4,96.4	
110	206.0	1.441	176.2	1.228				100-110	133.0	7431	98.2,98.2	
120	120.9	2.008	97.62	1.795				110-120	74.94	7506	99.1,99.1	
130	65.29	2.623	48.19	2.362				120-130	37.92	7544	99.6,99.6	
140	30.65	3.354	19.71	2.928				130-140	16.66	7561	99.9,99.9	
150	12.36	3.756	7.013	3.447				140-150	6.346	7567	99.9,99.9	
160	4.916	4.110	4.045	3.849				150-160	2.393	7569	100,100	
170	4.096	4.327	4.147	4.038				160-170	1.167	7570	100,100	
180	4.193	4.346	4.216	4.275				170-180	0.4006	7571	100,100	
DEG	LUMINOUS INTENSITY:cd								UNIT:lm			



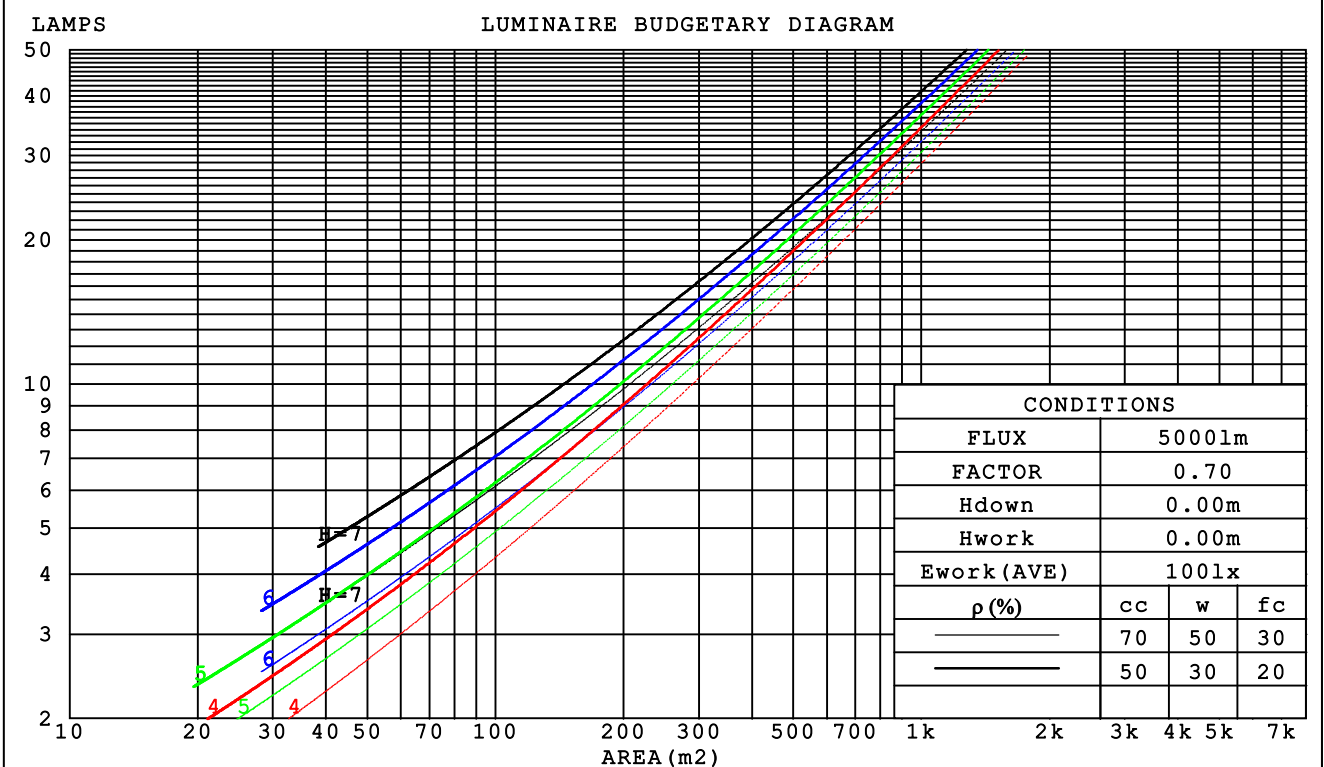
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-04-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.281
 Humidity:65.0%
 Test Distance:19.325m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.4V I:0.4953A P:59.13W PF:0.9912 Lamp Flux:7570.9x1 lm		
NAME: ASD-LVP2SM-8D6050PRM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:027
MFR.:	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	.96	.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	.71	.68	.64	.62
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	.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	.36	.30	.25	.35	.29	.25	.23
10.0	.37	.29	.24	.37	.29	.24	.35	.28	.23	.34	.27	.23	.33	.27	.23	.21



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-04-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.281
 Humidity:65.0%
 Test Distance:19.325m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:120.4V I:0.4953A P:59.13W PF:0.9912 Lamp Flux:7570.9x1 lm		
NAME: ASD-LVP2SM-8D6050PRM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:027
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	.347	.197	.063	.338	.193	.061	.321	.184	.059	.305	.176	.056	.291	.168	.054	
2.0	.312	.171	.052	.304	.167	.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	.213	.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	.184	.090	.026	.175	.088	.025	.168	.085	.025	.161	.082	.024	
9.0	.176	.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	.074	.021	.142	.071	.021	

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	.240	.240	.240	.205	.205	.205	.140	.140	.140	.080	.080	.080	.026	.026	.026	
1.0	.232	.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	.107	.180	.131	.093	.124	.091	.066	.071	.053	.039	.023	.017	.013	
5.0	.202	.141	.097	.173	.122	.084	.119	.085	.059	.069	.050	.035	.022	.016	.012	
6.0	.194	.133	.089	.167	.115	.078	.115	.081	.055	.067	.047	.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	.073	.049	.063	.043	.029	.020	.014	.010	
9.0	.175	.116	.076	.150	.100	.066	.104	.071	.047	.061	.042	.028	.020	.014	.009	
10.0	.169	.112	.073	.146	.097	.064	.101	.068	.046	.059	.040	.027	.019	.013	.009	

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-04-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.281
 Humidity:65.0%
 Test Distance:19.325m [K=1.0000]
 Remarks:

Uncorrected UGR Table

Test:U:120.4V I:0.4953A P:59.13W PF:0.9912 Lamp Flux:7570.9x1 lm										
NAME: ASD-LVP2SM-8D6050PRM					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:027		
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	19.4	20.9	19.8	21.2	21.6	18.0	19.5	18.4	19.8	20.1
3H	21.6	23.0	22.0	23.3	23.7	19.4	20.8	19.8	21.1	21.5
4H	22.8	24.1	23.2	24.4	24.8	19.9	21.2	20.3	21.6	22.0
6H	24.0	25.2	24.4	25.6	26.0	20.2	21.5	20.7	21.9	22.3
8H	24.6	25.8	25.1	26.2	26.7	20.3	21.5	20.8	21.9	22.3
12H	25.4	26.6	25.9	27.0	27.4	20.3	21.5	20.8	21.9	22.3
4H 2H	19.9	21.2	20.4	21.6	22.0	18.9	20.2	19.3	20.5	20.9
3H	22.3	23.5	22.8	23.9	24.3	20.5	21.6	20.9	22.0	22.5
4H	23.6	24.7	24.1	25.1	25.6	21.2	22.2	21.7	22.7	23.1
6H	25.0	26.0	25.5	26.4	26.9	21.7	22.6	22.2	23.1	23.6
8H	25.8	26.7	26.3	27.2	27.7	21.8	22.7	22.3	23.2	23.7
12H	26.7	27.5	27.3	28.0	28.6	21.9	22.7	22.4	23.2	23.7
8H 4H	23.9	24.8	24.4	25.2	25.8	21.8	22.7	22.3	23.2	23.7
6H	25.5	26.3	26.1	26.8	27.3	22.6	23.3	23.1	23.8	24.4
8H	26.5	27.1	27.0	27.7	28.3	22.8	23.5	23.4	24.0	24.6
12H	27.6	28.2	28.2	28.7	29.4	23.0	23.6	23.6	24.2	24.8
12H 4H	23.9	24.7	24.4	25.2	25.7	22.0	22.8	22.5	23.3	23.8
6H	25.6	26.2	26.1	26.8	27.4	22.9	23.5	23.4	24.0	24.6
8H	26.6	27.2	27.2	27.7	28.4	23.3	23.8	23.8	24.4	25.0
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 7571 lm Total Lamp Luminous Flux. (8log(F/F0) = 7.0)

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-04-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.281
 Humidity:65.0%
 Test Distance:19.325m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:120.4V I:0.4953A P:59.13W PF:0.9912 Lamp Flux:7570.9x1 lm		
NAME: ASD-LVP2SM-8D6050PRM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:027
MFR.:	SUR.:	PROTECTION ANGLE:

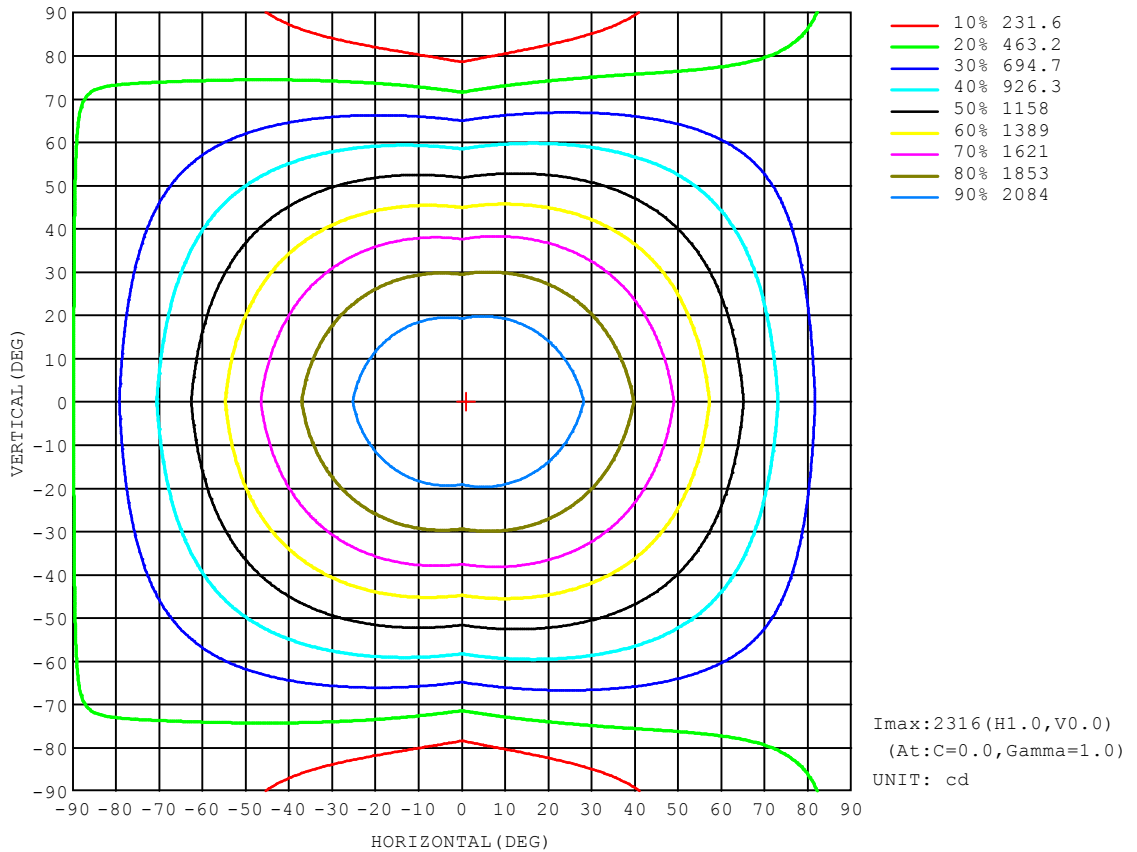
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	54	42	35	53	41	35	51	41	34	28
0.80	63	51	43	62	51	43	60	50	43	35
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	71	61
2.50	95	86	79	92	84	78	87	81	75	65
3.00	98	90	84	95	88	82	90	84	80	69
4.00	102	96	90	99	93	88	94	89	85	74
5.00	105	99	94	102	97	92	96	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: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-04-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.281
 Humidity:65.0%
 Test Distance:19.325m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:120.4V I:0.4953A P:59.13W PF:0.9912 Lamp Flux:7570.9x1 lm		
NAME: ASD-LVP2SM-8D6050PRM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:027
MFR.:	SUR.:	PROTECTION ANGLE:

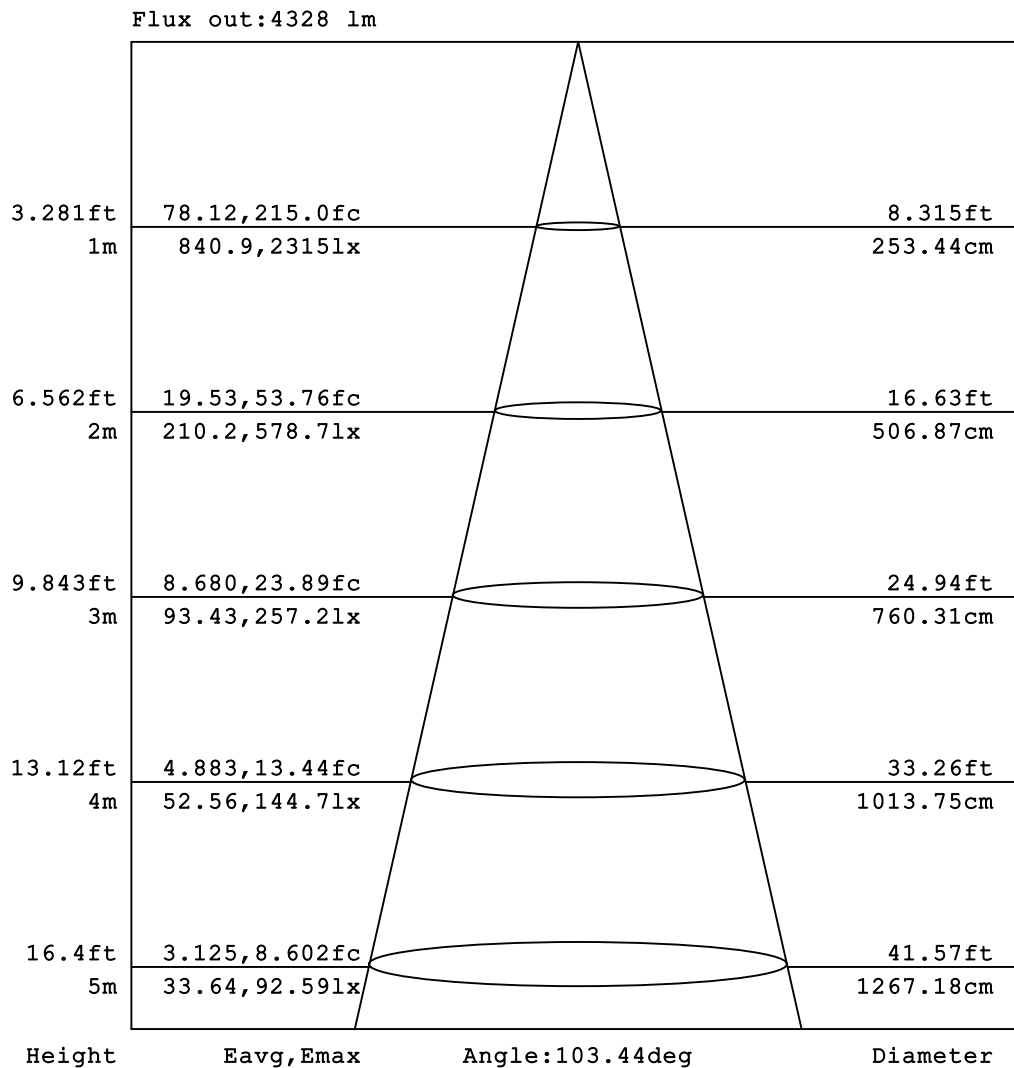


C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-04-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.281
 Humidity:65.0%
 Test Distance:19.325m [K=1.0000]
 Remarks:

AAI Figure

Test:U:120.4V I:0.4953A P:59.13W PF:0.9912 Lamp Flux:7570.9x1 lm		
NAME: ASD-LVP2SM-8D6050PRM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:027
MFR.:	SUR.:	PROTECTION ANGLE:



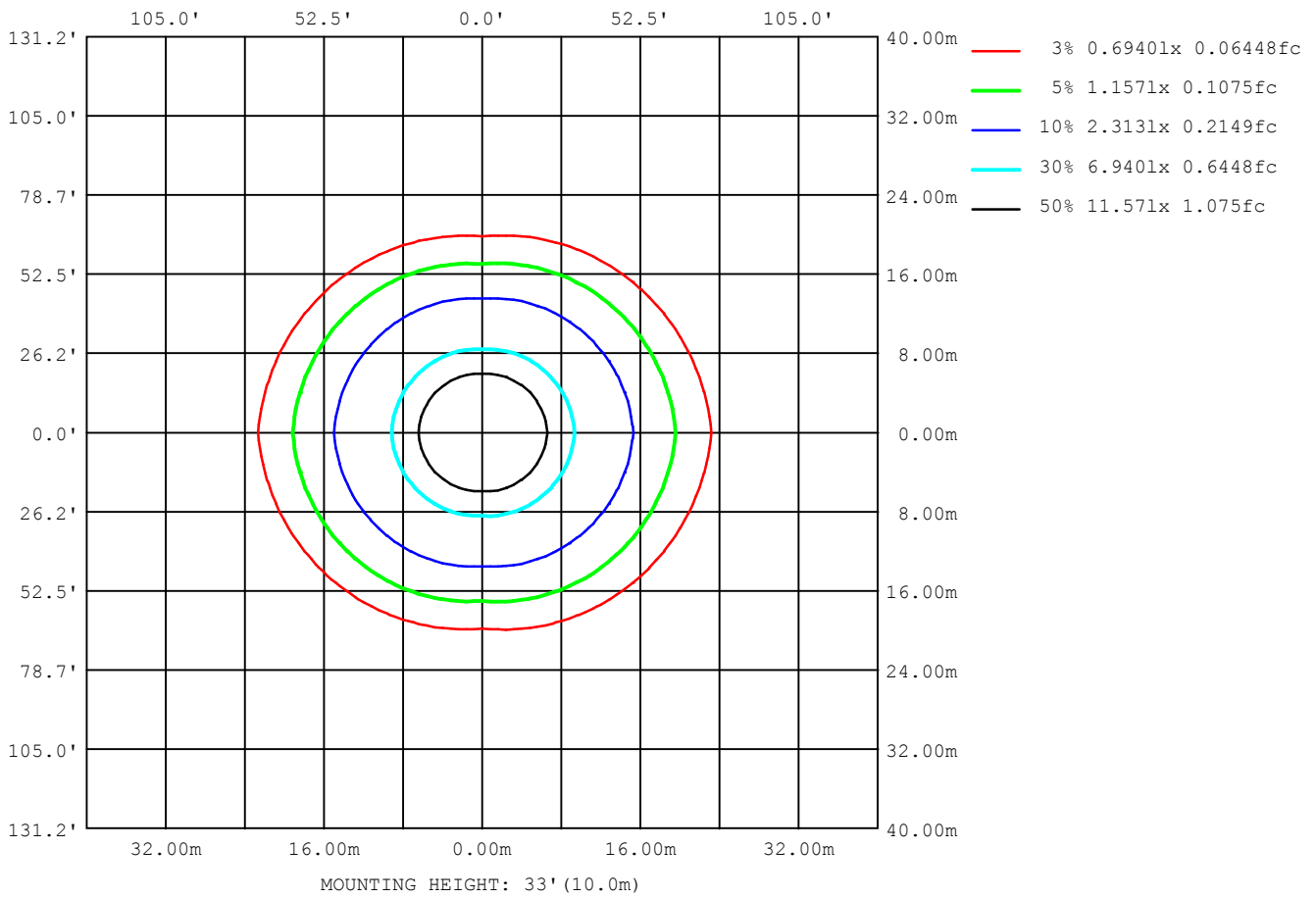
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-04-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.281
 Humidity:65.0%
 Test Distance:19.325m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

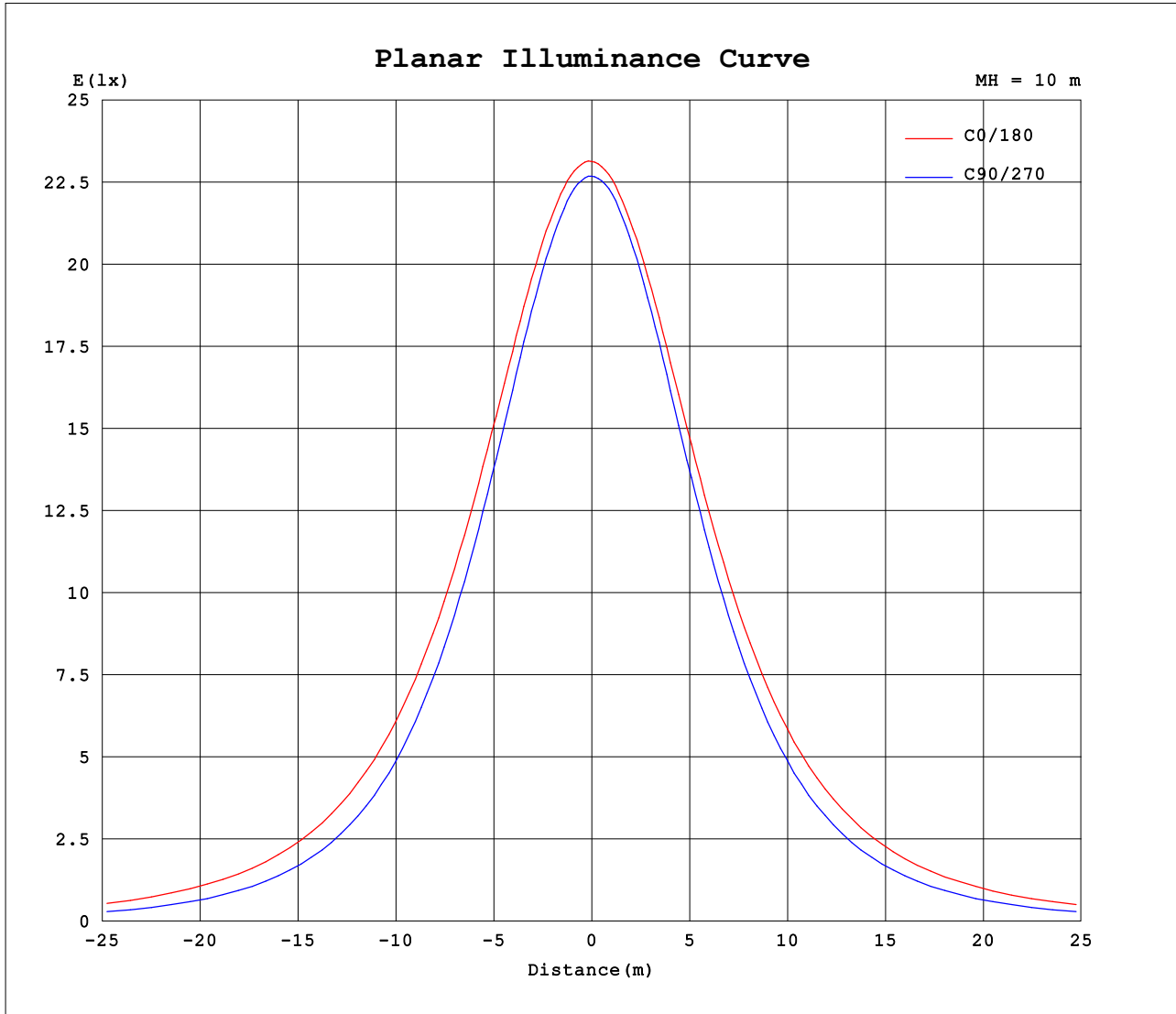
Test:U:120.4V I:0.4953A P:59.13W PF:0.9912 Lamp Flux:7570.9x1 lm		
NAME: ASD-LVP2SM-8D6050PRM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:027
MFR.:	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-04-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.281
 Humidity:65.0%
 Test Distance:19.325m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2017-04-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.281
 Humidity: 65.0%
 Test Distance: 19.325m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.4V I:0.4953A P:59.13W PF:0.9912 Lamp Flux:7570.9x1 lm		
NAME: ASD-LVP2SM-8D6050PRM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:027
MFR.:	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C (DEG) \ γ (DEG)	0	90	180	270															
0	2291	2291	2291	2291															
5	2289	2279	2278	2279															
10	2270	2240	2248	2239															
15	2235	2176	2203	2175															
20	2182	2090	2142	2088															
25	2115	1982	2068	1979															
30	2033	1857	1981	1853															
35	1937	1716	1880	1712															
40	1829	1563	1767	1560															
45	1710	1397	1643	1397															
50	1580	1228	1510	1228															
55	1441	1054	1367	1054															
60	1298	877	1222	877															
65	1151	698	1076	696															
70	1006	520	932	519															
75	865	347	795	346															
80	730	188	669	187															
85	610	59.7	555	59.8															
90	502	0.87	454	1.06															
95	409	1.04	367	0.85															
100	330	1.10	292	0.88															
105	262	1.20	229	0.92															
110	206	1.44	176	1.23															
115	159	1.70	133	1.56															
120	121	2.01	97.6	1.79															
125	90.2	2.31	69.9	2.08															
130	65.3	2.62	48.2	2.36															
135	45.5	3.02	31.6	2.71															
140	30.6	3.35	19.7	2.93															
145	19.9	3.57	11.9	3.14															
150	12.4	3.76	7.01	3.45															
155	7.48	3.97	4.51	3.59															
160	4.92	4.11	4.05	3.85															
165	4.12	4.23	4.05	3.93															
170	4.10	4.33	4.15	4.04															
175	4.13	4.34	4.22	4.20															
180	4.19	4.35	4.22	4.27															

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-04-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.281
 Humidity:65.0%
 Test Distance:19.325m [K=1.0000]
 Remarks: