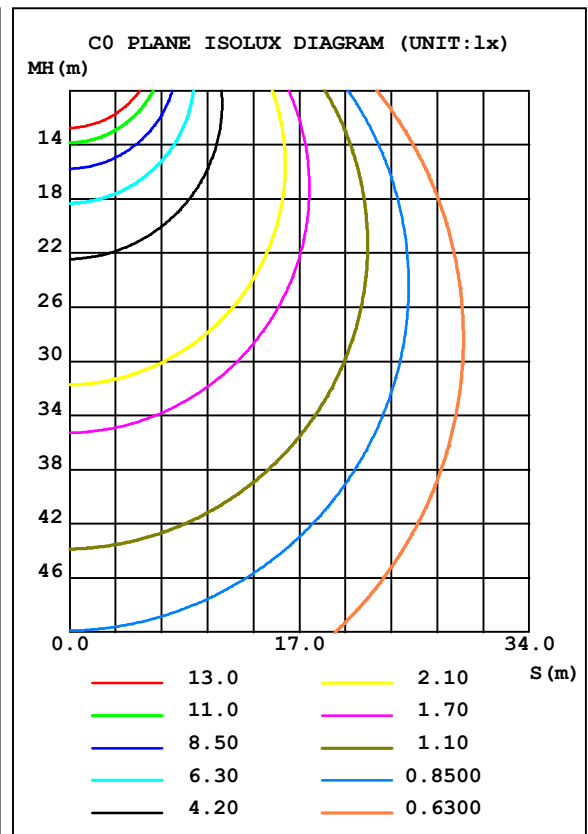
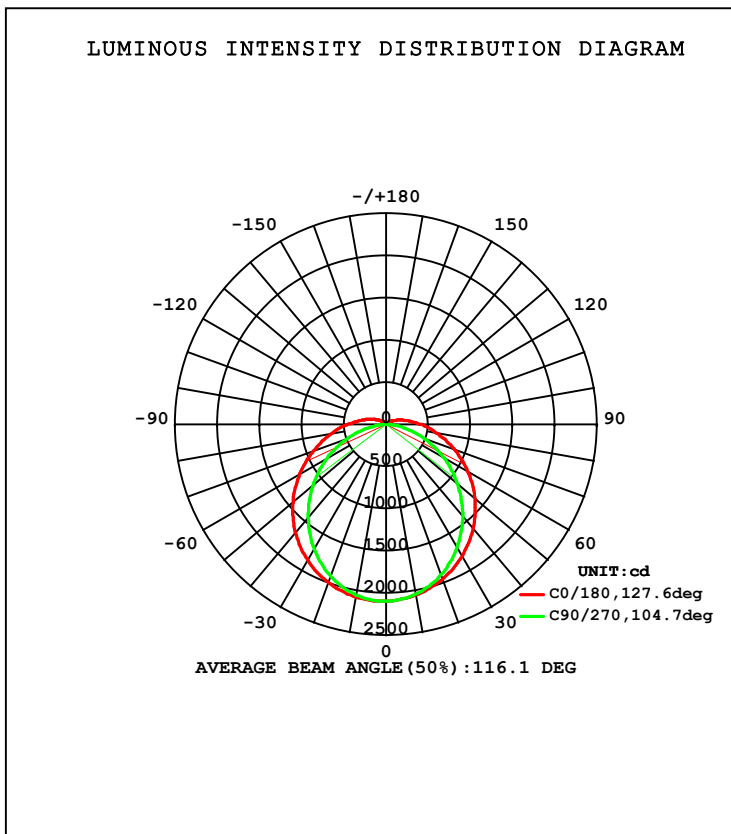


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.8V I:0.2886A P:61.64W PF:0.9674 Lamp Flux:6916.91x1 lm		
NAME: ASD-LVP2SM-8N6040HE	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:027
MFR.:	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 112.21 lm/W			
MODEL	ASD-LVP2SM-8N6040HE	I _{max} (cd)	2099	S/MH (C0/180)	1.28
NOMINAL POWER (W)	62	LOR (%)	100.0	S/MH (C90/270)	1.20
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	6916.9	η UP, DN (C0-180)	3.0, 46.0
NOMINAL FLUX (lm)	6916.91	CIE CLASS	DIRECT	η UP, DN (C180-360)	3.4, 47.6
LAMPS INSIDE	1	η up (%)	6.4	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	220.8	η down (%)	93.6	CIBSE SHR MAX	1.35



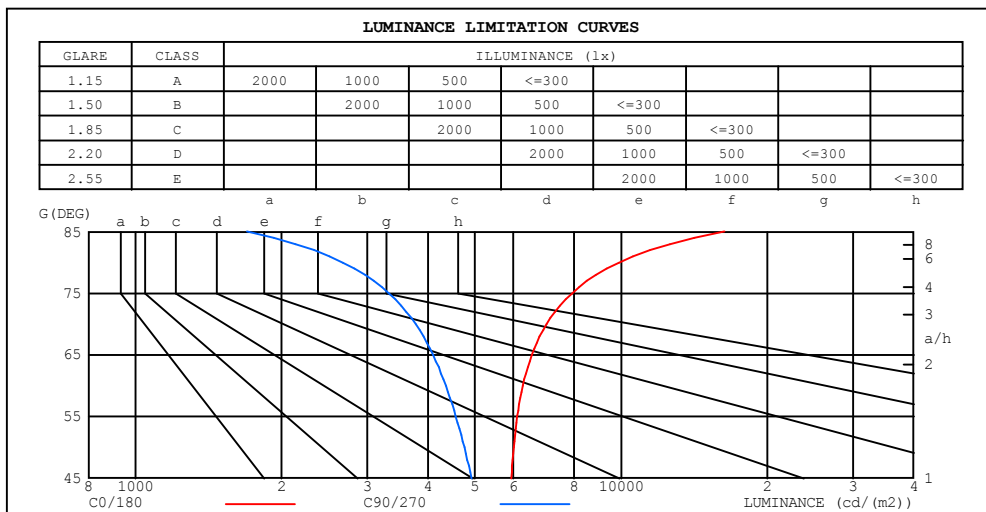
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2017-05-25

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.281
 Humidity: 65.0%
 Test Distance: 18.825m [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	2053	2045	2078	2054				0- 10	198.3	198.3	2.87,2.87	
20	1955	1902	1998	1920				10- 20	567.1	765.4	11.1,11.1	
30	1804	1686	1861	1708				20- 30	858.2	1624	23.5,23.5	
40	1609	1416	1674	1440				30- 40	1036	2660	38.5,38.5	
50	1378	1110	1444	1135				40- 50	1084	3744	54.1,54.1	
60	1119	791.2	1181	812.5				50- 60	1006	4750	68.7,68.7	
70	856.5	468.9	914.4	482.7				60- 70	821.6	5571	80.5,80.5	
80	612.3	168.7	665.2	175.6				70- 80	571.9	6143	88.8,88.8	
90	414.6	1.274	458.2	1.144				80- 90	329.1	6472	93.6,93.6	
100	265.8	0.8736	301.1	0.7426				90-100	196.6	6669	96.4,96.4	
110	160.3	1.255	188.0	0.9406				100-110	121.2	6790	98.2,98.2	
120	89.03	1.837	109.9	1.500				110-120	68.15	6858	99.1,99.1	
130	44.15	2.420	58.86	1.949				120-130	34.41	6893	99.6,99.6	
140	18.50	3.024	27.18	2.508				130-140	15.09	6908	99.9,99.9	
150	6.913	3.428	10.63	2.934				140-150	5.733	6913	99.9,99.9	
160	3.773	3.786	4.156	3.315				150-160	2.149	6915	100,100	
170	3.764	3.907	3.827	3.651				160-170	1.065	6917	100,100	
180	3.849	3.920	3.915	3.830				170-180	0.3647	6917	100,100	
DEG	LUMINOUS INTENSITY:cd								UNIT:lm			



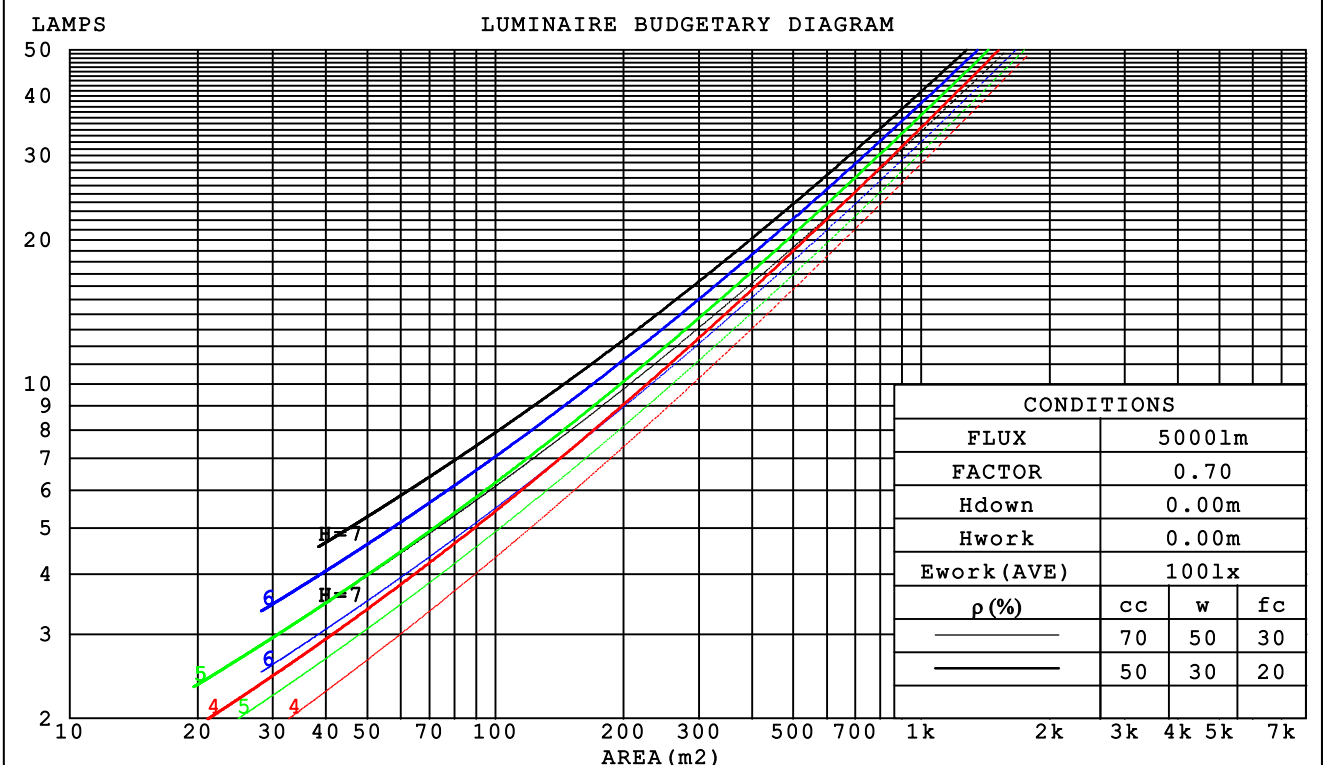
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-05-25

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.281
 Humidity:65.0%
 Test Distance:18.825m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.8V I:0.2886A P:61.64W PF:0.9674 Lamp Flux:6916.91x1 lm		
NAME: ASD-LVP2SM-8N6040HE	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	.37	.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:2017-05-25

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.281
 Humidity:65.0%
 Test Distance:18.825m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:220.8V I:0.2886A P:61.64W PF:0.9674 Lamp Flux:6916.91x1 lm		
NAME: ASD-LVP2SM-8N6040HE	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	.239	.239	.239	.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	.192	.156	.126	.132	.108	.088	.076	.063	.051	.024	.020	.017	
3.0	.217	.164	.122	.186	.142	.106	.128	.099	.074	.074	.058	.044	.024	.019	.014	
4.0	.209	.151	.107	.179	.131	.093	.123	.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	.083	.161	.109	.073	.111	.077	.052	.065	.045	.031	.021	.015	.010	
8.0	.181	.120	.079	.155	.105	.069	.108	.073	.049	.063	.043	.029	.020	.014	.010	
9.0	.174	.116	.076	.150	.100	.066	.104	.071	.047	.061	.042	.028	.020	.014	.009	
10.0	.169	.111	.073	.145	.097	.064	.101	.068	.045	.059	.040	.027	.019	.013	.009	

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-05-25

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.281
 Humidity:65.0%
 Test Distance:18.825m [K=1.0000]
 Remarks:

Uncorrected UGR Table

Test:U:220.8V I:0.2886A P:61.64W PF:0.9674 Lamp Flux:6916.91x1 lm										
NAME: ASD-LVP2SM-8N6040HE					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	18.8	20.3	19.2	20.6	20.9	17.5	19.0	17.9	19.3	19.7
3H	20.9	22.3	21.3	22.6	23.0	18.9	20.3	19.3	20.6	21.0
4H	22.0	23.3	22.4	23.7	24.1	19.4	20.7	19.8	21.1	21.5
6H	23.2	24.4	23.6	24.8	25.2	19.8	21.0	20.2	21.4	21.8
8H	23.8	25.0	24.3	25.4	25.8	19.8	21.0	20.3	21.4	21.9
12H	24.6	25.7	25.0	26.1	26.6	19.9	21.0	20.3	21.4	21.8
4H 2H	19.3	20.6	19.7	21.0	21.4	18.3	19.6	18.8	20.0	20.4
3H	21.6	22.8	22.1	23.2	23.6	20.0	21.1	20.4	21.5	22.0
4H	22.9	23.9	23.4	24.4	24.8	20.7	21.7	21.1	22.1	22.6
6H	24.2	25.2	24.7	25.6	26.2	21.1	22.1	21.6	22.5	23.0
8H	25.0	25.9	25.5	26.4	26.9	21.3	22.1	21.8	22.6	23.2
12H	25.9	26.7	26.4	27.2	27.7	21.3	22.1	21.9	22.6	23.2
8H 4H	23.1	24.0	23.6	24.5	25.0	21.2	22.1	21.7	22.6	23.1
6H	24.7	25.5	25.3	26.0	26.5	22.0	22.7	22.5	23.2	23.8
8H	25.6	26.3	26.2	26.8	27.4	22.2	22.9	22.8	23.4	24.0
12H	26.7	27.3	27.3	27.9	28.5	22.4	23.0	23.0	23.6	24.2
12H 4H	23.1	23.9	23.7	24.4	25.0	21.4	22.2	21.9	22.7	23.2
6H	24.8	25.4	25.4	26.0	26.6	22.2	22.9	22.8	23.4	24.0
8H	25.8	26.4	26.4	26.9	27.5	22.6	23.2	23.2	23.8	24.4
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 6917 lm Total Lamp Luminous Flux. (8log(F/F0) = 6.7)

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-05-25

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.281
 Humidity:65.0%
 Test Distance:18.825m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.8V I:0.2886A P:61.64W PF:0.9674 Lamp Flux:6916.91x1 lm		
NAME: ASD-LVP2SM-8N6040HE	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:027
MFR.:	SUR.:	PROTECTION ANGLE:

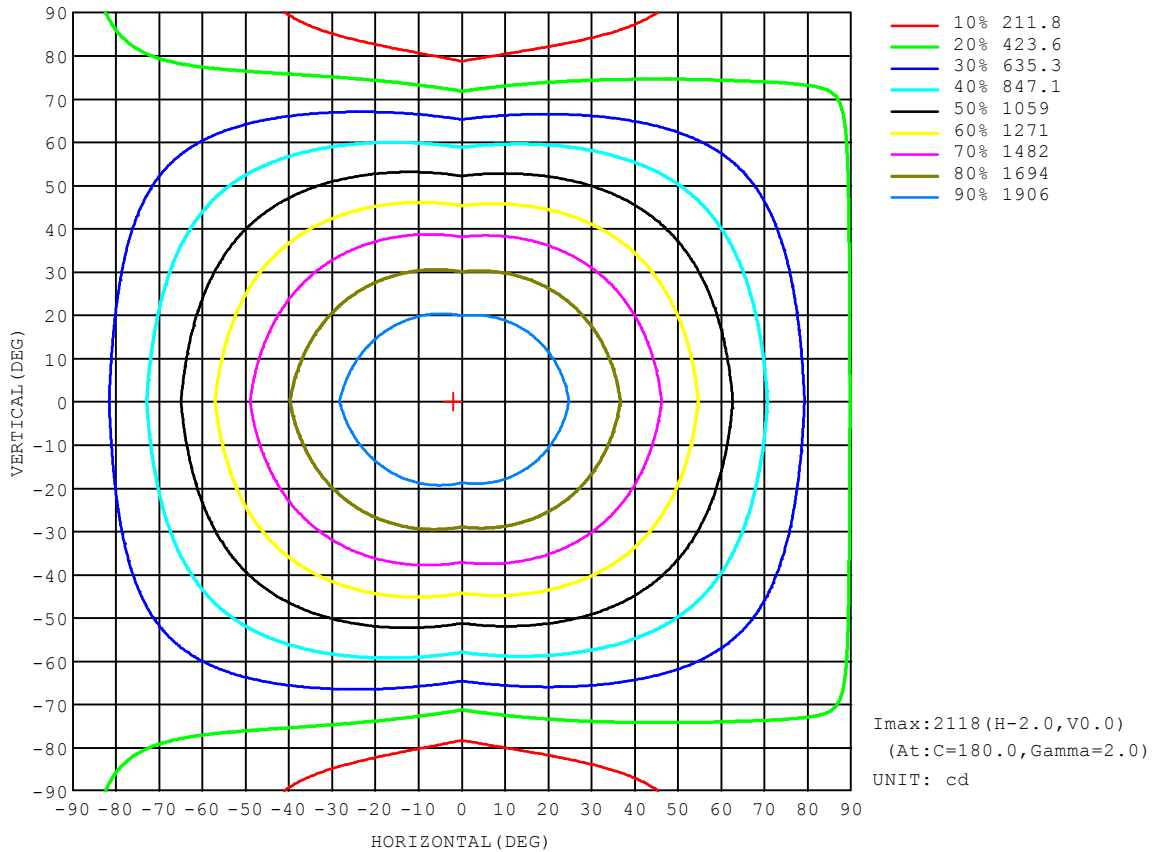
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	54	42	35	53	41	35	52	41	34	28
0.80	63	51	43	62	51	43	60	50	43	36
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	85	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:2017-05-25

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.281
 Humidity:65.0%
 Test Distance:18.825m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:220.8V I:0.2886A P:61.64W PF:0.9674 Lamp Flux:6916.91x1 lm		
NAME: ASD-LVP2SM-8N6040HE	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:027
MFR.:	SUR.:	PROTECTION ANGLE:

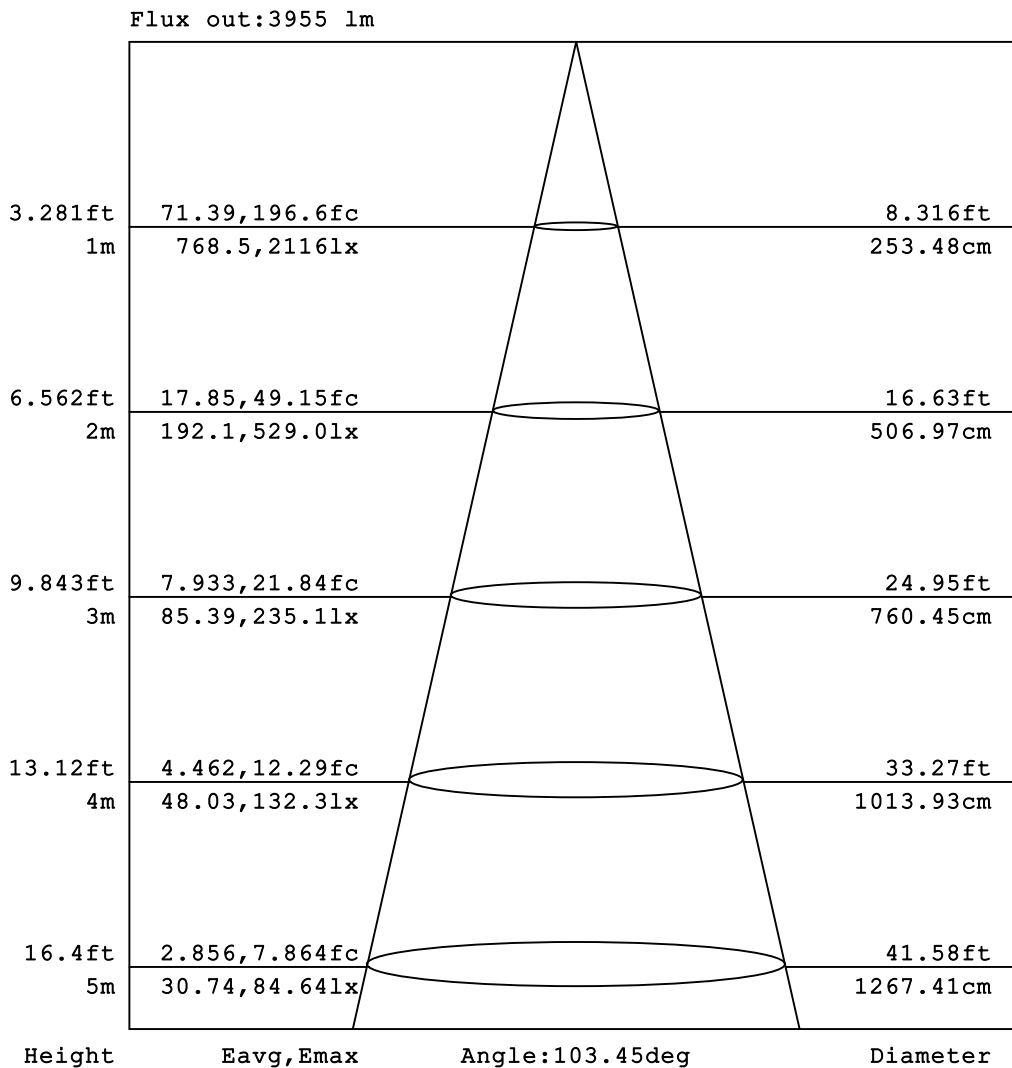


C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-05-25

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.281
 Humidity:65.0%
 Test Distance:18.825m [K=1.0000]
 Remarks:

AAI Figure

Test:U:220.8V I:0.2886A P:61.64W PF:0.9674 Lamp Flux:6916.91x1 lm		
NAME: ASD-LVP2SM-8N6040HE	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:027
MFR.:	SUR.:	PROTECTION ANGLE:



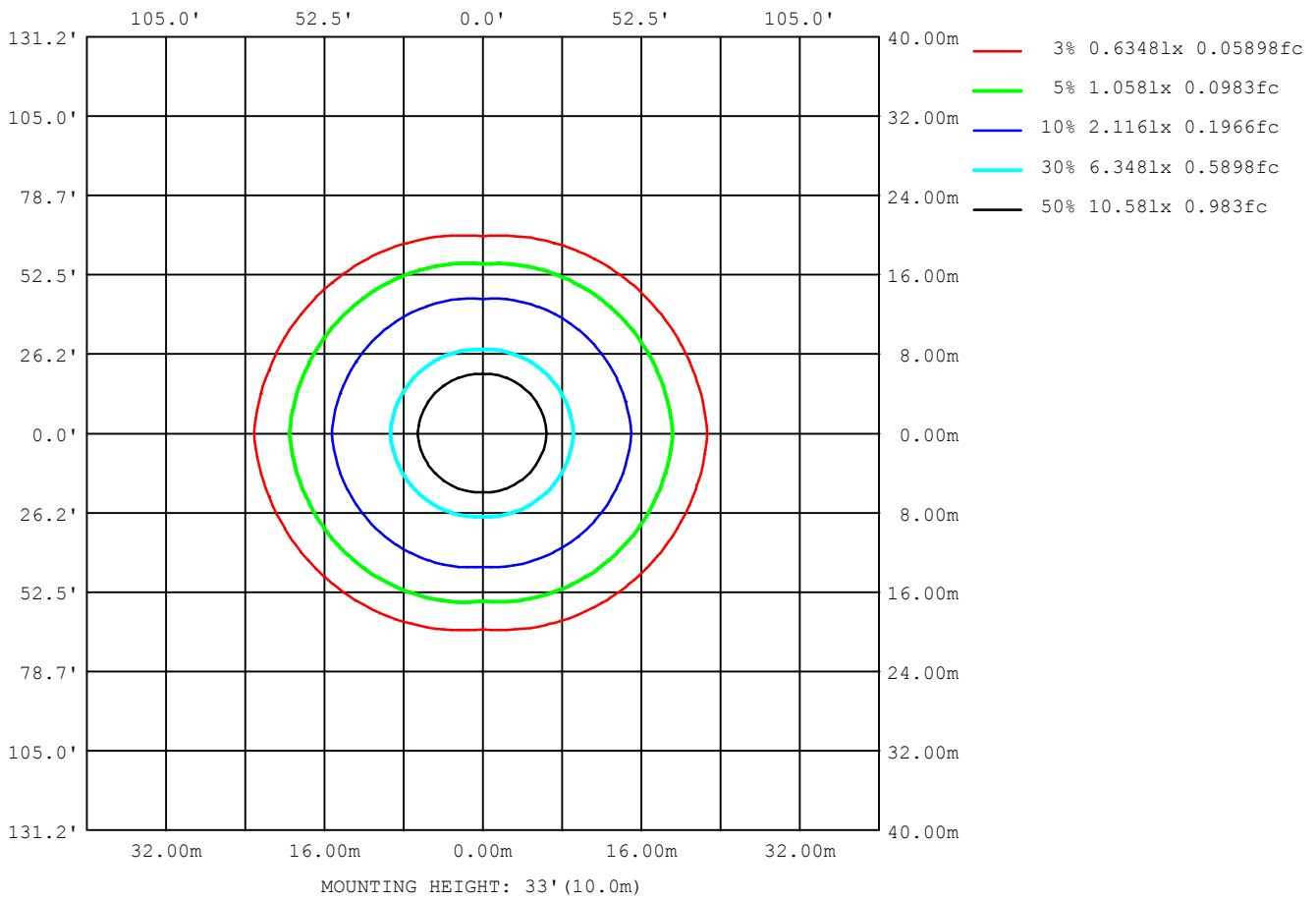
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-05-25

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.281
 Humidity:65.0%
 Test Distance:18.825m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

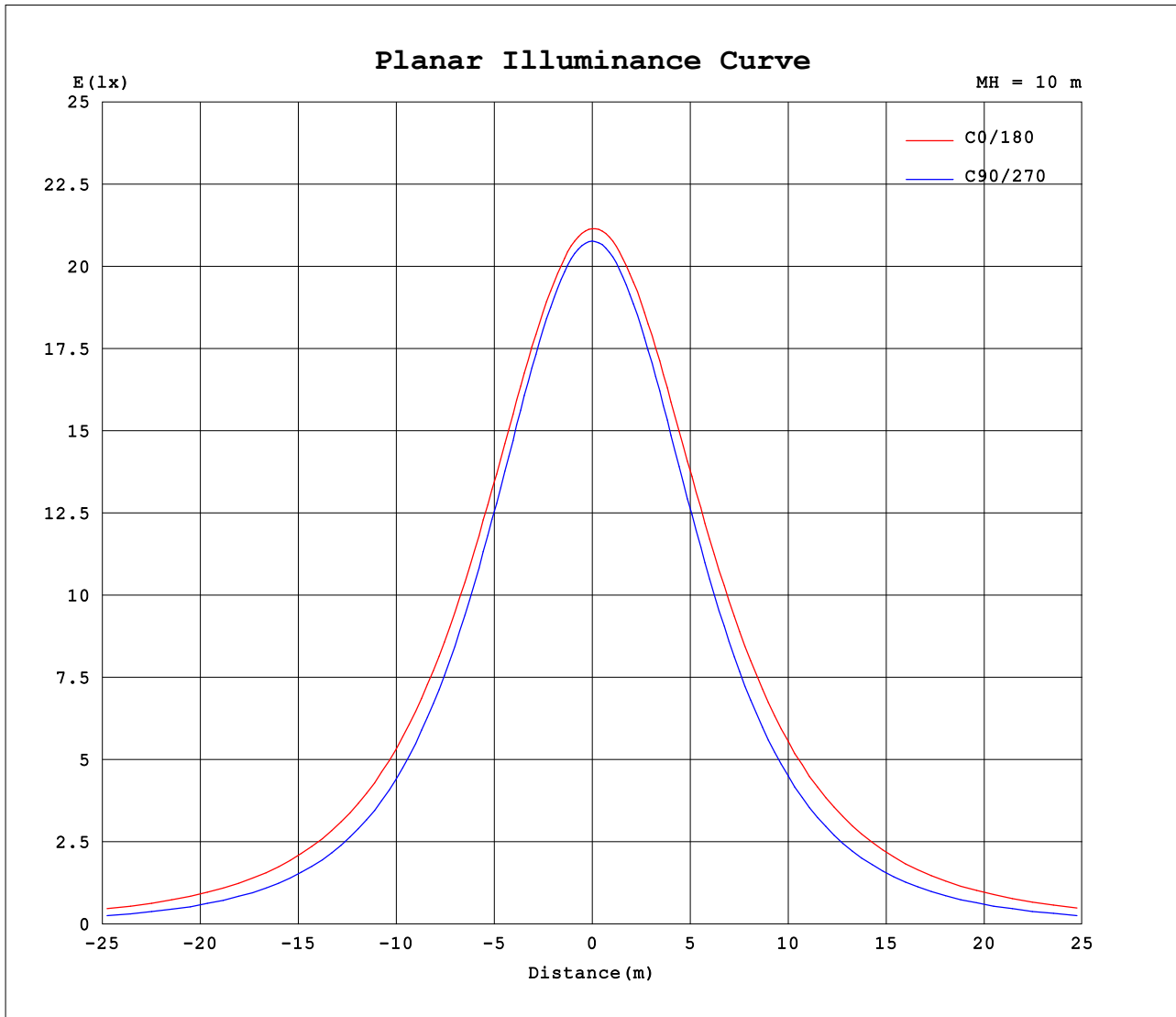
Test:U:220.8V I:0.2886A P:61.64W PF:0.9674 Lamp Flux:6916.91x1 lm		
NAME: ASD-LVP2SM-8N6040HE	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:027
MFR.:	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-05-25

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.281
 Humidity:65.0%
 Test Distance:18.825m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2017-05-25

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.281
 Humidity: 65.0%
 Test Distance: 18.825m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.8V I:0.2886A P:61.64W PF:0.9674 Lamp Flux:6916.91x1 lm		
NAME: ASD-LVP2SM-8N6040HE	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:027
MFR.:	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C (DEG) \ γ (DEG)	0	90	180	270															
0	2097	2097	2097	2097															
5	2083	2083	2096	2087															
10	2053	2045	2078	2054															
15	2011	1985	2046	1998															
20	1955	1902	1998	1920															
25	1885	1802	1937	1822															
30	1804	1686	1861	1708															
35	1711	1556	1773	1579															
40	1609	1416	1674	1440															
45	1498	1264	1563	1290															
50	1378	1110	1444	1135															
55	1250	951	1315	976															
60	1119	791	1181	812															
65	988	630	1047	646															
70	856	469	914	483															
75	731	313	785	323															
80	612	169	665	176															
85	508	53.8	556	56.6															
90	415	1.27	458	1.14															
95	335	0.76	374	0.73															
100	266	0.87	301	0.74															
105	208	1.05	240	0.76															
110	160	1.25	188	0.94															
115	121	1.52	145	1.19															
120	89.0	1.84	110	1.50															
125	64.0	2.17	81.6	1.72															
130	44.2	2.42	58.9	1.95															
135	29.2	2.76	40.8	2.26															
140	18.5	3.02	27.2	2.51															
145	11.4	3.25	17.4	2.73															
150	6.91	3.43	10.6	2.93															
155	4.53	3.65	6.31	3.14															
160	3.77	3.79	4.16	3.31															
165	3.73	3.90	3.89	3.47															
170	3.76	3.91	3.83	3.65															
175	3.79	3.92	3.91	3.72															
180	3.85	3.92	3.91	3.83															

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-05-25

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.281
 Humidity:65.0%
 Test Distance:18.825m [K=1.0000]
 Remarks: