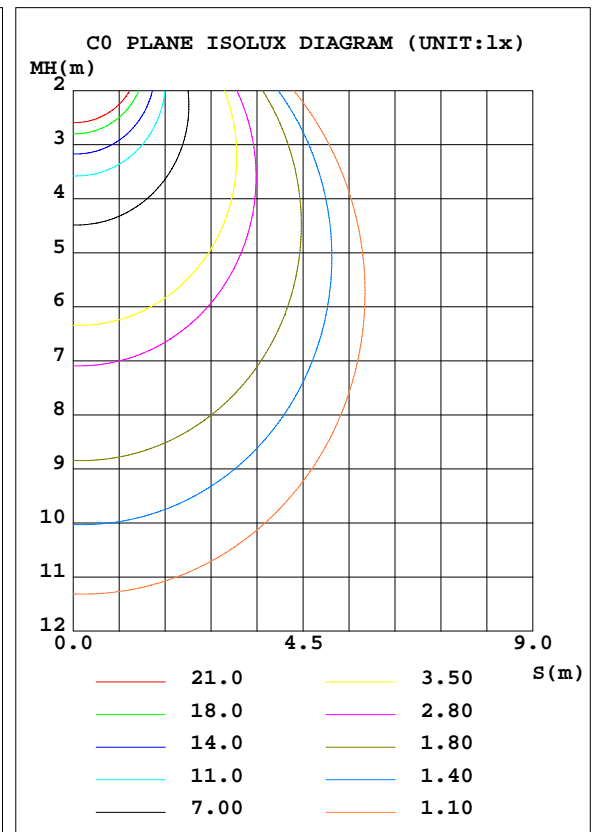
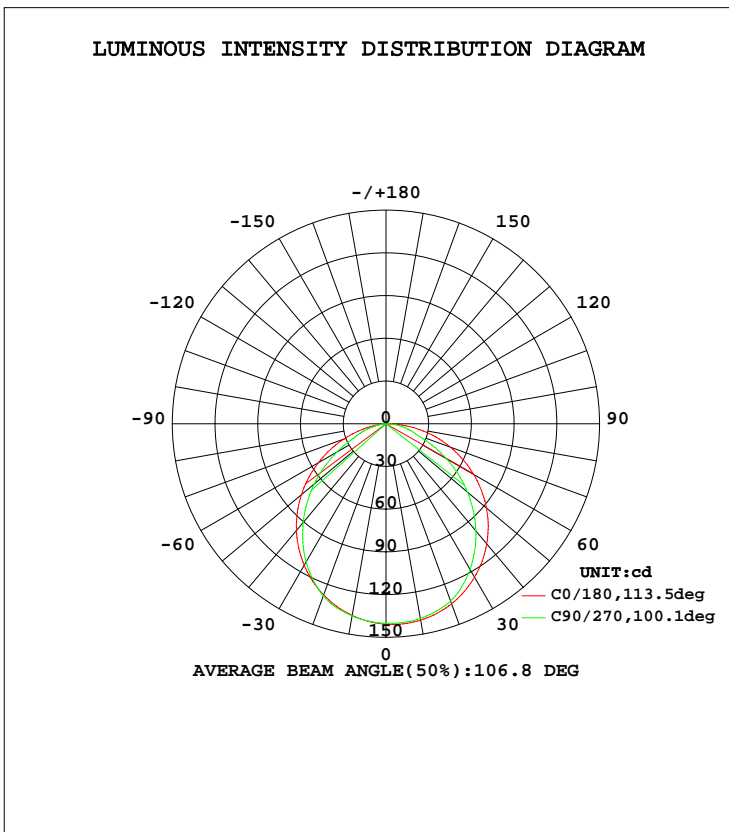


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:122.3V I:0.0500A P:5.980W PF:0.9720 Lamp Flux:373.692x1 lm		
NAME: led panel light	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 62.49 lm/W			
MODEL	ASD-MNPR-5D640-W	I _{max} (cd)	141.0	S/MH(C0/180)	1.22
NOMINAL POWER(W)	6	LOR(%)	100.0	S/MH(C90/270)	1.19
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	373.69	η UP, DN(C0-180)	0.0,54.0
NOMINAL FLUX(lm)	373.692	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0,46.0
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: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-04-26

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:8.600m [K=1.0000]
 Remarks: led panel light

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C90	C180	C270				γ	Φ zone	Φ total	Φ lum, lamp
10	140.0	138.8	136.7	137.1				0- 10	13.30	13.30	3.56,3.56
20	134.6	132.6	128.0	128.7				10- 20	38.16	51.46	13.8,13.8
30	124.4	118.1	114.8	112.1				20- 30	57.48	108.9	29.2,29.2
40	110.1	98.21	97.87	90.41				30- 40	67.98	176.9	47.3,47.3
50	92.13	74.72	77.55	65.77				40- 50	68.35	245.3	65.6,65.6
60	71.09	49.00	54.91	39.85				50- 60	58.77	304.0	81.4,81.4
70	48.11	23.77	31.55	19.38				60- 70	41.28	345.3	92.4,92.4
80	24.20	11.12	9.849	5.415				70- 80	22.65	368.0	98.5,98.5
90	0.4329	0	0	0				80- 90	5.710	373.7	100,100
100	0	0	0	0				90-100	0.0060	373.7	100,100
110	0	0	0	0				100-110	0	373.7	100,100
120	0	0	0	0				110-120	0	373.7	100,100
130	0	0	0	0				120-130	0	373.7	100,100
140	0	0	0	0				130-140	0	373.7	100,100
150	0	0	0	0				140-150	0	373.7	100,100
160	0	0	0	0				150-160	0	373.7	100,100
170	0	0	0	0				160-170	0	373.7	100,100
180	0	0	0	0				170-180	0	373.7	100,100
DEG	LUMINOUS INTENSITY:cd								UNIT:lm		

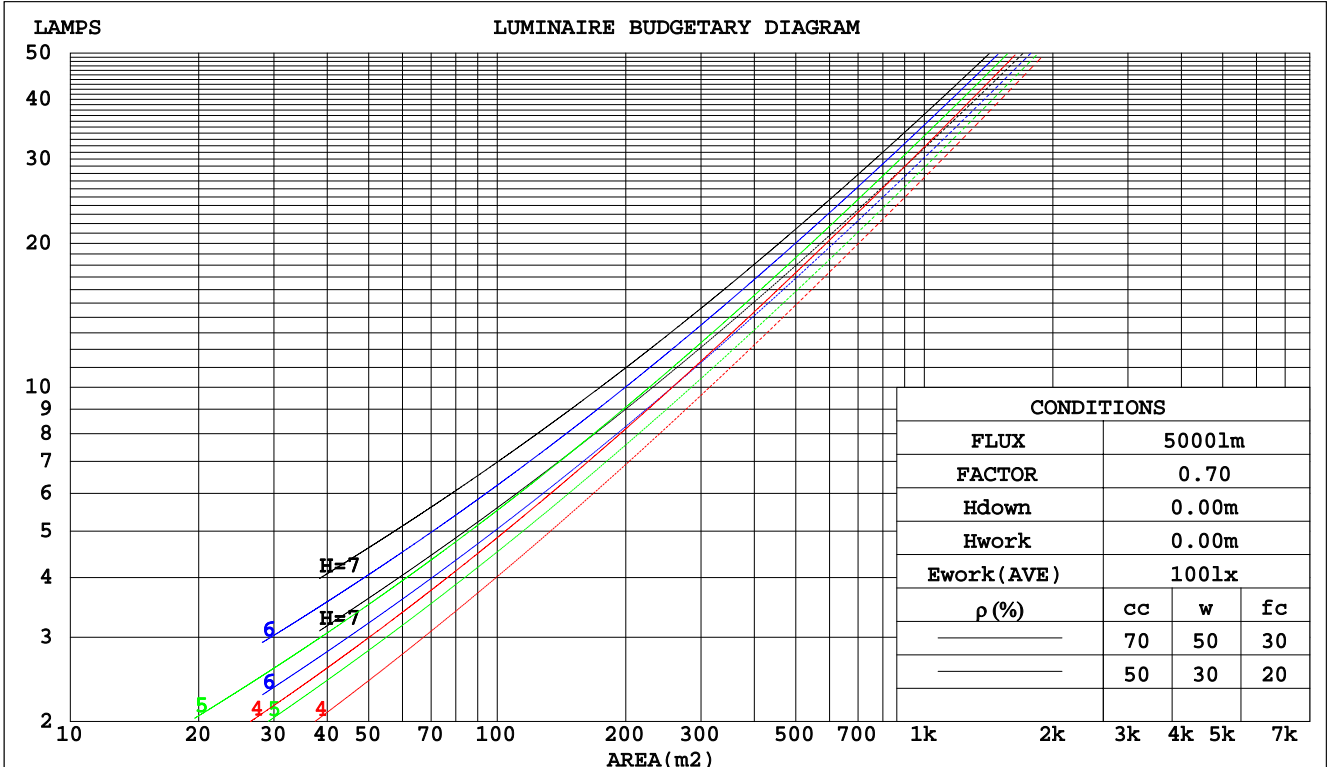
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-04-26

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:8.600m [K=1.0000]
 Remarks: led panel light

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:122.3V I:0.0500A P:5.980W PF:0.9720 Lamp Flux:373.692x1 lm		
NAME: led panel light	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding 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																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	1.05	1.00	.97	1.02	.99	.95	.98	.95	.92	.94	.92	.89	.91	.89	.87	.85
2.0	.92	.85	.79	.90	.84	.78	.86	.81	.77	.83	.79	.75	.80	.76	.73	.71
3.0	.81	.73	.66	.79	.72	.66	.76	.70	.65	.73	.68	.63	.71	.66	.62	.60
4.0	.72	.63	.56	.70	.62	.56	.68	.61	.55	.66	.59	.55	.63	.58	.54	.52
5.0	.64	.55	.49	.63	.55	.49	.61	.54	.48	.59	.53	.47	.57	.51	.47	.45
6.0	.58	.49	.43	.57	.49	.43	.55	.48	.42	.53	.47	.42	.52	.46	.41	.39
7.0	.53	.44	.38	.52	.44	.38	.50	.43	.37	.49	.42	.37	.47	.41	.37	.35
8.0	.48	.40	.34	.47	.39	.34	.46	.39	.33	.45	.38	.33	.44	.38	.33	.31
9.0	.44	.36	.30	.43	.36	.30	.42	.35	.30	.41	.35	.30	.40	.34	.30	.28
10.0	.41	.33	.28	.40	.33	.28	.39	.32	.27	.38	.32	.27	.37	.31	.27	.25



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2017-04-26

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity: 65.0%
 Test Distance: 8.600m [K=1.0000]
 Remarks: led panel light

WEC AND CCEC

Test:U:122.3V I:0.0500A P:5.980W PF:0.9720 Lamp Flux:373.692x1 lm		
NAME: led panel light	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding 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	.297	.169	.053	.290	.165	.053	.277	.159	.051	.264	.153	.049	.253	.147	.047	
2.0	.281	.154	.047	.275	.152	.047	.264	.147	.046	.253	.142	.044	.243	.137	.043	
3.0	.262	.139	.042	.256	.137	.041	.246	.133	.041	.236	.130	.040	.228	.126	.039	
4.0	.242	.126	.037	.238	.124	.037	.229	.121	.036	.220	.118	.036	.212	.115	.035	
5.0	.225	.115	.033	.221	.113	.033	.213	.111	.033	.205	.108	.032	.198	.106	.032	
6.0	.209	.105	.030	.205	.104	.030	.198	.102	.030	.191	.100	.029	.185	.098	.029	
7.0	.195	.096	.027	.192	.096	.027	.185	.094	.027	.179	.092	.027	.174	.090	.027	
8.0	.183	.089	.025	.180	.088	.025	.174	.087	.025	.168	.085	.025	.163	.084	.024	
9.0	.171	.083	.023	.169	.082	.023	.164	.081	.023	.159	.080	.023	.154	.078	.023	
10.0	.161	.077	.021	.159	.077	.021	.154	.076	.021	.150	.074	.021	.146	.073	.021	

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	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.179	.156	.135	.154	.134	.117	.105	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.171	.132	.099	.146	.114	.086	.100	.079	.060	.058	.046	.035	.019	.015	.011	
3.0	.163	.114	.075	.140	.099	.065	.096	.068	.046	.055	.040	.027	.018	.013	.009	
4.0	.155	.101	.059	.133	.087	.052	.092	.061	.036	.053	.036	.021	.017	.012	.007	
5.0	.148	.090	.048	.127	.078	.042	.087	.055	.029	.051	.032	.017	.016	.010	.006	
6.0	.141	.082	.040	.121	.071	.035	.083	.050	.025	.048	.029	.015	.016	.010	.005	
7.0	.134	.075	.034	.115	.065	.029	.080	.046	.021	.046	.027	.012	.015	.009	.004	
8.0	.128	.069	.029	.110	.060	.025	.076	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.122	.064	.026	.105	.056	.022	.073	.039	.016	.042	.023	.009	.014	.008	.003	
10.0	.116	.060	.023	.100	.052	.020	.069	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-04-26

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:8.600m [K=1.0000]
 Remarks: led panel light

UGR(Unified Glare Rating) Table

Test:U:122.3V I:0.0500A P:5.980W PF:0.9720 Lamp Flux:373.692x1 lm										
NAME: led panel light					TYPE:LED			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.: ASD Lighting Corp					SUR.:			Shielding 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	14.4	15.9	14.7	16.1	16.3	13.2	14.7	13.5	14.9	15.1
3H	16.2	17.6	16.5	17.8	18.0	14.2	15.6	14.5	15.8	16.1
4H	17.0	18.3	17.3	18.5	18.8	14.6	15.9	14.9	16.2	16.4
6H	17.7	18.9	18.0	19.2	19.4	15.0	16.2	15.3	16.4	16.7
8H	17.9	19.1	18.3	19.4	19.7	15.1	16.3	15.4	16.5	16.8
12H	18.1	19.2	18.4	19.5	19.8	15.1	16.3	15.5	16.6	16.9
4H 2H	14.9	16.2	15.2	16.5	16.7	14.0	15.3	14.3	15.5	15.8
3H	16.8	18.0	17.2	18.3	18.6	15.2	16.3	15.5	16.6	16.9
4H	17.8	18.8	18.1	19.1	19.5	15.7	16.8	16.1	17.1	17.4
6H	18.6	19.5	19.0	19.9	20.2	16.2	17.1	16.6	17.5	17.8
8H	18.9	19.8	19.3	20.2	20.5	16.4	17.2	16.8	17.6	18.0
12H	19.2	20.0	19.6	20.4	20.8	16.5	17.3	16.9	17.7	18.1
8H 4H	18.0	18.8	18.4	19.2	19.6	16.2	17.0	16.6	17.4	17.8
6H	19.0	19.7	19.4	20.1	20.5	16.8	17.5	17.3	17.9	18.4
8H	19.4	20.0	19.9	20.5	20.9	17.1	17.7	17.6	18.1	18.6
12H	19.8	20.3	20.2	20.7	21.2	17.3	17.8	17.8	18.3	18.8
12H 4H	18.0	18.7	18.4	19.1	19.5	16.2	17.0	16.7	17.4	17.8
6H	19.0	19.6	19.5	20.1	20.5	17.0	17.6	17.4	18.0	18.5
8H	19.5	20.0	20.0	20.5	21.0	17.3	17.8	17.8	18.3	18.8
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.2 / - 0.3				
1.5H	+ 0.1 / - 0.2					+ 0.2 / - 0.4				
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.5				

CIE Pub.117 Corrected 373.7 lm Total Lamp Luminous Flux. (8log(F/F0) = -3.4)

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-04-26

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:8.600m [K=1.0000]
 Remarks: led panel light

UTILIZATION FACTORS TABLE

Test:U:122.3V I:0.0500A P:5.980W PF:0.9720 Lamp Flux:373.692x1 lm		
NAME: led panel light	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

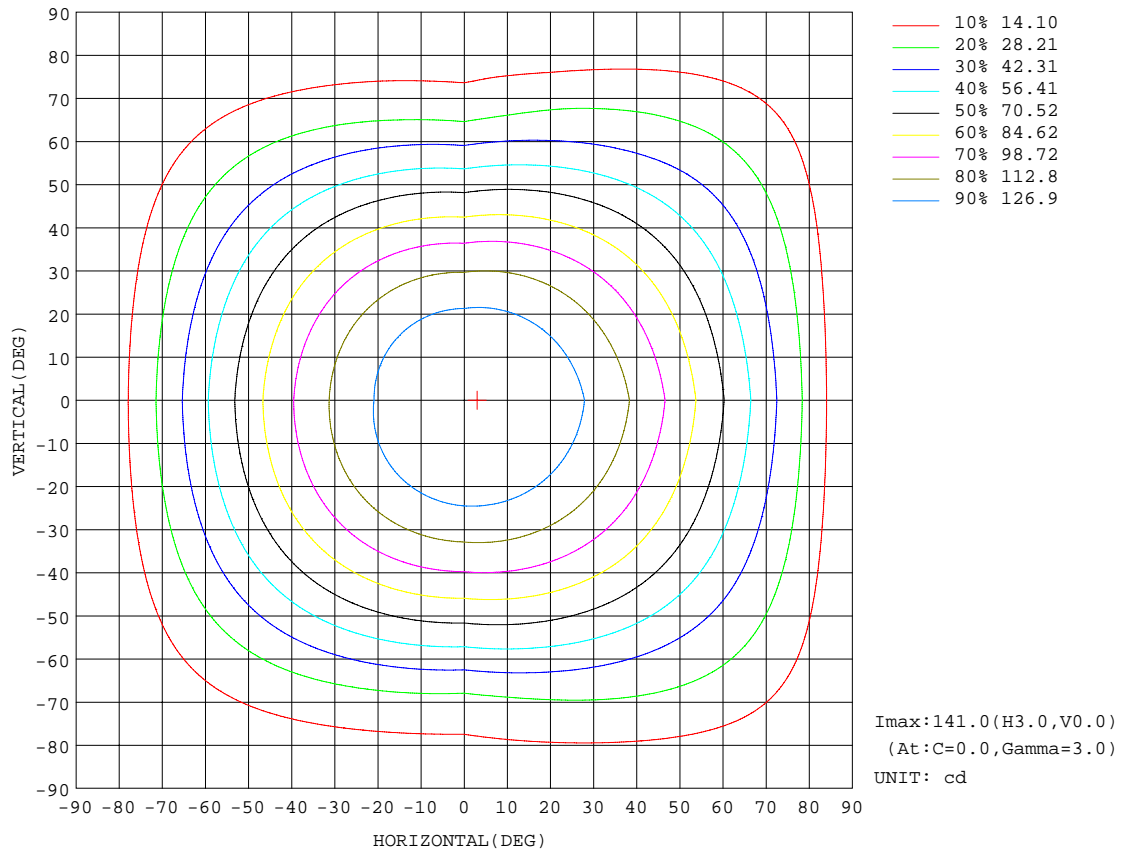
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	59	48	41	58	47	41	57	47	41	34
0.80	69	58	51	68	57	50	66	57	50	43
1.00	78	67	60	76	66	59	74	67	59	52
1.25	85	74	68	83	74	67	80	72	66	59
1.50	89	80	73	88	79	73	85	77	72	64
2.00	96	88	82	94	87	81	91	84	79	72
2.50	100	92	87	98	91	86	94	88	84	76
3.00	103	96	91	101	95	90	97	92	88	80
4.00	107	101	97	105	100	96	100	96	93	84
5.00	109	105	101	107	103	99	102	99	96	87
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:2017-04-26

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:8.600m [K=1.0000]
 Remarks: led panel light

ISOCANDELA DIAGRAM

Test:U:122.3V I:0.0500A P:5.980W PF:0.9720 Lamp Flux:373.692x1 lm		
NAME: led panel light	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

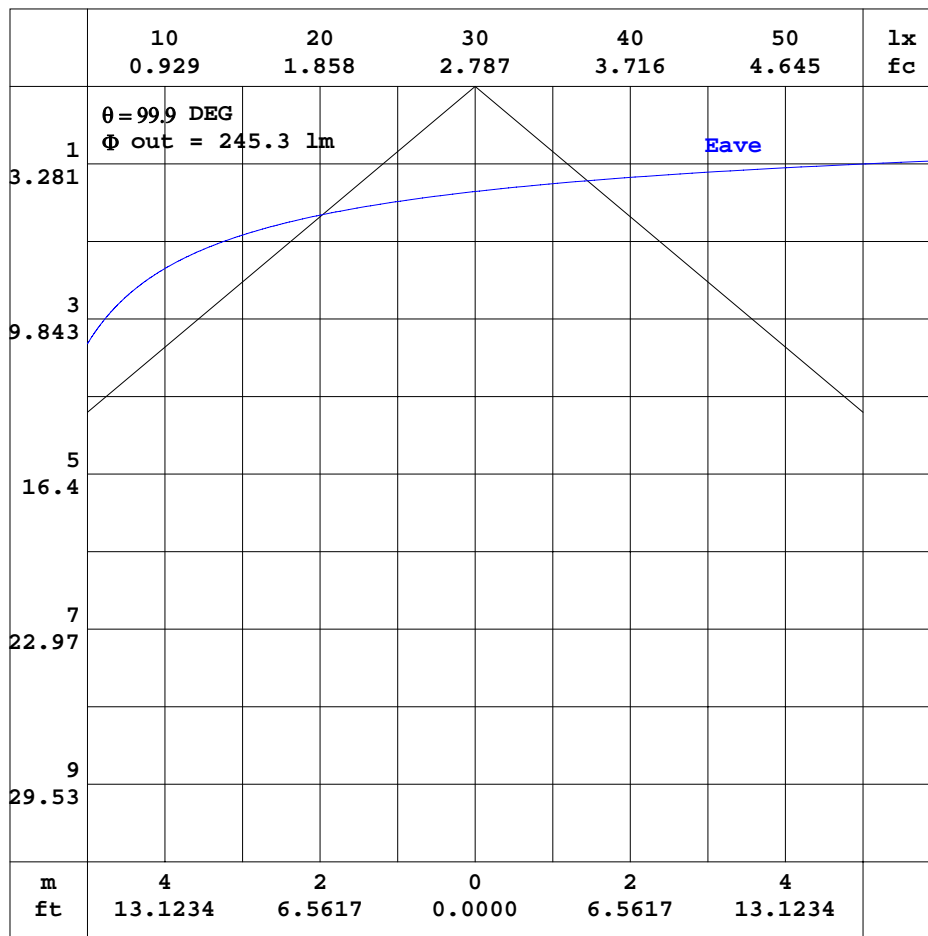


C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2017-04-26

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity: 65.0%
 Test Distance: 8.600m [K=1.0000]
 Remarks: led panel light

AAI CURVES

Test:U:122.3V I:0.0500A P:5.980W PF:0.9720 Lamp Flux:373.692x1 lm		
NAME: led panel light	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



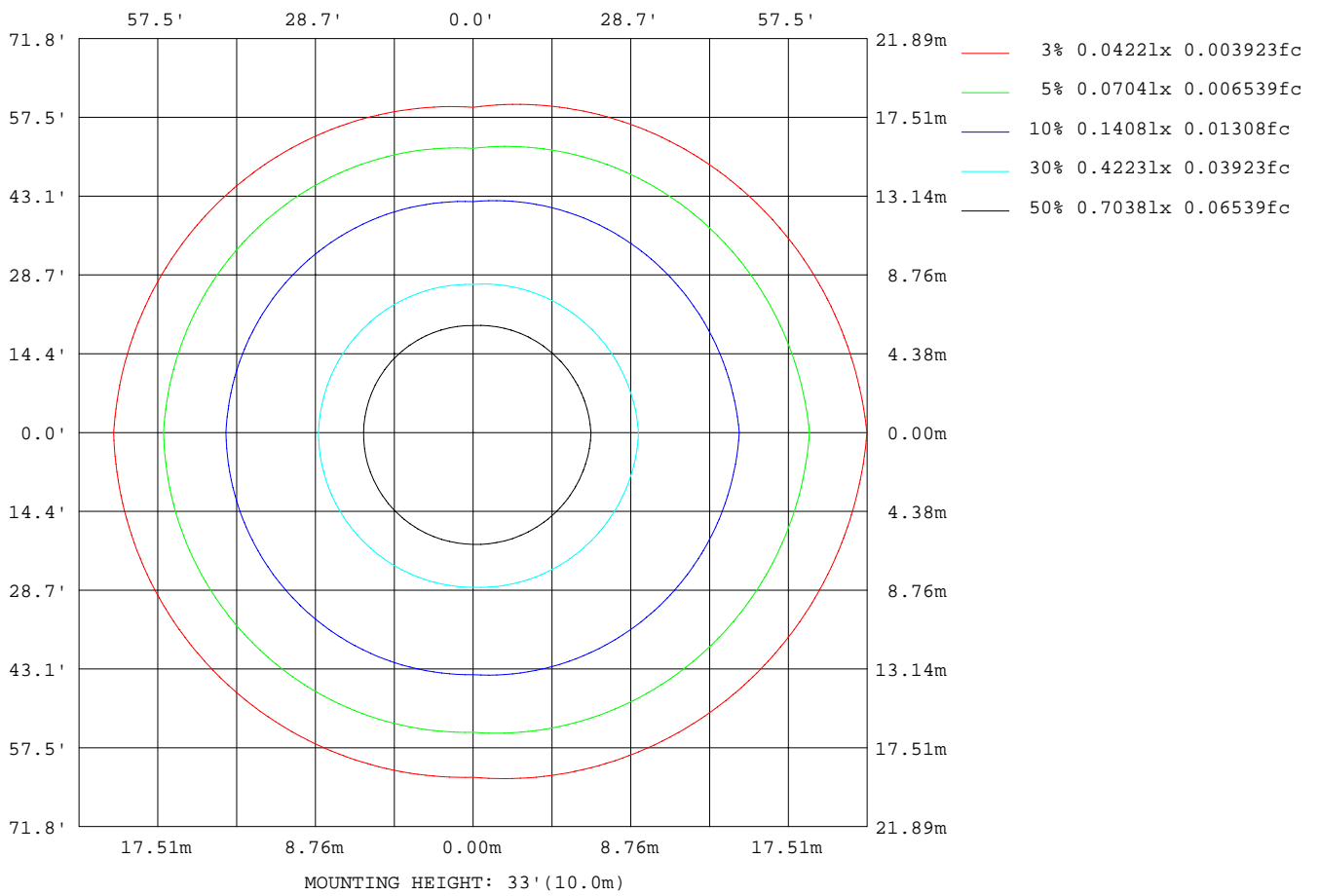
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-04-26

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:8.600m [K=1.0000]
 Remarks: led panel light

ISOLUX DIAGRAM

Test:U:122.3V I:0.0500A P:5.980W PF:0.9720 Lamp Flux:373.692x1 lm		
NAME: led panel light	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-04-26

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:8.600m [K=1.0000]
 Remarks: led panel light

LED Avg.L Report

Test:U:122.3V I:0.0500A P:5.980W PF:0.9720 Lamp Flux:373.692x1 lm		
NAME: led panel light	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

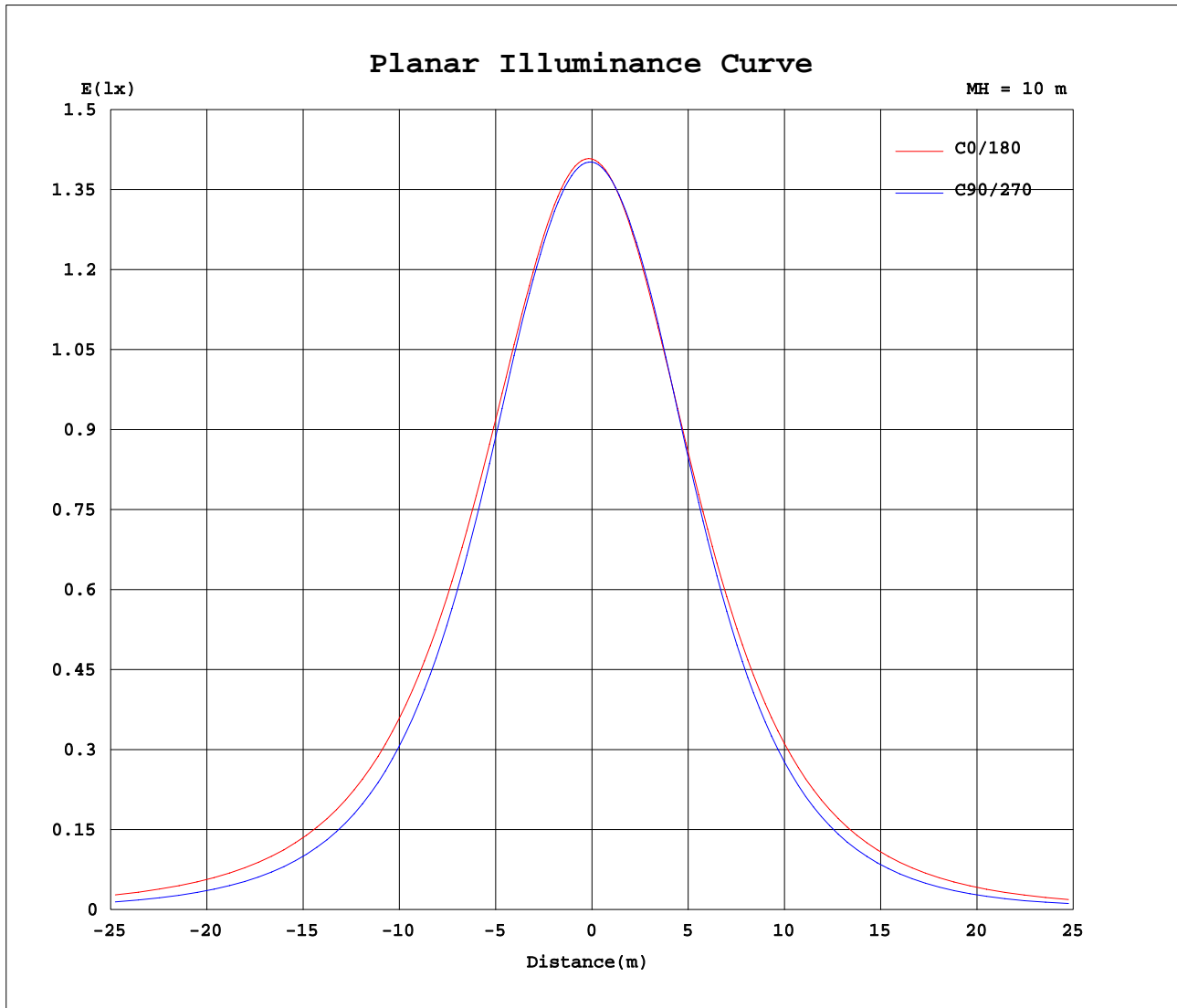
AvgL	cd/m2
L_0~180(65)av	1218
L_0~180(75)av	1095
L_0~180(85)av	664
L_90~270(65)av	745
L_90~270(75)av	565
L_90~270(85)av	386
L_45(65)av	910
L_45(75)av	744
L_45(85)av	454

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2017-04-26

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:8.600m [K=1.0000]
Remarks: led panel light

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2017-04-26

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity: 65.0%
 Test Distance: 8.600m [K=1.0000]
 Remarks: led panel light

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:122.3V I:0.0500A P:5.980W PF:0.9720 Lamp Flux:373.692x1 lm		
NAME: led panel light	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	90	180	270															
0	141	140	141	140															
5	141	140	139	139															
10	140	139	137	137															
15	138	136	133	134															
20	135	133	128	129															
25	130	126	122	121															
30	124	118	115	112															
35	118	109	107	102															
40	110	98.2	97.9	90.4															
45	102	86.8	88.1	78.3															
50	92.1	74.7	77.5	65.8															
55	81.9	62.0	66.4	52.9															
60	71.1	49.0	54.9	39.8															
65	59.7	35.8	43.2	27.2															
70	48.1	23.8	31.5	19.4															
75	36.4	17.1	20.3	12.2															
80	24.2	11.1	9.85	5.41															
85	11.6	5.17	0.02	1.55															
90	0.43	0.00	0.00	0.00															
95	0.00	0.00	0.00	0.00															
100	0.00	0.00	0.00	0.00															
105	0.00	0.00	0.00	0.00															
110	0.00	0.00	0.00	0.00															
115	0.00	0.00	0.00	0.00															
120	0.00	0.00	0.00	0.00															
125	0.00	0.00	0.00	0.00															
130	0.00	0.00	0.00	0.00															
135	0.00	0.00	0.00	0.00															
140	0.00	0.00	0.00	0.00															
145	0.00	0.00	0.00	0.00															
150	0.00	0.00	0.00	0.00															
155	0.00	0.00	0.00	0.00															
160	0.00	0.00	0.00	0.00															
165	0.00	0.00	0.00	0.00															
170	0.00	0.00	0.00	0.00															
175	0.00	0.00	0.00	0.00															
180	0.00	0.00	0.00	0.00															

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-04-26

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:8.600m [K=1.0000]
 Remarks: led panel light