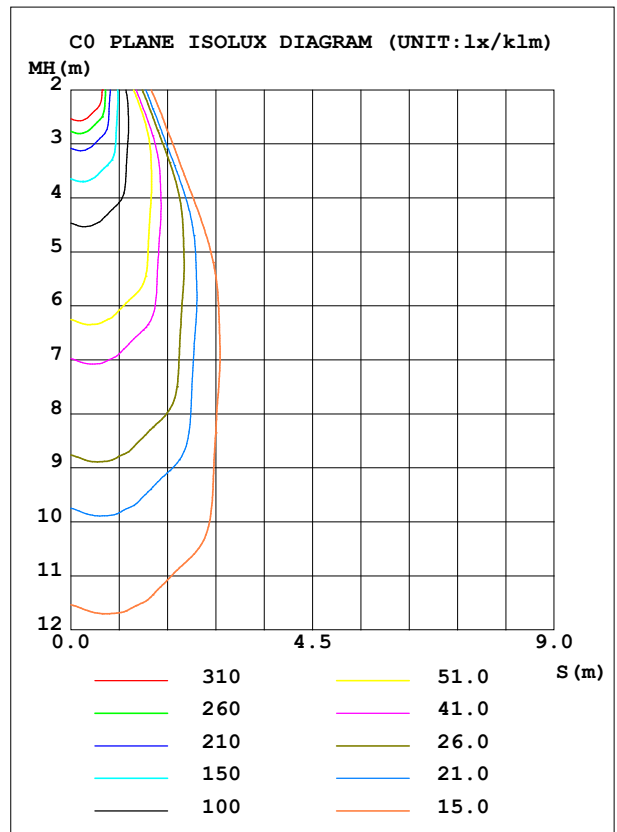
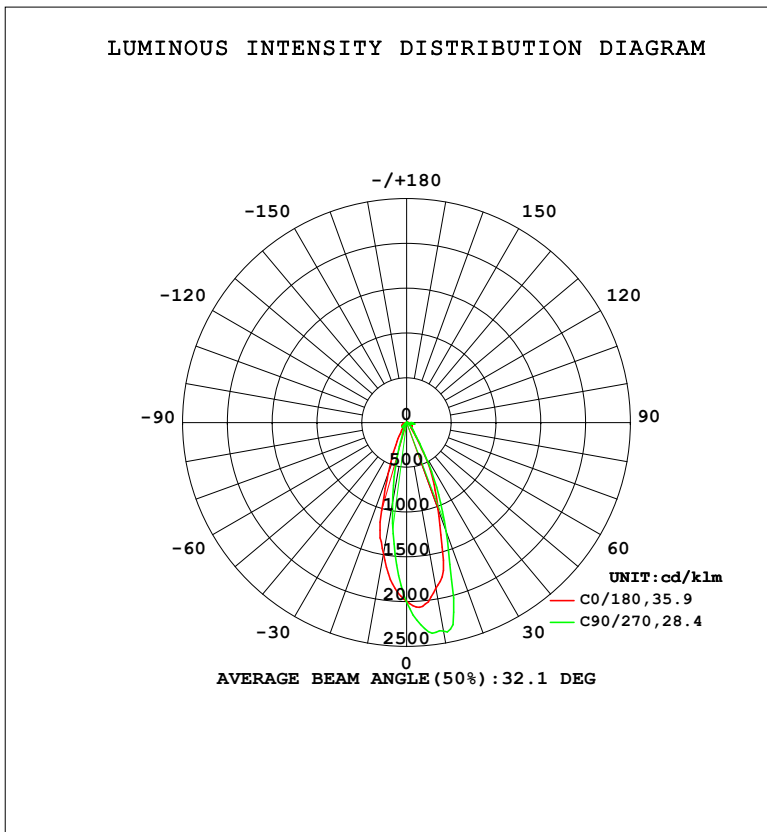


**LUMINAIRE PHOTOMETRIC TEST REPORT**

Test:U:119.85V I:0.0646A P:7.4647W PF:0.9640 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:401.979x1 lm		
NAME: ASD-CD-PWR-2D8AC-WH	TYPE:	WEIGHT:
SPEC.: 3500K 90	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 53.85 lm/W
MODEL		I <sub>max</sub> (cd/klm)	2437	S/MH (C0/180)		0.52
NOMINAL POWER (W)	8	LOR (%)	100.0	S/MH (C90/270)		0.31
RATED VOLTAGE (V)	120.0	TOTAL FLUX (lm/klm)	1000.00	η UP, DN (C0-180)		0.0,71.0
NOMINAL FLUX (lm)	401.979	CIE CLASS	DIRECT	η UP, DN (C180-360)		0.0,29.0
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM		0.50
TEST VOLTAGE (V)	120	η down (%)	100.0	CIBSE SHR MAX		0.55



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature: 25.3 °C  
 Operators:  
 Test Date: 2023-07-13

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.460  
 Humidity: 65.0%  
 Test Distance: 3.080m [K=1.0000]  
 Remarks:

**ZONAL FLUX DIAGRAM**

ZONAL FLUX DIAGRAM:

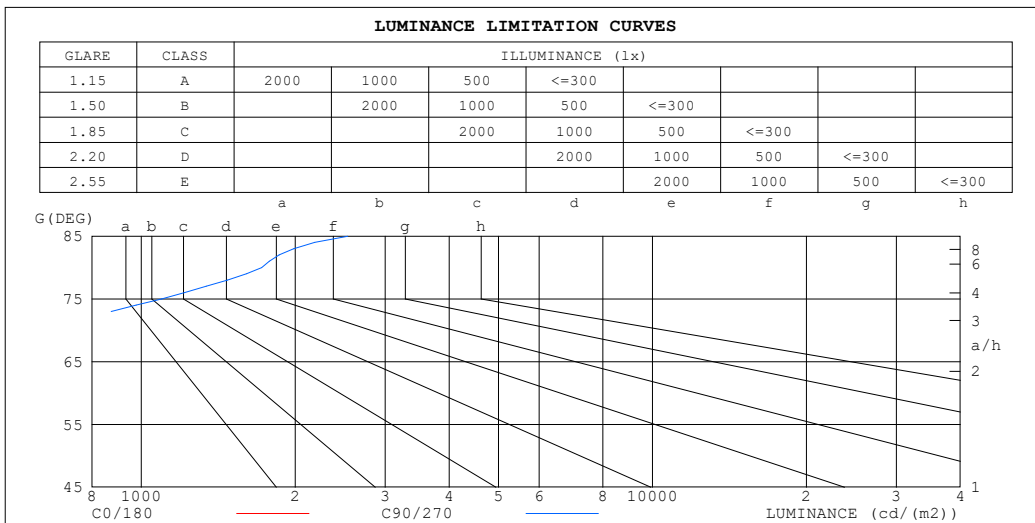
$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum,lamp
10	1880	2317	2361	2077	1488	1016	920.4	1257	0- 10	175.0	175.0	17.5,17.5
20	1033	1285	1287	1174	608.9	194.4	140.6	339.4	10- 20	340.9	515.9	51.6,51.6
30	341.6	368.4	380.2	389.5	152.7	60.58	58.19	80.54	20- 30	212.7	728.6	72.9,72.9
40	86.17	116.0	118.8	100.2	59.05	56.16	56.25	54.22	30- 40	80.06	808.7	80.9,80.9
50	66.40	40.22	38.99	67.43	67.69	49.30	45.31	61.36	40- 50	53.81	862.5	86.2,86.2
60	56.96	35.09	29.36	52.38	53.78	23.94	17.41	40.16	50- 60	39.61	902.1	90.2,90.2
70	51.29	54.11	59.55	53.95	35.45	4.259	3.269	21.71	60- 70	36.21	938.3	93.8,93.8
80	34.13	74.16	82.47	51.81	13.60	1.674	0.9418	4.005	70- 80	38.16	976.5	97.6,97.6
90	7.210	29.76	37.65	19.93	0.2493	0.4167	0.4838	0.3026	80- 90	23.55	1000.0	100,100
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:cd/klm									UNIT:lm/klm		

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3 °C  
 Operators:  
 Test Date:2023-07-13

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.460  
 Humidity:65.0%  
 Test Distance:3.080m [K=1.0000]  
 Remarks:

**LUMINANCE LIMITATION CURVES**

Test:U:119.85V I:0.0646A P:7.4647W PF:0.9640 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:401.979x1 lm		
NAME: ASD-CD-PWR-2D8AC-WH	TYPE:	WEIGHT:
SPEC.: 3500K 90	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	638	2534
80	711	1718
75	681	1095
70	542	630
65	450	388
60	412	212
55	367	156
50	374	219
45	354	400

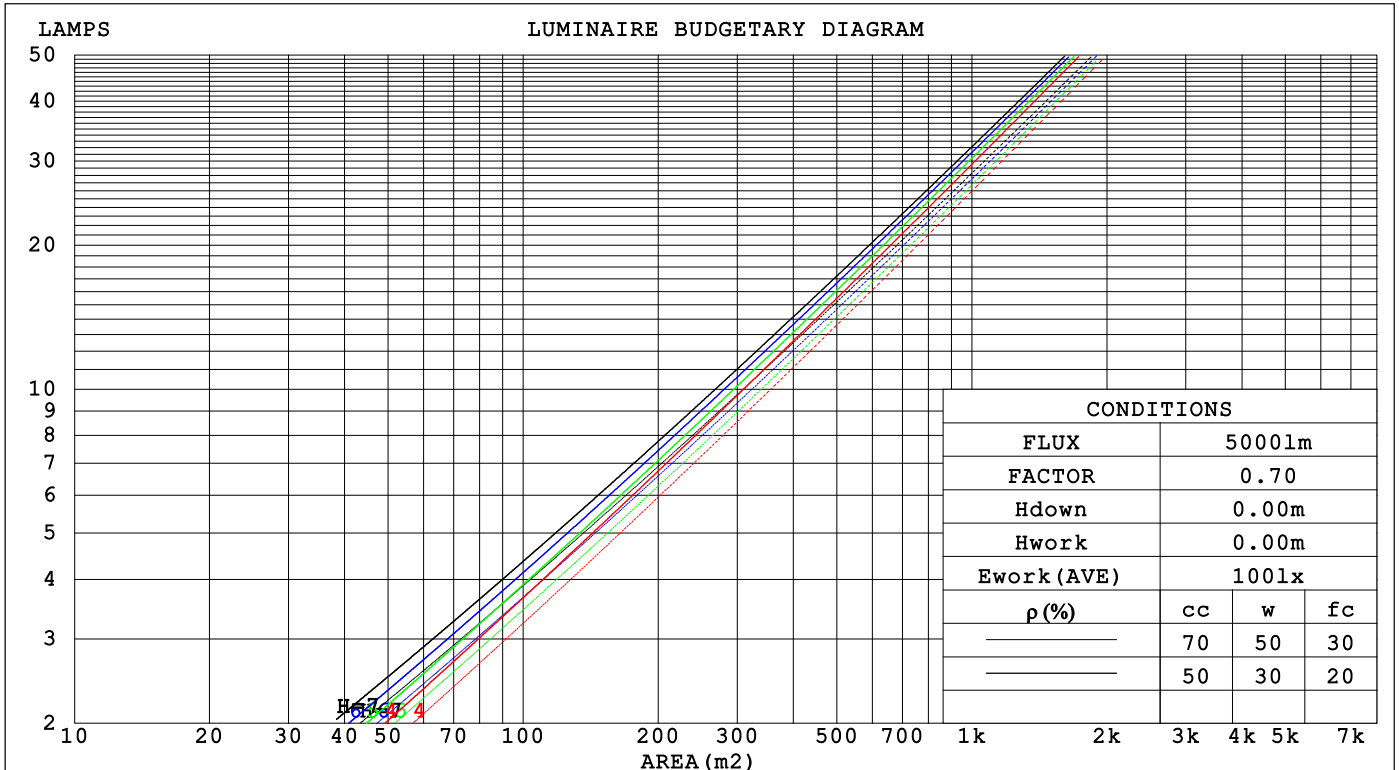
C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:  
 Test Date:2023-07-13

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.460  
 Humidity:65.0%  
 Test Distance:3.080m [K=1.0000]  
 Remarks:

**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

Test:U:119.85V I:0.0646A P:7.4647W PF:0.9640 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:401.979x1 lm		
NAME: ASD-CD-PWR-2D8AC-WH	TYPE:	WEIGHT:
SPEC.: 3500K 90	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															
	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	1.08	1.05	1.03	1.06	1.03	1.01	1.02	.90	.98	.98	.97	.95	.95	.93	.92	.90
2.0	1.00	.95	.91	.98	.94	.90	.95	.91	.88	.92	.89	.86	.89	.87	.85	.83
3.0	.93	.88	.83	.92	.87	.83	.89	.85	.81	.87	.83	.80	.84	.81	.79	.77
4.0	.87	.81	.77	.86	.81	.76	.84	.79	.75	.82	.78	.75	.80	.77	.74	.72
5.0	.82	.76	.72	.81	.76	.71	.80	.75	.71	.78	.73	.70	.76	.72	.69	.68
6.0	.78	.72	.67	.77	.71	.67	.76	.70	.67	.74	.70	.66	.73	.69	.66	.64
7.0	.74	.68	.64	.73	.68	.64	.72	.67	.63	.71	.66	.63	.70	.66	.62	.61
8.0	.70	.65	.60	.70	.64	.60	.69	.64	.60	.68	.63	.60	.67	.63	.60	.58
9.0	.67	.62	.58	.67	.61	.58	.66	.61	.57	.65	.60	.57	.64	.60	.57	.56
10.0	.64	.59	.55	.64	.59	.55	.63	.58	.55	.62	.58	.55	.62	.58	.55	.53



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:  
 Test Date:2023-07-13

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.460  
 Humidity:65.0%  
 Test Distance:3.080m [K=1.0000]  
 Remarks:

**WEC AND CCEC**

Test:U:119.85V I:0.0646A P:7.4647W PF:0.9640 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:401.979x1 lm		
NAME: ASD-CD-PWR-2D8AC-WH	TYPE:	WEIGHT:
SPEC.: 3500K 90	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.:	Shielding Angle:

$\rho_{CC}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.222	.126	.040	.215	.123	.039	.202	.116	.037	.190	.110	.035	.180	.104	.034	
2.0	.199	.109	.033	.193	.107	.033	.183	.101	.032	.172	.097	.030	.163	.092	.029	
3.0	.181	.097	.029	.177	.095	.028	.167	.091	.028	.159	.087	.027	.151	.083	.026	
4.0	.167	.087	.026	.163	.085	.025	.155	.082	.025	.147	.079	.024	.140	.076	.023	
5.0	.155	.079	.023	.151	.078	.023	.144	.075	.022	.138	.073	.022	.132	.070	.021	
6.0	.145	.073	.021	.142	.071	.021	.135	.069	.020	.130	.067	.020	.125	.066	.019	
7.0	.136	.067	.019	.133	.066	.019	.128	.065	.019	.123	.063	.018	.118	.061	.018	
8.0	.128	.063	.018	.126	.062	.017	.121	.060	.017	.117	.059	.017	.112	.058	.017	
9.0	.121	.059	.016	.119	.058	.016	.115	.057	.016	.111	.056	.016	.107	.054	.016	
10.0	.115	.055	.015	.113	.055	.015	.110	.054	.015	.106	.053	.015	.103	.052	.015	

$\rho_{CC}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	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	.174	.157	.141	.149	.135	.122	.102	.093	.084	.059	.054	.049	.019	.017	.016	
2.0	.160	.132	.109	.137	.114	.094	.094	.079	.066	.054	.046	.039	.017	.015	.013	
3.0	.147	.114	.087	.126	.098	.075	.087	.068	.053	.050	.040	.031	.016	.013	.010	
4.0	.137	.099	.071	.117	.086	.061	.081	.060	.043	.047	.035	.026	.015	.011	.008	
5.0	.127	.088	.058	.109	.076	.051	.075	.053	.036	.044	.031	.021	.014	.010	.007	
6.0	.119	.078	.049	.102	.068	.043	.071	.047	.030	.041	.028	.018	.013	.009	.006	
7.0	.112	.071	.042	.096	.061	.036	.066	.043	.026	.039	.025	.015	.012	.008	.005	
8.0	.105	.064	.036	.091	.056	.031	.063	.039	.022	.036	.023	.013	.012	.008	.004	
9.0	.100	.059	.031	.086	.051	.027	.059	.036	.019	.035	.021	.012	.011	.007	.004	
10.0	.094	.054	.028	.081	.047	.024	.056	.033	.017	.033	.020	.010	.011	.006	.003	

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:  
 Test Date:2023-07-13

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.460  
 Humidity:65.0%  
 Test Distance:3.080m [K=1.0000]  
 Remarks:

**UGR(Unified Glare Rating) Table**

Test:U:119.85V I:0.0646A P:7.4647W PF:0.9640 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:401.979x1 lm										
NAME: ASD-CD-PWR-2D8AC-WH					TYPE:			WEIGHT:		
SPEC.: 3500K 90					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	8.9	9.9	9.2	10.1	10.2	7.5	8.5	7.7	8.6	8.8
3H	11.8	12.7	12.1	12.9	13.1	11.8	12.7	12.0	12.9	13.1
4H	13.6	14.5	13.9	14.7	14.9	15.0	15.8	15.2	16.1	16.3
6H	15.2	16.1	15.5	16.3	16.6	18.1	19.0	18.4	19.2	19.5
8H	15.6	16.4	15.9	16.7	17.0	19.3	20.1	19.6	20.3	20.6
12H	15.9	16.7	16.2	16.9	17.2	20.3	21.0	20.6	21.3	21.6
4H 2H	9.6	10.5	9.9	10.7	10.9	8.6	9.5	8.9	9.7	9.9
3H	13.1	13.8	13.4	14.1	14.4	13.3	14.1	13.7	14.4	14.7
4H	15.2	15.9	15.5	16.2	16.5	16.7	17.4	17.0	17.7	18.0
6H	17.1	17.8	17.5	18.1	18.5	19.9	20.6	20.3	20.9	21.3
8H	17.6	18.2	18.0	18.6	18.9	21.1	21.7	21.5	22.1	22.4
12H	18.0	18.5	18.4	18.9	19.3	22.1	22.7	22.5	23.1	23.5
8H 4H	16.6	17.2	17.0	17.6	18.0	17.7	18.3	18.1	18.7	19.0
6H	18.8	19.3	19.2	19.7	20.1	21.1	21.6	21.5	22.0	22.4
8H	19.4	19.9	19.9	20.3	20.7	22.3	22.8	22.8	23.2	23.7
12H	19.9	20.3	20.4	20.8	21.2	23.5	23.9	24.0	24.4	24.8
12H 4H	17.1	17.7	17.5	18.0	18.4	17.9	18.5	18.3	18.8	19.2
6H	19.3	19.8	19.8	20.2	20.7	21.3	21.7	21.7	22.1	22.6
8H	20.0	20.4	20.5	20.9	21.4	22.6	23.0	23.1	23.5	23.9
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.1				
1.5H	+ 0.1 / - 0.1					+ 0.1 / - 0.1				
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.2				

CIE Pub.117, 402.0 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -3.2)  
 Area: 0.111111 m2

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:  
 Test Date:2023-07-13

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.460  
 Humidity:65.0%  
 Test Distance:3.080m [K=1.0000]  
 Remarks:

**UTILIZATION FACTORS TABLE**

Test:U:119.85V I:0.0646A P:7.4647W PF:0.9640 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:401.979x1 lm		
NAME: ASD-CD-PWR-2D8AC-WH	TYPE:	WEIGHT:
SPEC.: 3500K 90	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.:	Shielding Angle:

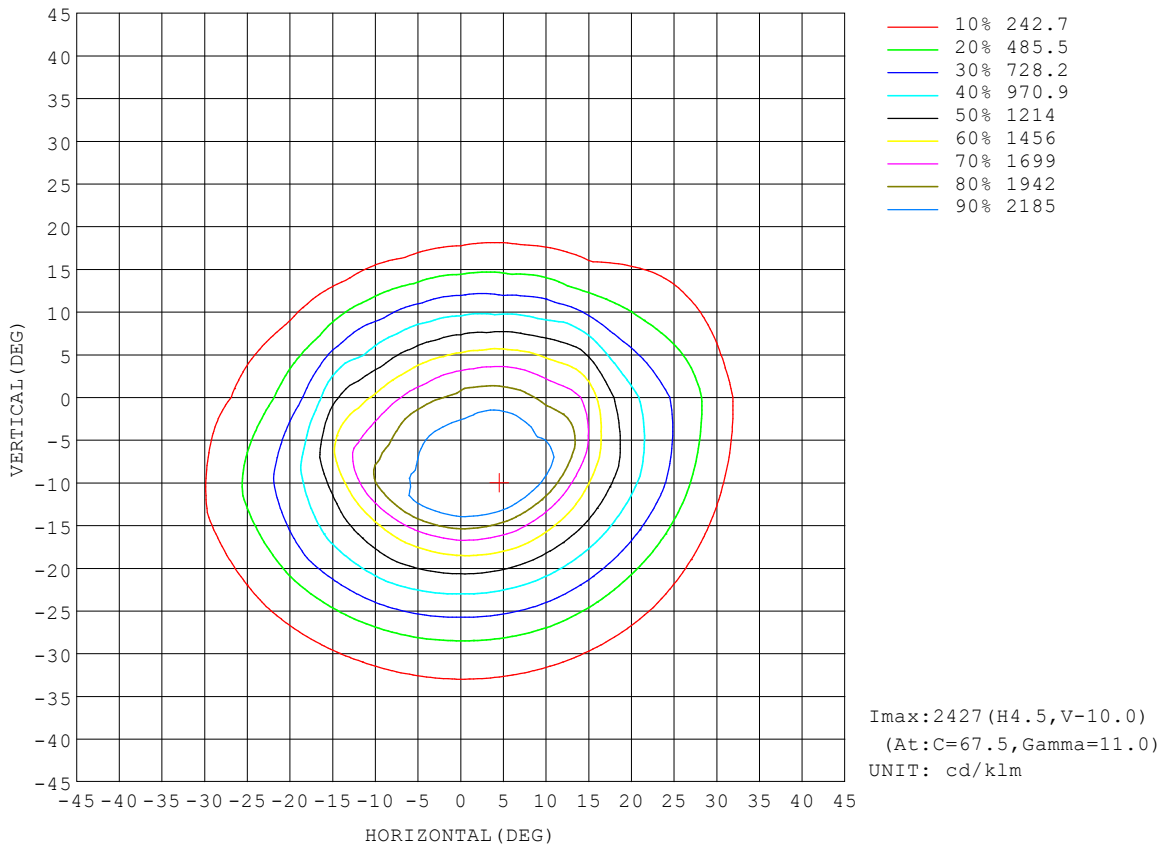
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	80	72	68	80	72	68	79	72	68	63
0.80	88	80	76	87	80	76	86	79	75	71
1.00	93	86	81	92	85	81	90	85	80	75
1.25	97	90	86	96	90	85	94	89	85	80
1.50	100	94	90	99	93	89	97	92	88	83
2.00	104	98	94	102	97	93	99	95	92	86
2.50	106	101	97	104	100	96	101	97	94	87
3.00	108	104	100	106	102	99	103	99	97	89
4.00	111	107	104	109	105	102	105	102	100	92
5.00	113	109	107	110	107	105	106	104	102	94
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:  
 Test Date:2023-07-13

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.460  
 Humidity:65.0%  
 Test Distance:3.080m [K=1.0000]  
 Remarks:

**ISOCANDELA DIAGRAM**

Test:U:119.85V I:0.0646A P:7.4647W PF:0.9640 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:401.979x1 lm		
NAME: ASD-CD-PWR-2D8AC-WH	TYPE:	WEIGHT:
SPEC.: 3500K 90	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.:	Shielding Angle:



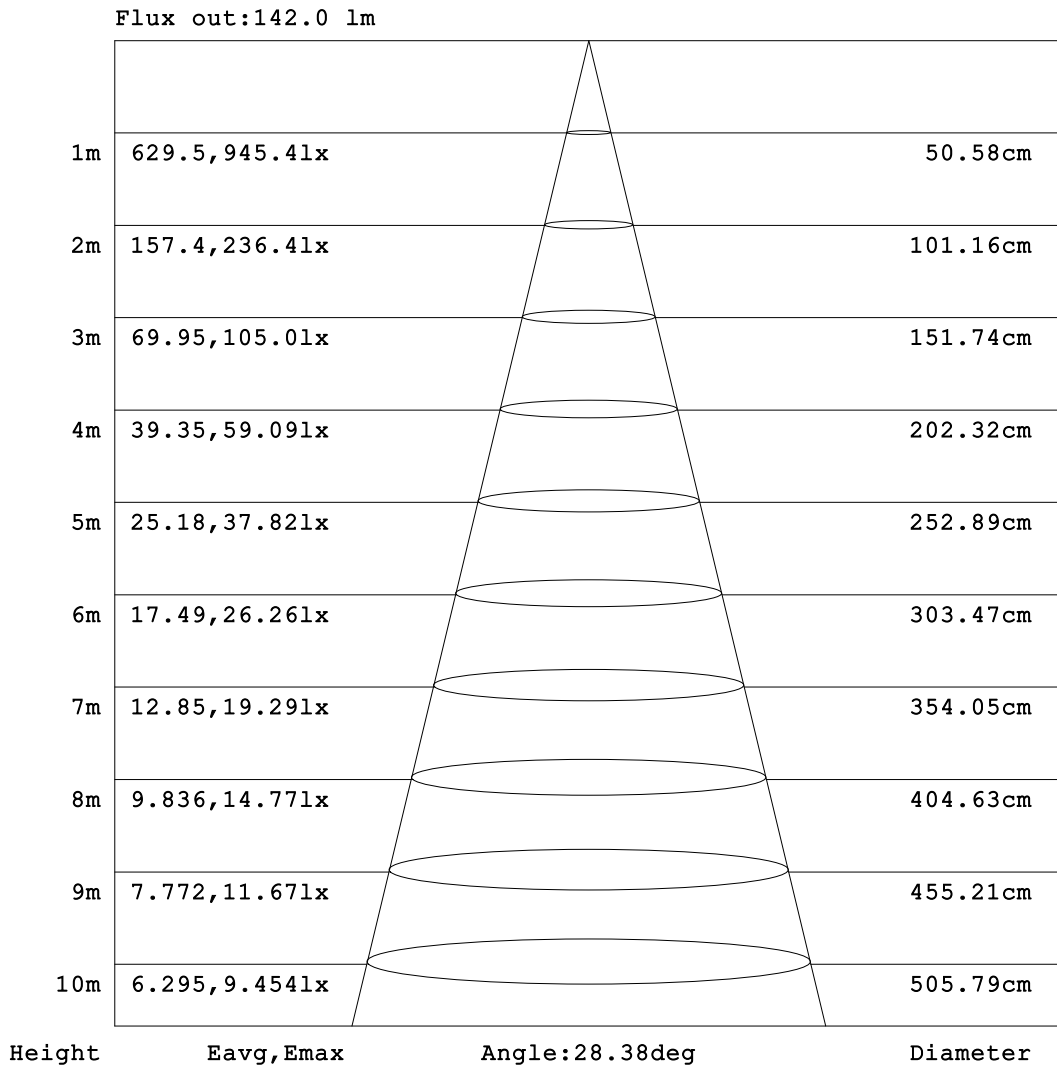
C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:  
 Test Date:2023-07-13

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.460  
 Humidity:65.0%  
 Test Distance:3.080m [K=1.0000]  
 Remarks:



**AAI Figure**

Test:U:119.85V I:0.0646A P:7.4647W PF:0.9640 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:401.979x1 lm		
NAME: ASD-CD-PWR-2D8AC-WH	TYPE:	WEIGHT:
SPEC.: 3500K 90	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.:	Shielding Angle:



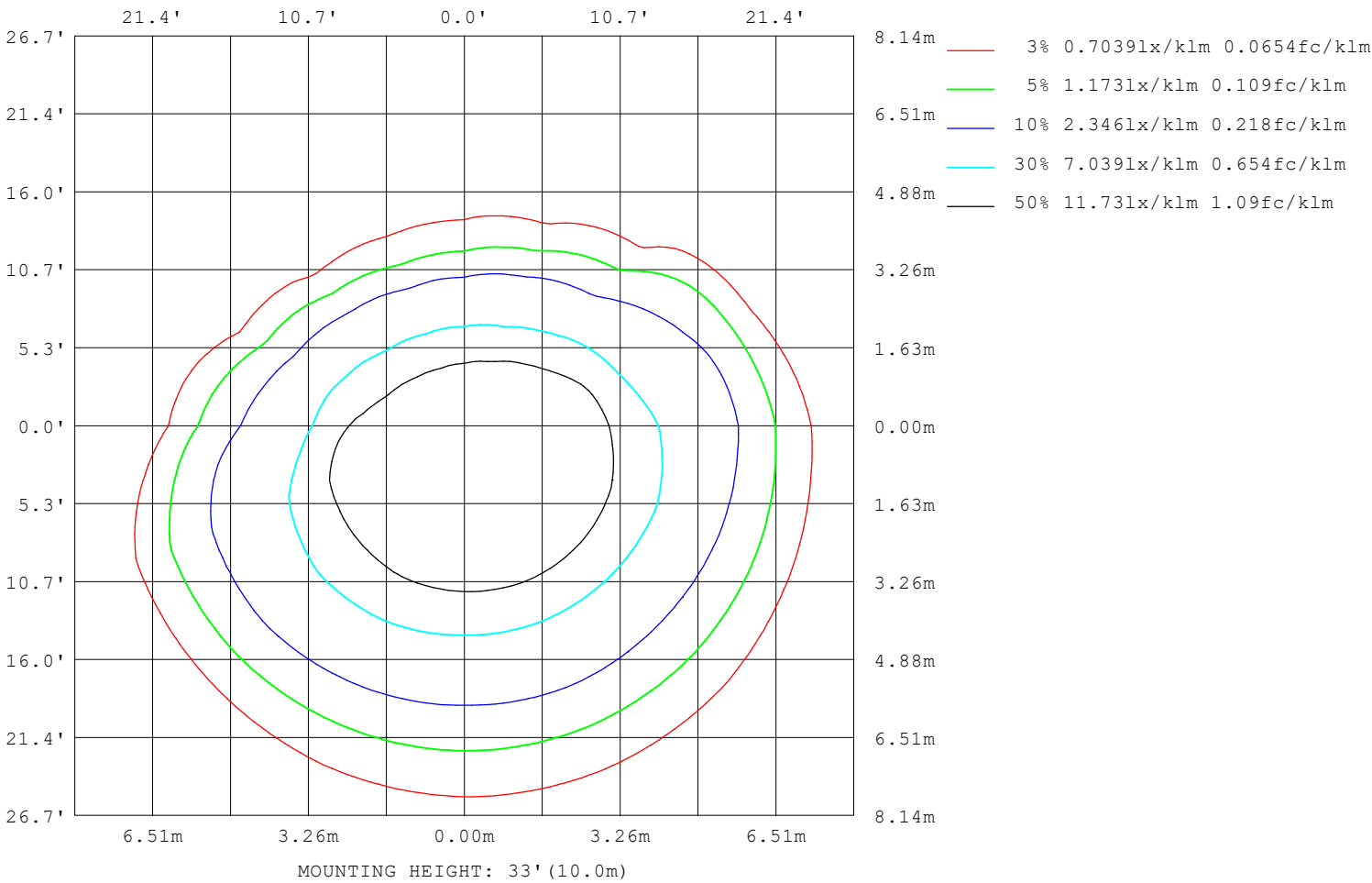
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:2023-07-13

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.460  
Humidity:65.0%  
Test Distance:3.080m [K=1.0000]  
Remarks:

**ISOLUX DIAGRAM**

Test:U:119.85V I:0.0646A P:7.4647W PF:0.9640 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:401.979x1 lm		
NAME: ASD-CD-PWR-2D8AC-WH	TYPE:	WEIGHT:
SPEC.: 3500K 90	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.:	Shielding Angle:



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature: 25.3°C  
 Operators:  
 Test Date: 2023-07-13

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.460  
 Humidity: 65.0%  
 Test Distance: 3.080m [K=1.0000]  
 Remarks:

**LED Avg.L Report**

Test:U:119.85V I:0.0646A P:7.4647W PF:0.9640 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:401.979x1 lm		
NAME: ASD-CD-PWR-2D8AC-WH	TYPE:	WEIGHT:
SPEC.: 3500K 90	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.:	Shielding Angle:

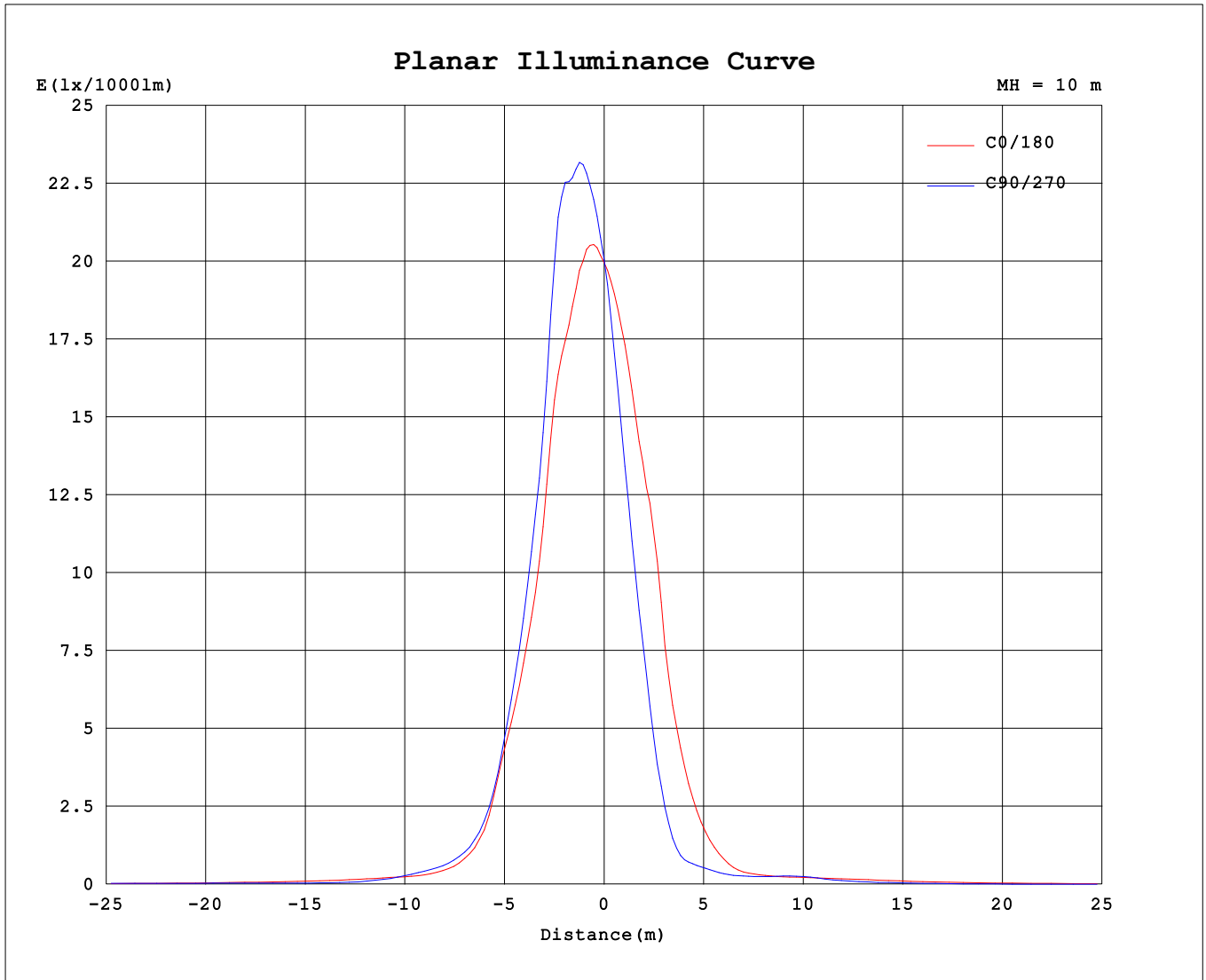
AvgL	cd/m2
L_0~180 (65) av	409
L_0~180 (75) av	523
L_0~180 (85) av	380
L_90~270 (65) av	225
L_90~270 (75) av	559
L_90~270 (85) av	1280
L_45 (65) av	295
L_45 (75) av	493
L_45 (85) av	881

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3℃  
 Operators:  
 Test Date:2023-07-13

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.460  
 Humidity:65.0%  
 Test Distance:3.080m [K=1.0000]  
 Remarks:

**Planar Illuminance Curve**



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature: 25.3 °C  
 Operators:  
 Test Date: 2023-07-13

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.460  
 Humidity: 65.0%  
 Test Distance: 3.080m [K=1.0000]  
 Remarks:

