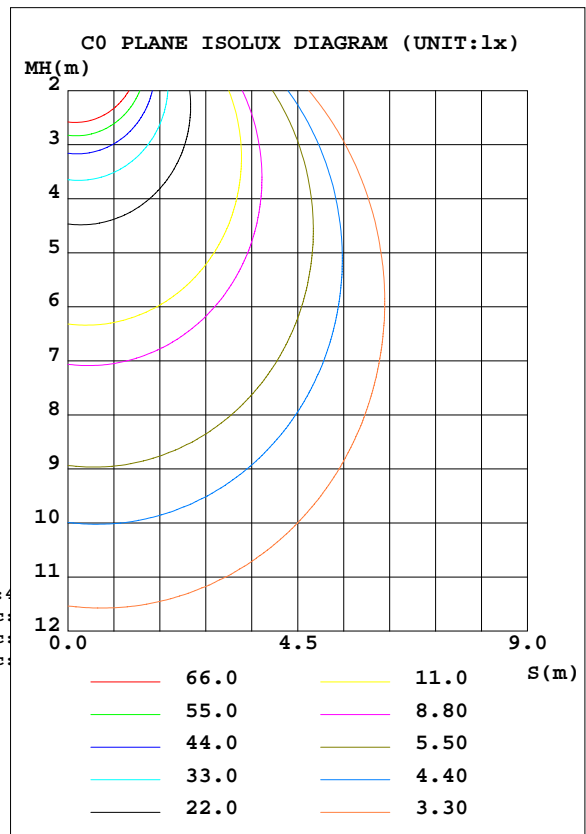
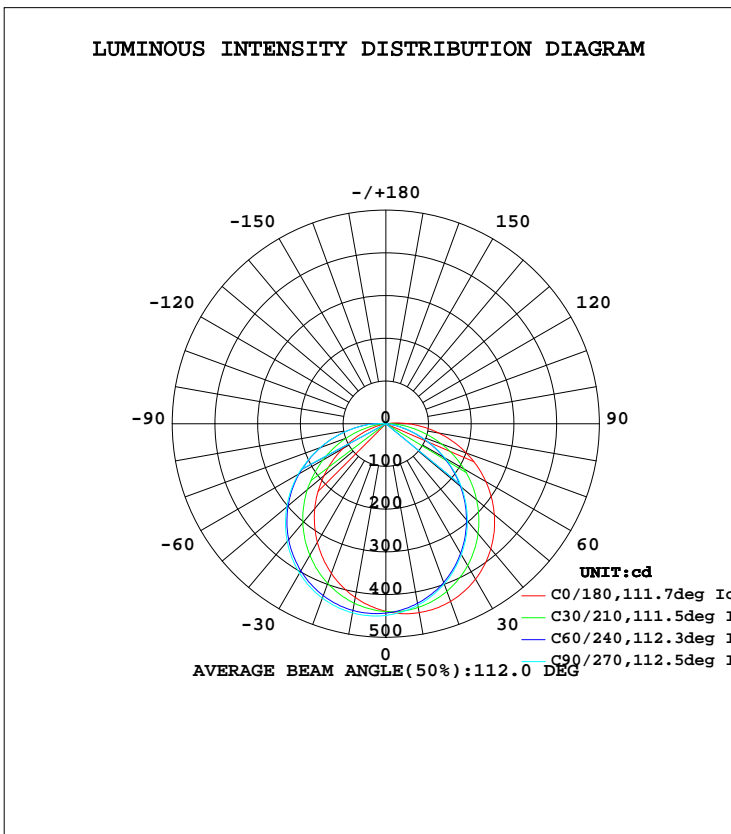


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.0V I:0.1642A P:18.17W PF:0.9227 Lamp Flux:1522x1 lm		
NAME: ASD-MPR-9D18CC-WH/BK 4000K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting corp	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 83.77 lm/W			
MODEL	ASD-MPR-9D18CC-WH/BK	I <sub>max</sub> (cd)	451.1	S/MH(C0/180)	1.10
NOMINAL POWER(W)	18	LOR(%)	100.0	S/MH(C90/270)	1.33
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	1522	η UP, DN(C0-180)	1.1,47.7
NOMINAL FLUX(lm)	1522	CIE CLASS	DIRECT	η UP, DN(C180-360)	1.2,50.0
LAMPS INSIDE	1	η up(%)	2.3	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	120	η down(%)	97.7	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2022-04-13

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
 Humidity:65.0%  
 Test Distance:7.500m [K=1.0000]  
 Remarks:

## ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	$\Phi$ lum,lamp
10	449.1	430.9	431.1	433.4	413.0	434.8	449.3	435.5	0- 10	41.89	41.89	3.21,3.21
20	442.5	405.3	399.0	408.6	372.8	412.8	434.4	412.6	10- 20	119.9	161.8	12.4,12.4
30	420.1	365.5	353.6	369.8	320.8	375.9	403.8	374.8	20- 30	181.5	343.2	26.3,26.3
40	382.3	313.1	297.1	319.4	258.9	327.3	359.3	324.1	30- 40	218.5	561.7	43,43
50	331.6	251.0	231.7	259.6	189.2	268.6	303.1	263.1	40- 50	226.4	788.2	60.4,60.4
60	270.1	180.8	159.2	191.2	116.7	202.0	237.2	194.4	50- 60	204.5	992.7	76.1,76.1
70	200.8	107.7	84.69	119.8	47.92	130.6	163.6	120.7	60- 70	156.4	1149	88.1,88.1
80	126.1	40.32	22.52	51.34	4.229	59.77	88.47	49.77	70- 80	91.99	1241	95.1,95.1
90	53.57	3.582	3.585	3.796	4.283	7.768	24.21	4.237	80- 90	33.84	1275	97.7,97.7
100	3.721	3.651	3.716	3.647	4.375	4.256	4.233	4.271	90-100	7.416	1282	98.3,98.3
110	3.651	3.755	3.866	3.763	4.464	4.321	4.325	4.344	100-110	4.244	1287	98.6,98.6
120	3.778	3.882	4.036	3.886	4.560	4.394	4.433	4.417	110-120	4.087	1291	98.9,98.9
130	3.928	4.056	4.259	4.056	4.691	4.464	4.541	4.502	120-130	3.805	1294	99.2,99.2
140	4.109	4.291	4.525	4.298	4.837	4.598	4.676	4.644	130-140	3.409	1298	99.5,99.5
150	4.379	4.583	4.829	4.587	5.003	4.764	4.849	4.814	140-150	2.896	1301	99.7,99.7
160	4.714	4.888	5.107	4.888	5.142	4.964	5.061	5.003	150-160	2.243	1303	99.9,99.9
170	5.026	5.138	5.315	5.161	5.276	5.164	5.261	5.207	160-170	1.441	1304	100,100
180	5.284	5.272	5.396	5.315	5.284	5.284	5.388	5.307	170-180	0.5012	1305	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

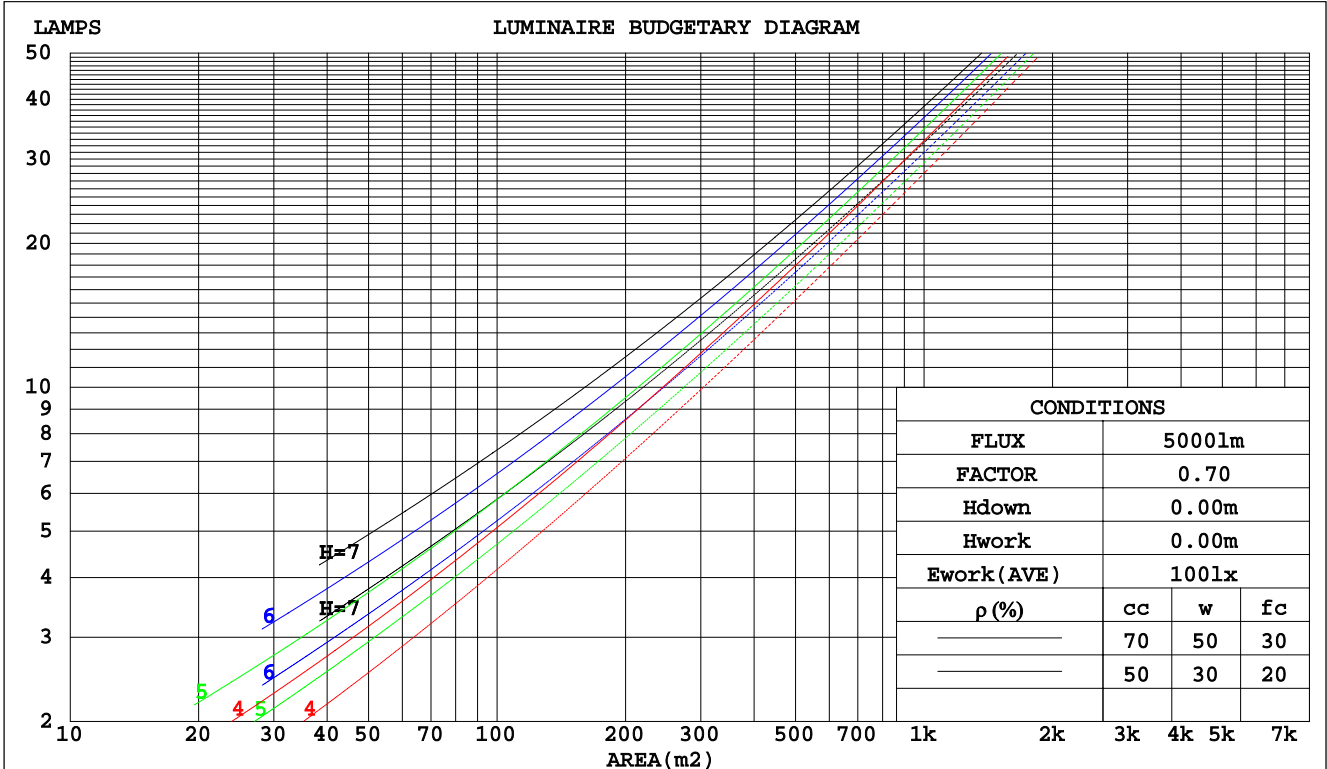
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2022-04-13

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
Humidity:65.0%  
Test Distance:7.500m [K=1.0000]  
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.0V I:0.1642A P:18.17W PF:0.9227 Lamp Flux:1522x1 lm		
NAME: ASD-MPR-9D18CC-WH/BK 4000K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting corp	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	1.15	1.15	1.15	1.10	1.10	1.10	1.05	1.05	1.05	.00	.00	.00	.98
1.0	1.03	.99	.95	1.00	.96	.93	.96	.92	.89	.91	.89	.86	.87	.85	.83	.81
2.0	.90	.83	.77	.87	.81	.76	.83	.78	.74	.80	.75	.71	.76	.73	.70	.67
3.0	.79	.70	.64	.77	.69	.63	.73	.67	.61	.70	.65	.60	.67	.63	.59	.56
4.0	.69	.61	.54	.68	.60	.53	.65	.58	.52	.63	.56	.51	.60	.55	.50	.48
5.0	.62	.53	.46	.61	.52	.46	.58	.51	.45	.56	.50	.44	.54	.48	.44	.42
6.0	.56	.47	.40	.55	.46	.40	.53	.45	.40	.51	.44	.39	.49	.43	.38	.36
7.0	.51	.42	.36	.50	.41	.35	.48	.40	.35	.46	.40	.35	.45	.39	.34	.32
8.0	.46	.38	.32	.45	.37	.32	.44	.36	.31	.42	.36	.31	.41	.35	.31	.29
9.0	.42	.34	.28	.42	.34	.28	.40	.33	.28	.39	.33	.28	.38	.32	.28	.26
10.0	.39	.31	.26	.38	.31	.26	.37	.30	.25	.36	.30	.25	.35	.29	.25	.23



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2022-04-13

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
 Humidity: 65.0%  
 Test Distance: 7.500m [K=1.0000]  
 Remarks:

WEC AND CCEC

Test:U:120.0V I:0.1642A P:18.17W PF:0.9227 Lamp Flux:1522x1 lm		
NAME: ASD-MPR-9D18CC-WH/BK 4000K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting corp	SUR.:	PROTECTION 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	.317	.180	.057	.309	.177	.056	.295	.169	.054	.281	.162	.052	.269	.156	.050	
2.0	.295	.162	.050	.288	.159	.049	.275	.153	.048	.263	.148	.046	.252	.143	.045	
3.0	.272	.145	.043	.266	.142	.043	.254	.138	.042	.244	.133	.041	.234	.129	.040	
4.0	.250	.130	.038	.245	.128	.038	.235	.124	.037	.225	.121	.036	.216	.117	.036	
5.0	.231	.118	.034	.226	.116	.034	.217	.113	.033	.208	.110	.033	.200	.107	.032	
6.0	.214	.107	.031	.210	.106	.030	.201	.103	.030	.194	.101	.030	.187	.098	.029	
7.0	.199	.098	.028	.195	.097	.028	.188	.095	.027	.181	.093	.027	.174	.091	.027	
8.0	.186	.091	.026	.182	.090	.025	.176	.088	.025	.169	.086	.025	.164	.084	.024	
9.0	.174	.084	.023	.171	.083	.023	.165	.081	.023	.159	.080	.023	.154	.078	.023	
10.0	.163	.078	.022	.161	.078	.022	.155	.076	.021	.150	.075	.021	.145	.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	.208	.208	.208	.178	.178	.178	.121	.121	.121	.070	.070	.070	.022	.022	.022	
1.0	.199	.174	.151	.170	.149	.130	.116	.103	.090	.067	.059	.052	.021	.019	.017	
2.0	.190	.150	.115	.163	.129	.100	.112	.089	.070	.064	.052	.041	.021	.017	.013	
3.0	.183	.132	.092	.157	.114	.080	.108	.079	.056	.062	.046	.033	.020	.015	.011	
4.0	.175	.119	.076	.150	.103	.066	.103	.072	.047	.060	.042	.028	.019	.014	.009	
5.0	.168	.109	.065	.144	.094	.057	.099	.066	.040	.057	.039	.024	.019	.013	.008	
6.0	.160	.100	.057	.138	.087	.050	.095	.061	.035	.055	.036	.021	.018	.012	.007	
7.0	.154	.093	.051	.132	.081	.045	.091	.057	.032	.053	.033	.019	.017	.011	.006	
8.0	.147	.088	.047	.127	.076	.041	.088	.053	.029	.051	.032	.017	.016	.010	.006	
9.0	.141	.083	.043	.122	.072	.038	.084	.050	.027	.049	.030	.016	.016	.010	.005	
10.0	.135	.078	.041	.117	.068	.035	.081	.048	.025	.047	.028	.015	.015	.009	.005	

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2022-04-13

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
 Humidity:65.0%  
 Test Distance:7.500m [K=1.0000]  
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.0V I:0.1642A P:18.17W PF:0.9227 Lamp Flux:1522x1 lm		
NAME: ASD-MPR-9D18CC-WH/BK 4000K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting corp	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	18.7	20.2	19.0	20.5	20.7	16.0	17.5	16.3	17.8	18.0
3H	20.8	22.2	21.2	22.5	22.8	16.9	18.3	17.3	18.6	18.9
4H	21.9	23.2	22.2	23.5	23.8	17.2	18.5	17.5	18.8	19.1
6H	22.9	24.1	23.2	24.4	24.8	17.2	18.5	17.6	18.8	19.1
8H	23.4	24.6	23.7	24.9	25.2	17.2	18.4	17.6	18.7	19.1
12H	23.9	25.0	24.3	25.4	25.7	17.2	18.3	17.6	18.7	19.0
4H 2H	19.0	20.3	19.3	20.6	20.9	16.9	18.2	17.2	18.5	18.8
3H	21.3	22.4	21.7	22.8	23.1	17.9	19.0	18.3	19.4	19.7
4H	22.5	23.5	22.9	23.9	24.3	18.2	19.2	18.6	19.6	19.9
6H	23.7	24.6	24.1	25.0	25.4	18.2	19.2	18.7	19.5	20.0
8H	24.3	25.1	24.7	25.5	26.0	18.2	19.1	18.6	19.5	19.9
12H	24.9	25.7	25.4	26.1	26.6	18.2	19.0	18.6	19.4	19.8
8H 4H	22.5	23.4	23.0	23.8	24.2	18.6	19.5	19.1	19.9	20.4
6H	23.8	24.6	24.3	25.0	25.5	18.8	19.5	19.2	19.9	20.4
8H	24.6	25.2	25.1	25.7	26.2	18.7	19.4	19.2	19.9	20.4
12H	25.4	25.9	25.9	26.4	26.9	18.7	19.3	19.2	19.8	20.3
12H 4H	22.5	23.3	22.9	23.7	24.2	18.8	19.6	19.2	20.0	20.4
6H	23.8	24.5	24.3	24.9	25.4	18.9	19.6	19.4	20.0	20.6
8H	24.6	25.1	25.1	25.6	26.1	18.9	19.5	19.5	20.0	20.5
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.3 / - 0.3				
1.5H	+ 0.2 / - 0.2					+ 0.2 / - 0.3				
2.0H	+ 0.3 / - 0.4					+ 0.4 / - 0.4				

CIE Pub.117 Corrected 1305 lm Total Lamp Luminous Flux.(8log(F/F0) = 0.9)

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2022-04-13

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
 Humidity:65.0%  
 Test Distance:7.500m [K=1.0000]  
 Remarks:

## UTILIZATION FACTORS TABLE

Test:U:120.0V I:0.1642A P:18.17W PF:0.9227 Lamp Flux:1522x1 lm		
NAME: ASD-MPR-9D18CC-WH/BK 4000K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting corp	SUR.:	PROTECTION ANGLE:

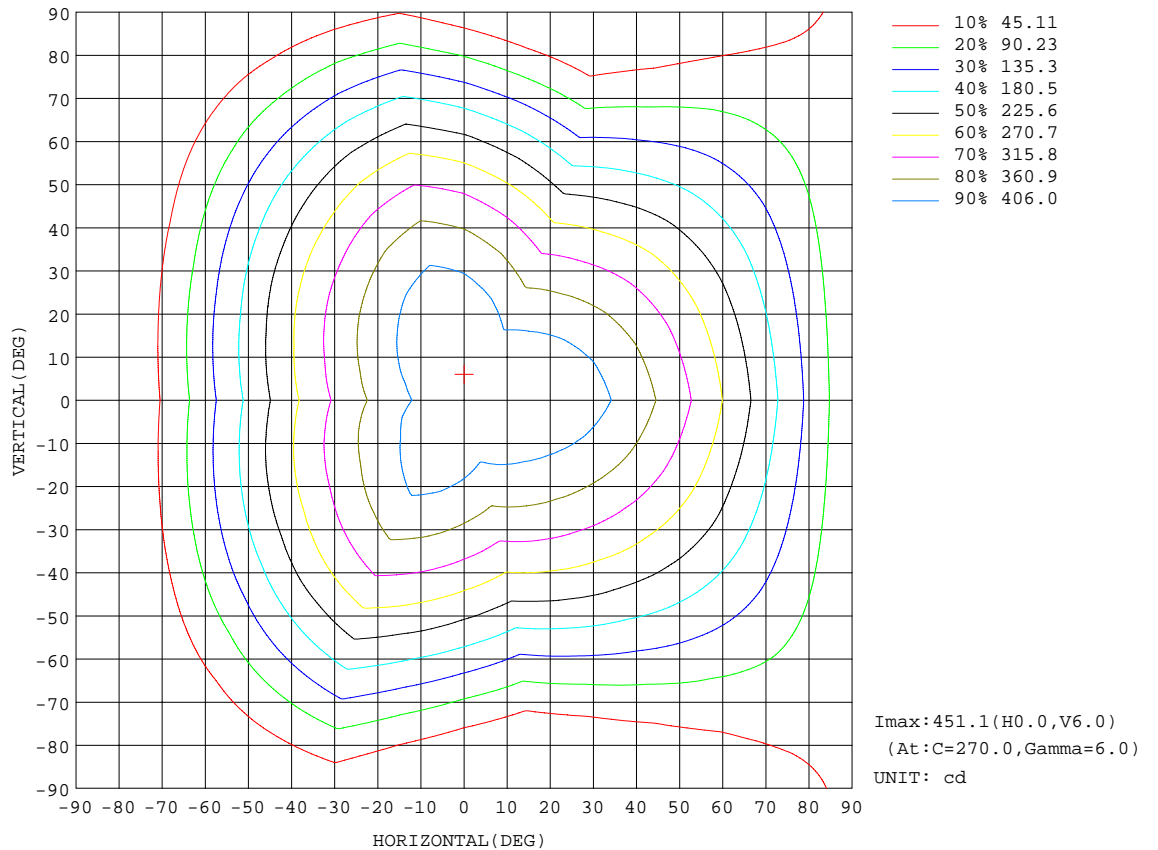
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	57	45	38	56	45	38	54	44	38	31
0.80	66	55	47	65	54	47	63	53	47	40
1.00	75	64	56	74	63	56	71	64	55	48
1.25	82	71	64	80	70	63	77	69	63	55
1.50	87	77	70	85	76	69	82	74	68	60
2.00	94	85	78	92	84	77	88	81	76	67
2.50	98	90	83	96	88	82	91	85	80	72
3.00	101	94	88	99	92	87	94	89	85	76
4.00	105	99	94	103	97	93	98	94	90	80
5.00	108	103	98	105	100	97	100	96	93	83
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2022-04-13

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
 Humidity:65.0%  
 Test Distance:7.500m [K=1.0000]  
 Remarks:

ISOCANDELA DIAGRAM

Test:U:120.0V I:0.1642A P:18.17W PF:0.9227 Lamp Flux:1522x1 lm		
NAME: ASD-MPR-9D18CC-WH/BK 4000K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting corp	SUR.:	PROTECTION ANGLE:

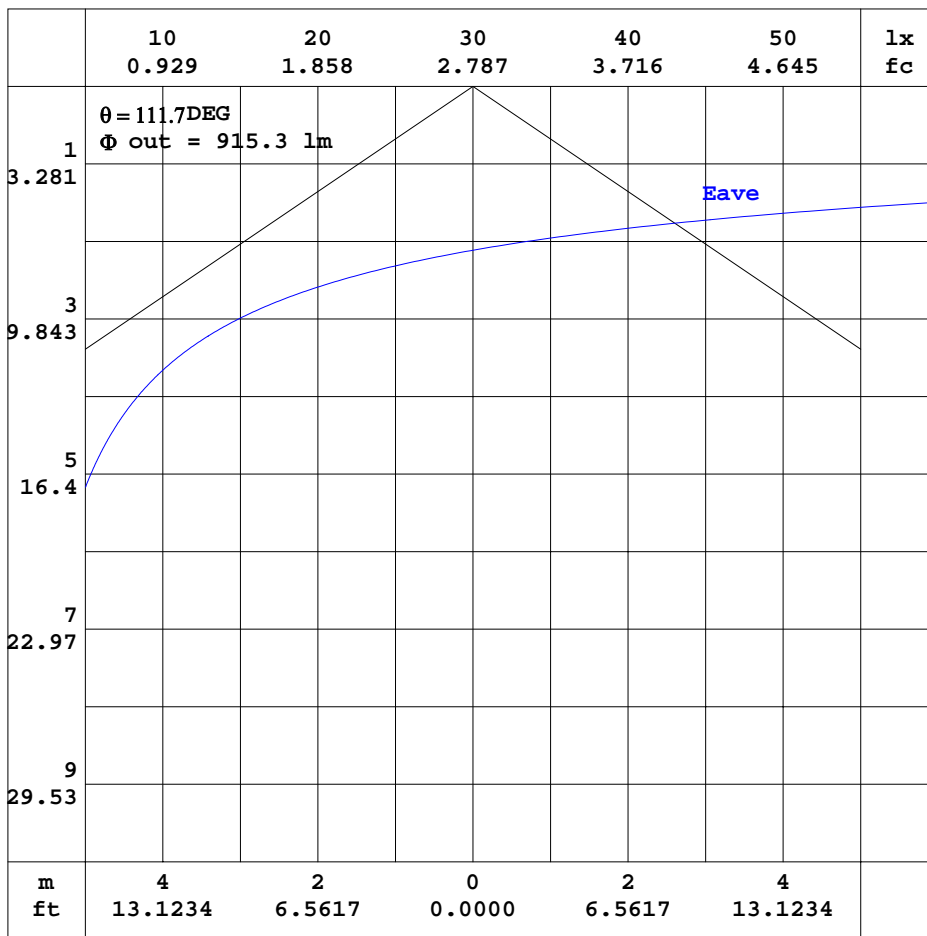


C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2022-04-13

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
 Humidity: 65.0%  
 Test Distance: 7.500m [K=1.0000]  
 Remarks:

AAI CURVES

Test:U:120.0V I:0.1642A P:18.17W PF:0.9227 Lamp Flux:1522x1 lm		
NAME: ASD-MPR-9D18CC-WH/BK 4000K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting corp	SUR.:	PROTECTION ANGLE:



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

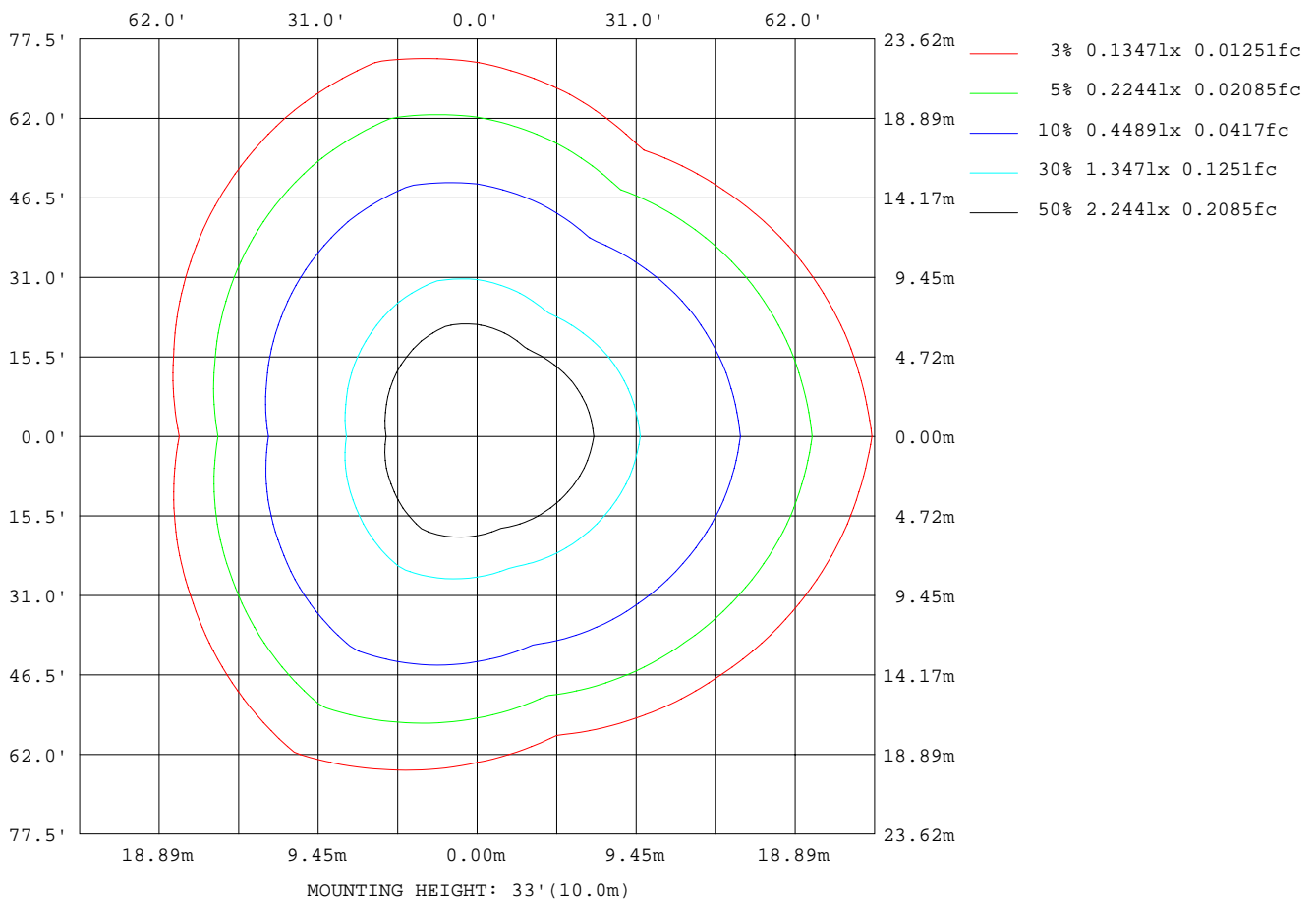
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2022-04-13

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
 Humidity: 65.0%  
 Test Distance: 7.500m [K=1.0000]  
 Remarks:



ISOLUX DIAGRAM

Test:U:120.0V I:0.1642A P:18.17W PF:0.9227 Lamp Flux:1522x1 lm		
NAME: ASD-MPR-9D18CC-WH/BK 4000K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting corp	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2022-04-13

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
 Humidity: 65.0%  
 Test Distance: 7.500m [K=1.0000]  
 Remarks:

## LED Avg.L Report

Test:U:120.0V I:0.1642A P:18.17W PF:0.9227 Lamp Flux:1522x1 lm		
NAME: ASD-MPR-9D18CC-WH/BK 4000K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting corp	SUR.:	PROTECTION ANGLE:

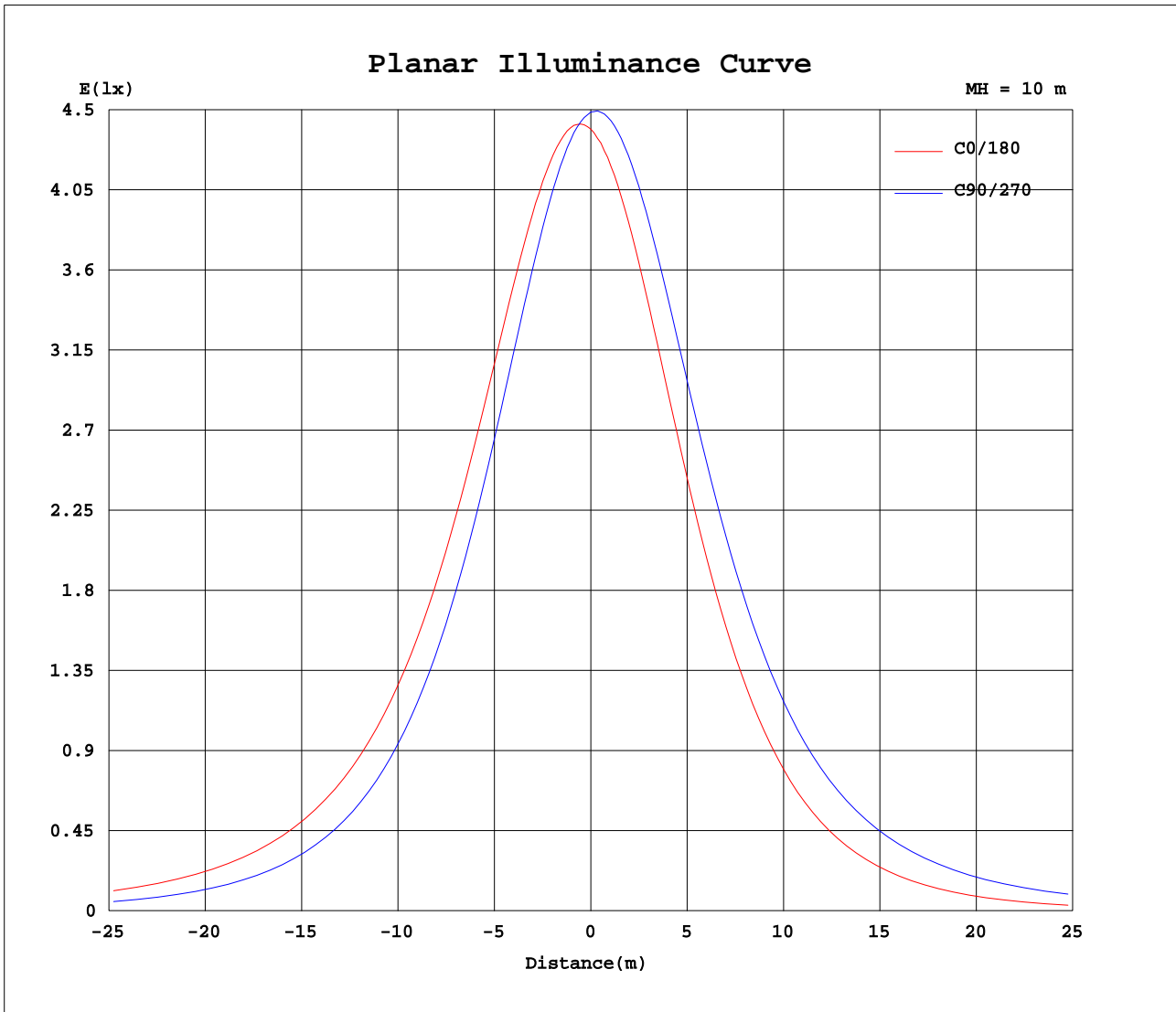
AvgL	cd/m2
L_0~180(65)av	3754
L_0~180(75)av	3571
L_0~180(85)av	5312
L_90~270(65)av	3819
L_90~270(75)av	3417
L_90~270(85)av	3275
L_45(65)av	3698
L_45(75)av	3221
L_45(85)av	2590

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2022-04-13

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
Humidity:65.0%  
Test Distance:7.500m [K=1.0000]  
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2022-04-13

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
 Humidity: 65.0%  
 Test Distance: 7.500m [K=1.0000]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.0V I:0.1642A P:18.17W PF:0.9227 Lamp Flux:1522x1 lm		
NAME: ASD-MPR-9D18CC-WH/BK 4000K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting corp	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C( DEG) γ (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	439	439	440	441	443	443	449	449	443	443	443	443	439	439	440	441	443	443	449
5	446	443	440	438	437	435	442	446	444	440	437	435	428	431	435	440	445	448	451
10	449	443	437	431	427	422	431	438	440	433	426	422	413	419	426	435	444	449	449
15	448	439	429	420	413	405	417	427	432	423	413	406	395	403	414	426	438	446	444
20	442	431	418	405	395	385	399	412	421	409	395	386	373	384	398	413	428	439	434
25	433	419	402	387	374	362	378	394	406	391	375	363	348	361	378	396	415	428	421
30	420	403	383	365	350	336	354	372	388	370	351	337	321	336	356	376	398	414	404
35	403	384	361	341	323	307	327	348	367	346	325	308	291	308	331	353	378	395	383
40	382	361	336	313	294	276	297	320	342	319	296	278	259	278	302	327	354	374	359
45	359	335	308	283	262	243	265	290	315	290	265	246	225	246	272	299	328	349	332
50	332	307	278	251	229	207	232	259	285	260	232	211	189	212	240	269	299	321	303
55	302	276	245	216	193	171	196	224	253	226	198	176	153	177	205	236	268	291	271
60	270	243	211	181	156	134	159	188	220	191	163	140	117	141	171	202	234	259	237
65	236	208	176	145	119	96.5	122	152	185	156	127	103	80.8	104	135	167	199	224	201
70	201	172	139	108	81.3	61.3	84.7	115	149	120	90.3	68.2	47.9	69.4	98.7	131	163	188	164
75	164	135	102	72.1	47.9	30.8	50.9	79.0	113	84.2	56.7	37.2	20.9	38.3	64.7	93.8	126	151	126
80	126	98.0	66.6	40.3	20.2	7.38	22.5	46.1	76.6	51.3	27.8	12.6	4.23	13.6	34.5	59.8	89.3	113	88.5
85	88.3	62.9	35.7	14.8	3.55	3.56	3.58	18.8	44.4	23.5	6.19	3.59	4.25	4.23	10.7	30.2	54.9	76.1	53.5
90	53.6	32.2	11.2	3.58	3.57	3.61	3.59	3.56	17.8	3.80	3.60	3.64	4.28	4.26	4.24	7.77	25.8	43.3	24.2
95	24.3	8.56	3.59	3.61	3.63	3.67	3.64	3.60	3.59	3.60	3.64	3.69	4.33	4.28	4.26	4.25	4.77	13.5	4.24
100	3.72	3.59	3.62	3.65	3.69	3.74	3.72	3.66	3.62	3.65	3.70	3.76	4.38	4.31	4.28	4.26	4.24	4.22	4.23
105	3.60	3.62	3.66	3.70	3.75	3.82	3.79	3.72	3.66	3.70	3.76	3.82	4.42	4.35	4.30	4.29	4.26	4.26	4.28
110	3.65	3.68	3.71	3.76	3.82	3.89	3.87	3.79	3.72	3.76	3.83	3.90	4.46	4.39	4.34	4.32	4.31	4.30	4.33
115	3.71	3.74	3.77	3.82	3.89	3.98	3.94	3.87	3.78	3.82	3.89	3.97	4.51	4.43	4.37	4.36	4.35	4.34	4.38
120	3.78	3.79	3.83	3.88	3.98	4.07	4.04	3.94	3.85	3.89	3.96	4.06	4.56	4.48	4.41	4.39	4.39	4.39	4.43
125	3.85	3.86	3.90	3.96	4.06	4.17	4.14	4.03	3.92	3.96	4.05	4.16	4.63	4.52	4.44	4.42	4.43	4.44	4.49
130	3.93	3.93	3.97	4.06	4.17	4.29	4.26	4.13	4.00	4.06	4.16	4.28	4.69	4.58	4.49	4.46	4.48	4.49	4.54
135	4.01	4.01	4.07	4.16	4.30	4.43	4.39	4.25	4.10	4.17	4.29	4.42	4.76	4.64	4.55	4.53	4.53	4.54	4.60
140	4.11	4.12	4.19	4.29	4.44	4.56	4.52	4.39	4.23	4.30	4.42	4.56	4.84	4.71	4.63	4.60	4.60	4.61	4.68
145	4.23	4.25	4.32	4.43	4.59	4.70	4.68	4.54	4.36	4.44	4.56	4.69	4.92	4.80	4.71	4.68	4.67	4.68	4.76
150	4.38	4.40	4.48	4.58	4.73	4.85	4.83	4.69	4.52	4.59	4.71	4.84	5.00	4.88	4.80	4.76	4.76	4.77	4.85
155	4.55	4.56	4.64	4.74	4.88	4.98	4.97	4.85	4.68	4.74	4.86	4.97	5.07	4.97	4.89	4.86	4.86	4.88	4.95
160	4.71	4.73	4.80	4.89	5.02	5.11	5.11	5.00	4.84	4.89	5.00	5.10	5.14	5.05	4.98	4.96	4.96	4.99	5.06
165	4.87	4.90	4.95	5.03	5.14	5.22	5.22	5.14	4.99	5.03	5.12	5.21	5.20	5.14	5.07	5.06	5.08	5.10	5.17
170	5.03	5.04	5.09	5.14	5.24	5.31	5.31	5.25	5.13	5.16	5.22	5.30	5.28	5.20	5.16	5.16	5.18	5.20	5.26
175	5.17	5.17	5.18	5.22	5.30	5.35	5.36	5.32	5.23	5.24	5.30	5.35	5.31	5.25	5.23	5.25	5.27	5.29	5.34
180	5.28	5.25	5.24	5.27	5.32	5.35	5.40	5.38	5.30	5.31	5.33	5.39	5.28	5.26	5.25	5.28	5.32	5.36	5.39

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2022-04-13

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
 Humidity:65.0%  
 Test Distance:7.500m [K=1.0000]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.0V I:0.1642A P:18.17W PF:0.9227 Lamp Flux:1522x1 lm		
NAME: ASD-MPR-9D18CC-WH/BK 4000K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting corp	SUR.:	PROTECTION ANGLE:

Table--2

UNIT: cd

C( DEG) γ (DEG)	285	300	315	330	345														
0	449	443	443	443	443														
5	448	439	441	445	448														
10	443	430	435	442	448														
15	434	417	426	436	445														
20	421	401	413	426	437														
25	404	381	396	412	426														
30	384	358	375	394	410														
35	361	332	351	373	391														
40	334	303	324	348	368														
45	305	272	295	321	342														
50	273	239	263	291	314														
55	240	203	230	259	283														
60	204	167	194	224	250														
65	168	130	158	188	215														
70	130	92.8	121	151	178														
75	91.8	58.3	83.3	114	141														
80	56.8	28.5	49.8	77.5	103														
85	27.0	6.13	21.8	44.3	66.3														
90	5.24	4.23	4.24	17.5	34.7														
95	4.23	4.25	4.25	4.23	10.2														
100	4.27	4.29	4.27	4.25	4.24														
105	4.31	4.33	4.31	4.29	4.27														
110	4.36	4.37	4.34	4.32	4.32														
115	4.41	4.41	4.38	4.36	4.36														
120	4.45	4.45	4.42	4.41	4.41														
125	4.50	4.50	4.46	4.44	4.45														
130	4.55	4.55	4.50	4.49	4.50														
135	4.61	4.62	4.56	4.54	4.56														
140	4.70	4.70	4.64	4.61	4.63														
145	4.78	4.78	4.73	4.69	4.70														
150	4.88	4.88	4.81	4.78	4.79														
155	4.98	4.97	4.91	4.88	4.89														
160	5.08	5.06	5.00	4.98	4.99														
165	5.18	5.16	5.10	5.10	5.11														
170	5.27	5.23	5.21	5.19	5.23														
175	5.34	5.29	5.27	5.29	5.32														
180	5.37	5.30	5.31	5.32	5.38														

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2022-04-13

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
 Humidity:65.0%  
 Test Distance:7.500m [K=1.0000]  
 Remarks: