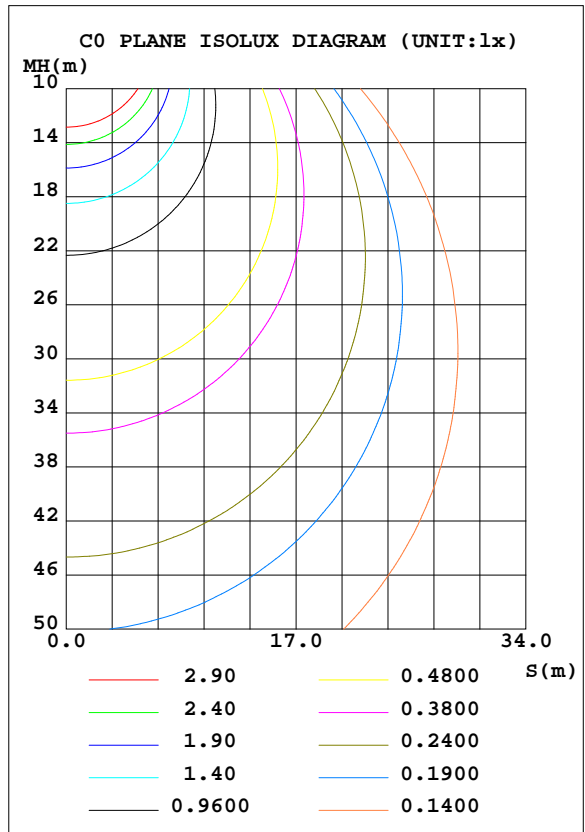
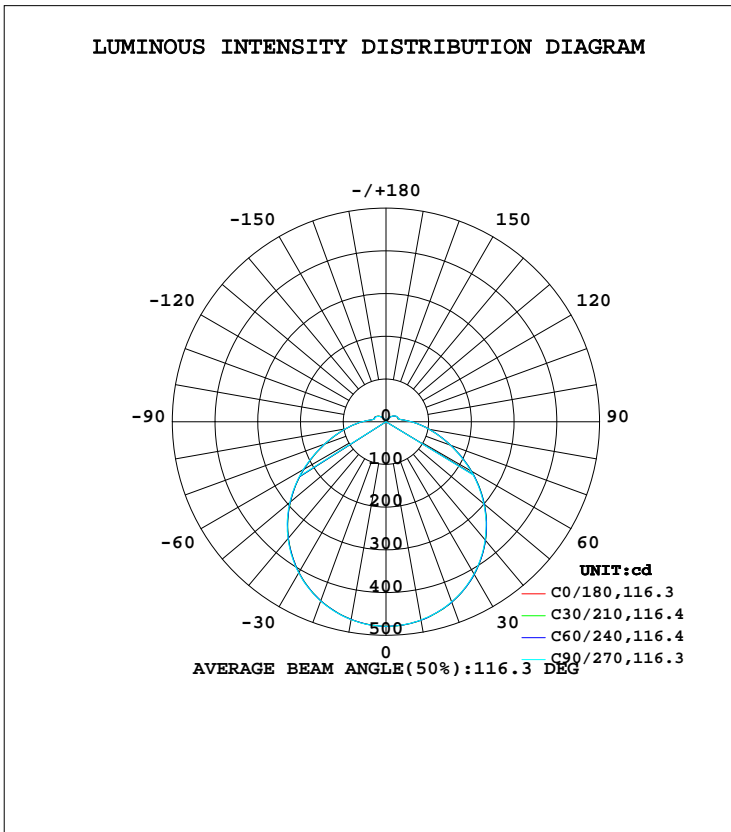


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.00V I:0.1769A P:20.850W PF:0.9821 Freq:60.00Hz Lamp Flux:1400x1 lm		
NAME: ASD-LFMDR-MV-12D20CC-EM-NK_3000K	TYPE:LED	WEIGHT:
SPEC.:N/A	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 67.15 lm/W			
MODEL	LFMDR-MV-12D20CC-EM-NK	I <sub>max</sub> (cd)	479.1	S/MH(C0/180)	1.27
NOMINAL POWER(W)	20	LOR(%)	100.0	S/MH(C90/270)	1.27
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	1400	η UP, DN(C0-180)	4.5,45.8
NOMINAL FLUX(lm)	1400	CIE CLASS	DIRECT	η UP, DN(C180-360)	4.4,45.3
LAMPS INSIDE	1	η up(%)	9.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	120	η down(%)	91.0	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 26 August 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 42.7%  
 Test Distance: 2.500m [K=1.0391]  
 Remarks:

## ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum,lamp
10	471.5	471.8	471.2	470.1	470.1	469.9	470.5	471.2	0- 10	45.32	45.32	2.73,2.73
20	449.4	449.7	448.6	447.0	446.1	446.0	446.9	448.5	10- 20	130.2	175.5	10.6,10.6
30	412.2	413.1	411.5	409.1	407.7	407.6	408.9	411.4	20- 30	198.6	374.1	22.6,22.6
40	362.0	362.5	360.7	357.5	355.7	355.1	356.9	360.0	30- 40	241.5	615.6	37.1,37.1
50	300.3	300.6	298.7	294.1	292.7	292.3	294.3	298.2	40- 50	253.7	869.3	52.4,52.4
60	230.5	231.3	228.8	223.7	221.9	221.8	223.7	228.5	50- 60	234.1	1103	66.5,66.5
70	160.0	161.4	159.6	154.2	151.9	152.5	153.5	157.6	60- 70	188.7	1292	77.9,77.9
80	102.0	103.6	102.4	98.57	95.91	96.45	97.02	99.49	70- 80	133.6	1426	86,86
90	59.40	60.03	59.18	55.48	55.04	55.81	56.10	58.08	80- 90	84.19	1510	91,91
100	33.53	33.17	33.08	31.79	31.59	31.46	31.11	32.81	90-100	47.01	1557	93.9,93.9
110	28.57	29.59	29.90	29.00	28.78	28.82	27.43	27.62	100-110	31.08	1588	95.7,95.7
120	25.95	26.22	26.88	25.64	25.50	25.60	24.73	25.14	110-120	27.37	1615	97.4,97.4
130	20.63	20.61	20.87	19.88	19.99	20.25	19.57	20.05	120-130	20.74	1636	98.7,98.7
140	13.83	13.72	13.42	12.86	13.19	13.66	13.31	13.84	130-140	13.19	1649	99.4,99.4
150	6.898	6.381	6.169	6.056	6.523	6.967	6.922	7.359	140-150	6.348	1656	99.8,99.8
160	2.972	2.643	2.453	2.503	2.925	3.125	3.314	3.457	150-160	2.190	1658	100,100
170	1.166	0.9344	0.8836	1.072	1.363	1.391	1.572	1.512	160-170	0.5737	1658	100,100
180	0.4666	0.4798	0.4668	0.4625	0.4723	0.4716	0.4703	0.4706	170-180	0.0859	1659	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 742.96 lm

%lum = 44.8%

%lamp = 44.8%

Conical surface Flux(120deg): 1103.4 lm

%lum = 66.5%

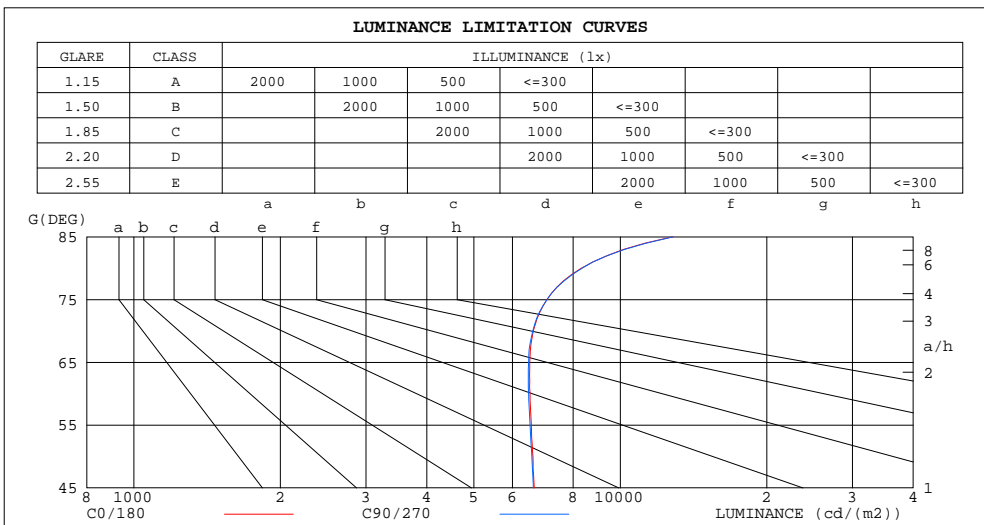
%lamp = 66.5%

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 26 August 2023

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 42.7%  
 Test Distance: 2.500m [K=1.0391]  
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:120.00V I:0.1769A P:20.850W PF:0.9821 Freq:60.00Hz Lamp Flux:1400x1 lm		
NAME: ASD-LFMDR-MV-12D20CC-EM-NK_3000K	TYPE:LED	WEIGHT:
SPEC.:N/A	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	12804	12837
80	8314	8343
75	7063	7066
70	6621	6607
65	6515	6476
60	6524	6478
55	6562	6525
50	6612	6577
45	6652	6628

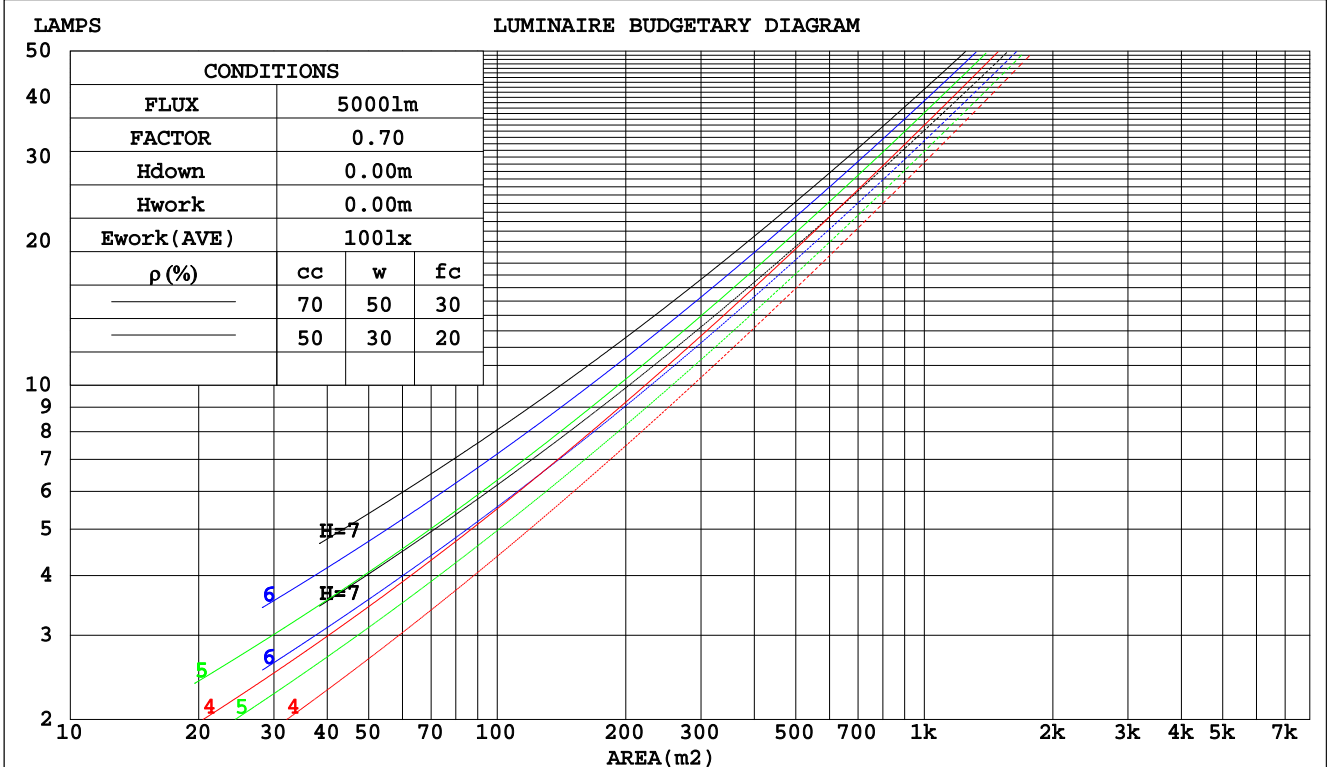
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 26 August 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 42.7%  
 Test Distance: 2.500m [K=1.0391]  
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.00V I:0.1769A P:20.850W PF:0.9821 Freq:60.00Hz Lamp Flux:1400x1 lm		
NAME: ASD-LFMDR-MV-12D20CC-EM-NK_3000K	TYPE:LED	WEIGHT:
SPEC.:N/A	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

ρcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρpw	0															
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio      Coefficients of Utilization(CU)															
0.0	1.17	1.17	1.17	1.13	1.13	1.13	1.06	1.06	1.06	.00	.00	.00	.94	.94	.94	.91
1.0	.00	.95	.90	.96	.92	.88	.91	.87	.84	.85	.82	.80	.80	.78	.76	.73
2.0	.86	.79	.73	.83	.77	.71	.78	.73	.68	.74	.69	.65	.69	.66	.62	.60
3.0	.75	.67	.60	.73	.65	.59	.69	.62	.56	.65	.59	.54	.61	.56	.52	.50
4.0	.66	.57	.50	.64	.56	.49	.61	.54	.48	.57	.51	.46	.54	.49	.45	.42
5.0	.59	.50	.43	.58	.49	.42	.54	.47	.41	.51	.45	.40	.49	.43	.39	.36
6.0	.53	.44	.37	.52	.43	.37	.49	.41	.36	.46	.40	.35	.44	.38	.34	.32
7.0	.48	.39	.33	.47	.38	.32	.44	.37	.32	.42	.36	.31	.40	.34	.30	.28
8.0	.44	.35	.29	.43	.35	.29	.41	.33	.28	.39	.32	.27	.37	.31	.27	.25
9.0	.40	.32	.26	.39	.31	.26	.37	.30	.25	.36	.29	.25	.34	.28	.24	.22
10.0	.37	.29	.24	.36	.29	.23	.35	.28	.23	.33	.27	.22	.32	.26	.22	.20



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 26 August 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 42.7%  
 Test Distance: 2.500m [K=1.0391]  
 Remarks:

WEC AND CCEC

Test:U:120.00V I:0.1769A P:20.850W PF:0.9821 Freq:60.00Hz Lamp Flux:1400x1 lm		
NAME: ASD-LFMDR-MV-12D20CC-EM-NK_3000K	TYPE:LED	WEIGHT:
SPEC.:N/A	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	.349	.199	.063	.339	.194	.061	.321	.184	.059	.304	.175	.056	.288	.167	.054	
2.0	.312	.171	.053	.304	.167	.052	.287	.160	.050	.272	.152	.048	.257	.146	.046	
3.0	.282	.150	.045	.275	.147	.044	.260	.141	.043	.246	.135	.041	.233	.129	.040	
4.0	.257	.134	.039	.250	.131	.039	.237	.126	.037	.224	.120	.036	.213	.116	.035	
5.0	.236	.120	.035	.229	.118	.034	.217	.113	.033	.206	.109	.032	.195	.104	.031	
6.0	.217	.109	.031	.211	.107	.031	.201	.103	.030	.190	.099	.029	.181	.095	.028	
7.0	.201	.100	.028	.196	.098	.028	.186	.094	.027	.177	.091	.026	.168	.087	.026	
8.0	.187	.092	.026	.183	.090	.025	.174	.087	.025	.165	.084	.024	.157	.081	.024	
9.0	.175	.085	.024	.171	.083	.023	.163	.080	.023	.155	.078	.022	.147	.075	.022	
10.0	.164	.079	.022	.160	.077	.022	.153	.075	.021	.146	.072	.021	.139	.070	.020	

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	.259	.259	.259	.221	.221	.221	.151	.151	.151	.087	.087	.087	.028	.028	.028	
1.0	.252	.225	.200	.215	.193	.172	.147	.133	.119	.085	.077	.069	.027	.025	.022	
2.0	.244	.201	.165	.209	.173	.142	.143	.120	.099	.083	.070	.058	.027	.023	.019	
3.0	.237	.184	.142	.203	.159	.123	.139	.110	.086	.080	.064	.051	.026	.021	.017	
4.0	.229	.171	.127	.196	.148	.110	.135	.103	.078	.078	.060	.046	.025	.020	.015	
5.0	.221	.161	.117	.190	.139	.101	.131	.097	.072	.076	.057	.042	.024	.019	.014	
6.0	.214	.153	.109	.184	.132	.095	.127	.093	.067	.074	.055	.040	.024	.018	.013	
7.0	.207	.146	.103	.178	.127	.090	.123	.089	.064	.071	.052	.038	.023	.017	.013	
8.0	.200	.140	.099	.172	.122	.087	.119	.086	.061	.069	.050	.037	.022	.017	.012	
9.0	.194	.136	.096	.167	.118	.084	.116	.083	.059	.068	.049	.035	.022	.016	.012	
10.0	.188	.131	.093	.162	.114	.081	.113	.080	.058	.066	.047	.035	.021	.016	.011	

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 26 August 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 42.7%  
 Test Distance: 2.500m [K=1.0391]  
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.00V I:0.1769A P:20.850W PF:0.9821 Freq:60.00Hz Lamp Flux:1400x1 lm		
NAME: ASD-LFMDR-MV-12D20CC-EM-NK_3000K	TYPE:LED	WEIGHT:
SPEC.:N/A	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	18.9	20.3	19.3	20.7	21.1	18.9	20.3	19.2	20.7	21.0
3H	20.6	22.0	21.1	22.4	22.8	20.6	22.0	21.1	22.4	22.8
4H	21.5	22.8	22.0	23.2	23.6	21.5	22.8	21.9	23.2	23.6
6H	22.4	23.6	22.9	24.0	24.5	22.4	23.6	22.9	24.0	24.5
8H	22.9	24.0	23.3	24.5	24.9	22.9	24.0	23.3	24.5	24.9
12H	23.4	24.5	23.9	25.0	25.5	23.4	24.5	23.9	25.0	25.5
4H 2H	19.5	20.8	20.0	21.2	21.6	19.5	20.8	19.9	21.2	21.6
3H	21.5	22.6	22.0	23.1	23.6	21.5	22.6	22.0	23.1	23.6
4H	22.5	23.6	23.0	24.0	24.6	22.5	23.5	23.0	24.0	24.6
6H	23.6	24.5	24.1	25.0	25.6	23.6	24.5	24.1	25.0	25.6
8H	24.2	25.0	24.7	25.5	26.1	24.2	25.0	24.7	25.6	26.1
12H	24.8	25.6	25.4	26.1	26.7	24.8	25.6	25.4	26.1	26.7
8H 4H	22.9	23.8	23.5	24.3	24.9	22.9	23.8	23.5	24.3	24.9
6H	24.3	25.0	24.8	25.5	26.2	24.3	25.0	24.9	25.5	26.2
8H	25.0	25.6	25.6	26.2	26.9	25.0	25.7	25.6	26.2	26.9
12H	25.9	26.4	26.5	27.0	27.7	25.9	26.4	26.5	27.0	27.7
12H 4H	23.0	23.8	23.6	24.3	24.9	23.0	23.8	23.6	24.3	24.9
6H	24.4	25.1	25.0	25.7	26.3	24.4	25.1	25.0	25.7	26.3
8H	25.3	25.8	25.9	26.4	27.1	25.3	25.8	25.9	26.4	27.1
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.1				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				

CIE Pub.117, 1659 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 1.8)  
 Area: 0.07065 m2

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 26 August 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 42.7%  
 Test Distance: 2.500m [K=1.0391]  
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:120.00V I:0.1769A P:20.850W PF:0.9821 Freq:60.00Hz Lamp Flux:1400x1 lm		
NAME: ASD-LFMDR-MV-12D20CC-EM-NK_3000K	TYPE:LED	WEIGHT:
SPEC.:N/A	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

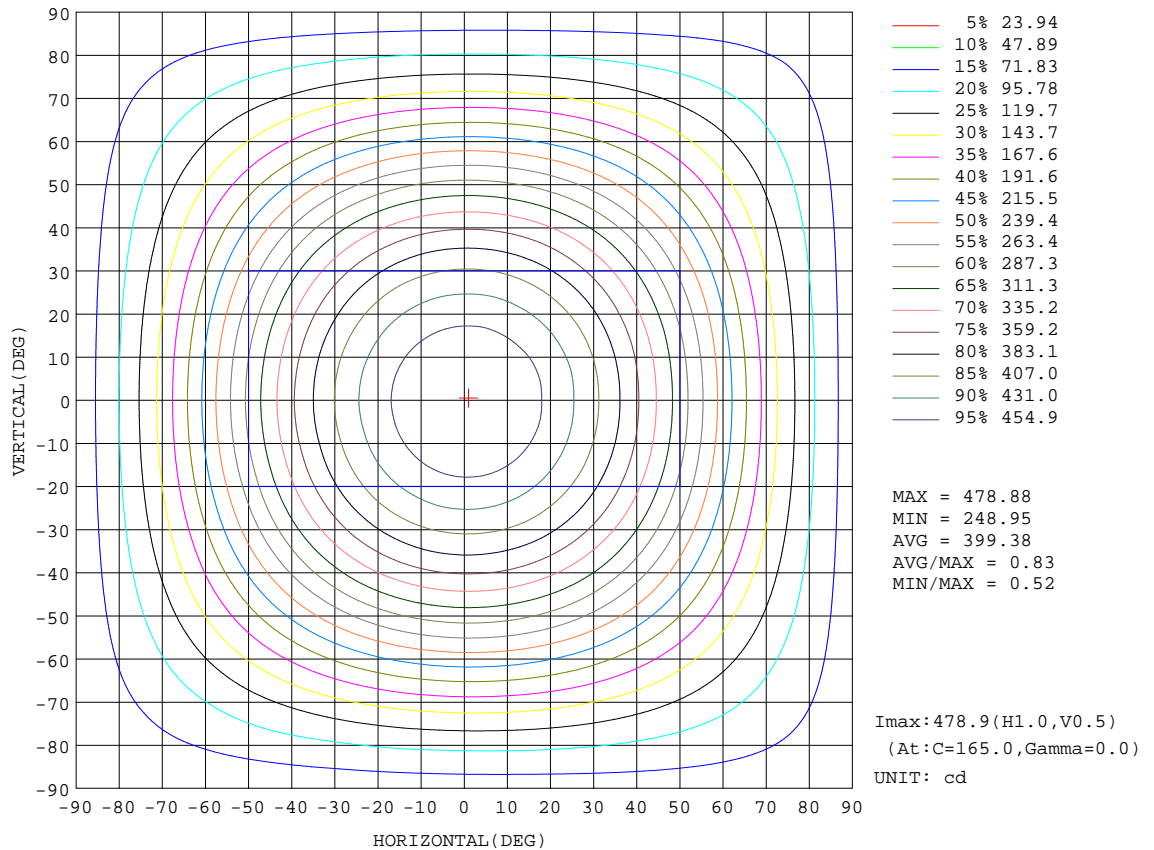
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	53	41	34	52	41	34	50	40	33	27
0.80	62	50	43	61	50	42	59	49	42	34
1.00	71	59	51	69	58	50	66	59	49	42
1.25	78	66	58	76	65	58	72	63	56	48
1.50	83	72	64	80	70	63	76	68	61	52
2.00	90	80	72	87	78	71	82	75	69	59
2.50	94	85	78	91	83	76	86	79	74	63
3.00	97	89	83	94	87	81	89	83	78	67
4.00	102	95	89	98	92	87	93	88	83	72
5.00	104	98	93	101	96	91	95	91	87	75
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: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 26 August 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 42.7%  
 Test Distance: 2.500m [K=1.0391]  
 Remarks:

ISOCANDELA DIAGRAM

Test:U:120.00V I:0.1769A P:20.850W PF:0.9821 Freq:60.00Hz Lamp Flux:1400x1 lm		
NAME: ASD-LFMDR-MV-12D20CC-EM-NK_3000K	TYPE:LED	WEIGHT:
SPEC.:N/A	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



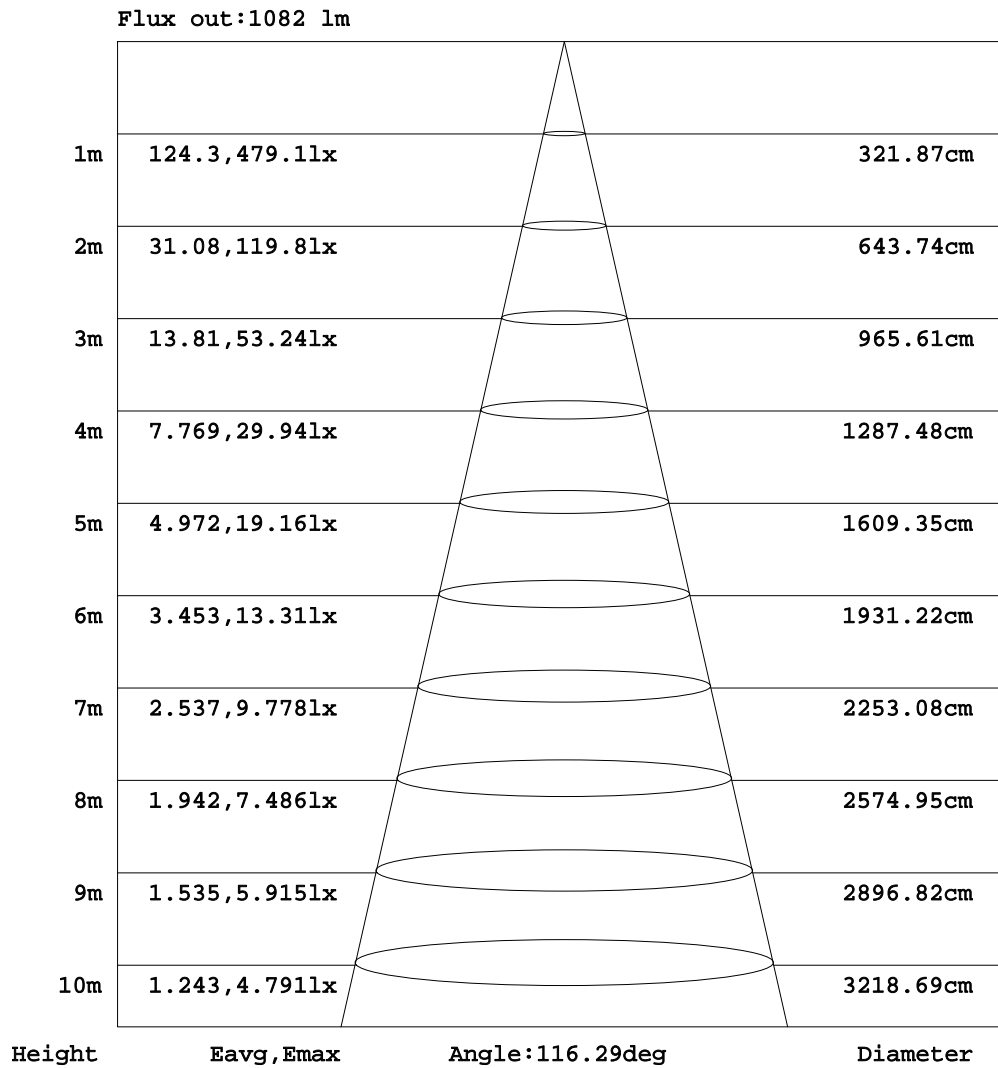
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 26 August 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 42.7%  
 Test Distance: 2.500m [K=1.0391]  
 Remarks:



AAI Figure

Test:U:120.00V I:0.1769A P:20.850W PF:0.9821 Freq:60.00Hz Lamp Flux:1400x1 lm		
NAME: ASD-LFMDR-MV-12D20CC-EM-NK_3000K	TYPE:LED	WEIGHT:
SPEC.:N/A	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



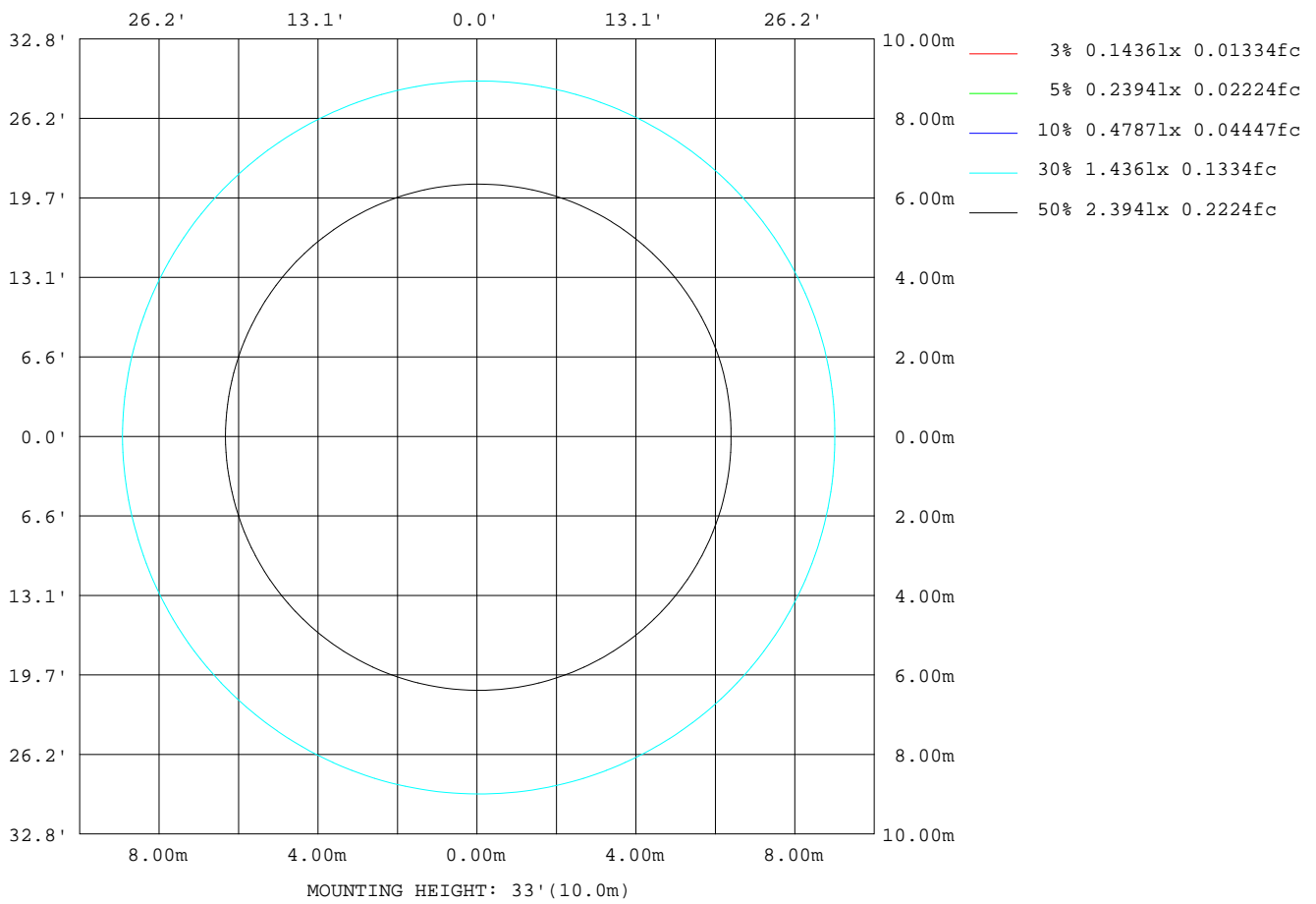
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators:Alan Wang  
 Test Date:26 August 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 42.7%  
 Test Distance:2.500m [K=1.0391]  
 Remarks:

ISOLUX DIAGRAM

Test:U:120.00V I:0.1769A P:20.850W PF:0.9821 Freq:60.00Hz Lamp Flux:1400x1 lm		
NAME: ASD-LFMDR-MV-12D20CC-EM-NK_3000K	TYPE:LED	WEIGHT:
SPEC.:N/A	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 26 August 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 42.7%  
 Test Distance: 2.500m [K=1.0391]  
 Remarks:

## LED Avg.L Report

Test:U:120.00V I:0.1769A P:20.850W PF:0.9821 Freq:60.00Hz Lamp Flux:1400x1 lm		
NAME: ASD-LFMDR-MV-12D20CC-EM-NK_3000K	TYPE:LED	WEIGHT:
SPEC.:N/A	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

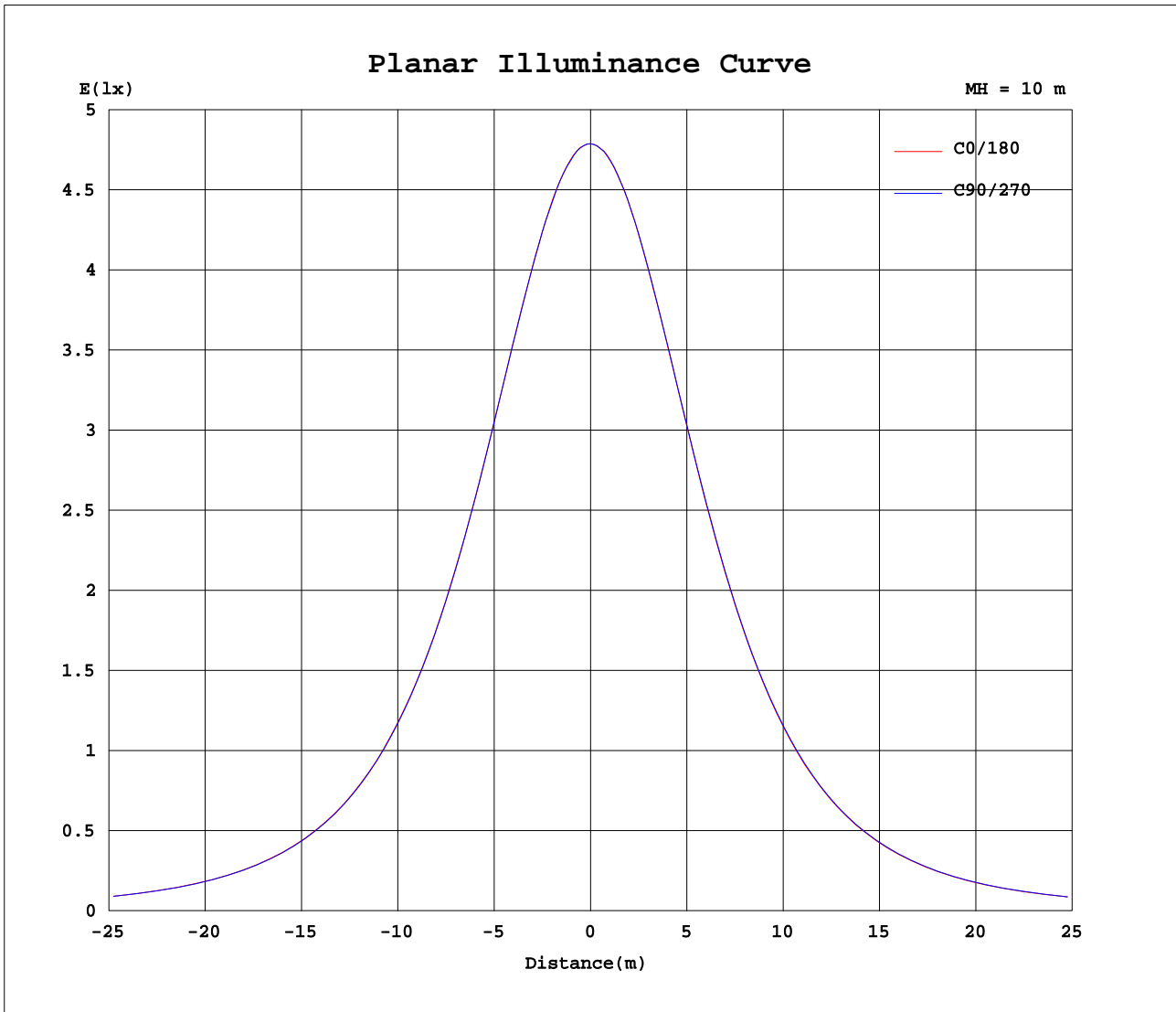
AvgL	cd/m2
L_0~180(65)av	6367
L_0~180(75)av	6866
L_0~180(85)av	12391
L_90~270(65)av	6378
L_90~270(75)av	6902
L_90~270(85)av	12504
L_45(65)av	6370
L_45(75)av	6883
L_45(85)av	12438

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.0DEG  
Operators: Alan Wang  
Test Date: 26 August 2023

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
Humidity: 42.7%  
Test Distance: 2.500m [K=1.0391]  
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.0DEG  
Operators: Alan Wang  
Test Date: 26 August 2023

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
Humidity: 42.7%  
Test Distance: 2.500m [K=1.0391]  
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.00V I:0.1769A P:20.850W PF:0.9821 Freq:60.00Hz Lamp Flux:1400x1 lm		
NAME: ASD-LFMDR-MV-12D20CC-EM-NK_3000K	TYPE:LED	WEIGHT:
SPEC.:N/A	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding 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	479	479	479	479	479	479	479	479	479	479	479	479	479	479	479	479	479	479	479
5	477	477	477	477	477	477	477	477	477	476	477	476	476	476	476	476	477	477	477
10	471	472	472	472	472	471	471	471	470	470	470	470	470	470	470	470	470	470	471
15	462	463	462	463	462	462	462	461	461	461	460	460	460	460	459	460	460	460	460
20	449	450	450	450	450	449	449	448	448	447	446	446	446	446	446	446	446	446	447
25	432	433	433	433	433	433	432	432	430	430	429	428	429	429	428	428	429	429	430
30	412	413	413	413	413	412	412	411	410	409	408	407	408	408	407	408	408	408	409
35	389	389	389	389	389	388	388	387	386	384	384	382	383	383	383	383	383	384	384
40	362	362	363	363	362	362	361	360	359	358	356	355	356	355	356	355	356	356	357
45	332	333	333	333	333	332	331	330	328	327	326	324	326	325	325	325	326	326	327
50	300	301	301	301	301	300	299	297	296	294	293	292	293	292	292	292	293	294	294
55	266	266	267	266	266	266	264	263	261	259	258	257	258	257	257	258	258	259	260
60	230	231	231	231	231	230	229	227	226	224	222	221	222	222	222	222	222	223	224
65	195	195	196	195	195	194	193	192	190	188	186	185	186	186	186	186	186	187	188
70	160	161	161	161	161	161	160	158	156	154	153	152	152	152	152	153	153	153	153
75	129	130	130	131	131	130	129	128	126	124	122	121	122	122	122	122	123	123	123
80	102	103	103	104	104	103	102	101	99.1	98.6	96.3	95.5	95.9	95.9	96.2	96.4	96.5	96.7	97.0
85	78.8	79.5	80.0	80.2	80.1	79.5	79.0	77.9	76.0	74.8	73.8	73.2	73.8	73.8	74.2	74.4	74.4	74.7	74.9
90	59.4	59.9	60.0	60.0	60.0	59.5	59.2	58.1	56.6	55.5	54.7	54.2	55.0	55.0	55.6	55.8	55.6	55.9	56.1
95	44.0	43.8	43.8	43.7	43.7	43.8	43.4	42.5	41.7	40.5	39.9	39.6	40.3	40.7	40.8	41.1	41.1	40.9	41.0
100	33.5	33.5	33.1	33.2	33.5	33.6	33.1	32.6	32.2	31.8	31.1	30.9	31.6	31.6	31.4	31.5	31.6	31.5	31.1
105	28.6	29.0	29.2	29.5	29.8	30.0	30.1	29.9	29.6	29.2	28.9	28.8	28.9	28.8	28.8	28.8	28.8	28.4	27.9
110	28.6	29.0	29.4	29.6	29.7	29.9	29.9	29.7	29.4	29.0	28.7	28.6	28.8	28.8	28.8	28.8	28.4	27.8	27.4
115	27.9	28.2	28.4	28.5	28.7	28.8	28.9	28.7	28.3	27.9	27.6	27.6	27.7	27.7	27.7	27.7	27.3	26.9	26.6
120	26.0	26.1	26.2	26.2	26.4	26.6	26.9	26.5	26.1	25.6	25.4	25.4	25.5	25.5	25.5	25.6	25.2	24.9	24.7
125	23.4	23.5	23.6	23.6	23.6	23.8	24.1	23.7	23.4	22.9	22.8	22.8	22.9	23.0	23.0	23.1	22.8	22.4	22.3
130	20.6	20.8	20.8	20.6	20.5	20.6	20.9	20.7	20.2	19.9	19.8	19.8	20.0	20.1	20.2	20.3	20.0	19.7	19.6
135	17.3	17.6	17.6	17.4	17.1	17.1	17.2	17.2	16.8	16.5	16.4	16.4	16.7	16.9	17.1	17.0	16.9	16.6	16.6
140	13.8	14.0	13.9	13.7	13.3	13.3	13.4	13.4	13.1	12.9	12.8	12.8	13.2	13.4	13.6	13.7	13.5	13.4	13.3
145	10.3	10.3	10.3	10.3	9.54	9.50	9.55	9.52	9.32	9.20	9.13	9.18	9.63	9.89	10.1	10.2	10.1	10.00	9.98
150	6.90	6.87	6.80	6.38	6.23	6.14	6.17	6.12	6.08	6.06	6.07	6.15	6.52	6.68	6.88	6.97	6.94	6.92	6.92
155	4.65	4.57	4.49	4.25	4.11	4.03	4.01	4.04	4.00	4.02	4.07	4.14	4.46	4.55	4.70	4.79	4.80	4.84	4.87
160	2.97	2.88	2.77	2.64	2.55	2.49	2.45	2.47	2.48	2.50	2.58	2.66	2.93	2.97	3.05	3.13	3.18	3.25	3.31
165	1.82	1.74	1.68	1.58	1.54	1.50	1.46	1.44	1.49	1.57	1.65	1.72	1.90	1.91	1.94	1.99	2.08	2.16	2.22
170	1.17	1.09	1.01	0.93	0.88	0.87	0.88	0.90	0.96	1.07	1.17	1.25	1.36	1.37	1.37	1.39	1.48	1.55	1.57
175	0.61	0.52	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.48	0.59	0.85	0.85	0.91	0.94	0.95	0.96	1.04
180	0.47	0.47	0.48	0.48	0.47	0.46	0.47	0.46	0.46	0.46	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 26 August 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 42.7%  
 Test Distance: 2.500m [K=1.0391]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.00V I:0.1769A P:20.850W PF:0.9821 Freq:60.00Hz Lamp Flux:1400x1 lm		
NAME: ASD-LFMDR-MV-12D20CC-EM-NK_3000K	TYPE:LED	WEIGHT:
SPEC.:N/A	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

Table--2

UNIT: cd

C(DEG) γ (DEG)	285	300	315	330	345														
0	479	479	479	479	479														
5	477	477	477	477	477														
10	471	471	471	472	472														
15	461	461	462	462	463														
20	447	448	449	449	450														
25	430	431	432	433	433														
30	410	410	411	412	413														
35	385	386	387	388	389														
40	358	359	360	362	363														
45	328	329	331	332	333														
50	295	297	298	300	301														
55	261	262	264	265	267														
60	225	227	228	230	231														
65	189	190	192	193	195														
70	155	156	158	159	160														
75	124	125	126	128	129														
80	97.5	98.4	99.5	101	102														
85	75.4	76.0	76.9	78.1	79.1														
90	56.6	57.3	58.1	59.4	60.2														
95	41.3	42.0	43.0	43.9	44.4														
100	31.3	32.1	32.8	33.2	33.6														
105	27.2	27.4	27.7	28.1	28.4														
110	27.3	27.4	27.6	28.0	28.3														
115	26.5	26.7	26.9	27.3	27.6														
120	24.7	24.8	25.1	25.5	25.8														
125	22.3	22.5	22.8	23.1	23.3														
130	19.6	19.8	20.1	20.4	20.6														
135	16.6	16.8	17.0	17.3	17.4														
140	13.4	13.6	13.8	14.0	14.0														
145	10.1	10.3	10.5	10.6	10.6														
150	7.03	7.22	7.36	7.41	7.34														
155	4.95	5.05	5.11	5.11	5.04														
160	3.39	3.43	3.46	3.43	3.34														
165	2.25	2.27	2.26	2.21	2.12														
170	1.58	1.55	1.51	1.45	1.35														
175	1.04	0.98	0.85	0.82	0.79														
180	0.47	0.47	0.47	0.47	0.47														

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 26 August 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 42.7%  
 Test Distance: 2.500m [K=1.0391]  
 Remarks: