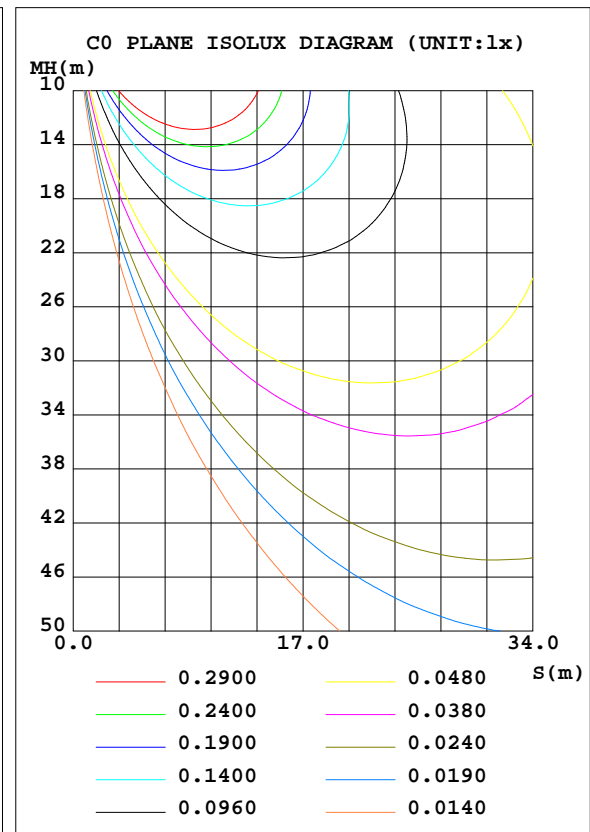
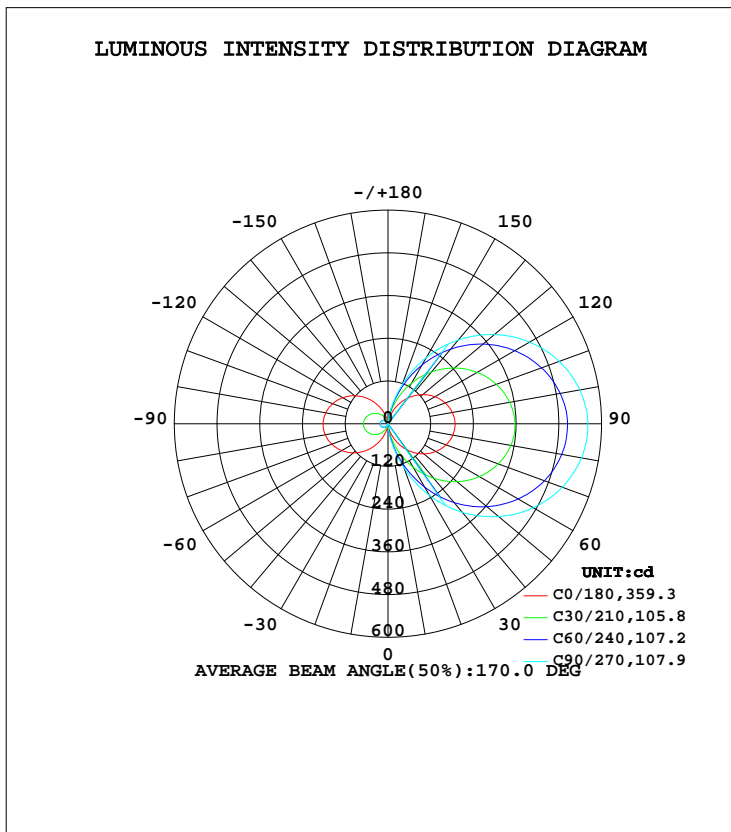


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.00V I:0.1793A P:21.190W PF:0.9849 Freq:60.00Hz Lamp Flux:2199.27x1 lm		
NAME: ASD-LVF21-MV-18D20NK_5000K	TYPE:LED	WEIGHT:
SPEC.:N/A	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 103.79 lm/W			
MODEL	ASD-LVF21-MV-18D20NK	I _{max} (cd)	561.6	S/MH(C0/180)	25.29
NOMINAL POWER(W)	20	LOR(%)	100.0	S/MH(C90/270)	10.74
RATED VOLTAGE(V)	120-277	TOTAL FLUX(lm)	2199.3	η UP, DN(C0-180)	42.9,44.1
NOMINAL FLUX(lm)	2199.27	CIE CLASS	DIFFUSE	η UP, DN(C180-360)	6.4,6.6
LAMPS INSIDE	1	η up(%)	49.4	CIBSE SHR NOM	0.00
TEST VOLTAGE(V)	120	η down(%)	50.6	CIBSE SHR MAX	1.15



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators: Alan Wang
 Test Date: 25 September 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 40.8%
 Test Distance: 2.500m [K=1.0388]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	10.49	29.40	40.71	30.59	10.07	2.107	1.318	2.293	0- 10	0.7520	0.7520	0.03,0.03
20	38.59	98.77	131.8	99.57	36.94	7.368	4.571	8.064	10- 20	10.17	10.92	0.50,0.50
30	71.19	175.1	231.9	175.8	68.46	13.78	8.490	15.03	20- 30	34.94	45.87	2.09,2.09
40	102.9	248.4	324.6	248.3	99.30	20.28	12.31	22.12	30- 40	72.95	118.8	5.4,5.4
50	131.7	312.7	405.4	312.2	127.4	26.42	15.65	28.78	40- 50	118.8	237.7	10.8,10.8
60	155.7	365.6	471.8	364.7	150.6	31.60	18.41	34.27	50- 60	166.4	404.0	18.4,18.4
70	173.5	404.9	521.2	404.0	168.2	35.56	20.42	38.43	60- 70	209.2	613.2	27.9,27.9
80	184.9	429.8	551.8	428.9	179.0	38.02	21.78	41.14	70- 80	241.5	854.7	38.9,38.9
90	188.6	437.2	561.0	436.5	182.4	38.83	22.15	42.08	80- 90	258.9	1114	50.6,50.6
100	183.6	425.7	547.2	425.0	177.6	37.77	21.53	41.12	90-100	257.9	1372	62.4,62.4
110	171.1	397.4	512.0	396.3	165.5	35.01	20.07	38.32	100-110	238.5	1610	73.2,73.2
120	152.2	355.3	459.0	353.5	146.9	30.80	17.74	33.96	110-120	204.6	1815	82.5,82.5
130	127.6	300.5	390.1	298.8	122.7	25.52	14.96	28.59	120-130	161.1	1976	89.8,89.8
140	98.53	235.3	307.6	233.8	94.42	19.54	11.87	21.78	130-140	113.7	2089	95,95
150	66.90	162.5	214.1	161.6	63.65	13.81	8.314	13.94	140-150	68.60	2158	98.1,98.1
160	34.90	87.66	116.3	86.96	33.07	8.757	4.660	6.476	150-160	31.97	2190	99.6,99.6
170	8.978	22.90	30.55	22.53	8.150	2.689	1.548	2.222	160-170	8.766	2199	100,100
180	0.0319	0.0721	0.0233	0.1329	0.0893	0.0870	0.1000	0.1621	170-180	0.5445	2199	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 172.25 lm

%lum = 7.8%

%lamp = 7.8%

Conical surface Flux(120deg): 404.02 lm

%lum = 18.4%

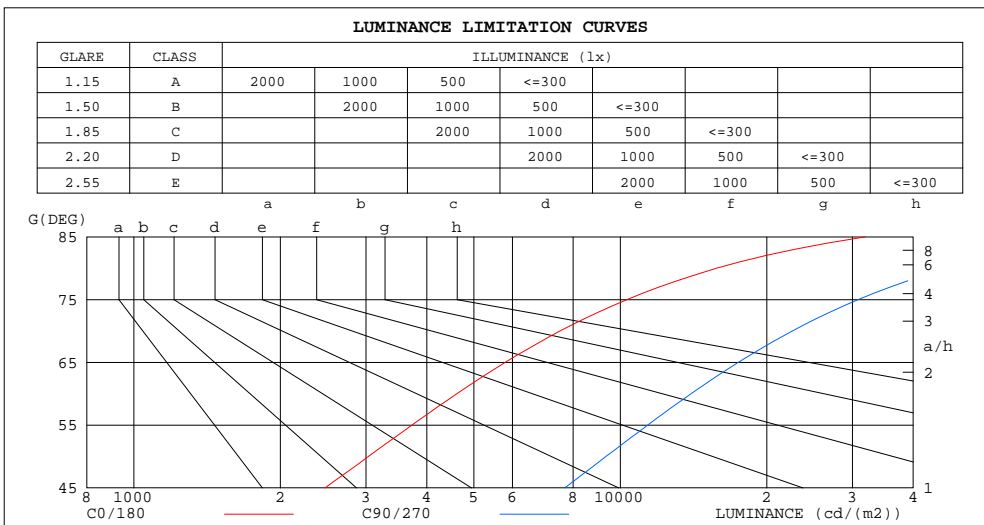
%lamp = 18.4%

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators: Alan Wang
 Test Date: 25 September 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 40.8%
 Test Distance: 2.500m [K=1.0388]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:120.00V I:0.1793A P:21.190W PF:0.9849 Freq:60.00Hz Lamp Flux:2199.27x1 lm		
NAME: ASD-LVF21-MV-18D20NK_5000K	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	31927	95106
80	15771	47079
75	10322	30830
70	7516	22575
65	5798	17477
60	4614	13979
55	3729	11382
50	3035	9344
45	2471	7687

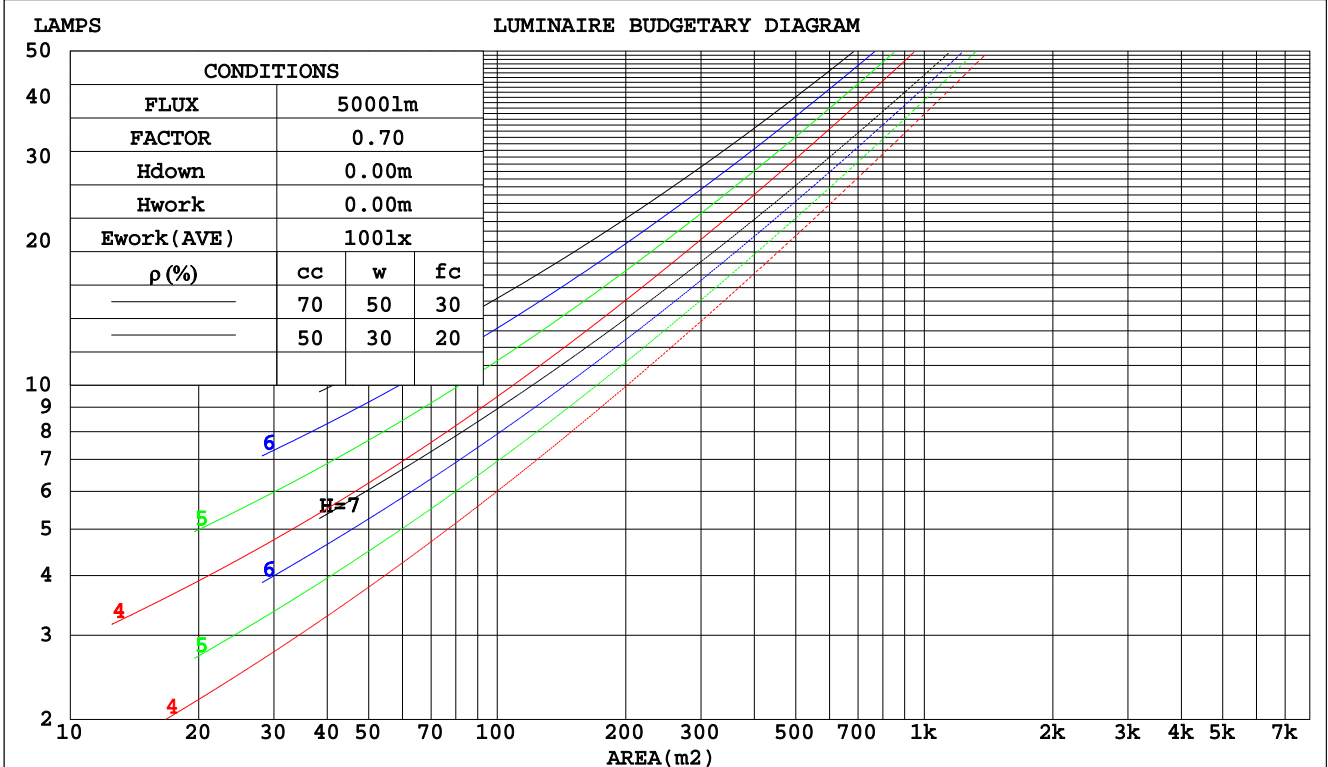
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators: Alan Wang
 Test Date: 25 September 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 40.8%
 Test Distance: 2.500m [K=1.0388]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.00V I:0.1793A P:21.190W PF:0.9849 Freq:60.00Hz Lamp Flux:2199.27x1 lm		
NAME: ASD-LVF21-MV-18D20NK_5000K	TYPE:LED	WEIGHT:
SPEC.:N/A	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	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	1.07	1.07	1.07	.99	.99	.99	.84	.84	.84	.70	.70	.70	.57	.57	.57	.51
1.0	.85	.79	.73	.78	.72	.67	.64	.60	.56	.52	.49	.46	.41	.38	.36	.30
2.0	.71	.62	.55	.65	.57	.50	.53	.47	.42	.42	.38	.33	.32	.29	.26	.21
3.0	.60	.51	.43	.55	.46	.39	.45	.38	.32	.35	.30	.26	.27	.23	.19	.15
4.0	.52	.42	.35	.47	.38	.32	.39	.31	.26	.30	.25	.20	.23	.18	.15	.11
5.0	.46	.36	.28	.41	.33	.26	.34	.27	.21	.26	.21	.17	.20	.15	.12	.08
6.0	.40	.31	.24	.37	.28	.22	.30	.23	.18	.23	.18	.14	.17	.13	.10	.07
7.0	.36	.27	.20	.33	.24	.18	.27	.20	.15	.21	.16	.12	.16	.11	.08	.05
8.0	.32	.23	.17	.29	.21	.16	.24	.17	.13	.19	.14	.10	.14	.10	.07	.04
9.0	.29	.21	.15	.27	.19	.14	.22	.15	.11	.17	.12	.08	.13	.09	.06	.04
10.0	.26	.18	.13	.24	.17	.12	.20	.14	.10	.16	.11	.07	.12	.08	.05	.03



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators: Alan Wang
 Test Date: 25 September 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 40.8%
 Test Distance: 2.500m [K=1.0388]
 Remarks:

WEC AND CCEC

Test:U:120.00V I:0.1793A P:21.190W PF:0.9849 Freq:60.00Hz Lamp Flux:2199.27x1 lm		
NAME: ASD-LVF21-MV-18D20NK_5000K	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	.447	.254	.080	.424	.242	.077	.382	.219	.070	.344	.198	.064	.308	.179	.058	
2.0	.366	.201	.062	.346	.190	.059	.308	.171	.053	.272	.153	.048	.240	.135	.043	
3.0	.316	.168	.050	.297	.159	.048	.262	.142	.043	.230	.126	.039	.200	.111	.034	
4.0	.279	.145	.043	.262	.137	.041	.230	.122	.036	.200	.107	.032	.172	.094	.028	
5.0	.250	.127	.037	.235	.120	.035	.205	.107	.031	.177	.094	.028	.152	.081	.024	
6.0	.227	.114	.033	.212	.107	.031	.185	.095	.028	.160	.083	.024	.136	.072	.021	
7.0	.208	.103	.029	.194	.097	.028	.169	.085	.025	.145	.075	.022	.123	.064	.019	
8.0	.191	.093	.026	.179	.088	.025	.156	.078	.022	.134	.068	.020	.113	.058	.017	
9.0	.177	.086	.024	.166	.081	.023	.144	.071	.020	.124	.062	.018	.104	.053	.015	
10.0	.165	.079	.022	.155	.075	.021	.134	.066	.019	.115	.057	.016	.097	.049	.014	

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	.567	.567	.567	.484	.484	.484	.330	.330	.330	.190	.190	.190	.061	.061	.061	
1.0	.569	.534	.503	.487	.458	.433	.333	.315	.299	.192	.183	.174	.061	.059	.056	
2.0	.564	.513	.471	.483	.442	.407	.331	.306	.284	.191	.178	.166	.061	.058	.054	
3.0	.557	.498	.452	.478	.430	.392	.328	.299	.275	.189	.174	.162	.061	.057	.053	
4.0	.550	.487	.439	.472	.421	.382	.324	.293	.269	.188	.172	.159	.060	.056	.052	
5.0	.542	.478	.431	.466	.414	.375	.321	.289	.265	.186	.170	.157	.060	.055	.052	
6.0	.535	.471	.425	.460	.408	.370	.317	.286	.262	.184	.168	.156	.059	.055	.051	
7.0	.528	.465	.421	.454	.403	.367	.314	.283	.260	.182	.166	.155	.059	.055	.051	
8.0	.521	.460	.418	.448	.399	.364	.310	.280	.258	.181	.165	.154	.058	.054	.051	
9.0	.515	.455	.415	.443	.395	.362	.307	.278	.257	.179	.164	.153	.058	.054	.051	
10.0	.509	.451	.413	.439	.392	.361	.304	.276	.256	.177	.163	.153	.058	.054	.051	

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators: Alan Wang
 Test Date: 25 September 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 40.8%
 Test Distance: 2.500m [K=1.0388]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.00V I:0.1793A P:21.190W PF:0.9849 Freq:60.00Hz Lamp Flux:2199.27x1 lm										
NAME: ASD-LVF21-MV-18D20NK_5000K					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	16.9	18.0	17.7	18.9	20.1	21.1	22.2	22.0	23.1	24.3
3H	19.9	20.9	20.8	21.9	23.1	25.0	26.0	25.8	26.9	28.1
4H	21.6	22.6	22.5	23.5	24.7	27.1	28.1	28.0	29.0	30.2
6H	23.4	24.4	24.3	25.3	26.5	29.4	30.3	30.3	31.2	32.5
8H	24.4	25.3	25.4	26.3	27.5	30.6	31.5	31.5	32.5	33.7
12H	25.6	26.4	26.5	27.4	28.6	32.0	32.9	32.9	33.8	35.1
4H 2H	19.3	20.3	20.2	21.2	22.5	21.8	22.8	22.7	23.7	24.9
3H	22.3	23.2	23.3	24.1	25.4	25.9	26.7	26.8	27.7	28.9
4H	24.0	24.8	25.0	25.8	27.1	28.2	28.9	29.1	29.9	31.2
6H	25.9	26.6	26.8	27.5	28.8	30.6	31.4	31.6	32.3	33.6
8H	26.8	27.5	27.8	28.5	29.8	32.0	32.7	33.0	33.7	35.0
12H	27.9	28.6	28.9	29.6	30.9	33.5	34.2	34.5	35.2	36.5
8H 4H	25.7	26.4	26.7	27.4	28.7	28.6	29.3	29.6	30.3	31.6
6H	27.8	28.4	28.8	29.4	30.7	31.4	32.0	32.4	33.0	34.3
8H	29.0	29.5	30.0	30.5	31.9	33.0	33.5	34.0	34.5	35.9
12H	30.2	30.7	31.2	31.7	33.1	34.8	35.3	35.8	36.3	37.6
12H 4H	26.3	26.9	27.3	27.9	29.2	28.7	29.3	29.7	30.3	31.7
6H	28.6	29.1	29.6	30.1	31.5	31.6	32.1	32.6	33.2	34.5
8H	29.9	30.3	30.9	31.4	32.7	33.3	33.8	34.3	34.8	36.2
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	+ 0.3 / - 0.4					+ 0.3 / - 0.4				

CIE Pub.117, 2199 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 2.7)
 Area: 0.0675 m2

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators: Alan Wang
 Test Date: 25 September 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 40.8%
 Test Distance: 2.500m [K=1.0388]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:120.00V I:0.1793A P:21.190W PF:0.9849 Freq:60.00Hz Lamp Flux:2199.27x1 lm		
NAME: ASD-LVF21-MV-18D20NK_5000K	TYPE:LED	WEIGHT:
SPEC.:N/A	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

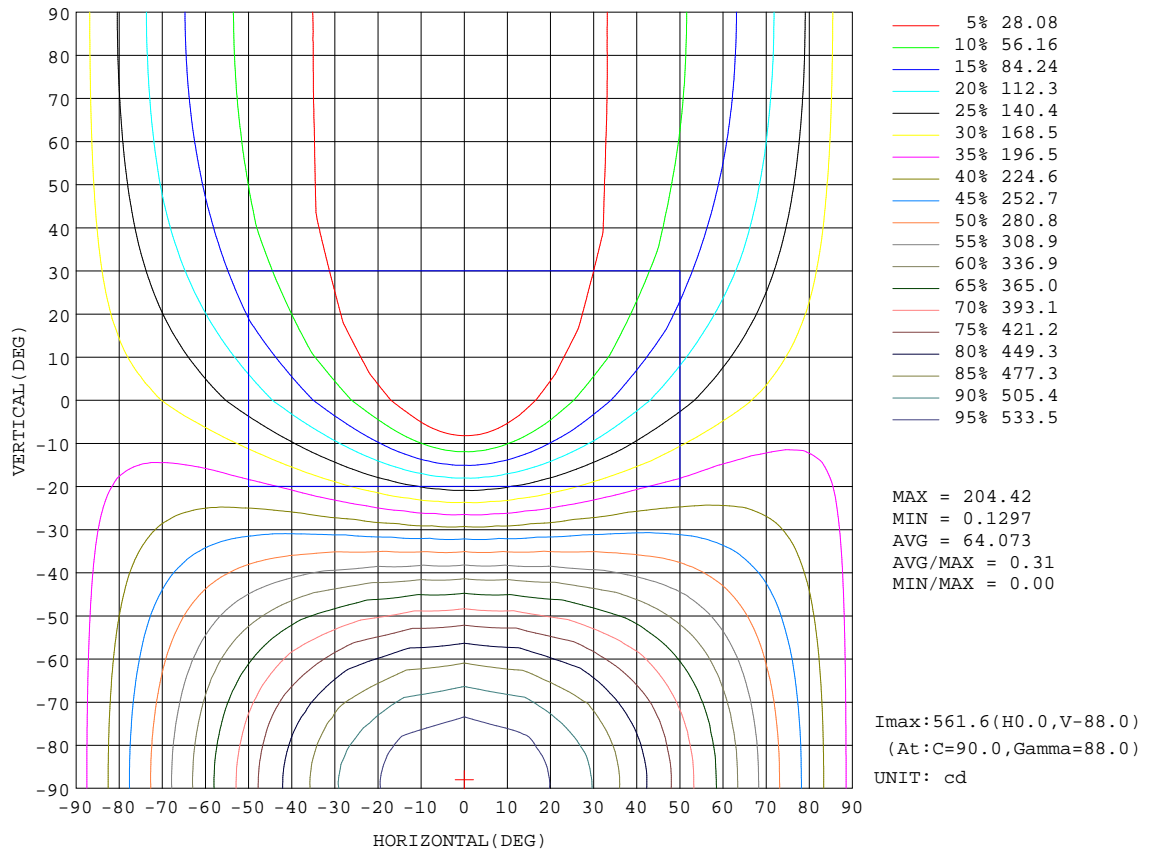
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	33	20	13	31	19	12	28	17	11	4
0.80	42	27	18	39	26	17	34	23	15	6
1.00	49	34	24	45	32	23	39	30	20	9
1.25	56	40	30	52	38	29	44	33	25	12
1.50	61	46	36	56	43	34	48	37	29	14
2.00	69	55	45	64	51	42	54	44	36	18
2.50	74	61	51	68	57	48	58	49	41	21
3.00	78	66	57	72	62	53	61	53	46	24
4.00	84	74	65	77	68	60	65	58	52	28
5.00	88	79	71	81	73	66	68	62	56	31
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: 25 September 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 40.8%
 Test Distance: 2.500m [K=1.0388]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:120.00V I:0.1793A P:21.190W PF:0.9849 Freq:60.00Hz Lamp Flux:2199.27x1 lm		
NAME: ASD-LVF21-MV-18D20NK_5000K	TYPE:LED	WEIGHT:
SPEC.:N/A	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

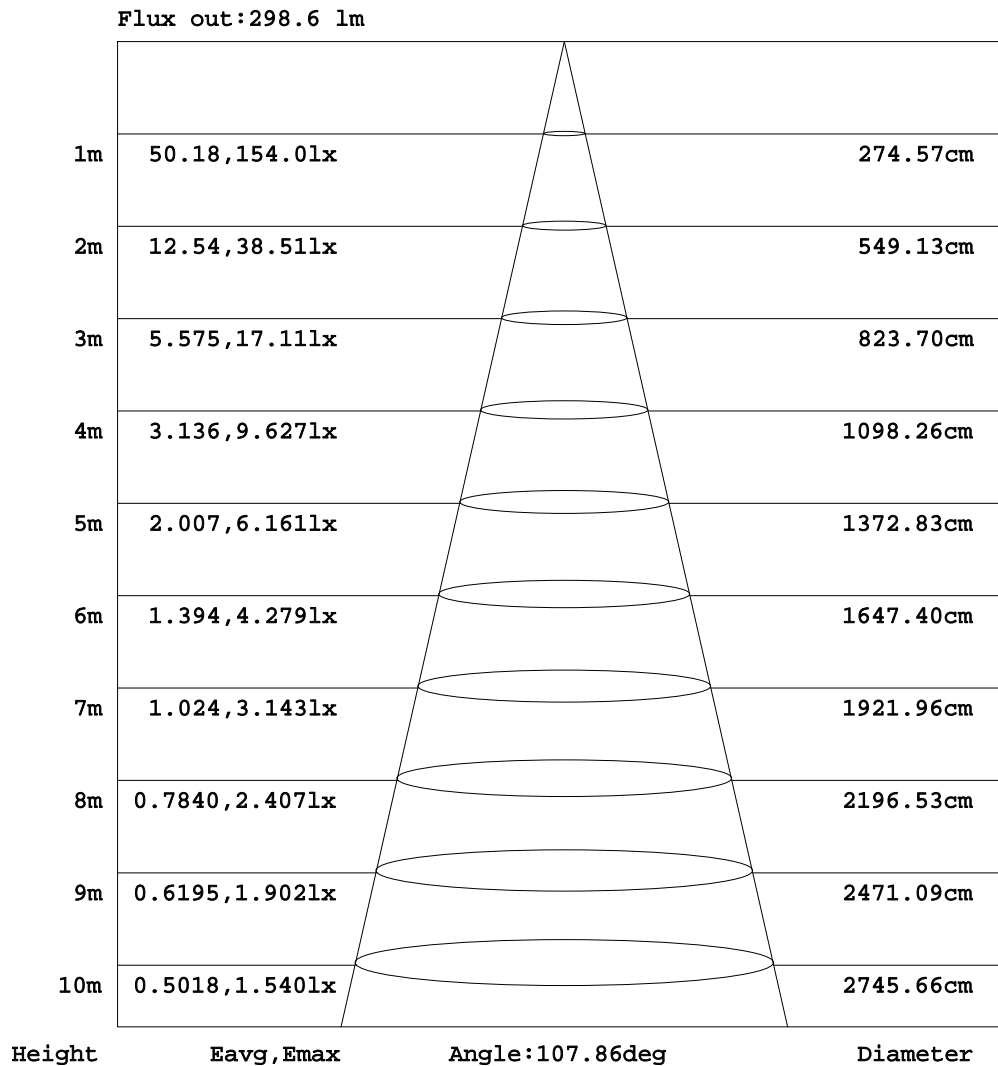


C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators:Alan Wang
 Test Date:25 September 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 40.8%
 Test Distance:2.500m [K=1.0388]
 Remarks:

AAI Figure

Test:U:120.00V I:0.1793A P:21.190W PF:0.9849 Freq:60.00Hz Lamp Flux:2199.27x1 lm		
NAME: ASD-LVF21-MV-18D20NK_5000K	TYPE:LED	WEIGHT:
SPEC.:N/A	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



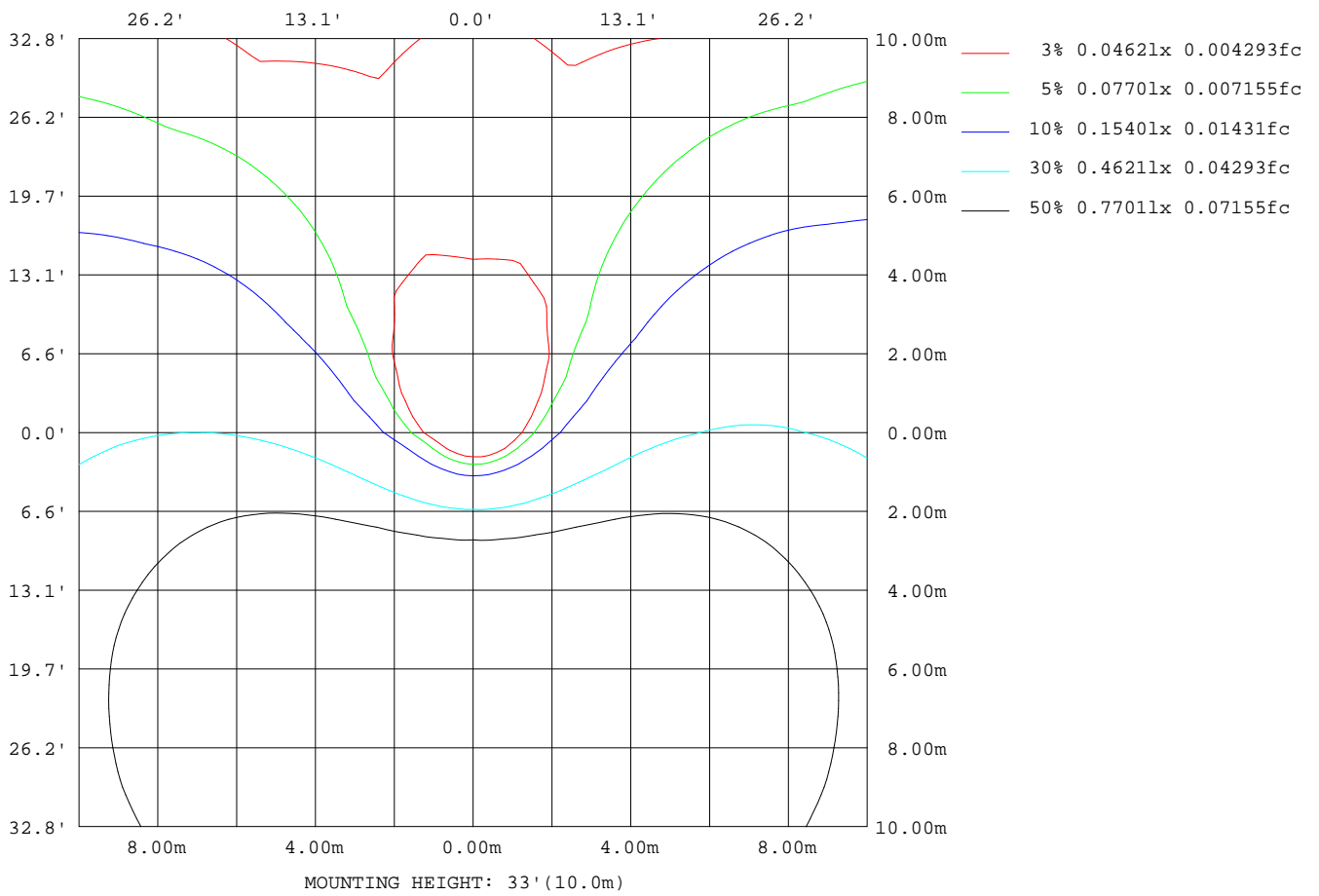
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators:Alan Wang
 Test Date:25 September 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 40.8%
 Test Distance:2.500m [K=1.0388]
 Remarks:

ISOLUX DIAGRAM

Test:U:120.00V I:0.1793A P:21.190W PF:0.9849 Freq:60.00Hz Lamp Flux:2199.27x1 lm		
NAME: ASD-LVF21-MV-18D20NK_5000K	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: 25 September 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 40.8%
 Test Distance: 2.500m [K=1.0388]
 Remarks:

LED Avg.L Report

Test:U:120.00V I:0.1793A P:21.190W PF:0.9849 Freq:60.00Hz Lamp Flux:2199.27x1 lm		
NAME: ASD-LVF21-MV-18D20NK_5000K	TYPE:LED	WEIGHT:
SPEC.:N/A	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

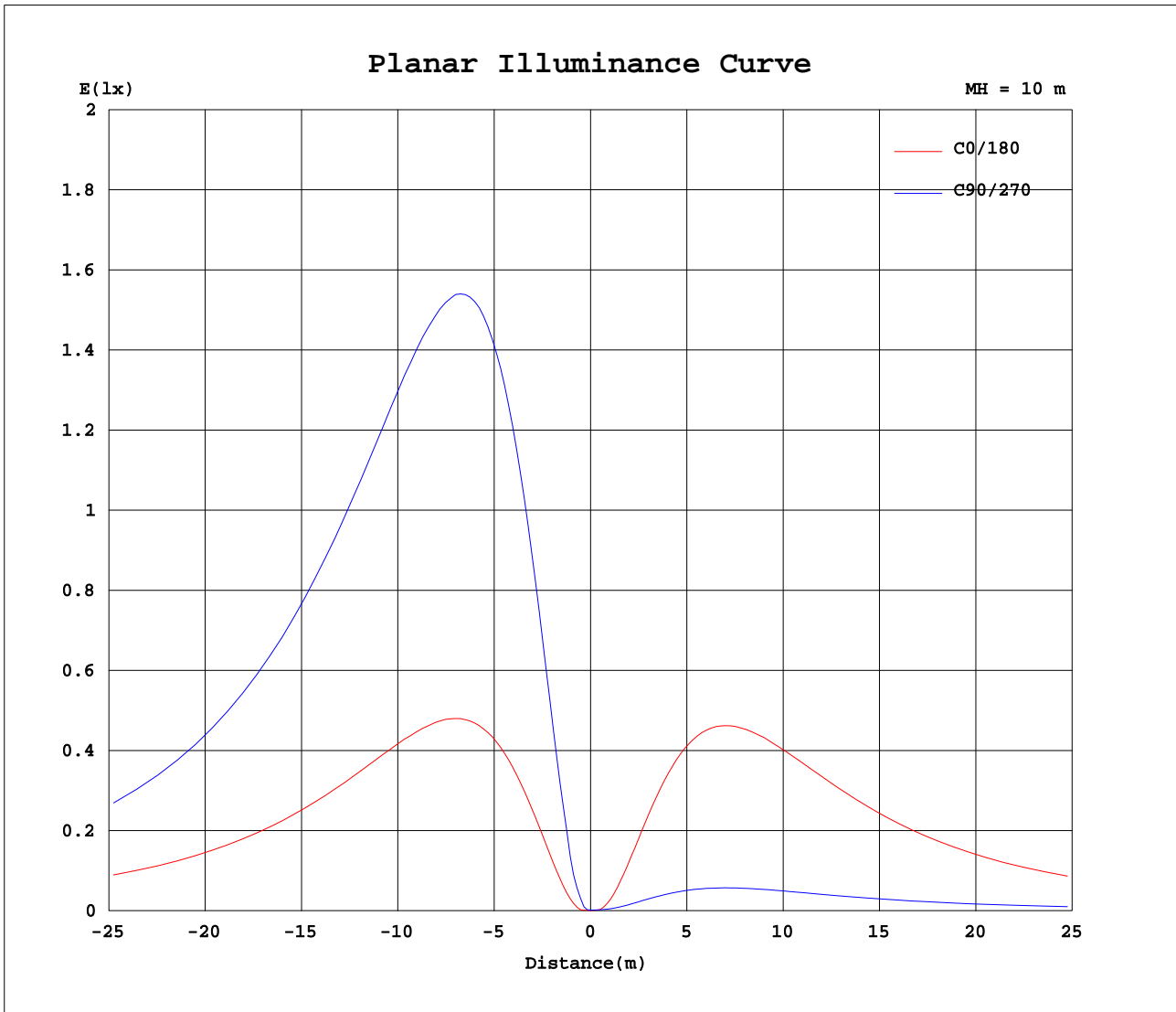
AvgL	cd/m2
L_0~180(65)av	5705
L_0~180(75)av	10157
L_0~180(85)av	31417
L_90~270(65)av	9080
L_90~270(75)av	16021
L_90~270(85)av	49433
L_45(65)av	7389
L_45(75)av	13086
L_45(85)av	40408

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.0DEG
Operators: Alan Wang
Test Date: 25 September 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
Humidity: 40.8%
Test Distance: 2.500m [K=1.0388]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators: Alan Wang
 Test Date: 25 September 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 40.8%
 Test Distance: 2.500m [K=1.0388]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.00V I:0.1793A P:21.190W PF:0.9849 Freq:60.00Hz Lamp Flux:2199.27x1 lm		
NAME: ASD-LVF21-MV-18D20NK_5000K	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	0.13	0.13	0.13	0.14	0.15	0.17	0.20	0.23	0.27	0.30	0.33	0.36	0.13	0.13	0.13	0.14	0.15	0.17	0.20
5	1.86	3.14	4.65	6.27	7.63	8.62	9.04	8.87	8.14	7.00	5.55	4.05	1.95	1.08	0.66	0.52	0.52	0.49	0.43
10	10.5	16.3	23.2	29.4	35.1	39.1	40.7	39.5	36.0	30.6	24.4	17.6	10.1	5.84	3.31	2.11	1.83	1.56	1.32
15	23.5	35.3	48.6	61.8	73.1	80.7	83.6	81.3	74.0	62.9	49.9	36.4	22.4	13.5	7.58	4.46	3.36	3.00	2.80
20	38.6	57.3	78.2	98.8	116	128	132	128	117	99.6	79.2	58.1	36.9	22.6	12.9	7.37	5.07	4.57	4.57
25	54.8	80.7	109	137	161	176	182	177	161	138	110	81.1	52.6	32.5	18.6	10.5	6.89	6.18	6.52
30	71.2	104	140	175	205	225	232	225	205	176	141	104	68.5	42.6	24.6	13.8	8.74	7.80	8.49
35	87.4	127	171	213	248	272	280	272	248	213	171	127	84.1	52.6	30.5	17.1	10.6	9.39	10.4
40	103	149	199	248	289	316	325	316	289	248	199	149	99.3	62.5	36.4	20.3	12.4	10.9	12.3
45	118	170	228	282	327	357	367	357	327	281	227	170	114	71.8	42.1	23.4	14.1	12.3	14.1
50	132	190	253	313	362	395	405	394	362	312	252	189	127	80.6	47.4	26.4	15.7	13.6	15.7
55	144	207	276	341	394	429	441	429	393	340	275	206	140	88.6	52.3	29.1	17.2	14.9	17.2
60	156	224	297	366	422	459	472	459	422	365	295	222	151	95.7	56.6	31.6	18.5	15.9	18.4
65	165	238	314	387	447	486	499	485	446	386	313	236	160	102	60.5	33.8	19.7	16.9	19.5
70	174	249	330	405	468	507	521	507	466	404	328	247	168	107	63.7	35.6	20.7	17.7	20.4
75	180	258	342	419	484	525	539	524	483	418	339	256	175	111	66.2	37.0	21.5	18.3	21.2
80	185	265	350	430	496	538	552	537	494	429	348	263	179	114	68.0	38.0	22.1	18.9	21.8
85	188	269	356	436	502	545	560	544	502	435	353	267	182	116	69.0	38.6	22.4	19.2	22.1
90	189	270	357	437	504	547	561	546	503	437	354	267	182	116	69.3	38.8	22.5	19.3	22.1
95	187	268	354	434	501	543	557	543	499	432	351	266	181	115	68.7	38.5	22.3	19.1	22.0
100	184	263	347	426	491	534	547	533	490	425	345	261	178	113	67.4	37.8	21.9	18.8	21.5
105	178	255	337	414	478	518	532	518	475	412	334	253	172	110	65.3	36.6	21.3	18.3	20.9
110	171	245	324	397	459	499	512	498	458	396	321	243	165	105	62.5	35.0	20.5	17.6	20.1
115	162	233	308	378	437	475	488	474	436	377	305	230	157	99.8	59.1	33.1	19.3	16.8	18.9
120	152	218	289	355	411	447	459	446	410	354	286	216	147	93.1	55.1	30.8	18.1	15.9	17.7
125	141	202	268	329	382	415	427	414	380	328	265	199	135	85.7	50.6	28.3	16.7	14.8	16.4
130	128	184	244	301	348	380	390	379	347	299	241	181	123	77.6	45.5	25.5	15.2	13.6	15.0
135	114	164	218	269	312	341	350	340	311	267	215	161	109	68.6	40.3	22.6	13.7	12.3	13.5
140	98.5	143	190	235	274	299	308	299	273	234	188	140	94.4	59.4	34.8	19.5	12.1	10.9	11.9
145	82.9	121	161	200	233	254	262	254	232	198	159	118	79.2	50.3	29.4	16.5	10.4	9.49	10.2
150	66.9	96.8	131	162	190	208	214	208	189	162	129	95.9	63.6	41.5	24.2	13.8	8.81	7.97	8.31
155	50.8	74.2	100	125	146	160	165	160	146	124	98.9	73.0	48.0	33.5	19.6	11.3	7.30	6.50	6.44
160	34.9	51.5	70.0	87.7	103	113	116	113	102	87.0	69.0	50.8	33.1	25.6	15.0	8.76	5.70	5.01	4.66
165	20.6	30.7	41.9	52.5	61.5	67.7	69.7	67.6	61.3	52.0	41.2	30.3	19.5	16.9	9.98	5.81	3.92	3.48	3.01
170	8.98	13.3	18.3	22.9	26.8	29.6	30.6	29.5	26.6	22.5	17.8	13.1	8.15	7.72	4.42	2.69	2.07	1.98	1.55
175	1.40	2.14	3.01	3.86	5.32	5.71	5.70	5.40	4.28	3.55	2.65	1.81	0.96	0.97	0.63	0.54	0.59	0.61	0.47
180	0.03	0.05	0.07	0.07	0.05	0.02	0.02	0.05	0.10	0.13	0.13	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.10

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators: Alan Wang
 Test Date: 25 September 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 40.8%
 Test Distance: 2.500m [K=1.0388]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.00V I:0.1793A P:21.190W PF:0.9849 Freq:60.00Hz Lamp Flux:2199.27x1 lm		
NAME: ASD-LVF21-MV-18D20NK_5000K	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	0.23	0.27	0.30	0.33	0.36														
5	0.55	0.64	0.66	0.76	1.22														
10	1.63	1.94	2.29	3.70	6.48														
15	3.08	3.53	4.88	8.38	14.6														
20	4.68	5.37	8.06	14.1	24.3														
25	6.34	7.34	11.5	20.3	34.9														
30	8.00	9.33	15.0	26.7	45.6														
35	9.61	11.3	18.6	33.2	56.2														
40	11.2	13.3	22.1	39.6	66.7														
45	12.6	15.2	25.6	45.7	76.5														
50	14.0	16.9	28.8	51.3	85.8														
55	15.2	18.5	31.7	56.5	94.0														
60	16.2	19.9	34.3	61.2	101														
65	17.1	21.1	36.6	65.1	108														
70	17.9	22.2	38.4	68.2	113														
75	18.5	23.1	40.0	70.7	117														
80	19.0	23.7	41.1	72.5	120														
85	19.3	24.2	41.9	73.9	122														
90	19.4	24.3	42.1	74.2	122														
95	19.2	24.2	41.9	73.7	122														
100	18.9	23.8	41.1	72.4	119														
105	18.4	23.1	40.0	70.3	116														
110	17.7	22.3	38.3	67.5	111														
115	16.9	21.2	36.3	63.9	106														
120	15.9	19.8	34.0	59.8	99.2														
125	14.7	18.3	31.3	55.1	91.5														
130	13.5	16.7	28.6	50.2	83.2														
135	12.3	15.1	25.4	44.8	74.4														
140	10.9	13.1	21.8	38.5	64.4														
145	9.38	11.1	17.8	31.6	53.2														
150	7.77	9.06	13.9	24.3	41.2														
155	6.14	7.03	10.0	17.0	28.9														
160	4.50	5.08	6.48	10.4	17.7														
165	2.81	3.29	3.87	5.70	9.35														
170	1.39	1.82	2.22	2.82	4.20														
175	0.46	0.71	0.82	0.92	1.19														
180	0.11	0.13	0.16	0.20	0.25														

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators: Alan Wang
 Test Date: 25 September 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 40.8%
 Test Distance: 2.500m [K=1.0388]
 Remarks: