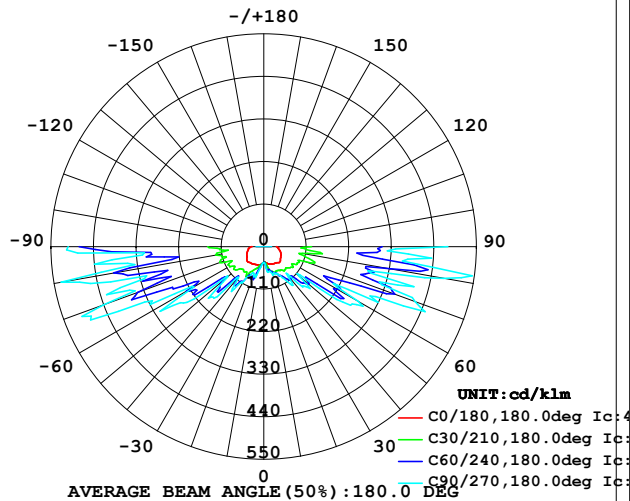


LUMINAIRE PHOTOMETRIC TEST REPORT

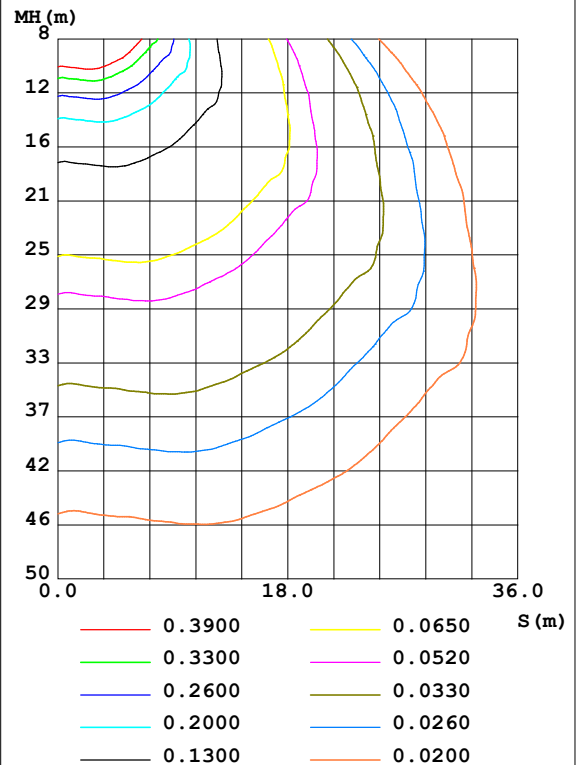
NAME: ASD-LWS32-MV-16D12BK	TYPE:LED	WEIGHT:
SPEC.:5000K	DIM.:	SERIAL No.:1
MFR.: ASD Lighting corp	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 41.82 lm/W
MODEL	ASD-LWS32-MV-16D12BK	Imax(cd/klm)	555.0	S/MH(C0/180)	2.01	
NOMINAL POWER(W)	12	LOR(%)	100.0	S/MH(C90/270)	4.65	
RATED VOLTAGE(V)	120	TOTAL FLUX(lm/klm)	543.51	η UP,DN(C0-180)	0.0,48.0	
NOMINAL FLUX(lm)	543.51	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,52.0	
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.50	
TEST VOLTAGE(V)	120	η down(%)	100.0	CIBSE SHR MAX	1.55	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx/klm)



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2026-06-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:7.500m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	43.37	58.67	67.71	51.19	47.08	50.96	56.97	55.71	0- 10	4.625	4.625	0.46,0.46
20	48.08	71.29	73.84	74.01	50.40	78.25	75.49	81.77	10- 20	18.30	22.93	2.29,2.29
30	51.43	77.76	88.36	78.21	52.77	82.14	102.6	83.58	20- 30	34.39	57.32	5.73,5.73
40	54.36	94.48	90.59	90.15	54.39	97.25	103.0	101.4	30- 40	57.27	114.6	11.5,11.5
50	56.87	121.5	120.8	105.7	56.90	129.3	122.9	147.9	40- 50	85.82	200.4	20,20
60	51.26	178.8	281.6	145.4	50.96	170.2	209.0	175.9	50- 60	129.2	329.6	33,33
70	47.24	228.5	416.9	186.7	46.12	231.9	441.8	278.1	60- 70	189.9	519.6	52,52
80	40.05	211.2	472.4	211.7	40.66	259.7	531.6	283.0	70- 80	234.9	754.5	75.5,75.5
90	32.59	224.4	475.6	251.3	32.49	299.5	505.9	307.7	80- 90	245.5	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		

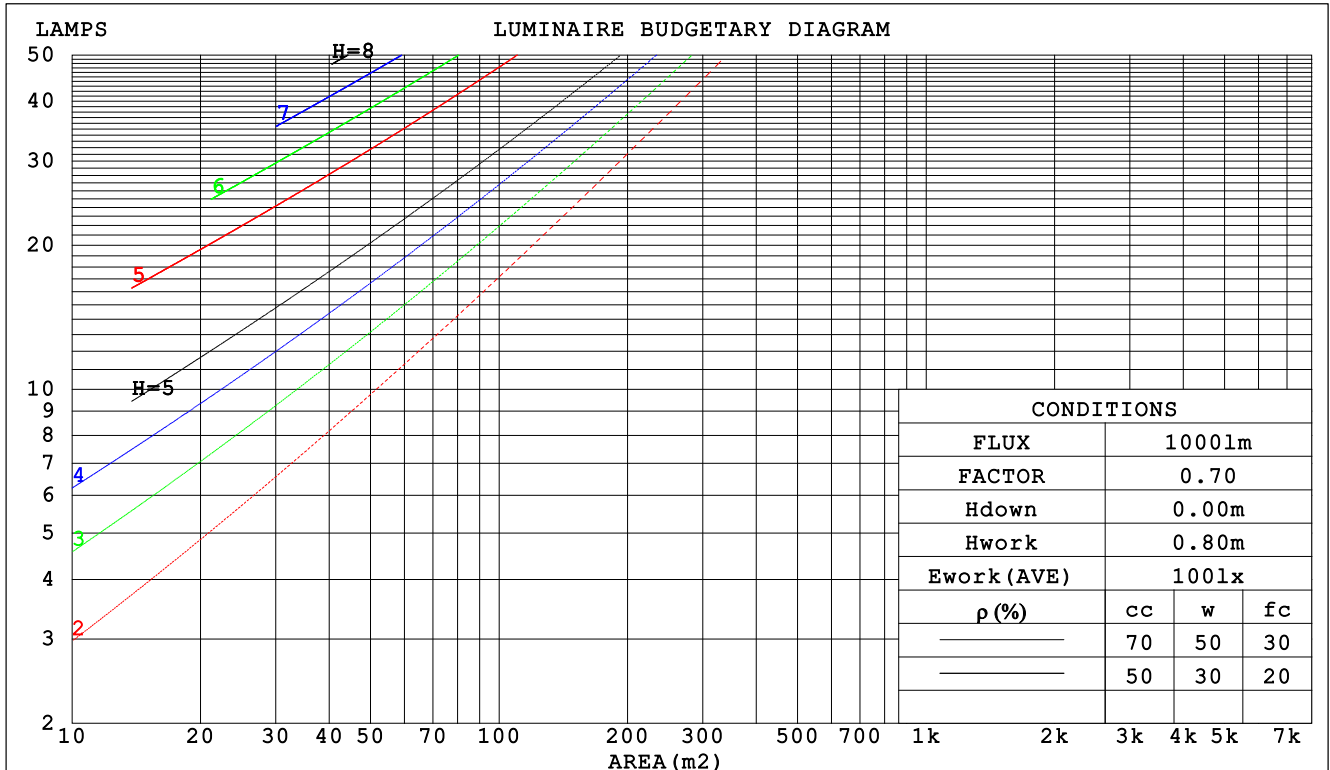
C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2026-06-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:7.500m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: ASD-LWS32-MV-16D12BK	TYPE:LED	WEIGHT:
SPEC.:5000K	DIM.:	SERIAL No.:1
MFR.: ASD Lighting corp	SUR.:	PROTECTION ANGLE:

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	Coefficients of Utilization(CU)															
RCR:Room Cavity Ratio																
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	.86	.77	.69	.84	.75	.68	.79	.72	.65	.74	.68	.63	.70	.65	.61	.58
2.0	.68	.57	.47	.66	.55	.46	.62	.53	.45	.58	.50	.43	.55	.48	.42	.39
3.0	.56	.44	.34	.55	.43	.33	.51	.41	.32	.48	.39	.32	.45	.37	.31	.28
4.0	.48	.35	.26	.46	.35	.25	.43	.33	.25	.41	.32	.24	.38	.30	.24	.21
5.0	.42	.29	.20	.40	.29	.20	.38	.28	.20	.35	.26	.19	.33	.25	.19	.16
6.0	.37	.25	.17	.36	.24	.16	.33	.24	.16	.31	.23	.16	.30	.22	.16	.13
7.0	.33	.22	.14	.32	.21	.14	.30	.20	.13	.28	.20	.13	.27	.19	.13	.11
8.0	.29	.19	.12	.29	.19	.12	.27	.18	.12	.26	.17	.11	.24	.17	.11	.09
9.0	.27	.17	.10	.26	.17	.10	.25	.16	.10	.24	.16	.10	.22	.15	.10	.08
10.0	.25	.15	.09	.24	.15	.09	.23	.15	.09	.22	.14	.09	.21	.14	.09	.07



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2026-06-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:7.500m [K=1.0000]
Remarks:

WEC AND CCEC

NAME: ASD-LWS32-MV-16D12BK	TYPE:LED	WEIGHT:
SPEC.:5000K	DIM.:	SERIAL No.:1
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						Wall Exitance Coefficients (WEC)										
0.0																	
1.0	.650	.370	.117	.642	.366	.116	.627	.360	.115	.613	.354	.113	.600	.348	.112		
2.0	.503	.276	.085	.496	.273	.084	.482	.268	.083	.469	.263	.082	.458	.259	.082		
3.0	.417	.222	.066	.410	.220	.066	.398	.216	.066	.387	.212	.065	.376	.208	.064		
4.0	.357	.185	.054	.351	.184	.054	.340	.180	.054	.330	.177	.053	.321	.174	.053		
5.0	.312	.159	.046	.307	.158	.046	.298	.155	.046	.289	.152	.045	.280	.150	.045		
6.0	.278	.139	.040	.273	.138	.040	.265	.136	.039	.257	.134	.039	.250	.131	.039		
7.0	.250	.124	.035	.246	.123	.035	.239	.121	.035	.232	.119	.035	.225	.117	.034		
8.0	.227	.111	.031	.224	.110	.031	.217	.109	.031	.211	.107	.031	.205	.105	.031		
9.0	.209	.101	.028	.206	.100	.028	.200	.099	.028	.194	.097	.028	.189	.096	.028		
10.0	.193	.092	.026	.190	.092	.026	.185	.091	.025	.180	.089	.025	.175	.088	.025		

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						Ceiling Cavity Exitance Coefficients(CCEC)										
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020		
1.0	.204	.153	.107	.174	.131	.092	.119	.090	.064	.069	.052	.037	.022	.017	.012		
2.0	.200	.131	.072	.172	.113	.063	.118	.078	.044	.068	.045	.026	.022	.015	.008		
3.0	.193	.115	.054	.165	.099	.046	.113	.069	.033	.066	.040	.019	.021	.013	.006		
4.0	.183	.103	.042	.157	.089	.037	.108	.062	.026	.063	.036	.015	.020	.012	.005		
5.0	.174	.094	.035	.149	.081	.030	.103	.057	.022	.059	.033	.013	.019	.011	.004		
6.0	.164	.086	.030	.141	.074	.026	.097	.052	.018	.056	.031	.011	.018	.010	.004		
7.0	.155	.079	.026	.133	.069	.023	.092	.048	.016	.053	.028	.010	.017	.009	.003		
8.0	.146	.073	.023	.126	.064	.020	.087	.045	.014	.051	.026	.009	.016	.009	.003		
9.0	.138	.068	.021	.119	.059	.018	.083	.042	.013	.048	.025	.008	.016	.008	.003		
10.0	.131	.064	.019	.113	.055	.017	.078	.039	.012	.046	.023	.007	.015	.008	.002		

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2026-06-30

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:7.500m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

NAME: ASD-LWS32-MV-16D12BK					TYPE:LED					WEIGHT:				
SPEC.:5000K					DIM.:					SERIAL No.:1				
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					11.2	13.3	11.5	13.5	13.8	19.0	21.0	19.3	21.3	21.5
3H					13.5	15.5	13.8	15.7	16.0	25.0	27.0	25.3	27.2	27.5
4H					14.8	16.7	15.1	17.0	17.3	27.0	28.9	27.3	29.2	29.5
6H					16.0	17.9	16.4	18.2	18.5	29.5	31.3	29.8	31.6	31.9
8H					16.8	18.6	17.2	18.9	19.2	31.5	33.3	31.9	33.6	33.9
12H					17.6	19.4	18.0	19.7	20.1	32.5	34.2	32.9	34.6	34.9
4H 2H					14.9	16.8	15.2	17.1	17.4	19.4	21.3	19.7	21.6	21.9
3H					17.6	19.4	18.0	19.7	20.1	25.8	27.6	26.2	27.9	28.2
4H					18.7	20.4	19.1	20.7	21.1	28.0	29.7	28.4	30.0	30.4
6H					19.6	21.2	20.1	21.5	21.9	31.0	32.6	31.5	32.9	33.3
8H					20.2	21.7	20.7	22.1	22.5	33.1	34.6	33.6	35.0	35.4
12H					20.9	22.3	21.3	22.7	23.1	34.2	35.6	34.7	36.0	36.5
8H 4H					22.1	23.6	22.6	24.0	24.4	28.3	29.7	28.7	30.1	30.5
6H					23.3	24.6	23.8	25.0	25.5	31.8	33.1	32.3	33.6	34.0
8H					24.1	25.3	24.6	25.8	26.2	34.2	35.4	34.6	35.8	36.3
12H					24.7	25.8	25.2	26.3	26.8	35.5	36.6	36.0	37.0	37.5
12H 4H					23.8	25.2	24.2	25.6	26.0	28.3	29.6	28.7	30.1	30.5
6H					25.8	27.0	26.2	27.4	27.9	32.0	33.2	32.5	33.7	34.1
8H					26.8	27.9	27.3	28.4	28.9	34.4	35.5	34.9	36.0	36.5
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 / - 0.5					+ 0.3 / - 0.3				

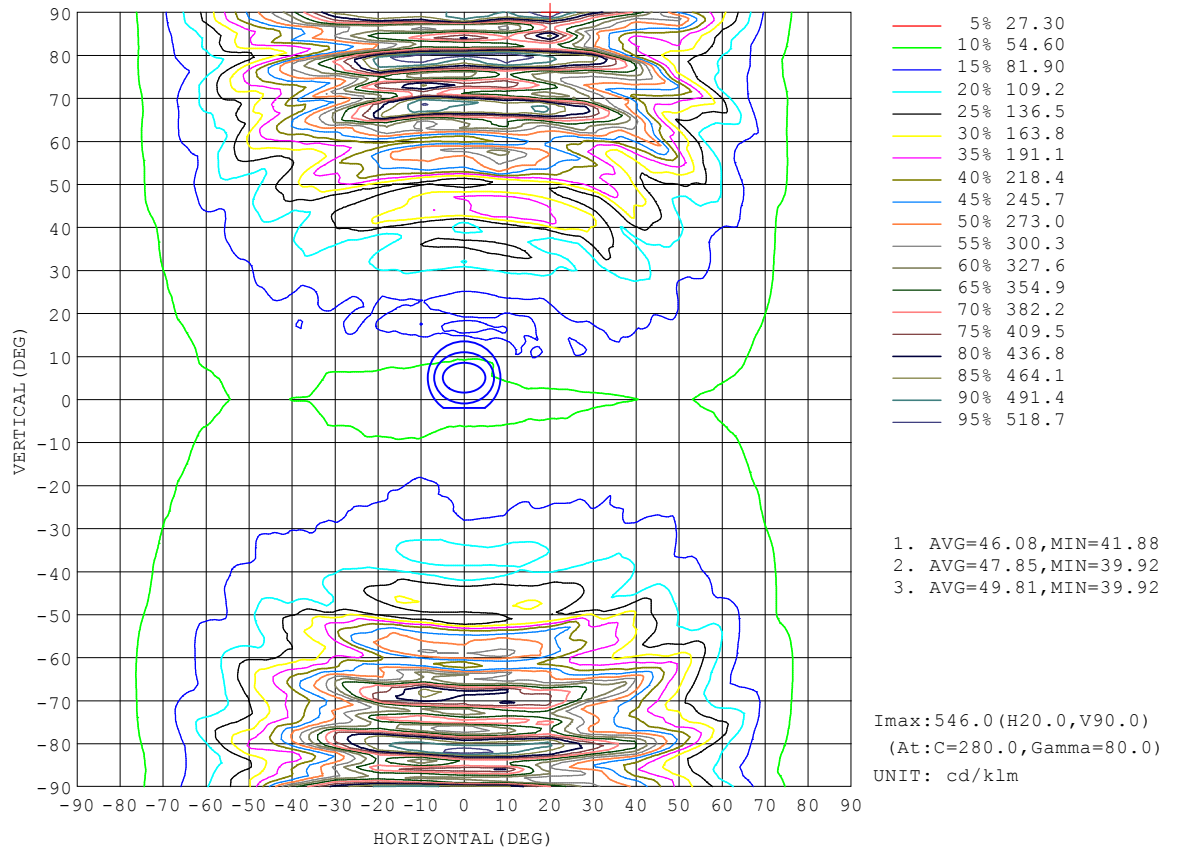
CIE Pub.117 Corrected 1000 lm Total Lamp Luminous Flux.(8log(F/F0) = 0.0)

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2026-06-30

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:7.500m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

NAME: ASD-LWS32-MV-16D12BK	TYPE:LED	WEIGHT:
SPEC.:5000K	DIM.:	SERIAL No.:1
MFR.: ASD Lighting corp	SUR.:	PROTECTION ANGLE:

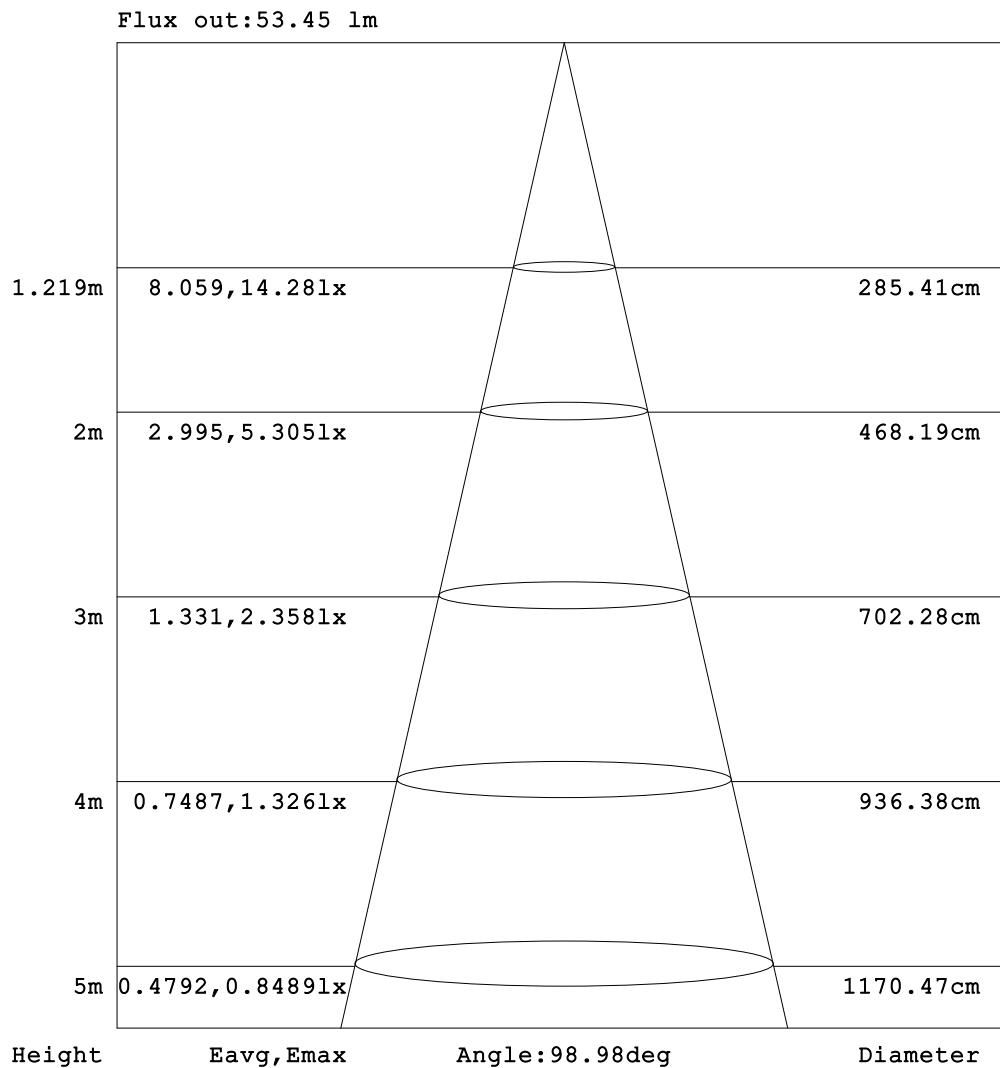


C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2026-06-30

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:7.500m [K=1.0000]
Remarks:

AAI Figure

NAME: ASD-LWS32-MV-16D12BK	TYPE:LED	WEIGHT:
SPEC.:5000K	DIM.:	SERIAL No.:1
MFR.: ASD Lighting corp	SUR.:	PROTECTION ANGLE:



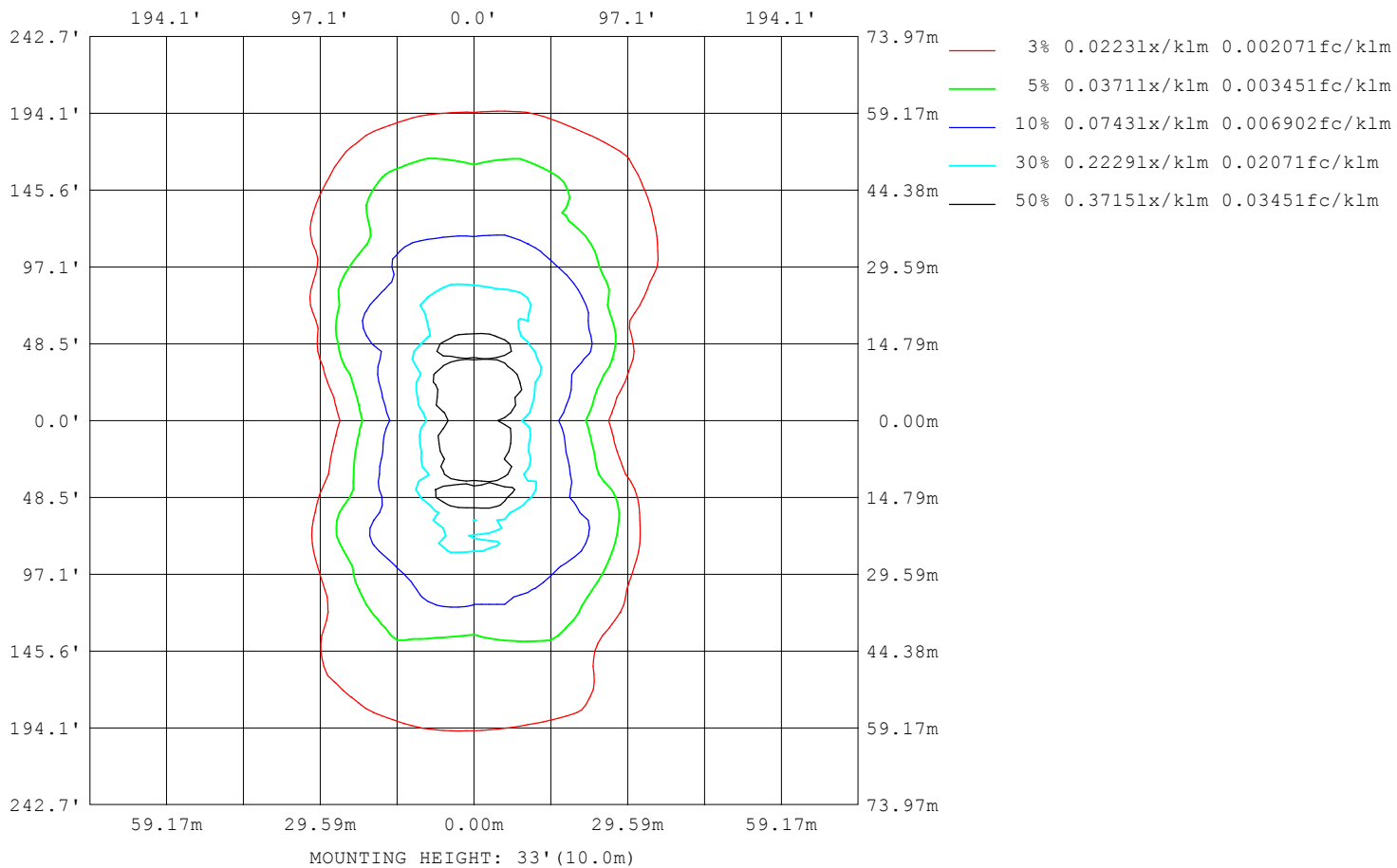
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2026-06-30

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:7.500m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

NAME: ASD-LWS32-MV-16D12BK	TYPE:LED	WEIGHT:
SPEC.:5000K	DIM.:	SERIAL No.:1
MFR.: ASD Lighting corp	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2026-06-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.291
 Humidity:65.0%
 Test Distance:7.500m [K=1.0000]
 Remarks:

LED Avg.L Report

NAME: ASD-LWS32-MV-16D12BK	TYPE:LED	WEIGHT:
SPEC.:5000K	DIM.:	SERIAL No.:1
MFR.: ASD Lighting corp	SUR.:	PROTECTION ANGLE:

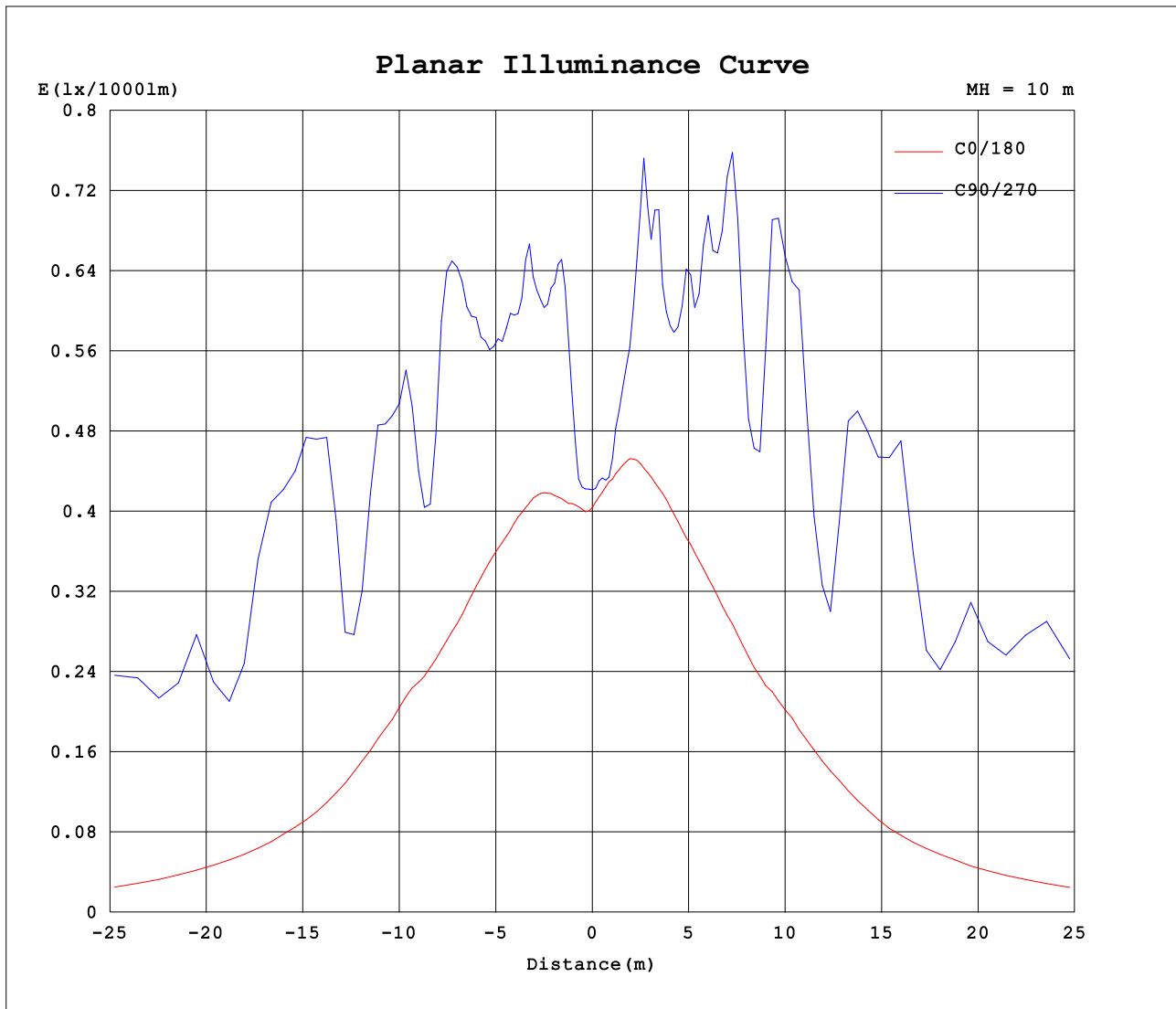
AvgL	cd/m2
L_0~180 (65) av	310
L_0~180 (75) av	450
L_0~180 (85) av	1152
L_90~270 (65) av	2030
L_90~270 (75) av	3719
L_90~270 (85) av	11749
L_45 (65) av	944
L_45 (75) av	2051
L_45 (85) av	5961

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2026-06-30

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_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: 10.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2026-06-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.291
 Humidity: 65.0%
 Test Distance: 7.500m [K=1.0000]
 Remarks:

