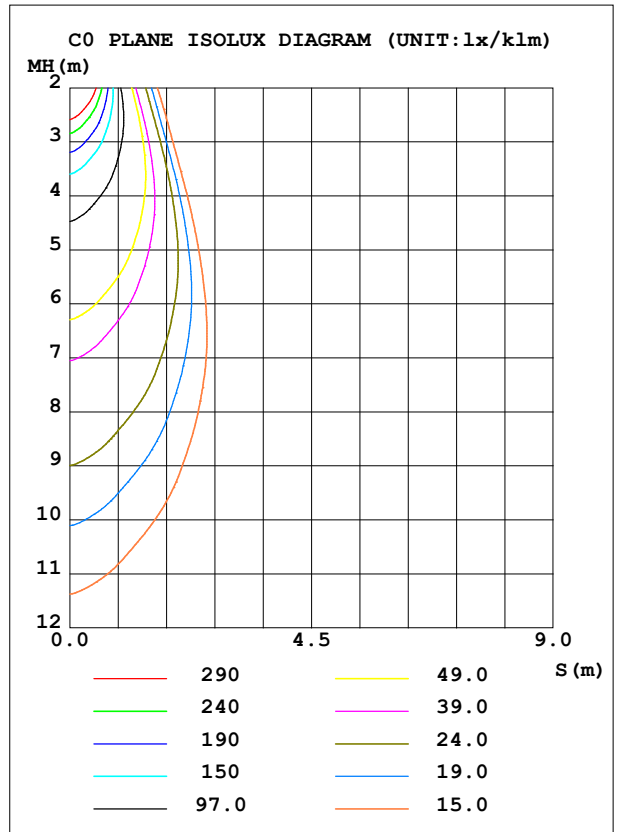
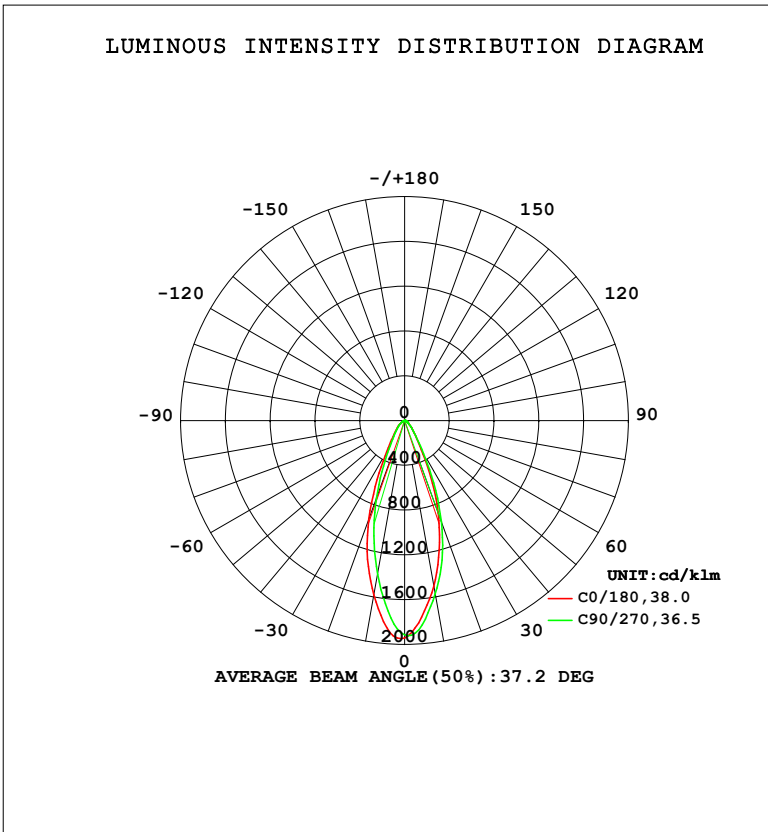


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:119.76V I:0.1471A P:17.392W PF:0.9875 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1384.2x1 lm		
NAME: ASD-CD-TGR-4D17AC-WH	TYPE:	WEIGHT:
SPEC.: 2700K 90	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 79.59 lm/W
MODEL		I _{max} (cd/klm)	1949	S/MH (C0/180)		0.63
NOMINAL POWER (W)	17	LOR (%)	100.0	S/MH (C90/270)		0.54
RATED VOLTAGE (V)	120	TOTAL FLUX (lm/klm)	1000.00	η UP, DN (C0-180)		0.0, 53.2
NOMINAL FLUX (lm)	1384.2	CIE CLASS	DIRECT	η UP, DN (C180-360)		0.0, 46.8
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM		0.50
TEST VOLTAGE (V)	120	η down (%)	100.0	CIBSE SHR MAX		0.65



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:

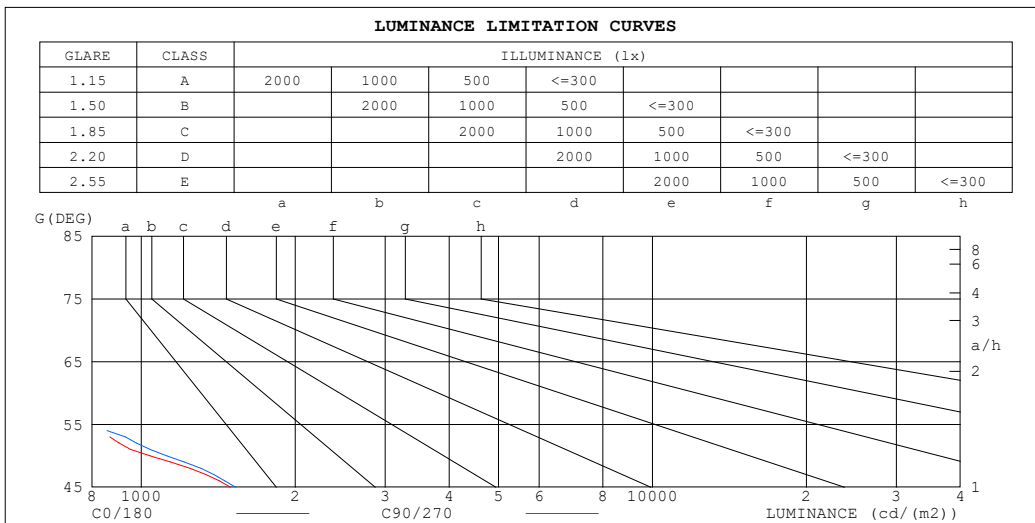
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	1505	1592	1574	1607	1583	1490	1396	1367	0- 10	161.2	161.2	16.1,16.1
20	881.6	978.9	961.4	1021	936.3	820.4	737.9	707.2	10- 20	331.4	492.6	49.3,49.3
30	302.2	344.5	341.1	371.9	321.9	296.6	262.2	245.7	20- 30	254.4	747.1	74.7,74.7
40	121.2	125.0	123.1	131.4	131.0	124.3	118.1	116.2	30- 40	120.1	867.2	86.7,86.7
50	53.72	54.16	57.90	64.56	68.34	66.43	64.28	61.10	40- 50	68.67	935.9	93.6,93.6
60	25.22	25.49	26.26	28.11	30.30	29.26	27.58	25.92	50- 60	36.54	972.4	97.2,97.2
70	10.47	10.70	11.62	12.68	13.33	13.39	12.66	11.60	60- 70	18.95	991.4	99.1,99.1
80	2.894	2.912	3.217	3.443	3.913	4.005	3.872	3.340	70- 80	6.986	998.3	99.8,99.8
90	0.0689	0.0617	0.0675	0.0593	0.0435	0.0403	0.0475	0.0435	80- 90	1.654	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

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:

LUMINANCE LIMITATION CURVES

Test:U:119.76V I:0.1471A P:17.392W PF:0.9875 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1384.2x1 lm		
NAME: ASD-CD-TGR-4D17AC-WH	TYPE:	WEIGHT:
SPEC.: 2700K 90	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	129	212
80	208	231
75	220	272
70	382	423
65	500	528
60	628	654
55	750	788
50	1041	1122
45	1494	1529

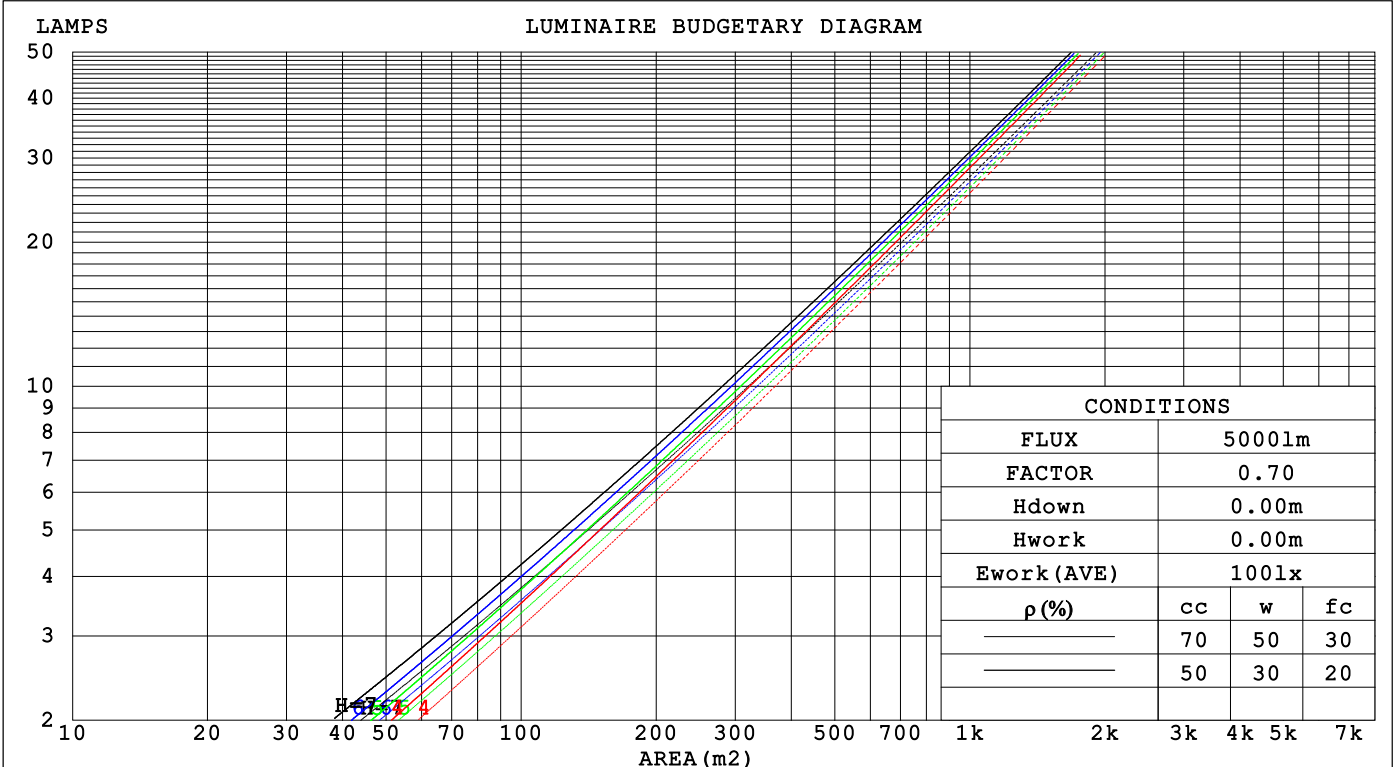
C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:
 Test Date:2023-07-13

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:119.76V I:0.1471A P:17.392W PF:0.9875 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1384.2x1 lm		
NAME: ASD-CD-TGR-4D17AC-WH	TYPE:	WEIGHT:
SPEC.: 2700K 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	1.11	1.08	1.06	1.08	1.06	1.04	1.04	1.03	1.01	1.01	.99	.98	.97	.96	.95	.93
2.0	1.03	.99	.95	1.01	.98	.94	.98	.95	.92	.95	.93	.90	.92	.90	.88	.87
3.0	.96	.91	.87	.95	.90	.87	.92	.88	.85	.90	.87	.84	.87	.85	.83	.81
4.0	.90	.85	.81	.89	.84	.80	.87	.83	.79	.85	.81	.78	.83	.80	.77	.76
5.0	.85	.79	.75	.84	.79	.75	.82	.77	.74	.80	.76	.73	.79	.75	.73	.71
6.0	.80	.74	.70	.79	.74	.70	.78	.73	.69	.76	.72	.69	.75	.71	.68	.67
7.0	.76	.70	.66	.75	.70	.66	.74	.69	.65	.73	.68	.65	.72	.68	.65	.63
8.0	.72	.66	.62	.71	.66	.62	.70	.65	.62	.69	.65	.62	.68	.64	.61	.60
9.0	.69	.63	.59	.68	.63	.59	.67	.62	.59	.66	.62	.59	.65	.61	.58	.57
10.0	.65	.60	.56	.65	.60	.56	.64	.59	.56	.63	.59	.56	.63	.59	.56	.54



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:119.76V I:0.1471A P:17.392W PF:0.9875 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1384.2x1 lm		
NAME: ASD-CD-TGR-4D17AC-WH	TYPE:	WEIGHT:
SPEC.: 2700K 90	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.:	Shielding 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	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.181	.103	.033	.174	.099	.032	.161	.093	.030	.150	.086	.028	.139	.081	.026	
2.0	.172	.094	.029	.166	.092	.028	.156	.087	.027	.146	.082	.026	.137	.077	.024	
3.0	.162	.086	.026	.158	.084	.025	.149	.081	.024	.140	.077	.024	.132	.073	.023	
4.0	.153	.080	.023	.149	.078	.023	.142	.075	.022	.134	.072	.022	.128	.069	.021	
5.0	.145	.074	.021	.142	.073	.021	.135	.070	.021	.128	.068	.020	.123	.066	.020	
6.0	.138	.069	.020	.134	.068	.020	.129	.066	.019	.123	.064	.019	.118	.062	.018	
7.0	.131	.065	.018	.128	.064	.018	.123	.062	.018	.118	.060	.018	.113	.059	.017	
8.0	.124	.061	.017	.122	.060	.017	.117	.059	.017	.113	.057	.017	.109	.056	.016	
9.0	.119	.057	.016	.116	.057	.016	.112	.056	.016	.108	.054	.016	.105	.053	.015	
10.0	.113	.054	.015	.111	.054	.015	.108	.053	.015	.104	.052	.015	.101	.051	.015	

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	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	.171	.157	.145	.147	.135	.124	.100	.093	.086	.058	.054	.050	.018	.017	.016	
2.0	.156	.132	.113	.134	.114	.097	.092	.079	.068	.053	.046	.040	.017	.015	.013	
3.0	.144	.114	.090	.123	.098	.078	.085	.068	.054	.049	.040	.032	.016	.013	.011	
4.0	.133	.099	.073	.114	.085	.063	.079	.060	.044	.045	.035	.026	.015	.011	.009	
5.0	.124	.087	.060	.107	.075	.052	.074	.053	.037	.043	.031	.022	.014	.010	.007	
6.0	.116	.078	.050	.100	.067	.044	.069	.047	.031	.040	.028	.018	.013	.009	.006	
7.0	.110	.070	.042	.094	.061	.037	.065	.043	.026	.038	.025	.016	.012	.008	.005	
8.0	.104	.064	.037	.089	.055	.032	.062	.039	.023	.036	.023	.013	.012	.008	.004	
9.0	.098	.059	.032	.085	.051	.028	.059	.036	.020	.034	.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

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:

UGR(Unified Glare Rating) Table

Test:U:119.76V I:0.1471A P:17.392W PF:0.9875 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1384.2x1 lm		
NAME: ASD-CD-TGR-4D17AC-WH	TYPE:	WEIGHT:
SPEC.: 2700K 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	7.5	8.4	7.7	8.5	8.7	7.6	8.5	7.8	8.7	8.8
3H	7.7	8.6	8.0	8.8	9.0	7.9	8.7	8.1	8.9	9.1
4H	7.7	8.5	8.0	8.8	9.0	7.9	8.7	8.2	8.9	9.2
6H	7.7	8.5	8.0	8.7	9.0	7.9	8.6	8.2	8.9	9.1
8H	7.7	8.4	8.0	8.7	8.9	7.9	8.6	8.2	8.9	9.1
12H	7.6	8.4	8.0	8.6	8.9	7.8	8.6	8.2	8.8	9.1
4H 2H	7.5	8.3	7.8	8.6	8.8	7.6	8.4	7.9	8.7	8.9
3H	7.9	8.6	8.2	8.8	9.1	8.0	8.7	8.3	9.0	9.3
4H	7.9	8.5	8.2	8.8	9.2	8.1	8.7	8.4	9.0	9.3
6H	7.9	8.5	8.3	8.8	9.2	8.1	8.7	8.5	9.0	9.3
8H	7.9	8.4	8.3	8.8	9.1	8.1	8.6	8.5	9.0	9.3
12H	7.9	8.4	8.3	8.7	9.1	8.1	8.6	8.5	8.9	9.3
8H 4H	7.8	8.4	8.2	8.7	9.1	8.0	8.5	8.4	8.9	9.3
6H	7.9	8.3	8.3	8.7	9.1	8.1	8.5	8.5	8.9	9.3
8H	7.9	8.3	8.3	8.7	9.1	8.1	8.5	8.5	8.9	9.3
12H	7.9	8.2	8.3	8.6	9.1	8.1	8.4	8.6	8.9	9.3
12H 4H	7.8	8.3	8.2	8.7	9.0	8.0	8.4	8.4	8.8	9.2
6H	7.8	8.2	8.3	8.6	9.1	8.0	8.4	8.5	8.8	9.3
8H	7.9	8.2	8.3	8.6	9.1	8.1	8.4	8.5	8.8	9.3

Variations with the observer position at spacings(CIE Pub.117):		
S = 1.0H	+ 1.3 / - 1.9	+ 1.2 / - 1.7
1.5H	+ 1.6 / - 1.5	+ 1.6 / - 1.5
2.0H	+ 2.7 / - 1.7	+ 2.5 / - 1.7

CIE Pub.117, 1384 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 1.1)
 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:119.76V I:0.1471A P:17.392W PF:0.9875 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1384.2x1 lm		
NAME: ASD-CD-TGR-4D17AC-WH	TYPE:	WEIGHT:
SPEC.: 2700K 90	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.:	Shielding Angle:

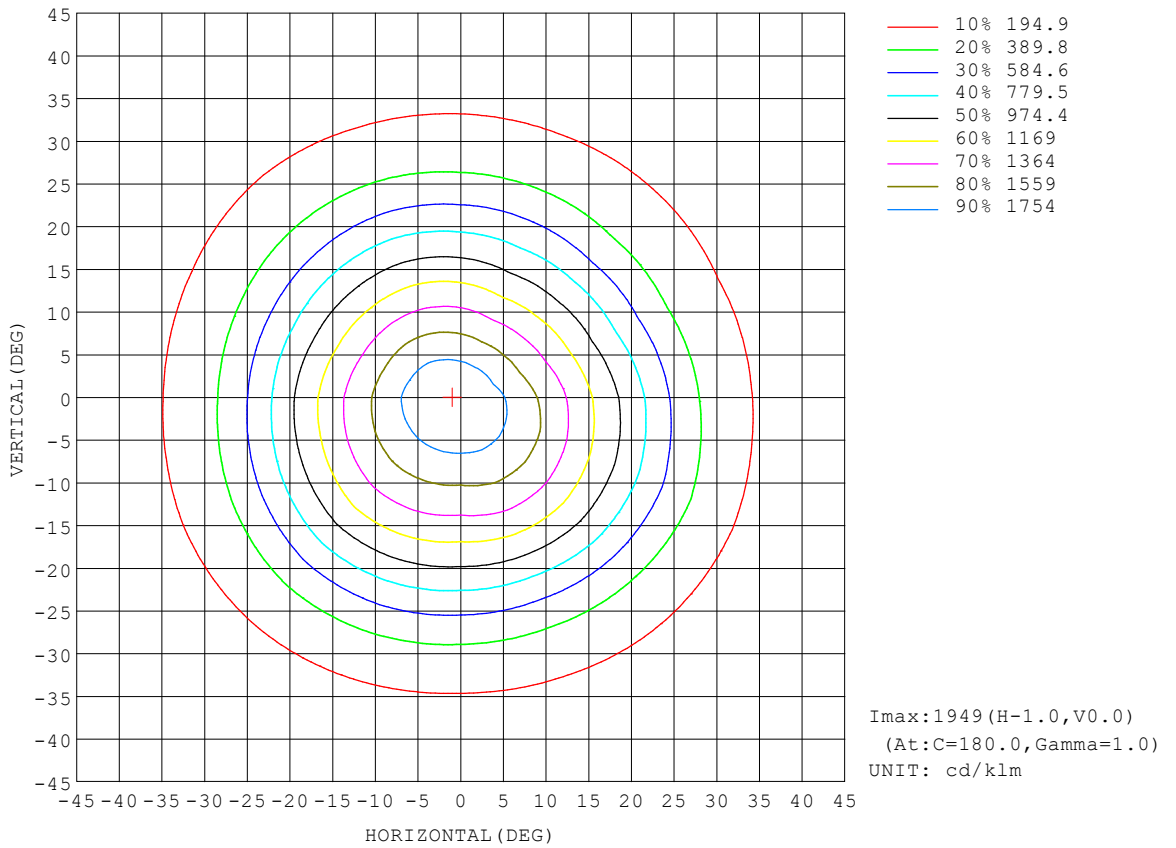
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	83	76	72	83	76	72	82	76	72	68
0.80	91	84	80	90	84	80	89	84	80	76
1.00	96	90	86	95	89	86	94	90	85	81
1.25	101	95	91	100	94	91	98	93	90	85
1.50	104	98	95	102	98	94	100	96	93	88
2.00	107	102	99	106	101	98	103	99	96	91
2.50	109	105	101	107	103	100	104	101	99	92
3.00	111	107	104	109	105	103	105	103	101	94
4.00	113	110	107	111	108	106	107	105	103	96
5.00	114	112	110	112	110	108	108	106	105	97
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

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:

ISOCANDELA DIAGRAM

Test:U:119.76V I:0.1471A P:17.392W PF:0.9875 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1384.2x1 lm		
NAME: ASD-CD-TGR-4D17AC-WH	TYPE:	WEIGHT:
SPEC.: 2700K 90	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.:	Shielding Angle:

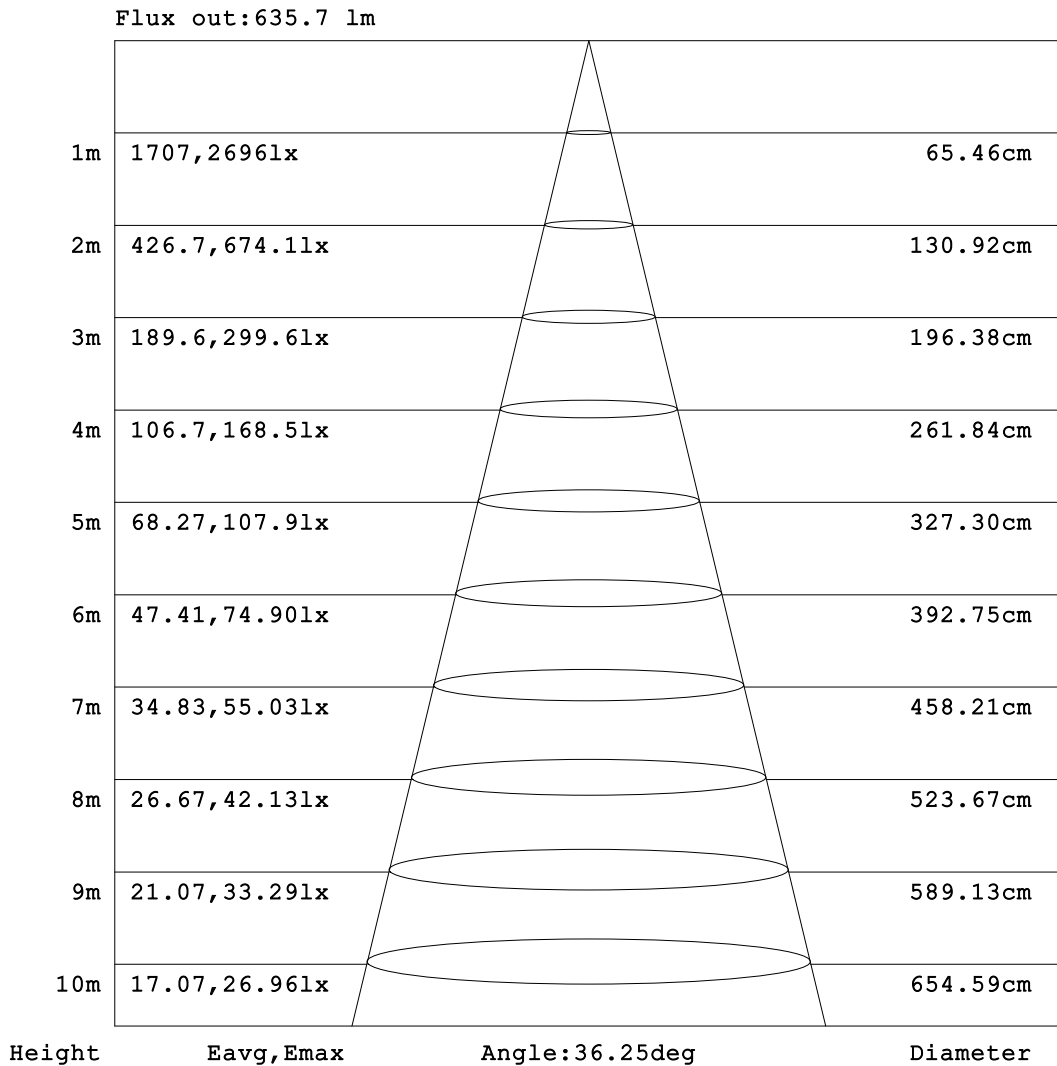


C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:
 Test Date:2023-07-13

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:119.76V I:0.1471A P:17.392W PF:0.9875 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1384.2x1 lm		
NAME: ASD-CD-TGR-4D17AC-WH	TYPE:	WEIGHT:
SPEC.: 2700K 90	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.:	Shielding Angle:



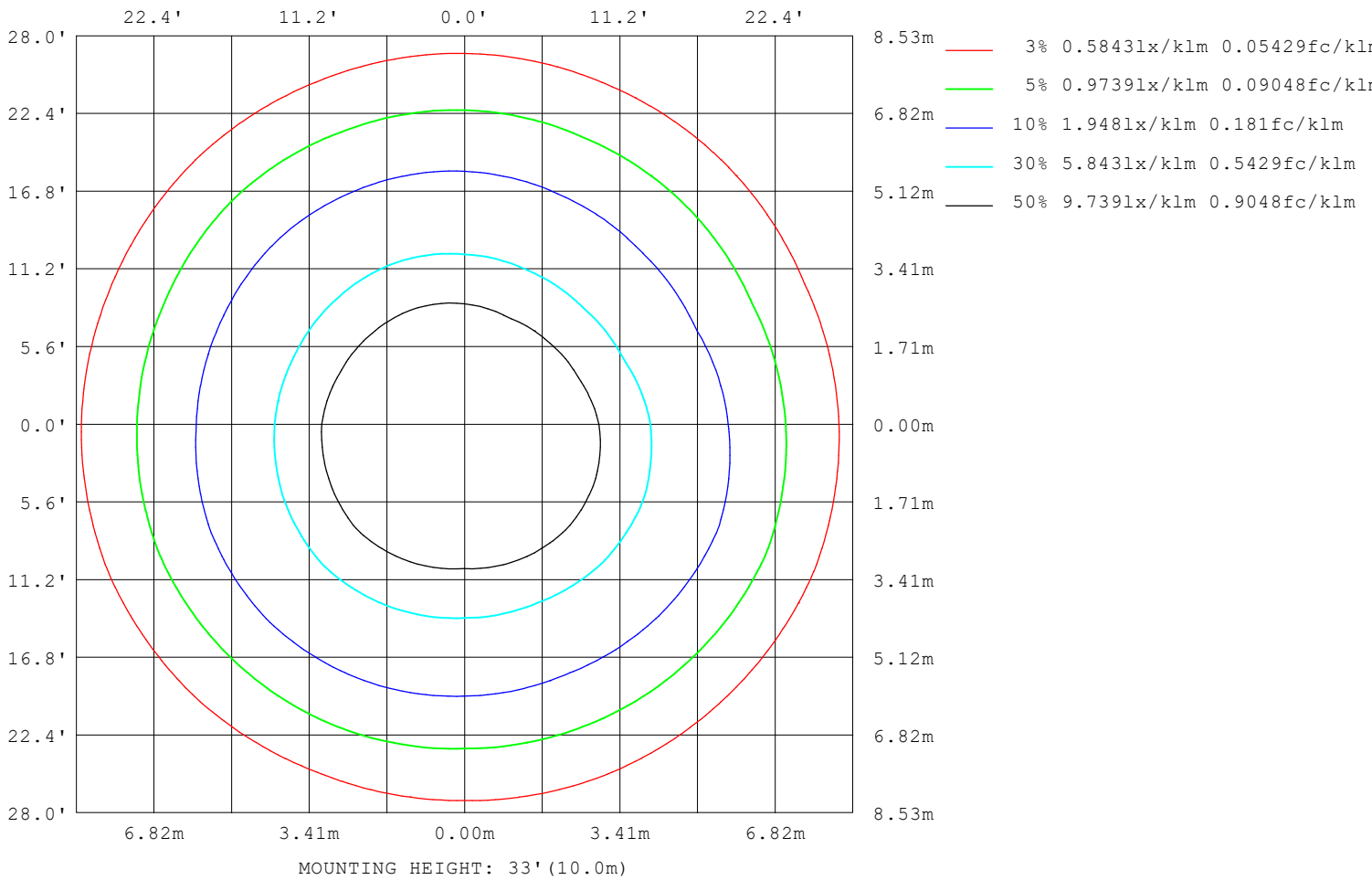
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:119.76V I:0.1471A P:17.392W PF:0.9875 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1384.2x1 lm		
NAME: ASD-CD-TGR-4D17AC-WH	TYPE:	WEIGHT:
SPEC.: 2700K 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:119.76V I:0.1471A P:17.392W PF:0.9875 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1384.2x1 lm		
NAME: ASD-CD-TGR-4D17AC-WH	TYPE:	WEIGHT:
SPEC.: 2700K 90	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.:	Shielding Angle:

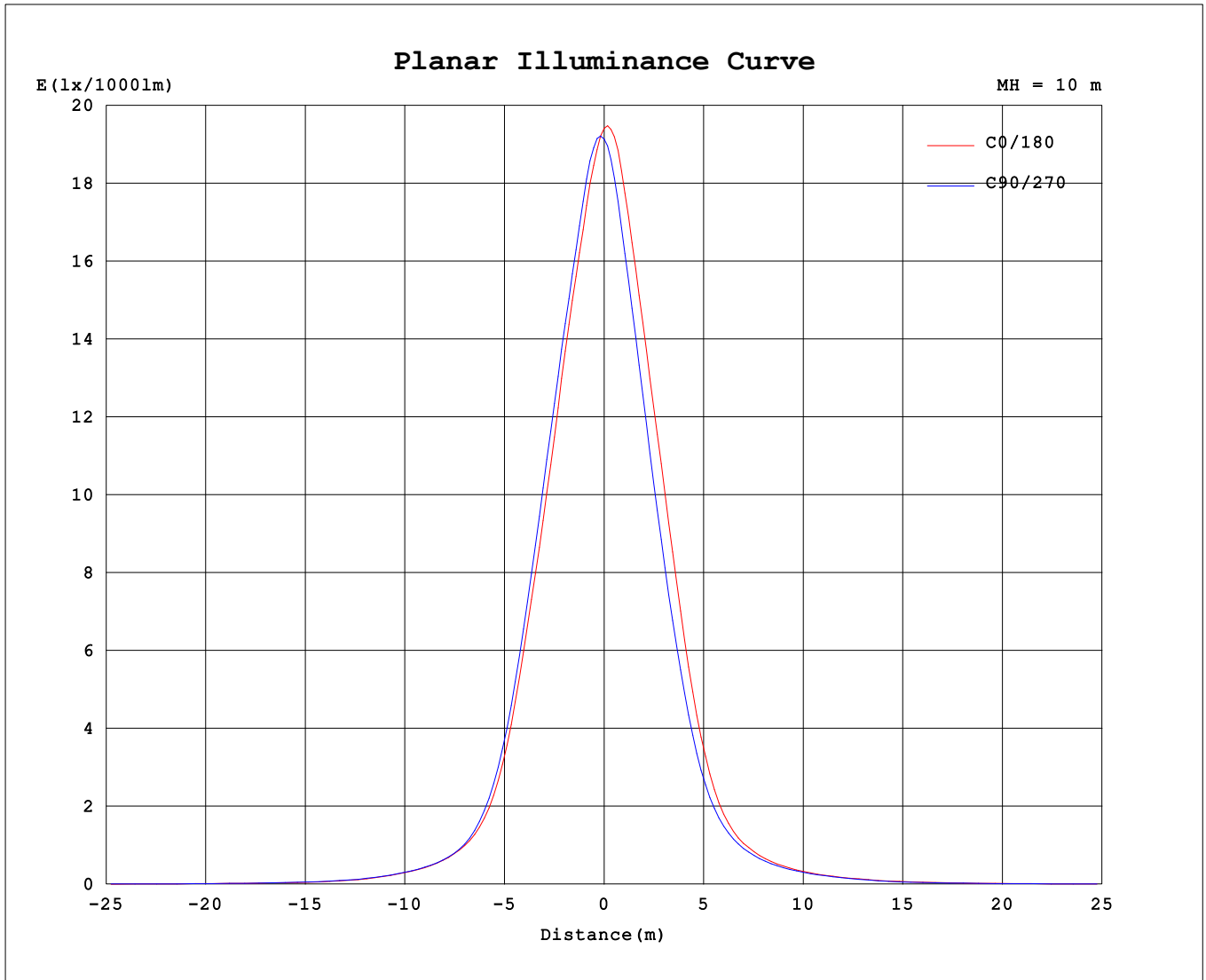
AvgL	cd/m2
L_0~180 (65) av	561
L_0~180 (75) av	269
L_0~180 (85) av	184
L_90~270 (65) av	556
L_90~270 (75) av	296
L_90~270 (85) av	243
L_45 (65) av	559
L_45 (75) av	293
L_45 (85) av	207

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:

