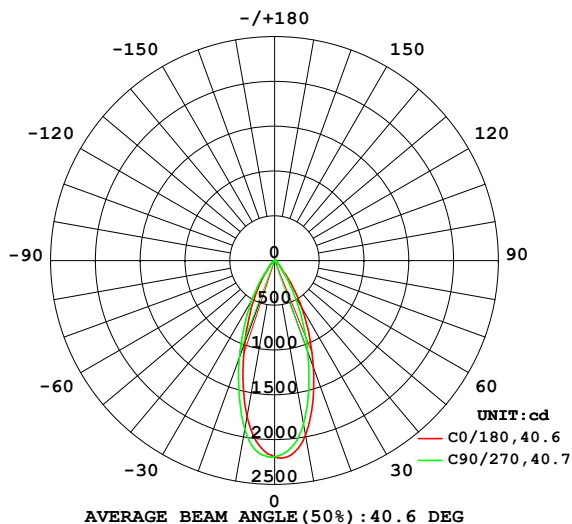


LUMINAIRE PHOTOMETRIC TEST REPORT

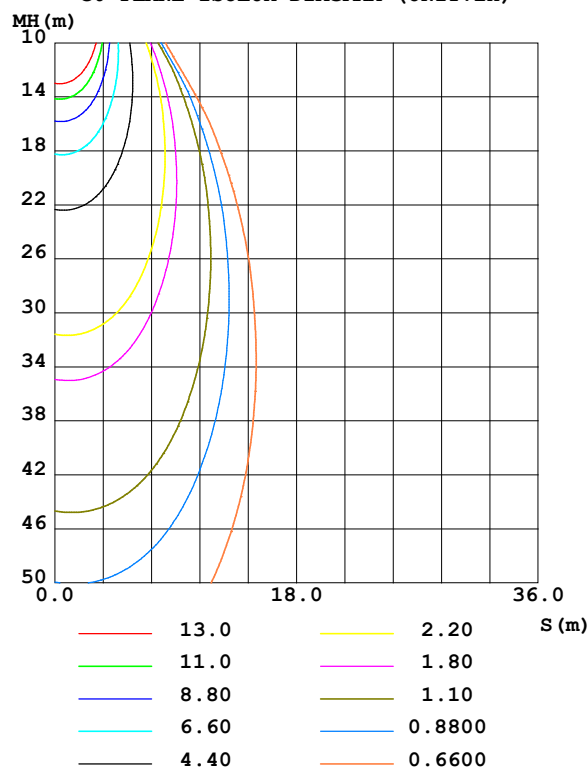
Test:U:120.25V I:0.1147A P:13.607W PF:0.9867 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1243.53x1 lm		
NAME: ASD-CD-TS-3D15AC-WH	TYPE:	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 91.39 lm/W
MODEL	ASD-CD-TS-3D15AC-WH	I _{max} (cd)	2211	S/MH (C0/180)	0.60	
NOMINAL POWER (W)	15	LOR (%)	100.0	S/MH (C90/270)	0.67	
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	1243.5	η UP, DN (C0-180)	0.0,49.5	
NOMINAL FLUX (lm)	1243.53	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0,50.5	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50	
TEST VOLTAGE (V)	120	η down (%)	100.0	CIBSE SHR MAX	0.70	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 24.3 °C
Operators:
Test Date: 2024-08-09

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	1981	1923	1857	1752	1773	1824	1918	2024	0- 10	194.8	194.8	15.7,15.7
20	1267	1222	1084	963.5	979.5	1038	1159	1284	10- 20	415.3	610.2	49.1,49.1
30	611.7	568.5	441.5	391.5	409.6	444.3	515.9	605.0	20- 30	356.7	966.9	77.8,77.8
40	133.1	159.6	109.7	115.6	108.3	128.7	129.3	180.9	30- 40	178.7	1146	92.1,92.1
50	42.93	51.36	39.84	46.47	39.81	47.89	43.56	56.42	40- 50	62.21	1208	97.1,97.1
60	9.031	13.07	9.841	13.29	10.60	12.86	9.733	12.85	50- 60	21.16	1229	98.8,98.8
70	4.789	6.036	5.776	7.011	6.303	6.479	5.416	5.784	60- 70	8.019	1237	99.5,99.5
80	2.541	3.187	3.381	4.053	3.667	3.668	2.985	2.974	70- 80	4.790	1242	99.9,99.9
90	0.0517	0.0437	0.0481	0.0481	0.0424	0.0370	0.0462	0.0385	80- 90	1.816	1244	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									UNIT:lm		

Conical surface Flux(90deg): 1183.2 lm

%lum = 95.1%

%lamp = 95.1%

Conical surface Flux(130deg): 1233.4 lm

%lum = 99.2%

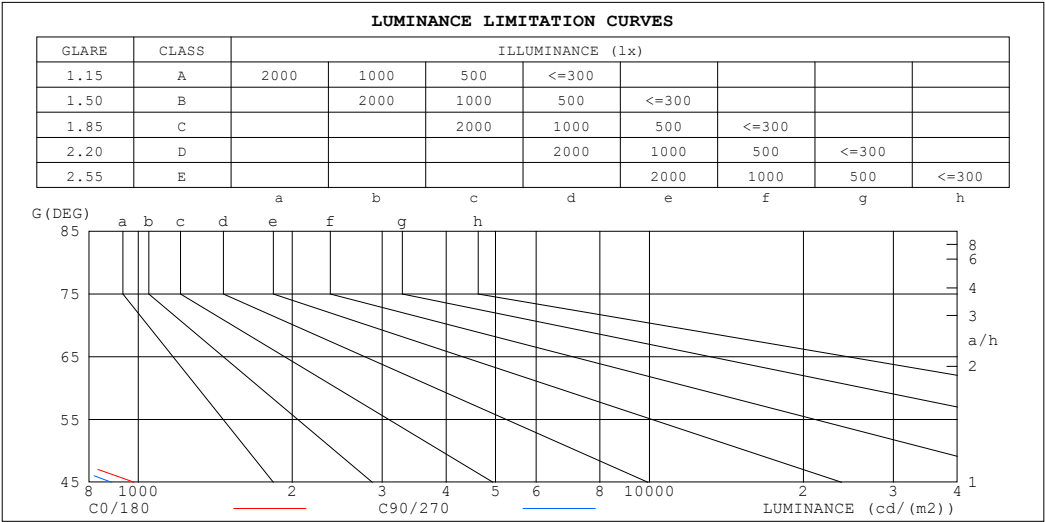
%lamp = 99.2%

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:24.3℃
 Operators:
 Test Date:2024-08-09

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:120.25V I:0.1147A P:13.607W PF:0.9867 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1243.53x1 lm		
NAME: ASD-CD-TS-3D15AC-WH	TYPE:	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	112	220
80	132	175
75	117	151
70	126	152
65	141	161
60	163	177
55	243	252
50	602	558
45	981	886

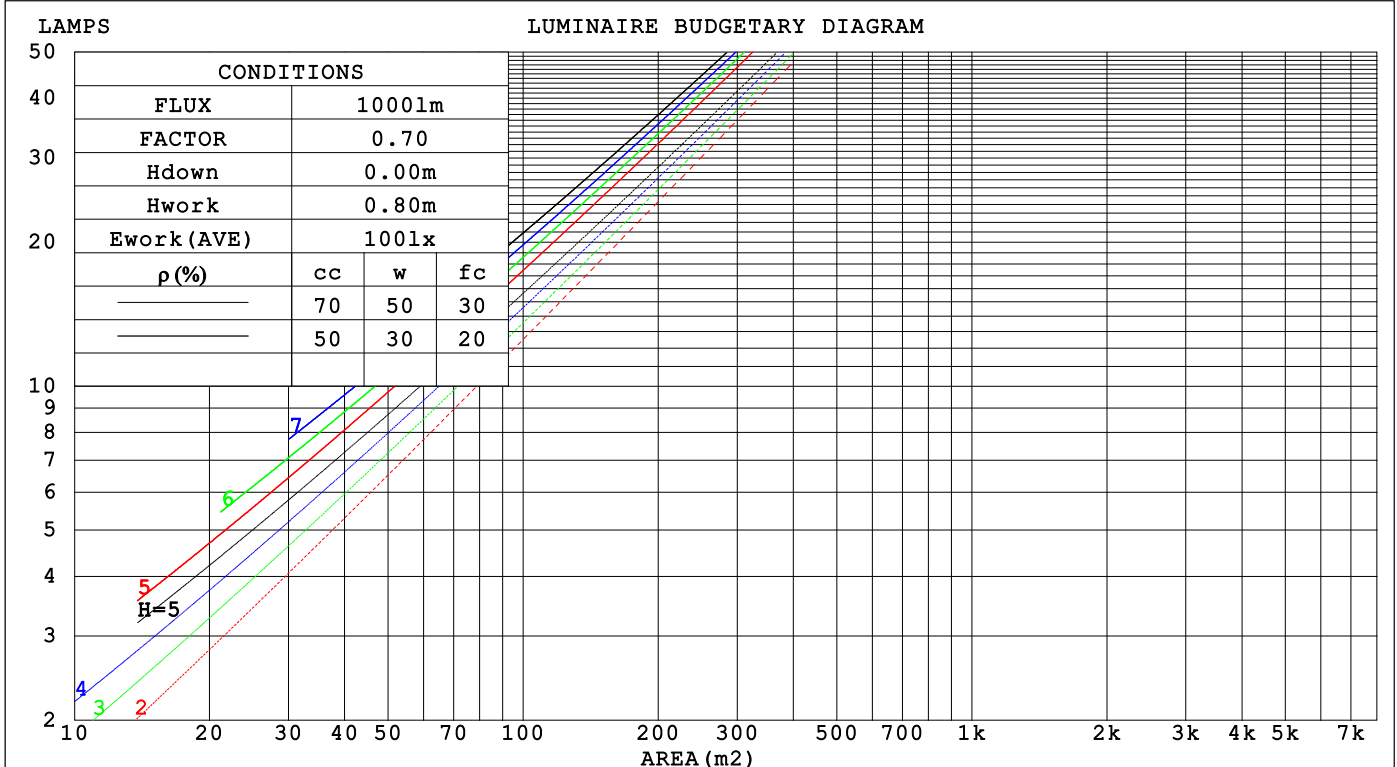
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.3℃
Operators:
Test Date:2024-08-09

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:120.25V I:0.1147A P:13.607W PF:0.9867 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1243.53x1 lm		
NAME: ASD-CD-TS-3D15AC-WH	TYPE:	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
p _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
p _{fc}	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	1.00
1.0	1.11	1.09	1.06	1.09	1.07	1.05	1.05	1.03	1.02	1.01	.00	.99	.98	.97	.96	.94
2.0	1.04	.00	.97	1.02	.99	.96	.99	.96	.94	.96	.94	.92	.93	.91	.90	.88
3.0	.97	.93	.89	.96	.92	.88	.93	.90	.87	.91	.88	.85	.89	.86	.84	.83
4.0	.92	.86	.82	.90	.86	.82	.88	.84	.81	.86	.83	.80	.84	.82	.79	.78
5.0	.86	.81	.77	.85	.80	.76	.84	.79	.76	.82	.78	.75	.80	.77	.74	.73
6.0	.82	.76	.72	.81	.76	.72	.79	.75	.71	.78	.74	.71	.77	.73	.70	.69
7.0	.77	.72	.68	.77	.71	.68	.75	.71	.67	.74	.70	.67	.73	.69	.67	.65
8.0	.73	.68	.64	.73	.68	.64	.72	.67	.64	.71	.67	.63	.70	.66	.63	.62
9.0	.70	.64	.61	.69	.64	.61	.69	.64	.60	.68	.63	.60	.67	.63	.60	.59
10.0	.67	.61	.58	.66	.61	.58	.65	.61	.57	.65	.60	.57	.64	.60	.57	.56



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.3℃
Operators:
Test Date:2024-08-09

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:120.25V I:0.1147A P:13.607W PF:0.9867 Freq:59.98Hz			UTHDi:0.00% ITHDi:0.00% KDisp:0			Lamp Flux:1243.53x1 lm		
NAME: ASD-CD-TS-3D15AC-WH			TYPE:			WEIGHT:		
SPEC.: 5000K			DIM.:			SERIAL No.:		
MFR.: ASD Lighting Corp			SUR.:			Shielding 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	.172	.098	.031	.166	.094	.030	.153	.088	.028	.142	.082	.026	.131	.076	.024		
2.0	.164	.090	.028	.158	.087	.027	.147	.082	.025	.138	.077	.024	.129	.073	.023		
3.0	.155	.082	.025	.150	.080	.024	.141	.077	.023	.133	.073	.022	.125	.069	.021		
4.0	.147	.076	.022	.143	.075	.022	.135	.072	.021	.128	.069	.021	.121	.066	.020		
5.0	.139	.071	.021	.136	.070	.020	.129	.067	.020	.123	.065	.019	.117	.063	.019		
6.0	.133	.067	.019	.130	.065	.019	.124	.063	.018	.118	.061	.018	.113	.060	.018		
7.0	.127	.063	.018	.124	.062	.018	.119	.060	.017	.114	.058	.017	.109	.057	.017		
8.0	.121	.059	.017	.118	.058	.016	.114	.057	.016	.110	.056	.016	.106	.054	.016		
9.0	.116	.056	.016	.114	.055	.016	.109	.054	.015	.106	.053	.015	.102	.052	.015		
10.0	.111	.053	.015	.109	.053	.015	.105	.052	.015	.102	.051	.014	.099	.050	.014		

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	.171	.157	.145	.146	.135	.125	.100	.093	.086	.058	.054	.050	.018	.017	.016		
2.0	.155	.133	.114	.133	.114	.098	.091	.079	.068	.053	.046	.040	.017	.015	.013		
3.0	.142	.114	.091	.122	.098	.079	.084	.068	.055	.048	.040	.032	.016	.013	.011		
4.0	.132	.099	.074	.113	.085	.064	.078	.059	.045	.045	.035	.027	.014	.011	.009		
5.0	.123	.087	.061	.105	.075	.053	.073	.053	.037	.042	.031	.022	.014	.010	.007		
6.0	.115	.078	.051	.099	.067	.044	.068	.047	.031	.040	.028	.019	.013	.009	.006		
7.0	.108	.070	.043	.093	.061	.038	.064	.042	.027	.037	.025	.016	.012	.008	.005		
8.0	.102	.064	.037	.088	.055	.032	.061	.039	.023	.035	.023	.014	.011	.007	.005		
9.0	.097	.058	.032	.084	.051	.028	.058	.036	.020	.034	.021	.012	.011	.007	.004		
10.0	.092	.054	.028	.080	.047	.025	.055	.033	.017	.032	.019	.010	.010	.006	.003		

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.3℃
Operators:
Test Date:2024-08-09

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:120.25V I:0.1147A P:13.607W PF:0.9867 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0Lamp Flux:1243.53x1 lm											
NAME: ASD-CD-TS-3D15AC-WH					TYPE:			WEIGHT:			
SPEC.: 5000K					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	2H	7.3	8.2	7.5	8.4	8.5	6.2	7.1	6.4	7.3	7.4
	3H	7.2	8.0	7.5	8.2	8.4	6.2	7.0	6.4	7.2	7.4
	4H	7.2	7.9	7.4	8.1	8.4	6.2	6.9	6.4	7.1	7.4
	6H	7.1	7.8	7.4	8.1	8.3	6.1	6.9	6.4	7.1	7.4
	8H	7.1	7.8	7.4	8.0	8.3	6.2	6.9	6.5	7.1	7.4
	12H	7.0	7.7	7.4	8.0	8.3	6.2	6.8	6.5	7.1	7.4
4H	2H	7.1	7.9	7.4	8.1	8.3	6.1	6.8	6.3	7.0	7.3
	3H	7.0	7.7	7.4	8.0	8.3	6.0	6.7	6.4	7.0	7.3
	4H	7.0	7.6	7.3	7.9	8.2	6.1	6.7	6.4	7.0	7.3
	6H	7.0	7.5	7.3	7.8	8.2	6.1	6.6	6.5	7.0	7.3
	8H	7.0	7.5	7.3	7.8	8.2	6.1	6.7	6.5	7.0	7.4
	12H	6.9	7.4	7.3	7.8	8.1	6.2	6.6	6.6	7.0	7.4
8H	4H	6.9	7.4	7.3	7.7	8.1	6.0	6.5	6.4	6.8	7.2
	6H	6.9	7.3	7.3	7.7	8.1	6.1	6.5	6.5	6.9	7.3
	8H	6.9	7.3	7.3	7.7	8.1	6.2	6.5	6.6	6.9	7.4
	12H	6.9	7.2	7.4	7.6	8.1	6.2	6.6	6.7	7.0	7.5
12H	4H	6.9	7.3	7.3	7.7	8.1	5.9	6.4	6.3	6.8	7.2
	6H	6.9	7.2	7.3	7.6	8.1	6.1	6.4	6.5	6.8	7.3
	8H	6.9	7.2	7.3	7.6	8.1	6.2	6.5	6.6	6.9	7.4
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H		+ 3.1 / - 5.6					+ 2.0 / - 3.8				
1.5H		+ 4.8 / - 4.9					+ 2.8 / - 3.7				
2.0H		+ 4.2 / - 3.3					+ 3.5 / - 2.9				

CIE Pub.117, 1244 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.8)
Area: 0.111111 m2

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.3℃
Operators:
Test Date:2024-08-09

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:120.25V I:0.1147A P:13.607W PF:0.9867 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1243.53x1 lm		
NAME: ASD-CD-TS-3D15AC-WH	TYPE:	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

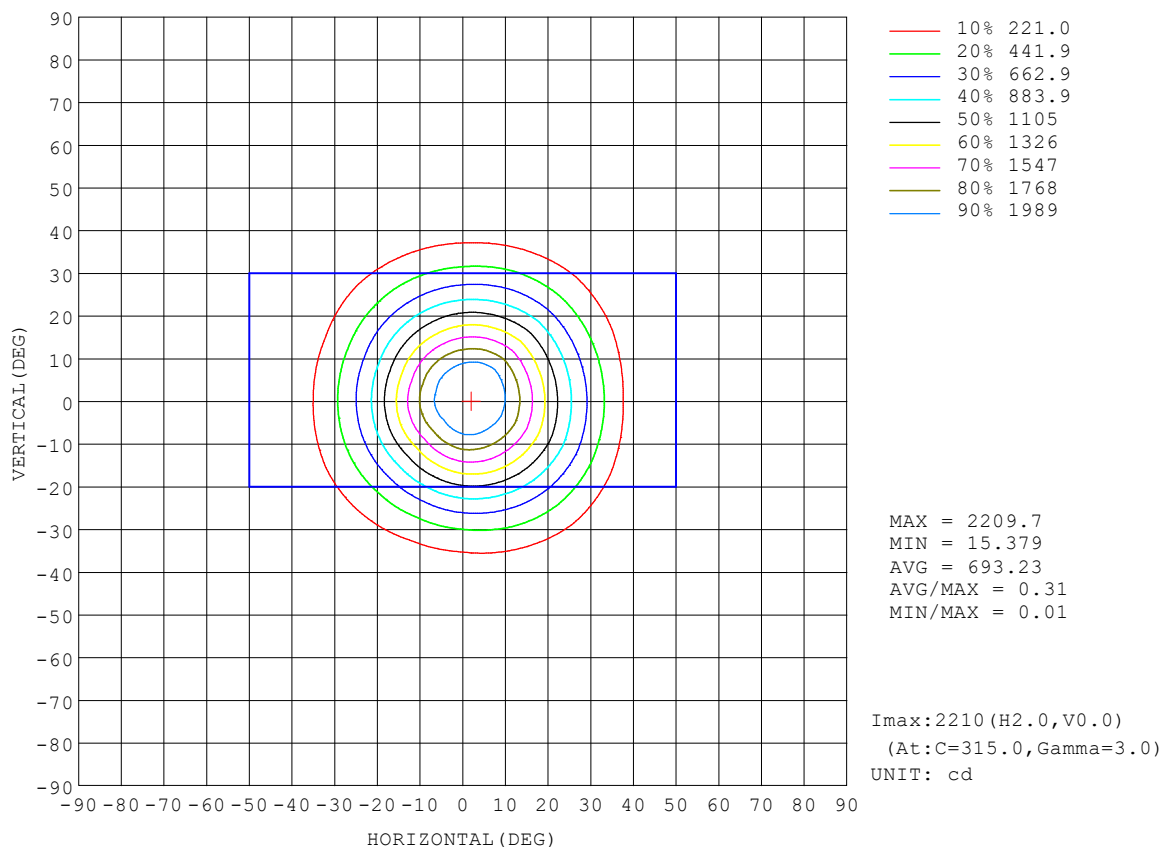
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	87	80	76	86	80	76	85	80	76	72
0.80	94	88	84	93	88	84	92	87	84	80
1.00	99	93	89	98	93	89	96	92	89	85
1.25	103	98	94	102	97	94	100	96	93	89
1.50	106	101	97	104	100	97	102	98	96	91
2.00	108	104	101	107	103	100	104	101	99	93
2.50	110	106	103	108	105	102	105	103	100	94
3.00	112	108	105	110	107	104	106	104	102	96
4.00	114	111	109	112	109	107	108	106	104	97
5.00	115	113	111	113	111	109	109	107	106	98
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: 24.3 °C
Operators:
Test Date: 2024-08-09

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:120.25V I:0.1147A P:13.607W PF:0.9867 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1243.53x1 lm		
NAME: ASD-CD-TS-3D15AC-WH	TYPE:	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

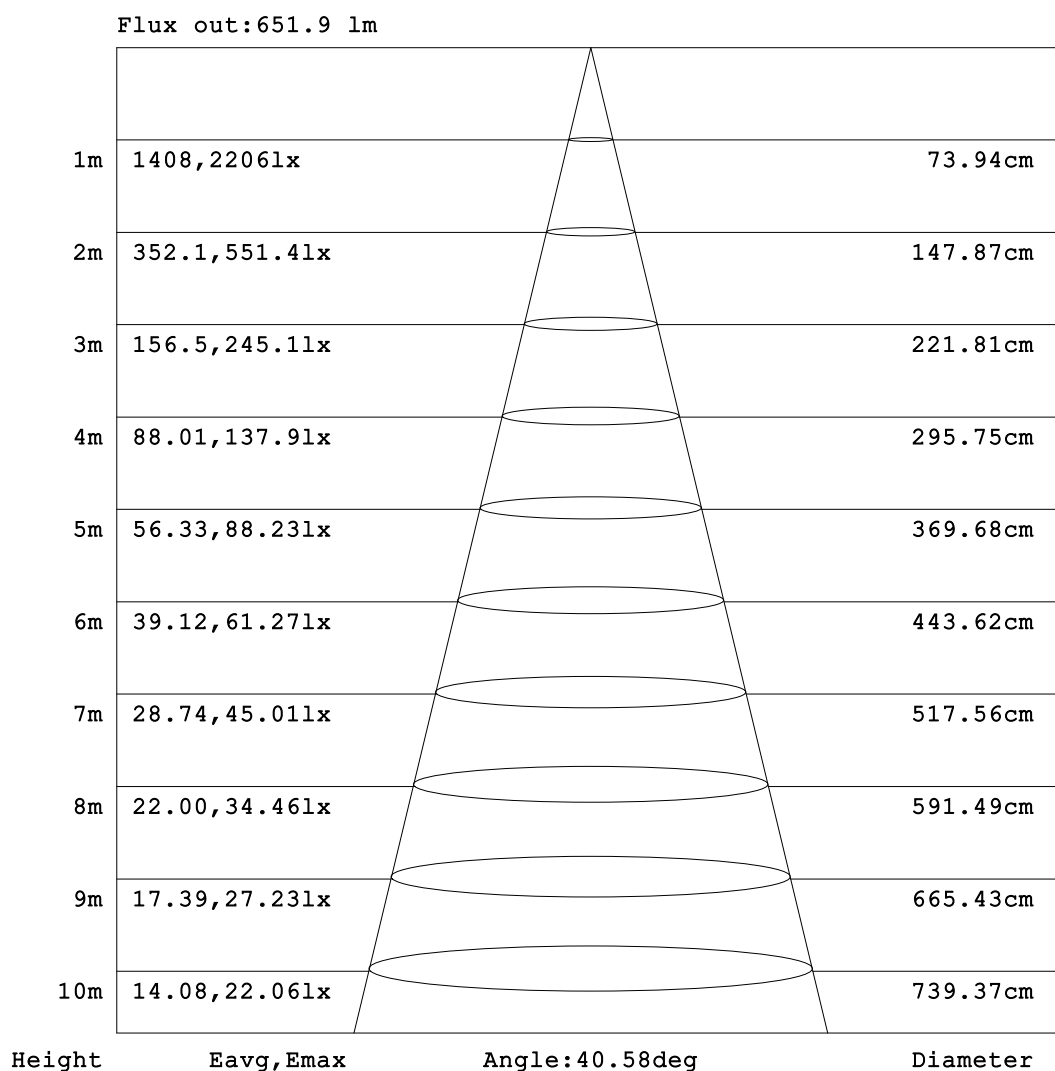


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.3℃
Operators:
Test Date:2024-08-09

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:120.25V I:0.1147A P:13.607W PF:0.9867 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1243.53x1 lm		
NAME: ASD-CD-TS-3D15AC-WH	TYPE:	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



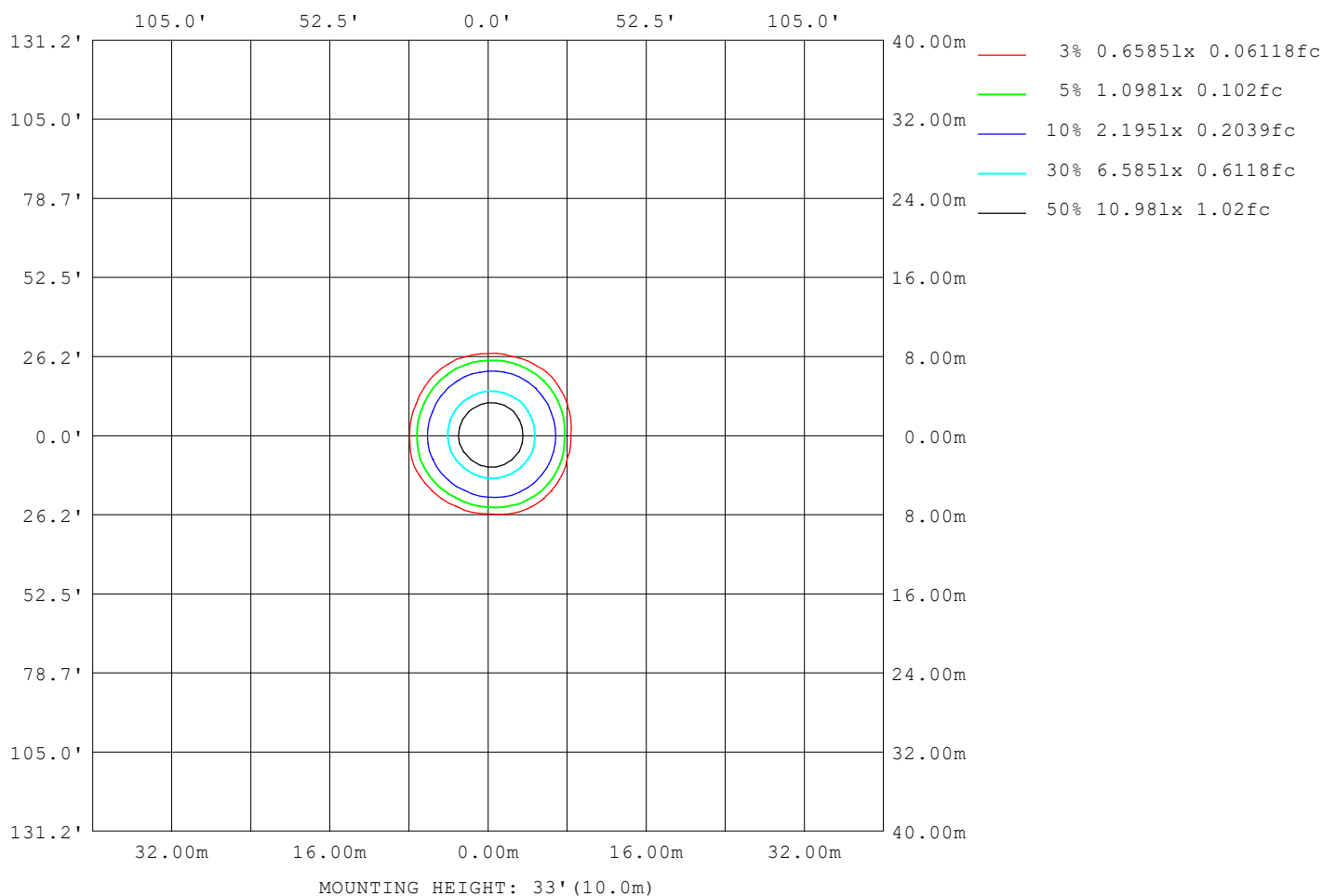
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 24.3°C
Operators:
Test Date: 2024-08-09

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:120.25V I:0.1147A P:13.607W PF:0.9867 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1243.53x1 lm		
NAME: ASD-CD-TS-3D15AC-WH	TYPE:	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.3℃
Operators:
Test Date:2024-08-09

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:120.25V I:0.1147A P:13.607W PF:0.9867 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1243.53x1 lm		
NAME: ASD-CD-TS-3D15AC-WH	TYPE:	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

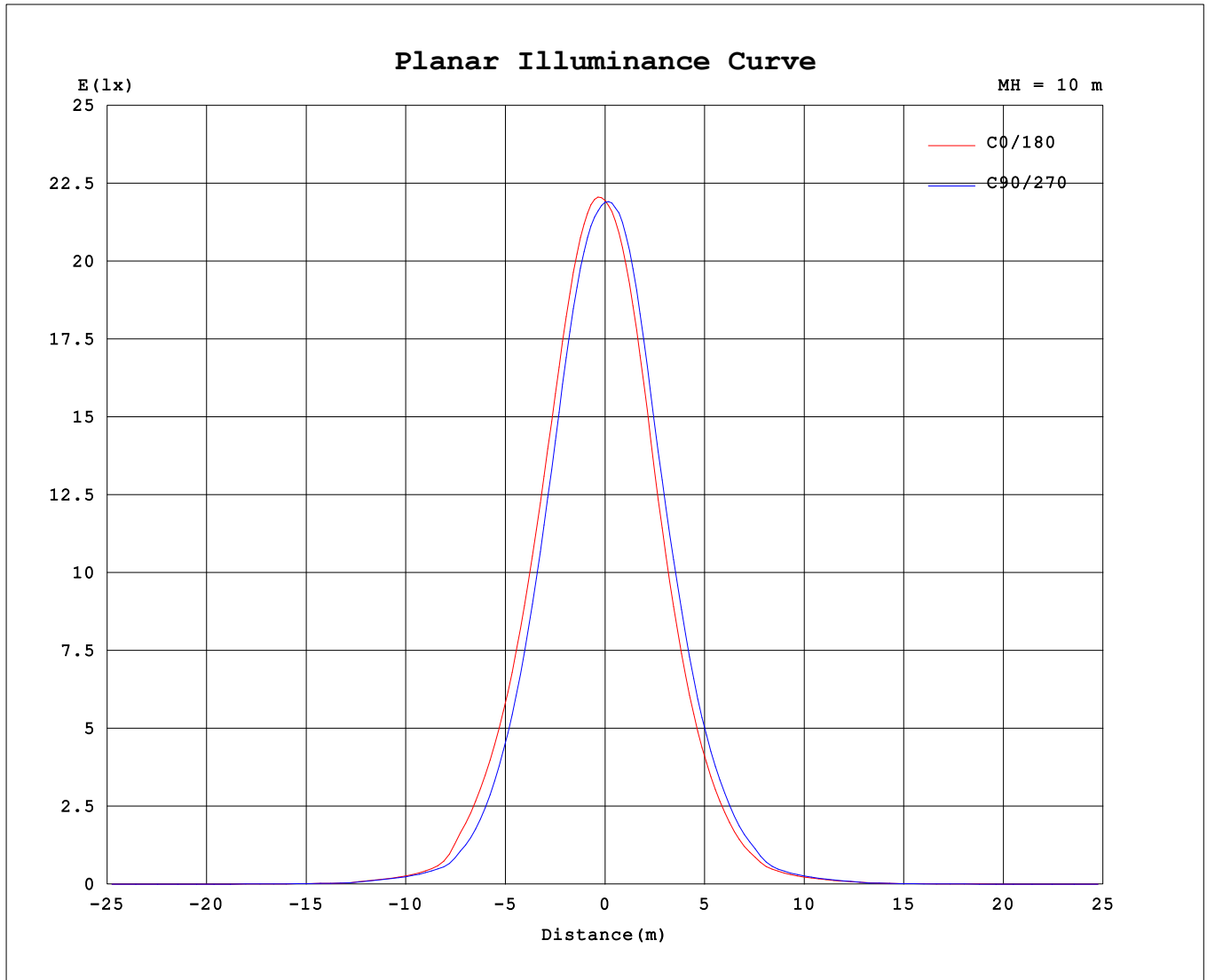
AvgL	cd/m2
L_0~180 (65) av	157
L_0~180 (75) av	141
L_0~180 (85) av	159
L_90~270 (65) av	157
L_90~270 (75) av	144
L_90~270 (85) av	210
L_45 (65) av	176
L_45 (75) av	166
L_45 (85) av	175

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.3℃
Operators:
Test Date:2024-08-09

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: 24.3 °C
 Operators:
 Test Date: 2024-08-09

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:

```

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:

```