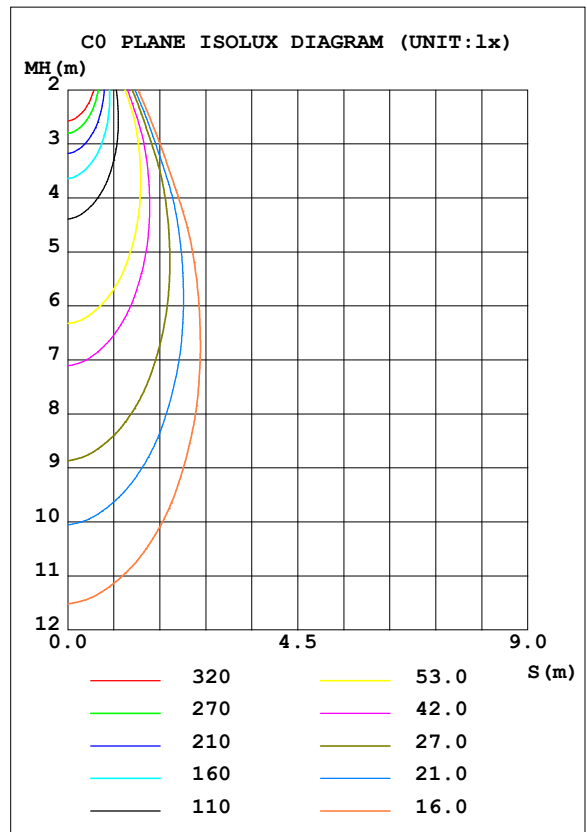
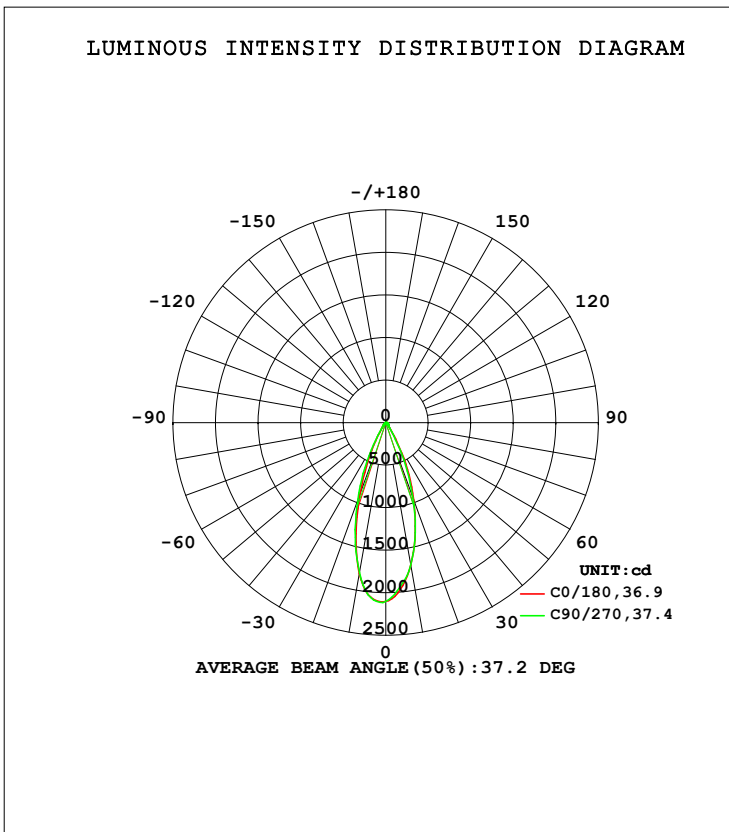


**LUMINAIRE PHOTOMETRIC TEST REPORT**

Test:U:119.95V I:0.1111A P:13.148W PF:0.9499 Freq:59.98Hz Lamp Flux:964.968x1 lm		
NAME: ASD-CD-CR-2D15AC-CH/WH	TYPE:	WEIGHT:
SPEC.:5000K 90	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 73.39 lm/W			
MODEL		I <sub>max</sub> (cd)	2116	S/MH (C0/180)	0.59
NOMINAL POWER (W)	15	LOR (%)	100.0	S/MH (C90/270)	0.62
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	964.97	<input type="checkbox"/> UP, DN (C0-180)	0.0, 49.1
NOMINAL FLUX (lm)	964.968	CIE CLASS	DIRECT	<input type="checkbox"/> UP, DN (C180-360)	0.0, 50.9
LAMPS INSIDE	1	<input type="checkbox"/> up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	120	<input type="checkbox"/> down (%)	100.0	CIBSE SHR MAX	0.65



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2021-10-20

Range: 0 - 90DEG  
 Interval: 1.0DEG  
 Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.421  
 Humidity: 65.0%  
 Test Distance: 3.080m [K=1.0000]  
 Remarks:

**ZONAL FLUX DIAGRAM**

ZONAL FLUX DIAGRAM:

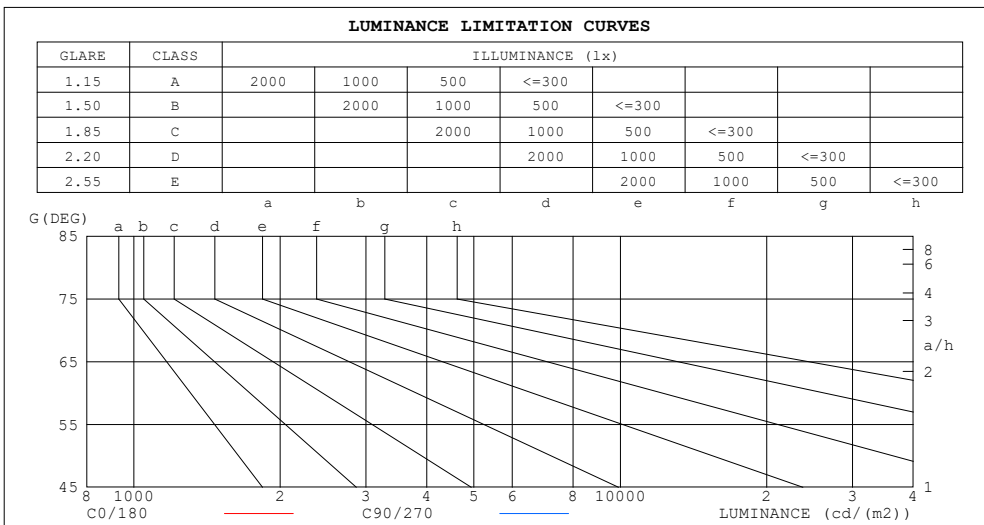
mm	C0	C45	C90	C135	C180	C225	C270	C315	mm	□ zone	□ total	%lum, lamp
10	1699	1713	1699	1755	1798	1791	1788	1809	0- 10	183.8	183.8	19,19
20	963.7	872.9	931.0	916.3	883.3	1100	964.1	1019	10- 20	376.6	560.4	58.1,58.1
30	273.8	207.7	233.0	229.0	210.8	286.5	243.6	276.6	20- 30	259.1	819.5	84.9,84.9
40	59.22	58.34	59.43	58.47	55.40	57.83	55.91	58.66	30- 40	70.02	889.6	92.2,92.2
50	32.46	33.33	33.69	33.10	31.07	30.05	30.54	32.09	40- 50	32.88	922.4	95.6,95.6
60	17.61	18.22	18.38	17.91	16.68	15.92	16.26	17.25	50- 60	21.05	943.5	97.8,97.8
70	9.764	10.26	10.25	9.804	8.893	8.347	8.566	9.290	60- 70	12.90	956.4	99.1,99.1
80	4.366	4.626	3.948	4.096	3.643	3.268	3.409	3.895	70- 80	6.898	963.3	99.8,99.8
90	0.0327	0.0256	0.0360	0.0250	0.0417	0.0388	0.0423	0.0395	80- 90	1.682	965.0	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									UNIT:lm		

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2021-10-20

□ Range: 0 - 90DEG  
 □ Interval: 1.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.421  
 Humidity:65.0%  
 Test Distance:3.080m [K=1.0000]  
 Remarks:

**LUMINANCE LIMITATION CURVES**

Test:U:119.95V I:0.1111A P:13.148W PF:0.9499 Freq:59.98Hz Lamp Flux:964.968x1 lm		
NAME: ASD-CD-CR-2D15AC-CH/WH	TYPE:	WEIGHT:
SPEC.:5000K 90	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	142	20
80	228	205
75	240	252
70	259	270
65	285	296
60	320	332
55	371	380
50	459	473
45	541	550

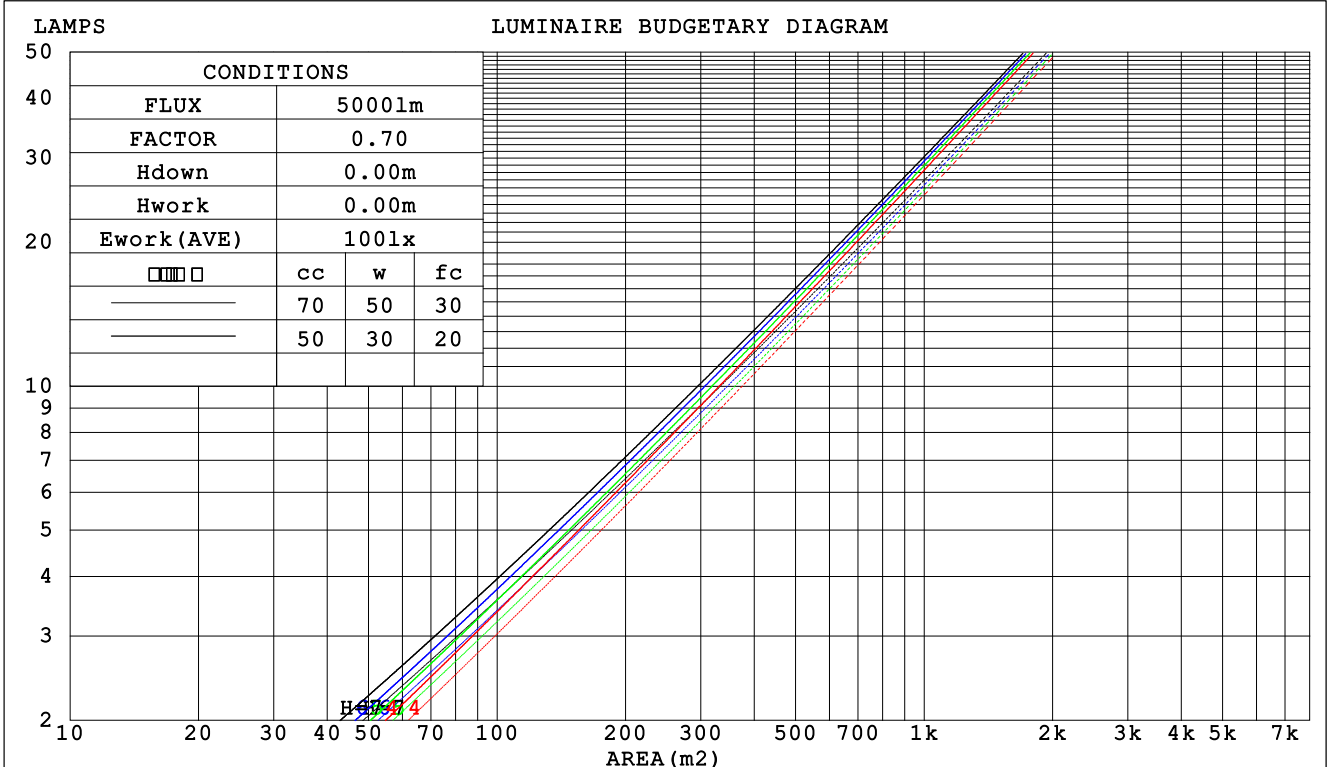
C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2021-10-20

Range: 0 - 90DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.421  
 Humidity:65.0%  
 Test Distance:3.080m [K=1.0000]  
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:119.95V I:0.1111A P:13.148W PF:0.9499 Freq:59.98Hz Lamp Flux:964.968x1 lm		
NAME: ASD-CD-CR-2D15AC-CH/WH	TYPE:	WEIGHT:
SPEC.:5000K 90	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

□cc	80%			70%			50%			30%			10%			0
□w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
□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	1.07	1.09	1.07	1.05	1.05	1.03	1.02	1.01	1.00	.99	.98	.97	.96	.94
2.0	1.04	1.01	.98	1.03	.99	.96	.99	.97	.94	.97	.94	.92	.94	.92	.90	.89
3.0	.98	.94	.90	.97	.93	.89	.94	.91	.88	.92	.89	.87	.90	.87	.85	.84
4.0	.93	.88	.84	.92	.87	.84	.90	.86	.83	.88	.84	.82	.86	.83	.81	.79
5.0	.88	.83	.79	.87	.82	.79	.86	.81	.78	.84	.80	.77	.82	.79	.77	.75
6.0	.84	.79	.75	.83	.78	.75	.82	.77	.74	.80	.77	.74	.79	.76	.73	.72
7.0	.80	.75	.71	.79	.74	.71	.78	.74	.70	.77	.73	.70	.76	.72	.70	.69
8.0	.76	.71	.68	.76	.71	.68	.75	.70	.67	.74	.70	.67	.73	.69	.67	.66
9.0	.73	.68	.65	.73	.68	.65	.72	.67	.64	.71	.67	.64	.70	.67	.64	.63
10.0	.70	.65	.62	.70	.65	.62	.69	.65	.62	.68	.64	.61	.68	.64	.61	.60



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2021-10-20

□ Range: 0 - 90DEG  
 □ Interval: 1.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.421  
 Humidity:65.0%  
 Test Distance:3.080m [K=1.0000]  
 Remarks:

WEC AND CCEC

Test:U:119.95V I:0.1111A P:13.148W PF:0.9499 Freq:59.98Hz Lamp Flux:964.968x1 lm		
NAME: ASD-CD-CR-2D15AC-CH/WH	TYPE:	WEIGHT:
SPEC.:5000K 90	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

<input type="checkbox"/> cc	80%			70%			50%			30%			10%			0
<input type="checkbox"/> w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
<input type="checkbox"/> fc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)									
0.0																
1.0	.168	.096	.030	.161	.092	.029	.149	.085	.027	.137	.079	.025	.127	.073	.024	
2.0	.158	.087	.027	.153	.084	.026	.142	.079	.025	.132	.074	.023	.123	.070	.022	
3.0	.149	.079	.024	.144	.077	.023	.135	.073	.022	.127	.069	.021	.119	.066	.020	
4.0	.140	.073	.021	.136	.071	.021	.128	.068	.020	.121	.065	.020	.115	.062	.019	
5.0	.132	.067	.020	.129	.066	.019	.122	.064	.019	.116	.061	.018	.110	.059	.018	
6.0	.125	.063	.018	.122	.062	.018	.117	.060	.017	.111	.058	.017	.106	.056	.017	
7.0	.119	.059	.017	.116	.058	.017	.111	.056	.016	.107	.055	.016	.102	.053	.016	
8.0	.114	.055	.016	.111	.055	.015	.107	.053	.015	.103	.052	.015	.099	.051	.015	
9.0	.109	.052	.015	.106	.052	.015	.102	.051	.014	.099	.049	.014	.095	.048	.014	
10.0	.104	.050	.014	.102	.049	.014	.098	.048	.014	.095	.047	.013	.092	.046	.013	

<input type="checkbox"/> cc	80%			70%			50%			30%			10%			0
<input type="checkbox"/> w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
<input type="checkbox"/> fc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients (CCEC)									
0.0																
1.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
2.0	.170	.157	.146	.146	.135	.125	.100	.093	.087	.057	.054	.050	.018	.017	.016	
3.0	.154	.133	.114	.132	.114	.099	.091	.079	.069	.052	.046	.040	.017	.015	.013	
4.0	.141	.113	.091	.121	.098	.079	.083	.068	.056	.048	.040	.033	.015	.013	.011	
5.0	.130	.099	.075	.111	.085	.065	.077	.059	.046	.044	.035	.027	.014	.011	.009	
6.0	.120	.087	.062	.103	.075	.054	.071	.052	.038	.041	.031	.023	.013	.010	.007	
7.0	.112	.077	.052	.097	.067	.045	.067	.047	.032	.039	.028	.019	.012	.009	.006	
8.0	.105	.069	.044	.091	.060	.038	.063	.042	.027	.036	.025	.016	.012	.008	.005	
9.0	.099	.063	.038	.085	.055	.033	.059	.038	.023	.034	.023	.014	.011	.007	.005	
10.0	.094	.057	.033	.081	.050	.029	.056	.035	.020	.033	.021	.012	.011	.007	.004	
10.0	.089	.053	.029	.077	.046	.025	.053	.032	.018	.031	.019	.011	.010	.006	.004	

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2021-10-20

Range: 0 - 90DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.421  
 Humidity:65.0%  
 Test Distance:3.080m [K=1.0000]  
 Remarks:

**UGR(Unified Glare Rating) Table**

Test:U:119.95V I:0.1111A P:13.148W PF:0.9499 Freq:59.98Hz Lamp Flux:964.968x1 lm										
NAME: ASD-CD-CR-2D15AC-CH/WH					TYPE:			WEIGHT:		
SPEC.:5000K 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	4.2	5.0	4.4	5.2	5.3	4.1	4.9	4.3	5.1	5.2
3H	4.9	5.7	5.1	5.9	6.1	4.9	5.6	5.1	5.8	6.0
4H	5.2	5.9	5.5	6.2	6.4	5.2	5.9	5.5	6.2	6.4
6H	5.5	6.2	5.8	6.4	6.6	5.5	6.1	5.7	6.4	6.6
8H	5.5	6.2	5.8	6.5	6.7	5.5	6.2	5.8	6.4	6.7
12H	5.5	6.2	5.9	6.5	6.7	5.5	6.1	5.8	6.4	6.7
4H 2H	4.5	5.2	4.7	5.4	5.6	4.4	5.1	4.6	5.3	5.5
3H	5.4	6.0	5.7	6.3	6.5	5.3	6.0	5.7	6.2	6.5
4H	5.8	6.4	6.1	6.7	7.0	5.8	6.4	6.2	6.7	7.0
6H	6.2	6.7	6.5	7.0	7.4	6.2	6.7	6.5	7.0	7.4
8H	6.3	6.8	6.7	7.1	7.5	6.3	6.7	6.6	7.1	7.5
12H	6.3	6.8	6.7	7.1	7.5	6.2	6.7	6.7	7.1	7.4
8H 4H	5.9	6.4	6.3	6.8	7.1	6.0	6.4	6.4	6.8	7.2
6H	6.5	6.9	6.9	7.3	7.7	6.4	6.8	6.9	7.2	7.6
8H	6.7	7.0	7.1	7.4	7.9	6.6	6.9	7.0	7.3	7.8
12H	6.8	7.1	7.3	7.5	8.0	6.6	6.9	7.1	7.3	7.8
12H 4H	5.9	6.4	6.3	6.7	7.1	6.0	6.4	6.4	6.8	7.2
6H	6.5	6.8	6.9	7.3	7.7	6.5	6.8	6.9	7.2	7.7
8H	6.7	7.0	7.2	7.5	7.9	6.6	6.9	7.1	7.4	7.8
Variations with the observer position at spacings:										
S = 1.0H	+ 0.5 / - 0.6					+ 0.4 / - 0.6				
1.5H	+ 0.7 / - 0.4					+ 0.6 / - 0.3				
2.0H	+ 0.8 / - 0.6					+ 0.8 / - 0.6				

CIE Pub.117, 965.0 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.1)  
 Area: 0.111111 m2

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2021-10-20

Range: 0 - 90DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.421  
 Humidity:65.0%  
 Test Distance:3.080m [K=1.0000]  
 Remarks:

**UTILIZATION FACTORS TABLE**

Test:U:119.95V I:0.1111A P:13.148W PF:0.9499 Freq:59.98Hz Lamp Flux:964.968x1 lm		
NAME: ASD-CD-CR-2D15AC-CH/WH	TYPE:	WEIGHT:
SPEC.:5000K 90	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

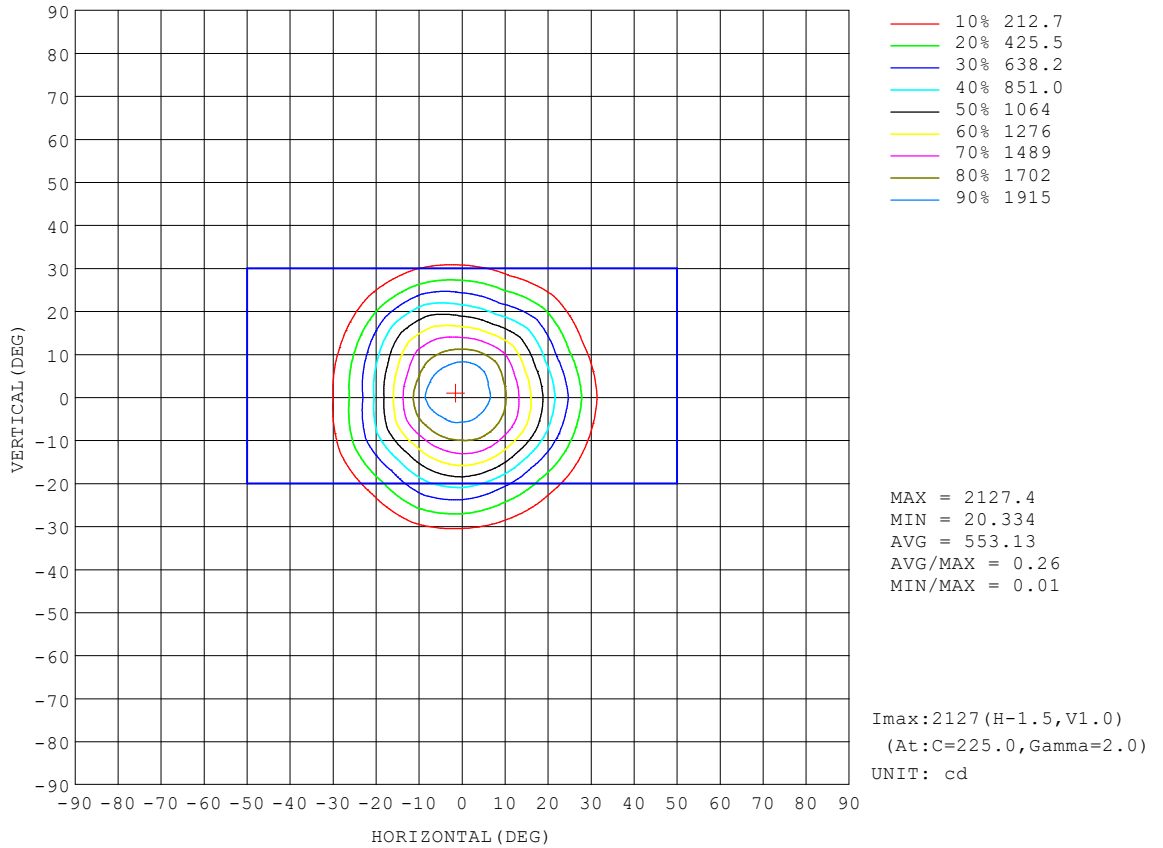
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	87	80	76	86	80	76	85	80	76	73
0.80	94	88	84	93	88	84	92	87	84	80
1.00	99	93	89	98	92	89	96	92	88	84
1.25	103	97	94	102	97	93	100	95	92	88
1.50	105	100	97	104	100	96	102	98	95	91
2.00	108	104	100	107	103	100	104	101	98	93
2.50	110	106	103	108	105	102	105	102	100	94
3.00	111	108	105	110	106	104	106	104	102	95
4.00	114	111	108	111	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:25.3DEG  
 Operators:  
 Test Date:2021-10-20

Range: 0 - 90DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.421  
 Humidity:65.0%  
 Test Distance:3.080m [K=1.0000]  
 Remarks:

**ISOCANDELA DIAGRAM**

Test:U:119.95V I:0.1111A P:13.148W PF:0.9499 Freq:59.98Hz Lamp Flux:964.968x1 lm		
NAME: ASD-CD-CR-2D15AC-CH/WH	TYPE:	WEIGHT:
SPEC.:5000K 90	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



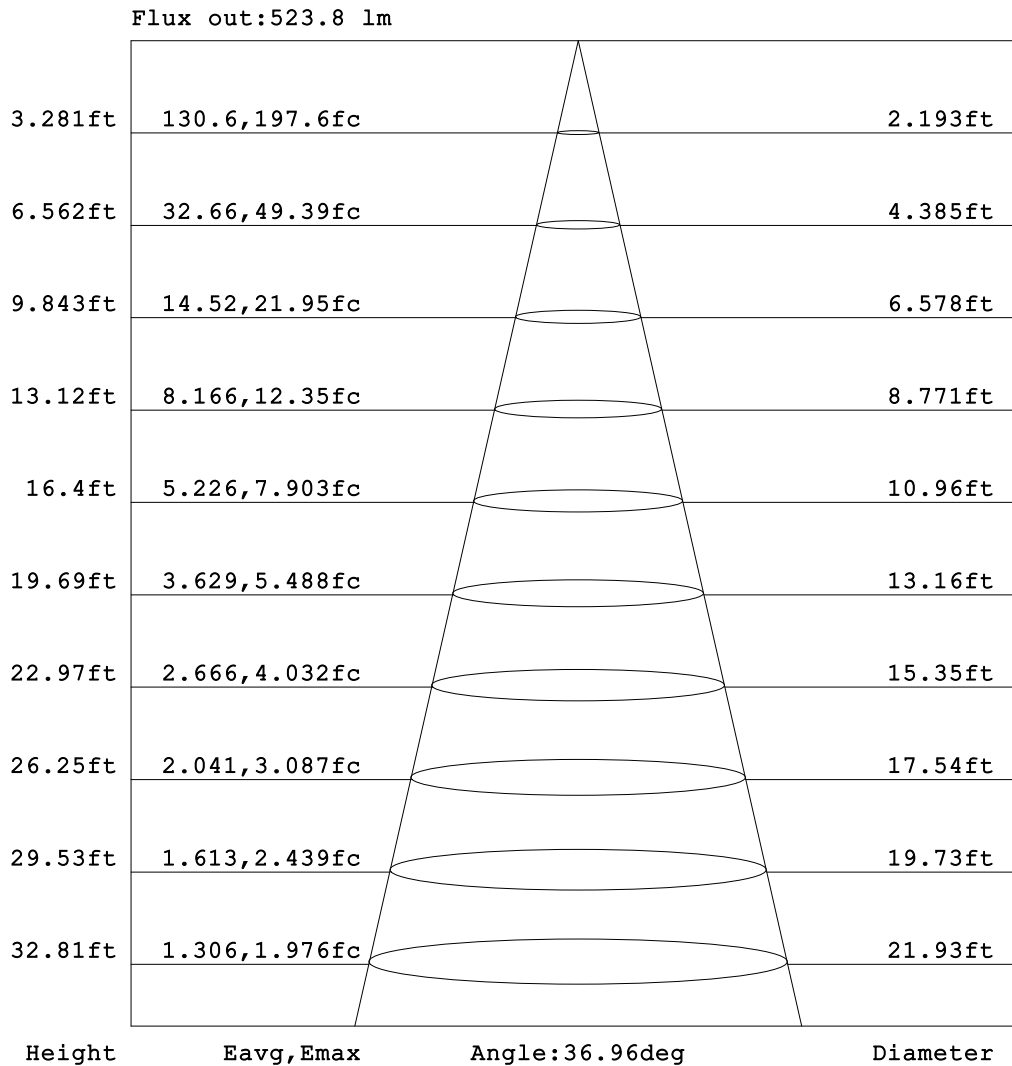
C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2021-10-20

Range: 0 - 90DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.421  
 Humidity:65.0%  
 Test Distance:3.080m [K=1.0000]  
 Remarks:



**AAI Figure**

Test:U:119.95V I:0.1111A P:13.148W PF:0.9499 Freq:59.98Hz Lamp Flux:964.968x1 lm		
NAME: ASD-CD-CR-2D15AC-CH/WH	TYPE:	WEIGHT:
SPEC.:5000K 90	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



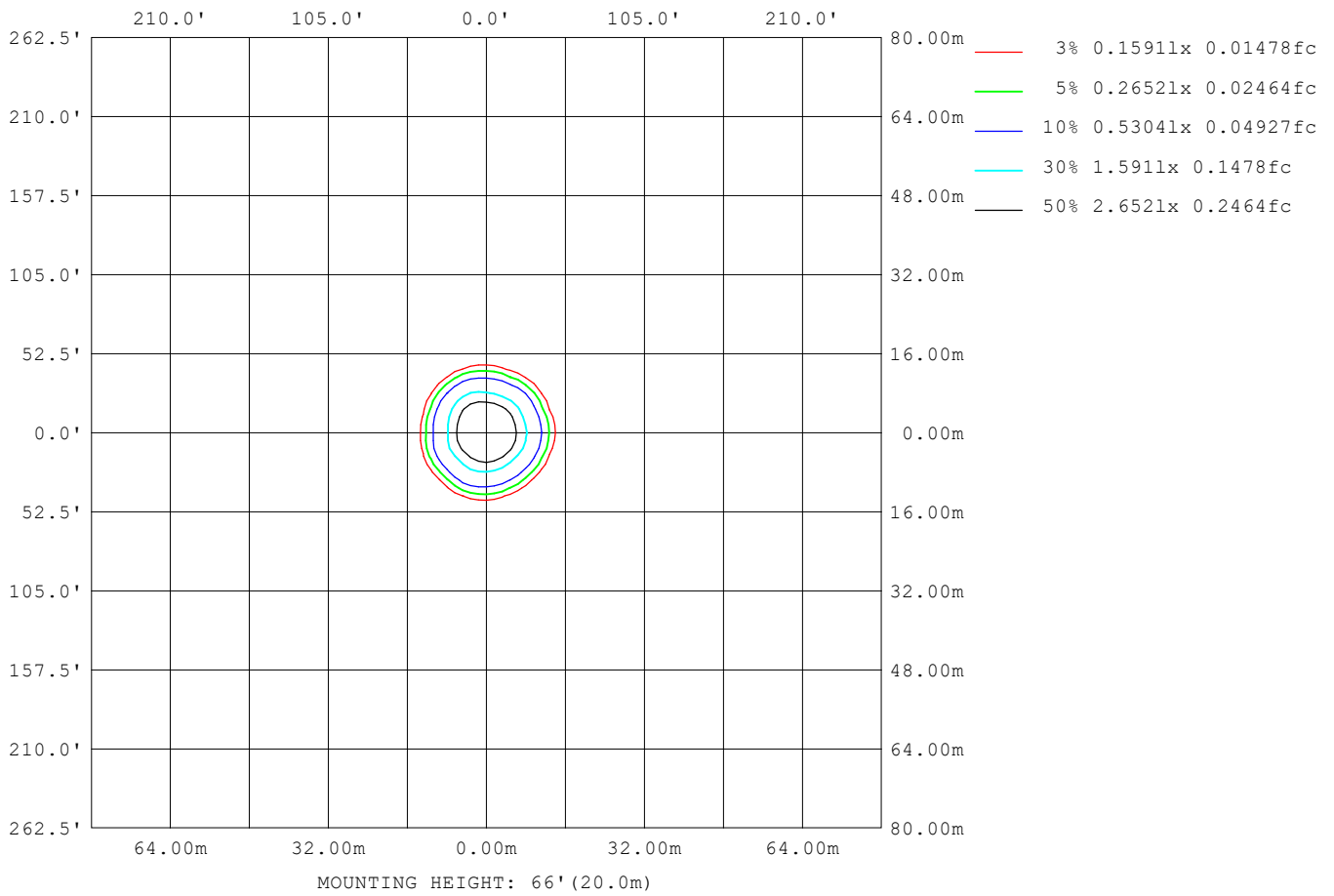
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2021-10-20

Range: 0 - 90DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.421  
 Humidity:65.0%  
 Test Distance:3.080m [K=1.0000]  
 Remarks:

**ISOLUX DIAGRAM**

Test:U:119.95V I:0.1111A P:13.148W PF:0.9499 Freq:59.98Hz Lamp Flux:964.968x1 lm		
NAME: ASD-CD-CR-2D15AC-CH/WH	TYPE:	WEIGHT:
SPEC.:5000K 90	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2021-10-20

Range: 0 - 90DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.421  
 Humidity:65.0%  
 Test Distance:3.080m [K=1.0000]  
 Remarks:

**LED Avg.L Report**

Test:U:119.95V I:0.1111A P:13.148W PF:0.9499 Freq:59.98Hz Lamp Flux:964.968x1 lm		
NAME: ASD-CD-CR-2D15AC-CH/WH	TYPE:	WEIGHT:
SPEC.:5000K 90	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

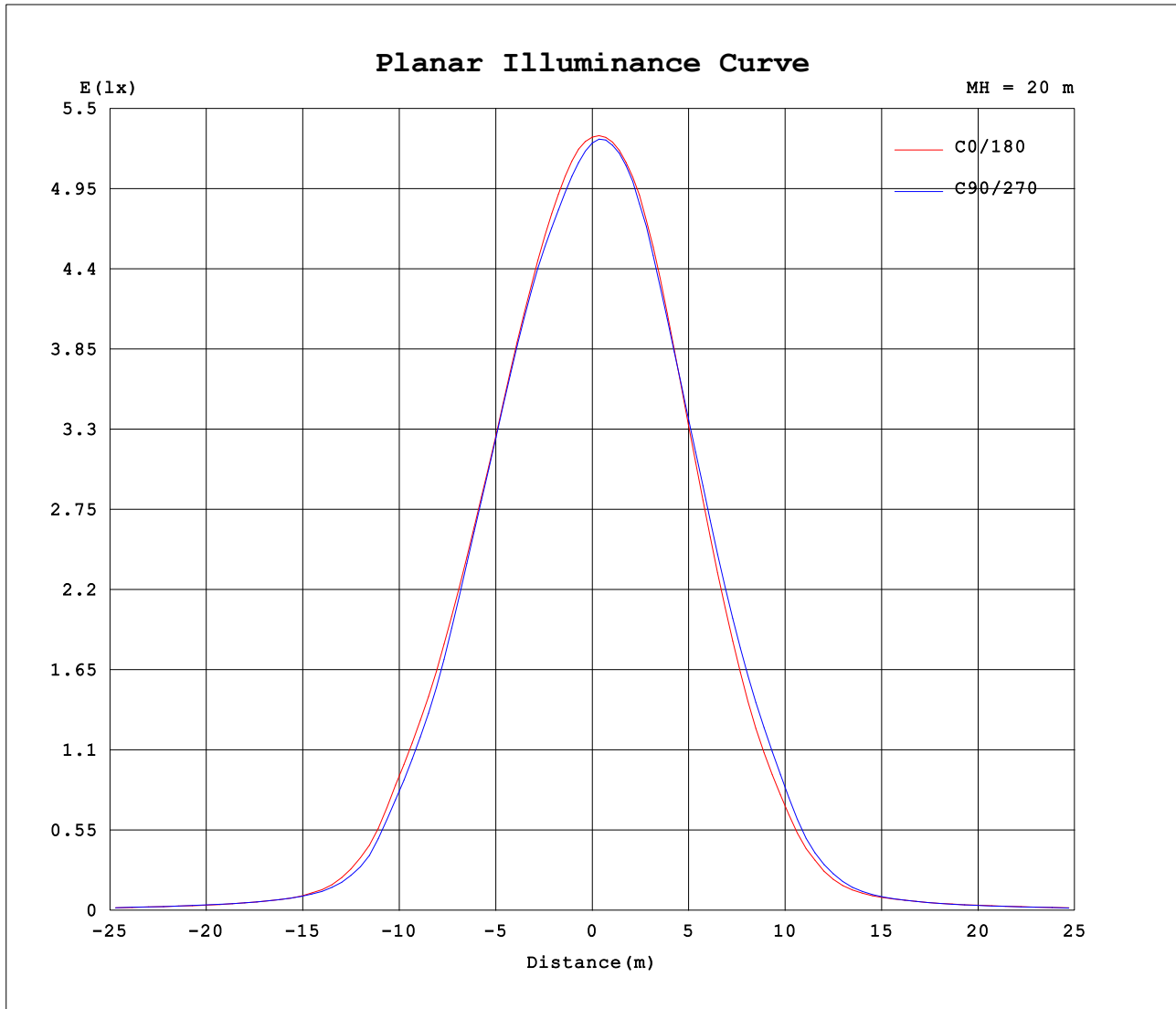
AvgL	cd/m2
L_0~180 (65) av	273
L_0~180 (75) av	224
L_0~180 (85) av	125
L_90~270 (65) av	275
L_90~270 (75) av	226
L_90~270 (85) av	71
L_45 (65) av	275
L_45 (75) av	226
L_45 (85) av	152

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2021-10-20

Range: 0 - 90DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.421  
 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: 25.3DEG  
 Operators:  
 Test Date: 2021-10-20

Range: 0 - 90DEG  
 Interval: 1.0DEG  
 Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.421  
 Humidity: 65.0%  
 Test Distance: 3.080m [K=1.0000]  
 Remarks:

