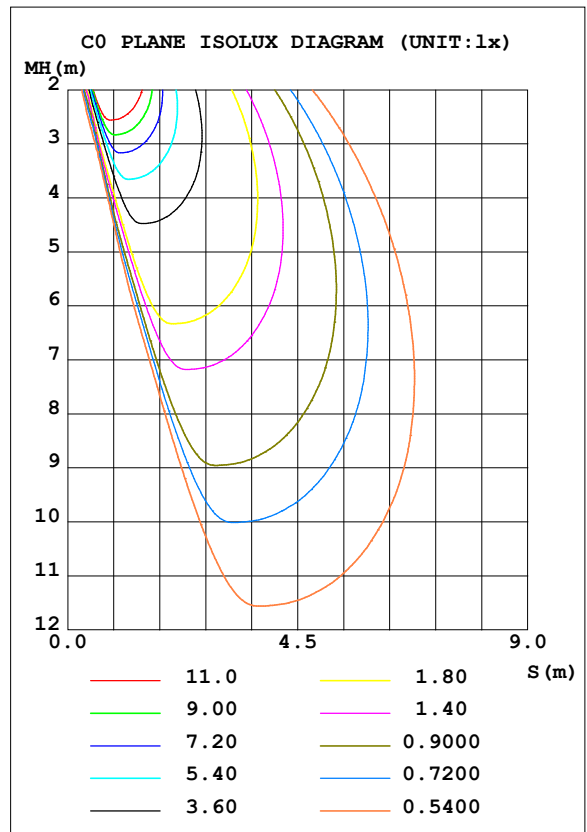
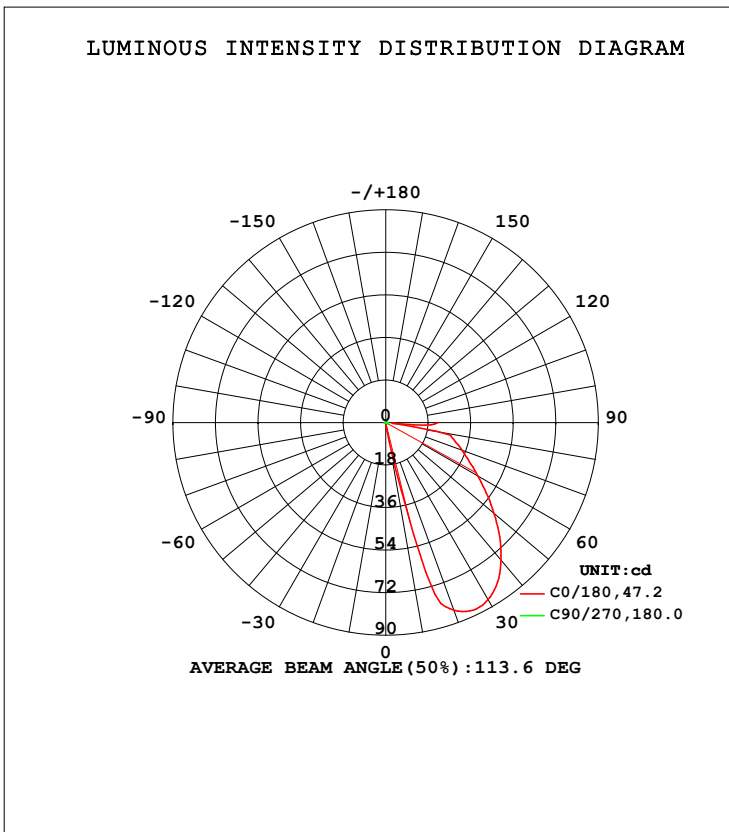


**LUMINAIRE PHOTOMETRIC TEST REPORT**

Test:U:120.30V I:0.0446A P:2.8195W PF:0.5250 Freq:59.98Hz Lamp Flux:87.0844x1 lm		
NAME: LSD03	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ADS	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 30.89 lm/W
MODEL	LSD03	I <sub>max</sub> (cd)	90.10	S/MH (C0/180)	2.29	
NOMINAL POWER (W)	3	LOR (%)	100.0	S/MH (C90/270)	0.73	
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	87.084	η UP, DN (C0-180)	0.0, 62.2	
NOMINAL FLUX (lm)	87.0844	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 37.8	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.00	
TEST VOLTAGE (V)	120	η down (%)	100.0	CIBSE SHR MAX	1.00	



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2020-10-26

γ Range: 0 - 90DEG  
 γ 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:

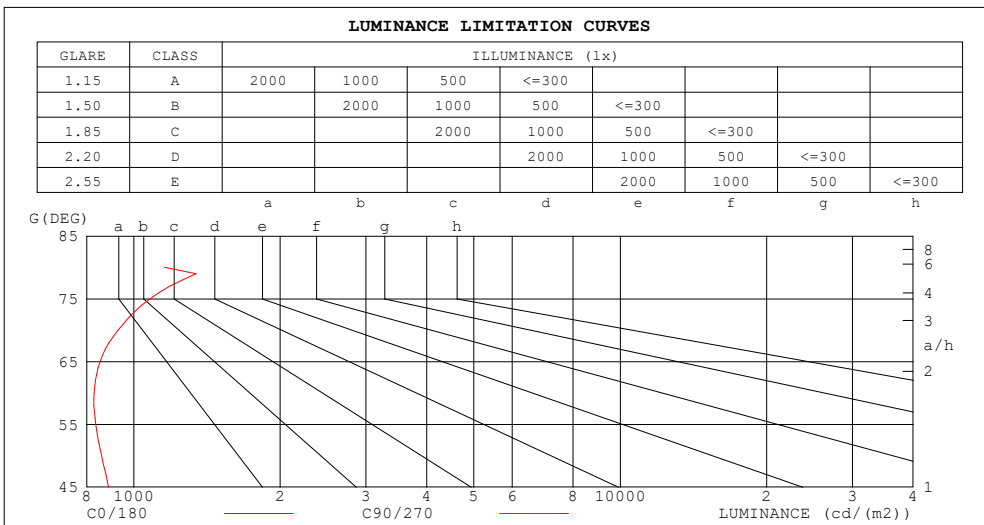
$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	4.754	1.505	0.0765	0.0825	0.0968	0.0796	0.0742	1.371	0- 10	0.0496	0.0496	0.06,0.06
20	84.44	57.11	0.0618	0.0594	0.1024	0.0629	0.0608	49.47	10- 20	3.540	3.590	4.12,4.12
30	86.54	78.45	0.0772	0.0615	0.1203	0.0682	0.0809	80.35	20- 30	12.32	15.91	18.3,18.3
40	75.94	72.18	0.1211	0.0756	0.1516	0.0845	0.1115	74.41	30- 40	18.60	34.52	39.6,39.6
50	59.86	58.68	0.2863	0.0869	0.1813	0.0965	0.2147	57.22	40- 50	21.01	55.53	63.8,63.8
60	44.99	27.62	0.5579	0.0934	0.2191	0.1067	0.4066	25.96	50- 60	16.72	72.24	83,83
70	34.46	2.327	0.8044	0.1072	0.2612	0.1249	0.6070	1.843	60- 70	8.893	81.14	93.2,93.2
80	21.80	0.2397	0.1720	0.1048	0.2795	0.1053	0.1878	0.2141	70- 80	3.712	84.85	97.4,97.4
90	22.16	5.233	0.0655	0.1196	0.2005	0.1037	0.0648	6.497	80- 90	2.237	87.08	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:2020-10-26

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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:120.30V I:0.0446A P:2.8195W PF:0.5250 Freq:59.98Hz Lamp Flux:87.0844x1 lm		
NAME: LSD03	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ADS	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	1266	7
80	1157	9
75	1081	24
70	928	21
65	853	15
60	829	10
55	836	7
50	858	4
45	888	2

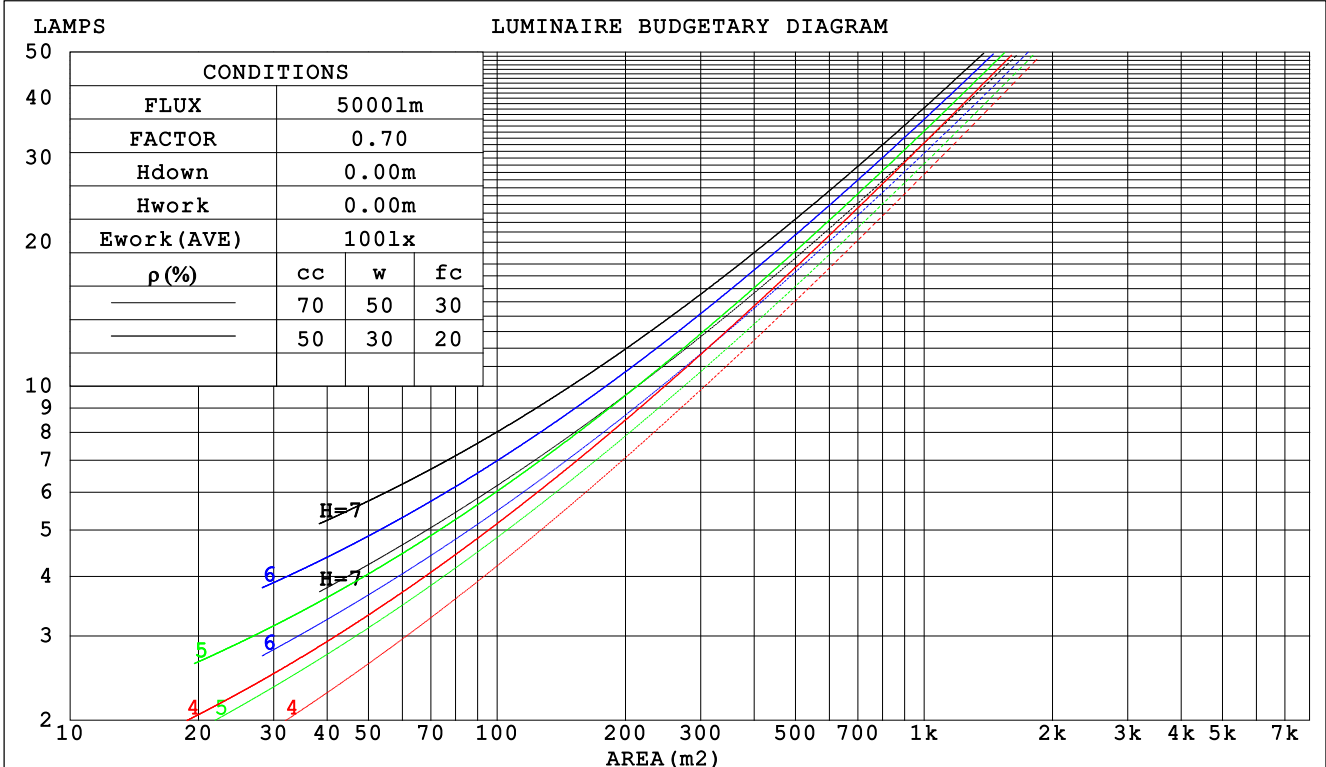
C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2020-10-26

γ Range: 0 - 90DEG  
 γ 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:120.30V I:0.0446A P:2.8195W PF:0.5250 Freq:59.98Hz Lamp Flux:87.0844x1 lm		
NAME: LSD03	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ADS	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	1.04	.99	.96	1.01	.98	.94	.97	.94	.91	.93	.91	.88	.90	.88	.86	.83
2.0	.90	.83	.77	.88	.82	.76	.85	.79	.75	.81	.77	.73	.78	.75	.71	.69
3.0	.79	.70	.63	.77	.69	.63	.74	.67	.62	.71	.65	.61	.69	.64	.60	.57
4.0	.69	.60	.53	.67	.59	.52	.65	.57	.52	.63	.56	.51	.60	.55	.50	.48
5.0	.61	.51	.44	.59	.51	.44	.57	.50	.44	.55	.48	.43	.53	.47	.43	.40
6.0	.54	.44	.38	.53	.44	.37	.51	.43	.37	.49	.42	.37	.48	.41	.36	.34
7.0	.48	.39	.32	.47	.38	.32	.46	.38	.32	.44	.37	.32	.43	.36	.31	.29
8.0	.43	.34	.28	.42	.34	.28	.41	.33	.28	.40	.33	.27	.38	.32	.27	.25
9.0	.39	.30	.24	.38	.30	.24	.37	.29	.24	.36	.29	.24	.35	.28	.24	.22
10.0	.35	.27	.21	.35	.27	.21	.34	.26	.21	.33	.26	.21	.32	.25	.21	.19



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2020-10-26

γ Range: 0 - 90DEG  
 γ 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:120.30V I:0.0446A P:2.8195W PF:0.5250 Freq:59.98Hz Lamp Flux:87.0844x1 lm		
NAME: LSD03	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ADS	SUR.:	Shielding Angle:

ρ <sub>cc</sub>	80%			70%			50%			30%			10%			0
ρ <sub>w</sub>	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ <sub>fc</sub>	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)									
0.0																
1.0	.312	.178	.056	.305	.174	.055	.292	.167	.053	.280	.161	.052	.268	.156	.050	
2.0	.295	.162	.050	.288	.159	.049	.277	.154	.048	.266	.149	.047	.256	.145	.046	
3.0	.275	.146	.044	.270	.144	.043	.259	.141	.043	.250	.137	.042	.241	.133	.041	
4.0	.256	.133	.039	.251	.132	.039	.242	.128	.038	.233	.125	.038	.225	.122	.037	
5.0	.239	.122	.035	.234	.120	.035	.226	.118	.035	.218	.115	.034	.211	.113	.034	
6.0	.222	.111	.032	.218	.110	.032	.211	.108	.031	.204	.106	.031	.198	.104	.031	
7.0	.208	.103	.029	.204	.102	.029	.198	.100	.029	.191	.098	.029	.186	.096	.028	
8.0	.195	.095	.027	.191	.094	.027	.185	.093	.026	.180	.091	.026	.175	.090	.026	
9.0	.183	.088	.025	.180	.088	.025	.175	.086	.024	.169	.085	.024	.165	.084	.024	
10.0	.172	.082	.023	.169	.082	.023	.165	.081	.023	.160	.079	.023	.156	.078	.022	

ρ <sub>cc</sub>	80%			70%			50%			30%			10%			0
ρ <sub>w</sub>	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ <sub>fc</sub>	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	.180	.156	.134	.154	.134	.115	.106	.092	.080	.061	.053	.046	.019	.017	.015	
2.0	.173	.132	.098	.148	.114	.084	.101	.079	.059	.058	.046	.035	.019	.015	.011	
3.0	.165	.114	.074	.142	.099	.064	.097	.069	.045	.056	.040	.026	.018	.013	.009	
4.0	.159	.101	.057	.136	.087	.050	.094	.061	.035	.054	.036	.021	.017	.012	.007	
5.0	.152	.091	.046	.130	.079	.040	.090	.055	.028	.052	.032	.017	.017	.011	.006	
6.0	.145	.083	.038	.125	.072	.033	.086	.050	.023	.050	.029	.014	.016	.010	.005	
7.0	.139	.076	.032	.119	.066	.028	.082	.046	.020	.048	.027	.012	.015	.009	.004	
8.0	.133	.070	.028	.114	.061	.024	.079	.043	.017	.046	.025	.010	.015	.008	.003	
9.0	.127	.066	.024	.109	.057	.021	.076	.040	.015	.044	.024	.009	.014	.008	.003	
10.0	.121	.061	.022	.104	.053	.019	.072	.037	.013	.042	.022	.008	.014	.007	.003	

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2020-10-26

γ Range: 0 - 90DEG  
 γ 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:120.30V I:0.0446A P:2.8195W PF:0.5250 Freq:59.98Hz Lamp Flux:87.0844x1 lm										
NAME: LSD03					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.: ADS					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	24.9	26.5	25.2	26.7	26.9	19.4	21.0	19.7	21.2	21.4
3H	26.7	28.2	27.0	28.4	28.6	19.2	20.7	19.5	20.9	21.2
4H	27.5	28.9	27.8	29.1	29.4	19.1	20.5	19.4	20.7	21.0
6H	28.4	29.7	28.7	30.0	30.3	19.0	20.3	19.3	20.6	20.9
8H	28.4	29.7	28.8	30.0	30.3	19.0	20.2	19.3	20.5	20.8
12H	28.6	29.8	28.9	30.1	30.4	18.9	20.1	19.3	20.4	20.7
4H 2H	24.9	26.3	25.2	26.5	26.8	20.4	21.7	20.7	22.0	22.3
3H	26.8	28.0	27.2	28.3	28.6	20.2	21.4	20.5	21.7	22.0
4H	27.6	28.7	28.0	29.0	29.4	20.1	21.2	20.5	21.5	21.8
6H	28.5	29.5	28.9	29.9	30.2	20.0	21.0	20.4	21.3	21.7
8H	28.6	29.5	29.0	29.9	30.3	20.0	20.9	20.4	21.2	21.6
12H	28.8	29.6	29.2	30.0	30.4	20.1	21.0	20.6	21.3	21.7
8H 4H	27.5	28.4	27.9	28.7	29.1	20.3	21.2	20.7	21.5	21.9
6H	28.4	29.2	28.9	29.6	30.0	20.2	20.9	20.6	21.3	21.8
8H	28.5	29.2	29.0	29.6	30.0	20.3	21.0	20.8	21.4	21.9
12H	28.7	29.3	29.2	29.7	30.2	21.2	21.8	21.7	22.2	22.7
12H 4H	27.4	28.3	27.9	28.6	29.0	20.2	21.1	20.7	21.4	21.9
6H	28.4	29.0	28.8	29.5	29.9	20.2	20.8	20.6	21.3	21.7
8H	28.5	29.0	28.9	29.5	30.0	20.4	21.0	20.9	21.4	21.9
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 1.7 / - 2.0				
1.5H	+ 0.2 / - 0.2					+ 1.7 / - 3.5				
2.0H	+ 0.9 / - 1.3					+ 2.8 / - 6.0				

CIE Pub.117, 87.08 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -8.5)  
 Area: 0.111111 m2

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2020-10-26

γ Range: 0 - 90DEG  
 γ 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:120.30V I:0.0446A P:2.8195W PF:0.5250 Freq:59.98Hz Lamp Flux:87.0844x1 lm		
NAME: LSD03	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ADS	SUR.:	Shielding Angle:

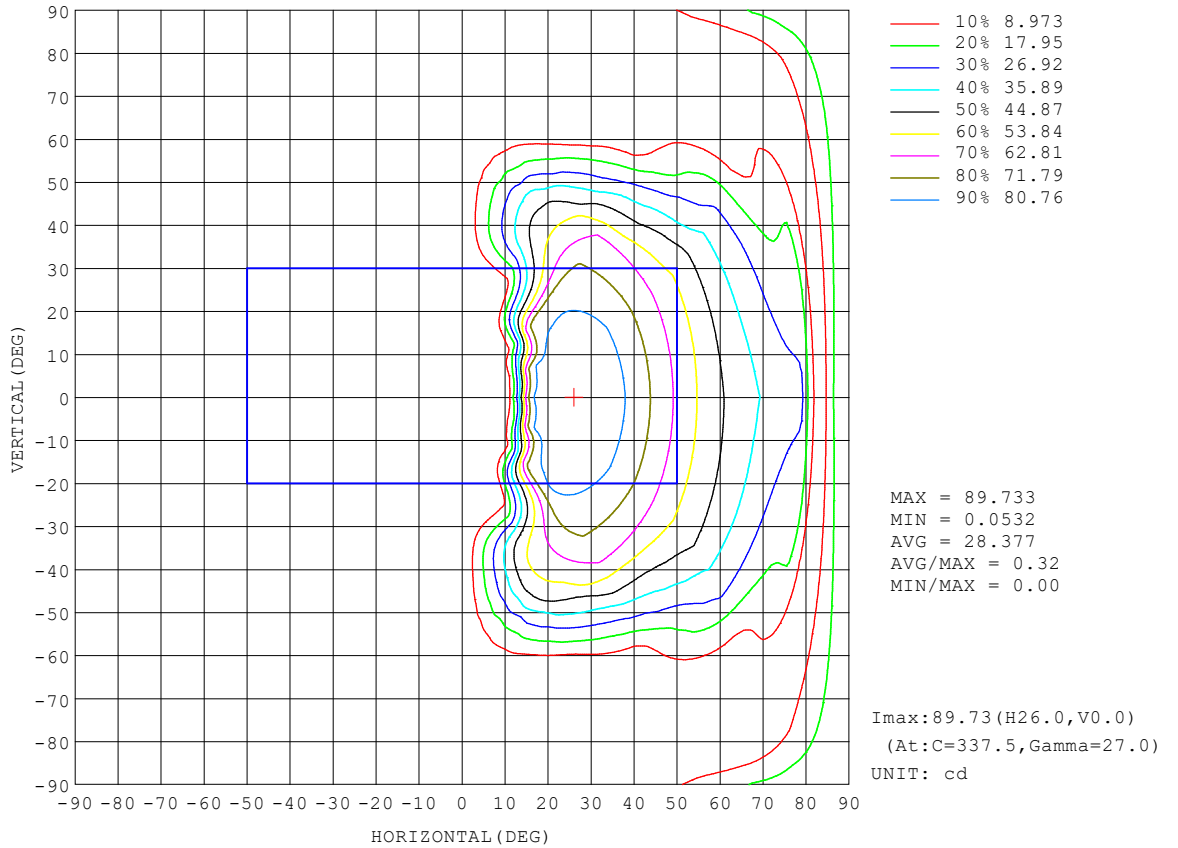
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	54	41	34	53	41	34	52	40	34	27
0.80	65	53	45	64	52	45	62	51	44	37
1.00	75	63	56	73	62	55	71	64	55	47
1.25	82	72	64	81	71	64	78	69	63	56
1.50	88	78	70	86	77	70	83	75	69	61
2.00	95	86	80	93	85	79	90	83	78	70
2.50	99	91	85	97	89	84	93	87	82	74
3.00	102	95	90	100	94	89	96	91	86	78
4.00	106	100	95	104	98	94	99	95	91	82
5.00	108	103	99	106	101	97	101	98	94	85
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:2020-10-26

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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:120.30V I:0.0446A P:2.8195W PF:0.5250 Freq:59.98Hz Lamp Flux:87.0844x1 lm		
NAME: LSD03	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ADS	SUR.:	Shielding Angle:



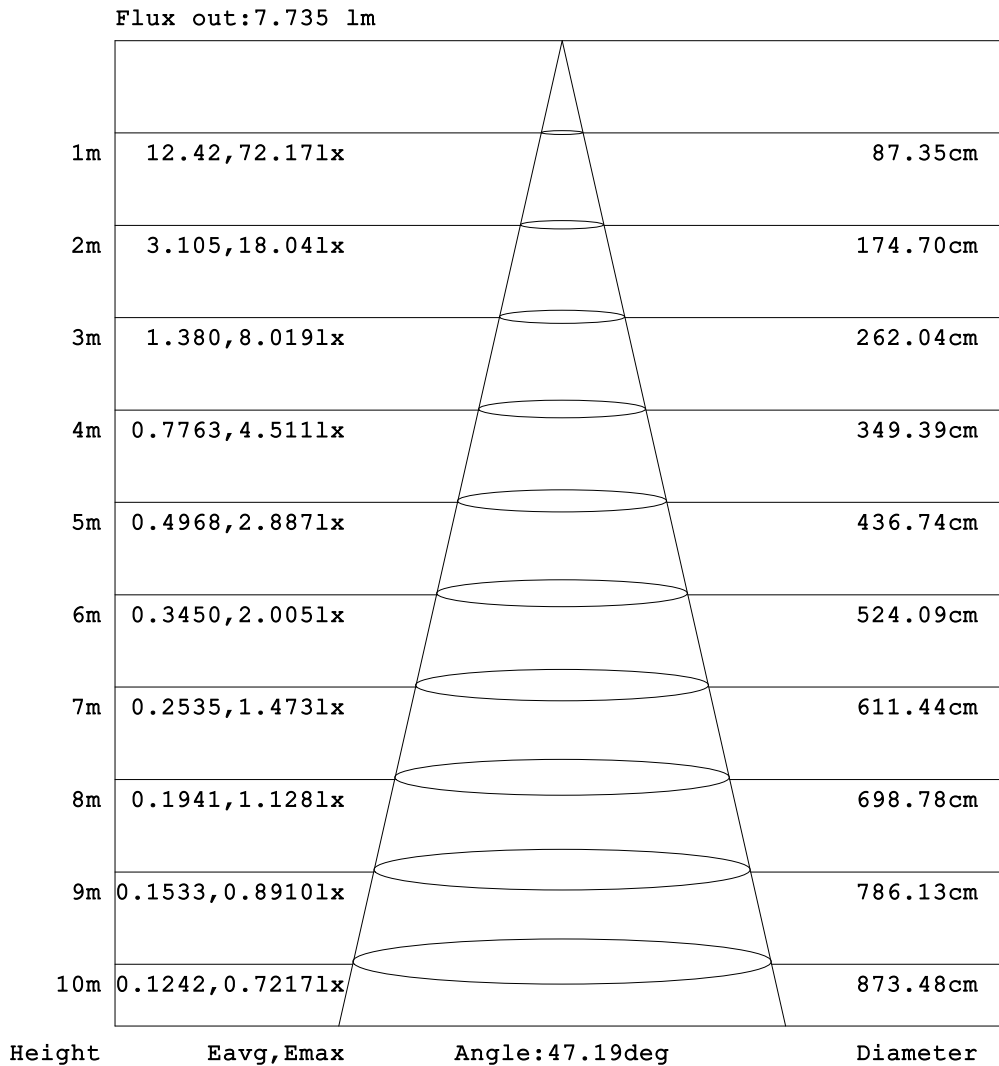
C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2020-10-26

γ Range: 0 - 90DEG  
 γ 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:120.30V I:0.0446A P:2.8195W PF:0.5250 Freq:59.98Hz Lamp Flux:87.0844x1 lm		
NAME: LSD03	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ADS	SUR.:	Shielding Angle:



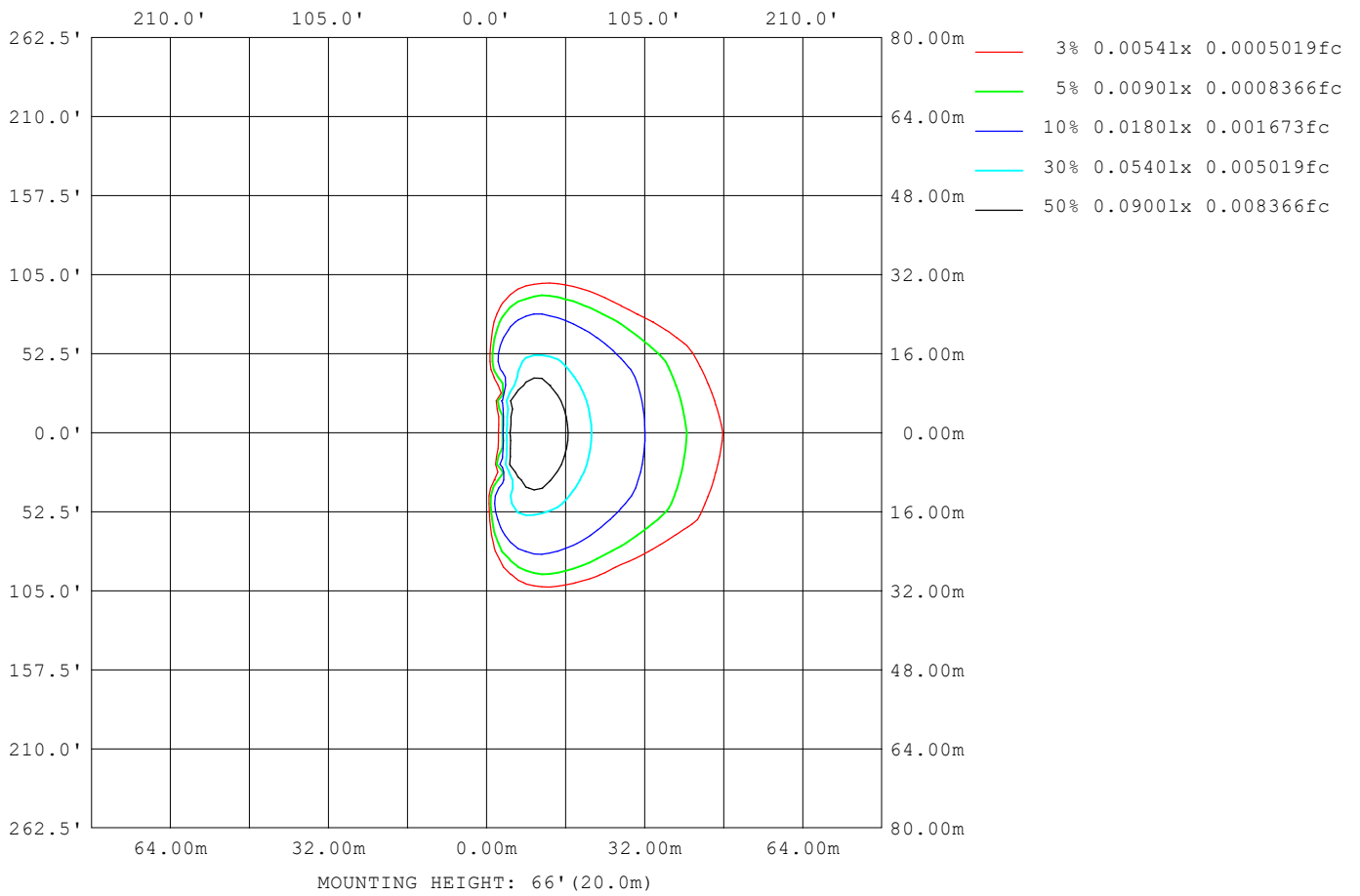
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2020-10-26

γ Range: 0 - 90DEG  
 γ 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:120.30V I:0.0446A P:2.8195W PF:0.5250 Freq:59.98Hz Lamp Flux:87.0844x1 lm		
NAME: LSD03	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ADS	SUR.:	Shielding Angle:



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2020-10-26

γ Range: 0 - 90DEG  
 γ 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:120.30V I:0.0446A P:2.8195W PF:0.5250 Freq:59.98Hz Lamp Flux:87.0844x1 lm		
NAME: LSD03	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ADS	SUR.:	Shielding Angle:

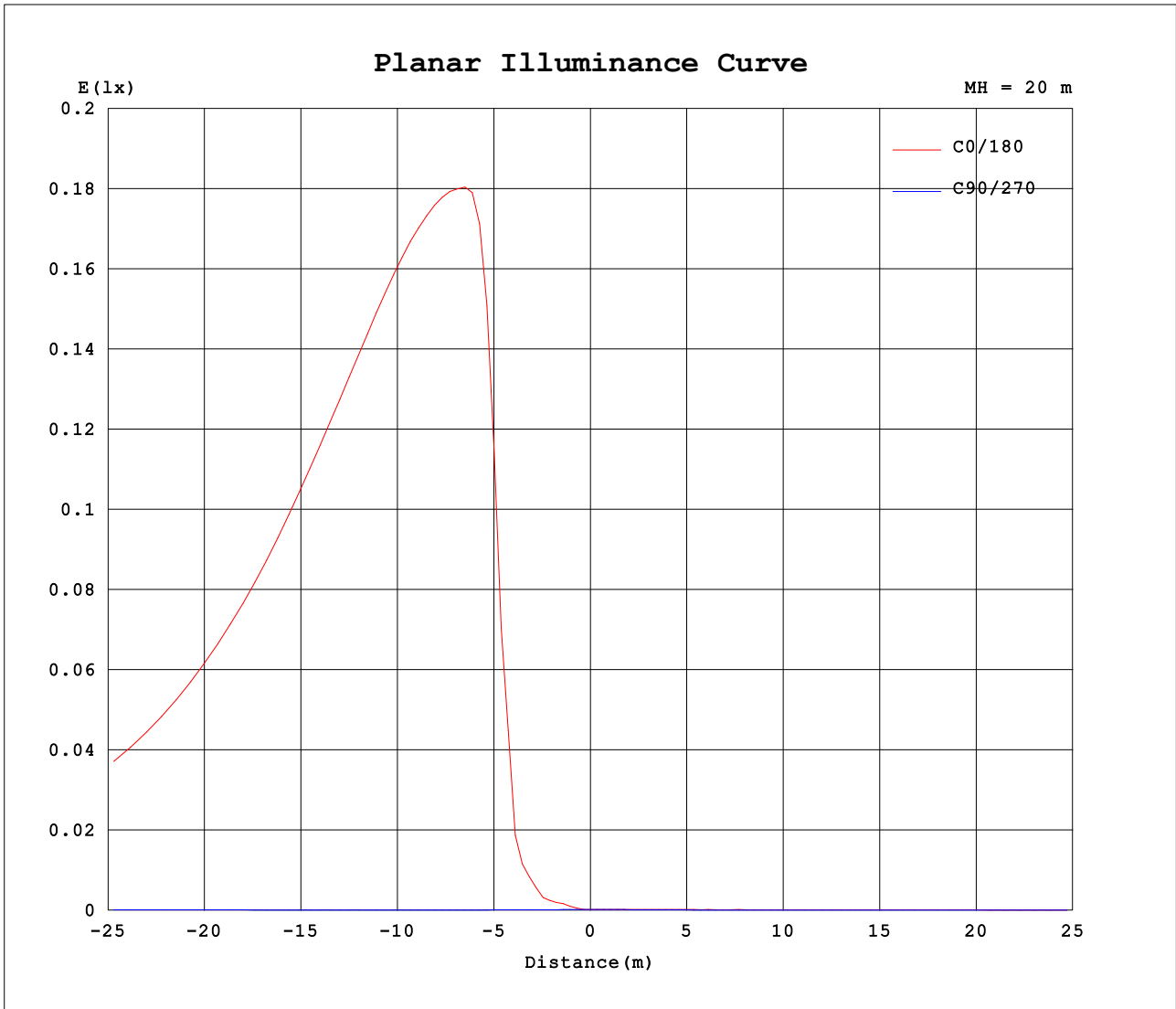
AvgL	cd/m2
L_0~180 (65) av	419
L_0~180 (75) av	533
L_0~180 (85) av	627
L_90~270 (65) av	13
L_90~270 (75) av	21
L_90~270 (85) av	8
L_45 (65) av	109
L_45 (75) av	11
L_45 (85) av	12

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2020-10-26

γ Range: 0 - 90DEG  
 γ 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: 2020-10-26

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

