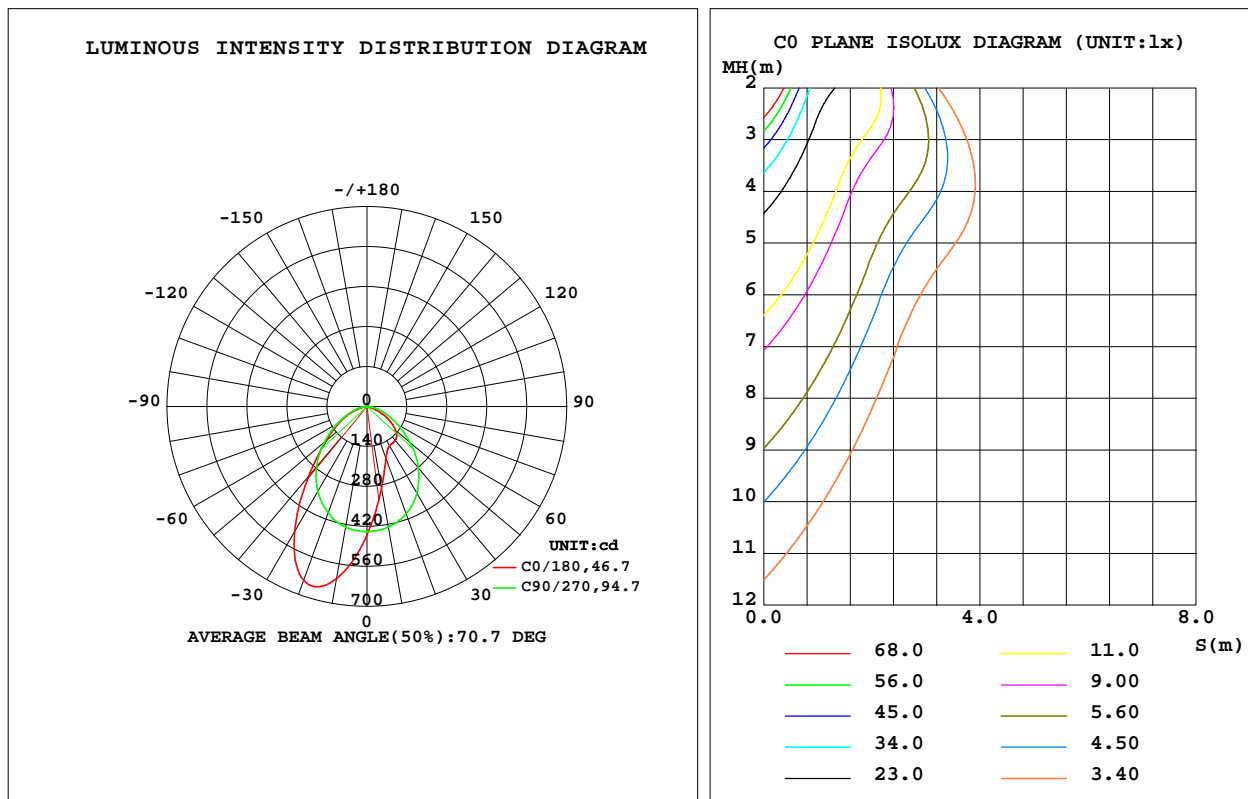


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:48.00V I:0.1850A P:8.880W PF:1.000 Freq:49.99Hz Lamp Flux:984.694x1 lm		
NAME: TLS-R25LAFBS500-H20NW8X-DC	TYPE:	WEIGHT:
SPEC.: TLS-R25LAFBS500-H20NW8X-DC	DIM.: 500*25*25mm	SERIAL No.:
MFR.: COLORS	SUR.:500*25mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 110.89 lm/W			
MODEL	TLS-R25LAFBS500	I _{max} (cd)	657.7	S/MH(C0/180)	0.50
NOMINAL POWER(W)	10	LOR(%)	100.0	S/MH(C90/270)	1.18
RATED VOLTAGE(V)	48	TOTAL FLUX(lm)	984.69	h UP,DN(C0-180)	0.9,45.3
NOMINAL FLUX(lm)	984.694	CIE CLASS	DIRECT	h UP,DN(C180-360)	0.8,53.0
LAMPS INSIDE	1	h up(%)	1.6	CIBSE SHR NOM	1.00
TEST VOLTAGE(V)	48	h down(%)	98.4	CIBSE SHR MAX	1.05



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-09-15

g Range: 0 - 180DEG
Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.950m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

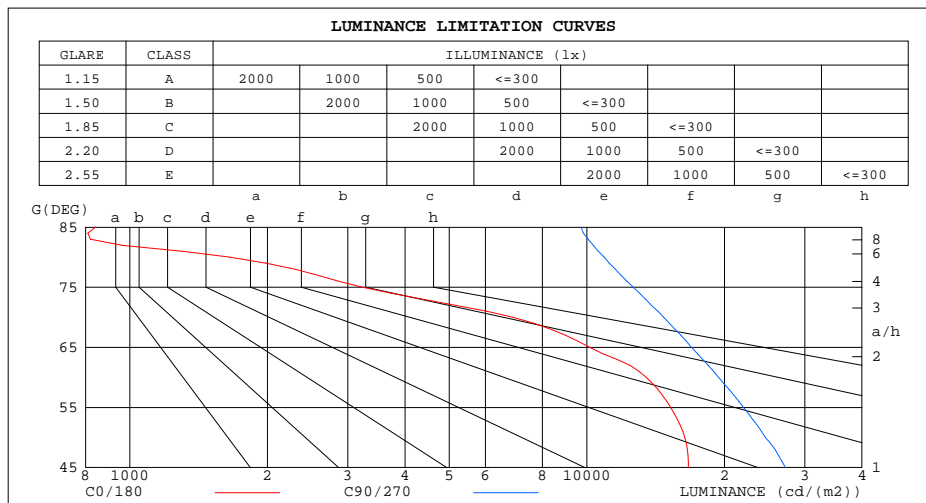
g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	293.5	320.2	428.6	551.9	611.2	559.3	429.1	313.3	0- 10	41.96	41.96	4.26,4.26
20	194.2	229.3	400.3	611.2	648.4	612.7	396.1	223.6	10- 20	121.5	163.4	16.6,16.6
30	159.6	168.3	350.2	558.8	508.0	557.1	344.1	163.6	20- 30	177.6	341.1	34.6,34.6
40	154.9	134.3	280.5	423.4	317.3	420.5	274.8	132.4	30- 40	193.5	534.5	54.3,54.3
50	131.6	112.1	197.8	273.4	187.0	272.7	195.8	111.8	40- 50	173.7	708.3	71.9,71.9
60	84.43	83.75	121.4	158.9	110.1	156.4	119.9	82.64	50- 60	133.0	841.3	85.4,85.4
70	29.49	47.77	62.93	78.75	48.81	77.00	61.25	47.56	60- 70	83.54	924.8	93.9,93.9
80	3.592	9.411	23.68	25.03	13.53	23.91	23.22	8.995	70- 80	36.11	960.9	97.6,97.6
90	0.4627	0.8124	1.052	2.457	0.5109	0.9091	0.8360	1.514	80- 90	7.563	968.5	98.4,98.4
100	0.3802	0.7561	0.7144	0.8172	0.2874	0.2872	0.5092	1.141	90-100	0.7417	969.2	98.4,98.4
110	1.047	1.612	1.073	1.016	0.6889	0.7273	1.245	1.713	100-110	0.8721	970.1	98.5,98.5
120	2.037	2.976	2.189	1.390	1.404	1.101	2.422	3.056	110-120	1.569	971.7	98.7,98.7
130	3.399	4.817	3.372	1.738	1.911	1.403	3.764	4.949	120-130	2.334	974.0	98.9,98.9
140	5.485	6.854	4.240	2.118	2.098	1.797	4.896	7.191	130-140	2.895	976.9	99.2,99.2
150	7.767	7.759	4.682	2.699	2.258	2.438	5.591	8.817	140-150	3.023	979.9	99.5,99.5
160	9.137	7.265	4.903	3.650	2.967	3.400	5.798	8.872	150-160	2.559	982.5	99.8,99.8
170	7.829	6.031	5.524	4.857	4.295	4.461	5.831	7.615	160-170	1.646	984.1	99.9,99.9
180	5.484	6.078	6.713	6.940	5.430	6.072	6.726	6.973	170-180	0.5591	984.7	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:JYH
 Test Date:2020-09-15

g Range: 0 - 180DEG
 g Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:10.950m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:48.00V I:0.1850A P:8.880W PF:1.000 Freq:49.99Hz Lamp Flux:984.694x1 lm		
NAME: TLS-R25LAFBS500-H20NW8X-DC	TYPE:	WEIGHT:
SPEC.: TLS-R25LAFBS500-H20NW8X-DC	DIM.: 500*25*25mm	SERIAL No.:
MFR.: COLORS	SUR.: 500*25mm	Shielding Angle:



LUMINANCE cd/(m2)		
G(180)	C0/180	C90/270
85	841	9713
80	1655	10911
75	3228	12647
70	6897	14719
65	10150	16962
60	13509	19425
55	15267	22046
50	16376	24618
45	16667	27210

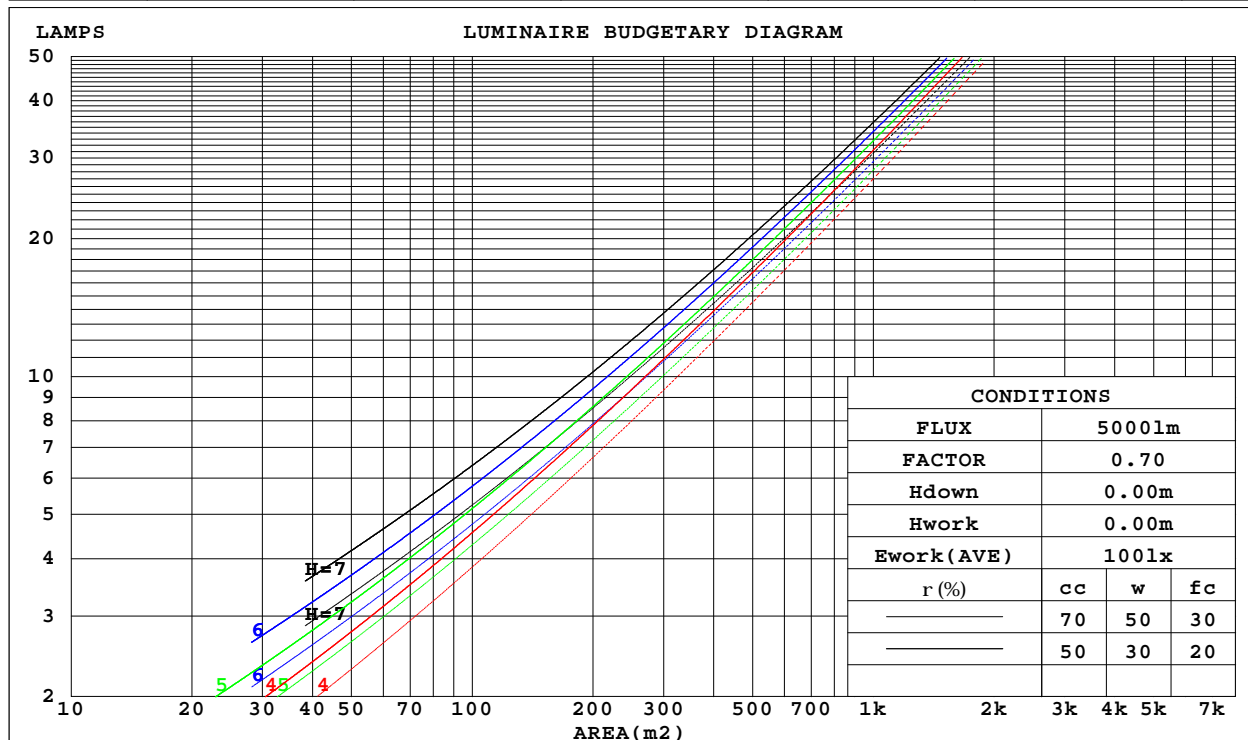
C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: JYH
 Test Date: 2020-09-15

g Range: 0 - 180DEG
 g Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity: 65.0%
 Test Distance: 10.950m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:48.00V I:0.1850A P:8.880W PF:1.000 Freq:49.99Hz Lamp Flux:984.694x1 lm		
NAME: TLS-R25LAFBS500-H20NW8X-DC	TYPE:	WEIGHT:
SPEC.: TLS-R25LAFBS500-H20NW8X-DC	DIM.: 500*25*25mm	SERIAL No.:
MFR.: COLORS	SUR.:500*25mm	Shielding Angle:

r _{cc}	80%			70%			50%			30%			10%			0
r _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
r _{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-09-15

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.950m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:48.00V I:0.1850A P:8.880W PF:1.000 Freq:49.99Hz Lamp Flux:984.694x1 lm		
NAME: TLS-R25LAFBS500-H20NW8X-DC	TYPE:	WEIGHT:
SPEC.:TLS-R25LAFBS500-H20NW8X-DC	DIM.: 500*25*25mm	SERIAL No.:
MFR.: COLORS	SUR.:500*25mm	Shielding Angle:

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio Wall Exitance Coefficients(WEC)															
0.0																
1.0	.266	.151	.048	.258	.147	.047	.244	.140	.045	.231	.133	.043	.219	.127	.041	
2.0	.255	.140	.043	.249	.137	.042	.237	.132	.041	.225	.126	.040	.215	.122	.038	
3.0	.240	.128	.038	.234	.126	.038	.224	.121	.037	.214	.117	.036	.204	.113	.035	
4.0	.225	.117	.034	.220	.115	.034	.210	.111	.033	.201	.108	.033	.193	.105	.032	
5.0	.210	.107	.031	.205	.105	.031	.197	.103	.030	.189	.100	.030	.182	.097	.029	
6.0	.197	.099	.028	.193	.097	.028	.185	.095	.028	.178	.092	.027	.171	.090	.027	
7.0	.184	.091	.026	.181	.090	.026	.174	.088	.025	.168	.086	.025	.161	.084	.025	
8.0	.173	.085	.024	.170	.084	.024	.164	.082	.023	.158	.080	.023	.153	.078	.023	
9.0	.163	.079	.022	.160	.078	.022	.155	.077	.022	.150	.075	.021	.145	.073	.021	
10.0	.154	.074	.021	.152	.073	.020	.147	.072	.020	.142	.070	.020	.137	.069	.020	

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio Ceiling Cavity Exitance Coefficients(CCEC)															
0.0	.203	.203	.203	.174	.174	.174	.118	.118	.118	.068	.068	.068	.022	.022	.022	
1.0	.190	.169	.150	.162	.145	.130	.111	.100	.090	.064	.058	.052	.020	.019	.017	
2.0	.180	.145	.115	.154	.125	.100	.106	.086	.069	.061	.050	.041	.020	.016	.013	
3.0	.172	.127	.091	.147	.109	.079	.101	.076	.056	.058	.044	.033	.019	.014	.011	
4.0	.164	.113	.075	.140	.098	.065	.097	.068	.046	.056	.040	.027	.018	.013	.009	
5.0	.156	.103	.063	.134	.089	.055	.092	.062	.039	.054	.036	.023	.017	.012	.008	
6.0	.149	.094	.055	.128	.082	.047	.089	.057	.034	.051	.034	.020	.017	.011	.007	
7.0	.143	.087	.048	.123	.076	.042	.085	.053	.030	.049	.031	.018	.016	.010	.006	
8.0	.137	.081	.043	.118	.071	.038	.082	.050	.027	.047	.029	.016	.015	.010	.005	
9.0	.131	.076	.039	.113	.066	.034	.078	.047	.024	.046	.028	.015	.015	.009	.005	
10.0	.126	.072	.036	.108	.063	.032	.075	.044	.023	.044	.026	.013	.014	.009	.004	

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-09-15

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.950m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:48.00V I:0.1850A P:8.880W PF:1.000 Freq:49.99Hz Lamp Flux:984.694x1 lm											
NAME: TLS-R25LAFBS500-H20NW8X-DC					TYPE:			WEIGHT:			
SPEC.:TLS-R25LAFBS500-H20NW8X-DC					DIM.: 500*25*25mm			SERIAL No.:			
MFR.: COLORS					SUR.:500*25mm			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	20.2	21.5	20.4	21.7	22.0	22.1	23.4	22.4	23.7	23.9	
	3H	20.9	22.2	21.2	22.4	22.7	23.2	24.5	23.6	24.8	25.0
	4H	21.0	22.2	21.3	22.4	22.7	23.6	24.8	24.0	25.1	25.4
	6H	20.9	22.0	21.3	22.3	22.6	23.9	25.0	24.3	25.3	25.6
	8H	20.9	21.9	21.2	22.2	22.6	24.0	25.1	24.3	25.4	25.7
	12H	20.8	21.8	21.2	22.2	22.5	24.0	25.1	24.4	25.4	25.7
4H	2H	20.7	21.9	21.1	22.2	22.5	22.3	23.5	22.6	23.8	24.1
	3H	21.7	22.7	22.0	23.0	23.3	23.6	24.7	24.0	25.0	25.3
	4H	21.8	22.7	22.2	23.1	23.4	24.1	25.1	24.5	25.4	25.8
	6H	21.8	22.6	22.2	23.0	23.4	24.5	25.3	24.9	25.7	26.1
	8H	21.7	22.5	22.2	22.9	23.3	24.6	25.4	25.0	25.8	26.2
	12H	21.7	22.4	22.1	22.8	23.2	24.7	25.4	25.1	25.8	26.2
8H	4H	22.0	22.7	22.4	23.1	23.5	24.2	24.9	24.6	25.3	25.7
	6H	22.0	22.6	22.4	23.0	23.5	24.6	25.2	25.0	25.6	26.1
	8H	21.9	22.5	22.4	23.0	23.4	24.7	25.3	25.2	25.7	26.2
	12H	21.9	22.4	22.4	22.9	23.4	24.8	25.3	25.3	25.8	26.3
12H	4H	21.9	22.6	22.4	23.0	23.5	24.1	24.8	24.6	25.2	25.7
	6H	22.0	22.5	22.5	23.0	23.5	24.5	25.1	25.0	25.5	26.0
	8H	22.0	22.4	22.5	22.9	23.4	24.7	25.2	25.2	25.6	26.2
Variations with the observer position at spacings:											
S = 1.0H	+ 0.2 / - 0.3					+ 0.3 / - 0.2					
1.5H	+ 0.3 / - 0.6					+ 0.5 / - 0.7					
2.0H	+ 0.6 / - 0.8					+ 1.0 / - 1.2					

CIE Pub.117, 984.7 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.1)

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-09-15

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.950m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:48.00V I:0.1850A P:8.880W PF:1.000 Freq:49.99Hz Lamp Flux:984.694x1 lm		
NAME: TLS-R25LAFBS500-H20NW8X-DC	TYPE:	WEIGHT:
SPEC.:TLS-R25LAFBS500-H20NW8X-DC	DIM.: 500*25*25mm	SERIAL No.:
MFR.: COLORS	SUR.:500*25mm	Shielding Angle:

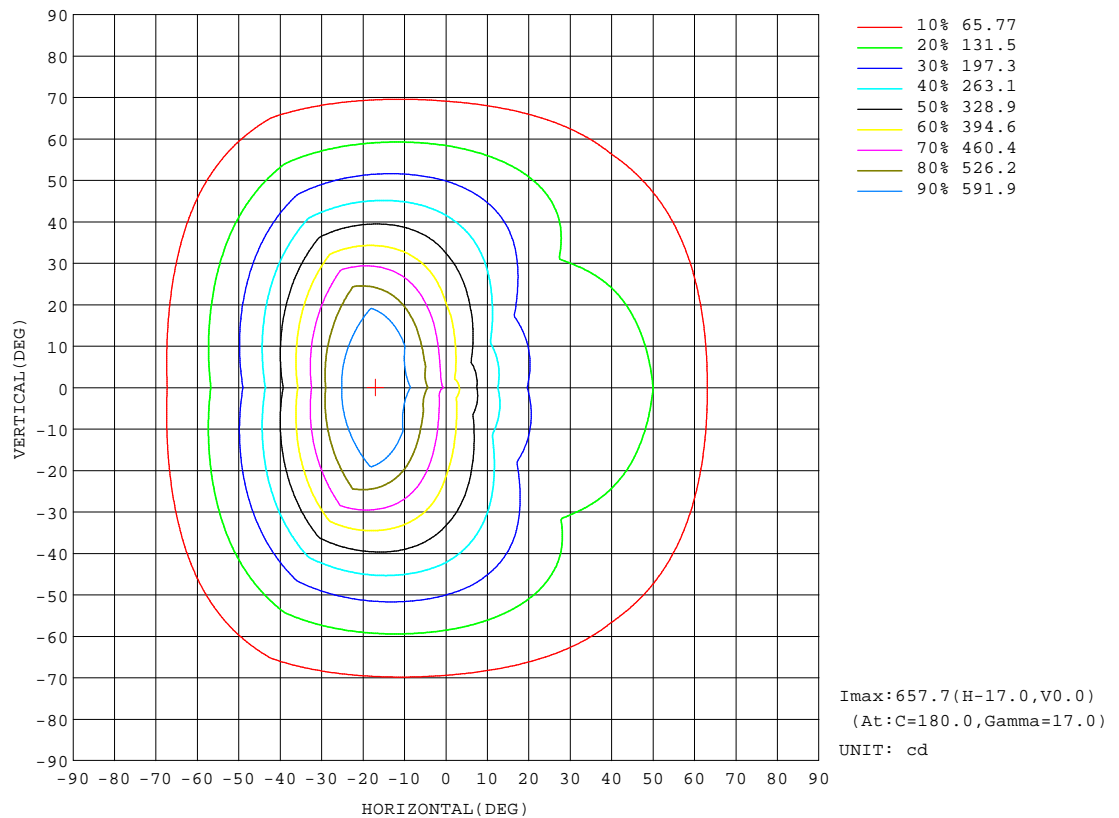
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	63	52	46	62	52	46	61	52	46	40
0.80	73	63	56	72	62	56	70	61	55	49
1.00	81	71	65	80	71	64	78	71	64	57
1.25	88	79	72	86	78	72	84	76	71	64
1.50	92	84	78	91	83	77	88	81	76	69
2.00	98	91	85	96	90	85	93	87	83	75
2.50	102	95	90	100	94	89	96	91	87	79
3.00	105	99	94	102	97	93	98	94	90	82
4.00	108	103	99	106	101	98	101	98	95	86
5.00	110	106	102	108	104	101	103	100	97	88
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:JYH
 Test Date:2020-09-15

g Range: 0 - 180DEG
 g Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:10.950m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:48.00V I:0.1850A P:8.880W PF:1.000 Freq:49.99Hz Lamp Flux:984.694x1 lm		
NAME: TLS-R25LAFBS500-H20NW8X-DC	TYPE:	WEIGHT:
SPEC.: TLS-R25LAFBS500-H20NW8X-DC	DIM.: 500*25*25mm	SERIAL No.:
MFR.: COLORS	SUR.:500*25mm	Shielding Angle:



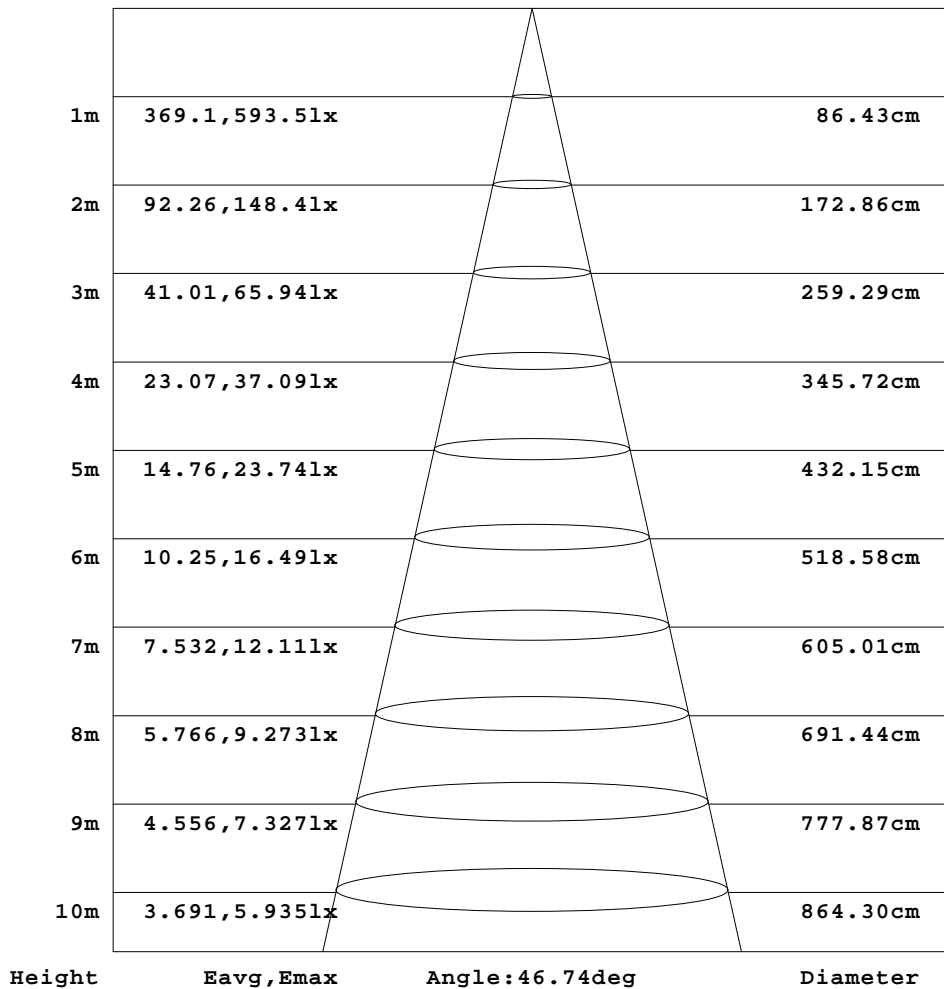
C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: JYH
 Test Date: 2020-09-15

deg Range: 0 - 180DEG
 Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity: 65.0%
 Test Distance: 10.950m [K=1.0000]
 Remarks:

AAI Figure

Test:U:48.00V I:0.1850A P:8.880W PF:1.000 Freq:49.99Hz Lamp Flux:984.694x1 lm		
NAME: TLS-R25LAFBS500-H20NW8X-DC	TYPE:	WEIGHT:
SPEC.: TLS-R25LAFBS500-H20NW8X-DC	DIM.: 500*25*25mm	SERIAL No.:
MFR.: COLORS	SUR.:500*25mm	Shielding Angle:

Flux out:229.8 lm



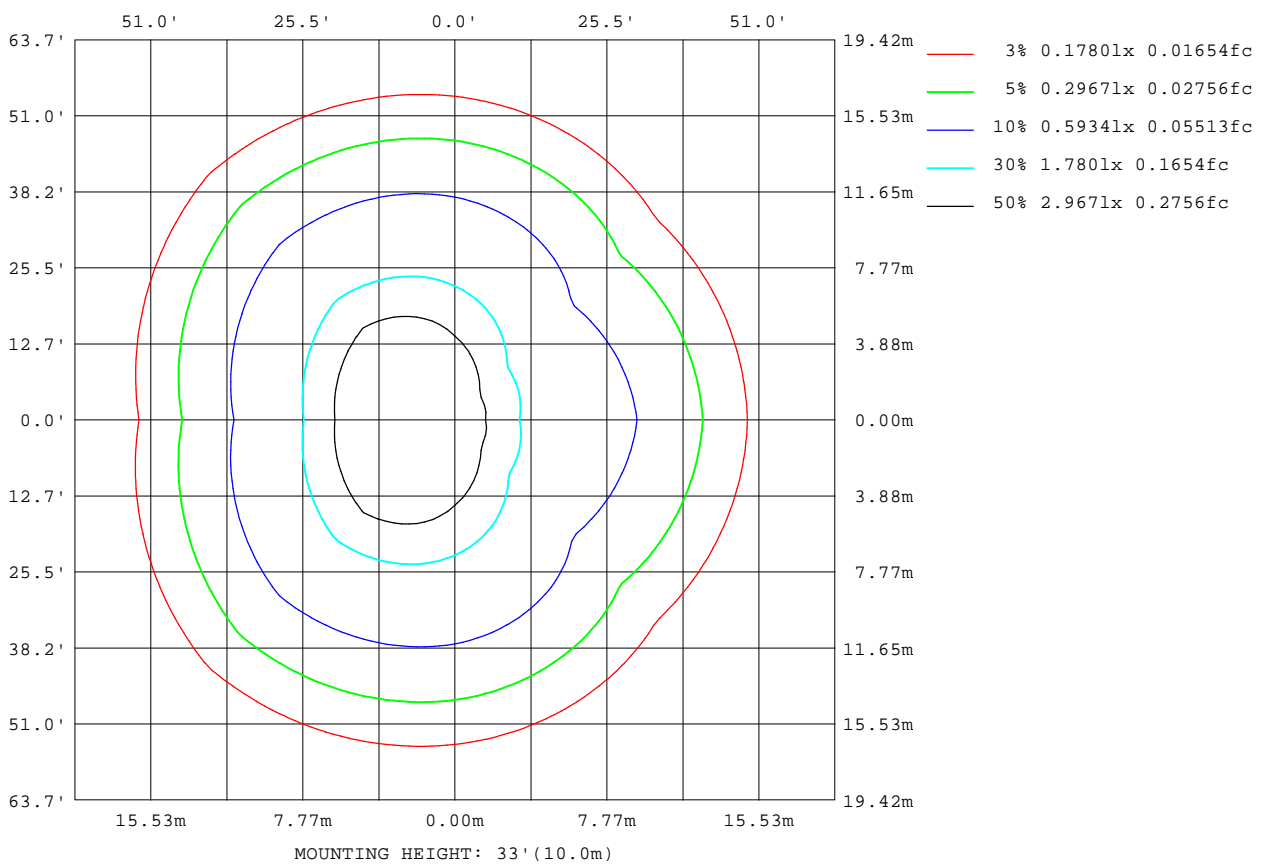
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-09-15

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.950m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

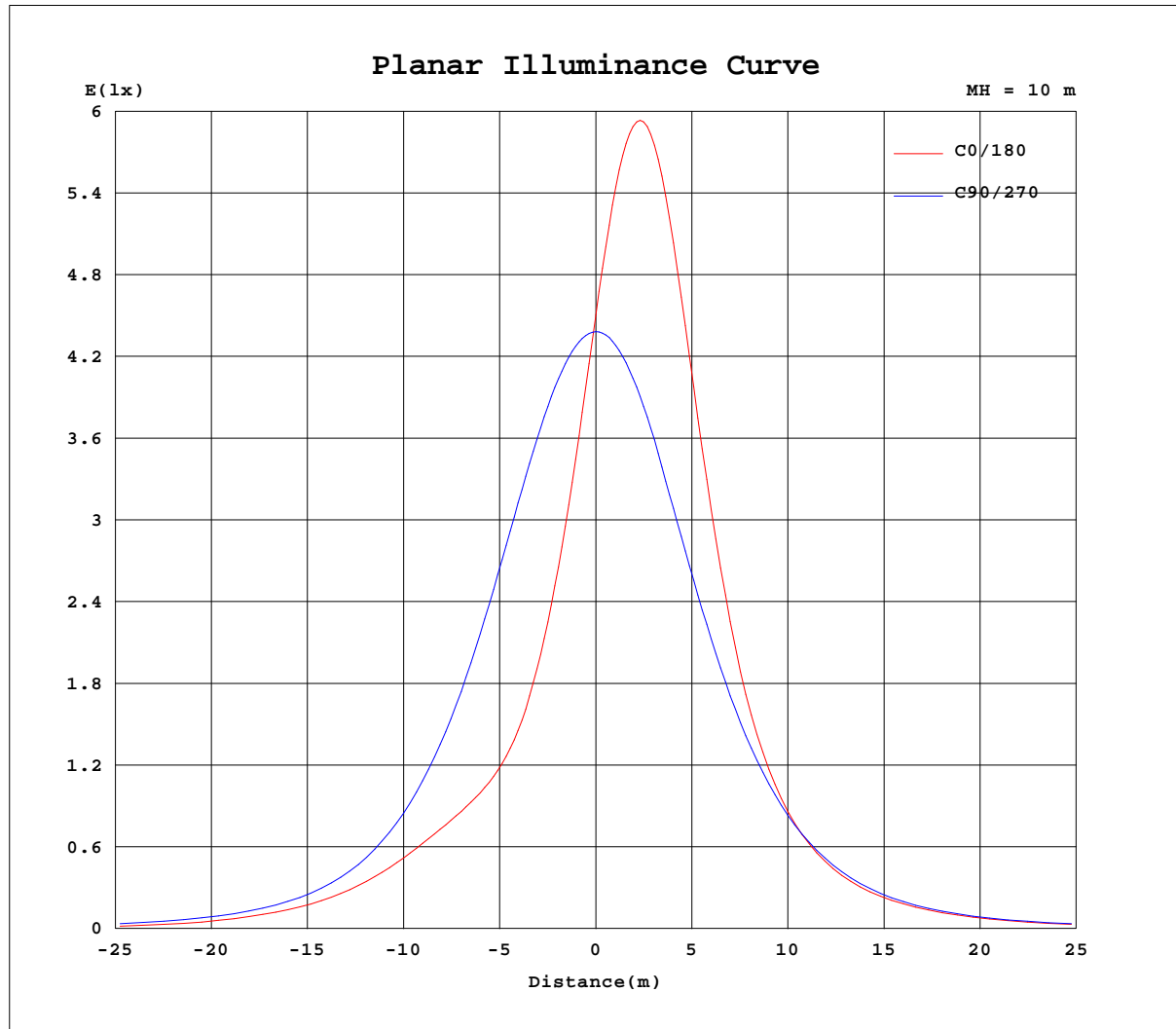
Test:U:48.00V I:0.1850A P:8.880W PF:1.000 Freq:49.99Hz Lamp Flux:984.694x1 lm		
NAME: TLS-R25LAFBS500-H20NW8X-DC	TYPE:	WEIGHT:
SPEC.: TLS-R25LAFBS500-H20NW8X-DC	DIM.: 500*25*25mm	SERIAL No.:
MFR.: COLORS	SUR.:500*25mm	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-09-15

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.950m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: JYH
Test Date: 2020-09-15

deg Range: 0 - 180DEG
deg Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 10.950m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:48.00V I:0.1850A P:8.880W PF:1.000 Freq:49.99Hz Lamp Flux:984.694x1 lm		
NAME: TLS-R25LAFBS500-H20NW8X-DC	TYPE:	WEIGHT:
SPEC.: TLS-R25LAFBS500-H20NW8X-DC	DIM.: 500*25*25mm	SERIAL No.:
MFR.: COLORS	SUR.:500*25mm	Shielding Angle:

Table--1

UNIT: cd

C(DEC) g (DEC)	0	45	90	135	180	225	270	315										
0	451	441	438	432	451	441	438	432										
5	366	377	436	494	537	504	436	369										
10	293	320	429	552	611	559	429	313										
15	236	271	417	594	653	598	417	265										
20	194	229	400	611	648	613	396	224										
25	170	195	378	599	595	599	373	189										
30	160	168	350	559	508	557	344	164										
35	157	149	317	497	410	495	311	145										
40	155	134	280	423	317	420	275	132										
45	147	123	241	344	244	344	236	122										
50	132	112	198	273	187	273	196	112										
55	109	99.3	158	211	144	210	157	99.1										
60	84.4	83.7	121	159	110	156	120	82.6										
65	53.6	66.1	89.6	115	79.8	113	87.8	65.2										
70	29.5	47.8	62.9	78.7	48.8	77.0	61.2	47.6										
75	10.4	26.3	40.9	48.3	25.9	47.2	39.9	26.2										
80	3.59	9.41	23.7	25.0	13.5	23.9	23.2	9.00										
85	0.92	1.96	10.6	9.87	4.07	8.76	10.3	1.80										
90	0.46	0.81	1.05	2.46	0.51	0.91	0.84	1.51										
95	0.34	0.62	0.72	1.17	0.23	0.26	0.31	1.43										
100	0.38	0.76	0.71	0.82	0.29	0.29	0.51	1.14										
105	0.62	1.10	0.76	0.84	0.42	0.51	0.82	1.35										
110	1.05	1.61	1.07	1.02	0.69	0.73	1.25	1.71										
115	1.53	2.24	1.60	1.21	1.04	0.93	1.78	2.31										
120	2.04	2.98	2.19	1.39	1.40	1.10	2.42	3.06										
125	2.66	3.83	2.83	1.56	1.68	1.25	3.09	3.92										
130	3.40	4.82	3.37	1.74	1.91	1.40	3.76	4.95										
135	4.35	5.88	3.85	1.92	2.03	1.58	4.37	6.05										
140	5.49	6.85	4.24	2.12	2.10	1.80	4.90	7.19										
145	6.67	7.55	4.50	2.39	2.16	2.09	5.30	8.20										
150	7.77	7.76	4.68	2.70	2.26	2.44	5.59	8.82										
155	8.67	7.68	4.80	3.11	2.53	2.88	5.76	9.04										
160	9.14	7.27	4.90	3.65	2.97	3.40	5.80	8.87										
165	9.05	6.60	5.01	4.22	3.59	3.93	5.81	8.32										
170	7.83	6.03	5.52	4.86	4.30	4.46	5.83	7.62										
175	6.01	6.01	6.16	5.77	4.53	5.13	6.22	7.15										
180	5.48	6.08	6.71	6.94	5.43	6.07	6.73	6.97										

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-09-15

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.950m [K=1.0000]
Remarks: