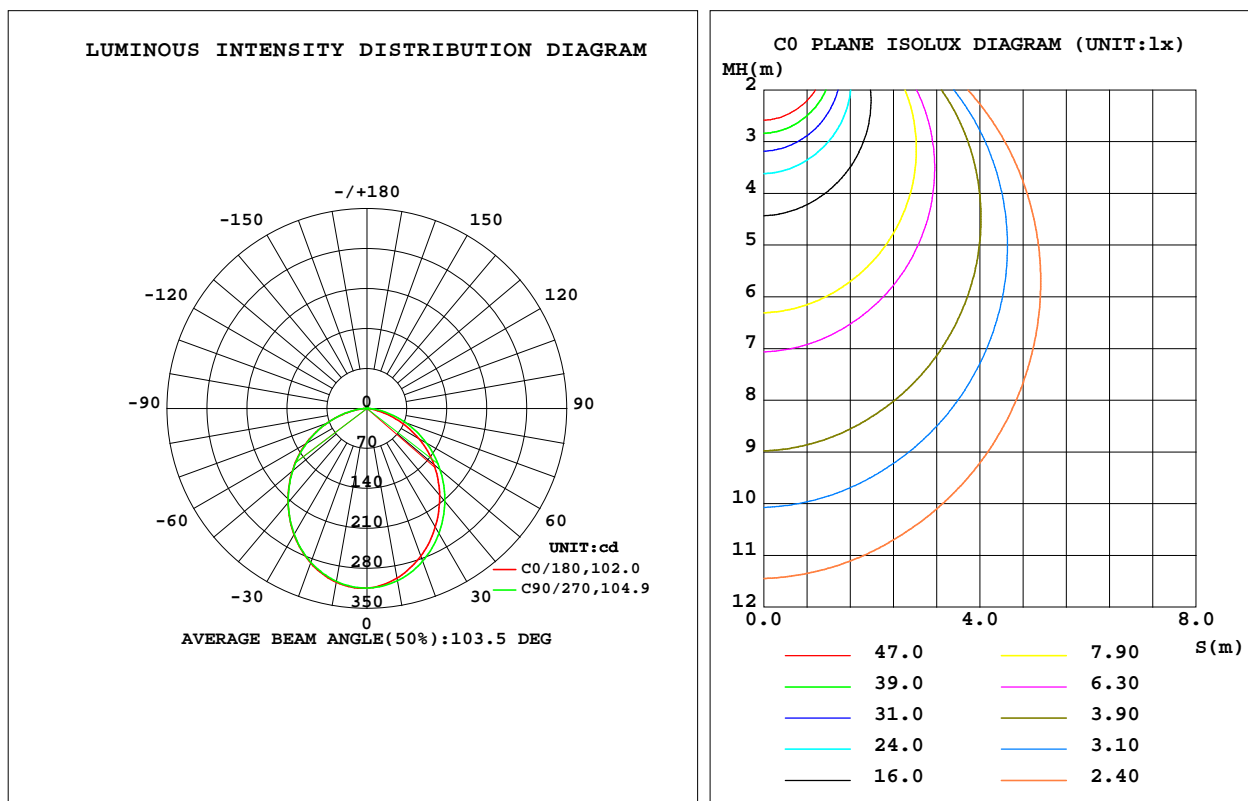


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:48.00V I:0.1800A P:8.640W PF:1.000 Freq:49.99Hz Lamp Flux:815.205x1 lm		
NAME: TLS-R25FDXBS500-H20NW8X-DC	TYPE:	WEIGHT:
SPEC.: TLS-R25FDXBS500-H20NW8X-DC	DIM.: 500*25*25mm	SERIAL No.:
MFR.: COLORS	SUR.:500*25mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 94.35 lm/W			
MODEL	TLS-R25FDXBS500	I _{max} (cd)	314.8	S/MH(C0/180)	1.15
NOMINAL POWER(W)	10	LOR(%)	100.0	S/MH(C90/270)	1.21
RATED VOLTAGE(V)	48	TOTAL FLUX(lm)	815.21	h UP,DN(C0-180)	0.8,48.4
NOMINAL FLUX(lm)	815.205	CIE CLASS	DIRECT	h UP,DN(C180-360)	0.8,50.0
LAMPS INSIDE	1	h up(%)	1.6	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	48	h down(%)	98.4	CIBSE SHR MAX	1.35



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:

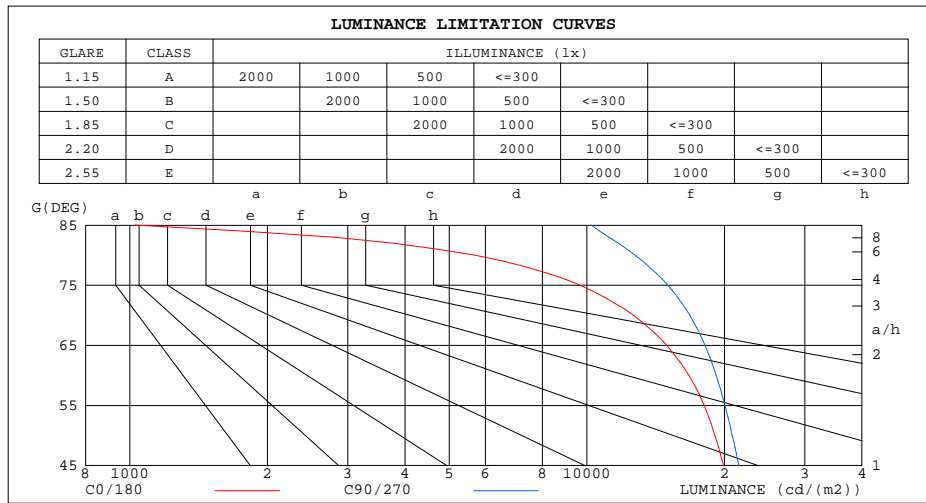
g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	301.9	303.7	306.4	308.2	309.0	308.3	307.4	303.9	0- 10	29.61	29.61	3.63,3.63
20	275.3	278.6	284.8	287.4	288.1	287.7	286.7	278.8	10- 20	83.51	113.1	13.9,13.9
30	239.6	244.2	252.2	255.1	255.4	255.5	254.7	244.6	20- 30	123.4	236.5	29,29
40	198.2	203.2	212.1	215.1	215.2	215.5	214.8	203.7	30- 40	144.2	380.7	46.7,46.7
50	153.2	158.7	167.3	170.8	171.0	171.1	170.0	159.0	40- 50	144.9	525.5	64.5,64.5
60	104.5	111.7	119.9	124.2	123.9	124.1	122.4	111.8	50- 60	126.7	652.2	80,80
70	54.09	62.73	71.88	75.47	73.52	75.24	73.87	62.48	60- 70	92.30	744.5	91.3,91.3
80	12.35	18.81	27.66	28.50	26.81	28.15	29.07	18.32	70- 80	47.74	792.3	97.2,97.2
90	0.6558	0.7610	0.9039	1.155	0.2068	0.4944	0.7464	0.2213	80- 90	10.01	802.3	98.4,98.4
100	0.6935	0.8286	0.8217	0.7283	0.3553	0.3999	0.5760	0.5944	90-100	0.5616	802.9	98.5,98.5
110	1.341	1.403	1.228	1.169	1.018	0.9403	1.383	1.248	100-110	0.9339	803.8	98.6,98.6
120	2.083	2.132	2.184	1.824	1.704	1.456	2.379	2.029	110-120	1.581	805.4	98.8,98.8
130	2.750	2.873	2.951	2.439	2.312	1.937	3.220	2.864	120-130	2.089	807.5	99,99
140	3.378	3.508	3.393	3.013	2.826	2.516	3.761	3.632	130-140	2.298	809.8	99.3,99.3
150	3.807	3.799	3.599	3.495	3.261	3.085	3.971	4.247	140-150	2.180	811.9	99.6,99.6
160	4.261	3.767	3.641	3.968	3.701	3.626	3.978	4.415	150-160	1.754	813.7	99.8,99.8
170	4.324	3.682	3.934	4.188	3.855	3.774	3.981	4.308	160-170	1.129	814.8	100,100
180	3.754	4.262	4.803	4.809	3.754	4.255	4.809	4.796	170-180	0.3877	815.2	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:0.1800A P:8.640W PF:1.000 Freq:49.99Hz Lamp Flux:815.205x1 lm		
NAME: TLS-R25FDXBS500-H20NW8X-DC	TYPE:	WEIGHT:
SPEC.: TLS-R25FDXBS500-H20NW8X-DC	DIM.: 500*25*25mm	SERIAL No.:
MFR.: COLORS	SUR.: 500*25mm	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	1025	10225
80	5690	12742
75	9668	15047
70	12651	16814
65	14961	18142
60	16722	19182
55	18068	20065
50	19070	20817
45	19923	21504

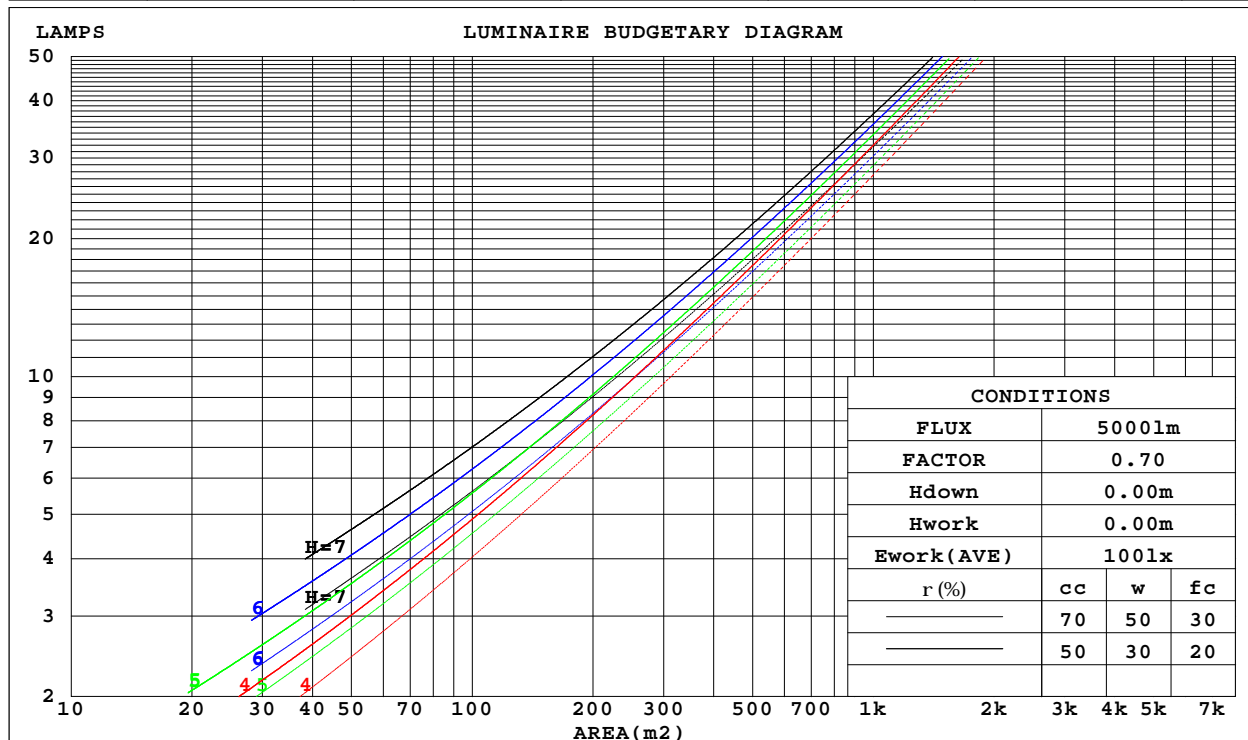
C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: JYH
 Test Date: 2020-09-15

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:0.1800A P:8.640W PF:1.000 Freq:49.99Hz Lamp Flux:815.205x1 lm		
NAME: TLS-R25FDXBS500-H20NW8X-DC	TYPE:	WEIGHT:
SPEC.: TLS-R25FDXBS500-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
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:0.1800A P:8.640W PF:1.000 Freq:49.99Hz Lamp Flux:815.205x1 lm		
NAME: TLS-R25FDXBS500-H20NW8X-DC	TYPE:	WEIGHT:
SPEC.:TLS-R25FDXBS500-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	.294	.167	.053	.286	.163	.052	.272	.156	.050	.259	.149	.048	.247	.143	.046	
2.0	.279	.153	.047	.273	.150	.046	.260	.145	.045	.249	.140	.044	.238	.135	.042	
3.0	.260	.139	.041	.254	.136	.041	.243	.132	.040	.233	.128	.039	.224	.124	.038	
4.0	.241	.125	.037	.236	.124	.037	.226	.120	.036	.217	.117	.035	.209	.113	.035	
5.0	.224	.114	.033	.219	.113	.033	.211	.110	.032	.202	.107	.032	.195	.104	.031	
6.0	.208	.104	.030	.204	.103	.030	.196	.101	.029	.189	.098	.029	.182	.096	.028	
7.0	.194	.096	.027	.191	.095	.027	.184	.093	.027	.177	.091	.026	.171	.089	.026	
8.0	.182	.089	.025	.179	.088	.025	.172	.086	.025	.166	.084	.024	.161	.083	.024	
9.0	.171	.083	.023	.168	.082	.023	.162	.080	.023	.157	.079	.022	.152	.077	.022	
10.0	.161	.077	.021	.158	.076	.021	.153	.075	.021	.148	.073	.021	.143	.072	.021	

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	.173	.173	.173	.118	.118	.118	.068	.068	.068	.022	.022	.022	
1.0	.191	.168	.148	.164	.145	.127	.112	.099	.088	.064	.058	.051	.021	.019	.017	
2.0	.183	.144	.112	.157	.124	.097	.107	.086	.067	.062	.050	.040	.020	.016	.013	
3.0	.175	.127	.088	.150	.109	.076	.103	.076	.054	.059	.044	.032	.019	.014	.010	
4.0	.167	.113	.072	.144	.098	.062	.099	.068	.044	.057	.040	.026	.018	.013	.009	
5.0	.160	.103	.061	.137	.089	.053	.095	.062	.037	.055	.036	.022	.018	.012	.007	
6.0	.153	.094	.052	.131	.082	.046	.091	.057	.032	.053	.034	.019	.017	.011	.006	
7.0	.146	.087	.046	.126	.076	.040	.087	.053	.029	.050	.031	.017	.016	.010	.006	
8.0	.140	.082	.042	.120	.071	.036	.083	.050	.026	.048	.029	.015	.016	.010	.005	
9.0	.134	.077	.038	.115	.067	.033	.080	.047	.024	.047	.028	.014	.015	.009	.005	
10.0	.128	.072	.035	.111	.063	.031	.077	.044	.022	.045	.026	.013	.015	.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:0.1800A P:8.640W PF:1.000 Freq:49.99Hz Lamp Flux:815.205x1 lm											
NAME: TLS-R25FDXBS500-H20NW8X-DC						TYPE:		WEIGHT:			
SPEC.:TLS-R25FDXBS500-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	23.2	24.7	23.5	24.9	25.2	23.7	25.2	24.0	25.4	25.6	
	3H	24.3	25.7	24.7	26.0	26.2	25.1	26.4	25.4	26.7	27.0
	4H	24.7	25.9	25.0	26.2	26.5	25.6	26.9	26.0	27.2	27.5
	6H	24.7	25.9	25.1	26.2	26.6	26.0	27.2	26.3	27.5	27.8
	8H	24.7	25.9	25.1	26.2	26.5	26.0	27.2	26.4	27.5	27.8
	12H	24.7	25.8	25.0	26.1	26.4	26.1	27.2	26.5	27.5	27.9
4H	2H	23.8	25.1	24.2	25.4	25.7	24.2	25.5	24.5	25.7	26.0
	3H	25.1	26.2	25.5	26.5	26.9	25.7	26.9	26.1	27.2	27.5
	4H	25.5	26.5	25.9	26.8	27.2	26.4	27.4	26.7	27.7	28.1
	6H	25.6	26.5	26.1	26.9	27.3	26.8	27.7	27.2	28.1	28.5
	8H	25.6	26.5	26.1	26.9	27.3	26.9	27.7	27.3	28.1	28.6
	12H	25.6	26.4	26.1	26.8	27.2	27.0	27.8	27.4	28.2	28.6
8H	4H	25.7	26.5	26.1	26.9	27.3	26.5	27.3	26.9	27.7	28.1
	6H	25.9	26.6	26.4	27.0	27.5	27.0	27.7	27.5	28.1	28.6
	8H	25.9	26.6	26.4	27.0	27.5	27.2	27.8	27.7	28.2	28.7
	12H	25.9	26.4	26.4	26.9	27.4	27.3	27.8	27.8	28.3	28.8
12H	4H	25.7	26.4	26.1	26.8	27.3	26.4	27.2	26.9	27.6	28.1
	6H	25.9	26.5	26.4	27.0	27.5	27.0	27.6	27.5	28.1	28.5
	8H	26.0	26.5	26.5	27.0	27.5	27.2	27.7	27.7	28.2	28.7
Variations with the observer position at spacings:											
S = 1.0H		+ 0.2 / - 0.3					+ 0.2 / - 0.2				
1.5H		+ 0.2 / - 0.4					+ 0.2 / - 0.3				
2.0H		+ 0.3 / - 0.5					+ 0.3 / - 0.4				

CIE Pub.117, 815.2 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.7)

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:0.1800A P:8.640W PF:1.000 Freq:49.99Hz Lamp Flux:815.205x1 lm		
NAME: TLS-R25FDXBS500-H20NW8X-DC	TYPE:	WEIGHT:
SPEC.:TLS-R25FDXBS500-H20NW8X-DC	DIM.: 500*25*25mm	SERIAL No.:
MFR.: COLORS	SUR.:500*25mm	Shielding Angle:

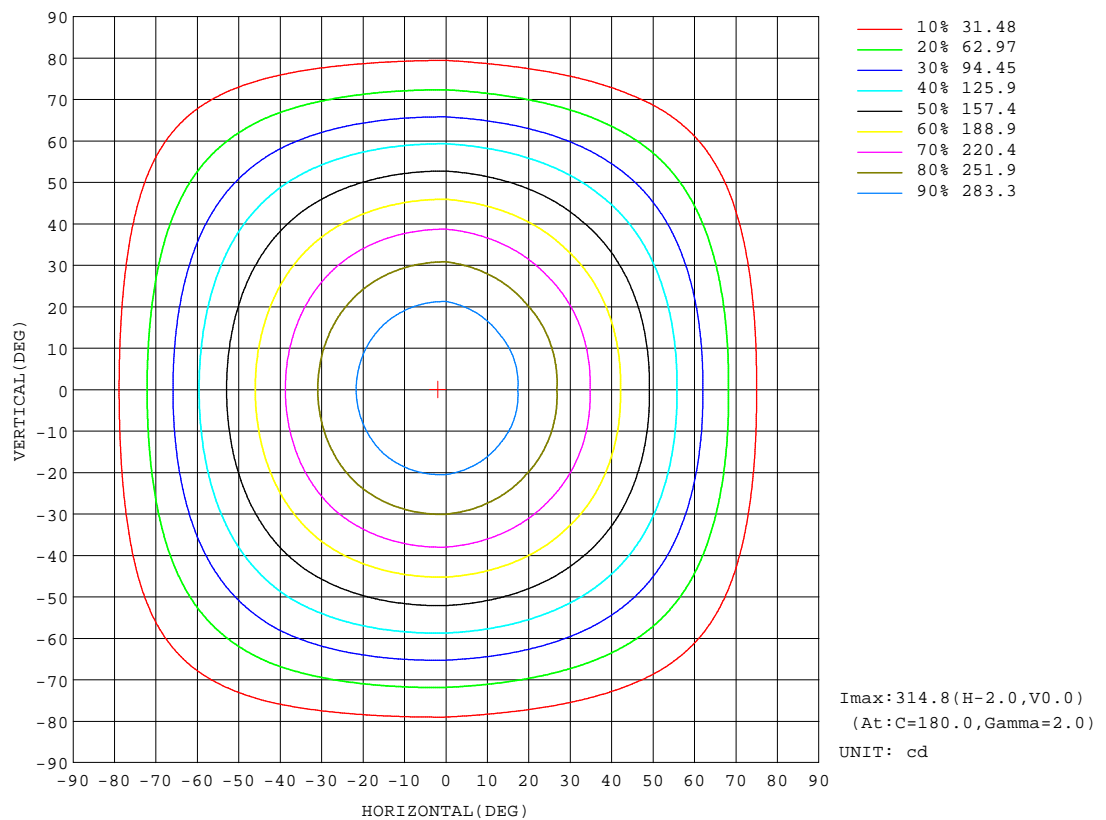
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	59	47	41	58	47	40	57	46	40	34
0.80	69	57	50	68	57	50	66	56	50	43
1.00	77	66	59	76	66	59	73	67	58	51
1.25	84	74	67	83	73	67	80	72	66	58
1.50	89	79	73	87	78	72	84	77	71	63
2.00	96	87	81	94	86	80	90	84	79	71
2.50	99	92	86	97	90	85	93	88	83	75
3.00	103	96	91	100	94	90	96	91	87	79
4.00	107	101	97	104	99	95	100	96	92	83
5.00	109	104	100	106	102	99	102	98	95	86
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:0.1800A P:8.640W PF:1.000 Freq:49.99Hz Lamp Flux:815.205x1 lm		
NAME: TLS-R25FDXBS500-H20NW8X-DC	TYPE:	WEIGHT:
SPEC.: TLS-R25FDXBS500-H20NW8X-DC	DIM.: 500*25*25mm	SERIAL No.:
MFR.: COLORS	SUR.: 500*25mm	Shielding Angle:



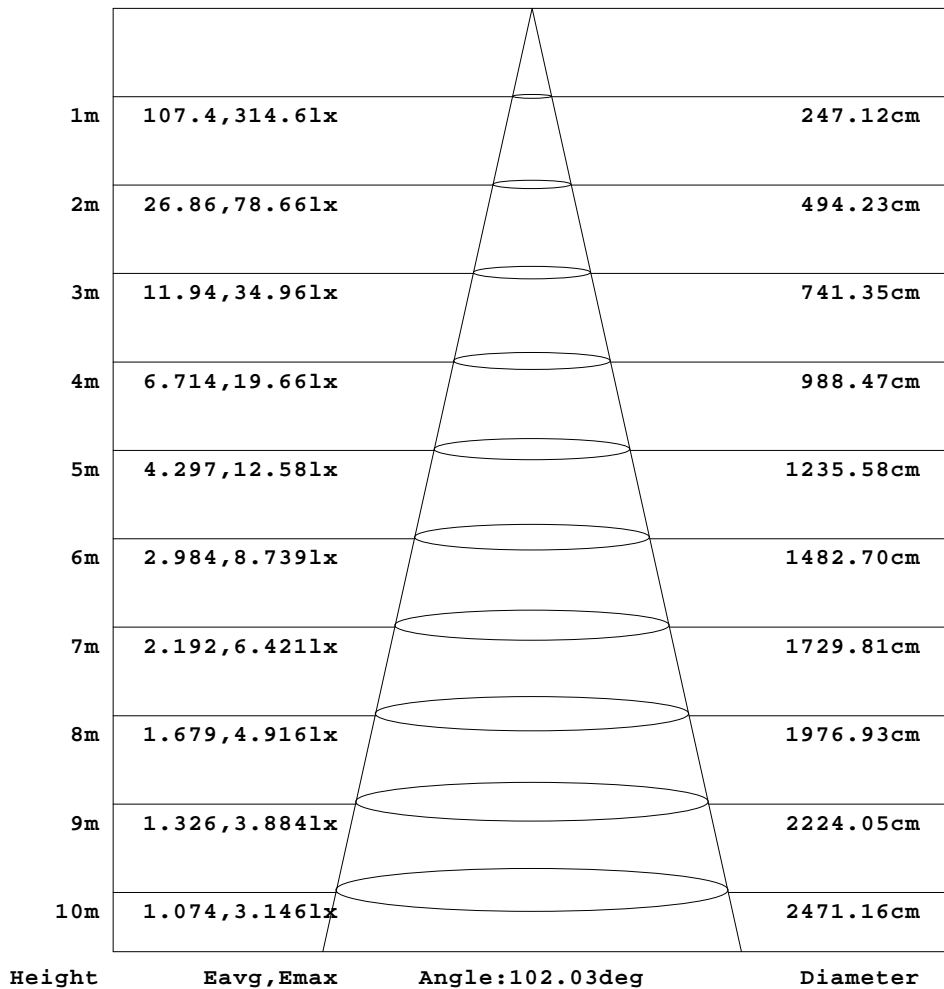
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: JYH
Test Date: 2020-09-15

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:0.1800A P:8.640W PF:1.000 Freq:49.99Hz Lamp Flux:815.205x1 lm		
NAME: TLS-R25FDXBS500-H20NW8X-DC	TYPE:	WEIGHT:
SPEC.: TLS-R25FDXBS500-H20NW8X-DC	DIM.: 500*25*25mm	SERIAL No.:
MFR.: COLORS	SUR.:500*25mm	Shielding Angle:

Flux out:552.9 lm



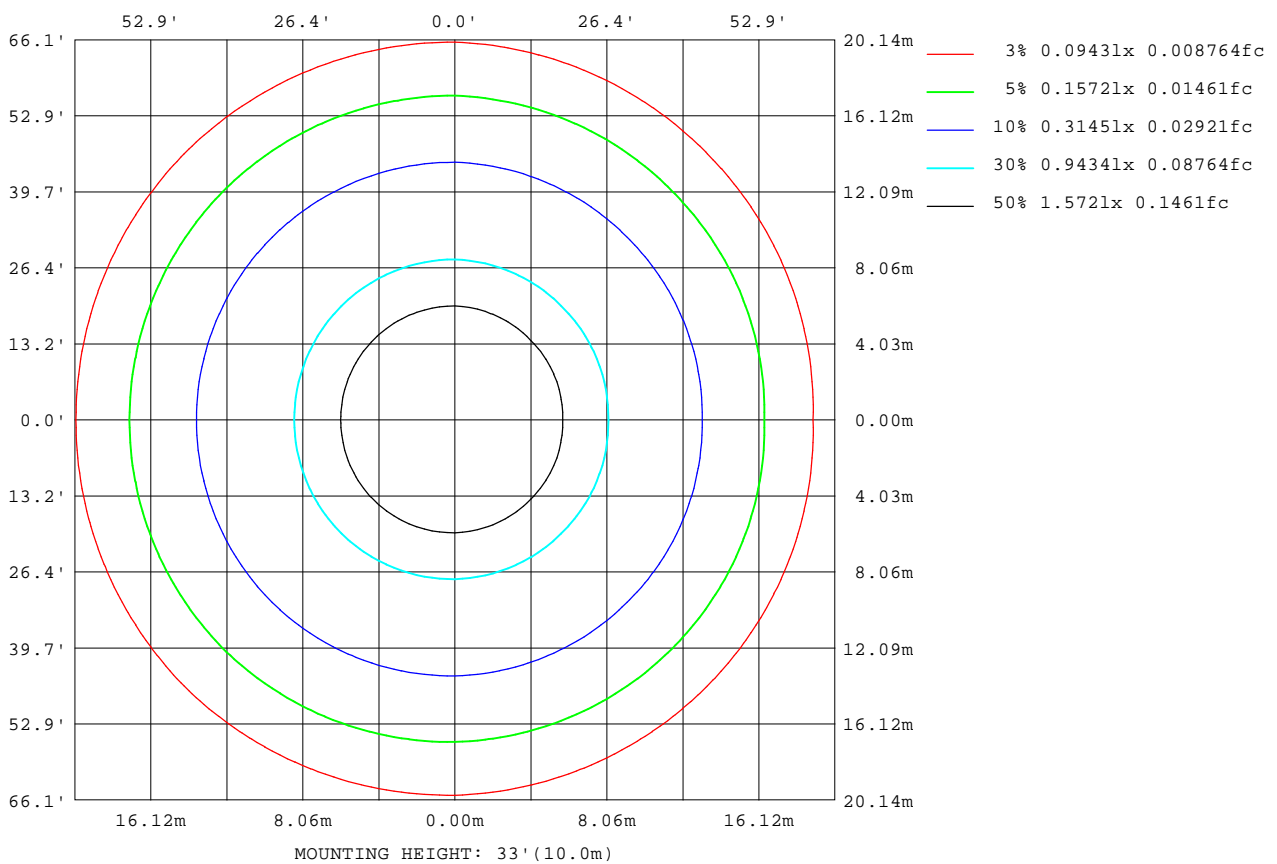
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

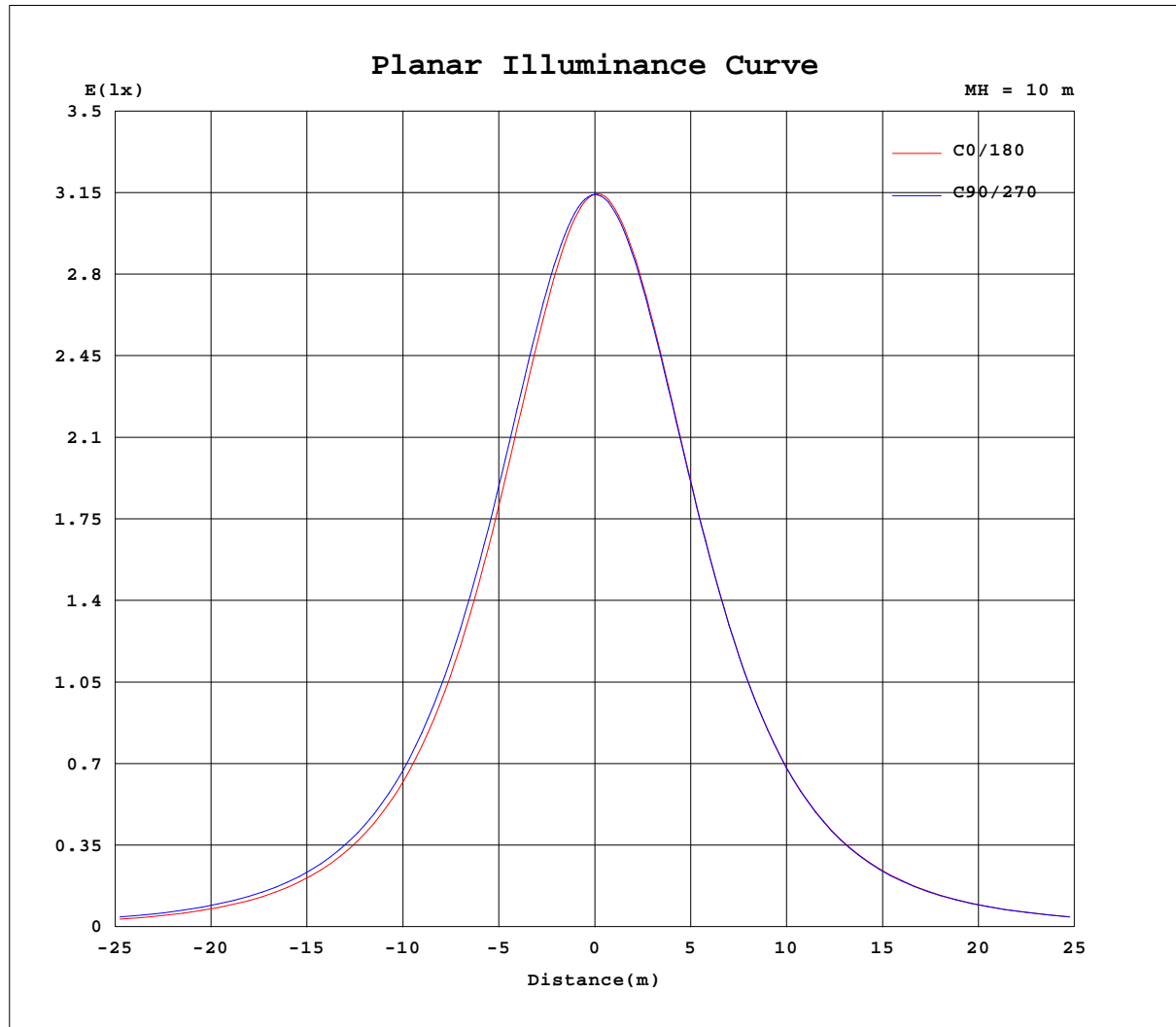
Test:U:48.00V I:0.1800A P:8.640W PF:1.000 Freq:49.99Hz Lamp Flux:815.205x1 lm		
NAME: TLS-R25FDXBS500-H20NW8X-DC	TYPE:	WEIGHT:
SPEC.: TLS-R25FDXBS500-H20NW8X-DC	DIM.: 500*25*25mm	SERIAL No.:
MFR.: COLORS	SUR.:500*25mm	Shielding Angle:



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

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:

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:0.1800A P:8.640W PF:1.000 Freq:49.99Hz Lamp Flux:815.205x1 lm		
NAME: TLS-R25FDXBS500-H20NW8X-DC	TYPE:	WEIGHT:
SPEC.: TLS-R25FDXBS500-H20NW8X-DC	DIM.: 500*25*25mm	SERIAL No.:
MFR.: COLORS	SUR.:500*25mm	Shielding Angle:

Table--1

UNIT: cd

C(DEG) g (DEG)	0	45	90	135	180	225	270	315										
0	314	314	314	314	314	314	314	314										
5	310	311	312	313	314	313	313	311										
10	302	304	306	308	309	308	307	304										
15	290	293	297	299	300	300	299	293										
20	275	279	285	287	288	288	287	279										
25	258	262	270	272	273	273	272	263										
30	240	244	252	255	255	256	255	245										
35	219	224	233	236	236	236	236	225										
40	198	203	212	215	215	216	215	204										
45	176	181	190	193	193	194	193	182										
50	153	159	167	171	171	171	170	159										
55	130	135	144	148	148	148	146	136										
60	105	112	120	124	124	124	122	112										
65	79.0	87.5	95.8	100	98.9	99.9	98.1	87.4										
70	54.1	62.7	71.9	75.5	73.5	75.2	73.9	62.5										
75	31.3	39.2	48.7	50.9	49.1	50.5	50.5	38.8										
80	12.4	18.8	27.7	28.5	26.8	28.1	29.1	18.3										
85	1.12	4.23	11.1	10.4	8.92	9.86	11.7	3.43										
90	0.66	0.76	0.90	1.15	0.21	0.49	0.75	0.22										
95	0.61	0.71	0.83	0.72	0.15	0.21	0.34	0.29										
100	0.69	0.83	0.82	0.73	0.36	0.40	0.58	0.59										
105	0.95	1.06	0.86	0.90	0.67	0.66	0.94	0.90										
110	1.34	1.40	1.23	1.17	1.02	0.94	1.38	1.25										
115	1.70	1.78	1.71	1.50	1.36	1.24	1.86	1.65										
120	2.08	2.13	2.18	1.82	1.70	1.46	2.38	2.03										
125	2.42	2.52	2.65	2.13	2.02	1.70	2.83	2.47										
130	2.75	2.87	2.95	2.44	2.31	1.94	3.22	2.86										
135	3.07	3.22	3.21	2.73	2.58	2.20	3.53	3.28										
140	3.38	3.51	3.39	3.01	2.83	2.52	3.76	3.63										
145	3.60	3.71	3.52	3.26	3.07	2.85	3.91	3.97										
150	3.81	3.80	3.60	3.50	3.26	3.09	3.97	4.25										
155	4.05	3.81	3.61	3.75	3.48	3.38	3.98	4.33										
160	4.26	3.77	3.64	3.97	3.70	3.63	3.98	4.42										
165	4.46	3.69	3.74	4.10	3.91	3.72	3.97	4.40										
170	4.32	3.68	3.93	4.19	3.86	3.77	3.98	4.31										
175	3.76	3.88	4.38	4.40	3.56	3.94	4.32	4.39										
180	3.75	4.26	4.80	4.81	3.75	4.25	4.81	4.80										

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: