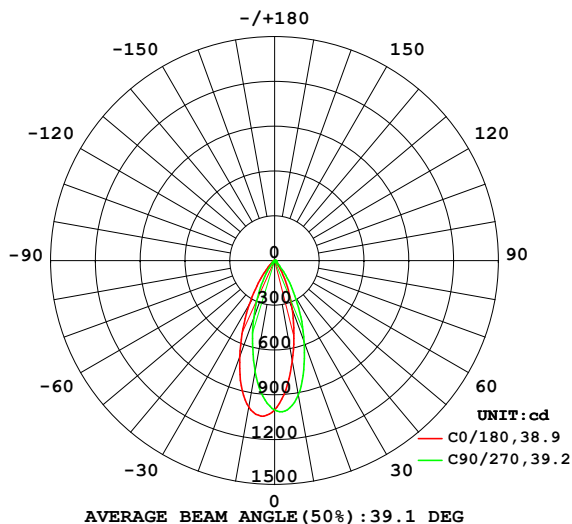


## LUMINAIRE PHOTOMETRIC TEST REPORT

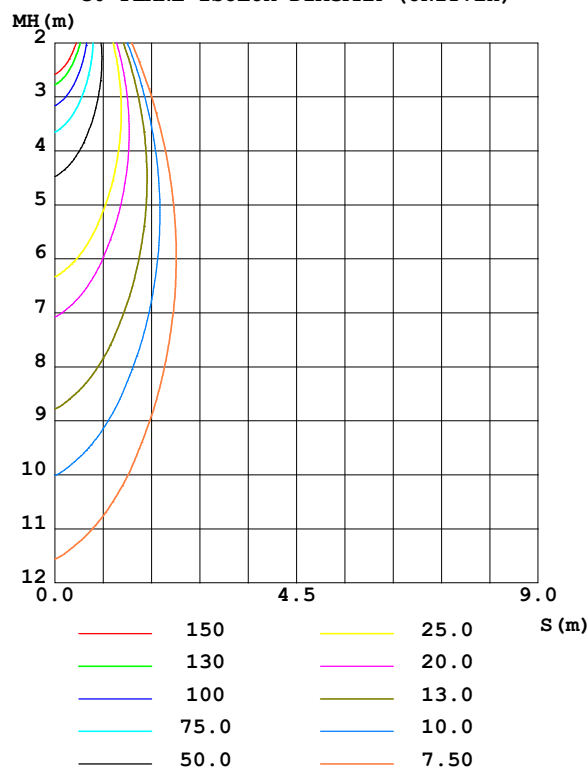
Test:U:119.85V I:0.0645A P:7.4422W PF:0.9630 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:576.673x1 lm		
NAME: VO-GSP3W8-120-D-5WAY	TYPE:	WEIGHT:
SPEC.: 3000K 90	DIM.:	SERIAL No.:
MFR.: VOTATEC	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 77.49 lm/W			
MODEL	VO-GSP3W8-120-D-5WAY	Imax (cd)	1064	S/MH(C0/180)	0.78
NOMINAL POWER(W)	8	LOR(%)	100.0	S/MH(C90/270)	0.56
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	576.67	$\eta$ UP,DN(C0-180)	0.0,53.6
NOMINAL FLUX(lm)	576.673	CIE CLASS	DIRECT	$\eta$ UP,DN(C180-360)	0.0,46.4
LAMPS INSIDE	1	$\eta$ up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE(V)	120	$\eta$ 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: 2024-04-01

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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:

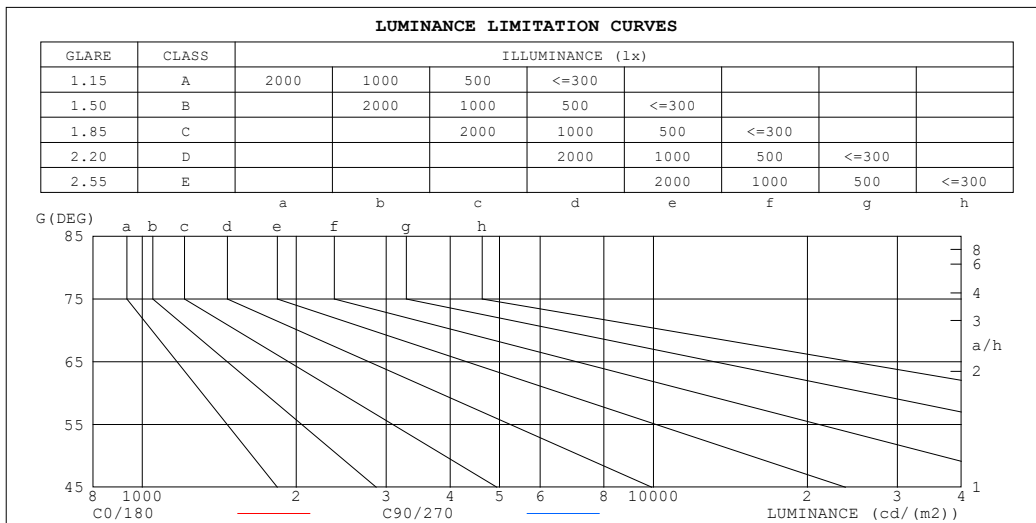
$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	683.4	780.0	913.8	1012	997.2	873.4	756.1	685.2	0- 10	87.57	87.57	15.2,15.2
20	347.3	431.2	581.1	702.6	684.3	538.6	411.4	346.0	10- 20	186.2	273.7	47.5,47.5
30	121.7	168.7	273.8	365.0	340.7	249.0	162.4	122.1	20- 30	161.1	434.9	75.4,75.4
40	29.73	46.04	82.41	132.4	113.7	76.60	40.82	30.23	30- 40	83.76	518.6	89.9,89.9
50	13.21	17.14	22.63	32.56	29.32	22.58	16.28	13.67	40- 50	29.70	548.3	95.1,95.1
60	8.024	9.759	11.81	14.50	13.71	11.77	9.698	8.334	50- 60	13.35	561.7	97.4,97.4
70	4.478	6.408	7.247	8.668	8.561	7.960	5.668	4.575	60- 70	8.603	570.3	98.9,98.9
80	1.250	2.317	3.683	4.665	4.566	3.853	2.366	1.517	70- 80	5.057	575.4	99.8,99.8
90	0.0473	0.0400	0.0418	0.0336	0.0244	0.0255	0.0352	0.0365	80- 90	1.319	576.7	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:24.3℃  
Operators:  
Test Date:2024-04-01

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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:119.85V I:0.0645A P:7.4422W PF:0.9630 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:576.673x1 lm		
NAME: VO-GSP3W8-120-D-5WAY	TYPE:	WEIGHT:
SPEC.: 3000K 90	DIM.:	SERIAL No.:
MFR.: VOTATEC	SUR.:	Shielding Angle:



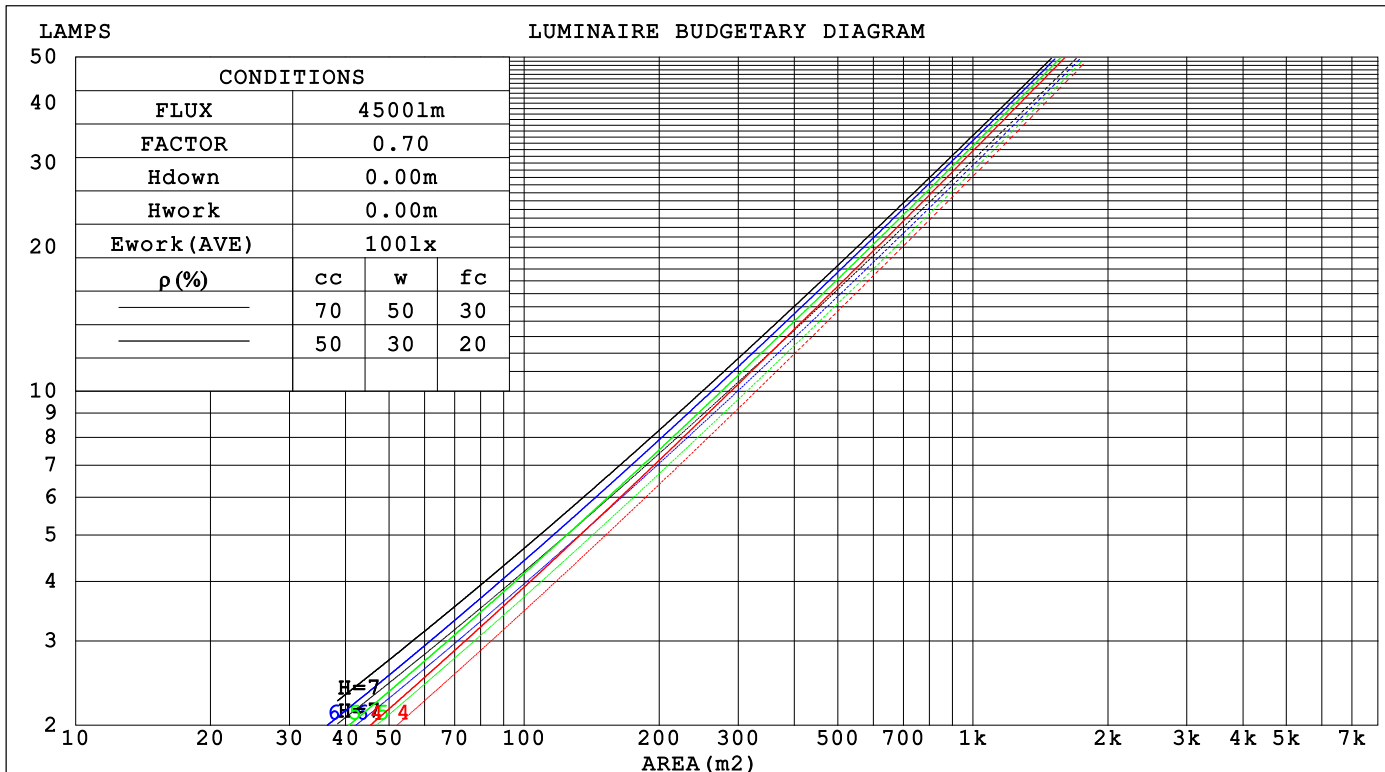
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 24.3°C  
Operators:  
Test Date: 2024-04-01

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:119.85V I:0.0645A P:7.4422W PF:0.9630 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:576.673x1 lm		
NAME: VO-GSP3W8-120-D-5WAY	TYPE:	WEIGHT:
SPEC.: 3000K 90	DIM.:	SERIAL No.:
MFR.: VOTATEC	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															



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:24.3℃  
Operators:  
Test Date:2024-04-01

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:119.85V I:0.0645A P:7.4422W PF:0.9630 Freq:59.98Hz			UTHDi:0.00% ITHDi:0.00% KDisp:0			Lamp Flux:576.673x1 lm		
NAME: VO-GSP3W8-120-D-5WAY			TYPE:			WEIGHT:		
SPEC.: 3000K 90			DIM.:			SERIAL No.:		
MFR.: VOTATEC			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	.180	.102	.032	.173	.099	.031	.161	.092	.029	.149	.086	.028	.138	.080	.026		
2.0	.171	.094	.029	.165	.091	.028	.154	.086	.027	.145	.081	.025	.136	.077	.024		
3.0	.161	.086	.026	.156	.084	.025	.147	.080	.024	.139	.076	.023	.131	.073	.022		
4.0	.152	.079	.023	.148	.077	.023	.140	.074	.022	.133	.071	.022	.126	.069	.021		
5.0	.144	.073	.021	.140	.072	.021	.134	.070	.020	.127	.067	.020	.122	.065	.020		
6.0	.137	.069	.020	.134	.067	.019	.128	.065	.019	.122	.063	.019	.117	.062	.018		
7.0	.130	.064	.018	.127	.063	.018	.122	.062	.018	.117	.060	.017	.113	.058	.017		
8.0	.124	.061	.017	.122	.060	.017	.117	.058	.017	.113	.057	.016	.108	.056	.016		
9.0	.118	.057	.016	.116	.057	.016	.112	.055	.016	.108	.054	.016	.105	.053	.015		
10.0	.113	.054	.015	.111	.054	.015	.108	.053	.015	.104	.052	.015	.101	.051	.015		

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	.147	.135	.124	.100	.093	.086	.058	.054	.050	.018	.017	.016		
2.0	.156	.132	.113	.134	.114	.097	.092	.079	.068	.053	.046	.040	.017	.015	.013		
3.0	.143	.114	.090	.123	.098	.078	.084	.068	.055	.049	.040	.032	.016	.013	.011		
4.0	.133	.099	.073	.114	.085	.063	.078	.060	.045	.045	.035	.026	.015	.011	.009		
5.0	.124	.087	.060	.106	.075	.052	.073	.053	.037	.042	.031	.022	.014	.010	.007		
6.0	.116	.078	.050	.100	.067	.044	.069	.047	.031	.040	.028	.018	.013	.009	.006		
7.0	.109	.070	.043	.094	.061	.037	.065	.043	.026	.038	.025	.016	.012	.008	.005		
8.0	.104	.064	.037	.089	.055	.032	.062	.039	.023	.036	.023	.013	.012	.008	.004		
9.0	.098	.059	.032	.085	.051	.028	.059	.036	.020	.034	.021	.012	.011	.007	.004		
10.0	.094	.054	.028	.081	.047	.024	.056	.033	.017	.033	.020	.010	.011	.006	.003		

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:24.3℃  
Operators:  
Test Date:2024-04-01

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:119.85V I:0.0645A P:7.4422W PF:0.9630 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:576.673x1 lm											
NAME: VO-GSP3W8-120-D-5WAY					TYPE:			WEIGHT:			
SPEC.: 3000K 90					DIM.:			SERIAL No.:			
MFR.: VOTATEC					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	3.5	4.5	3.8	4.6	4.8	6.7	7.6	6.9	7.8	7.9	
	3H	4.0	4.9	4.3	5.1	5.3	7.1	8.0	7.4	8.2	8.4
	4H	4.2	5.0	4.5	5.3	5.5	7.4	8.2	7.6	8.4	8.6
	6H	4.3	5.1	4.6	5.3	5.6	7.6	8.3	7.9	8.6	8.8
	8H	4.3	5.0	4.6	5.3	5.5	7.7	8.4	8.0	8.7	8.9
	12H	4.2	4.9	4.6	5.2	5.5	7.8	8.5	8.1	8.7	9.0
4H 2H	3.8	4.6	4.1	4.8	5.1	6.7	7.5	6.9	7.7	7.9	
	3H	4.5	5.2	4.9	5.5	5.8	7.3	8.0	7.6	8.2	8.5
	4H	4.8	5.5	5.2	5.8	6.1	7.6	8.3	8.0	8.6	8.9
	6H	5.0	5.5	5.4	5.9	6.2	8.0	8.6	8.4	8.9	9.2
	8H	4.9	5.5	5.3	5.8	6.2	8.1	8.7	8.5	9.0	9.4
	12H	4.9	5.4	5.3	5.7	6.1	8.3	8.8	8.7	9.1	9.5
8H 4H	5.0	5.6	5.4	5.9	6.3	7.7	8.2	8.0	8.5	8.9	
	6H	5.3	5.7	5.7	6.1	6.5	8.1	8.5	8.5	8.9	9.3
	8H	5.2	5.6	5.7	6.0	6.5	8.3	8.7	8.8	9.1	9.6
	12H	5.2	5.5	5.7	6.0	6.4	8.5	8.8	9.0	9.3	9.8
12H 4H	5.0	5.5	5.5	5.9	6.3	7.6	8.1	8.0	8.5	8.9	
	6H	5.3	5.7	5.8	6.1	6.5	8.1	8.5	8.5	8.9	9.3
	8H	5.3	5.6	5.8	6.1	6.5	8.3	8.6	8.8	9.1	9.5
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H	+ 0.8 / - 1.0					+ 2.2 / - 1.5					
1.5H	+ 1.4 / - 1.0					+ 3.9 / - 1.4					
2.0H	+ 0.9 / - 0.7					+ 1.9 / - 0.6					

CIE Pub.117, 576.7 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -1.9)  
Area: 0.111111 m2

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:24.3℃  
Operators:  
Test Date:2024-04-01

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:119.85V I:0.0645A P:7.4422W PF:0.9630 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:576.673x1 lm		
NAME: VO-GSP3W8-120-D-5WAY	TYPE:	WEIGHT:
SPEC.: 3000K 90	DIM.:	SERIAL No.:
MFR.: VOTATEC	SUR.:	Shielding Angle:

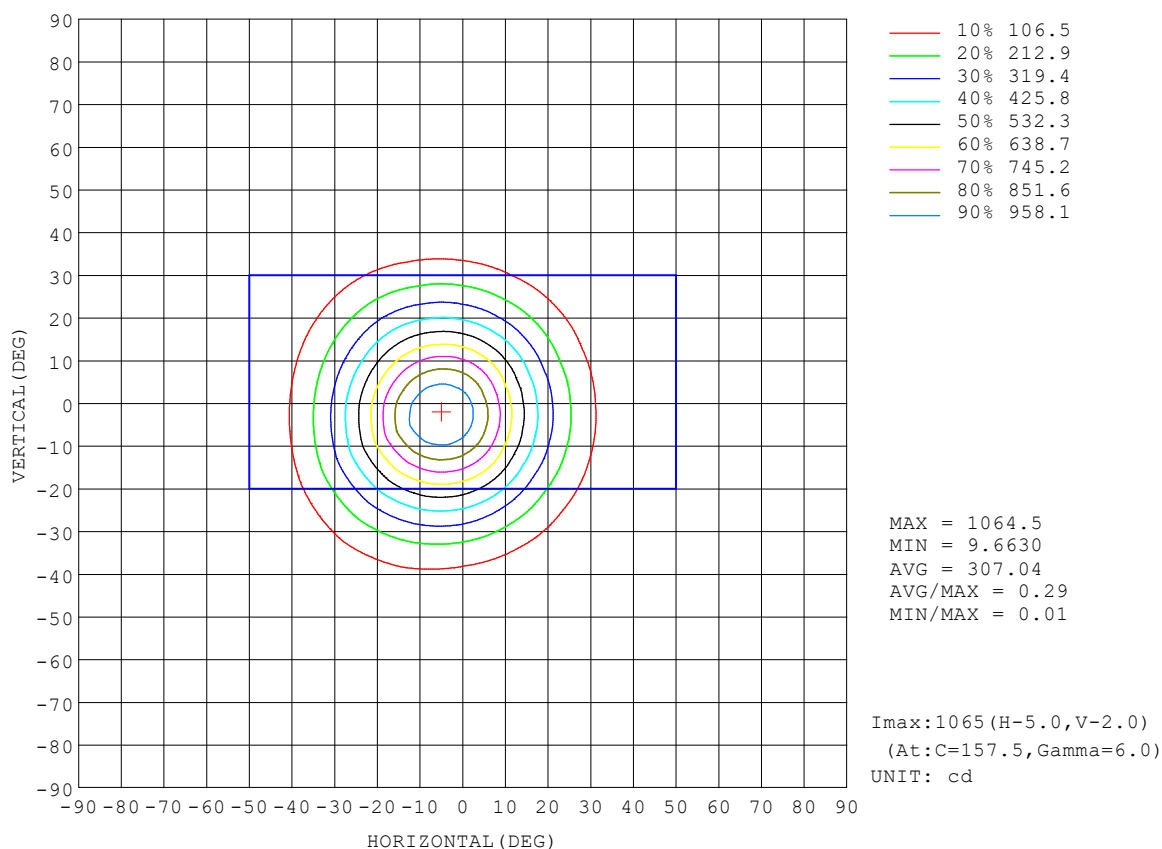
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	85	79	75	85	78	75	84	78	74	71
0.80	93	87	83	92	86	83	91	86	82	78
1.00	98	92	88	97	91	87	95	91	87	83
1.25	102	96	93	101	96	92	99	94	91	87
1.50	105	100	96	103	99	95	101	97	94	90
2.00	108	103	100	106	102	99	103	100	97	92
2.50	109	105	102	108	104	101	105	102	99	93
3.00	111	107	105	109	106	103	106	103	101	95
4.00	113	110	108	111	109	107	108	105	104	97
5.00	115	112	110	112	110	109	108	107	105	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: 2024-04-01

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:119.85V I:0.0645A P:7.4422W PF:0.9630 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:576.673x1 lm		
NAME: VO-GSP3W8-120-D-5WAY	TYPE:	WEIGHT:
SPEC.: 3000K 90	DIM.:	SERIAL No.:
MFR.: VOTATEC	SUR.:	Shielding Angle:



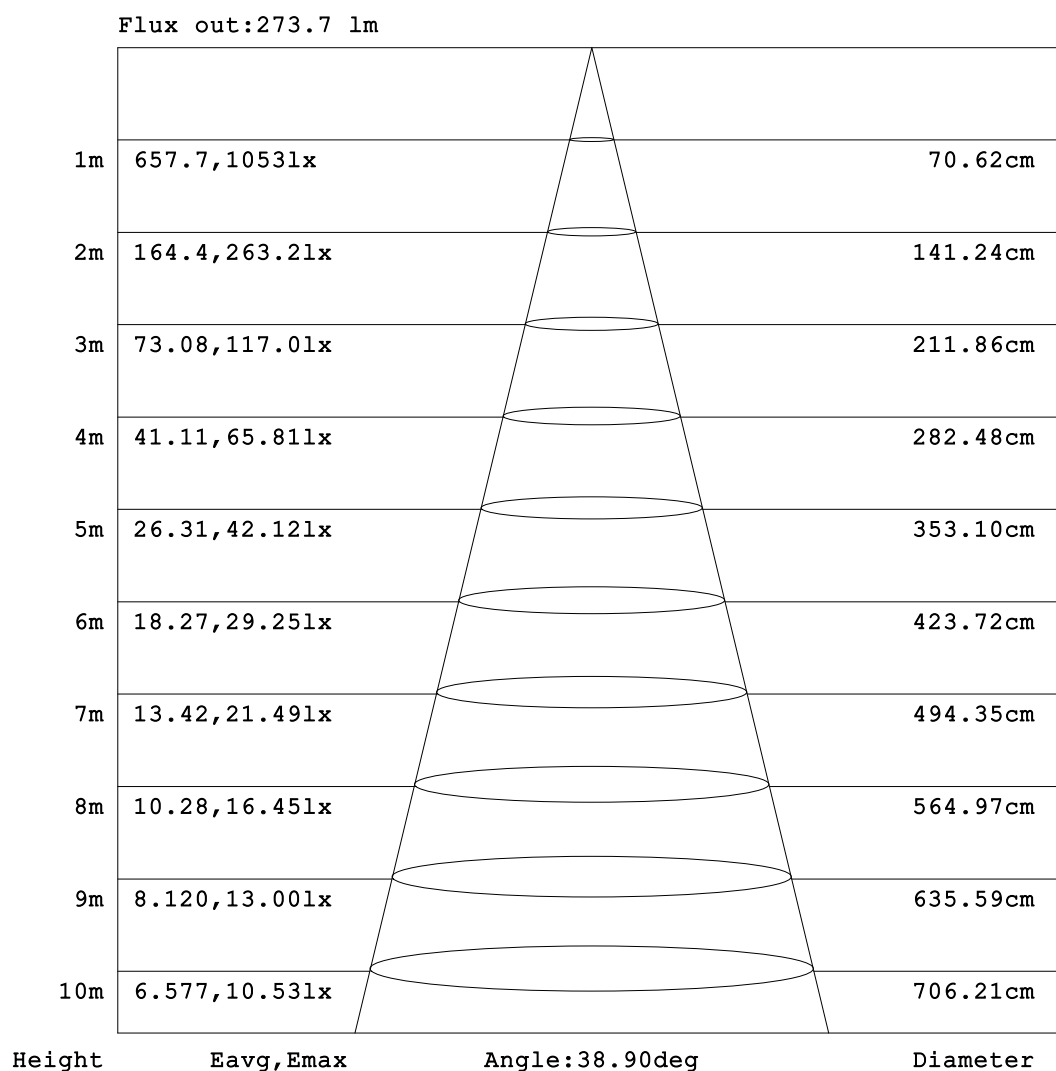
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:24.3℃  
Operators:  
Test Date:2024-04-01

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:119.85V I:0.0645A P:7.4422W PF:0.9630 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:576.673x1 lm		
NAME: VO-GSP3W8-120-D-5WAY	TYPE:	WEIGHT:
SPEC.: 3000K 90	DIM.:	SERIAL No.:
MFR.: VOTATEC	SUR.:	Shielding Angle:



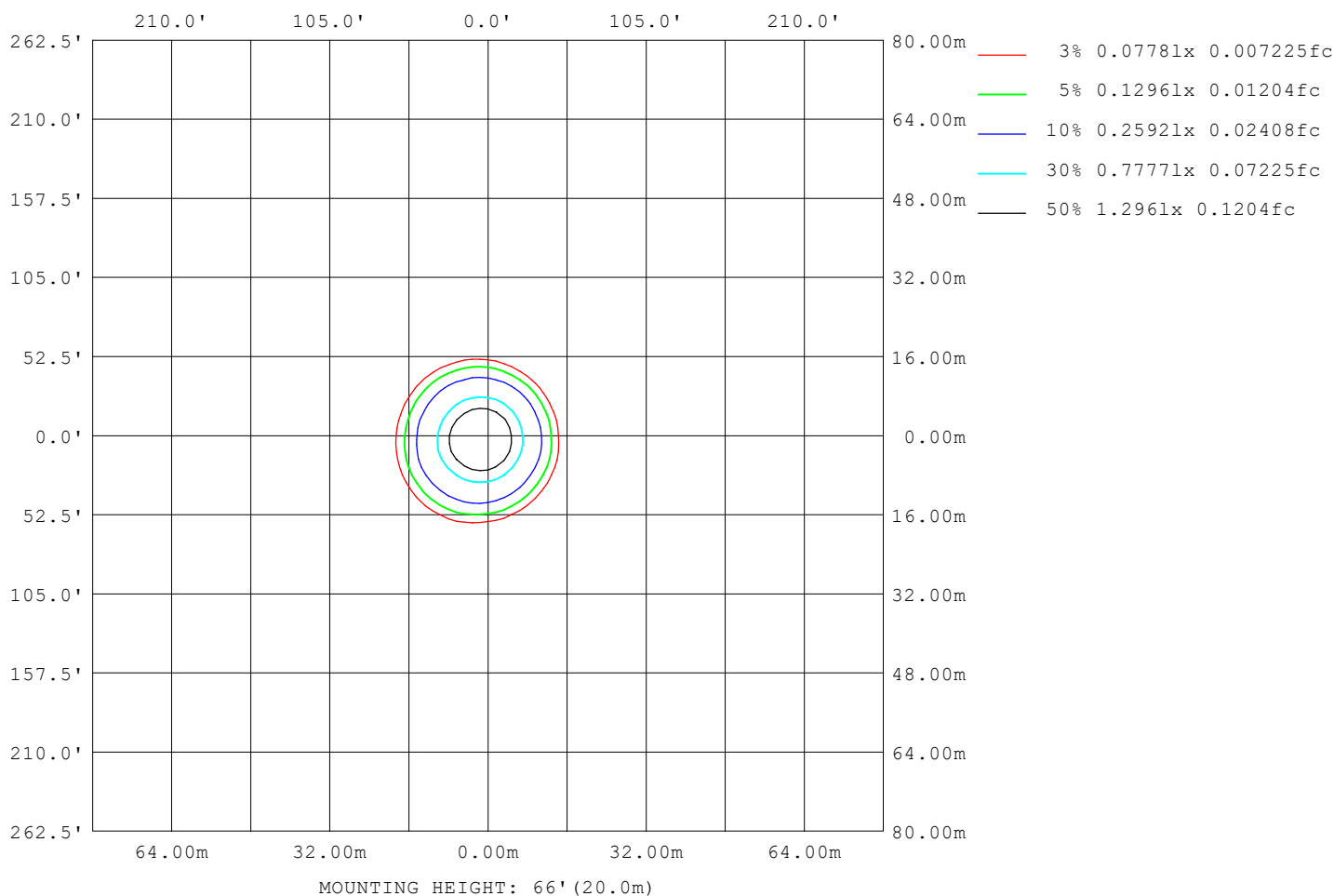
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:24.3℃  
Operators:  
Test Date:2024-04-01

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

<b>Test:</b> U:119.85V I:0.0645A P:7.4422W PF:0.9630 Freq:59.98Hz <b>UTHDi:</b> 0.00% <b>ITHDi:</b> 0.00% <b>KDisp:</b> 0 <b>Lamp Flux:</b> 576.673x1 lm		
<b>NAME:</b> VO-GSP3W8-120-D-5WAY	<b>TYPE:</b>	<b>WEIGHT:</b>
<b>SPEC.:</b> 3000K 90	<b>DIM.:</b>	<b>SERIAL No.:</b>
<b>MFR.:</b> VOTATEC	<b>SUR.:</b>	<b>Shielding Angle:</b>



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature: 24.3°C  
 Operators:  
 Test Date: 2024-04-01

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:119.85V I:0.0645A P:7.4422W PF:0.9630 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:576.673x1 lm		
NAME: VO-GSP3W8-120-D-5WAY	TYPE:	WEIGHT:
SPEC.: 3000K 90	DIM.:	SERIAL No.:
MFR.: VOTATEC	SUR.:	Shielding Angle:

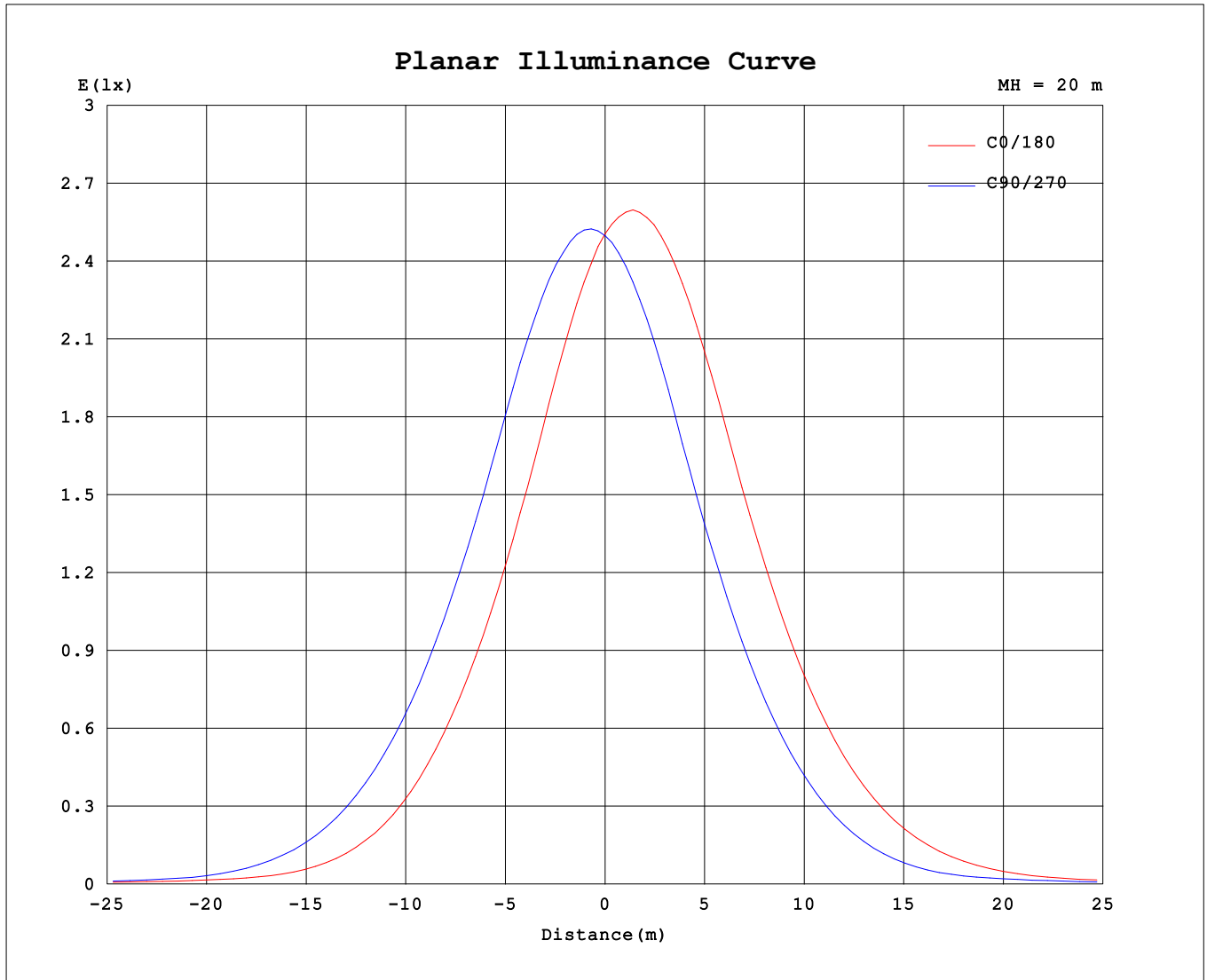
AvgL	cd/m2
L_0~180 (65) av	181
L_0~180 (75) av	163
L_0~180 (85) av	105
L_90~270 (65) av	182
L_90~270 (75) av	162
L_90~270 (85) av	167
L_45 (65) av	186
L_45 (75) av	169
L_45 (85) av	98

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:24.3℃  
Operators:  
Test Date:2024-04-01

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: 2024-04-01

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:

<b>Test:</b> U:119.85V I:0.0645A P:7.4422W PF:0.9630 Freq:59.98Hz <b>UTHDi:</b> 0.00% <b>ITHDi:</b> 0.00% <b>KDisp:</b> 0 <b>Lamp Flux:</b> 576.673x1 lm		
<b>NAME:</b> VO-GSP3W8-120-D-5WAY	<b>TYPE:</b>	<b>WEIGHT:</b>
<b>SPEC.:</b> 3000K 90	<b>DIM.:</b>	<b>SERIAL No.:</b>
<b>MFR.:</b> VOTATEC	<b>SUR.:</b>	<b>Shielding Angle:</b>

UNIT: cd

[illegible]

```

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:

```