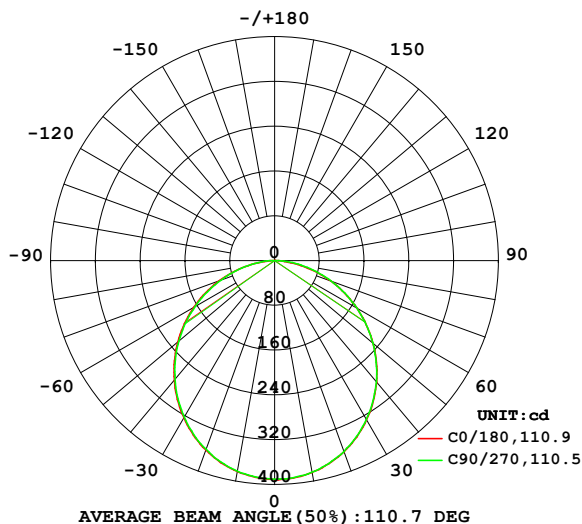


## LUMINAIRE PHOTOMETRIC TEST REPORT

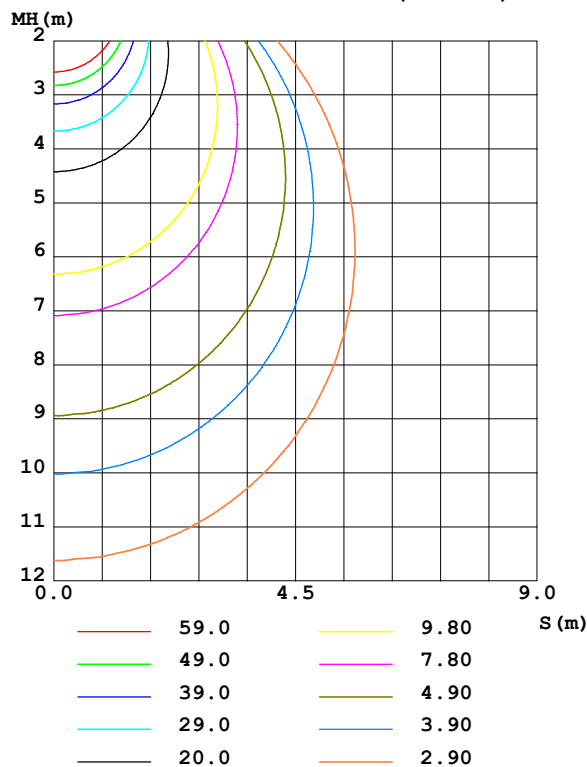
Test:U:119.81V I:0.1257A P:14.884W PF:0.9887 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1097.33x1 lm		
NAME: RENO-6-S15W-MCCT-WH-FR	TYPE:	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.:
MFR.: RENO	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 73.72 lm/W			
MODEL	RENO-6-S15W-MCCT-WH-FR	I <sub>max</sub> (cd)	391.7	S/MH(C0/180)	1.24
NOMINAL POWER(W)	15	LOR(%)	100.0	S/MH(C90/270)	1.24
RATED VOLTAGE(V)	120.0	TOTAL FLUX(lm)	1097.3	η UP,DN(C0-180)	0.0,50.6
NOMINAL FLUX(lm)	1097.33	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,49.4
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	120	η down (%)	100.0	CIBSE SHR MAX	1.35

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:24.3℃  
Operators:  
Test Date:2023-08-24

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:

## ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

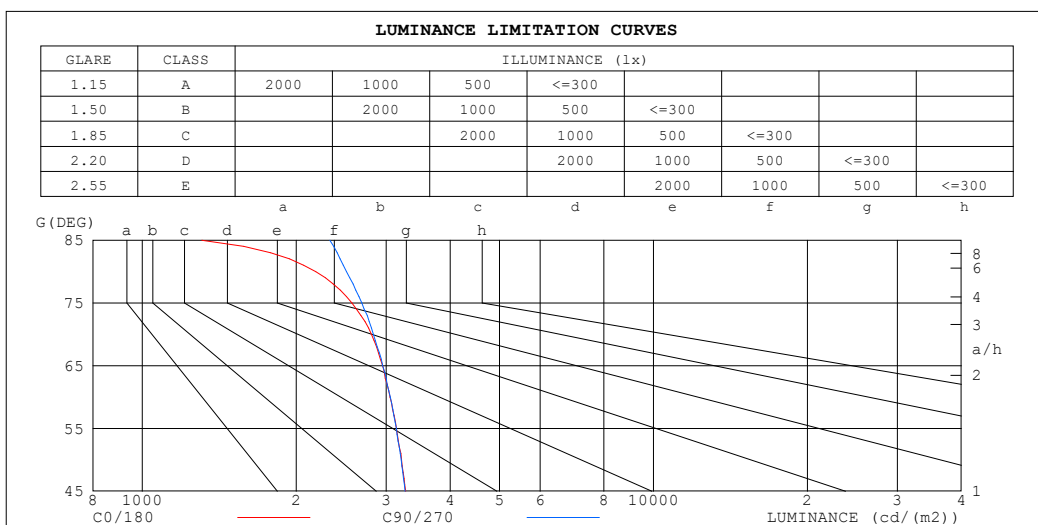
$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	384.6	384.3	383.8	383.0	382.9	381.5	381.9	382.7	0- 10	36.92	36.92	3.36,3.36
20	363.1	363.6	362.6	360.9	359.9	358.1	358.8	361.1	10- 20	105.4	142.4	13,13
30	328.6	329.2	328.0	326.3	324.5	322.0	323.0	326.1	20- 30	158.9	301.3	27.5,27.5
40	283.6	283.7	282.7	280.9	278.9	275.5	276.8	280.6	30- 40	190.3	491.6	44.8,44.8
50	229.7	230.1	229.1	227.5	225.8	222.0	223.2	227.1	40- 50	196.2	687.8	62.7,62.7
60	169.6	170.4	169.7	168.3	166.6	162.8	164.0	167.4	50- 60	176.6	864.4	78.8,78.8
70	106.7	108.2	107.6	106.7	104.8	101.4	102.0	105.0	60- 70	135.0	999.3	91.1,91.1
80	42.13	46.34	48.38	45.80	42.37	42.02	43.80	42.97	70- 80	78.55	1078	98.2,98.2
90	0.4440	0.4593	1.436	0.4781	0.3036	0.3113	0.5132	0.2984	80- 90	19.46	1097	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:2023-08-24

$\gamma$  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:119.81V I:0.1257A P:14.884W PF:0.9887 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1097.33x1 lm		
NAME: RENO-6-S15W-MCCT-WH-FR	TYPE:	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.:
MFR.: RENO	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	1307	2328
80	2184	2508
75	2572	2687
70	2807	2832
65	2951	2954
60	3053	3055
55	3139	3139
50	3216	3208
45	3275	3267

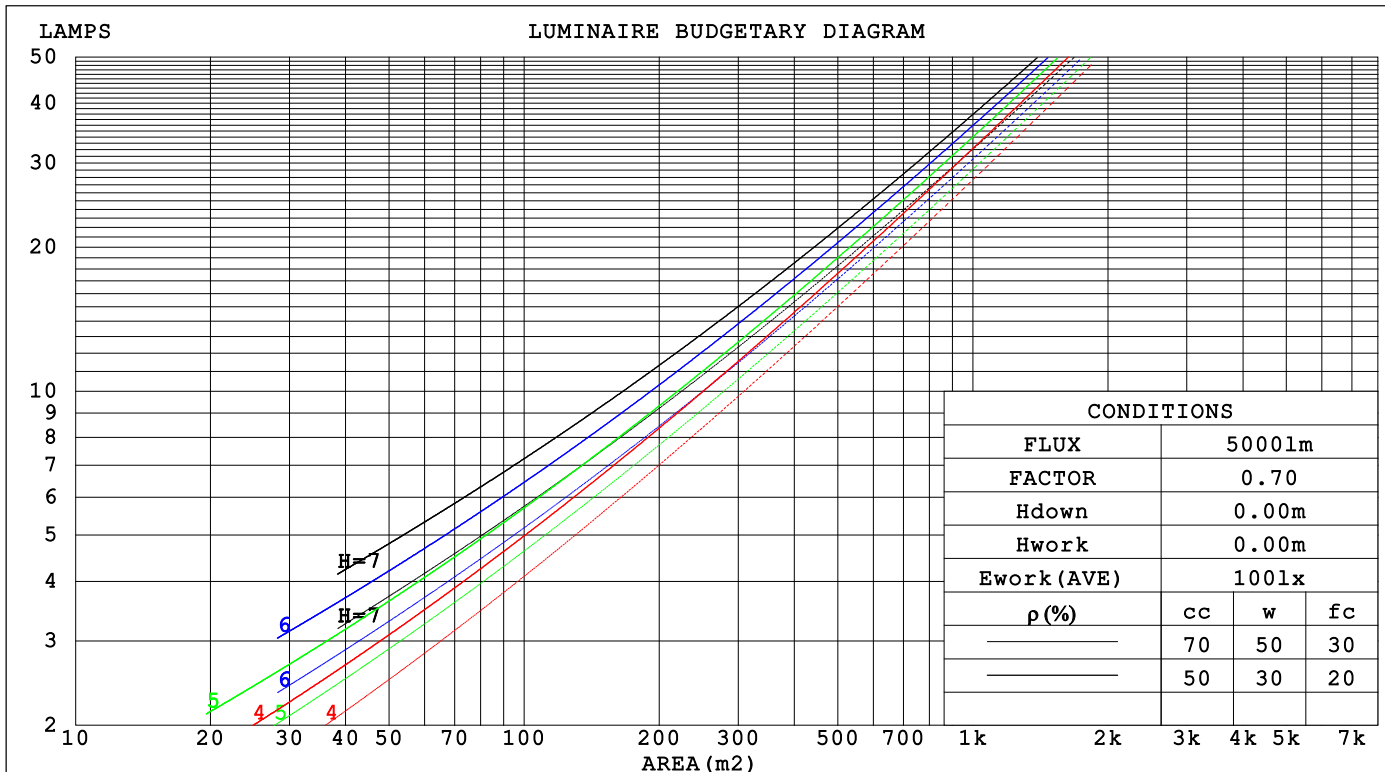
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 24.3°C  
Operators:  
Test Date: 2023-08-24

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:119.81V I:0.1257A P:14.884W PF:0.9887 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1097.33x1 lm		
NAME: RENO-6-S15W-MCCT-WH-FR	TYPE:	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.:
MFR.: RENO	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                      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	1.04	.00	.96	1.02	.98	.94	.97	.94	.91	.93	.91	.88	.90	.88	.86	.84
2.0	.90	.84	.78	.89	.82	.77	.85	.80	.75	.82	.77	.73	.79	.75	.72	.70
3.0	.79	.71	.65	.78	.70	.64	.75	.68	.63	.72	.66	.62	.69	.65	.61	.59
4.0	.70	.61	.55	.69	.61	.54	.66	.59	.54	.64	.58	.53	.62	.57	.52	.50
5.0	.63	.54	.47	.62	.53	.47	.60	.52	.46	.58	.51	.46	.56	.50	.45	.43
6.0	.57	.48	.41	.56	.47	.41	.54	.46	.41	.52	.45	.40	.50	.44	.40	.38
7.0	.51	.42	.36	.50	.42	.36	.49	.41	.36	.47	.41	.36	.46	.40	.35	.33
8.0	.47	.38	.32	.46	.38	.32	.45	.37	.32	.43	.37	.32	.42	.36	.32	.30
9.0	.43	.35	.29	.42	.34	.29	.41	.34	.29	.40	.33	.29	.39	.33	.29	.27
10.0	.40	.32	.26	.39	.31	.26	.38	.31	.26	.37	.31	.26	.36	.30	.26	.24



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.3℃  
 Operators:  
 Test Date:2023-08-24

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:119.81V I:0.1257A P:14.884W PF:0.9887 Freq:59.98Hz			UTHDi:0.00% ITHDi:0.00% KDisp:0			Lamp Flux:1097.33x1 lm		
NAME: RENO-6-S15W-MCCT-WH-FR			TYPE:			WEIGHT:		
SPEC.: 5000K			DIM.:			SERIAL No.:		
MFR.: RENO			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	.309	.176	.056	.302	.172	.055	.289	.166	.053	.277	.159	.051	.265	.154	.050		
2.0	.291	.160	.049	.285	.157	.048	.273	.152	.047	.263	.147	.046	.253	.143	.045		
3.0	.270	.144	.043	.264	.142	.043	.254	.138	.042	.244	.134	.041	.235	.130	.040		
4.0	.249	.129	.038	.244	.128	.038	.235	.125	.037	.226	.122	.037	.218	.119	.036		
5.0	.230	.117	.034	.226	.116	.034	.218	.113	.033	.210	.111	.033	.203	.108	.033		
6.0	.213	.107	.031	.210	.106	.030	.202	.104	.030	.196	.102	.030	.189	.100	.030		
7.0	.199	.098	.028	.195	.097	.028	.189	.095	.027	.183	.094	.027	.177	.092	.027		
8.0	.186	.091	.025	.182	.090	.025	.177	.088	.025	.171	.087	.025	.166	.085	.025		
9.0	.174	.084	.023	.171	.083	.023	.166	.082	.023	.161	.081	.023	.156	.079	.023		
10.0	.163	.078	.022	.161	.078	.022	.156	.077	.022	.152	.075	.021	.148	.074	.021		

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	.180	.156	.134	.154	.134	.116	.105	.092	.080	.061	.053	.047	.019	.017	.015		
2.0	.172	.132	.098	.147	.114	.085	.101	.079	.059	.058	.046	.035	.019	.015	.011		
3.0	.164	.114	.074	.141	.099	.064	.097	.068	.045	.056	.040	.027	.018	.013	.009		
4.0	.157	.101	.058	.135	.087	.051	.093	.061	.036	.054	.036	.021	.017	.012	.007		
5.0	.149	.091	.047	.128	.078	.041	.088	.055	.029	.051	.032	.017	.016	.010	.006		
6.0	.142	.082	.039	.122	.071	.034	.084	.050	.024	.049	.029	.014	.016	.010	.005		
7.0	.135	.075	.033	.116	.065	.029	.080	.046	.021	.047	.027	.012	.015	.009	.004		
8.0	.129	.070	.029	.111	.060	.025	.077	.042	.018	.045	.025	.011	.014	.008	.004		
9.0	.123	.065	.025	.106	.056	.022	.073	.039	.016	.043	.023	.009	.014	.008	.003		
10.0	.117	.060	.022	.101	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003		

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:24.3℃  
Operators:  
Test Date:2023-08-24

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:119.81V I:0.1257A P:14.884W PF:0.9887 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1097.33x1 lm											
NAME: RENO-6-S15W-MCCT-WH-FR						TYPE:			WEIGHT:		
SPEC.: 5000K						DIM.:			SERIAL No.:		
MFR.: RENO						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		16.6	18.1	16.9	18.3	18.5	16.6	18.1	16.9	18.3	18.5
3H		18.1	19.5	18.4	19.8	20.0	18.1	19.6	18.4	19.8	20.0
4H		18.7	20.1	19.1	20.3	20.6	18.8	20.1	19.1	20.4	20.6
6H		19.1	20.4	19.5	20.7	21.0	19.3	20.5	19.6	20.8	21.1
8H		19.2	20.5	19.6	20.7	21.0	19.4	20.7	19.8	20.9	21.2
12H		19.3	20.4	19.6	20.7	21.0	19.6	20.7	19.9	21.0	21.3
4H 2H		17.2	18.6	17.5	18.8	19.1	17.2	18.6	17.5	18.8	19.1
3H		18.9	20.1	19.3	20.4	20.7	19.0	20.1	19.3	20.4	20.7
4H		19.7	20.8	20.1	21.1	21.4	19.7	20.8	20.1	21.1	21.5
6H		20.2	21.2	20.6	21.5	21.9	20.4	21.3	20.8	21.7	22.0
8H		20.4	21.2	20.8	21.6	22.0	20.6	21.5	21.0	21.8	22.2
12H		20.4	21.2	20.8	21.6	22.0	20.7	21.6	21.2	21.9	22.4
8H 4H		20.0	20.9	20.4	21.2	21.6	20.0	20.9	20.4	21.3	21.7
6H		20.6	21.4	21.1	21.8	22.2	20.8	21.5	21.2	21.9	22.4
8H		20.9	21.5	21.3	21.9	22.4	21.1	21.8	21.6	22.2	22.6
12H		21.0	21.5	21.5	22.0	22.5	21.4	21.9	21.8	22.4	22.9
12H 4H		20.0	20.8	20.4	21.2	21.6	20.0	20.8	20.5	21.2	21.6
6H		20.7	21.4	21.2	21.8	22.2	20.9	21.5	21.3	21.9	22.4
8H		21.0	21.5	21.4	22.0	22.4	21.2	21.8	21.7	22.2	22.7
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H		+ 0.2 / - 0.2					+ 0.1 / - 0.2				
1.5H		+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H		+ 0.2 / - 0.3					+ 0.1 / - 0.3				

CIE Pub.117, 1097 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.3)  
Area: 0.111111 m2

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:24.3℃  
Operators:  
Test Date:2023-08-24

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:119.81V I:0.1257A P:14.884W PF:0.9887 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1097.33x1 lm		
NAME: RENO-6-S15W-MCCT-WH-FR	TYPE:	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.:
MFR.: RENO	SUR.:	Shielding Angle:

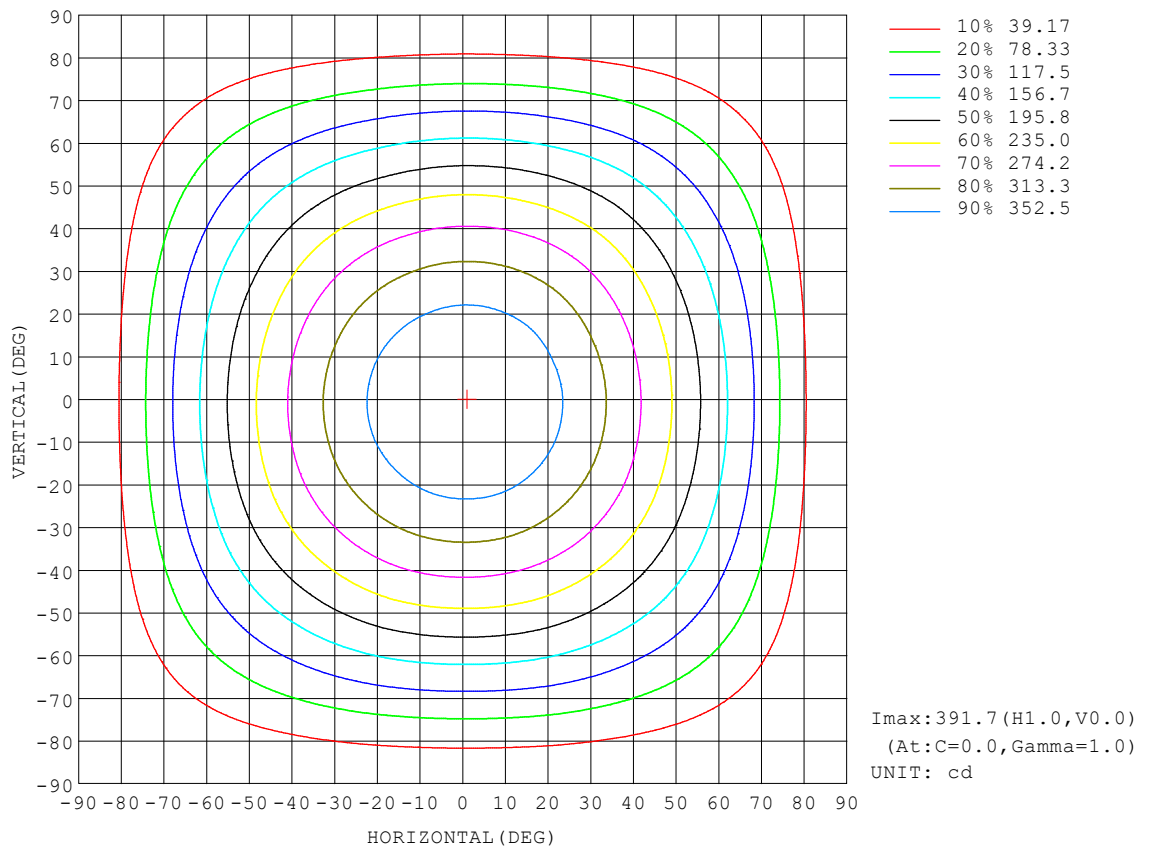
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	58	46	39	57	46	39	56	45	39	32
0.80	68	56	49	67	56	49	65	55	48	41
1.00	76	65	58	75	64	57	73	66	57	50
1.25	83	73	66	82	72	65	79	70	64	57
1.50	88	78	71	86	77	71	83	76	70	62
2.00	95	86	80	93	85	79	90	83	78	70
2.50	99	91	85	97	90	84	93	87	82	74
3.00	102	95	90	100	94	89	96	91	87	78
4.00	106	101	96	104	99	95	100	95	92	83
5.00	109	104	100	106	102	98	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: 22.5DEG  
Test Speed: HIGH  
Temperature: 24.3°C  
Operators:  
Test Date: 2023-08-24

$\gamma$  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:

### ISOCANDELA DIAGRAM

Test:U:119.81V I:0.1257A P:14.884W PF:0.9887 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1097.33x1 lm		
NAME: RENO-6-S15W-MCCT-WH-FR	TYPE:	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.:
MFR.: RENO	SUR.:	Shielding Angle:



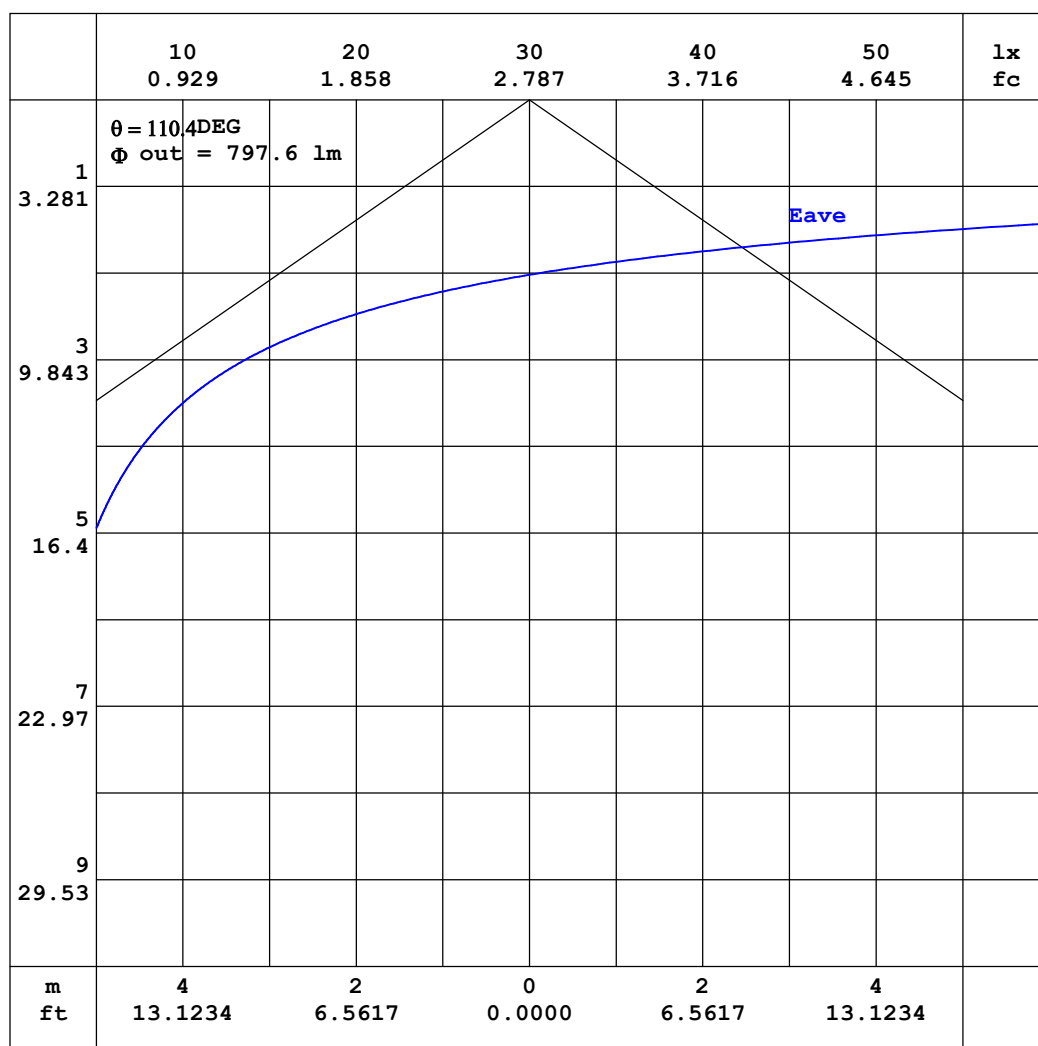
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:24.3℃  
Operators:  
Test Date:2023-08-24

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 CURVES

Test:U:119.81V I:0.1257A P:14.884W PF:0.9887 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1097.33x1 lm		
NAME: RENO-6-S15W-MCCT-WH-FR	TYPE:	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.:
MFR.: RENO	SUR.:	Shielding Angle:



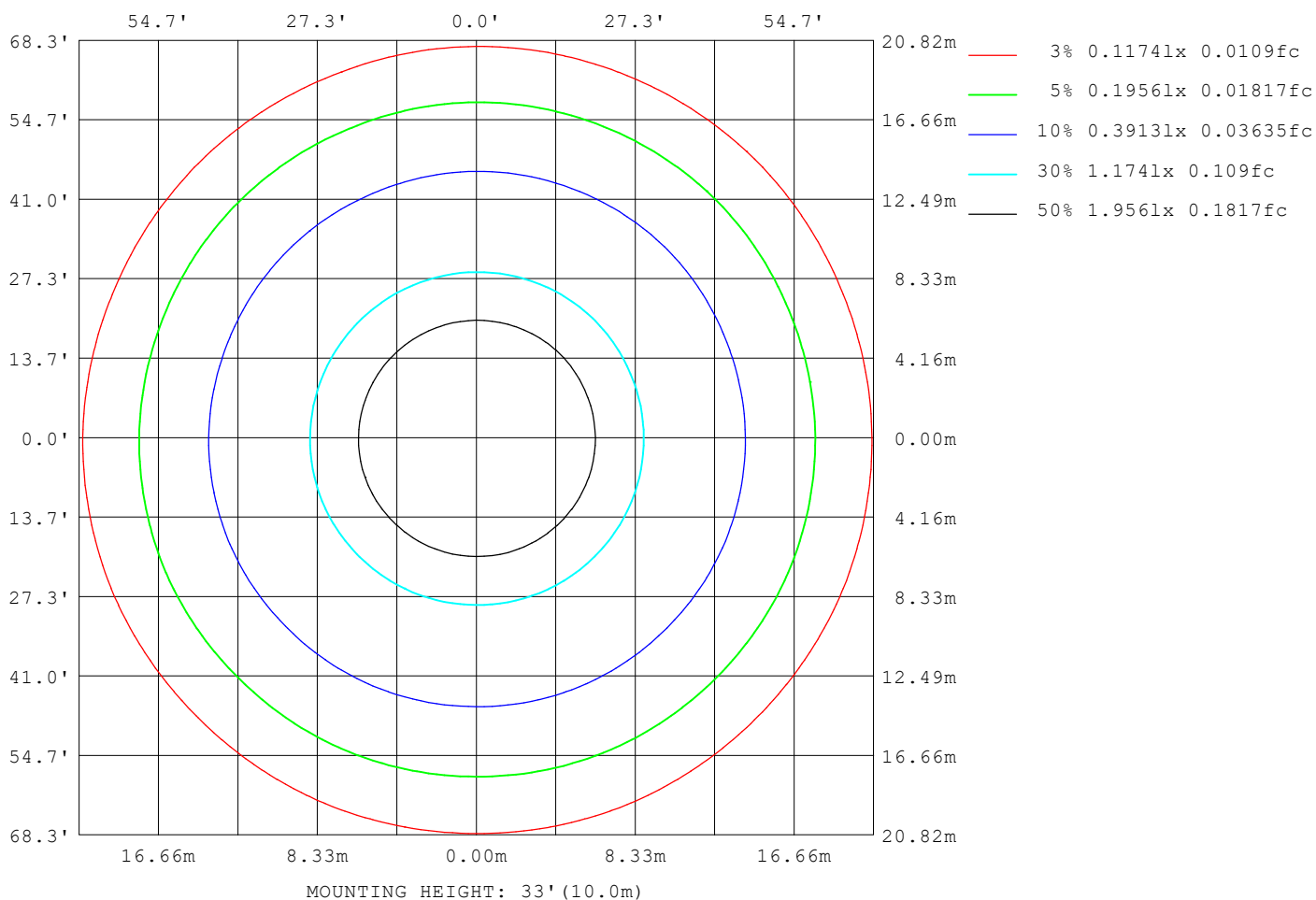
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature: 24.3°C  
 Operators:  
 Test Date: 2023-08-24

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:119.81V I:0.1257A P:14.884W PF:0.9887 Freq:59.98Hz <b>UTHDi:</b> 0.00% <b>ITHDi:</b> 0.00% <b>KDisp:</b> 0 <b>Lamp Flux:</b> 1097.33x1 lm		
<b>NAME:</b> RENO-6-S15W-MCCT-WH-FR	<b>TYPE:</b>	<b>WEIGHT:</b>
<b>SPEC.:</b> 5000K	<b>DIM.:</b>	<b>SERIAL No.:</b>
<b>MFR.:</b> RENO	<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: 2023-08-24

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:119.81V I:0.1257A P:14.884W PF:0.9887 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1097.33x1 lm		
NAME: RENO-6-S15W-MCCT-WH-FR	TYPE:	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.:
MFR.: RENO	SUR.:	Shielding Angle:

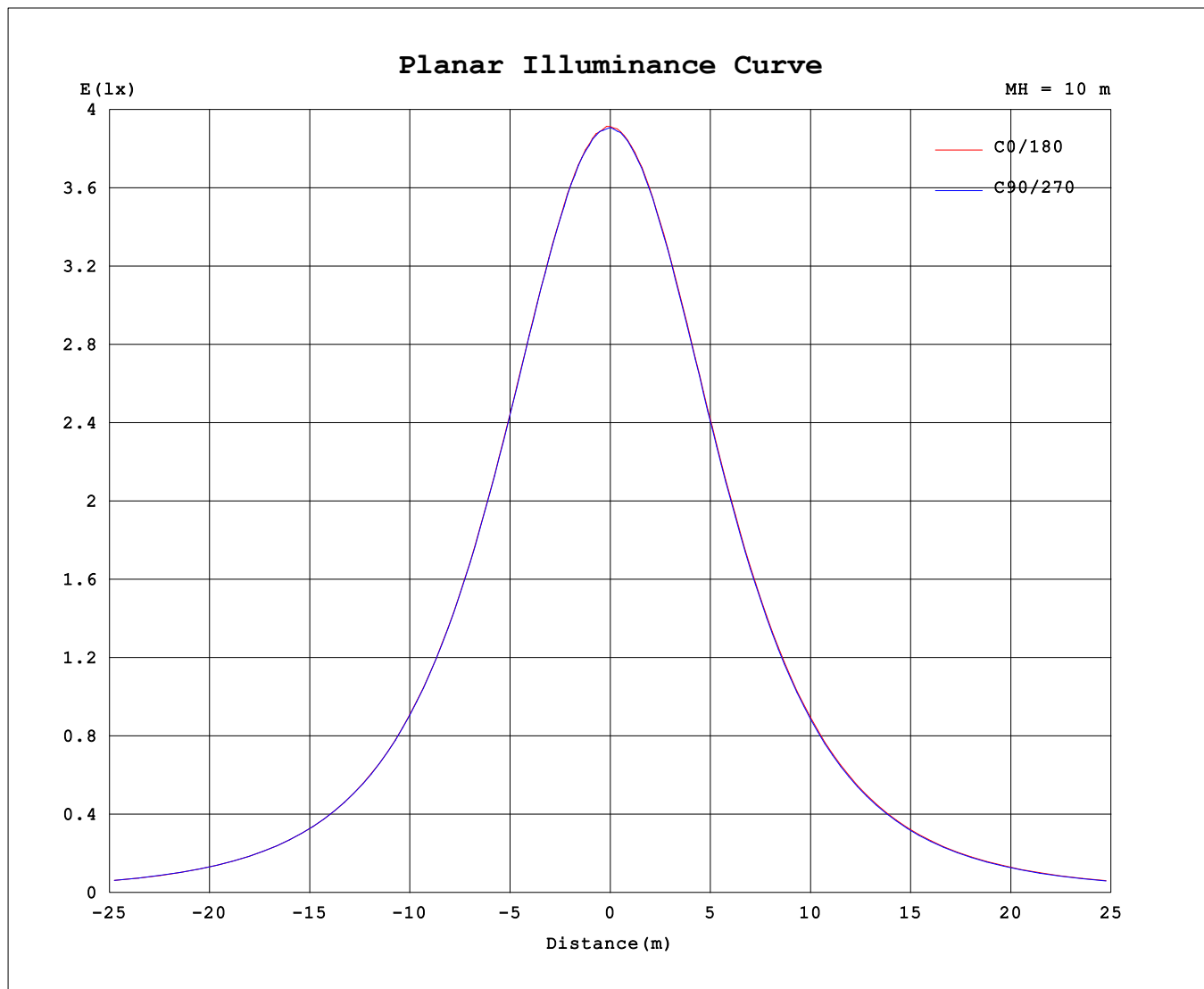
AvgL	cd/m2
L_0~180 (65) av	2921
L_0~180 (75) av	2566
L_0~180 (85) av	1338
L_90~270 (65) av	2893
L_90~270 (75) av	2592
L_90~270 (85) av	2129
L_45 (65) av	2903
L_45 (75) av	2590
L_45 (85) av	1658

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:24.3℃  
Operators:  
Test Date:2023-08-24

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: 2023-08-24

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:

```

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:

```