

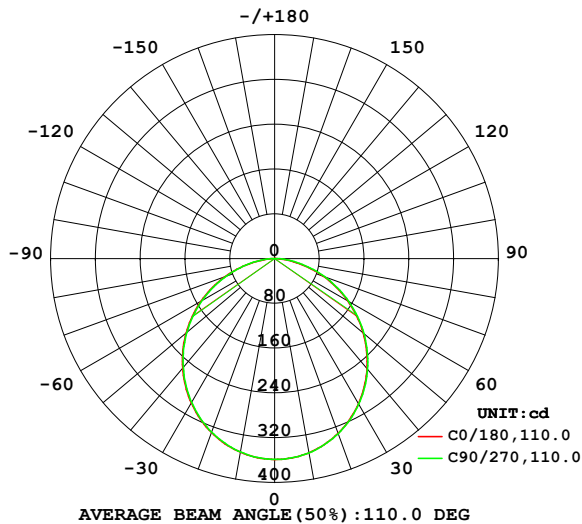


## LUMINAIRE PHOTOMETRIC TEST REPORT

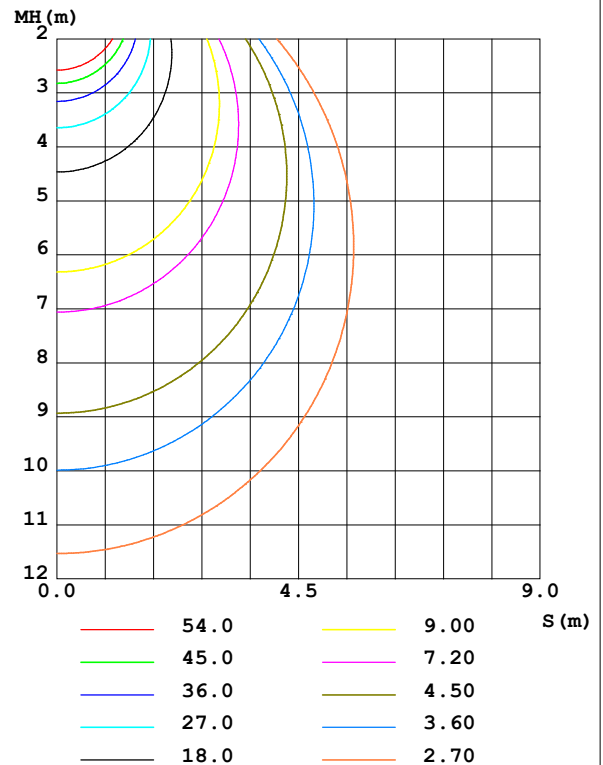
Test:U:119.78V I:0.1135A P:13.379W PF:0.9842 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:995.307x1 lm		
NAME: 8544WH-90-5CCT 3000K	TYPE:	WEIGHT:
SPEC.: 3000K 90	DIM.:	SERIAL No.:
MFR.: RP LIGHTING	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 74.39 lm/W			
MODEL	8544WH-90-5CCT 3000K	I <sub>max</sub> (cd)	358.9	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)	995.31	η UP, DN (C0-180)	0.0, 50.4
NOMINAL FLUX (lm)	995.307	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 49.6
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: 25.3 °C  
Operators:  
Test Date: 2023-06-30

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:

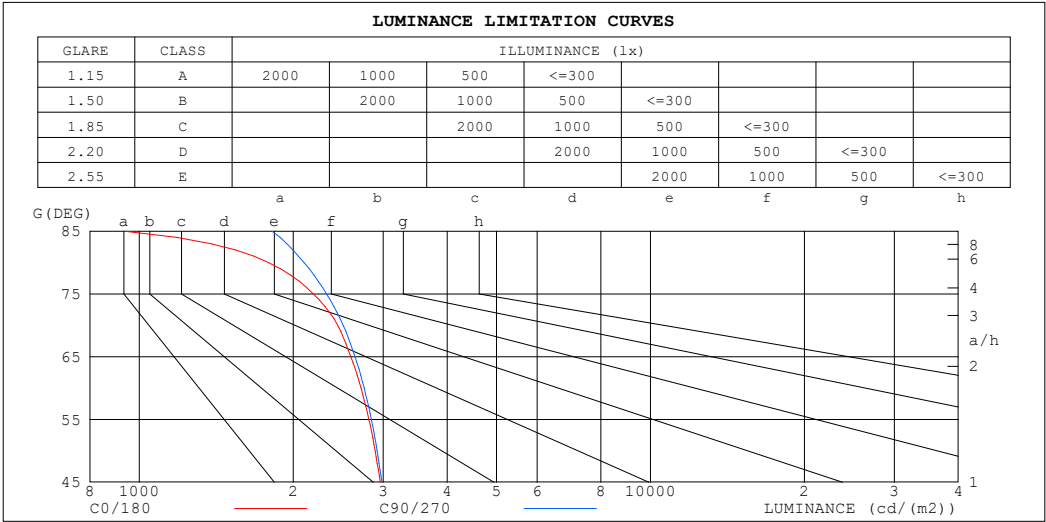
$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	352.3	352.8	352.6	352.0	351.4	350.7	350.9	351.7	0- 10	33.92	33.92	3.41,3.41
20	332.0	333.0	332.6	331.6	330.6	329.3	329.7	331.2	10- 20	96.80	130.7	13.1,13.1
30	299.8	301.0	300.4	299.2	297.9	296.1	296.8	298.5	20- 30	145.7	276.5	27.8,27.8
40	257.0	258.5	258.5	256.9	255.7	253.7	254.2	255.9	30- 40	174.2	450.7	45.3,45.3
50	206.7	208.1	208.5	207.2	206.3	204.2	204.5	206.2	40- 50	179.1	629.8	63.3,63.3
60	150.8	152.4	152.9	152.2	151.6	149.2	149.4	150.6	50- 60	160.2	790.0	79.4,79.4
70	92.91	94.39	95.22	94.89	94.10	91.99	91.95	92.77	60- 70	121.0	911.0	91.5,91.5
80	34.54	37.98	40.50	38.54	35.77	36.41	38.31	36.78	70- 80	68.55	979.6	98.4,98.4
90	0.3546	0.3657	0.3930	0.3720	0.2163	0.2381	0.2551	0.2352	80- 90	15.72	995.3	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:25.3℃  
 Operators:  
 Test Date:2023-06-30

$\gamma$  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:119.78V I:0.1135A P:13.379W PF:0.9842 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0Lamp Flux:995.307x1 lm		
NAME: 8544WH-90-5CCT 3000K	TYPE:	WEIGHT:
SPEC.: 3000K 90	DIM.:	SERIAL No.:
MFR.: RP LIGHTING	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	937	1819
80	1790	2099
75	2191	2324
70	2445	2506
65	2592	2640
60	2714	2753
55	2813	2844
50	2894	2919
45	2962	2981

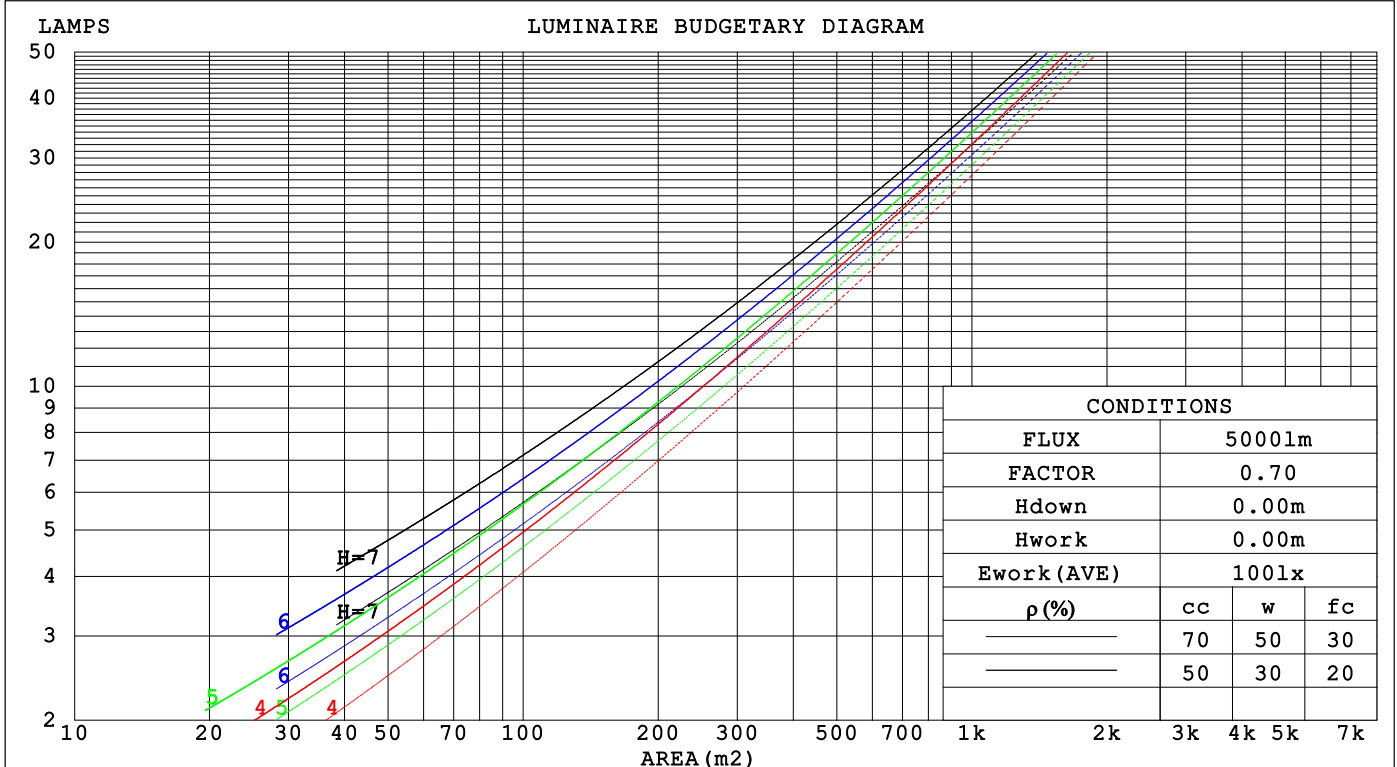
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:  
Test Date:2023-06-30

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:119.78V I:0.1135A P:13.379W PF:0.9842 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0		
Lamp Flux:995.307x1 lm		
NAME: 8544WH-90-5CCT 3000K	TYPE:	WEIGHT:
SPEC.: 3000K 90	DIM.:	SERIAL No.:
MFR.: RP LIGHTING	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	1.00
1.0	1.04	.00	.96	1.02	.98	.94	.98	.94	.91	.94	.91	.89	.90	.88	.86	.84
2.0	.91	.84	.78	.89	.83	.77	.85	.80	.75	.82	.78	.74	.79	.75	.72	.70
3.0	.80	.72	.65	.78	.71	.64	.75	.69	.63	.72	.67	.62	.70	.65	.61	.59
4.0	.71	.62	.55	.69	.61	.55	.67	.60	.54	.64	.58	.53	.62	.57	.52	.50
5.0	.63	.54	.47	.62	.54	.47	.60	.52	.47	.58	.51	.46	.56	.50	.46	.44
6.0	.57	.48	.41	.56	.47	.41	.54	.46	.41	.52	.46	.40	.51	.45	.40	.38
7.0	.52	.43	.37	.51	.42	.36	.49	.42	.36	.48	.41	.36	.46	.40	.36	.34
8.0	.47	.38	.33	.46	.38	.33	.45	.38	.32	.44	.37	.32	.43	.36	.32	.30
9.0	.43	.35	.29	.43	.35	.29	.41	.34	.29	.40	.34	.29	.39	.33	.29	.27
10.0	.40	.32	.27	.39	.32	.27	.38	.31	.26	.37	.31	.26	.36	.31	.26	.24



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature: 25.3°C  
 Operators:  
 Test Date: 2023-06-30

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:119.78V I:0.1135A P:13.379W PF:0.9842 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0		
Lamp Flux:995.307x1 lm		
NAME: 8544WH-90-5CCT 3000K	TYPE:	WEIGHT:
SPEC.: 3000K 90	DIM.:	SERIAL No.:
MFR.: RP LIGHTING	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	.305	.174	.055	.298	.170	.054	.285	.163	.052	.273	.157	.050	.262	.152	.049															
2.0	.289	.158	.049	.283	.156	.048	.271	.151	.047	.260	.146	.046	.250	.141	.045															
3.0	.268	.143	.043	.262	.140	.042	.252	.137	.042	.242	.133	.041	.234	.129	.040															
4.0	.247	.129	.038	.243	.127	.038	.233	.124	.037	.225	.121	.036	.217	.118	.036															
5.0	.229	.117	.034	.225	.115	.034	.217	.113	.033	.209	.110	.033	.202	.108	.032															
6.0	.213	.107	.030	.209	.105	.030	.201	.103	.030	.195	.101	.030	.188	.099	.029															
7.0	.198	.098	.028	.195	.097	.028	.188	.095	.027	.182	.093	.027	.176	.092	.027															
8.0	.185	.090	.025	.182	.090	.025	.176	.088	.025	.171	.086	.025	.166	.085	.025															
9.0	.173	.084	.023	.171	.083	.023	.165	.082	.023	.161	.080	.023	.156	.079	.023															
10.0	.163	.078	.022	.161	.078	.022	.156	.076	.022	.151	.075	.021	.147	.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	.135	.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	.075	.141	.099	.065	.097	.068	.045	.056	.040	.027	.018	.013	.009	
4.0	.156	.101	.059	.134	.087	.051	.092	.061	.036	.053	.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	.069	.029	.111	.060	.025	.077	.042	.018	.045	.025	.011	.014	.008	.004	
9.0	.123	.064	.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:25.3℃  
Operators:  
Test Date:2023-06-30

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:119.78V I:0.1135A P:13.379W PF:0.9842 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:995.307x1 lm											
NAME: 8544WH-90-5CCT 3000K						TYPE:		WEIGHT:			
SPEC.: 3000K 90						DIM.:		SERIAL No.:			
MFR.: RP LIGHTING						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		16.5	18.0	16.8	18.2	18.4	16.6	18.1	16.8	18.3	18.5
	3H	18.0	19.4	18.3	19.6	19.8	18.1	19.5	18.4	19.7	19.9
	4H	18.5	19.9	18.9	20.1	20.4	18.7	20.0	19.0	20.2	20.5
	6H	18.9	20.1	19.2	20.4	20.7	19.1	20.3	19.4	20.6	20.9
	8H	19.0	20.2	19.3	20.5	20.7	19.2	20.4	19.6	20.7	21.0
	12H	19.0	20.1	19.3	20.4	20.7	19.3	20.5	19.7	20.8	21.1
4H	2H	17.1	18.4	17.4	18.7	18.9	17.2	18.5	17.5	18.7	19.0
	3H	18.8	19.9	19.1	20.2	20.5	18.8	20.0	19.2	20.3	20.6
	4H	19.5	20.5	19.8	20.8	21.2	19.6	20.6	19.9	21.0	21.3
	6H	19.9	20.9	20.3	21.2	21.6	20.1	21.1	20.5	21.4	21.8
	8H	20.0	20.9	20.4	21.3	21.7	20.3	21.2	20.7	21.6	22.0
	12H	20.1	20.9	20.5	21.3	21.7	20.4	21.3	20.9	21.6	22.0
8H	4H	19.7	20.6	20.1	21.0	21.3	19.8	20.7	20.2	21.1	21.5
	6H	20.3	21.0	20.8	21.4	21.9	20.5	21.3	21.0	21.7	22.1
	8H	20.5	21.1	21.0	21.6	22.0	20.8	21.4	21.3	21.9	22.3
	12H	20.6	21.1	21.1	21.6	22.1	21.0	21.6	21.5	22.0	22.5
12H	4H	19.7	20.5	20.2	20.9	21.3	19.8	20.6	20.3	21.0	21.4
	6H	20.4	21.0	20.8	21.4	21.9	20.6	21.2	21.0	21.6	22.1
	8H	20.6	21.1	21.1	21.6	22.1	20.9	21.4	21.4	21.9	22.4
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H		+ 0.2 / - 0.2					+ 0.2 / - 0.2				
1.5H		+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H		+ 0.2 / - 0.3					+ 0.2 / - 0.3				

CIE Pub.117, 995.3 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.0)  
 Area: 0.111111 m2

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3℃  
 Operators:  
 Test Date:2023-06-30

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:119.78V I:0.1135A P:13.379W PF:0.9842 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:995.307x1 lm		
NAME: 8544WH-90-5CCT 3000K	TYPE:	WEIGHT:
SPEC.: 3000K 90	DIM.:	SERIAL No.:
MFR.: RP LIGHTING	SUR.:	Shielding Angle:

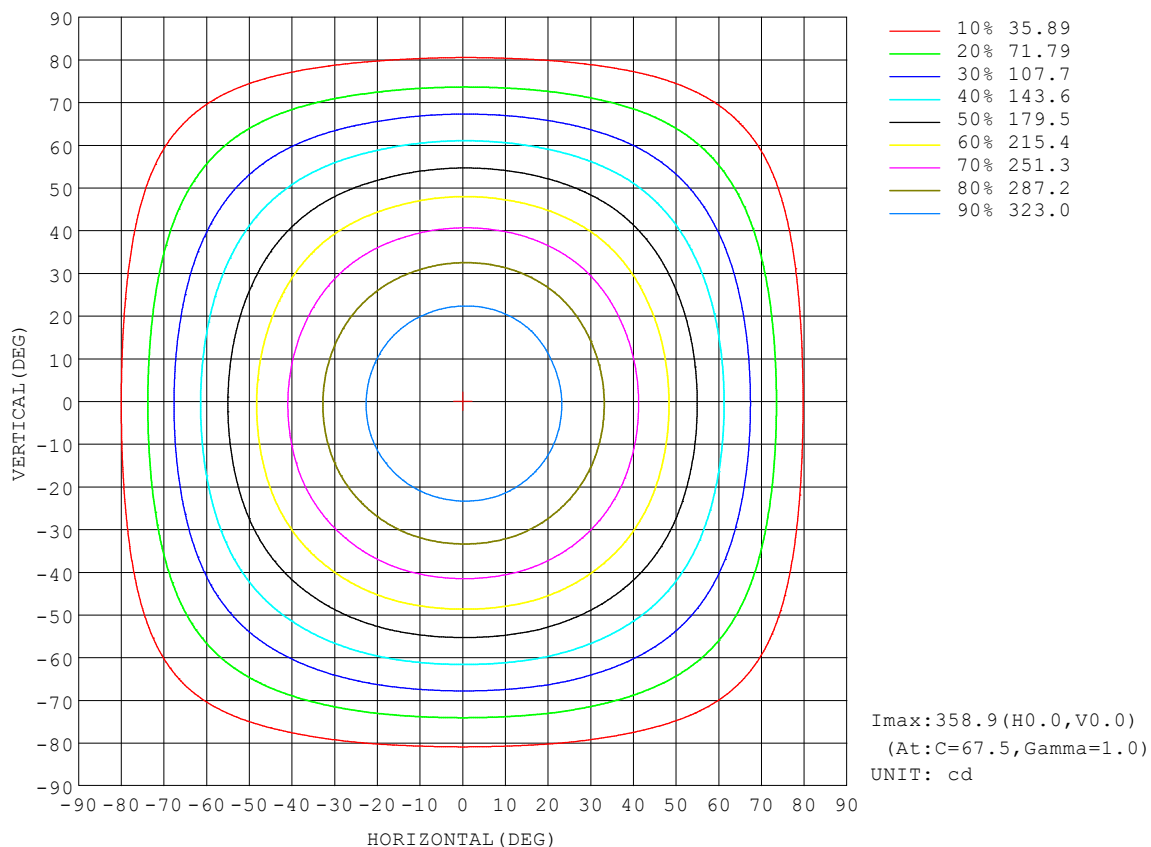
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	58	46	39	57	46	39	56	46	39	33
0.80	68	56	49	67	56	49	65	55	49	42
1.00	76	65	58	75	65	58	73	66	57	50
1.25	83	73	66	82	72	66	79	71	65	57
1.50	88	79	72	87	78	71	84	76	70	63
2.00	95	87	80	93	86	80	90	83	78	70
2.50	99	91	85	97	90	85	93	87	83	74
3.00	102	96	90	100	94	89	96	91	87	79
4.00	106	101	96	104	99	95	100	96	92	83
5.00	109	104	100	106	102	99	102	99	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: 25.3°C  
 Operators:  
 Test Date: 2023-06-30

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:119.78V I:0.1135A P:13.379W PF:0.9842 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:995.307x1 lm		
NAME: 8544WH-90-5CCT 3000K	TYPE:	WEIGHT:
SPEC.: 3000K 90	DIM.:	SERIAL No.:
MFR.: RP LIGHTING	SUR.:	Shielding Angle:



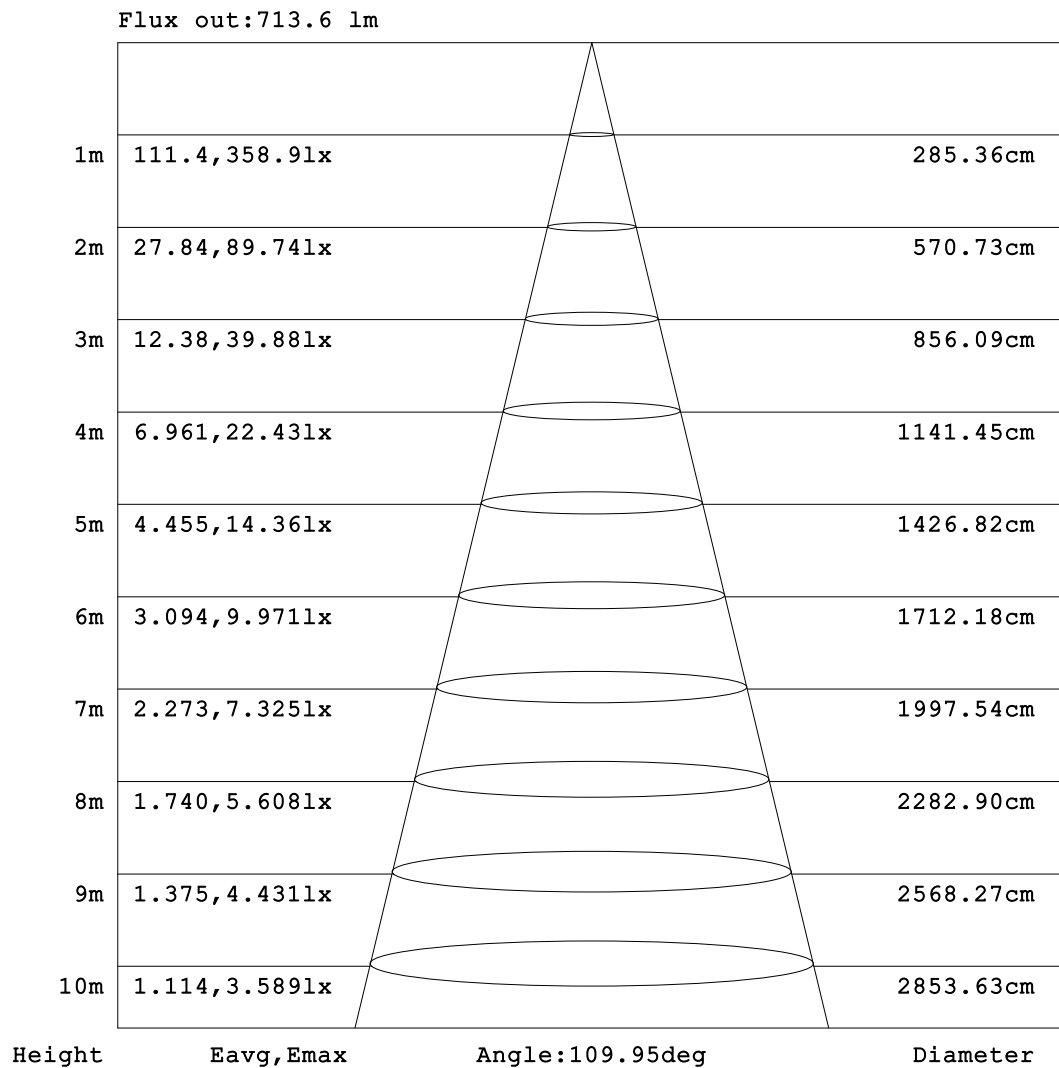
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators:  
Test Date: 2023-06-30

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:119.78V I:0.1135A P:13.379W PF:0.9842 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:995.307x1 lm		
NAME: 8544WH-90-5CCT 3000K	TYPE:	WEIGHT:
SPEC.: 3000K 90	DIM.:	SERIAL No.:
MFR.: RP LIGHTING	SUR.:	Shielding Angle:



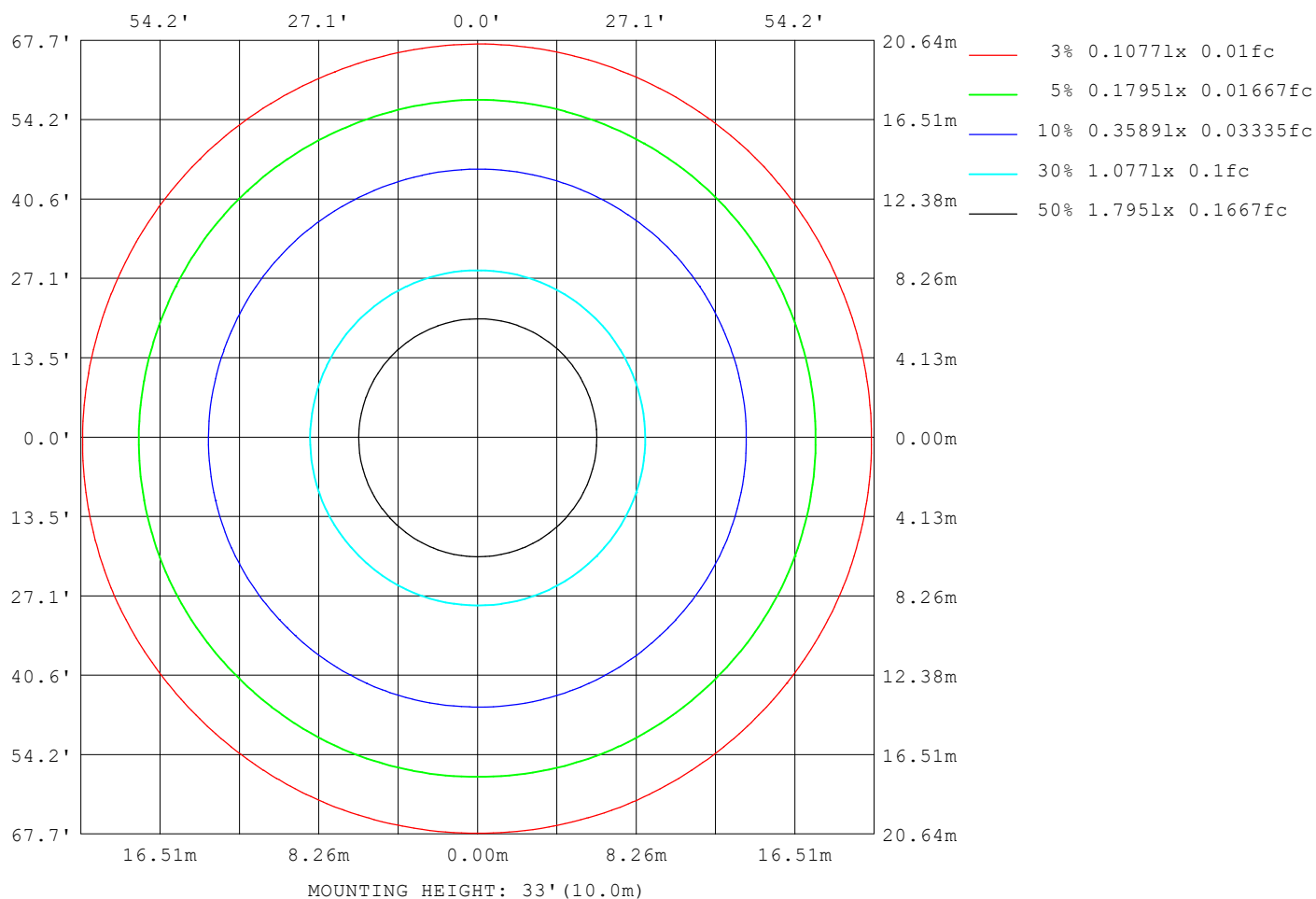
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25.3 °C  
Operators:  
Test Date: 2023-06-30

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

Test:U:119.78V I:0.1135A P:13.379W PF:0.9842 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:995.307x1 lm		
NAME: 8544WH-90-5CCT 3000K	TYPE:	WEIGHT:
SPEC.: 3000K 90	DIM.:	SERIAL No.:
MFR.: RP LIGHTING	SUR.:	Shielding Angle:



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
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Test Date: 2023-06-30

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:119.78V I:0.1135A P:13.379W PF:0.9842 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:995.307x1 lm		
NAME: 8544WH-90-5CCT 3000K	TYPE:	WEIGHT:
SPEC.: 3000K 90	DIM.:	SERIAL No.:
MFR.: RP LIGHTING	SUR.:	Shielding Angle:

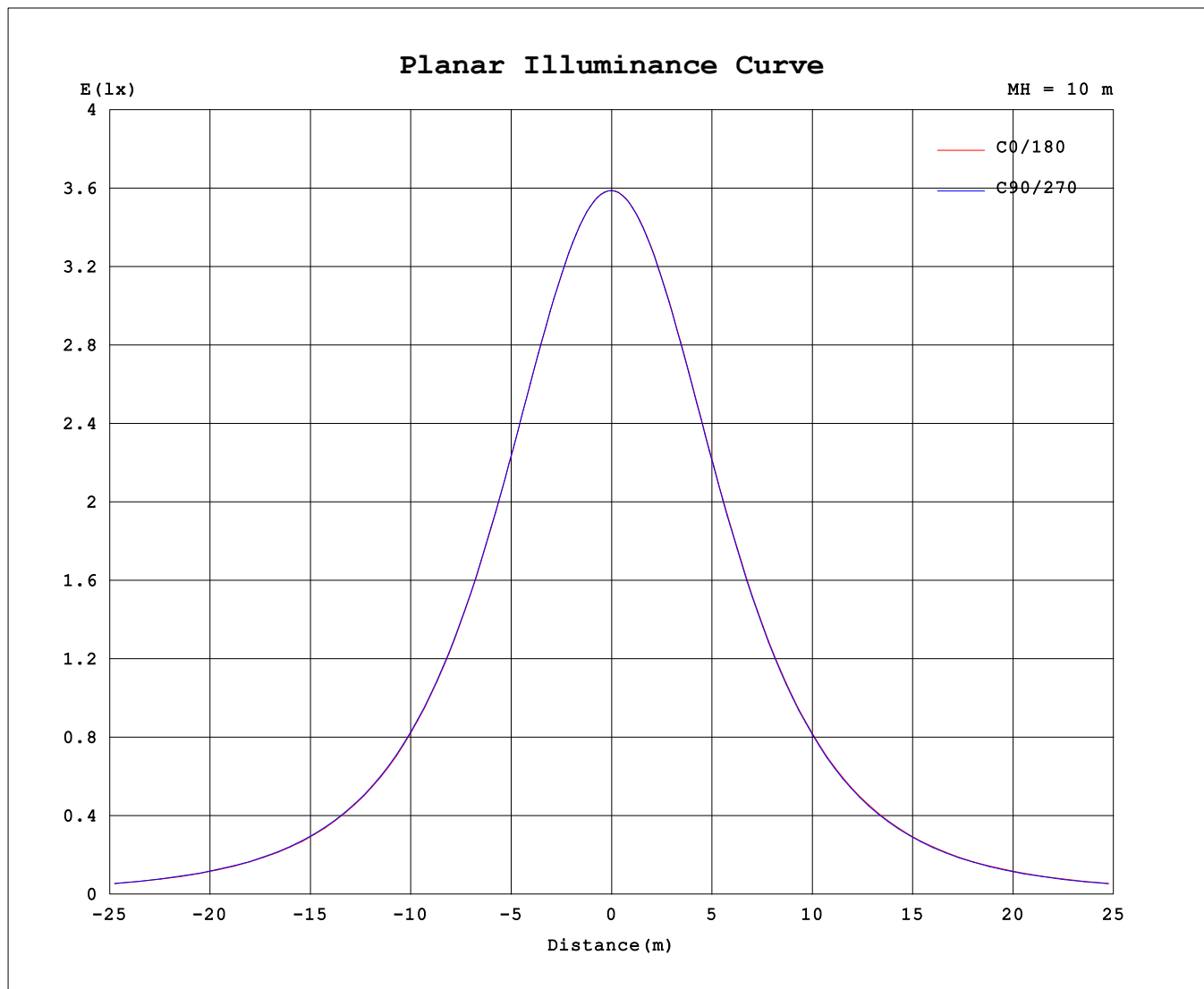
AvgL	cd/m2
L_0~180 (65) av	2605
L_0~180 (75) av	2216
L_0~180 (85) av	997
L_90~270 (65) av	2605
L_90~270 (75) av	2276
L_90~270 (85) av	1730
L_45 (65) av	2604
L_45 (75) av	2258
L_45 (85) av	1280

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:  
Test Date:2023-06-30

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: 25.3 °C  
Operators:  
Test Date: 2023-06-30

$\gamma$  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:

## LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:119.78V I:0.1135A P:13.379W PF:0.9842 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0                      Lamp Flux:995.307x1 lm		
NAME: 8544WH-90-5CCT 3000K	TYPE:	WEIGHT:
SPEC.: 3000K 90	DIM.:	SERIAL No.:
MFR.: RP LIGHTING	SUR.:	Shielding Angle:

Table--1

UNIT: cd

[illegible]

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators:  
Test Date: 2023-06-30

```

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:

```