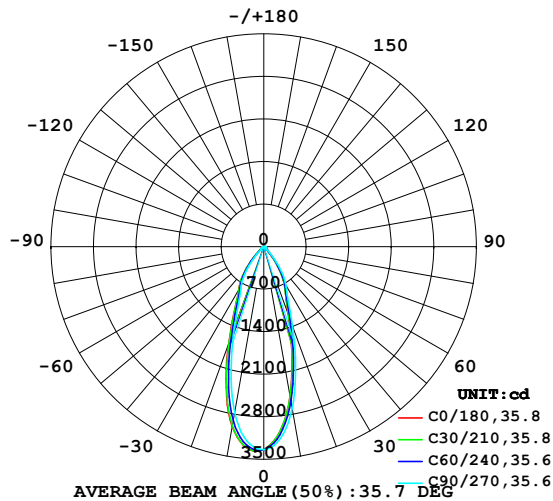


## LUMINAIRE PHOTOMETRIC TEST REPORT

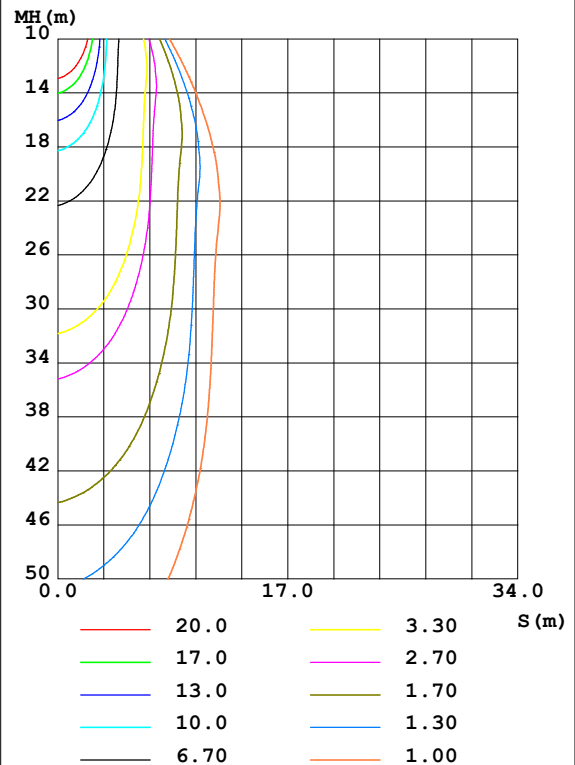
NAME:	TYPE:CRI90 3000K	WEIGHT:
SPEC.:RAD35R-20-CCT	DIM.:	SERIAL No.:1
MFR.:	SUR.:Φ74MM	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 99.32 lm/W
MODEL		I <sub>max</sub> (cd)	3367	S/MH (C0/180)	0.66	
NOMINAL POWER(W)	20	LOR(%)	100.0	S/MH (C90/270)	0.59	
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	1829.8	η UP,DN (C0-180)	0.0,48.9	
NOMINAL FLUX(lm)	1829.8	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0,51.1	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50	
TEST VOLTAGE (V)	120	η down (%)	100.0	CIBSE SHR MAX	0.55	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators:  
Test Date: 2024-10-12

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity: 65.0%  
Test Distance: 5.620m [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	2496	2547	2700	2917	3002	2939	2773	2565	0- 10	290.1	290.1	15.9,15.9
20	1189	1229	1376	1596	1686	1606	1416	1241	10- 20	568.8	859.0	46.9,46.9
30	649.4	671.7	731.3	796.3	823.0	799.5	748.9	682.6	20- 30	457.5	1316	71.9,71.9
40	196.0	212.3	273.0	366.7	405.9	377.6	300.8	221.8	30- 40	323.6	1640	89.6,89.6
50	45.92	46.08	48.10	62.63	68.96	64.80	56.95	47.26	40- 50	101.4	1742	95.2,95.2
60	32.41	32.55	34.00	36.85	38.71	38.68	36.54	33.53	50- 60	38.25	1780	97.3,97.3
70	21.96	22.42	24.34	26.85	28.53	28.45	26.49	23.44	60- 70	29.97	1810	98.9,98.9
80	2.690	3.077	5.049	8.841	11.35	10.19	6.631	3.652	70- 80	18.04	1828	99.9,99.9
90	0.1402	0.1375	0.1378	0.1765	0.3849	0.3108	0.2536	0.2620	80- 90	2.006	1830	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		

Conical surface Flux(90deg): 1711.3 lm

%lum = 93.5%

%lamp = 93.5%

Conical surface Flux(120deg): 1779.8 lm

%lum = 97.3%

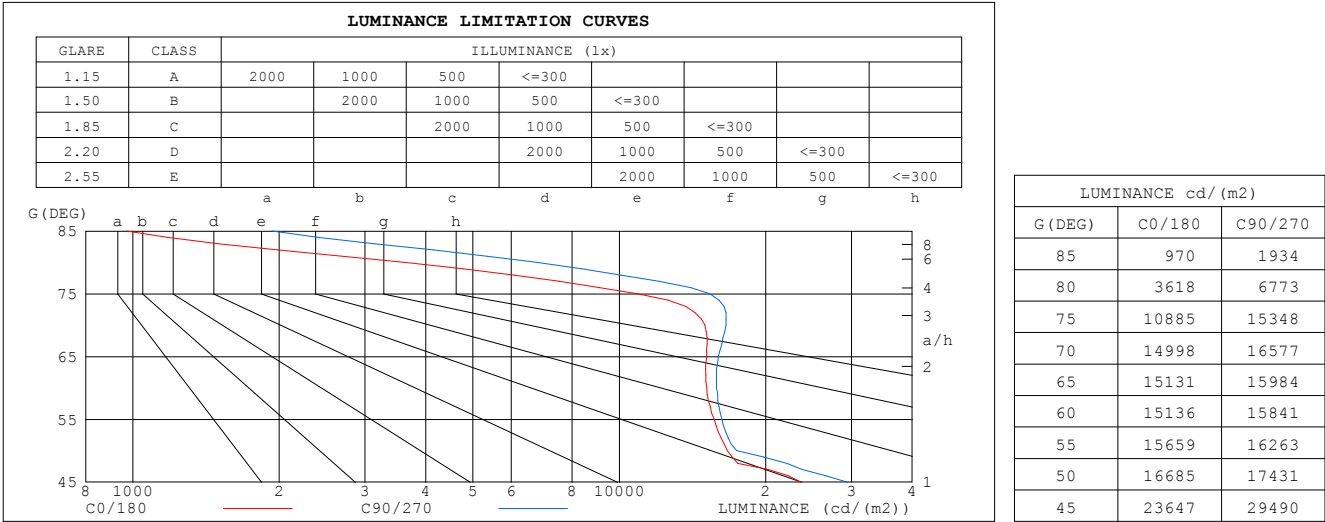
%lamp = 97.3%

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2024-10-12

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:5.620m [K=1.0000]  
Remarks:

LUMINANCE LIMITATION CURVES

NAME:	TYPE:CRI90 3000K	WEIGHT:
SPEC.:RAD35R-20-CCT	DIM.:	SERIAL No.:1
MFR.:	SUR.:Φ74MM	Shielding Angle:



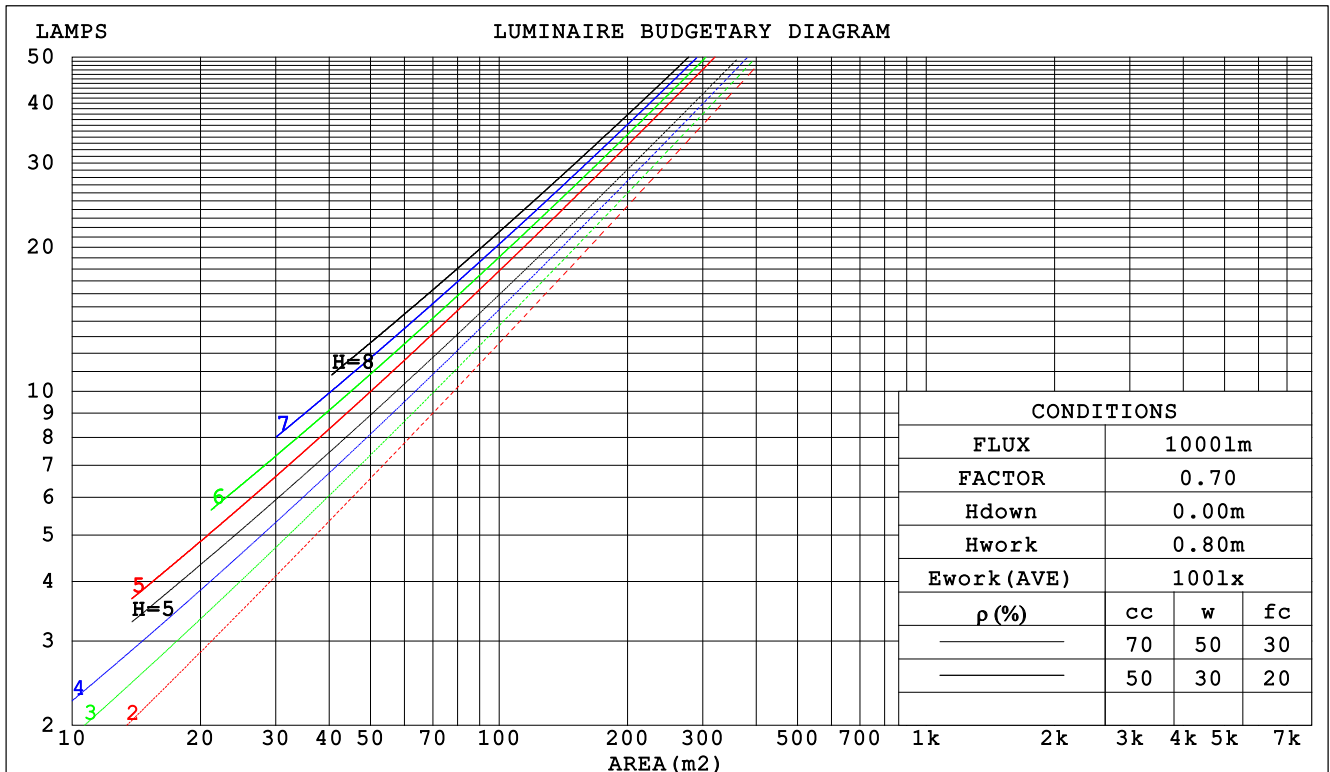
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2024-10-12

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:5.620m [K=1.0000]  
Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME:	TYPE:CRI90 3000K	WEIGHT:
SPEC.:RAD35R-20-CCT	DIM.:	SERIAL No.:1
MFR.:	SUR.:Φ74MM	Shielding Angle:

$\rho_{cc}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	20%			20%			20%			20%			20%			0
RCR	Coefficients of Utilization(CU)															
	RCR:Room Cavity Ratio															
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	1.11	1.08	1.06	1.08	1.06	1.04	1.04	1.03	1.01	1.01	.99	.98	.97	.96	.95	.93
2.0	1.03	.99	.95	1.01	.98	.94	.98	.95	.92	.95	.93	.90	.92	.90	.88	.87
3.0	.96	.91	.87	.95	.90	.87	.92	.88	.85	.90	.86	.84	.87	.85	.83	.81
4.0	.90	.85	.80	.89	.84	.80	.87	.82	.79	.85	.81	.78	.83	.80	.77	.76
5.0	.85	.79	.75	.84	.78	.74	.82	.77	.74	.80	.76	.73	.79	.75	.73	.71
6.0	.80	.74	.70	.79	.74	.70	.78	.73	.69	.76	.72	.69	.75	.71	.68	.67
7.0	.76	.70	.66	.75	.69	.66	.74	.69	.65	.72	.68	.65	.71	.67	.64	.63
8.0	.72	.66	.62	.71	.66	.62	.70	.65	.62	.69	.65	.61	.68	.64	.61	.60
9.0	.68	.62	.59	.68	.62	.59	.67	.62	.58	.66	.61	.58	.65	.61	.58	.57
10.0	.65	.59	.56	.64	.59	.56	.64	.59	.55	.63	.58	.55	.62	.58	.55	.54



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2024-10-12

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:5.620m [K=1.0000]  
Remarks:

## WEC AND CCEC

NAME:	TYPE:CRI90 3000K	WEIGHT:
SPEC.:RAD35R-20-CCT	DIM.:	SERIAL No.:1
MFR.:	SUR.:Φ74MM	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	.181 .103 .033	.174 .099 .032	.161 .093 .030	.150 .086 .028	.139 .081 .026	
2.0	.172 .094 .029	.166 .092 .028	.156 .087 .027	.146 .082 .026	.137 .077 .024	
3.0	.163 .087 .026	.158 .084 .025	.149 .081 .024	.140 .077 .024	.133 .073 .023	
4.0	.154 .080 .023	.150 .078 .023	.142 .075 .022	.134 .072 .022	.128 .069 .021	
5.0	.145 .074 .021	.142 .073 .021	.135 .070 .021	.129 .068 .020	.123 .066 .020	
6.0	.138 .069 .020	.135 .068 .020	.129 .066 .019	.123 .064 .019	.118 .062 .018	
7.0	.131 .065 .018	.129 .064 .018	.123 .062 .018	.118 .061 .018	.114 .059 .017	
8.0	.125 .061 .017	.123 .060 .017	.118 .059 .017	.114 .058 .017	.110 .056 .016	
9.0	.120 .058 .016	.117 .057 .016	.113 .056 .016	.109 .055 .016	.106 .054 .015	
10.0	.114 .055 .015	.112 .054 .015	.109 .053 .015	.105 .052 .015	.102 .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	.144 .114 .089	.123 .098 .078	.085 .068 .054	.049 .040 .032	.016 .013 .011	
4.0	.133 .099 .073	.114 .085 .063	.079 .060 .044	.046 .035 .026	.015 .011 .009	
5.0	.124 .087 .060	.107 .075 .052	.074 .053 .037	.043 .031 .022	.014 .010 .007	
6.0	.117 .078 .050	.100 .067 .044	.069 .047 .031	.040 .028 .018	.013 .009 .006	
7.0	.110 .070 .042	.095 .061 .037	.065 .043 .026	.038 .025 .016	.012 .008 .005	
8.0	.104 .064 .036	.090 .055 .032	.062 .039 .023	.036 .023 .013	.012 .008 .004	
9.0	.099 .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: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2024-10-12

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:5.620m [K=1.0000]  
Remarks:

UGR(Unified Glare Rating) Table

NAME:	TYPE:CRI90 3000K					WEIGHT:				
SPEC.:RAD35R-20-CCT	DIM.:					SERIAL No.:1				
MFR.:	SUR.:Φ74MM					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	17.4	18.4	17.7	18.5	18.7	18.2	19.2	18.4	19.3	19.5
3H	17.9	18.8	18.2	19.0	19.2	18.6	19.5	18.9	19.7	19.9
4H	18.1	18.9	18.4	19.1	19.3	18.9	19.7	19.1	19.9	20.1
6H	18.0	18.8	18.3	19.1	19.3	18.9	19.7	19.2	19.9	20.2
8H	18.0	18.7	18.3	19.0	19.3	18.9	19.6	19.2	19.9	20.1
12H	18.0	18.7	18.3	18.9	19.2	18.8	19.5	19.1	19.8	20.1
4H 2H	17.5	18.3	17.8	18.5	18.7	18.2	19.0	18.5	19.2	19.5
3H	18.2	18.9	18.5	19.1	19.4	18.8	19.5	19.1	19.8	20.1
4H	18.4	19.0	18.7	19.3	19.6	19.1	19.8	19.5	20.1	20.4
6H	18.4	18.9	18.7	19.3	19.6	19.2	19.8	19.6	20.1	20.4
8H	18.3	18.9	18.7	19.2	19.6	19.1	19.7	19.5	20.0	20.4
12H	18.3	18.8	18.7	19.1	19.5	19.1	19.6	19.5	20.0	20.3
8H 4H	18.4	18.9	18.8	19.3	19.7	19.1	19.6	19.5	20.0	20.4
6H	18.4	18.8	18.8	19.2	19.6	19.2	19.6	19.6	20.0	20.4
8H	18.3	18.7	18.8	19.1	19.6	19.1	19.5	19.6	19.9	20.4
12H	18.3	18.6	18.8	19.1	19.5	19.1	19.4	19.6	19.9	20.3
12H 4H	18.4	18.8	18.8	19.2	19.6	19.1	19.6	19.5	19.9	20.3
6H	18.3	18.7	18.8	19.1	19.6	19.1	19.5	19.6	19.9	20.4
8H	18.3	18.6	18.8	19.1	19.5	19.1	19.4	19.6	19.9	20.3
Variations with the observer position at spacings:										
S = 1.0H	+ 2.1 / - 2.1					+ 2.5 / - 2.4				
1.5H	+ 4.0 / - 1.9					+ 4.5 / - 2.4				
2.0H	+ 1.0 / - 0.6					+ 1.5 / - 0.4				

CIE Pub.117, 1830 lm Total Lamp Luminous Flux Correct ( $8\log(F/F_0) = 2.1$ )

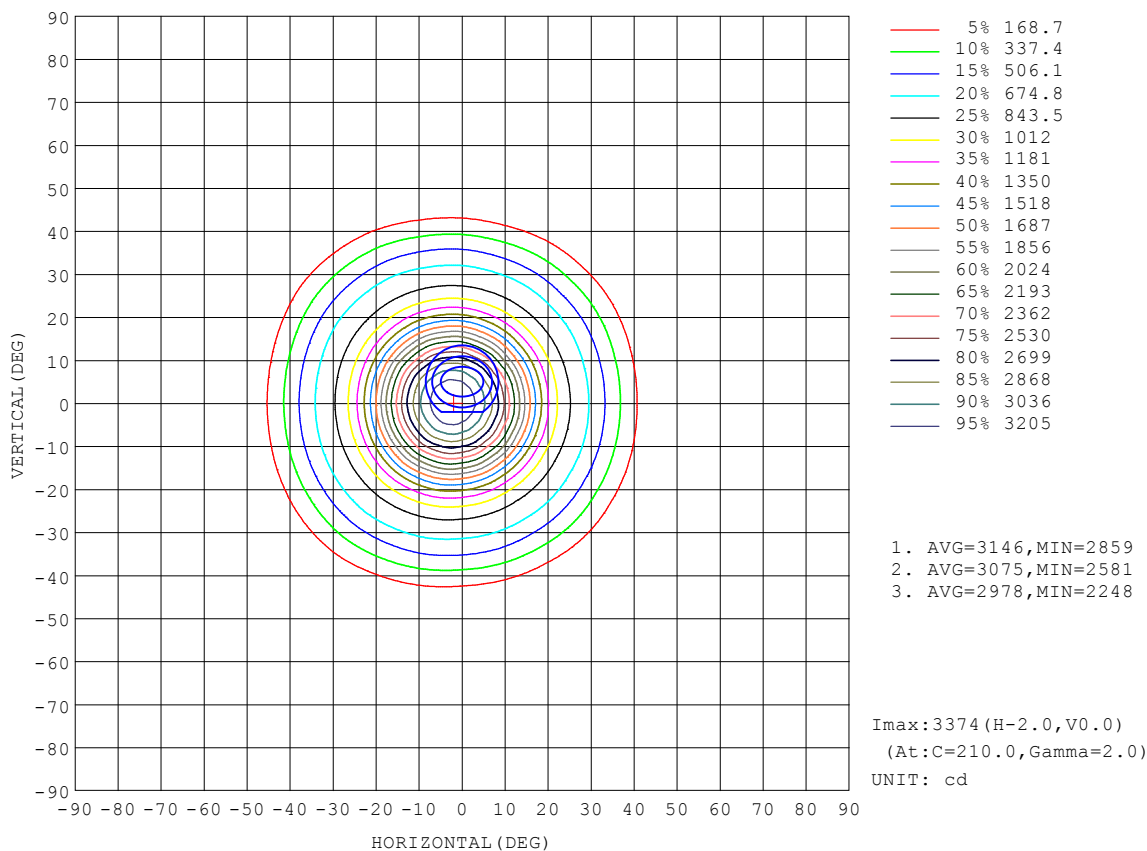
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2024-10-12

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:5.620m [K=1.0000]  
Remarks:



## ISOCANDELA DIAGRAM

NAME:	TYPE:CRI90 3000K	WEIGHT:
SPEC.:RAD35R-20-CCT	DIM.:	SERIAL No.:1
MFR.:	SUR.:Φ74MM	Shielding Angle:



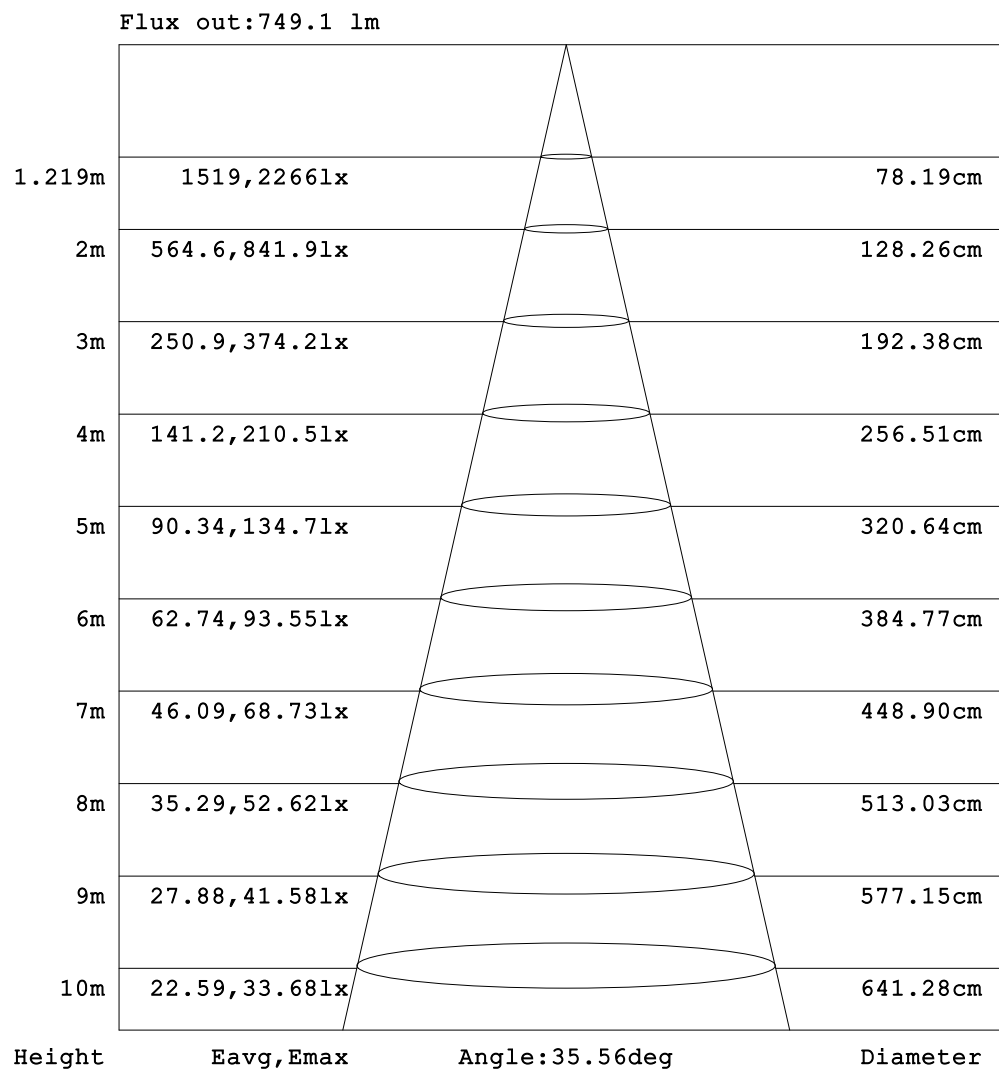
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2024-10-12

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:5.620m [K=1.0000]  
Remarks:



## AAI Figure

NAME:	TYPE:CRI90 3000K	WEIGHT:
SPEC.:RAD35R-20-CCT	DIM.:	SERIAL No.:1
MFR.:	SUR.:Φ74MM	Shielding Angle:



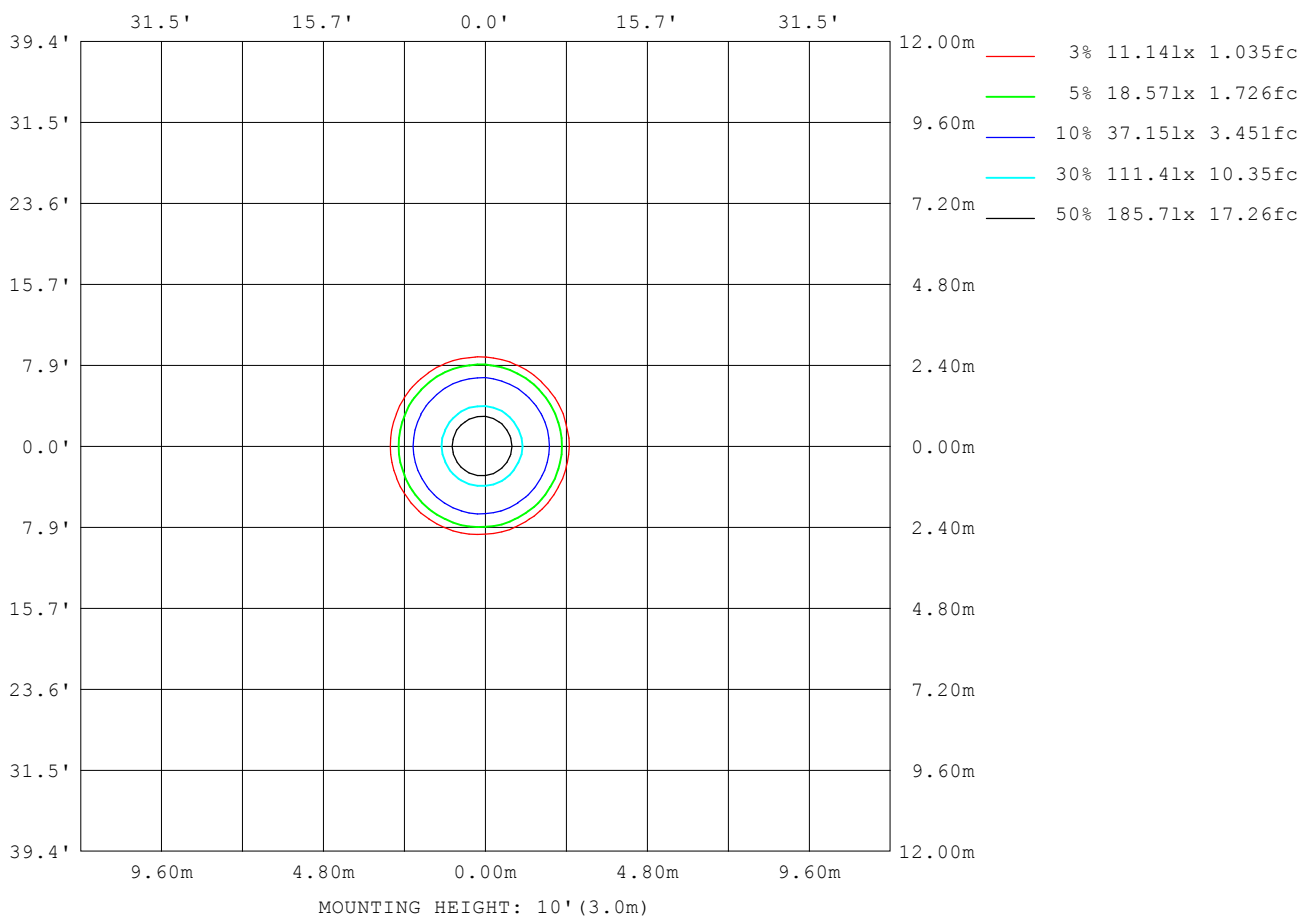
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2024-10-12

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:5.620m [K=1.0000]  
Remarks:

## ISOLUX DIAGRAM

NAME:	TYPE:CRI90 3000K	WEIGHT:
SPEC.:RAD35R-20-CCT	DIM.:	SERIAL No.:1
MFR.:	SUR.:Φ74MM	Shielding Angle:



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2024-10-12

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:5.620m [K=1.0000]  
Remarks:

## LED Avg.L Report

NAME:	TYPE:CRI90 3000K	WEIGHT:
SPEC.:RAD35R-20-CCT	DIM.:	SERIAL No.:1
MFR.:	SUR.:Φ74MM	Shielding Angle:

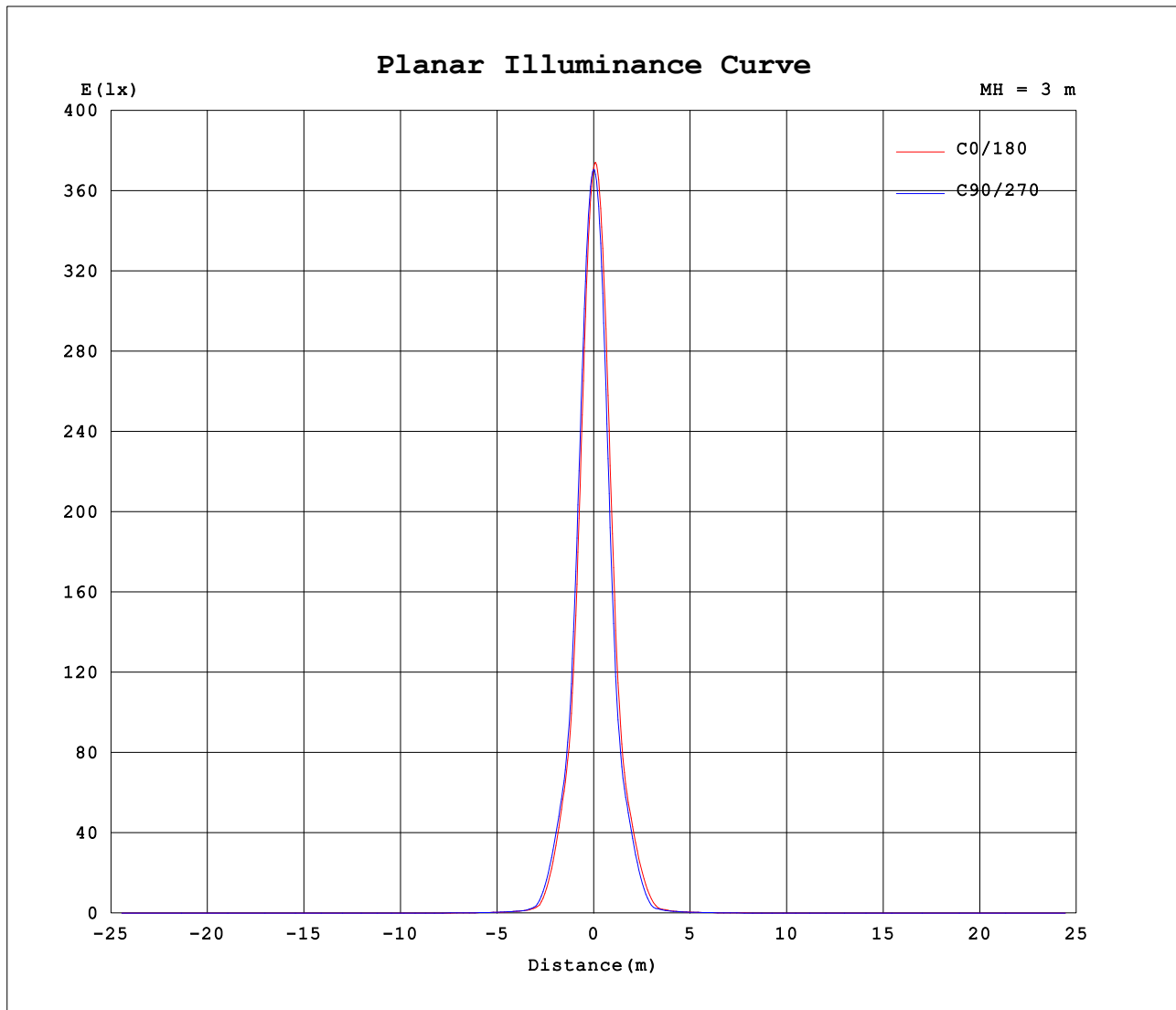
AvgL	cd/m2
L_0~180 (65) av	16704
L_0~180 (75) av	15851
L_0~180 (85) av	3486
L_90~270 (65) av	16619
L_90~270 (75) av	16594
L_90~270 (85) av	2399
L_45 (65) av	16646
L_45 (75) av	16158
L_45 (85) av	2962

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2024-10-12

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:5.620m [K=1.0000]  
Remarks:

## Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators:  
Test Date: 2024-10-12

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity: 65.0%  
Test Distance: 5.620m [K=1.0000]  
Remarks:



NAME :	TYPE:CRI90 3000K	WEIGHT:
SPEC.:RAD35R-20-CCT	DIM.:	SERIAL No.:1
MFR.:	SUR.:Φ74MM	Shielding Angle:

UNIT: cd

[illegible]

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:5.620m [K=1.0000]
Remarks:

```