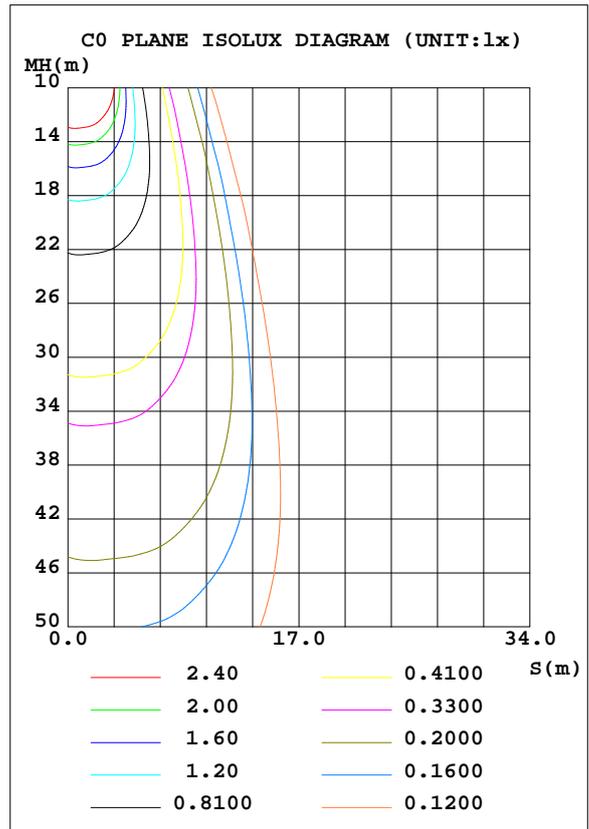
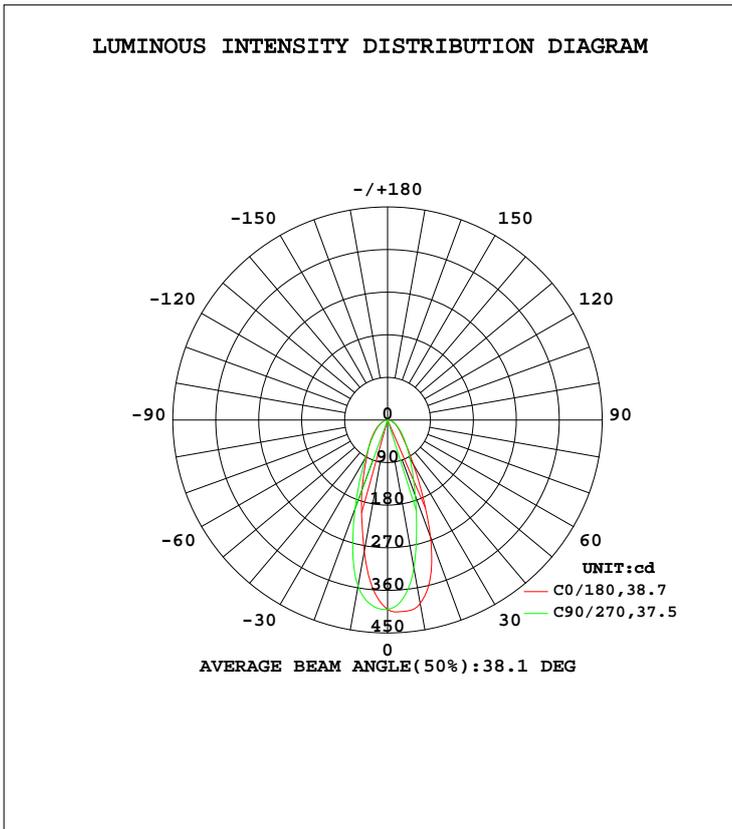


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:6.006V I:0.5128A P:3.080W PF:1.000 Freq:0Hz Lamp Flux:299.74lx1 lm		
NAME: MR11 3W 6V	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 97.33 lm/W			
MODEL	MR11 3W 6V	I _{max} (cd)	406.0	S/MH(C0/180)	0.51
NOMINAL POWER(W)	3	LOR(%)	100.0	S/MH(C90/270)	0.65
RATED VOLTAGE(V)	6	TOTAL FLUX(lm)	299.74	η UP, DN(C0-180)	0.5, 52.4
NOMINAL FLUX(lm)	299.741	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.4, 46.7
LAMPS INSIDE	1	η up(%)	0.9	CIBSE SHR NOM	0.50
TEST VOLTAGE(V)	6	η down(%)	99.1	CIBSE SHR MAX	0.65



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:24.5DEG
 Operators:
 Test Date:2022-11-01

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.361
 Humidity:47.5%
 Test Distance:10.680m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C90	C180	C270				γ	Φ zone	Φ total	%lum, lamp
10	393.9	318.0	281.6	356.3				0- 10	35.15	35.15	11.7,11.7
20	263.4	170.1	156.9	199.9				10- 20	73.90	109.0	36.4,36.4
30	107.9	93.72	86.39	92.95				20- 30	63.28	172.3	57.5,57.5
40	51.55	55.27	53.63	50.66				30- 40	44.21	216.5	72.2,72.2
50	31.02	34.09	33.10	30.03				40- 50	31.85	248.4	82.9,82.9
60	20.20	20.52	19.65	18.81				50- 60	22.71	271.1	90.4,90.4
70	12.99	10.85	9.954	10.77				60- 70	15.12	286.2	95.5,95.5
80	6.797	4.076	3.229	4.148				70- 80	8.107	294.3	98.2,98.2
90	2.026	0.0923	0.4421	0.3469				80- 90	2.568	296.9	99.1,99.1
100	0.0992	0.1003	0.0994	0.0846				90-100	0.2984	297.2	99.2,99.2
110	0.0992	0.1769	0.1604	0.1154				100-110	0.1237	297.3	99.2,99.2
120	0.2137	0.2773	0.2749	0.1998				110-120	0.1790	297.5	99.3,99.3
130	0.3435	0.4618	0.4736	0.3462				120-130	0.2921	297.8	99.3,99.3
140	0.6029	0.7698	0.7558	0.5768				130-140	0.4158	298.2	99.5,99.5
150	0.9455	1.100	1.046	0.8767				140-150	0.5189	298.7	99.7,99.7
160	1.198	1.316	1.275	1.146				150-160	0.5160	299.2	99.8,99.8
170	1.336	1.377	1.367	1.315				160-170	0.3688	299.6	100,100
180	1.374	1.377	1.374	1.346				170-180	0.1294	299.7	100,100
DEG	LUMINOUS INTENSITY:cd								UNIT:lm		

Conical surface Flux(90deg): 233.73 lm

%lum = 78.0%
 %lamp = 78.0%

Conical surface Flux(120deg): 271.1 lm

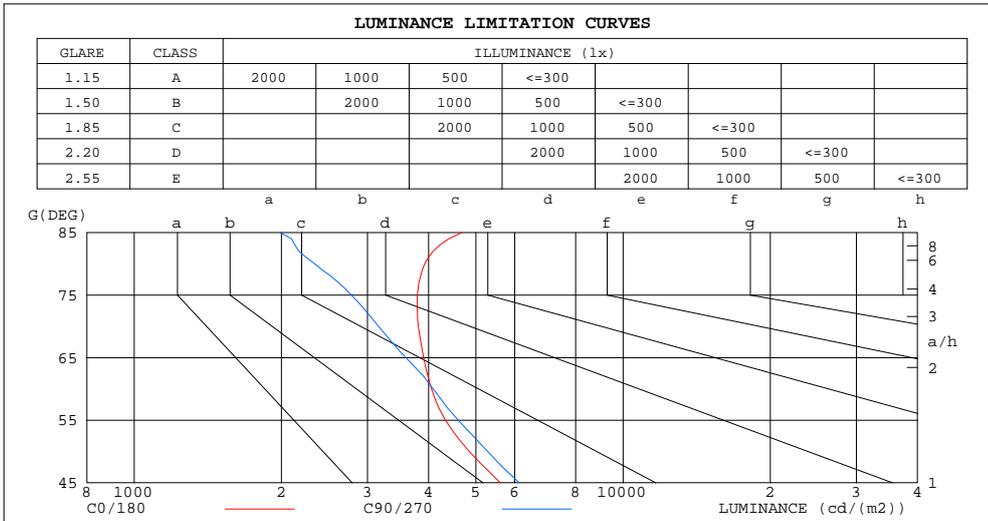
%lum = 90.4%
 %lamp = 90.4%

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:24.5DEG
 Operators:
 Test Date:2022-11-01

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.361
 Humidity:47.5%
 Test Distance:10.680m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:6.006V I:0.5128A P:3.080W PF:1.000 Freq:0Hz Lamp Flux:299.74lx1 lm		
NAME: MR11 3W 6V	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	4689	1987
80	3930	2338
75	3796	2779
70	3812	3159
65	3908	3592
60	4056	4088
55	4334	4601
50	4844	5283
45	5611	6129

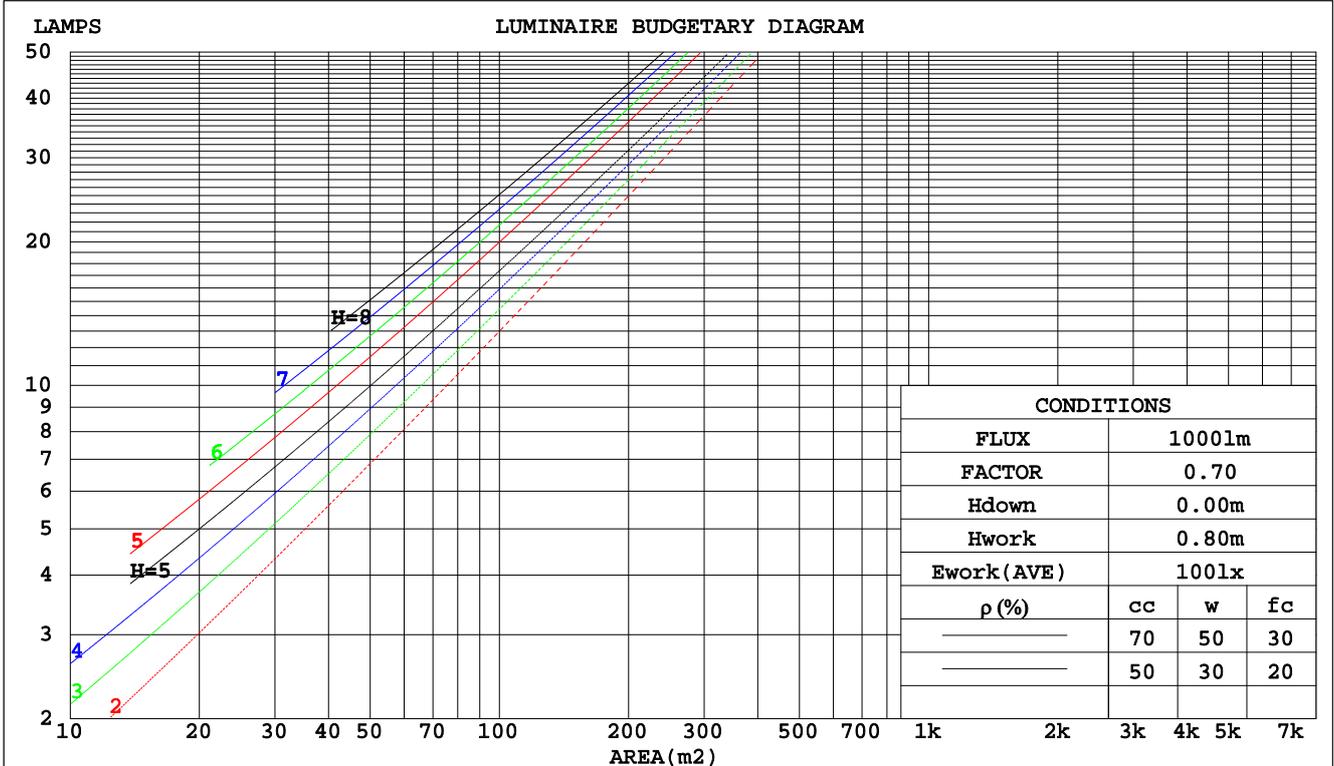
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 24.5DEG
 Operators:
 Test Date: 2022-11-01

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.361
 Humidity: 47.5%
 Test Distance: 10.680m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:6.006V I:0.5128A P:3.080W PF:1.000 Freq:0Hz Lamp Flux:299.741x1 lm		
NAME: MR11 3W 6V	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pw																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	1.01	1.01	1.01	.99
1.0	1.08	1.05	1.02	1.06	1.03	1.00	1.01	.99	.97	.98	.96	.94	.94	.92	.91	.89
2.0	.98	.93	.89	.97	.92	.88	.93	.89	.86	.90	.87	.84	.87	.84	.82	.80
3.0	.90	.84	.79	.89	.83	.79	.86	.81	.77	.83	.79	.76	.81	.77	.75	.73
4.0	.83	.77	.72	.82	.76	.71	.80	.74	.70	.77	.73	.69	.75	.71	.68	.66
5.0	.77	.70	.65	.76	.70	.65	.74	.69	.64	.72	.67	.64	.70	.66	.63	.61
6.0	.72	.65	.60	.71	.65	.60	.69	.64	.59	.68	.63	.59	.66	.62	.58	.57
7.0	.67	.60	.56	.66	.60	.55	.65	.59	.55	.64	.59	.55	.62	.58	.54	.53
8.0	.63	.56	.52	.63	.56	.52	.61	.56	.51	.60	.55	.51	.59	.54	.51	.49
9.0	.60	.53	.49	.59	.53	.49	.58	.52	.48	.57	.52	.48	.56	.51	.48	.46
10.0	.56	.50	.46	.56	.50	.46	.55	.49	.46	.54	.49	.45	.53	.49	.45	.44



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 24.5DEG
 Operators:
 Test Date: 2022-11-01

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.361
 Humidity: 47.5%
 Test Distance: 10.680m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:6.006V I:0.5128A P:3.080W PF:1.000 Freq:0Hz Lamp Flux:299.74lx1 lm		
NAME: MR11 3W 6V	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	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						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.225	.128	.040	.218	.124	.039	.204	.117	.037	.192	.111	.036	.181	.105	.034	
2.0	.212	.116	.036	.206	.114	.035	.195	.108	.034	.184	.103	.032	.174	.099	.031	
3.0	.199	.106	.032	.193	.104	.031	.183	.099	.030	.174	.095	.029	.166	.092	.028	
4.0	.186	.096	.028	.181	.095	.028	.172	.091	.027	.164	.088	.027	.157	.085	.026	
5.0	.174	.089	.026	.170	.087	.025	.162	.084	.025	.155	.082	.024	.148	.079	.024	
6.0	.163	.082	.023	.160	.081	.023	.153	.078	.023	.147	.076	.022	.141	.074	.022	
7.0	.154	.076	.022	.151	.075	.021	.145	.073	.021	.139	.071	.021	.134	.069	.020	
8.0	.145	.071	.020	.142	.070	.020	.137	.068	.020	.132	.067	.019	.127	.065	.019	
9.0	.137	.066	.019	.135	.066	.018	.130	.064	.018	.126	.063	.018	.121	.062	.018	
10.0	.130	.063	.017	.128	.062	.017	.124	.061	.017	.120	.059	.017	.116	.058	.017	

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						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.198	.198	.198	.169	.169	.169	.115	.115	.115	.066	.066	.066	.021	.021	.021	
1.0	.182	.164	.148	.155	.141	.128	.106	.097	.088	.061	.056	.051	.020	.018	.017	
2.0	.169	.140	.115	.145	.120	.099	.099	.083	.069	.057	.048	.041	.018	.016	.013	
3.0	.158	.121	.092	.136	.105	.080	.093	.073	.056	.054	.042	.033	.017	.014	.011	
4.0	.149	.107	.075	.128	.092	.065	.088	.064	.046	.051	.038	.027	.016	.012	.009	
5.0	.140	.096	.063	.120	.083	.055	.083	.058	.039	.048	.034	.023	.015	.011	.008	
6.0	.133	.087	.054	.114	.075	.047	.079	.053	.033	.046	.031	.020	.015	.010	.007	
7.0	.126	.079	.047	.108	.069	.041	.075	.048	.029	.043	.028	.017	.014	.009	.006	
8.0	.120	.073	.041	.103	.064	.036	.071	.045	.026	.041	.026	.015	.013	.009	.005	
9.0	.114	.068	.037	.098	.059	.032	.068	.042	.023	.040	.025	.014	.013	.008	.005	
10.0	.109	.064	.034	.094	.055	.029	.065	.039	.021	.038	.023	.012	.012	.008	.004	

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:24.5DEG
 Operators:
 Test Date:2022-11-01

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.361
 Humidity:47.5%
 Test Distance:10.680m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:6.006V I:0.5128A P:3.080W PF:1.000 Freq:0Hz Lamp Flux:299.74lx1 lm										
NAME: MR11 3W 6V					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.:					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	20.2	21.3	20.4	21.5	21.7	20.3	21.4	20.5	21.6	21.8
3H	21.4	22.4	21.7	22.6	22.9	21.2	22.3	21.5	22.5	22.7
4H	22.0	23.0	22.3	23.2	23.5	21.6	22.6	21.9	22.8	23.1
6H	22.5	23.4	22.8	23.7	24.0	21.8	22.8	22.2	23.0	23.3
8H	22.7	23.6	23.1	23.9	24.2	21.9	22.8	22.2	23.1	23.4
12H	23.0	23.8	23.3	24.1	24.4	21.9	22.8	22.3	23.1	23.4
4H 2H	20.6	21.6	20.9	21.8	22.1	20.7	21.7	21.0	21.9	22.2
3H	22.0	22.9	22.4	23.2	23.5	21.8	22.7	22.2	23.0	23.3
4H	22.7	23.5	23.1	23.8	24.2	22.3	23.1	22.7	23.4	23.8
6H	23.4	24.1	23.8	24.5	24.8	22.7	23.4	23.1	23.7	24.1
8H	23.7	24.4	24.1	24.7	25.1	22.8	23.5	23.2	23.8	24.2
12H	24.0	24.6	24.5	25.0	25.4	22.9	23.5	23.3	23.9	24.3
8H 4H	22.9	23.6	23.4	24.0	24.3	22.6	23.2	23.0	23.6	24.0
6H	23.8	24.3	24.2	24.7	25.2	23.1	23.6	23.5	24.0	24.5
8H	24.2	24.6	24.6	25.1	25.6	23.3	23.7	23.7	24.2	24.6
12H	24.6	25.0	25.1	25.5	25.9	23.4	23.8	23.9	24.3	24.8
12H 4H	22.9	23.5	23.4	23.9	24.3	22.6	23.2	23.0	23.6	24.0
6H	23.8	24.3	24.3	24.7	25.2	23.1	23.6	23.6	24.1	24.5
8H	24.3	24.7	24.8	25.1	25.6	23.4	23.8	23.9	24.2	24.7
Variations with the observer position at spacings:										
S = 1.0H	+ 0.3 / - 0.3					+ 0.3 / - 0.4				
1.5H	+ 0.2 / - 0.2					+ 0.2 / - 0.2				
2.0H	+ 0.3 / - 0.3					+ 0.5 / - 0.4				

CIE Pub.117, 299.7 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -4.2)

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:24.5DEG
 Operators:
 Test Date:2022-11-01

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.361
 Humidity:47.5%
 Test Distance:10.680m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:6.006V I:0.5128A P:3.080W PF:1.000 Freq:0Hz Lamp Flux:299.74lx1 lm		
NAME: MR11 3W 6V	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

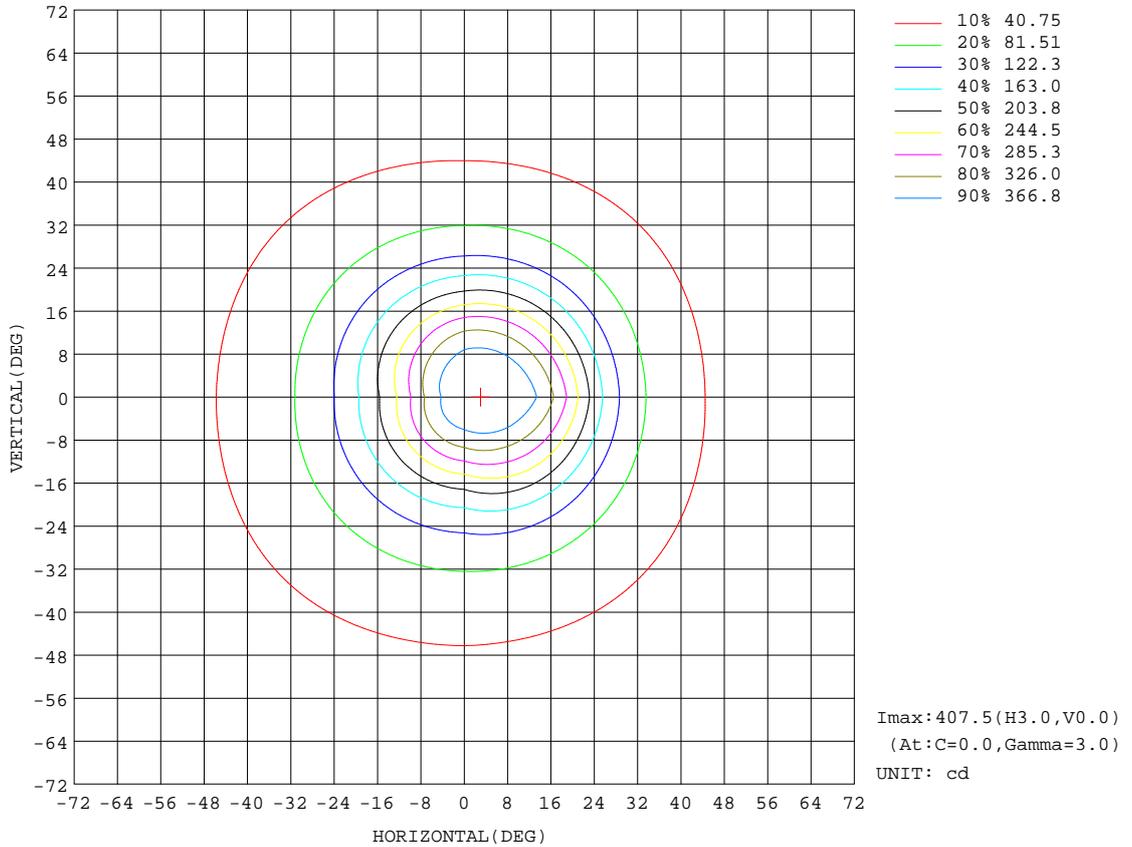
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	74	66	61	74	66	60	73	65	60	56
0.80	83	75	69	82	74	69	81	74	69	64
1.00	89	81	76	88	81	76	86	81	75	70
1.25	95	87	82	93	86	82	91	85	81	75
1.50	98	91	87	97	91	86	94	89	85	79
2.00	103	97	92	101	96	91	98	93	90	83
2.50	105	100	96	103	98	95	100	96	93	85
3.00	108	103	99	106	101	98	102	98	95	88
4.00	110	106	103	108	105	102	104	101	99	91
5.00	112	109	106	110	107	104	105	103	101	93
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:24.5DEG
 Operators:
 Test Date:2022-11-01

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.361
 Humidity:47.5%
 Test Distance:10.680m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:6.006V I:0.5128A P:3.080W PF:1.000 Freq:0Hz Lamp Flux:299.74lx1 lm		
NAME: MR11 3W 6V	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

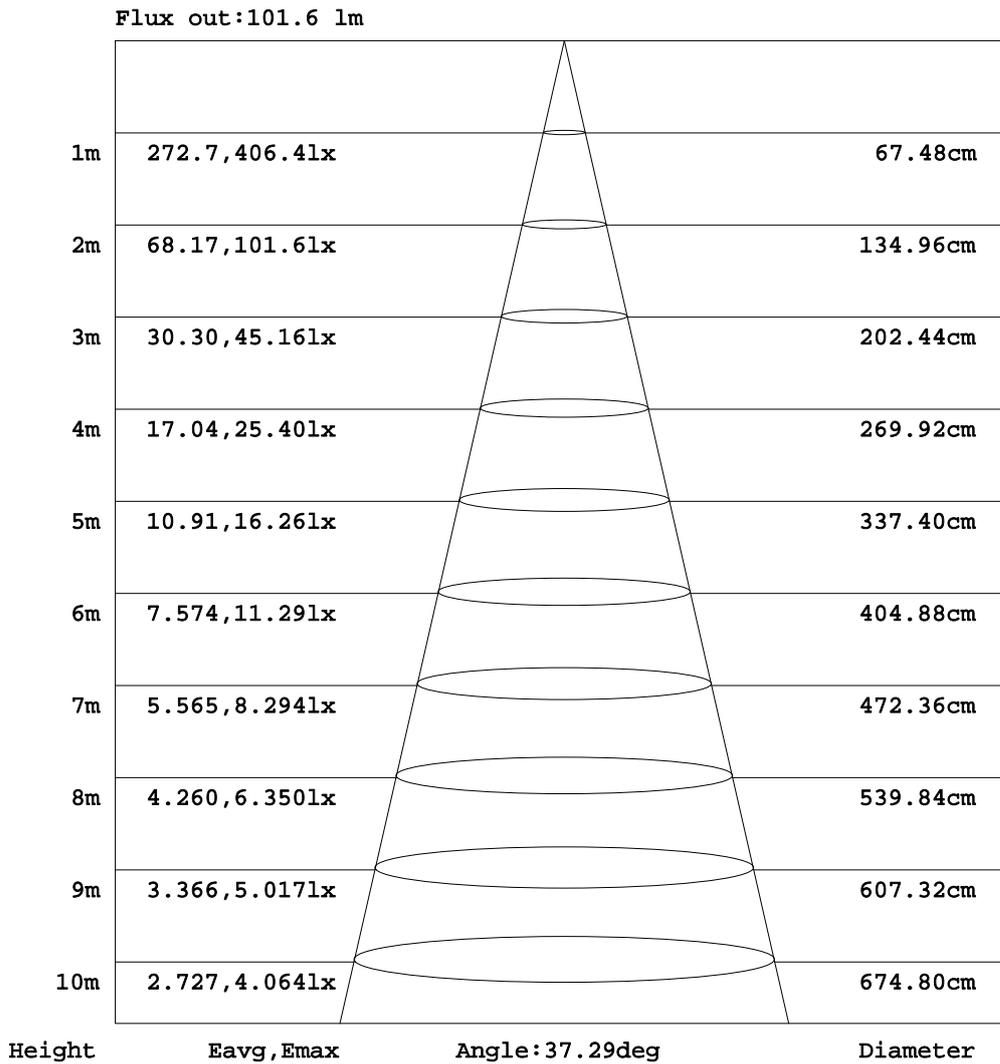


C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 24.5DEG
 Operators:
 Test Date: 2022-11-01

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.361
 Humidity: 47.5%
 Test Distance: 10.680m [K=1.0000]
 Remarks:

AAI Figure

Test:U:6.006V I:0.5128A P:3.080W PF:1.000 Freq:0Hz Lamp Flux:299.74lx1 lm		
NAME: MR11 3W 6V	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



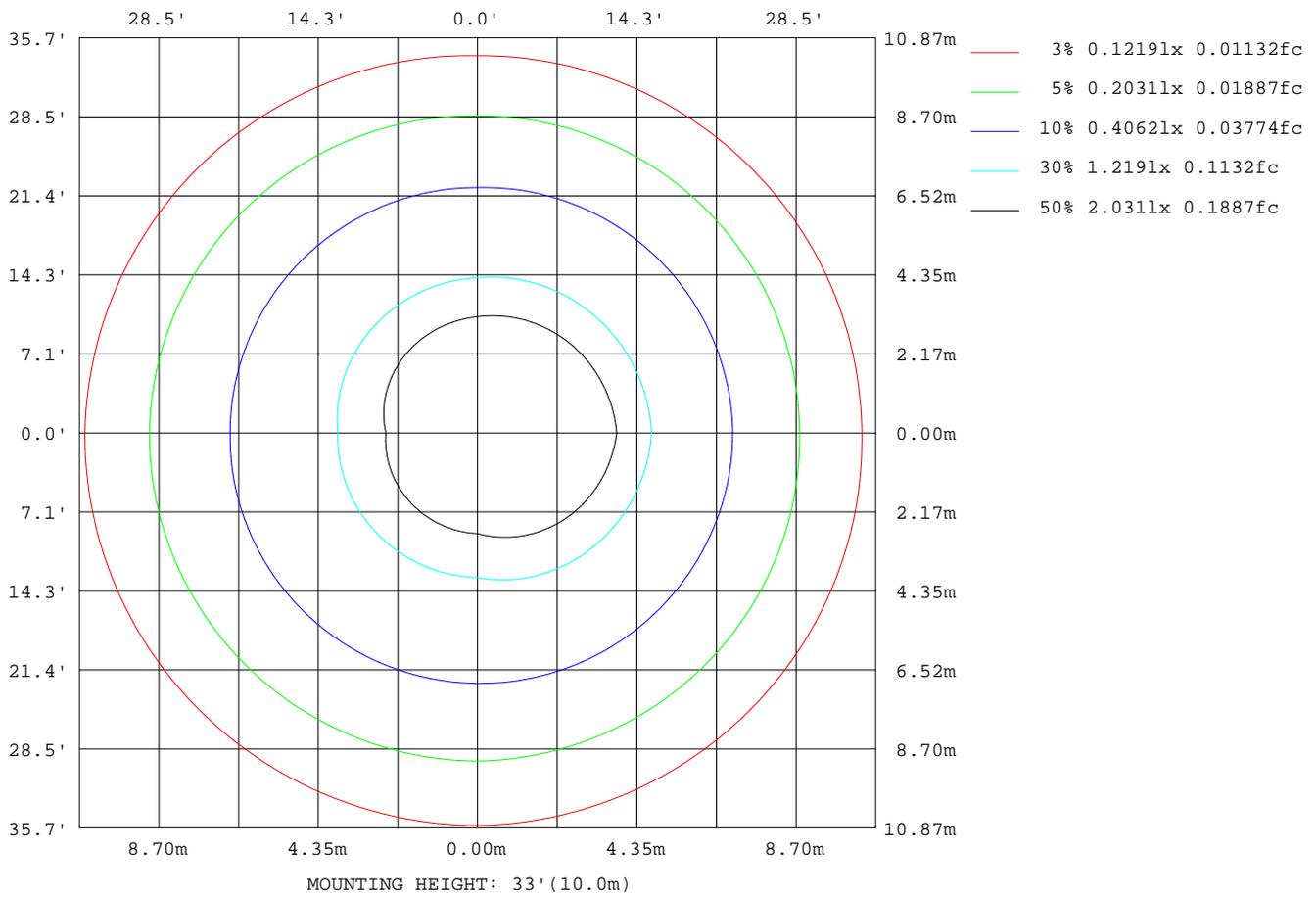
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:24.5DEG
 Operators:
 Test Date:2022-11-01

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.361
 Humidity:47.5%
 Test Distance:10.680m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:6.006V I:0.5128A P:3.080W PF:1.000 Freq:0Hz Lamp Flux:299.74lx1 lm		
NAME: MR11 3W 6V	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 24.5DEG
 Operators:
 Test Date: 2022-11-01

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.361
 Humidity: 47.5%
 Test Distance: 10.680m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:6.006V I:0.5128A P:3.080W PF:1.000 Freq:0Hz Lamp Flux:299.741x1 lm		
NAME: MR11 3W 6V	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

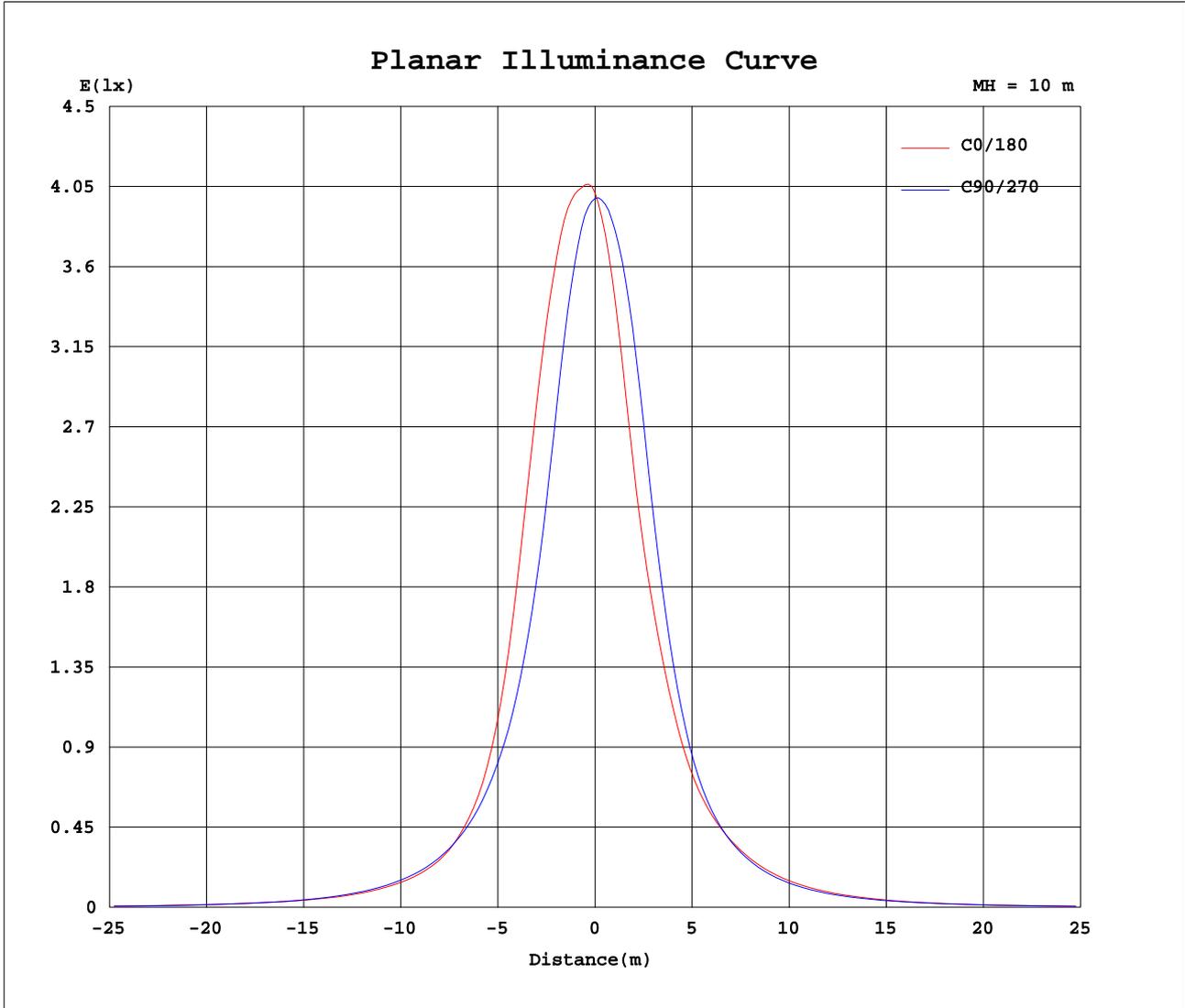
AvgL	cd/m2
L_0~180(65)av	3655
L_0~180(75)av	3080
L_0~180(85)av	3005
L_90~270(65)av	3534
L_90~270(75)av	2797
L_90~270(85)av	2119
L_45(65)av	3565
L_45(75)av	2860
L_45(85)av	2349

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:24.5DEG
 Operators:
 Test Date:2022-11-01

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.361
 Humidity:47.5%
 Test Distance:10.680m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 24.5DEG
 Operators:
 Test Date: 2022-11-01

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.361
 Humidity: 47.5%
 Test Distance: 10.680m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:6.006V I:0.5128A P:3.080W PF:1.000 Freq:0Hz Lamp Flux:299.74lx1 lm		
NAME: MR11 3W 6V	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	90	180	270															
0	400	400	400	400															
5	406	378	357	392															
10	394	318	282	356															
15	346	235	210	283															
20	263	170	157	200															
25	171	125	115	136															
30	108	93.7	86.4	93.0															
35	72.6	71.5	68.0	67.5															
40	51.6	55.3	53.6	50.7															
45	39.5	43.5	42.1	38.7															
50	31.0	34.1	33.1	30.0															
55	24.8	26.5	25.7	23.7															
60	20.2	20.5	19.6	18.8															
65	16.5	15.2	14.4	14.6															
70	13.0	10.8	9.95	10.8															
75	9.79	7.22	6.16	7.26															
80	6.80	4.08	3.23	4.15															
85	4.07	1.74	1.17	1.95															
90	2.03	0.09	0.44	0.35															
95	0.50	0.08	0.08	0.09															
100	0.10	0.10	0.10	0.08															
105	0.10	0.13	0.13	0.12															
110	0.10	0.18	0.16	0.12															
115	0.15	0.22	0.21	0.12															
120	0.21	0.28	0.27	0.20															
125	0.27	0.36	0.37	0.32															
130	0.34	0.46	0.47	0.35															
135	0.48	0.61	0.62	0.46															
140	0.60	0.77	0.76	0.58															
145	0.76	0.93	0.91	0.73															
150	0.95	1.10	1.05	0.88															
155	1.06	1.21	1.18	1.04															
160	1.20	1.32	1.27	1.15															
165	1.31	1.37	1.33	1.29															
170	1.34	1.38	1.37	1.32															
175	1.36	1.38	1.37	1.32															
180	1.37	1.38	1.37	1.35															

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:24.5DEG
 Operators:
 Test Date:2022-11-01

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