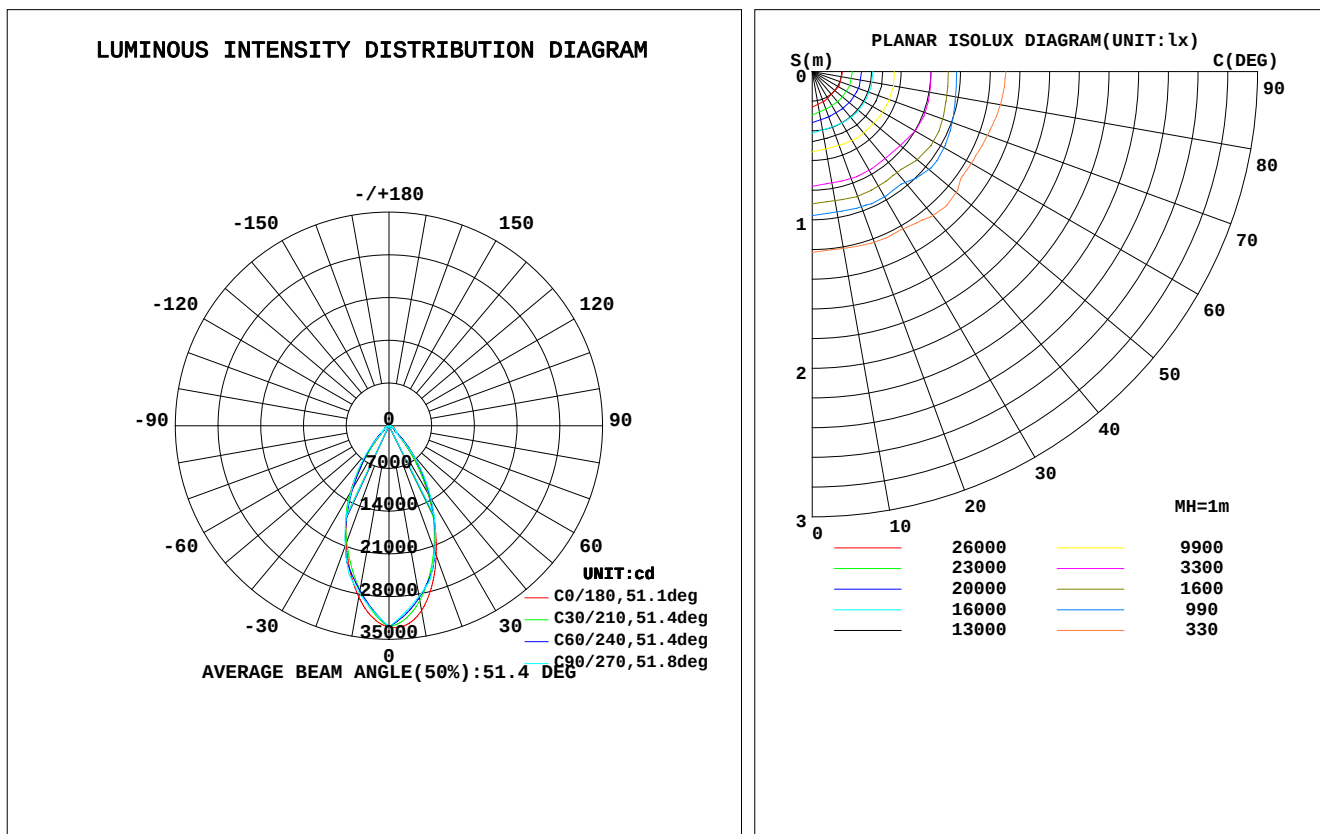


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.1V I:0.8923A P:191.3W PF:0.9737 Lamp Flux:26606.5x1 lm		
NAME: GLM-MXHB200(AH) 60°	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.:	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 139.10 lm/W			
MODEL		I _{max} (cd)	33099	S/MH(C0/180)	0.75
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	0.76
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	26607	η UP, DN(C0-180)	0.0, 51.2
NOMINAL FLUX(lm)	26606.5	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 48.8
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE(V)	230	η down(%)	100.0	CIBSE SHR MAX	0.85



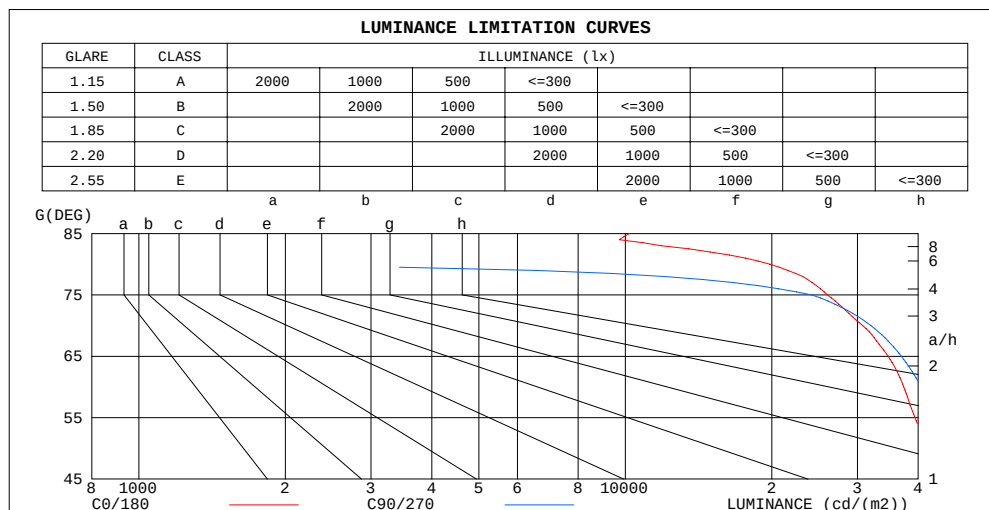
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2020-03-16

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.290
Humidity:65.0%
Test Distance:7.500m [K=1.113]
Remarks:

ZONAL FLUX DIAGRAM AND LUMINANCE LIMITATION CURVES

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	ϕ zone	ϕ total	%lum, lamp
5	3276	3131	3068	3058	3150	3038	3040	3113	0- 5	758.8	758.8	2.85,2.85
10	3075	2874	2839	2765	2852	2734	2783	2846	5- 10	2116	2874	10.8,10.8
15	2715	2551	2610	2432	2464	2419	2527	2529	10- 15	3162	6036	22.7,22.7
20	2264	2205	2198	2082	2049	2116	2094	2201	15- 20	3813	9850	37,37
25	1773	1758	1785	1633	1648	1667	1662	1765	20- 25	3988	13838	52,52
30	1283	1295	1373	1206	1258	1190	1229	1300	25- 30	3726	17564	66,66
35	857.7	856.3	980.7	815.0	832.6	728.8	873.6	838.7	30- 35	3088	20652	77.6,77.6
40	488.7	481.9	588.7	469.6	392.8	346.8	518.1	430.6	35- 40	2197	22849	85.9,85.9
45	221.9	285.0	196.7	274.1	153.9	200.2	162.7	236.7	40- 45	1272	24121	90.7,90.7
50	132.6	169.7	163.2	160.1	104.3	123.0	132.7	137.4	45- 50	665.3	24786	93.2,93.2
55	107.4	111.4	129.8	107.4	90.56	87.41	102.7	92.25	50- 55	496.9	25283	95,95
60	88.72	90.17	96.37	87.53	76.74	70.49	72.68	73.87	55- 60	425.3	25708	96.6,96.6
65	69.67	69.61	74.15	67.80	59.04	53.20	55.01	55.62	60- 65	352.0	26060	97.9,97.9
70	49.96	49.73	51.93	48.55	39.61	36.23	37.34	38.13	65- 70	268.7	26329	99,99
75	32.00	30.86	29.72	30.44	20.90	20.24	19.66	21.80	70- 75	178.5	26507	99.6,99.6
80	16.34	12.25	0	12.53	6.892	5.543	0	6.578	75- 80	85.32	26593	99.9,99.9
85	4.223	0	0	0	0	0	0	0	80- 85	12.99	26606	100,100
90	3.577	0	0	0	0.0425	0	0	0	85- 90	0.7601	26607	100,100
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:×10cd									UNIT:lm		



LUMINANCE cd/(m2)		
G(°)	C0/180	C90/270
85	10201	0
80	19812	0
75	26027	24171
70	30754	31968
65	34704	36939
60	37355	40577
55	39403	47645
50	43427	53466
45	66071	58558

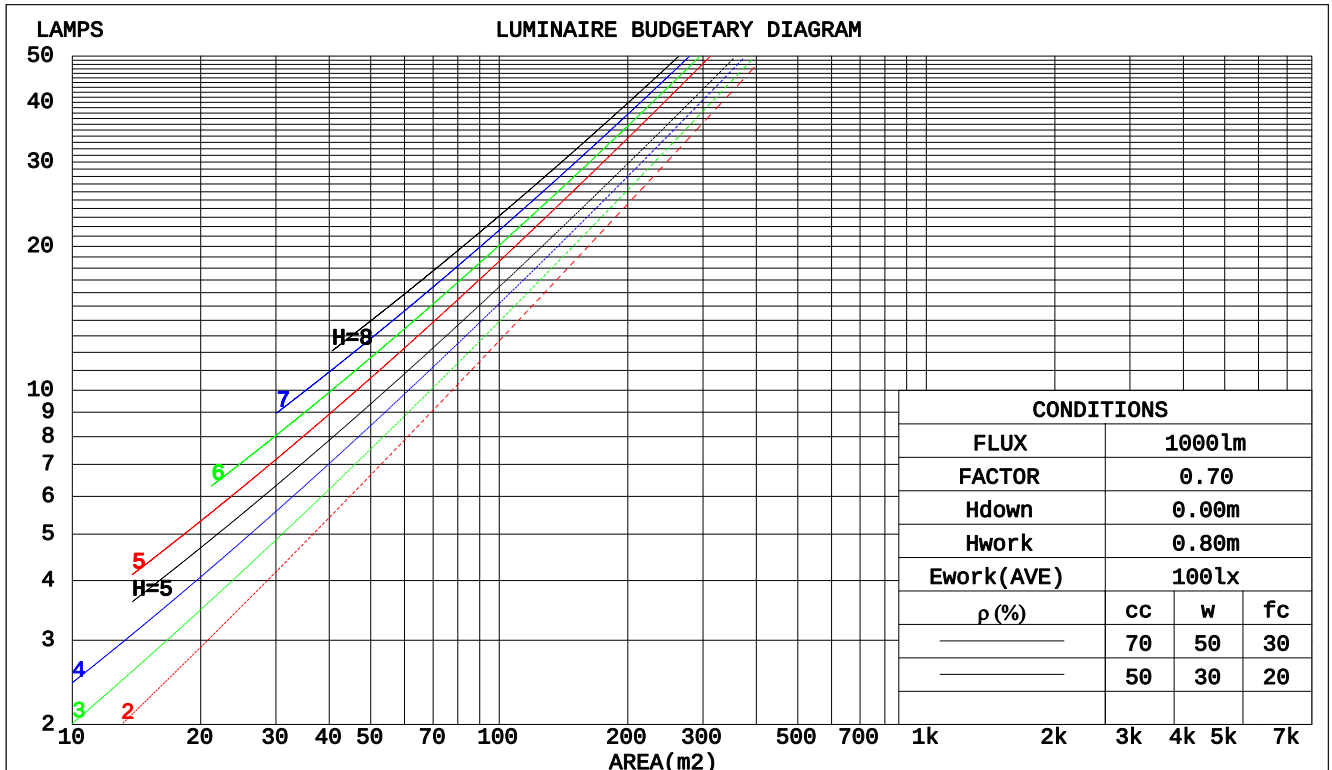
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2020-03-16

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.290
 Humidity:65.0%
 Test Distance:7.500m [K=1.1133]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.1V I:0.8923A P:191.3W PF:0.9737 Lamp Flux:26606.5x1 lm		
NAME: GLM-MXHB200(AH) 60°	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.:	SUR.:	PROTECTION ANGLE:

ρ_{CC}	80%			70%			50%			30%			10%			0
ρ_W	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2020-03-16

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.290
 Humidity:65.0%
 Test Distance:7.500m [K=1.1133]
 Remarks:

WEC AND CCEC

Test:U:220.1V I:0.8923A P:191.3W PF:0.9737 Lamp Flux:26606.5x1 lm									
NAME: GLM-MXHB200(AH) 60°					TYPE:LED			WEIGHT:	
SPEC.:					DIM.:			SERIAL No.:1	
MFR.:					SUR.:			PROTECTION ANGLE:	

ρ_{CC}	80%			70%			50%			30%			10%			0		
ρ_W	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0		
ρ_{fc}	20%			20%			20%			20%			20%			0		
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)											
0.0																		
1.0	.192	.109	.035	.186	.106	.034	.173	.099	.032	.161	.093	.030	.151	.087	.028			
2.0	.185	.101	.031	.179	.099	.030	.168	.094	.029	.159	.089	.028	.149	.084	.027			
3.0	.175	.093	.028	.171	.091	.028	.161	.087	.027	.153	.084	.026	.145	.080	.025			
4.0	.166	.086	.025	.162	.085	.025	.154	.082	.024	.147	.079	.024	.140	.076	.023			
5.0	.158	.080	.023	.154	.079	.023	.147	.077	.023	.140	.074	.022	.134	.072	.022			
6.0	.150	.075	.021	.146	.074	.021	.140	.072	.021	.135	.070	.021	.129	.068	.020			
7.0	.142	.070	.020	.139	.069	.020	.134	.068	.020	.129	.066	.019	.124	.064	.019			
8.0	.136	.066	.019	.133	.066	.019	.128	.064	.018	.124	.063	.018	.119	.061	.018			
9.0	.129	.063	.017	.127	.062	.017	.123	.061	.017	.119	.059	.017	.115	.058	.017			
10.0	.124	.059	.016	.122	.059	.016	.118	.058	.016	.114	.057	.016	.110	.056	.016			

ρ _{CC}	80%			70%			50%			30%			10%			0
ρ _W	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ _{fc}	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	.172	.157	.144	.147	.135	.124	.101	.093	.086	.058	.054	.050	.019	.017	.016	
2.0	.158	.132	.111	.135	.114	.096	.093	.079	.067	.053	.046	.039	.017	.015	.013	
3.0	.146	.114	.088	.125	.098	.076	.086	.068	.053	.050	.040	.031	.016	.013	.010	
4.0	.136	.099	.071	.117	.086	.061	.081	.060	.043	.047	.035	.026	.015	.011	.008	
5.0	.128	.088	.058	.110	.076	.050	.076	.053	.036	.044	.031	.021	.014	.010	.007	
6.0	.121	.079	.048	.104	.068	.042	.072	.048	.030	.041	.028	.018	.013	.009	.006	
7.0	.114	.071	.041	.098	.062	.036	.068	.043	.025	.039	.025	.015	.013	.008	.005	
8.0	.108	.065	.035	.093	.056	.031	.065	.040	.022	.038	.023	.013	.012	.008	.004	
9.0	.103	.060	.030	.089	.052	.027	.062	.036	.019	.036	.022	.011	.012	.007	.004	
10.0	.098	.055	.027	.085	.048	.023	.059	.034	.017	.034	.020	.010	.011	.007	.003	

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2020-03-16

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.290
Humidity:65.0%
Test Distance:7.500m [K=1.1133]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.1V I:0.8923A P:191.3W PF:0.9737 Lamp Flux:26606.5x1 lm											
NAME: GLM-MXHB200(AH) 60°						TYPE:LED			WEIGHT:		
SPEC.:						DIM.:			SERIAL No.:1		
MFR.:						SUR.:			PROTECTION 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		23.7	24.7	23.9	24.9	25.0	24.7	25.8	25.0	25.9	26.1
	3H	24.1	25.0	24.4	25.2	25.4	25.1	26.1	25.4	26.3	26.5
	4H	24.3	25.2	24.5	25.4	25.6	25.2	26.1	25.5	26.3	26.6
	6H	24.3	25.2	24.6	25.4	25.7	25.2	26.0	25.5	26.3	26.5
	8H	24.3	25.1	24.6	25.4	25.6	25.1	25.9	25.4	26.2	26.5
	12H	24.3	25.0	24.6	25.3	25.6	25.1	25.9	25.4	26.1	26.4
4H	2H	23.8	24.7	24.1	24.9	25.1	24.8	25.6	25.0	25.9	26.1
	3H	24.4	25.1	24.7	25.4	25.7	25.3	26.1	25.6	26.3	26.6
	4H	24.6	25.3	25.0	25.6	25.9	25.5	26.2	25.8	26.5	26.8
	6H	24.7	25.3	25.1	25.7	26.0	25.4	26.1	25.8	26.4	26.7
	8H	24.7	25.3	25.1	25.6	26.0	25.4	26.0	25.8	26.3	26.7
	12H	24.7	25.2	25.1	25.6	26.0	25.3	25.9	25.8	26.2	26.6
8H	4H	24.6	25.2	25.0	25.6	25.9	25.5	26.0	25.9	26.4	26.8
	6H	24.8	25.3	25.2	25.7	26.1	25.5	25.9	25.9	26.3	26.7
	8H	24.8	25.2	25.3	25.6	26.1	25.4	25.8	25.8	26.2	26.7
	12H	24.8	25.1	25.3	25.6	26.0	25.3	25.7	25.8	26.1	26.6
12H	4H	24.6	25.1	25.0	25.5	25.9	25.4	25.9	25.8	26.3	26.7
	6H	24.8	25.2	25.2	25.6	26.0	25.4	25.8	25.9	26.2	26.7
	8H	24.8	25.1	25.2	25.6	26.0	25.4	25.7	25.8	26.2	26.6
Variations with the observer position at spacings:											
S = 1.0H		+ 1.5 / - 1.8					+ 1.5 / - 2.4				
1.5H		+ 3.1 / - 1.6					+ 3.4 / - 2.0				
2.0H		+ 1.4 / - 0.6					+ 0.7 / - 0.7				

CIE Pub.117 Corrected 26607 lm Total Lamp Luminous Flux.(8log(F/F0) = 11.4)

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2020-03-16

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.290
Humidity:65.0%
Test Distance:7.500m [K=1.1133]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.1V I:0.8923A P:191.3W PF:0.9737 Lamp Flux:26606.5x1 lm		
NAME: GLM-MXHB200(AH) 60°	TYPE: LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.:	SUR.:	PROTECTION 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	83	76	71	82	75	71	81	75	71	67
0.80	91	84	80	90	84	80	89	83	79	75
1.00	96	89	85	95	89	85	93	89	84	80
1.25	100	94	90	99	94	90	97	93	89	85
1.50	103	98	94	102	97	94	100	96	93	88
2.00	107	102	98	105	101	98	102	99	96	91
2.50	109	104	101	107	103	100	104	101	98	92
3.00	111	107	104	109	105	103	105	103	100	94
4.00	113	110	107	111	108	106	107	105	103	96
5.00	114	112	110	112	110	108	108	106	105	97
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2020-03-16

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.290
Humidity:65.0%
Test Distance:7.500m [K=1.1133]
Remarks:

ISOCANDELA DIAGRAM

Test:U:220.1V I:0.8923A P:191.3W PF:0.9737 Lamp Flux:26606.5x1 lm		
NAME: GLM-MXHB200(AH) 60°	TYPE: LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.:	SUR.:	PROTECTION ANGLE:

Conical surface Flux(90deg):

24121 lm

%lum = 90.7%

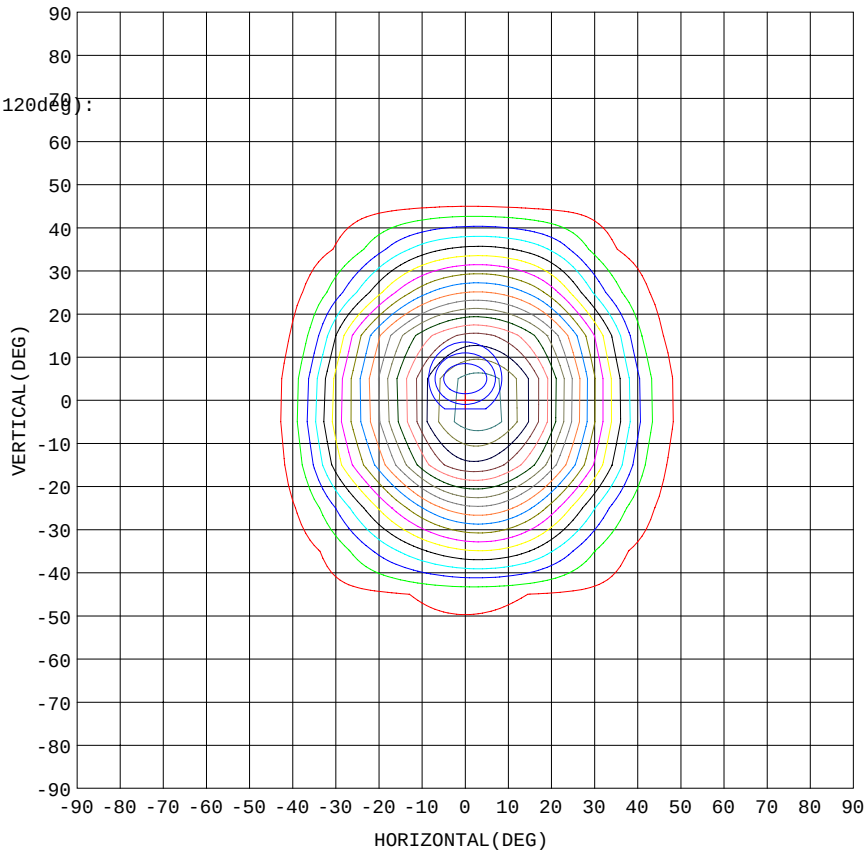
%lamp = 90.7%

Conical surface Flux(120deg):

25708 lm

%lum = 96.6%

%lamp = 96.6%



1. AVG=0, MIN=0
2. AVG=30349, MIN=27565
3. AVG=30041, MIN=26821

Imax:33082(H0.0,V0.0)
(At:C=0.0,Gamma=2.0)

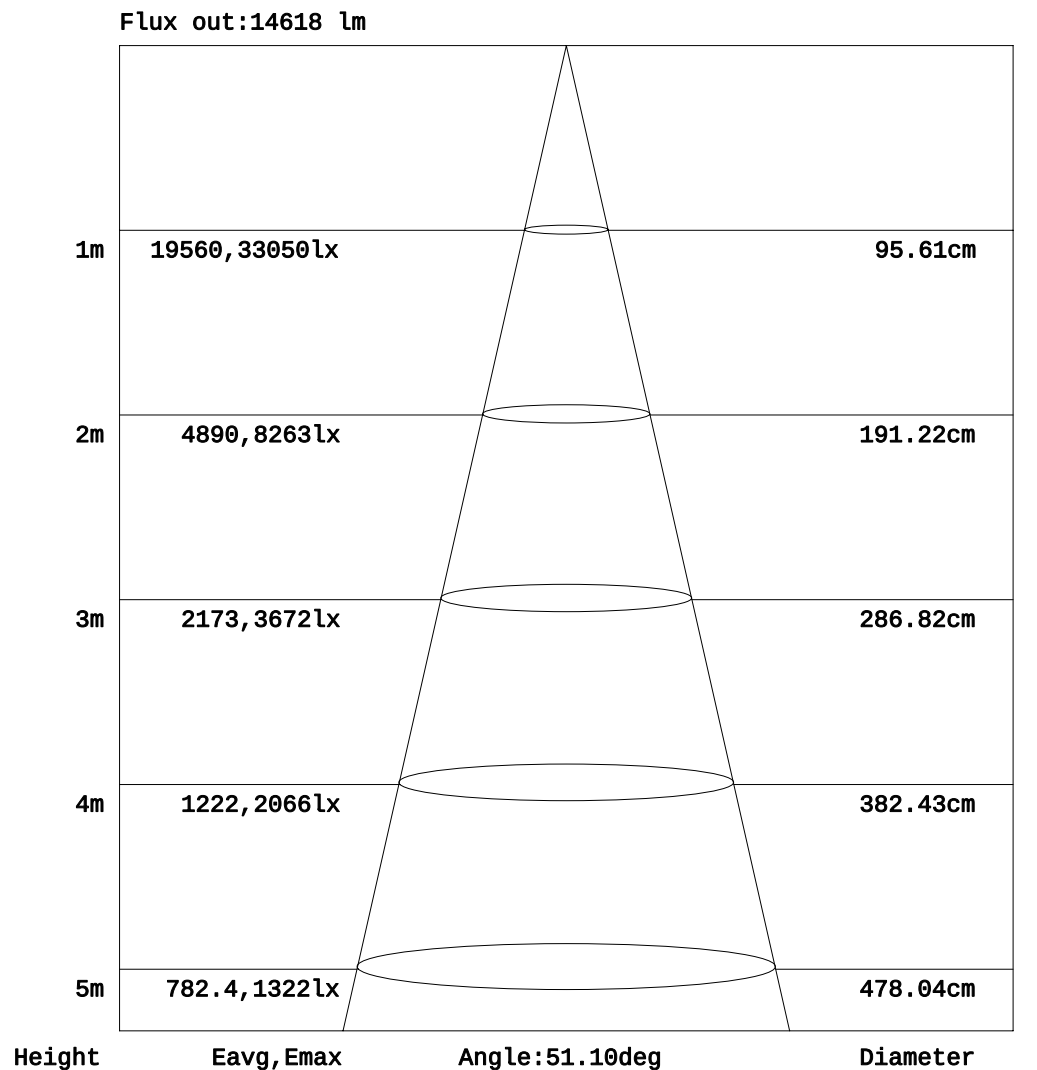
UNIT: cd

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2020-03-16

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.290
Humidity:65.0%
Test Distance:7.500m [K=1.1133]
Remarks:

AAI Figure

Test:U:220.1V I:0.8923A P:191.3W PF:0.9737 Lamp Flux:26606.5x1 lm		
NAME: GLM-MXHB200(AH) 60°	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.:	SUR.:	PROTECTION ANGLE:



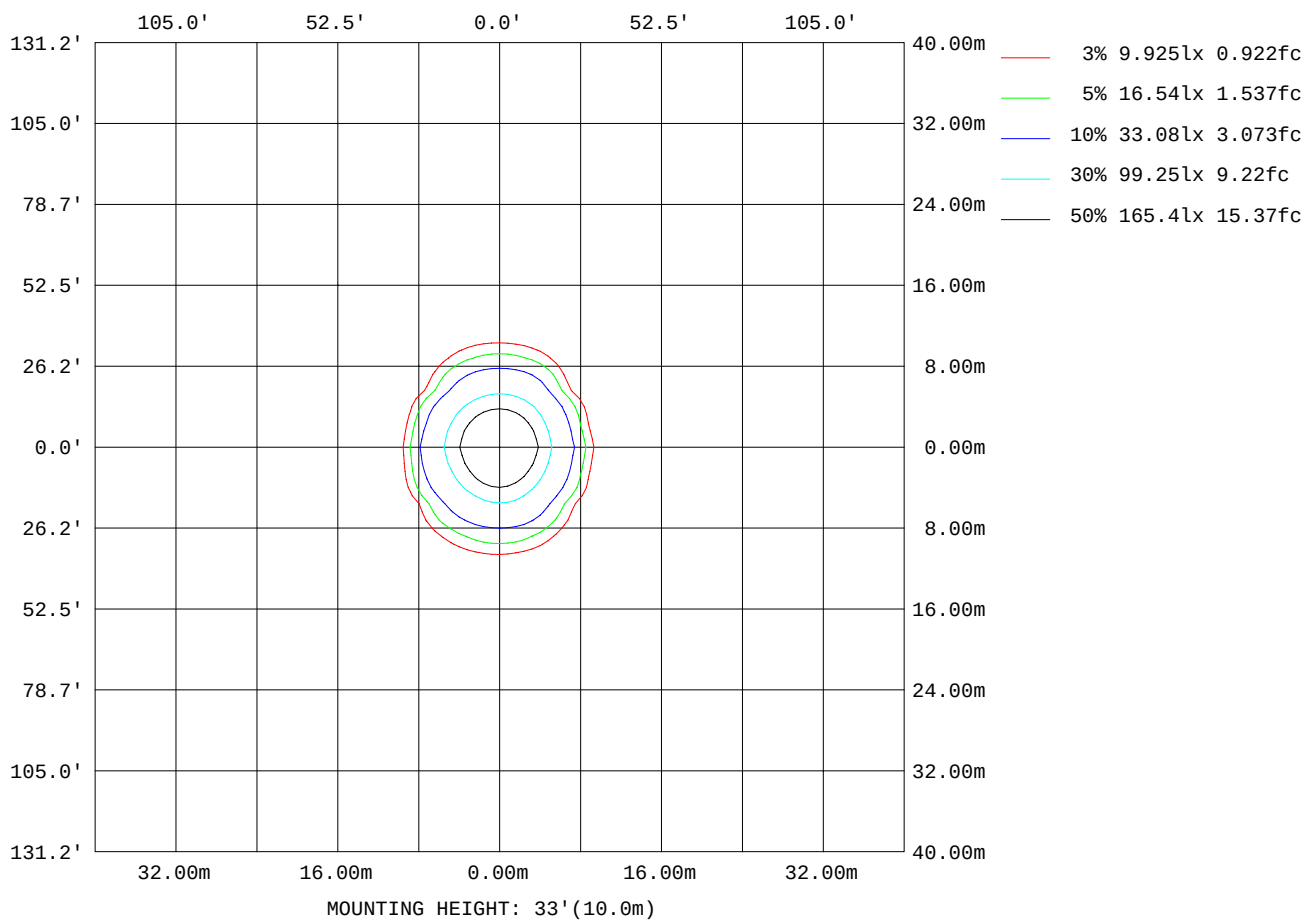
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2020-03-16

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.290
 Humidity:65.0%
 Test Distance:7.500m [K=1.1133]
 Remarks:

ISOLUX DIAGRAM

Test:U:220.1V I:0.8923A P:191.3W PF:0.9737 Lamp Flux:26606.5x1 lm		
NAME: GLM-MXHB200(AH) 60°	TYPE: LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.:	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2020-03-16

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.290
Humidity: 65.0%
Test Distance: 7.500m [K=1.1133]
Remarks:

LED Avg.L Report

Test:U:220.1V I:0.8923A P:191.3W PF:0.9737 Lamp Flux:26606.5x1 lm		
NAME: GLM-MXHB200(AH) 60°	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.:	SUR.:	PROTECTION ANGLE:

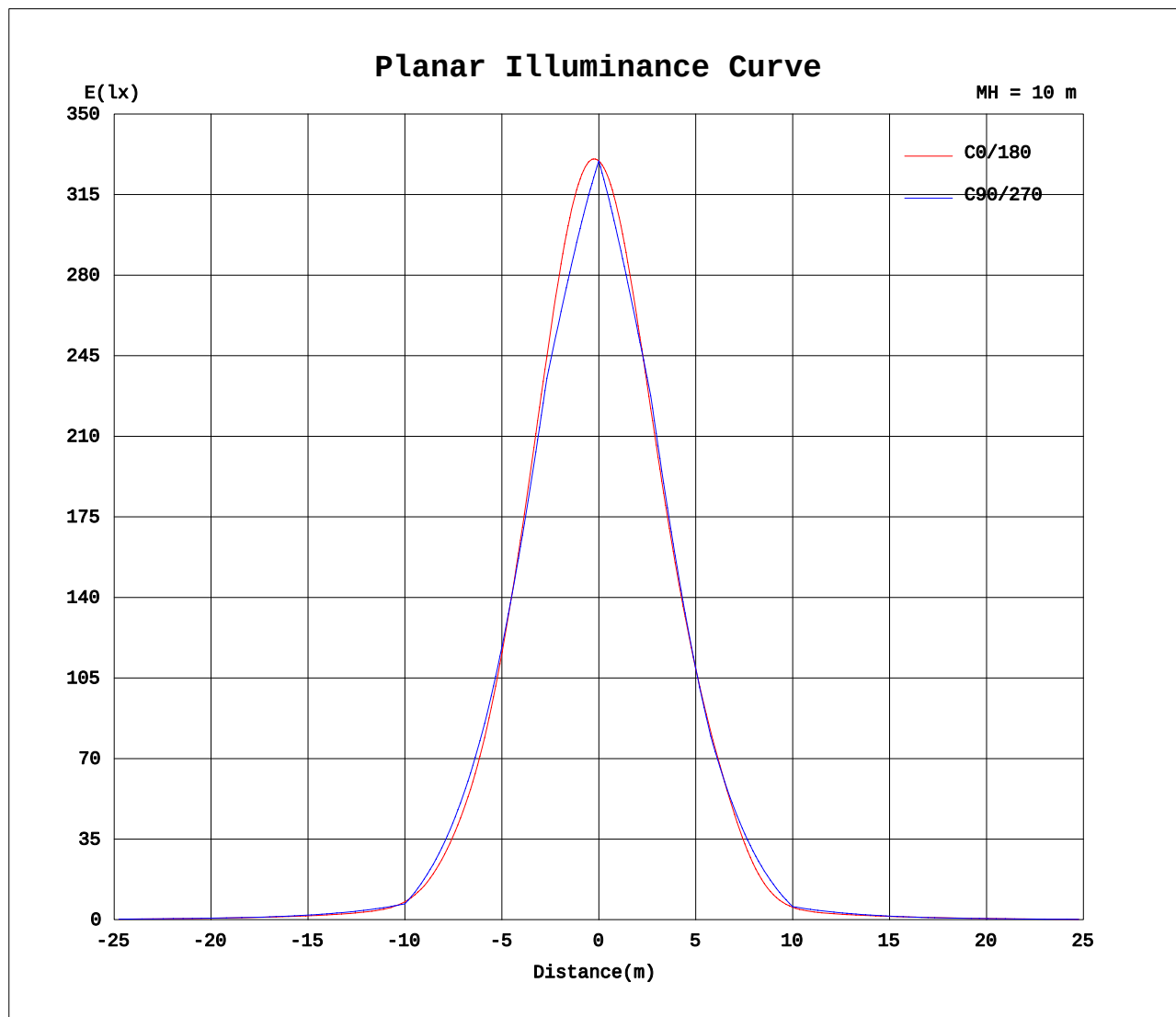
AvgL	cd/m2
L_0~180(65)av	32056
L_0~180(75)av	21514
L_0~180(85)av	5100
L_90~270(65)av	32170
L_90~270(75)av	20083
L_90~270(85)av	0
L_45(65)av	30665
L_45(75)av	21014
L_45(85)av	0

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2020-03-16

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.290
Humidity:65.0%
Test Distance:7.500m [K=1.1133]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2020-03-16

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.290
Humidity: 65.0%
Test Distance: 7.500m [K=1.1133]
Remarks:

C:\Documents and Settings\Administrator\桌面\GLM-MXHB200(AH) 60°\GLM-MXHB200(AH) 60°.GOS

