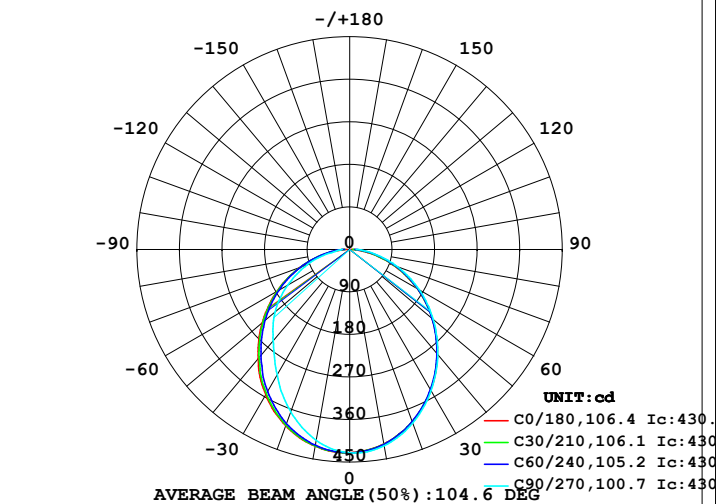


LUMINAIRE PHOTOMETRIC TEST REPORT

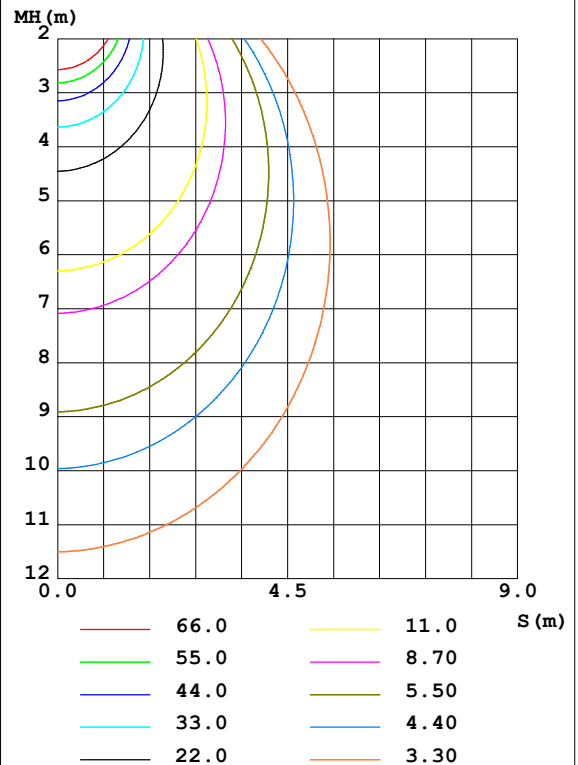
Test:U:48.00V I:0.3588A P:17.22W PF:1.000 Freq:50.00Hz Lamp Flux:1151.59x1 lm		
NAME: M20-T41306-18G40-120D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:605*21.6	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 66.87 lm/W
MODEL	4000K CRI90	I _{max} (cd)	430.6	S/MH(C0/180)	1.23	
NOMINAL POWER(W)	18	LOR(%)	100.0	S/MH(C90/270)	1.09	
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	1151.6	η UP,DN(C0-180)	0.0,49.9	
NOMINAL FLUX(lm)	1151.59	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.1	
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25	
TEST VOLTAGE(V)	225.4	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: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:ZR
 Test Date:2021-08-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.354
 Humidity:65.0%
 Test Distance:8.402m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	417.8	418.8	421.6	421.4	422.4	421.1	410.0	418.5	0- 10	40.55	40.55	3.52,3.52
20	387.9	388.3	391.0	393.4	396.7	392.8	365.3	388.1	10- 20	114.6	155.2	13.5,13.5
30	343.4	343.3	344.9	349.9	355.5	349.7	307.0	343.2	20- 30	169.8	325.0	28.2,28.2
40	289.1	287.4	290.3	294.7	301.7	296.3	252.3	289.0	30- 40	199.3	524.3	45.5,45.5
50	228.7	228.1	231.0	235.4	241.9	237.1	206.7	229.6	40- 50	201.7	726.0	63,63
60	164.9	166.1	170.0	173.4	178.1	175.3	151.4	167.4	50- 60	179.7	905.7	78.6,78.6
70	99.57	103.9	108.2	110.6	113.2	111.4	97.02	104.8	60- 70	136.7	1042	90.5,90.5
80	39.58	45.93	51.69	50.95	49.14	52.29	38.98	47.24	70- 80	81.04	1123	97.6,97.6
90	3.058	8.987	13.97	9.324	5.207	11.30	15.84	11.17	80- 90	28.18	1152	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): 626.42 lm

%lum = 54.4%

%lamp = 54.4%

Conical surface Flux(120deg): 905.66 lm

%lum = 78.6%

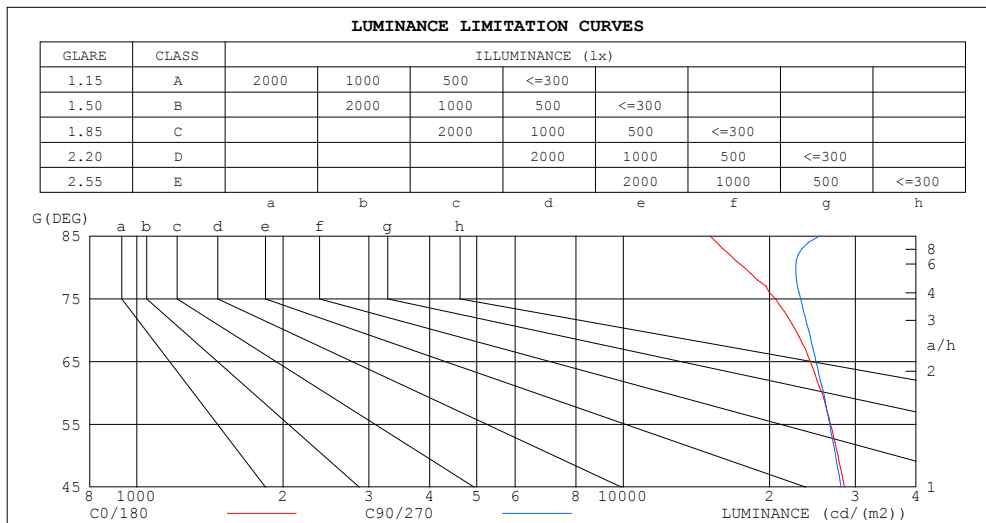
%lamp = 78.6%

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:ZR
 Test Date:2021-08-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.354
 Humidity:65.0%
 Test Distance:8.402m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:48.00V I:0.3588A P:17.22W PF:1.000 Freq:50.00Hz Lamp Flux:1151.59x1 lm		
NAME: M20-T41306-18G40-120D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:605*21.6	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	15082	25362
80	17706	22630
75	20554	23160
70	22614	24050
65	24253	24929
60	25624	25850
55	26672	26587
50	27640	27320
45	28498	28023

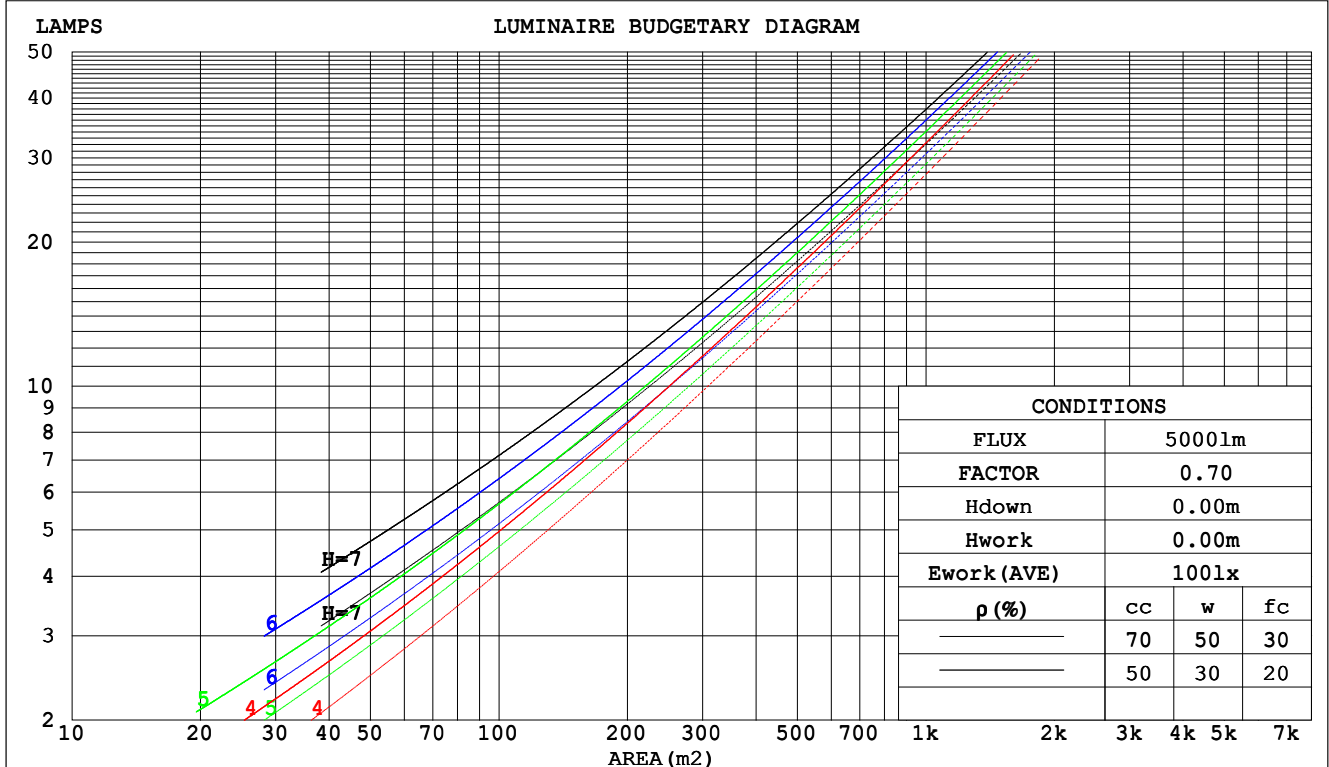
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZR
Test Date:2021-08-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.354
Humidity:65.0%
Test Distance:8.402m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:48.00V I:0.3588A P:17.22W PF:1.000 Freq:50.00Hz Lamp Flux:1151.59x1 lm		
NAME: M20-T41306-18G40-120D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:605*21.6	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	.99	.95	1.01	.97	.94	.97	.94	.91	.93	.91	.88	.90	.87	.85	.83
2.0	.90	.84	.78	.89	.82	.77	.85	.80	.75	.82	.77	.73	.79	.75	.72	.69
3.0	.79	.71	.65	.78	.70	.64	.75	.68	.63	.72	.67	.62	.70	.65	.61	.59
4.0	.70	.62	.55	.69	.61	.55	.67	.59	.54	.64	.58	.53	.62	.57	.52	.50
5.0	.63	.54	.47	.62	.53	.47	.60	.52	.47	.58	.51	.46	.56	.50	.46	.43
6.0	.57	.48	.41	.56	.47	.41	.54	.46	.41	.52	.46	.41	.51	.45	.40	.38
7.0	.52	.43	.37	.51	.42	.37	.49	.42	.36	.48	.41	.36	.46	.40	.36	.34
8.0	.47	.39	.33	.46	.38	.33	.45	.38	.32	.44	.37	.32	.43	.37	.32	.30
9.0	.43	.35	.30	.43	.35	.29	.42	.34	.29	.40	.34	.29	.39	.33	.29	.27
10.0	.40	.32	.27	.39	.32	.27	.38	.31	.27	.38	.31	.27	.37	.31	.26	.25



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZR
Test Date:2021-08-30

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.354
Humidity:65.0%
Test Distance:8.402m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:48.00V I:0.3588A P:17.22W PF:1.000 Freq:50.00Hz Lamp Flux:1151.59x1 lm					
NAME: M20-T41306-18G40-120D			TYPE:		WEIGHT:
SPEC.:			DIM.:		SERIAL No.:
MFR.:			SUR.:605*21.6		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	.313	.178	.056	.306	.175	.055	.293	.168	.054	.281	.162	.052	.269	.156	.050	
2.0	.292	.160	.049	.286	.157	.049	.274	.152	.047	.263	.148	.046	.253	.143	.045	
3.0	.269	.143	.043	.264	.141	.043	.254	.137	.042	.244	.134	.041	.235	.130	.040	
4.0	.248	.129	.038	.243	.127	.038	.234	.124	.037	.226	.121	.037	.218	.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	.194	.097	.028	.188	.095	.027	.182	.093	.027	.176	.092	.027	
8.0	.185	.090	.025	.182	.089	.025	.176	.088	.025	.170	.086	.025	.165	.085	.025	
9.0	.173	.084	.023	.170	.083	.023	.165	.082	.023	.160	.080	.023	.156	.079	.023	
10.0	.163	.078	.022	.160	.077	.022	.156	.076	.021	.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	.181	.156	.134	.154	.134	.115	.106	.092	.080	.061	.053	.046	.019	.017	.015	
2.0	.172	.132	.098	.148	.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	.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	.122	.064	.025	.105	.056	.022	.073	.039	.016	.043	.023	.009	.014	.008	.003	
10.0	.117	.060	.023	.101	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZR
Test Date:2021-08-30

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.354
Humidity:65.0%
Test Distance:8.402m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:48.00V I:0.3588A P:17.22W PF:1.000 Freq:50.00Hz Lamp Flux:1151.59x1 lm											
NAME: M20-T41306-18G40-120D						TYPE:			WEIGHT:		
SPEC.:						DIM.:			SERIAL No.:		
MFR.:						SUR.:605*21.6			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	23.6	25.1	23.9	25.3	25.5	23.6	25.1	23.9	25.3	25.5	
	3H	25.1	26.5	25.4	26.7	26.9	25.2	26.6	25.5	26.8	27.0
	4H	25.6	27.0	25.9	27.2	27.5	25.8	27.2	26.1	27.4	27.7
	6H	26.0	27.3	26.3	27.5	27.8	26.4	27.6	26.7	27.9	28.2
	8H	26.1	27.3	26.5	27.6	27.9	26.6	27.8	26.9	28.1	28.4
	12H	26.2	27.3	26.5	27.6	27.9	26.7	27.9	27.1	28.2	28.5
4H	2H	24.2	25.5	24.5	25.8	26.1	24.2	25.5	24.5	25.8	26.0
	3H	25.8	27.0	26.2	27.3	27.6	25.9	27.1	26.3	27.4	27.7
	4H	26.5	27.6	26.9	27.9	28.3	26.7	27.8	27.1	28.1	28.5
	6H	27.0	28.0	27.4	28.3	28.7	27.4	28.4	27.8	28.7	29.1
	8H	27.2	28.1	27.6	28.4	28.8	27.7	28.6	28.1	28.9	29.3
	12H	27.3	28.1	27.7	28.5	28.9	27.9	28.7	28.4	29.1	29.5
8H	4H	26.8	27.7	27.2	28.1	28.4	27.0	27.9	27.4	28.2	28.6
	6H	27.5	28.2	27.9	28.6	29.0	27.8	28.6	28.3	29.0	29.4
	8H	27.7	28.4	28.2	28.8	29.2	28.2	28.9	28.7	29.3	29.7
	12H	27.9	28.5	28.4	28.9	29.4	28.6	29.1	29.1	29.6	30.1
12H	4H	26.8	27.6	27.3	28.0	28.4	27.0	27.8	27.4	28.2	28.6
	6H	27.5	28.2	28.0	28.6	29.1	27.9	28.5	28.3	29.0	29.4
	8H	27.8	28.4	28.3	28.8	29.3	28.3	28.9	28.8	29.3	29.8
Variations with the observer position at spacings:											
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 / - 0.2					+ 0.1 / - 0.3					

CIE Pub.117, 1152 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.5)

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZR
Test Date:2021-08-30

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.354
Humidity:65.0%
Test Distance:8.402m [K=1.0000]
Remarks:

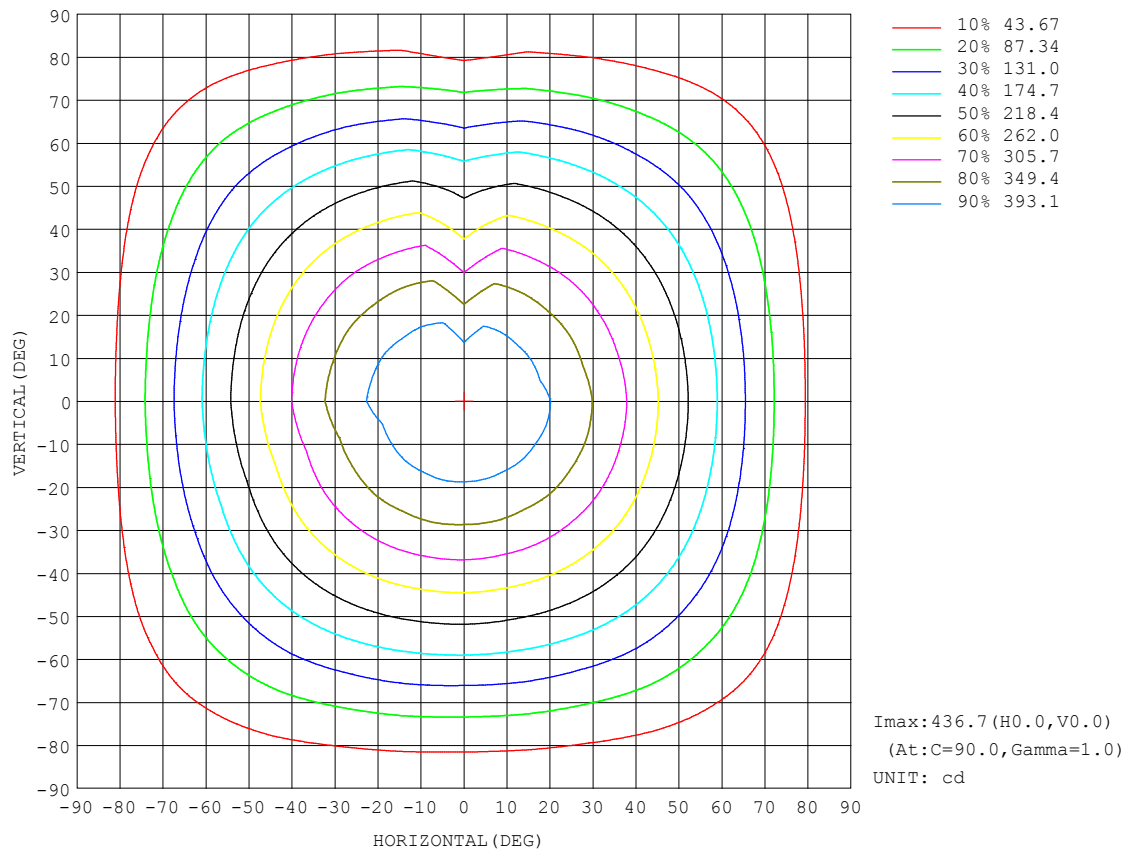
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γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.354
Humidity:65.0%
Test Distance:8.402m [K=1.0000]
Remarks:

```

ISOCANDELA DIAGRAM

Test:U:48.00V I:0.3588A P:17.22W PF:1.000 Freq:50.00Hz Lamp Flux:1151.59x1 lm		
NAME: M20-T41306-18G40-120D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:605*21.6	Shielding Angle:

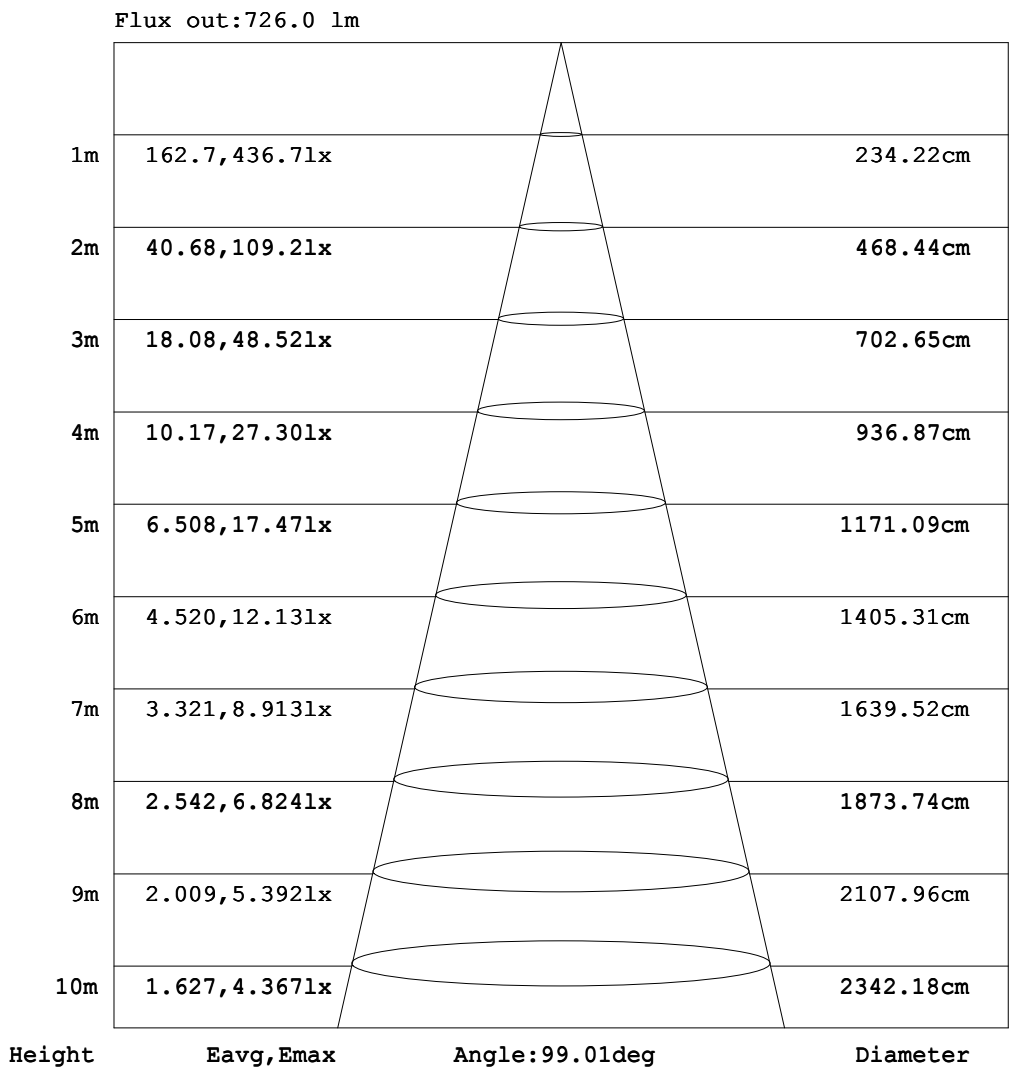


C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZR
Test Date:2021-08-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.354
Humidity:65.0%
Test Distance:8.402m [K=1.0000]
Remarks:

AAI Figure

Test:U:48.00V I:0.3588A P:17.22W PF:1.000 Freq:50.00Hz Lamp Flux:1151.59x1 lm		
NAME: M20-T41306-18G40-120D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:605*21.6	Shielding Angle:



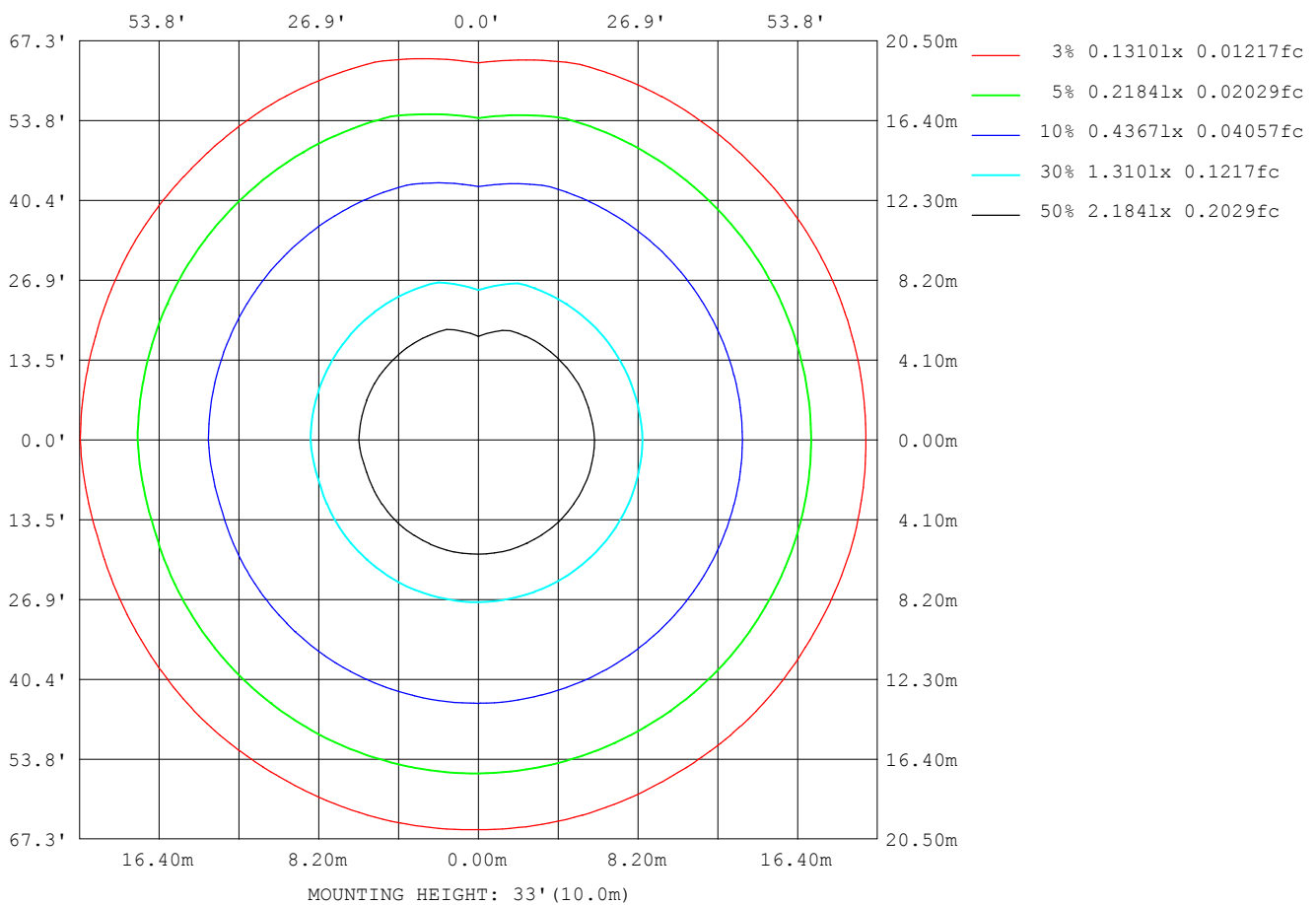
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZR
Test Date:2021-08-30

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.354
Humidity:65.0%
Test Distance:8.402m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:48.00V I:0.3588A P:17.22W PF:1.000 Freq:50.00Hz Lamp Flux:1151.59x1 lm		
NAME: M20-T41306-18G40-120D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:605*21.6	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZR
Test Date:2021-08-30

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.354
Humidity:65.0%
Test Distance:8.402m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:48.00V I:0.3588A P:17.22W PF:1.000 Freq:50.00Hz Lamp Flux:1151.59x1 lm		
NAME: M20-T41306-18G40-120D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:605*21.6	Shielding Angle:

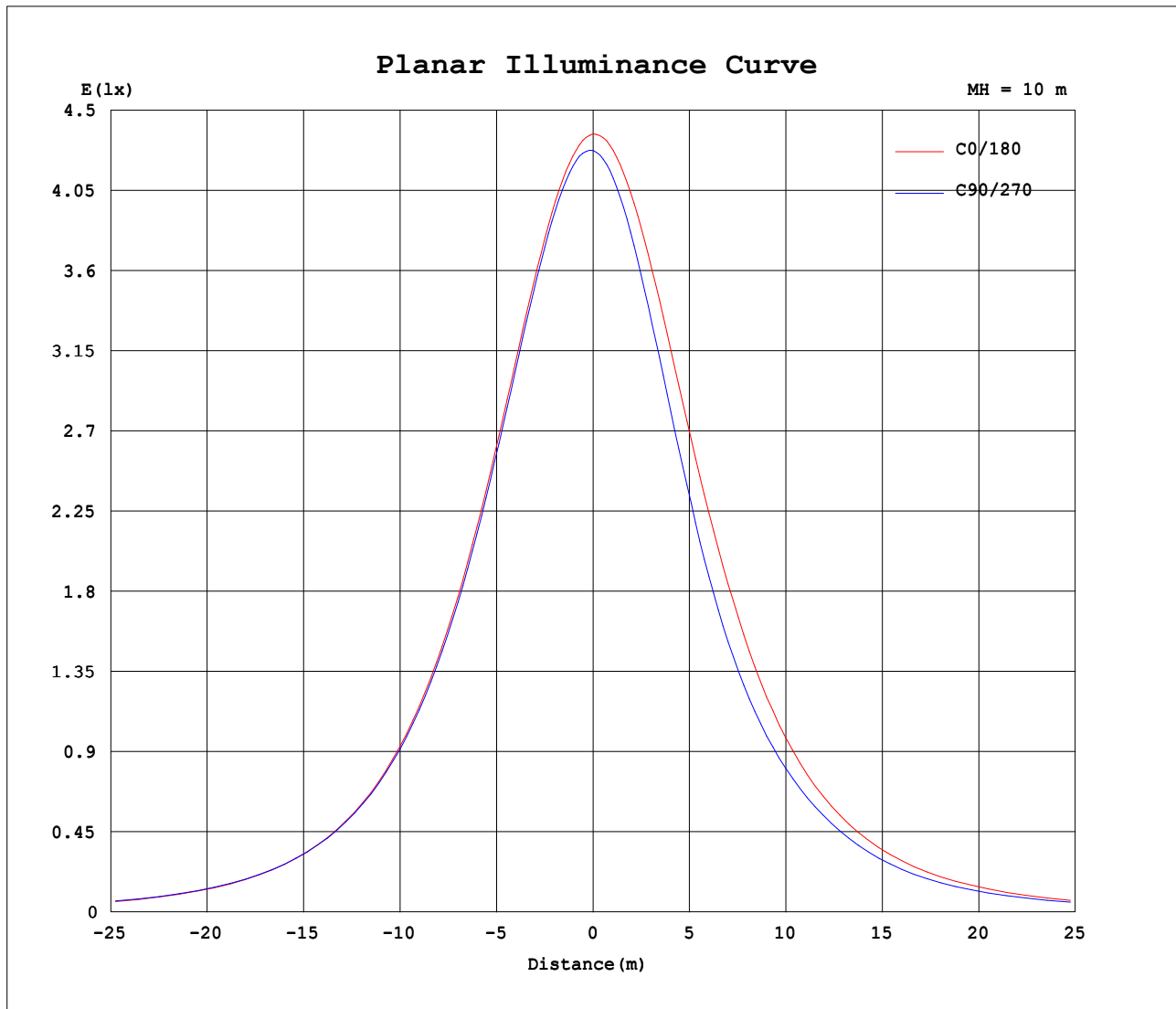
AvgL	cd/m2
L_0~180 (65) av	25122
L_0~180 (75) av	21873
L_0~180 (85) av	17780
L_90~270 (65) av	23730
L_90~270 (75) av	22098
L_90~270 (85) av	22753
L_45 (65) av	25154
L_45 (75) av	22843
L_45 (85) av	22679

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:ZR
 Test Date:2021-08-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.354
 Humidity:65.0%
 Test Distance:8.402m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: ZR
Test Date: 2021-08-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.354
Humidity: 65.0%
Test Distance: 8.402m [K=1.0000]
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.354
Humidity:65.0%
Test Distance:8.402m [K=1.0000]
Remarks:

```

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.354
Humidity:65.0%
Test Distance:8.402m [K=1.0000]
Remarks:

```