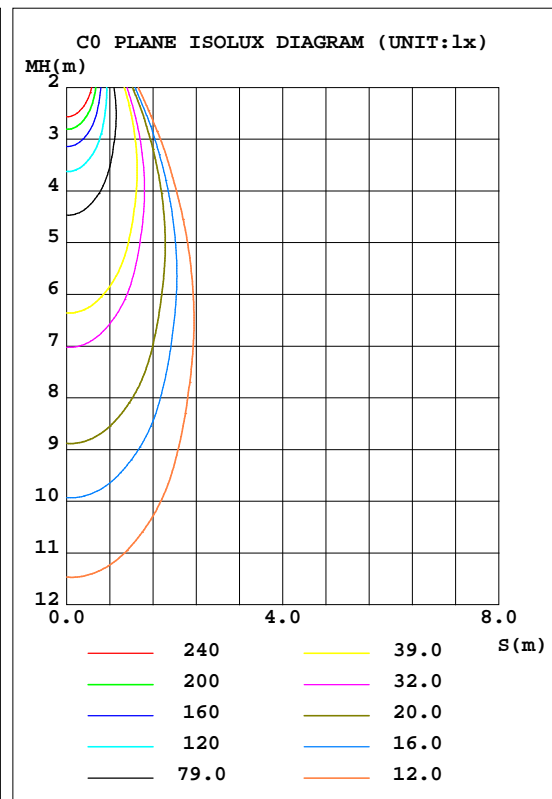
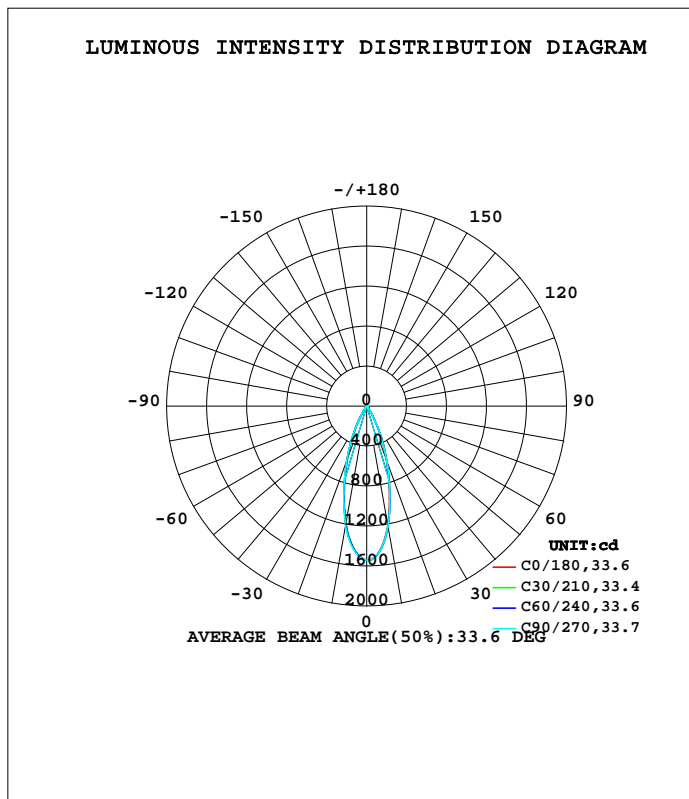


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:11.912V I:0.7040A P:6.3684W PF:0.7594 Freq:60.00Hz Lamp Flux:599.5x1 lm		
NAME: 486718-MR16-7W-3000K-40°	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:35mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 94.14 lm/W			
MODEL		I _{max} (cd)	1548	S/MH(C0/180)	0.55
NOMINAL POWER(W)	--	LOR(%)	100.0	S/MH(C90/270)	0.55
RATED VOLTAGE(V)	--	TOTAL FLUX(lm)	599.50	η UP, DN(C0-180)	0.0,49.8
NOMINAL FLUX(lm)	599.5	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0,50.2
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE(V)	--	η down(%)	100.0	CIBSE SHR MAX	0.60



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2022-05-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.411
 Humidity:65.0%
 Test Distance:9.000m [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	1221	1228	1226	1201	1204	1196	1217	1251	0- 10	131.4	131.4	21.9,21.9
20	593.9	598.7	595.2	578.7	582.8	570.9	591.2	622.3	10- 20	244.5	375.8	62.7,62.7
30	165.5	168.6	162.2	153.6	153.7	139.3	151.7	172.5	20- 30	158.6	534.4	89.1,89.1
40	23.40	21.83	19.30	17.06	17.71	17.58	17.90	21.26	30- 40	38.61	573.0	95.6,95.6
50	12.79	11.41	9.797	9.779	10.53	10.29	10.13	11.79	40- 50	10.67	583.7	97.4,97.4
60	8.018	8.174	6.681	7.113	7.236	7.407	6.686	7.958	50- 60	7.880	591.5	98.7,98.7
70	5.478	4.159	1.941	3.435	4.619	3.852	2.021	4.797	60- 70	5.645	597.2	99.6,99.6
80	1.964	0.3491	0.0411	0.1941	1.580	0.2239	0.0269	0.5390	70- 80	2.097	599.3	100,100
90	0	0	0	0	0.0080	0.0066	0.0015	0.0060	80- 90	0.2218	599.5	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): 578.82 lm

%lum = 96.6%
%lamp = 96.6%

Conical surface Flux(120deg): 591.54 lm

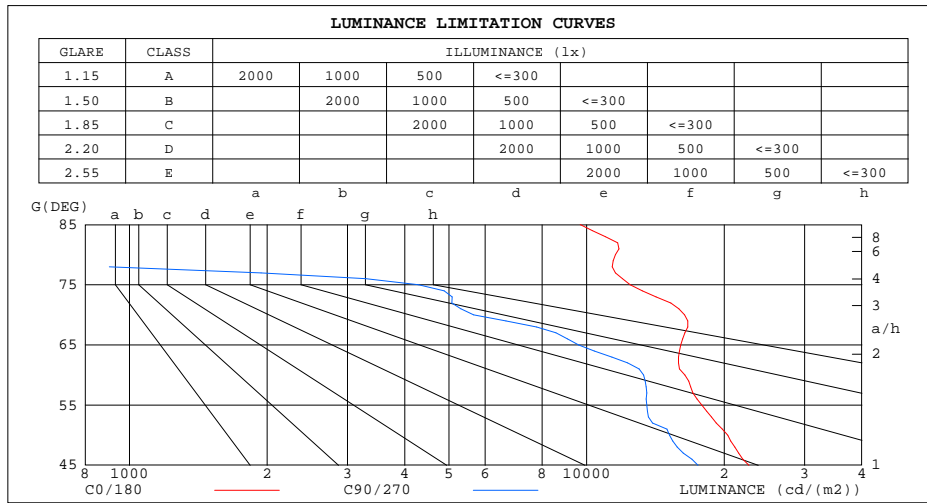
%lum = 98.7%
%lamp = 98.7%

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2022-05-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:11.912V I:0.7040A P:6.3684W PF:0.7594 Freq:60.00Hz Lamp Flux:599.5x1 lm		
NAME: 486718-MR16-7W-3000K-40°	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:35mm	Shielding Angle:



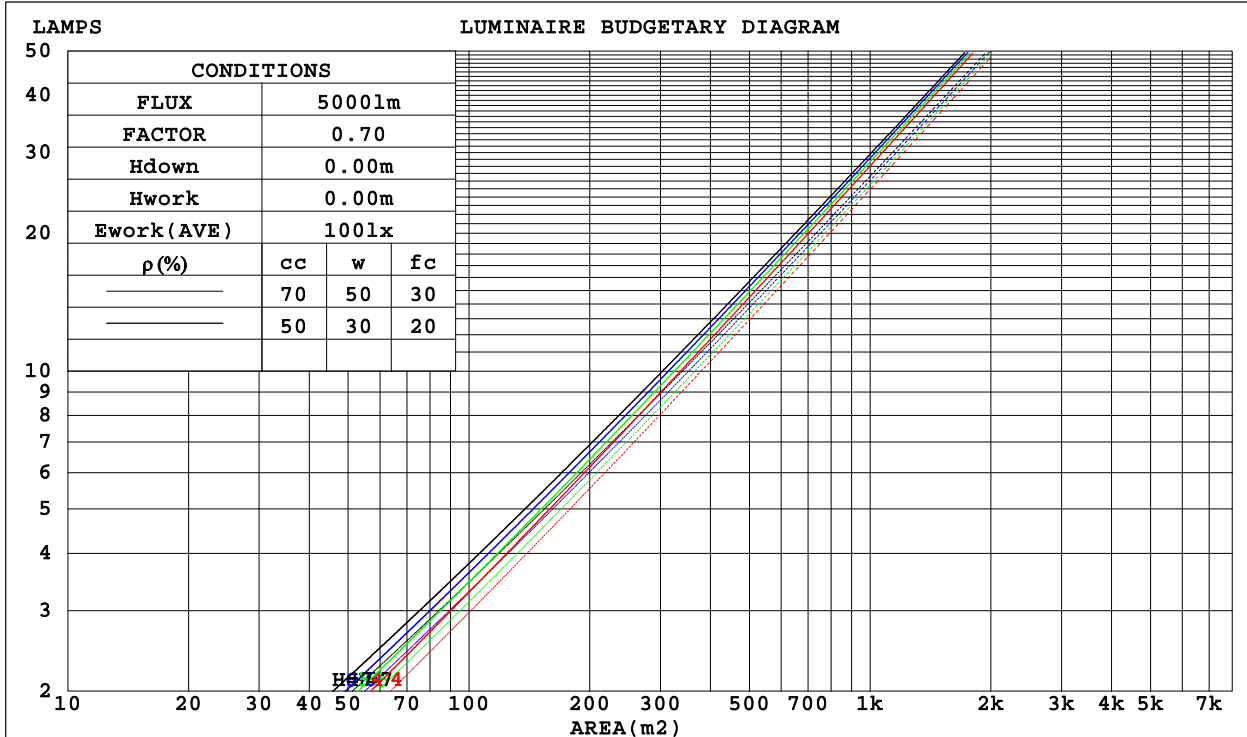
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2022-05-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.411
 Humidity:65.0%
 Test Distance:9.000m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:11.912V I:0.7040A P:6.3684W PF:0.7594 Freq:60.00Hz Lamp Flux:599.5x1 lm		
NAME: 486718-MR16-7W-3000K-40°	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:35mm	Shielding 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															
	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	1.12	1.10	1.08	1.10	1.08	1.06	1.06	1.04	1.03	1.02	1.01	.00	.99	.98	.97	.95
2.0	1.05	1.02	.99	1.04	1.01	.98	1.01	.98	.96	.98	.96	.94	.95	.93	.92	.90
3.0	.00	.96	.92	.98	.95	.91	.96	.93	.90	.94	.91	.89	.91	.89	.87	.86
4.0	.95	.90	.87	.94	.89	.86	.92	.88	.85	.90	.87	.84	.88	.85	.83	.82
5.0	.90	.85	.82	.89	.85	.81	.88	.84	.81	.86	.83	.80	.85	.82	.79	.78
6.0	.86	.81	.78	.85	.81	.77	.84	.80	.77	.83	.79	.76	.82	.78	.76	.75
7.0	.83	.78	.74	.82	.77	.74	.81	.77	.73	.80	.76	.73	.79	.75	.73	.72
8.0	.79	.74	.71	.79	.74	.71	.78	.73	.70	.77	.73	.70	.76	.72	.70	.69
9.0	.76	.71	.68	.76	.71	.68	.75	.71	.68	.74	.70	.67	.73	.70	.67	.66
10.0	.73	.68	.65	.73	.68	.65	.72	.68	.65	.71	.67	.65	.71	.67	.65	.64



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2022-05-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.411
 Humidity:65.0%
 Test Distance:9.000m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:11.912V I:0.7040A P:6.3684W PF:0.7594 Freq:60.00Hz Lamp Flux:599.5x1 lm		
NAME: 486718-MR16-7W-3000K-40°	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:35mm	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	.157	.090	.028	.151	.086	.027	.138	.079	.025	.127	.073	.023	.116	.067	.022	
2.0	.148	.081	.025	.143	.079	.024	.132	.073	.023	.123	.069	.022	.114	.064	.020	
3.0	.139	.074	.022	.135	.072	.022	.126	.068	.021	.118	.064	.020	.110	.061	.019	
4.0	.131	.068	.020	.127	.067	.020	.120	.064	.019	.113	.061	.018	.106	.058	.018	
5.0	.124	.063	.018	.121	.062	.018	.114	.060	.018	.108	.057	.017	.103	.055	.016	
6.0	.118	.059	.017	.115	.058	.017	.109	.056	.016	.104	.054	.016	.099	.052	.016	
7.0	.112	.055	.016	.110	.055	.016	.105	.053	.015	.100	.051	.015	.096	.050	.015	
8.0	.107	.052	.015	.105	.052	.015	.101	.050	.014	.096	.049	.014	.093	.048	.014	
9.0	.103	.050	.014	.100	.049	.014	.097	.048	.014	.093	.047	.013	.090	.045	.013	
10.0	.098	.047	.013	.096	.047	.013	.093	.046	.013	.090	.045	.013	.087	.044	.013	

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	.170	.157	.146	.145	.135	.126	.099	.093	.087	.057	.054	.051	.018	.017	.016	
2.0	.153	.133	.115	.131	.114	.100	.090	.079	.070	.052	.046	.041	.017	.015	.013	
3.0	.139	.113	.093	.119	.098	.080	.082	.068	.056	.047	.040	.033	.015	.013	.011	
4.0	.128	.098	.076	.110	.085	.066	.075	.059	.046	.044	.035	.027	.014	.011	.009	
5.0	.118	.086	.063	.101	.075	.055	.070	.052	.039	.040	.031	.023	.013	.010	.008	
6.0	.110	.077	.053	.094	.066	.046	.065	.046	.033	.038	.027	.019	.012	.009	.006	
7.0	.103	.069	.045	.088	.060	.039	.061	.042	.028	.035	.025	.017	.011	.008	.005	
8.0	.097	.062	.039	.083	.054	.034	.058	.038	.024	.033	.022	.014	.011	.007	.005	
9.0	.091	.057	.034	.079	.049	.029	.054	.035	.021	.032	.020	.012	.010	.007	.004	
10.0	.086	.052	.029	.075	.045	.026	.052	.032	.018	.030	.019	.011	.010	.006	.004	

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2022-05-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.411
 Humidity:65.0%
 Test Distance:9.000m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:11.912V I:0.7040A P:6.3684W PF:0.7594 Freq:60.00Hz Lamp Flux:599.5x1 lm										
NAME: 486718-MR16-7W-3000K-40°					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.:					SUR.:35mm			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	17.0	17.8	17.2	17.9	18.1	16.3	17.1	16.5	17.2	17.4
3H	17.7	18.4	17.9	18.6	18.8	16.4	17.2	16.7	17.4	17.6
4H	17.9	18.6	18.2	18.8	19.1	16.4	17.1	16.7	17.3	17.6
6H	18.1	18.8	18.4	19.0	19.2	16.4	17.0	16.7	17.2	17.5
8H	18.2	18.8	18.5	19.1	19.3	16.3	16.9	16.6	17.2	17.4
12H	18.2	18.8	18.5	19.1	19.4	16.3	16.9	16.6	17.1	17.4
4H 2H	17.2	17.9	17.4	18.1	18.3	16.6	17.3	16.8	17.5	17.7
3H	18.1	18.7	18.4	18.9	19.2	16.8	17.4	17.1	17.7	17.9
4H	18.4	18.9	18.7	19.2	19.5	16.8	17.4	17.2	17.7	18.0
6H	18.6	19.1	19.0	19.4	19.8	16.7	17.2	17.1	17.5	17.9
8H	18.7	19.2	19.1	19.5	19.9	16.7	17.1	17.1	17.5	17.8
12H	18.8	19.2	19.2	19.6	19.9	16.6	17.0	17.0	17.4	17.8
8H 4H	18.3	18.8	18.7	19.1	19.5	16.9	17.3	17.2	17.7	18.0
6H	18.6	19.0	19.0	19.3	19.8	16.8	17.1	17.2	17.5	17.9
8H	18.7	19.0	19.2	19.5	19.9	16.7	17.0	17.1	17.4	17.9
12H	18.8	19.1	19.3	19.5	20.0	16.6	16.9	17.1	17.4	17.8
12H 4H	18.3	18.7	18.7	19.0	19.4	16.8	17.2	17.2	17.6	18.0
6H	18.5	18.9	19.0	19.3	19.7	16.7	17.0	17.2	17.5	17.9
8H	18.7	18.9	19.1	19.4	19.8	16.7	16.9	17.1	17.4	17.8
Variations with the observer position at spacings:										
S = 1.0H	+ 0.8 / - 0.6					+ 1.0 / - 1.1				
1.5H	+ 1.7 / - 0.6					+ 1.9 / - 0.9				
2.0H	+ 0.7 / - 0.6					+ 0.5 / - 0.8				

CIE Pub.117, 599.5 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = -1.8)
Area: 0.001 m2

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2022-05-30

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:11.912V I:0.7040A P:6.3684W PF:0.7594 Freq:60.00Hz Lamp Flux:599.5x1 lm		
NAME: 486718-MR16-7W-3000K-40°	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:35mm	Shielding Angle:

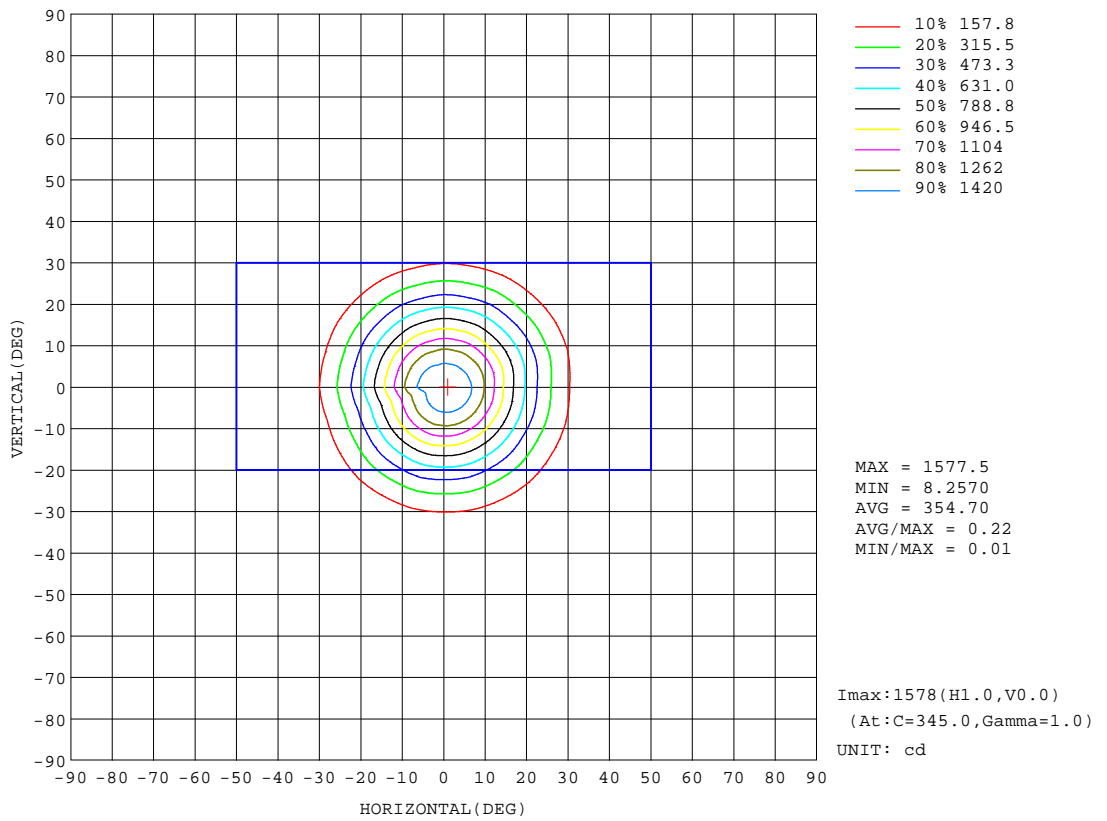
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	89	83	79	88	83	79	88	82	79	75
0.80	96	90	87	95	90	87	94	89	86	83
1.00	100	95	91	99	94	91	98	94	90	87
1.25	104	99	96	103	98	95	101	97	94	90
1.50	106	102	99	105	101	98	103	100	97	93
2.00	109	105	102	108	104	101	105	102	99	94
2.50	111	107	104	109	106	103	106	103	101	95
3.00	112	109	106	110	107	105	107	105	103	96
4.00	114	111	109	112	110	108	108	107	105	98
5.00	115	113	111	113	111	110	109	108	107	99
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2022-05-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.411
 Humidity:65.0%
 Test Distance:9.000m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:11.912V I:0.7040A P:6.3684W PF:0.7594 Freq:60.00Hz Lamp Flux:599.5x1 lm		
NAME: 486718-MR16-7W-3000K-40°	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:35mm	Shielding Angle:



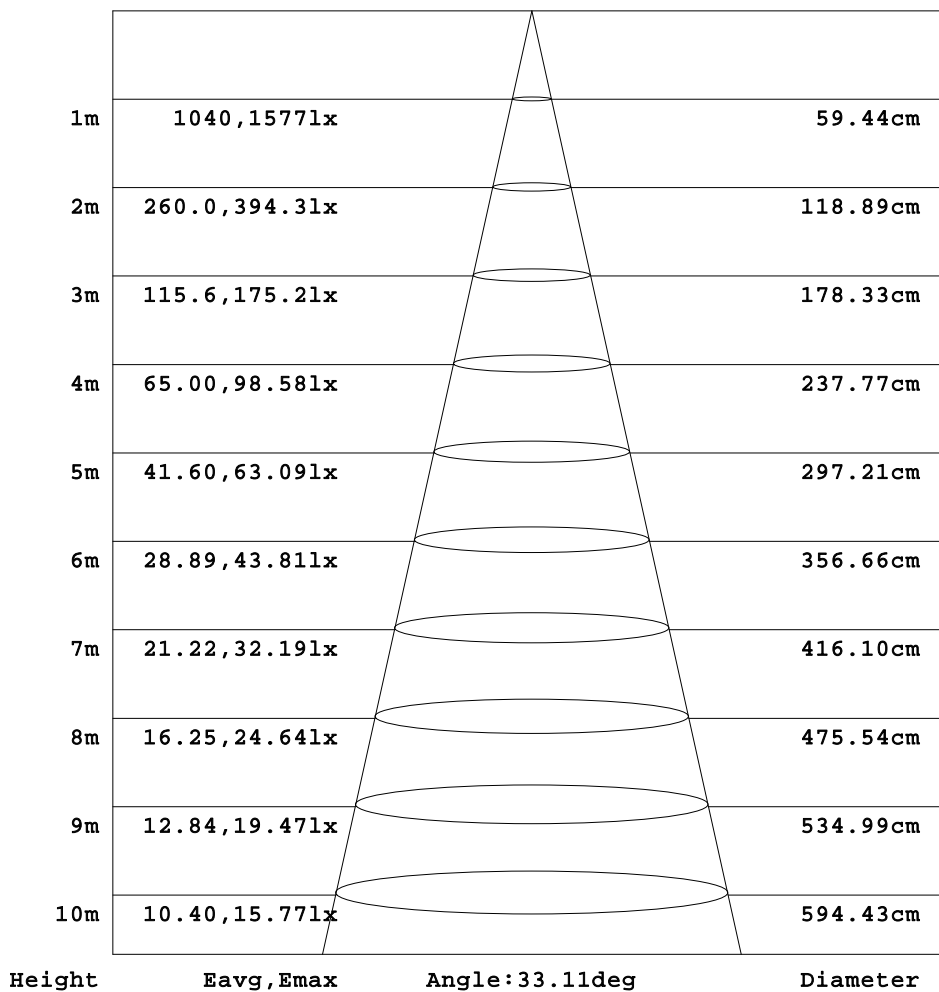
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2022-05-30

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

AAI Figure

Test:U:11.912V I:0.7040A P:6.3684W PF:0.7594 Freq:60.00Hz Lamp Flux:599.5x1 lm		
NAME: 486718-MR16-7W-3000K-40°	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:35mm	Shielding Angle:

Flux out:305.4 lm



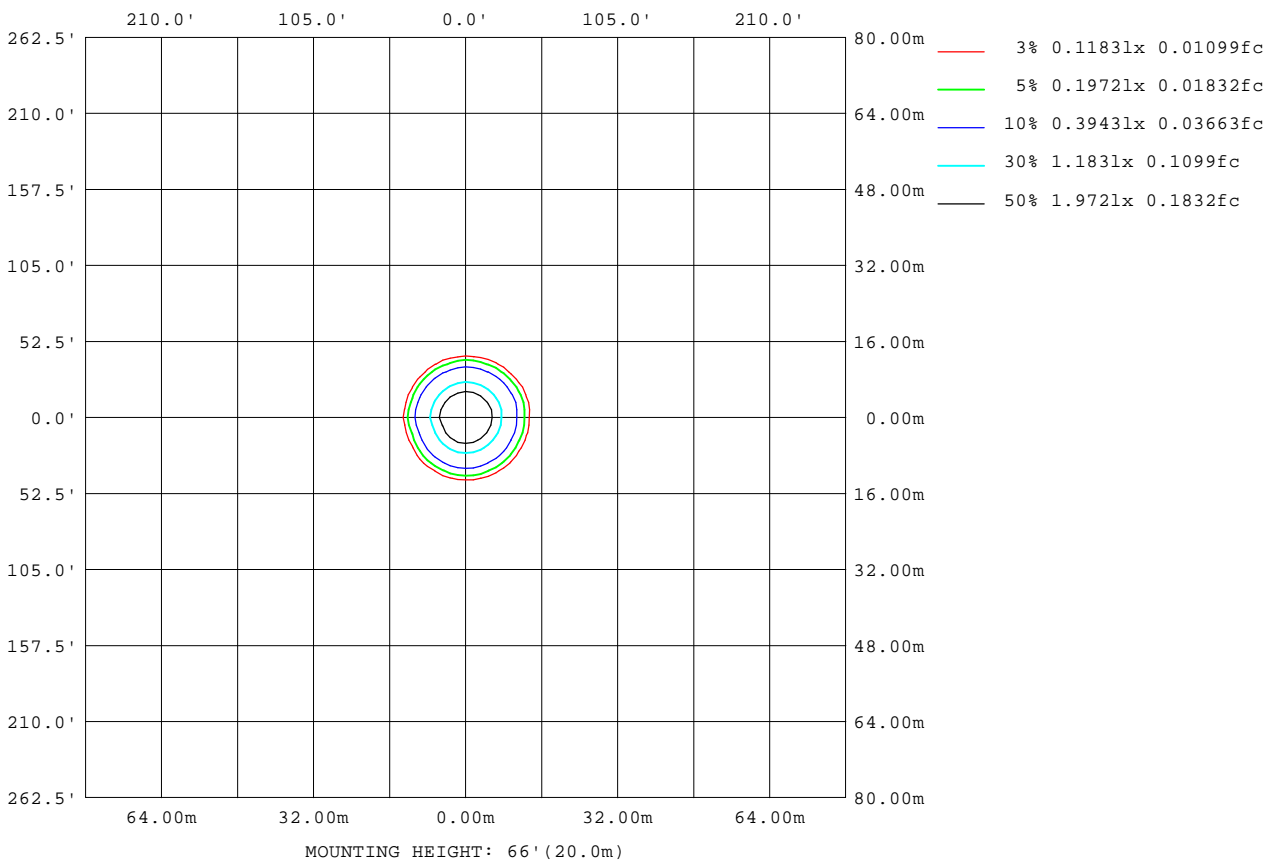
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2022-05-30

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:11.912V I:0.7040A P:6.3684W PF:0.7594 Freq:60.00Hz Lamp Flux:599.5x1 lm		
NAME: 486718-MR16-7W-3000K-40°	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:35mm	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2022-05-30

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:11.912V I:0.7040A P:6.3684W PF:0.7594 Freq:60.00Hz Lamp Flux:599.5x1 lm		
NAME: 486718-MR16-7W-3000K-40°	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:35mm	Shielding Angle:

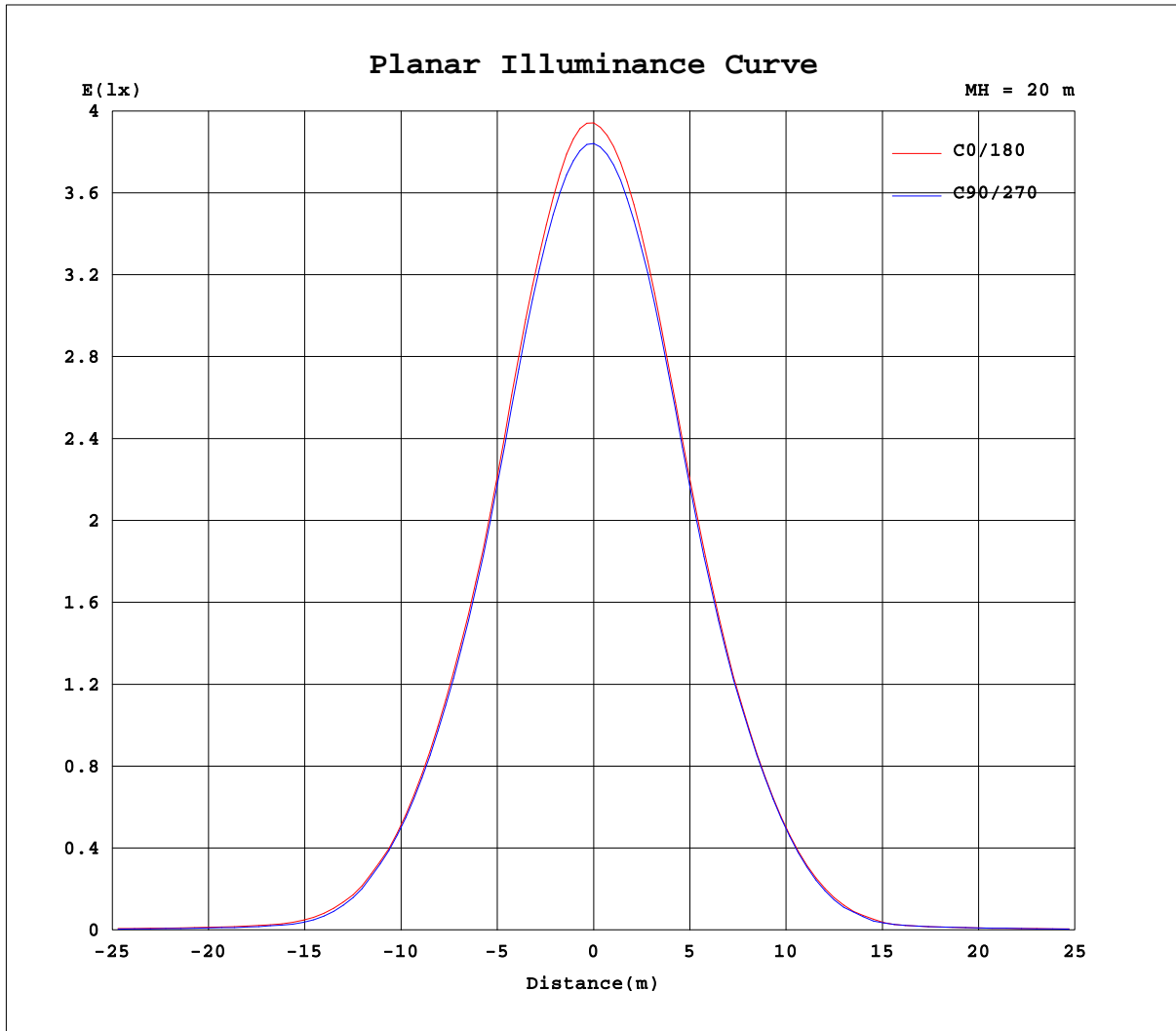
AvgL	cd/m2
L_0~180(65)av	15151
L_0~180(75)av	10935
L_0~180(85)av	7645
L_90~270(65)av	9646
L_90~270(75)av	4417
L_90~270(85)av	35
L_45(65)av	15718
L_45(75)av	7000
L_45(85)av	154

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2022-05-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.411
 Humidity:65.0%
 Test Distance:9.000m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2022-05-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-3000H_V1 SYSTEM V2.00.411
Humidity: 65.0%
Test Distance: 9.000m [K=1.0000]
Remarks:

