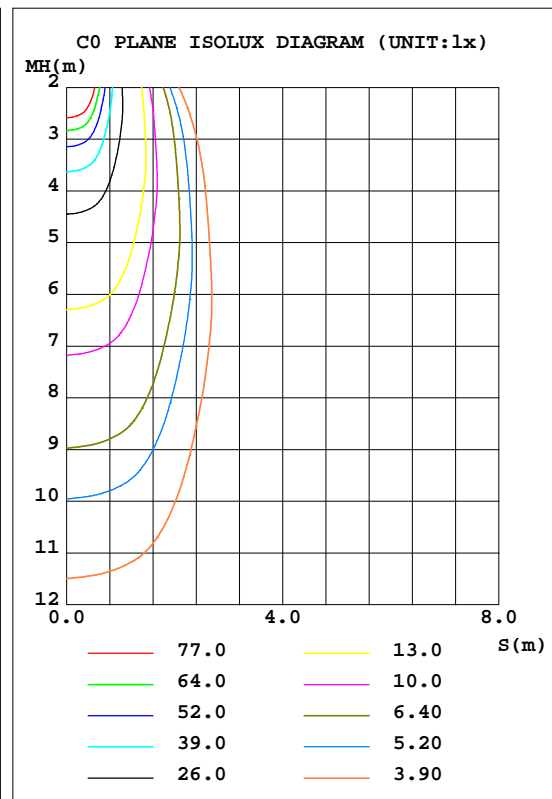
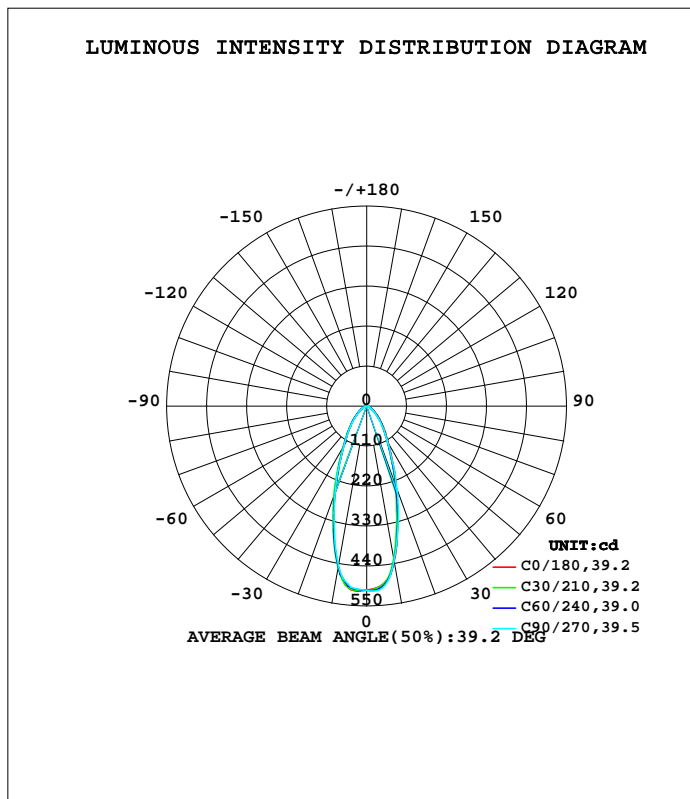


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:11.962V I:0.4216A P:3.4848W PF:0.6910 Freq:60.00Hz Lamp Flux:349.318x1 lm		
NAME: 486740-MR16-3W-3000K-40°	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:35mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 100.24 lm/W			
MODEL		I _{max} (cd)	509.8	S/MH(C0/180)	0.65
NOMINAL POWER(W)	--	LOR(%)	100.0	S/MH(C90/270)	0.65
RATED VOLTAGE(V)	--	TOTAL FLUX(lm)	349.32	η UP,DN(C0-180)	0.0,48.2
NOMINAL FLUX(lm)	349.318	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,51.8
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE(V)	--	η down(%)	100.0	CIBSE SHR MAX	0.70



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2022-04-09

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:

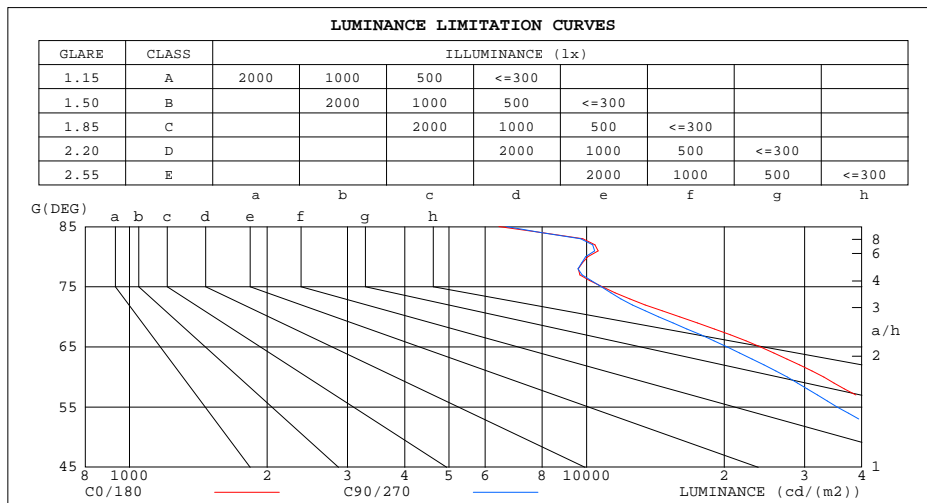
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	\$lum,lamp
10	435.6	429.9	433.3	439.7	450.1	452.8	447.4	447.0	0- 10	45.97	45.97	13.2,13.2
20	238.9	229.7	245.2	242.5	257.9	261.6	256.2	257.8	10- 20	94.19	140.2	40.1,40.1
30	121.1	114.9	117.7	115.3	125.4	129.6	126.4	128.2	20- 30	80.82	221.0	63.3,63.3
40	68.00	63.07	60.82	60.03	67.29	69.50	66.58	68.58	30- 40	56.34	277.3	79.4,79.4
50	35.20	32.30	29.80	29.80	34.23	36.86	32.90	35.26	40- 50	36.96	314.3	90,90
60	16.25	15.31	13.79	14.09	16.26	17.78	15.22	16.45	50- 60	21.03	335.3	96,96
70	5.377	5.090	4.933	4.989	5.841	6.418	5.104	5.652	60- 70	9.926	345.2	98.8,98.8
80	1.720	1.613	1.734	1.650	1.807	1.840	1.686	1.795	70- 80	3.264	348.5	99.8,99.8
90	0	0	0	0	0.0132	0.0126	0.0112	0.0105	80- 90	0.8180	349.3	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		

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2022-04-09

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:11.962V I:0.4216A P:3.4848W PF:0.6910 Freq:60.00Hz Lamp Flux:349.318x1 lm		
NAME: 486740-MR16-3W-3000K-40°	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:35mm	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	6434	6681
80	10075	9960
75	10819	10773
70	15992	14386
65	23994	20298
60	33055	27503
55	42978	35343
50	55714	46242
45	71762	60712

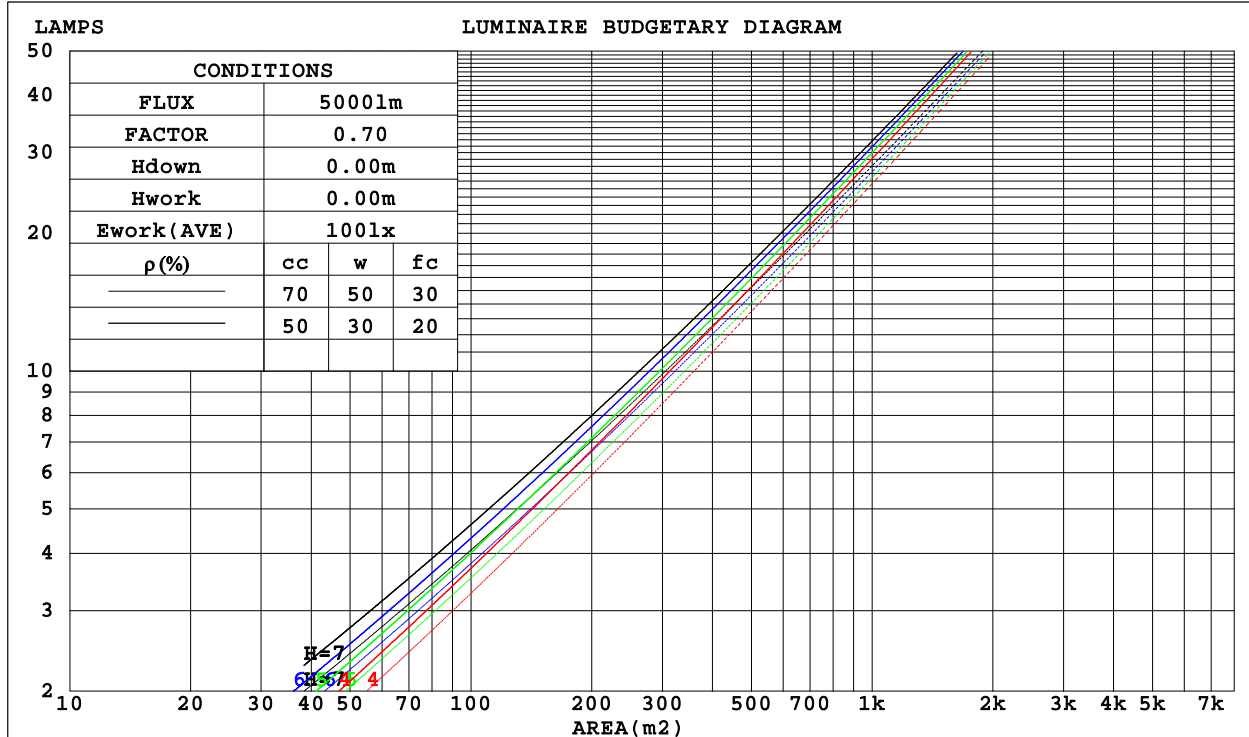
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2022-04-09

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:11.962V I:0.4216A P:3.4848W PF:0.6910 Freq:60.00Hz Lamp Flux:349.318x1 lm		
NAME: 486740-MR16-3W-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	1.10	1.07	1.04	1.08	1.05	1.03	1.03	1.01	.00	.00	.98	.97	.96	.95	.94	.92
2.0	1.01	.97	.93	.99	.95	.92	.96	.93	.90	.93	.90	.88	.90	.88	.86	.84
3.0	.93	.88	.84	.92	.87	.83	.89	.85	.82	.87	.83	.80	.85	.82	.79	.77
4.0	.87	.81	.76	.86	.80	.76	.83	.78	.75	.81	.77	.74	.79	.76	.73	.71
5.0	.81	.74	.70	.80	.74	.69	.78	.73	.69	.76	.72	.68	.75	.71	.68	.66
6.0	.76	.69	.65	.75	.69	.64	.73	.68	.64	.72	.67	.63	.70	.66	.63	.61
7.0	.71	.65	.60	.70	.64	.60	.69	.64	.60	.68	.63	.59	.67	.62	.59	.57
8.0	.67	.61	.56	.66	.60	.56	.65	.60	.56	.64	.59	.56	.63	.59	.55	.54
9.0	.63	.57	.53	.63	.57	.53	.62	.56	.53	.61	.56	.52	.60	.55	.52	.51
10.0	.60	.54	.50	.59	.54	.50	.59	.53	.50	.58	.53	.49	.57	.53	.49	.48



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2022-04-09

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:11.962V I:0.4216A P:3.4848W PF:0.6910 Freq:60.00Hz Lamp Flux:349.318x1 lm		
NAME: 486740-MR16-3W-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	.198	.113	.036	.191	.109	.035	.178	.102	.033	.167	.096	.031	.156	.090	.029	
2.0	.190	.104	.032	.184	.101	.031	.173	.096	.030	.163	.092	.029	.154	.087	.028	
3.0	.180	.096	.029	.175	.094	.028	.166	.090	.027	.157	.086	.026	.149	.083	.026	
4.0	.170	.088	.026	.166	.087	.026	.158	.084	.025	.150	.081	.024	.143	.078	.024	
5.0	.161	.082	.024	.157	.081	.023	.150	.078	.023	.144	.076	.023	.137	.073	.022	
6.0	.152	.076	.022	.149	.075	.022	.143	.073	.021	.137	.071	.021	.131	.069	.021	
7.0	.144	.071	.020	.141	.070	.020	.136	.069	.020	.131	.067	.019	.126	.065	.019	
8.0	.137	.067	.019	.134	.066	.019	.129	.065	.018	.125	.063	.018	.121	.062	.018	
9.0	.130	.063	.018	.128	.062	.018	.124	.061	.017	.119	.060	.017	.116	.059	.017	
10.0	.124	.060	.017	.122	.059	.016	.118	.058	.016	.114	.057	.016	.111	.056	.016	

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	.173	.157	.143	.148	.135	.123	.101	.093	.085	.058	.054	.050	.019	.017	.016	
2.0	.159	.132	.110	.136	.114	.095	.093	.079	.067	.054	.046	.039	.017	.015	.013	
3.0	.147	.114	.087	.126	.098	.075	.087	.068	.053	.050	.040	.031	.016	.013	.010	
4.0	.137	.099	.070	.118	.086	.061	.081	.060	.043	.047	.035	.025	.015	.011	.008	
5.0	.129	.088	.058	.111	.076	.050	.076	.053	.035	.044	.031	.021	.014	.010	.007	
6.0	.121	.079	.048	.104	.068	.042	.072	.048	.030	.042	.028	.018	.013	.009	.006	
7.0	.115	.071	.041	.099	.062	.035	.068	.043	.025	.040	.025	.015	.013	.008	.005	
8.0	.109	.065	.035	.094	.056	.030	.065	.040	.022	.038	.023	.013	.012	.008	.004	
9.0	.103	.060	.030	.089	.052	.026	.062	.037	.019	.036	.022	.011	.012	.007	.004	
10.0	.099	.055	.027	.085	.048	.023	.059	.034	.017	.034	.020	.010	.011	.007	.003	

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2022-04-09

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:11.962V I:0.4216A P:3.4848W PF:0.6910 Freq:60.00Hz Lamp Flux:349.318x1 lm										
NAME: 486740-MR16-3W-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	23.5	24.5	23.7	24.7	24.9	23.1	24.1	23.3	24.3	24.4
3H	23.7	24.6	23.9	24.8	25.1	23.3	24.2	23.5	24.4	24.6
4H	23.7	24.6	24.0	24.8	25.0	23.3	24.2	23.6	24.4	24.7
6H	23.7	24.5	24.0	24.8	25.0	23.3	24.1	23.6	24.4	24.6
8H	23.7	24.5	24.0	24.7	25.0	23.3	24.1	23.6	24.4	24.6
12H	23.6	24.4	24.0	24.7	25.0	23.2	24.0	23.6	24.3	24.6
4H 2H	23.5	24.5	23.8	24.7	24.9	23.2	24.1	23.5	24.3	24.5
3H	23.8	24.6	24.1	24.9	25.2	23.5	24.3	23.8	24.5	24.8
4H	23.8	24.6	24.2	24.9	25.2	23.5	24.2	23.9	24.5	24.9
6H	23.9	24.5	24.2	24.8	25.2	23.6	24.2	23.9	24.5	24.9
8H	23.9	24.5	24.3	24.8	25.2	23.6	24.2	24.0	24.5	24.9
12H	23.9	24.4	24.3	24.8	25.2	23.6	24.1	24.0	24.5	24.9
8H 4H	23.8	24.4	24.2	24.7	25.1	23.5	24.0	23.9	24.4	24.8
6H	23.8	24.3	24.3	24.7	25.1	23.5	24.0	24.0	24.4	24.8
8H	23.9	24.3	24.3	24.7	25.1	23.6	24.0	24.0	24.4	24.9
12H	23.9	24.2	24.3	24.7	25.1	23.6	23.9	24.0	24.4	24.9
12H 4H	23.7	24.3	24.2	24.6	25.0	23.4	24.0	23.8	24.3	24.7
6H	23.8	24.2	24.3	24.6	25.1	23.5	23.9	24.0	24.3	24.8
8H	23.8	24.2	24.3	24.6	25.1	23.6	23.9	24.0	24.4	24.8
Variations with the observer position at spacings:										
S = 1.0H	+ 1.0 / - 1.4					+ 1.0 / - 1.6				
1.5H	+ 1.2 / - 1.0					+ 1.1 / - 1.1				
2.0H	+ 2.3 / - 2.1					+ 1.9 / - 1.8				

CIE Pub.117, 349.3 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = -3.7)
Area: 0.001 m2

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2022-04-09

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:11.962V I:0.4216A P:3.4848W PF:0.6910 Freq:60.00Hz Lamp Flux:349.318x1 lm		
NAME: 486740-MR16-3W-3000K-40°	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:35mm	Shielding Angle:

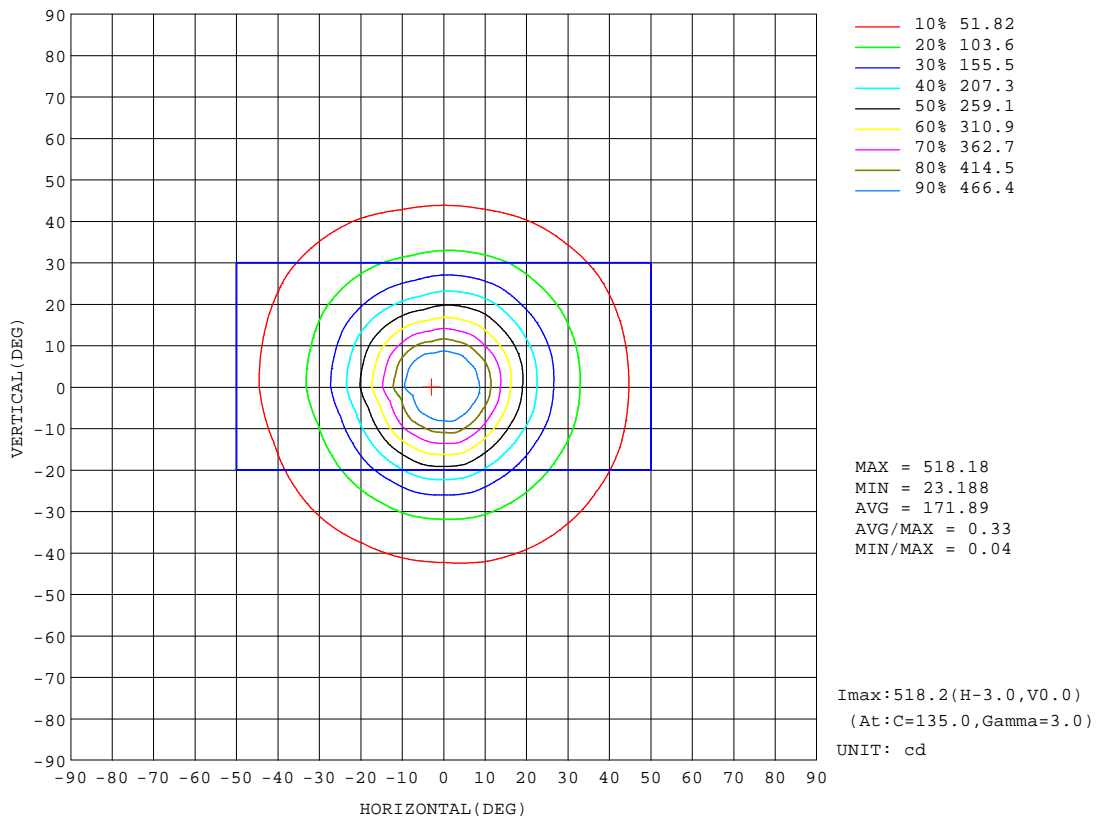
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	78	71	66	78	70	66	77	70	66	61
0.80	87	80	75	86	79	75	85	79	74	70
1.00	93	86	81	92	86	81	90	86	81	76
1.25	98	92	87	97	91	87	95	90	86	81
1.50	101	95	91	100	95	91	98	93	90	84
2.00	105	100	96	104	99	95	101	97	94	88
2.50	108	103	99	106	102	98	103	99	96	90
3.00	110	105	102	108	104	101	104	101	99	92
4.00	112	109	106	110	107	104	106	104	102	94
5.00	113	111	108	111	109	107	107	105	104	96
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:2022-04-09

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:11.962V I:0.4216A P:3.4848W PF:0.6910 Freq:60.00Hz Lamp Flux:349.318x1 lm		
NAME: 486740-MR16-3W-3000K-40°	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:35mm	Shielding Angle:



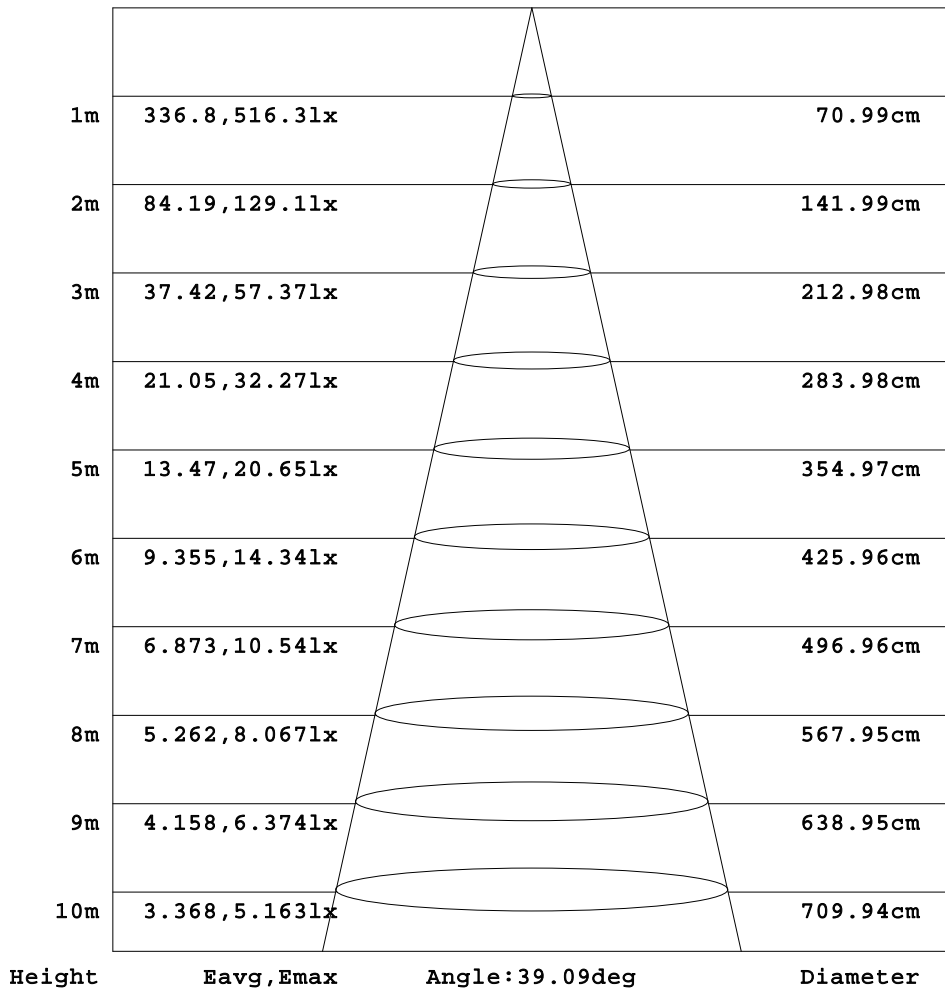
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2022-04-09

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:11.962V I:0.4216A P:3.4848W PF:0.6910 Freq:60.00Hz Lamp Flux:349.318x1 lm		
NAME: 486740-MR16-3W-3000K-40°	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:35mm	Shielding Angle:

Flux out:140.2 lm



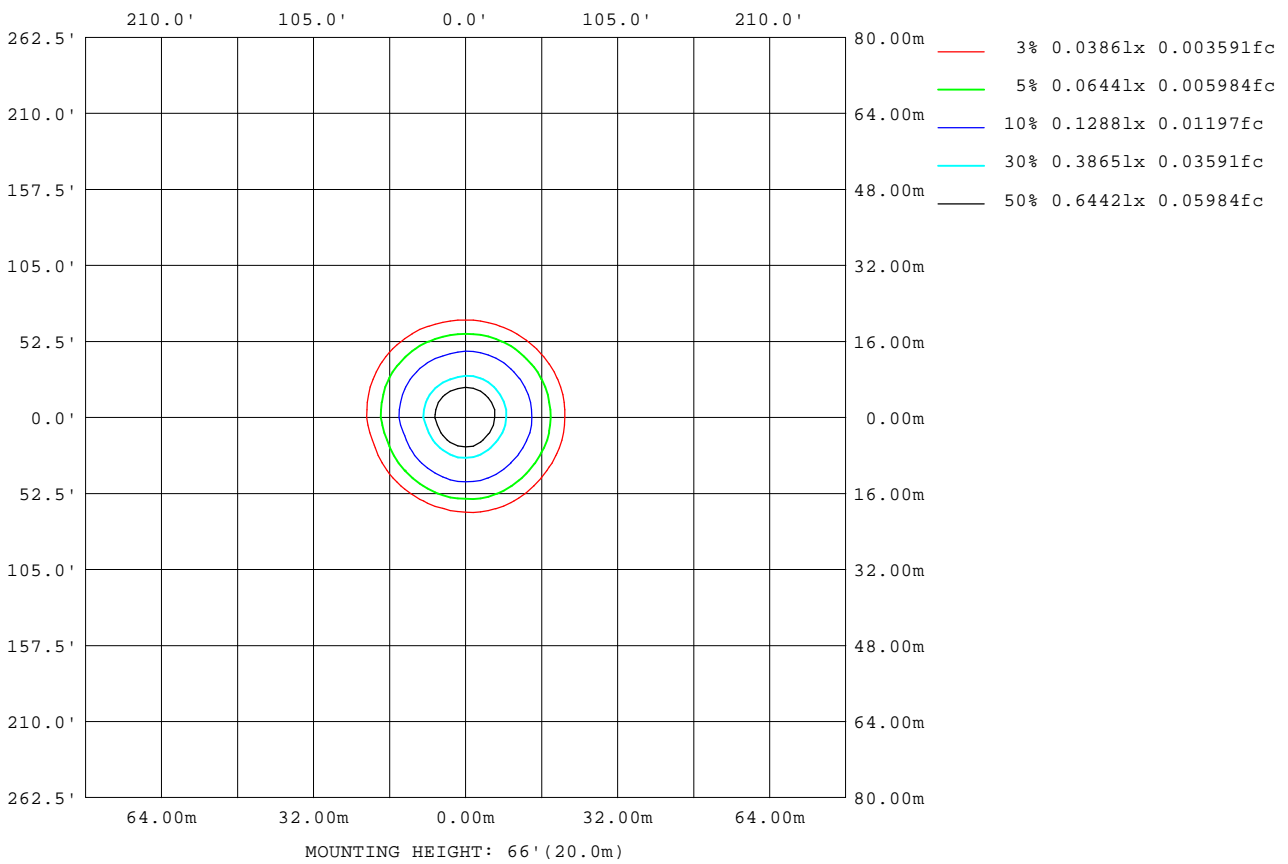
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2022-04-09

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:11.962V I:0.4216A P:3.4848W PF:0.6910 Freq:60.00Hz Lamp Flux:349.318x1 lm		
NAME: 486740-MR16-3W-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:2022-04-09

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:11.962V I:0.4216A P:3.4848W PF:0.6910 Freq:60.00Hz Lamp Flux:349.318x1 lm		
NAME: 486740-MR16-3W-3000K-40°	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:35mm	Shielding Angle:

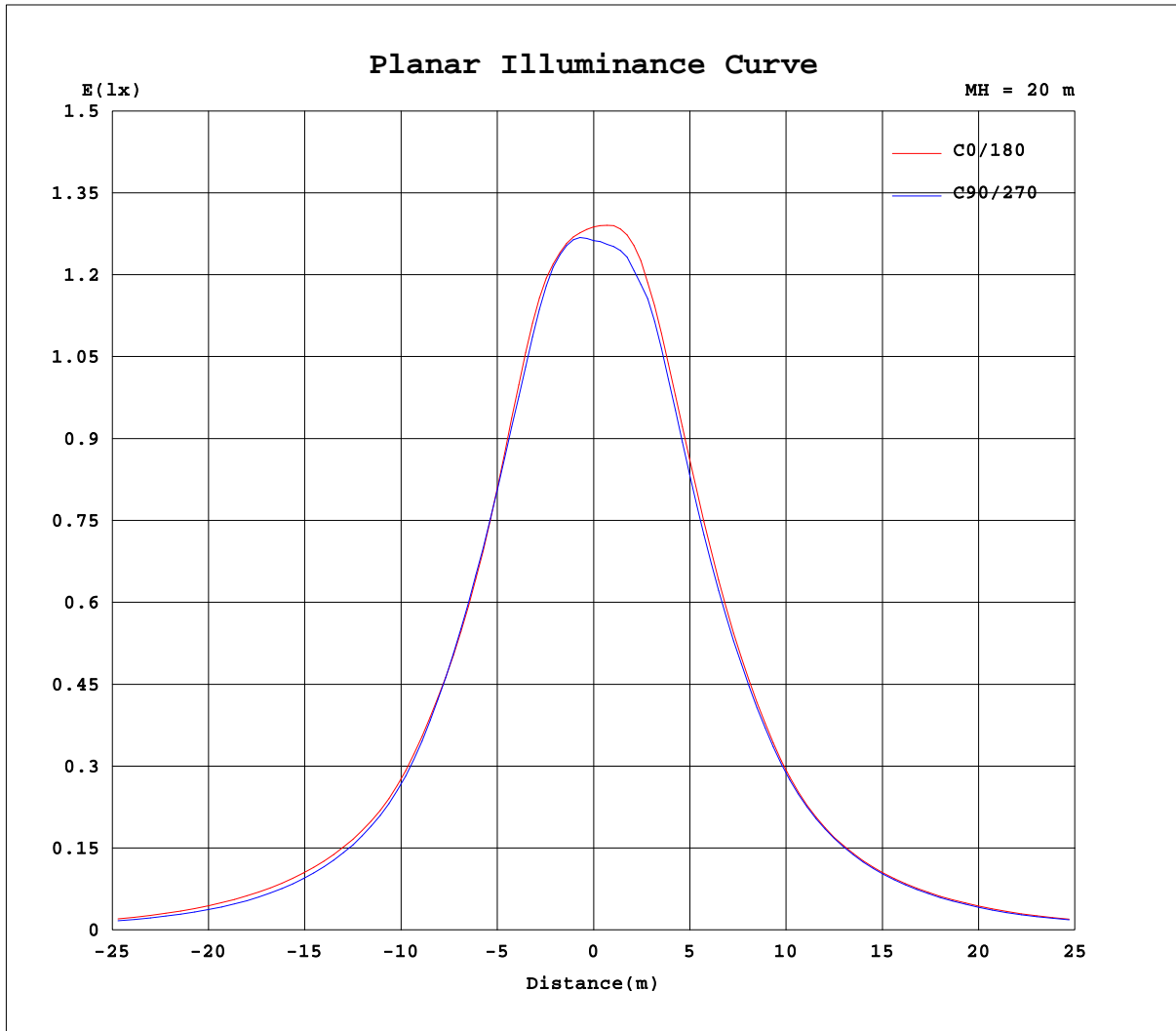
AvgL	cd/m2
L_0~180(65)av	24040
L_0~180(75)av	11236
L_0~180(85)av	7639
L_90~270(65)av	21286
L_90~270(75)av	10627
L_90~270(85)av	7483
L_45(65)av	23555
L_45(75)av	11057
L_45(85)av	7953

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2022-04-09

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: 2022-04-09

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:

