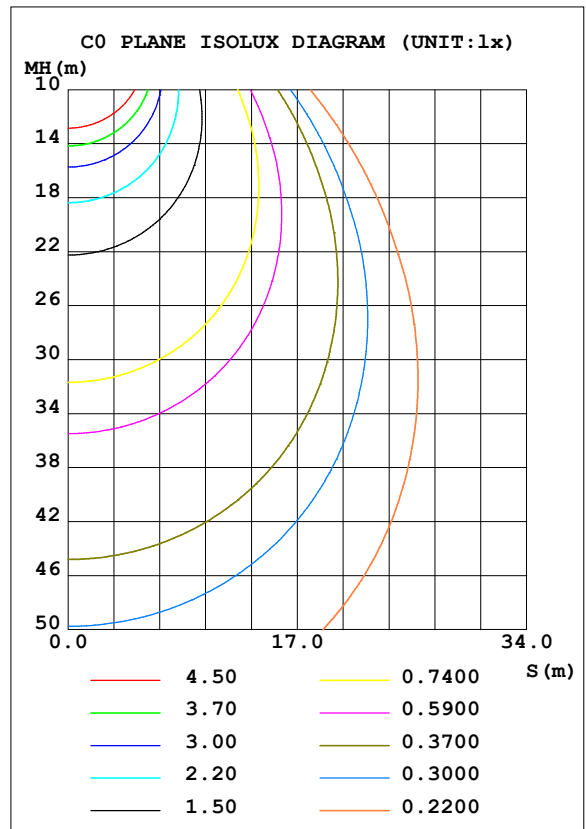
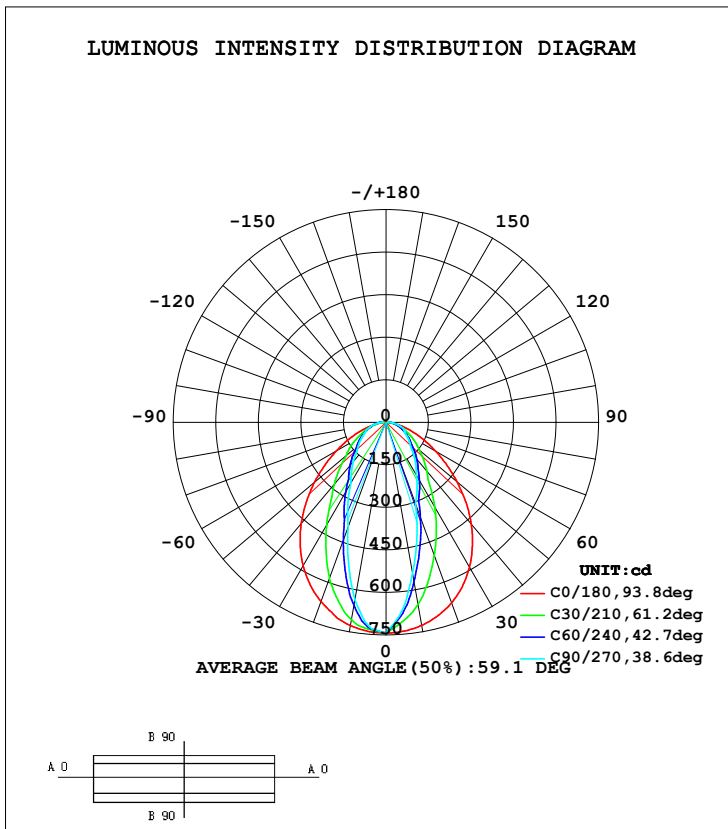


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.3V I:0.1476A P:10.52W PF:0.5923 Lamp Flux:1056.74x1 lm		
NAME: MUE-UDC	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2023083003
MFR.: JEWOO	SUR.:0.335	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 100.45 lm/W			
MODEL	MUE-UDC	I _{max} (cd)	742.8	S/MH (C0/180)	1.18
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	0.66
RATED VOLTAGE (V)		TOTAL FLUX (lm)	1056.7	η UP, DN (C0-180)	0.0, 46.2
NOMINAL FLUX (lm)	1056.74	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 53.8
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE (V)		η down (%)	100.0	CIBSE SHR MAX	0.75



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:hjl
 Test Date:2023-08-30

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.252m [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
5	738.8	688.4	663.6	689.2	739.3	729.1	719.1	730.0	0- 5	17.28	17.28	1.63,1.63
10	726.6	607.2	539.8	609.2	727.5	679.7	635.3	683.3	5- 10	48.57	65.85	6.23,6.23
15	706.2	509.4	422.4	511.9	704.4	600.6	513.5	607.0	10- 15	72.11	138.0	13.1,13.1
20	677.2	417.2	305.0	419.6	671.9	502.9	391.7	511.3	15- 20	86.60	224.6	21.2,21.2
25	637.9	324.6	259.7	326.6	632.7	405.1	320.0	415.2	20- 25	93.59	318.1	30.1,30.1
30	589.1	261.7	214.4	263.5	584.7	329.3	248.2	338.5	25- 30	96.27	414.4	39.2,39.2
35	531.6	222.9	184.2	224.6	528.2	270.7	213.9	276.5	30- 35	95.01	509.4	48.2,48.2
40	467.6	186.2	154.0	187.7	465.4	217.0	179.6	219.0	35- 40	91.37	600.8	56.9,56.9
45	399.0	159.2	125.3	160.5	398.2	186.6	147.0	188.8	40- 45	85.16	685.9	64.9,64.9
50	327.0	132.9	108.6	133.9	330.0	156.8	127.8	159.0	45- 50	77.20	763.1	72.2,72.2
55	260.9	108.4	93.42	109.2	263.7	128.6	110.4	130.4	50- 55	68.81	831.9	78.7,78.7
60	200.4	90.16	78.22	90.45	202.9	107.9	92.91	108.8	55- 60	59.72	891.7	84.4,84.4
65	147.8	72.18	71.78	71.84	149.4	87.59	81.25	87.82	60- 65	50.20	941.9	89.1,89.1
70	103.0	55.23	65.33	54.30	103.6	68.53	69.58	68.18	65- 70	40.82	982.7	93,93
75	65.57	39.76	50.49	38.43	64.90	51.24	54.62	50.39	70- 75	31.28	1014	96,96
80	34.51	28.96	35.64	27.66	32.91	37.50	39.66	36.86	75- 80	22.05	1036	98,98
85	10.93	18.92	20.79	17.77	9.047	24.46	24.70	24.01	80- 85	13.81	1050	99.3,99.3
90	0.1288	9.034	5.949	8.098	0.0468	11.68	9.743	11.34	85- 90	6.925	1057	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:cd								UNIT:lm			

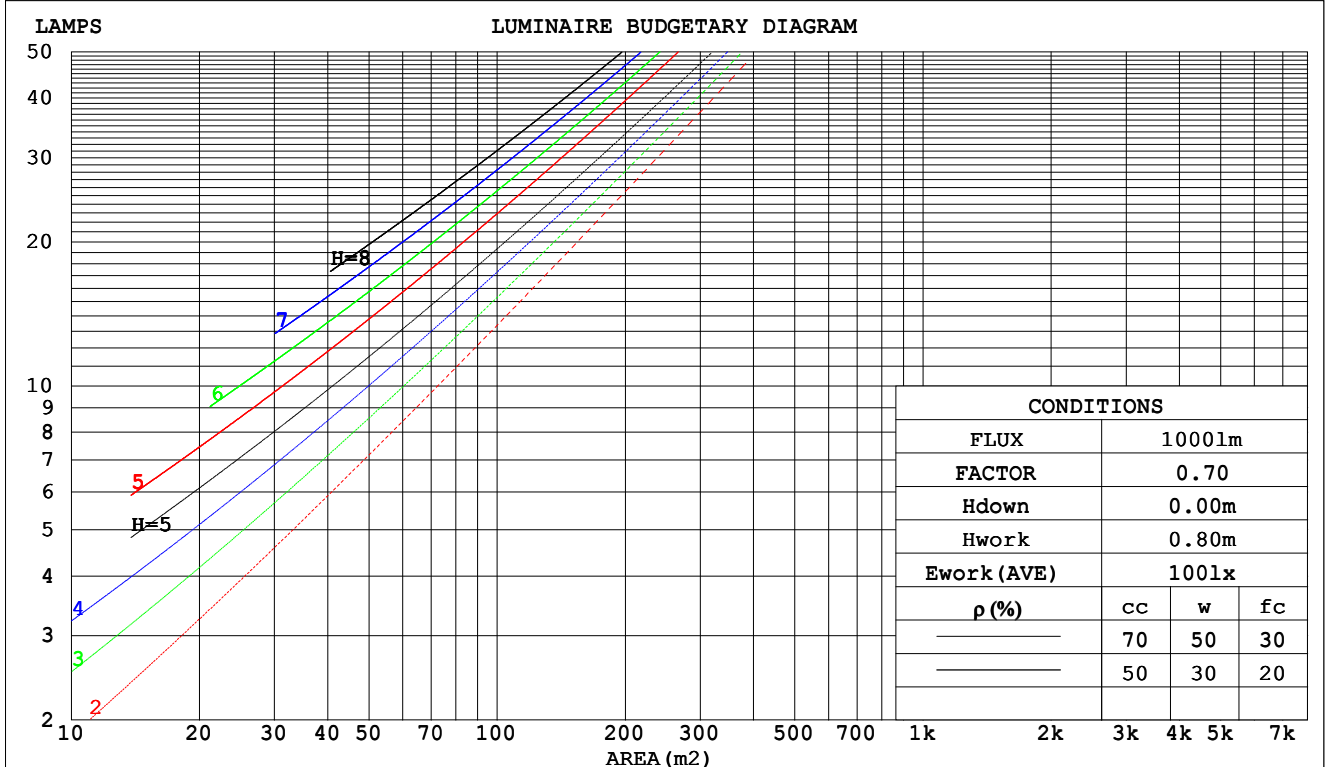
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:hjl
 Test Date:2023-08-30

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.252m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.3V I:0.1476A P:10.52W PF:0.5923 Lamp Flux:1056.74x1 lm		
NAME: MUE-UDC	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2023083003
MFR.: JEWOO	SUR.:0.335	PROTECTION ANGLE:

ρcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	
ρw																0
ρfc																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	.00
1.0	1.06	1.02	.98	1.03	.90	.97	.99	.96	.94	.95	.93	.91	.92	.90	.88	.86
2.0	.94	.88	.82	.92	.86	.82	.88	.84	.80	.85	.81	.78	.82	.79	.76	.74
3.0	.84	.77	.71	.82	.76	.70	.79	.74	.69	.77	.72	.68	.74	.70	.67	.65
4.0	.76	.68	.62	.74	.67	.61	.72	.66	.60	.70	.64	.60	.68	.63	.59	.57
5.0	.69	.61	.55	.68	.60	.54	.66	.59	.54	.64	.58	.53	.62	.57	.53	.51
6.0	.63	.55	.49	.62	.54	.49	.60	.53	.48	.59	.52	.48	.57	.52	.47	.45
7.0	.58	.50	.44	.57	.49	.44	.55	.49	.44	.54	.48	.43	.53	.47	.43	.41
8.0	.53	.45	.40	.53	.45	.40	.51	.45	.40	.50	.44	.40	.49	.44	.39	.38
9.0	.50	.42	.37	.49	.42	.37	.48	.41	.37	.47	.41	.36	.46	.40	.36	.35
10.0	.46	.39	.34	.46	.39	.34	.45	.38	.34	.44	.38	.34	.43	.37	.34	.32



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:hjl
 Test Date:2023-08-30

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.252m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:120.3V I:0.1476A P:10.52W PF:0.5923 Lamp Flux:1056.74x1 lm		
NAME: MUE-UDC	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2023083003
MFR.: JEWOO	SUR.:0.335	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	.278	.158	.050	.271	.154	.049	.258	.148	.047	.246	.142	.045	.235	.136	.044	
2.0	.260	.142	.044	.254	.140	.043	.242	.135	.042	.232	.130	.041	.222	.126	.040	
3.0	.241	.128	.038	.236	.126	.038	.226	.122	.037	.216	.119	.036	.208	.115	.036	
4.0	.223	.116	.034	.219	.114	.034	.210	.111	.033	.202	.108	.033	.194	.105	.032	
5.0	.207	.106	.031	.203	.104	.030	.196	.102	.030	.188	.099	.030	.182	.097	.029	
6.0	.193	.097	.028	.190	.096	.028	.183	.094	.027	.176	.092	.027	.170	.090	.027	
7.0	.181	.089	.025	.178	.088	.025	.171	.087	.025	.166	.085	.025	.160	.083	.024	
8.0	.170	.083	.023	.167	.082	.023	.161	.081	.023	.156	.079	.023	.151	.078	.023	
9.0	.160	.077	.022	.157	.077	.021	.152	.075	.021	.148	.074	.021	.143	.073	.021	
10.0	.151	.072	.020	.148	.072	.020	.144	.071	.020	.140	.069	.020	.136	.068	.020	

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	.178	.156	.137	.152	.134	.118	.104	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.168	.132	.102	.144	.114	.088	.099	.079	.061	.057	.046	.036	.018	.015	.012	
3.0	.159	.114	.078	.136	.098	.068	.094	.068	.048	.054	.040	.028	.017	.013	.009	
4.0	.150	.100	.062	.129	.087	.054	.089	.060	.038	.051	.035	.023	.017	.012	.007	
5.0	.143	.090	.051	.123	.078	.044	.084	.054	.031	.049	.032	.018	.016	.010	.006	
6.0	.135	.081	.042	.116	.070	.037	.080	.049	.026	.047	.029	.015	.015	.009	.005	
7.0	.129	.074	.036	.111	.064	.031	.076	.045	.022	.044	.026	.013	.014	.009	.004	
8.0	.122	.068	.031	.105	.059	.027	.073	.041	.019	.042	.024	.011	.014	.008	.004	
9.0	.117	.063	.027	.100	.055	.023	.070	.038	.017	.041	.023	.010	.013	.007	.003	
10.0	.111	.059	.024	.096	.051	.021	.066	.036	.015	.039	.021	.009	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:hjl
 Test Date:2023-08-30

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.252m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.3V I:0.1476A P:10.52W PF:0.5923 Lamp Flux:1056.74x1 lm										
NAME: MUE-UDC					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:2023083003		
MFR.: JEWOO					SUR.:0.335			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	22.3	23.6	22.5	23.8	24.0	18.0	19.4	18.3	19.5	19.7
3H	23.6	24.8	23.9	25.1	25.3	19.8	21.1	20.1	21.3	21.5
4H	24.1	25.3	24.4	25.5	25.8	20.7	21.9	21.1	22.2	22.4
6H	24.4	25.5	24.7	25.8	26.1	21.6	22.7	21.9	23.0	23.2
8H	24.5	25.6	24.8	25.8	26.1	21.9	23.0	22.3	23.3	23.6
12H	24.5	25.5	24.8	25.8	26.1	22.2	23.3	22.6	23.6	23.9
4H 2H	22.3	23.5	22.6	23.7	24.0	18.8	20.0	19.1	20.2	20.4
3H	23.7	24.8	24.1	25.1	25.4	20.7	21.7	21.0	22.0	22.3
4H	24.3	25.3	24.7	25.6	25.9	21.7	22.6	22.0	23.0	23.3
6H	24.8	25.6	25.2	26.0	26.3	22.6	23.5	23.0	23.8	24.2
8H	24.9	25.7	25.3	26.0	26.4	23.1	23.9	23.5	24.2	24.6
12H	25.0	25.7	25.4	26.1	26.5	23.5	24.2	23.9	24.6	25.0
8H 4H	24.4	25.2	24.8	25.5	25.9	22.0	22.8	22.4	23.1	23.5
6H	24.9	25.6	25.3	26.0	26.4	23.1	23.8	23.6	24.2	24.6
8H	25.1	25.7	25.5	26.1	26.5	23.7	24.3	24.1	24.7	25.1
12H	25.2	25.7	25.7	26.1	26.6	24.2	24.7	24.7	25.2	25.6
12H 4H	24.4	25.1	24.8	25.5	25.9	22.0	22.7	22.4	23.1	23.5
6H	25.0	25.5	25.4	26.0	26.4	23.2	23.8	23.7	24.2	24.7
8H	25.2	25.7	25.6	26.1	26.6	23.8	24.4	24.3	24.8	25.3
Variations with the observer position at spacings:										
S = 1.0H	+ 0.5 / - 0.4					+ 0.2 / - 0.2				
1.5H	+ 1.1 / - 0.9					+ 0.1 / - 0.2				
2.0H	+ 1.9 / - 1.6					+ 0.1 / - 0.2				

CIE Pub.117 Corrected 1057 lm Total Lamp Luminous Flux. (8log(F/F0) = 0.2)

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:hjl
Test Date:2023-08-30

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
Humidity:65.0%
Test Distance:13.252m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:120.3V I:0.1476A P:10.52W PF:0.5923 Lamp Flux:1056.74x1 lm		
NAME: MUE-UDC	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2023083003
MFR.: JEWOO	SUR.:0.335	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	65	55	48	64	54	48	63	54	48	42
0.80	74	64	58	73	64	58	72	63	57	51
1.00	82	72	66	81	72	66	79	73	65	59
1.25	88	79	73	87	78	72	84	77	72	65
1.50	93	84	78	91	83	77	88	81	76	70
2.00	98	91	85	97	90	85	93	88	83	76
2.50	102	95	90	100	94	89	96	91	87	79
3.00	105	99	94	102	97	93	99	94	90	82
4.00	108	103	99	106	101	98	102	98	95	86
5.00	110	106	102	108	104	101	103	100	98	89
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:hjl
Test Date:2023-08-30

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
Humidity:65.0%
Test Distance:13.252m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

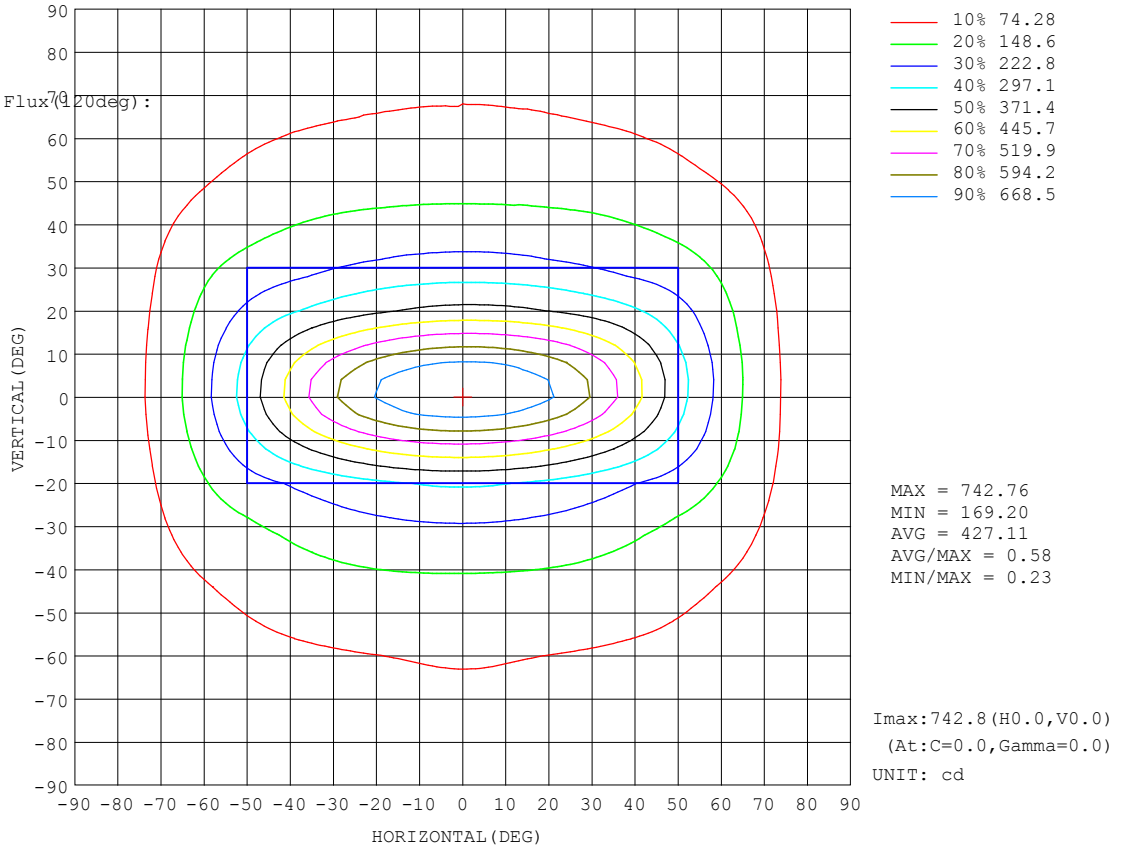
Test:U:120.3V I:0.1476A P:10.52W PF:0.5923 Lamp Flux:1056.74x1 lm		
NAME: MUE-UDC	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2023083003
MFR.: JEWOO	SUR.:0.335	PROTECTION ANGLE:

Conical surface Flux(90deg):

685.94 lm
 %lum = 64.9%
 %lamp = 64.9%

Conical surface Flux(70deg):

891.66 lm
 %lum = 84.4%
 %lamp = 84.4%

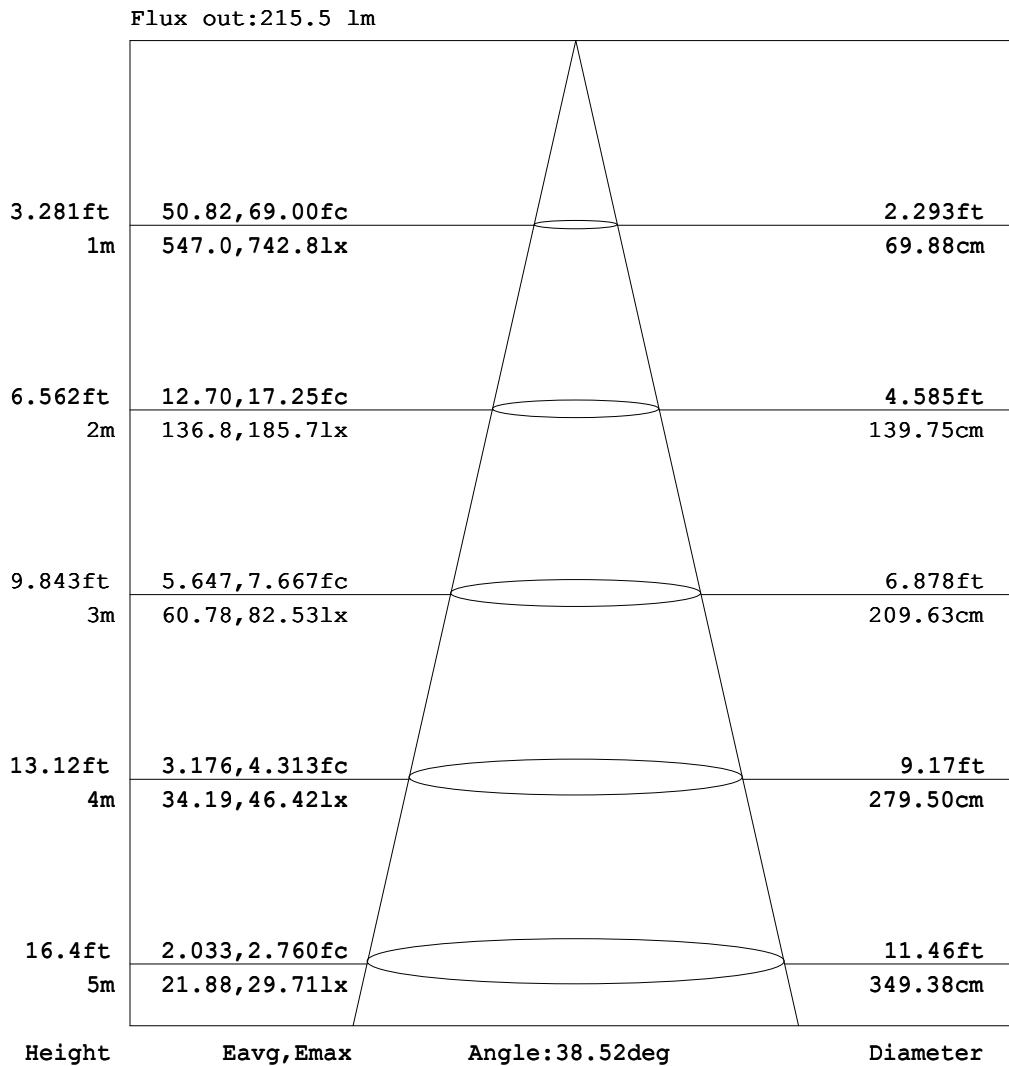


C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:hjl
 Test Date:2023-08-30

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.252m [K=1.0000]
 Remarks:

AAI Figure

Test:U:120.3V I:0.1476A P:10.52W PF:0.5923 Lamp Flux:1056.74x1 lm		
NAME: MUE-UDC	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2023083003
MFR.: JEWOO	SUR.:0.335	PROTECTION ANGLE:



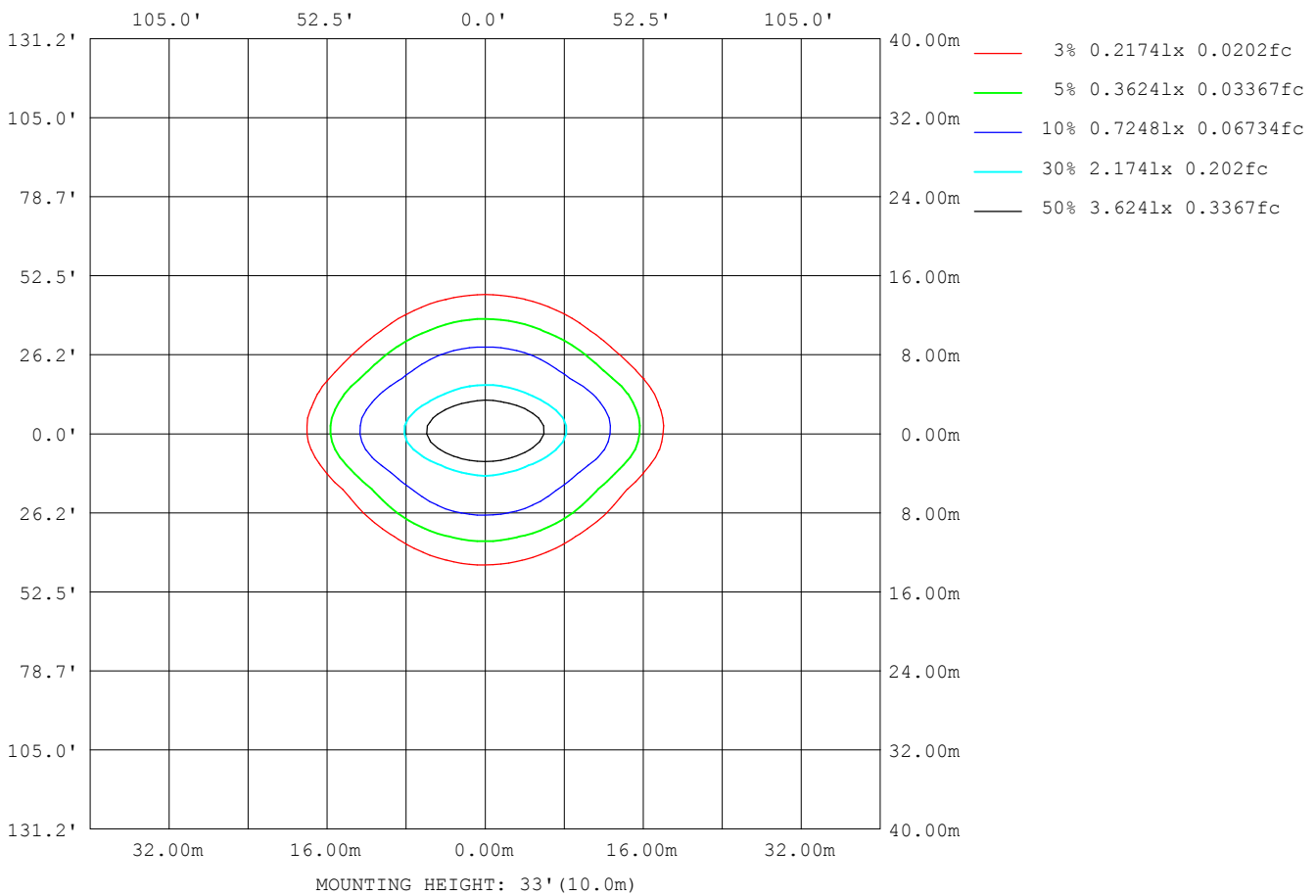
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:hjl
 Test Date:2023-08-30

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.252m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

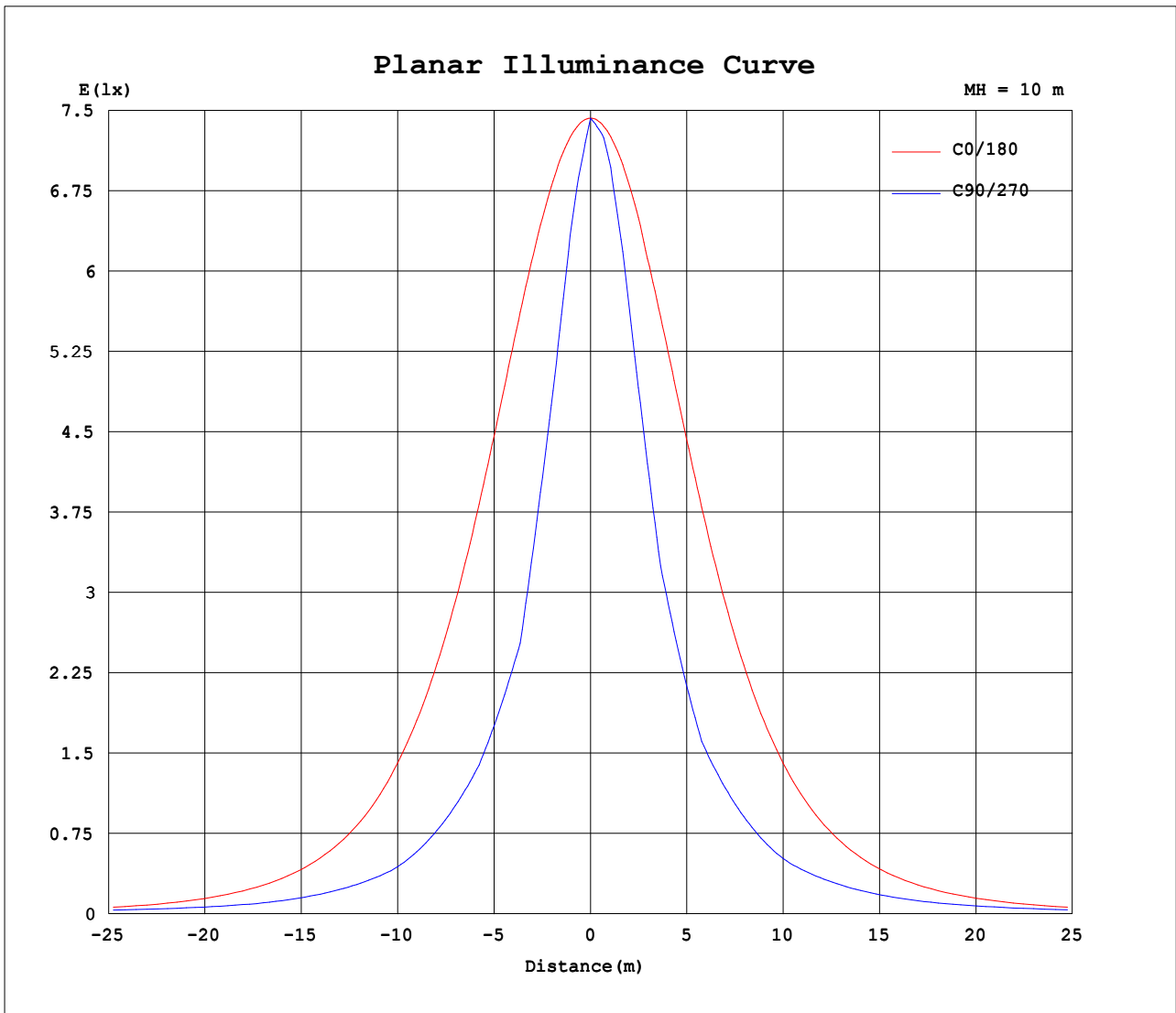
Test:U:120.3V I:0.1476A P:10.52W PF:0.5923 Lamp Flux:1056.74x1 lm		
NAME: MUE-UDC	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2023083003
MFR.: JEWOO	SUR.:0.335	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:hjl
 Test Date:2023-08-30

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.252m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:hjl
 Test Date:2023-08-30

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.252m [K=1.0000]
 Remarks:

