

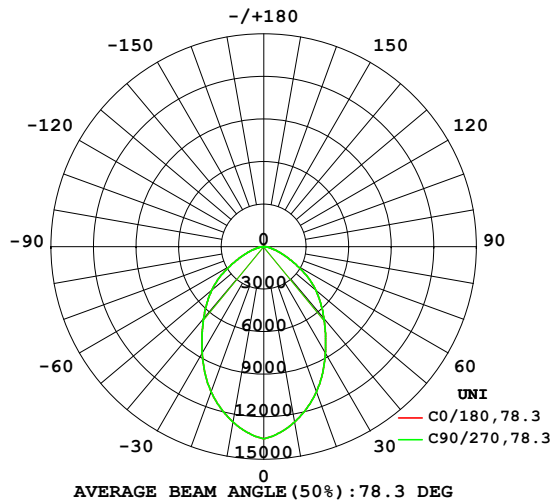
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

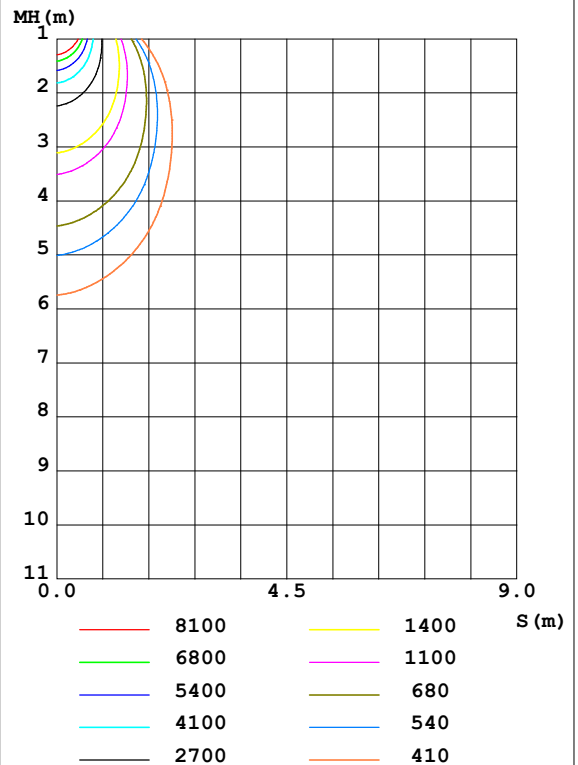
Test:U:229.8V I:0.6658A P:151.2W PF:0.9881 Freq:50.01Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:24392.7x1 lm		
NAME: HB38-150-5080-H00138M	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 161.35 lm/W			
MODEL	/	I _{max} (cd)	13538	S/MH(C0/180)	1.01
NOMINAL POWER(W)	/	LOR(%)	100.0	S/MH(C90/270)	1.01
RATED VOLTAGE(V)	/	TOTAL FLUX(lm)	24393	η UP,DN(C0-180)	0.0,50.0
NOMINAL FLUX(lm)	24392.7	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.0
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.00
TEST VOLTAGE(V)	230	η down(%)	100.0	CIBSE SHR MAX	1.15

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:LYJ
Test Date:2021-06-28

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.446
Humidity:65.0%
Test Distance:26.000m [K=0.4551]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	1255	1255	1255	1255	1255	1255	1255	1255	0- 10	1237	1237	5.07,5.07
20	1088	1088	1088	1088	1088	1088	1088	1088	10- 20	3309	4546	18.6,18.6
30	870.1	870.1	870.1	870.1	870.1	870.1	870.1	870.1	20- 30	4515	9061	37.1,37.1
40	661.1	661.1	661.1	661.1	661.1	661.1	661.1	661.1	30- 40	4760	13820	56.7,56.7
50	481.2	481.2	481.2	481.2	481.2	481.2	481.2	481.2	40- 50	4394	18214	74.7,74.7
60	275.4	275.4	275.4	275.4	275.4	275.4	275.4	275.4	50- 60	3406	21620	88.6,88.6
70	117.7	117.7	117.7	117.7	117.7	117.7	117.7	117.7	60- 70	1865	23486	96.3,96.3
80	39.10	39.10	39.10	39.10	39.10	39.10	39.10	39.10	70- 80	737.3	24223	99.3,99.3
90	1.645	1.645	1.645	1.645	1.645	1.645	1.645	1.645	80- 90	169.8	24393	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:X10cd									UNIT:lm		

Conical surface Flux(90deg): 16094 lm

%lum = 66.0%

%lamp = 66.0%

Conical surface Flux(120deg): 21620 lm

%lum = 88.6%

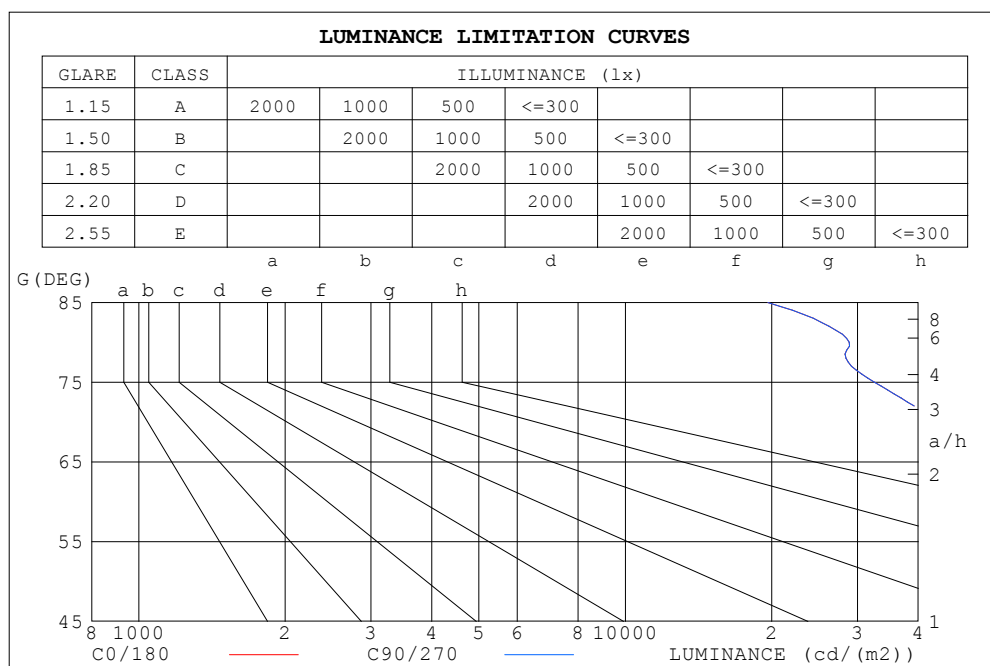
%lamp = 88.6%

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:LYJ
Test Date:2021-06-28

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.446
Humidity:65.0%
Test Distance:26.000m [K=0.4551]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINANCE LIMITATION CURVES



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	19629	19629
80	28870	28870
75	32522	32522
70	44112	44112
65	56078	56078
60	70605	70605
55	85879	85879
50	95976	95976
45	103221	103221

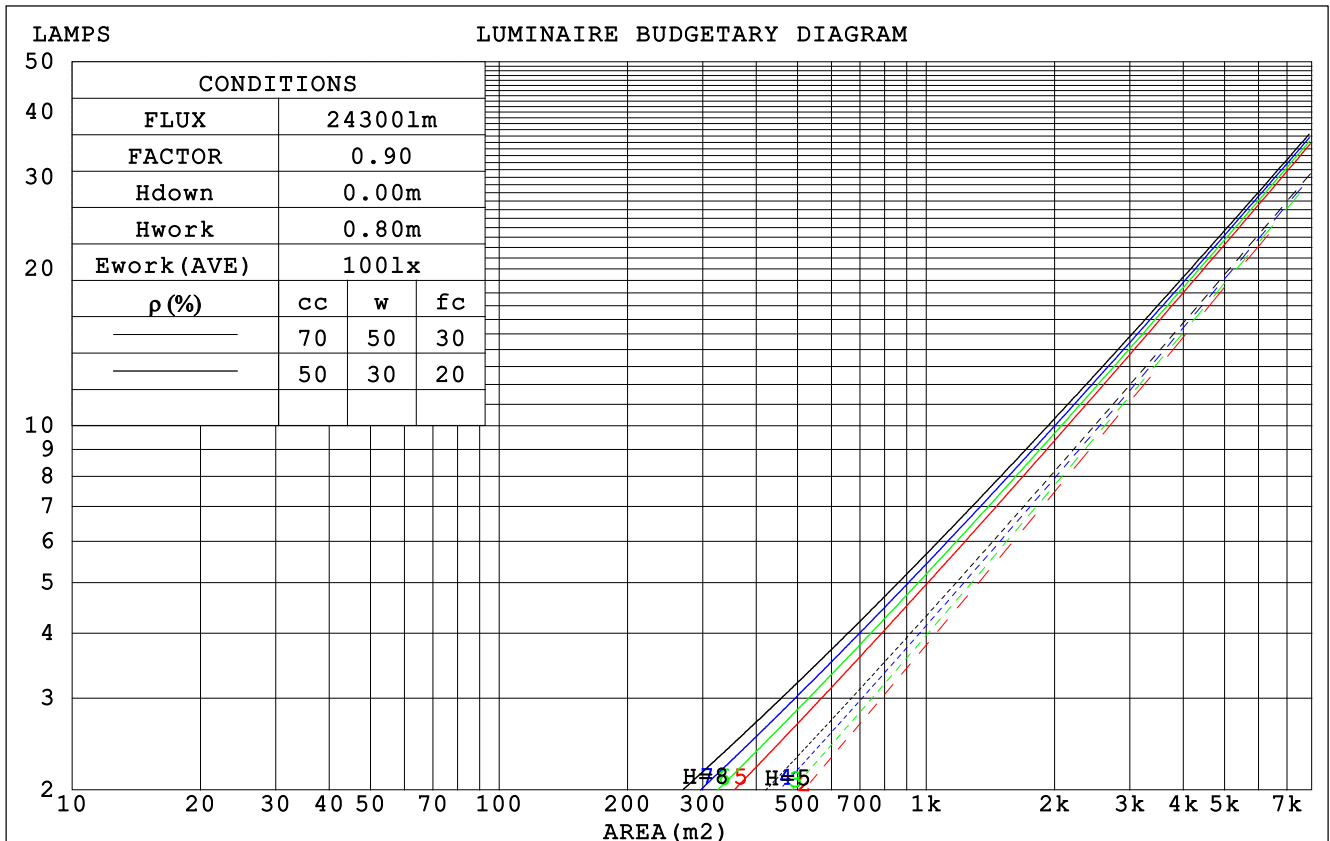
C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: LYJ
 Test Date: 2021-06-28

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.446
 Humidity: 65.0%
 Test Distance: 26.000m [K=0.4551]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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	1.07	1.03	.00	1.04	1.01	.98	1.00	.98	.95	.96	.94	.92	.93	.91	.90	.88
2.0	.95	.89	.84	.93	.88	.83	.90	.85	.81	.87	.83	.79	.84	.80	.78	.76
3.0	.85	.78	.72	.83	.77	.71	.81	.75	.70	.78	.73	.69	.75	.71	.68	.66
4.0	.76	.69	.63	.75	.68	.62	.73	.66	.61	.70	.65	.61	.68	.64	.60	.58
5.0	.69	.61	.55	.68	.60	.55	.66	.59	.54	.64	.58	.54	.62	.57	.53	.51
6.0	.63	.55	.49	.62	.54	.49	.60	.53	.48	.59	.52	.48	.57	.52	.47	.46
7.0	.57	.49	.44	.57	.49	.44	.55	.48	.43	.54	.48	.43	.53	.47	.43	.41
8.0	.53	.45	.40	.52	.45	.39	.51	.44	.39	.50	.44	.39	.49	.43	.39	.37
9.0	.49	.41	.36	.48	.41	.36	.47	.40	.36	.46	.40	.36	.45	.40	.35	.34
10.0	.45	.38	.33	.45	.38	.33	.44	.37	.33	.43	.37	.33	.42	.37	.33	.31



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: LYJ
Test Date: 2021-06-28

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.446
Humidity: 65.0%
Test Distance: 26.000m [K=0.4551]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

WEC AND CCEC

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	.258	.146	.046	.251	.143	.045	.238	.136	.044	.226	.130	.042	.215	.124	.040															
2.0	.248	.136	.042	.242	.134	.041	.231	.128	.040	.221	.124	.039	.211	.119	.038															
3.0	.234	.125	.037	.229	.123	.037	.219	.119	.036	.210	.115	.035	.202	.112	.035															
4.0	.220	.114	.034	.215	.113	.033	.207	.110	.033	.198	.107	.032	.191	.104	.032															
5.0	.206	.105	.030	.202	.104	.030	.194	.101	.030	.187	.099	.029	.180	.096	.029															
6.0	.193	.097	.028	.190	.096	.028	.183	.094	.027	.176	.092	.027	.170	.090	.027															
7.0	.181	.090	.025	.178	.089	.025	.172	.087	.025	.166	.085	.025	.161	.084	.025															
8.0	.171	.083	.023	.168	.083	.023	.162	.081	.023	.157	.080	.023	.152	.078	.023															
9.0	.161	.078	.022	.159	.077	.022	.154	.076	.022	.149	.075	.021	.144	.073	.021															
10.0	.152	.073	.020	.150	.072	.020	.146	.071	.020	.141	.070	.020	.137	.069	.020															

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	.177	.157	.138	.151	.134	.119	.103	.092	.082	.060	.054	.048	.019	.017	.016	
2.0	.166	.132	.103	.143	.114	.089	.098	.079	.062	.056	.046	.036	.018	.015	.012	
3.0	.158	.114	.079	.135	.098	.069	.093	.068	.048	.054	.040	.028	.017	.013	.009	
4.0	.150	.100	.063	.128	.087	.054	.088	.060	.038	.051	.035	.023	.016	.012	.007	
5.0	.142	.090	.051	.122	.078	.044	.084	.054	.031	.049	.032	.019	.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	.077	.045	.022	.044	.026	.013	.014	.009	.004	
8.0	.123	.068	.031	.106	.059	.027	.073	.041	.019	.043	.024	.011	.014	.008	.004	
9.0	.117	.063	.027	.101	.055	.023	.070	.039	.017	.041	.023	.010	.013	.007	.003	
10.0	.112	.059	.024	.096	.051	.021	.067	.036	.015	.039	.021	.009	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:LYJ
 Test Date:2021-06-28

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.446
 Humidity:65.0%
 Test Distance:26.000m [K=0.4551]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UGR(Unified Glare Rating) Table

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	26.8	28.3	27.2	28.6	28.9	26.8	28.3	27.2	28.6	28.9
3H	27.7	29.0	28.0	29.3	29.7	27.7	29.0	28.0	29.3	29.7
4H	27.9	29.1	28.3	29.5	29.8	27.9	29.1	28.3	29.5	29.8
6H	28.0	29.1	28.4	29.5	29.9	28.0	29.1	28.4	29.5	29.9
8H	28.0	29.1	28.5	29.5	29.9	28.0	29.1	28.5	29.5	29.9
12H	28.0	29.1	28.5	29.5	29.9	28.0	29.1	28.5	29.5	29.9
4H 2H	27.1	28.3	27.5	28.7	29.1	27.1	28.3	27.5	28.7	29.1
3H	28.1	29.1	28.5	29.5	29.9	28.1	29.1	28.5	29.5	29.9
4H	28.4	29.3	28.8	29.7	30.2	28.4	29.3	28.8	29.7	30.2
6H	28.6	29.4	29.1	29.8	30.3	28.6	29.4	29.1	29.8	30.3
8H	28.7	29.4	29.1	29.9	30.3	28.7	29.4	29.1	29.9	30.3
12H	28.7	29.4	29.2	29.8	30.3	28.7	29.4	29.2	29.8	30.3
8H 4H	28.5	29.2	28.9	29.7	30.1	28.5	29.2	28.9	29.7	30.1
6H	28.8	29.4	29.3	29.8	30.3	28.8	29.4	29.3	29.8	30.3
8H	28.9	29.4	29.4	29.9	30.4	28.9	29.4	29.4	29.9	30.4
12H	28.9	29.4	29.4	29.9	30.5	28.9	29.4	29.4	29.9	30.5
12H 4H	28.5	29.1	28.9	29.6	30.1	28.5	29.1	28.9	29.6	30.1
6H	28.8	29.3	29.3	29.8	30.3	28.8	29.3	29.3	29.8	30.3
8H	28.9	29.4	29.4	29.9	30.4	28.9	29.4	29.4	29.9	30.4
CIE190: 2010										

CIE190: 2010
Area: 0.078 m2

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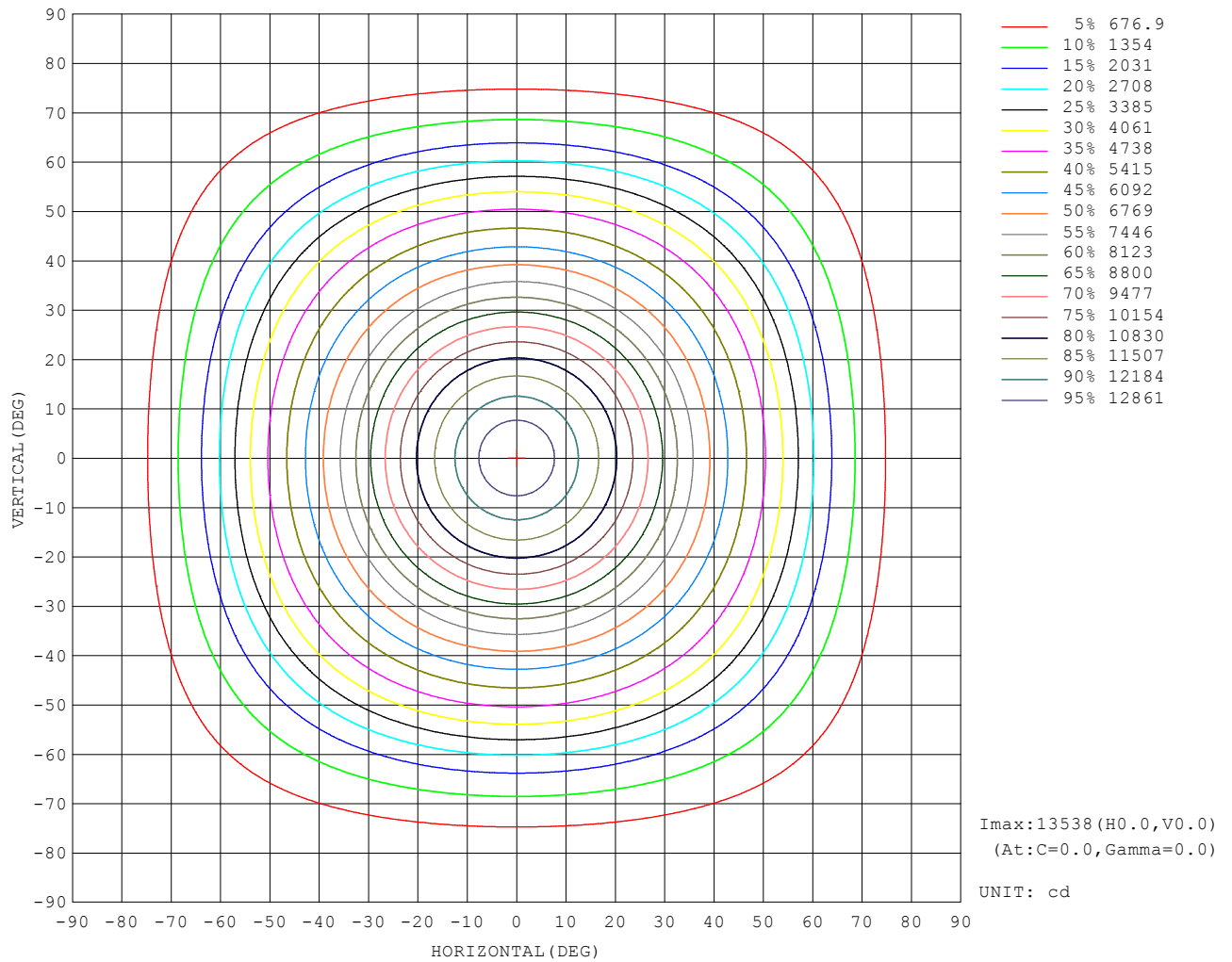
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	64	54	48	64	54	47	62	53	47	41
0.80	74	64	58	73	64	58	72	63	57	51
1.00	83	73	67	81	72	66	79	73	66	60
1.25	89	80	74	88	80	74	85	78	73	67
1.50	94	85	80	92	85	79	89	83	78	71
2.00	100	92	87	98	91	86	95	89	85	78
2.50	103	96	91	101	95	90	97	92	88	81
3.00	106	100	95	104	98	94	100	96	92	84
4.00	109	104	100	107	102	99	103	99	96	88
5.00	111	107	103	108	105	102	104	101	99	90
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
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 Test Date: 2021-06-28

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.446
 Humidity: 65.0%
 Test Distance: 26.000m [K=0.4551]
 Remarks:

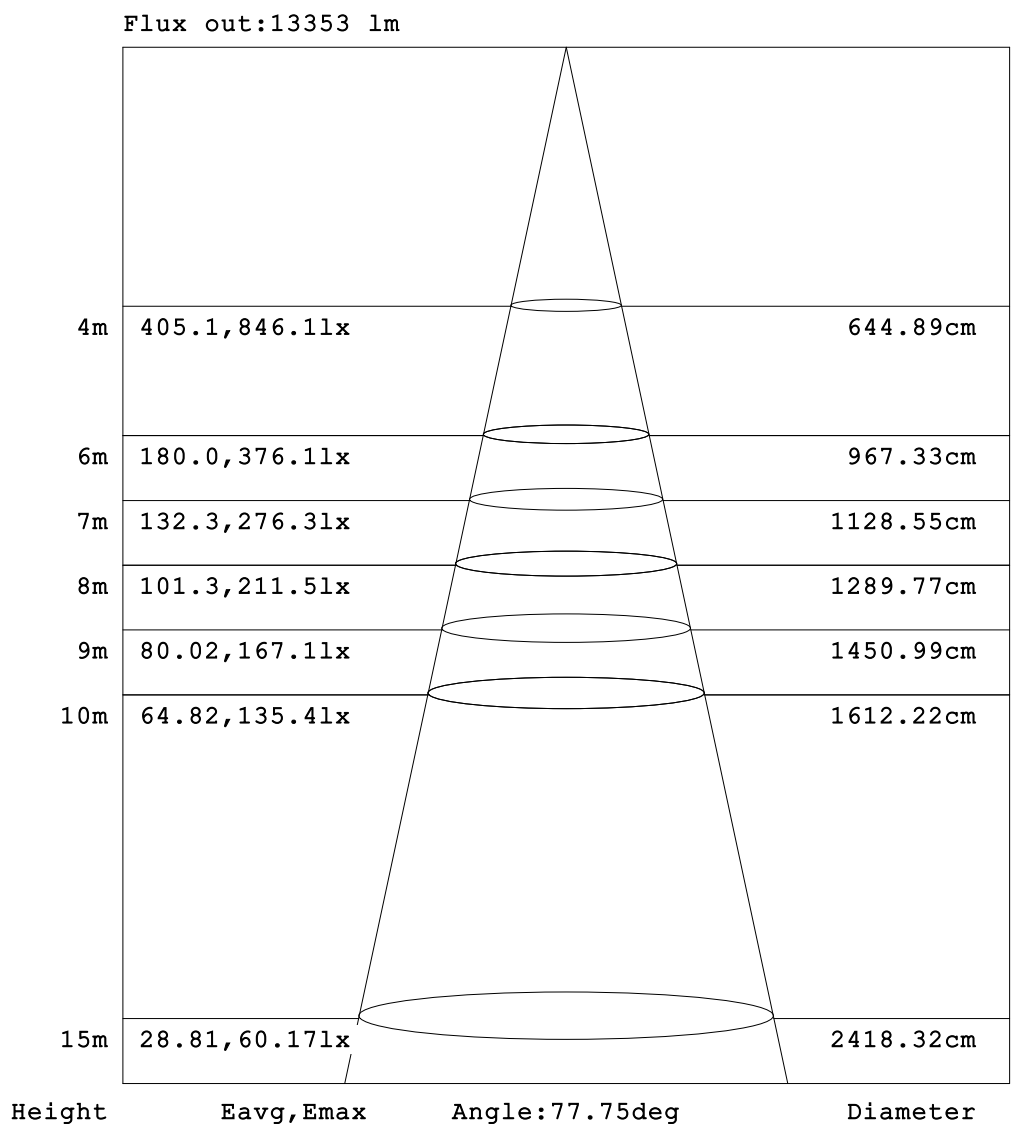
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
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Test Speed: HIGH
Temperature:25.3DEG
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Test Date:2021-06-28

γ Range: 0 - 90DEG
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Remarks:

AAI Figure



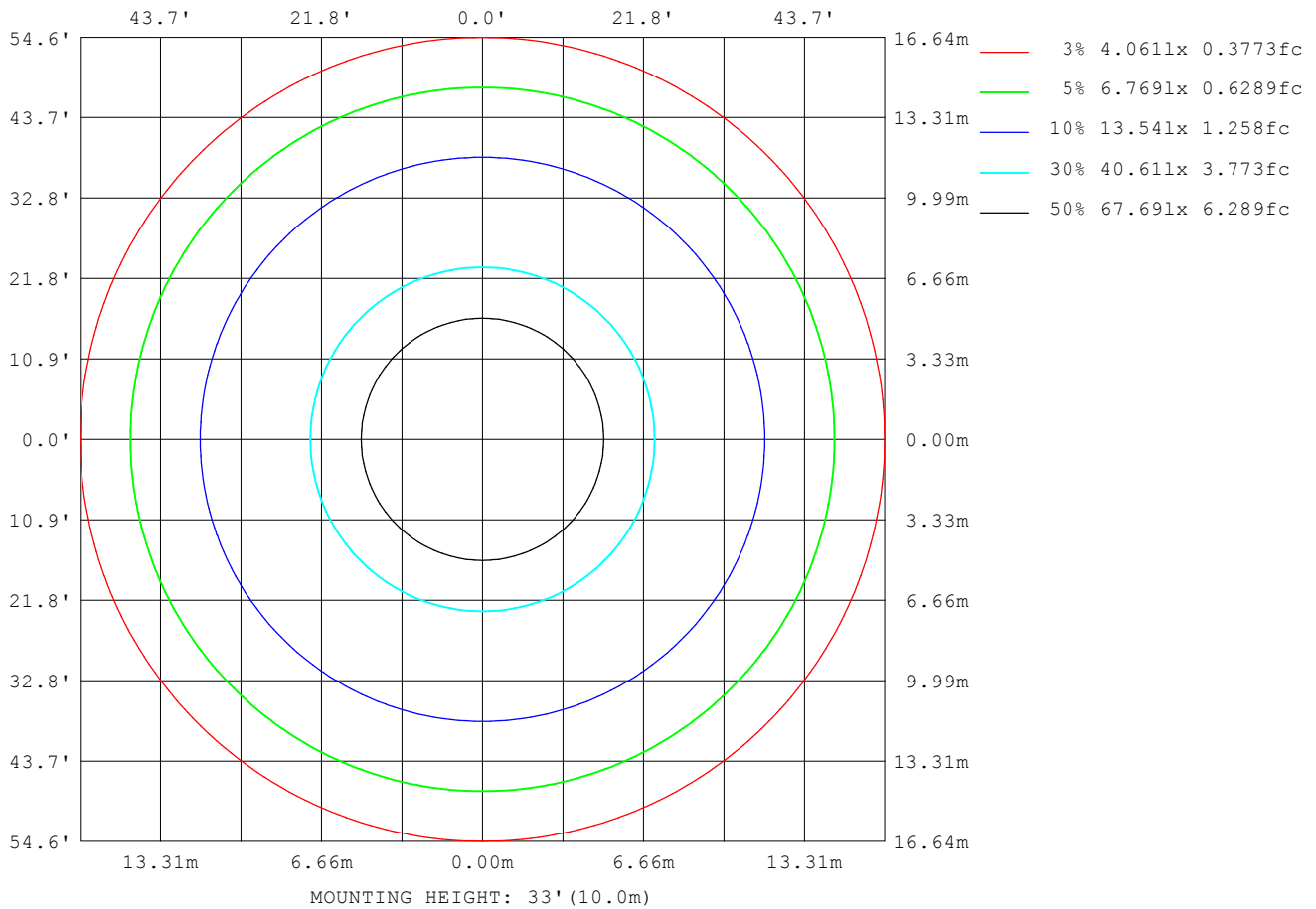
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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C Interval: 22.5DEG
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γ Range: 0 - 90DEG
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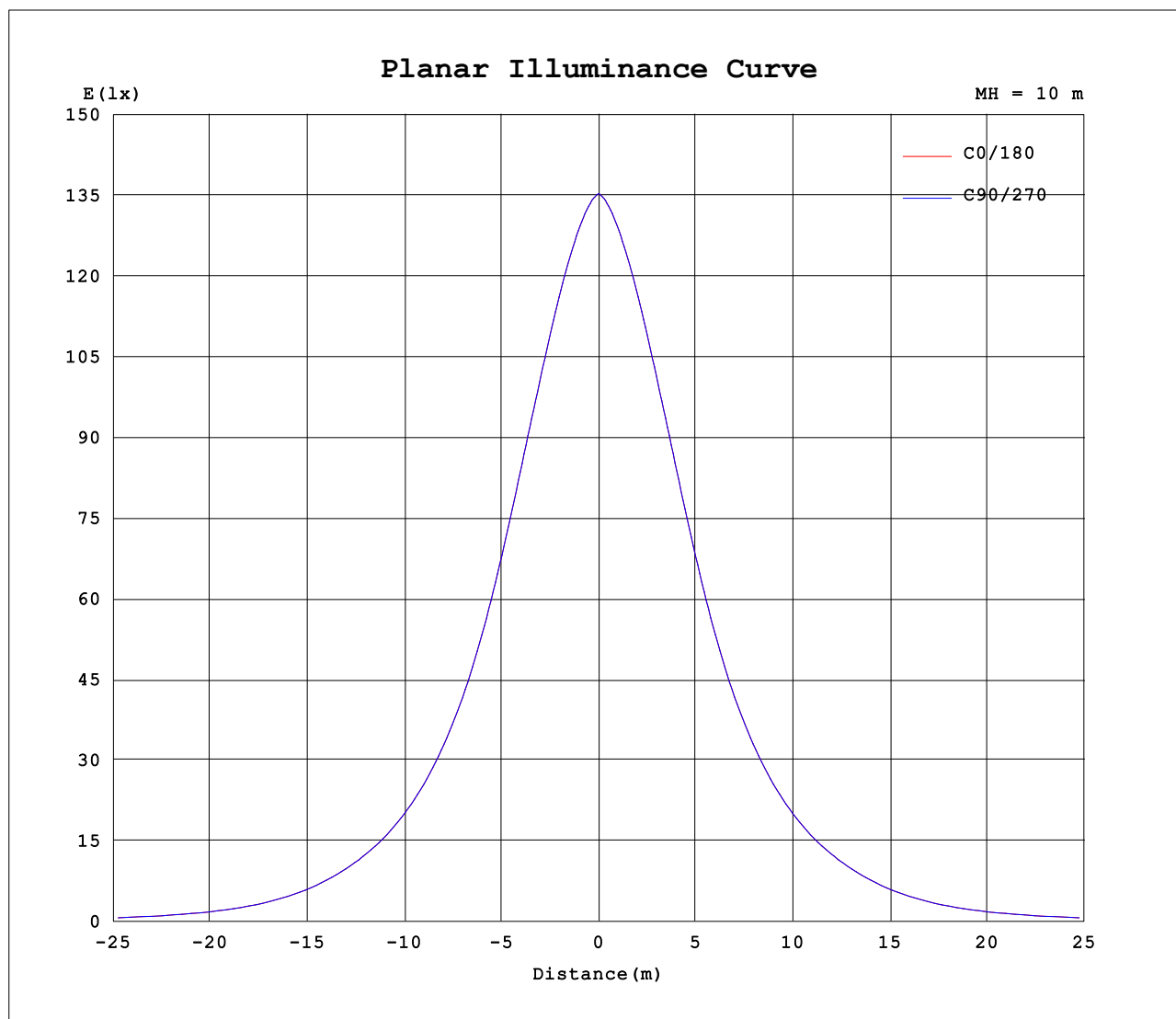
ISOLUX DIAGRAM



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: LYJ
Test Date: 2021-06-28

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.446
Humidity: 65.0%
Test Distance: 26.000m [K=0.4551]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
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Temperature: 25.3DEG
Operators: LYJ
Test Date: 2021-06-28

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.446
Humidity: 65.0%
Test Distance: 26.000m [K=0.4551]
Remarks: