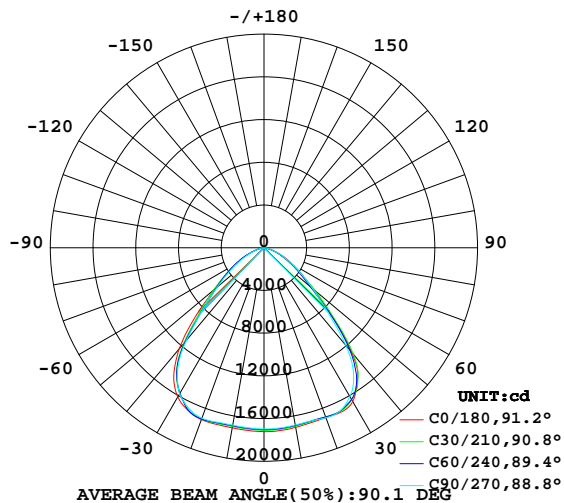


LUMINAIRE PHOTOMETRIC TEST REPORT

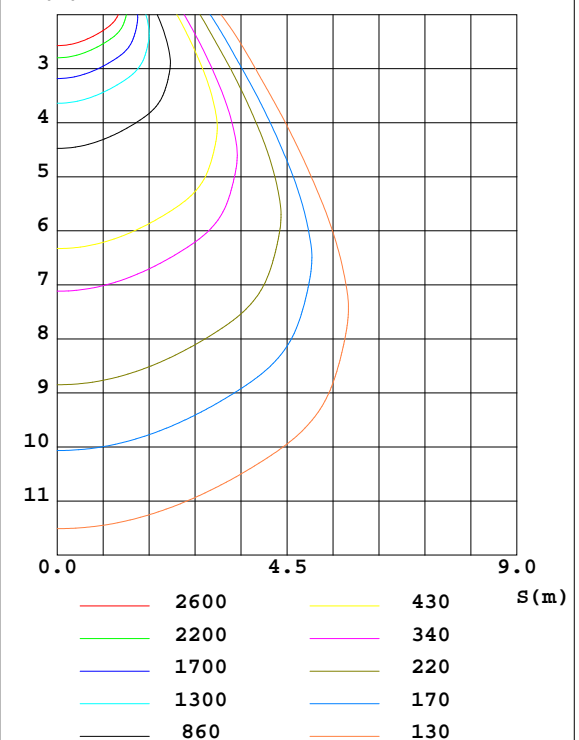
Test:U:231.5V I:1.045A P:239.2W PF:0.9887 Lamp Flux:36330.3x1 lm		
NAME: 270879	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:0.191	PROTECTION ANGLE:0.14

DATA OF LAMP		PHOTOMETRIC DATA Eff: 151.88 lm/W			
MODEL	270879	I _{max} (cd)	17221	S/MH(C0/180)	1.30
NOMINAL POWER(W)	244	LOR(%)	100.0	S/MH(C90/270)	1.28
RATED VOLTAGE(V)	232	TOTAL FLUX(lm)	36330	η UP,DN(C0-180)	0.0,50.4
NOMINAL FLUX(lm)	36330.3	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,49.6
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	231.4	η down(%)	100.0	CIBSE SHR MAX	1.30

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2022-03-21

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:6.990m [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	1708	1694	1685	1678	1712	1697	1687	1676	0- 10	1618	1618	4.45,4.45
20	1693	1686	1694	1687	1713	1706	1698	1684	10- 20	4791	6409	17.6,17.6
30	1663	1641	1608	1567	1614	1576	1579	1587	20- 30	7689	14098	38.8,38.8
40	1280	1277	1192	1142	1235	1158	1130	1151	30- 40	8968	23066	63.5,63.5
50	605.2	597.7	594.3	604.4	608.1	598.8	567.8	576.3	40- 50	6622	29688	81.7,81.7
60	305.8	279.5	292.6	304.6	307.8	306.5	285.1	285.7	50- 60	3835	33523	92.3,92.3
70	125.6	112.6	117.7	122.8	125.0	121.5	113.1	114.3	60- 70	1987	35510	97.7,97.7
80	28.03	27.11	30.19	31.66	30.96	30.99	29.93	28.91	70- 80	690.9	36201	99.6,99.6
90	2.279	2.245	2.191	2.265	3.198	3.131	3.055	3.050	80- 90	129.0	36330	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:×10cd									UNIT:lm		

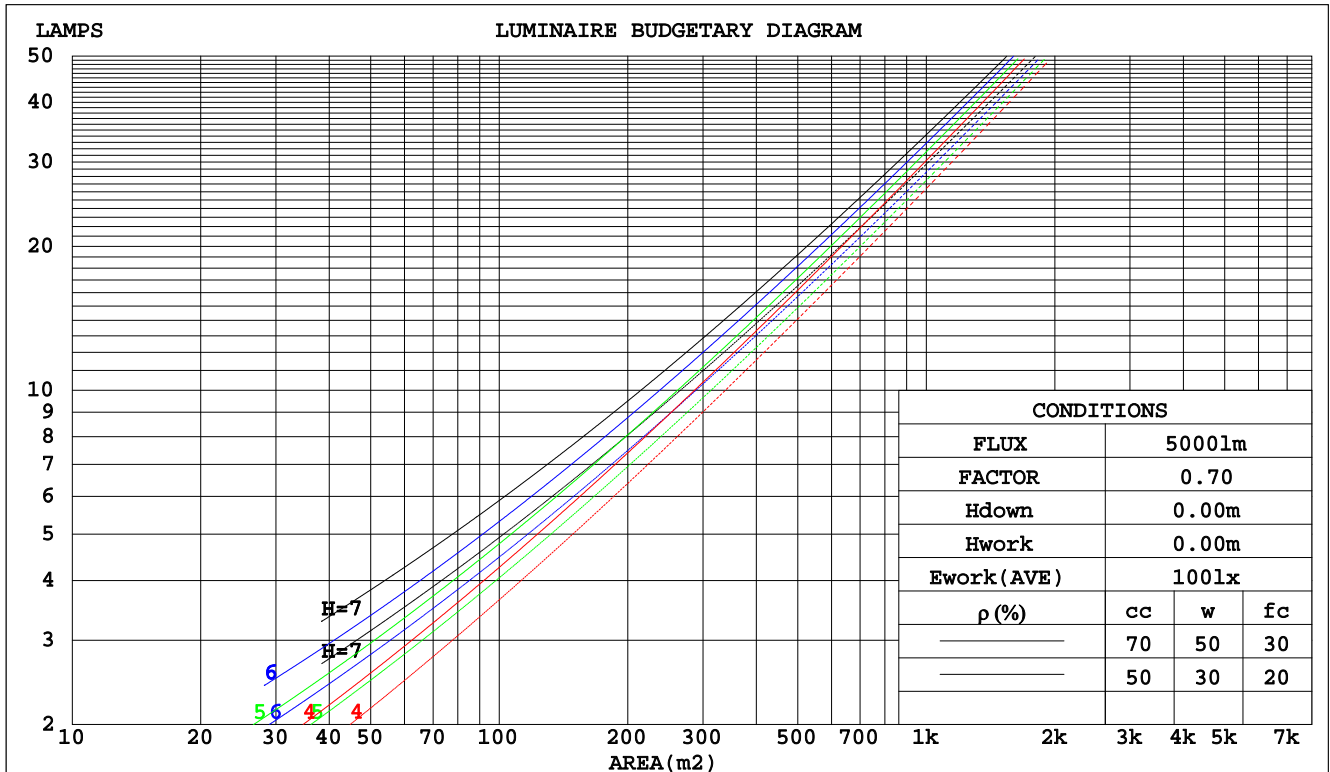
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2022-03-21

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
 Humidity:65.0%
 Test Distance:6.990m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:231.5V I:1.045A P:239.2W PF:0.9887 Lamp Flux:36330.3x1 lm		
NAME: 270879	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:0.191	PROTECTION ANGLE:0.14

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	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	1.08	1.04	1.01	1.05	1.02	.00	1.01	.99	.96	.97	.95	.94	.94	.92	.91	.89
2.0	.97	.91	.86	.95	.90	.85	.91	.87	.83	.88	.85	.82	.85	.82	.80	.78
3.0	.87	.80	.75	.85	.79	.74	.83	.77	.73	.80	.75	.72	.78	.74	.70	.69
4.0	.78	.71	.65	.77	.70	.65	.75	.69	.64	.73	.67	.63	.71	.66	.62	.61
5.0	.71	.63	.58	.70	.63	.57	.68	.62	.57	.66	.61	.56	.65	.60	.56	.54
6.0	.65	.57	.51	.64	.57	.51	.62	.56	.51	.61	.55	.50	.59	.54	.50	.48
7.0	.59	.52	.46	.59	.51	.46	.57	.51	.46	.56	.50	.45	.55	.49	.45	.43
8.0	.55	.47	.42	.54	.47	.42	.53	.46	.41	.52	.46	.41	.50	.45	.41	.39
9.0	.50	.43	.38	.50	.43	.38	.49	.42	.38	.48	.42	.37	.47	.41	.37	.36
10.0	.47	.39	.35	.46	.39	.35	.45	.39	.34	.44	.38	.34	.44	.38	.34	.33



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2022-03-21

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
 Humidity:65.0%
 Test Distance:6.990m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:231.5V I:1.045A P:239.2W PF:0.9887 Lamp Flux:36330.3x1 lm								
NAME: 270879				TYPE:			WEIGHT:	
DIM.:				SPEC.:			SERIAL No.:	
MFR.:				SUR.:0.191			PROTECTION ANGLE:0.14	

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	.240	.136	.043	.233	.133	.042	.220	.126	.040	.208	.120	.039	.197	.114	.037	
2.0	.233	.128	.039	.227	.125	.039	.216	.120	.037	.206	.115	.036	.196	.111	.035	
3.0	.222	.118	.035	.217	.116	.035	.207	.112	.034	.198	.108	.033	.189	.105	.032	
4.0	.210	.109	.032	.205	.107	.032	.196	.104	.031	.188	.101	.031	.181	.098	.030	
5.0	.198	.101	.029	.194	.099	.029	.186	.097	.029	.179	.094	.028	.172	.092	.028	
6.0	.186	.093	.027	.183	.092	.027	.176	.090	.026	.170	.088	.026	.164	.086	.026	
7.0	.176	.087	.025	.173	.086	.025	.167	.084	.024	.161	.083	.024	.156	.081	.024	
8.0	.166	.081	.023	.164	.081	.023	.158	.079	.023	.153	.078	.022	.148	.076	.022	
9.0	.158	.076	.021	.155	.076	.021	.150	.074	.021	.146	.073	.021	.141	.072	.021	
10.0	.150	.072	.020	.147	.071	.020	.143	.070	.020	.139	.069	.020	.135	.068	.019	

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	.175	.157	.140	.150	.135	.120	.103	.093	.083	.059	.054	.048	.019	.017	.016	
2.0	.164	.132	.105	.141	.114	.091	.097	.079	.063	.056	.046	.037	.018	.015	.012	
3.0	.155	.114	.081	.133	.098	.070	.091	.068	.049	.053	.040	.029	.017	.013	.010	
4.0	.147	.100	.064	.126	.086	.056	.087	.060	.039	.050	.035	.023	.016	.011	.008	
5.0	.140	.089	.052	.120	.077	.045	.083	.054	.032	.048	.032	.019	.015	.010	.006	
6.0	.133	.081	.043	.114	.070	.037	.079	.049	.027	.046	.029	.016	.015	.009	.005	
7.0	.127	.074	.036	.109	.064	.032	.075	.045	.022	.044	.026	.013	.014	.009	.004	
8.0	.121	.068	.031	.104	.059	.027	.072	.041	.019	.042	.024	.011	.014	.008	.004	
9.0	.116	.063	.027	.100	.055	.024	.069	.038	.017	.040	.023	.010	.013	.007	.003	
10.0	.111	.059	.024	.095	.051	.021	.066	.036	.015	.039	.021	.009	.013	.007	.003	

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2022-03-21

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:6.990m [K=1.0000]
Remarks:

Uncorrected UGR Table

Test:U:231.5V I:1.045A P:239.2W PF:0.9887 Lamp Flux:36330.3x1 lm											
NAME: 270879					TYPE:			WEIGHT:			
DIM.:					SPEC.:			SERIAL No.:			
MFR.:					SUR.:0.191			PROTECTION ANGLE:0.14			
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		32.1	33.4	32.4	33.6	33.8	31.9	33.2	32.1	33.4	33.6
	3H	32.5	33.7	32.7	33.9	34.1	32.2	33.4	32.5	33.6	33.9
	4H	32.5	33.6	32.8	33.9	34.1	32.3	33.4	32.6	33.6	33.9
	6H	32.5	33.5	32.8	33.8	34.1	32.2	33.3	32.6	33.6	33.8
	8H	32.4	33.5	32.8	33.7	34.0	32.2	33.2	32.5	33.5	33.8
	12H	32.4	33.4	32.7	33.7	34.0	32.2	33.1	32.5	33.4	33.7
4H	2H	32.2	33.3	32.5	33.6	33.8	32.0	33.1	32.3	33.3	33.6
	3H	32.6	33.6	33.0	33.9	34.2	32.4	33.4	32.8	33.7	34.0
	4H	32.7	33.6	33.1	33.9	34.2	32.5	33.4	32.9	33.7	34.0
	6H	32.7	33.5	33.1	33.8	34.2	32.5	33.3	32.9	33.7	34.0
	8H	32.7	33.4	33.1	33.8	34.2	32.5	33.2	32.9	33.6	34.0
	12H	32.7	33.3	33.1	33.7	34.1	32.5	33.2	32.9	33.5	33.9
8H	4H	32.7	33.4	33.1	33.7	34.1	32.5	33.2	32.9	33.6	33.9
	6H	32.7	33.3	33.1	33.7	34.1	32.5	33.1	33.0	33.5	33.9
	8H	32.7	33.2	33.2	33.6	34.1	32.5	33.1	33.0	33.5	33.9
	12H	32.7	33.1	33.2	33.6	34.0	32.5	33.0	33.0	33.4	33.9
12H	4H	32.6	33.3	33.0	33.7	34.1	32.4	33.1	32.9	33.5	33.9
	6H	32.7	33.2	33.1	33.6	34.1	32.5	33.0	33.0	33.4	33.9
	8H	32.7	33.1	33.1	33.6	34.0	32.5	33.0	33.0	33.4	33.9
Variations with the observer position at spacings:											
S = 1.0H	+ 1.1 / - 1.5					+ 1.1 / - 1.4					
1.5H	+ 1.2 / - 1.1					+ 1.2 / - 1.1					
2.0H	+ 2.2 / - 1.9					+ 2.0 / - 1.6					

CIE Pub.117 Corrected 36330 lm Total Lamp Luminous Flux.(8log(F/F0) = 12.5)

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2022-03-21

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:6.990m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:231.5V I:1.045A P:239.2W PF:0.9887 Lamp Flux:36330.3x1 lm		
NAME: 270879	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:0.191	PROTECTION ANGLE:0.14

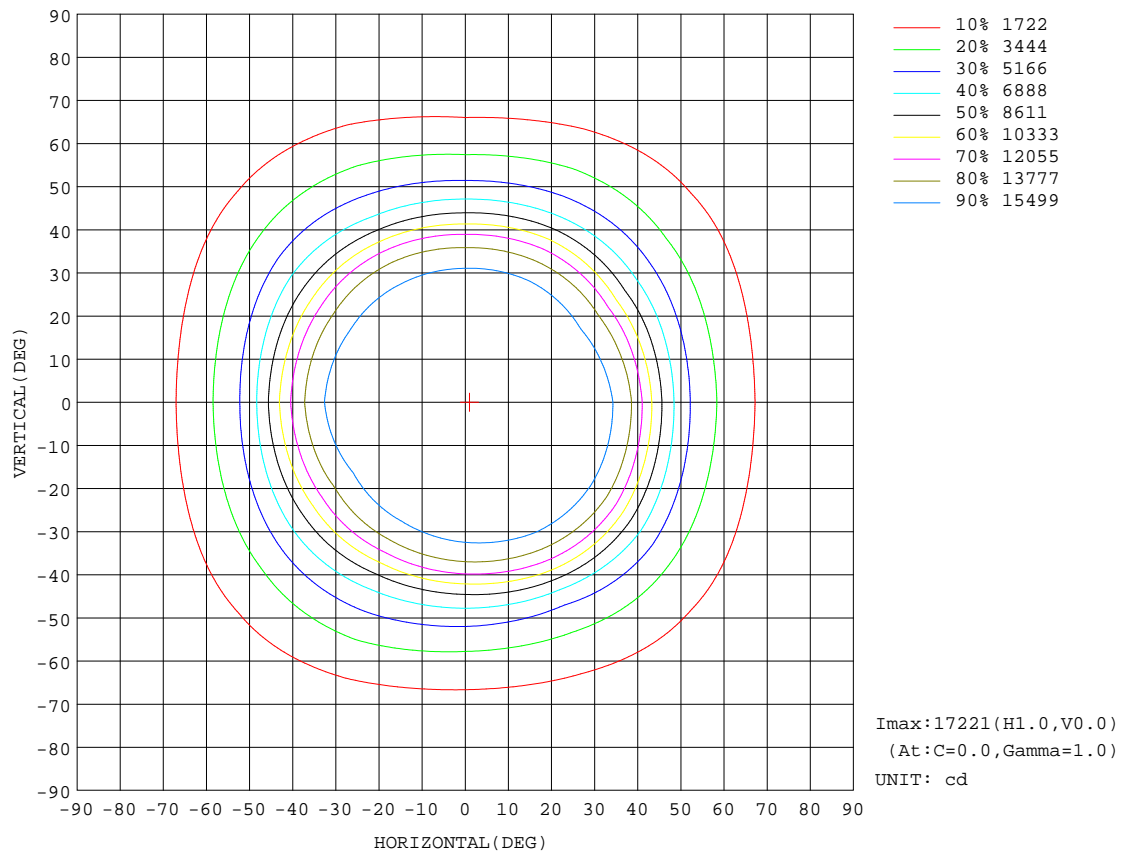
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	68	59	53	68	59	53	67	58	53	47
0.80	78	69	63	77	69	63	76	68	62	57
1.00	86	77	72	85	77	71	83	77	71	65
1.25	92	84	79	91	83	78	89	82	77	72
1.50	96	89	84	95	88	83	92	86	82	76
2.00	102	95	90	100	94	90	97	92	88	82
2.50	104	99	94	103	97	93	99	95	91	84
3.00	107	102	98	105	100	97	101	98	95	87
4.00	110	106	102	108	104	101	104	101	98	90
5.00	112	108	105	109	106	104	105	103	100	92
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2022-03-21

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:6.990m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:231.5V I:1.045A P:239.2W PF:0.9887 Lamp Flux:36330.3x1 lm		
NAME: 270879	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:0.191	PROTECTION ANGLE:0.14

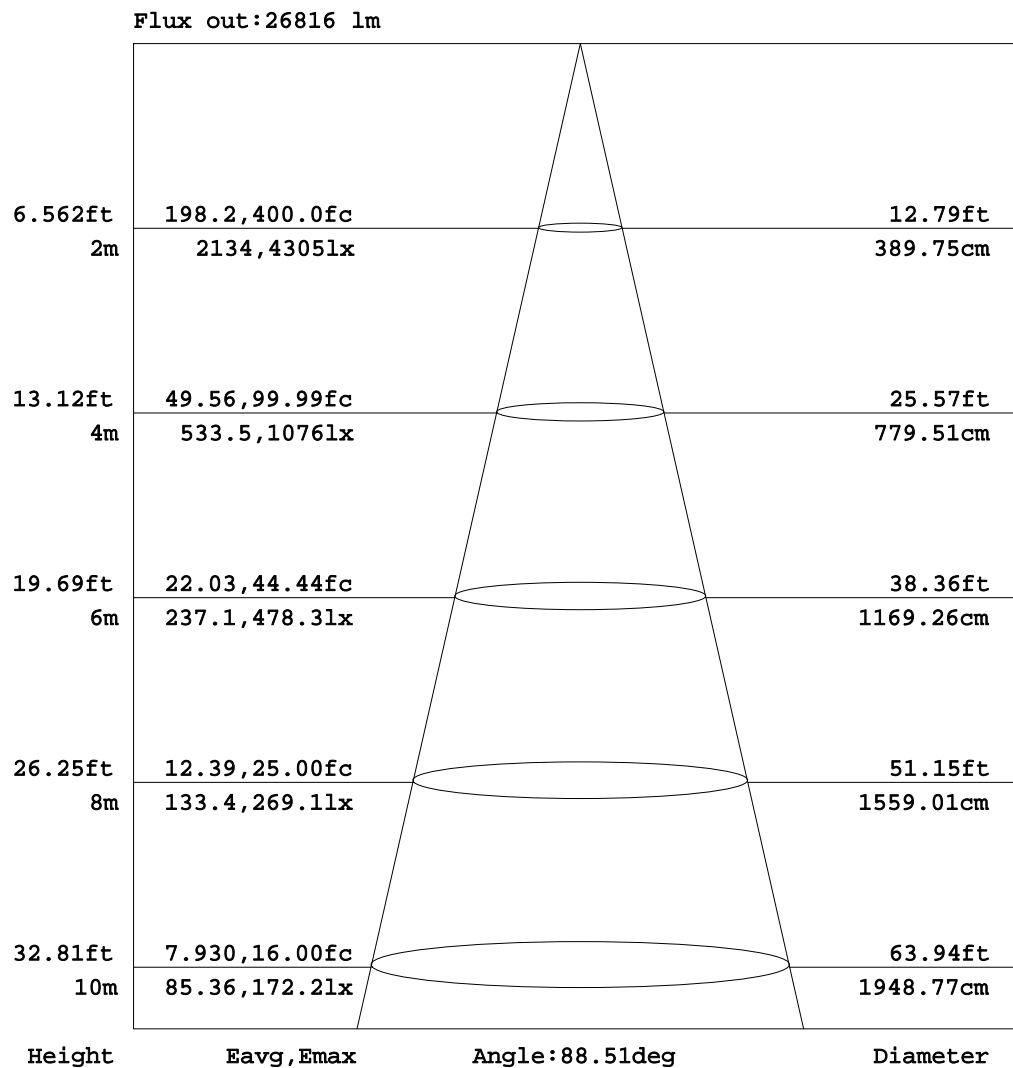


C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2022-03-21

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:6.990m [K=1.0000]
Remarks:

AAI Figure

Test:U:231.5V I:1.045A P:239.2W PF:0.9887 Lamp Flux:36330.3x1 lm		
NAME: 270879	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:0.191	PROTECTION ANGLE:0.14



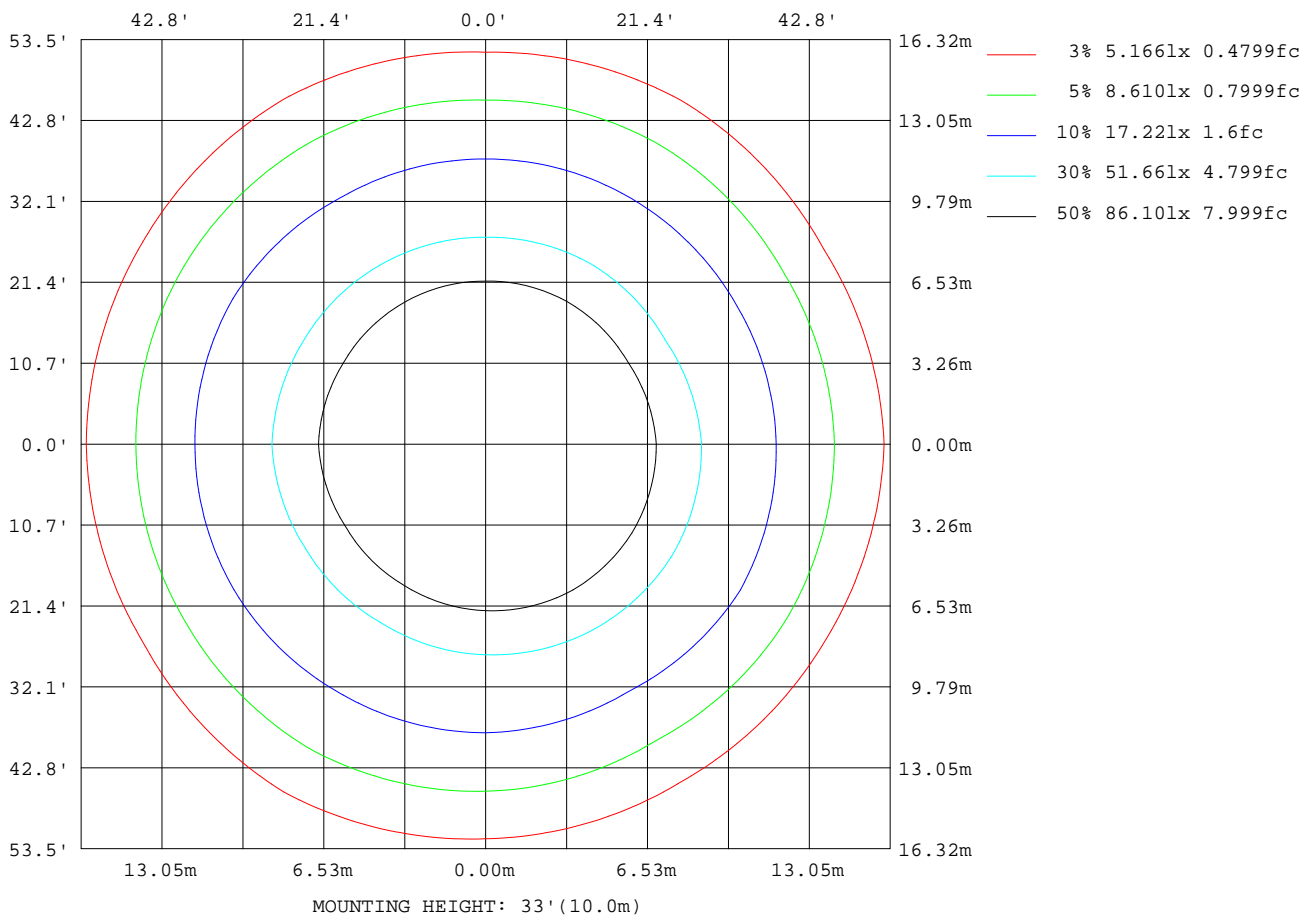
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2022-03-21

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity: 65.0%
Test Distance: 6.990m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

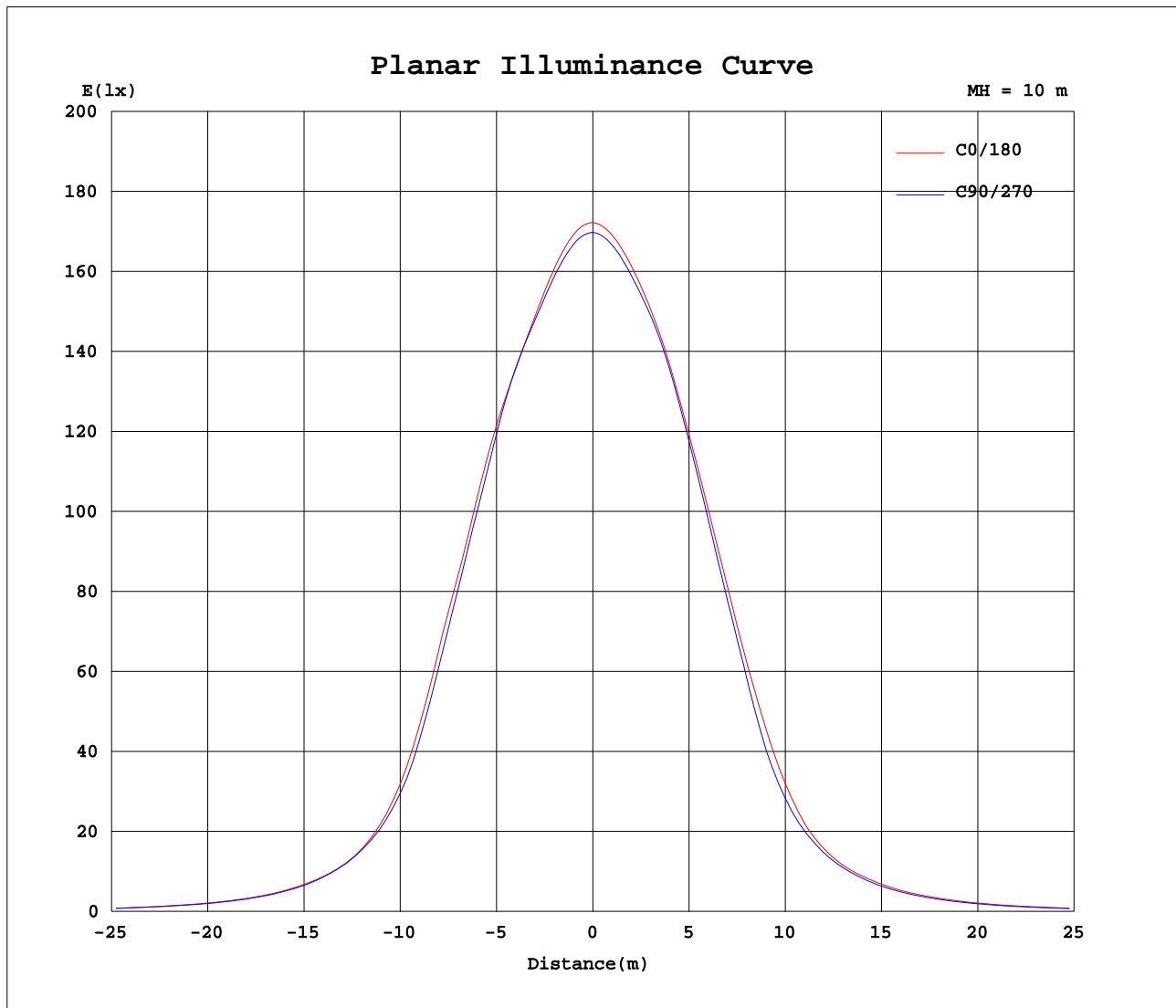
Test:U:231.5V I:1.045A P:239.2W PF:0.9887 Lamp Flux:36330.3x1 lm		
NAME: 270879	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:0.191	PROTECTION ANGLE:0.14



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2022-03-21

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:6.990m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2022-03-21

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity: 65.0%
Test Distance: 6.990m [K=1.0000]
Remarks:

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γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:6.990m [K=1.0000]
Remarks:

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