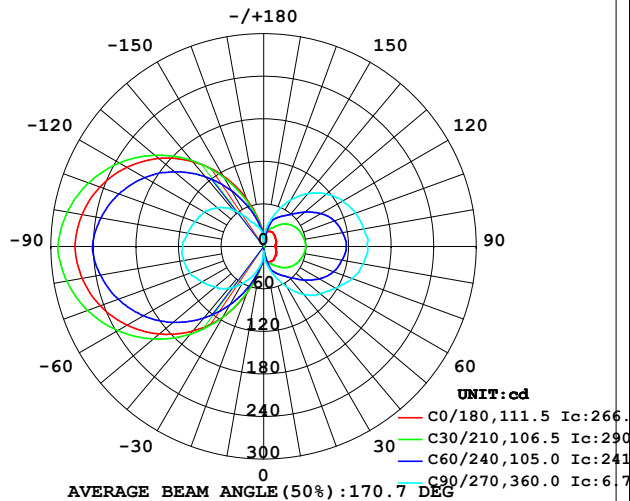


LUMINAIRE PHOTOMETRIC TEST REPORT

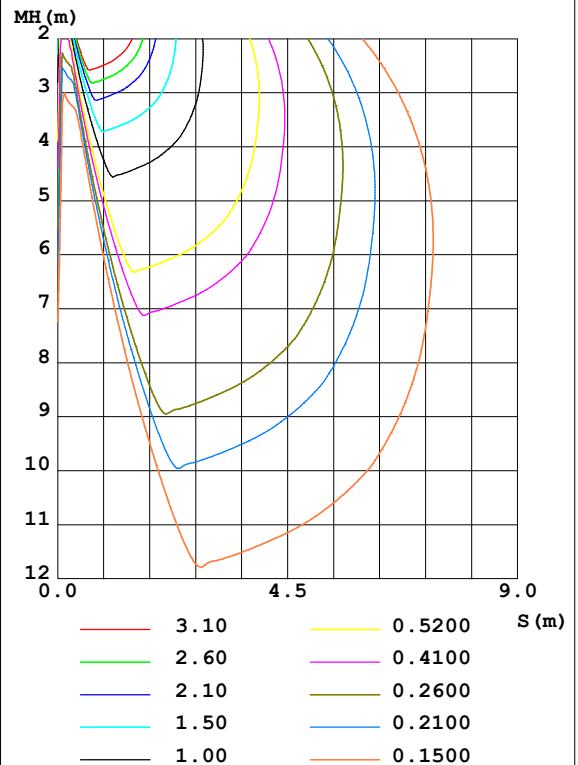
Test:U:120.3V I:0.1949A P:23.26W PF:0.9916 Freq:59.98Hz Lamp Flux:1529.44x1 lm		
NAME:	TYPE:3030-2D	WEIGHT:
SPEC.:3000K	DIM.:	SERIAL No.:2020033114
MFR.: EVERFINE	SUR.:0.4*0.115	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 65.76 lm/W			
MODEL	BLW5161800L30MVTG	I _{max} (cd)	290.4	S/MH (C0/180)	7.08
NOMINAL POWER (W)	23	LOR (%)	100.0	S/MH (C90/270)	5.59
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	1529.4	η UP, DN (C0-180)	22.8, 22.2
NOMINAL FLUX (lm)	1529.44	CIE CLASS	DIFFUSE	η UP, DN (C180-360)	27.2, 27.8
LAMPS INSIDE	1	η up (%)	50.0	CIBSE SHR NOM	1.00
TEST VOLTAGE (V)	120.3	η down (%)	50.0	CIBSE SHR MAX	1.10

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: Leo
 Test Date: 2020-03-19

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity: 65.0%
 Test Distance: 7.400m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

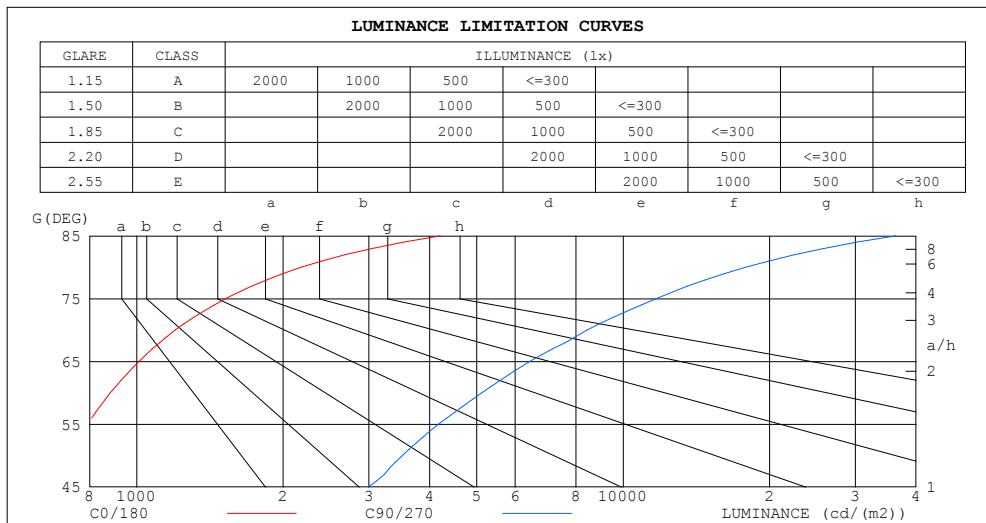
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	11.17	14.78	25.52	30.36	34.55	32.80	27.44	16.20	0- 10	1.621	1.621	0.11,0.11
20	23.12	31.38	43.54	60.49	70.54	63.70	43.55	32.80	10- 20	10.46	12.08	0.79,0.79
30	23.94	38.44	66.26	101.4	114.8	104.8	60.32	39.57	20- 30	27.07	39.15	2.56,2.56
40	22.99	47.95	88.43	143.7	155.9	146.7	77.02	49.29	30- 40	51.48	90.63	5.93,5.93
50	21.40	59.84	104.0	182.6	192.1	184.9	89.10	60.79	40- 50	81.25	171.9	11.2,11.2
60	20.30	71.31	117.8	215.9	222.3	216.6	100.4	71.09	50- 60	112.3	284.2	18.6,18.6
70	18.89	79.94	132.7	241.5	245.2	241.3	110.2	77.84	60- 70	141.1	425.3	27.8,27.8
80	17.39	85.07	142.7	259.2	259.8	257.9	114.6	81.47	70- 80	163.2	588.5	38.5,38.5
90	16.60	87.97	146.5	268.7	266.3	266.1	114.4	82.81	80- 90	176.0	764.5	50,50
100	17.07	85.63	143.5	261.0	260.1	257.1	109.0	79.74	90-100	175.7	940.2	61.5,61.5
110	18.48	81.16	138.1	244.7	245.8	240.0	102.9	74.21	100-110	162.8	1103	72.1,72.1
120	19.87	73.16	128.3	220.2	223.3	214.8	97.44	66.65	110-120	141.3	1244	81.4,81.4
130	21.00	62.05	115.2	188.4	193.2	182.1	84.90	56.07	120-130	113.0	1357	88.7,88.7
140	22.62	50.26	97.36	149.8	156.5	143.4	67.55	45.71	130-140	81.57	1439	94.1,94.1
150	23.69	40.79	75.39	107.5	115.5	101.7	45.00	35.95	140-150	51.49	1490	97.4,97.4
160	22.89	33.91	50.71	65.68	71.61	61.04	32.52	28.73	150-160	26.99	1517	99.2,99.2
170	11.12	15.53	28.85	33.68	35.59	30.89	23.57	15.49	160-170	10.52	1528	99.9,99.9
180	6.073	5.594	6.020	7.179	6.055	5.602	5.996	7.185	170-180	1.631	1529	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Leo
 Test Date:2020-03-19

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:7.400m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:120.3V I:0.1949A P:23.26W PF:0.9916 Freq:59.98Hz Lamp Flux:1529.44x1 lm		
NAME:	TYPE:3030-2D	WEIGHT:
SPEC.:3000K	DIM.:	SERIAL No.:2020033114
MFR.: EVERFINE	SUR.:0.4*0.115	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Leo
Test Date:2020-03-19

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.400m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:120.3V I:0.1949A P:23.26W PF:0.9916 Freq:59.98Hz Lamp Flux:1529.44x1 lm		
NAME:	TYPE:3030-2D	WEIGHT:
SPEC.:3000K	DIM.:	SERIAL No.:2020033114
MFR.: EVERFINE	SUR.:0.4*0.115	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	.441	.251	.079	.419	.239	.076	.376	.216	.069	.338	.195	.063	.302	.175	.056	
2.0	.362	.199	.061	.342	.188	.058	.303	.169	.052	.268	.150	.047	.235	.133	.042	
3.0	.313	.167	.050	.294	.157	.047	.259	.140	.043	.226	.124	.038	.196	.108	.034	
4.0	.277	.144	.042	.259	.136	.040	.227	.120	.036	.197	.106	.032	.169	.092	.028	
5.0	.248	.126	.037	.232	.119	.035	.203	.105	.031	.175	.092	.027	.149	.080	.024	
6.0	.225	.113	.032	.211	.106	.031	.183	.094	.027	.157	.082	.024	.133	.070	.021	
7.0	.206	.102	.029	.193	.096	.027	.167	.085	.024	.143	.074	.021	.121	.063	.018	
8.0	.190	.093	.026	.178	.087	.025	.154	.077	.022	.132	.067	.019	.111	.057	.017	
9.0	.176	.085	.024	.165	.080	.023	.143	.071	.020	.122	.061	.018	.102	.052	.015	
10.0	.164	.079	.022	.154	.074	.021	.133	.065	.018	.114	.056	.016	.095	.048	.014	

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	.572	.572	.572	.488	.488	.488	.333	.333	.333	.192	.192	.192	.061	.061	.061	
1.0	.574	.539	.508	.491	.463	.437	.336	.318	.302	.193	.184	.176	.062	.059	.057	
2.0	.568	.518	.476	.487	.446	.412	.334	.309	.287	.192	.180	.168	.062	.058	.055	
3.0	.562	.503	.457	.481	.434	.396	.331	.302	.278	.191	.176	.164	.061	.057	.054	
4.0	.554	.492	.445	.476	.425	.386	.327	.296	.272	.189	.174	.161	.061	.057	.053	
5.0	.547	.483	.436	.469	.418	.380	.323	.292	.268	.187	.171	.159	.060	.056	.052	
6.0	.539	.476	.431	.464	.412	.375	.320	.289	.265	.186	.170	.158	.060	.055	.052	
7.0	.532	.470	.426	.458	.407	.371	.316	.286	.263	.184	.168	.157	.059	.055	.052	
8.0	.526	.465	.423	.453	.403	.369	.313	.283	.262	.182	.167	.156	.059	.055	.052	
9.0	.519	.460	.420	.447	.400	.367	.310	.281	.260	.181	.166	.155	.058	.054	.051	
10.0	.514	.456	.418	.443	.396	.365	.307	.279	.259	.179	.165	.155	.058	.054	.051	

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Leo
Test Date:2020-03-19

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.400m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.3V I:0.1949A P:23.26W PF:0.9916 Freq:59.98Hz Lamp Flux:1529.44x1 lm										
NAME:					TYPE:3030-2D			WEIGHT:		
SPEC.:3000K					DIM.:			SERIAL No.:2020033114		
MFR.: EVERFINE					SUR.:0.4*0.115			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	5.6	6.7	6.5	7.6	8.8	12.0	13.1	12.8	14.0	15.1
	3H	8.0	9.0	8.9	9.9	11.1	16.1	17.1	17.0	18.0
	4H	9.3	10.2	10.2	11.2	12.4	18.3	19.3	19.2	20.2
	6H	10.6	11.5	11.5	12.4	13.7	20.7	21.6	21.6	22.6
	8H	11.3	12.1	12.2	13.1	14.3	22.0	22.9	23.0	23.9
	12H	12.0	12.9	13.0	13.8	15.1	23.5	24.4	24.5	25.3
4H	2H	8.7	9.7	9.6	10.6	11.8	12.4	13.4	13.3	14.4
	3H	11.1	12.0	12.0	12.9	14.2	16.8	17.6	17.7	18.6
	4H	12.4	13.2	13.4	14.2	15.5	19.2	20.0	20.2	21.0
	6H	13.8	14.5	14.7	15.5	16.8	21.8	22.5	22.8	23.5
	8H	14.5	15.1	15.4	16.1	17.4	23.3	23.9	24.3	24.9
	12H	15.2	15.8	16.2	16.8	18.1	24.9	25.5	25.9	26.5
8H	4H	14.9	15.5	15.8	16.5	17.8	19.5	20.2	20.5	21.2
	6H	16.5	17.1	17.5	18.1	19.4	22.5	23.0	23.5	24.0
	8H	17.4	17.9	18.4	18.9	20.2	24.1	24.6	25.1	25.7
	12H	18.2	18.7	19.3	19.7	21.1	26.0	26.5	27.0	27.5
12H	4H	15.7	16.4	16.7	17.4	18.7	19.5	20.1	20.5	21.2
	6H	17.7	18.2	18.7	19.2	20.5	22.6	23.1	23.6	24.1
	8H	18.7	19.1	19.7	20.2	21.5	24.4	24.8	25.4	25.8
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.1				
1.5H	+ 0.2 / - 0.2					+ 0.2 / - 0.2				
2.0H	+ 0.3 / - 0.4					+ 0.3 / - 0.3				

CIE Pub.117, 1529 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 1.5$)

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Leo
Test Date:2020-03-19

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.400m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:120.3V I:0.1949A P:23.26W PF:0.9916 Freq:59.98Hz Lamp Flux:1529.44x1 lm		
NAME:	TYPE:3030-2D	WEIGHT:
SPEC.:3000K	DIM.:	SERIAL No.:2020033114
MFR.: EVERFINE	SUR.:0.4*0.115	Shielding Angle:

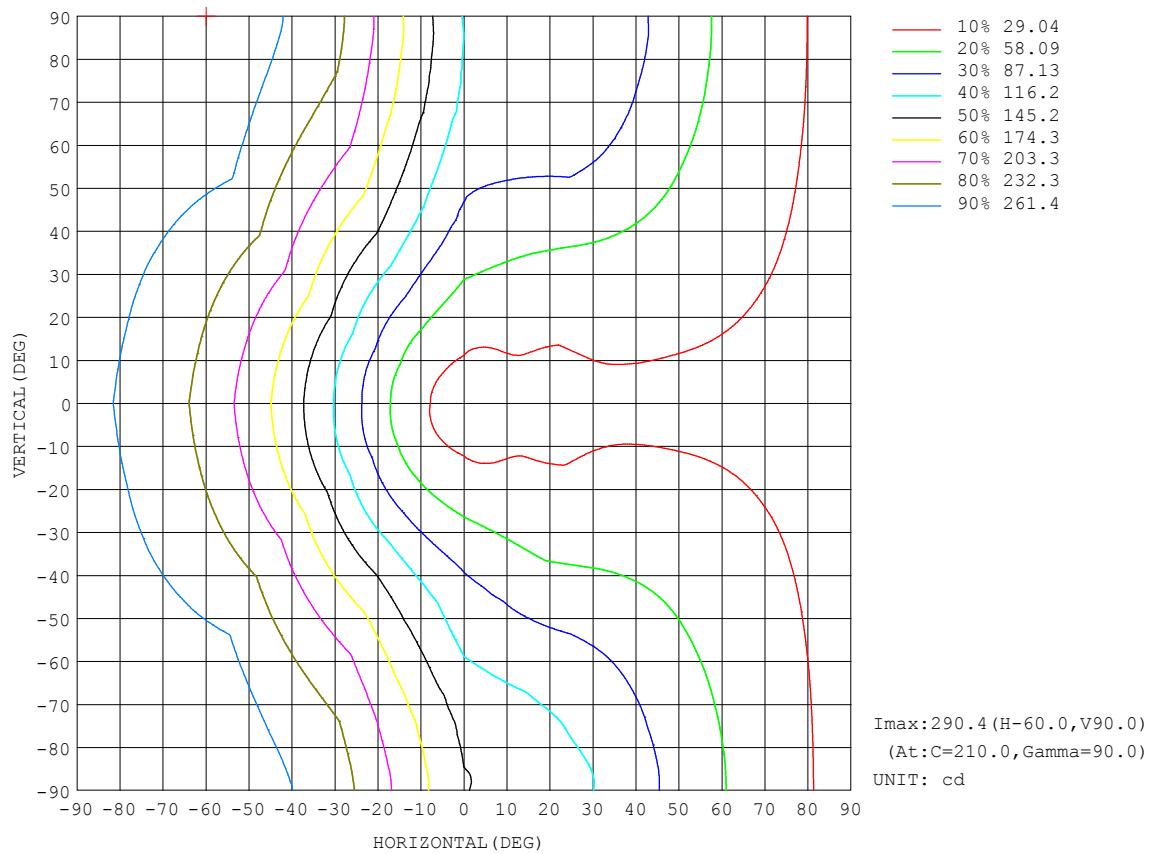
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	34	20	13	32	19	12	28	18	11	4
0.80	42	27	19	39	26	18	34	23	16	6
1.00	49	34	25	46	32	23	39	30	21	9
1.25	56	41	31	52	38	29	44	33	26	12
1.50	61	46	36	57	43	34	48	38	30	14
2.00	69	55	45	64	51	42	54	44	37	18
2.50	74	62	52	69	57	48	58	49	42	21
3.00	79	67	57	72	62	53	61	53	46	24
4.00	84	74	65	77	68	61	65	58	52	28
5.00	88	79	71	81	73	66	68	62	56	31
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:Leo
Test Date:2020-03-19

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.400m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:120.3V I:0.1949A P:23.26W PF:0.9916 Freq:59.98Hz Lamp Flux:1529.44x1 lm		
NAME:	TYPE:3030-2D	WEIGHT:
SPEC.:3000K	DIM.:	SERIAL No.:2020033114
MFR.: EVERFINE	SUR.:0.4*0.115	Shielding Angle:

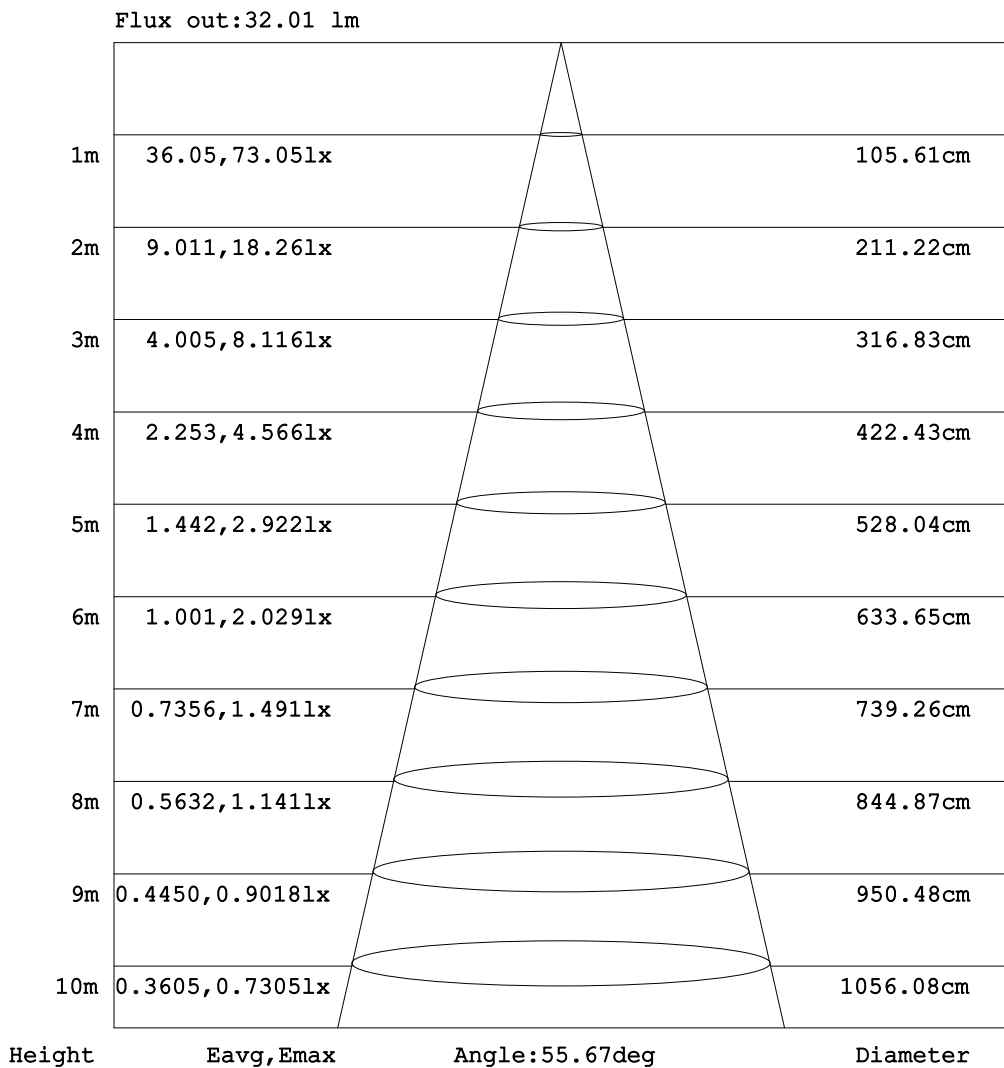


C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Leo
Test Date:2020-03-19

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.400m [K=1.0000]
Remarks:

AAI Figure

Test:U:120.3V I:0.1949A P:23.26W PF:0.9916 Freq:59.98Hz Lamp Flux:1529.44x1 lm		
NAME:	TYPE:3030-2D	WEIGHT:
SPEC.:3000K	DIM.:	SERIAL No.:2020033114
MFR.: EVERFINE	SUR.:0.4*0.115	Shielding Angle:

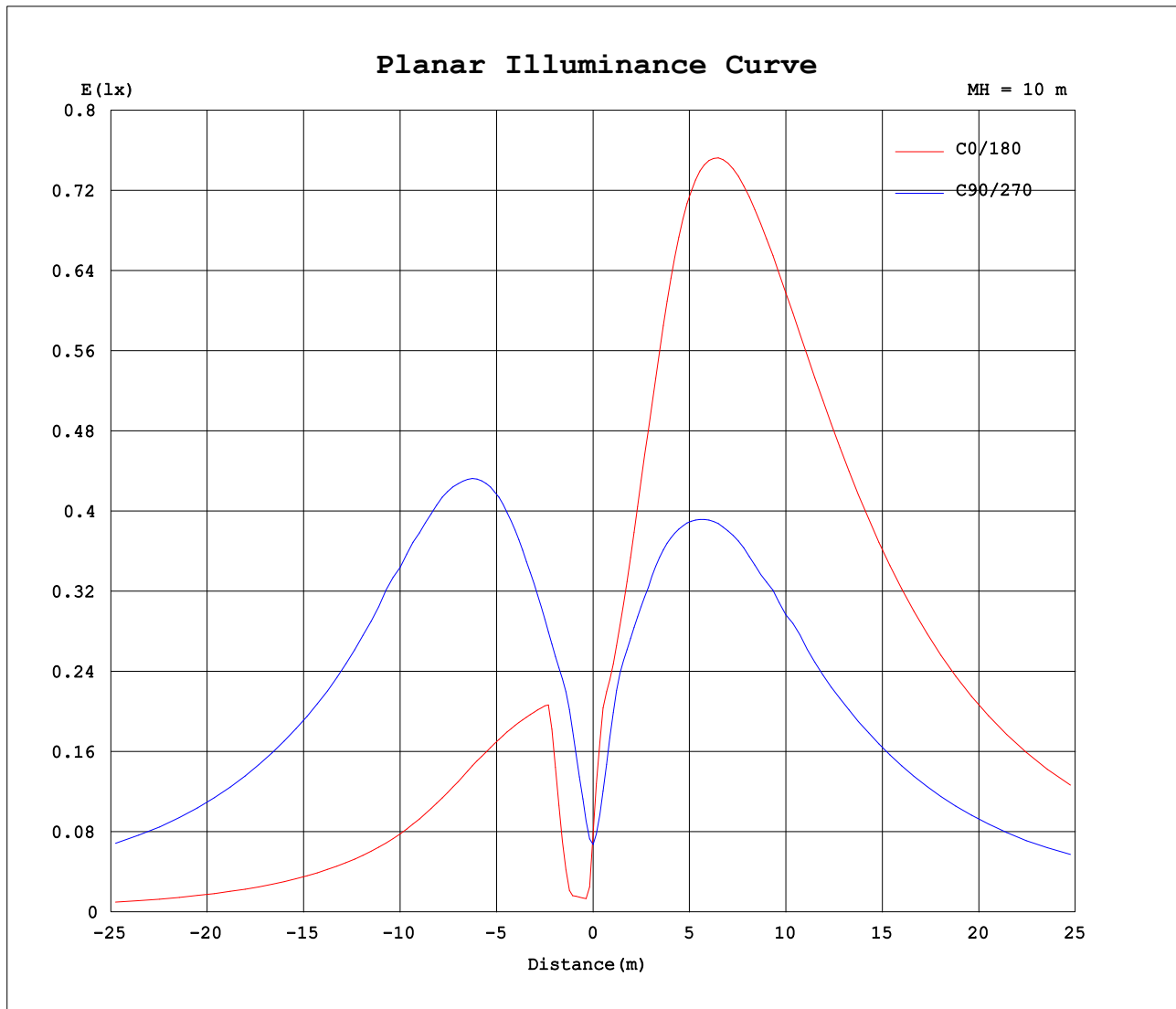


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Leo
Test Date:2020-03-19

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.400m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Leo
Test Date: 2020-03-19

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 7.400m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.3V I:0.1949A P:23.26W PF:0.9916 Freq:59.98Hz Lamp Flux:1529.44x1 lm		
NAME:	TYPE:3030-2D	WEIGHT:
SPEC.:3000K	DIM.:	SERIAL No.:2020033114
MFR.: EVERFINE	SUR.:0.4*0.115	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330						
0	7.85	7.56	6.82	6.75	7.04	7.27	7.85	7.56	6.82	6.75	7.04	7.27						
5	1.60	2.18	6.72	15.9	21.1	22.4	23.4	23.2	22.7	17.6	7.23	2.50						
10	11.2	15.2	14.4	25.5	28.8	31.9	34.6	34.1	31.5	27.4	15.9	16.5						
15	22.6	24.3	27.1	33.8	40.8	47.1	50.6	49.6	43.7	34.9	30.5	25.3						
20	23.1	25.7	37.1	43.5	55.3	65.6	70.5	68.7	58.7	43.6	39.1	26.6						
25	23.7	27.7	41.4	54.7	72.6	88.2	92.9	91.5	76.2	51.8	43.1	28.6						
30	23.9	30.9	46.0	66.3	91.2	112	115	115	94.6	60.3	47.2	31.9						
35	23.7	34.7	51.1	77.8	111	134	136	139	113	69.2	52.4	35.9						
40	23.0	38.7	57.2	88.4	130	157	156	161	132	77.0	59.2	39.4						
45	22.1	42.5	64.9	97.3	149	179	175	183	150	83.9	67.6	42.6						
50	21.4	45.8	73.8	104	166	199	192	203	167	89.1	76.4	45.2						
55	20.9	48.8	82.7	110	183	217	208	221	182	94.9	84.8	47.5						
60	20.3	51.4	91.3	118	198	234	222	237	196	100	92.9	49.3						
65	19.6	53.4	99.1	125	210	249	235	252	208	105	99.5	50.6						
70	18.9	55.0	105	133	221	262	245	264	218	110	104	51.5						
75	18.1	56.6	109	139	231	272	254	274	227	113	107	52.4						
80	17.4	58.0	112	143	238	280	260	282	234	115	110	53.0						
85	16.9	59.0	115	146	244	286	264	288	239	116	112	53.3						
90	16.6	59.5	116	146	248	290	266	290	242	114	112	53.3						
95	16.6	59.2	116	147	245	287	264	287	239	112	111	52.5						
100	17.1	58.4	113	143	240	282	260	281	233	109	108	51.6						
105	17.8	57.4	110	141	233	274	254	273	226	106	104	50.5						
110	18.5	56.1	106	138	225	265	246	263	217	103	99.4	49.0						
115	19.2	55.0	101	134	214	253	236	250	206	100	93.9	47.8						
120	19.9	53.3	93.0	128	202	238	223	235	194	97.4	87.1	46.2						
125	20.5	51.1	84.5	123	188	222	209	219	180	91.8	78.9	44.1						
130	21.0	48.4	75.7	115	172	204	193	200	164	84.9	70.5	41.6						
135	21.8	45.1	66.8	107	155	185	176	180	147	77.5	62.0	39.0						
140	22.6	41.2	59.3	97.4	137	163	156	158	128	67.6	55.3	36.1						
145	23.3	37.2	53.6	86.8	118	140	137	136	109	56.9	48.0	32.9						
150	23.7	32.6	49.0	75.4	98.3	117	116	112	90.9	45.0	42.4	29.5						
155	23.4	29.2	44.9	63.1	79.2	93.4	93.7	89.0	72.7	37.7	37.0	26.0						
160	22.9	27.1	40.7	50.7	60.9	70.5	71.6	66.7	55.3	32.5	35.4	22.1						
165	22.4	25.7	30.1	38.6	45.2	51.3	52.0	48.2	41.0	27.9	27.9	23.6						
170	11.1	15.7	15.4	28.9	32.2	35.2	35.6	32.8	29.0	23.6	14.7	16.3						
175	1.47	2.07	6.40	16.8	22.5	23.7	23.8	22.7	21.3	16.1	7.40	2.86						
180	6.07	5.60	5.58	6.02	6.71	7.65	6.06	5.61	5.60	6.00	6.72	7.65						

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Leo
Test Date:2020-03-19

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.400m [K=1.0000]
Remarks: