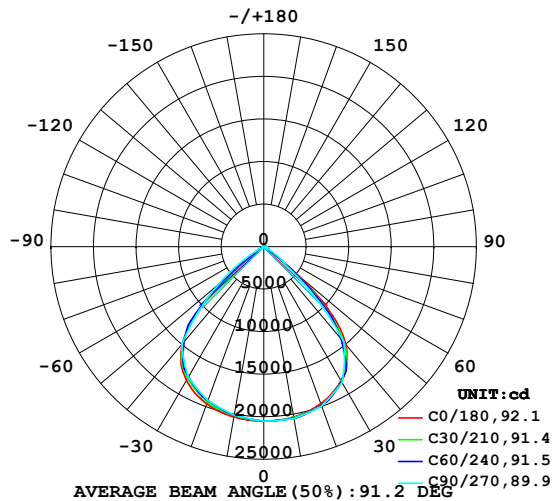


LUMINAIRE PHOTOMETRIC TEST REPORT

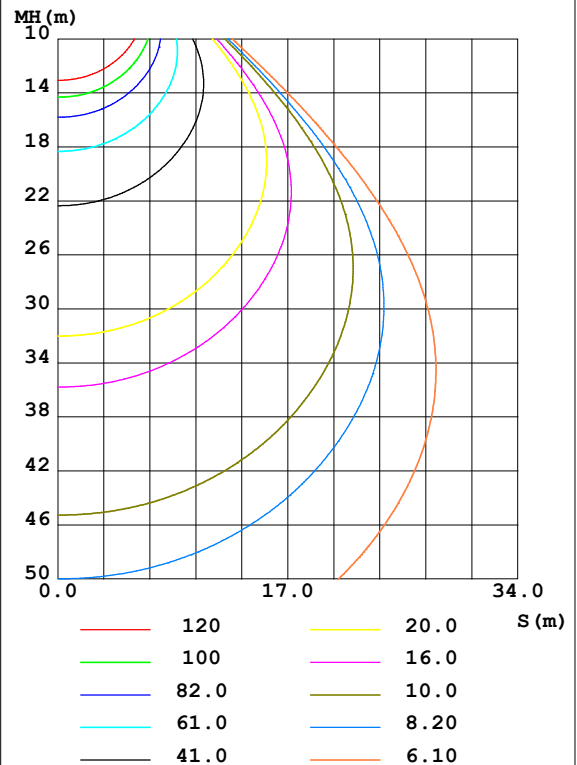
Test:U:219.8V I:1.308A P:285.5W PF:0.9926 Lamp Flux:37005.6x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:C470SP-Q2-P-03A 230V50HZ	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 129.63 lm/W			
MODEL	LHB-300W-9090	I _{max} (cd)	20501	S/MH (C0/180)	1.31
NOMINAL POWER(W)	300	LOR(%)	100.0	S/MH (C90/270)	1.27
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	37006	η UP,DN (C0-180)	0.0,49.4
NOMINAL FLUX(lm)	37005.6	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0,50.6
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	220	η down (%)	100.0	CIBSE SHR MAX	1.35

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2017-02-17

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.351
 Humidity:65.0%
 Test Distance:7.290m [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	2046	2048	2050	2047	2046	2033	2029	2033	0- 5	488.8	488.8	1.32,1.32
10	2033	2042	2050	2040	2033	2011	2008	2012	5- 10	1455	1944	5.25,5.25
15	2006	2024	2021	2022	2007	1980	1965	1982	10- 15	2389	4333	11.7,11.7
20	1964	1979	1992	1977	1965	1928	1921	1929	15- 20	3259	7593	20.5,20.5
25	1902	1921	1916	1921	1904	1867	1847	1868	20- 25	4038	11631	31.4,31.4
30	1817	1827	1841	1824	1816	1778	1774	1780	25- 30	4680	16311	44.1,44.1
35	1696	1688	1654	1678	1692	1656	1637	1663	30- 35	5130	21441	57.9,57.9
40	1500	1473	1467	1452	1491	1483	1500	1496	35- 40	5252	26694	72.1,72.1
45	1146	994.5	909.4	964.4	1123	1124	1103	1143	40- 45	4772	31465	85,85
50	534.5	433.3	351.5	398.8	482.1	650.0	705.0	674.2	45- 50	3265	34730	93.9,93.9
55	87.22	152.6	198.2	138.6	57.31	228.9	364.8	246.3	50- 55	1335	36065	97.5,97.5
60	35.36	45.18	45.01	43.68	26.55	24.35	24.63	28.83	55- 60	403.6	36469	98.5,98.5
65	26.22	38.72	39.24	37.20	18.16	17.18	18.23	19.99	60- 65	155.7	36624	99,99
70	21.73	33.00	33.47	31.64	13.75	12.25	11.82	14.11	65- 70	122.9	36747	99.3,99.3
75	18.16	27.90	28.10	26.73	10.48	8.791	9.602	10.20	70- 75	103.7	36851	99.6,99.6
80	15.55	22.46	22.72	21.54	8.159	6.516	7.384	7.533	75- 80	86.43	36937	99.8,99.8
85	12.55	7.916	0	7.592	6.288	2.162	0	2.454	80- 85	56.31	36994	100,100
90	9.717	0	0	0	7.224	0	0	0	85- 90	11.78	37006	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:×10cd									UNIT:lm		

Conical surface Flux(90deg): 31465 lm

%lum = 85.0%

%lamp = 85.0%

Conical surface Flux(120deg): 36469 lm

%lum = 98.5%

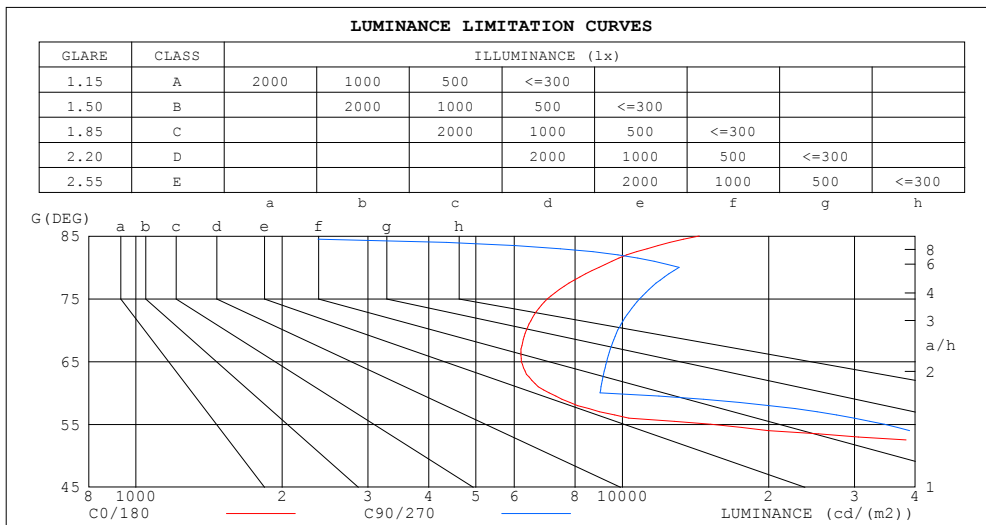
%lamp = 98.5%

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2017-02-17

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.351
 Humidity:65.0%
 Test Distance:7.290m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:219.8V I:1.308A P:285.5W PF:0.9926 Lamp Flux:37005.6x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:C470SP-Q2-P-03A 230V50HZ	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	14404	0
80	8953	13084
75	7017	10856
70	6352	9787
65	6205	9286
60	7071	9003
55	15207	34561
50	83150	54677
45	162102	128607

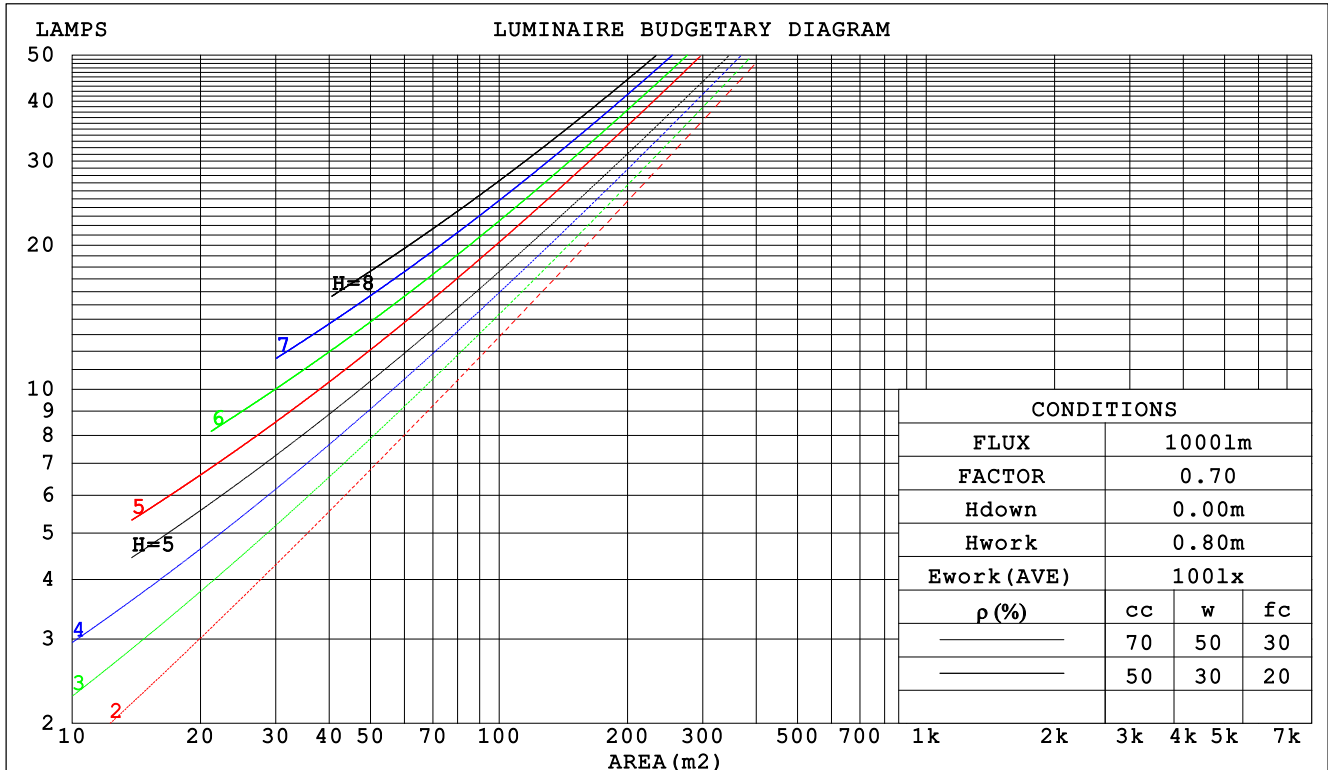
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2017-02-17

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.351
Humidity:65.0%
Test Distance:7.290m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:219.8V I:1.308A P:285.5W PF:0.9926 Lamp Flux:37005.6x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:C470SP-Q2-P-03A 230V50HZ	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	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	1.09	1.06	1.03	1.07	1.04	1.02	1.03	1.01	.99	.99	.97	.96	.95	.94	.93	.91
2.0	.99	.94	.90	.98	.93	.89	.94	.90	.87	.91	.88	.85	.88	.86	.84	.82
3.0	.91	.84	.80	.89	.83	.79	.86	.82	.78	.84	.80	.76	.81	.78	.75	.73
4.0	.83	.76	.71	.81	.75	.70	.79	.74	.69	.77	.72	.69	.75	.71	.68	.66
5.0	.76	.68	.63	.75	.68	.63	.73	.67	.62	.71	.66	.62	.69	.65	.61	.59
6.0	.69	.62	.57	.68	.62	.57	.67	.61	.56	.65	.60	.56	.64	.59	.55	.54
7.0	.64	.56	.51	.63	.56	.51	.62	.55	.51	.60	.55	.51	.59	.54	.50	.49
8.0	.59	.52	.47	.58	.51	.47	.57	.51	.46	.56	.50	.46	.55	.50	.46	.44
9.0	.54	.47	.43	.54	.47	.43	.53	.47	.42	.52	.46	.42	.51	.46	.42	.40
10.0	.51	.44	.39	.50	.43	.39	.49	.43	.39	.48	.43	.39	.47	.42	.39	.37



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2017-02-17

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.351
 Humidity:65.0%
 Test Distance:7.290m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:219.8V I:1.308A P:285.5W PF:0.9926 Lamp Flux:37005.6x1 lm					
NAME:		TYPE:LED		WEIGHT:	
SPEC.:C470SP-Q2-P-03A 230V50HZ		DIM.:		SERIAL No.:1	
MFR.: EVERFINE		SUR.:		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	.212	.121	.038	.205	.117	.037	.193	.111	.035	.181	.104	.033	.170	.099	.032	
2.0	.207	.113	.035	.201	.111	.034	.190	.106	.033	.180	.101	.032	.171	.097	.030	
3.0	.199	.106	.032	.194	.104	.031	.184	.100	.030	.175	.096	.029	.167	.093	.029	
4.0	.190	.099	.029	.185	.097	.029	.177	.094	.028	.169	.091	.027	.162	.088	.027	
5.0	.181	.092	.027	.177	.091	.026	.170	.088	.026	.163	.086	.026	.156	.084	.025	
6.0	.172	.086	.025	.169	.085	.025	.162	.083	.024	.156	.081	.024	.150	.079	.024	
7.0	.164	.081	.023	.161	.080	.023	.155	.078	.023	.150	.077	.022	.145	.075	.022	
8.0	.156	.076	.021	.154	.076	.021	.148	.074	.021	.143	.073	.021	.139	.071	.021	
9.0	.149	.072	.020	.147	.071	.020	.142	.070	.020	.137	.069	.020	.133	.068	.020	
10.0	.142	.068	.019	.140	.068	.019	.136	.066	.019	.132	.065	.019	.128	.064	.018	

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	.174	.157	.142	.148	.135	.122	.102	.093	.085	.058	.054	.049	.019	.017	.016	
2.0	.161	.132	.108	.138	.114	.094	.094	.079	.065	.054	.046	.038	.017	.015	.012	
3.0	.151	.114	.084	.129	.098	.073	.089	.068	.051	.051	.040	.030	.016	.013	.010	
4.0	.142	.100	.067	.122	.086	.058	.084	.060	.041	.049	.035	.024	.016	.011	.008	
5.0	.135	.089	.055	.116	.077	.047	.080	.054	.033	.046	.031	.020	.015	.010	.007	
6.0	.128	.080	.045	.110	.069	.039	.076	.048	.028	.044	.028	.017	.014	.009	.005	
7.0	.122	.073	.038	.105	.063	.033	.073	.044	.023	.042	.026	.014	.014	.009	.005	
8.0	.117	.067	.032	.101	.058	.028	.070	.041	.020	.040	.024	.012	.013	.008	.004	
9.0	.112	.062	.028	.096	.054	.025	.067	.038	.017	.039	.022	.010	.013	.007	.003	
10.0	.107	.058	.025	.092	.050	.022	.064	.035	.015	.037	.021	.009	.012	.007	.003	

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2017-02-17

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.351
Humidity:65.0%
Test Distance:7.290m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:219.8V I:1.308A P:285.5W PF:0.9926 Lamp Flux:37005.6x1 lm										
NAME:					TYPE:LED			WEIGHT:		
SPEC.:C470SP-Q2-P-03A 230V50HZ					DIM.:			SERIAL No.:1		
MFR.: EVERFINE					SUR.:			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	26.4	27.5	26.6	27.7	27.9	26.0	27.2	26.3	27.4	27.6
3H	26.2	27.3	26.5	27.5	27.7	25.9	27.0	26.2	27.2	27.4
4H	26.1	27.1	26.4	27.4	27.6	25.8	26.9	26.1	27.1	27.3
6H	26.0	27.0	26.4	27.2	27.5	25.8	26.8	26.1	27.0	27.3
8H	26.0	26.9	26.3	27.2	27.5	25.8	26.7	26.1	27.0	27.2
12H	26.0	26.9	26.3	27.1	27.4	25.7	26.6	26.1	26.9	27.2
4H 2H	26.1	27.1	26.4	27.3	27.6	25.8	26.8	26.1	27.0	27.3
3H	26.0	26.8	26.3	27.1	27.4	25.7	26.5	26.0	26.8	27.1
4H	25.9	26.7	26.3	27.0	27.3	25.6	26.4	26.0	26.7	27.1
6H	25.9	26.6	26.2	26.9	27.2	25.6	26.3	26.0	26.7	27.0
8H	25.9	26.5	26.3	26.8	27.2	25.6	26.3	26.0	26.6	27.0
12H	25.9	26.4	26.3	26.8	27.2	25.6	26.2	26.0	26.6	26.9
8H 4H	25.8	26.4	26.2	26.8	27.2	25.5	26.2	25.9	26.5	26.9
6H	25.8	26.3	26.2	26.7	27.1	25.6	26.1	26.0	26.5	26.9
8H	25.8	26.3	26.3	26.7	27.1	25.6	26.1	26.1	26.5	26.9
12H	25.9	26.3	26.3	26.7	27.2	25.6	26.0	26.0	26.4	26.9
12H 4H	25.8	26.3	26.2	26.7	27.1	25.5	26.1	25.9	26.5	26.9
6H	25.8	26.2	26.2	26.7	27.1	25.6	26.0	26.0	26.4	26.9
8H	25.8	26.2	26.3	26.7	27.1	25.6	26.0	26.1	26.4	26.9
Variations with the observer position at spacings:										
S = 1.0H	+ 2.6 / - 7.5					+ 2.4 / - 5.9				
1.5H	+ 2.3 / - 8.1					+ 2.6 / - 7.9				
2.0H	+ 6.5 / - 6.9					+ 5.5 / - 5.9				

CIE Pub.117 Corrected 37006 lm Total Lamp Luminous Flux.(8log(F/F0) = 12.5)

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2017-02-17

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.351
Humidity:65.0%
Test Distance:7.290m [K=1.0000]
Remarks:

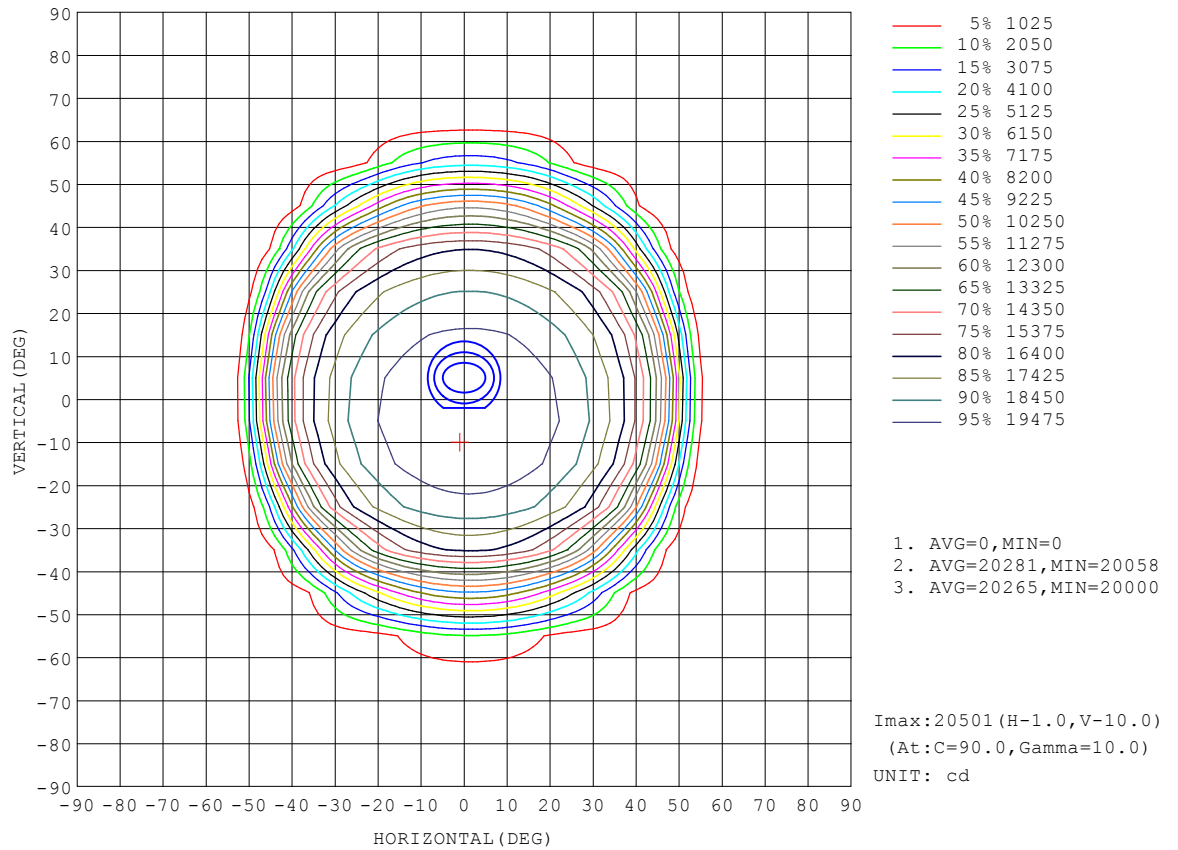
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γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.351
Humidity:65.0%
Test Distance:7.290m [K=1.0000]
Remarks:

```

ISOCANDELA DIAGRAM

Test:U:219.8V I:1.308A P:285.5W PF:0.9926 Lamp Flux:37005.6x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:C470SP-Q2-P-03A 230V50HZ	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:

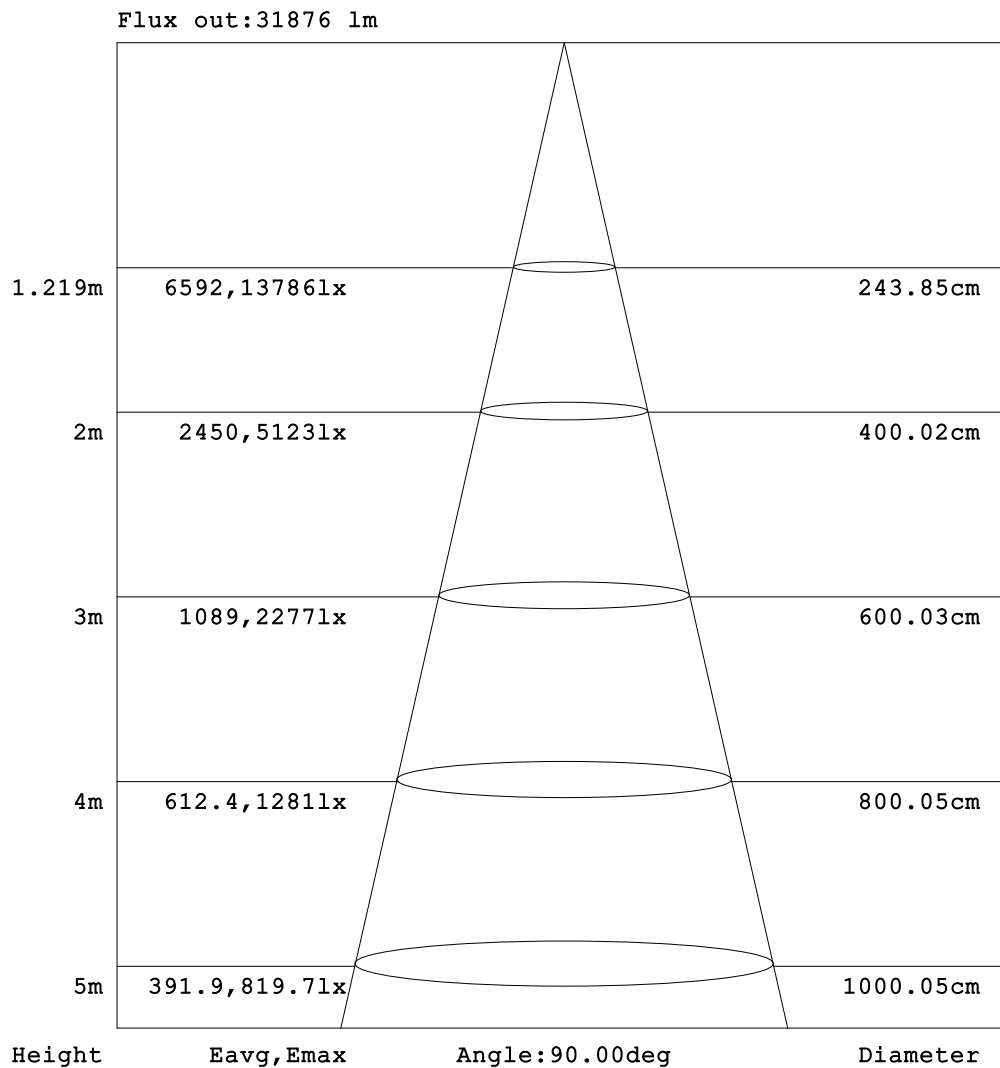


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2017-02-17

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.351
Humidity:65.0%
Test Distance:7.290m [K=1.0000]
Remarks:

AAI Figure

Test:U:219.8V I:1.308A P:285.5W PF:0.9926 Lamp Flux:37005.6x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:C470SP-Q2-P-03A 230V50HZ	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:



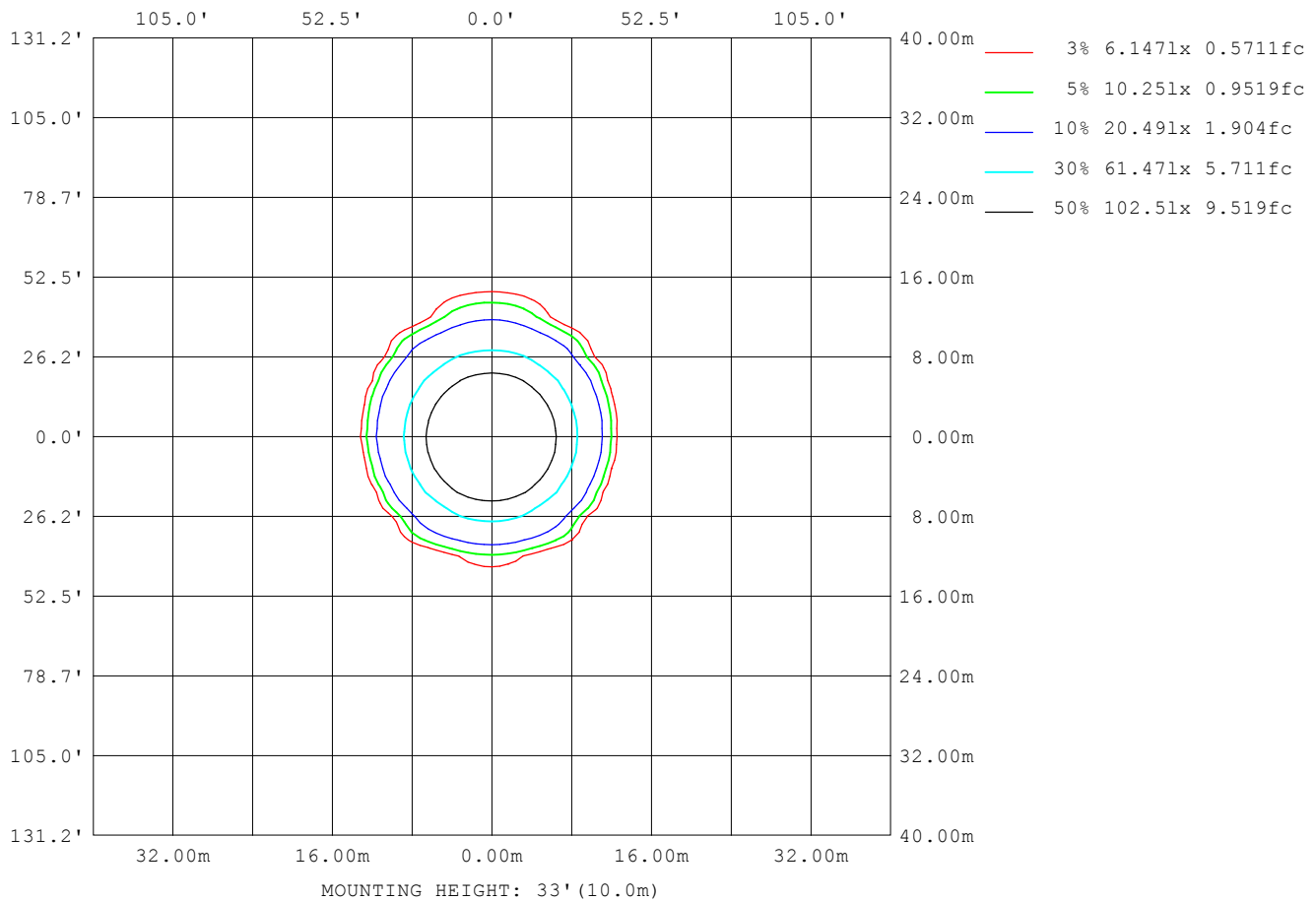
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2017-02-17

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.351
 Humidity:65.0%
 Test Distance:7.290m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:219.8V I:1.308A P:285.5W PF:0.9926 Lamp Flux:37005.6x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:C470SP-Q2-P-03A 230V50HZ	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2017-02-17

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.351
Humidity:65.0%
Test Distance:7.290m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:219.8V I:1.308A P:285.5W PF:0.9926 Lamp Flux:37005.6x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:C470SP-Q2-P-03A 230V50HZ	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:

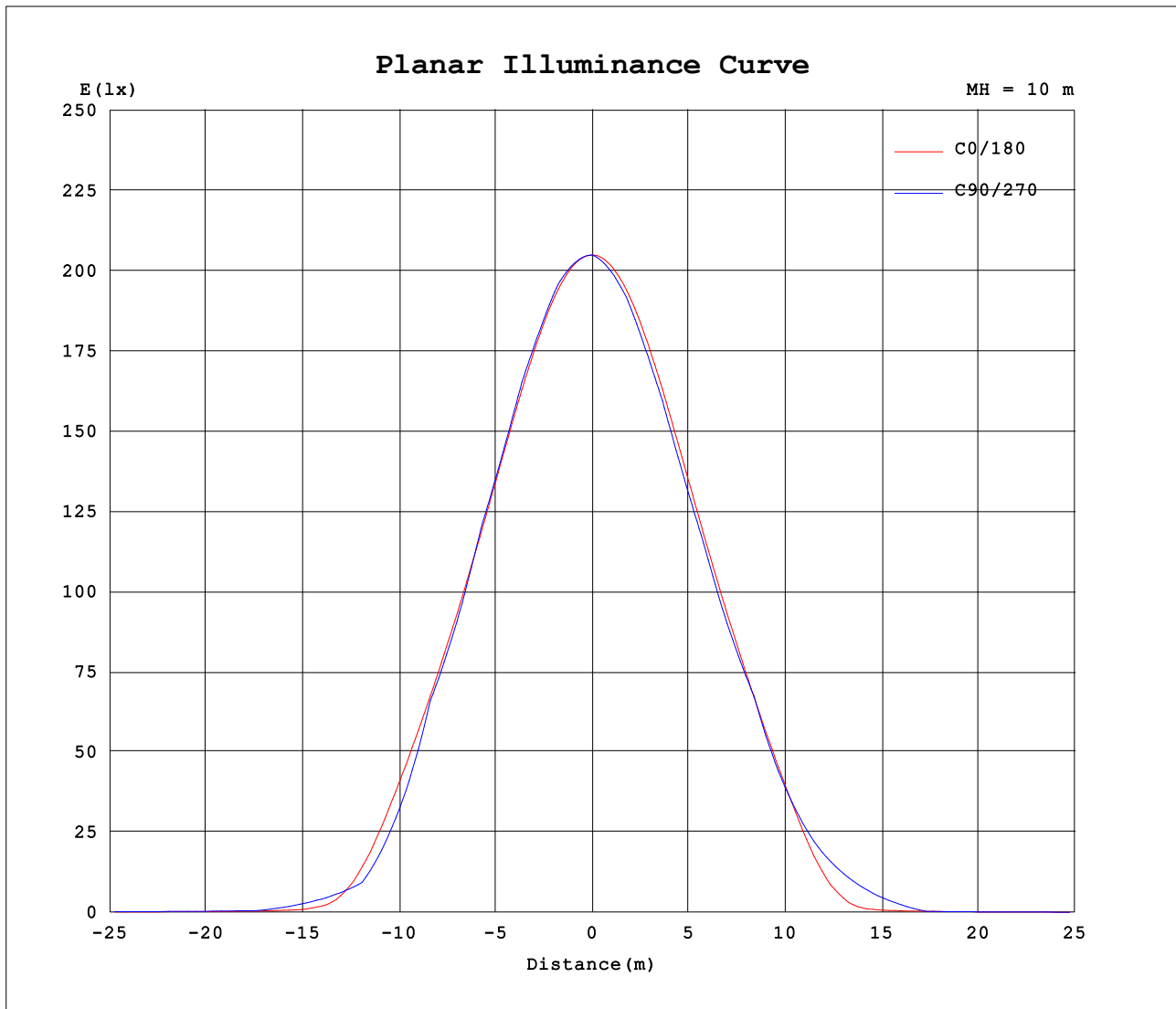
AvgL	cd/m2
L_0~180 (65) av	5251
L_0~180 (75) av	5533
L_0~180 (85) av	10809
L_90~270 (65) av	6799
L_90~270 (75) av	7283
L_90~270 (85) av	0
L_45 (65) av	6689
L_45 (75) av	7111
L_45 (85) av	5773

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2017-02-17

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.351
Humidity:65.0%
Test Distance:7.290m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2017-02-17

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.351
Humidity: 65.0%
Test Distance: 7.290m [K=1.0000]
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.351
Humidity:65.0%
Test Distance:7.290m [K=1.0000]
Remarks:

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γ Interval: 0.5DEG
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