

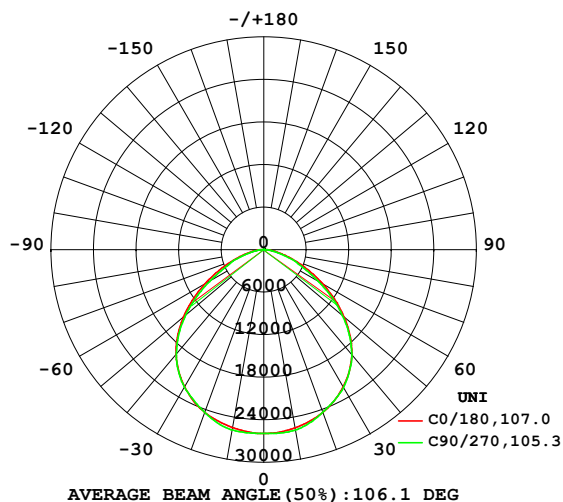
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

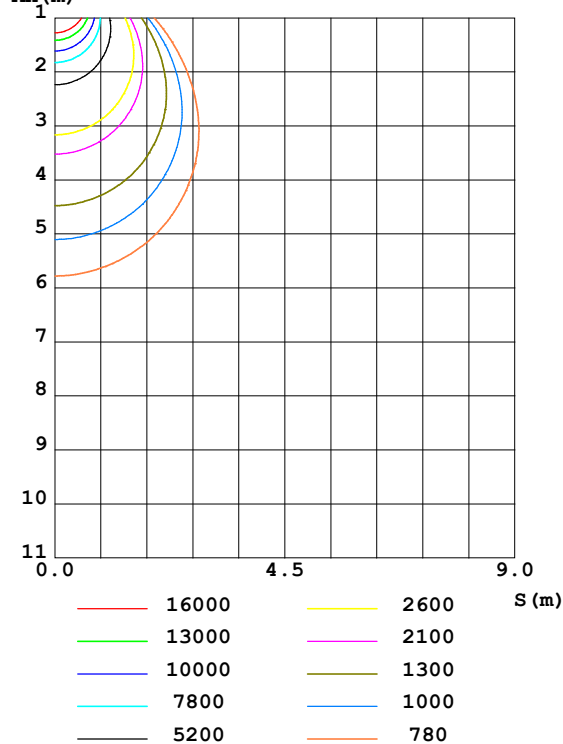
Test:U:229.5V I:2.1204A P:481.6W PF:0.9897 Freq:50.01Hz UTHDi:0% ITHDi:0% Lamp Flux:68035.3x1 lm		
NAME: LHB09-480-5070-L00404	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 141.27 lm/W			
MODEL	/	Imax(cd)	25978	S/MH(C0/180)	1.28
NOMINAL POWER(W)	/	LOR(%)	100.0	S/MH(C90/270)	1.28
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	68035	η UP,DN(C0-180)	0.0,50.1
NOMINAL FLUX(lm)	68035.3	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,49.9
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	230	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: 15.0DEG
Test Speed: HIGH
Temperature:26.6DEG
Operators:LYJ
Test Date:2020-11-11

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.426
Humidity:49.8%
Test Distance:26.000m [K=0.4574]
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	2552	2574	2582	2567	2547	2566	2582	2574	0- 10	2465	2465	3.62, 3.62
20	2442	2459	2440	2455	2441	2462	2441	2462	10- 20	7123	9587	14.1, 14.1
30	2237	2240	2248	2235	2234	2228	2239	2235	20- 30	10866	20454	30.1, 30.1
40	1933	1930	1934	1924	1925	1917	1920	1924	30- 40	13125	33578	49.4, 49.4
50	1481	1479	1454	1468	1479	1461	1437	1471	40- 50	13198	46777	68.8, 68.8
60	954.9	942.7	880.7	931.7	950.4	921.0	860.8	927.6	50- 60	10683	57460	84.5, 84.5
70	481.0	458.9	462.0	449.3	477.1	443.9	447.8	446.5	60- 70	6671	64131	94.3, 94.3
80	172.6	167.7	140.9	163.1	172.5	161.3	135.0	162.1	70- 80	3120	67251	98.8, 98.8
90	0	0	0	0	0	0	0	0	80- 90	784.7	68035	100, 100
100	0	0	0	0	0	0	0	0	90-100	0	68035	100, 100
110	0	0	0	0	0	0	0	0	100-110	0	68035	100, 100
120	0	0	0	0	0	0	0	0	110-120	0	68035	100, 100
130	0	0	0	0	0	0	0	0	120-130	0	68035	100, 100
140	0	0	0	0	0	0	0	0	130-140	0	68035	100, 100
150	0	0	0	0	0	0	0	0	140-150	0	68035	100, 100
160	0	0	0	0	0	0	0	0	150-160	0	68035	100, 100
170	0	0	0	0	0	0	0	0	160-170	0	68035	100, 100
180	0	0	0	0	0	0	0	0	170-180	0	68035	100, 100
DEG	LUMINOUS INTENSITY: $\times 10\text{cd}$									UNIT: lm		

Conical surface Flux(90deg): 40338 lm

%lum = 59.3%

%lamp = 59.3%

Conical surface Flux(120deg): 57460 lm

%lum = 84.5%

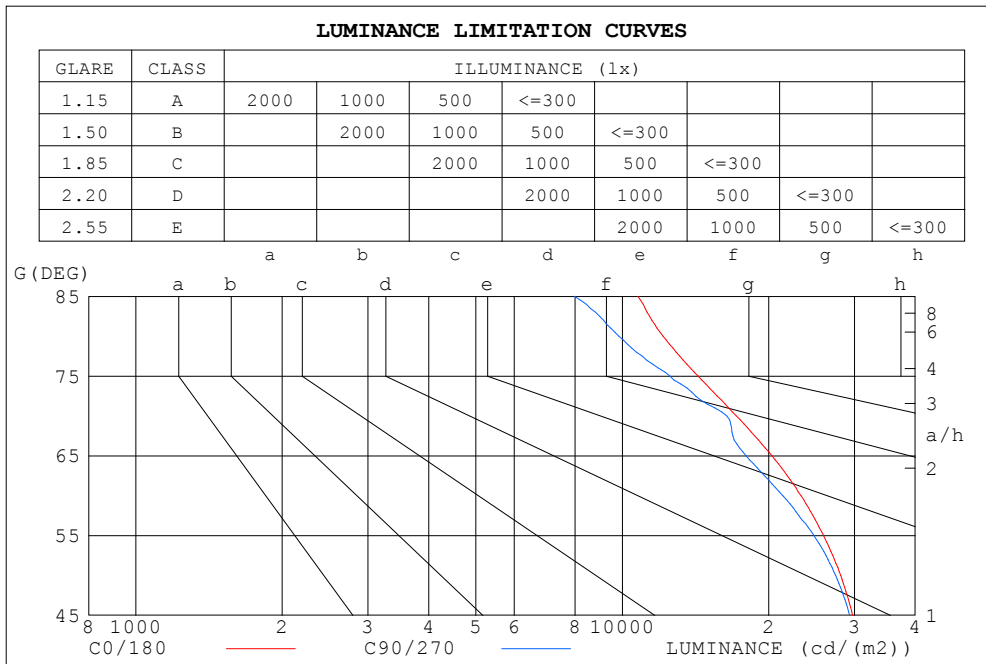
%lamp = 84.5%

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 26.6DEG
Operators: LYJ
Test Date: 2020-11-11

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.426
Humidity: 49.8%
Test Distance: 26.000m [K=0.4574]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINANCE LIMITATION CURVES



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	10762	7971
80	12125	9847
75	14312	12520
70	17155	16394
65	20300	17958
60	23295	21379
55	25913	24757
50	28111	27460
45	29735	29336

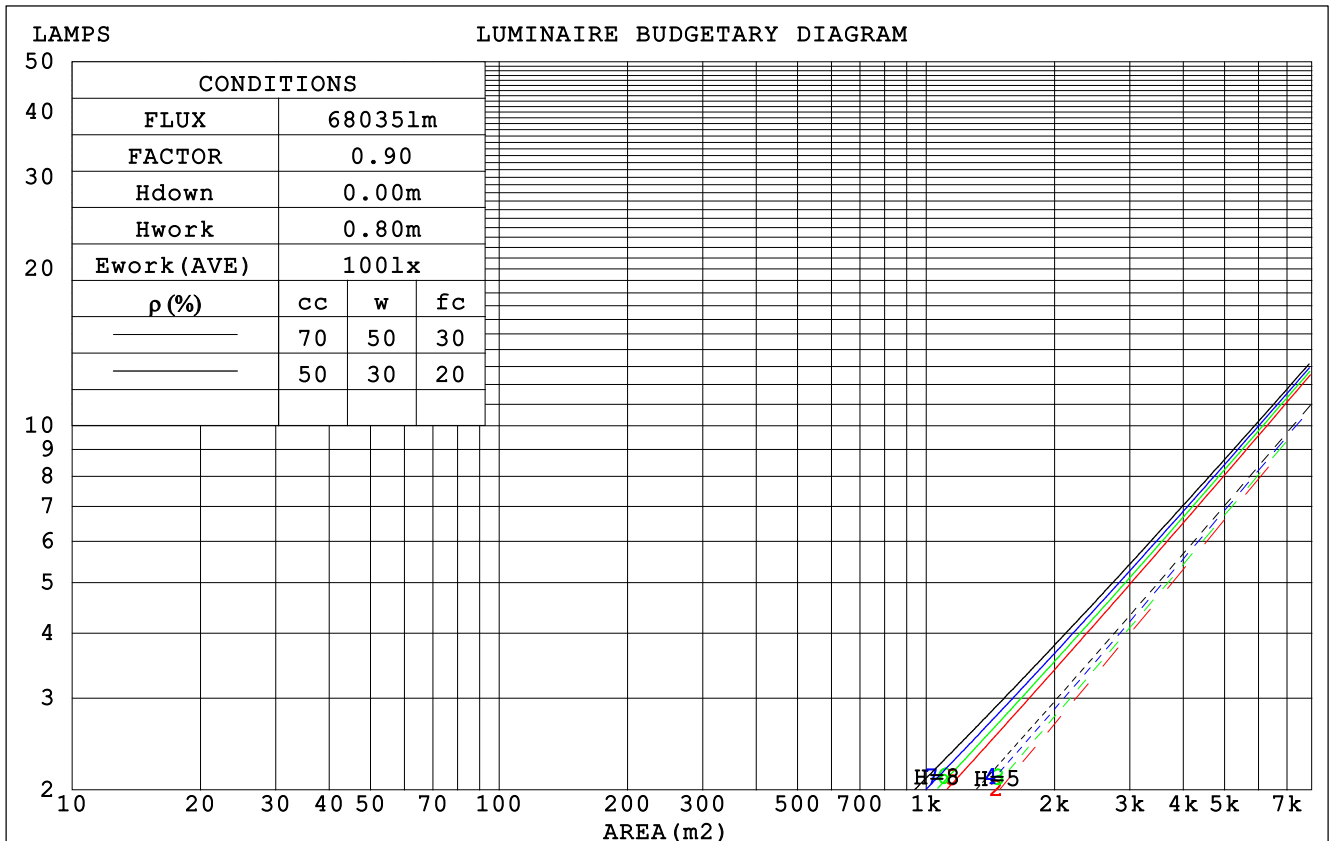
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EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

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	.00
1.0	1.05	1.01	.98	1.03	.99	.96	.99	.96	.93	.95	.93	.90	.91	.89	.88	.86
2.0	.93	.86	.81	.91	.85	.80	.87	.82	.78	.84	.80	.76	.81	.78	.75	.73
3.0	.82	.74	.68	.80	.73	.67	.77	.71	.66	.75	.70	.65	.72	.68	.64	.62
4.0	.73	.65	.58	.72	.64	.58	.69	.62	.57	.67	.61	.56	.65	.60	.55	.53
5.0	.65	.57	.50	.64	.56	.50	.62	.55	.50	.60	.54	.49	.58	.53	.49	.46
6.0	.59	.50	.44	.58	.50	.44	.56	.49	.44	.55	.48	.43	.53	.47	.43	.41
7.0	.54	.45	.39	.53	.45	.39	.51	.44	.39	.50	.43	.38	.49	.43	.38	.36
8.0	.49	.41	.35	.48	.40	.35	.47	.40	.35	.46	.39	.34	.45	.39	.34	.32
9.0	.45	.37	.32	.44	.37	.31	.43	.36	.31	.42	.36	.31	.41	.35	.31	.29
10.0	.42	.34	.29	.41	.34	.29	.40	.33	.28	.39	.33	.28	.38	.32	.28	.26



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 γ Interval: 0.5DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.426
 Humidity: 49.8%
 Test Distance: 26.000m [K=0.4574]
 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	.283	.161	.051	.276	.157	.050	.262	.151	.048	.250	.144	.046	.239	.139	.045															
2.0	.270	.148	.045	.264	.146	.045	.253	.141	.044	.242	.136	.043	.232	.131	.041															
3.0	.253	.135	.040	.248	.133	.040	.238	.129	.039	.228	.125	.038	.220	.122	.038															
4.0	.236	.123	.036	.231	.121	.036	.222	.118	.035	.214	.115	.035	.206	.112	.034															
5.0	.220	.112	.032	.216	.111	.032	.208	.108	.032	.200	.106	.031	.193	.103	.031															
6.0	.205	.103	.029	.202	.102	.029	.195	.100	.029	.188	.098	.029	.182	.096	.028															
7.0	.192	.095	.027	.189	.094	.027	.182	.092	.027	.176	.090	.026	.171	.089	.026															
8.0	.180	.088	.025	.177	.087	.025	.171	.086	.024	.166	.084	.024	.161	.083	.024															
9.0	.169	.082	.023	.167	.081	.023	.162	.080	.023	.157	.079	.023	.152	.077	.022															
10.0	.160	.077	.021	.157	.076	.021	.153	.075	.021	.148	.074	.021	.144	.073	.021															

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	.178	.156	.137	.153	.134	.117	.104	.092	.081	.060	.053	.047	.019	.017	.015		
2.0	.169	.132	.101	.145	.114	.087	.099	.079	.061	.057	.046	.036	.018	.015	.012		
3.0	.161	.114	.077	.138	.099	.066	.095	.068	.047	.055	.040	.027	.018	.013	.009		
4.0	.154	.101	.060	.132	.087	.052	.091	.061	.037	.052	.036	.022	.017	.012	.007		
5.0	.146	.090	.049	.126	.078	.042	.087	.055	.030	.050	.032	.018	.016	.010	.006		
6.0	.139	.082	.040	.120	.071	.035	.083	.050	.025	.048	.029	.015	.015	.010	.005		
7.0	.133	.075	.034	.114	.065	.030	.079	.045	.021	.046	.027	.013	.015	.009	.004		
8.0	.127	.069	.029	.109	.060	.026	.075	.042	.018	.044	.025	.011	.014	.008	.004		
9.0	.121	.064	.026	.104	.056	.022	.072	.039	.016	.042	.023	.010	.014	.008	.003		
10.0	.115	.060	.023	.099	.052	.020	.069	.037	.014	.040	.022	.008	.013	.007	.003		

C Range: 0 - 360DEG
 C Interval: 15.0DEG
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γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.426
 Humidity:49.8%
 Test Distance:26.000m [K=0.4574]
 Remarks:

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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	26.4	28.0	26.8	28.3	28.7	26.0	27.6	26.4	27.9	28.2
3H	27.7	29.1	28.1	29.5	29.8	27.2	28.6	27.6	28.9	29.3
4H	28.1	29.4	28.5	29.8	30.2	27.6	28.9	28.0	29.2	29.6
6H	28.4	29.6	28.8	30.0	30.4	27.8	29.0	28.2	29.4	29.8
8H	28.5	29.6	28.9	30.0	30.4	27.8	29.0	28.2	29.4	29.8
12H	28.5	29.6	29.0	30.0	30.5	27.9	29.0	28.3	29.3	29.8
4H 2H	26.9	28.2	27.3	28.5	28.9	26.5	27.8	26.9	28.2	28.5
3H	28.3	29.4	28.7	29.8	30.2	27.9	29.0	28.3	29.4	29.8
4H	28.8	29.8	29.3	30.2	30.7	28.3	29.3	28.8	29.7	30.2
6H	29.2	30.1	29.7	30.5	31.0	28.6	29.5	29.1	29.9	30.4
8H	29.4	30.2	29.8	30.6	31.1	28.7	29.5	29.2	29.9	30.4
12H	29.5	30.2	29.9	30.6	31.1	28.8	29.5	29.2	30.0	30.4
8H 4H	29.0	29.8	29.5	30.2	30.7	28.5	29.3	29.0	29.8	30.2
6H	29.5	30.1	30.0	30.6	31.1	28.9	29.5	29.4	30.0	30.5
8H	29.7	30.3	30.2	30.8	31.3	29.0	29.6	29.5	30.1	30.6
12H	29.8	30.4	30.3	30.8	31.4	29.1	29.6	29.6	30.1	30.7
12H 4H	29.0	29.7	29.5	30.2	30.7	28.5	29.2	29.0	29.7	30.2
6H	29.5	30.1	30.0	30.6	31.1	28.9	29.5	29.4	30.0	30.5
8H	29.7	30.3	30.2	30.7	31.3	29.1	29.6	29.6	30.1	30.7
CIE190: 2010										

CIE190: 2010
Area: 0.3315 m2

C Range: 0 - 360DEG
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Temperature: 26.6DEG
Operators: LYJ
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γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.426
Humidity: 49.8%
Test Distance: 26.000m [K=0.4574]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

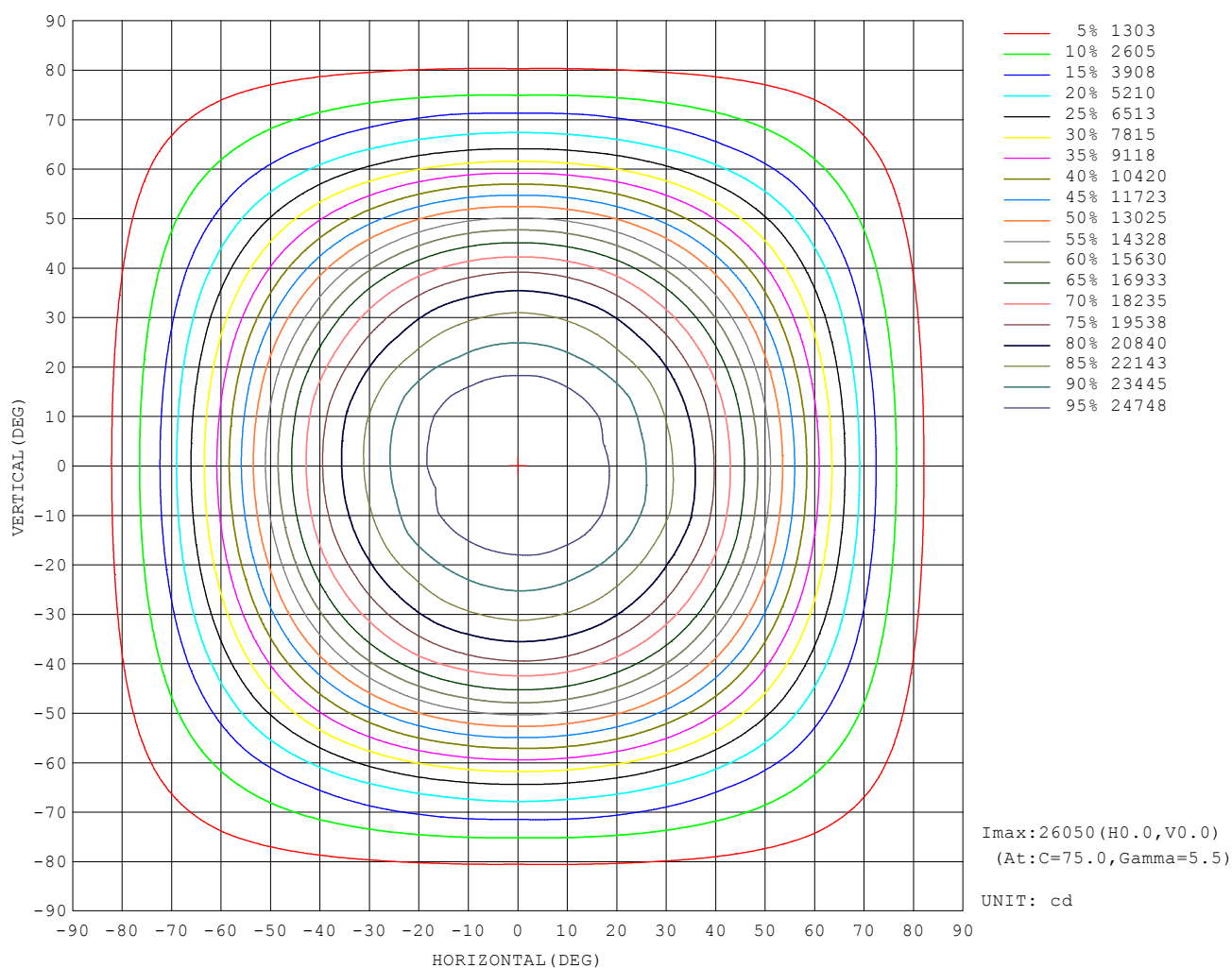
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	60	49	42	59	49	42	58	48	42	36
0.80	70	59	52	69	59	52	68	58	52	45
1.00	79	68	62	78	68	61	76	69	61	54
1.25	86	76	69	84	75	69	82	74	68	61
1.50	91	82	75	89	81	75	86	79	74	66
2.00	97	89	83	95	88	83	92	86	81	74
2.50	101	94	88	99	92	87	95	90	85	77
3.00	104	98	93	102	96	91	98	93	89	81
4.00	108	102	98	105	101	97	101	97	94	85
5.00	110	105	102	107	103	100	103	100	97	88
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

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 Humidity: 49.8%
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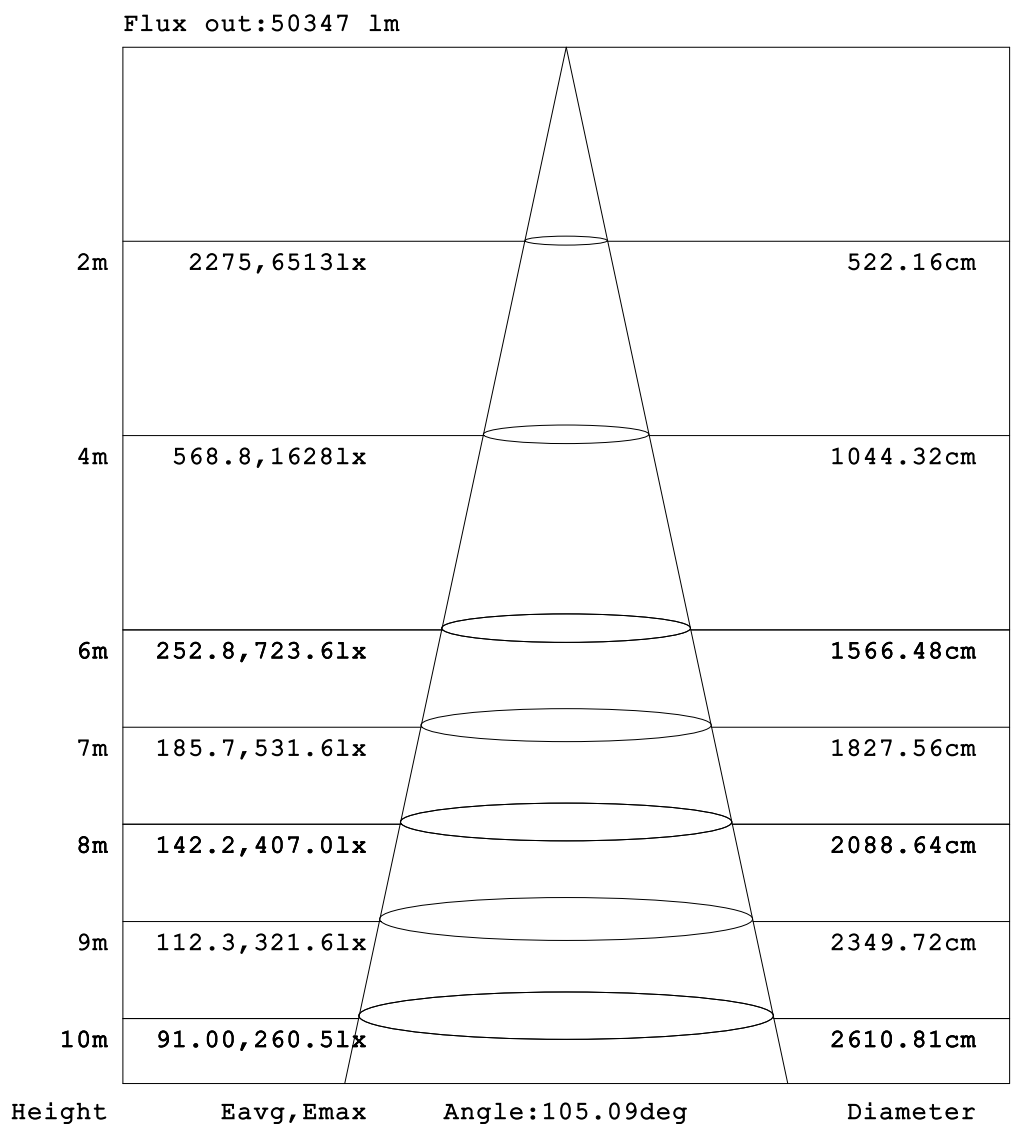
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
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Operators: LYJ
Test Date: 2020-11-11

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
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Remarks:

AAI Figure



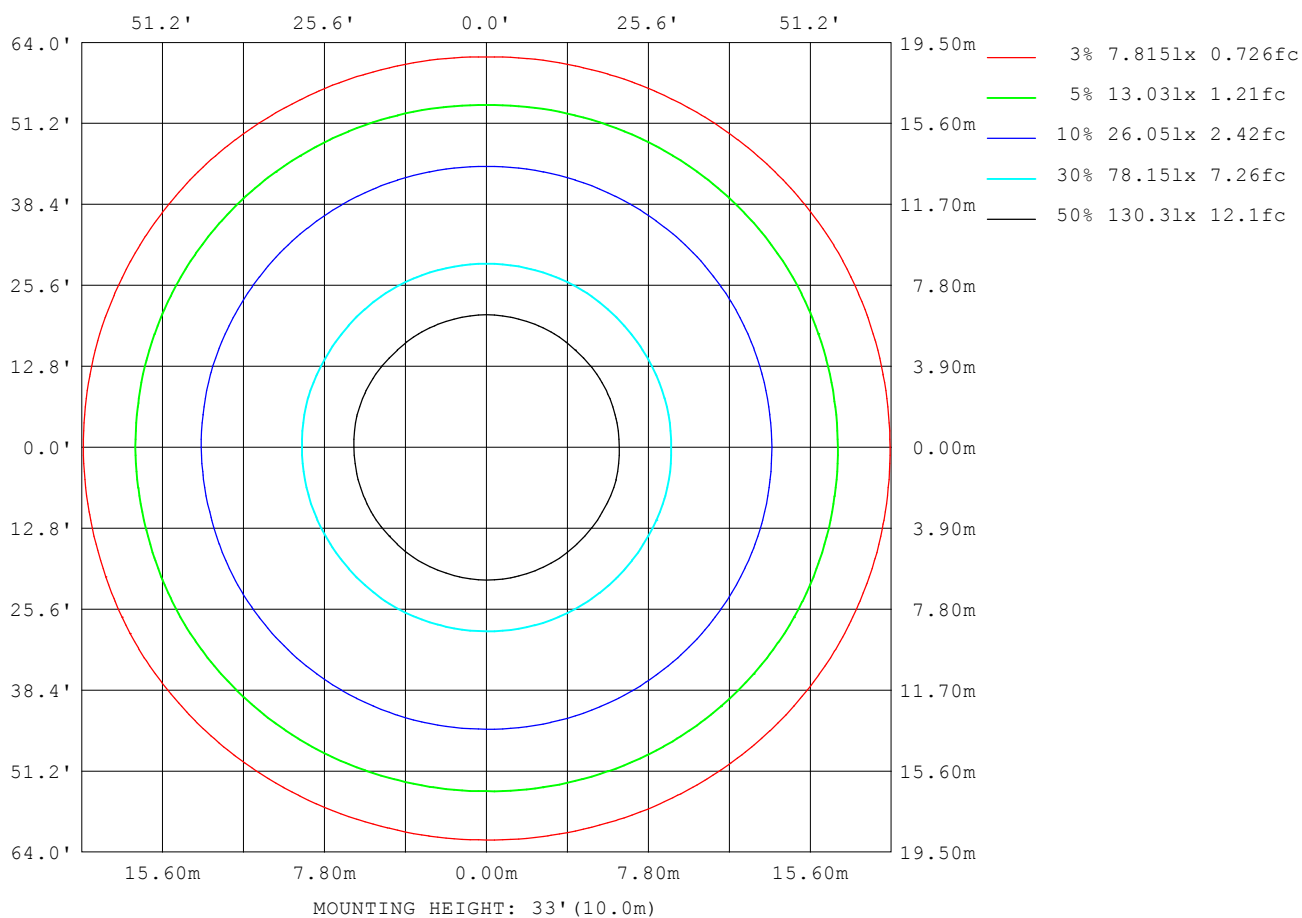
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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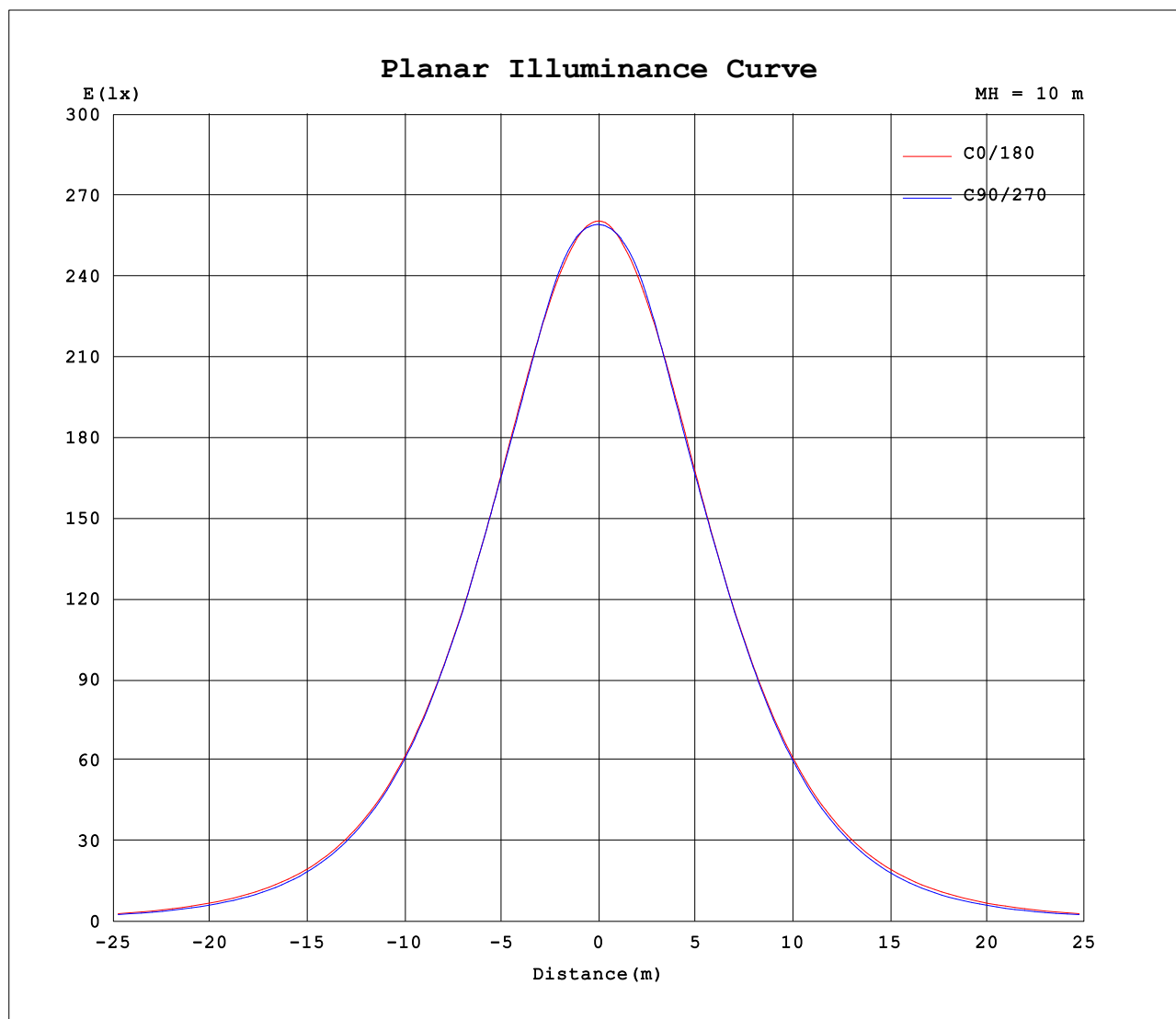
ISOLUX DIAGRAM



C Range: 0 - 360DEG
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Test Speed: HIGH
Temperature: 26.6DEG
Operators: LYJ
Test Date: 2020-11-11

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Remarks:

Planar Illuminance Curve



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Remarks: