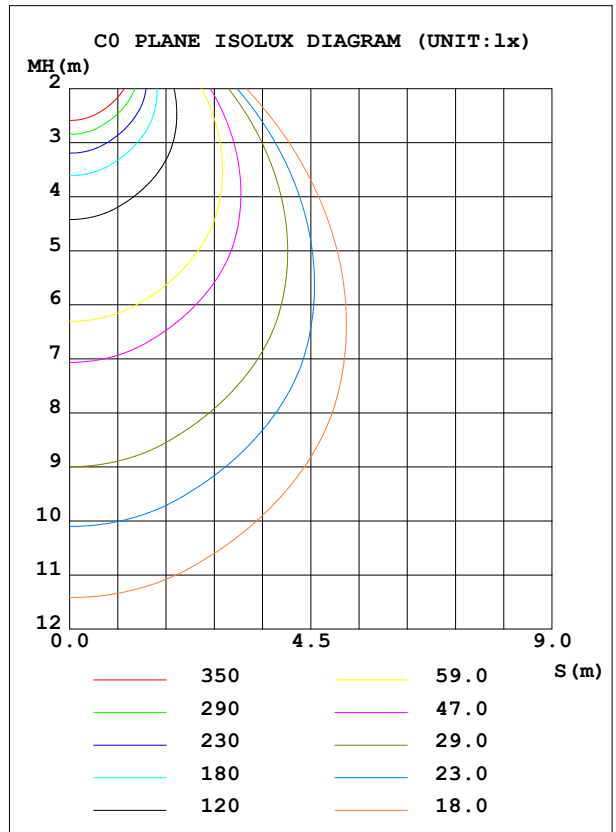
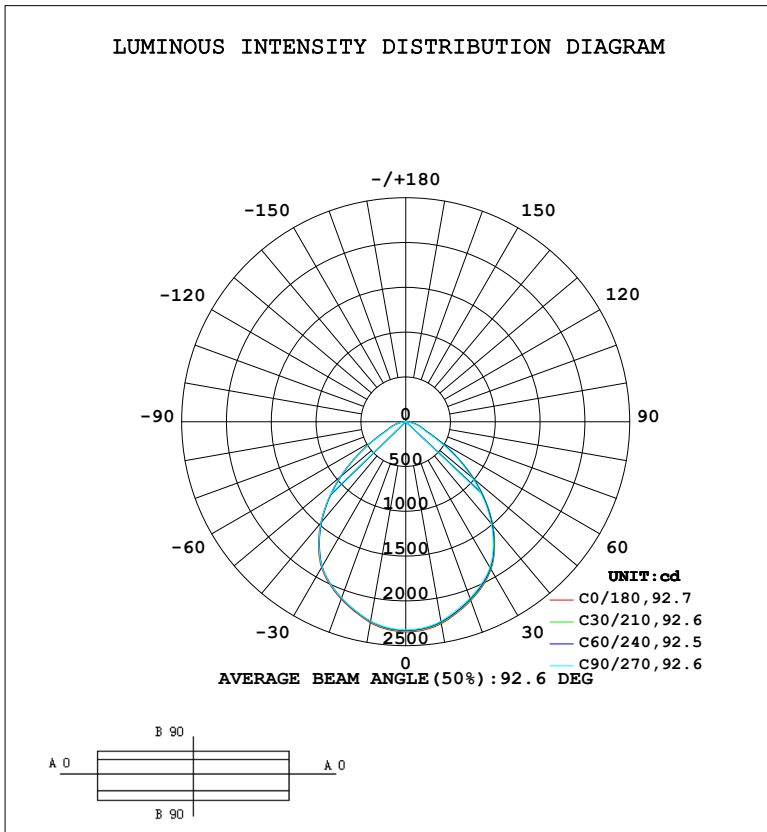


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.03V I:0.1771A P:38.240W PF:0.9816 Freq:50.00Hz Lamp Flux:4801.13x1 lm		
NAME: HYD-219C-40W-6000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	

DATA OF LAMP		PHOTOMETRIC DATA Eff: 125.55 lm/W			
MODEL		I _{max} (cd)	2346	S/MH (C0/180)	1.20
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	1.20
RATED VOLTAGE (V)	--	TOTAL FLUX (lm)	4801.1	η UP, DN (C0-180)	0.0, 50.3
NOMINAL FLUX (lm)	4801.13	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 49.7
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	--	η down (%)	100.0	CIBSE SHR MAX	1.30



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: 10.0deg/s
 Temperature: 25.3°C
 Operators: DAMIN
 Test Date: 2023-08-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-3000H_V1 SYSTEM V2.00.463
 Humidity: 65.0%
 Test Distance: 9.000m [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	2288	2276	2260	2247	2278	2263	2259	2255	0- 10	219.0	219.0	4.56,4.56
20	2124	2114	2094	2083	2107	2094	2093	2093	10- 20	616.1	835.1	17.4,17.4
30	1903	1895	1877	1860	1880	1862	1869	1870	20- 30	920.0	1755	36.6,36.6
40	1514	1510	1486	1467	1476	1456	1470	1484	30- 40	1057	2812	58.6,58.6
50	996.3	993.3	964.5	943.3	949.1	930.7	949.5	972.7	40- 50	945.5	3758	78.3,78.3
60	455.4	462.2	413.7	423.1	427.7	411.9	402.2	440.5	50- 60	611.9	4369	91,91
70	192.9	191.8	179.9	182.2	187.3	178.9	177.6	186.1	60- 70	267.6	4637	96.6,96.6
80	81.56	77.01	62.71	69.84	78.76	66.98	61.40	73.83	70- 80	133.6	4771	99.4,99.4
90	1.050	0.7304	0.3167	0.4360	0.8474	1.020	0.7639	1.198	80- 90	30.42	4801	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:cd									UNIT:lm		

Conical surface Flux(90deg): 3314.6 lm

%lum = 69.0%
 %lamp = 69.0%

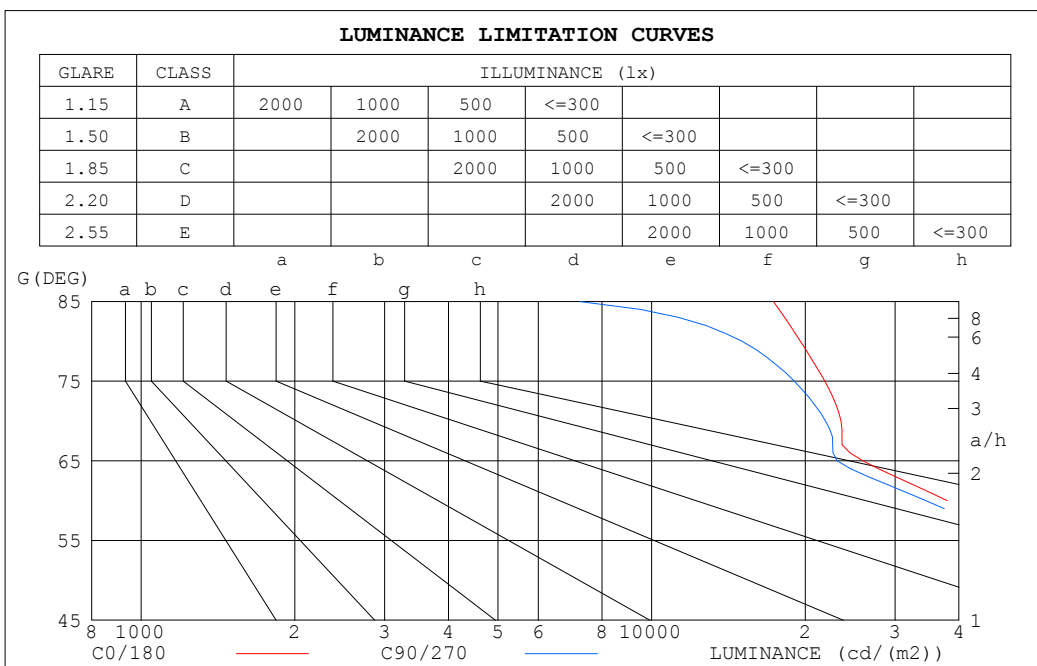
Conical surface Flux(120deg): 4369.5 lm

%lum = 91.0%
 %lamp = 91.0%

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: 10.0deg/s
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2023-08-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.463
 Humidity:65.0%
 Test Distance:9.000m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	17334	7241
80	19569	15047
75	21843	19031
70	23500	21912
65	25919	23104
60	37954	34476
55	52089	49444
50	64583	62521
45	74691	72870

C Range: 0 - 360DEG
 C Interval: 15.0DEG
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 Temperature: 25.3°C
 Operators: DAMIN
 Test Date: 2023-08-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-3000H_V1 SYSTEM V2.00.463
 Humidity: 65.0%
 Test Distance: 9.000m [K=1.0000]
 Remarks:

WEC AND CCEC

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.251	.143	.045	.244	.139	.044	.231	.133	.042	.219	.127	.041	.208	.121	.039	
2.0	.243	.133	.041	.237	.130	.040	.225	.125	.039	.215	.121	.038	.205	.116	.037	
3.0	.230	.122	.037	.225	.120	.036	.215	.116	.035	.206	.113	.035	.197	.109	.034	
4.0	.216	.112	.033	.212	.111	.033	.203	.108	.032	.195	.105	.032	.187	.102	.031	
5.0	.203	.104	.030	.199	.102	.030	.191	.100	.029	.184	.097	.029	.178	.095	.029	
6.0	.191	.096	.027	.188	.095	.027	.181	.093	.027	.174	.091	.027	.168	.089	.026	
7.0	.180	.089	.025	.177	.088	.025	.171	.086	.025	.165	.085	.025	.160	.083	.024	
8.0	.170	.083	.023	.167	.082	.023	.161	.081	.023	.156	.079	.023	.151	.078	.023	
9.0	.161	.078	.022	.158	.077	.022	.153	.076	.021	.148	.074	.021	.144	.073	.021	
10.0	.152	.073	.020	.150	.072	.020	.145	.071	.020	.141	.070	.020	.137	.069	.020	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	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	.176	.157	.139	.151	.134	.120	.103	.092	.083	.059	.054	.048	.019	.017	.016	
2.0	.166	.132	.104	.142	.114	.090	.097	.079	.063	.056	.046	.037	.018	.015	.012	
3.0	.157	.114	.080	.134	.098	.069	.092	.068	.049	.053	.040	.029	.017	.013	.009	
4.0	.149	.100	.063	.128	.087	.055	.088	.060	.039	.051	.035	.023	.016	.012	.008	
5.0	.141	.090	.051	.121	.077	.045	.084	.054	.031	.048	.032	.019	.016	.010	.006	
6.0	.135	.081	.042	.116	.070	.037	.080	.049	.026	.046	.029	.016	.015	.009	.005	
7.0	.128	.074	.036	.110	.064	.031	.076	.045	.022	.044	.026	.013	.014	.009	.004	
8.0	.122	.068	.031	.105	.059	.027	.073	.041	.019	.042	.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: 15.0DEG
 Test Speed: 10.0deg/s
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2023-08-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.463
 Humidity:65.0%
 Test Distance:9.000m [K=1.0000]
 Remarks:

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	26.1	27.4	26.3	27.6	27.8	25.9	27.2	26.1	27.4	27.6
3H	26.4	27.6	26.7	27.8	28.1	26.2	27.4	26.4	27.6	27.8
4H	26.6	27.7	26.9	28.0	28.2	26.3	27.5	26.6	27.7	27.9
6H	26.7	27.8	27.0	28.0	28.3	26.4	27.5	26.7	27.7	28.0
8H	26.7	27.8	27.1	28.1	28.3	26.4	27.4	26.7	27.7	28.0
12H	26.7	27.8	27.1	28.0	28.3	26.3	27.3	26.7	27.6	27.9
4H 2H	26.2	27.3	26.5	27.6	27.8	26.0	27.2	26.3	27.4	27.6
3H	26.7	27.7	27.0	27.9	28.2	26.5	27.5	26.8	27.7	28.0
4H	26.9	27.9	27.3	28.2	28.5	26.7	27.6	27.0	27.9	28.2
6H	27.2	28.0	27.6	28.3	28.7	26.8	27.6	27.2	28.0	28.3
8H	27.3	28.0	27.7	28.4	28.7	26.9	27.6	27.3	28.0	28.4
12H	27.3	28.0	27.7	28.4	28.8	26.9	27.5	27.3	27.9	28.3
8H 4H	27.0	27.7	27.4	28.1	28.5	26.7	27.5	27.2	27.9	28.2
6H	27.3	27.9	27.8	28.3	28.8	27.0	27.6	27.4	28.0	28.4
8H	27.5	28.0	27.9	28.4	28.9	27.1	27.6	27.5	28.0	28.5
12H	27.6	28.0	28.1	28.5	29.0	27.1	27.5	27.5	28.0	28.4
12H 4H	27.0	27.6	27.4	28.0	28.4	26.7	27.4	27.2	27.8	28.2
6H	27.3	27.9	27.8	28.3	28.7	27.0	27.5	27.5	28.0	28.4
8H	27.5	28.0	28.0	28.4	28.9	27.1	27.5	27.6	28.0	28.5
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.6 / - 0.7					+ 0.6 / - 0.8				
1.5H	+ 0.3 / - 0.4					+ 0.4 / - 0.3				
2.0H	+ 1.4 / - 1.8					+ 1.5 / - 1.9				

CIE Pub.117, 4801 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 5.5)
 Area: 0.024 m2

C Range: 0 - 360DEG
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 Temperature:25.3°C
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 Test Date:2023-08-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.463
 Humidity:65.0%
 Test Distance:9.000m [K=1.0000]
 Remarks:

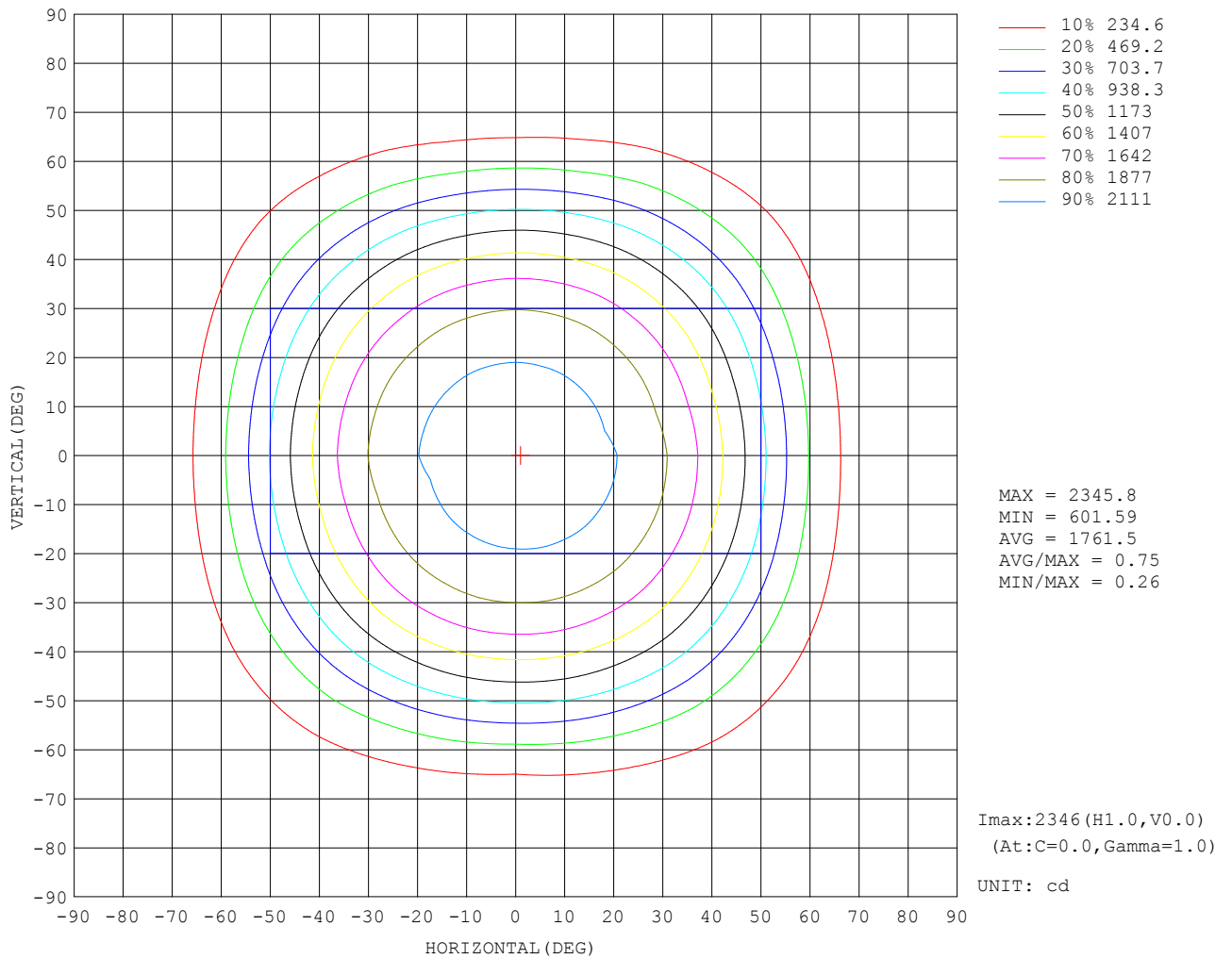
UTILIZATION FACTORS TABLE

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	65	55	49	65	55	49	63	54	49	43
0.80	75	66	59	75	65	59	73	64	59	53
1.00	84	74	68	83	74	68	81	75	68	61
1.25	90	82	76	89	81	75	87	80	75	68
1.50	95	87	81	93	86	81	90	84	80	73
2.00	100	94	88	99	92	88	96	90	86	79
2.50	103	97	92	101	96	91	98	93	90	82
3.00	106	101	96	104	99	95	100	96	93	85
4.00	109	105	101	107	103	99	103	100	97	89
5.00	111	107	104	109	105	102	104	102	99	91
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: 10.0deg/s
 Temperature: 25.3°C
 Operators: DAMIN
 Test Date: 2023-08-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-3000H_V1 SYSTEM V2.00.463
 Humidity: 65.0%
 Test Distance: 9.000m [K=1.0000]
 Remarks:

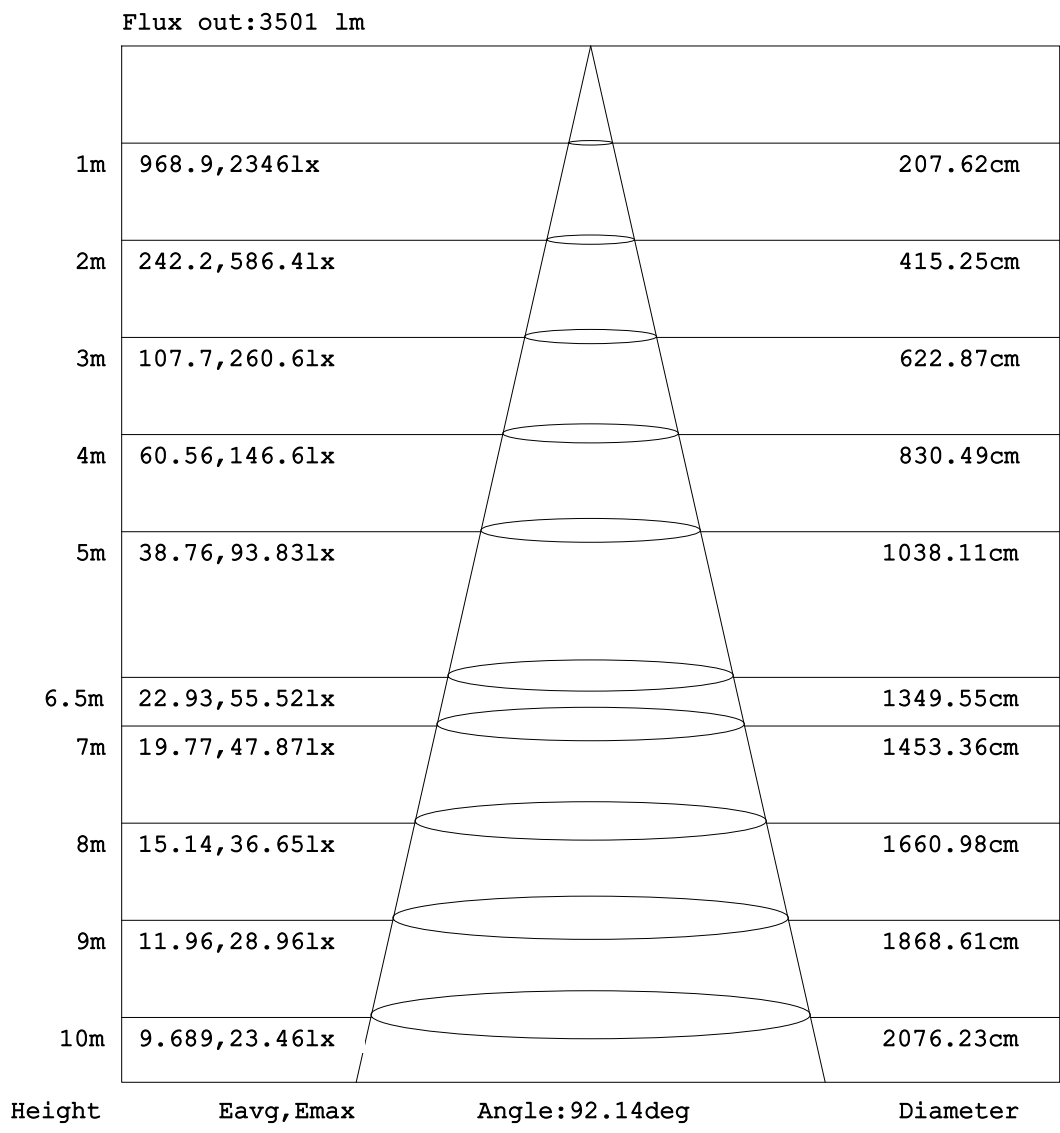
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: 10.0deg/s
 Temperature: 25.3°C
 Operators: DAMIN
 Test Date: 2023-08-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-3000H_V1 SYSTEM V2.00.463
 Humidity: 65.0%
 Test Distance: 9.000m [K=1.0000]
 Remarks:

AAI Figure

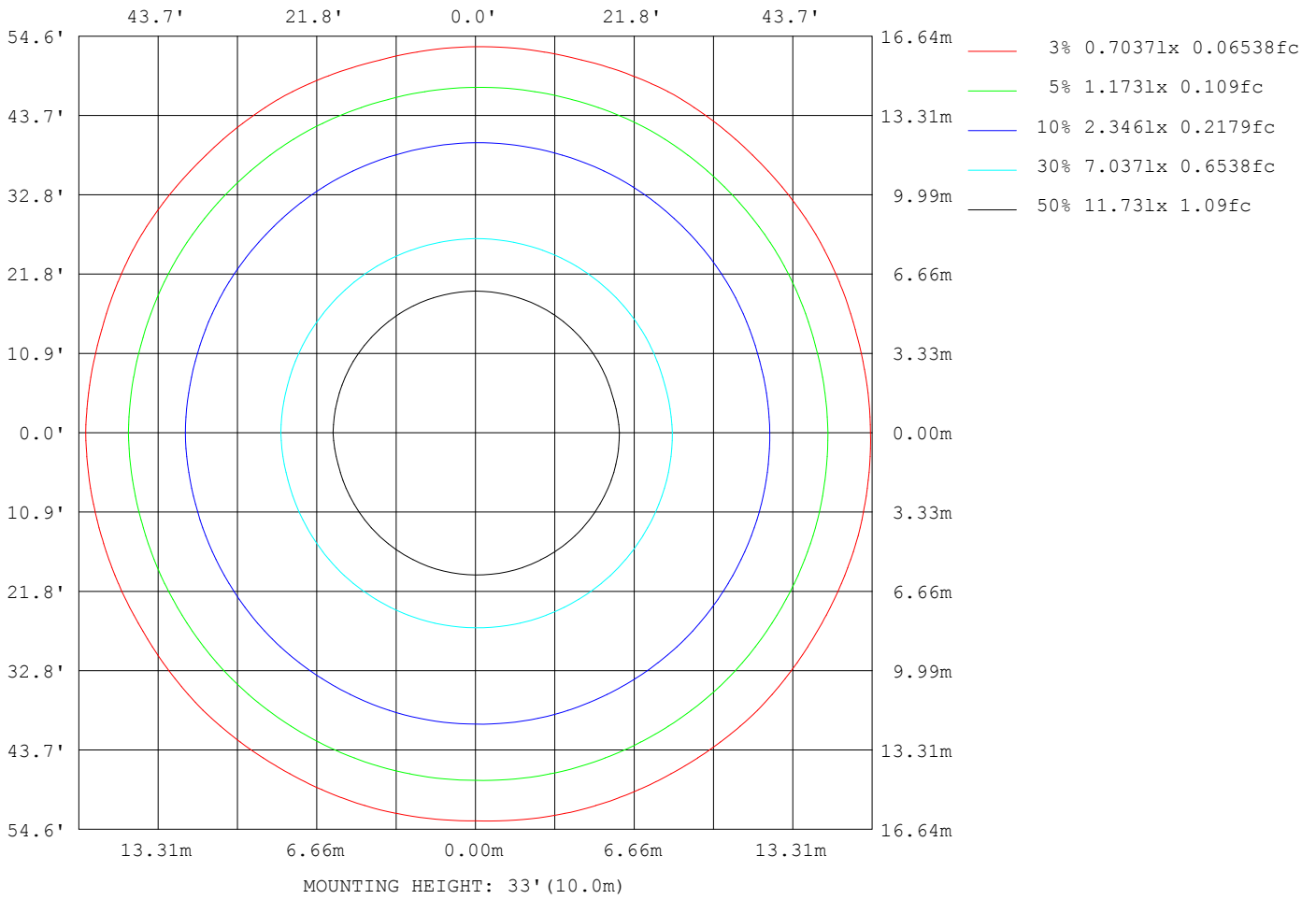


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: 10.0deg/s
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2023-08-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.463
 Humidity:65.0%
 Test Distance:9.000m [K=1.0000]
 Remarks:

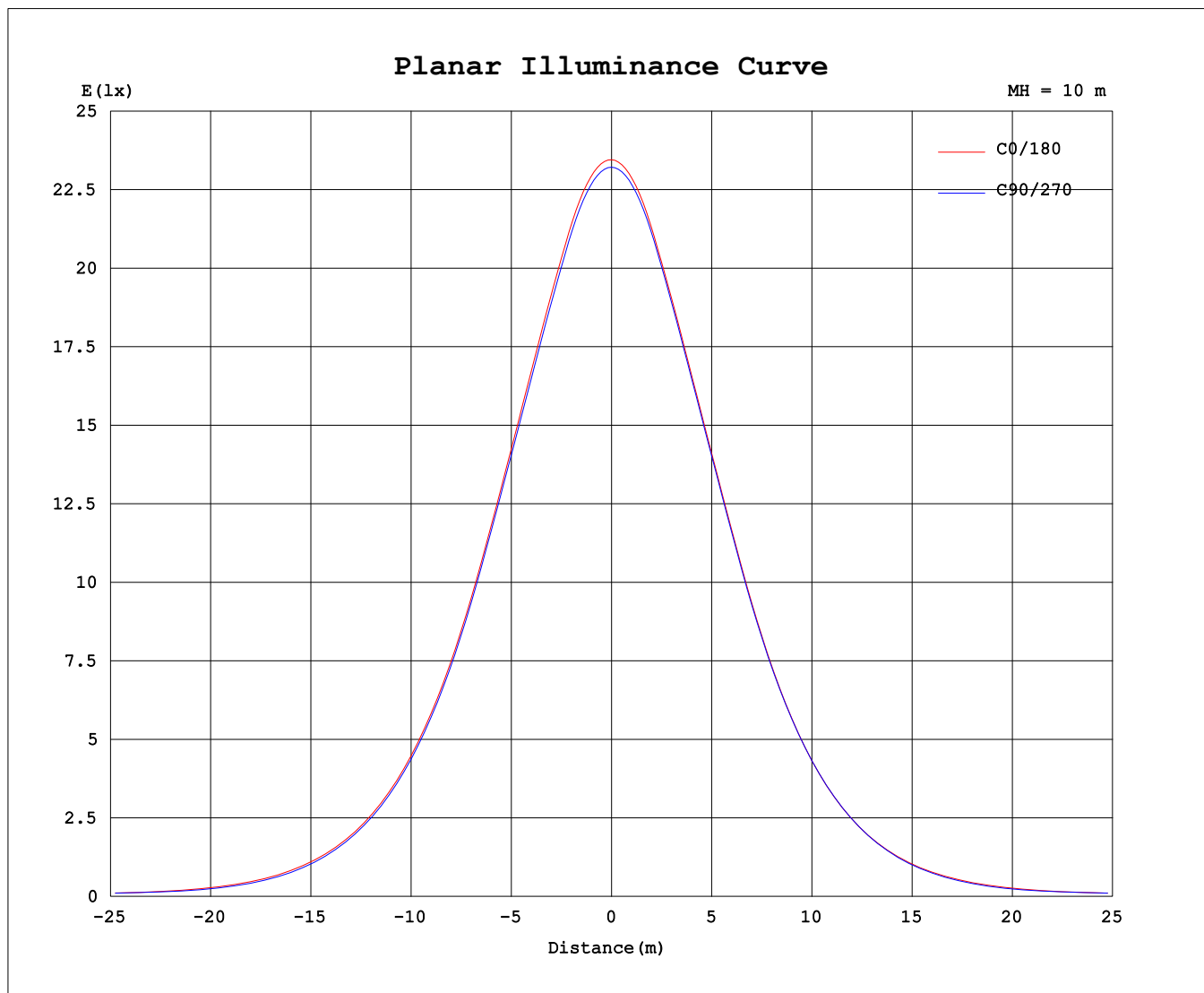
ISOLUX DIAGRAM



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: 10.0deg/s
 Temperature: 25.3°C
 Operators: DAMIN
 Test Date: 2023-08-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-3000H_V1 SYSTEM V2.00.463
 Humidity: 65.0%
 Test Distance: 9.000m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: 10.0deg/s
 Temperature: 25.3°C
 Operators: DAMIN
 Test Date: 2023-08-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-3000H_V1 SYSTEM V2.00.463
 Humidity: 65.0%
 Test Distance: 9.000m [K=1.0000]
 Remarks:

