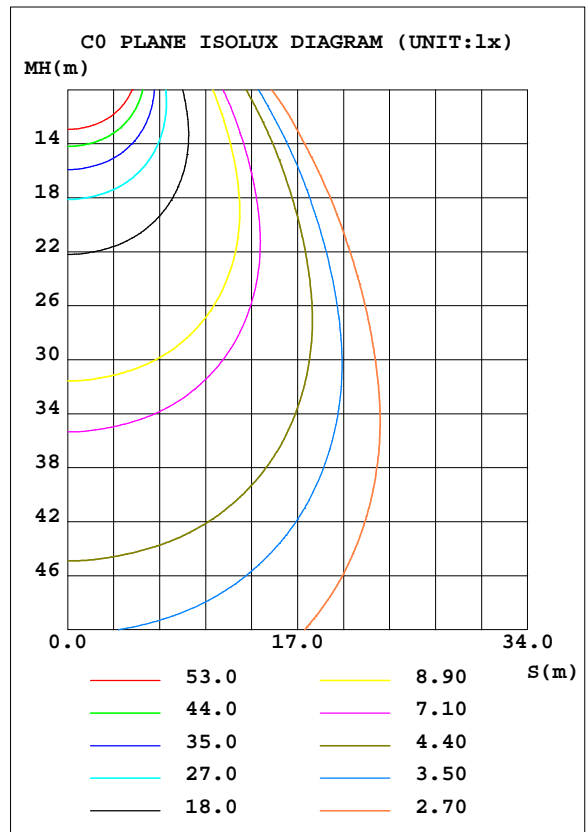
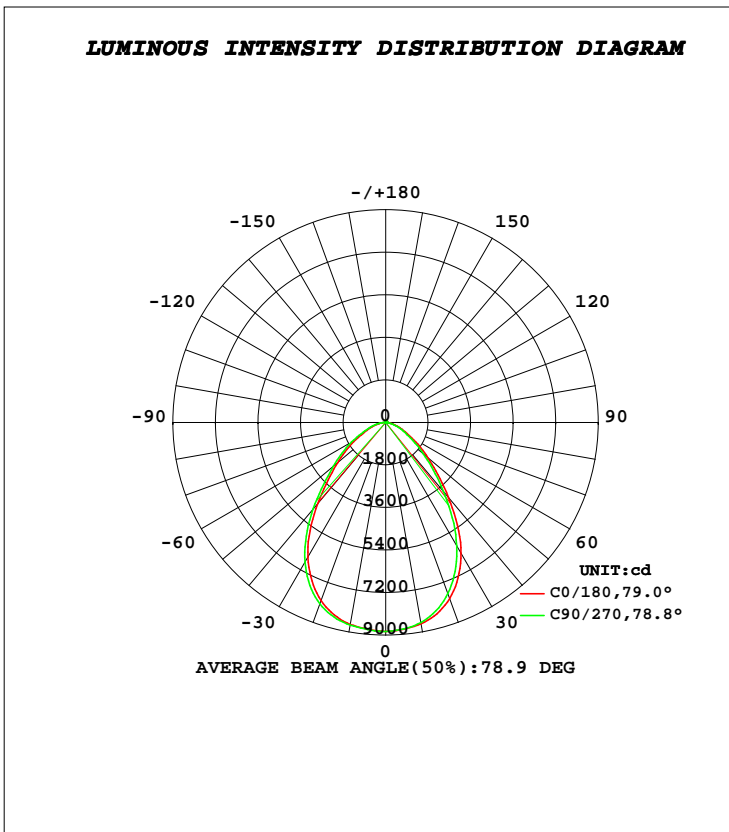


**LUMINAIRE PHOTOMETRIC TEST REPORT**

Test:U:220.7V I:0.4690A P:100.6W PF:0.9710 Lamp Flux:15941.8x1 lm		
NAME: 100W	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:027
MFR.: 100W	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 158.47 lm/W			
MODEL		I <sub>max</sub> (cd)	8847	S/MH(C0/180)	1.11
NOMINAL POWER(W)	102	LOR(%)	100.0	S/MH(C90/270)	1.06
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	15942	η UP, DN(C0-180)	0.8, 45.6
NOMINAL FLUX(lm)	15941.8	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.9, 52.8
LAMPS INSIDE	1	η up(%)	1.7	CIBSE SHR NOM	1.00
TEST VOLTAGE(V)	220.7	η down(%)	98.3	CIBSE SHR MAX	1.15



**C Range: 0 - 360DEG**  
**C Interval: 45.0DEG**  
**Test Speed: HIGH**  
**Temperature: 25.3DEG**  
**Operators: DAMIN**  
**Test Date: 2021-08-26**

**γ Range: 0 - 180DEG**  
**γ Interval: 1.0DEG**  
**Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.269**  
**Humidity: 65.0%**  
**Test Distance: 6.242m [K=1.0000]**  
**Remarks:**

**ZONAL FLUX DIAGRAM**

**ZONAL FLUX DIAGRAM:**

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum,lamp
10	8651	8630	8595	8583	8672	8675	8702	8726	0- 10	834.3	834.3	5.23,5.23
20	7925	7831	7701	7673	8015	8071	8160	8187	10- 20	2359	3193	20,20
30	6381	6224	6019	5982	6580	6695	6824	6843	20- 30	3339	6533	41,41
40	4134	3988	3800	3829	4473	4649	4783	4753	30- 40	3364	9896	62.1,62.1
50	2346	2194	2097	2213	2662	2811	2900	2882	40- 50	2567	12464	78.2,78.2
60	1206	1103	1045	1125	1473	1551	1673	1572	50- 60	1690	14154	88.8,88.8
70	586.2	528.2	505.4	537.1	730.1	798.8	831.6	794.5	60- 70	966.7	15120	94.8,94.8
80	185.3	153.0	135.4	155.2	268.8	309.4	334.9	306.2	70- 80	454.6	15575	97.7,97.7
90	12.80	13.41	13.82	13.63	16.50	16.95	21.02	16.60	80- 90	102.4	15677	98.3,98.3
100	19.21	19.97	20.57	20.35	23.59	22.71	22.20	22.48	90-100	19.48	15697	98.5,98.5
110	27.57	28.49	29.18	29.05	32.60	31.58	30.97	31.24	100-110	27.05	15724	98.6,98.6
120	37.10	38.04	38.82	38.75	42.45	41.43	40.72	41.00	110-120	34.55	15758	98.8,98.8
130	47.02	47.91	48.71	48.70	52.41	51.35	50.75	50.98	120-130	40.09	15799	99.1,99.1
140	56.53	57.31	58.07	58.08	61.52	60.49	60.08	60.26	130-140	42.08	15841	99.4,99.4
150	64.88	65.58	66.15	66.14	68.80	67.81	67.53	67.82	140-150	39.52	15880	99.6,99.6
160	72.54	73.04	73.40	73.33	74.56	73.65	73.53	73.79	150-160	32.41	15913	99.8,99.8
170	78.89	79.27	79.30	79.35	79.40	78.61	78.63	78.72	160-170	21.57	15934	100,100
180	81.69	81.73	81.47	81.70	81.99	81.46	81.70	81.52	170-180	7.661	15942	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

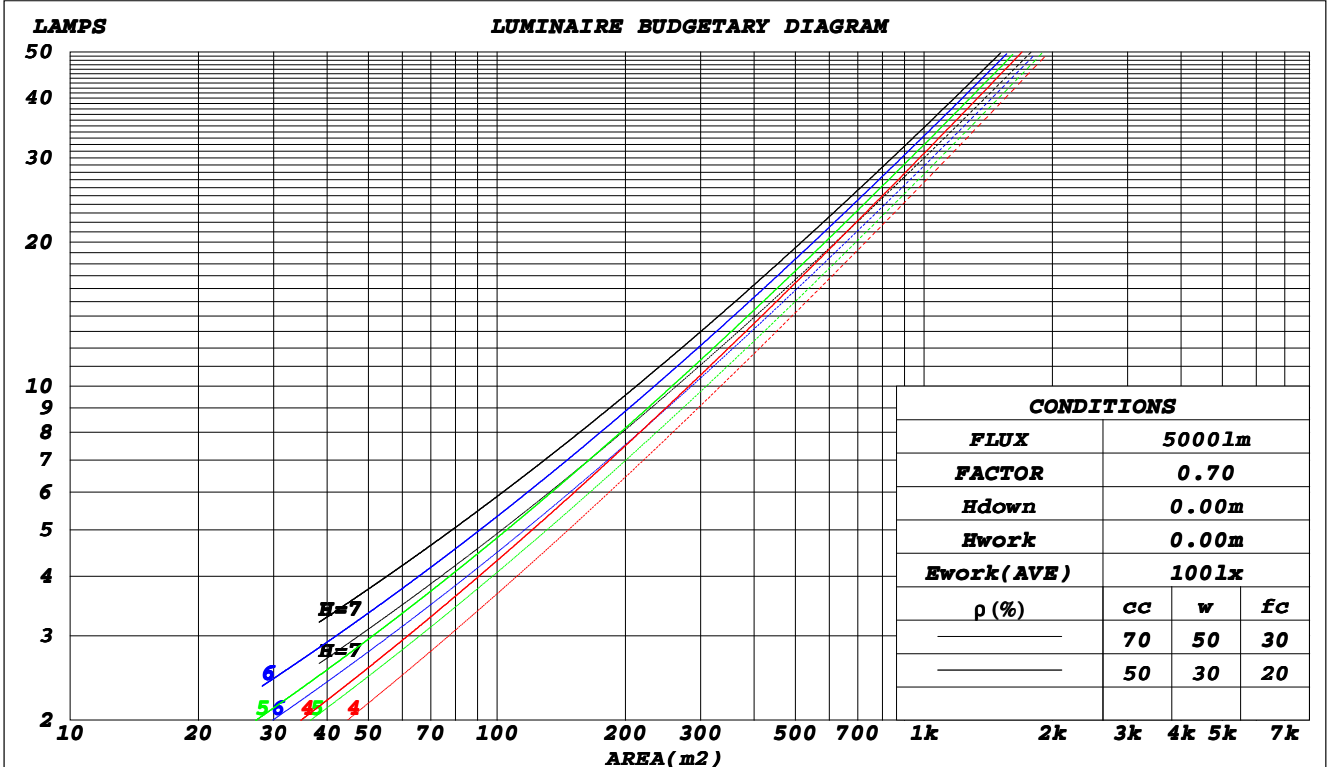
**C Range: 0 - 360DEG**  
**C Interval: 45.0DEG**  
**Test Speed: HIGH**  
**Temperature:25.3DEG**  
**Operators:DAMIN**  
**Test Date:2021-08-26**

**$\gamma$  Range: 0 - 180DEG**  
 **$\gamma$  Interval: 1.0DEG**  
**Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.269**  
**Humidity:65.0%**  
**Test Distance:6.242m [K=1.0000]**  
**Remarks:**

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.7V I:0.4690A P:100.6W PF:0.9710 Lamp Flux:15941.8x1 lm		
NAME: 100W	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:027
MFR.: 100W	SUR.:	PROTECTION ANGLE:

$\rho_{cc}$	80%			70%			50%			30%			10%			0														
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0														
$\rho_{fc}$	20%			20%			20%			20%			20%			0														
<b>RCR</b>	<b>RCR:Room Cavity Ratio</b>															<b>Coefficients of Utilization(CU)</b>														
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.10	1.10	1.10	1.05	1.05	1.05	1.01	1.01	1.01	.98														
1.0	1.07	1.03	1.00	1.04	1.01	.98	.90	.97	.95	.96	.94	.92	.92	.90	.89	.87														
2.0	.96	.90	.85	.94	.89	.84	.90	.86	.82	.87	.83	.80	.84	.81	.78	.76														
3.0	.86	.79	.74	.85	.78	.73	.81	.76	.72	.79	.74	.70	.76	.72	.69	.67														
4.0	.78	.71	.65	.77	.70	.64	.74	.68	.63	.72	.66	.62	.69	.65	.61	.59														
5.0	.71	.63	.57	.70	.63	.57	.68	.61	.56	.66	.60	.56	.64	.59	.55	.53														
6.0	.65	.57	.51	.64	.56	.51	.62	.55	.51	.60	.54	.50	.59	.54	.50	.48														
7.0	.60	.52	.46	.59	.51	.46	.57	.51	.46	.56	.50	.45	.54	.49	.45	.43														
8.0	.55	.47	.42	.54	.47	.42	.53	.46	.42	.52	.46	.41	.50	.45	.41	.39														
9.0	.51	.44	.39	.50	.43	.38	.49	.43	.38	.48	.42	.38	.47	.42	.38	.36														
10.0	.47	.40	.35	.47	.40	.35	.46	.39	.35	.45	.39	.35	.44	.39	.35	.33														



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DAMIN  
 Test Date: 2021-08-26

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.269  
 Humidity: 65.0%  
 Test Distance: 6.242m [K=1.0000]  
 Remarks:

**WEC AND CCEC**

Test:U:220.7V I:0.4690A P:100.6W PF:0.9710 Lamp Flux:15941.8x1 lm		
NAME: 100W	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:027
MFR.: 100W	SUR.:	PROTECTION ANGLE:

$\rho_{cc}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	20%			20%			20%			20%			20%			0
<b>RCR</b>	<b>RCR:Room Cavity Ratio</b>						<b>Wall Exitance Coefficients(WEC)</b>									
0.0																
1.0	.247	.140	.044	.239	.137	.043	.225	.129	.041	.213	.123	.039	.201	.116	.038	
2.0	.237	.130	.040	.231	.127	.039	.219	.122	.038	.207	.116	.036	.197	.112	.035	
3.0	.224	.119	.036	.218	.117	.035	.207	.112	.034	.198	.108	.033	.189	.104	.032	
4.0	.210	.109	.032	.205	.107	.032	.196	.104	.031	.187	.100	.030	.179	.097	.030	
5.0	.197	.101	.029	.193	.099	.029	.185	.096	.028	.177	.093	.028	.170	.091	.027	
6.0	.185	.093	.027	.181	.092	.026	.174	.089	.026	.167	.087	.026	.161	.085	.025	
7.0	.175	.086	.024	.171	.085	.024	.164	.083	.024	.158	.081	.024	.152	.079	.023	
8.0	.165	.081	.023	.162	.080	.022	.156	.078	.022	.150	.076	.022	.145	.074	.022	
9.0	.156	.075	.021	.153	.075	.021	.148	.073	.021	.142	.071	.020	.138	.070	.020	
10.0	.148	.071	.020	.145	.070	.020	.140	.069	.019	.136	.067	.019	.131	.066	.019	

$\rho_{cc}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	20%			20%			20%			20%			20%			0
<b>RCR</b>	<b>RCR:Room Cavity Ratio</b>						<b>Ceiling Cavity Exitance Coefficients(CCEC)</b>									
0.0	.203	.203	.203	.174	.174	.174	.118	.118	.118	.068	.068	.068	.022	.022	.022	
1.0	.189	.169	.152	.161	.145	.131	.110	.100	.091	.064	.058	.053	.020	.019	.017	
2.0	.178	.145	.117	.152	.125	.102	.104	.086	.071	.060	.050	.042	.019	.016	.014	
3.0	.168	.127	.094	.144	.109	.081	.099	.076	.057	.057	.044	.034	.018	.014	.011	
4.0	.160	.113	.077	.137	.098	.067	.095	.068	.047	.055	.040	.028	.018	.013	.009	
5.0	.153	.102	.065	.131	.088	.057	.090	.062	.040	.052	.036	.024	.017	.012	.008	
6.0	.146	.094	.056	.125	.081	.049	.086	.057	.035	.050	.033	.021	.016	.011	.007	
7.0	.139	.087	.050	.120	.075	.043	.083	.053	.031	.048	.031	.018	.016	.010	.006	
8.0	.133	.081	.044	.115	.070	.039	.079	.049	.028	.046	.029	.016	.015	.010	.005	
9.0	.128	.076	.040	.110	.066	.035	.076	.046	.025	.044	.027	.015	.014	.009	.005	
10.0	.123	.071	.037	.106	.062	.033	.073	.044	.023	.043	.026	.014	.014	.008	.005	

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2021-08-26

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.269  
 Humidity:65.0%  
 Test Distance:6.242m [K=1.0000]  
 Remarks:

**Uncorrected UGR Table**

Test:U:220.7V I:0.4690A P:100.6W PF:0.9710 Lamp Flux:15941.8x1 lm		
NAME: 100W	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:027
MFR.: 100W	SUR.:	PROTECTION 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
<b>Room dimensions</b>	<b>Viewed crosswise</b>					<b>Viewed endwise</b>				
<b>x = 2H y = 2H</b>	23.3	24.6	23.6	24.8	25.1	22.9	24.2	23.2	24.4	24.6
3H	23.9	25.1	24.2	25.3	25.6	23.4	24.6	23.7	24.8	25.1
4H	24.1	25.2	24.4	25.5	25.8	23.5	24.7	23.9	24.9	25.2
6H	24.2	25.2	24.5	25.5	25.8	23.6	24.6	23.9	24.9	25.2
8H	24.2	25.2	24.5	25.5	25.8	23.6	24.6	23.9	24.9	25.2
12H	24.1	25.1	24.5	25.4	25.7	23.5	24.5	23.9	24.8	25.1
<b>4H 2H</b>	23.5	24.6	23.8	24.9	25.2	23.1	24.2	23.4	24.5	24.8
3H	24.2	25.2	24.6	25.5	25.8	23.8	24.7	24.1	25.0	25.4
4H	24.5	25.4	24.9	25.7	26.1	24.0	24.9	24.4	25.2	25.6
6H	24.6	25.4	25.1	25.8	26.2	24.1	24.9	24.5	25.2	25.6
8H	24.7	25.4	25.1	25.8	26.2	24.1	24.8	24.5	25.2	25.6
12H	24.6	25.3	25.1	25.7	26.1	24.0	24.7	24.5	25.1	25.5
<b>8H 4H</b>	24.5	25.2	24.9	25.6	26.0	24.0	24.7	24.5	25.1	25.6
6H	24.7	25.3	25.2	25.7	26.2	24.2	24.8	24.7	25.2	25.7
8H	24.8	25.3	25.2	25.7	26.2	24.2	24.7	24.7	25.2	25.6
12H	24.7	25.2	25.2	25.7	26.2	24.1	24.6	24.6	25.1	25.6
<b>12H 4H</b>	24.5	25.1	24.9	25.5	26.0	24.0	24.7	24.5	25.1	25.5
6H	24.7	25.2	25.2	25.7	26.1	24.2	24.7	24.7	25.1	25.6
8H	24.7	25.2	25.2	25.7	26.2	24.2	24.6	24.7	25.1	25.6
<b>Variations with the observer position at spacings:</b>										
<b>S = 1.0H</b>	+ 0.6 / - 0.8					+ 0.7 / - 0.9				
1.5H	+ 0.6 / - 0.5					+ 0.6 / - 0.6				
2.0H	+ 1.4 / - 1.2					+ 1.4 / - 1.1				

CIE Pub.117 Corrected 15942 lm Total Lamp Luminous Flux.(8log(F/F0) = 9.6)

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2021-08-26

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.269  
 Humidity:65.0%  
 Test Distance:6.242m [K=1.0000]  
 Remarks:

**UTILIZATION FACTORS TABLE**

Test:U:220.7V I:0.4690A P:100.6W PF:0.9710 Lamp Flux:15941.8x1 lm		
NAME: 100W	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:027
MFR.: 100W	SUR.:	PROTECTION ANGLE:

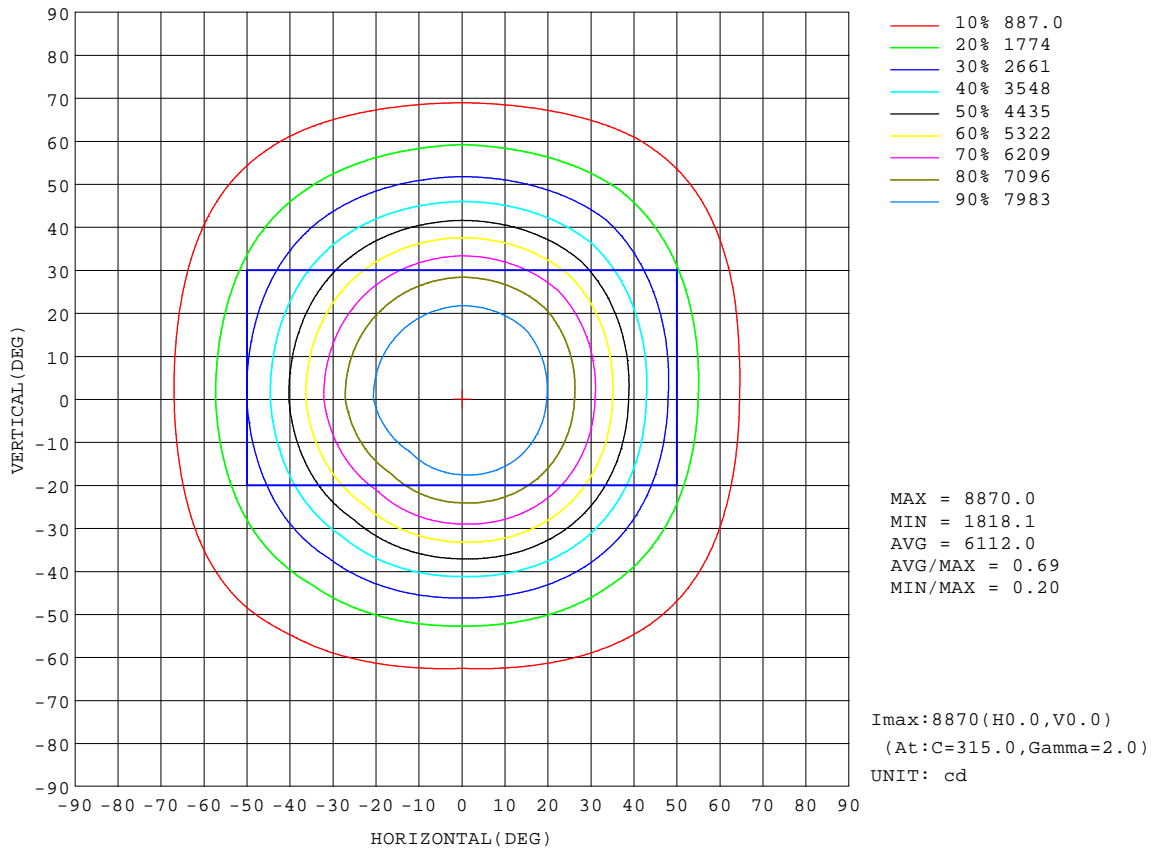
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
<b>ROOM INDEX</b>	<b>UTILIZATION FACTORS(PERCENT) <math>k(RI) \times RCR = 5</math></b>									
<b>k = 0.60</b>	68	58	52	67	58	52	66	57	52	46
<b>0.80</b>	77	68	62	76	67	62	75	67	61	55
<b>1.00</b>	85	76	70	84	75	70	82	76	69	63
<b>1.25</b>	91	83	77	90	82	77	87	80	76	69
<b>1.50</b>	95	87	82	94	86	81	91	85	80	74
<b>2.00</b>	100	94	89	99	93	88	95	90	86	79
<b>2.50</b>	103	97	93	101	96	92	98	93	90	82
<b>3.00</b>	106	101	96	104	99	95	100	96	93	85
<b>4.00</b>	109	105	101	107	103	100	102	99	97	88
<b>5.00</b>	111	107	104	108	105	102	104	101	99	90
<b>ROOM INDEX</b>	<b>UF(total)</b>									<b>Direct</b>
<b>According to DIN EN 13032-2 2004</b>			<b>Suspended</b>					<b>SHRNOM = 1.25</b>		

**C Range: 0 - 360DEG**  
**C Interval: 45.0DEG**  
**Test Speed: HIGH**  
**Temperature:25.3DEG**  
**Operators:DAMIN**  
**Test Date:2021-08-26**

**$\gamma$  Range: 0 - 180DEG**  
 **$\gamma$  Interval: 1.0DEG**  
**Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.269**  
**Humidity:65.0%**  
**Test Distance:6.242m [K=1.0000]**  
**Remarks:**

**ISOCANDELA DIAGRAM**

Test:U:220.7V I:0.4690A P:100.6W PF:0.9710 Lamp Flux:15941.8x1 lm		
NAME: 100W	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:027
MFR.: 100W	SUR.:	PROTECTION ANGLE:



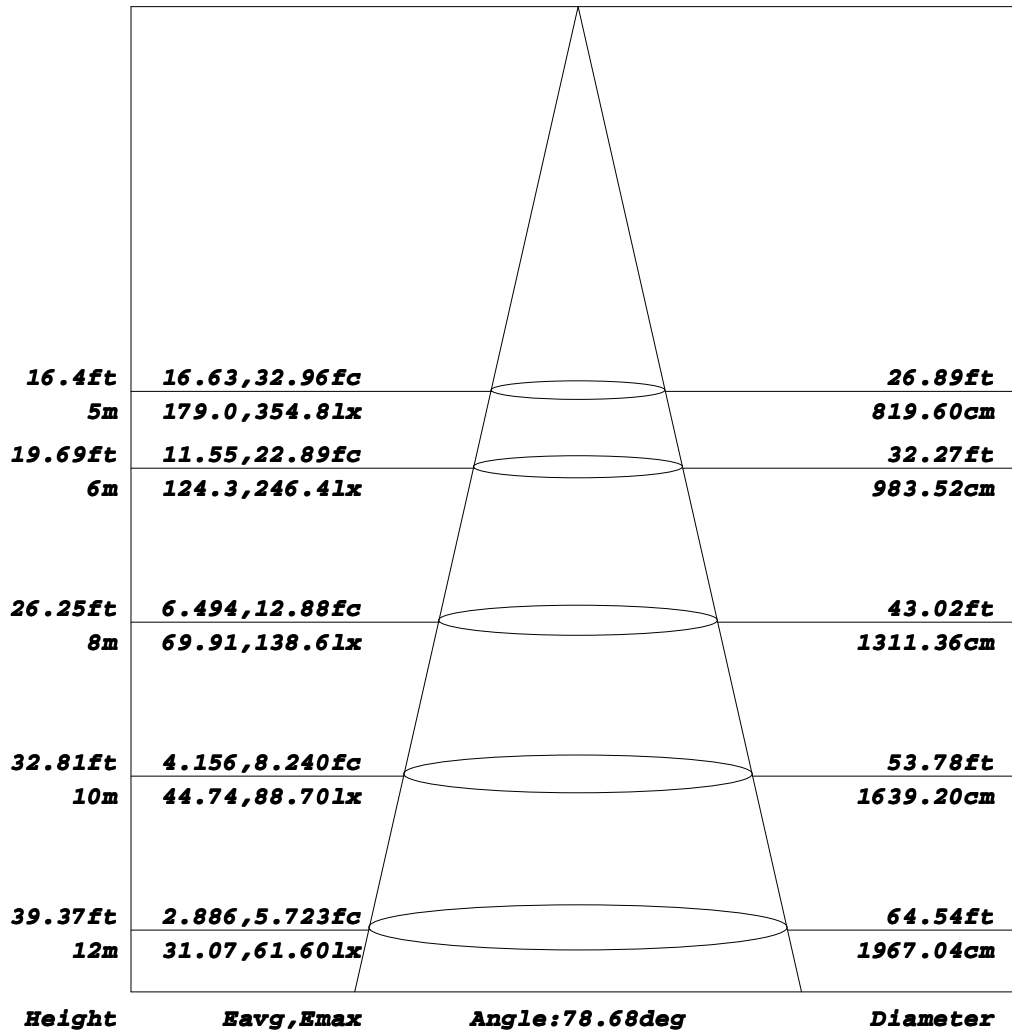
**C Range: 0 - 360DEG**  
**C Interval: 45.0DEG**  
**Test Speed: HIGH**  
**Temperature:25.3DEG**  
**Operators:DAMIN**  
**Test Date:2021-08-26**

**γ Range: 0 - 180DEG**  
**γ Interval: 1.0DEG**  
**Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.269**  
**Humidity:65.0%**  
**Test Distance:6.242m [K=1.0000]**  
**Remarks:**

**AAI Figure**

Test:U:220.7V I:0.4690A P:100.6W PF:0.9710 Lamp Flux:15941.8x1 lm		
NAME: 100W	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:027
MFR.: 100W	SUR.:	PROTECTION ANGLE:

**Flux out:9896 lm**



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

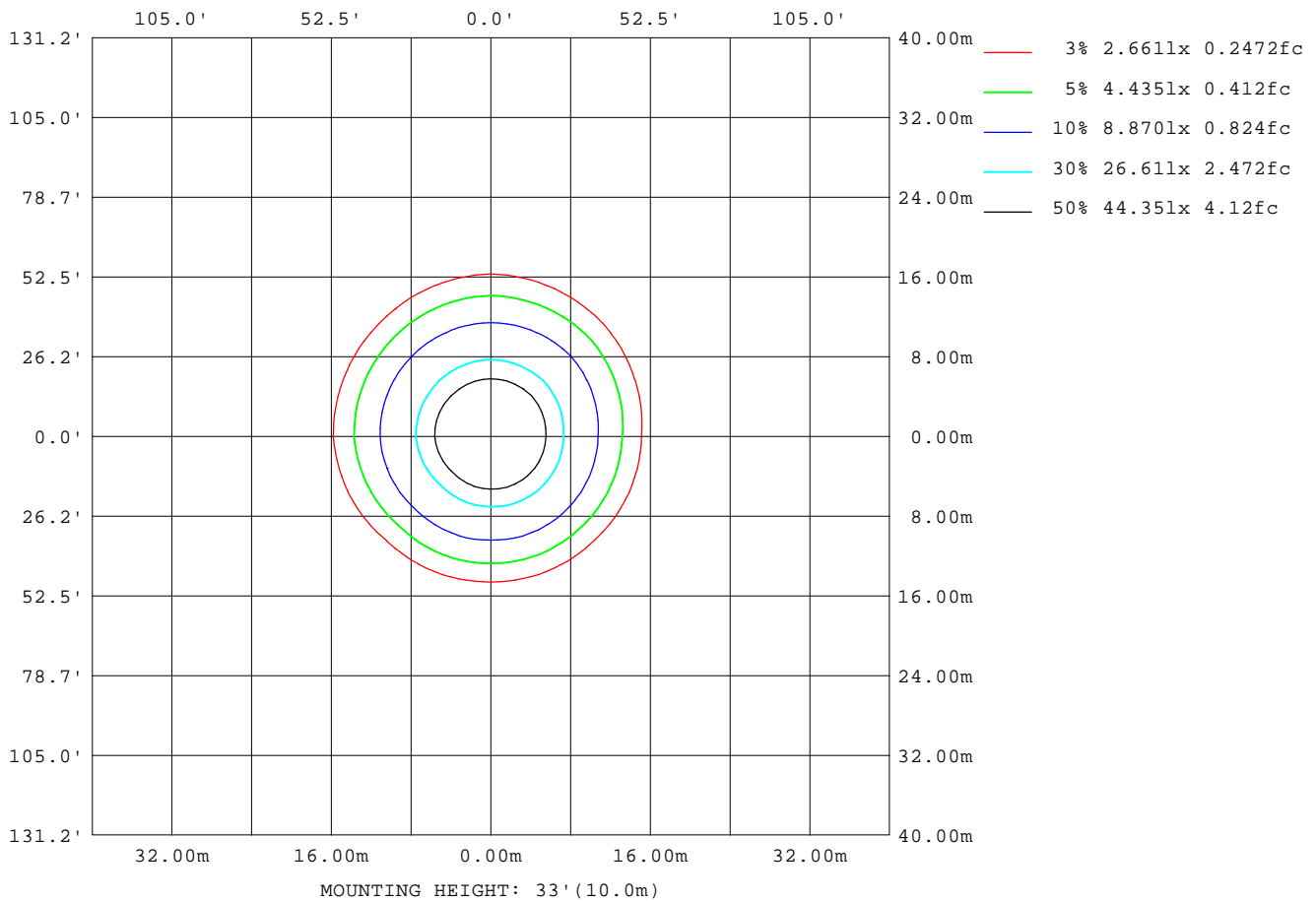
**C Range: 0 - 360DEG**  
**C Interval: 45.0DEG**  
**Test Speed: HIGH**  
**Temperature:25.3DEG**  
**Operators:DAMIN**  
**Test Date:2021-08-26**

**γ Range: 0 - 180DEG**  
**γ Interval: 1.0DEG**  
**Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.269**  
**Humidity:65.0%**  
**Test Distance:6.242m [K=1.0000]**  
**Remarks:**



**ISOLUX DIAGRAM**

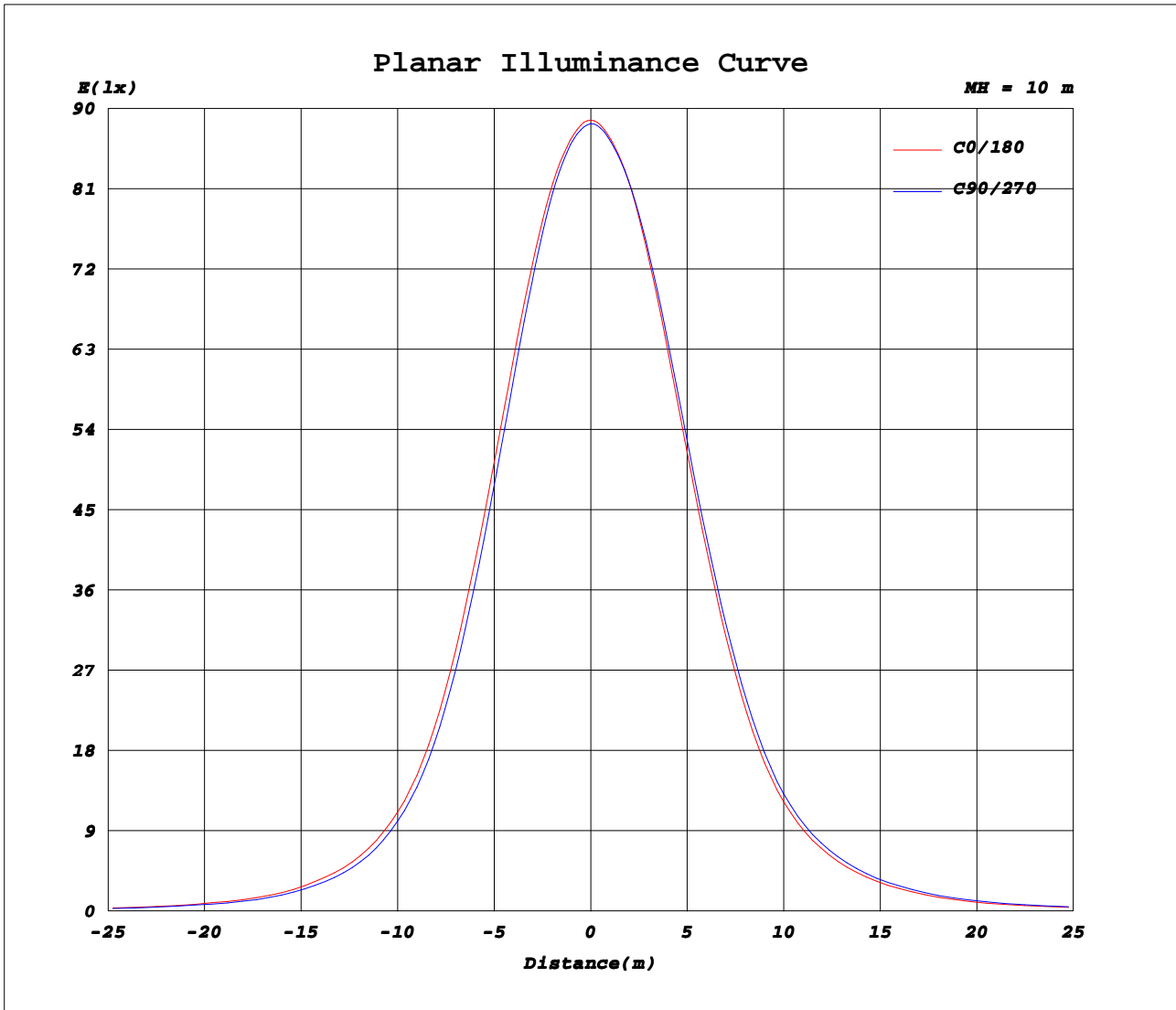
Test:U:220.7V I:0.4690A P:100.6W PF:0.9710 Lamp Flux:15941.8x1 lm		
NAME: 100W	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:027
MFR.: 100W	SUR.:	PROTECTION ANGLE:



**C Range: 0 - 360DEG**  
**C Interval: 45.0DEG**  
**Test Speed: HIGH**  
**Temperature: 25.3DEG**  
**Operators: DAMIN**  
**Test Date: 2021-08-26**

**γ Range: 0 - 180DEG**  
**γ Interval: 1.0DEG**  
**Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.269**  
**Humidity: 65.0%**  
**Test Distance: 6.242m [K=1.0000]**  
**Remarks:**

**Planar Illuminance Curve**



**C Range: 0 - 360DEG**  
**C Interval: 45.0DEG**  
**Test Speed: HIGH**  
**Temperature: 25.3DEG**  
**Operators: DAMIN**  
**Test Date: 2021-08-26**

**γ Range: 0 - 180DEG**  
**γ Interval: 1.0DEG**  
**Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.269**  
**Humidity: 65.0%**  
**Test Distance: 6.242m [K=1.0000]**  
**Remarks:**

**LUMINOUS DISTRIBUTION INTENSITY DATA**

Test:U:220.7V I:0.4690A P:100.6W PF:0.9710 Lamp Flux:15941.8x1 lm		
NAME: 100W	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:027
MFR.: 100W	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C(DEG)\γ (DEG)	0	45	90	135	180	225	270	315											
0	8838	8838	8838	8838	8838	8838	8838	8838											
5	8780	8776	8767	8762	8781	8775	8794	8817											
10	8651	8630	8595	8583	8672	8675	8702	8726											
15	8386	8329	8251	8224	8428	8455	8518	8550											
20	7925	7831	7701	7673	8015	8071	8160	8187											
25	7256	7126	6954	6923	7393	7480	7602	7633											
30	6381	6224	6019	5982	6580	6695	6824	6843											
35	5301	5134	4926	4895	5590	5735	5874	5862											
40	4134	3988	3800	3829	4473	4649	4783	4753											
45	3138	2998	2870	2928	3455	3623	3726	3707											
50	2346	2194	2097	2213	2662	2811	2900	2882											
55	1760	1562	1535	1593	2026	2117	2239	2168											
60	1206	1103	1045	1125	1473	1551	1673	1572											
65	850	817	764	827	1007	1124	1145	1118											
70	586	528	505	537	730	799	832	794											
75	358	314	297	318	478	536	561	520											
80	185	153	135	155	269	309	335	306											
85	30.5	12.8	11.6	14.8	107	145	160	147											
90	12.8	13.4	13.8	13.6	16.5	16.9	21.0	16.6											
95	15.7	16.4	16.9	16.7	19.7	18.9	18.5	18.8											
100	19.2	20.0	20.6	20.3	23.6	22.7	22.2	22.5											
105	23.2	24.1	24.7	24.5	27.9	27.0	26.3	26.6											
110	27.6	28.5	29.2	29.1	32.6	31.6	31.0	31.2											
115	32.2	33.2	33.9	33.8	37.5	36.4	35.6	36.0											
120	37.1	38.0	38.8	38.8	42.4	41.4	40.7	41.0											
125	42.1	43.0	43.8	43.8	47.5	46.4	45.8	46.0											
130	47.0	47.9	48.7	48.7	52.4	51.3	50.8	51.0											
135	51.9	52.7	53.5	53.5	57.1	56.1	55.6	55.8											
140	56.5	57.3	58.1	58.1	61.5	60.5	60.1	60.3											
145	60.9	61.6	62.3	62.3	65.3	64.4	64.0	64.3											
150	64.9	65.6	66.1	66.1	68.8	67.8	67.5	67.8											
155	68.8	69.4	69.8	69.8	71.8	70.8	70.6	71.0											
160	72.5	73.0	73.4	73.3	74.6	73.7	73.5	73.8											
165	76.0	76.4	76.6	76.7	77.1	76.3	76.2	76.4											
170	78.9	79.3	79.3	79.3	79.4	78.6	78.6	78.7											
175	80.9	81.1	81.0	81.2	81.2	80.5	80.6	80.6											
180	81.7	81.7	81.5	81.7	82.0	81.5	81.7	81.5											

**C Range: 0 - 360DEG**  
**C Interval: 45.0DEG**  
**Test Speed: HIGH**  
**Temperature:25.3DEG**  
**Operators:DAMIN**  
**Test Date:2021-08-26**

**γ Range: 0 - 180DEG**  
**γ Interval: 1.0DEG**  
**Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.269**  
**Humidity:65.0%**  
**Test Distance:6.242m [K=1.0000]**  
**Remarks:**