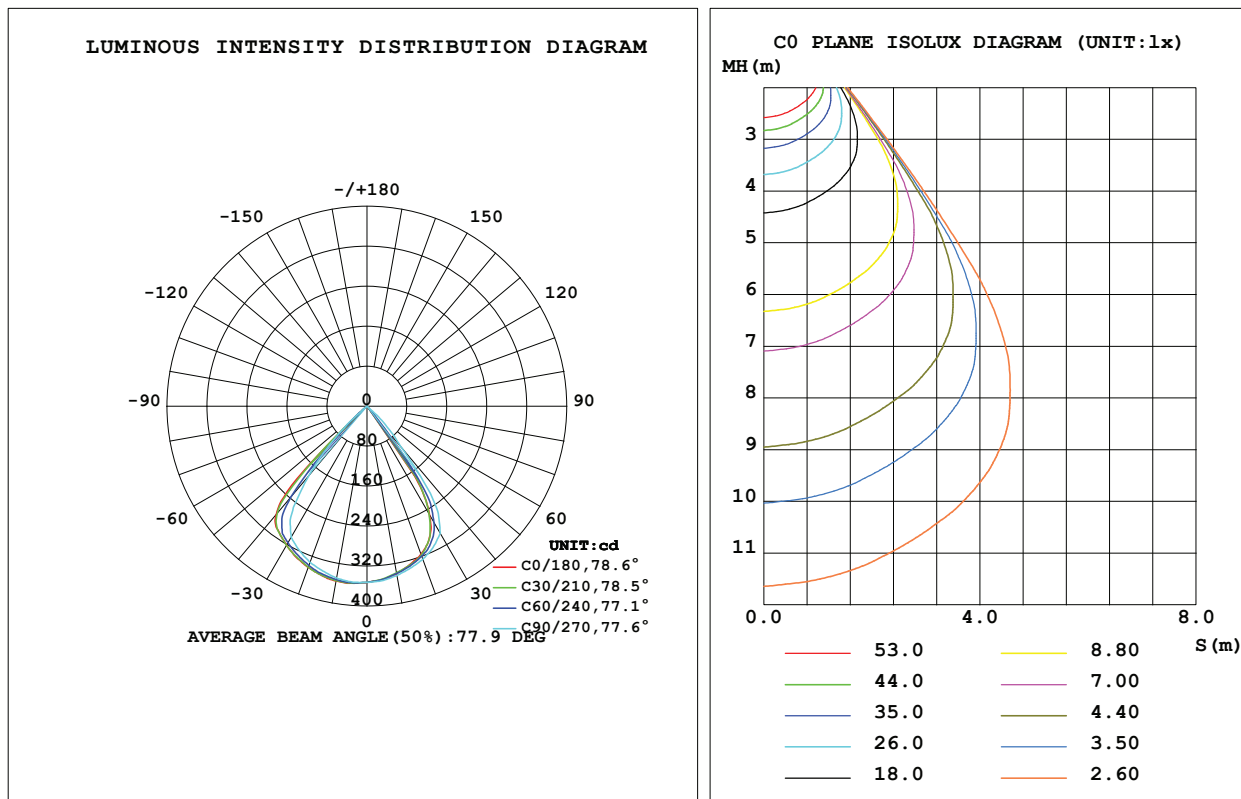


# LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: PW030026-SDG	TYPE:LED	WEIGHT:0.806 (Kg)
DIM.: 195*160*270	SPEC.:	SERIAL No.:
MFR.:	SUR.:f55	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 76.06 lm/W			
MODEL		I <sub>max</sub> (cd)	356.3	S/MH (C0/180)	0.99
NOMINAL POWER (W)	6	LOR (%)	100.0	S/MH (C90/270)	1.09
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	457.75	η UP,DN (C0-180)	0.0, 47.8
NOMINAL FLUX (lm)	457.753	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0, 52.2
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE (V)	219.2	η down (%)	100.0	CIBSE SHR MAX	0.80



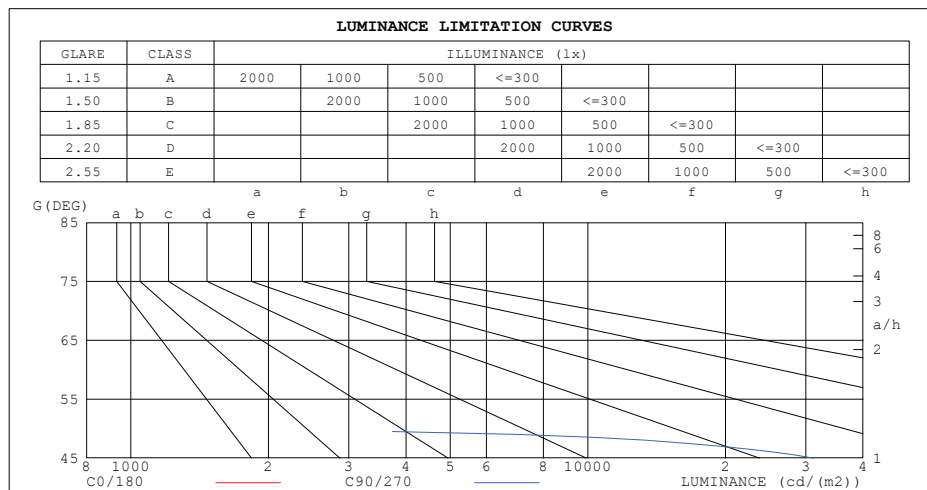
C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: ZENGQG  
Test Date: 2019-11-10

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
Humidity: 65.0%  
Test Distance: 9.650m [K=1.0000]  
Remarks:

# **ZONAL FLUX DIAGRAM AND LUMINANCE LIMITATION CURVES**

## **ZONAL FLUX DIAGRAM:**

y	C0	C45	C90	C135	C180	C225	C270	C315	y	Φ zone	Φ total	%lum,lamp
5	348.3	347.6	350.2	352.8	355.3	355.1	353.0	349.0	0- 5	8.413	8.413	1.84,1.84
10	340.7	339.2	343.9	350.4	355.2	353.3	349.4	342.4	5- 10	24.97	33.39	7.29,7.29
15	328.7	330.9	335.6	344.1	350.5	349.3	341.5	333.1	10- 15	40.69	74.07	16.2,16.2
20	315.9	317.9	326.4	335.9	343.3	341.4	332.7	321.7	15- 20	55.12	129.2	28.2,28.2
25	294.2	298.1	312.3	324.7	334.4	331.3	319.3	304.0	20- 25	67.56	196.8	43,43
30	249.6	257.0	293.4	312.0	321.5	319.2	303.5	269.7	25- 30	76.77	273.5	59.8,59.8
35	154.8	163.4	234.7	293.0	307.5	303.7	262.9	194.8	30- 35	79.18	352.7	77.1,77.1
40	4.440	10.33	104.0	229.5	282.0	263.8	179.6	10.40	35- 40	62.11	414.8	90.6,90.6
45	0.7665	1.201	52.28	26.88	140.2	106.4	90.17	1.031	40- 45	34.80	449.6	98.2,98.2
50	0.4679	0.4851	0.5872	0.7498	2.491	1.099	0.7638	0.5229	45- 50	7.229	456.8	99.8,99.8
55	0.3390	0.3683	0.4416	0.4947	0.6108	0.6454	0.5776	0.3833	50- 55	0.4320	457.3	99.9,99.9
60	0.2865	0.2780	0.2960	0.3288	0.4201	0.4276	0.3915	0.2985	55- 60	0.1874	457.5	99.9,99.9
65	0.2531	0.2251	0	0.2651	0.3342	0.3481	0	0.2646	60- 65	0.1221	457.6	100,100
70	0.2339	0	0	0	0.2816	0	0	0	65- 70	0.0725	457.7	100,100
75	0.2005	0	0	0	0.2435	0	0	0	70- 75	0.0470	457.7	100,100
80	0.1767	0	0	0	0.2148	0	0	0	75- 80	0.0296	457.7	100,100
85	0.1624	0	0	0	0.1910	0	0	0	80- 85	0.0158	457.7	100,100
90	0.1623	0	0	0	0.1741	0	0	0	85- 90	0.0051	457.8	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:cd									UNIT:lm		



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	784	0
80	428	0
75	326	0
70	288	0
65	252	0
60	241	249
55	249	324
50	307	385
45	456	31130

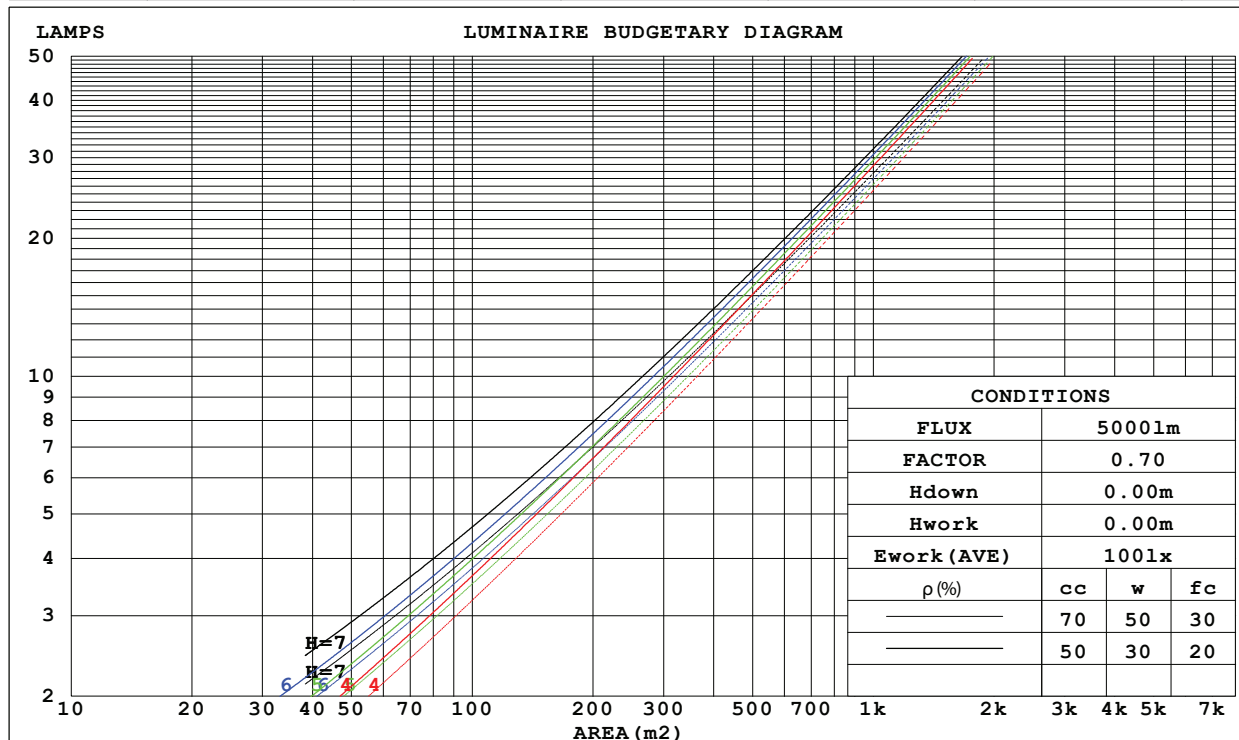
**C Range:** 0 - 360DEG  
**C Interval:** 5.0DEG  
**Test Speed:** HIGH  
**Temperature:** 25.3DEG  
**Operators:** ZENGQG  
**Test Date:** 2019-11-10

**γ Range:** 0 - 90DEG  
**γ Interval:** 0.5DEG  
**Test System:** EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
**Humidity:** 65.0%  
**Test Distance:** 9.650m [K=1.0000]  
**Remarks:**

### CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: PW030026-SDG	TYPE:LED	WEIGHT:0.806 (Kg)
DIM.: 195*160*270	SPEC.:	SERIAL No.:
MFR.:	SUR.:f55	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
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	1.10	1.08	1.05	1.08	1.06	1.04	1.04	1.02	1.01	1.00	.99	.97	.97	.96	.95	.93
2.0	1.02	.98	.94	1.00	.96	.93	.97	.94	.91	.94	.91	.89	.91	.89	.87	.86
3.0	.94	.89	.85	.93	.88	.84	.90	.86	.83	.88	.85	.82	.86	.83	.80	.79
4.0	.88	.82	.77	.86	.81	.77	.84	.80	.76	.82	.78	.75	.80	.77	.74	.72
5.0	.81	.75	.70	.80	.75	.70	.79	.73	.70	.77	.72	.69	.75	.71	.68	.67
6.0	.76	.69	.65	.75	.69	.64	.73	.68	.64	.72	.67	.63	.70	.66	.63	.62
7.0	.70	.64	.59	.70	.64	.59	.68	.63	.59	.67	.62	.59	.66	.62	.58	.57
8.0	.66	.59	.55	.65	.59	.55	.64	.58	.55	.63	.58	.54	.62	.57	.54	.53
9.0	.62	.55	.51	.61	.55	.51	.60	.54	.51	.59	.54	.50	.58	.54	.50	.49
10.0	.58	.51	.47	.57	.51	.47	.56	.51	.47	.56	.50	.47	.55	.50	.47	.45



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: ZENGQG  
Test Date: 2019-11-10

```

y Range: 0 - 90DEG
y Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity: 65.0%
Test Distance: 9.650m [K=1.0000]
Remarks:

```

**WEC AND CCEC**

NAME: PW030026-SDG	TYPE:LED	WEIGHT:0.806 (Kg)
DIM.: 195*160*270	SPEC.:	SERIAL No.:
MFR.:	SUR.:f55	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
RCR	RCR:Room Cavity Ratio			Wall Exitance Coefficients (WEC)												
0.0																
1.0	.186	.106	.034	.180	.103	.033	.167	.096	.031	.155	.090	.029	.145	.084	.027	
2.0	.180	.099	.030	.175	.096	.030	.164	.091	.028	.154	.086	.027	.145	.082	.026	
3.0	.173	.092	.028	.168	.090	.027	.159	.086	.026	.151	.082	.025	.143	.079	.024	
4.0	.166	.086	.025	.162	.085	.025	.154	.081	.024	.146	.078	.024	.139	.076	.023	
5.0	.159	.081	.023	.155	.080	.023	.148	.077	.023	.142	.075	.022	.135	.072	.022	
6.0	.152	.076	.022	.149	.075	.022	.143	.073	.021	.137	.071	.021	.131	.069	.021	
7.0	.146	.072	.020	.143	.071	.020	.137	.069	.020	.132	.068	.020	.127	.066	.019	
8.0	.140	.068	.019	.137	.067	.019	.132	.066	.019	.127	.065	.019	.123	.063	.018	
9.0	.134	.065	.018	.131	.064	.018	.127	.063	.018	.123	.062	.018	.119	.060	.017	
10.0	.128	.062	.017	.126	.061	.017	.122	.060	.017	.118	.059	.017	.115	.058	.017	

$\rho_{cc}$	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
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	.172	.157	.144	.147	.135	.124	.101	.093	.086	.058	.054	.050	.019	.017	.016	
2.0	.157	.132	.111	.135	.114	.096	.092	.079	.067	.053	.046	.039	.017	.015	.013	
3.0	.146	.114	.088	.125	.098	.076	.086	.068	.054	.050	.040	.032	.016	.013	.010	
4.0	.136	.099	.071	.117	.086	.061	.080	.060	.043	.047	.035	.026	.015	.011	.008	
5.0	.128	.088	.058	.110	.076	.050	.076	.053	.036	.044	.031	.021	.014	.010	.007	
6.0	.121	.079	.048	.104	.068	.042	.072	.048	.030	.042	.028	.018	.013	.009	.006	
7.0	.115	.071	.040	.099	.062	.035	.069	.043	.025	.040	.026	.015	.013	.008	.005	
8.0	.110	.065	.035	.095	.057	.030	.065	.040	.021	.038	.023	.013	.012	.008	.004	
9.0	.105	.060	.030	.090	.052	.026	.063	.037	.019	.037	.022	.011	.012	.007	.004	
10.0	.101	.056	.026	.087	.049	.023	.060	.034	.016	.035	.020	.010	.011	.007	.003	

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:ZENGQG  
Test Date:2019-11-10

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
Humidity:65.0%  
Test Distance:9.650m [K=1.0000]  
Remarks:

### Uncorrected UGR Table

NAME: PW030026-SDG					TYPE:LED		WEIGHT:0.806 (Kg)				
DIM.: 195*160*270					SPEC.:		SERIAL No.:				
MFR.:					SUR.:f55		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	
Room dimensions		Viewed crosswise					Viewed endwise				
x = 2H y = 2H	17.8	18.8	18.0	19.0	19.2	19.3	20.4	19.6	20.5	20.7	
	3H	17.6	18.6	17.9	18.8	19.0	19.1	20.1	19.4	20.3	20.5
	4H	17.5	18.4	17.8	18.6	18.9	19.1	19.9	19.3	20.2	20.4
	6H	17.4	18.3	17.7	18.5	18.8	19.0	19.8	19.3	20.0	20.3
	8H	17.4	18.2	17.7	18.4	18.7	18.9	19.7	19.2	20.0	20.2
	12H	17.3	18.1	17.7	18.4	18.7	18.9	19.6	19.2	19.9	20.2
4H	2H	17.5	18.4	17.8	18.6	18.9	19.1	19.9	19.3	20.2	20.4
	3H	17.3	18.1	17.7	18.4	18.6	18.9	19.6	19.2	19.9	20.2
	4H	17.2	17.9	17.6	18.2	18.5	18.8	19.5	19.1	19.8	20.1
	6H	17.2	17.8	17.5	18.1	18.4	18.7	19.3	19.1	19.6	20.0
	8H	17.1	17.7	17.5	18.0	18.4	18.6	19.2	19.0	19.5	19.9
	12H	17.1	17.6	17.5	17.9	18.3	18.6	19.1	19.0	19.5	19.9
8H	4H	17.1	17.7	17.5	18.0	18.4	18.6	19.2	19.0	19.5	19.9
	6H	17.0	17.5	17.4	17.9	18.3	18.5	19.0	19.0	19.4	19.8
	8H	17.0	17.4	17.4	17.8	18.2	18.5	18.9	18.9	19.3	19.7
	12H	16.9	17.2	17.4	17.7	18.2	18.4	18.8	18.9	19.2	19.7
12H	4H	17.1	17.6	17.5	17.9	18.3	18.6	19.1	19.0	19.5	19.9
	6H	17.0	17.4	17.4	17.8	18.2	18.5	18.9	18.9	19.3	19.7
	8H	16.9	17.2	17.4	17.7	18.2	18.4	18.8	18.9	19.2	19.7
Variations with the observer position at spacings:											
S = 1.0H	+ 6.5 / -14.6					+ 5.1 / -29.6					
1.5H	+ 9.4 / -14.5					+ 7.6 / -28.9					
2.0H	+ 0.6 / - 1.4					+12.0 / -20.4					

CIE Pub.117 Corrected 457.8 lm Total Lamp Luminous Flux. (8log(F/F0) = -2.7)

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:ZENGQG  
Test Date:2019-11-10

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
Humidity:65.0%  
Test Distance:9.650m [K=1.0000]  
Remarks:

### UTILIZATION FACTORS TABLE

NAME: PW030026-SDG	TYPE:LED	WEIGHT:0.806 (Kg)
DIM.: 195*160*270	SPEC.:	SERIAL No.:
MFR.:	SUR.:f55	PROTECTION ANGLE:

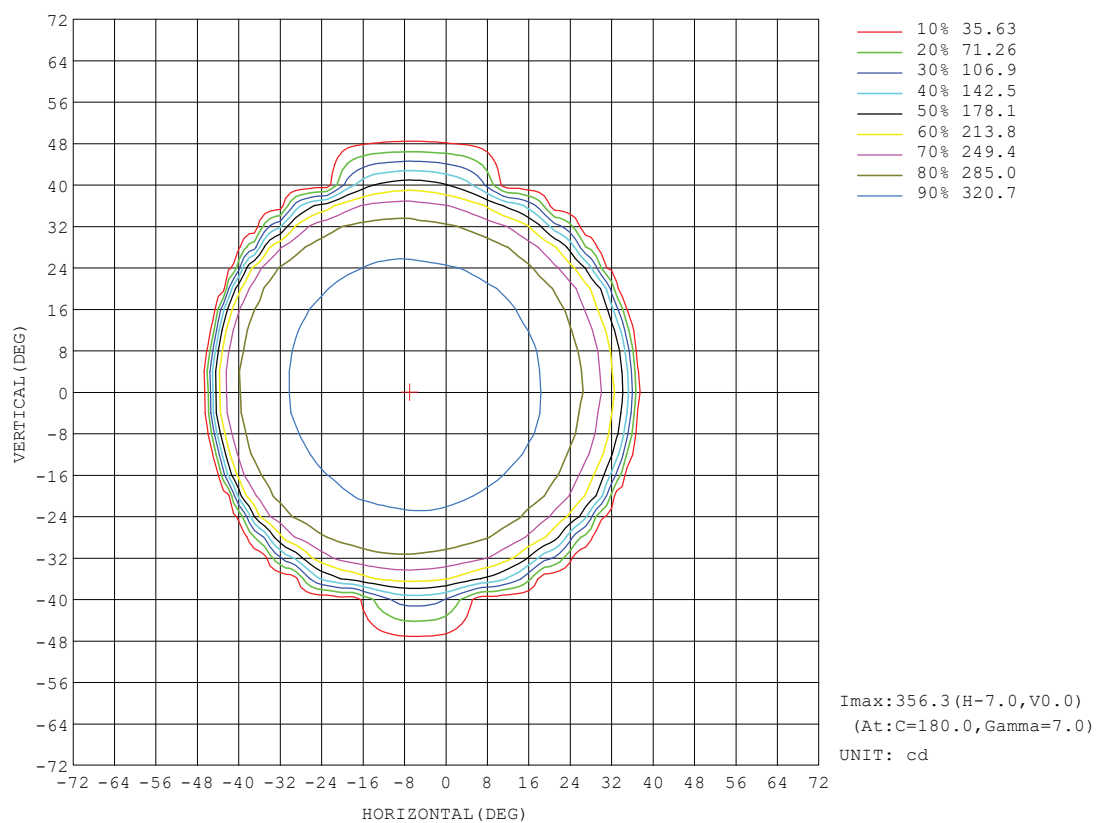
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	86	79	75	85	79	75	84	78	75	71
0.80	94	87	84	93	87	83	92	86	83	79
1.00	98	93	89	98	92	89	96	92	88	84
1.25	103	97	94	102	97	93	100	96	93	88
1.50	105	101	97	104	100	97	102	98	96	91
2.00	108	104	101	107	103	100	104	101	99	93
2.50	110	106	103	108	105	102	105	103	100	94
3.00	112	108	105	110	107	104	106	104	102	96
4.00	114	111	109	112	109	107	108	106	104	97
5.00	115	113	111	113	111	109	109	107	106	98
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:ZENGQG  
Test Date:2019-11-10

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
Humidity:65.0%  
Test Distance:9.650m [K=1.0000]  
Remarks:

# ISOCANDELA DIAGRAM

NAME: PW030026-SDG	TYPE:LED	WEIGHT:0.806 (Kg)
DIM.: 195*160*270	SPEC.:	SERIAL No.:
MFR.:	SUR.:f55	PROTECTION ANGLE:

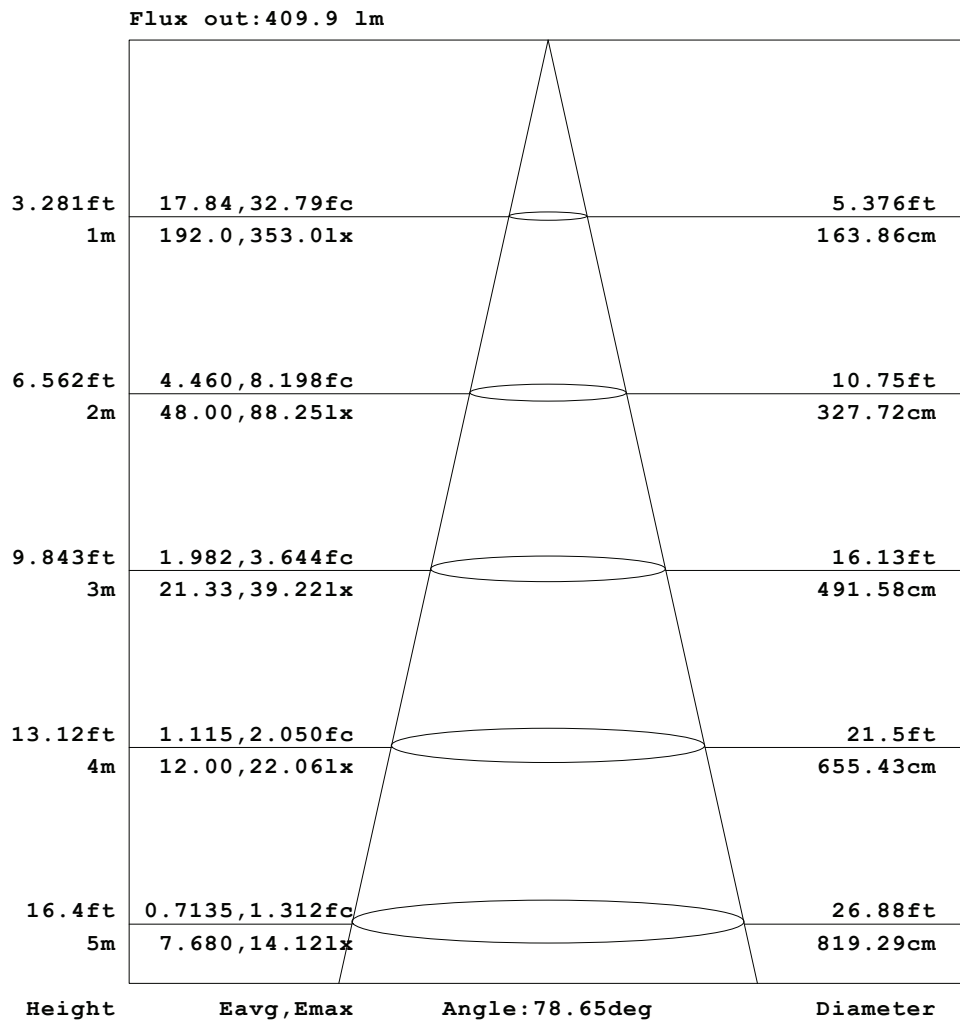


C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:ZENGQG  
Test Date:2019-11-10

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
Humidity:65.0%  
Test Distance:9.650m [K=1.0000]  
Remarks:

**AAI Figure**

NAME: PW030026-SDG	TYPE:LED	WEIGHT:0.806 (Kg)
DIM.: 195*160*270	SPEC.:	SERIAL No.:
MFR.:	SUR.:f55	PROTECTION ANGLE:



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

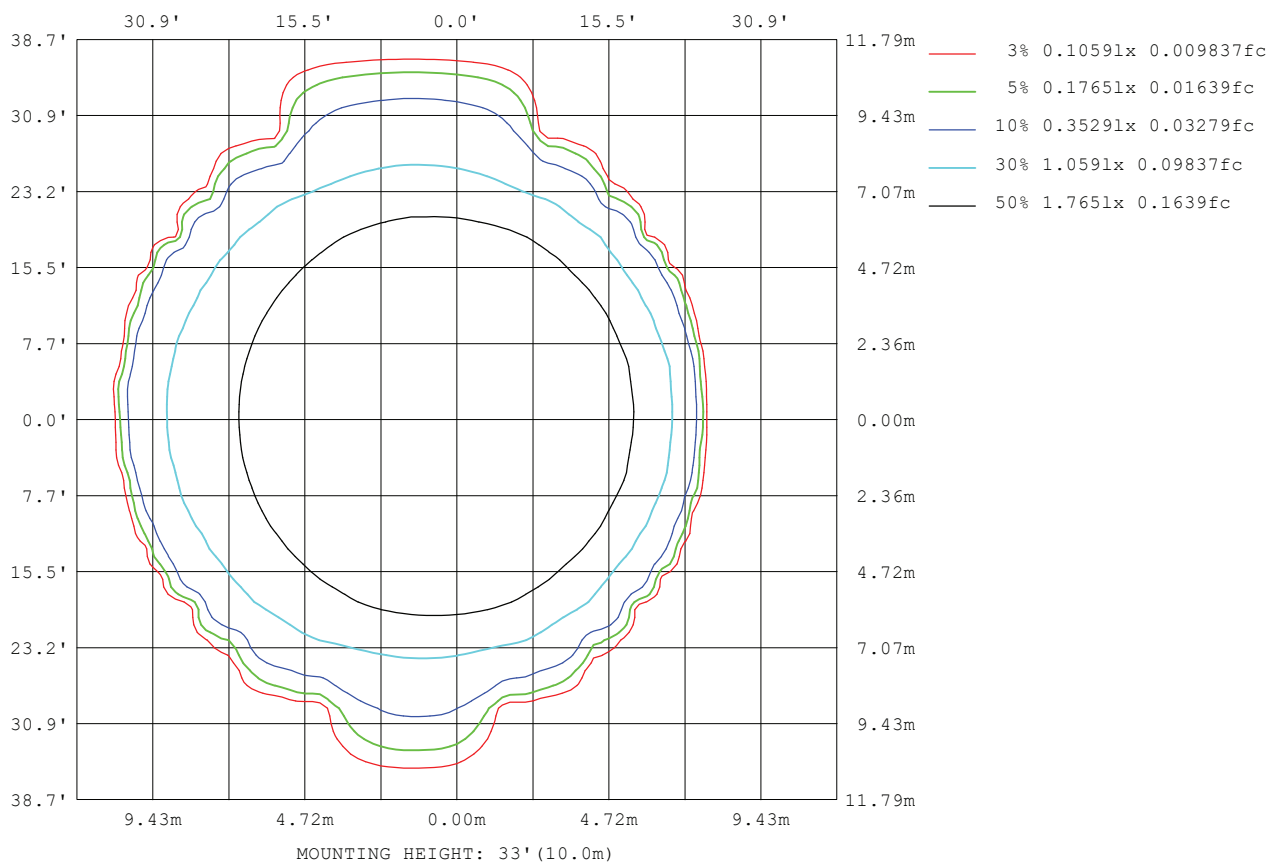
C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: ZENGQ  
Test Date: 2019-11-10

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
Humidity: 65.0%  
Test Distance: 9.650m [K=1.0000]  
Remarks:



### ISOLUX DIAGRAM

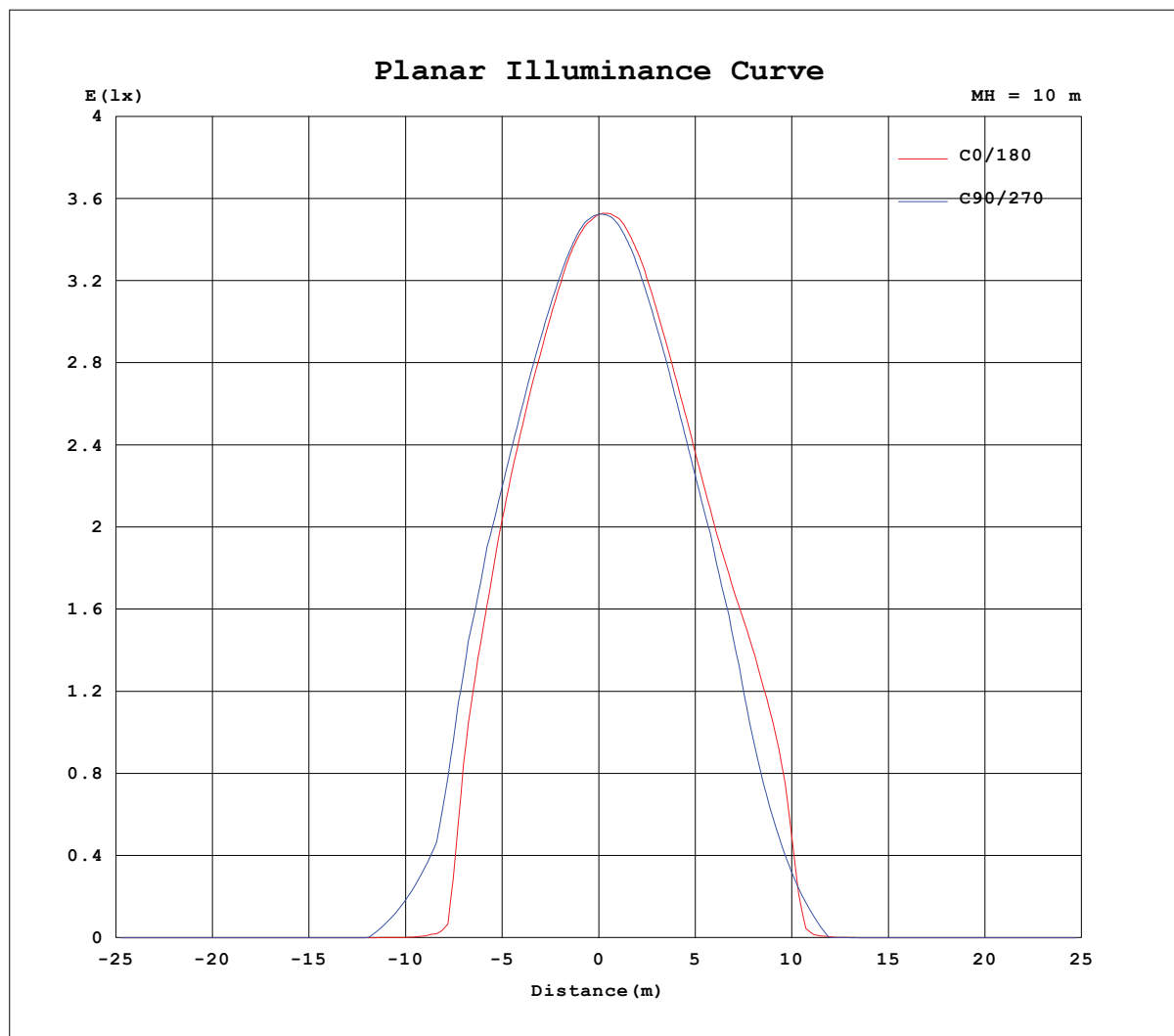
NAME: PW030026-SDG	TYPE:LED	WEIGHT:0.806 (Kg)
DIM.: 195*160*270	SPEC.:	SERIAL No.:
MFR.:	SUR.:f55	PROTECTION ANGLE:



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:ZENGQG  
Test Date:2019-11-10

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
Humidity:65.0%  
Test Distance:9.650m [K=1.0000]  
Remarks:

### Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: ZENGQG  
Test Date: 2019-11-10

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
Humidity: 65.0%  
Test Distance: 9.650m [K=1.0000]  
Remarks: