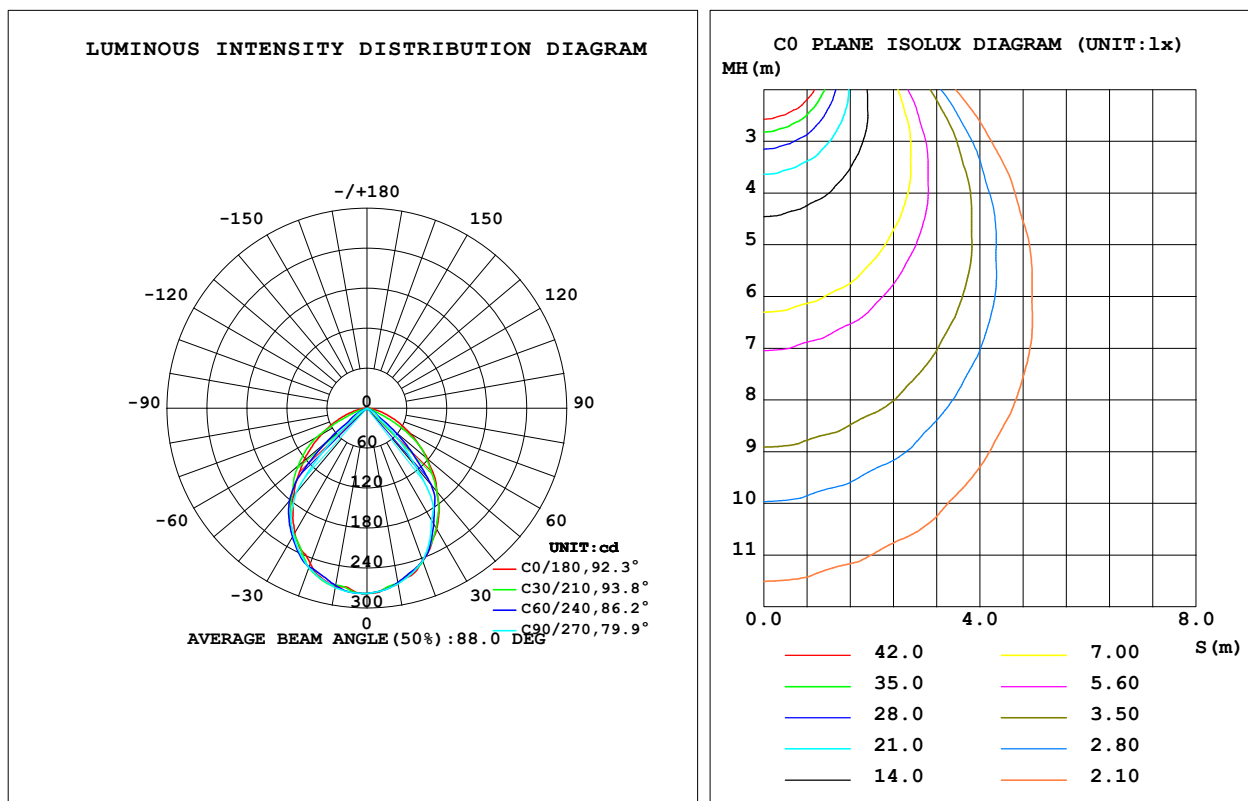


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: PW131232	TYPE:LED	WEIGHT:1.466 (Kg)
DIM.: 700*100*150	SPEC.:	SERIAL No.:
MFR.:	SUR.:540*9	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 33.75 lm/W			
MODEL		I _{max} (cd)	278.2	S/MH (C0/180)	1.14
NOMINAL POWER (W)	16	LOR (%)	100.0	S/MH (C90/270)	1.08
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	511.78	η UP,DN (C0-180)	0.0,47.7
NOMINAL FLUX (lm)	511.779	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0,52.3
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	219.2	η down (%)	100.0	CIBSE SHR MAX	1.30



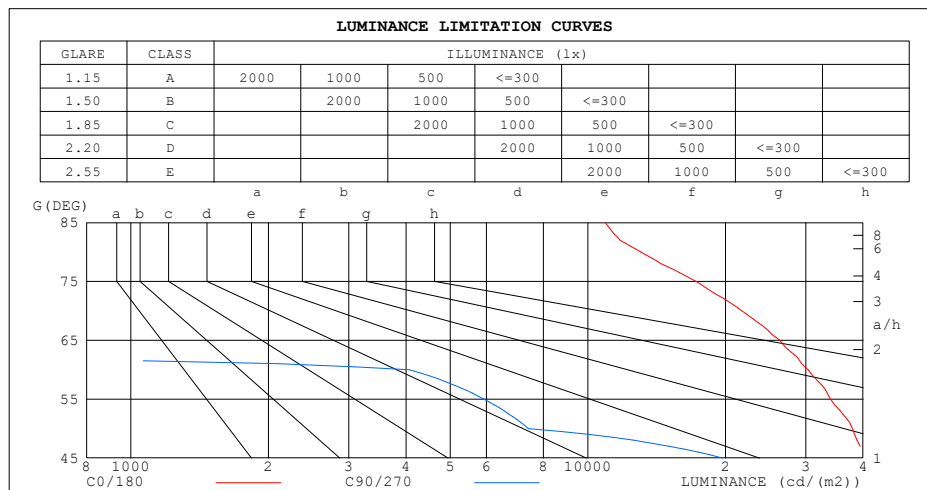
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:ZENGQG
 Test Date:2019-12-02

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	273.6	274.4	274.5	274.1	273.5	276.6	277.5	276.4	0- 5	6.613	6.613	1.29,1.29
10	267.3	264.7	267.7	265.2	272.4	267.7	273.7	268.6	5- 10	19.41	26.02	5.08,5.08
15	259.5	256.6	257.4	260.9	263.8	266.4	265.1	260.2	10- 15	31.39	57.41	11.2,11.2
20	244.2	241.6	244.4	248.5	248.5	254.9	254.9	249.9	15- 20	41.96	99.37	19.4,19.4
25	227.6	228.1	221.9	231.2	234.8	240.7	239.0	235.8	20- 25	50.29	149.7	29.2,29.2
30	209.2	206.2	194.2	210.8	217.1	219.1	220.7	216.3	25- 30	56.10	205.8	40.2,40.2
35	188.9	182.7	170.9	189.4	193.8	199.8	199.0	195.4	30- 35	59.25	265.0	51.8,51.8
40	163.4	158.0	112.2	162.8	171.7	183.3	165.9	179.4	35- 40	59.07	324.1	63.3,63.3
45	142.4	135.6	67.69	140.4	147.8	162.6	98.69	157.4	40- 45	53.98	378.0	73.9,73.9
50	118.5	93.61	23.17	101.5	124.6	130.6	31.52	127.8	45- 50	44.19	422.2	82.5,82.5
55	94.68	53.09	16.53	57.06	101.4	78.67	21.81	78.22	50- 55	32.81	455.0	88.9,88.9
60	73.73	17.70	9.887	18.66	79.03	34.26	12.09	35.19	55- 60	24.04	479.1	93.6,93.6
65	54.07	11.41	0	11.88	59.03	18.94	0	19.23	60- 65	15.83	494.9	96.7,96.7
70	36.10	0	0	0	40.24	0	0	0	65- 70	9.243	504.2	98.5,98.5
75	21.69	0	0	0	24.53	0	0	0	70- 75	4.845	509.0	99.5,99.5
80	11.01	0	0	0	12.41	0	0	0	75- 80	2.068	511.1	99.9,99.9
85	4.619	0	0	0	5.283	0	0	0	80- 85	0.6241	511.7	100,100
90	0.1050	0	0	0	0.0000	0	0	0	85- 90	0.0783	511.8	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	10905	0
80	13050	0
75	17241	0
70	21715	0
65	26324	0
60	30342	4069
55	33963	5929
50	37933	7417
45	41447	19697

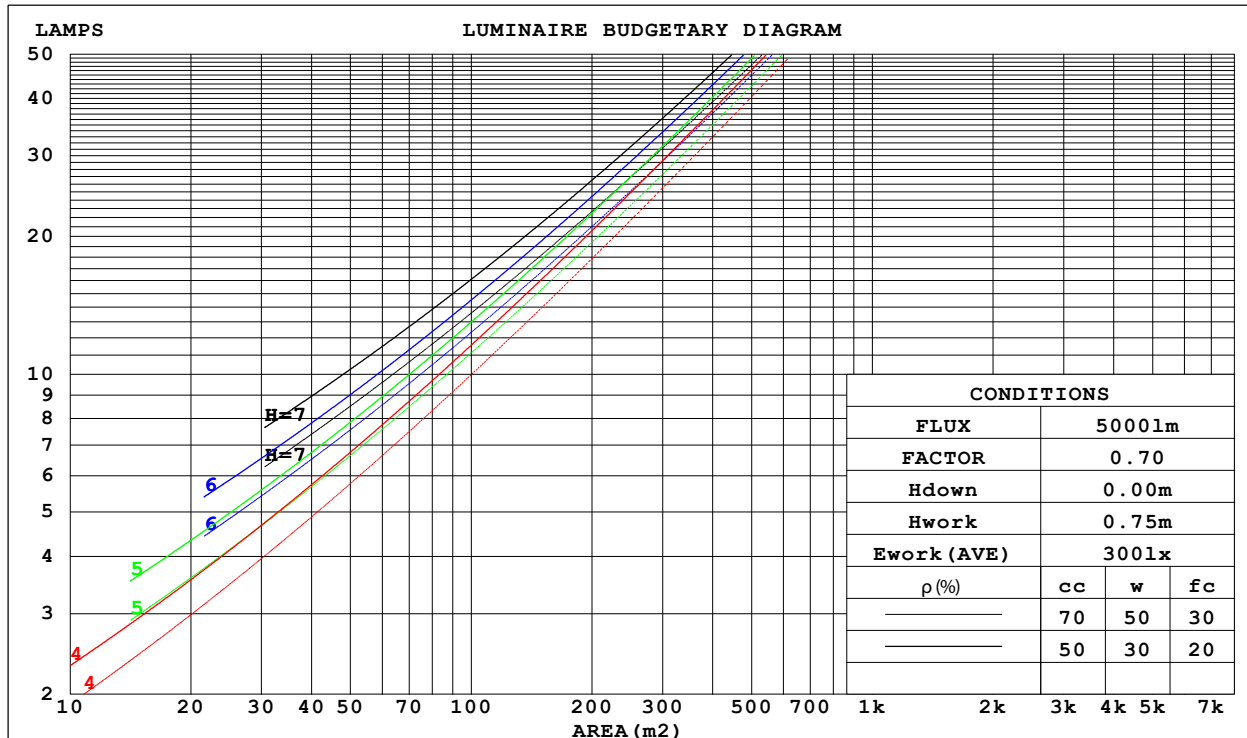
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZENGQG
Test Date:2019-12-02

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: PW131232	TYPE:LED	WEIGHT:1.466 (Kg)
DIM.: 700*100*150	SPEC.:	SERIAL No.:
MFR.:	SUR.:540*9	PROTECTION 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	.00	
1.0	1.08	1.05	1.02	1.06	1.03	1.00	1.02	.99	.97	.98	.96	.94	.94	.93	.91	.89	
2.0	.97	.92	.87	.95	.90	.86	.92	.88	.84	.89	.85	.82	.86	.83	.81	.79	
3.0	.88	.81	.76	.86	.80	.75	.83	.78	.74	.81	.76	.72	.78	.74	.71	.69	
4.0	.79	.72	.66	.78	.71	.66	.76	.70	.65	.73	.68	.64	.71	.67	.63	.61	
5.0	.72	.64	.59	.71	.64	.58	.69	.63	.58	.67	.62	.57	.65	.61	.57	.55	
6.0	.66	.58	.52	.65	.57	.52	.63	.57	.52	.62	.56	.51	.60	.55	.51	.49	
7.0	.60	.52	.47	.59	.52	.47	.58	.51	.47	.57	.51	.46	.55	.50	.46	.44	
8.0	.55	.48	.43	.55	.48	.43	.54	.47	.42	.52	.46	.42	.51	.46	.42	.40	
9.0	.51	.44	.39	.51	.44	.39	.50	.43	.39	.49	.43	.38	.48	.42	.38	.37	
10.0	.48	.40	.36	.47	.40	.36	.46	.40	.35	.45	.39	.35	.44	.39	.35	.34	



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZENGQG
Test Date:2019-12-02

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:

WEC AND CCEC

NAME: PW131232	TYPE:LED	WEIGHT:1.466 (Kg)
DIM.: 700*100*150	SPEC.:	SERIAL No.:
MFR.:	SUR.:540*9	PROTECTION 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						Wall Exitance Coefficients (WEC)									
0.0																
1.0	.233	.133	.042	.226	.129	.041	.213	.122	.039	.201	.116	.037	.191	.110	.036	
2.0	.228	.125	.038	.222	.122	.038	.211	.117	.036	.201	.113	.035	.191	.108	.034	
3.0	.218	.116	.035	.212	.114	.034	.203	.110	.033	.194	.106	.033	.185	.103	.032	
4.0	.206	.107	.032	.202	.106	.031	.193	.102	.031	.185	.099	.030	.178	.097	.029	
5.0	.195	.099	.029	.191	.098	.029	.183	.095	.028	.176	.093	.028	.170	.091	.027	
6.0	.184	.092	.026	.180	.091	.026	.174	.089	.026	.167	.087	.026	.162	.085	.025	
7.0	.174	.086	.024	.171	.085	.024	.165	.083	.024	.159	.082	.024	.154	.080	.023	
8.0	.165	.080	.023	.162	.080	.023	.156	.078	.022	.151	.077	.022	.146	.075	.022	
9.0	.156	.075	.021	.153	.075	.021	.149	.073	.021	.144	.072	.021	.140	.071	.020	
10.0	.148	.071	.020	.146	.070	.020	.141	.069	.020	.137	.068	.019	.133	.067	.019	

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			Ceiling Cavity Exitance Coefficients(CCEC)												
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.175	.157	.140	.150	.135	.121	.102	.093	.084	.059	.054	.049	.019	.017	.016	
2.0	.164	.132	.106	.140	.114	.091	.096	.079	.064	.055	.046	.037	.018	.015	.012	
3.0	.154	.114	.082	.132	.098	.071	.091	.068	.050	.052	.040	.029	.017	.013	.010	
4.0	.146	.100	.065	.126	.086	.056	.086	.060	.040	.050	.035	.023	.016	.011	.008	
5.0	.139	.089	.052	.119	.077	.046	.082	.054	.032	.048	.032	.019	.015	.010	.006	
6.0	.132	.081	.043	.114	.070	.038	.078	.049	.027	.045	.029	.016	.015	.009	.005	
7.0	.126	.073	.037	.108	.064	.032	.075	.045	.023	.044	.026	.013	.014	.009	.004	
8.0	.120	.068	.031	.104	.059	.027	.072	.041	.019	.042	.024	.012	.013	.008	.004	
9.0	.115	.063	.027	.099	.054	.024	.069	.038	.017	.040	.023	.010	.013	.007	.003	
10.0	.110	.058	.024	.095	.051	.021	.066	.036	.015	.038	.021	.009	.012	.007	.003	

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZENGQG
Test Date:2019-12-02

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:

Uncorrected UGR Table

NAME: PW131232					TYPE:LED			WEIGHT:1.466 (Kg)			
DIM.: 700*100*150					SPEC.:			SERIAL No.:			
MFR.:					SUR.:540*9			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	2H	25.0	26.3	25.3	26.5	26.7	19.6	20.9	19.9	21.1	21.3
	3H	26.0	27.1	26.2	27.4	27.6	19.4	20.6	19.7	20.8	21.0
	4H	26.2	27.4	26.5	27.6	27.8	19.3	20.4	19.6	20.7	20.9
	6H	26.4	27.4	26.7	27.7	27.9	19.2	20.2	19.5	20.5	20.8
	8H	26.4	27.4	26.7	27.7	27.9	19.2	20.2	19.5	20.4	20.7
	12H	26.4	27.4	26.7	27.6	27.9	19.1	20.1	19.4	20.3	20.6
4H	2H	24.8	25.9	25.1	26.2	26.4	20.0	21.1	20.3	21.4	21.6
	3H	25.8	26.7	26.1	27.0	27.3	19.8	20.8	20.2	21.1	21.3
	4H	26.1	27.0	26.5	27.3	27.6	19.7	20.6	20.1	20.9	21.2
	6H	26.3	27.0	26.6	27.4	27.7	19.6	20.4	20.0	20.7	21.1
	8H	26.3	27.0	26.7	27.4	27.7	19.6	20.3	20.0	20.6	21.0
	12H	26.3	27.0	26.7	27.3	27.7	19.5	20.2	20.0	20.6	20.9
8H	4H	26.0	26.7	26.4	27.0	27.4	19.7	20.4	20.1	20.7	21.1
	6H	26.1	26.7	26.6	27.1	27.5	19.6	20.1	20.0	20.5	21.0
	8H	26.2	26.7	26.6	27.1	27.5	19.5	20.0	20.0	20.5	20.9
	12H	26.2	26.6	26.7	27.1	27.5	19.5	19.9	20.0	20.4	20.8
12H	4H	25.9	26.5	26.3	26.9	27.3	19.6	20.3	20.0	20.6	21.0
	6H	26.1	26.6	26.5	27.0	27.5	19.5	20.0	20.0	20.5	20.9
	8H	26.1	26.6	26.6	27.0	27.5	19.5	19.9	20.0	20.4	20.8
Variations with the observer position at spacings:											
S = 1.0H	+ 0.6 / - 0.9					+ 2.3 / - 7.3					
1.5H	+ 0.7 / - 0.5					+ 2.3 / - 6.2					
2.0H	+ 1.1 / - 2.3					+ 3.9 / - 6.3					

CIE Pub.117 Corrected 511.8 lm Total Lamp Luminous Flux. (8log(F/F0) = -2.3)

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZENGQG
Test Date:2019-12-02

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: PW131232	TYPE:LED	WEIGHT:1.466 (Kg)
DIM.: 700*100*150	SPEC.:	SERIAL No.:
MFR.:	SUR.:540*9	PROTECTION ANGLE:

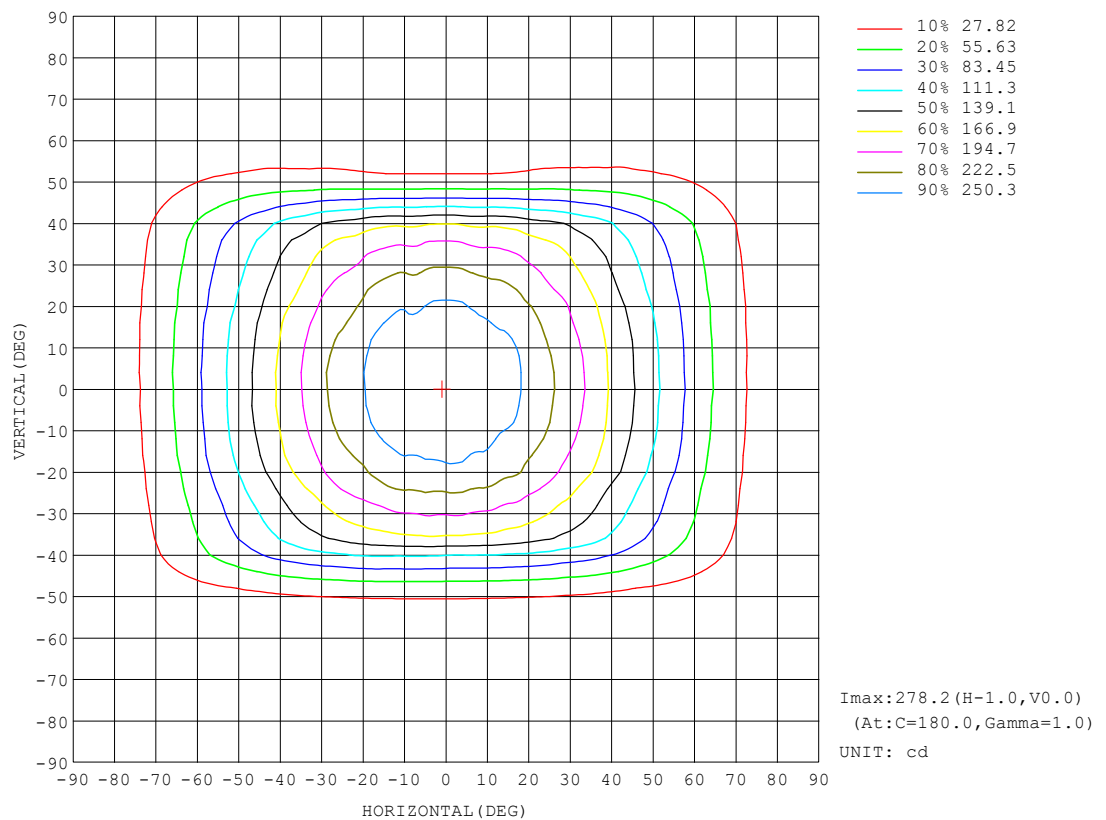
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	68	58	53	68	58	52	66	58	52	47
0.80	78	69	63	77	68	63	76	68	62	57
1.00	86	77	72	85	77	71	83	78	71	65
1.25	92	84	79	91	84	79	89	82	78	72
1.50	97	89	84	95	88	84	93	87	82	76
2.00	102	96	91	100	95	90	97	92	89	82
2.50	105	99	95	103	98	94	99	95	92	85
3.00	107	102	98	105	101	97	102	98	95	88
4.00	110	106	103	108	104	101	104	101	98	91
5.00	112	108	105	110	106	104	105	103	101	92
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:2019-12-02

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:

ISOCANDELA DIAGRAM

NAME: PW131232	TYPE:LED	WEIGHT:1.466 (Kg)
DIM.: 700*100*150	SPEC.:	SERIAL No.:
MFR.:	SUR.:540*9	PROTECTION ANGLE:

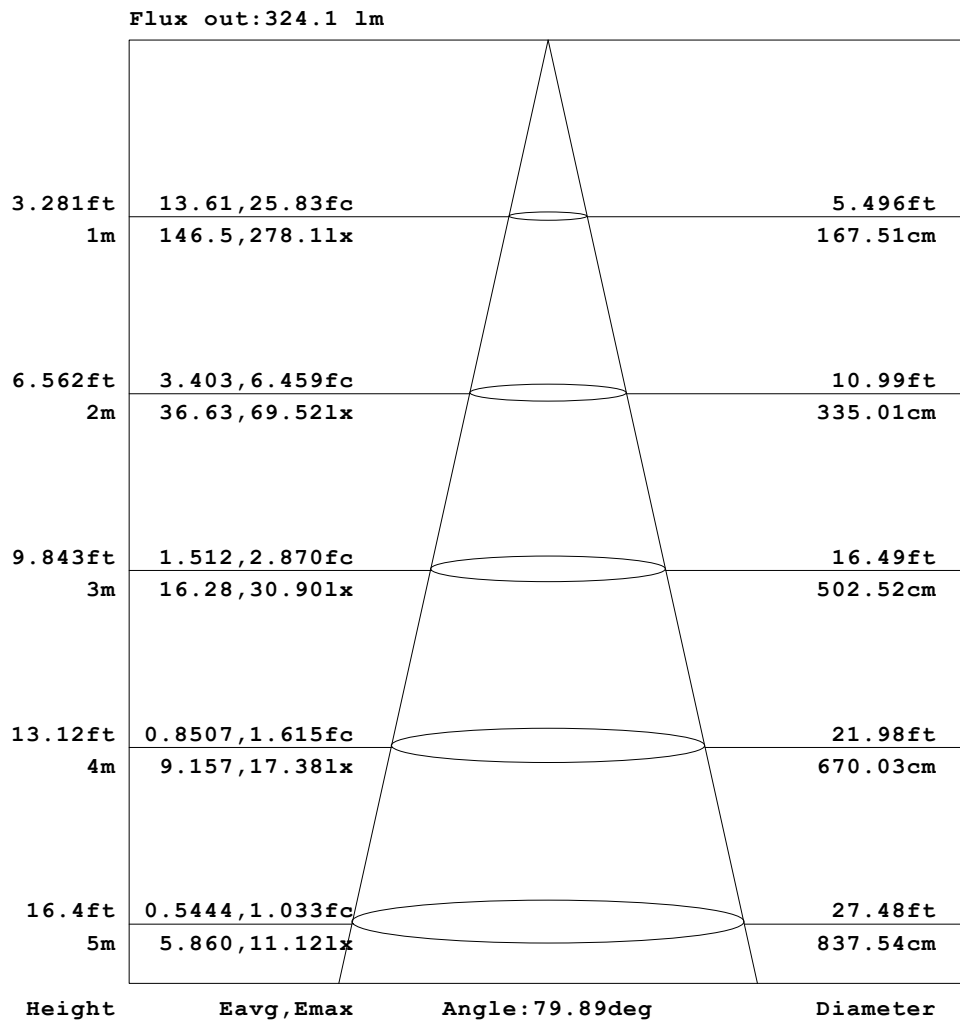


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZENGQG
Test Date:2019-12-02

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: PW131232	TYPE:LED	WEIGHT:1.466 (Kg)
DIM.: 700*100*150	SPEC.:	SERIAL No.:
MFR.:	SUR.:540*9	PROTECTION ANGLE:



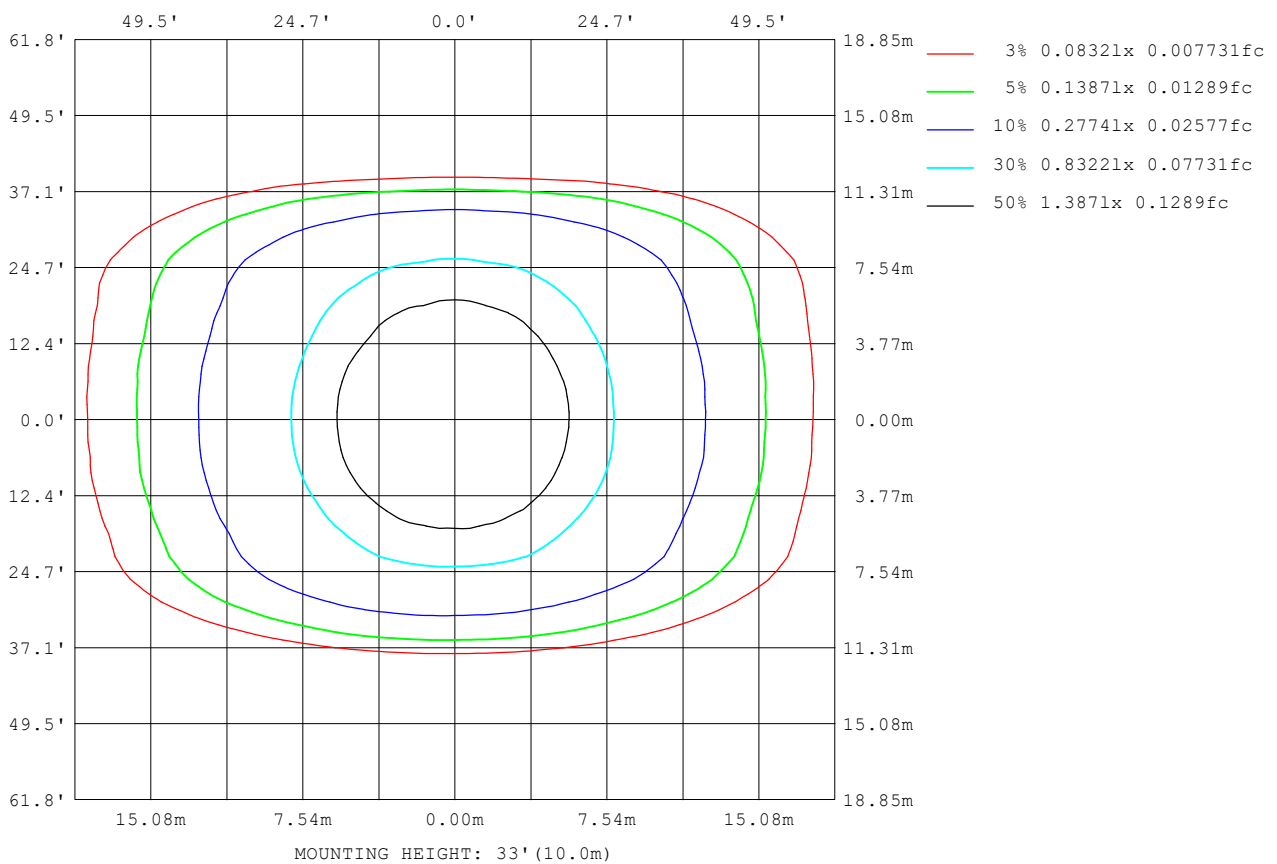
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: ZENGQ
Test Date: 2019-12-02

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

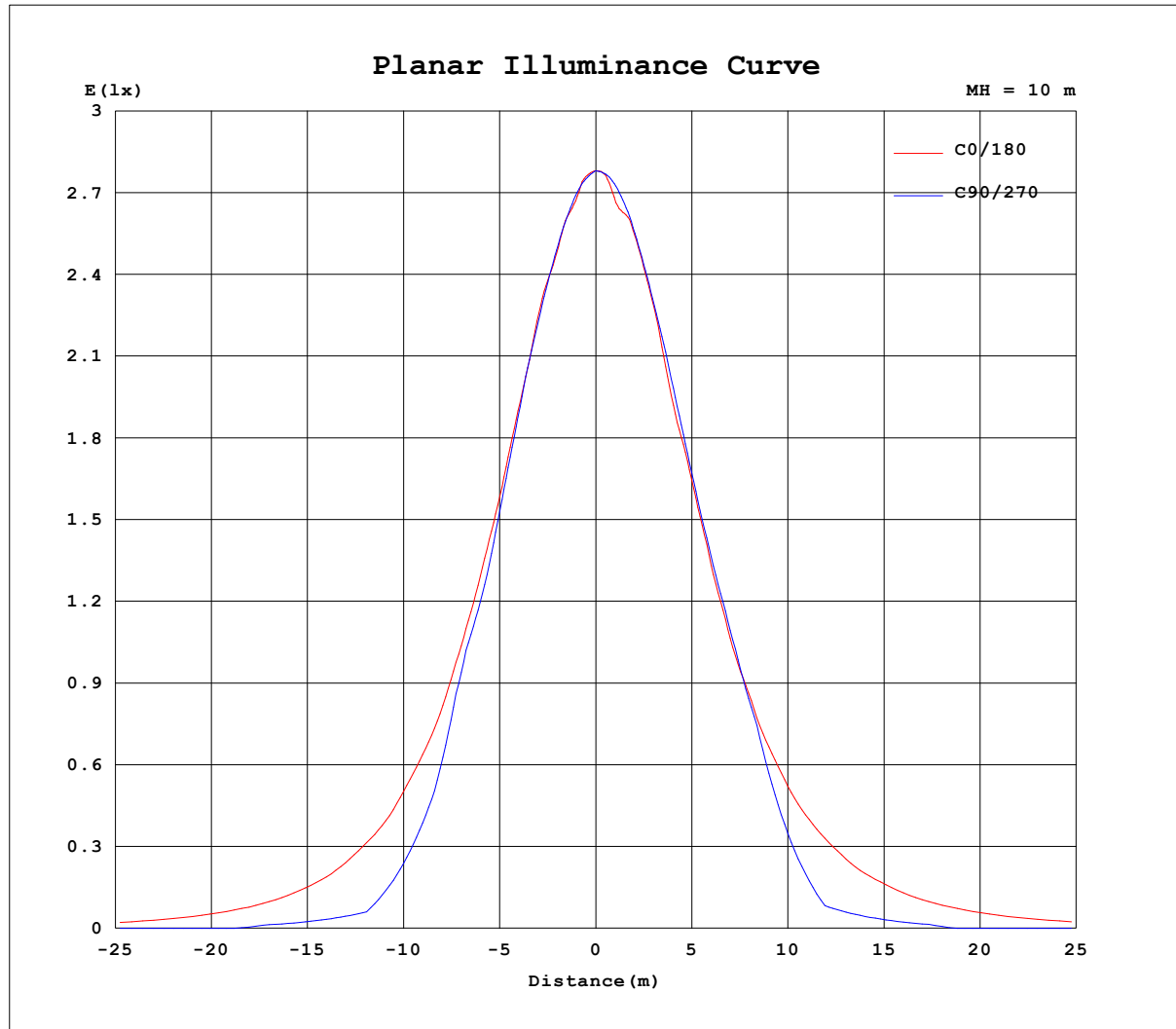
NAME: PW131232	TYPE:LED	WEIGHT:1.466 (Kg)
DIM.: 700*100*150	SPEC.:	SERIAL No.:
MFR.:	SUR.:540*9	PROTECTION ANGLE:



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:ZENGQG
Test Date:2019-12-02

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: 2019-12-02

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: