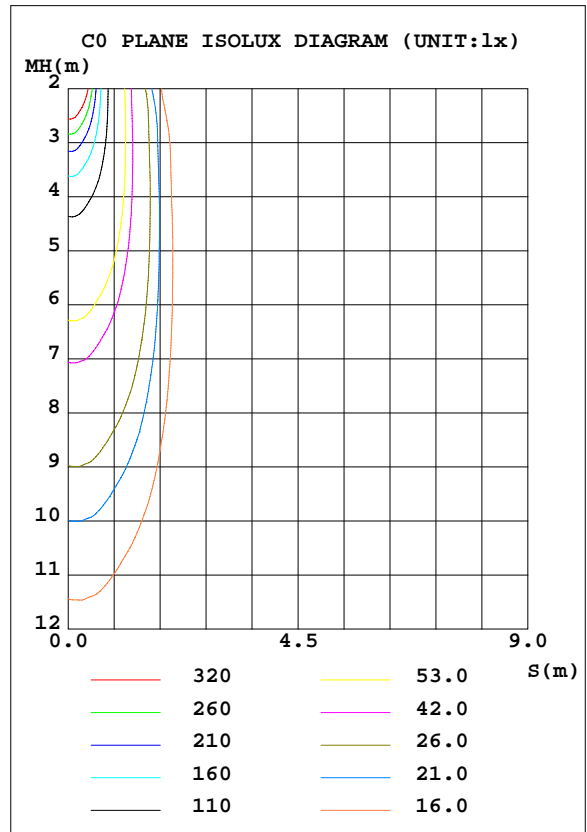
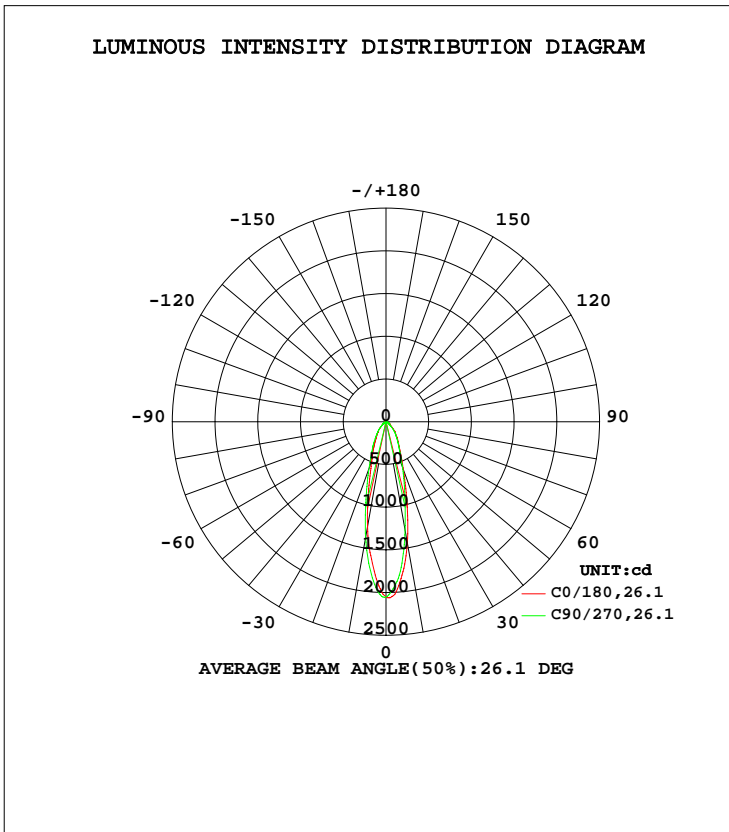


**LUMINAIRE PHOTOMETRIC TEST REPORT**

NAME: PAR20-8W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:0.005	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	1011	I <sub>max</sub> (cd)	2061	S/MH(C0/180)	0.41
NOMINAL POWER(W)	8	LOR(%)	100.0	S/MH(C90/270)	0.45
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	861.10	η UP, DN(C0-180)	0.0,51.3
NOMINAL FLUX(lm)	861.102	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0,48.7
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE(V)	230	η down(%)	100.0	CIBSE SHR MAX	0.50



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:fu  
 Test Date:09 August 2022

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-i300\_V1 SYSTEM V2.0.406.11  
 Humidity:65.0%  
 Test Distance:3.161m [K=1.0000]  
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

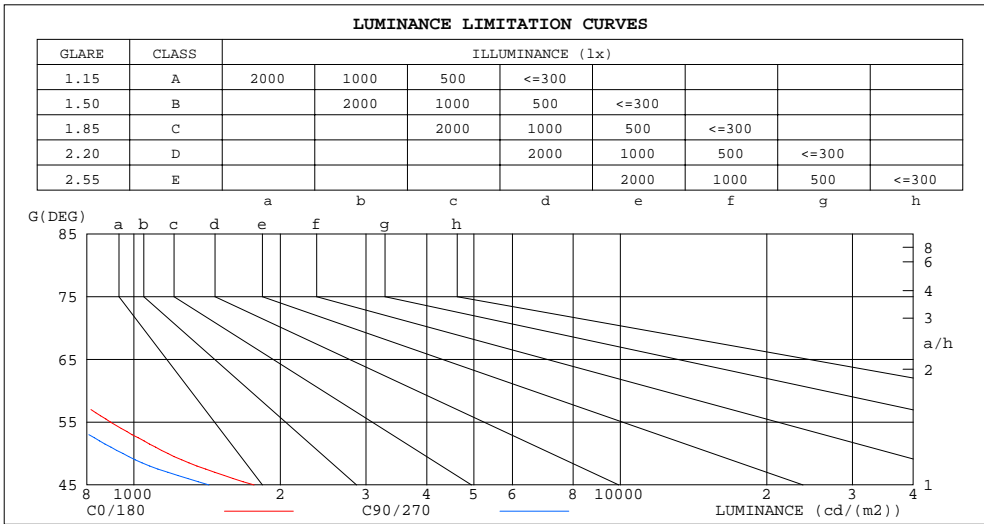
$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	$\Phi$ lum,lamp
10	1440	1405	1291	1226	1249	1343	1380	1379	0- 10	157.3	157.3	18.3,18.3
20	596.0	579.8	566.8	529.1	492.0	515.7	582.8	595.3	10- 20	241.0	398.3	46.3,46.3
30	292.7	291.6	284.5	266.6	246.3	246.3	288.9	298.7	20- 30	178.2	576.5	66.9,66.9
40	170.7	173.5	157.3	148.0	139.5	134.3	143.2	159.2	30- 40	129.2	705.7	81.9,81.9
50	73.97	71.36	61.50	58.02	57.24	55.28	54.74	64.03	40- 50	79.38	785.0	91.2,91.2
60	35.10	33.53	29.64	29.13	28.88	27.07	27.01	30.81	50- 60	39.15	824.2	95.7,95.7
70	18.62	16.01	14.40	15.89	17.24	14.83	13.70	15.95	60- 70	21.68	845.9	98.2,98.2
80	10.27	5.984	4.504	6.480	9.196	5.993	3.985	6.121	70- 80	11.87	857.7	99.6,99.6
90	3.424	0.0145	0.0713	0.0215	2.842	0.0305	0.1705	0.0290	80- 90	3.363	861.1	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		

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:fu  
 Test Date:09 August 2022

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE GO-i300\_V1 SYSTEM V2.0.406.11  
 Humidity:65.0%  
 Test Distance:3.161m [K=1.0000]  
 Remarks:

**LUMINANCE LIMITATION CURVES**

NAME: PAR20-8W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:0.005	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	778	144
80	603	257
75	570	360
70	556	418
65	593	481
60	716	588
55	895	736
50	1174	949
45	1766	1426

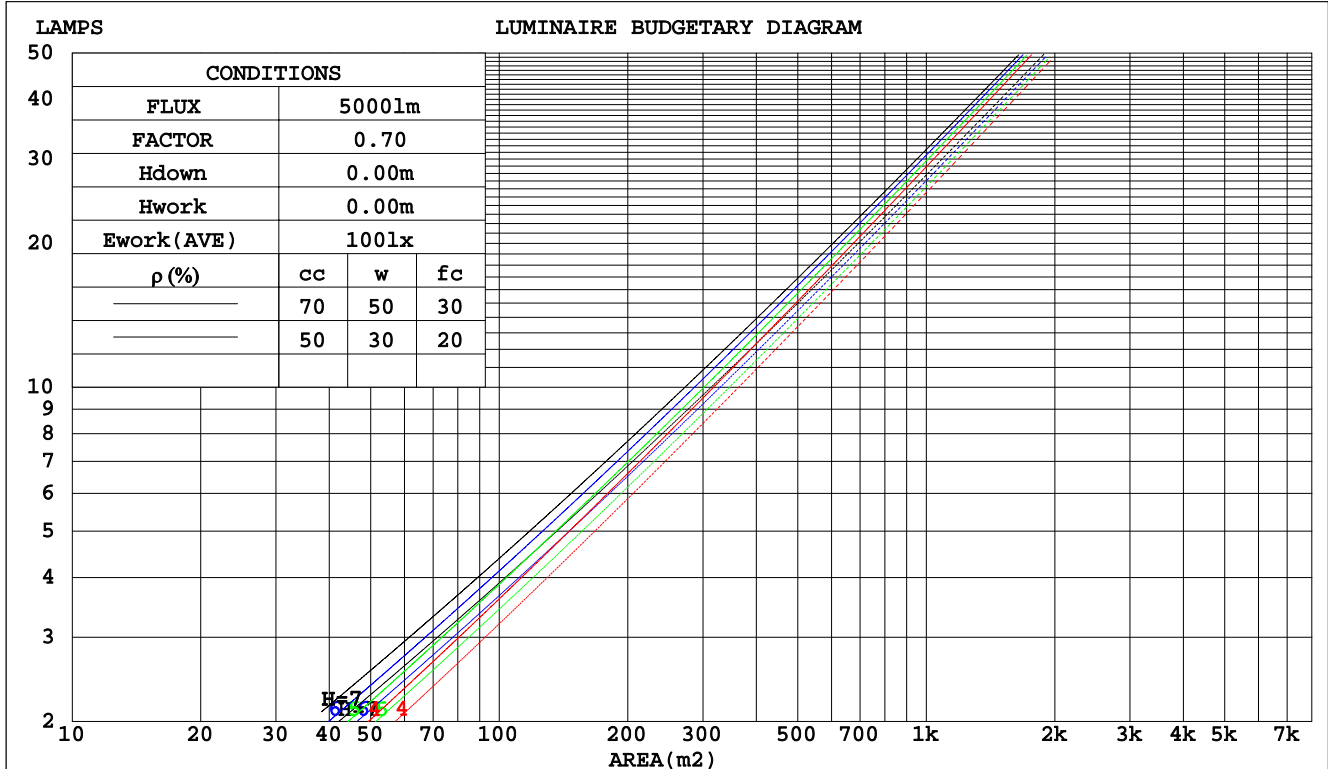
C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature: 25.3DEG  
 Operators: fu  
 Test Date: 09 August 2022

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-i300\_V1 SYSTEM V2.0.406.11  
 Humidity: 65.0%  
 Test Distance: 3.161m [K=1.0000]  
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: PAR20-8W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:0.005	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pw																
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	1.00
1.0	1.10	1.07	1.05	1.08	1.05	1.03	1.04	1.02	1.00	1.00	.98	.97	.97	.95	.94	.92
2.0	1.02	.97	.94	1.00	.96	.93	.97	.94	.91	.94	.91	.89	.91	.89	.87	.85
3.0	.95	.89	.85	.93	.88	.85	.91	.87	.83	.88	.85	.82	.86	.83	.81	.79
4.0	.88	.83	.78	.87	.82	.78	.85	.80	.77	.83	.79	.76	.81	.78	.75	.73
5.0	.83	.77	.72	.82	.76	.72	.80	.75	.71	.78	.74	.71	.77	.73	.70	.69
6.0	.78	.72	.68	.77	.72	.67	.76	.71	.67	.74	.70	.66	.73	.69	.66	.65
7.0	.74	.68	.63	.73	.67	.63	.72	.67	.63	.71	.66	.63	.69	.65	.62	.61
8.0	.70	.64	.60	.69	.64	.60	.68	.63	.59	.67	.63	.59	.66	.62	.59	.58
9.0	.66	.61	.57	.66	.60	.57	.65	.60	.56	.64	.60	.56	.63	.59	.56	.55
10.0	.63	.58	.54	.63	.57	.54	.62	.57	.54	.61	.57	.54	.61	.56	.53	.52



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature: 25.3DEG  
 Operators: fu  
 Test Date: 09 August 2022

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-i300\_V1 SYSTEM V2.0.406.11  
 Humidity: 65.0%  
 Test Distance: 3.161m [K=1.0000]  
 Remarks:

WEC AND CCEC

NAME: PAR20-8W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:0.005	Shielding Angle:

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	.193	.110	.035	.186	.106	.034	.173	.099	.032	.162	.093	.030	.151	.087	.028	
2.0	.183	.100	.031	.177	.098	.030	.166	.092	.029	.156	.088	.027	.147	.083	.026	
3.0	.172	.092	.027	.167	.090	.027	.158	.086	.026	.150	.082	.025	.142	.078	.024	
4.0	.162	.084	.025	.158	.083	.024	.150	.079	.024	.142	.076	.023	.136	.074	.022	
5.0	.153	.078	.023	.149	.076	.022	.142	.074	.022	.136	.072	.021	.130	.069	.021	
6.0	.144	.072	.021	.141	.071	.020	.135	.069	.020	.129	.067	.020	.124	.065	.019	
7.0	.136	.067	.019	.134	.067	.019	.128	.065	.019	.123	.063	.018	.119	.062	.018	
8.0	.129	.063	.018	.127	.063	.018	.122	.061	.017	.118	.060	.017	.114	.058	.017	
9.0	.123	.060	.017	.121	.059	.017	.117	.058	.016	.113	.056	.016	.109	.055	.016	
10.0	.117	.056	.016	.115	.056	.016	.111	.055	.015	.108	.054	.015	.104	.053	.015	

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	.172	.157	.144	.147	.135	.124	.101	.093	.085	.058	.054	.050	.019	.017	.016	
2.0	.158	.132	.111	.135	.114	.096	.093	.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	.135	.099	.071	.116	.086	.062	.080	.060	.044	.046	.035	.026	.015	.011	.008	
5.0	.126	.087	.059	.109	.076	.051	.075	.053	.036	.043	.031	.021	.014	.010	.007	
6.0	.119	.078	.049	.102	.068	.043	.070	.047	.030	.041	.028	.018	.013	.009	.006	
7.0	.112	.071	.042	.096	.061	.036	.066	.043	.026	.039	.025	.015	.012	.008	.005	
8.0	.106	.064	.036	.091	.056	.031	.063	.039	.022	.037	.023	.013	.012	.008	.004	
9.0	.100	.059	.031	.086	.051	.027	.060	.036	.019	.035	.021	.012	.011	.007	.004	
10.0	.095	.055	.027	.082	.047	.024	.057	.033	.017	.033	.020	.010	.011	.006	.003	

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:fu  
 Test Date:09 August 2022

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-i300\_V1 SYSTEM V2.0.406.11  
 Humidity:65.0%  
 Test Distance:3.161m [K=1.0000]  
 Remarks:

UGR(Unified Glare Rating) Table

NAME: PAR20-8W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:0.005	Shielding 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	10.9	11.8	11.1	12.0	12.2	10.2	11.2	10.5	11.4	11.6
3H	11.3	12.2	11.5	12.4	12.6	10.6	11.5	10.8	11.7	11.9
4H	11.5	12.4	11.8	12.6	12.8	10.7	11.5	11.0	11.8	12.0
6H	11.8	12.6	12.1	12.9	13.1	10.7	11.6	11.0	11.8	12.0
8H	11.9	12.7	12.3	13.0	13.2	10.7	11.5	11.0	11.8	12.0
12H	12.1	12.8	12.4	13.1	13.4	10.7	11.4	11.0	11.7	12.0
4H 2H	10.9	11.8	11.2	12.0	12.2	10.4	11.2	10.6	11.4	11.7
3H	11.5	12.2	11.8	12.5	12.8	10.8	11.6	11.2	11.9	12.1
4H	11.9	12.5	12.2	12.8	13.2	11.0	11.7	11.4	12.0	12.3
6H	12.2	12.9	12.6	13.2	13.5	11.2	11.8	11.5	12.1	12.5
8H	12.4	13.0	12.8	13.4	13.7	11.2	11.7	11.6	12.1	12.4
12H	12.7	13.2	13.1	13.5	13.9	11.1	11.7	11.6	12.0	12.4
8H 4H	11.9	12.4	12.3	12.8	13.2	11.1	11.7	11.5	12.0	12.4
6H	12.4	12.8	12.8	13.2	13.6	11.3	11.8	11.7	12.2	12.6
8H	12.6	13.0	13.1	13.4	13.9	11.3	11.7	11.8	12.2	12.6
12H	12.9	13.3	13.4	13.7	14.2	11.3	11.7	11.8	12.1	12.6
12H 4H	11.9	12.4	12.3	12.7	13.1	11.1	11.6	11.5	12.0	12.4
6H	12.3	12.8	12.8	13.2	13.6	11.3	11.7	11.8	12.1	12.6
8H	12.6	13.0	13.1	13.4	13.9	11.3	11.7	11.8	12.1	12.6
Variations with the observer position at spacings:										
S = 1.0H	+ 0.9 / - 1.1					+ 1.2 / - 1.6				
1.5H	+ 1.1 / - 0.9					+ 1.5 / - 1.3				
2.0H	+ 2.1 / - 1.1					+ 2.0 / - 1.4				

CIE Pub.117, 861.1 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.5)

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:fu  
 Test Date:09 August 2022

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-i300\_V1 SYSTEM V2.0.406.11  
 Humidity:65.0%  
 Test Distance:3.161m [K=1.0000]  
 Remarks:

UTILIZATION FACTORS TABLE

NAME: PAR20-8W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:0.005	Shielding Angle:

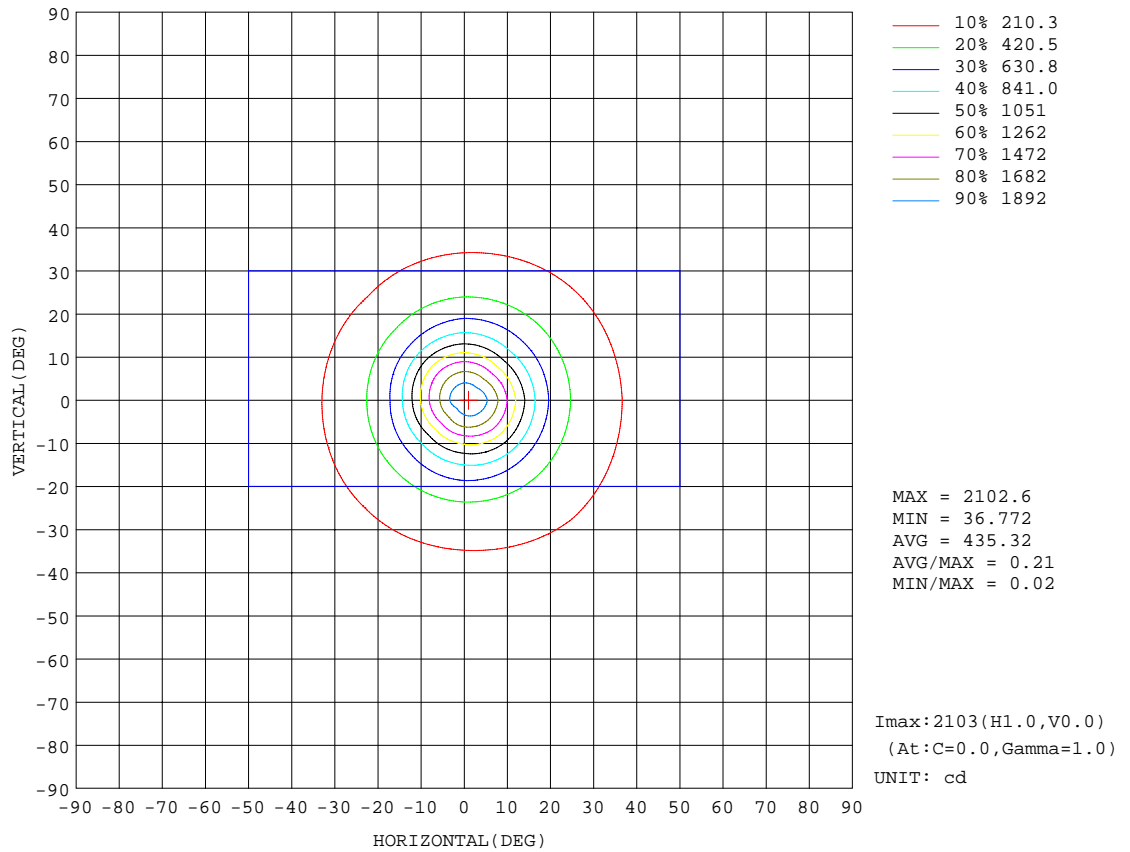
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	80	73	68	80	72	68	79	72	68	64
0.80	89	81	77	88	81	77	86	80	76	72
1.00	94	87	83	93	87	83	91	87	82	77
1.25	99	93	88	98	92	88	96	91	87	82
1.50	102	96	92	101	96	92	98	94	91	85
2.00	106	101	97	104	100	96	101	98	95	89
2.50	108	103	100	106	102	99	103	100	97	90
3.00	110	106	102	108	104	101	104	102	99	92
4.00	112	109	106	110	107	105	106	104	102	95
5.00	114	111	109	111	109	107	107	106	104	96
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:fu  
 Test Date:09 August 2022

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE GO-i300\_V1 SYSTEM V2.0.406.11  
 Humidity:65.0%  
 Test Distance:3.161m [K=1.0000]  
 Remarks:

**ISOCANDELA DIAGRAM**

NAME: PAR20-8W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:0.005	Shielding Angle:



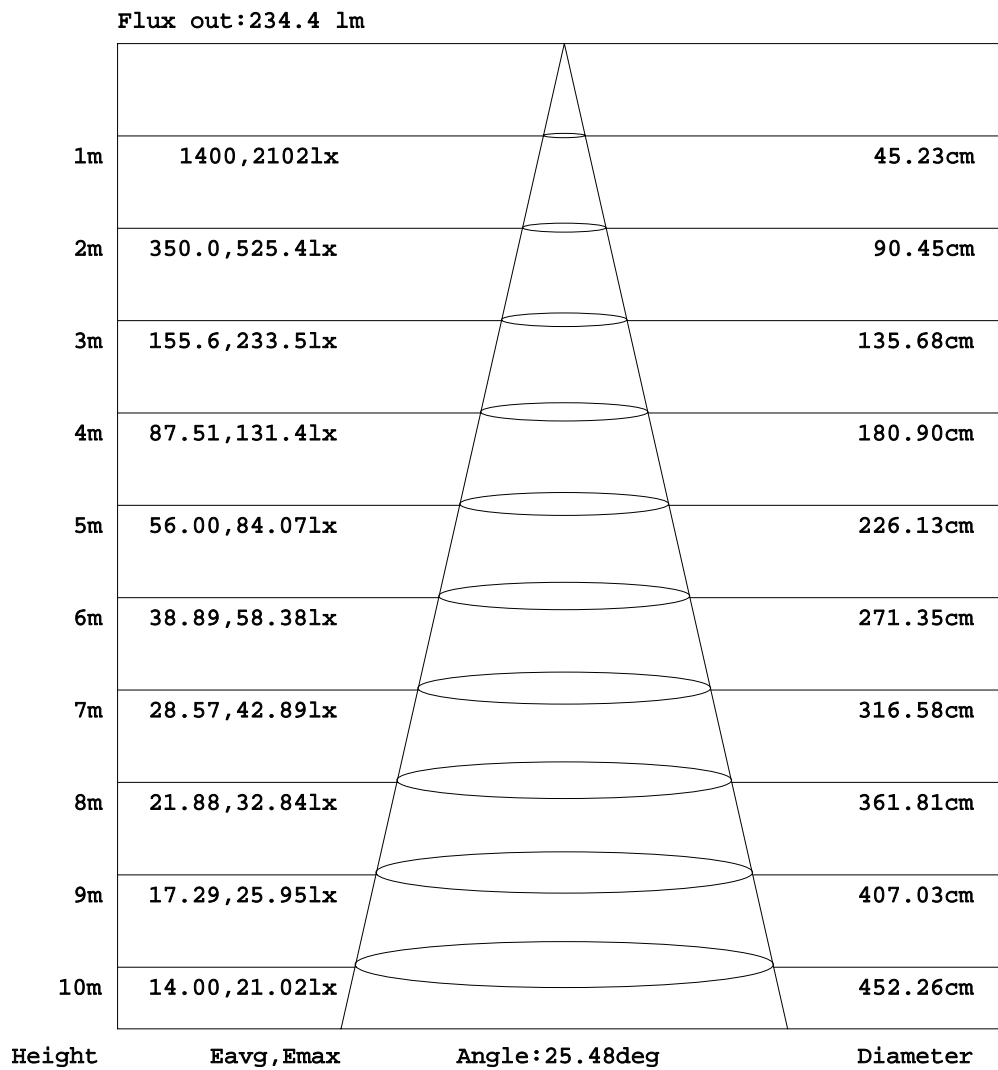
C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature: 25.3DEG  
 Operators: fu  
 Test Date: 09 August 2022

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-i300\_V1 SYSTEM V2.0.406.11  
 Humidity: 65.0%  
 Test Distance: 3.161m [K=1.0000]  
 Remarks:



**AAI Figure**

NAME: PAR20-8W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:0.005	Shielding Angle:



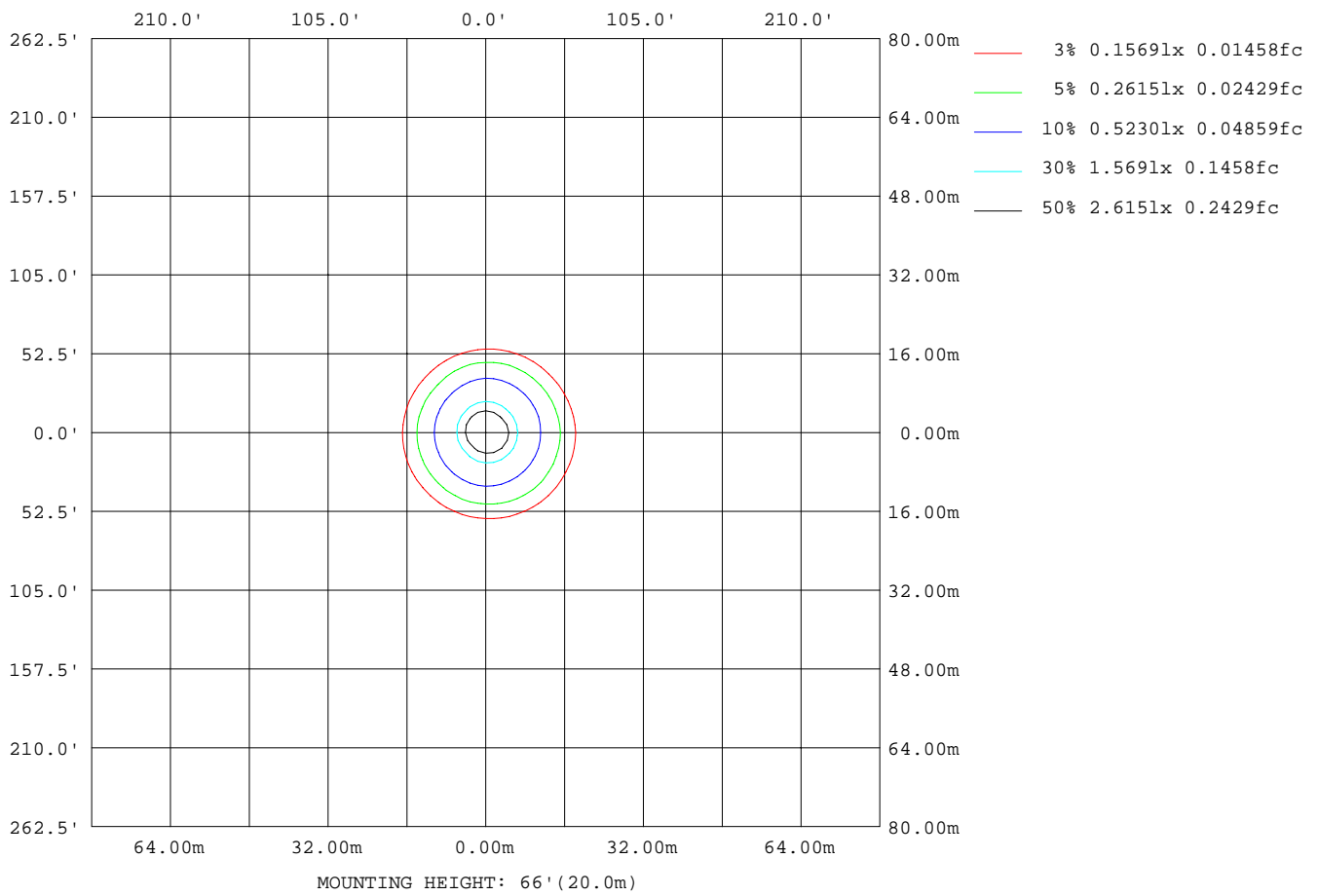
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:fu  
 Test Date:09 August 2022

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-i300\_V1 SYSTEM V2.0.406.11  
 Humidity:65.0%  
 Test Distance:3.161m [K=1.0000]  
 Remarks:

**ISOLUX DIAGRAM**

NAME: PAR20-8W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:0.005	Shielding Angle:



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:fu  
 Test Date:09 August 2022

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-i300\_V1 SYSTEM V2.0.406.11  
 Humidity:65.0%  
 Test Distance:3.161m [K=1.0000]  
 Remarks:

LED Avg.L Report

NAME: PAR20-8W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:0.005	Shielding Angle:

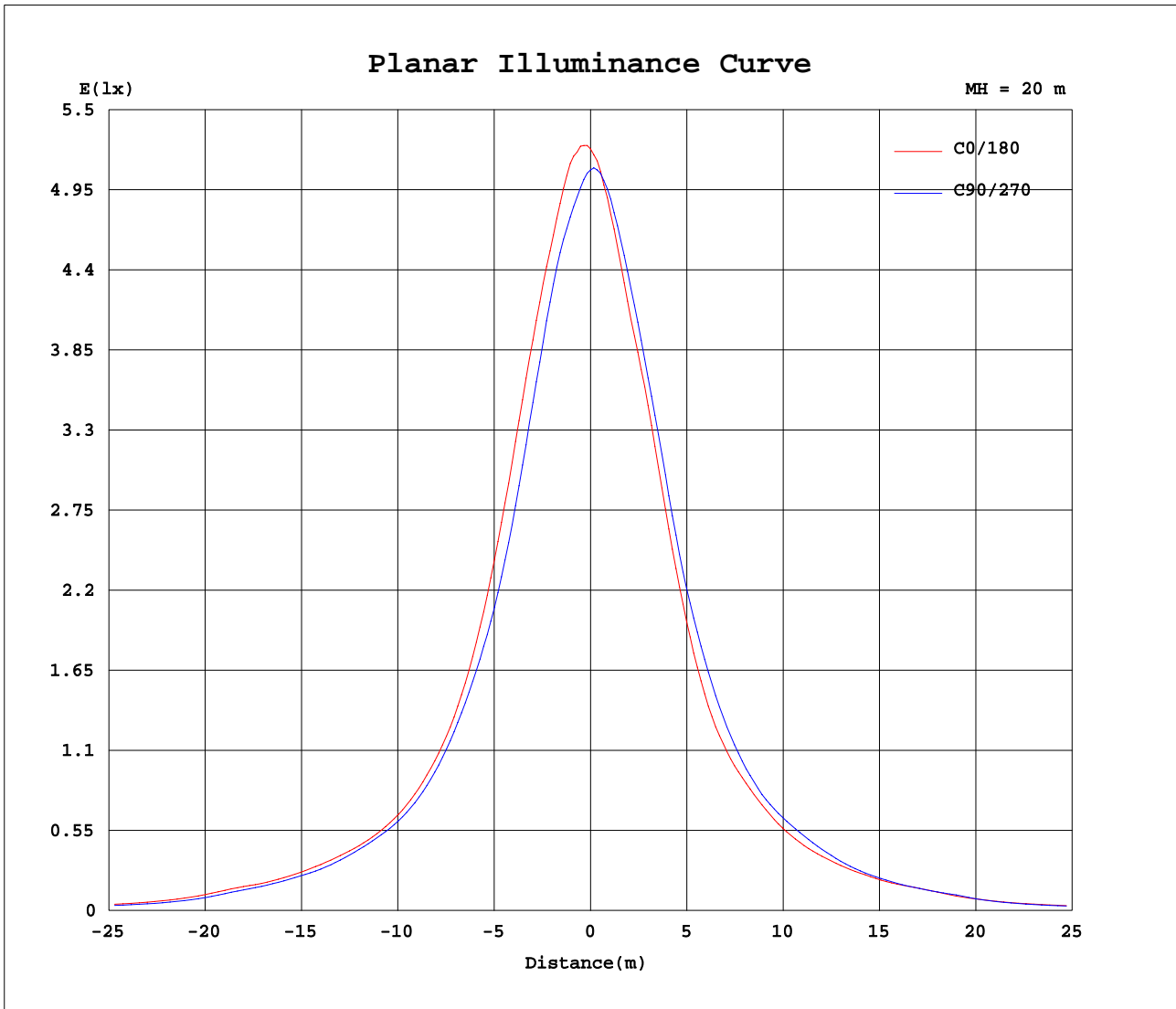
AvgL	cd/m2
L_0~180(65)av	546
L_0~180(75)av	535
L_0~180(85)av	714
L_90~270(65)av	465
L_90~270(75)av	358
L_90~270(85)av	145
L_45(65)av	502
L_45(75)av	426
L_45(85)av	217

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:fu  
 Test Date:09 August 2022

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-i300\_V1 SYSTEM V2.0.406.11  
 Humidity:65.0%  
 Test Distance:3.161m [K=1.0000]  
 Remarks:

**Planar Illuminance Curve**



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature: 25.3DEG  
 Operators: fu  
 Test Date: 09 August 2022

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-i300\_V1 SYSTEM V2.0.406.11  
 Humidity: 65.0%  
 Test Distance: 3.161m [K=1.0000]  
 Remarks:

