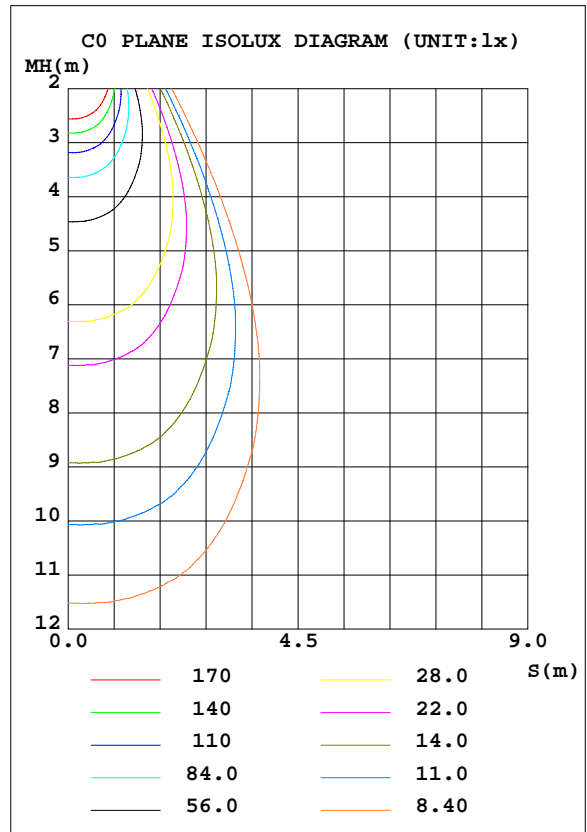
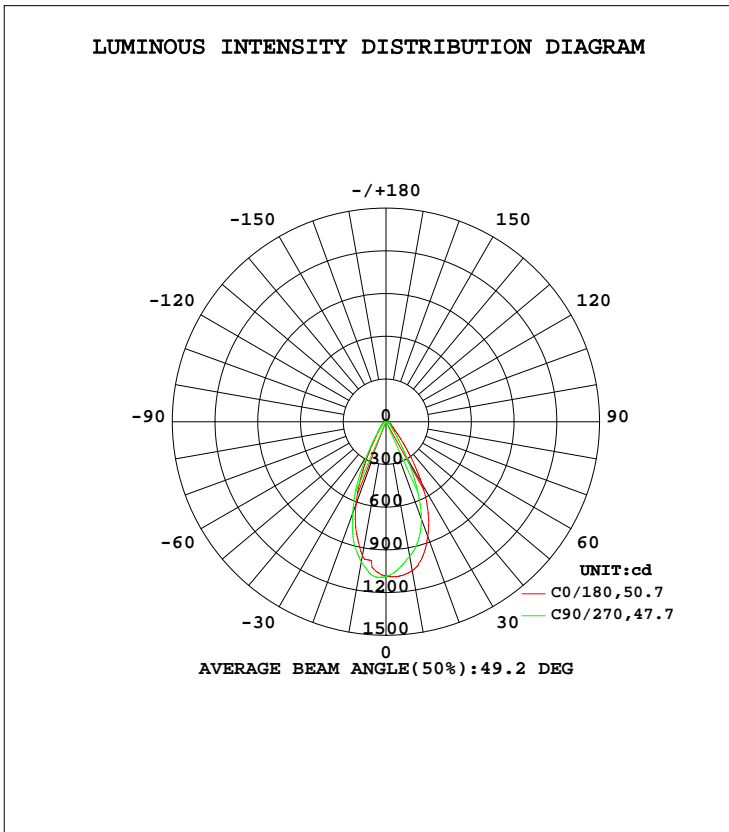


LUMINAIRE PHOTOMETRIC TEST REPORT

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

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	1013	I _{max} (cd)	1094	S/MH(C0/180)	0.68
NOMINAL POWER(W)	8	LOR(%)	100.0	S/MH(C90/270)	0.72
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	821.68	η UP, DN(C0-180)	0.0,54.6
NOMINAL FLUX(lm)	821.68	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0,45.4
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE(V)	230	η down(%)	100.0	CIBSE SHR MAX	0.75



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:

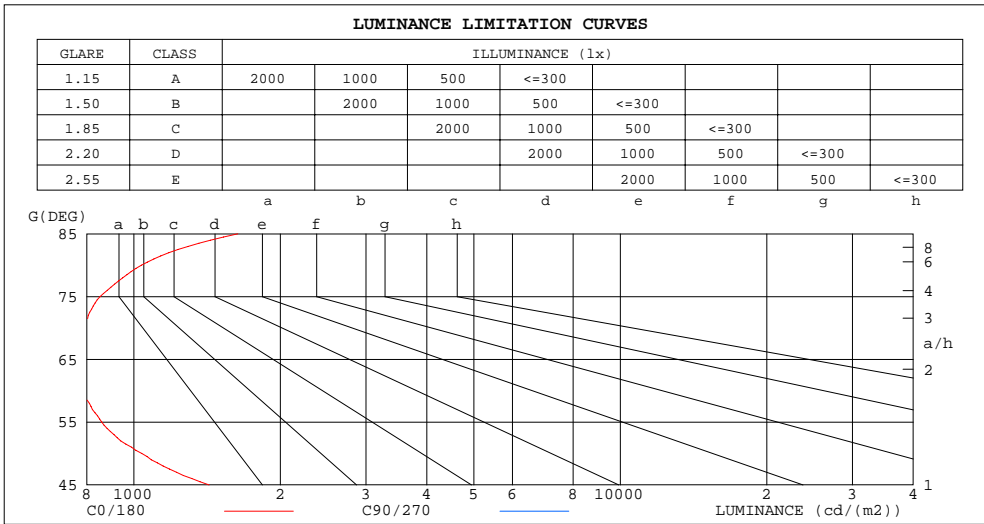
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	Φ lum,lamp
10	1060	1040	959.0	951.3	955.0	982.2	997.5	996.2	0- 10	98.88	98.88	12,12
20	857.6	841.5	726.2	645.1	617.2	654.5	683.0	753.8	10- 20	243.8	342.7	41.7,41.7
30	506.6	477.5	296.7	222.4	215.9	215.7	253.1	313.2	20- 30	233.5	576.2	70.1,70.1
40	171.0	152.4	83.02	61.76	76.37	68.53	75.98	84.96	30- 40	112.9	689.1	83.9,83.9
50	64.97	57.20	42.73	40.09	42.57	40.94	42.46	45.78	40- 50	50.36	739.5	90,90
60	38.19	34.63	28.42	27.75	29.41	28.21	27.22	31.02	50- 60	33.92	773.4	94.1,94.1
70	26.40	21.39	17.67	18.90	20.69	18.76	16.87	20.23	60- 70	24.98	798.4	97.2,97.2
80	17.52	9.473	7.850	10.95	13.42	10.67	8.206	9.823	70- 80	16.45	814.8	99.2,99.2
90	7.706	0.0341	0.1592	0.0619	5.778	0.0406	0.1526	0.0581	80- 90	6.865	821.7	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

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:

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	1635	395
80	1036	447
75	852	490
70	793	511
65	767	542
60	784	562
55	859	606
50	1038	658
45	1428	762

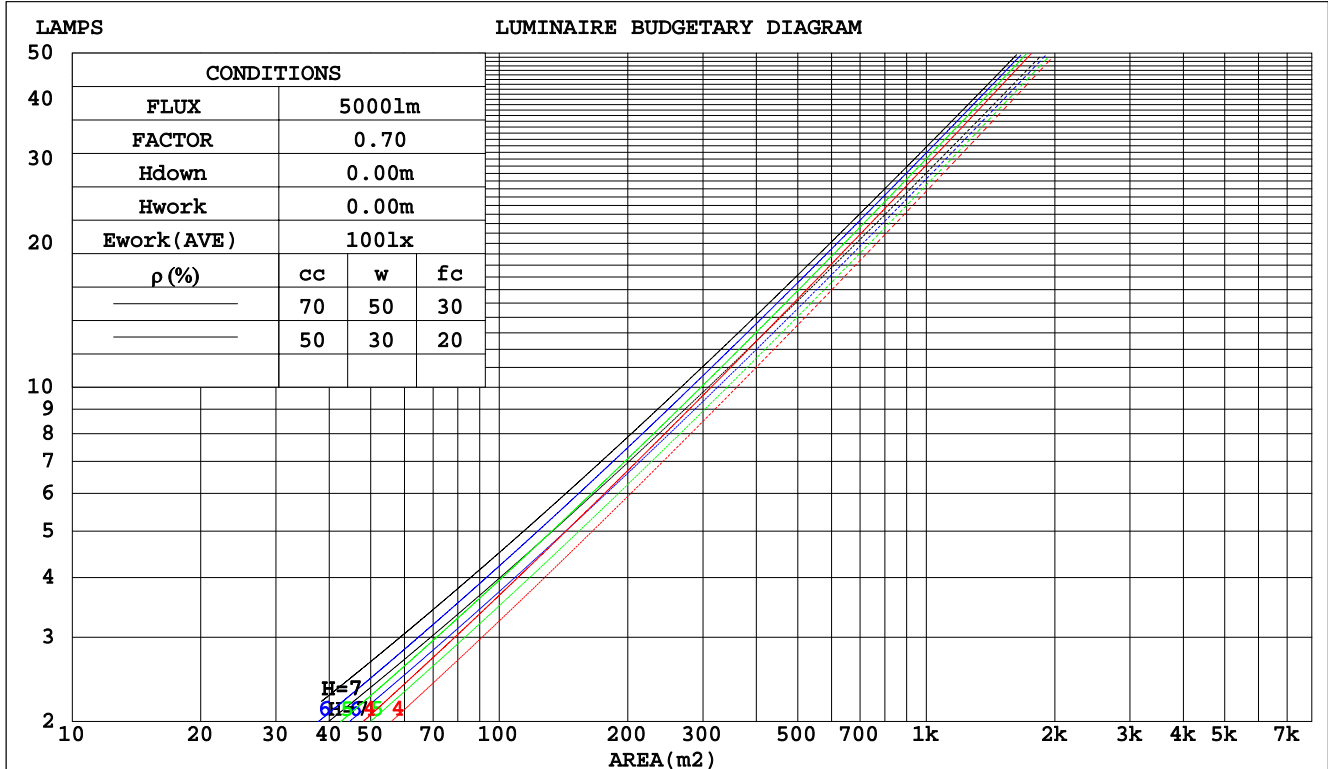
C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:fu
 Test Date:09 August 2022

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	1.09	1.07	1.04	1.07	1.05	1.02	1.03	1.01	.99	.99	.98	.96	.96	.95	.93	.92
2.0	1.01	.96	.93	.99	.95	.92	.96	.93	.90	.93	.90	.88	.90	.88	.86	.84
3.0	.94	.88	.84	.92	.87	.83	.90	.85	.82	.87	.84	.81	.85	.82	.79	.78
4.0	.87	.81	.77	.86	.81	.76	.84	.79	.75	.82	.78	.75	.80	.76	.74	.72
5.0	.82	.75	.71	.81	.75	.71	.79	.74	.70	.77	.73	.69	.76	.72	.69	.67
6.0	.77	.70	.66	.76	.70	.66	.74	.69	.65	.73	.68	.65	.72	.68	.64	.63
7.0	.72	.66	.62	.72	.66	.61	.70	.65	.61	.69	.64	.61	.68	.64	.60	.59
8.0	.68	.62	.58	.68	.62	.58	.67	.61	.57	.66	.61	.57	.65	.60	.57	.56
9.0	.65	.59	.55	.64	.58	.54	.63	.58	.54	.62	.57	.54	.61	.57	.54	.53
10.0	.61	.55	.52	.61	.55	.51	.60	.55	.51	.59	.55	.51	.59	.54	.51	.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:

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	.204	.116	.037	.197	.112	.036	.184	.106	.034	.172	.099	.032	.162	.094	.030	
2.0	.191	.105	.032	.185	.102	.031	.174	.097	.030	.164	.092	.029	.155	.088	.028	
3.0	.178	.095	.028	.174	.093	.028	.164	.089	.027	.156	.085	.026	.148	.082	.025	
4.0	.167	.087	.026	.163	.085	.025	.155	.082	.025	.148	.079	.024	.141	.076	.023	
5.0	.157	.080	.023	.154	.079	.023	.147	.076	.022	.140	.074	.022	.134	.072	.022	
6.0	.149	.074	.021	.145	.073	.021	.139	.071	.021	.133	.069	.020	.128	.067	.020	
7.0	.141	.070	.020	.138	.069	.020	.132	.067	.019	.127	.065	.019	.122	.064	.019	
8.0	.133	.065	.018	.131	.064	.018	.126	.063	.018	.122	.062	.018	.117	.060	.018	
9.0	.127	.061	.017	.125	.061	.017	.120	.060	.017	.116	.058	.017	.113	.057	.017	
10.0	.121	.058	.016	.119	.058	.016	.115	.056	.016	.112	.055	.016	.108	.054	.016	

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	.173	.157	.143	.148	.135	.123	.101	.093	.085	.058	.054	.049	.019	.017	.016	
2.0	.159	.132	.110	.136	.114	.095	.093	.079	.066	.054	.046	.039	.017	.015	.013	
3.0	.147	.114	.087	.126	.098	.076	.086	.068	.053	.050	.040	.031	.016	.013	.010	
4.0	.137	.099	.071	.117	.086	.061	.081	.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	.120	.078	.049	.103	.068	.042	.071	.048	.030	.041	.028	.018	.013	.009	.006	
7.0	.113	.071	.041	.098	.061	.036	.067	.043	.025	.039	.025	.015	.013	.008	.005	
8.0	.107	.065	.035	.092	.056	.031	.064	.039	.022	.037	.023	.013	.012	.008	.004	
9.0	.102	.059	.031	.088	.052	.027	.061	.036	.019	.035	.021	.011	.011	.007	.004	
10.0	.097	.055	.027	.084	.048	.024	.058	.034	.017	.034	.020	.010	.011	.007	.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	11.5	12.5	11.7	12.6	12.8	9.5	10.5	9.7	10.6	10.8	
3H	12.3	13.2	12.5	13.4	13.6	10.2	11.2	10.5	11.4	11.6	
4H	12.8	13.6	13.0	13.9	14.1	10.6	11.5	10.9	11.7	11.9	
6H	13.4	14.2	13.7	14.4	14.7	10.9	11.7	11.2	11.9	12.2	
8H	13.7	14.5	14.0	14.8	15.1	11.0	11.8	11.3	12.0	12.3	
12H	14.2	14.9	14.5	15.2	15.5	11.0	11.8	11.3	12.1	12.3	
4H 2H	11.6	12.5	11.8	12.7	12.9	9.8	10.7	10.1	10.9	11.2	
3H	12.6	13.4	12.9	13.6	13.9	10.8	11.6	11.2	11.9	12.2	
4H	13.2	13.9	13.6	14.2	14.6	11.3	12.0	11.7	12.3	12.6	
6H	14.0	14.7	14.4	15.0	15.3	11.7	12.4	12.1	12.7	13.0	
8H	14.5	15.1	14.9	15.4	15.8	11.9	12.5	12.3	12.8	13.2	
12H	15.1	15.6	15.5	16.0	16.4	12.0	12.5	12.4	12.9	13.3	
8H 4H	13.3	13.9	13.7	14.3	14.6	11.6	12.2	12.0	12.5	12.9	
6H	14.3	14.8	14.7	15.2	15.6	12.1	12.6	12.6	13.0	13.4	
8H	14.9	15.3	15.3	15.7	16.2	12.3	12.8	12.8	13.2	13.6	
12H	15.6	16.0	16.1	16.4	16.9	12.5	12.9	13.0	13.3	13.8	
12H 4H	13.3	13.9	13.7	14.2	14.6	11.6	12.2	12.0	12.5	12.9	
6H	14.3	14.7	14.7	15.1	15.6	12.2	12.7	12.7	13.1	13.5	
8H	14.9	15.3	15.4	15.7	16.2	12.5	12.8	12.9	13.3	13.7	
Variations with the observer position at spacings:											
S = 1.0H	+ 0.8 / - 0.7					+ 0.6 / - 0.7					
1.5H	+ 1.6 / - 0.6					+ 0.9 / - 0.7					
2.0H	+ 0.8 / - 0.4					+ 0.3 / - 0.5					

CIE Pub.117, 821.7 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.7)

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:

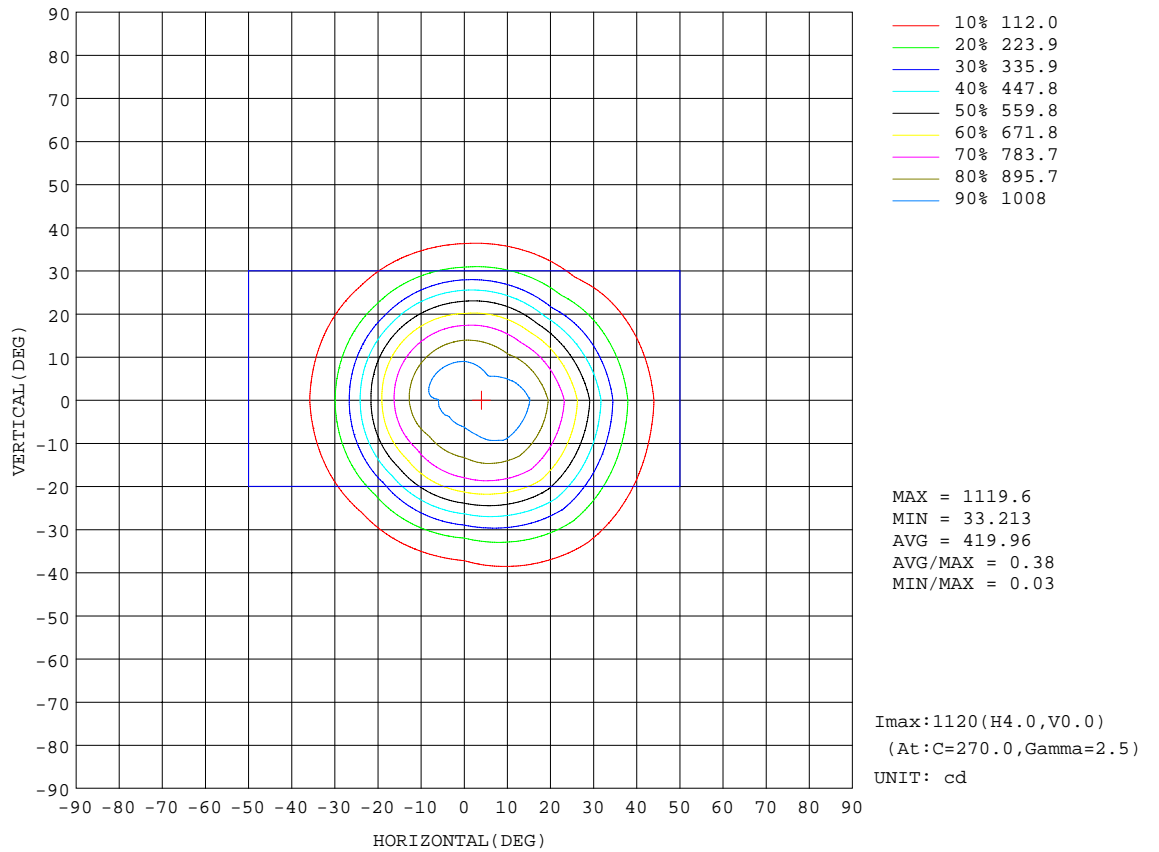
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	82	74	70	81	74	70	80	74	70	66
0.80	89	82	78	89	82	78	87	82	78	73
1.00	95	88	83	94	87	83	92	88	83	78
1.25	99	93	89	98	92	88	96	91	87	83
1.50	102	96	92	101	96	92	98	94	91	86
2.00	106	101	97	104	99	96	101	97	94	89
2.50	108	103	99	106	102	99	103	99	97	90
3.00	110	106	102	108	104	101	104	101	99	92
4.00	112	109	106	110	107	105	106	104	102	94
5.00	114	111	108	111	109	107	107	105	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

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:

ISOCANDELA DIAGRAM

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



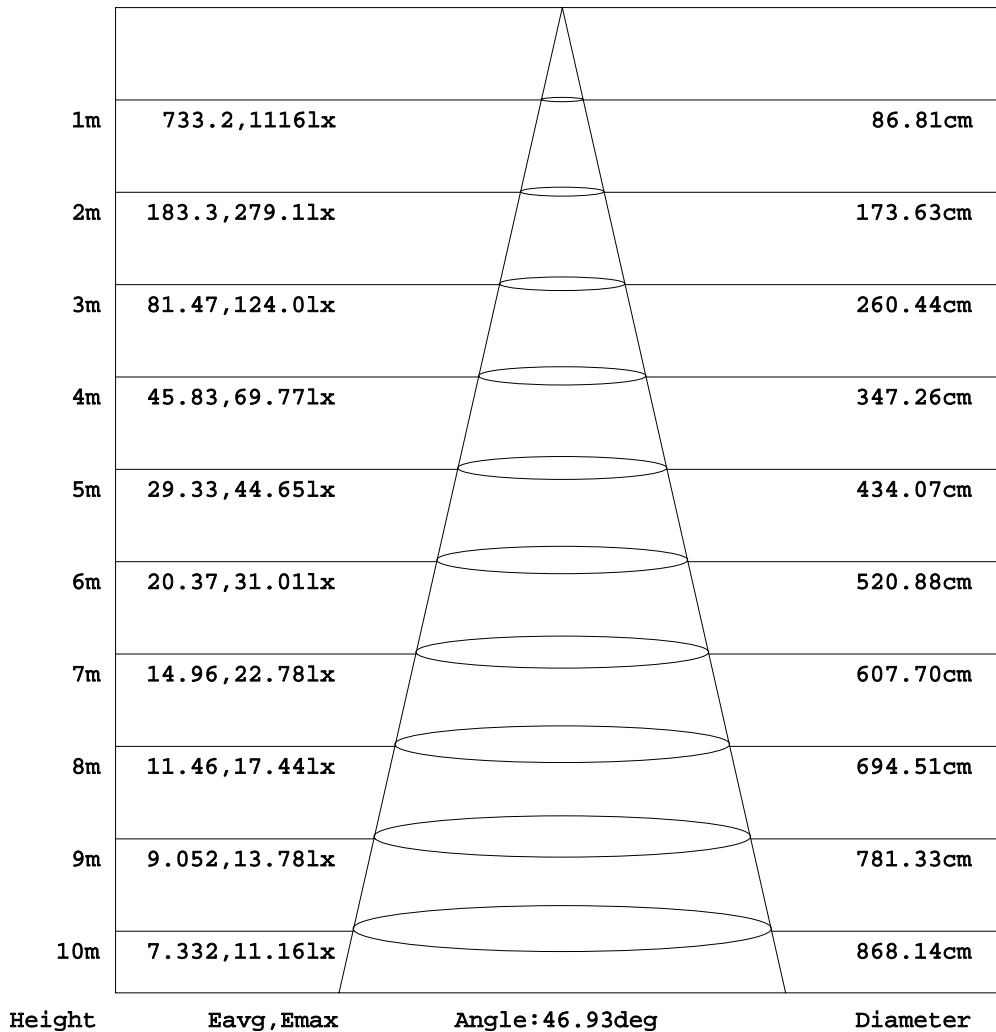
C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: MEDIUM
 Temperature: 25.3DEG
 Operators: fu
 Test Date: 09 August 2022

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:

Flux out:435.5 lm



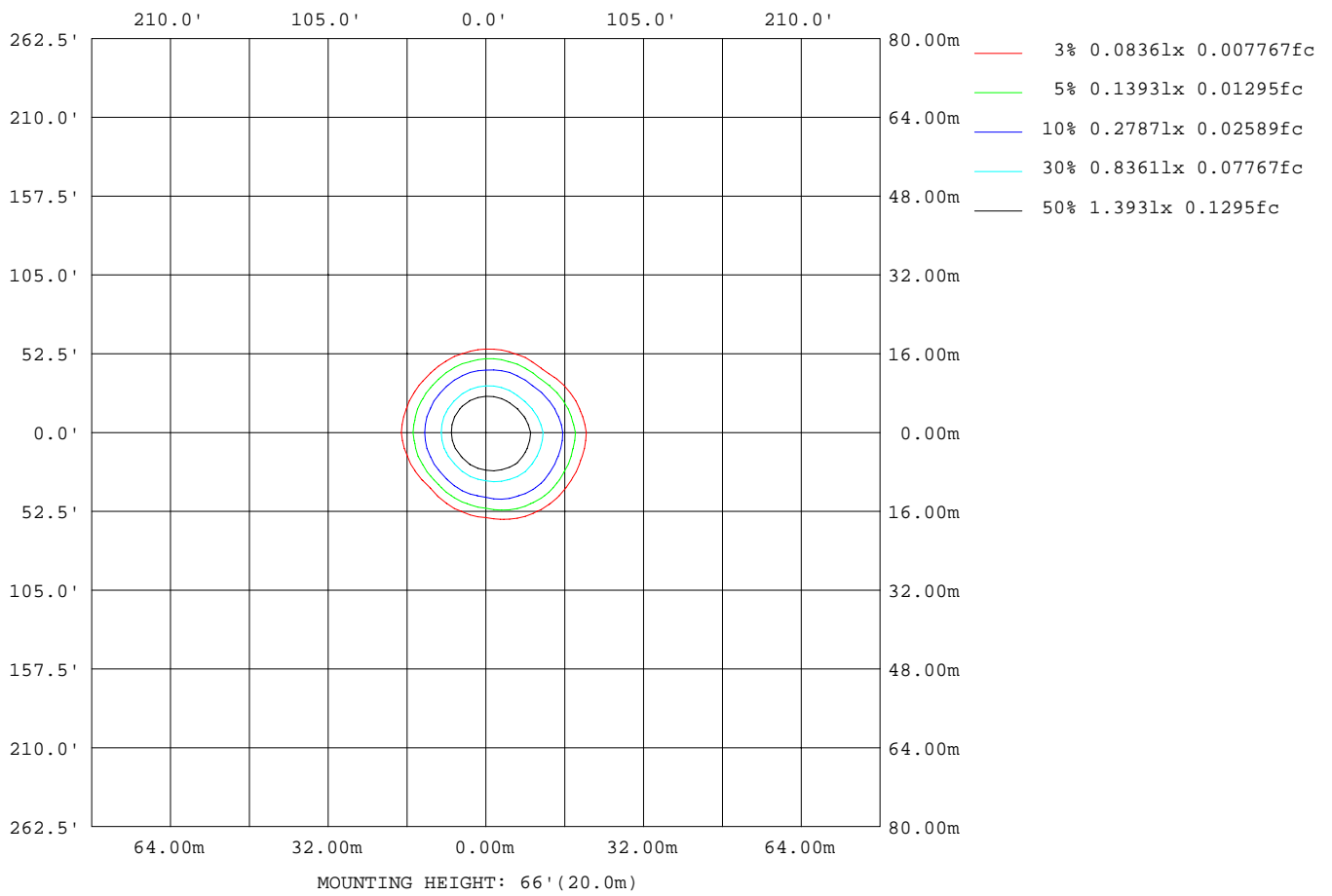
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: 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:

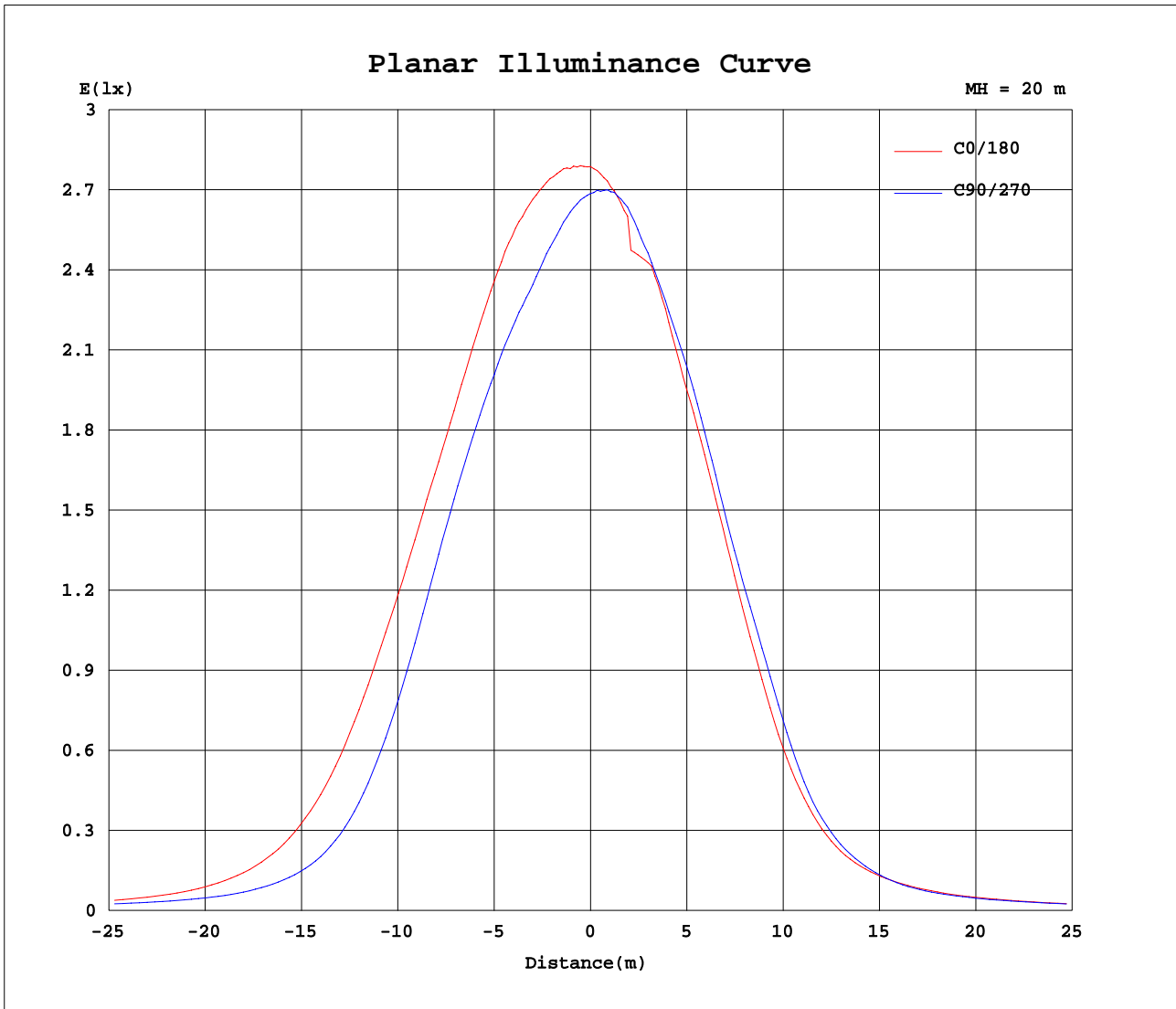
AvgL	cd/m2
L_0~180(65)av	665
L_0~180(75)av	745
L_0~180(85)av	1362
L_90~270(65)av	535
L_90~270(75)av	492
L_90~270(85)av	418
L_45(65)av	589
L_45(75)av	583
L_45(85)av	588

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:

LUMINOUS DISTRIBUTION INTENSITY DATA

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

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	45	90	135	180	225	270	315										
0	1086	1086	1086	1086	1086	1086	1086	1086										
5	1088	1069	1035	1031	1033	1059	1084	1079										
10	1060	1040	959	951	955	982	998	996										
15	986	964	869	824	806	835	875	910										
20	858	842	726	645	617	654	683	754										
25	701	686	514	413	397	412	476	539										
30	507	477	297	222	216	216	253	313										
35	308	286	149	109	118	113	133	168										
40	171	152	83.0	61.8	76.4	68.5	76.0	85.0										
45	98.3	84.6	54.4	46.2	54.7	50.2	53.2	57.1										
50	65.0	57.2	42.7	40.1	42.6	40.9	42.5	45.8										
55	48.0	44.4	35.1	32.8	34.6	33.5	33.6	37.6										
60	38.2	34.6	28.4	27.7	29.4	28.2	27.2	31.0										
65	31.6	27.5	23.1	23.3	24.6	23.3	22.1	25.5										
70	26.4	21.4	17.7	18.9	20.7	18.8	16.9	20.2										
75	21.5	15.0	12.8	15.4	17.1	14.8	12.6	15.1										
80	17.5	9.47	7.85	10.9	13.4	10.7	8.21	9.82										
85	13.9	4.19	3.48	5.90	9.87	6.38	3.80	4.04										
90	7.71	0.03	0.16	0.06	5.78	0.04	0.15	0.06										

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: