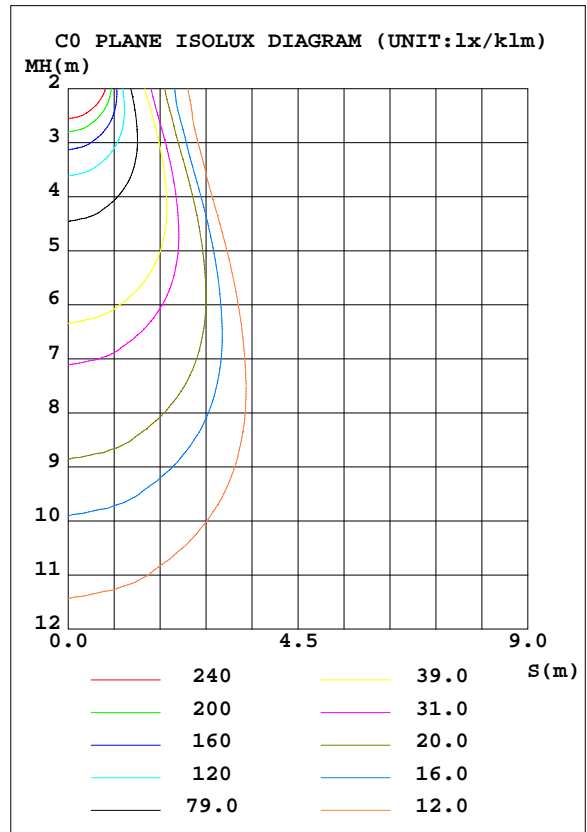
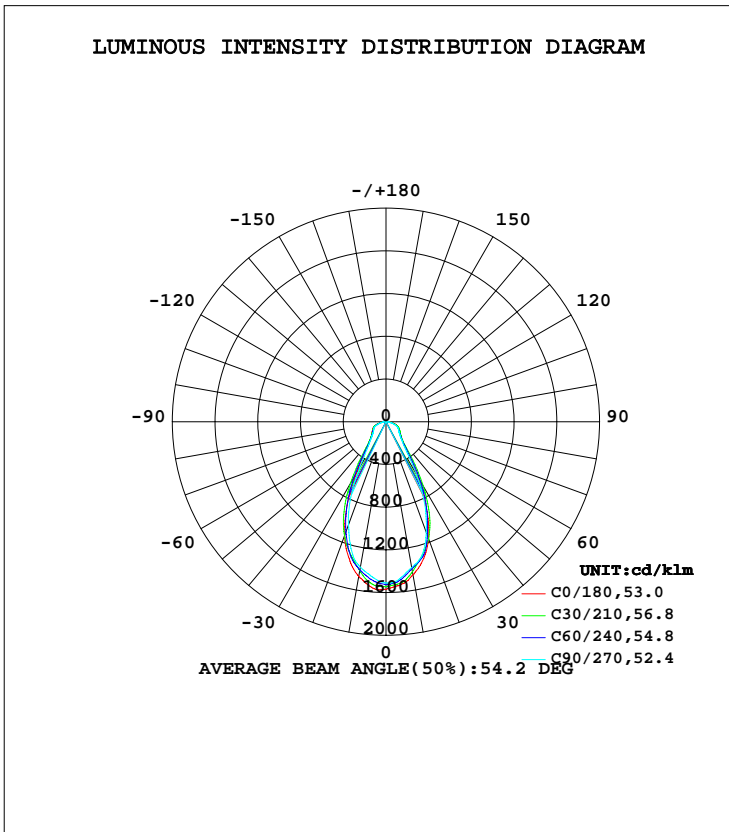


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: PAR38-18W-3000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL		I _{max} (cd/klm)	1575	S/MH(C0/180)	0.80
NOMINAL POWER(W)	18	LOR(%)	165.2	S/MH(C90/270)	0.78
RATED VOLTAGE(V)	220.0	TOTAL FLUX(lm/klm)	1652.4	η UP, DN(C0-180)	0.0,83.6
NOMINAL FLUX(lm)	1000	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0,81.6
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE(V)	230.0	η down(%)	165.2	CIBSE SHR MAX	0.90



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2021-12-10

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:

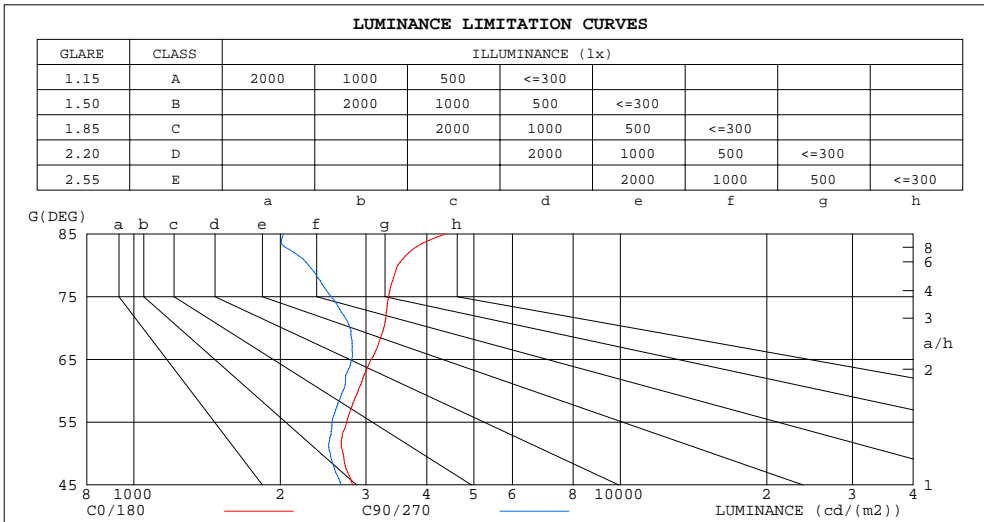
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	$\%lum, lamp$
10	1455	1413	1388	1386	1469	1411	1382	1365	0- 10	139.5	139.5	8.44,13.9
20	1166	1150	1103	1096	1133	1117	1028	1082	10- 20	357.3	496.8	30.1,49.7
30	589.6	673.2	576.1	621.2	557.0	630.3	488.6	625.5	20- 30	396.6	893.5	54.1,89.3
40	247.6	253.4	236.1	241.7	245.8	244.7	227.8	239.6	30- 40	240.2	1134	68.6,113
50	173.0	172.7	163.0	169.4	172.3	167.5	157.0	166.4	40- 50	152.2	1286	77.8,129
60	144.6	140.6	134.6	139.2	145.6	136.9	132.0	137.5	50- 60	136.2	1422	86.1,142
70	111.6	105.1	95.14	101.7	111.7	104.7	94.17	101.3	60- 70	121.9	1544	93.4,154
80	60.57	49.90	39.69	47.24	54.06	47.77	39.29	49.36	70- 80	79.71	1624	98.3,162
90	18.05	7.376	4.294	7.928	15.12	7.570	5.025	8.548	80- 90	28.86	1652	100,165
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/k1m									UNIT:lm/k1m		

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2021-12-10

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: PAR38-18W-3000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	4382	2029
80	3488	2286
75	3339	2543
70	3264	2782
65	3079	2805
60	2892	2693
55	2740	2556
50	2692	2536
45	2820	2668

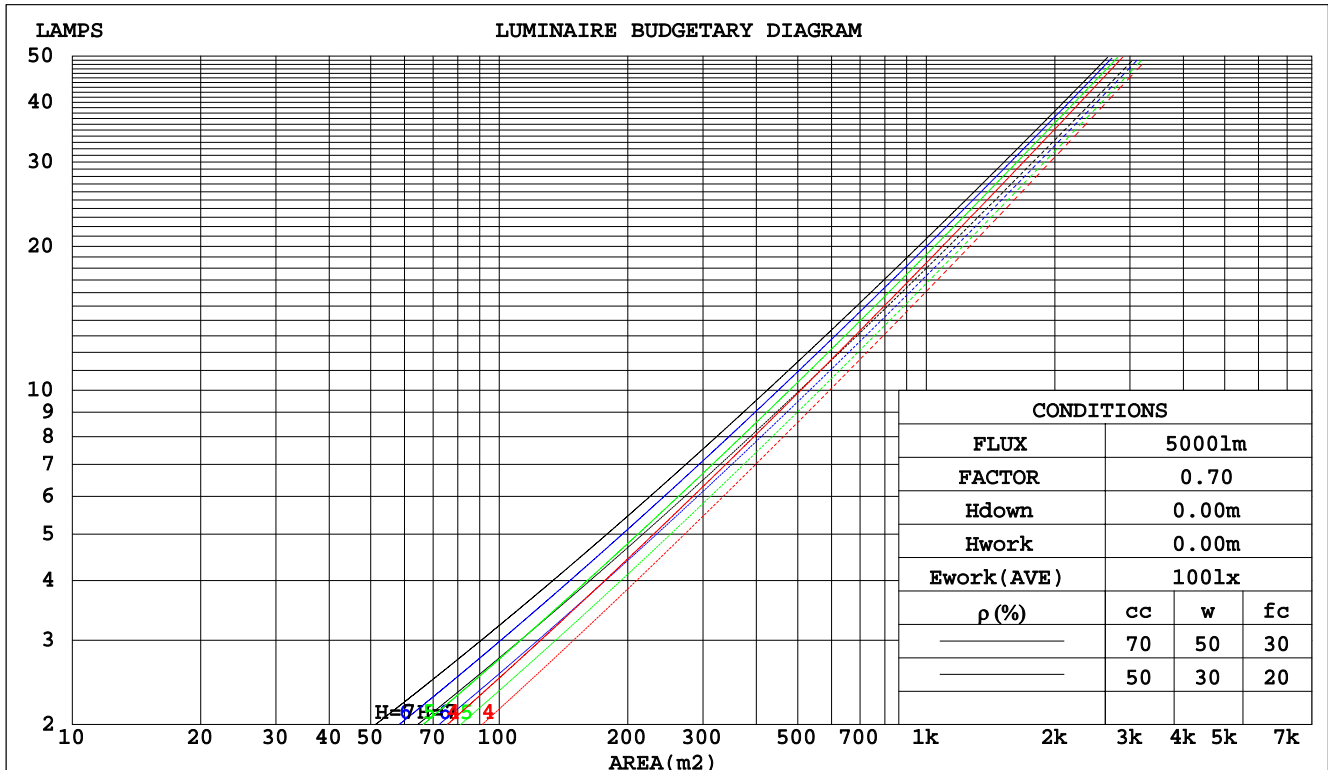
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2021-12-10

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: PAR38-18W-3000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	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																
RCR	RCR:Room Cavity Ratio															
	Coefficients of Utilization(CU)															
0.0	1.97	1.97	1.97	1.92	1.92	1.92	1.84	1.84	1.84	1.76	1.76	1.76	1.69	1.69	1.69	1.65
1.0	1.76	1.71	1.65	1.73	1.67	1.63	1.66	1.61	1.57	1.59	1.56	1.53	1.54	1.51	1.48	1.45
2.0	1.59	1.50	1.42	1.56	1.47	1.40	1.50	1.43	1.37	1.45	1.39	1.34	1.40	1.35	1.31	1.28
3.0	1.44	1.33	1.25	1.42	1.32	1.24	1.37	1.29	1.21	1.33	1.26	1.19	1.29	1.23	1.18	1.14
4.0	1.32	1.20	1.11	1.30	1.19	1.11	1.26	1.17	1.09	1.23	1.14	1.08	1.19	1.12	1.06	1.03
5.0	1.22	1.10	1.01	1.20	1.09	1.00	1.17	1.07	.99	1.14	1.05	.98	1.11	1.03	.97	.94
6.0	1.13	1.01	.92	1.12	.90	.92	1.09	.99	.91	1.06	.97	.90	1.04	.96	.90	.87
7.0	1.05	.93	.85	1.04	.93	.84	1.02	.91	.84	.99	.90	.83	.97	.89	.83	.80
8.0	.98	.87	.79	.97	.86	.78	.95	.85	.78	.93	.84	.78	.92	.83	.77	.75
9.0	.92	.81	.73	.91	.81	.73	.90	.80	.73	.88	.79	.72	.87	.78	.72	.70
10.0	.87	.76	.69	.86	.76	.68	.85	.75	.68	.83	.74	.68	.82	.74	.68	.65



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2021-12-10

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: PAR38-18W-3000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	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	.421	.240	.076	.410	.234	.074	.389	.223	.071	.369	.213	.068	.351	.203	.066	
2.0	.391	.214	.066	.381	.210	.065	.363	.202	.063	.346	.194	.061	.330	.187	.059	
3.0	.361	.192	.058	.353	.189	.057	.336	.182	.055	.322	.176	.054	.308	.170	.053	
4.0	.334	.174	.051	.327	.171	.051	.313	.166	.050	.300	.161	.049	.287	.156	.048	
5.0	.310	.158	.046	.304	.156	.045	.292	.152	.045	.280	.148	.044	.269	.144	.043	
6.0	.290	.145	.042	.284	.143	.041	.273	.140	.041	.263	.137	.040	.253	.133	.040	
7.0	.272	.134	.038	.266	.133	.038	.257	.130	.037	.248	.127	.037	.239	.124	.037	
8.0	.255	.125	.035	.251	.124	.035	.242	.121	.035	.234	.119	.034	.227	.116	.034	
9.0	.241	.117	.033	.237	.116	.032	.229	.113	.032	.222	.111	.032	.215	.109	.032	
10.0	.228	.109	.030	.225	.109	.030	.218	.107	.030	.211	.105	.030	.205	.103	.030	

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	.315	.315	.315	.269	.269	.269	.184	.184	.184	.105	.105	.105	.034	.034	.034	
1.0	.292	.259	.229	.250	.222	.197	.171	.153	.136	.098	.088	.079	.031	.028	.026	
2.0	.272	.218	.173	.233	.188	.150	.160	.130	.104	.092	.076	.061	.030	.024	.020	
3.0	.255	.188	.135	.219	.162	.117	.150	.113	.082	.087	.066	.048	.028	.021	.016	
4.0	.240	.165	.108	.206	.143	.094	.142	.099	.066	.082	.058	.039	.026	.019	.013	
5.0	.226	.147	.088	.194	.127	.077	.134	.089	.054	.078	.052	.032	.025	.017	.011	
6.0	.214	.132	.074	.184	.114	.064	.127	.080	.045	.073	.047	.027	.024	.015	.009	
7.0	.202	.120	.063	.174	.104	.055	.120	.073	.039	.070	.043	.023	.023	.014	.008	
8.0	.192	.110	.054	.165	.096	.047	.114	.067	.033	.066	.040	.020	.022	.013	.007	
9.0	.182	.102	.047	.157	.088	.041	.109	.062	.029	.063	.037	.017	.021	.012	.006	
10.0	.174	.094	.042	.150	.082	.036	.104	.058	.026	.061	.034	.015	.020	.011	.005	

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2021-12-10

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: PAR38-18W-3000K					TYPE:					WEIGHT:				
SPEC.:					DIM.:					SERIAL No.:				
MFR.: EVERFINE					SUR.:					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	14.8	16.0	15.1	16.2	16.4	14.4	15.6	14.6	15.8	15.9				
3H	16.9	18.0	17.1	18.2	18.4	16.2	17.4	16.5	17.6	17.8				
4H	17.8	18.9	18.1	19.1	19.3	17.0	18.0	17.2	18.3	18.5				
6H	18.6	19.6	18.9	19.8	20.1	17.4	18.5	17.8	18.7	19.0				
8H	18.9	19.9	19.2	20.2	20.4	17.6	18.6	17.9	18.8	19.1				
12H	19.2	20.2	19.6	20.5	20.7	17.7	18.6	18.0	18.9	19.2				
4H 2H	15.5	16.6	15.8	16.8	17.1	15.2	16.3	15.5	16.5	16.7				
3H	17.8	18.7	18.1	19.0	19.3	17.2	18.2	17.6	18.5	18.7				
4H	18.8	19.7	19.2	20.0	20.3	18.1	18.9	18.4	19.2	19.6				
6H	19.8	20.5	20.2	20.9	21.2	18.7	19.4	19.1	19.8	20.1				
8H	20.2	20.9	20.6	21.3	21.6	18.9	19.6	19.3	19.9	20.3				
12H	20.6	21.2	21.0	21.6	22.0	19.0	19.7	19.4	20.0	20.4				
8H 4H	19.2	19.9	19.6	20.2	20.6	18.5	19.2	18.9	19.6	19.9				
6H	20.3	20.9	20.7	21.3	21.7	19.2	19.8	19.7	20.2	20.7				
8H	20.8	21.3	21.3	21.8	22.2	19.5	20.0	20.0	20.5	20.9				
12H	21.3	21.8	21.8	22.3	22.7	19.7	20.2	20.2	20.6	21.1				
12H 4H	19.2	19.8	19.6	20.2	20.6	18.5	19.2	19.0	19.6	20.0				
6H	20.3	20.9	20.8	21.3	21.7	19.4	19.9	19.8	20.3	20.8				
8H	20.9	21.4	21.4	21.8	22.3	19.7	20.1	20.1	20.6	21.1				
Variations with the observer position at spacings:														
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.2								
1.5H	+ 0.1 / - 0.2					+ 0.1 / - 0.2								
2.0H	+ 0.2 / - 0.3					+ 0.1 / - 0.3								

CIE Pub.117, 1000 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.0)

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2021-12-10

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: PAR38-18W-3000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

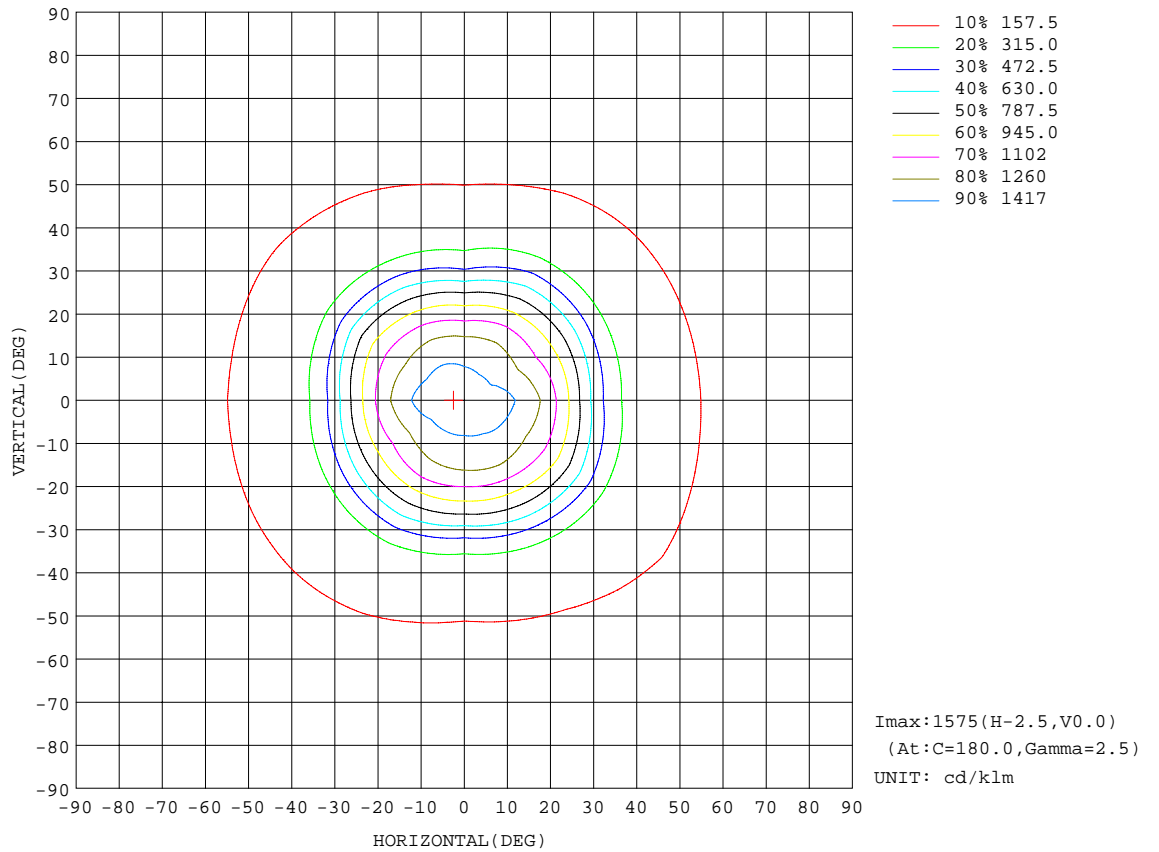
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	120	105	96	119	105	96	117	104	96	88
0.80	134	119	110	132	119	110	130	117	109	100
1.00	144	130	120	142	129	120	139	130	119	110
1.25	153	139	130	151	138	130	147	136	128	119
1.50	159	146	138	157	145	137	152	142	135	125
2.00	167	156	148	164	154	146	159	150	144	133
2.50	172	162	154	168	159	152	163	155	149	137
3.00	176	167	160	172	164	158	166	160	154	142
4.00	181	174	168	177	171	165	171	165	161	147
5.00	184	178	173	180	175	170	173	169	165	151
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2021-12-10

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: PAR38-18W-3000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

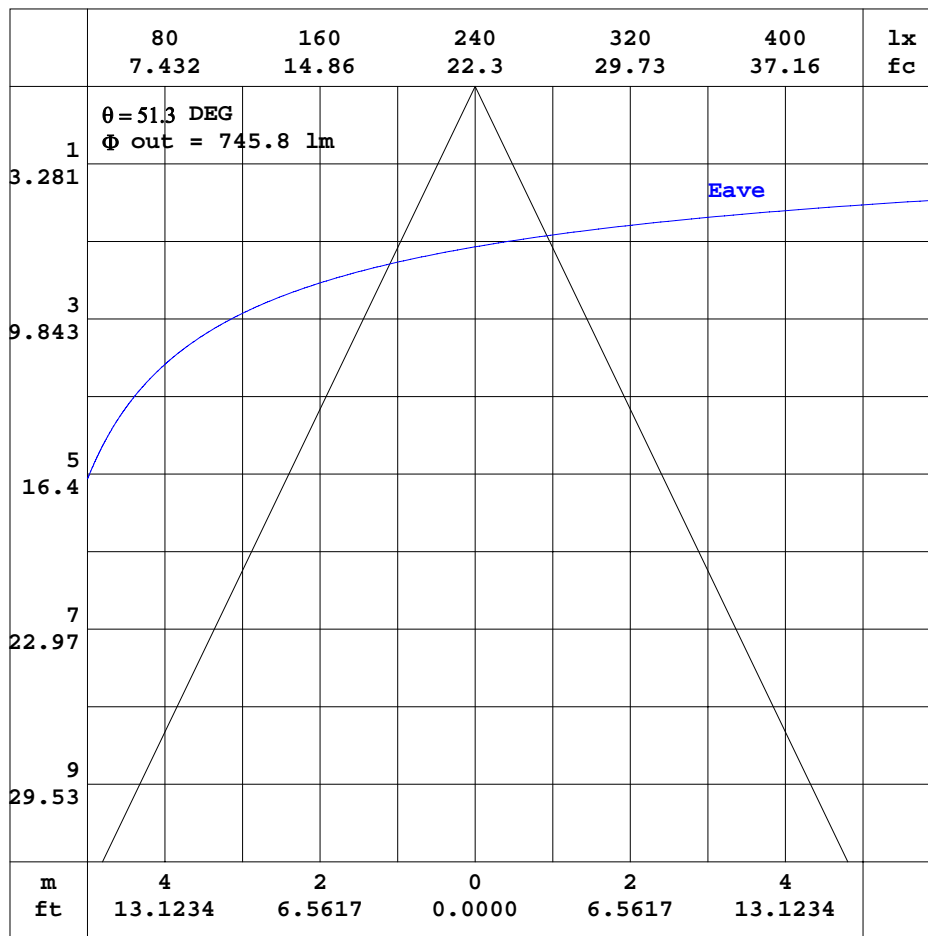


C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2021-12-10

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 CURVES

NAME: PAR38-18W-3000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:



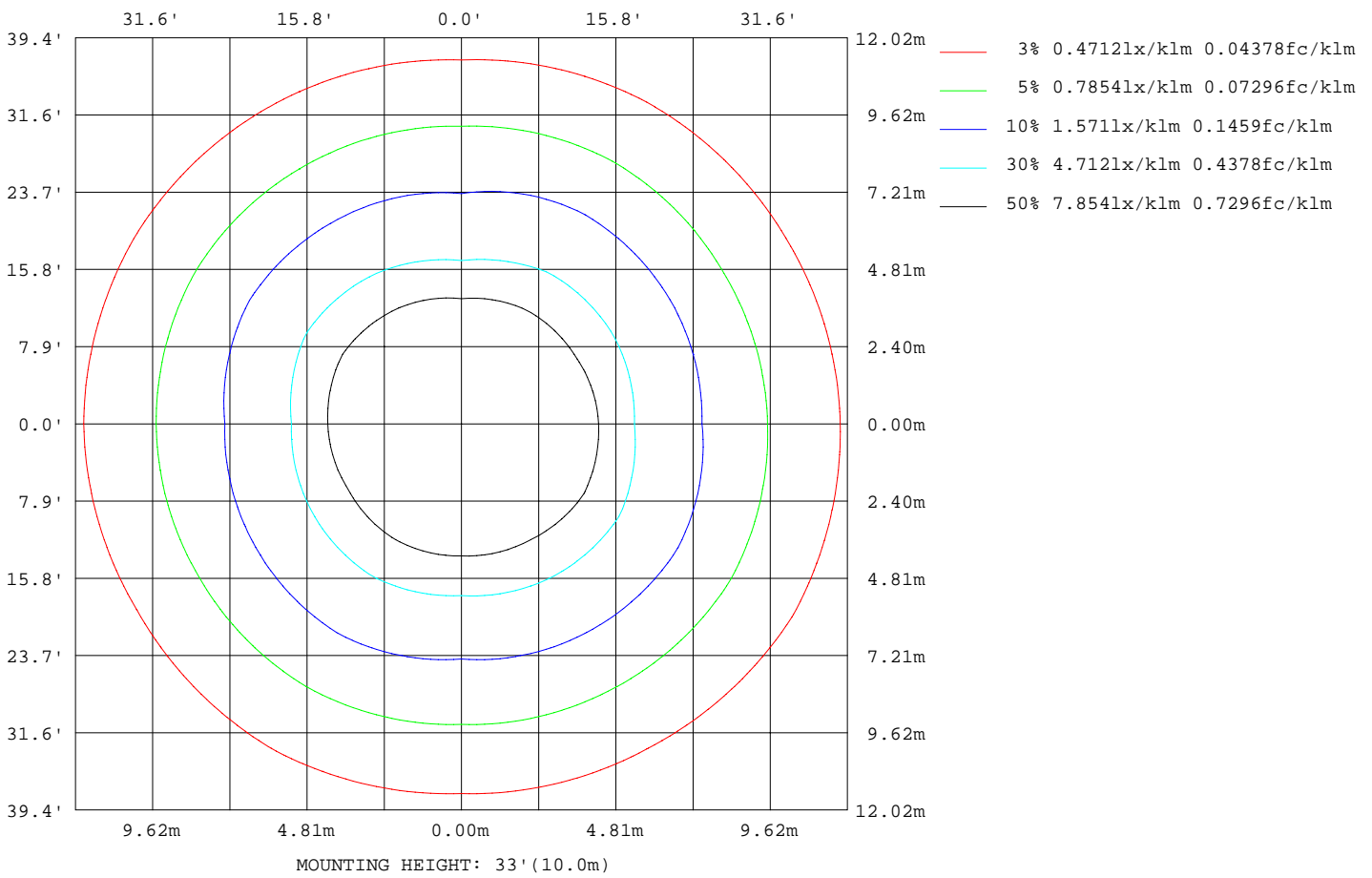
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2021-12-10

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: PAR38-18W-3000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2021-12-10

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: PAR38-18W-3000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

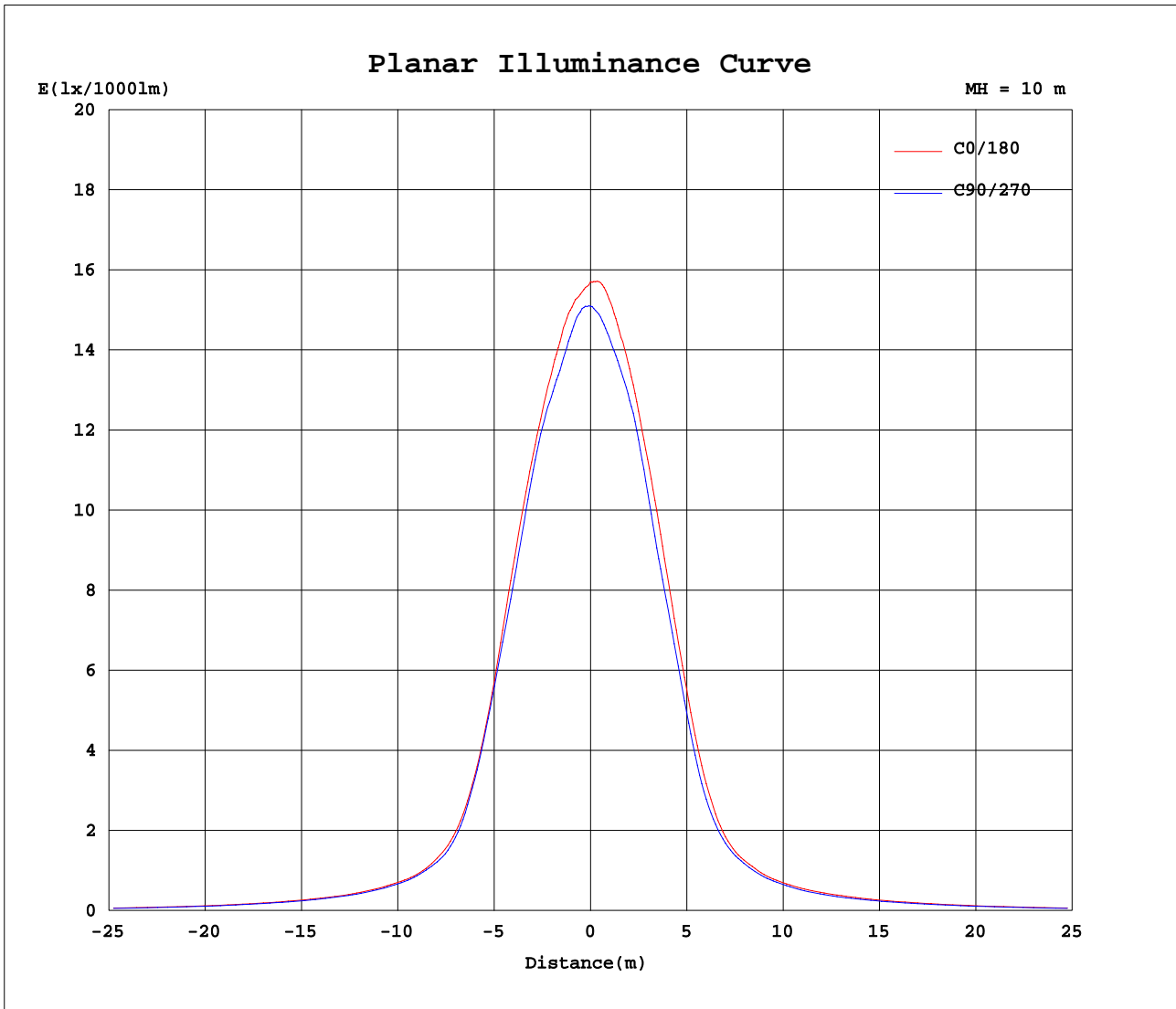
AvgL	cd/m2
L_0~180(65)av	3095
L_0~180(75)av	3249
L_0~180(85)av	4005
L_90~270(65)av	2802
L_90~270(75)av	2520
L_90~270(85)av	2078
L_45(65)av	2932
L_45(75)av	2929
L_45(85)av	2863

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2021-12-10

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: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2021-12-10

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: PAR38-18W-3000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

Table--1

UNIT: cd/klm

C(DEG)\ γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330							
0	1571	1545	1523	1509	1501	1491	1571	1545	1523	1509	1501	1491							
5	1534	1518	1490	1476	1476	1486	1556	1524	1487	1459	1446	1445							
10	1455	1426	1399	1388	1379	1392	1469	1414	1409	1382	1364	1366							
15	1340	1301	1315	1298	1278	1250	1331	1285	1292	1250	1265	1237							
20	1166	1166	1133	1103	1116	1075	1133	1136	1097	1028	1084	1080							
25	899	965	903	864	877	859	862	932	863	780	865	888							
30	590	700	647	576	638	605	557	663	598	489	621	630							
35	358	440	386	334	388	365	336	404	357	306	389	384							
40	248	262	245	236	244	240	246	253	237	228	239	240							
45	199	206	196	189	196	194	197	197	192	185	192	194							
50	173	178	168	163	170	168	172	170	165	157	164	168							
55	157	160	149	147	152	153	157	152	146	143	149	152							
60	145	146	135	135	138	141	146	140	134	132	135	139							
65	130	131	121	119	119	126	131	129	123	118	119	124							
70	112	110	99.8	95.1	98.2	105	112	109	100	94.2	97.6	105							
75	86.4	83.0	71.6	65.8	69.8	78.6	81.8	80.3	71.4	64.6	70.0	80.6							
80	60.6	56.7	43.1	39.7	42.4	52.1	54.1	52.6	43.0	39.3	42.8	55.9							
85	38.2	32.9	19.0	17.7	18.8	29.0	31.6	29.9	19.3	18.5	19.0	33.1							
90	18.1	11.0	3.76	4.29	4.09	11.8	15.1	10.6	4.57	5.03	4.20	12.9							

C Range: 0 - 360DEG	γ Range: 0 - 90DEG
C Interval: 30.0DEG	γ Interval: 0.5DEG
Test Speed: HIGH	Test System:EVERFINE GO-i300_V1 SYSTEM V2.0.406.11
Temperature:25.3DEG	Humidity:65.0%
Operators:DAMIN	Test Distance:3.161m [K=1.0000]
Test Date:2021-12-10	Remarks: