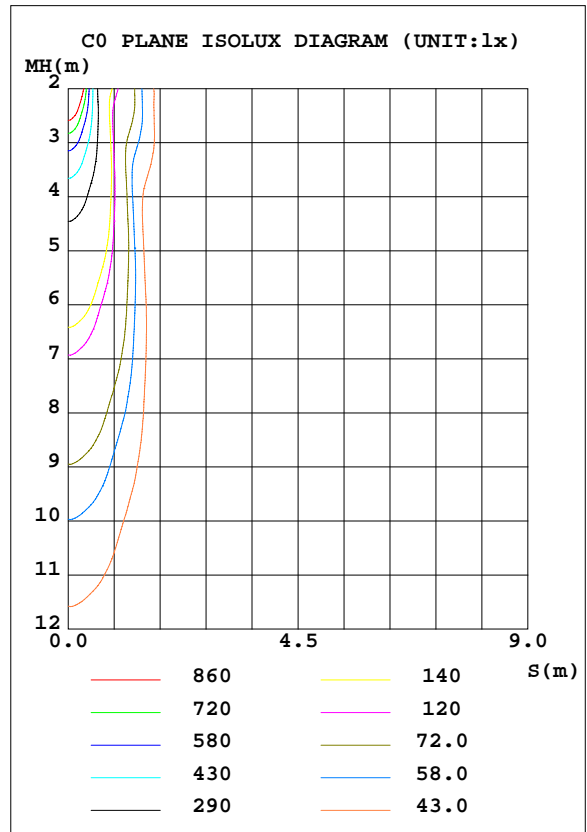
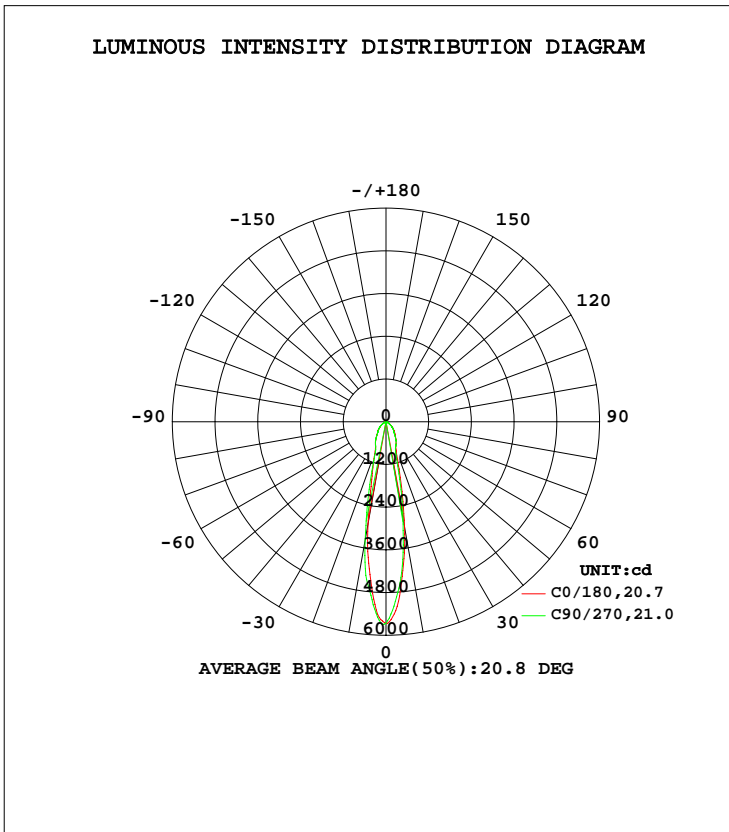


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: PAR38-18W-4000K-24	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:0.005	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	1021	I _{max} (cd)	5702	S/MH(C0/180)	0.35
NOMINAL POWER(W)	18	LOR(%)	100.0	S/MH(C90/270)	0.39
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	1876.6	η UP, DN(C0-180)	0.0,48.1
NOMINAL FLUX(lm)	1876.64	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0,51.9
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE(V)	230	η down(%)	100.0	CIBSE SHR MAX	1.00



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:fu
 Test Date:12 September 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:

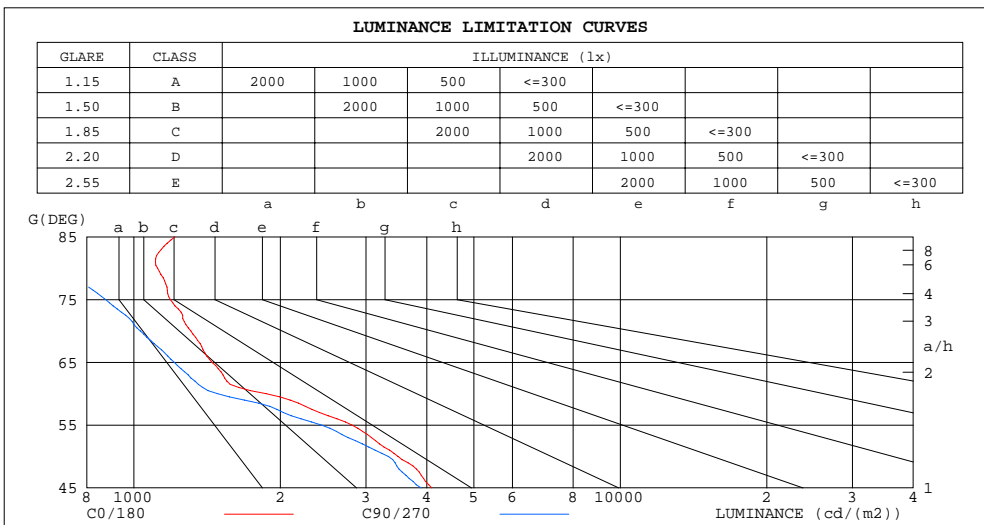
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	Φ lum,lamp
10	3010	2884	2758	2628	2914	3192	3372	3451	0- 10	395.9	395.9	21.1,21.1
20	819.2	793.5	784.9	828.0	902.5	886.3	863.8	879.1	10- 20	431.7	827.6	44.1,44.1
30	556.7	547.1	547.1	554.5	578.8	563.3	577.9	580.1	20- 30	316.2	1144	61,61
40	373.7	359.7	339.8	342.2	361.0	351.9	346.8	364.6	30- 40	275.0	1419	75.6,75.6
50	220.4	225.7	215.6	207.9	215.8	231.4	227.2	235.5	40- 50	221.0	1640	87.4,87.4
60	91.87	84.28	74.81	83.34	99.01	100.8	92.80	98.92	50- 60	137.7	1778	94.7,94.7
70	44.02	41.75	35.48	37.05	48.55	46.16	39.22	42.65	60- 70	59.89	1837	97.9,97.9
80	19.09	16.17	12.27	14.99	22.74	18.75	13.25	17.53	70- 80	30.34	1868	99.5,99.5
90	3.775	0.3105	0.4132	0.5891	6.795	0.7432	0.2268	0.4870	80- 90	8.891	1877	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:12 September 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: PAR38-18W-4000K-24	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:0.005	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	1214	556
80	1119	702
75	1188	875
70	1310	1031
65	1447	1210
60	1870	1487
55	2807	2428
50	3490	3333
45	4097	3895

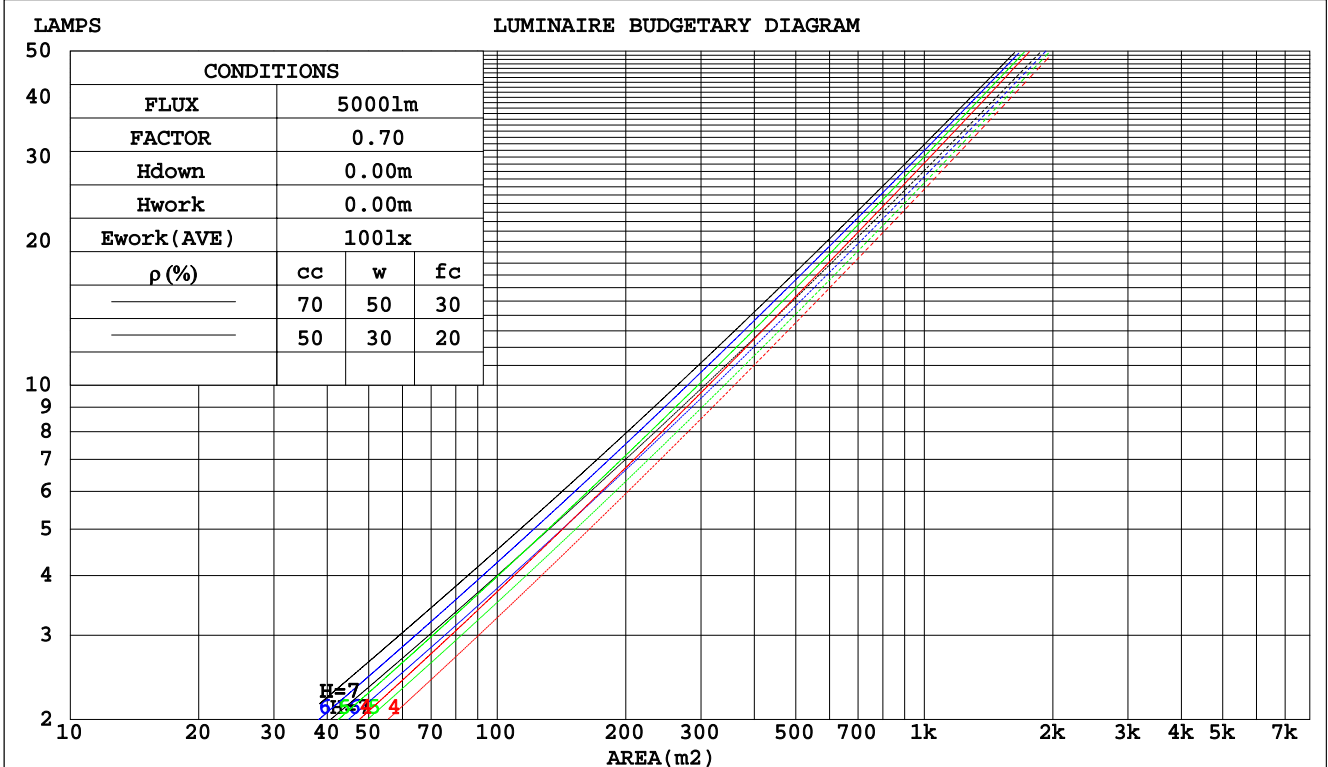
C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:fu
 Test Date:12 September 2022

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: PAR38-18W-4000K-24	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	1.04	1.07	1.05	1.03	1.03	1.01	.99	.99	.98	.96	.96	.95	.94	.92
2.0	1.01	.96	.93	.99	.95	.91	.96	.92	.89	.93	.90	.87	.90	.88	.86	.84
3.0	.93	.88	.83	.92	.87	.83	.89	.85	.81	.87	.83	.80	.84	.81	.79	.77
4.0	.87	.81	.76	.86	.80	.76	.83	.79	.75	.81	.77	.74	.79	.76	.73	.71
5.0	.81	.75	.70	.80	.74	.70	.78	.73	.69	.77	.72	.69	.75	.71	.68	.66
6.0	.76	.70	.65	.75	.69	.65	.74	.69	.65	.72	.68	.64	.71	.67	.64	.62
7.0	.72	.66	.61	.71	.65	.61	.70	.65	.61	.69	.64	.60	.68	.63	.60	.59
8.0	.68	.62	.58	.67	.62	.58	.66	.61	.57	.65	.61	.57	.64	.60	.57	.55
9.0	.65	.59	.55	.64	.58	.55	.63	.58	.54	.62	.58	.54	.62	.57	.54	.53
10.0	.62	.56	.52	.61	.56	.52	.60	.55	.52	.60	.55	.52	.59	.55	.51	.50



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:fu
 Test Date:12 September 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: PAR38-18W-4000K-24	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	.202	.115	.036	.195	.111	.035	.182	.105	.033	.170	.098	.032	.160	.093	.030	
2.0	.192	.105	.032	.186	.103	.032	.175	.098	.030	.165	.093	.029	.156	.088	.028	
3.0	.181	.096	.029	.176	.094	.028	.167	.090	.027	.158	.087	.027	.150	.083	.026	
4.0	.170	.088	.026	.165	.087	.026	.157	.083	.025	.150	.081	.024	.143	.078	.024	
5.0	.159	.081	.024	.156	.080	.023	.149	.077	.023	.142	.075	.022	.136	.073	.022	
6.0	.150	.075	.022	.147	.074	.021	.141	.072	.021	.135	.070	.021	.130	.068	.020	
7.0	.142	.070	.020	.139	.069	.020	.133	.067	.019	.128	.066	.019	.123	.064	.019	
8.0	.134	.065	.018	.131	.065	.018	.127	.063	.018	.122	.062	.018	.118	.060	.018	
9.0	.127	.061	.017	.125	.061	.017	.120	.059	.017	.116	.058	.017	.112	.057	.016	
10.0	.120	.058	.016	.118	.057	.016	.115	.056	.016	.111	.055	.016	.107	.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	.075	.087	.068	.053	.050	.040	.031	.016	.013	.010	
4.0	.137	.099	.070	.118	.086	.061	.081	.060	.043	.047	.035	.025	.015	.011	.008	
5.0	.128	.088	.058	.110	.076	.050	.076	.053	.035	.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	.114	.071	.041	.098	.062	.036	.068	.043	.025	.039	.025	.015	.013	.008	.005	
8.0	.108	.065	.035	.093	.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:12 September 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: PAR38-18W-4000K-24					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	11.9	12.9	12.1	13.1	13.2	11.5	12.5	11.7	12.7	12.8				
3H	12.3	13.2	12.5	13.4	13.6	11.8	12.7	12.0	12.9	13.1				
4H	12.4	13.3	12.7	13.6	13.8	11.9	12.8	12.1	13.0	13.2				
6H	12.6	13.4	12.9	13.7	13.9	11.9	12.8	12.2	13.0	13.3				
8H	12.6	13.5	12.9	13.7	14.0	11.9	12.7	12.2	13.0	13.3				
12H	12.7	13.5	13.0	13.7	14.0	11.9	12.7	12.2	12.9	13.2				
4H 2H	12.0	12.9	12.2	13.1	13.3	11.6	12.5	11.9	12.7	13.0				
3H	12.5	13.3	12.8	13.5	13.8	12.0	12.8	12.4	13.1	13.4				
4H	12.8	13.5	13.1	13.8	14.1	12.2	12.9	12.6	13.2	13.5				
6H	13.0	13.6	13.4	14.0	14.3	12.3	13.0	12.7	13.3	13.7				
8H	13.1	13.7	13.5	14.0	14.4	12.4	12.9	12.8	13.3	13.7				
12H	13.2	13.7	13.6	14.1	14.5	12.4	12.9	12.8	13.3	13.7				
8H 4H	12.8	13.4	13.2	13.7	14.1	12.3	12.9	12.7	13.2	13.6				
6H	13.1	13.6	13.5	14.0	14.4	12.5	13.0	12.9	13.4	13.8				
8H	13.3	13.7	13.7	14.1	14.6	12.5	13.0	13.0	13.4	13.8				
12H	13.4	13.8	13.9	14.2	14.7	12.6	12.9	13.0	13.4	13.8				
12H 4H	12.8	13.3	13.2	13.7	14.1	12.3	12.8	12.7	13.2	13.6				
6H	13.1	13.5	13.6	14.0	14.4	12.5	12.9	12.9	13.3	13.8				
8H	13.3	13.6	13.7	14.1	14.6	12.6	12.9	13.0	13.4	13.8				
Variations with the observer position at spacings:														
S = 1.0H	+ 0.6 / - 0.8					+ 0.9 / - 1.1								
1.5H	+ 0.3 / - 0.4					+ 0.4 / - 0.5								
2.0H	+ 1.7 / - 1.8					+ 1.9 / - 2.1								

CIE Pub.117, 1877 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 2.2)

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:fu
 Test Date:12 September 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: PAR38-18W-4000K-24	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:0.005	Shielding Angle:

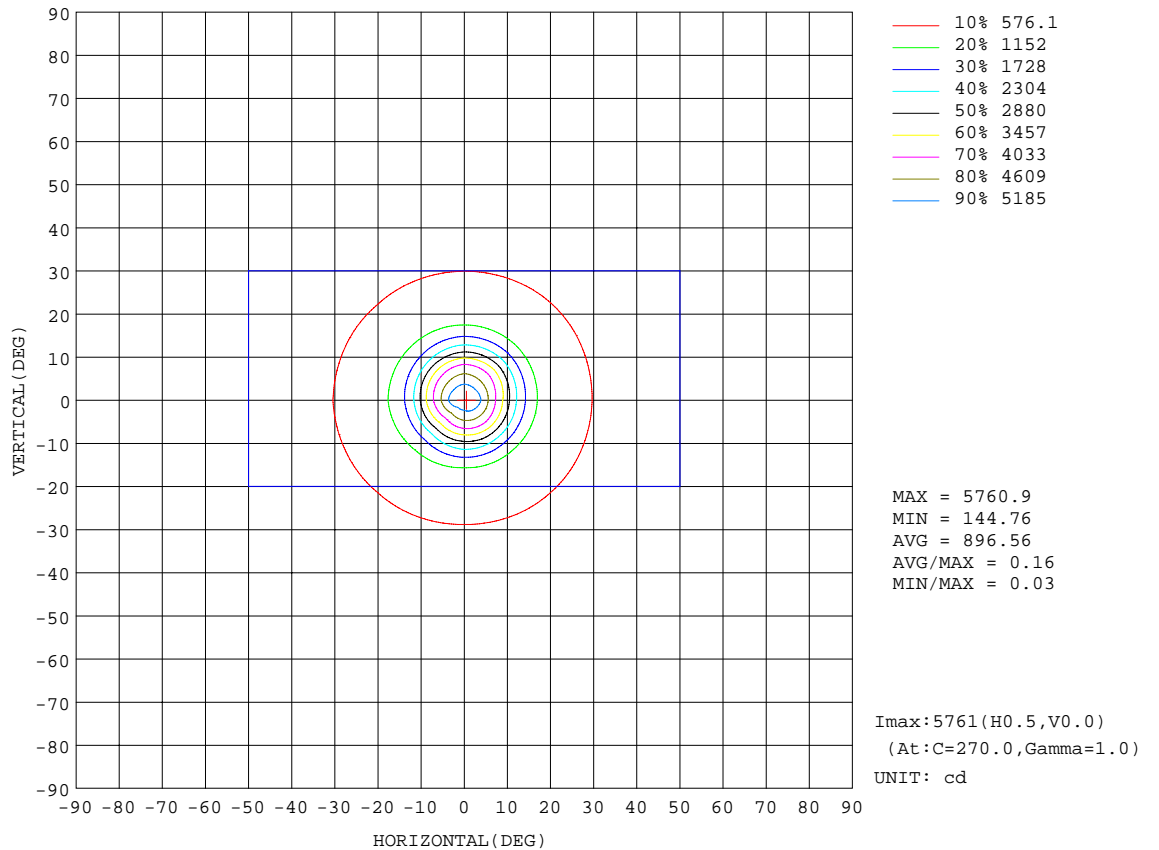
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	76	68	63	75	68	63	75	67	63	58
0.80	85	77	72	84	77	72	83	76	71	67
1.00	91	84	79	90	83	79	88	84	78	73
1.25	97	90	85	95	89	85	93	88	84	79
1.50	100	94	89	99	93	89	96	91	88	82
2.00	104	99	95	103	98	94	100	96	92	86
2.50	107	102	98	105	100	97	102	98	95	88
3.00	109	104	101	107	103	100	103	100	97	90
4.00	111	108	105	109	106	103	105	103	101	93
5.00	113	110	107	111	108	106	107	104	103	94
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:12 September 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: PAR38-18W-4000K-24	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:0.005	Shielding Angle:

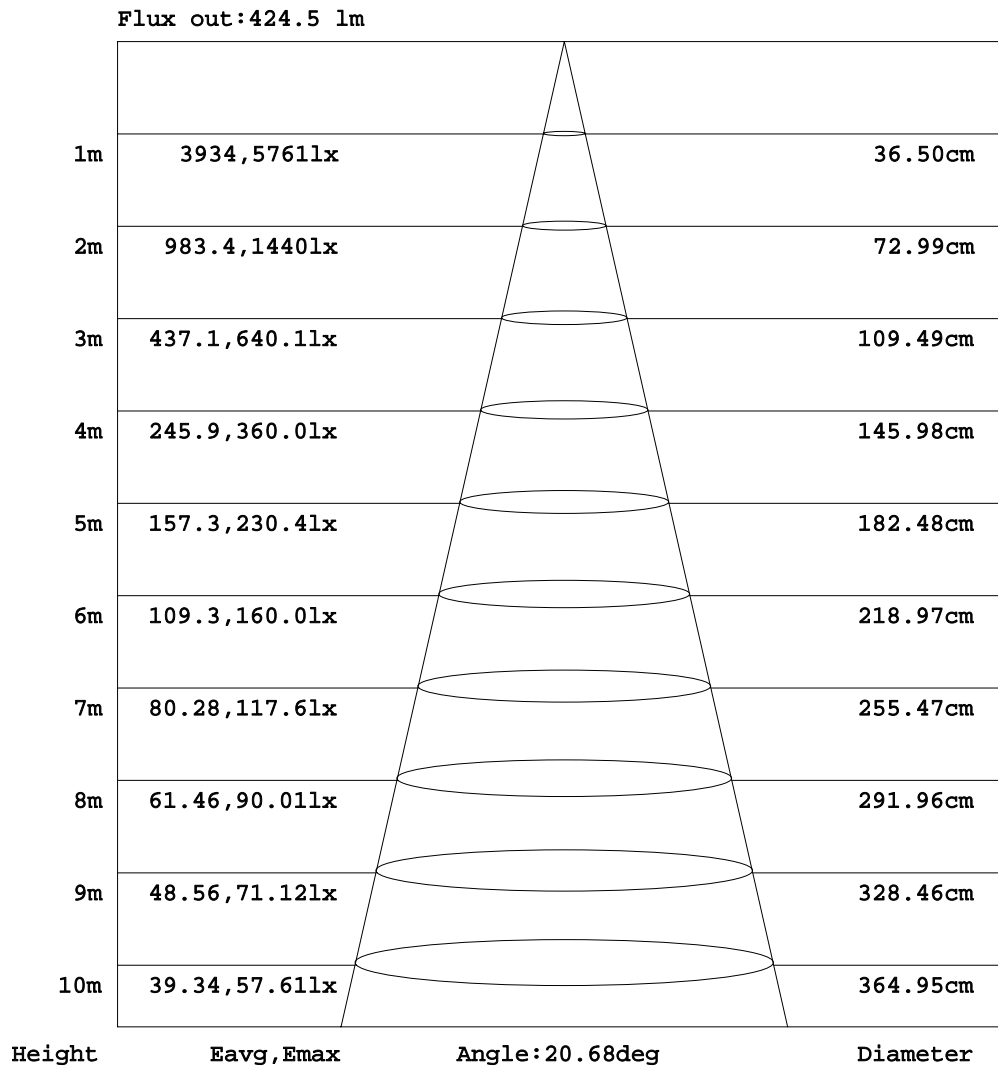


C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: MEDIUM
 Temperature: 25.3DEG
 Operators: fu
 Test Date: 12 September 2022

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: PAR38-18W-4000K-24	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:0.005	Shielding Angle:



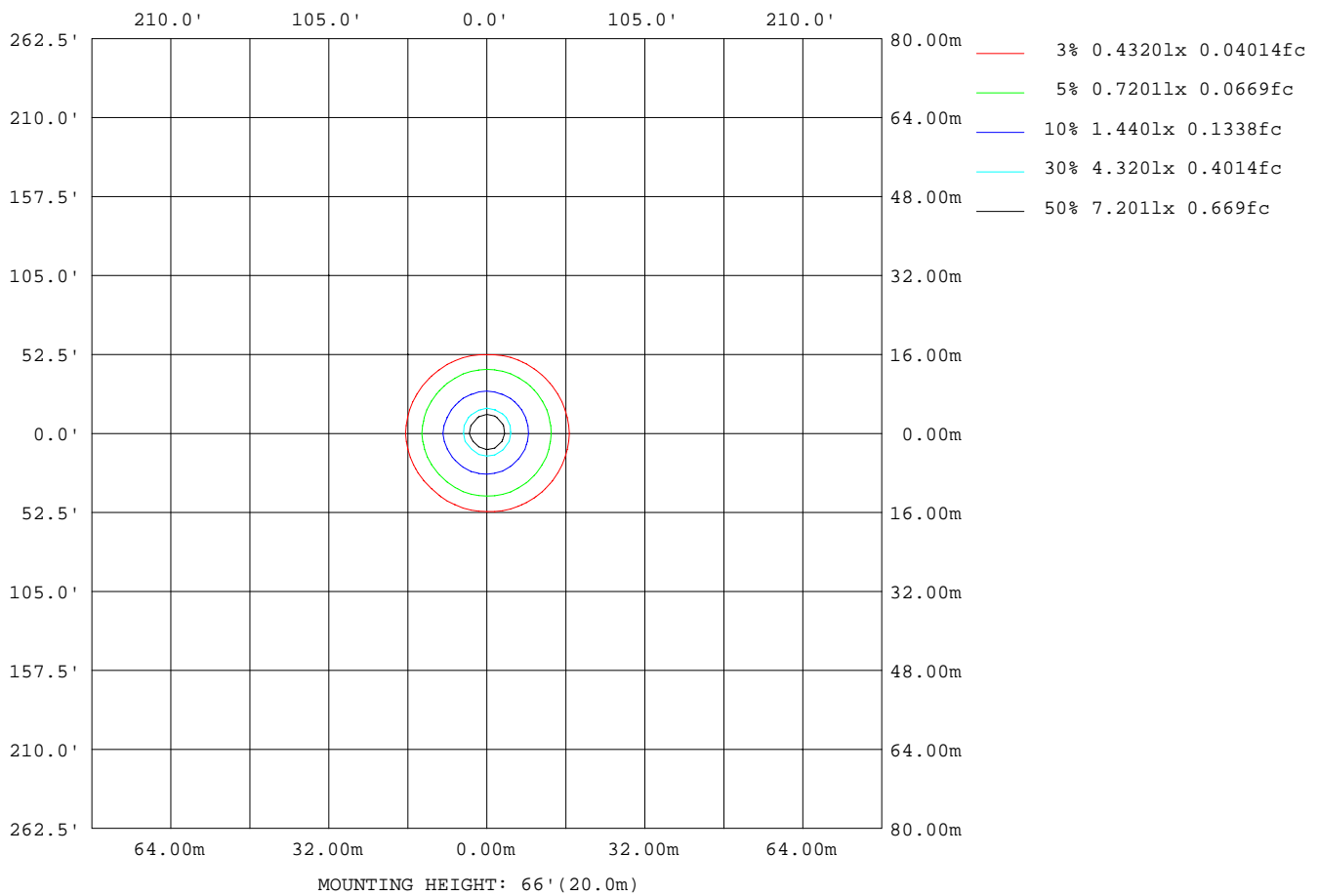
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:fu
 Test Date:12 September 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: PAR38-18W-4000K-24	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:12 September 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: PAR38-18W-4000K-24	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:0.005	Shielding Angle:

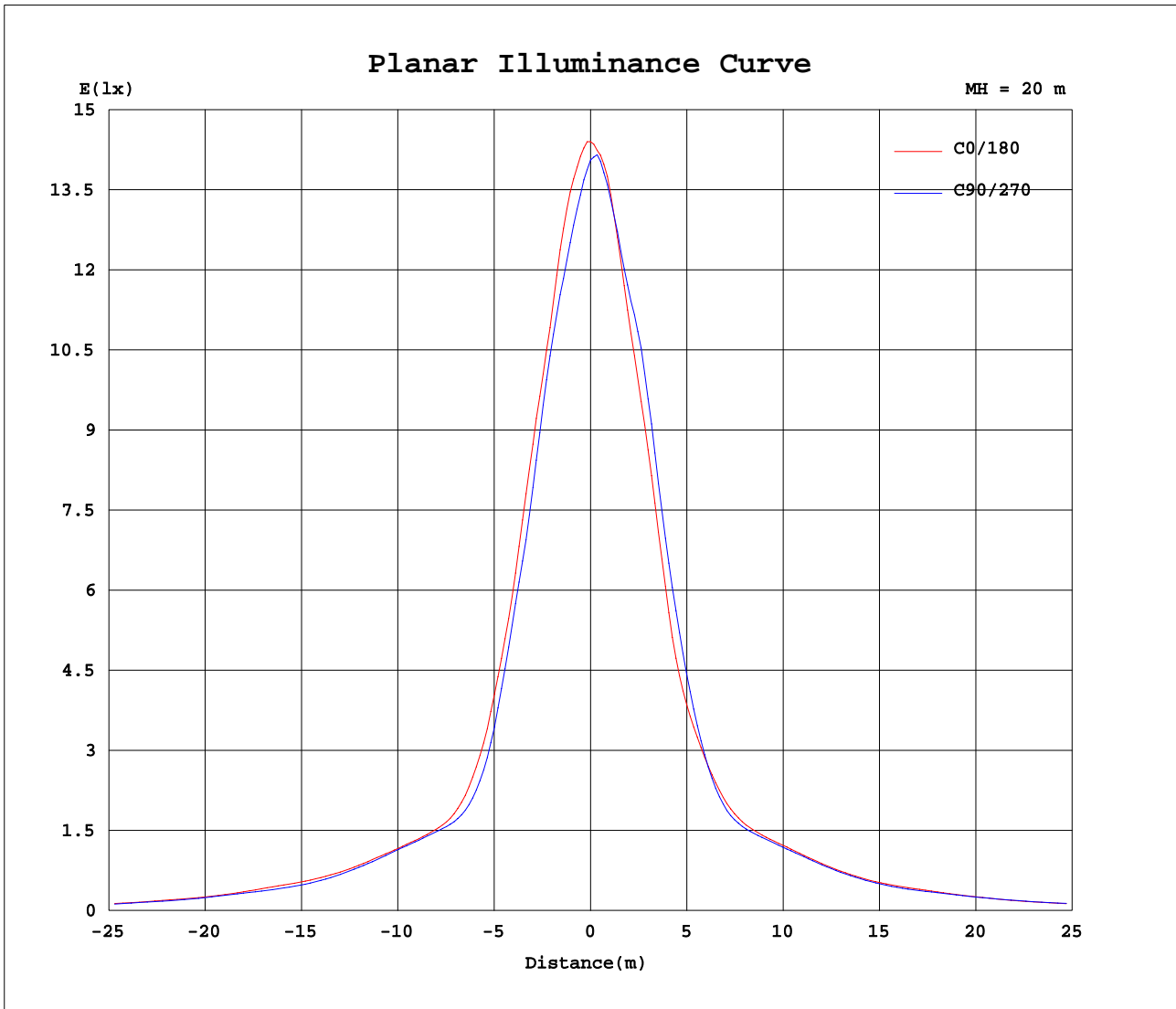
AvgL	cd/m2
L_0~180(65)av	1488
L_0~180(75)av	1244
L_0~180(85)av	1406
L_90~270(65)av	1281
L_90~270(75)av	918
L_90~270(85)av	583
L_45(65)av	1396
L_45(75)av	1098
L_45(85)av	771

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:fu
 Test Date:12 September 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: 12 September 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: PAR38-18W-4000K-24	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	5659	5659	5659	5659	5659	5659	5659	5659										
5	4730	4633	4547	4410	4651	4736	4894	4896										
10	3010	2884	2758	2628	2914	3192	3372	3451										
15	1486	1354	1280	1349	1499	1569	1685	1707										
20	819	794	785	828	903	886	864	879										
25	674	664	676	692	705	688	703	707										
30	557	547	547	555	579	563	578	580										
35	442	428	413	419	442	431	437	446										
40	374	360	340	342	361	352	347	365										
45	285	295	277	268	287	288	290	294										
50	220	226	216	208	216	231	227	235										
55	158	150	140	139	155	163	159	164										
60	91.9	84.3	74.8	83.3	99.0	101	92.8	98.9										
65	60.1	58.4	51.5	54.0	65.7	63.2	56.8	60.5										
70	44.0	41.8	35.5	37.0	48.6	46.2	39.2	42.6										
75	30.2	28.0	22.8	25.2	34.2	31.4	24.8	29.1										
80	19.1	16.2	12.3	15.0	22.7	18.8	13.2	17.5										
85	10.4	6.12	4.88	6.25	14.1	7.36	5.28	7.13										
90	3.77	0.31	0.41	0.59	6.79	0.74	0.23	0.49										

C Range: 0 - 360DEG	γ Range: 0 - 90DEG
C Interval: 45.0DEG	γ Interval: 0.5DEG
Test Speed: MEDIUM	Test System:EVERFINE GO-i300_V1 SYSTEM V2.0.406.11
Temperature:25.3DEG	Humidity:65.0%
Operators:fu	Test Distance:3.161m [K=1.0000]
Test Date:12 September 2022	Remarks: