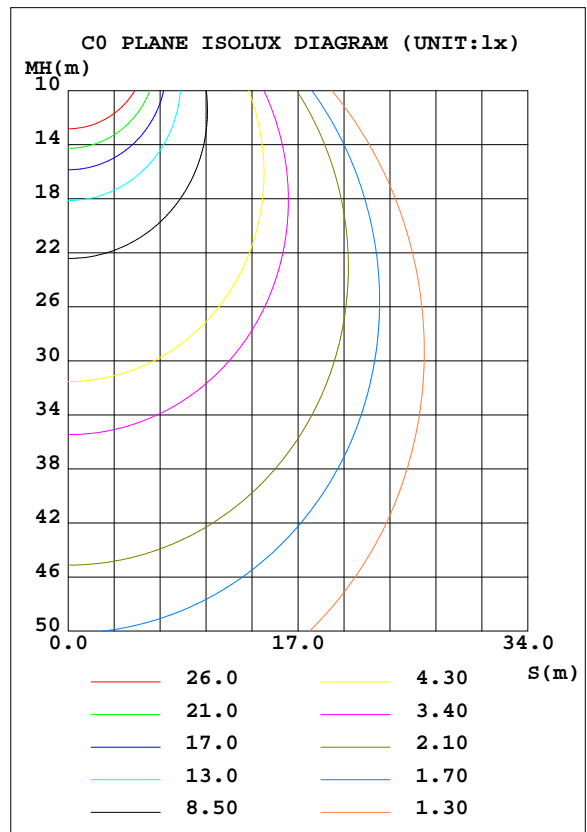
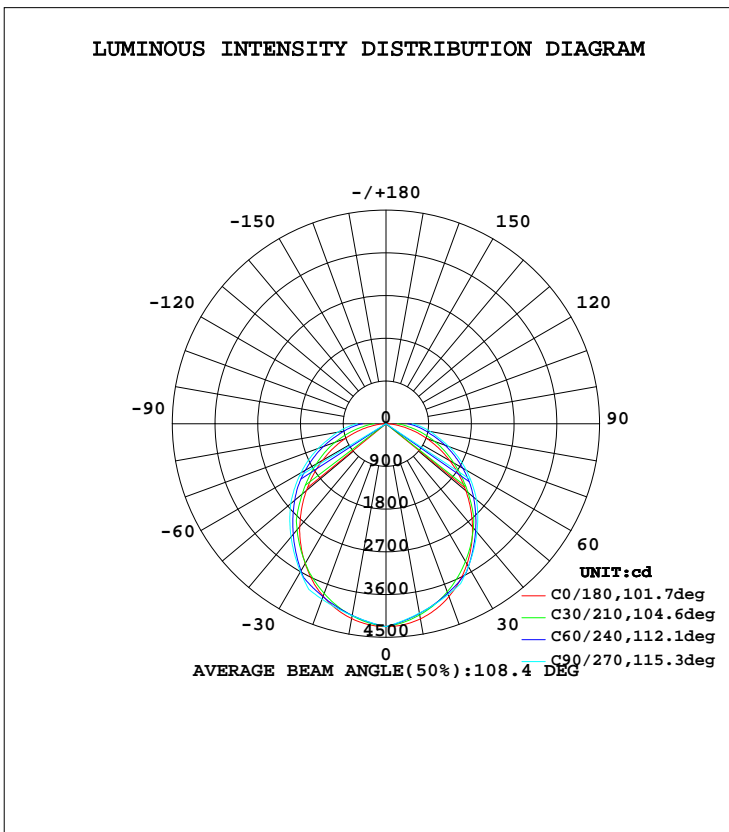


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:119.9V I:0.7714A P:92.52W PF:0.9931 Lamp Flux:12357x1 lm		
NAME: ASD-LSF5-8A90AC-PRM (90W 3500K)	TYPE:LED	WEIGHT:
SPEC.:	DIM.: 2438*66*68mm	SERIAL No.:
MFR.: ASD lighting corp.	SUR.:2438*66*68mm	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 131.84 lm/W			
MODEL	ASD-LSF5-8A90AC-PRM	I _{max} (cd)	4274	S/MH(C0/180)	1.19
NOMINAL POWER(W)	90	LOR(%)	100.0	S/MH(C90/270)	1.25
RATED VOLTAGE(V)	120-277	TOTAL FLUX(lm)	12357	η UP, DN(C0-180)	0.0,49.1
NOMINAL FLUX(lm)	12357	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0,50.9
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	120	η down(%)	100.0	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:Peter
 Test Date:2020-03-26

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
 Humidity:50%
 Test Distance:8.900m [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
5	4250	4184	4163	4181	4247	4200	4189	4203	0- 5	101.0	101.0	0.83,0.83
10	4174	4070	4052	4065	4168	4101	4105	4107	5- 10	296.6	397.6	3.26,3.26
15	4048	3934	3941	3926	4041	3978	4020	3989	10- 15	478.7	876.3	7.18,7.18
20	3877	3779	3830	3768	3868	3837	3935	3852	15- 20	643.1	1519	12.5,12.5
25	3664	3608	3719	3594	3656	3676	3850	3697	20- 25	786.4	2306	18.9,18.9
30	3415	3425	3473	3411	3405	3506	3604	3530	25- 30	901.8	3208	26.3,26.3
35	3135	3201	3227	3191	3126	3291	3358	3315	30- 35	979.6	4187	34.3,34.3
40	2835	2906	2981	2889	2829	2985	3112	3018	35- 40	1023	5210	42.7,42.7
45	2520	2612	2735	2598	2510	2689	2866	2723	40- 45	1033	6242	51.2,51.2
50	2198	2324	2489	2312	2190	2401	2620	2434	45- 50	1013	7256	59.5,59.5
55	1874	2043	2220	2036	1867	2123	2345	2156	50- 55	967.0	8223	67.4,67.4
60	1551	1772	1951	1770	1545	1852	2070	1885	55- 60	894.7	9118	74.7,74.7
65	1233	1489	1682	1483	1228	1559	1795	1594	60- 65	801.4	9919	81.3,81.3
70	920.8	1218	1413	1210	917.9	1279	1520	1316	65- 70	691.2	10610	87.87
75	623.6	958.4	1144	949.5	621.8	1011	1246	1051	70- 75	569.3	11180	91.7,91.7
80	351.9	718.6	946.2	709.3	352.1	763.3	1032	803.4	75- 80	446.0	11626	95.3,95.3
85	136.4	534.8	748.3	535.3	139.4	569.2	819.2	601.2	80- 85	335.0	11961	98.1,98.1
90	36.44	357.4	550.3	367.5	55.64	382.4	606.0	405.2	85- 90	237.2	12198	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		

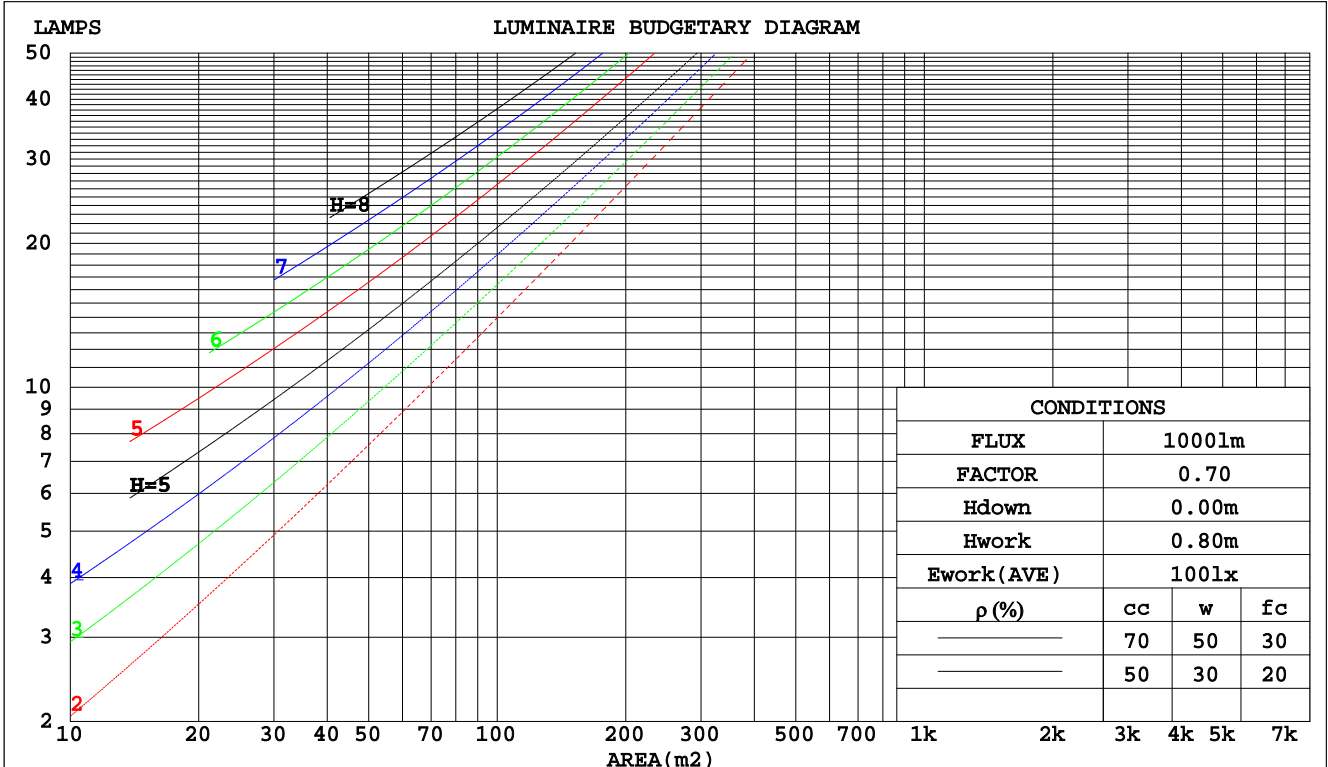
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:Peter
 Test Date:2020-03-26

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
 Humidity:50%
 Test Distance:8.900m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:119.9V I:0.7714A P:92.52W PF:0.9931 Lamp Flux:12357x1 lm		
NAME: ASD-LSF5-8A90AC-PRM (90W 3500K)	TYPE:LED	WEIGHT:
SPEC.:	DIM.: 2438*66*68mm	SERIAL No.:
MFR.:ASD lighting corp.	SUR.:2438*66*68mm	PROTECTION ANGLE:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
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	1.02	.97	.93	.90	.95	.91	.95	.92	.89	.91	.89	.86	.88	.85	.83	.81
2.0	.88	.81	.75	.87	.80	.74	.83	.77	.72	.80	.75	.71	.76	.73	.69	.67
3.0	.77	.69	.62	.76	.68	.61	.73	.66	.60	.70	.64	.59	.67	.62	.58	.56
4.0	.69	.59	.52	.67	.59	.52	.65	.57	.51	.62	.56	.51	.60	.54	.50	.48
5.0	.61	.52	.45	.60	.51	.45	.58	.50	.44	.56	.49	.44	.54	.48	.43	.41
6.0	.55	.46	.39	.54	.45	.39	.52	.45	.39	.51	.44	.38	.49	.43	.38	.36
7.0	.50	.41	.35	.49	.41	.35	.48	.40	.34	.46	.39	.34	.45	.39	.34	.32
8.0	.46	.37	.31	.45	.37	.31	.44	.36	.31	.42	.35	.30	.41	.35	.30	.28
9.0	.42	.34	.28	.41	.33	.28	.40	.33	.28	.39	.32	.27	.38	.32	.27	.25
10.0	.39	.31	.25	.38	.30	.25	.37	.30	.25	.36	.30	.25	.35	.29	.25	.23



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:Peter
 Test Date:2020-03-26

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
 Humidity:50%
 Test Distance:8.900m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:119.9V I:0.7714A P:92.52W PF:0.9931 Lamp Flux:12357x1 lm		
NAME: ASD-LSF5-8A90AC-PRM (90W 3500K)	TYPE:LED	WEIGHT:
SPEC.:	DIM.: 2438*66*68mm	SERIAL No.:
MFR.: ASD lighting corp.	SUR.:2438*66*68mm	PROTECTION 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	.344	.196	.062	.337	.192	.061	.324	.186	.059	.312	.180	.058	.300	.174	.056	
2.0	.311	.170	.052	.305	.168	.052	.293	.163	.051	.282	.158	.049	.272	.154	.048	
3.0	.282	.150	.045	.277	.148	.045	.266	.144	.044	.256	.141	.043	.247	.137	.042	
4.0	.258	.134	.039	.253	.132	.039	.243	.129	.039	.235	.126	.038	.227	.123	.038	
5.0	.236	.120	.035	.232	.119	.035	.224	.116	.034	.216	.114	.034	.209	.112	.034	
6.0	.218	.109	.031	.214	.108	.031	.207	.106	.031	.200	.104	.031	.194	.102	.030	
7.0	.202	.100	.028	.199	.099	.028	.192	.097	.028	.186	.095	.028	.180	.094	.028	
8.0	.188	.092	.026	.185	.091	.026	.179	.090	.026	.174	.088	.025	.169	.087	.025	
9.0	.176	.085	.024	.173	.084	.024	.168	.083	.024	.163	.082	.023	.159	.081	.023	
10.0	.165	.079	.022	.163	.079	.022	.158	.077	.022	.154	.076	.022	.149	.075	.022	

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	.183	.156	.132	.156	.134	.113	.107	.092	.078	.062	.053	.046	.020	.017	.015	
2.0	.175	.132	.096	.150	.113	.083	.103	.079	.058	.059	.046	.034	.019	.015	.011	
3.0	.167	.114	.073	.143	.099	.063	.098	.069	.044	.057	.040	.026	.018	.013	.009	
4.0	.159	.101	.057	.136	.087	.050	.094	.061	.035	.054	.036	.021	.017	.012	.007	
5.0	.151	.091	.046	.130	.079	.040	.089	.055	.028	.052	.032	.017	.017	.011	.006	
6.0	.144	.082	.039	.124	.071	.034	.085	.050	.024	.049	.029	.014	.016	.010	.005	
7.0	.137	.076	.033	.118	.066	.029	.081	.046	.020	.047	.027	.012	.015	.009	.004	
8.0	.130	.070	.028	.112	.061	.025	.077	.042	.018	.045	.025	.010	.015	.008	.003	
9.0	.124	.065	.025	.107	.056	.022	.074	.040	.015	.043	.023	.009	.014	.008	.003	
10.0	.118	.060	.022	.102	.053	.019	.071	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:Peter
 Test Date:2020-03-26

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
 Humidity:50%
 Test Distance:8.900m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:119.9V I:0.7714A P:92.52W PF:0.9931 Lamp Flux:12357x1 lm										
NAME: ASD-LSF5-8A90AC-PRM (90W 3500K)					TYPE:LED			WEIGHT:		
SPEC.:					DIM.: 2438*66*68mm			SERIAL No.:		
MFR.: ASD lighting corp.					SUR.:2438*66*68mm			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	22.9	24.4	23.1	24.6	24.8	23.9	25.5	24.2	25.7	25.9
3H	24.2	25.7	24.5	25.9	26.2	25.9	27.3	26.2	27.5	27.8
4H	24.8	26.1	25.1	26.4	26.6	26.8	28.2	27.1	28.5	28.7
6H	25.1	26.4	25.4	26.7	27.0	27.8	29.2	28.2	29.4	29.7
8H	25.2	26.4	25.5	26.7	27.0	28.4	29.7	28.7	30.0	30.2
12H	25.2	26.4	25.6	26.7	27.0	29.0	30.2	29.4	30.5	30.8
4H 2H	23.7	25.1	24.0	25.3	25.6	24.5	25.8	24.8	26.1	26.4
3H	25.3	26.5	25.6	26.8	27.1	26.7	27.9	27.0	28.2	28.5
4H	25.9	27.1	26.3	27.4	27.7	27.8	28.9	28.2	29.2	29.6
6H	26.4	27.4	26.8	27.8	28.2	29.0	30.0	29.4	30.4	30.8
8H	26.6	27.5	27.0	27.9	28.3	29.7	30.6	30.1	31.0	31.4
12H	26.7	27.5	27.1	27.9	28.3	30.5	31.3	30.9	31.7	32.1
8H 4H	26.5	27.5	26.9	27.8	28.2	28.1	29.0	28.5	29.4	29.8
6H	27.3	28.1	27.7	28.5	28.9	29.6	30.4	30.0	30.8	31.2
8H	27.6	28.3	28.0	28.7	29.1	30.4	31.2	30.9	31.6	32.0
12H	27.8	28.4	28.2	28.8	29.3	31.4	32.1	31.9	32.5	33.0
12H 4H	26.7	27.5	27.1	27.9	28.3	28.1	29.0	28.5	29.4	29.8
6H	27.5	28.3	28.0	28.7	29.1	29.7	30.4	30.1	30.8	31.3
8H	27.9	28.6	28.4	29.0	29.5	30.6	31.3	31.1	31.7	32.2
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.2					+ 0.1 / - 0.1				
1.5H	+ 0.2 / - 0.2					+ 0.2 / - 0.3				
2.0H	+ 0.1 / - 0.2					+ 0.2 / - 0.3				

CIE Pub.117 Corrected 12198 lm Total Lamp Luminous Flux. (8log(F/F0) = 8.7)

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:Peter
 Test Date:2020-03-26

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
 Humidity:50%
 Test Distance:8.900m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:119.9V I:0.7714A P:92.52W PF:0.9931 Lamp Flux:12357x1 lm		
NAME: ASD-LSF5-8A90AC-PRM (90W 3500K)	TYPE:LED	WEIGHT:
SPEC.:	DIM.: 2438*66*68mm	SERIAL No.:
MFR.:ASD lighting corp.	SUR.:2438*66*68mm	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	57	45	38	56	45	38	55	44	37	31
0.80	66	54	47	65	54	47	64	53	46	39
1.00	75	63	55	73	62	55	71	64	55	47
1.25	81	71	63	80	70	63	77	68	62	54
1.50	86	76	69	85	75	68	82	73	67	59
2.00	93	84	77	91	83	76	88	81	75	67
2.50	97	89	82	95	87	81	91	85	80	71
3.00	101	93	87	98	92	86	94	89	84	75
4.00	105	99	93	102	97	92	98	93	89	80
5.00	107	102	97	105	100	96	100	96	93	83
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:25DEG
 Operators:Peter
 Test Date:2020-03-26

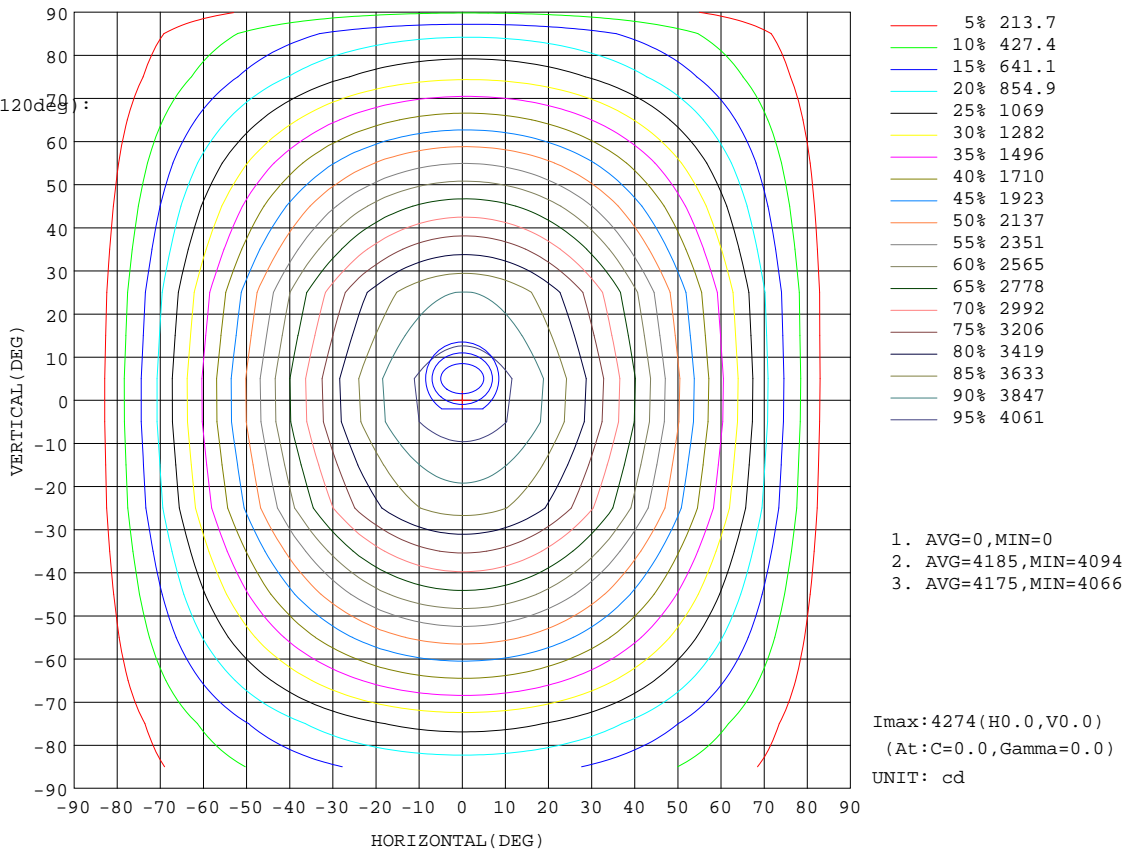
γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
 Humidity:50%
 Test Distance:8.900m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:119.9V I:0.7714A P:92.52W PF:0.9931 Lamp Flux:12357x1 lm		
NAME: ASD-LSF5-8A90AC-PRM (90W 3500K)	TYPE:LED	WEIGHT:
SPEC.:	DIM.: 2438*66*68mm	SERIAL No.:
MFR.: ASD lighting corp.	SUR.:2438*66*68mm	PROTECTION ANGLE:

Conical surface Flux(90deg):
 6242.5 lm
 %lum = 51.2%
 %lamp = 51.2%

Conical surface Flux(120deg):
 9117.7 lm
 %lum = 74.7%
 %lamp = 74.7%

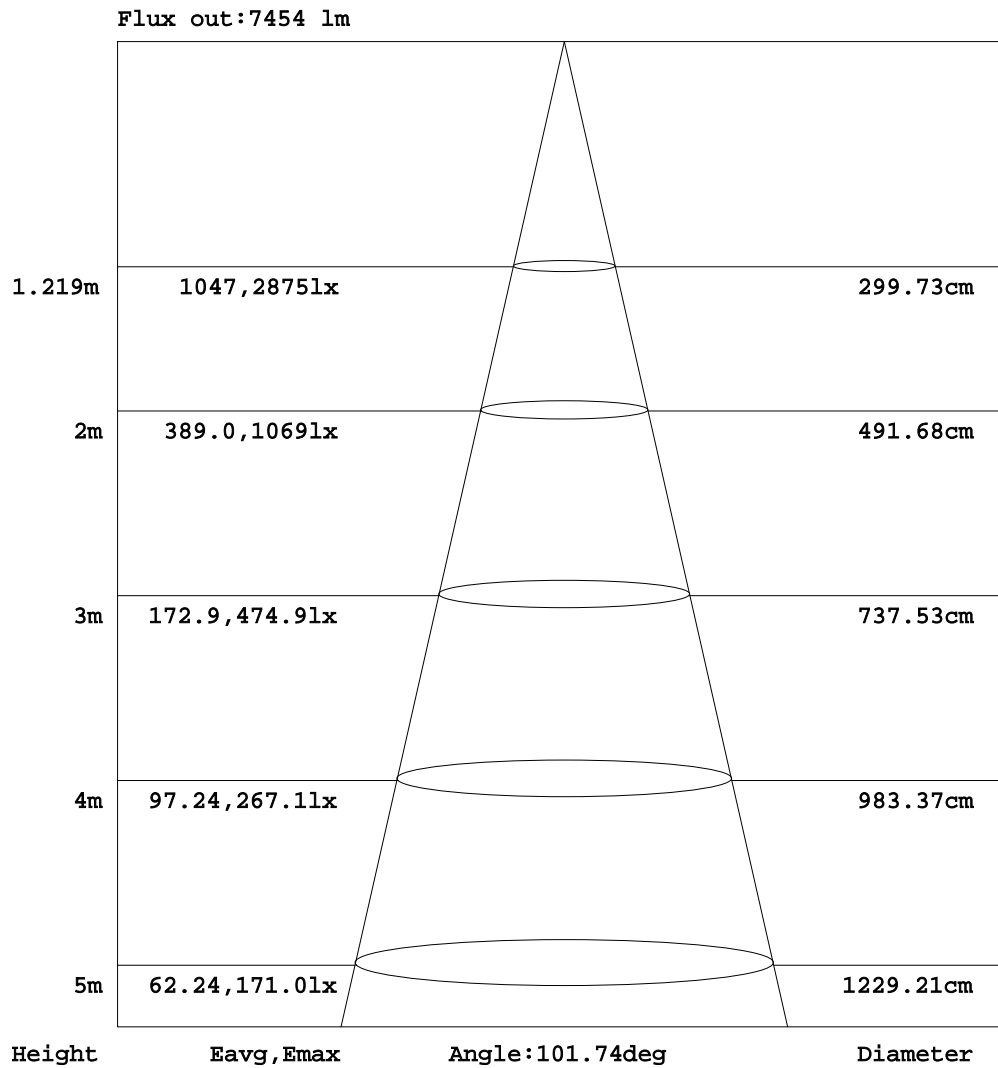


C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators: Peter
 Test Date: 2020-03-26

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.290
 Humidity: 50%
 Test Distance: 8.900m [K=1.0000]
 Remarks:

AAI Figure

Test:U:119.9V I:0.7714A P:92.52W PF:0.9931 Lamp Flux:12357x1 lm		
NAME: ASD-LSF5-8A90AC-PRM (90W 3500K)	TYPE:LED	WEIGHT:
SPEC.:	DIM.: 2438*66*68mm	SERIAL No.:
MFR.: ASD lighting corp.	SUR.:2438*66*68mm	PROTECTION ANGLE:



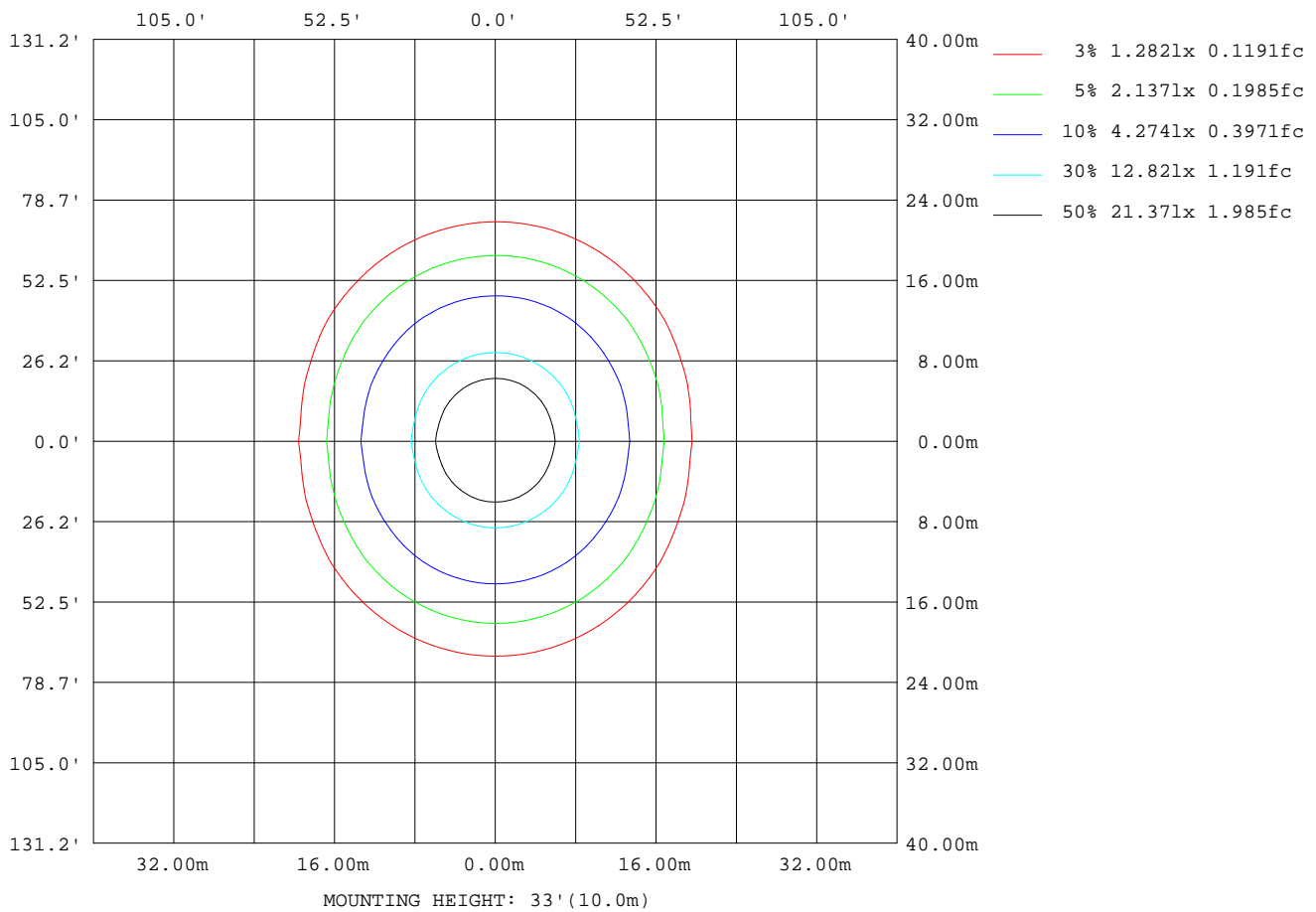
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:Peter
 Test Date:2020-03-26

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
 Humidity:50%
 Test Distance:8.900m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:119.9V I:0.7714A P:92.52W PF:0.9931 Lamp Flux:12357x1 lm		
NAME: ASD-LSF5-8A90AC-PRM (90W 3500K)	TYPE:LED	WEIGHT:
SPEC.:	DIM.: 2438*66*68mm	SERIAL No.:
MFR.: ASD lighting corp.	SUR.:2438*66*68mm	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:Peter
 Test Date:2020-03-26

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
 Humidity:50%
 Test Distance:8.900m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:119.9V I:0.7714A P:92.52W PF:0.9931 Lamp Flux:12357x1 lm		
NAME: ASD-LSF5-8A90AC-PRM (90W 3500K)	TYPE:LED	WEIGHT:
SPEC.:	DIM.: 2438*66*68mm	SERIAL No.:
MFR.: ASD lighting corp.	SUR.:2438*66*68mm	PROTECTION ANGLE:

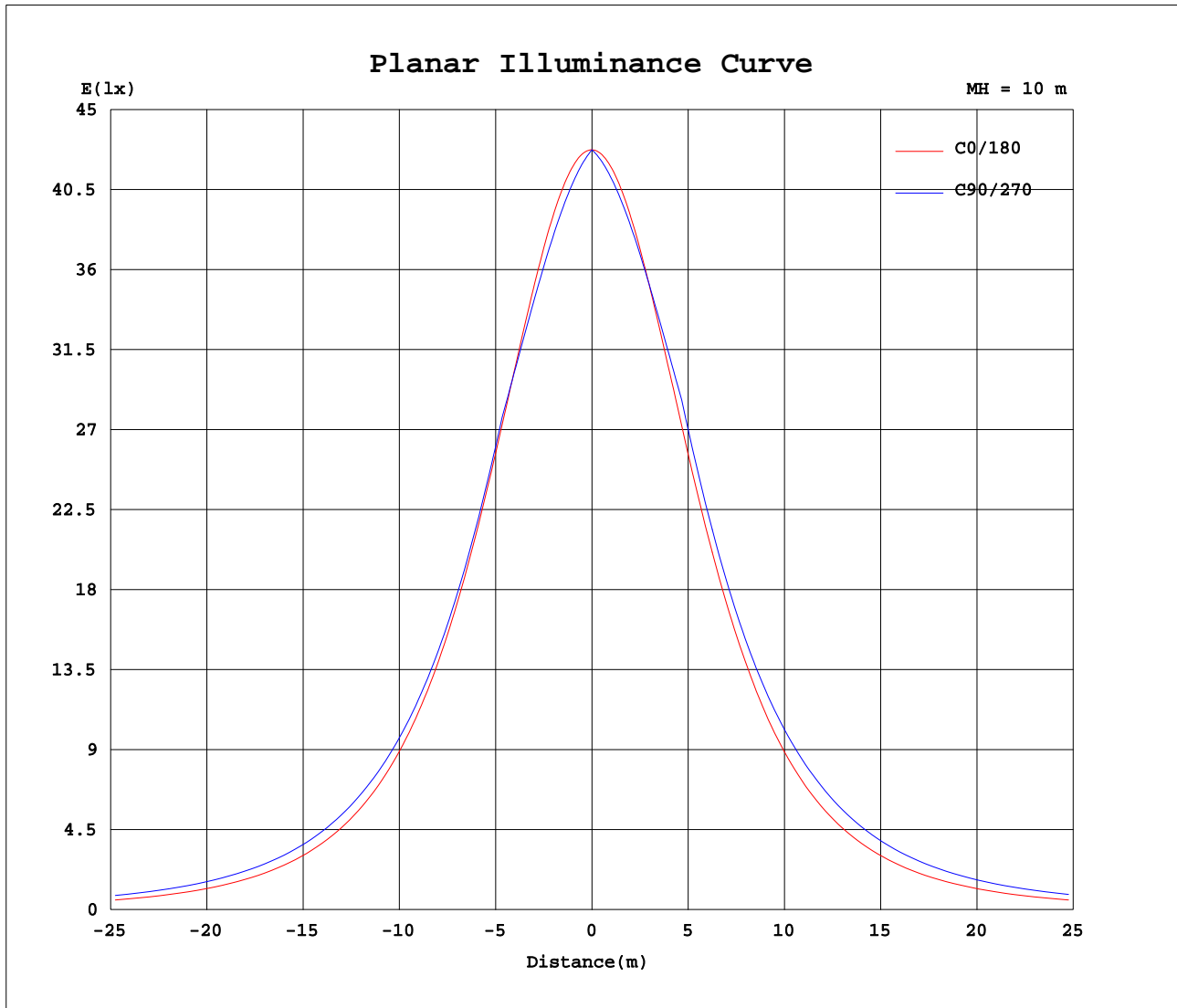
AvgL	cd/m2
L_0~180(65)av	18101
L_0~180(75)av	14953
L_0~180(85)av	9834
L_90~270(65)av	25570
L_90~270(75)av	28691
L_90~270(85)av	55886
L_45(65)av	22520
L_45(75)av	23834
L_45(85)av	39942

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:Peter
Test Date:2020-03-26

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
Humidity:50%
Test Distance:8.900m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators: Peter
 Test Date: 2020-03-26

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.290
 Humidity: 50%
 Test Distance: 8.900m [K=1.0000]
 Remarks:

