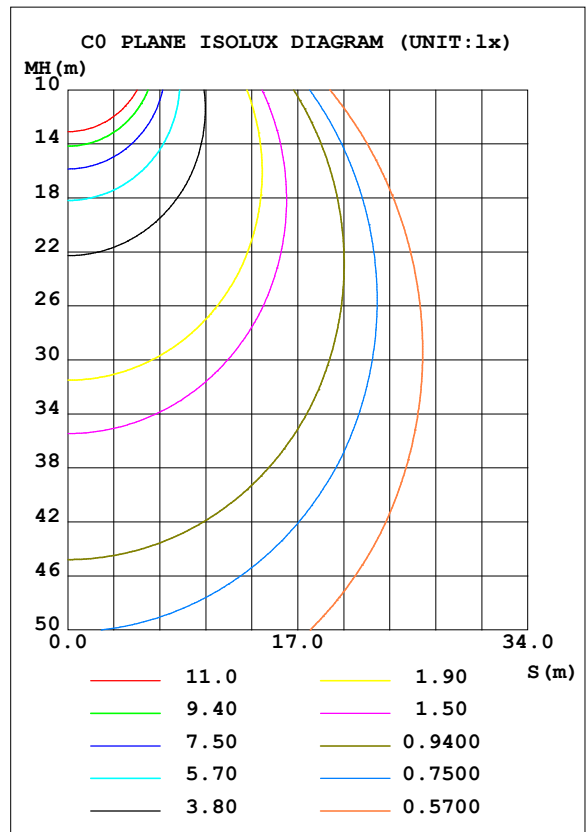
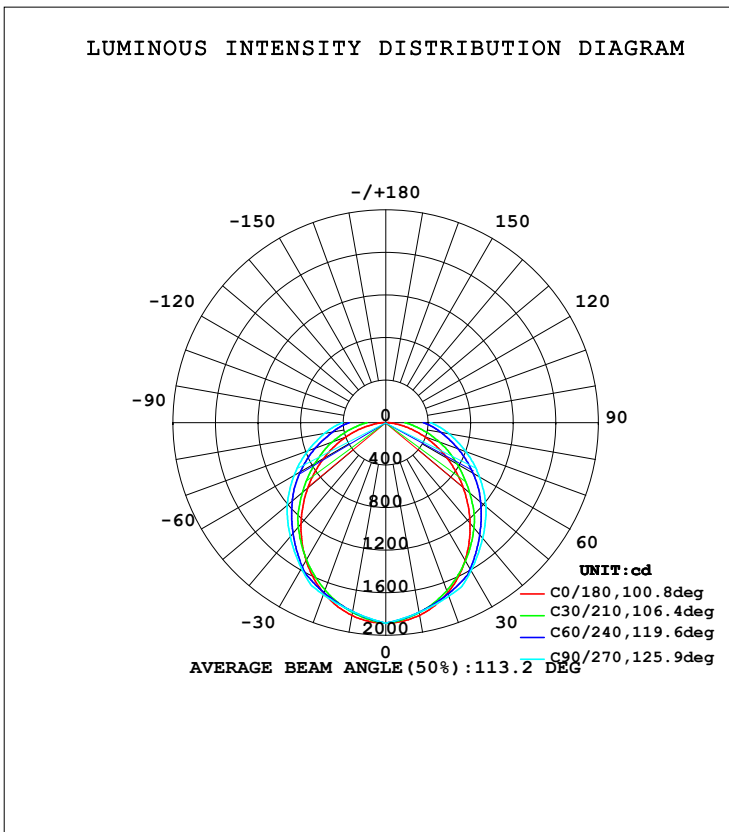


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.0V I:0.3692A P:44.23W PF:0.9983 Lamp Flux:5728.25x1 lm		
NAME: ASD-LSF5-4A44AC-EM-PRM (44W 4000K)	TYPE:LED	WEIGHT:
SPEC.:	DIM.: 1219*66*68mm	SERIAL No.:
MFR.: ASD lighting corp.	SUR.:1219*66*68mm	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 129.52 lm/W			
MODEL	ASD-LSF5-4A44AC-EM-PRM	I _{max} (cd)	1886	S/MH (C0/180)	1.19
NOMINAL POWER (W)	44	LOR (%)	100.0	S/MH (C90/270)	1.25
RATED VOLTAGE (V)	120-277	TOTAL FLUX (lm)	5728.2	η UP, DN (C0-180)	0.0, 50.3
NOMINAL FLUX (lm)	5728.25	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 49.7
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: 2020-03-25

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:

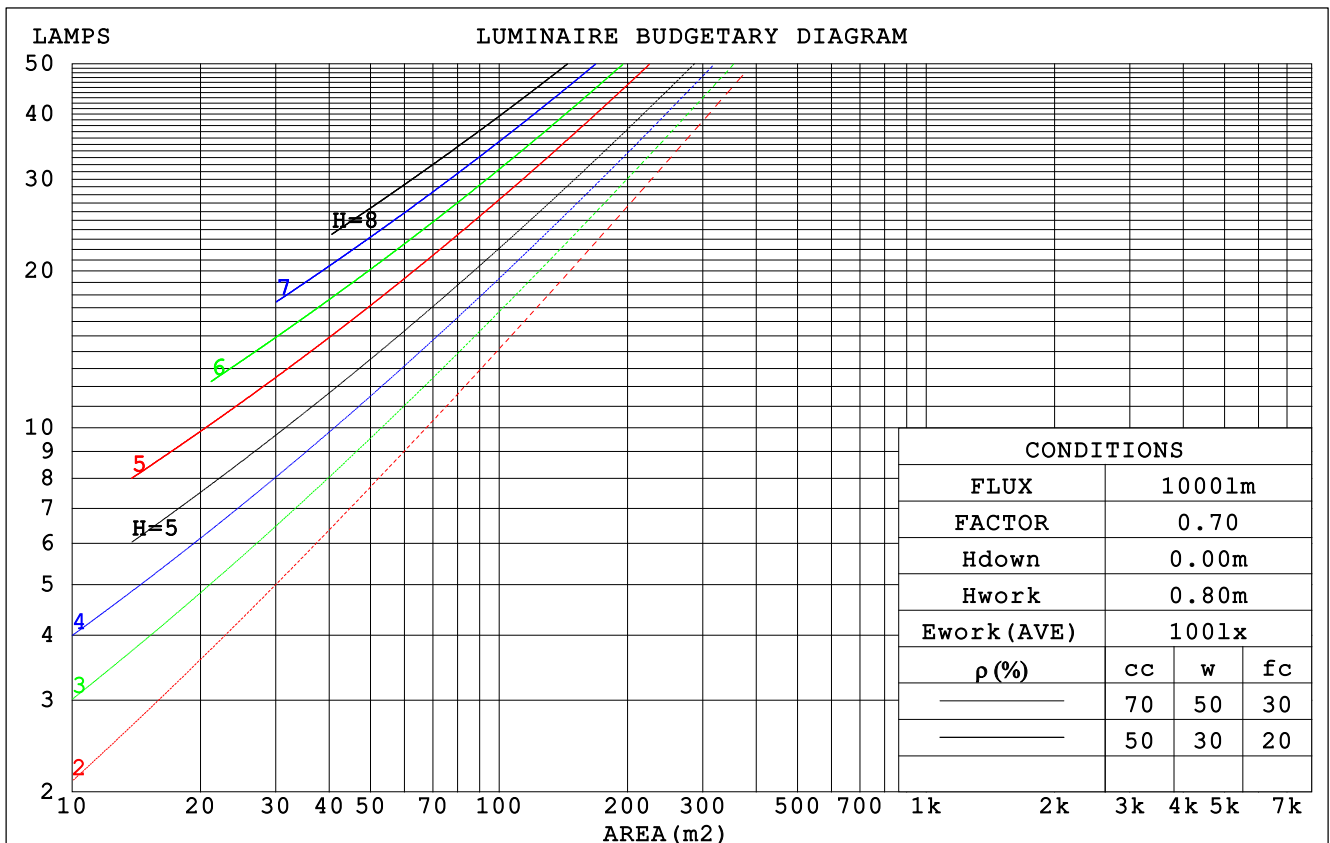
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
5	1874	1853	1848	1854	1874	1851	1844	1850	0- 5	44.62	44.62	0.78,0.78
10	1839	1810	1811	1810	1840	1805	1803	1804	5- 10	131.1	175.7	3.07,3.07
15	1781	1757	1774	1757	1783	1749	1761	1749	10- 15	211.8	387.6	6.77,6.77
20	1703	1695	1736	1695	1706	1684	1720	1684	15- 20	284.9	672.5	11.7,11.7
25	1607	1625	1699	1624	1610	1612	1678	1613	20- 25	348.7	1021	17.8,17.8
30	1495	1551	1605	1549	1498	1535	1585	1536	25- 30	400.7	1422	24.8,24.8
35	1368	1459	1512	1456	1374	1441	1492	1444	30- 35	437.2	1859	32.5,32.5
40	1234	1337	1418	1335	1241	1321	1398	1324	35- 40	459.1	2318	40.5,40.5
45	1093	1215	1325	1214	1101	1201	1305	1202	40- 45	467.4	2786	48.6,48.6
50	950.5	1096	1231	1097	959.6	1084	1211	1084	45- 50	463.2	3249	56.7,56.7
55	807.1	981.9	1124	983.3	817.2	970.9	1104	970.0	50- 55	447.4	3696	64.5,64.5
60	665.3	870.6	1017	872.9	676.0	860.7	996.5	859.2	55- 60	420.3	4117	71.9,71.9
65	525.7	751.7	909.9	753.2	537.2	741.2	889.1	740.6	60- 65	384.2	4501	78.6,78.6
70	390.5	638.6	802.9	639.2	402.4	627.2	781.8	628.6	65- 70	340.8	4842	84.5,84.5
75	262.1	531.7	695.8	531.1	274.1	519.0	674.4	521.5	70- 75	292.5	5134	89.6,89.6
80	146.4	433.4	604.1	430.9	156.4	419.4	584.8	421.8	75- 80	242.7	5377	93.9,93.9
85	55.69	351.9	512.4	348.7	65.23	342.6	495.3	344.1	80- 85	196.5	5573	97.3,97.3
90	17.92	274.3	420.6	270.4	26.12	269.6	405.7	270.2	85- 90	155.1	5728	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:2020-03-25

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 γ 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

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	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	.00
1.0	1.01	.96	.91	.99	.94	.90	.94	.90	.87	.90	.87	.84	.87	.84	.82	.79
2.0	.87	.79	.73	.85	.78	.72	.81	.75	.70	.78	.73	.69	.75	.71	.67	.65
3.0	.76	.67	.60	.74	.66	.59	.71	.64	.58	.68	.62	.57	.66	.61	.56	.54
4.0	.67	.58	.51	.66	.57	.50	.63	.55	.49	.61	.54	.49	.58	.53	.48	.46
5.0	.60	.50	.43	.59	.50	.43	.56	.49	.43	.54	.48	.42	.53	.46	.42	.39
6.0	.54	.44	.38	.53	.44	.38	.51	.43	.37	.49	.42	.37	.48	.41	.36	.34
7.0	.49	.40	.33	.48	.39	.33	.46	.39	.33	.45	.38	.33	.43	.37	.32	.30
8.0	.44	.36	.30	.44	.35	.30	.42	.35	.29	.41	.34	.29	.40	.34	.29	.27
9.0	.41	.32	.27	.40	.32	.27	.39	.32	.26	.38	.31	.26	.37	.31	.26	.24
10.0	.38	.30	.24	.37	.29	.24	.36	.29	.24	.35	.29	.24	.34	.28	.24	.22



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

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

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)									
0.0																
1.0	.366	.208	.066	.359	.205	.065	.345	.198	.063	.333	.192	.062	.321	.186	.060	
2.0	.324	.178	.055	.318	.175	.054	.306	.170	.053	.295	.166	.052	.285	.161	.051	
3.0	.292	.155	.046	.286	.153	.046	.275	.149	.045	.266	.146	.045	.257	.142	.044	
4.0	.264	.137	.040	.260	.136	.040	.250	.133	.040	.241	.130	.039	.233	.127	.039	
5.0	.242	.123	.036	.237	.122	.035	.229	.119	.035	.221	.117	.035	.214	.114	.034	
6.0	.222	.111	.032	.218	.110	.032	.211	.108	.031	.204	.106	.031	.198	.104	.031	
7.0	.206	.102	.029	.202	.101	.029	.195	.099	.028	.189	.097	.028	.183	.095	.028	
8.0	.191	.093	.026	.188	.093	.026	.182	.091	.026	.177	.089	.026	.171	.088	.026	
9.0	.178	.086	.024	.176	.086	.024	.170	.084	.024	.165	.083	.024	.161	.082	.024	
10.0	.167	.080	.022	.165	.080	.022	.160	.078	.022	.155	.077	.022	.151	.076	.022	

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	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	.184	.156	.130	.158	.134	.112	.108	.092	.077	.062	.053	.045	.020	.017	.015	
2.0	.177	.132	.094	.151	.113	.081	.104	.078	.057	.060	.046	.033	.019	.015	.011	
3.0	.169	.114	.071	.145	.099	.062	.099	.069	.043	.057	.040	.026	.018	.013	.008	
4.0	.161	.101	.056	.138	.088	.049	.095	.061	.034	.055	.036	.020	.018	.012	.007	
5.0	.153	.091	.045	.131	.079	.040	.090	.055	.028	.052	.032	.017	.017	.011	.005	
6.0	.145	.083	.038	.125	.072	.033	.086	.050	.023	.050	.029	.014	.016	.010	.005	
7.0	.138	.076	.032	.119	.066	.028	.082	.046	.020	.048	.027	.012	.015	.009	.004	
8.0	.131	.070	.028	.113	.061	.024	.078	.043	.017	.045	.025	.010	.015	.008	.003	
9.0	.125	.065	.025	.108	.056	.022	.074	.040	.015	.043	.023	.009	.014	.008	.003	
10.0	.119	.061	.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:2020-03-25

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

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	22.4	24.0	22.7	24.2	24.4	24.2	25.8	24.5	26.0	26.2
3H	23.7	25.2	24.0	25.4	25.7	26.5	28.0	26.8	28.2	28.4
4H	24.2	25.6	24.5	25.9	26.2	27.7	29.1	28.0	29.4	29.6
6H	24.6	25.9	24.9	26.2	26.5	29.0	30.3	29.3	30.6	30.9
8H	24.6	25.9	25.0	26.2	26.5	29.7	31.0	30.1	31.3	31.6
12H	24.7	25.9	25.0	26.2	26.5	30.5	31.8	30.9	32.1	32.4
4H 2H	23.4	24.8	23.7	25.1	25.3	24.8	26.2	25.1	26.4	26.7
3H	25.0	26.3	25.4	26.6	26.9	27.3	28.5	27.6	28.8	29.2
4H	25.7	26.9	26.1	27.2	27.5	28.7	29.8	29.1	30.2	30.5
6H	26.2	27.2	26.6	27.6	28.0	30.2	31.3	30.6	31.6	32.0
8H	26.3	27.3	26.8	27.7	28.1	31.1	32.1	31.5	32.4	32.8
12H	26.4	27.3	26.9	27.7	28.1	32.1	33.0	32.5	33.3	33.8
8H 4H	26.6	27.5	27.0	27.9	28.3	29.0	30.0	29.4	30.4	30.8
6H	27.4	28.2	27.8	28.6	29.0	30.8	31.7	31.3	32.1	32.5
8H	27.7	28.5	28.2	28.9	29.3	31.9	32.7	32.4	33.1	33.5
12H	28.0	28.6	28.4	29.1	29.5	33.1	33.8	33.6	34.2	34.7
12H 4H	26.8	27.7	27.2	28.1	28.5	29.0	29.9	29.5	30.3	30.7
6H	27.8	28.6	28.3	29.0	29.5	31.0	31.7	31.4	32.1	32.6
8H	28.3	29.0	28.8	29.4	29.9	32.1	32.8	32.6	33.2	33.7
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.1				
1.5H	+ 0.2 / - 0.2					+ 0.2 / - 0.3				
2.0H	+ 0.1 / - 0.3					+ 0.2 / - 0.4				

CIE Pub.117 Corrected 5728 lm Total Lamp Luminous Flux. ($8\log(F/F_0) = 6.1$)

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

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

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) $k(RI) \times RCR = 5$									
$k = 0.60$	55	43	36	55	43	36	53	43	36	29
0.80	65	53	45	64	52	45	62	52	45	37
1.00	73	61	53	72	61	53	70	62	53	45
1.25	80	69	61	79	68	61	76	66	60	52
1.50	85	74	67	83	73	66	80	71	65	57
2.00	92	82	75	90	81	74	86	79	73	64
2.50	96	87	80	94	86	80	90	83	78	69
3.00	100	92	85	97	90	84	93	87	82	73
4.00	104	97	92	101	95	90	97	92	88	78
5.00	106	101	96	104	99	94	99	95	91	82
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: 2020-03-25

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:

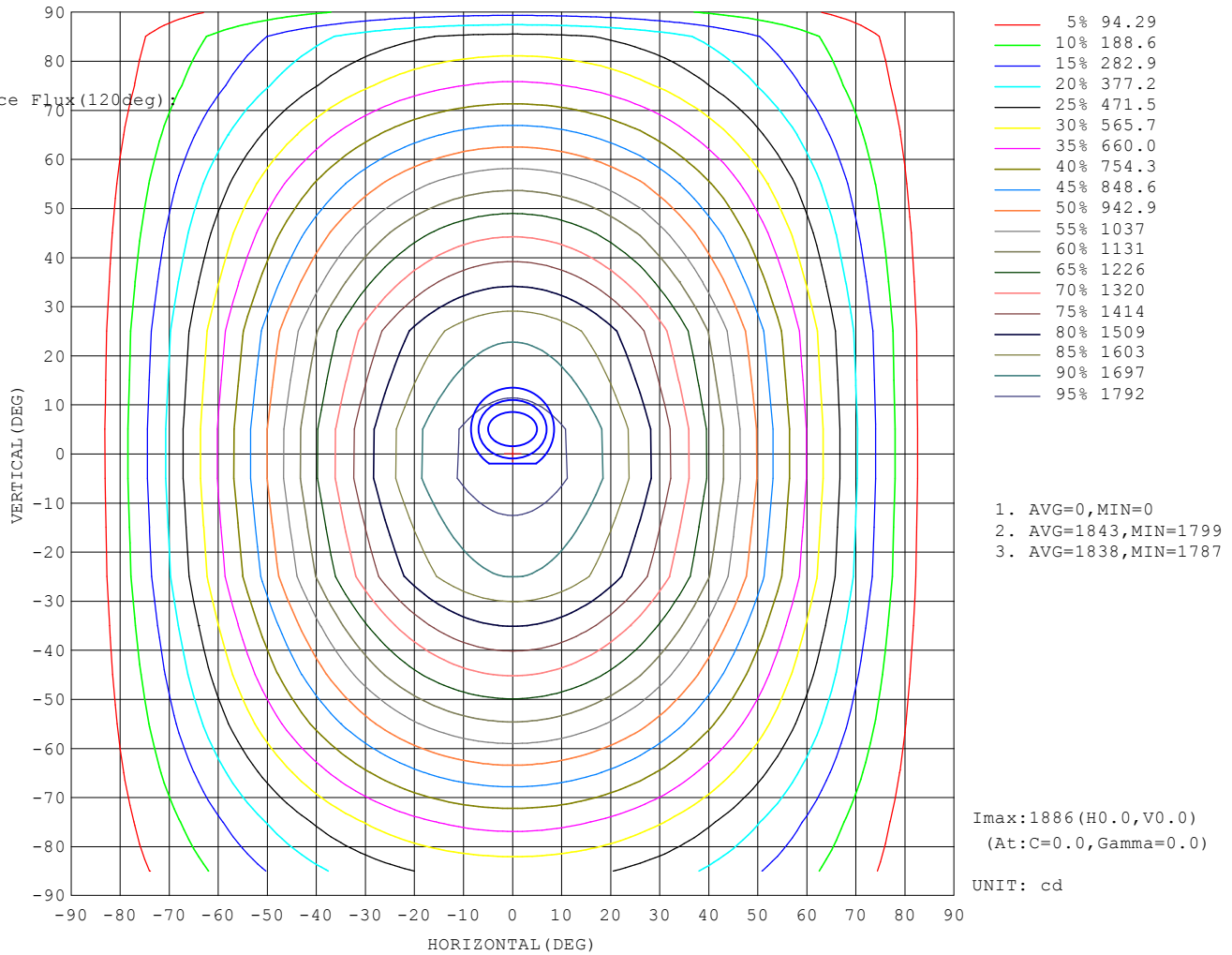
ISOCANDELA DIAGRAM

Conical surface Flux(90deg):

2785.6 lm
 %lum = 48.6%
 %lamp = 48.6%

Conical surface Flux(120deg):

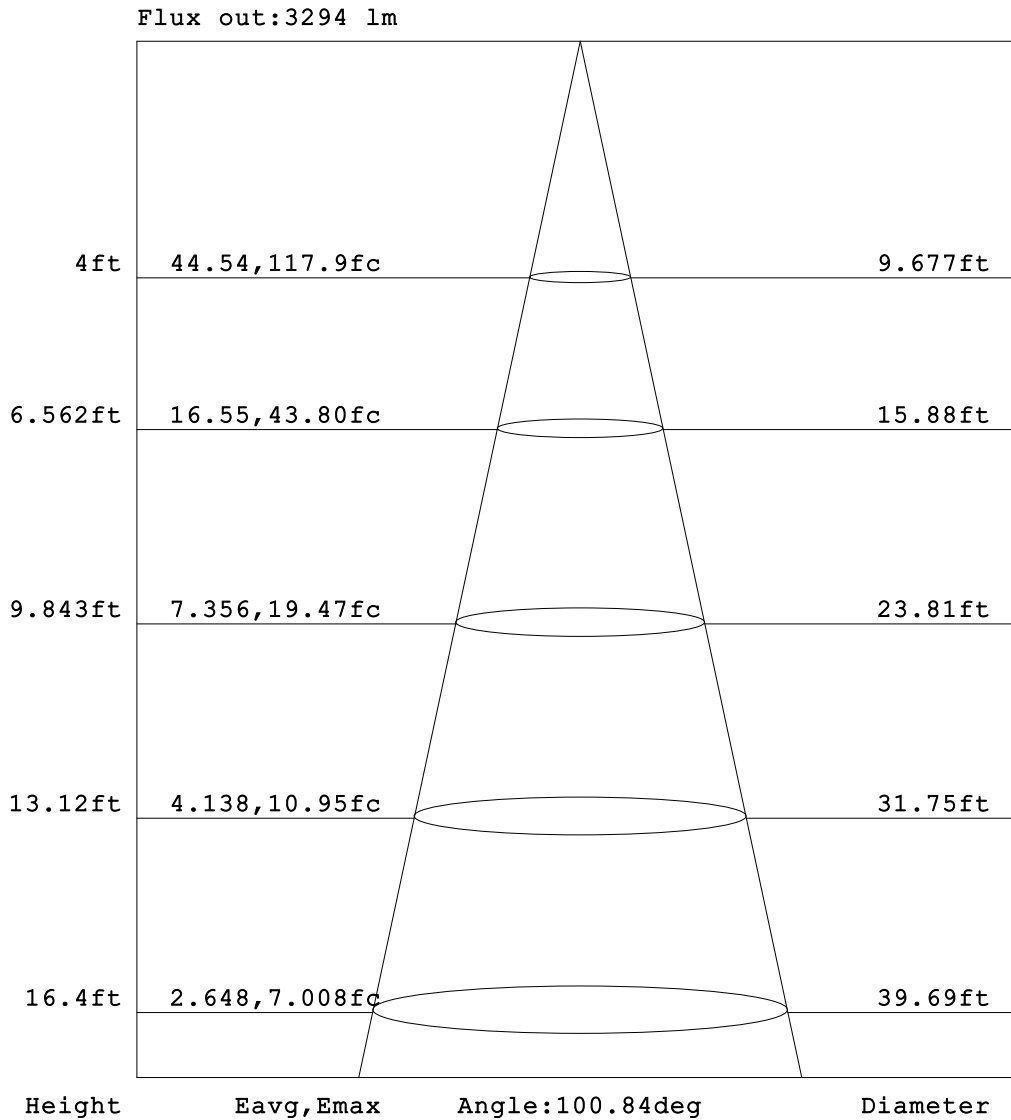
4116.5 lm
 %lum = 71.9%
 %lamp = 71.9%



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
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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

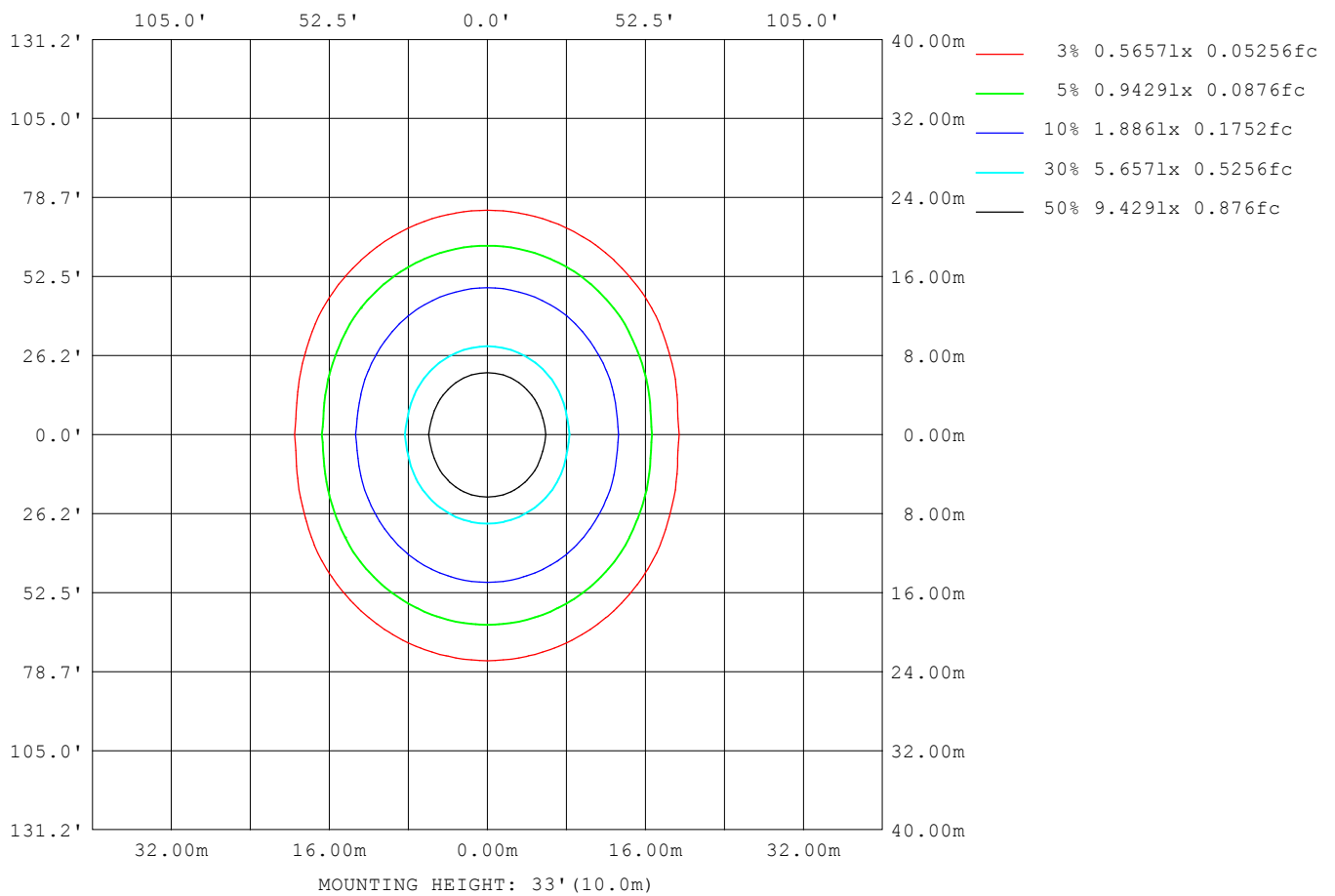


Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

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



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

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:120.0V I:0.3692A P:44.23W PF:0.9983 Lamp Flux:5728.25x1 lm		
NAME: ASD-LSF5-4A44AC-EM-PRM (44W 4000K)	TYPE:LED	WEIGHT:
SPEC.:	DIM.: 1219*66*68mm	SERIAL No.:
MFR.: ASD lighting corp.	SUR.:1219*66*68mm	PROTECTION ANGLE:

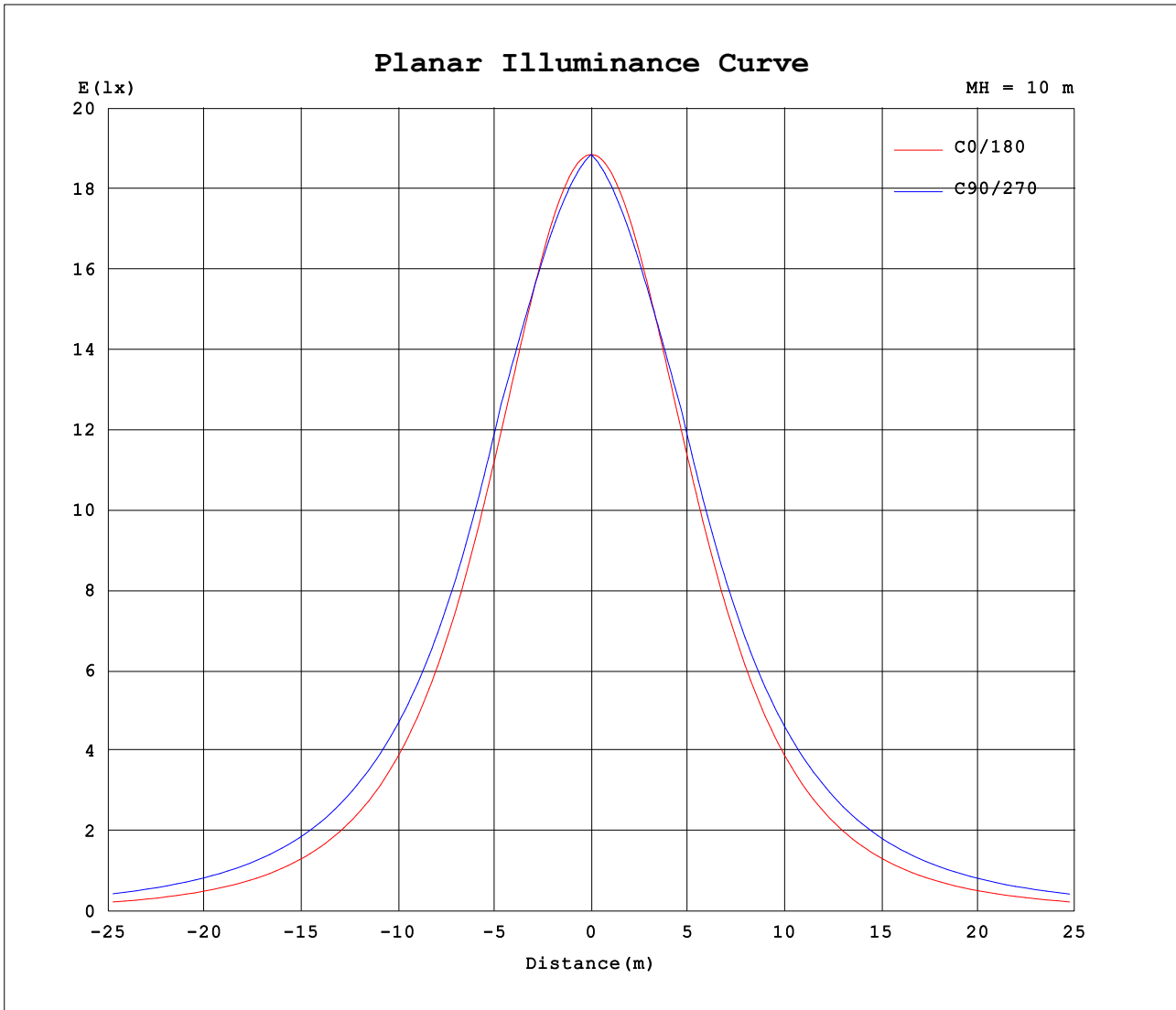
AvgL	cd/m2
L_0~180 (65) av	15751
L_0~180 (75) av	12976
L_0~180 (85) av	8689
L_90~270 (65) av	26659
L_90~270 (75) av	33154
L_90~270 (85) av	72401
L_45 (65) av	22129
L_45 (75) av	25446
L_45 (85) av	49840

Standard: GB/T 29293-2012

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

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: 2020-03-25

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:

