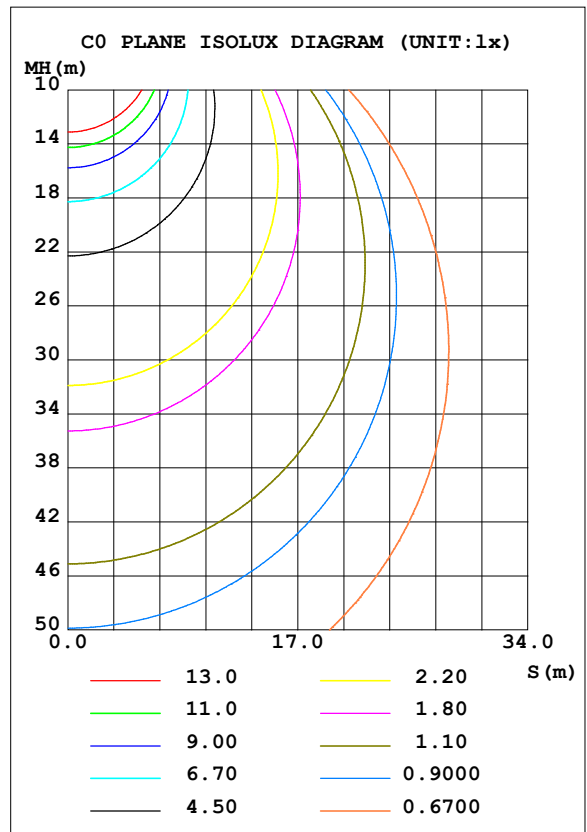
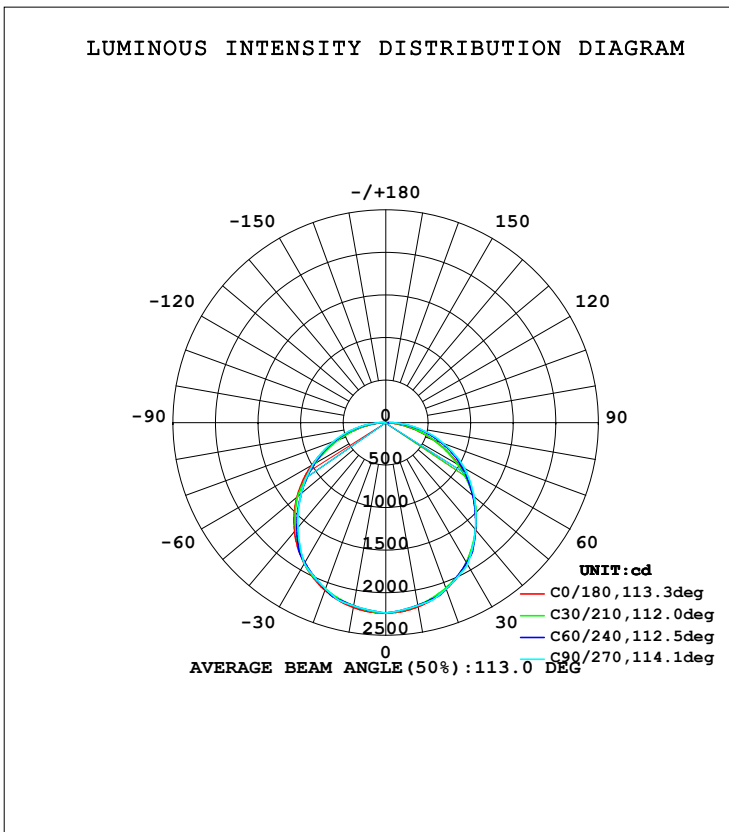


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.1V I:0.4710A P:56.20W PF:0.9937 Lamp Flux:6505.16x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 115.74 lm/W			
MODEL		I _{max} (cd)	2239	S/MH (C0/180)	1.27
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	1.26
RATED VOLTAGE (V)		TOTAL FLUX (lm)	6505.2	η UP, DN (C0-180)	0.0, 50.5
NOMINAL FLUX (lm)	6505.16	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 49.5
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)		η down (%)	100.0	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2019-11-06

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity: 65.0%
 Test Distance: 9.646m [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	2227	2212	2210	2215	2231	2216	2212	2214	0- 5	53.19	53.19	0.82,0.82
10	2198	2178	2182	2183	2205	2184	2186	2180	5- 10	157.4	210.6	3.24,3.24
15	2149	2134	2154	2141	2160	2143	2159	2138	10- 15	256.8	467.3	7.18,7.18
20	2082	2083	2078	2091	2096	2092	2078	2087	15- 20	348.2	815.5	12.5,12.5
25	1998	1992	2001	2003	2015	2000	1997	1995	20- 25	427.3	1243	19.1,19.1
30	1897	1890	1925	1903	1915	1896	1916	1889	25- 30	493.3	1736	26.7,26.7
35	1780	1782	1782	1797	1800	1785	1761	1778	30- 35	542.9	2279	35,35
40	1647	1662	1640	1679	1669	1661	1607	1654	35- 40	571.4	2850	43.8,43.8
45	1500	1495	1497	1513	1523	1485	1453	1479	40- 45	580.1	3430	52.7,52.7
50	1339	1329	1355	1344	1363	1308	1299	1303	45- 50	570.2	4001	61.5,61.5
55	1167	1162	1212	1174	1191	1131	1145	1128	50- 55	542.7	4543	69.8,69.8
60	984.9	996.9	1070	1003	1008	956.2	990.9	955.5	55- 60	499.4	5043	77.5,77.5
65	793.4	834.1	898.8	832.1	814.4	784.5	826.2	786.3	60- 65	440.8	5483	84.3,84.3
70	598.9	666.3	728.1	659.7	618.2	617.4	661.4	620.2	65- 70	368.1	5852	90,90
75	408.5	494.7	557.4	488.6	427.5	457.0	496.7	459.3	70- 75	286.9	6138	94.4,94.4
80	232.9	329.9	386.7	325.3	249.9	302.0	332.0	303.5	75- 80	202.6	6341	97.5,97.5
85	82.58	170.3	216.0	168.0	95.01	151.1	167.3	151.9	80- 85	120.9	6462	99.3,99.3
90	2.825	13.91	45.25	14.27	2.692	2.474	2.604	2.564	85- 90	43.15	6505	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			

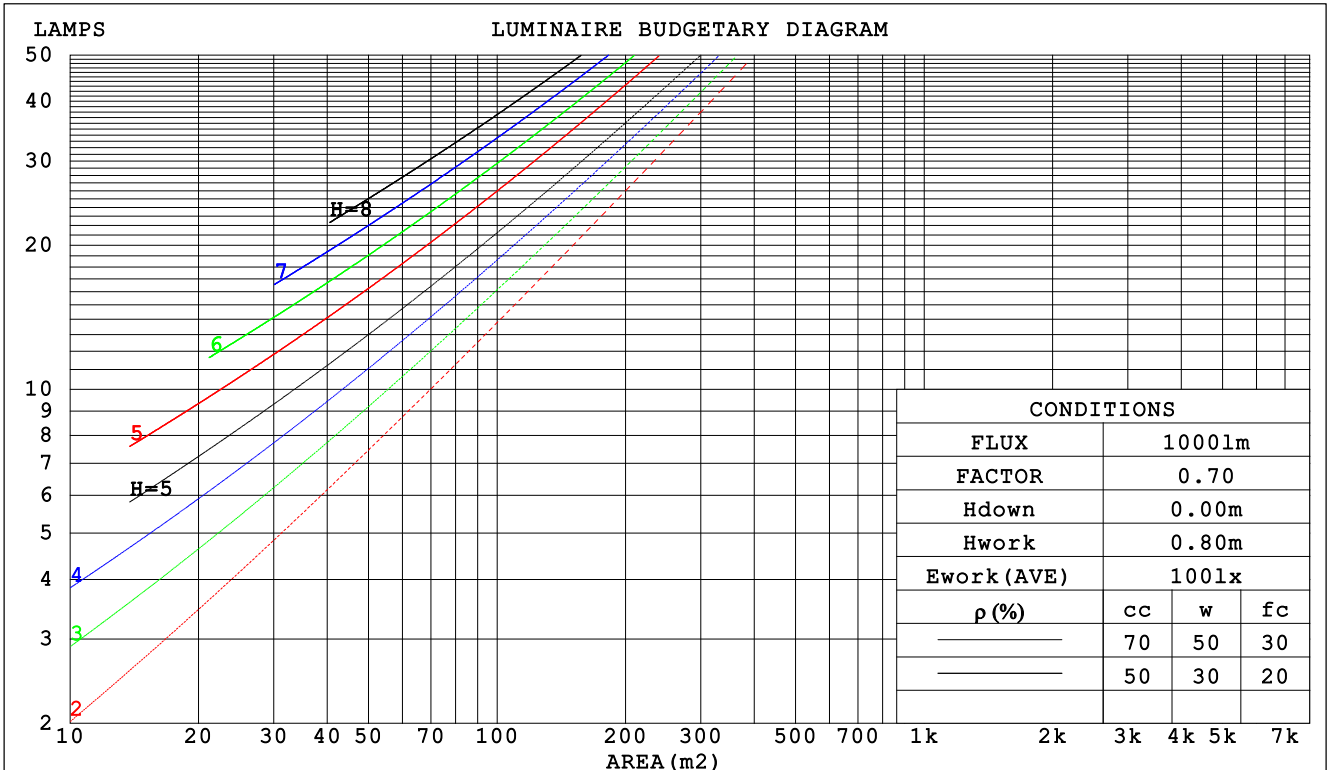
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-11-06

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity:65.0%
 Test Distance:9.646m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.1V I:0.4710A P:56.20W PF:0.9937 Lamp Flux:6505.16x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	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															
	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	1.03	.99	.95	1.01	.97	.93	.97	.93	.90	.93	.90	.88	.89	.87	.85	.83
2.0	.90	.83	.77	.88	.81	.76	.84	.79	.74	.81	.76	.73	.78	.74	.71	.69
3.0	.79	.70	.64	.77	.69	.63	.74	.67	.62	.71	.66	.61	.69	.64	.60	.58
4.0	.70	.61	.54	.68	.60	.53	.66	.58	.53	.63	.57	.52	.61	.56	.51	.49
5.0	.62	.53	.46	.61	.52	.46	.59	.51	.46	.57	.50	.45	.55	.49	.44	.42
6.0	.56	.47	.40	.55	.46	.40	.53	.45	.40	.51	.45	.39	.50	.44	.39	.37
7.0	.51	.42	.36	.50	.41	.35	.48	.41	.35	.47	.40	.35	.45	.39	.35	.33
8.0	.46	.38	.32	.46	.37	.32	.44	.37	.31	.43	.36	.31	.42	.36	.31	.29
9.0	.42	.34	.29	.42	.34	.28	.41	.33	.28	.40	.33	.28	.39	.32	.28	.26
10.0	.39	.31	.26	.39	.31	.26	.38	.31	.26	.37	.30	.26	.36	.30	.25	.24



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-11-06

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity:65.0%
 Test Distance:9.646m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:120.1V I:0.4710A P:56.20W PF:0.9937 Lamp Flux:6505.16x1 lm												
NAME:				TYPE:				WEIGHT:				
SPEC.:				DIM.:				SERIAL No.:				
MFR.:				SUR.:				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	.319	.182	.058	.312	.178	.057	.299	.172	.055	.287	.165	.053	.275	.160	.051	
2.0	.298	.163	.050	.291	.160	.049	.280	.155	.048	.269	.151	.047	.259	.146	.046	
3.0	.274	.146	.044	.269	.144	.043	.258	.140	.043	.248	.136	.042	.240	.133	.041	
4.0	.252	.131	.039	.247	.129	.038	.238	.126	.038	.229	.123	.037	.221	.120	.037	
5.0	.233	.119	.034	.228	.117	.034	.220	.115	.034	.212	.112	.033	.205	.110	.033	
6.0	.215	.108	.031	.212	.107	.031	.204	.105	.030	.197	.103	.030	.191	.101	.030	
7.0	.200	.099	.028	.197	.098	.028	.190	.096	.028	.184	.094	.027	.178	.093	.027	
8.0	.187	.091	.026	.184	.090	.026	.178	.089	.025	.172	.087	.025	.167	.086	.025	
9.0	.175	.085	.024	.172	.084	.024	.167	.083	.023	.162	.081	.023	.157	.080	.023	
10.0	.164	.079	.022	.162	.078	.022	.157	.077	.022	.153	.076	.022	.149	.075	.021	

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	.181	.156	.134	.155	.134	.115	.106	.092	.080	.061	.053	.046	.020	.017	.015	
2.0	.173	.132	.097	.148	.114	.084	.102	.079	.059	.059	.046	.034	.019	.015	.011	
3.0	.165	.114	.074	.142	.099	.064	.097	.069	.045	.056	.040	.026	.018	.013	.009	
4.0	.158	.101	.058	.135	.087	.050	.093	.061	.035	.054	.036	.021	.017	.012	.007	
5.0	.150	.091	.047	.129	.078	.041	.089	.055	.029	.051	.032	.017	.017	.011	.006	
6.0	.143	.082	.039	.123	.071	.034	.085	.050	.024	.049	.029	.014	.016	.010	.005	
7.0	.136	.075	.033	.117	.065	.029	.081	.046	.020	.047	.027	.012	.015	.009	.004	
8.0	.129	.070	.029	.111	.060	.025	.077	.042	.018	.045	.025	.011	.015	.008	.003	
9.0	.123	.065	.025	.106	.056	.022	.074	.039	.016	.043	.023	.009	.014	.008	.003	
10.0	.118	.060	.022	.101	.052	.019	.070	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-11-06

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity:65.0%
 Test Distance:9.646m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.1V I:0.4710A P:56.20W PF:0.9937 Lamp Flux:6505.16x1 lm										
NAME:					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.:					SUR.:			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	21.4	23.0	21.7	23.2	23.4	21.7	23.3	22.0	23.5	23.7
3H	22.8	24.3	23.1	24.5	24.7	23.5	25.0	23.8	25.2	25.4
4H	23.3	24.7	23.7	25.0	25.2	24.4	25.7	24.7	26.0	26.2
6H	23.6	24.9	24.0	25.2	25.5	25.1	26.3	25.4	26.6	26.9
8H	23.7	24.9	24.0	25.2	25.5	25.4	26.6	25.7	26.9	27.2
12H	23.7	24.9	24.1	25.2	25.5	25.6	26.8	26.0	27.1	27.4
4H 2H	22.1	23.4	22.4	23.7	23.9	22.3	23.7	22.7	23.9	24.2
3H	23.7	24.9	24.0	25.2	25.5	24.3	25.5	24.7	25.8	26.1
4H	24.3	25.4	24.7	25.7	26.0	25.3	26.4	25.7	26.7	27.1
6H	24.7	25.7	25.1	26.0	26.4	26.2	27.2	26.6	27.5	27.9
8H	24.8	25.7	25.2	26.1	26.5	26.6	27.5	27.0	27.8	28.2
12H	24.9	25.7	25.3	26.1	26.5	26.9	27.7	27.3	28.1	28.5
8H 4H	24.7	25.6	25.1	26.0	26.4	25.6	26.5	26.0	26.9	27.3
6H	25.3	26.0	25.7	26.4	26.9	26.7	27.4	27.1	27.8	28.2
8H	25.5	26.2	25.9	26.6	27.0	27.2	27.8	27.6	28.2	28.7
12H	25.6	26.2	26.1	26.6	27.1	27.6	28.2	28.1	28.6	29.1
12H 4H	24.8	25.6	25.2	26.0	26.4	25.6	26.4	26.0	26.8	27.2
6H	25.4	26.1	25.9	26.5	27.0	26.7	27.4	27.2	27.8	28.3
8H	25.7	26.3	26.2	26.7	27.2	27.3	27.9	27.8	28.3	28.8
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.2				
1.5H	+ 0.2 / - 0.2					+ 0.2 / - 0.3				
2.0H	+ 0.3 / - 0.4					+ 0.1 / - 0.3				

CIE Pub.117 Corrected 6505 lm Total Lamp Luminous Flux. (8log(F/F0) = 6.5)

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-11-06

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity:65.0%
 Test Distance:9.646m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:120.1V I:0.4710A P:56.20W PF:0.9937 Lamp Flux:6505.16x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	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	45	38	32
0.80	67	55	48	66	55	48	64	54	47	40
1.00	75	64	57	74	64	57	72	65	56	49
1.25	83	72	65	81	71	64	78	70	63	56
1.50	88	77	70	86	77	70	83	75	69	61
2.00	94	86	79	93	84	78	89	82	77	69
2.50	98	90	84	96	89	83	92	86	81	73
3.00	102	95	89	100	93	88	95	90	86	77
4.00	106	100	95	103	98	94	99	95	91	82
5.00	108	103	99	106	101	98	101	98	94	85
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:25.3DEG
 Operators:DAMIN
 Test Date:2019-11-06

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity:65.0%
 Test Distance:9.646m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:120.1V I:0.4710A P:56.20W PF:0.9937 Lamp Flux:6505.16x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

Conical surface Flux(90deg):

3430.5 lm

%lum = 52.7%

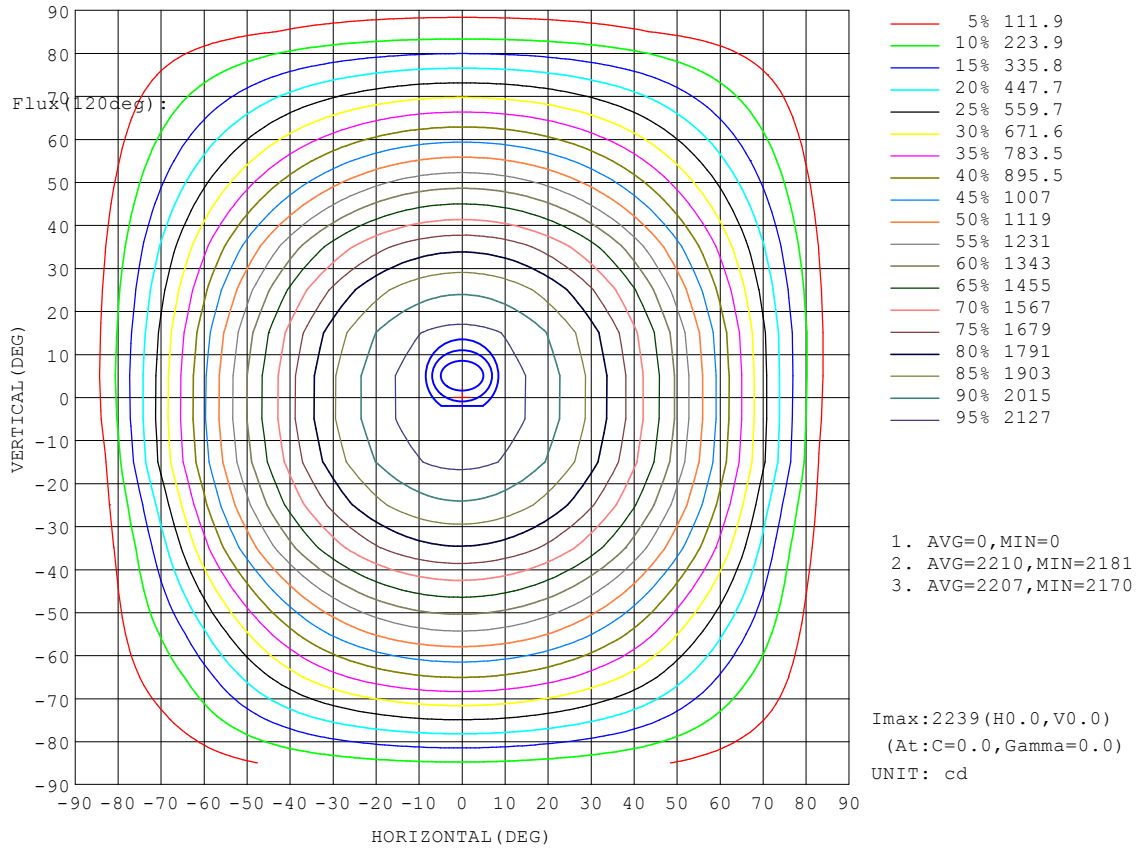
%lamp = 52.7%

Conical surface Flux(20deg):

5042.7 lm

%lum = 77.5%

%lamp = 77.5%

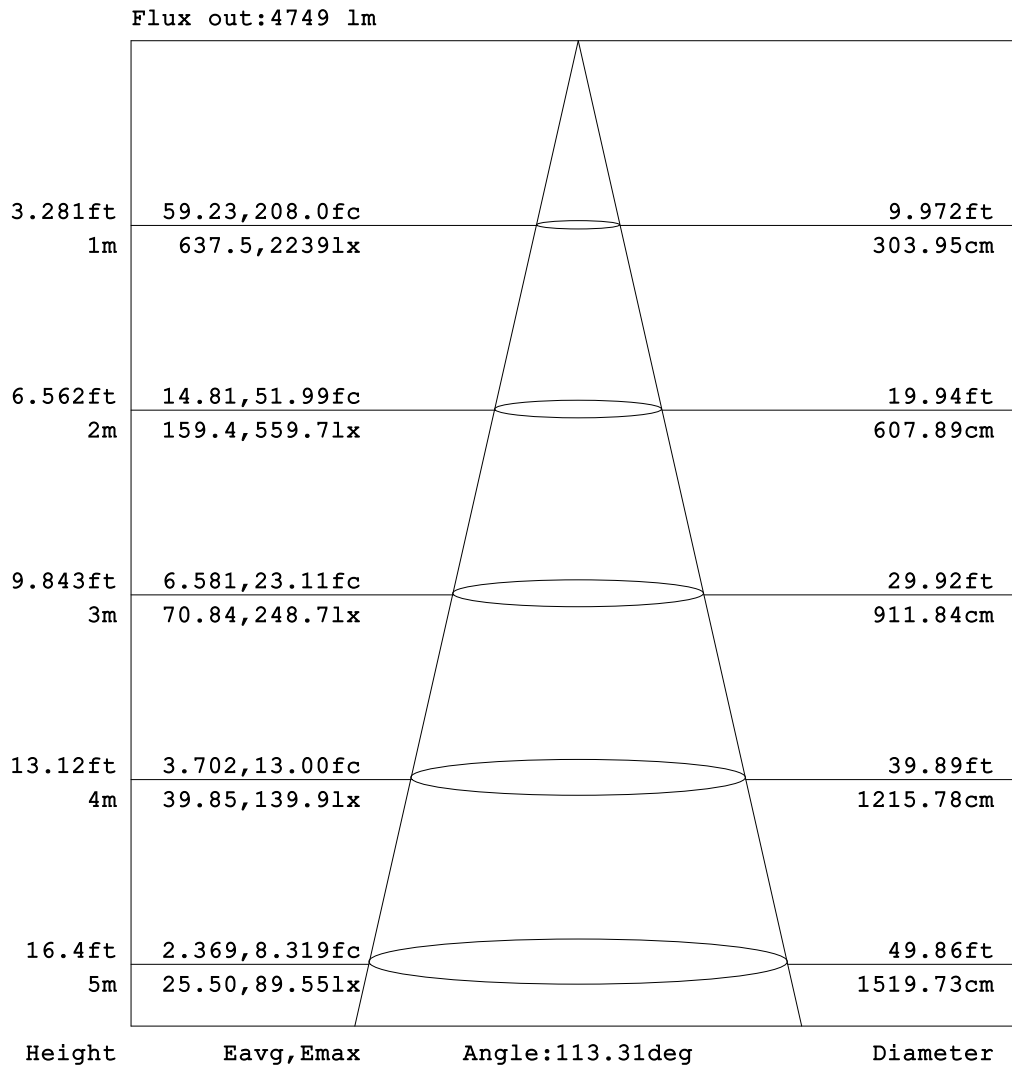


C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-11-06

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity:65.0%
 Test Distance:9.646m [K=1.0000]
 Remarks:

AAI Figure

Test:U:120.1V I:0.4710A P:56.20W PF:0.9937 Lamp Flux:6505.16x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:



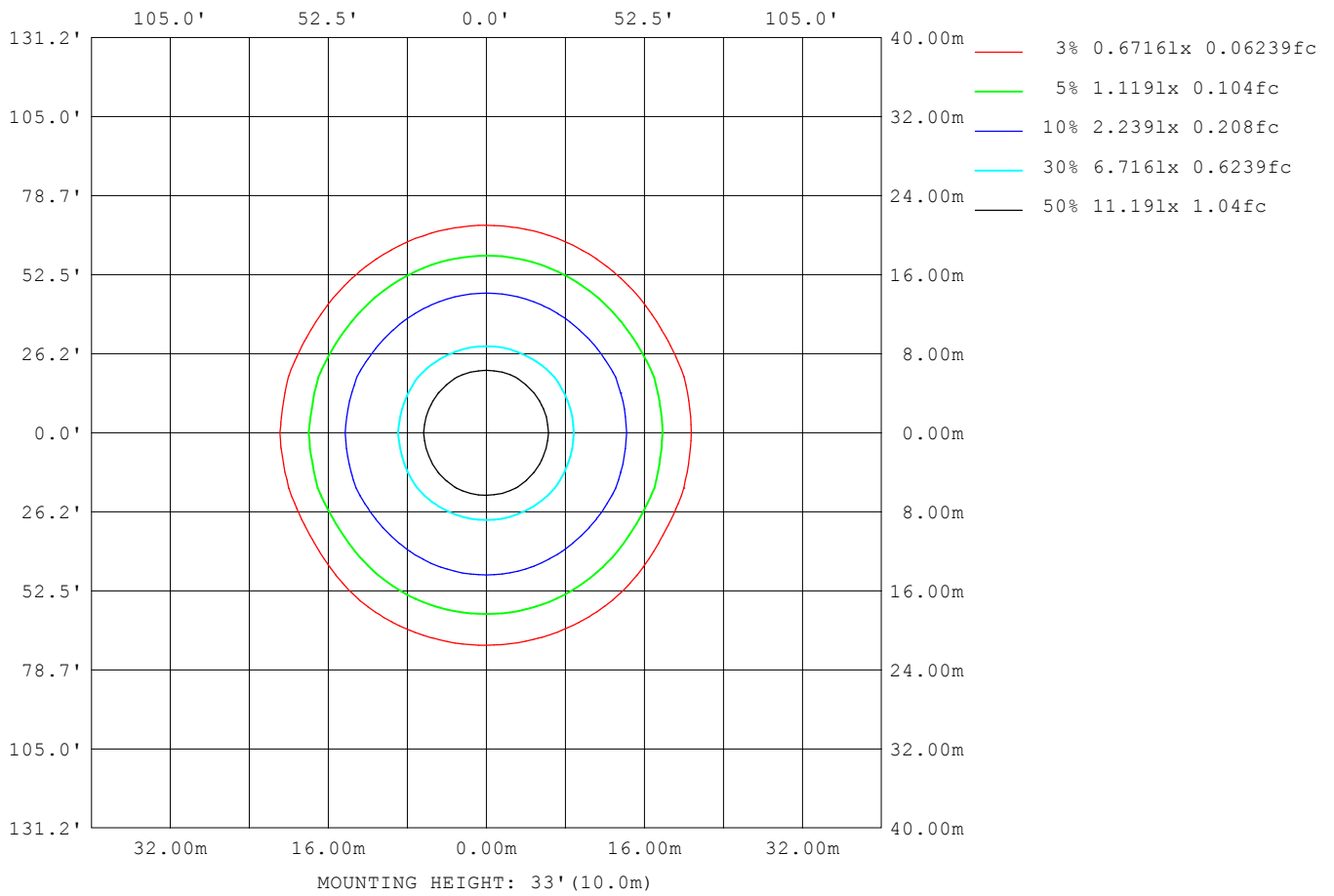
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-11-06

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity:65.0%
 Test Distance:9.646m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

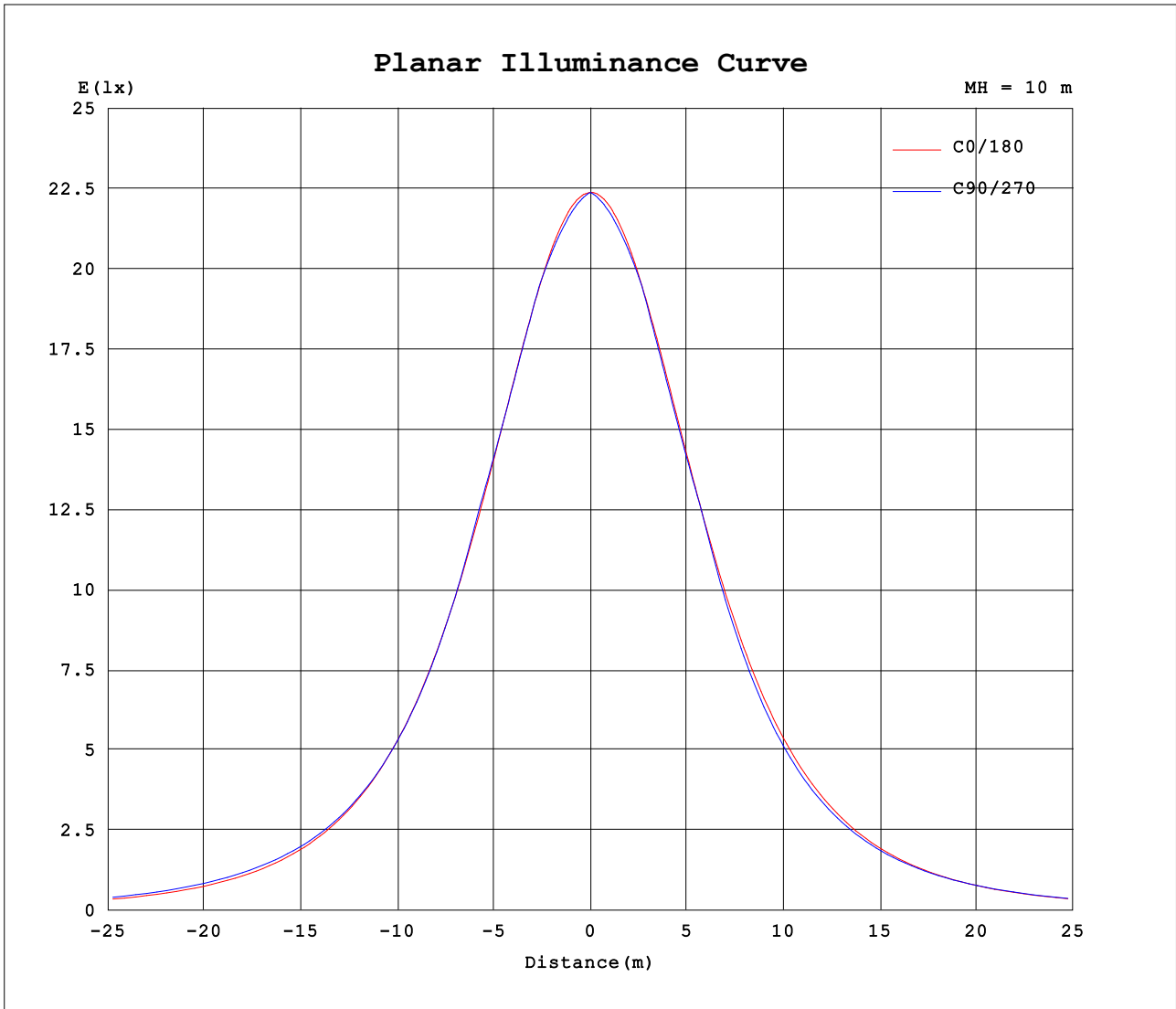
Test:U:120.1V I:0.4710A P:56.20W PF:0.9937 Lamp Flux:6505.16x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-11-06

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity:65.0%
 Test Distance:9.646m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2019-11-06

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity: 65.0%
 Test Distance: 9.646m [K=1.0000]
 Remarks:

