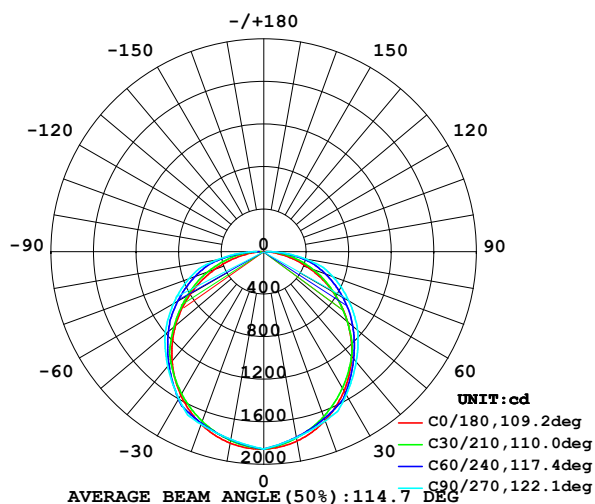


LUMINAIRE PHOTOMETRIC TEST REPORT

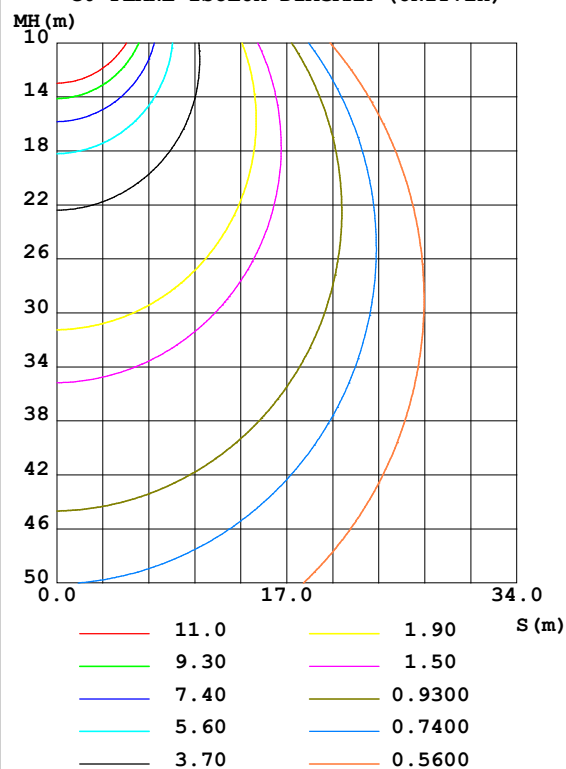
Test:U:120.1V I:0.3153A P:37.63W PF:0.9934 Lamp Flux:2772.72x2 lm		
NAME: LOC-24TRKT-DMWMCCT	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Fintronx LLC	SUR.:1188*63*14mm	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 147.38 lm/W			
MODEL	4000K	Imax(cd)	1857	S/MH(C0/180)	1.25
NOMINAL POWER(W)	39	LOR(%)	100.0	S/MH(C90/270)	1.28
RATED VOLTAGE(V)	120-277	TOTAL FLUX(lm)	5545.4	η UP,DN(C0-180)	0.0,49.0
NOMINAL FLUX(lm)	2772.72	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,51.0
LAMPS INSIDE	2	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	120	η down(%)	100.0	CIBSE SHR MAX	1.35

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2020-05-23

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
Humidity:50%
Test Distance:8.600m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

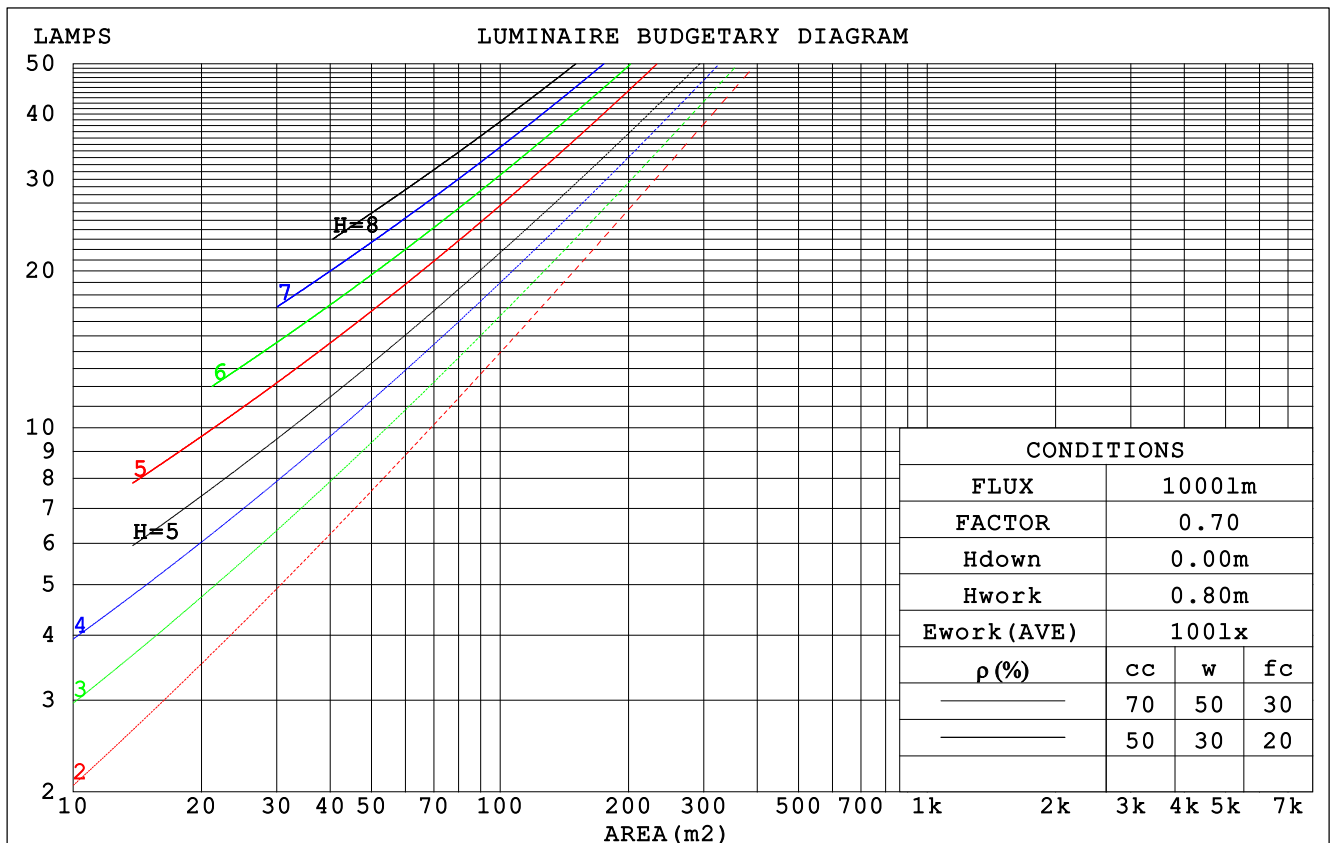
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
5	1841	1818	1815	1826	1851	1832	1824	1825	0- 5	43.94	43.94	0.79,0.79
10	1807	1773	1775	1786	1828	1798	1792	1785	5- 10	129.3	173.3	3.12,3.12
15	1757	1718	1734	1738	1785	1755	1759	1737	10- 15	209.6	382.9	6.9,6.9
20	1689	1655	1693	1682	1726	1704	1727	1681	15- 20	282.9	665.8	12,12
25	1607	1587	1652	1618	1650	1645	1695	1619	20- 25	348.0	1014	18.3,18.3
30	1511	1513	1553	1549	1560	1580	1598	1552	25- 30	401.8	1416	25.5,25.5
35	1404	1421	1453	1461	1457	1495	1502	1466	30- 35	440.2	1856	33.5,33.5
40	1287	1298	1353	1339	1342	1374	1405	1345	35- 40	463.9	2320	41.8,41.8
45	1162	1174	1253	1217	1217	1253	1309	1223	40- 45	473.6	2793	50.4,50.4
50	1030	1051	1153	1094	1084	1131	1212	1102	45- 50	470.0	3263	58.8,58.8
55	890.9	929.3	1038	972.5	943.6	1011	1097	983.7	50- 55	453.4	3717	67,67
60	747.9	809.4	923.5	851.8	796.7	890.4	981.1	866.6	55- 60	423.7	4140	74.7,74.7
65	601.1	681.0	808.7	722.8	645.2	756.3	865.5	739.5	60- 65	383.2	4524	81.6,81.6
70	453.7	557.0	693.9	597.6	491.0	626.0	749.9	617.6	65- 70	334.0	4858	87.6,87.6
75	309.6	437.6	579.1	477.0	339.5	500.1	634.2	500.7	70- 75	278.6	5136	92.6,92.6
80	178.6	317.3	394.0	352.9	198.0	370.9	445.4	380.8	75- 80	214.5	5351	96.5,96.5
85	73.65	168.7	209.0	186.5	86.24	200.0	256.6	219.8	80- 85	137.1	5488	99,99
90	15.41	23.13	23.90	23.09	24.25	32.31	67.74	61.85	85- 90	57.66	5545	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:
 Test Date:2020-05-23

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
 Humidity:50%
 Test Distance:8.600m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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	.00
1.0	1.02	.98	.93	1.00	.96	.92	.96	.92	.89	.92	.89	.86	.88	.86	.84	.81
2.0	.89	.81	.75	.87	.80	.74	.83	.77	.72	.80	.75	.71	.77	.73	.69	.67
3.0	.77	.69	.62	.76	.68	.61	.73	.66	.60	.70	.64	.59	.67	.62	.58	.56
4.0	.68	.59	.52	.67	.58	.52	.64	.57	.51	.62	.56	.50	.60	.54	.50	.47
5.0	.61	.52	.45	.60	.51	.44	.58	.50	.44	.56	.49	.43	.54	.48	.43	.41
6.0	.55	.46	.39	.54	.45	.39	.52	.44	.38	.50	.43	.38	.49	.42	.38	.36
7.0	.50	.41	.34	.49	.40	.34	.47	.39	.34	.46	.39	.34	.44	.38	.33	.31
8.0	.45	.37	.31	.45	.36	.30	.43	.36	.30	.42	.35	.30	.41	.34	.30	.28
9.0	.41	.33	.27	.41	.33	.27	.40	.32	.27	.39	.32	.27	.38	.31	.27	.25
10.0	.38	.30	.25	.38	.30	.25	.37	.30	.25	.36	.29	.25	.35	.29	.24	.23



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2020-05-23

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.290
 Humidity: 50%
 Test Distance: 8.600m [K=1.0000]
 Remarks:

WEC AND CCEC

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						Wall Exitance Coefficients (WEC)										
0.0																	
1.0	.338	.192	.061	.331	.189	.060	.317	.182	.058	.305	.176	.056	.294	.170	.055		
2.0	.310	.170	.052	.304	.167	.052	.292	.162	.050	.281	.157	.049	.271	.153	.048		
3.0	.283	.150	.045	.277	.148	.045	.267	.144	.044	.257	.141	.043	.248	.137	.042		
4.0	.259	.134	.039	.254	.133	.039	.244	.130	.039	.236	.127	.038	.228	.124	.038		
5.0	.237	.121	.035	.233	.120	.035	.225	.117	.034	.217	.115	.034	.210	.112	.034		
6.0	.219	.110	.031	.215	.109	.031	.208	.107	.031	.201	.104	.031	.195	.102	.030		
7.0	.203	.100	.028	.200	.100	.028	.193	.098	.028	.187	.096	.028	.181	.094	.028		
8.0	.189	.092	.026	.186	.092	.026	.180	.090	.026	.175	.089	.026	.170	.087	.025		
9.0	.177	.086	.024	.174	.085	.024	.169	.084	.024	.164	.082	.024	.159	.081	.023		
10.0	.166	.080	.022	.164	.079	.022	.159	.078	.022	.154	.077	.022	.150	.076	.022		

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						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.182	.156	.132	.156	.134	.114	.107	.092	.079	.061	.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	.072	.143	.099	.063	.098	.069	.044	.057	.040	.026	.018	.013	.009	
4.0	.159	.101	.057	.137	.087	.049	.094	.061	.035	.054	.036	.021	.017	.012	.007	
5.0	.152	.091	.046	.130	.079	.040	.090	.055	.028	.052	.032	.017	.017	.011	.006	
6.0	.144	.083	.038	.124	.071	.033	.085	.050	.024	.050	.029	.014	.016	.010	.005	
7.0	.137	.076	.033	.118	.066	.028	.081	.046	.020	.047	.027	.012	.015	.009	.004	
8.0	.130	.070	.028	.112	.061	.025	.078	.043	.017	.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	.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:
 Test Date:2020-05-23

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
 Humidity:50%
 Test Distance:8.600m [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	14.9	16.5	15.2	16.7	16.9	15.9	17.5	16.2	17.7	17.9
3H	16.4	17.8	16.7	18.0	18.3	18.0	19.5	18.3	19.7	20.0
4H	16.9	18.3	17.2	18.5	18.8	19.1	20.5	19.4	20.7	21.0
6H	17.3	18.6	17.6	18.8	19.1	20.0	21.3	20.3	21.6	21.8
8H	17.4	18.6	17.7	18.9	19.2	20.3	21.6	20.7	21.9	22.2
12H	17.4	18.6	17.8	18.9	19.2	20.6	21.8	20.9	22.1	22.4
4H 2H	15.7	17.1	16.0	17.3	17.6	16.5	17.9	16.8	18.1	18.4
3H	17.3	18.6	17.7	18.9	19.2	18.8	20.0	19.1	20.3	20.6
4H	18.0	19.1	18.4	19.5	19.8	20.0	21.2	20.4	21.5	21.8
6H	18.5	19.5	18.9	19.9	20.2	21.1	22.1	21.5	22.5	22.8
8H	18.7	19.6	19.1	20.0	20.4	21.5	22.5	21.9	22.8	23.2
12H	18.7	19.6	19.2	20.0	20.4	21.9	22.7	22.3	23.1	23.5
8H 4H	18.6	19.5	19.0	19.9	20.3	20.3	21.2	20.7	21.6	22.0
6H	19.3	20.1	19.7	20.5	20.9	21.6	22.4	22.0	22.8	23.2
8H	19.6	20.3	20.0	20.7	21.1	22.2	22.9	22.6	23.3	23.7
12H	19.7	20.3	20.2	20.8	21.3	22.6	23.2	23.1	23.7	24.2
12H 4H	18.7	19.6	19.1	19.9	20.4	20.3	21.2	20.7	21.6	22.0
6H	19.5	20.2	20.0	20.6	21.1	21.7	22.4	22.1	22.8	23.2
8H	19.9	20.5	20.3	20.9	21.4	22.3	22.9	22.8	23.3	23.8
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.1				
1.5H	+ 0.1 / - 0.2					+ 0.1 / - 0.2				
2.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.3				

CIE Pub.117 Corrected 5545 lm Total Lamp Luminous Flux.(8log(F/F0) = 6.0)

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2020-05-23

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
 Humidity:50%
 Test Distance:8.600m [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) $k(RI) \times RCR = 5$									
$k = 0.60$	56	44	37	55	44	37	54	44	37	30
0.80	66	54	46	65	54	46	63	53	46	39
1.00	74	63	55	73	62	55	71	64	54	47
1.25	81	70	63	80	69	62	77	68	61	54
1.50	86	76	68	85	75	68	81	73	67	59
2.00	93	84	77	91	83	76	88	81	75	67
2.50	97	89	83	95	88	82	91	85	80	71
3.00	101	93	87	99	92	86	94	89	84	75
4.00	105	99	94	103	97	92	98	94	90	81
5.00	108	102	98	105	100	96	100	97	93	84
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:
 Test Date: 2020-05-23

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.290
 Humidity: 50%
 Test Distance: 8.600m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Conical surface Flux(90deg):

2793.3 lm

%lum = 50.4%

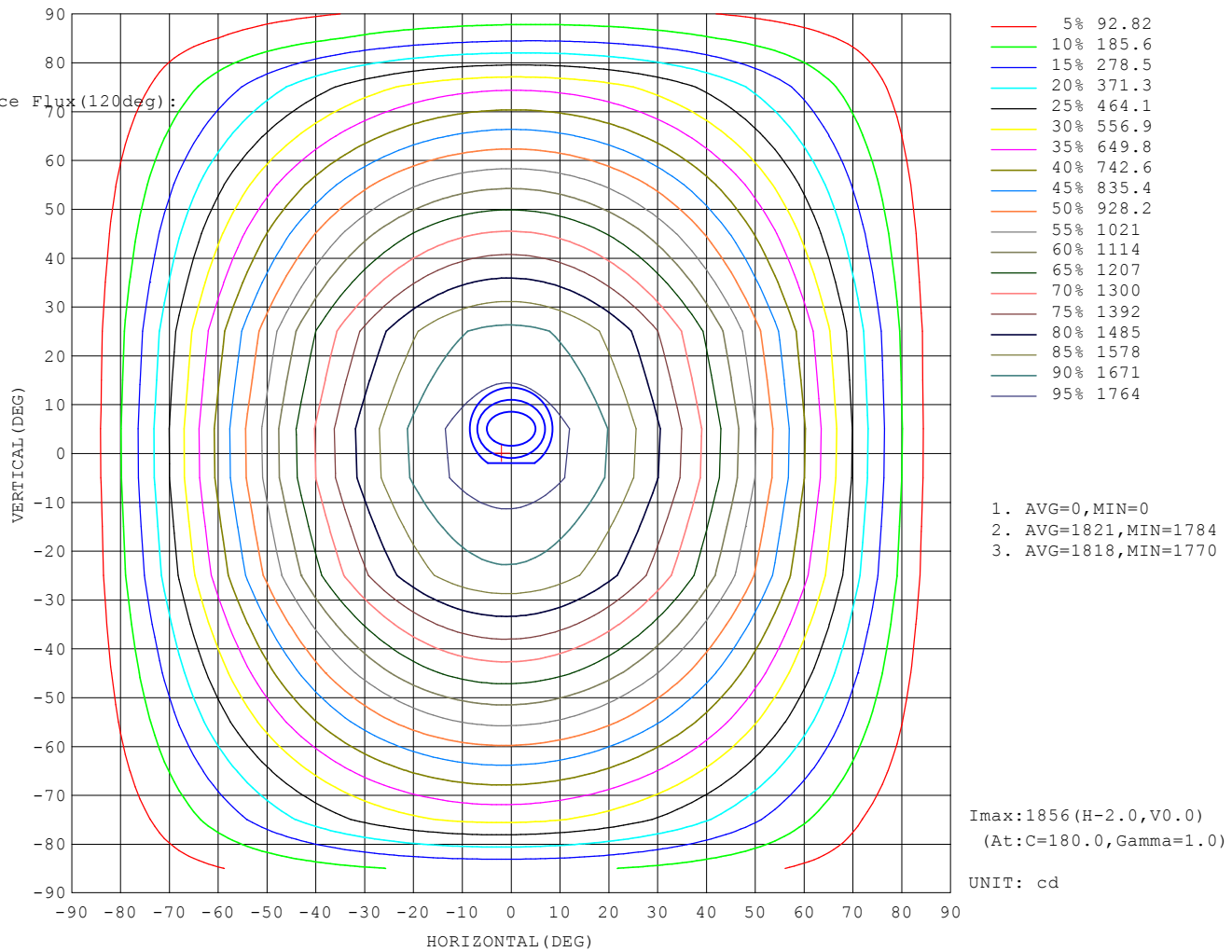
%lamp = 50.4%

Conical surface Flux(120deg):

4140.4 lm

%lum = 74.7%

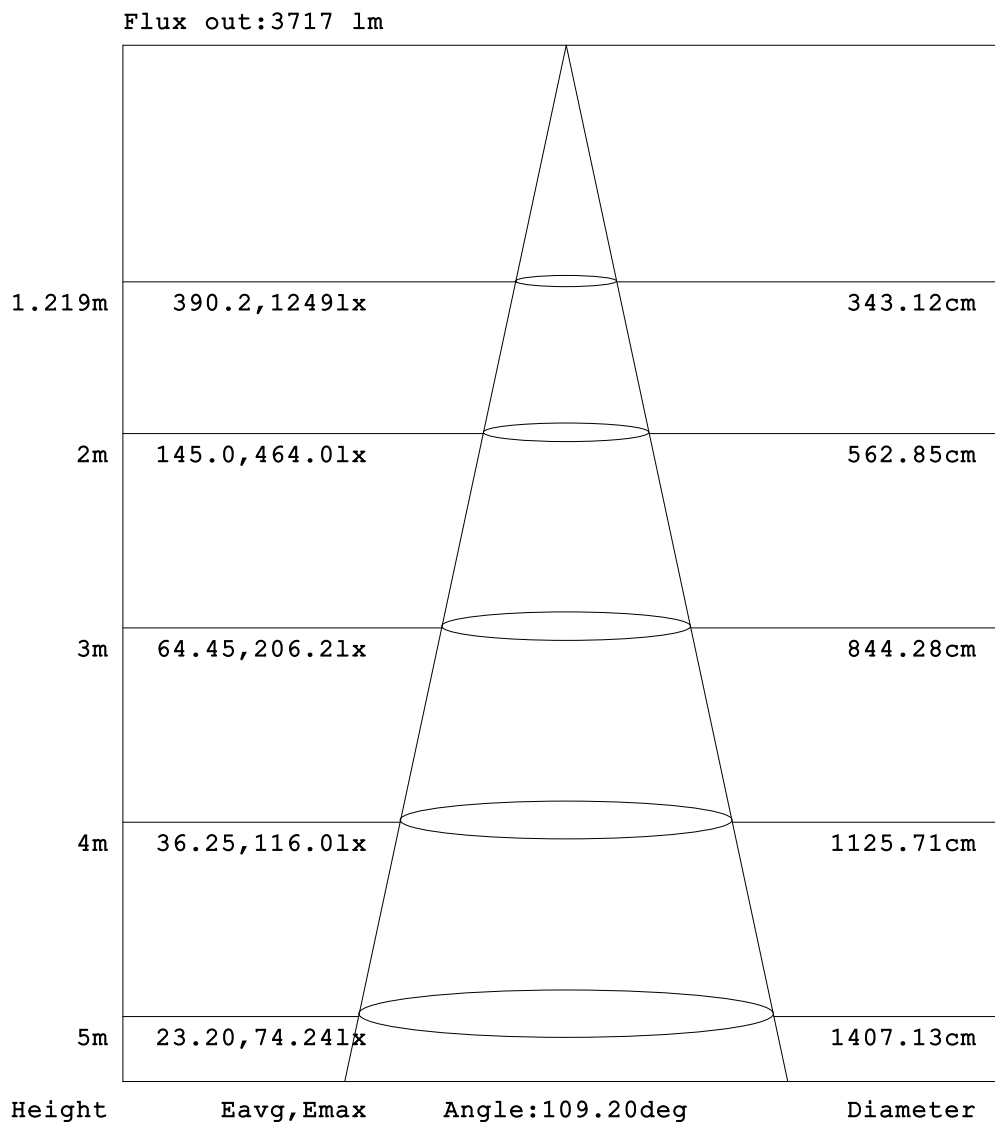
%lamp = 74.7%



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2020-05-23

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
Humidity:50%
Test Distance:8.600m [K=1.0000]
Remarks:

AAI Figure

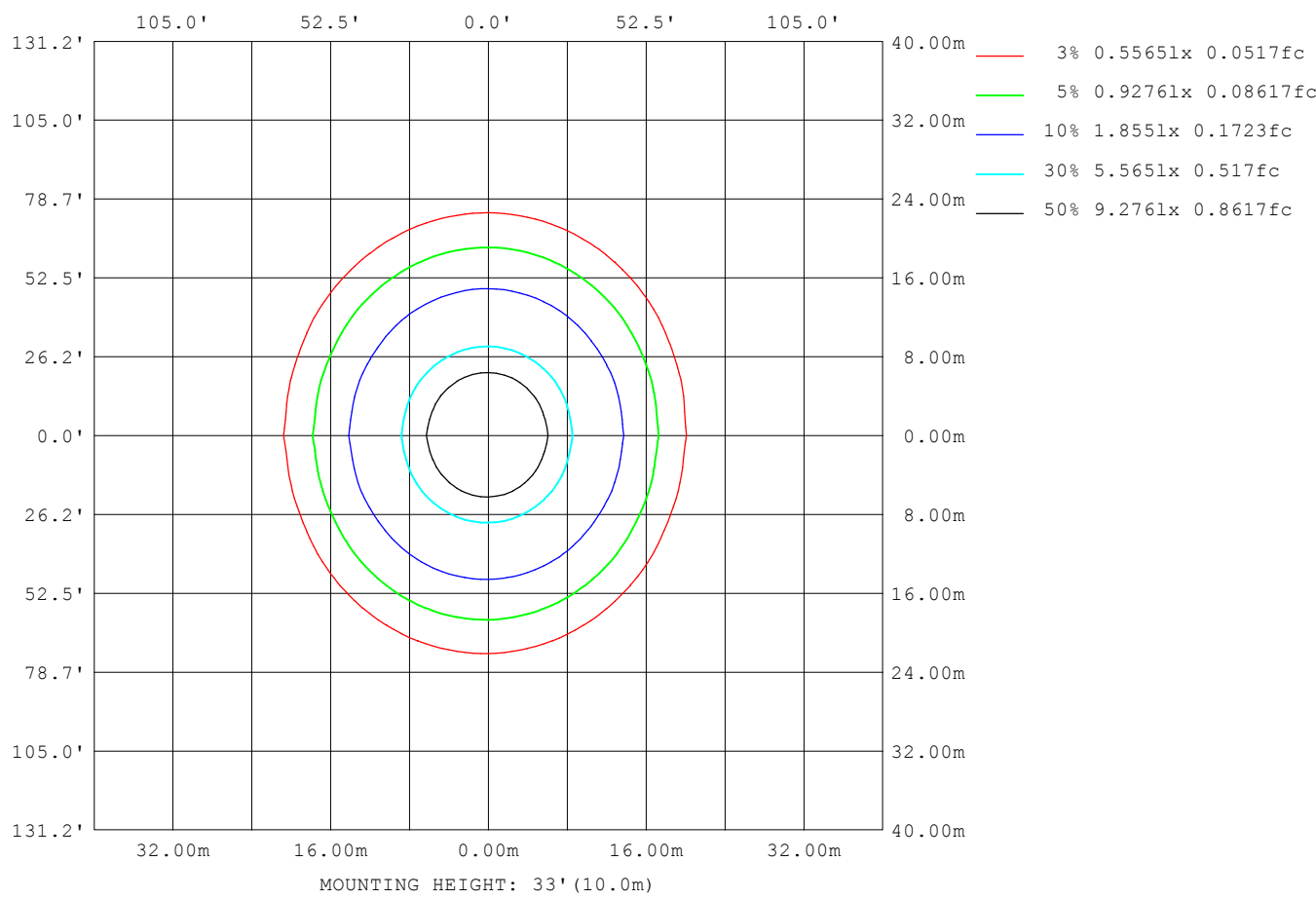


Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2020-05-23

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.290
Humidity: 50%
Test Distance: 8.600m [K=1.0000]
Remarks:

ISOLUX DIAGRAM



C Range: 0 - 360DEG	γ Range: 0 - 90DEG
C Interval: 5.0DEG	γ Interval: 0.5DEG
Test Speed: HIGH	Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
Temperature:25DEG	Humidity:50%
Operators:	Test Distance:8.600m [K=1.0000]
Test Date:2020-05-23	Remarks:

LED Avg.L Report

Test:U:120.1V I:0.3153A P:37.63W PF:0.9934 Lamp Flux:2772.72x2 lm		
NAME: LOC-24TRKT-DMWMCCT	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Fintronx LLC	SUR.:1188*63*14mm	PROTECTION ANGLE:

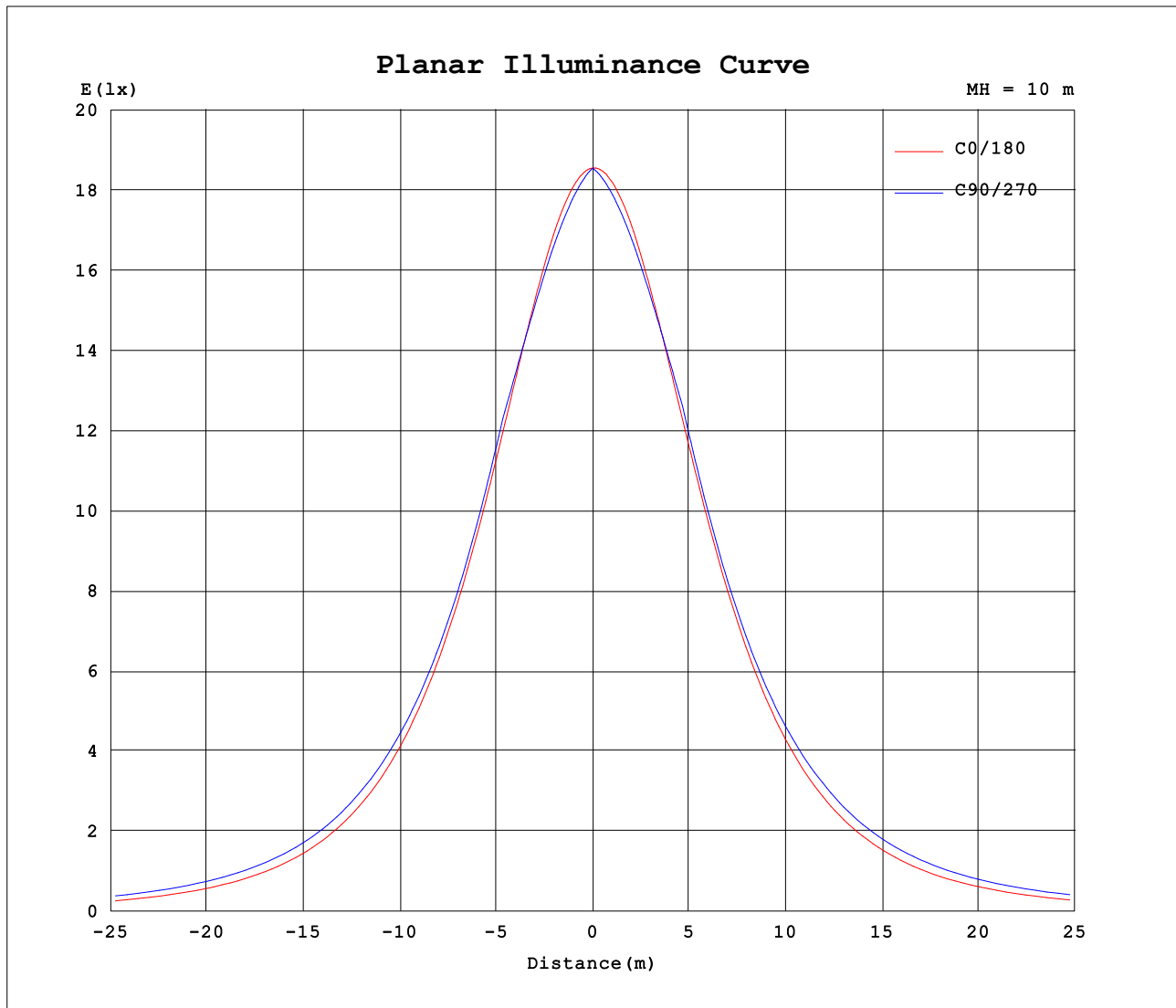
AvgL	cd/m2
L_0~180 (65) av	1970
L_0~180 (75) av	1675
L_0~180 (85) av	1226
L_90~270 (65) av	2646
L_90~270 (75) av	3132
L_90~270 (85) av	3568
L_45 (65) av	2292
L_45 (75) av	2472
L_45 (85) av	2970

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2020-05-23

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
 Humidity:50%
 Test Distance:8.600m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2020-05-23

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.290
Humidity: 50%
Test Distance: 8.600m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Table--1

UNIT: cd

[illegible]

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2020-05-23

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
Humidity:50%
Test Distance:8.600m [K=1.0000]
Remarks:

```

LUMINOUS DISTRIBUTION INTENSITY DATA

Table--2

UNIT: cd

[illegible]

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2020-05-23

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
Humidity:50%
Test Distance:8.600m [K=1.0000]
Remarks:

```

LUMINOUS DISTRIBUTION INTENSITY DATA

Table--3

UNIT: cd

[illegible]

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2020-05-23

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
Humidity:50%
Test Distance:8.600m [K=1.0000]
Remarks:

```

LUMINOUS DISTRIBUTION INTENSITY DATA

Table--4

UNIT: cd

[illegible]

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2020-05-23

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.290
Humidity:50%
Test Distance:8.600m [K=1.0000]
Remarks:

```