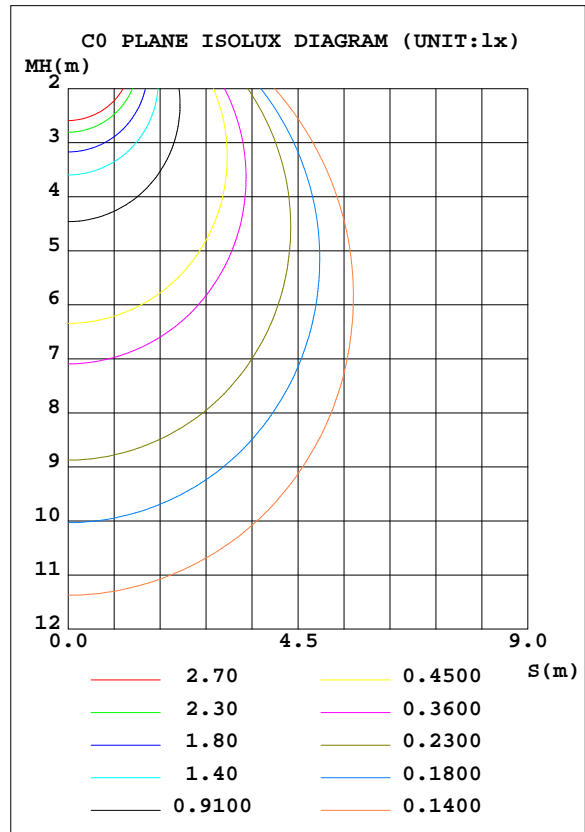
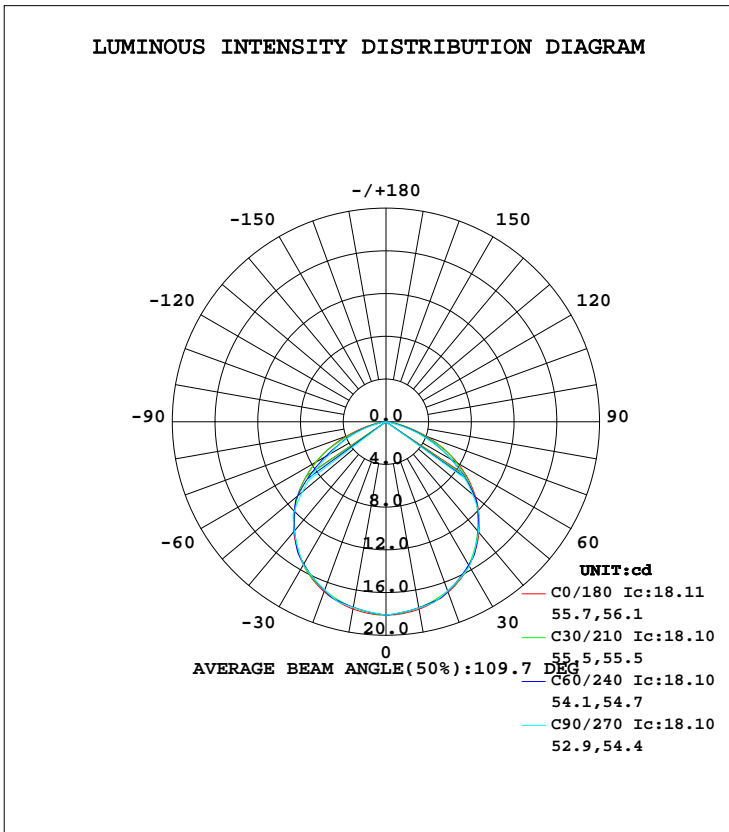


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:11.97V I:0.1471A P:1.049W PF:0.5957 Lamp Flux:235x1 lm		
NAME: 490081-1W-2700K TIMBERLINE JR	TYPE:490081-1W-2700K TIMBERLINE JR	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 107.05 lm/W			
490081-1W-2700K TIMBERLINE JR		Imax(cd)	18.11	S/MH(C0/180)	1.27
NOMINAL POWER(W)	1	LOR(%)	47.8	S/MH(C90/270)	1.26
RATED VOLTAGE(V)	12	TOTAL FLUX(lm)	47.777	η UP, DN(C0-180)	0.0,24.1
NOMINAL FLUX(lm)	100	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0,23.7
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	12	η down(%)	47.8	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:20DEG
Operators:Y
Test Date:2024-05-21

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:8.750m [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	18.04	17.92	17.90	17.92	18.02	17.91	17.88	17.91	0- 5	0.4302	0.4302	0.90,0.43
10	17.81	17.67	17.70	17.66	17.81	17.64	17.66	17.64	5- 10	1.273	1.704	3.57,1.7
15	17.47	17.36	17.50	17.34	17.43	17.31	17.44	17.31	10- 15	2.079	3.783	7.92,3.78
20	16.99	16.97	16.87	16.93	16.94	16.90	16.78	16.92	15- 20	2.822	6.604	13.8,6.6
25	16.35	16.26	16.25	16.22	16.28	16.18	16.12	16.18	20- 25	3.467	10.07	21.1,10.1
30	15.56	15.42	15.62	15.40	15.47	15.34	15.47	15.34	25- 30	4.003	14.07	29.5,14.1
35	14.62	14.53	14.54	14.52	14.53	14.41	14.41	14.44	30- 35	4.409	18.48	38.7,18.5
40	13.54	13.53	13.46	13.54	13.43	13.42	13.36	13.43	35- 40	4.651	23.13	48.4,23.1
45	12.32	12.15	12.38	12.15	12.19	12.08	12.30	12.08	40- 45	4.734	27.87	58.3,27.9
50	10.95	10.77	10.60	10.74	10.81	10.72	10.24	10.72	45- 50	4.630	32.50	68,32.5
55	9.411	9.303	8.823	9.286	9.270	9.369	8.175	9.334	50- 55	4.281	36.78	77,36.8
60	7.736	7.331	7.047	7.353	7.588	7.257	6.113	7.133	55- 60	3.732	40.51	84.8,40.5
65	5.948	5.387	5.114	5.453	5.801	5.129	4.507	4.925	60- 65	3.019	43.53	91.1,43.5
70	4.042	3.573	3.182	3.623	3.897	3.258	2.901	3.060	65- 70	2.209	45.74	95.7,45.7
75	2.244	1.936	1.250	1.931	2.150	1.786	1.295	1.710	70- 75	1.357	47.10	98.6,47.1
80	0.9299	0.4702	0	0.4341	0.9107	0.4697	0	0.4824	75- 80	0.5750	47.67	99.8,47.7
85	0	0	0	0	0	0	0	0	80- 85	0.1027	47.77	100,47.8
90	0	0	0	0	0	0	0	0	85- 90	0.0030	47.78	100,47.8
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		

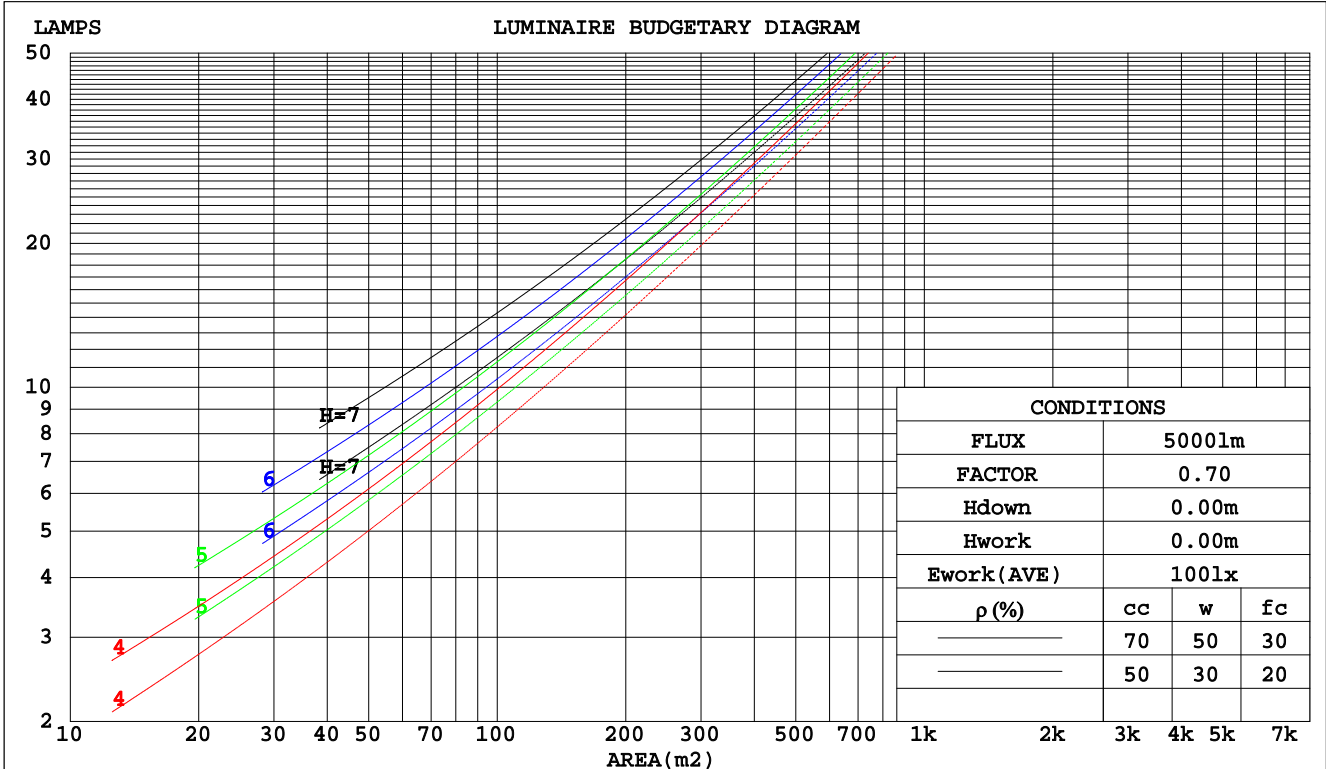
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:20DEG
 Operators:Y
 Test Date:2024-05-21

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
 Humidity:65.0%
 Test Distance:8.750m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:11.97V I:0.1471A P:1.049W PF:0.5957 Lamp Flux:235x1 lm		
NAME: 490081-1W-2700K TIMBERLINE JR	TYPE:490081-1W-2700K TIMBERLINE JR	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION 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																0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	.57	.57	.57	.56	.56	.56	.53	.53	.53	.51	.51	.51	.49	.49	.49	.48
1.0	.51	.49	.47	.49	.48	.46	.47	.46	.45	.46	.44	.43	.44	.43	.42	.41
2.0	.44	.41	.39	.44	.41	.38	.42	.40	.38	.40	.38	.37	.39	.37	.36	.35
3.0	.39	.36	.33	.38	.35	.32	.37	.34	.32	.36	.33	.31	.35	.32	.31	.30
4.0	.35	.31	.28	.34	.30	.28	.33	.30	.27	.32	.29	.27	.31	.28	.26	.25
5.0	.31	.27	.24	.31	.27	.24	.30	.26	.24	.29	.26	.23	.28	.25	.23	.22
6.0	.28	.24	.21	.28	.24	.21	.27	.23	.21	.26	.23	.21	.25	.22	.20	.19
7.0	.25	.21	.19	.25	.21	.18	.24	.21	.18	.24	.21	.18	.23	.20	.18	.17
8.0	.23	.19	.17	.23	.19	.16	.22	.19	.16	.22	.19	.16	.21	.18	.16	.15
9.0	.21	.17	.15	.21	.17	.15	.21	.17	.15	.20	.17	.15	.20	.17	.15	.14
10.0	.20	.16	.13	.19	.16	.13	.19	.16	.13	.19	.15	.13	.18	.15	.13	.12



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 20DEG
 Operators: Y
 Test Date: 2024-05-21

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.291
 Humidity: 65.0%
 Test Distance: 8.750m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:11.97V I:0.1471A P:1.049W PF:0.5957 Lamp Flux:235x1 lm		
NAME: 490081-1W-2700K TIMBERLINE JR	TYPE:490081-1W-2700K TIMBERLINE JR	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	.131	.075	.024	.128	.073	.023	.122	.070	.022	.116	.067	.021	.110	.064	.021	
2.0	.128	.070	.021	.125	.069	.021	.119	.066	.021	.114	.064	.020	.110	.062	.020	
3.0	.121	.064	.019	.118	.063	.019	.113	.061	.019	.109	.060	.018	.105	.058	.018	
4.0	.113	.059	.017	.111	.058	.017	.106	.056	.017	.102	.055	.017	.099	.054	.016	
5.0	.105	.054	.016	.103	.053	.015	.100	.052	.015	.096	.051	.015	.093	.050	.015	
6.0	.098	.049	.014	.097	.049	.014	.093	.048	.014	.090	.047	.014	.087	.046	.014	
7.0	.092	.046	.013	.091	.045	.013	.088	.044	.013	.085	.043	.013	.082	.043	.013	
8.0	.086	.042	.012	.085	.042	.012	.082	.041	.012	.080	.040	.012	.077	.040	.012	
9.0	.081	.039	.011	.080	.039	.011	.078	.038	.011	.075	.038	.011	.073	.037	.011	
10.0	.077	.037	.010	.075	.036	.010	.073	.036	.010	.071	.035	.010	.069	.035	.010	

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	.091	.091	.091	.078	.078	.078	.053	.053	.053	.030	.030	.030	.010	.010	.010	
1.0	.085	.075	.066	.073	.064	.056	.050	.044	.039	.029	.026	.023	.009	.008	.007	
2.0	.081	.063	.048	.069	.054	.042	.047	.038	.029	.027	.022	.017	.009	.007	.006	
3.0	.077	.055	.037	.066	.047	.032	.045	.033	.022	.026	.019	.013	.008	.006	.004	
4.0	.073	.048	.029	.063	.042	.025	.043	.029	.018	.025	.017	.010	.008	.006	.003	
5.0	.070	.043	.023	.060	.037	.020	.041	.026	.014	.024	.015	.008	.008	.005	.003	
6.0	.067	.039	.019	.057	.034	.017	.040	.024	.012	.023	.014	.007	.007	.005	.002	
7.0	.064	.036	.016	.055	.031	.014	.038	.022	.010	.022	.013	.006	.007	.004	.002	
8.0	.061	.033	.014	.052	.029	.012	.036	.020	.009	.021	.012	.005	.007	.004	.002	
9.0	.058	.031	.012	.050	.027	.011	.035	.019	.008	.020	.011	.005	.007	.004	.002	
10.0	.055	.029	.011	.048	.025	.009	.033	.017	.007	.019	.010	.004	.006	.003	.001	

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:20DEG
Operators:Y
Test Date:2024-05-21

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:8.750m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:11.97V I:0.1471A P:1.049W PF:0.5957 Lamp Flux:235x1 lm										
NAME: 490081-1W-2700K TIMBERLINE JR					TYPE:490081-1W-2700K TIMBERLINE JR					
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	4.3	5.7	4.5	5.9	6.1	4.0	5.4	4.2	5.6	5.8
3H	5.5	6.8	5.7	7.0	7.3	4.9	6.2	5.2	6.4	6.7
4H	5.8	7.0	6.1	7.3	7.5	5.0	6.2	5.3	6.5	6.7
6H	5.8	7.0	6.2	7.3	7.6	4.9	6.1	5.2	6.4	6.6
8H	5.8	7.0	6.2	7.3	7.5	4.8	6.0	5.2	6.3	6.6
12H	5.8	6.9	6.1	7.2	7.5	4.8	5.9	5.1	6.2	6.5
4H 2H	4.7	6.0	5.0	6.3	6.5	4.5	5.7	4.8	6.0	6.2
3H	6.0	7.1	6.4	7.4	7.7	5.5	6.6	5.8	6.9	7.2
4H	6.4	7.4	6.8	7.7	8.1	5.7	6.7	6.0	7.0	7.3
6H	6.6	7.4	7.0	7.8	8.2	5.6	6.5	6.0	6.8	7.2
8H	6.6	7.4	7.0	7.8	8.1	5.6	6.4	6.0	6.8	7.1
12H	6.5	7.3	7.0	7.7	8.1	5.5	6.3	5.9	6.7	7.1
8H 4H	6.5	7.3	6.9	7.6	8.0	5.7	6.6	6.1	6.9	7.3
6H	6.6	7.3	7.1	7.7	8.1	5.7	6.4	6.1	6.8	7.2
8H	6.7	7.3	7.1	7.7	8.1	5.7	6.3	6.1	6.7	7.1
12H	6.7	7.2	7.1	7.6	8.1	5.6	6.1	6.1	6.6	7.1
12H 4H	6.4	7.2	6.8	7.6	8.0	5.7	6.5	6.1	6.8	7.2
6H	6.6	7.2	7.1	7.6	8.1	5.7	6.3	6.1	6.7	7.1
8H	6.6	7.1	7.1	7.6	8.1	5.6	6.2	6.1	6.6	7.1
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.3					+ 0.3 / - 0.4				
1.5H	+ 0.3 / - 0.5					+ 0.3 / - 0.6				
2.0H	+ 0.4 / - 0.3					+ 0.5 / - 0.6				

CIE Pub.117 Corrected 100.0 lm Total Lamp Luminous Flux. (8log(F/F0) = -8.0)

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:20DEG
Operators:Y
Test Date:2024-05-21

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:8.750m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:11.97V I:0.1471A P:1.049W PF:0.5957 Lamp Flux:235x1 lm		
NAME: 490081-1W-2700K TIMBERLINE JR	TYPE:490081-1W-2700K TIMBERLINE JR	WEIGHT :
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

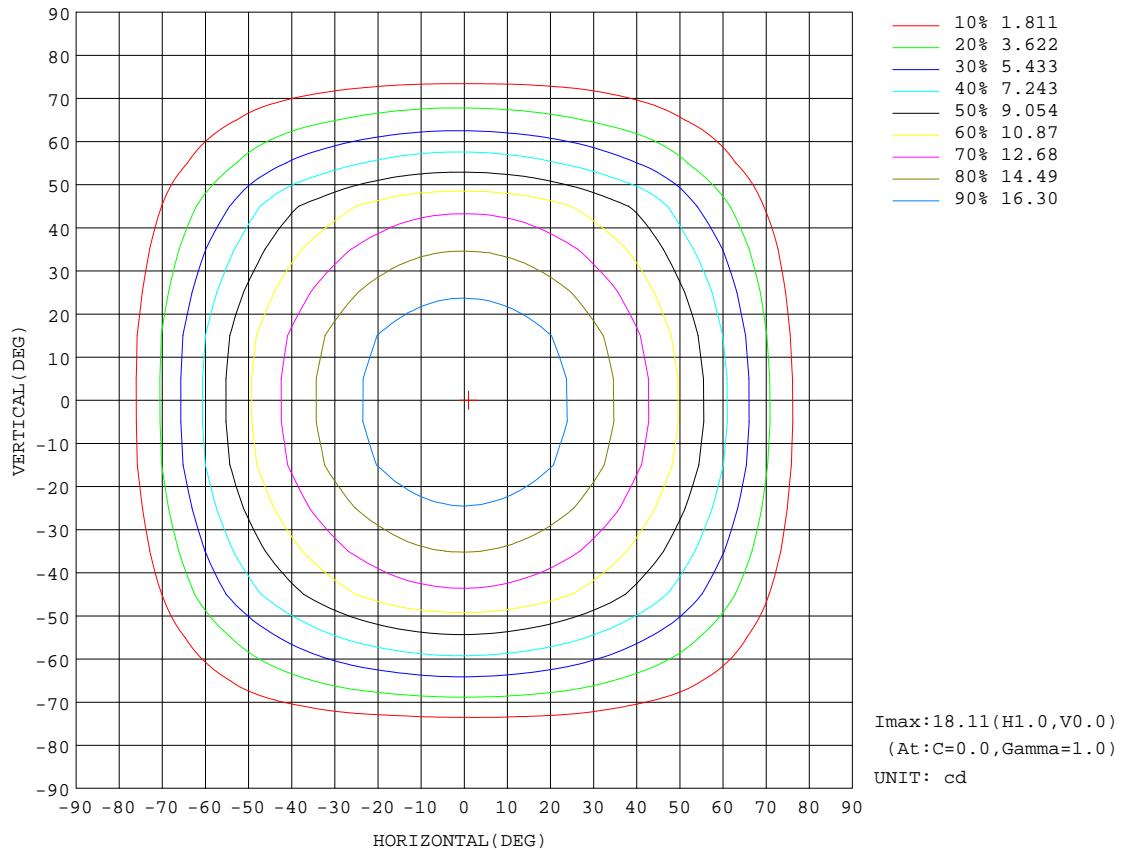
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	28	23	20	28	23	20	27	23	20	17
0.80	33	28	25	33	28	25	32	27	24	21
1.00	38	32	29	37	32	29	36	33	29	26
1.25	41	36	33	40	36	33	39	35	32	29
1.50	43	39	36	43	39	36	41	38	35	32
2.00	46	43	40	46	42	40	44	41	39	35
2.50	48	45	42	47	44	42	46	43	41	37
3.00	50	47	44	49	46	44	47	45	43	39
4.00	52	49	47	50	48	46	48	47	45	41
5.00	53	50	49	51	50	48	49	48	47	42
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:20DEG
 Operators:Y
 Test Date:2024-05-21

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
 Humidity:65.0%
 Test Distance:8.750m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:11.97V I:0.1471A P:1.049W PF:0.5957 Lamp Flux:235x1 lm		
NAME: 490081-1W-2700K TIMBERLINE JR	TYPE:490081-1W-2700K TIMBERLINE JR	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

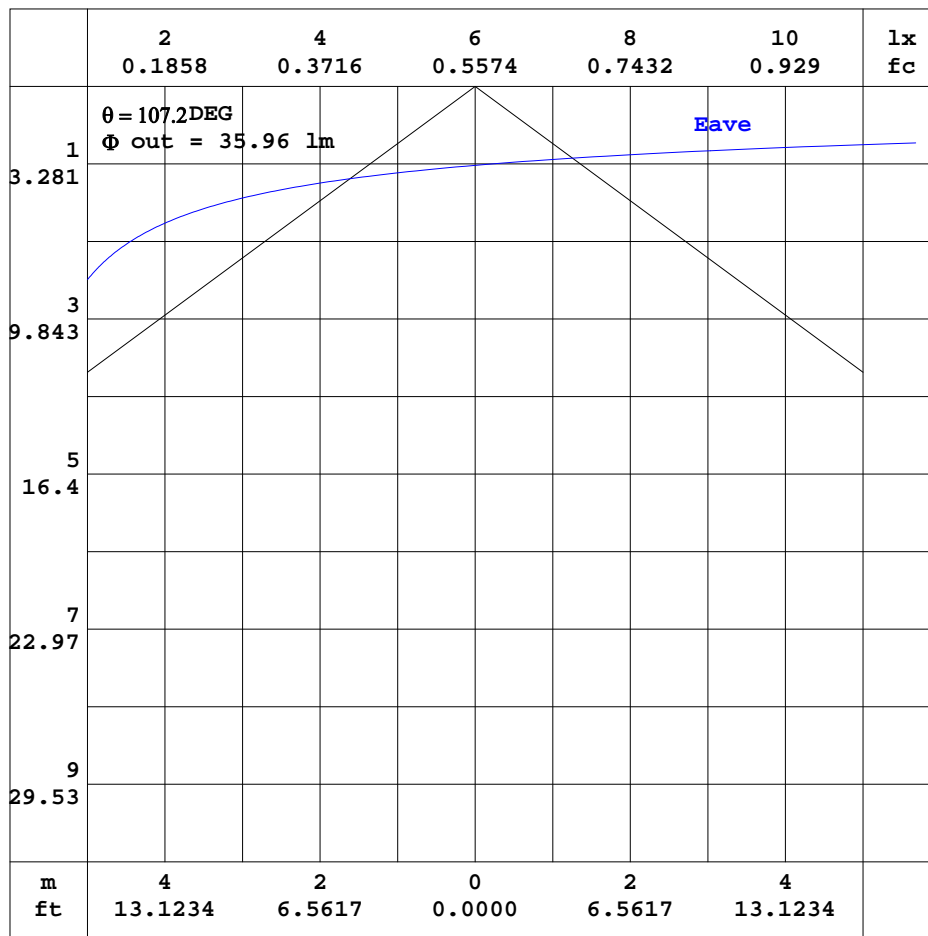


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:20DEG
Operators:Y
Test Date:2024-05-21

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:8.750m [K=1.0000]
Remarks:

AAI CURVES

Test:U:11.97V I:0.1471A P:1.049W PF:0.5957 Lamp Flux:235x1 lm		
NAME: 490081-1W-2700K TIMBERLINE JR	TYPE:490081-1W-2700K TIMBERLINE JR	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:



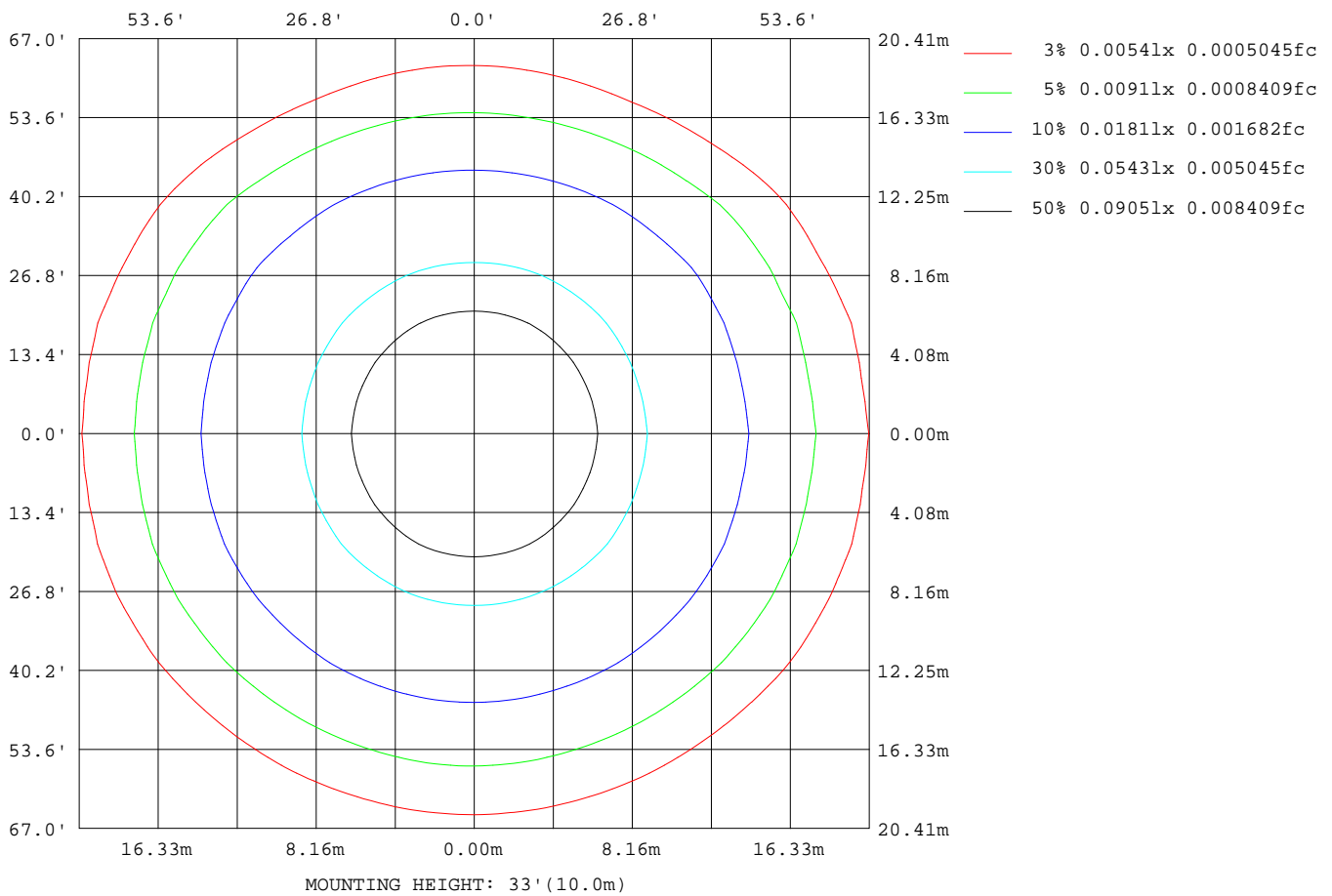
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 20DEG
Operators: Y
Test Date: 2024-05-21

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.291
Humidity: 65.0%
Test Distance: 8.750m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:11.97V I:0.1471A P:1.049W PF:0.5957 Lamp Flux:235x1 lm		
NAME: 490081-1W-2700K TIMBERLINE JR	TYPE:490081-1W-2700K TIMBERLINE JR	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:20DEG
Operators:Y
Test Date:2024-05-21

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:8.750m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:11.97V I:0.1471A P:1.049W PF:0.5957 Lamp Flux:235x1 lm		
NAME: 490081-1W-2700K TIMBERLINE JR	TYPE:490081-1W-2700K TIMBERLINE JR	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

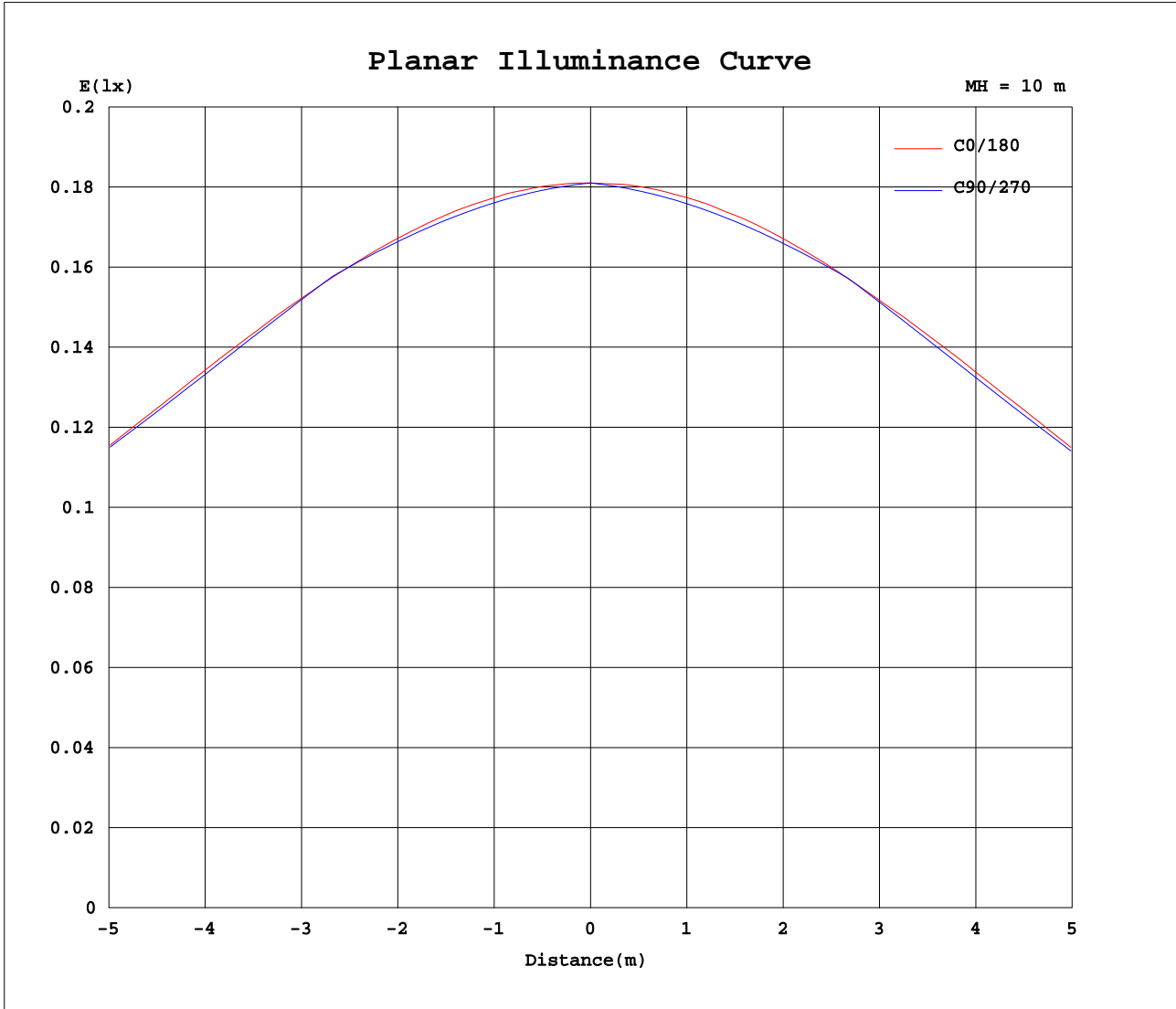
AvgL	cd/m2
L_0~180(65)av	70
L_0~180(75)av	42
L_0~180(85)av	0
L_90~270(65)av	57
L_90~270(75)av	25
L_90~270(85)av	0
L_45(65)av	62
L_45(75)av	36
L_45(85)av	0

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:20DEG
Operators:Y
Test Date:2024-05-21

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:8.750m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 20DEG
 Operators: Y
 Test Date: 2024-05-21

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.291
 Humidity: 65.0%
 Test Distance: 8.750m [K=1.0000]
 Remarks:

