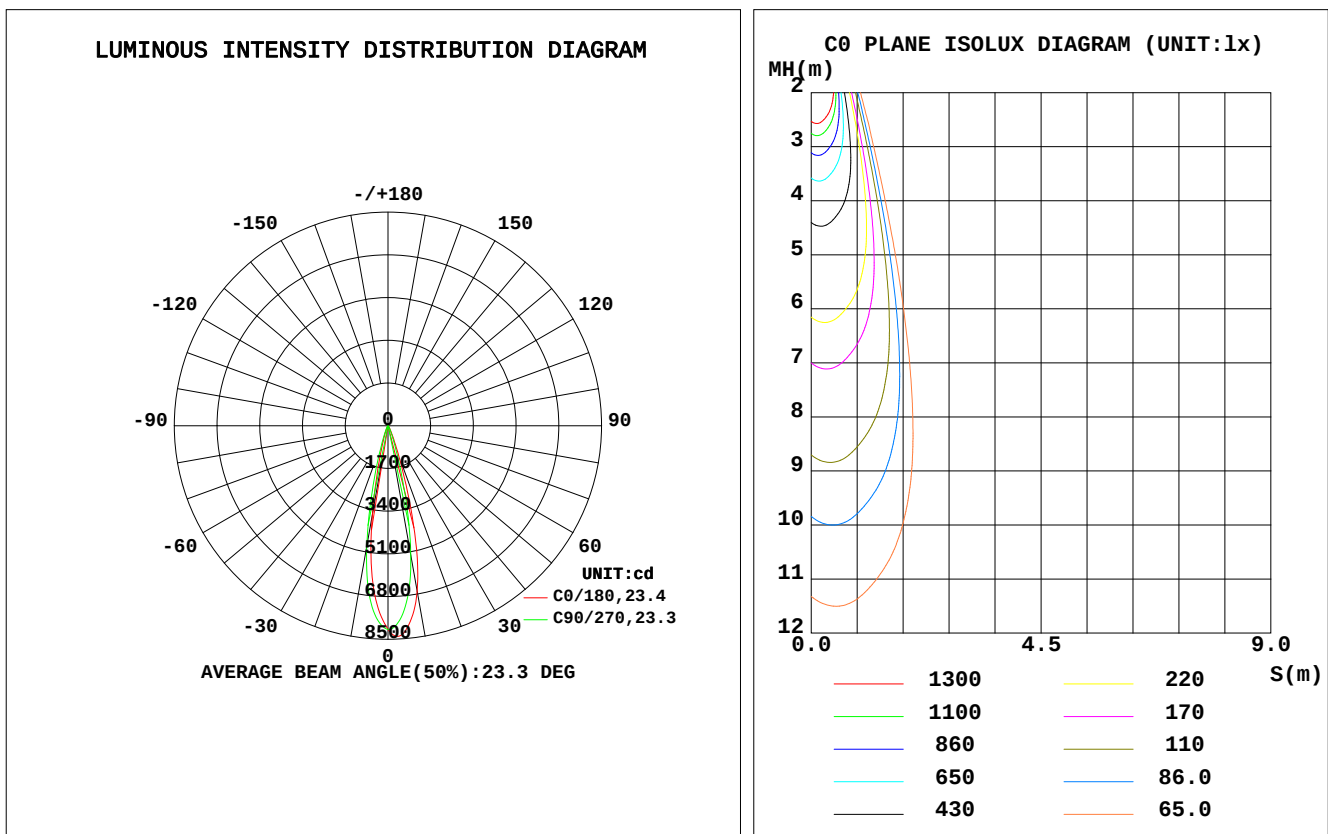


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: VN-TL0025-03	TYPE: TRACK LIGHT	WEIGHT:
SPEC.: CRI90 3000K S	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 65.52 lm/W
MODEL	CXA1820	Imax(cd)	8436	S/MH(C0/180)	0.31	
NOMINAL POWER(W)	25	LOR(%)	100.0	S/MH(C90/270)	0.37	
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	1549.3	η UP, DN(C0-180)	0.0, 52.3	
NOMINAL FLUX(lm)	1549.33	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 47.7	
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.00	
TEST VOLTAGE(V)	230	η down(%)	100.0	CIBSE SHR MAX	1.00	



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature: 25.3DEG
Operators: XYJ
Test Date: 2019-7-31

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.401
Humidity: 65.0%
Test Distance: 5.190m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

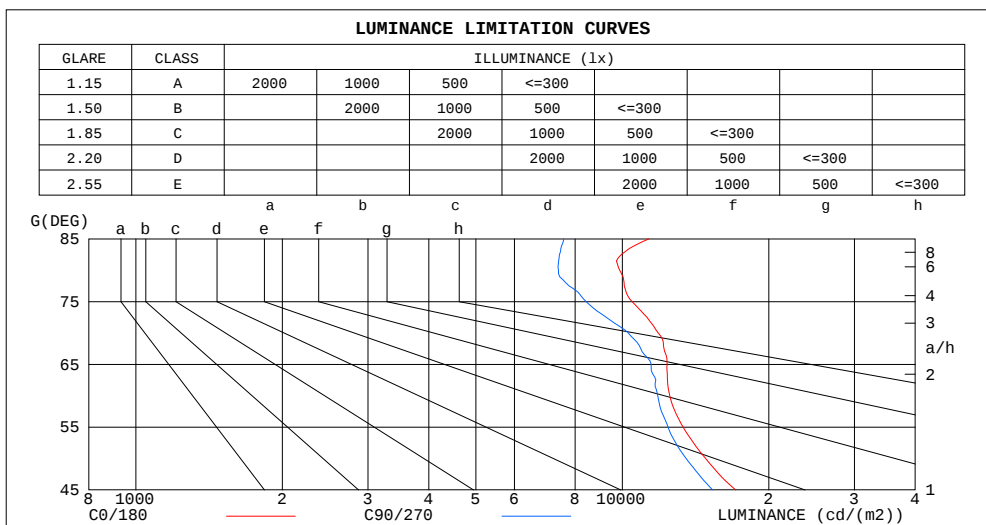
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	6697	6184	5232	3832	3587	4056	4887	6228	0- 10	627.7	627.7	40.5, 40.5
20	1197	992.2	722.2	443.4	394.0	467.3	638.7	1044	10- 20	646.5	1274	82.2, 82.2
30	173.8	156.3	137.2	100.5	91.62	101.6	128.5	169.1	20- 30	144.7	1419	91.6, 91.6
40	57.30	54.04	51.85	45.67	43.08	44.92	50.10	57.58	30- 40	49.25	1468	94.8, 94.8
50	33.64	32.42	32.21	29.51	27.94	28.29	30.84	34.85	40- 50	30.55	1499	96.7, 96.7
60	22.08	20.97	21.91	20.26	18.90	18.84	20.72	23.05	50- 60	22.82	1522	98.2, 98.2
70	14.31	13.20	13.04	10.49	9.294	10.32	12.37	14.98	60- 70	16.57	1538	99.3, 99.3
80	6.051	5.419	4.758	3.623	3.305	3.754	4.666	6.023	70- 80	8.500	1547	99.8, 99.8
90	1.325	0.9337	0.4195	0.4377	0.4511	0.4288	0.4308	1.140	80- 90	2.663	1549	100, 100
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: MEDIUM
 Temperature: 25.3DEG
 Operators: XYJ
 Test Date: 2019-7-31

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.401
 Humidity: 65.0%
 Test Distance: 5.190m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

NAME: VN-TL0025-03	TYPE: TRACK LIGHT	WEIGHT:
SPEC.: CRI90 3000K S	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	11342	7580
80	9870	7392
75	10463	8418
70	11855	10283
65	12365	11464
60	12511	11822
55	13335	12415
50	14825	13517
45	17095	15333

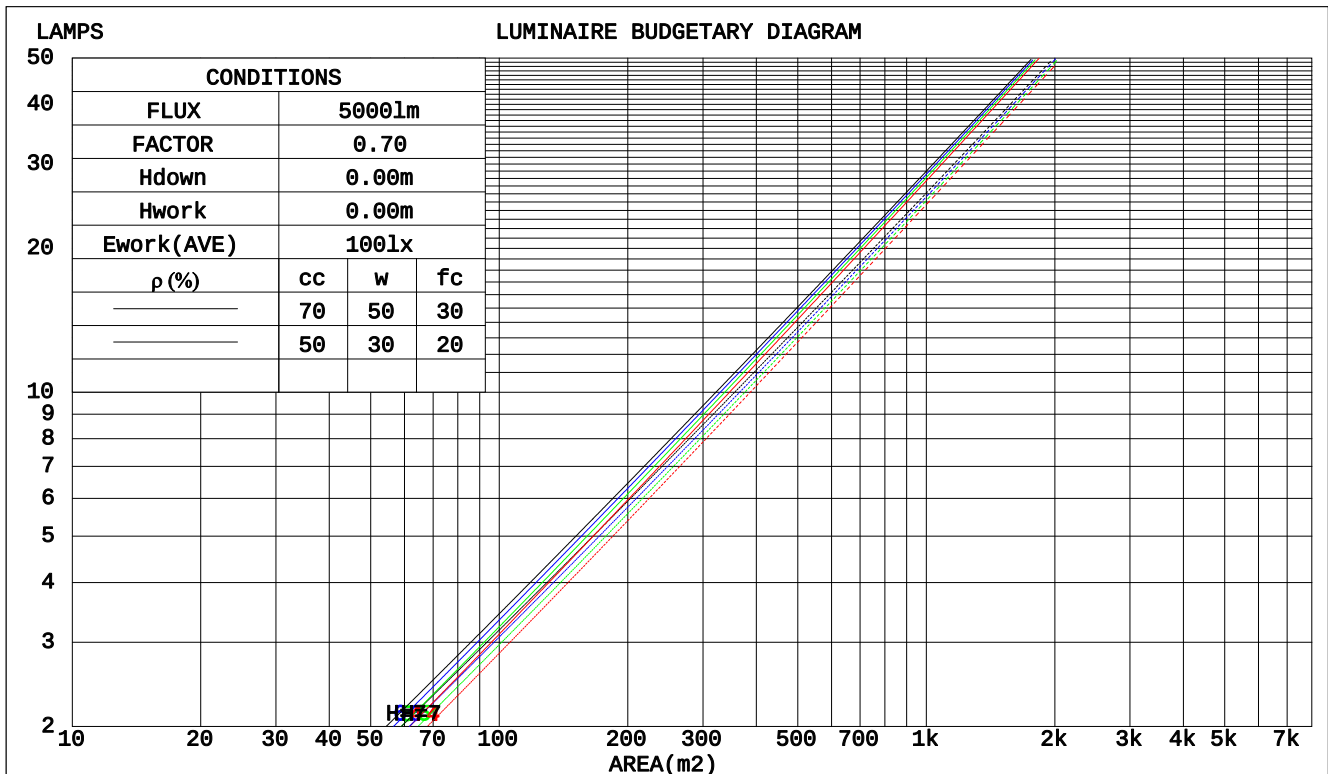
C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: MEDIUM
 Temperature: 25.3DEG
 Operators: XYJ
 Test Date: 2019-7-31

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.401
 Humidity: 65.0%
 Test Distance: 5.190m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: VN-TL0025-03	TYPE: TRACK LIGHT	WEIGHT:
SPEC.: CRI90 3000K S	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:

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	1.13	1.11	1.09	1.10	1.09	1.07	1.06	1.05	1.04	1.03	1.02	1.01	.99	.99	.98	.96
2.0	1.07	1.04	1.01	1.05	1.03	1.00	1.02	1.00	.98	.99	.98	.96	.97	.95	.94	.93
3.0	1.03	.99	.96	1.01	.98	.95	.99	.96	.94	.96	.94	.92	.94	.92	.91	.90
4.0	.99	.94	.91	.97	.94	.91	.95	.92	.90	.94	.91	.89	.92	.90	.88	.87
5.0	.95	.91	.88	.94	.90	.87	.93	.89	.87	.91	.88	.86	.90	.87	.85	.84
6.0	.92	.88	.85	.91	.87	.84	.90	.86	.84	.89	.86	.83	.87	.85	.83	.82
7.0	.89	.85	.82	.89	.85	.82	.87	.84	.81	.86	.83	.81	.85	.83	.81	.80
8.0	.87	.83	.80	.86	.82	.80	.85	.82	.79	.84	.81	.79	.84	.81	.79	.78
9.0	.84	.80	.78	.84	.80	.77	.83	.80	.77	.82	.79	.77	.82	.79	.77	.76
10.0	.82	.78	.76	.82	.78	.76	.81	.78	.75	.81	.77	.75	.80	.77	.75	.74



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature: 25.3DEG
Operators: XYJ
Test Date: 2019-7-31

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 γ Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.401
Humidity: 65.0%
Test Distance: 5.190m [K=1.0000]
Remarks:

WEC AND CCEC

NAME: VN-TL0025-03	TYPE:TRACK LIGHT	WEIGHT:
SPEC.:CRI90 3000K S	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:

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	.142	.081	.026	.136	.077	.025	.123	.071	.023	.112	.065	.021	.101	.059	.019		
2.0	.131	.072	.022	.126	.069	.021	.116	.064	.020	.106	.060	.019	.098	.055	.017		
3.0	.122	.065	.019	.117	.063	.019	.109	.059	.018	.101	.055	.017	.093	.052	.016		
4.0	.113	.059	.017	.109	.057	.017	.102	.054	.016	.095	.051	.015	.089	.048	.015		
5.0	.106	.054	.016	.103	.053	.015	.096	.050	.015	.091	.048	.014	.085	.046	.014		
6.0	.100	.050	.014	.097	.049	.014	.091	.047	.014	.087	.045	.013	.082	.043	.013		
7.0	.094	.046	.013	.092	.046	.013	.087	.044	.013	.083	.042	.012	.079	.041	.012		
8.0	.089	.044	.012	.087	.043	.012	.083	.041	.012	.079	.040	.012	.076	.039	.011		
9.0	.085	.041	.011	.083	.040	.011	.079	.039	.011	.076	.038	.011	.073	.037	.011		
10.0	.081	.039	.011	.079	.038	.011	.076	.037	.010	.073	.036	.010	.070	.035	.010		

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	.169	.158	.148	.144	.135	.127	.099	.093	.088	.057	.054	.051	.018	.017	.017	
2.0	.151	.133	.117	.129	.114	.102	.089	.079	.071	.051	.046	.042	.016	.015	.014	
3.0	.136	.113	.095	.117	.098	.083	.080	.068	.058	.046	.040	.034	.015	.013	.011	
4.0	.123	.098	.079	.106	.085	.068	.073	.059	.048	.042	.035	.028	.014	.011	.009	
5.0	.113	.086	.066	.097	.074	.057	.067	.052	.040	.039	.030	.024	.012	.010	.008	
6.0	.104	.076	.056	.089	.066	.048	.061	.046	.034	.036	.027	.020	.012	.009	.007	
7.0	.096	.067	.048	.082	.058	.041	.057	.041	.029	.033	.024	.017	.011	.008	.006	
8.0	.089	.061	.041	.077	.053	.036	.053	.037	.025	.031	.022	.015	.010	.007	.005	
9.0	.083	.055	.036	.072	.048	.031	.050	.033	.022	.029	.020	.013	.009	.006	.004	
10.0	.078	.050	.031	.067	.043	.027	.047	.031	.019	.027	.018	.012	.009	.006	.004	

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:XYJ
Test Date:2019-7-31

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.401
Humidity:65.0%
Test Distance:5.190m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

NAME: VN-TL0025-03						TYPE: TRACK LIGHT			WEIGHT:		
SPEC.:CRI90 3000K S						DIM.:			SERIAL No.:		
MFR.: 1						SUR.:			Shielding 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		13.2	13.8	13.4	14.0	14.1	12.7	13.3	12.9	13.5	13.6
3H		14.4	15.1	14.7	15.2	15.4	13.9	14.5	14.2	14.7	14.9
4H		15.0	15.5	15.2	15.7	16.0	14.3	14.9	14.6	15.1	15.3
6H		15.4	15.9	15.6	16.1	16.4	14.6	15.2	14.9	15.4	15.6
8H		15.5	16.0	15.8	16.3	16.5	14.7	15.3	15.0	15.5	15.7
12H		15.6	16.2	15.9	16.4	16.7	14.8	15.3	15.1	15.6	15.8
4H	2H	13.6	14.2	13.9	14.4	14.6	13.2	13.8	13.5	14.0	14.2
	3H	15.1	15.6	15.4	15.9	16.1	14.6	15.2	14.9	15.4	15.7
	4H	15.7	16.2	16.0	16.5	16.8	15.2	15.6	15.5	15.9	16.2
	6H	16.2	16.6	16.6	17.0	17.3	15.5	15.9	15.9	16.3	16.6
	8H	16.4	16.8	16.8	17.2	17.5	15.7	16.1	16.0	16.4	16.8
	12H	16.6	17.0	17.0	17.3	17.7	15.8	16.1	16.2	16.5	16.9
8H	4H	15.9	16.3	16.2	16.6	17.0	15.4	15.8	15.8	16.1	16.5
	6H	16.5	16.8	16.9	17.2	17.6	15.9	16.2	16.3	16.6	17.0
	8H	16.8	17.1	17.2	17.5	17.9	16.1	16.4	16.5	16.8	17.2
	12H	17.1	17.3	17.6	17.8	18.3	16.3	16.5	16.7	17.0	17.4
12H	4H	15.8	16.2	16.3	16.6	17.0	15.4	15.7	15.8	16.1	16.5
	6H	16.5	16.8	17.0	17.2	17.7	15.9	16.2	16.3	16.6	17.1
	8H	16.9	17.1	17.3	17.6	18.0	16.2	16.4	16.6	16.9	17.3
Variations with the observer position at spacings:											
S = 1.0H		+ 0.3 / - 0.4					+ 0.3 / - 0.4				
1.5H		+ 0.3 / - 0.2					+ 0.2 / - 0.3				
2.0H		+ 0.4 / - 0.3					+ 0.3 / - 0.3				

CIE Pub.117, 1549 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 1.5$)

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature: 25.3DEG
Operators: XYJ
Test Date: 2019-7-31

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 γ Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.401
Humidity: 65.0%
Test Distance: 5.190m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

NAME: VN-TL0025-03	TYPE: TRACK LIGHT	WEIGHT:
SPEC.: CRI90 3000K S	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:

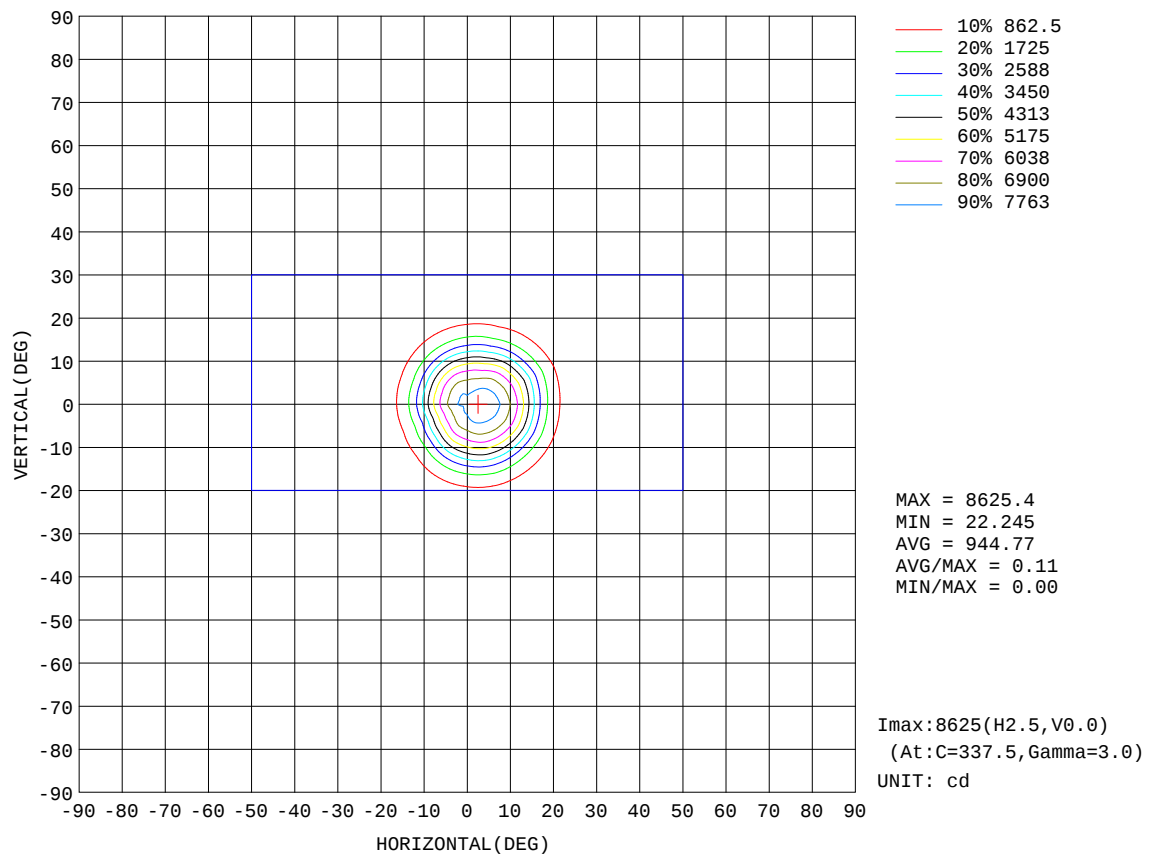
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) × RCR = 5									
k = 0.60	88	82	79	88	82	78	87	82	78	75
0.80	96	90	86	95	90	86	94	89	86	82
1.00	100	94	91	99	94	90	97	94	90	86
1.25	103	98	95	102	98	95	101	97	94	90
1.50	106	101	98	105	101	98	103	99	97	92
2.00	109	105	101	107	103	101	105	101	99	94
2.50	110	107	104	109	105	103	106	103	101	95
3.00	112	108	106	110	107	105	107	104	102	96
4.00	114	111	109	112	110	108	108	106	105	98
5.00	115	113	111	113	111	110	109	108	106	99
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004										
Suspended										
SHRNM = 1.25										

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: MEDIUM
 Temperature: 25.3DEG
 Operators: XYJ
 Test Date: 2019-7-31

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.401
 Humidity: 65.0%
 Test Distance: 5.190m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

NAME: VN-TL0025-03	TYPE: TRACK LIGHT	WEIGHT:
SPEC.: CRI90 3000K S	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:

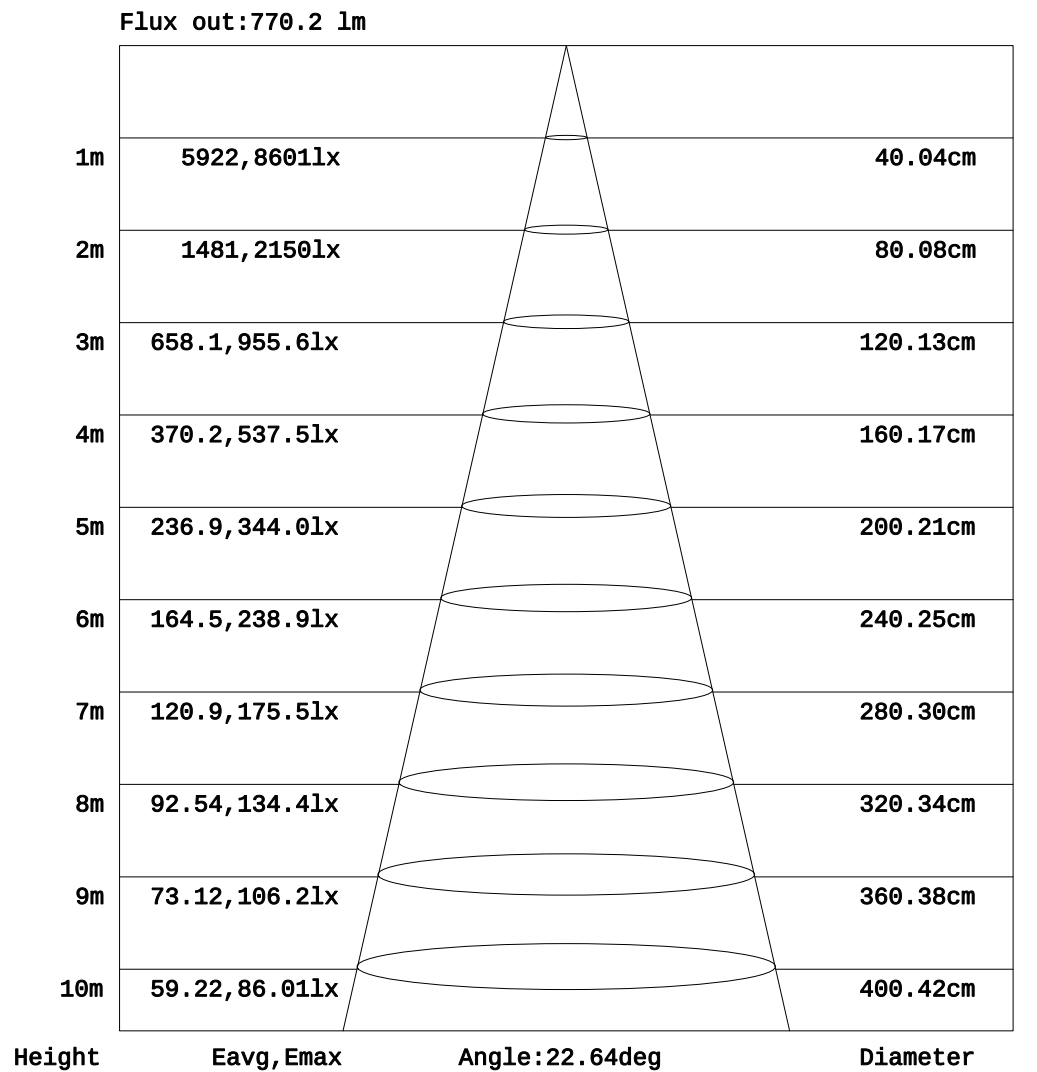


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature: 25.3DEG
Operators: XYJ
Test Date: 2019-7-31

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.401
Humidity: 65.0%
Test Distance: 5.190m [K=1.0000]
Remarks:

AAI Figure

NAME: VN-TL0025-03	TYPE: TRACK LIGHT	WEIGHT:
SPEC.: CRI90 3000K S	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:



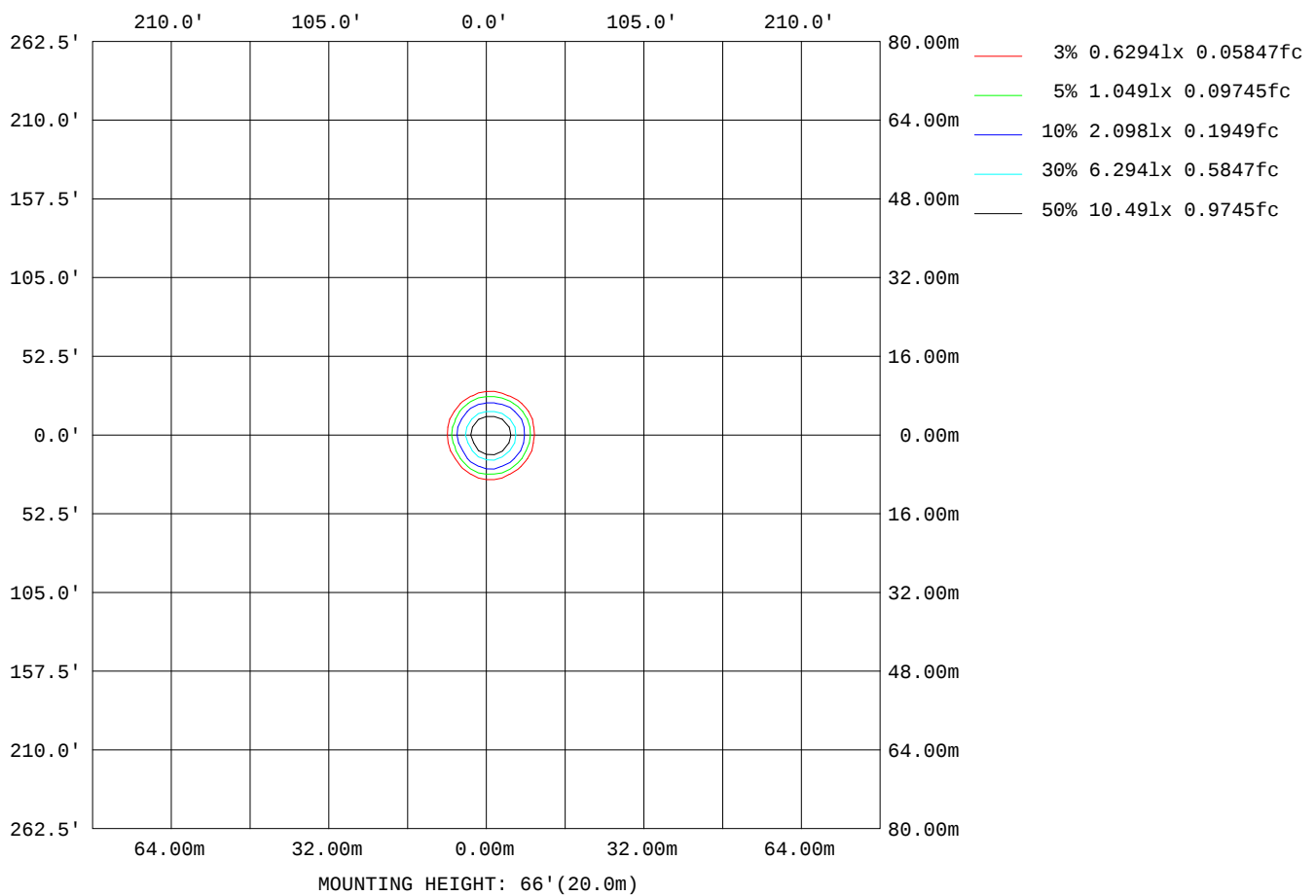
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature: 25.3DEG
Operators: XYJ
Test Date: 2019-7-31

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.401
Humidity: 65.0%
Test Distance: 5.190m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

NAME: VN-TL0025-03	TYPE: TRACK LIGHT	WEIGHT:
SPEC.: CRI90 3000K S	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature: 25.3DEG
Operators: XYJ
Test Date: 2019-7-31

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.401
Humidity: 65.0%
Test Distance: 5.190m [K=1.0000]
Remarks:

LED Avg.L Report

NAME: VN-TL0025-03	TYPE: TRACK LIGHT	WEIGHT:
SPEC.: CRI90 3000K S	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:

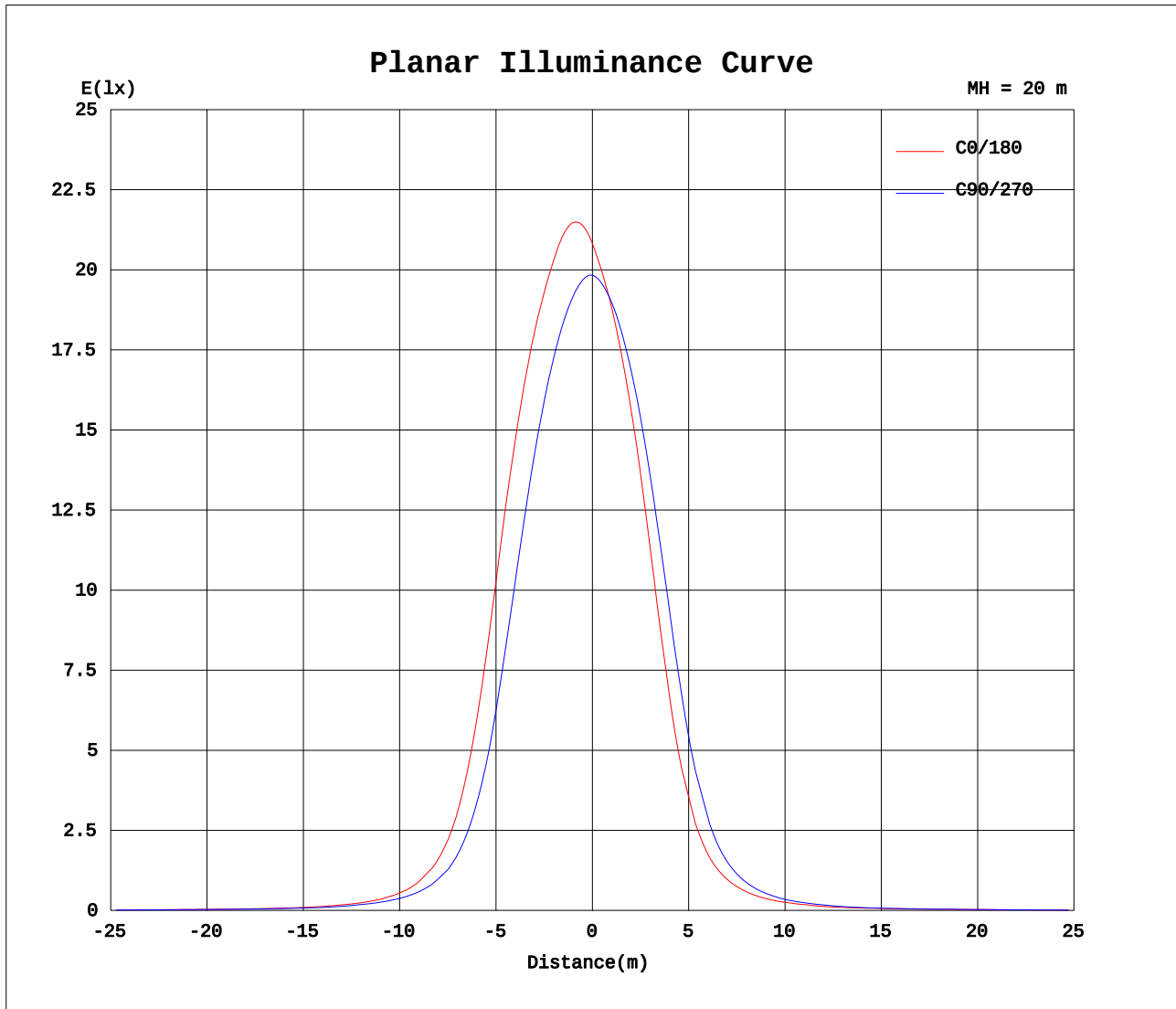
AvgL	cd/m2
L_0~180(65)av	10663
L_0~180(75)av	8112
L_0~180(85)av	7307
L_90~270(65)av	11448
L_90~270(75)av	8449
L_90~270(85)av	7568
L_45(65)av	10928
L_45(75)av	8281
L_45(85)av	7419

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature: 25.3DEG
Operators: XYJ
Test Date: 2019-7-31

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.401
Humidity: 65.0%
Test Distance: 5.190m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: MEDIUM
 Temperature: 25.3DEG
 Operators: XYJ
 Test Date: 2019-7-31

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.401
 Humidity: 65.0%
 Test Distance: 5.190m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: VN-TL0025-03	TYPE: TRACK LIGHT	WEIGHT:
SPEC.: CRI90 3000K S	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:

Table - -1

UNIT: cd

[illegible]

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature: 25.3DEG
Operators: XYJ
Test Date: 2019-7-31

```

Range: 0 - 90DEG
Interval: 0.5DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.401
Humidity:65.0%
Test Distance:5.190m [K=1.0000]
Remarks:

```