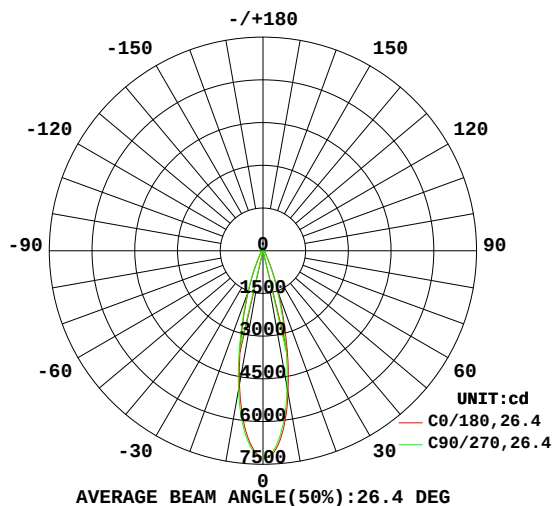


LUMINAIRE PHOTOMETRIC TEST REPORT

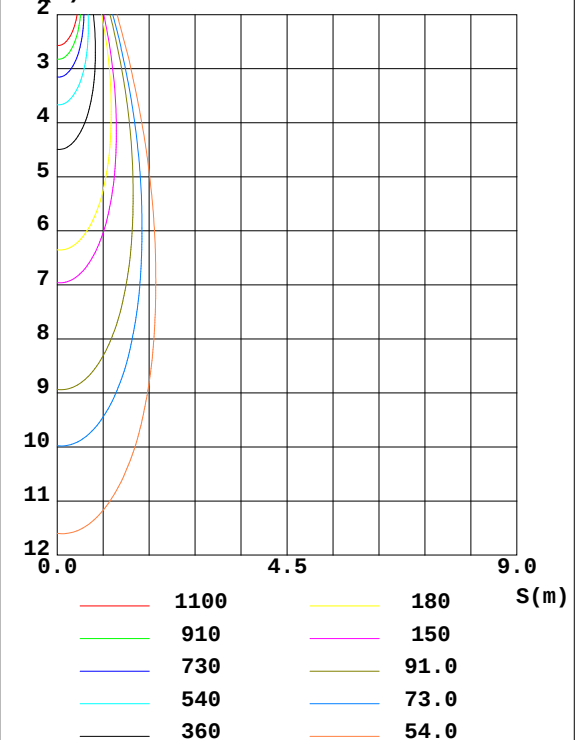
NAME: vN-TL0025-21	TYPE:LED TRACK LIGHT	WEIGHT:
SPEC.:CRI90 3000K 24D	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 94.23 lm/W
MODEL	CXM-14-AC30	Imax(cd)	7279	S/MH(C0/180)	0.44	
NOMINAL POWER(W)	25	LOR(%)	100.0	S/MH(C90/270)	0.45	
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	2119.9	η UP, DN(C0-180)	0.0, 50.2	
NOMINAL FLUX(lm)	2119.86	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 49.8	
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	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:XYJ
Test Date:2019-12-4

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:

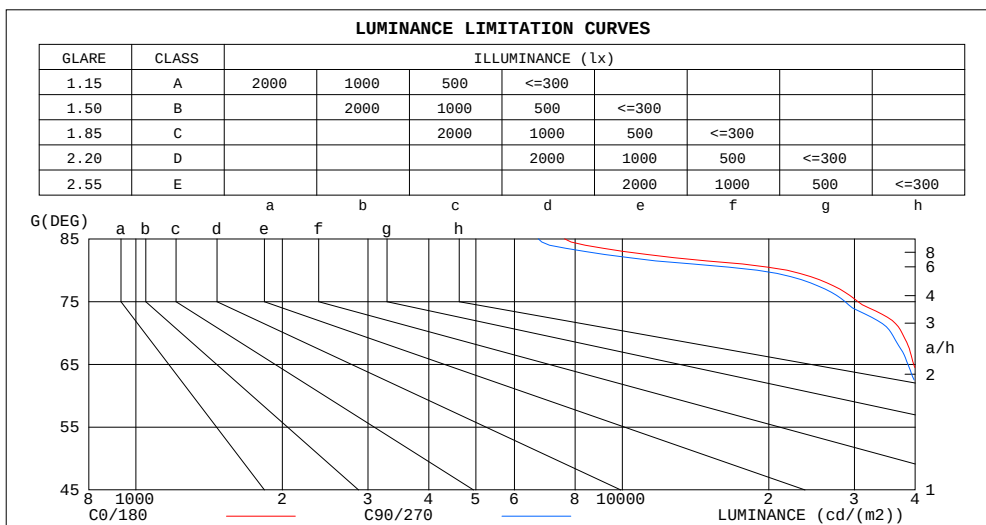
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	5073	4983	4881	4799	4763	4815	4948	5015	0- 10	574.9	574.9	27.1, 27.1
20	1605	1559	1470	1449	1500	1574	1586	1581	10- 20	813.8	1389	65.5, 65.5
30	353.7	359.0	336.6	320.0	353.2	373.2	371.4	331.4	20- 30	350.4	1739	82, 82
40	149.3	151.8	147.8	141.1	148.8	148.1	149.4	141.8	30- 40	136.9	1876	88.5, 88.5
50	98.07	97.06	97.55	91.75	96.33	94.05	96.62	92.29	40- 50	90.23	1966	92.8, 92.8
60	68.74	69.54	66.94	65.37	65.33	65.56	65.86	66.39	50- 60	72.64	2039	96.2, 96.2
70	41.32	41.02	39.28	38.14	37.64	38.67	39.21	40.06	60- 70	52.04	2091	98.6, 98.6
80	12.18	11.86	10.57	9.137	8.486	8.667	10.15	10.70	70- 80	25.75	2117	99.9, 99.9
90	0.8109	0.7998	0.7930	0.7859	0.7755	0.7667	0.7665	0.7417	80- 90	3.104	2120	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: 2019-12-4

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-TL0025-21	TYPE:LED TRACK LIGHT	WEIGHT:
SPEC.:CRI90 3000K 24D	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	7608	6720
80	21815	18928
75	30494	28699
70	37570	35725
65	39722	38633
60	42753	41641
55	45881	44673
50	47443	47201
45	51430	51641

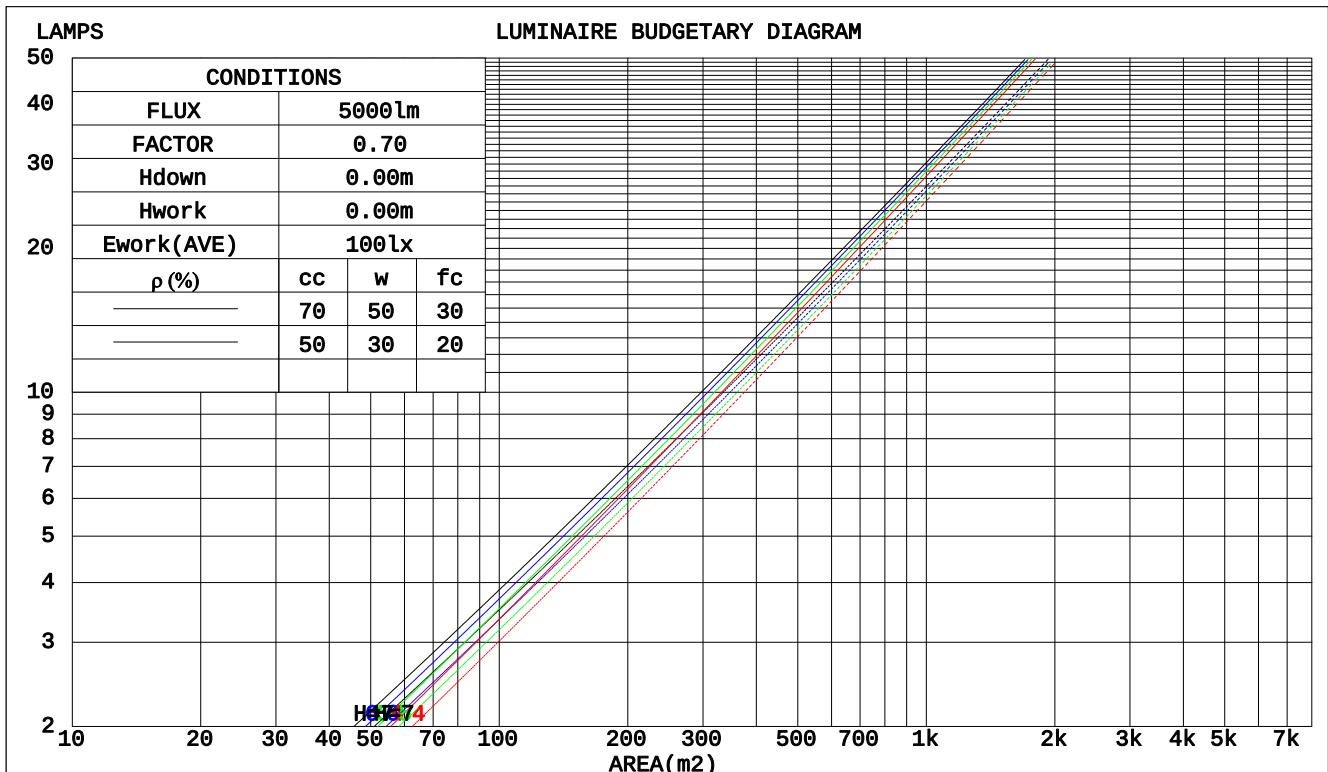
C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:XYJ
 Test Date:2019-12-4

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-TL0025-21	TYPE:LED TRACK LIGHT	WEIGHT:
SPEC.:CRI90 3000K 24D	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	1.11	1.09	1.07	1.09	1.07	1.05	1.05	1.03	1.02	1.01	1.00	.99	.98	.97	.96	.94
2.0	1.04	1.01	.97	1.03	.99	.96	.99	.97	.94	.96	.94	.92	.94	.92	.90	.89
3.0	.98	.94	.90	.97	.93	.90	.94	.91	.88	.92	.89	.87	.90	.88	.86	.84
4.0	.93	.88	.85	.92	.88	.84	.90	.86	.83	.88	.85	.82	.86	.84	.81	.80
5.0	.89	.84	.80	.88	.83	.80	.86	.82	.79	.85	.81	.78	.83	.80	.78	.76
6.0	.85	.80	.76	.84	.79	.76	.83	.78	.75	.81	.78	.75	.80	.77	.74	.73
7.0	.81	.76	.73	.81	.76	.72	.80	.75	.72	.78	.75	.72	.77	.74	.71	.70
8.0	.78	.73	.70	.78	.73	.70	.77	.72	.69	.76	.72	.69	.75	.71	.69	.68
9.0	.75	.70	.67	.75	.70	.67	.74	.70	.67	.73	.69	.67	.72	.69	.66	.65
10.0	.73	.68	.65	.72	.68	.65	.72	.67	.64	.71	.67	.64	.70	.67	.64	.63



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:XYJ
Test Date:2019-12-4

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:

WEC AND CCEC

NAME: VN-TL0025-21	TYPE:LED TRACK LIGHT	WEIGHT:
SPEC.:CRI90 3000K 24D	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	.169	.096	.030	.162	.092	.029	.149	.086	.027	.138	.079	.025	.127	.074	.024		
2.0	.158	.087	.027	.153	.084	.026	.142	.079	.025	.133	.074	.023	.124	.070	.022		
3.0	.148	.079	.024	.143	.077	.023	.134	.073	.022	.126	.069	.021	.118	.066	.020		
4.0	.138	.072	.021	.134	.070	.021	.127	.067	.020	.120	.064	.019	.113	.061	.019		
5.0	.130	.066	.019	.126	.065	.019	.120	.062	.018	.114	.060	.018	.108	.058	.017		
6.0	.122	.061	.018	.119	.060	.017	.113	.058	.017	.108	.056	.017	.103	.054	.016		
7.0	.115	.057	.016	.113	.056	.016	.108	.055	.016	.103	.053	.015	.099	.051	.015		
8.0	.109	.053	.015	.107	.053	.015	.103	.051	.015	.099	.050	.014	.095	.049	.014		
9.0	.104	.050	.014	.102	.050	.014	.098	.048	.014	.094	.047	.014	.091	.046	.013		
10.0	.099	.048	.013	.097	.047	.013	.094	.046	.013	.091	.045	.013	.087	.044	.013		

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	.171	.157	.146	.146	.135	.125	.100	.093	.087	.057	.054	.050	.018	.017	.016	
2.0	.154	.133	.114	.132	.114	.099	.091	.079	.069	.052	.046	.040	.017	.015	.013	
3.0	.141	.113	.092	.121	.098	.079	.083	.068	.056	.048	.040	.033	.015	.013	.011	
4.0	.130	.099	.075	.111	.085	.065	.076	.059	.046	.044	.035	.027	.014	.011	.009	
5.0	.120	.087	.062	.103	.075	.054	.071	.052	.038	.041	.031	.023	.013	.010	.007	
6.0	.111	.077	.052	.096	.067	.046	.066	.047	.032	.038	.027	.019	.012	.009	.006	
7.0	.104	.069	.045	.089	.060	.039	.062	.042	.028	.036	.025	.016	.012	.008	.005	
8.0	.097	.062	.038	.084	.054	.034	.058	.038	.024	.034	.022	.014	.011	.007	.005	
9.0	.092	.057	.033	.079	.049	.029	.055	.035	.021	.032	.021	.012	.010	.007	.004	
10.0	.087	.052	.029	.075	.045	.026	.052	.032	.018	.030	.019	.011	.010	.006	.004	

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:XYJ
Test Date:2019-12-4

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-TL0025-21						TYPE:LED TRACK LIGHT			WEIGHT:		
SPEC.:CRI90 3000K 24D						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		18.7	19.5	18.9	19.7	19.9	18.6	19.4	18.8	19.6	19.7
3H		20.0	20.8	20.3	21.0	21.2	19.9	20.6	20.1	20.8	21.0
4H		20.5	21.2	20.7	21.4	21.6	20.3	21.0	20.5	21.2	21.4
6H		20.7	21.4	21.0	21.6	21.9	20.5	21.1	20.8	21.4	21.6
8H		20.7	21.3	21.0	21.6	21.9	20.4	21.1	20.8	21.4	21.6
12H		20.6	21.3	21.0	21.6	21.8	20.4	21.0	20.7	21.3	21.6
4H 2H		19.3	20.0	19.5	20.2	20.4	19.2	19.9	19.5	20.1	20.3
3H		20.7	21.4	21.1	21.7	21.9	20.6	21.2	20.9	21.5	21.8
4H		21.3	21.9	21.6	22.2	22.5	21.1	21.7	21.4	22.0	22.3
6H		21.6	22.1	21.9	22.4	22.8	21.4	21.9	21.7	22.2	22.6
8H		21.6	22.1	22.0	22.4	22.8	21.4	21.8	21.7	22.2	22.5
12H		21.5	22.0	21.9	22.3	22.7	21.3	21.8	21.7	22.1	22.5
8H 4H		21.4	21.9	21.8	22.3	22.6	21.3	21.8	21.7	22.1	22.5
6H		21.8	22.2	22.2	22.6	23.0	21.6	22.0	22.0	22.4	22.8
8H		21.8	22.1	22.2	22.6	23.0	21.6	21.9	22.0	22.4	22.8
12H		21.8	22.1	22.2	22.5	23.0	21.6	21.9	22.0	22.3	22.8
12H 4H		21.4	21.8	21.8	22.2	22.6	21.2	21.7	21.7	22.1	22.4
6H		21.8	22.1	22.2	22.5	23.0	21.6	21.9	22.0	22.3	22.8
8H		21.8	22.1	22.2	22.5	23.0	21.6	21.9	22.0	22.3	22.8
Variations with the observer position at spacings:											
S = 1.0H		+ 0.3 / - 0.4					+ 0.3 / - 0.4				
1.5H		+ 0.2 / - 0.3					+ 0.1 / - 0.3				
2.0H		+ 0.3 / - 0.4					+ 0.3 / - 0.4				

CIE Pub.117, 2120 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 2.6$)

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:XYJ
Test Date:2019-12-4

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-TL0025-21	TYPE:LED TRACK LIGHT	WEIGHT:
SPEC.:CRI90 3000K 24D	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:

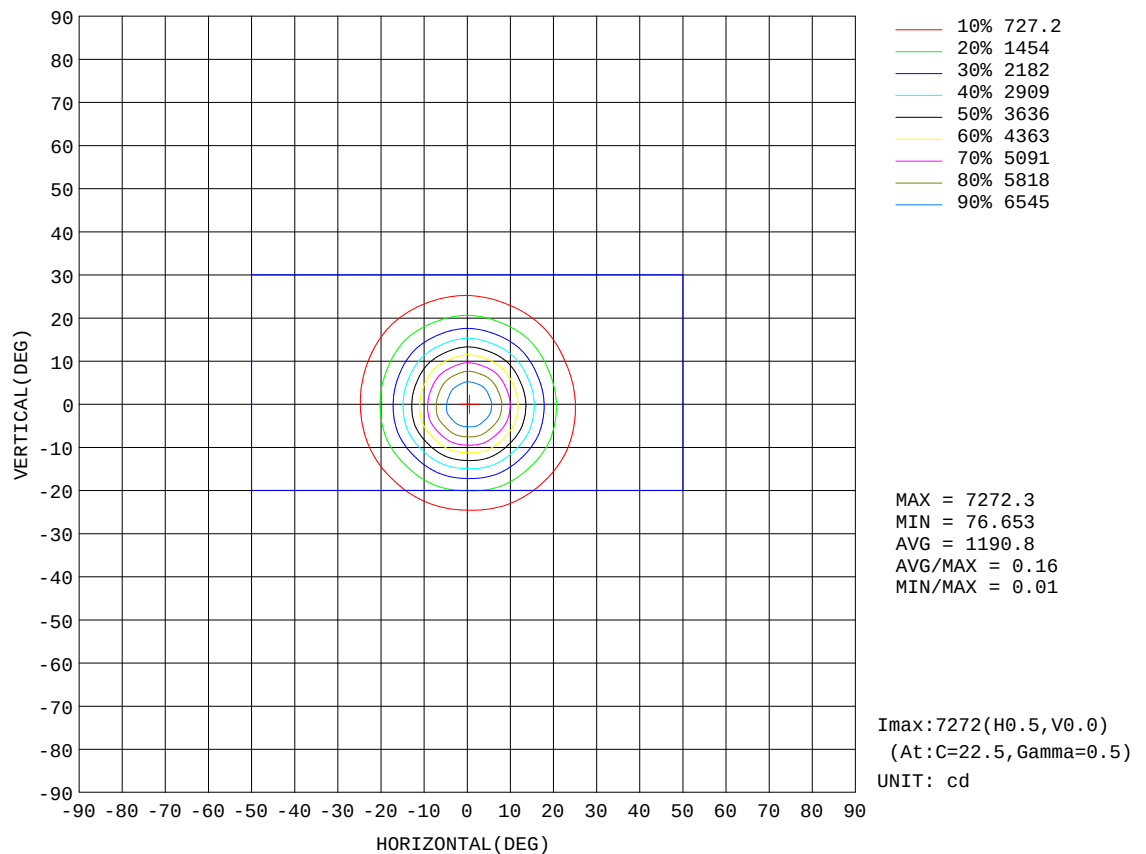
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	84	78	74	84	77	73	83	77	73	69
0.80	92	86	82	91	85	81	90	85	81	77
1.00	97	91	87	96	90	86	94	90	86	82
1.25	101	95	91	100	95	91	98	93	90	86
1.50	104	99	95	103	98	94	100	96	93	89
2.00	107	102	99	106	101	98	103	99	97	91
2.50	109	105	101	107	104	101	104	101	99	93
3.00	111	107	104	109	106	103	105	103	101	94
4.00	113	110	108	111	108	106	107	105	103	96
5.00	114	112	110	112	110	108	108	107	105	97
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004				Suspended				SHRNOM = 1.25		

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:XYJ
 Test Date:2019-12-4

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-TL0025-21	TYPE:LED TRACK LIGHT	WEIGHT:
SPEC.:CRI90 3000K 24D	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:

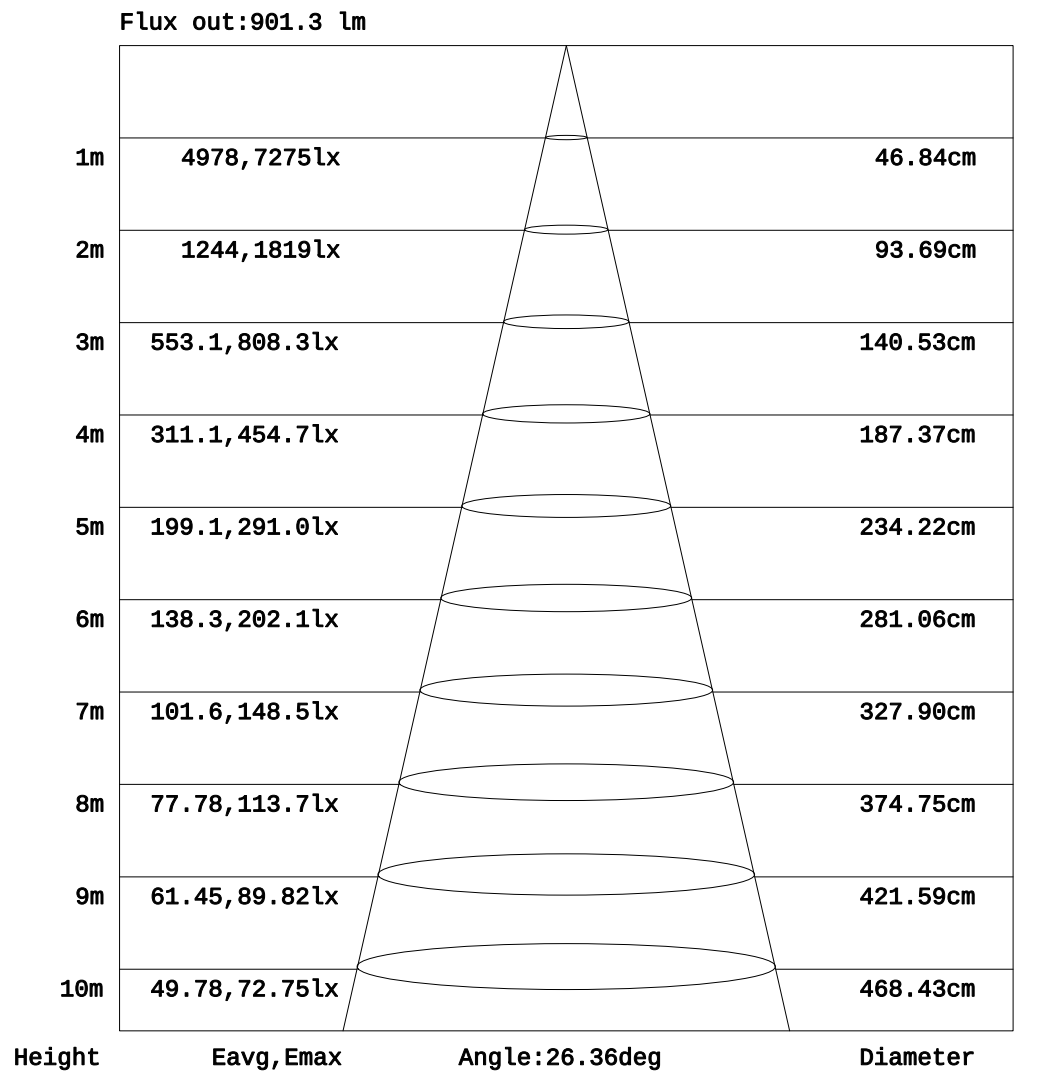


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:XYJ
Test Date:2019-12-4

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-TL0025-21	TYPE:LED TRACK LIGHT	WEIGHT:
SPEC.:CRI90 3000K 24D	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:



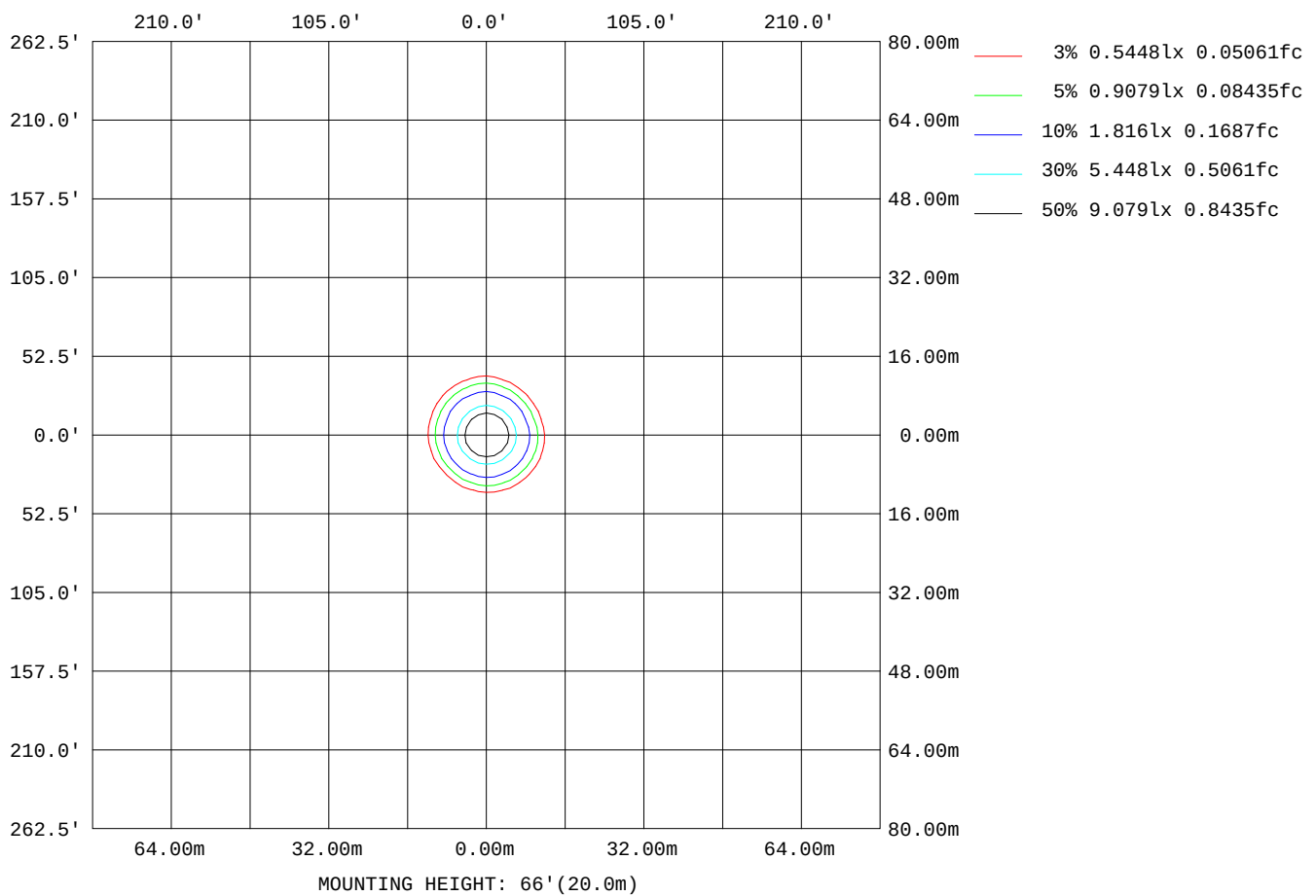
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:XYJ
Test Date:2019-12-4

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-TL0025-21	TYPE:LED TRACK LIGHT	WEIGHT:
SPEC.:CRI90 3000K 24D	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:2019-12-4

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-TL0025-21	TYPE:LED TRACK LIGHT	WEIGHT:
SPEC.:CRI90 3000K 24D	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:

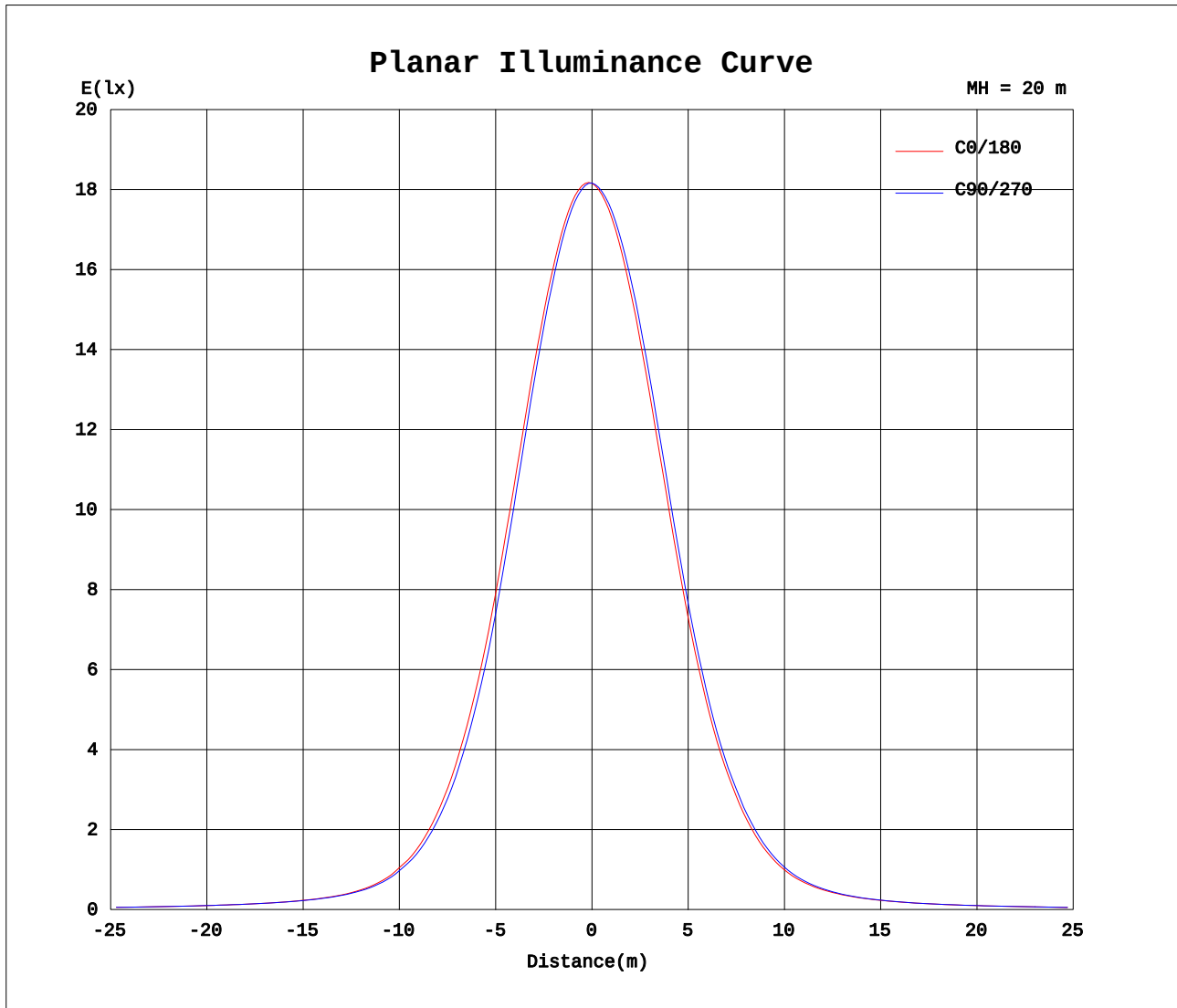
AvgL	cd/m2
L_0~180(65)av	38378
L_0~180(75)av	28971
L_0~180(85)av	6648
L_90~270(65)av	38381
L_90~270(75)av	28702
L_90~270(85)av	6572
L_45(65)av	38553
L_45(75)av	28771
L_45(85)av	6555

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:XYJ
Test Date:2019-12-4

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: 2019-12-4

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-TL0025-21	TYPE: LED TRACK LIGHT	WEIGHT:
SPEC.: CRI90 3000K 24D	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: 2019-12-4

```

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:

```