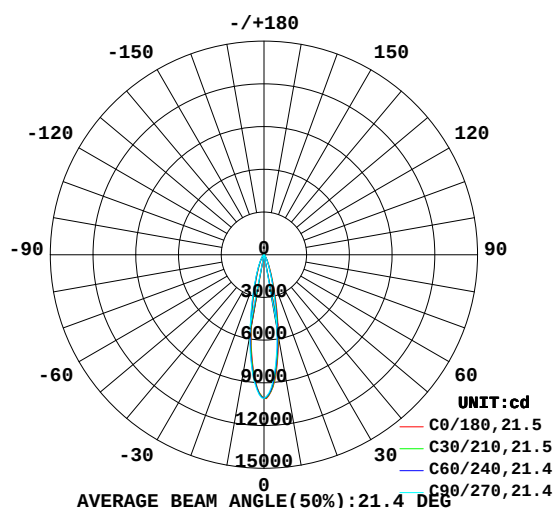


LUMINAIRE PHOTOMETRIC TEST REPORT

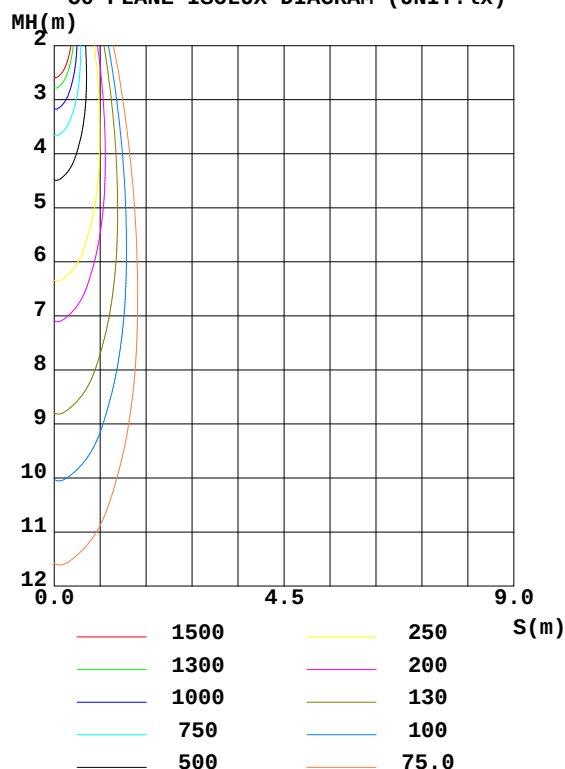
NAME: VN-TL0025-11	TYPE: TRACK LIGHT	WEIGHT:
SPEC.: CRI80 3000K 24D	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 93.72 lm/W
MODEL	CXA1820	Imax(cd)	10136	S/MH(C0/180)	0.35	
NOMINAL POWER(W)	25	LOR(%)	100.0	S/MH(C90/270)	0.38	
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	2283.8	η UP, DN(C0-180)	0.0, 47.7	
NOMINAL FLUX(lm)	2283.84	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 52.3	
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: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: cjy
Test Date: 2019-7-24

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
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:

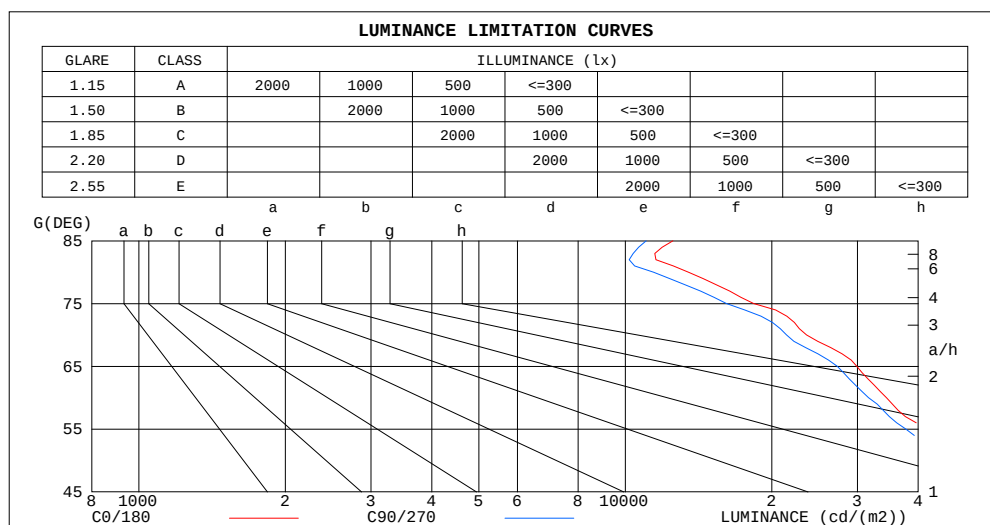
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	584.2	561.2	522.9	516.2	518.4	539.1	571.4	576.3	0- 10	714.0	714.0	31.3, 31.3
20	151.8	138.4	124.4	125.6	136.2	151.9	164.5	158.9	10- 20	807.4	1521	66.6, 66.6
30	46.44	41.47	39.24	40.23	43.73	50.94	56.64	51.79	20- 30	375.8	1897	83.1, 83.1
40	17.46	15.67	15.15	15.76	16.94	19.26	21.49	19.70	30- 40	178.8	2076	90.9, 90.9
50	9.095	8.638	8.297	8.523	8.838	9.408	10.02	9.425	40- 50	97.34	2173	95.2, 95.2
60	4.879	4.752	4.469	4.478	4.631	4.940	4.969	4.913	50- 60	59.26	2233	97.8, 97.8
70	2.286	2.204	2.073	2.014	2.076	2.266	2.345	2.310	60- 70	34.12	2267	99.3, 99.3
80	0.6636	0.6289	0.5608	0.5355	0.5120	0.5785	0.6430	0.6379	70- 80	13.93	2281	99.9, 99.9
90	0.0860	0.0716	0.0703	0.0699	0.0685	0.0652	0.0652	0.0704	80- 90	3.063	2284	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: ×10cd									UNIT: lm		

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: cjl
 Test Date: 2019-7-24

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 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-TL0025-11	TYPE: TRACK LIGHT	WEIGHT:
SPEC.: CRI80 3000K 24D	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	12524	11035
80	13476	11425
75	18366	16146
70	23573	21442
65	29913	27266
60	34409	31624
55	41519	37731
50	49895	45666
45	60860	54943

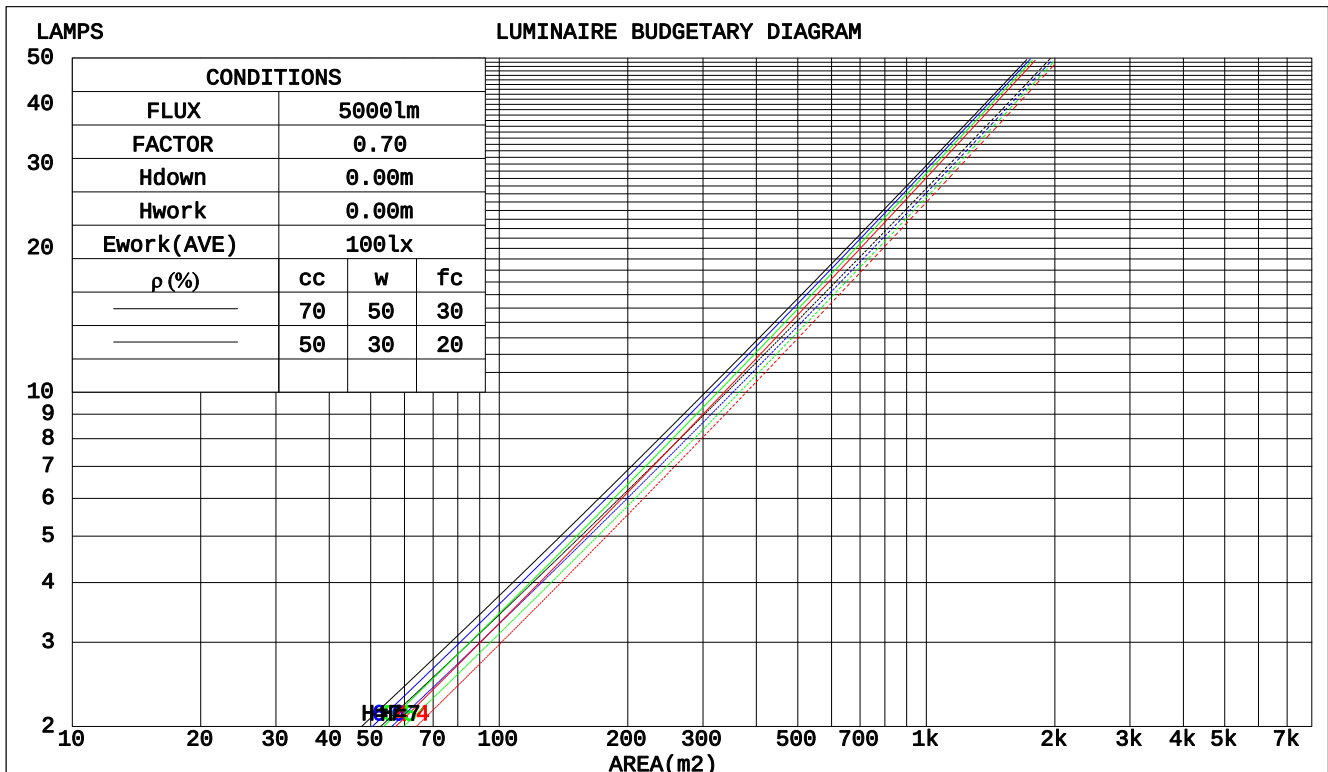
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: cjy
 Test Date: 2019-7-24

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 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-TL0025-11	TYPE: TRACK LIGHT	WEIGHT:
SPEC.: CRI80 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	1.00
1.0	1.12	1.10	1.08	1.10	1.08	1.06	1.06	1.04	1.03	1.02	1.01	.99	.98	.98	.97	.95
2.0	1.05	1.02	.99	1.04	1.00	.98	1.00	.98	.96	.97	.95	.94	.95	.93	.92	.90
3.0	.99	.95	.92	.98	.94	.91	.96	.93	.90	.93	.91	.88	.91	.89	.87	.86
4.0	.95	.90	.87	.94	.89	.86	.92	.88	.85	.90	.87	.84	.88	.85	.83	.82
5.0	.90	.86	.82	.90	.85	.82	.88	.84	.81	.86	.83	.80	.85	.82	.80	.78
6.0	.87	.82	.78	.86	.81	.78	.84	.80	.77	.83	.80	.77	.82	.79	.76	.75
7.0	.83	.78	.75	.83	.78	.75	.81	.77	.74	.80	.77	.74	.79	.76	.74	.72
8.0	.80	.75	.72	.80	.75	.72	.79	.74	.72	.78	.74	.71	.77	.73	.71	.70
9.0	.77	.73	.69	.77	.72	.69	.76	.72	.69	.75	.72	.69	.74	.71	.69	.68
10.0	.75	.70	.67	.74	.70	.67	.74	.70	.67	.73	.69	.67	.72	.69	.66	.65



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: cjy
Test Date: 2019-7-24

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
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-TL0025-11	TYPE:TRACK LIGHT	WEIGHT:
SPEC.:CRI80 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	.159	.091	.029	.153	.087	.028	.140	.080	.026	.129	.074	.024	.118	.068	.022		
2.0	.150	.082	.025	.144	.079	.024	.134	.074	.023	.124	.070	.022	.115	.065	.021		
3.0	.140	.074	.022	.135	.072	.022	.127	.069	.021	.118	.065	.020	.111	.061	.019		
4.0	.131	.068	.020	.127	.067	.020	.120	.064	.019	.113	.061	.018	.106	.058	.018		
5.0	.123	.063	.018	.120	.062	.018	.114	.059	.017	.108	.057	.017	.102	.055	.016		
6.0	.117	.058	.017	.114	.057	.017	.108	.055	.016	.103	.053	.016	.098	.052	.015		
7.0	.110	.055	.015	.108	.054	.015	.103	.052	.015	.098	.050	.015	.094	.049	.014		
8.0	.105	.051	.014	.103	.050	.014	.098	.049	.014	.094	.048	.014	.090	.046	.014		
9.0	.100	.048	.013	.098	.048	.013	.094	.046	.013	.090	.045	.013	.087	.044	.013		
10.0	.095	.046	.013	.093	.045	.013	.090	.044	.012	.087	.043	.012	.084	.042	.012		

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	.170	.157	.146	.145	.135	.126	.099	.093	.087	.057	.054	.051	.018	.017	.016	
2.0	.153	.133	.115	.131	.114	.100	.090	.079	.069	.052	.046	.041	.017	.015	.013	
3.0	.139	.113	.093	.120	.098	.080	.082	.068	.056	.047	.040	.033	.015	.013	.011	
4.0	.128	.098	.076	.110	.085	.066	.075	.059	.046	.044	.035	.027	.014	.011	.009	
5.0	.118	.086	.063	.101	.075	.055	.070	.052	.039	.040	.031	.023	.013	.010	.008	
6.0	.109	.077	.053	.094	.066	.046	.065	.046	.033	.038	.027	.019	.012	.009	.006	
7.0	.102	.069	.045	.088	.060	.039	.061	.042	.028	.035	.025	.017	.011	.008	.006	
8.0	.096	.062	.039	.082	.054	.034	.057	.038	.024	.033	.022	.014	.011	.007	.005	
9.0	.090	.057	.034	.077	.049	.030	.054	.034	.021	.031	.020	.013	.010	.007	.004	
10.0	.085	.052	.030	.073	.045	.026	.051	.032	.018	.030	.019	.011	.010	.006	.004	

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:cjy
Test Date:2019-7-24

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
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-TL0025-11						TYPE: TRACK LIGHT			WEIGHT:		
SPEC.: CRI80 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		17.6	18.4	17.8	18.5	18.7	17.2	18.0	17.4	18.1	18.3
3H		18.2	18.9	18.4	19.1	19.3	17.8	18.5	18.0	18.7	18.9
4H		18.4	19.1	18.6	19.3	19.5	17.9	18.6	18.2	18.8	19.0
6H		18.4	19.1	18.7	19.3	19.6	18.0	18.6	18.3	18.9	19.1
8H		18.4	19.1	18.7	19.3	19.6	18.0	18.6	18.3	18.8	19.1
12H		18.4	19.0	18.7	19.3	19.6	17.9	18.6	18.3	18.8	19.1
4H	2H	17.8	18.5	18.1	18.7	18.9	17.5	18.2	17.7	18.4	18.6
	3H	18.6	19.2	18.9	19.4	19.7	18.2	18.8	18.5	19.1	19.3
	4H	18.8	19.4	19.1	19.7	20.0	18.4	19.0	18.7	19.2	19.6
	6H	18.9	19.4	19.3	19.7	20.1	18.5	19.0	18.9	19.3	19.7
	8H	18.9	19.4	19.3	19.7	20.1	18.5	18.9	18.9	19.3	19.7
	12H	18.9	19.3	19.3	19.7	20.1	18.5	18.9	18.9	19.3	19.7
8H	4H	18.8	19.3	19.2	19.6	20.0	18.4	18.9	18.8	19.2	19.6
	6H	19.0	19.3	19.4	19.7	20.1	18.6	18.9	19.0	19.3	19.7
	8H	19.0	19.3	19.4	19.7	20.2	18.6	18.9	19.0	19.3	19.8
	12H	19.0	19.3	19.5	19.8	20.2	18.6	18.9	19.1	19.3	19.8
12H	4H	18.8	19.2	19.2	19.6	19.9	18.4	18.8	18.8	19.2	19.6
	6H	18.9	19.3	19.4	19.7	20.1	18.5	18.9	19.0	19.3	19.7
	8H	19.0	19.3	19.4	19.7	20.2	18.6	18.9	19.0	19.3	19.8
Variations with the observer position at spacings:											
S = 1.0H		+ 0.8 / - 0.9					+ 0.7 / - 0.9				
1.5H		+ 1.2 / - 0.6					+ 0.8 / - 0.5				
2.0H		+ 1.2 / - 0.9					+ 1.1 / - 1.0				

CIE Pub.117, 2284 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 2.9$)

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: cjy
Test Date: 2019-7-24

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 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-TL0025-11	TYPE: TRACK LIGHT	WEIGHT:
SPEC.: CRI80 3000K 24D	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:

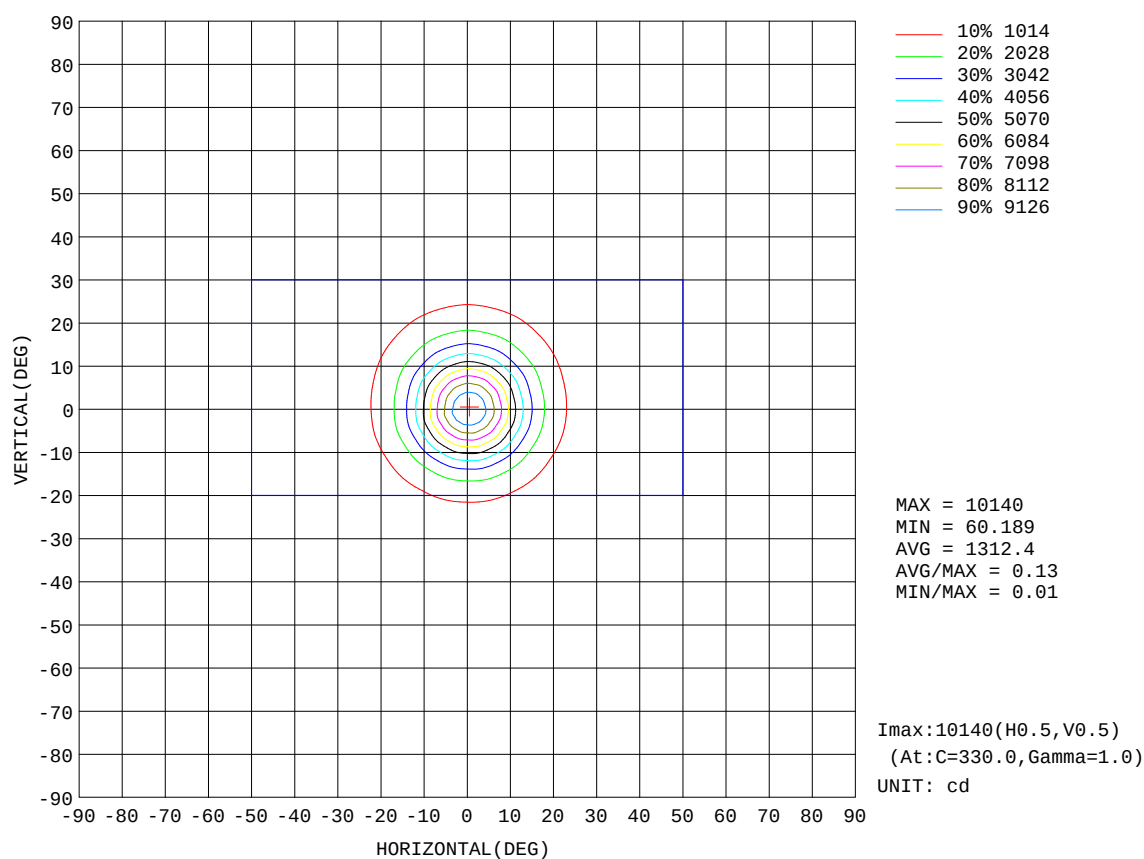
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	86	79	75	85	79	75	85	79	75	71
0.80	93	87	83	93	87	83	92	86	83	79
1.00	98	92	88	97	92	88	96	92	88	83
1.25	102	97	93	101	96	93	99	95	92	88
1.50	105	100	96	104	99	96	101	98	95	90
2.00	108	103	100	106	102	99	104	100	98	93
2.50	110	106	103	108	104	102	105	102	100	94
3.00	111	108	105	109	106	104	106	104	102	95
4.00	113	111	108	111	109	107	108	106	104	97
5.00	115	112	110	113	111	109	109	107	106	98
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004										
Suspended										
SHRNOM = 1.25										

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: cjy
 Test Date: 2019-7-24

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 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-TL0025-11	TYPE: TRACK LIGHT	WEIGHT:
SPEC.: CRI80 3000K 24D	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:

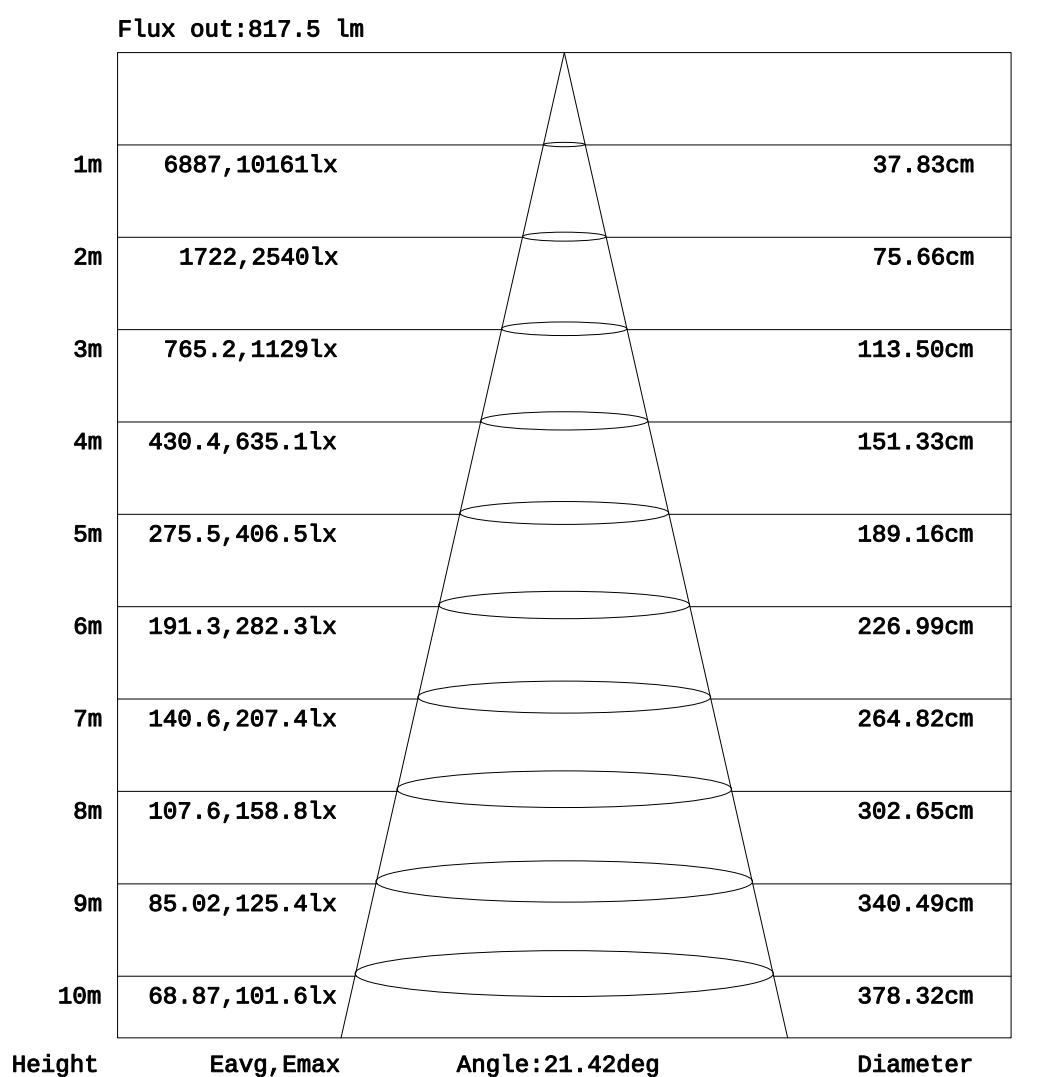


C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: cjl
Test Date: 2019-7-24

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
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-TL0025-11	TYPE: TRACK LIGHT	WEIGHT:
SPEC.: CRI80 3000K 24D	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:



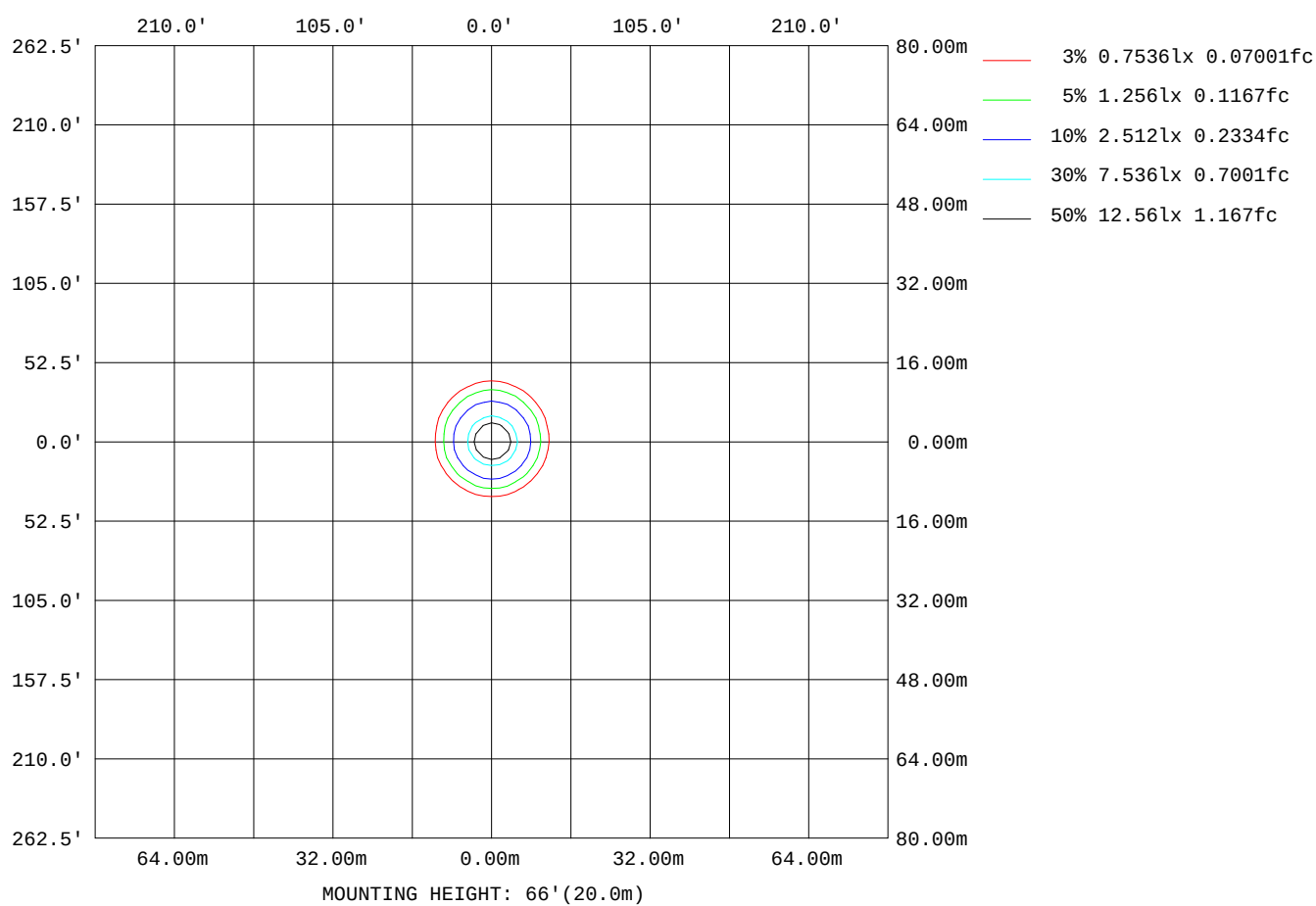
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: cjl
Test Date: 2019-7-24

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
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-TL0025-11	TYPE: TRACK LIGHT	WEIGHT:
SPEC.: CRI80 3000K 24D	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: cjl
Test Date: 2019-7-24

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
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-TL0025-11	TYPE: TRACK LIGHT	WEIGHT:
SPEC.: CRI80 3000K 24D	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:

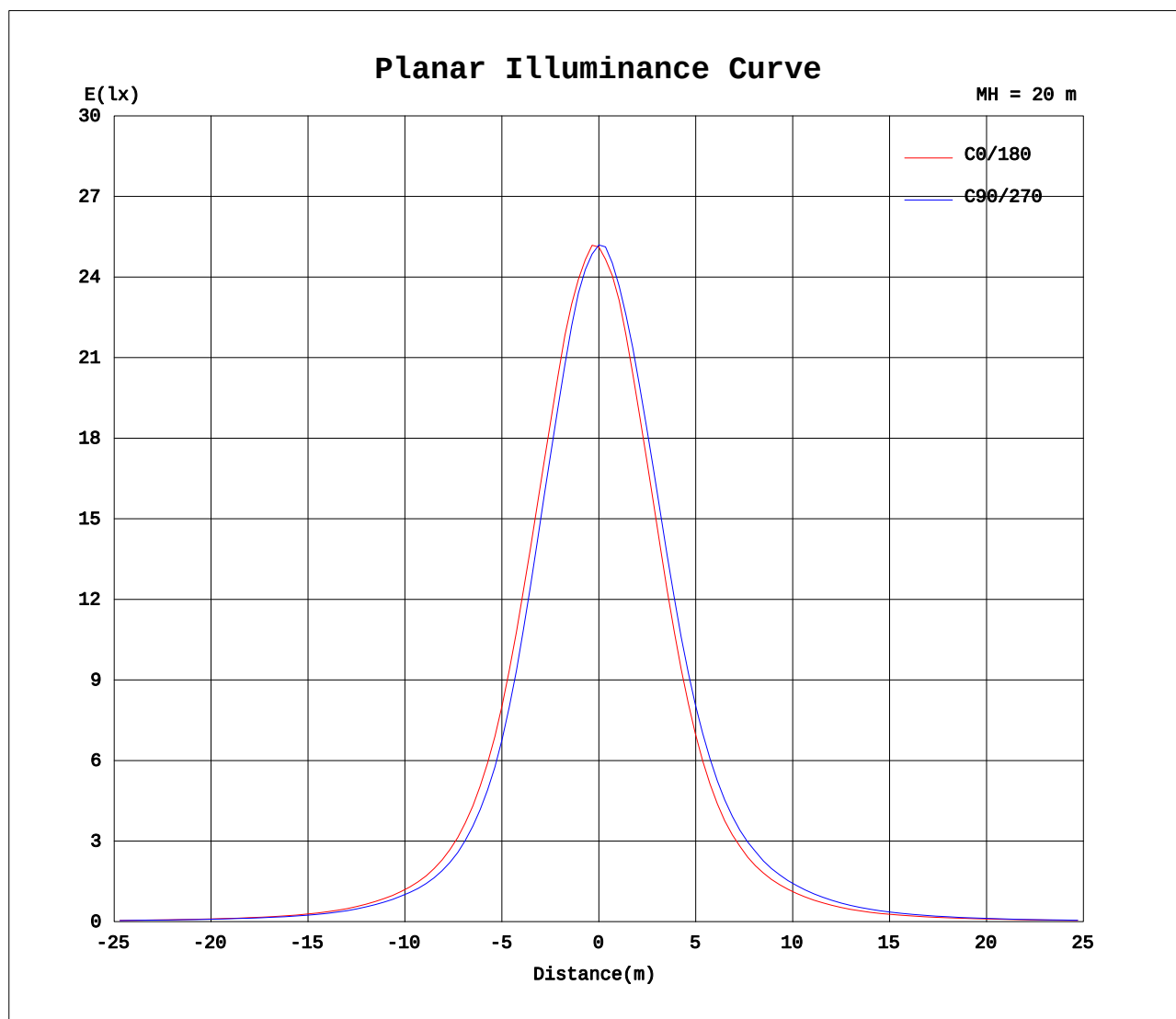
AvgL	cd/m2
L_0~180(65)av	28971
L_0~180(75)av	16998
L_0~180(85)av	11105
L_90~270(65)av	29311
L_90~270(75)av	17201
L_90~270(85)av	11038
L_45(65)av	29249
L_45(75)av	17038
L_45(85)av	11000

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: cjy
 Test Date: 2019-7-24

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 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: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: cjy
 Test Date: 2019-7-24

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 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-TL0025-11	TYPE: TRACK LIGHT	WEIGHT:
SPEC.: CRI80 3000K 24D	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:

Table - -1

UNIT: $\times 10 \text{cd}$ [illegible]

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: cjl
Test Date: 2019-7-24

```

Range: 0 - 90DEG
Interval: 1.0DEG
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-TL0025-11	TYPE: TRACK LIGHT	WEIGHT:
SPEC.: CRI80 3000K 24D	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:

Table - -2

UNIT: $\times 10 \text{cd}$ [illegible]

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: cjl
Test Date: 2019-7-24

```

Range: 0 - 90DEG
Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.401
Humidity:65.0%
Test Distance:5.190m [K=1.0000]
Remarks:

```