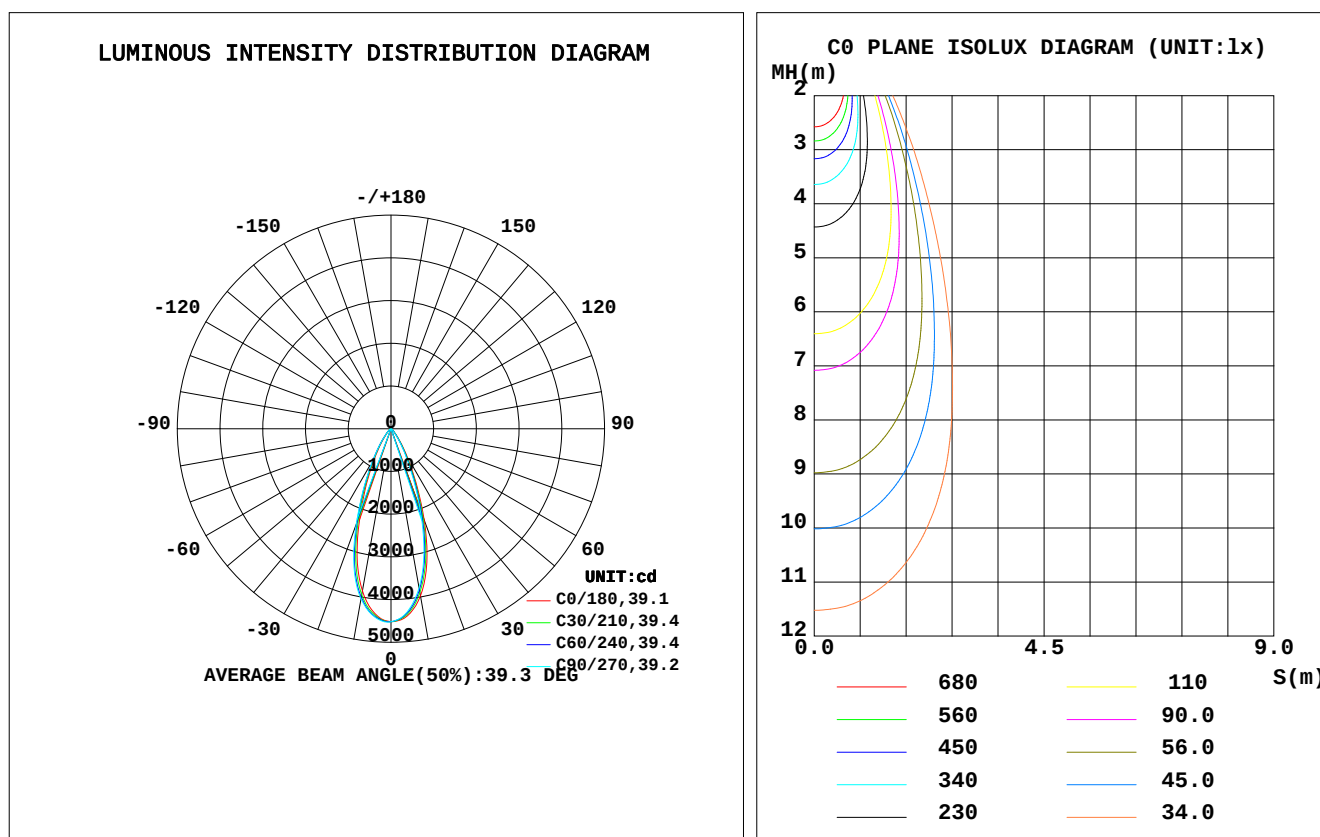


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: VN-TL0025-11	TYPE: TRACK LIGHT	WEIGHT:
SPEC.: CRI80 3000K 40D	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 94.17 lm/W
MODEL	CXA1820	Imax(cd)	4525	S/MH(C0/180)	0.62	
NOMINAL POWER(W)	25	LOR(%)	100.0	S/MH(C90/270)	0.65	
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	2293.2	η UP, DN(C0-180)	0.0, 47.6	
NOMINAL FLUX(lm)	2293.18	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 52.4	
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.50	
TEST VOLTAGE(V)	230	η down(%)	100.0	CIBSE SHR MAX	0.65	



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:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

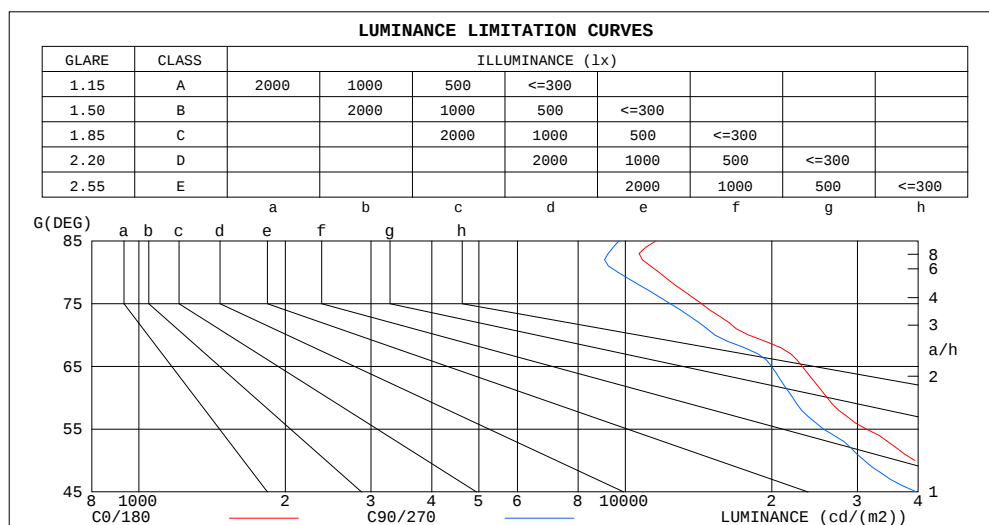
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	3973	3877	3789	3809	3860	3970	4046	4011	0- 10	402.7	402.7	17.6,17.6
20	2270	2144	1989	2021	2084	2255	2378	2338	10- 20	859.0	1262	55,55
30	757.3	693.5	615.9	640.2	704.2	802.6	839.3	781.0	20- 30	611.5	1873	81.7,81.7
40	193.7	168.0	143.9	154.4	194.8	231.6	231.9	199.2	30- 40	249.4	2123	92.6,92.6
50	71.53	65.11	56.28	61.71	71.47	82.48	74.70	73.23	40- 50	86.55	2209	96.3,96.3
60	36.78	34.49	31.22	32.62	35.90	39.55	36.86	37.32	50- 60	44.76	2254	98.3,98.3
70	17.32	16.42	14.75	14.72	15.57	16.67	16.89	16.84	60- 70	25.91	2280	99.4,99.4
80	5.755	5.343	4.737	4.674	4.734	5.222	5.640	5.634	70- 80	10.62	2290	99.9,99.9
90	0.7605	0.6320	0.6295	0.6314	0.6014	0.5701	0.5809	0.6535	80- 90	2.821	2293	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: 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:

LUMINANCE LIMITATION CURVES

NAME: VN-TL0025-11	TYPE: TRACK LIGHT	WEIGHT:
SPEC.: CRI80 3000K 40D	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	11563	9706
80	11717	9654
75	14340	12358
70	17908	15260
65	23094	19980
60	26006	22096
55	31280	25535
50	39341	30988
45	53240	39676

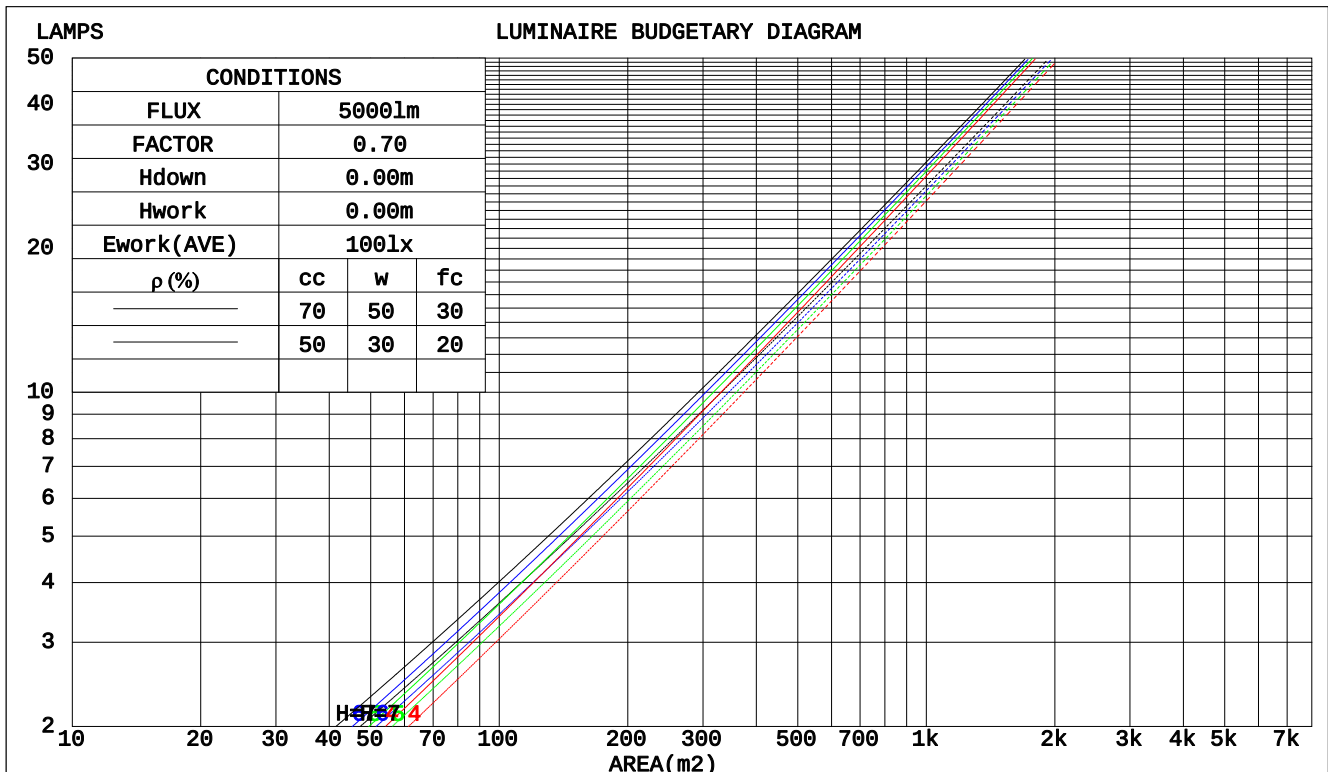
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: cjy
 Test Date: 2019-7-24

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 40D	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	1.00	.97	1.03	.99	.96	.99	.97	.94	.96	.94	.92	.94	.92	.90	.89
3.0	.98	.93	.90	.97	.92	.89	.94	.91	.88	.92	.89	.86	.89	.87	.85	.83
4.0	.92	.87	.84	.91	.87	.83	.89	.85	.82	.87	.84	.81	.85	.83	.80	.79
5.0	.88	.82	.78	.87	.82	.78	.85	.81	.77	.83	.80	.77	.82	.79	.76	.75
6.0	.83	.78	.74	.82	.77	.74	.81	.76	.73	.79	.76	.73	.78	.75	.72	.71
7.0	.79	.74	.70	.78	.73	.70	.77	.73	.69	.76	.72	.69	.75	.71	.69	.67
8.0	.75	.70	.66	.75	.70	.66	.74	.69	.66	.73	.69	.66	.72	.68	.65	.64
9.0	.72	.67	.63	.71	.66	.63	.71	.66	.63	.70	.66	.63	.69	.65	.62	.61
10.0	.69	.64	.60	.68	.64	.60	.68	.63	.60	.67	.63	.60	.66	.62	.60	.59



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 40D	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	.150	.086	.027	.138	.080	.026	.127	.074	.024		
2.0	.160	.087	.027	.154	.085	.026	.144	.080	.025	.134	.075	.023	.125	.071	.022		
3.0	.151	.080	.024	.146	.078	.024	.137	.074	.023	.129	.071	.022	.121	.067	.021		
4.0	.142	.074	.022	.138	.072	.021	.131	.069	.021	.124	.066	.020	.117	.064	.019		
5.0	.135	.069	.020	.131	.067	.020	.125	.065	.019	.119	.063	.019	.113	.060	.018		
6.0	.128	.064	.018	.125	.063	.018	.119	.061	.018	.114	.059	.017	.109	.057	.017		
7.0	.122	.060	.017	.119	.059	.017	.114	.058	.017	.109	.056	.016	.105	.054	.016		
8.0	.116	.057	.016	.114	.056	.016	.109	.055	.016	.105	.053	.015	.101	.052	.015		
9.0	.111	.054	.015	.109	.053	.015	.105	.052	.015	.101	.051	.015	.098	.050	.014		
10.0	.107	.051	.014	.105	.051	.014	.101	.050	.014	.098	.049	.014	.094	.048	.014		

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	.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	.155	.133	.114	.132	.114	.099	.091	.079	.069	.052	.046	.040	.017	.015	.013	
3.0	.141	.113	.091	.121	.098	.079	.083	.068	.055	.048	.040	.033	.015	.013	.011	
4.0	.131	.099	.074	.112	.085	.064	.077	.059	.045	.045	.035	.027	.014	.011	.009	
5.0	.121	.087	.061	.104	.075	.053	.072	.052	.038	.042	.031	.022	.013	.010	.007	
6.0	.113	.077	.051	.097	.067	.045	.067	.047	.032	.039	.028	.019	.013	.009	.006	
7.0	.106	.070	.044	.092	.060	.038	.063	.042	.027	.037	.025	.016	.012	.008	.005	
8.0	.100	.063	.038	.086	.055	.033	.060	.038	.023	.035	.023	.014	.011	.007	.005	
9.0	.095	.058	.033	.082	.050	.028	.057	.035	.020	.033	.021	.012	.011	.007	.004	
10.0	.090	.053	.029	.078	.046	.025	.054	.033	.018	.032	.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 40D						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		17.7	18.5	17.9	18.7	18.8	16.6	17.5	16.9	17.7	17.8
3H		18.0	18.8	18.2	18.9	19.1	17.0	17.7	17.2	17.9	18.1
4H		18.0	18.8	18.3	19.0	19.2	17.0	17.8	17.3	18.0	18.2
6H		18.1	18.8	18.4	19.0	19.2	17.1	17.8	17.4	18.0	18.2
8H		18.1	18.7	18.4	19.0	19.2	17.1	17.7	17.4	18.0	18.2
12H		18.0	18.7	18.4	19.0	19.2	17.0	17.7	17.4	18.0	18.2
4H 2H		17.7	18.4	18.0	18.6	18.9	16.7	17.5	17.0	17.7	17.9
3H		18.1	18.7	18.4	19.0	19.3	17.2	17.8	17.5	18.1	18.4
4H		18.2	18.8	18.5	19.1	19.4	17.3	17.9	17.7	18.2	18.5
6H		18.3	18.8	18.7	19.1	19.5	17.4	17.9	17.8	18.2	18.6
8H		18.3	18.8	18.7	19.1	19.5	17.4	17.9	17.8	18.2	18.6
12H		18.3	18.7	18.7	19.1	19.5	17.4	17.8	17.8	18.2	18.6
8H 4H		18.2	18.7	18.6	19.0	19.4	17.3	17.8	17.7	18.1	18.5
6H		18.3	18.7	18.7	19.1	19.5	17.4	17.8	17.8	18.2	18.6
8H		18.3	18.7	18.8	19.1	19.5	17.5	17.8	17.9	18.2	18.7
12H		18.4	18.7	18.8	19.1	19.6	17.5	17.8	18.0	18.2	18.7
12H 4H		18.1	18.6	18.5	18.9	19.3	17.3	17.7	17.7	18.1	18.5
6H		18.3	18.6	18.7	19.0	19.5	17.4	17.8	17.8	18.2	18.6
8H		18.3	18.6	18.8	19.0	19.5	17.5	17.8	17.9	18.2	18.7
Variations with the observer position at spacings:											
S = 1.0H		+ 1.8 / - 1.8					+ 1.4 / - 1.6				
1.5H		+ 3.2 / - 1.5					+ 2.5 / - 1.3				
2.0H		+ 1.8 / - 0.9					+ 1.1 / - 1.0				

CIE Pub.117, 2293 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 40D	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:

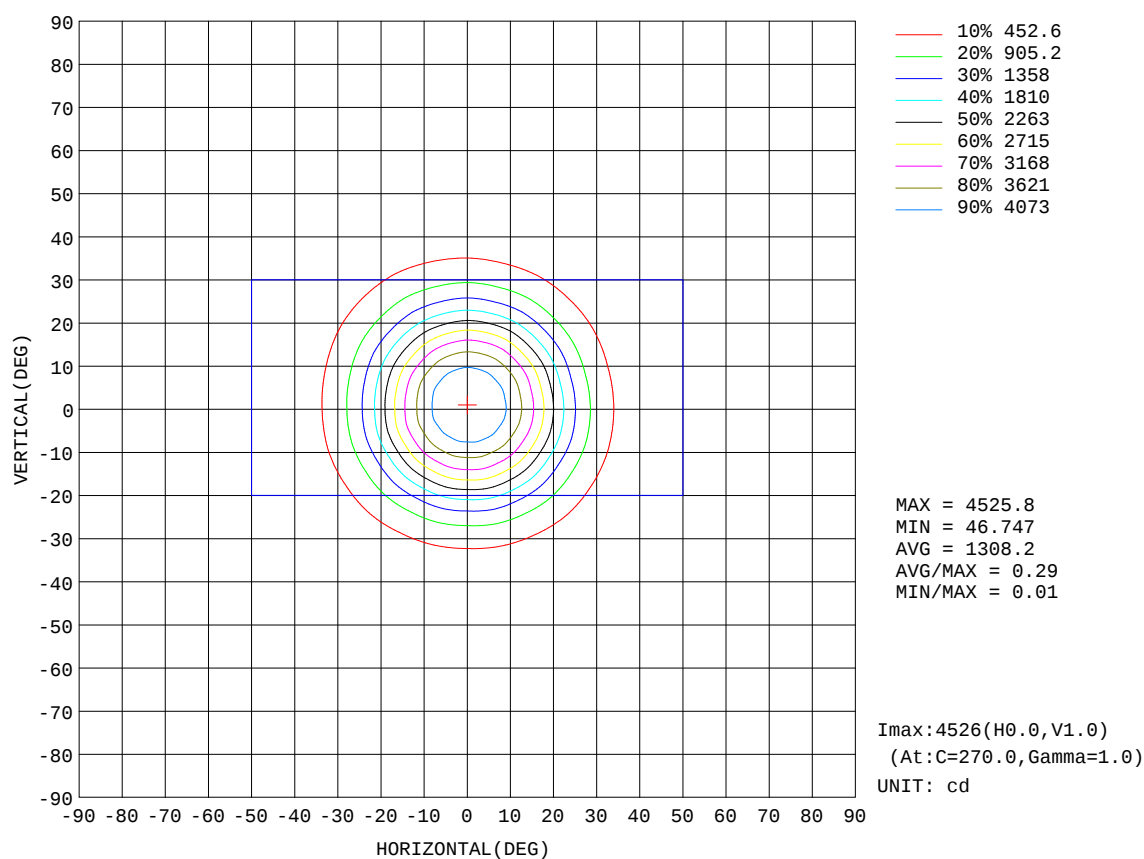
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	87	80	77	86	80	77	86	80	76	73
0.80	94	88	85	94	88	84	92	87	84	80
1.00	99	93	89	98	93	89	96	93	89	85
1.25	103	98	94	102	97	94	100	96	93	89
1.50	106	101	97	104	100	97	102	98	96	91
2.00	108	104	101	107	103	100	104	101	98	93
2.50	110	106	103	108	105	102	105	103	100	94
3.00	112	108	105	110	107	104	106	104	102	96
4.00	114	111	109	112	109	107	108	106	105	97
5.00	115	113	111	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 40D	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:

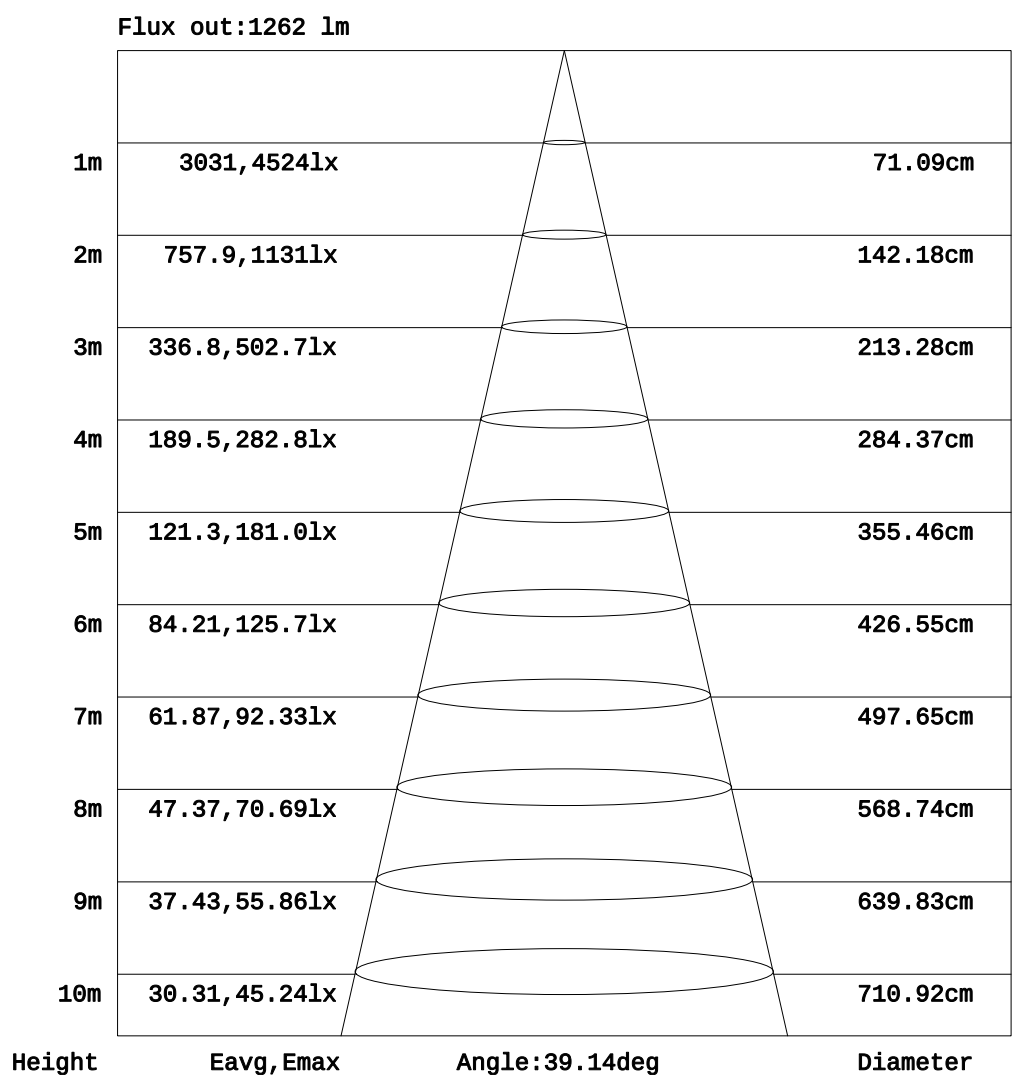


C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: cjoy
Test Date: 2019-7-24

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 40D	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:



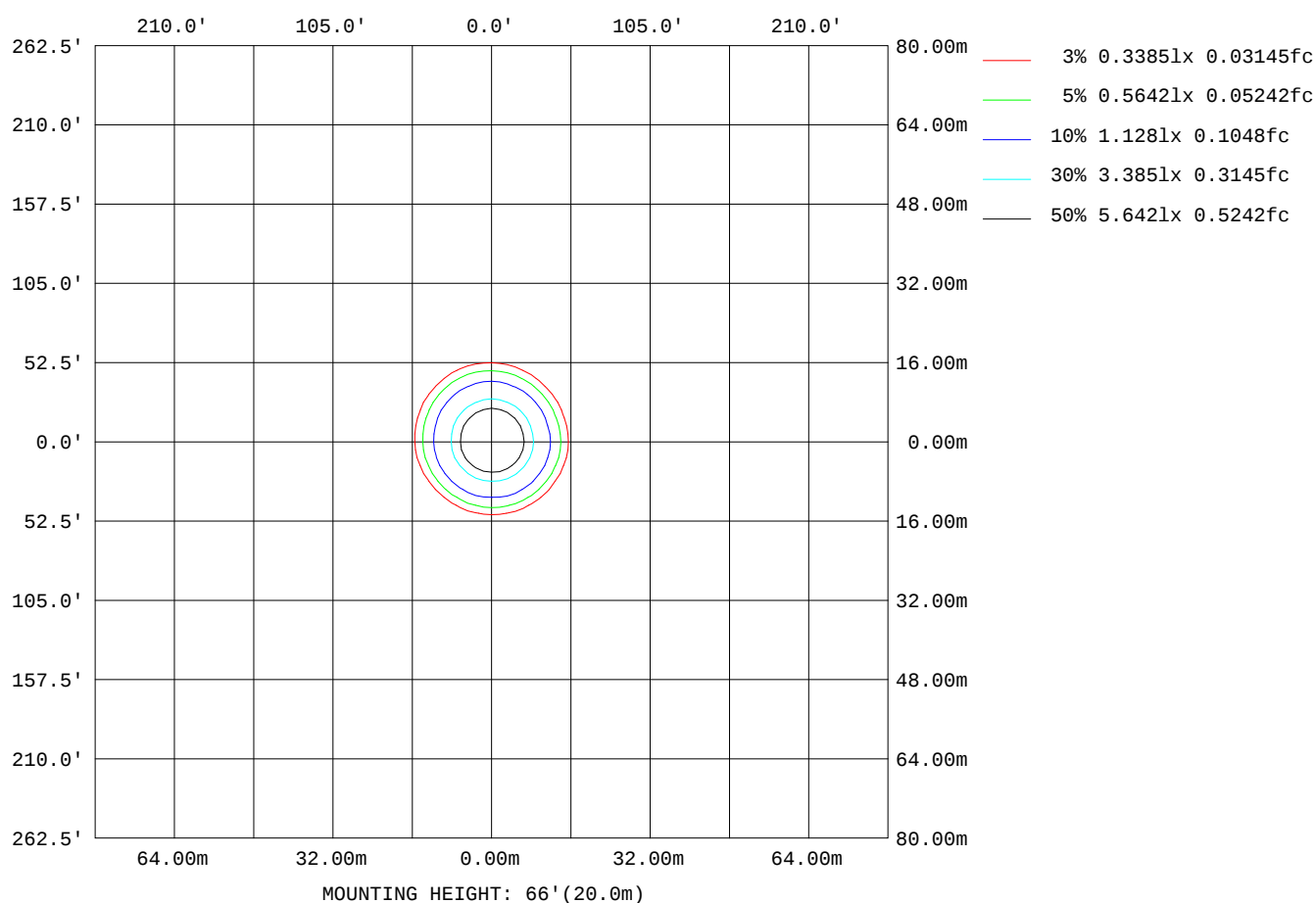
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: 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:

ISOLUX DIAGRAM

NAME: VN-TL0025-11	TYPE: TRACK LIGHT	WEIGHT:
SPEC.: CRI80 3000K 40D	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 40D	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:

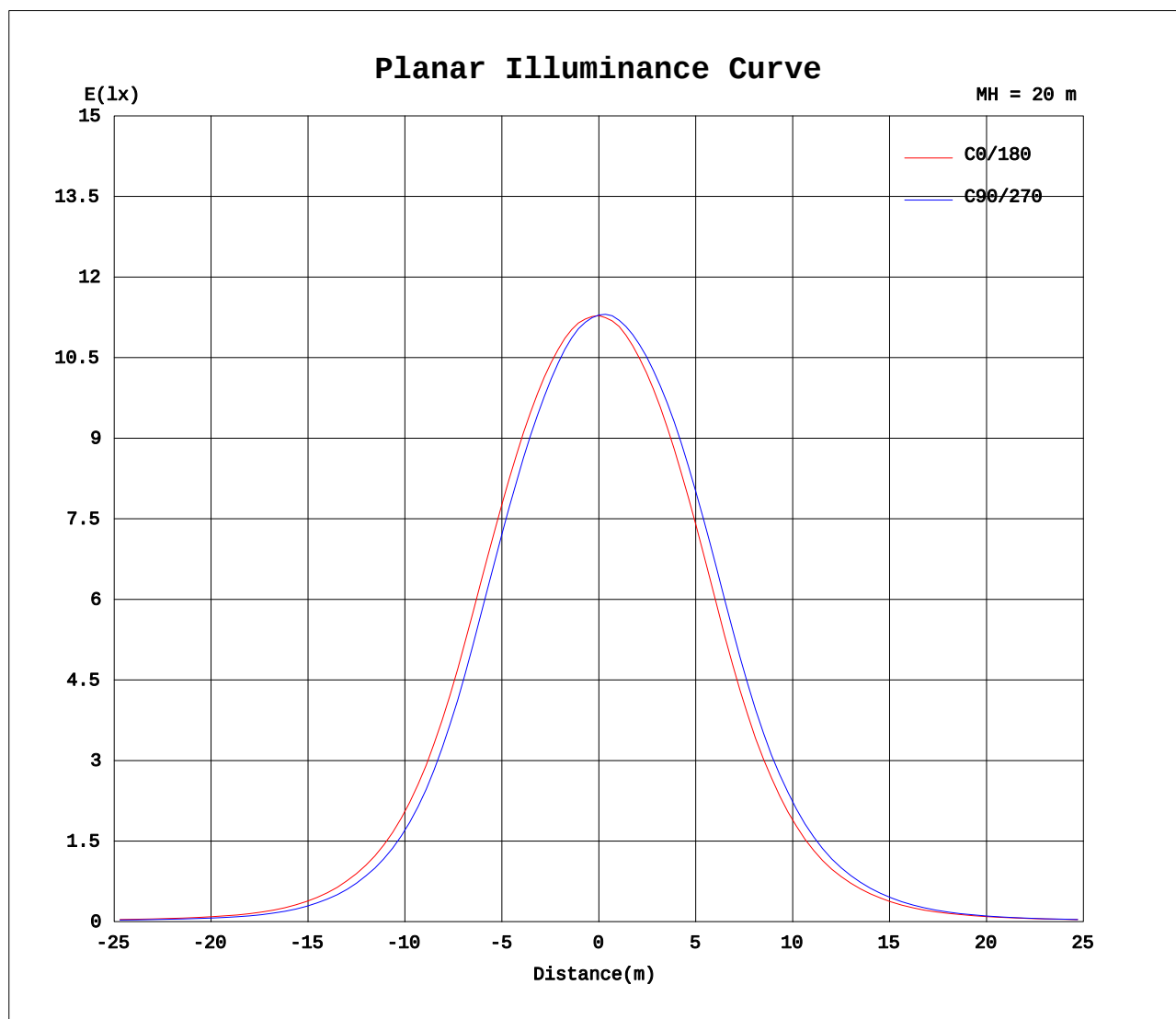
AvgL	cd/m2
L_0~180(65)av	22504
L_0~180(75)av	13509
L_0~180(85)av	10287
L_90~270(65)av	21645
L_90~270(75)av	13254
L_90~270(85)av	10151
L_45(65)av	22361
L_45(75)av	13369
L_45(85)av	10180

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 40D	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:

Table - - 1

UNIT: 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 40D	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:

Table - - 2

UNIT: 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:

```