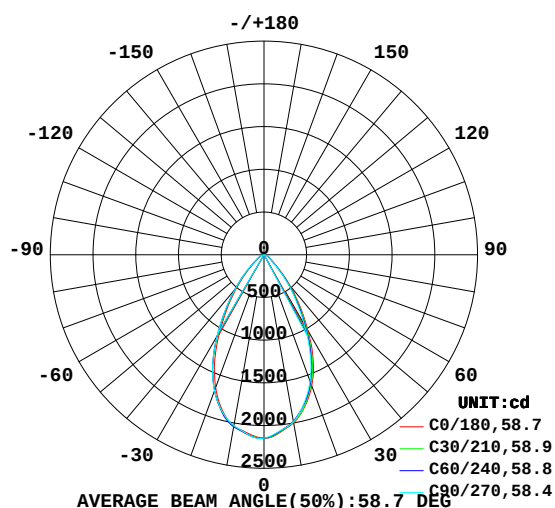


LUMINAIRE PHOTOMETRIC TEST REPORT

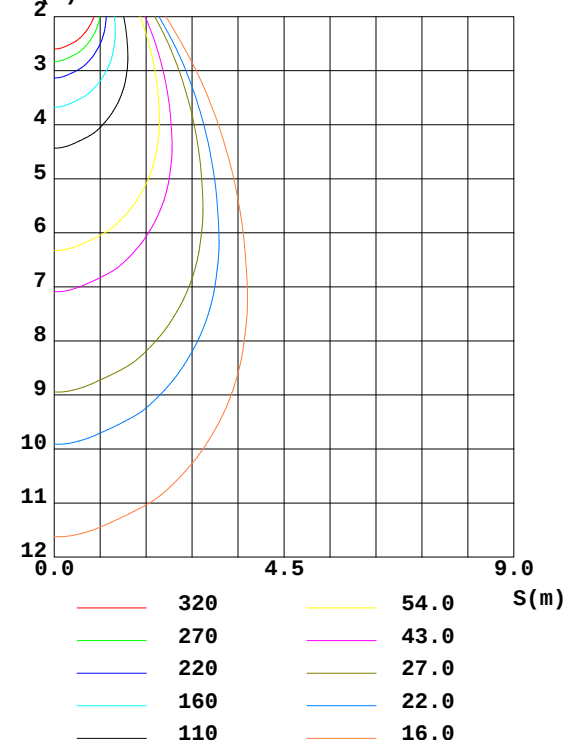
NAME: VN-TL0025-11	TYPE: TRACK LIGHT	WEIGHT:
SPEC.: CRI80 3000K 60D	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 90.73 lm/W
MODEL	CXA1820	I _{max} (cd)	2152	S/MH(C0/180)	0.89	
NOMINAL POWER(W)	25	LOR(%)	100.0	S/MH(C90/270)	0.92	
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	2203.6	η UP, DN(C0-180)	0.0, 48.1	
NOMINAL FLUX(lm)	2203.62	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 51.9	
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.75	
TEST VOLTAGE(V)	230	η down(%)	100.0	CIBSE SHR MAX	0.95	

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:

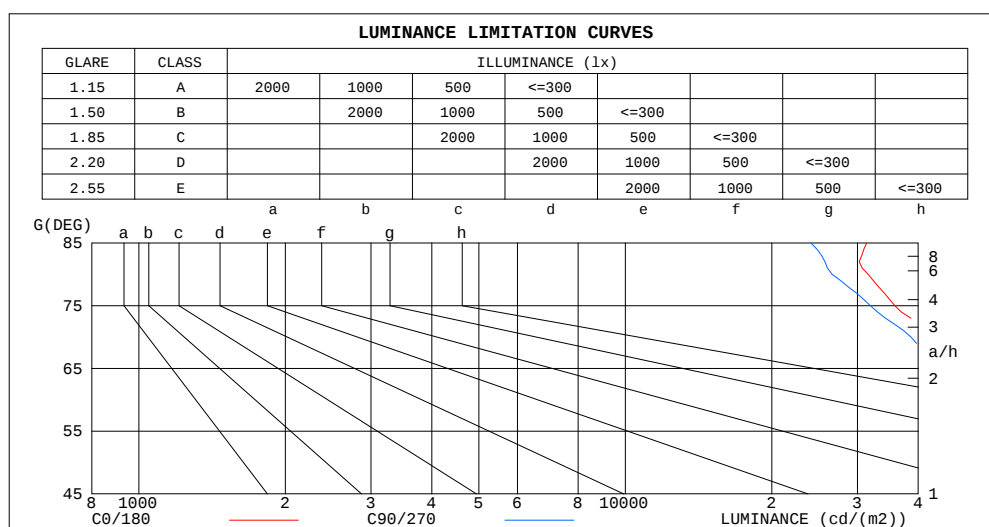
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	1999	1993	1983	1992	2035	2045	2031	2014	0- 10	197.3	197.3	8.96, 8.96
20	1636	1610	1577	1601	1655	1693	1694	1673	10- 20	518.0	715.4	32.5, 32.5
30	1032	994.9	946.5	970.0	1030	1081	1099	1065	20- 30	617.1	1332	60.5, 60.5
40	480.6	451.2	427.2	444.9	482.7	519.6	532.6	506.4	30- 40	455.6	1788	81.1, 81.1
50	156.6	144.6	138.7	145.8	165.6	184.3	191.4	174.3	40- 50	226.7	2015	91.4, 91.4
60	76.77	73.25	68.31	69.70	74.51	78.91	83.51	80.54	50- 60	98.02	2113	95.9, 95.9
70	40.89	39.33	37.38	37.35	39.49	41.42	43.24	42.34	60- 70	55.88	2169	98.4, 98.4
80	15.38	14.56	13.07	12.71	13.55	14.45	15.72	15.84	70- 80	27.32	2196	99.6, 99.6
90	0.9505	0.8575	0.8778	0.8689	0.8122	0.7892	1.271	1.465	80- 90	7.713	2204	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: 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 60D	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	31344	24069
80	31544	26604
75	35785	31868
70	42573	38634
65	47965	43517
60	54672	48297
55	63833	57862
50	86755	76278
45	141080	120304

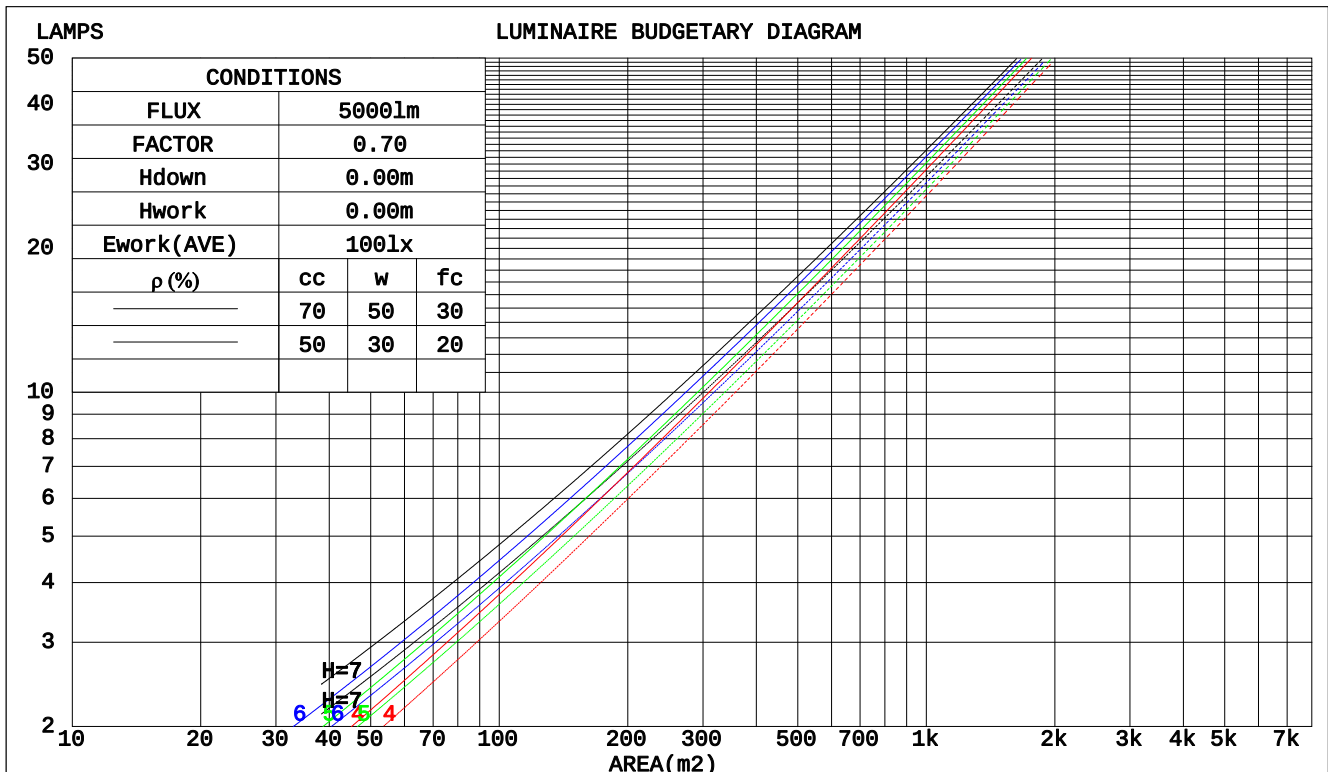
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: cjy
 Test Date: 2019-7-24

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 60D	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	1.09	1.07	1.04	1.07	1.05	1.02	1.03	1.01	.99	.99	.98	.96	.96	.95	.93	.92
2.0	1.00	.96	.92	.99	.95	.91	.95	.92	.89	.92	.90	.87	.90	.87	.85	.83
3.0	.93	.87	.82	.91	.86	.82	.88	.84	.80	.86	.82	.79	.84	.81	.78	.76
4.0	.86	.79	.75	.84	.79	.74	.82	.77	.73	.80	.76	.72	.78	.75	.71	.70
5.0	.79	.73	.68	.78	.72	.68	.77	.71	.67	.75	.70	.66	.73	.69	.66	.64
6.0	.74	.67	.62	.73	.67	.62	.71	.66	.62	.70	.65	.61	.69	.64	.61	.59
7.0	.69	.62	.58	.68	.62	.58	.67	.61	.57	.66	.61	.57	.65	.60	.57	.55
8.0	.65	.58	.54	.64	.58	.53	.63	.57	.53	.62	.57	.53	.61	.56	.53	.51
9.0	.61	.54	.50	.60	.54	.50	.59	.54	.50	.58	.53	.49	.57	.53	.49	.48
10.0	.57	.51	.47	.57	.51	.47	.56	.50	.46	.55	.50	.46	.54	.50	.46	.45



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 60D	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	.204	.116	.037	.197	.113	.036	.185	.106	.034	.173	.100	.032	.162	.094	.030		
2.0	.196	.107	.033	.190	.105	.032	.179	.100	.031	.169	.095	.030	.160	.090	.028		
3.0	.185	.099	.030	.180	.097	.029	.171	.093	.028	.163	.089	.027	.155	.086	.026		
4.0	.175	.091	.027	.171	.090	.026	.163	.086	.026	.156	.084	.025	.149	.081	.025		
5.0	.166	.085	.025	.162	.083	.024	.155	.081	.024	.149	.078	.023	.142	.076	.023		
6.0	.158	.079	.023	.154	.078	.022	.148	.076	.022	.142	.074	.022	.137	.072	.021		
7.0	.150	.074	.021	.147	.073	.021	.141	.071	.021	.136	.070	.020	.131	.068	.020		
8.0	.142	.070	.020	.140	.069	.019	.135	.067	.019	.130	.066	.019	.126	.064	.019		
9.0	.136	.066	.018	.133	.065	.018	.129	.064	.018	.125	.062	.018	.121	.061	.018		
10.0	.129	.062	.017	.127	.062	.017	.123	.060	.017	.119	.059	.017	.116	.058	.017		

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	.173	.157	.143	.148	.135	.123	.101	.093	.085	.058	.054	.049	.019	.017	.016	
2.0	.159	.132	.110	.137	.114	.095	.094	.079	.066	.054	.046	.039	.017	.015	.013	
3.0	.148	.114	.086	.127	.098	.075	.087	.068	.052	.050	.040	.031	.016	.013	.010	
4.0	.139	.099	.069	.119	.086	.060	.082	.060	.042	.047	.035	.025	.015	.011	.008	
5.0	.130	.088	.057	.112	.076	.049	.077	.053	.035	.045	.031	.021	.014	.010	.007	
6.0	.123	.079	.047	.106	.068	.041	.073	.048	.029	.042	.028	.017	.014	.009	.006	
7.0	.117	.072	.040	.100	.062	.035	.069	.044	.025	.040	.026	.015	.013	.008	.005	
8.0	.111	.066	.034	.096	.057	.030	.066	.040	.021	.038	.024	.013	.012	.008	.004	
9.0	.106	.060	.030	.091	.052	.026	.063	.037	.018	.037	.022	.011	.012	.007	.004	
10.0	.101	.056	.026	.087	.049	.023	.060	.034	.016	.035	.020	.010	.011	.007	.003	

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 60D						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	22.9	24.0	23.2	24.2	24.4	22.5	23.6	22.7	23.7	23.9	
3H	23.3	24.3	23.5	24.5	24.7	22.8	23.8	23.1	24.0	24.2	
4H	23.4	24.3	23.7	24.6	24.8	22.9	23.9	23.2	24.1	24.3	
6H	23.5	24.4	23.8	24.6	24.9	23.0	23.9	23.3	24.1	24.4	
8H	23.5	24.4	23.8	24.6	24.9	23.0	23.8	23.3	24.1	24.4	
12H	23.5	24.3	23.9	24.6	24.9	23.0	23.8	23.3	24.1	24.4	
4H 2H	22.9	23.9	23.2	24.1	24.3	22.5	23.5	22.8	23.7	23.9	
3H	23.4	24.2	23.8	24.5	24.8	23.0	23.8	23.3	24.1	24.4	
4H	23.6	24.4	24.0	24.7	25.0	23.2	23.9	23.6	24.2	24.6	
6H	23.8	24.5	24.2	24.8	25.1	23.3	24.0	23.7	24.3	24.7	
8H	23.9	24.5	24.3	24.8	25.2	23.4	24.0	23.8	24.3	24.7	
12H	23.9	24.5	24.3	24.8	25.2	23.4	24.0	23.8	24.3	24.7	
8H 4H	23.7	24.3	24.1	24.6	25.0	23.2	23.8	23.6	24.2	24.6	
6H	23.9	24.4	24.3	24.8	25.2	23.5	23.9	23.9	24.3	24.8	
8H	24.0	24.4	24.5	24.9	25.3	23.5	24.0	24.0	24.4	24.8	
12H	24.1	24.5	24.6	24.9	25.4	23.6	24.0	24.1	24.4	24.9	
12H 4H	23.6	24.2	24.0	24.6	24.9	23.2	23.8	23.6	24.1	24.5	
6H	23.9	24.3	24.3	24.7	25.2	23.4	23.9	23.9	24.3	24.7	
8H	24.0	24.4	24.5	24.8	25.3	23.6	23.9	24.0	24.4	24.8	
Variations with the observer position at spacings:											
S = 1.0H	+ 1.3 / - 1.9					+ 1.3 / - 1.9					
1.5H	+ 2.5 / - 1.7					+ 2.3 / - 1.6					
2.0H	+ 2.6 / - 1.1					+ 2.2 / - 1.1					

CIE Pub.117, 2204 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 2.7$)

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:

UTILIZATION FACTORS TABLE

NAME: VN-TL0025-11	TYPE: TRACK LIGHT	WEIGHT:
SPEC.: CRI80 3000K 60D	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:

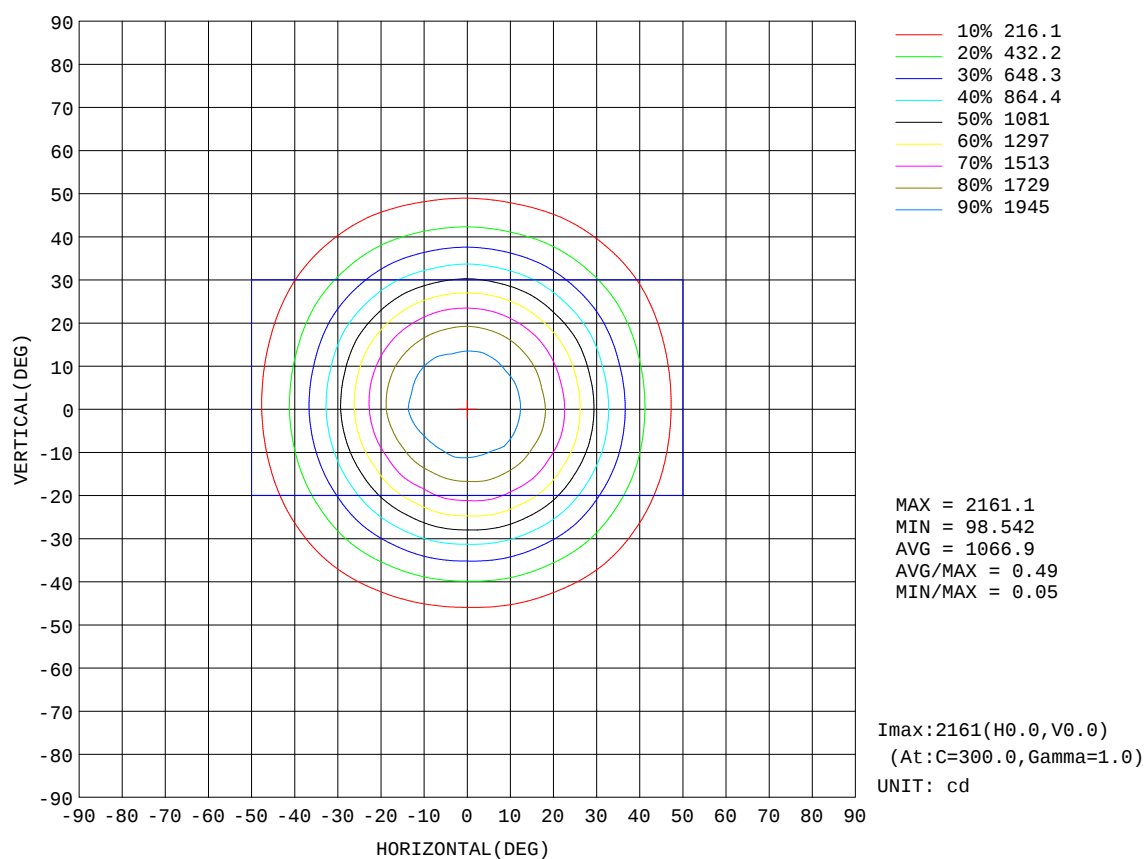
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	80	72	67	79	72	67	78	71	67	63
0.80	88	81	76	87	80	76	86	80	76	71
1.00	94	87	82	93	86	82	91	87	82	77
1.25	99	92	88	98	92	88	95	90	87	82
1.50	102	96	92	101	95	91	98	94	90	85
2.00	106	101	97	104	99	96	101	97	94	89
2.50	108	103	99	106	102	99	103	99	97	90
3.00	110	106	102	108	104	101	104	101	99	92
4.00	112	109	106	110	107	105	106	104	102	94
5.00	114	111	108	111	109	107	107	105	104	96
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 60D	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:

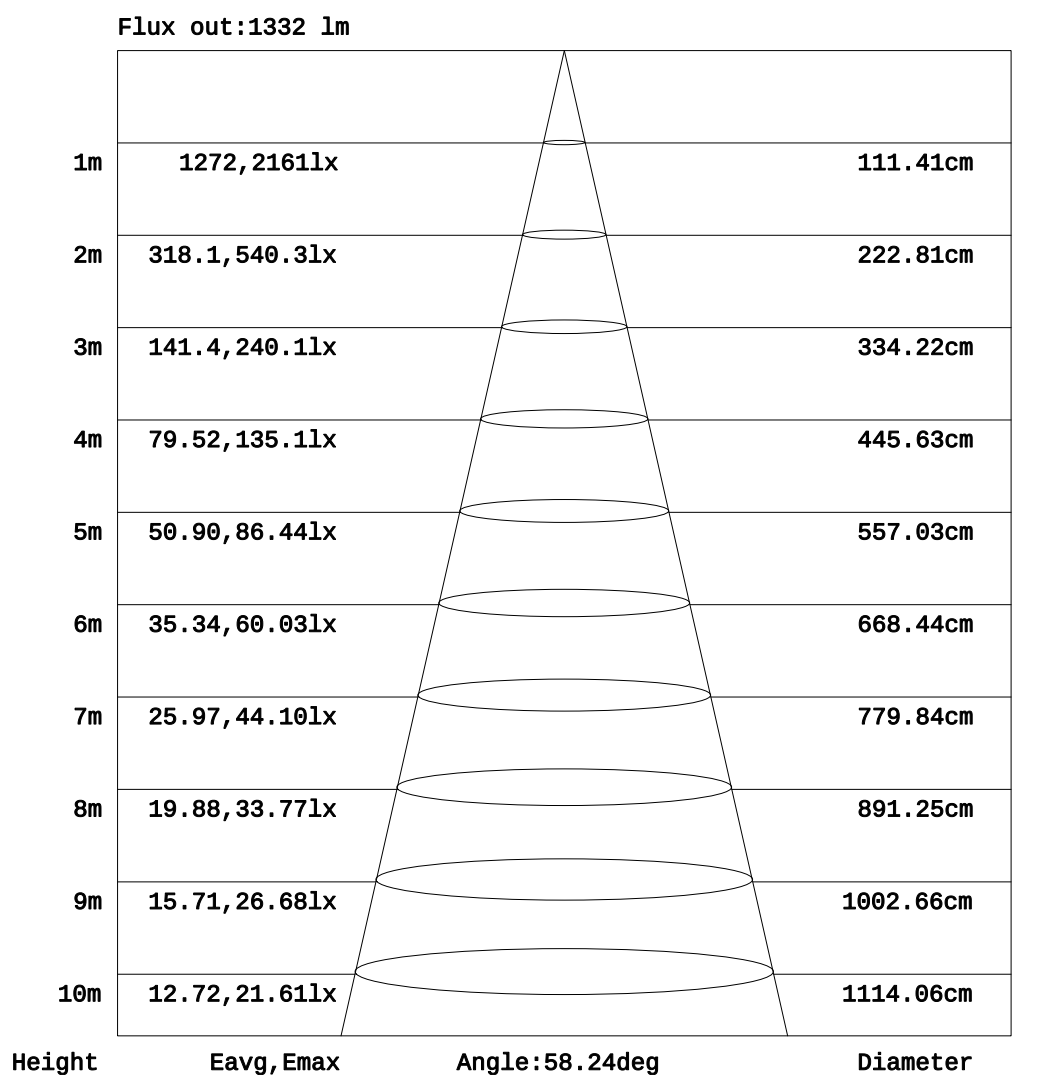


C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: cjoy
 Test Date: 2019-7-24

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 60D	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:



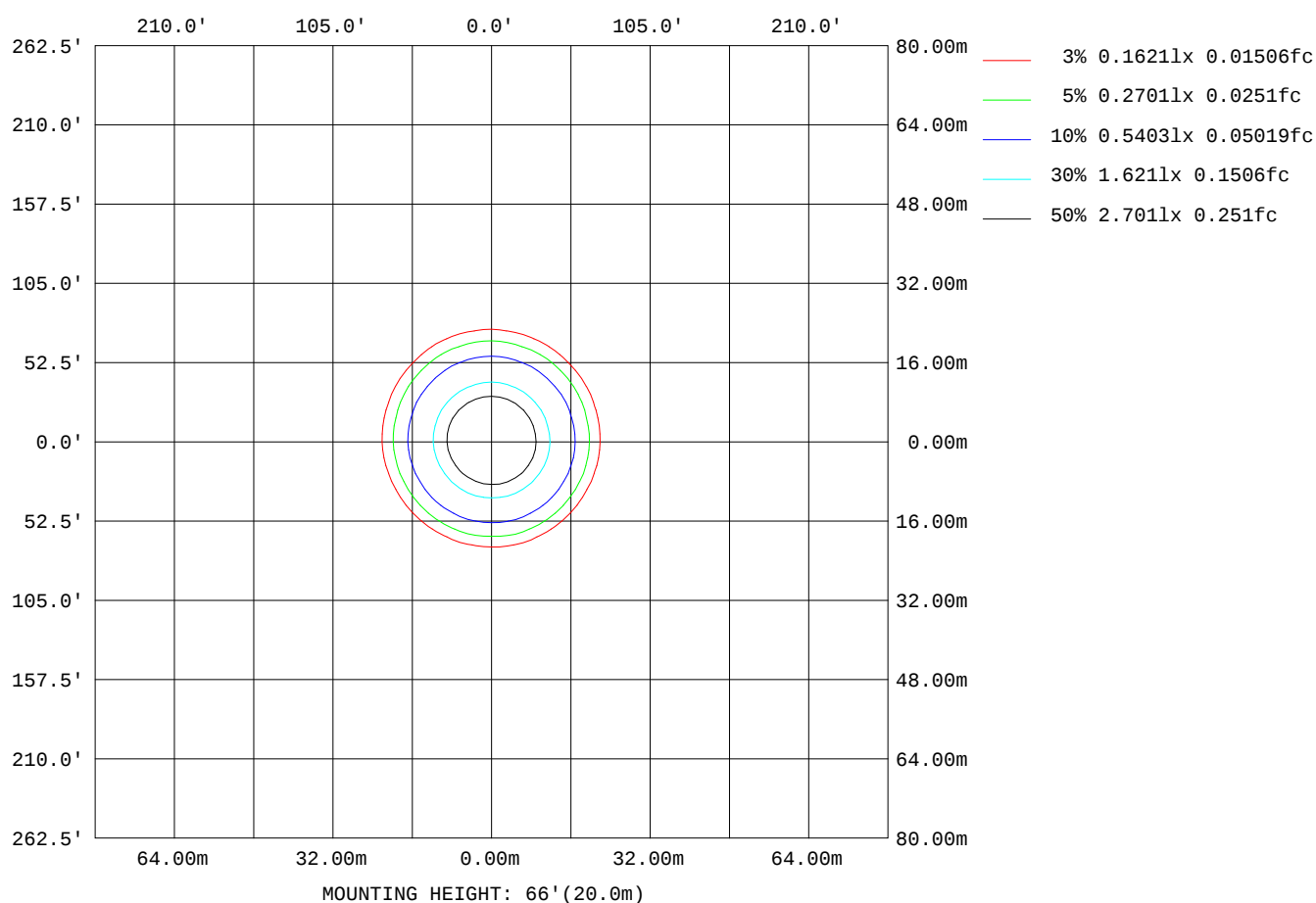
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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 60D	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 60D	DIM.:	SERIAL No.:
MFR.: 1	SUR.:	Shielding Angle:

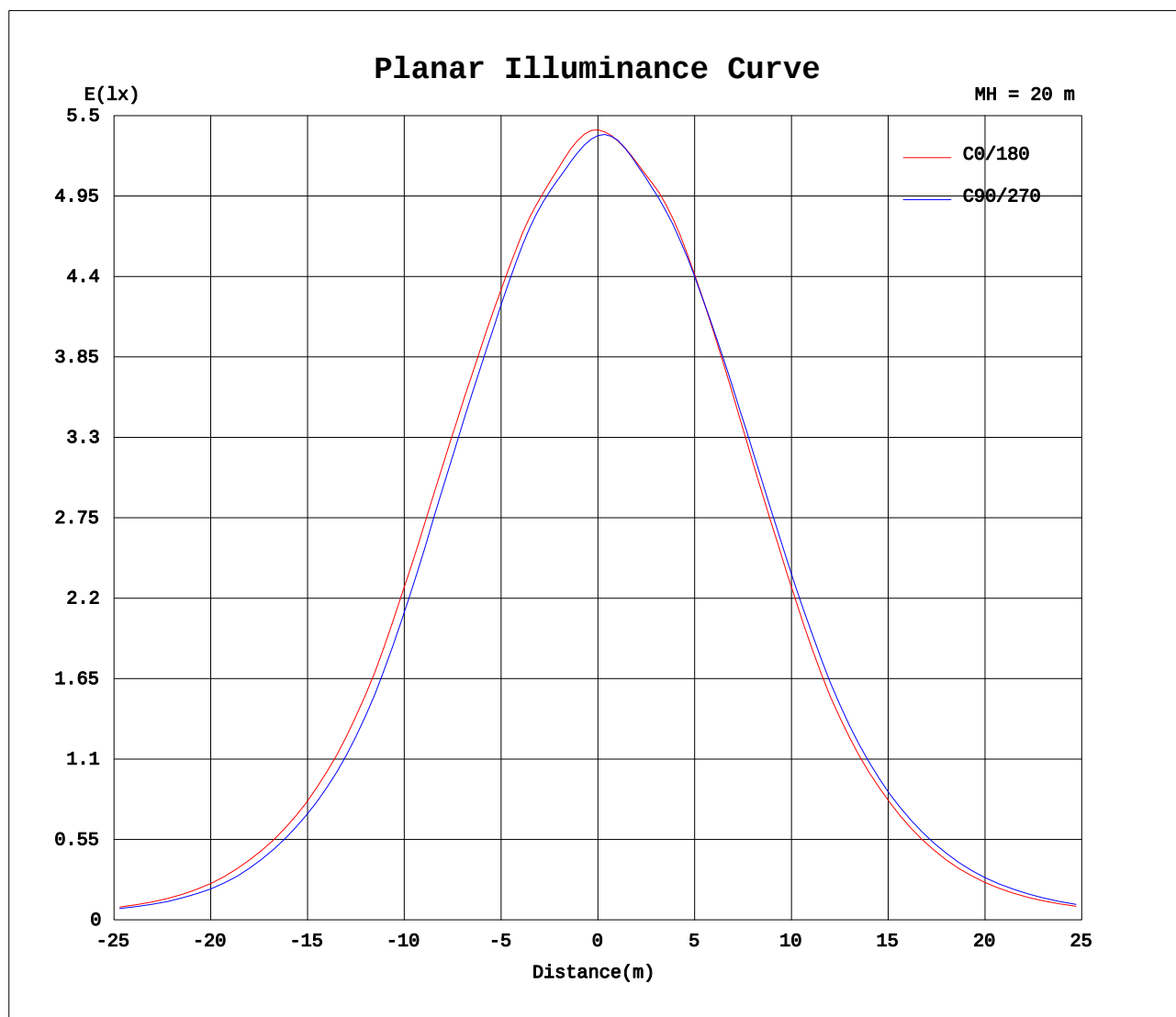
AvgL	cd/m2
L_0~180(65)av	46984
L_0~180(75)av	34291
L_0~180(85)av	28388
L_90~270(65)av	47046
L_90~270(75)av	34390
L_90~270(85)av	28255
L_45(65)av	46953
L_45(75)av	34166
L_45(85)av	28274

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 60D	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 60D	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:

```