

Low Voltage Track System Module ML26-PS55-14W-930-18



Light Output Ratio:	100.0%	
Luminaire Power:	13.56 W	
SHR Nominal:	0.00	Calculated using the TM5
SHR Maximum:	1.00	fine grid method.

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Meng yongjian  
Test Date: 2020-04-28

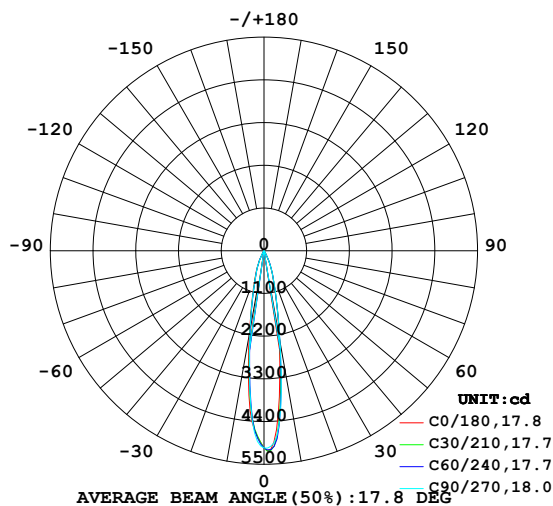
γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
Humidity: 52%  
Test Distance: 5.850m [K=1.0000]  
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

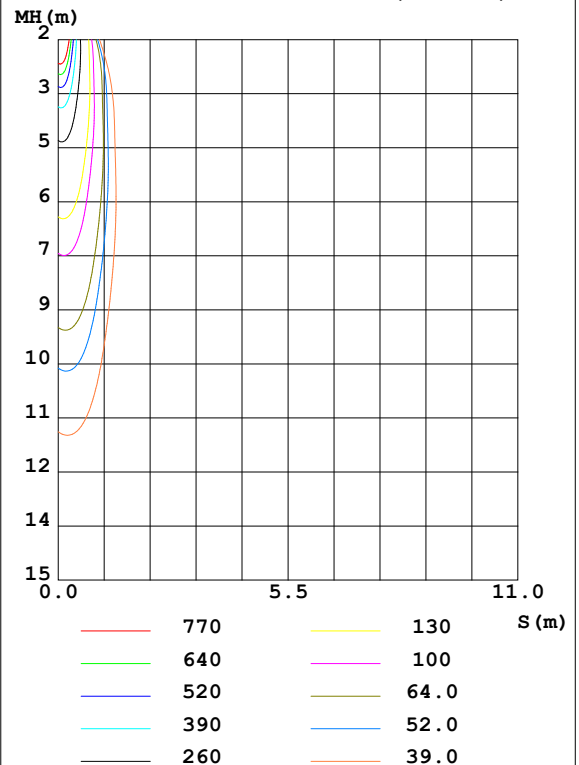
Test:U:48.00V I:0.2824A P:13.56W PF:1.000 Freq:0Hz Lamp Flux:838.045x1 lm		
NAME: ML26-PS55-14W-930-18	TYPE:Low Voltage Track System Module	
SPEC.:3000K	DIM.: $\phi$ 55mm*H180mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 61.82 lm/W			
MODEL	CITIZEN-3000K	I <sub>max</sub> (cd)	5171	S/MH (C0/180)	0.31
NOMINAL POWER (W)	14	LOR (%)	100.0	S/MH (C90/270)	0.29
RATED VOLTAGE (V)	48	TOTAL FLUX (lm)	838.05	$\eta$ UP,DN (C0-180)	0.0,52.2
NOMINAL FLUX (lm)	838.045	CIE CLASS	DIRECT	$\eta$ UP,DN (C180-360)	0.0,47.8
LAMPS INSIDE	1	$\eta$ up (%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE (V)	48	$\eta$ 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  
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 Temperature:25.3DEG  
 Operators:Meng yongjian  
 Test Date:2020-04-28

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
 Humidity:52%  
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 Remarks:

### ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	2260	2405	2363	2297	2166	2009	2071	2159	0- 10	330.9	330.9	39.5,39.5
20	627.6	641.5	645.6	660.2	605.2	568.6	574.6	607.1	10- 20	322.4	653.2	77.9,77.9
30	87.77	105.1	96.02	84.63	79.90	78.63	83.93	83.33	20- 30	138.3	791.5	94.4,94.4
40	25.82	25.56	23.97	21.88	22.00	25.04	25.51	25.75	30- 40	27.16	818.7	97.7,97.7
50	11.96	11.11	9.674	8.976	8.855	9.369	9.538	10.28	40- 50	13.85	832.5	99.3,99.3
60	2.983	2.748	2.349	2.302	2.124	2.090	2.303	2.721	50- 60	4.357	836.9	99.9,99.9
70	0.2986	0.2733	0.2717	0.2646	0.2589	0.2781	0.2733	0.3023	60- 70	0.9136	837.8	100,100
80	0.1199	0.0984	0.1161	0.0984	0.0957	0.1073	0.0852	0.1074	70- 80	0.1900	838.0	100,100
90	0.0261	0.0241	0.0328	0.0285	0.0152	0.0153	0.0153	0.0153	80- 90	0.0596	838.0	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		

Conical surface Flux(90deg): 826.57 lm

%lum = 98.6%

%lamp = 98.6%

Conical surface Flux(120deg): 836.88 lm

%lum = 99.9%

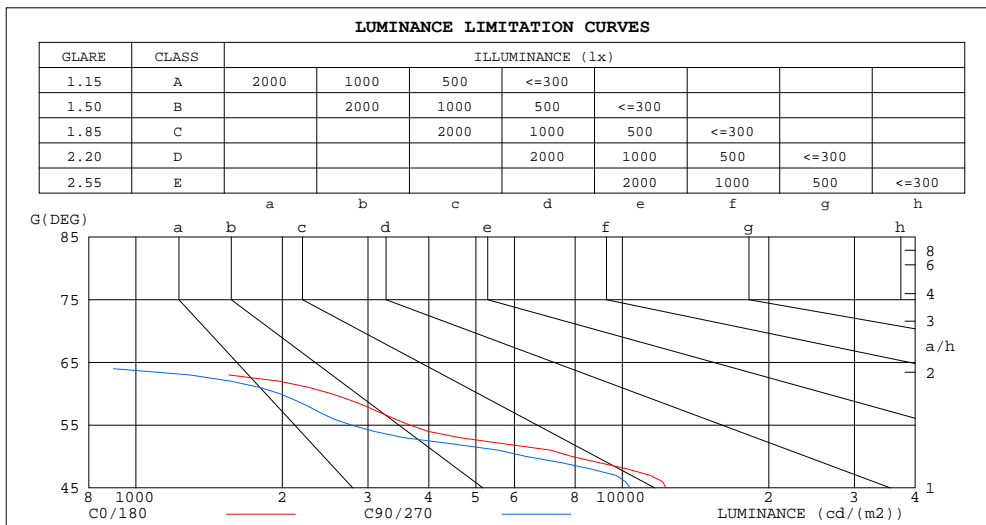
%lamp = 99.9%

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Operators:Meng yongjian  
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Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
Humidity:52%  
Test Distance:5.850m [K=1.0000]  
Remarks:

### LUMINANCE LIMITATION CURVES

Test:U:48.00V I:0.2824A P:13.56W PF:1.000 Freq:0Hz Lamp Flux:838.045x1 lm		
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SPEC.:3000K	DIM.: $\phi$ 55mm*H180mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	317	328
80	292	281
75	310	292
70	369	334
65	561	491
60	2522	1976
55	3655	2774
50	7865	6331
45	12297	10368

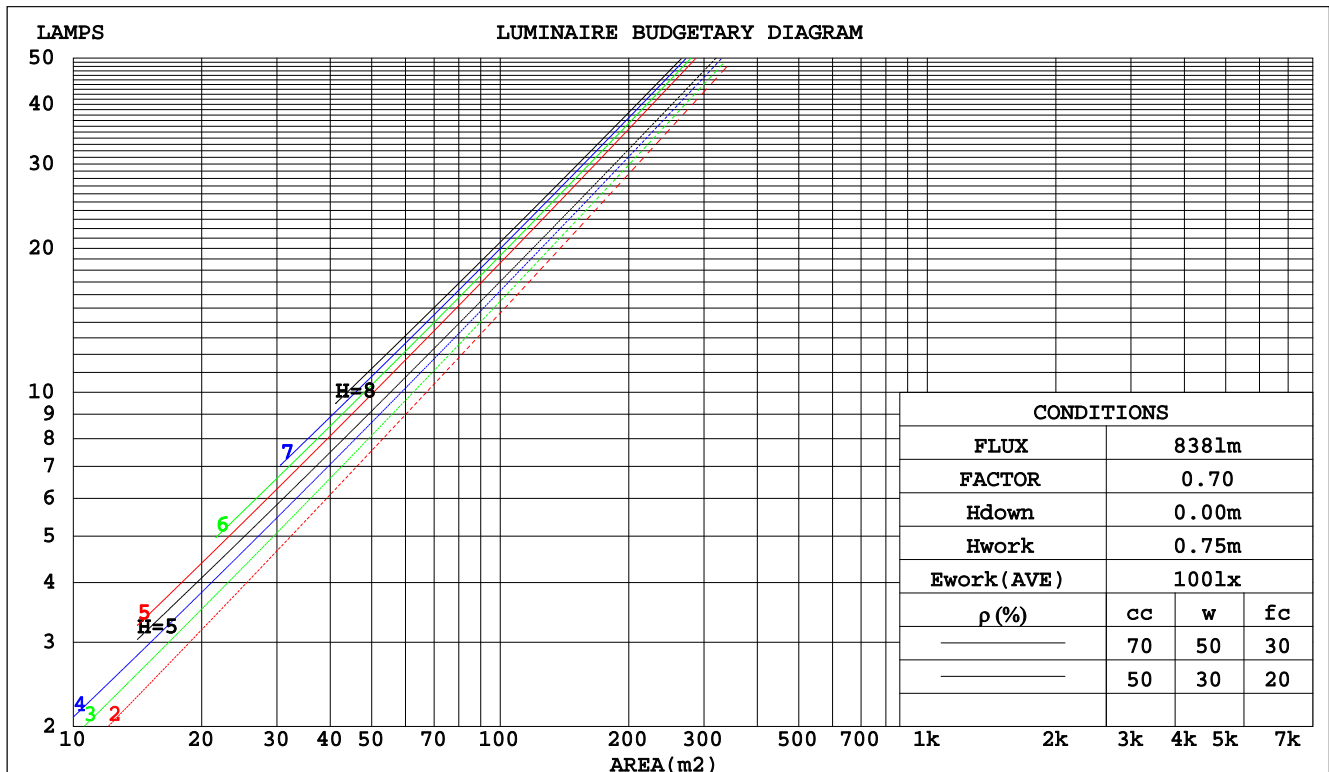
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CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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SPEC.:3000K	DIM.: $\phi 55\text{mm} \times \text{H}180\text{mm}$	
MFR.: NEKO LIGHTING AG		

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	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	1.13	1.11	1.09	1.11	1.09	1.08	1.07	1.06	1.04	1.03	1.02	1.01	.99	.99	.98	.97
2.0	1.08	1.05	1.02	1.06	1.03	1.01	1.03	1.01	.99	1.00	.98	.97	.97	.96	.95	.93
3.0	1.03	.99	.97	1.02	.99	.96	.99	.97	.94	.97	.95	.93	.95	.93	.92	.90
4.0	.99	.95	.92	.98	.95	.92	.96	.93	.91	.94	.92	.90	.93	.90	.89	.88
5.0	.96	.92	.89	.95	.91	.88	.93	.90	.87	.92	.89	.87	.90	.88	.86	.85
6.0	.92	.88	.85	.92	.88	.85	.90	.87	.85	.89	.86	.84	.88	.85	.83	.82
7.0	.90	.85	.82	.89	.85	.82	.88	.84	.82	.87	.84	.82	.86	.83	.81	.80
8.0	.87	.83	.80	.86	.83	.80	.85	.82	.80	.85	.81	.79	.84	.81	.79	.78
9.0	.84	.80	.78	.84	.80	.78	.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



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## WEC AND CCEC

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MFR.: NEKO LIGHTING AG		

$\rho_{cc}$	80%			70%			50%			30%			10%			0	
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
$\rho_{fc}$	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.136	.077	.024	.129	.074	.023	.117	.067	.021	.105	.061	.020	.095	.055	.018		
2.0	.126	.069	.021	.121	.066	.020	.110	.061	.019	.101	.057	.018	.092	.052	.016		
3.0	.117	.062	.019	.113	.060	.018	.104	.057	.017	.097	.053	.016	.089	.049	.015		
4.0	.110	.057	.017	.106	.056	.016	.099	.053	.016	.092	.050	.015	.086	.047	.014		
5.0	.104	.053	.015	.100	.052	.015	.094	.049	.014	.089	.047	.014	.083	.044	.013		
6.0	.098	.049	.014	.095	.048	.014	.090	.046	.013	.085	.044	.013	.080	.042	.013		
7.0	.093	.046	.013	.091	.045	.013	.086	.043	.013	.082	.042	.012	.078	.040	.012		
8.0	.088	.043	.012	.086	.043	.012	.082	.041	.012	.079	.040	.011	.075	.039	.011		
9.0	.084	.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		

$\rho_{cc}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	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	.168	.158	.148	.144	.135	.127	.098	.093	.088	.057	.054	.051	.018	.017	.017	
2.0	.150	.133	.118	.129	.114	.102	.088	.079	.071	.051	.046	.042	.016	.015	.014	
3.0	.135	.113	.096	.116	.098	.083	.080	.068	.058	.046	.040	.034	.015	.013	.011	
4.0	.123	.098	.079	.105	.085	.069	.072	.059	.048	.042	.035	.029	.013	.011	.009	
5.0	.112	.086	.066	.096	.074	.057	.066	.052	.041	.038	.030	.024	.012	.010	.008	
6.0	.103	.076	.056	.089	.065	.049	.061	.046	.034	.035	.027	.020	.011	.009	.007	
7.0	.095	.067	.048	.082	.058	.042	.057	.041	.029	.033	.024	.018	.011	.008	.006	
8.0	.089	.061	.041	.076	.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	.044	.027	.047	.031	.019	.027	.018	.012	.009	.006	.004	

C Range: 0 - 360DEG  
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$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
Humidity:52%  
Test Distance:5.850m [K=1.0000]  
Remarks:

## UGR(Unified Glare Rating) Table

Test:U:48.00V I:0.2824A P:13.56W PF:1.000 Freq:0Hz Lamp Flux:838.045x1 lm										
NAME: ML26-PS55-14W-930-18					TYPE:Low Voltage Track System Module					
SPEC.:3000K					DIM.: $\phi$ 55mm*H180mm					
MFR.: NEKO LIGHTING AG										
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	10.8	11.5	11.0	11.6	11.8	10.7	11.4	10.9	11.5	11.7
3H	10.7	11.3	10.9	11.5	11.7	10.6	11.2	10.8	11.4	11.6
4H	10.6	11.2	10.9	11.4	11.6	10.5	11.1	10.8	11.3	11.5
6H	10.5	11.1	10.8	11.3	11.5	10.4	11.0	10.7	11.2	11.4
8H	10.5	11.0	10.8	11.3	11.5	10.4	10.9	10.7	11.1	11.4
12H	10.5	11.0	10.8	11.2	11.5	10.3	10.8	10.6	11.1	11.4
4H 2H	10.7	11.2	10.9	11.5	11.7	10.6	11.1	10.8	11.3	11.6
3H	10.5	11.0	10.8	11.3	11.5	10.4	10.9	10.7	11.2	11.4
4H	10.4	10.9	10.8	11.2	11.5	10.3	10.8	10.6	11.1	11.4
6H	10.3	10.7	10.7	11.1	11.4	10.2	10.6	10.6	10.9	11.3
8H	10.3	10.7	10.7	11.0	11.4	10.2	10.5	10.5	10.9	11.2
12H	10.2	10.6	10.6	10.9	11.3	10.1	10.5	10.5	10.8	11.2
8H 4H	10.3	10.7	10.7	11.0	11.4	10.2	10.5	10.5	10.9	11.2
6H	10.2	10.5	10.6	10.9	11.3	10.0	10.4	10.5	10.8	11.2
8H	10.1	10.4	10.5	10.8	11.2	10.0	10.3	10.4	10.7	11.1
12H	10.0	10.3	10.5	10.7	11.2	9.9	10.2	10.4	10.6	11.1
12H 4H	10.2	10.6	10.6	10.9	11.3	10.1	10.5	10.5	10.8	11.2
6H	10.1	10.4	10.5	10.8	11.2	10.0	10.3	10.4	10.7	11.1
8H	10.0	10.3	10.5	10.7	11.2	9.9	10.2	10.4	10.6	11.1
Variations with the observer position at spacings:										
S = 1.0H	+ 2.2 / - 5.4					+ 2.2 / - 6.6				
1.5H	+ 2.3 / - 5.2					+ 2.1 / - 5.1				
2.0H	+ 5.2 / - 9.9					+ 5.3 / - 7.5				

CIE Pub.117, 838.0 lm Total Lamp Luminous Flux Correct ( $8\log(F/F_0) = -0.6$ )

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### UTILIZATION FACTORS TABLE

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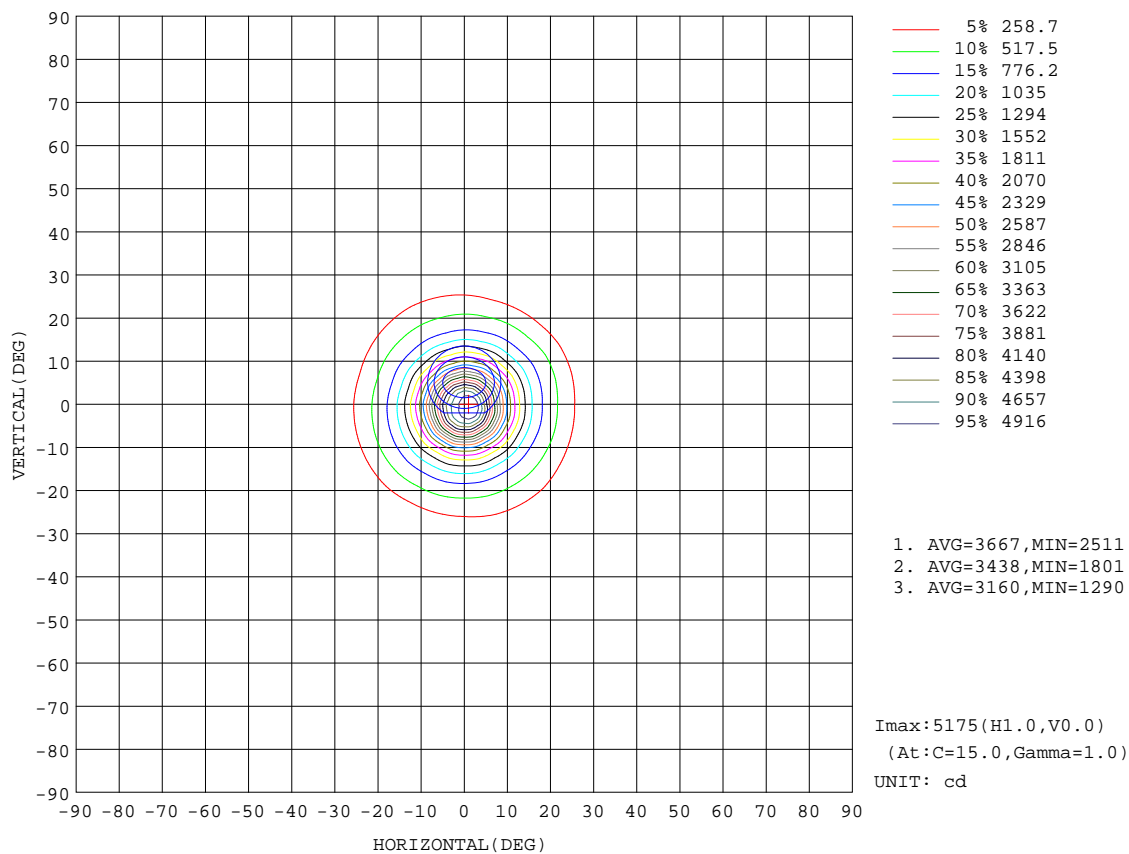
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	90	84	81	90	84	81	89	84	81	77
0.80	97	92	88	97	92	88	95	91	88	85
1.00	101	96	93	100	96	92	99	95	92	88
1.25	105	100	97	104	99	96	102	98	96	92
1.50	107	103	100	106	102	99	104	101	98	94
2.00	110	106	103	108	105	102	106	103	101	96
2.50	111	108	105	110	106	104	106	104	102	96
3.00	112	109	107	111	108	106	107	105	104	97
4.00	114	112	110	112	110	108	109	107	106	99
5.00	116	113	112	113	112	110	110	108	107	100
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

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ISOCANDELA DIAGRAM

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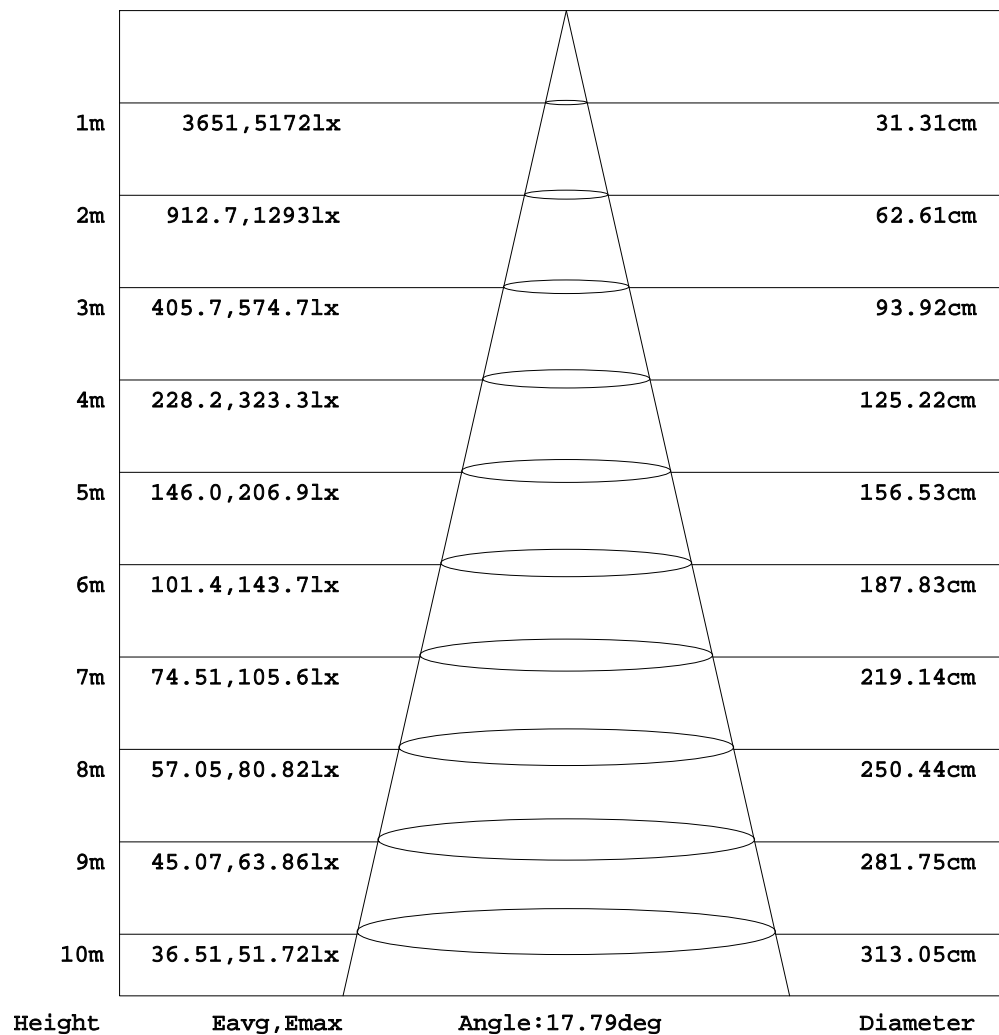
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**AAI Figure**

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Flux out:287.7 lm



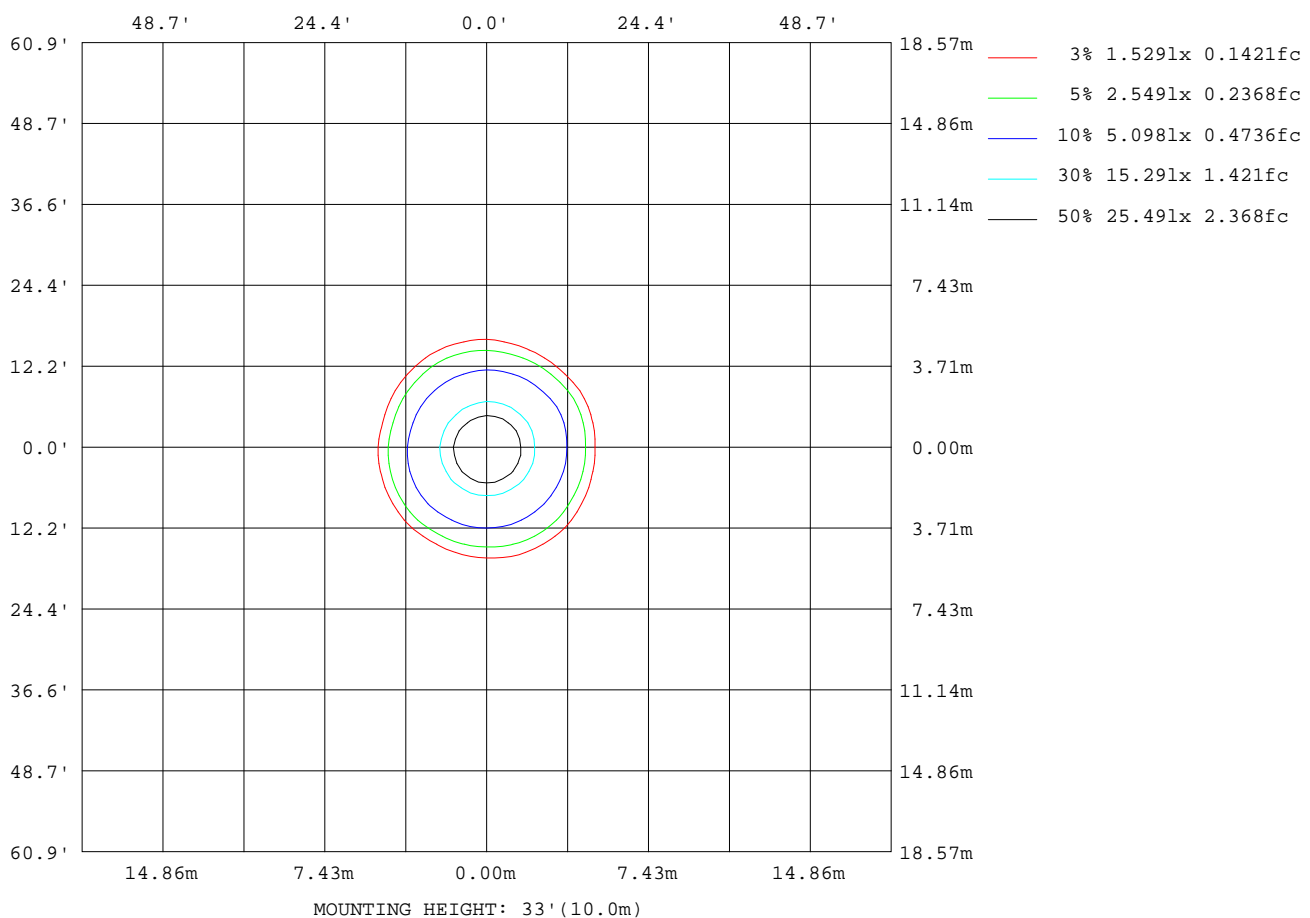
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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ISOLUX DIAGRAM

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Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
Humidity:52%  
Test Distance:5.850m [K=1.0000]  
Remarks:

### LED Avg.L Report

Test:U:48.00V I:0.2824A P:13.56W PF:1.000 Freq:0Hz Lamp Flux:838.045x1 lm		
NAME: ML26-PS55-14W-930-18	TYPE:Low Voltage Track System Module	
SPEC.:3000K	DIM.: $\phi$ 55mm*H180mm	
MFR.: NEKO LIGHTING AG		

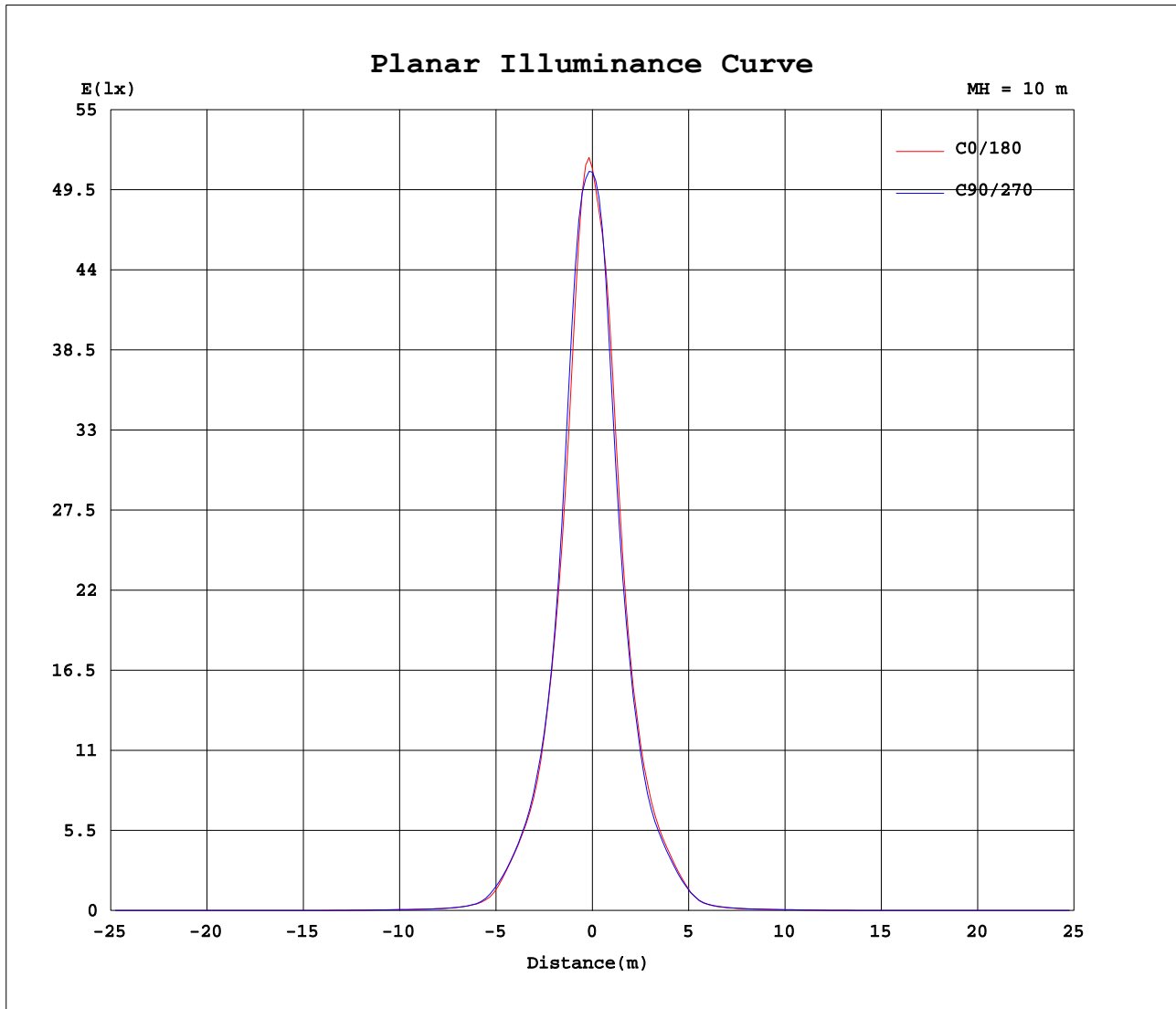
AvgL	cd/m2
L_0~180 (65) av	517
L_0~180 (75) av	291
L_0~180 (85) av	252
L_90~270 (65) av	501
L_90~270 (75) av	278
L_90~270 (85) av	233
L_45 (65) av	516
L_45 (75) av	285
L_45 (85) av	241

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Meng yongjian  
Test Date:2020-04-28

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
Humidity:52%  
Test Distance:5.850m [K=1.0000]  
Remarks:

### Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Meng yongjian  
Test Date: 2020-04-28

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
Humidity: 52%  
Test Distance: 5.850m [K=1.0000]  
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.288
Humidity:52%
Test Distance:5.850m [K=1.0000]
Remarks:

```

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.288
Humidity:52%
Test Distance:5.850m [K=1.0000]
Remarks:

```