

Low Voltage Track System Module ML26-PS55-14W-927-36



Light Output Ratio:	100.0%	
Luminaire Power:	13.65 W	
SHR Nominal:	0.50	Calculated using the TM5
SHR Maximum:	0.55	fine grid method.

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Jason  
Test Date: 2020-05-09

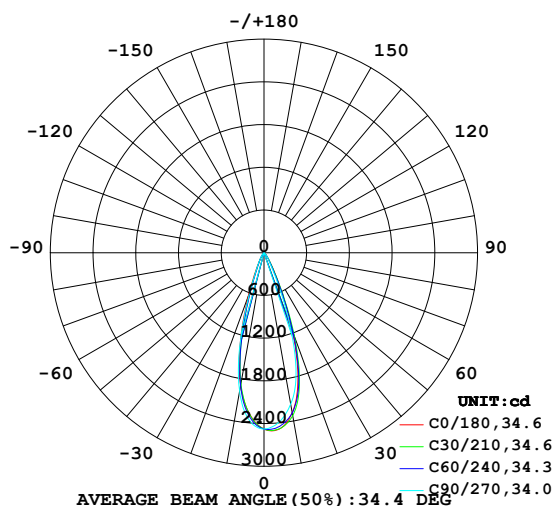
γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity: 58%  
Test Distance: 5.850m [K=1.0000]  
Remarks:

**LUMINAIRE PHOTOMETRIC TEST REPORT**

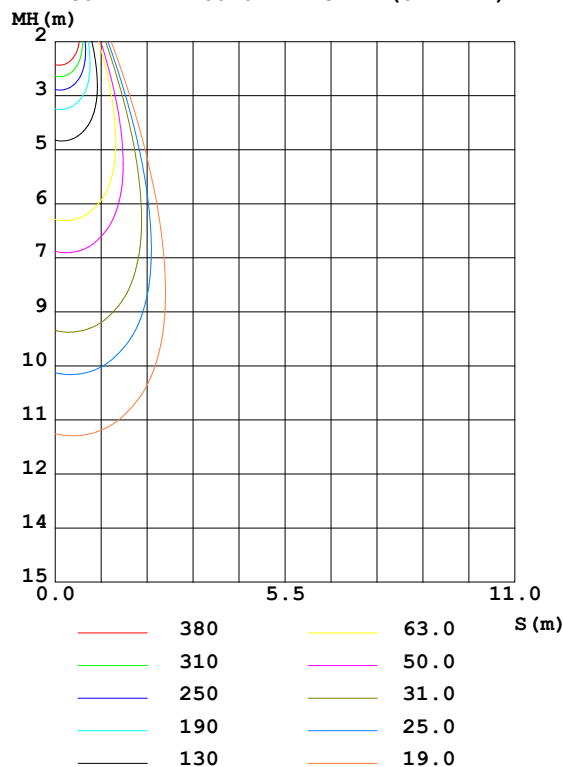
Test:U:48.00V I:0.2843A P:13.65W PF:1.000 Freq:0Hz Lamp Flux:885.095x1 lm		
NAME: ML26-PS55-14W-927-36	TYPE:Low Voltage Track System Module	
SPEC.:2700K	DIM.: $\varnothing$ 55mm*H180mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 64.86 lm/W			
MODEL	CITIZEN-2700K	I <sub>max</sub> (cd)	2506	S/MH (C0/180)	0.49
NOMINAL POWER (W)	14	LOR (%)	100.0	S/MH (C90/270)	0.48
RATED VOLTAGE (V)	48	TOTAL FLUX (lm)	885.09	$\eta$ UP,DN (C0-180)	0.0,55.7
NOMINAL FLUX (lm)	885.095	CIE CLASS	DIRECT	$\eta$ UP,DN (C180-360)	0.0,44.3
LAMPS INSIDE	1	$\eta$ up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	48	$\eta$ down (%)	100.0	CIBSE SHR MAX	0.55

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:Jason  
Test Date:2020-05-09

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:58%  
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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	2282	2327	2161	2003	1897	1857	1977	2145	0- 10	217.8	217.8	24.6, 24.6
20	1164	1260	1038	825.1	631.1	507.6	562.7	851.5	10- 20	410.0	627.8	70.9, 70.9
30	233.2	235.3	171.3	142.3	120.2	112.4	124.4	161.3	20- 30	183.2	811.1	91.6, 91.6
40	58.93	62.59	51.65	40.24	32.02	28.01	34.57	46.63	30- 40	55.36	866.4	97.9, 97.9
50	9.377	10.24	8.125	6.259	4.813	3.765	4.345	6.488	40- 50	15.49	881.9	99.6, 99.6
60	1.657	1.688	1.095	0.6680	0.4716	0.3439	0.4644	0.8970	50- 60	2.800	884.7	100, 100
70	0.0896	0.0654	0.0723	0.0437	0.0371	0.0569	0.0328	0.0678	60- 70	0.2834	885.0	100, 100
80	0.0480	0.0372	0.0438	0.0394	0.0262	0.0350	0.0262	0.0415	70- 80	0.0461	885.1	100, 100
90	0.0393	0.0372	0.0372	0.0394	0.0262	0.0262	0.0262	0.0263	80- 90	0.0371	885.1	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): 877.49 lm

%lum = 99.1%

%lamp = 99.1%

Conical surface Flux(120deg): 884.73 lm

%lum = 100.0%

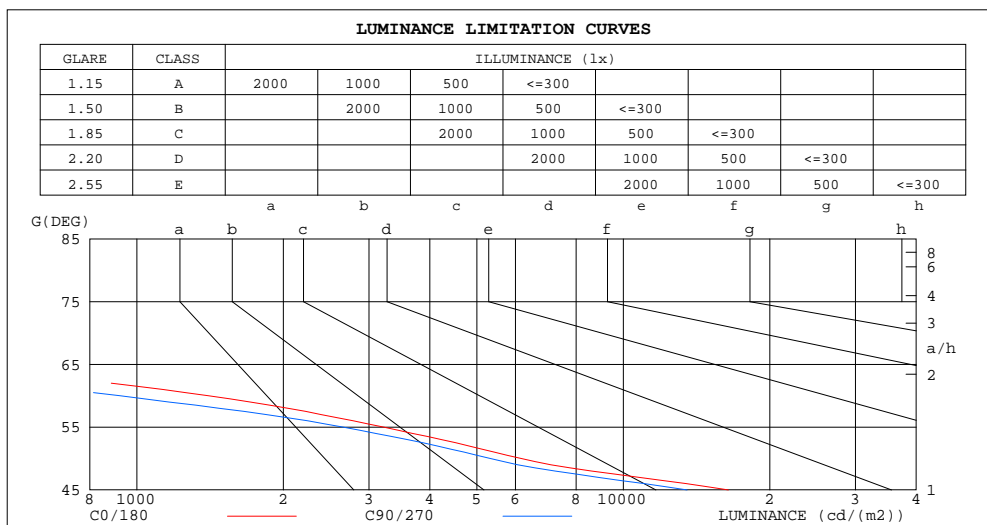
%lamp = 100.0%

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Jason  
Test Date: 2020-05-09

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity: 58%  
Test Distance: 5.850m [K=1.0000]  
Remarks:

**LUMINANCE LIMITATION CURVES**

Test:U:48.00V I:0.2843A P:13.65W PF:1.000 Freq:0Hz Lamp Flux:885.095x1 lm		
NAME: ML26-PS55-14W-927-36	TYPE:Low Voltage Track System Module	
SPEC.:2700K	DIM.: $\phi$ 55mm*H180mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	201	180
80	117	106
75	96	85
70	111	89
65	366	249
60	1399	922
55	3212	2650
50	6159	5321
45	16445	13522

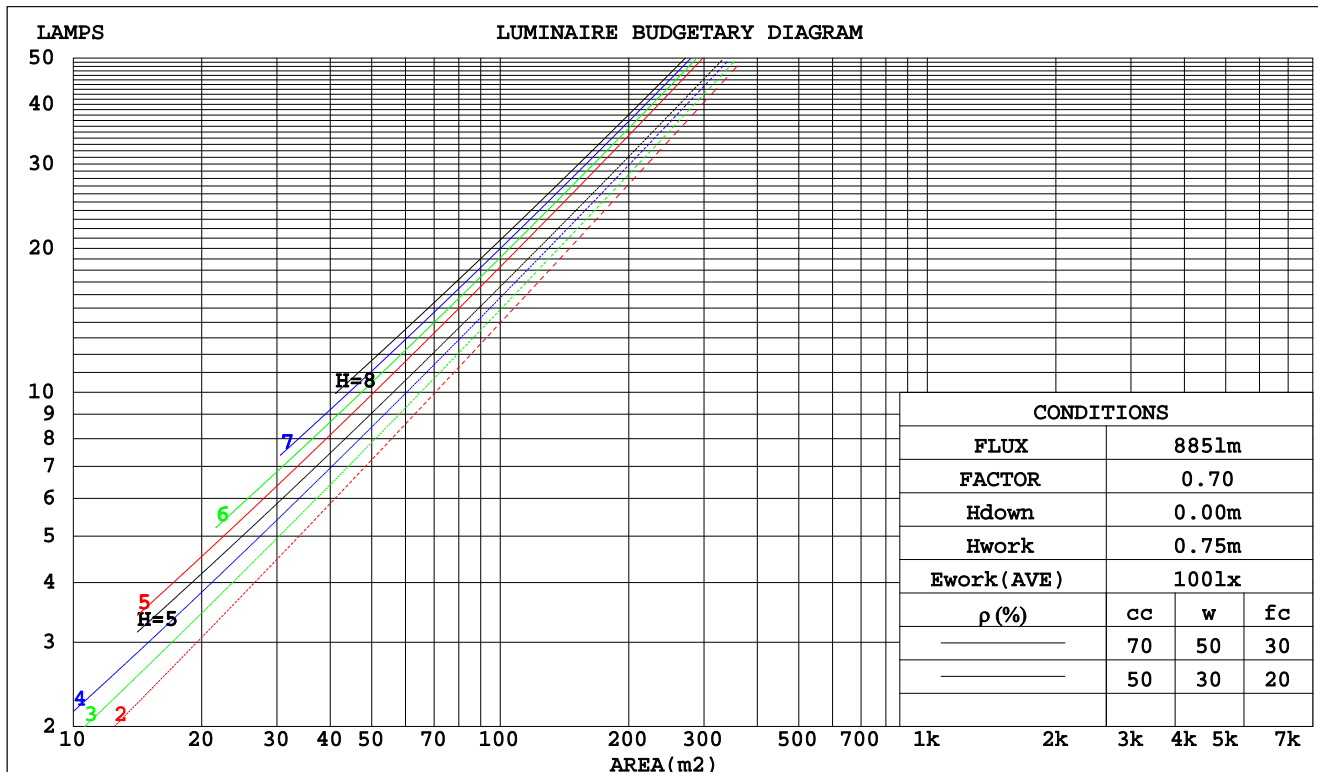
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CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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SPEC.:2700K	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	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	1.12	1.10	1.08	1.10	1.08	1.07	1.06	1.05	1.04	1.03	1.01	1.00	.99	.98	.98	.96
2.0	1.07	1.03	1.01	1.05	1.02	.99	1.02	.99	.97	.99	.97	.95	.96	.95	.93	.92
3.0	1.01	.97	.94	1.00	.96	.94	.98	.95	.92	.95	.93	.91	.93	.91	.89	.88
4.0	.97	.92	.89	.96	.92	.89	.94	.90	.88	.92	.89	.87	.90	.88	.86	.84
5.0	.93	.88	.85	.92	.87	.84	.90	.86	.84	.88	.85	.83	.87	.84	.82	.81
6.0	.89	.84	.81	.88	.84	.81	.87	.83	.80	.85	.82	.79	.84	.81	.79	.78
7.0	.85	.81	.77	.85	.80	.77	.83	.80	.77	.82	.79	.76	.81	.78	.76	.75
8.0	.82	.77	.74	.82	.77	.74	.81	.77	.74	.80	.76	.74	.79	.76	.73	.72
9.0	.79	.75	.71	.79	.74	.71	.78	.74	.71	.77	.73	.71	.76	.73	.71	.70
10.0	.76	.72	.69	.76	.72	.69	.75	.71	.69	.75	.71	.68	.74	.71	.68	.67



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Remarks:

### 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	.147	.084	.026	.140	.080	.025	.128	.073	.023	.116	.067	.022	.106	.061	.020		
2.0	.137	.075	.023	.132	.073	.022	.122	.068	.021	.112	.063	.020	.103	.058	.018		
3.0	.129	.069	.021	.125	.067	.020	.116	.063	.019	.108	.059	.018	.101	.056	.017		
4.0	.122	.063	.019	.118	.062	.018	.111	.059	.018	.104	.056	.017	.097	.053	.016		
5.0	.115	.059	.017	.112	.058	.017	.106	.055	.016	.100	.053	.016	.094	.050	.015		
6.0	.110	.055	.016	.107	.054	.016	.101	.052	.015	.096	.050	.015	.092	.048	.014		
7.0	.105	.052	.015	.102	.051	.015	.097	.049	.014	.093	.048	.014	.089	.046	.014		
8.0	.100	.049	.014	.098	.048	.014	.094	.047	.013	.090	.045	.013	.086	.044	.013		
9.0	.096	.046	.013	.094	.046	.013	.090	.045	.013	.087	.043	.012	.083	.042	.012		
10.0	.092	.044	.012	.090	.044	.012	.087	.043	.012	.084	.042	.012	.081	.041	.012		

$\rho_{cc}$	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	.169	.158	.147	.145	.135	.127	.099	.093	.088	.057	.054	.051	.018	.017	.016	
2.0	.152	.133	.117	.130	.114	.101	.089	.079	.070	.051	.046	.041	.016	.015	.013	
3.0	.137	.113	.094	.118	.098	.082	.081	.068	.057	.047	.040	.034	.015	.013	.011	
4.0	.125	.098	.077	.108	.085	.067	.074	.059	.047	.043	.035	.028	.014	.011	.009	
5.0	.116	.086	.064	.099	.074	.056	.068	.052	.039	.040	.031	.023	.013	.010	.008	
6.0	.107	.076	.054	.092	.066	.047	.063	.046	.033	.037	.027	.020	.012	.009	.007	
7.0	.100	.068	.046	.086	.059	.040	.059	.041	.028	.034	.024	.017	.011	.008	.006	
8.0	.094	.062	.040	.081	.053	.035	.056	.038	.025	.032	.022	.015	.010	.007	.005	
9.0	.088	.056	.034	.076	.049	.030	.053	.034	.021	.031	.020	.013	.010	.007	.004	
10.0	.084	.051	.030	.072	.045	.026	.050	.031	.019	.029	.019	.011	.009	.006	.004	

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
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$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
 Humidity:58%  
 Test Distance:5.850m [K=1.0000]  
 Remarks:

## UGR(Unified Glare Rating) Table

Test:U:48.00V I:0.2843A P:13.65W PF:1.000 Freq:0Hz Lamp Flux:885.095x1 lm										
NAME: ML26-PS55-14W-927-36					TYPE:Low Voltage Track System Module					
SPEC.:2700K					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	15.7	16.4	15.9	16.6	16.7	14.7	15.5	15.0	15.6	15.8
3H	15.5	16.2	15.8	16.4	16.6	14.6	15.3	14.8	15.5	15.6
4H	15.5	16.1	15.7	16.3	16.5	14.5	15.1	14.8	15.4	15.6
6H	15.4	16.0	15.7	16.2	16.4	14.4	15.0	14.7	15.3	15.5
8H	15.3	15.9	15.6	16.2	16.4	14.4	15.0	14.7	15.2	15.5
12H	15.3	15.8	15.6	16.1	16.4	14.3	14.9	14.6	15.2	15.4
4H 2H	15.5	16.1	15.7	16.3	16.5	14.5	15.2	14.8	15.4	15.6
3H	15.3	15.9	15.6	16.1	16.4	14.3	14.9	14.7	15.2	15.4
4H	15.2	15.7	15.5	16.0	16.3	14.3	14.8	14.6	15.1	15.4
6H	15.1	15.5	15.5	15.9	16.2	14.2	14.6	14.5	14.9	15.3
8H	15.0	15.5	15.4	15.8	16.2	14.1	14.5	14.5	14.9	15.2
12H	15.0	15.4	15.4	15.7	16.1	14.0	14.4	14.4	14.8	15.2
8H 4H	15.0	15.5	15.4	15.8	16.2	14.1	14.5	14.5	14.9	15.2
6H	14.9	15.3	15.4	15.7	16.1	14.0	14.3	14.4	14.7	15.1
8H	14.9	15.2	15.3	15.6	16.0	13.9	14.2	14.4	14.6	15.1
12H	14.8	15.1	15.3	15.5	16.0	13.9	14.1	14.3	14.6	15.0
12H 4H	15.0	15.4	15.4	15.7	16.1	14.0	14.4	14.4	14.8	15.2
6H	14.9	15.2	15.3	15.6	16.0	13.9	14.2	14.4	14.6	15.1
8H	14.8	15.1	15.3	15.5	16.0	13.9	14.1	14.3	14.6	15.0
Variations with the observer position at spacings:										
S = 1.0H	+ 2.8 / -13.1					+ 2.6 / -14.0				
1.5H	+ 4.8 / - 9.3					+ 4.5 / - 9.4				
2.0H	+ 6.6 / -13.0					+ 6.4 / -14.4				

CIE Pub.117, 885.1 lm Total Lamp Luminous Flux Correct ( $8\log(F/F_0) = -0.4$ )

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C Interval: 15.0DEG  
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Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:58%  
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### UTILIZATION FACTORS TABLE

Test:U:48.00V I:0.2843A P:13.65W PF:1.000 Freq:0Hz Lamp Flux:885.095x1 lm		
NAME: ML26-PS55-14W-927-36	TYPE:Low Voltage Track System Module	
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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	89	97	92	88	96	91	88	85
1.00	101	96	93	100	96	93	99	95	92	88
1.25	105	100	97	104	100	97	102	98	96	92
1.50	107	103	100	106	102	100	104	101	98	94
2.00	110	106	103	108	105	102	106	103	101	96
2.50	111	108	105	110	106	104	107	104	102	96
3.00	113	109	107	111	108	106	107	105	104	97
4.00	114	112	110	112	110	108	109	107	106	99
5.00	116	114	112	113	112	110	110	108	107	100
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

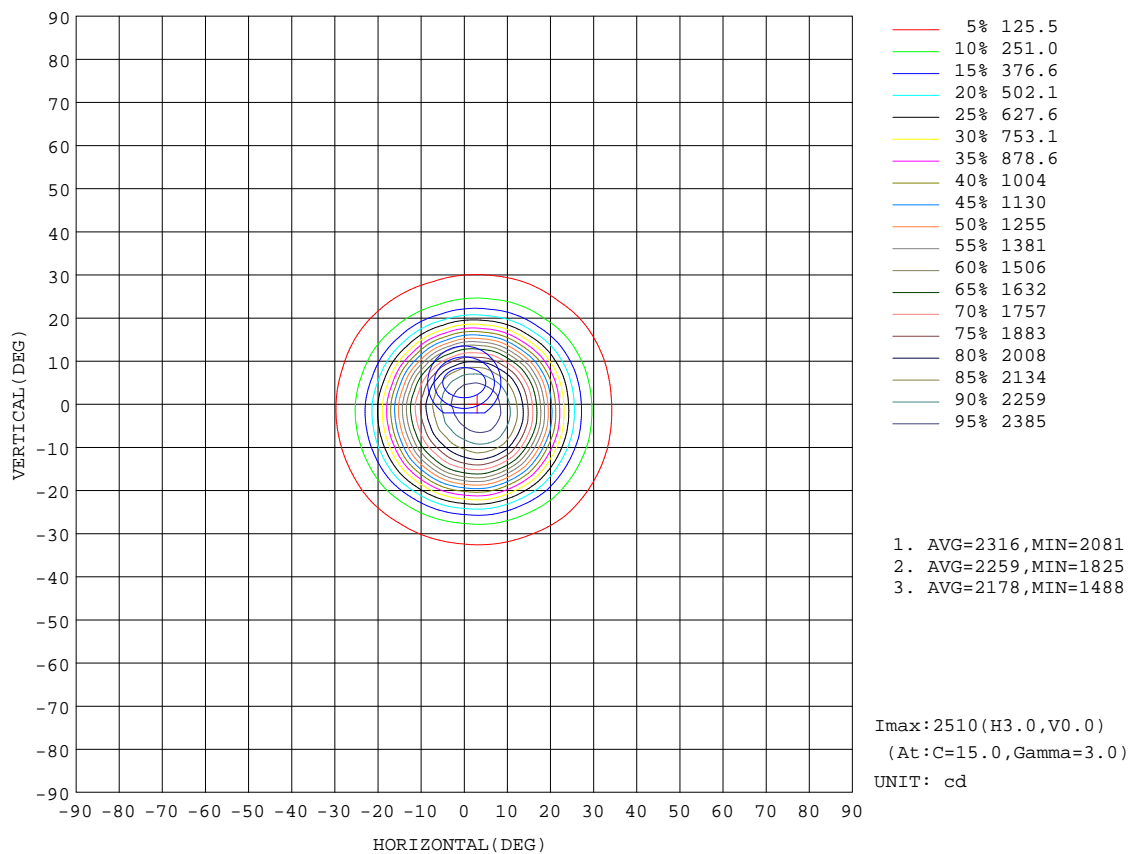
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ISOCANDELA DIAGRAM

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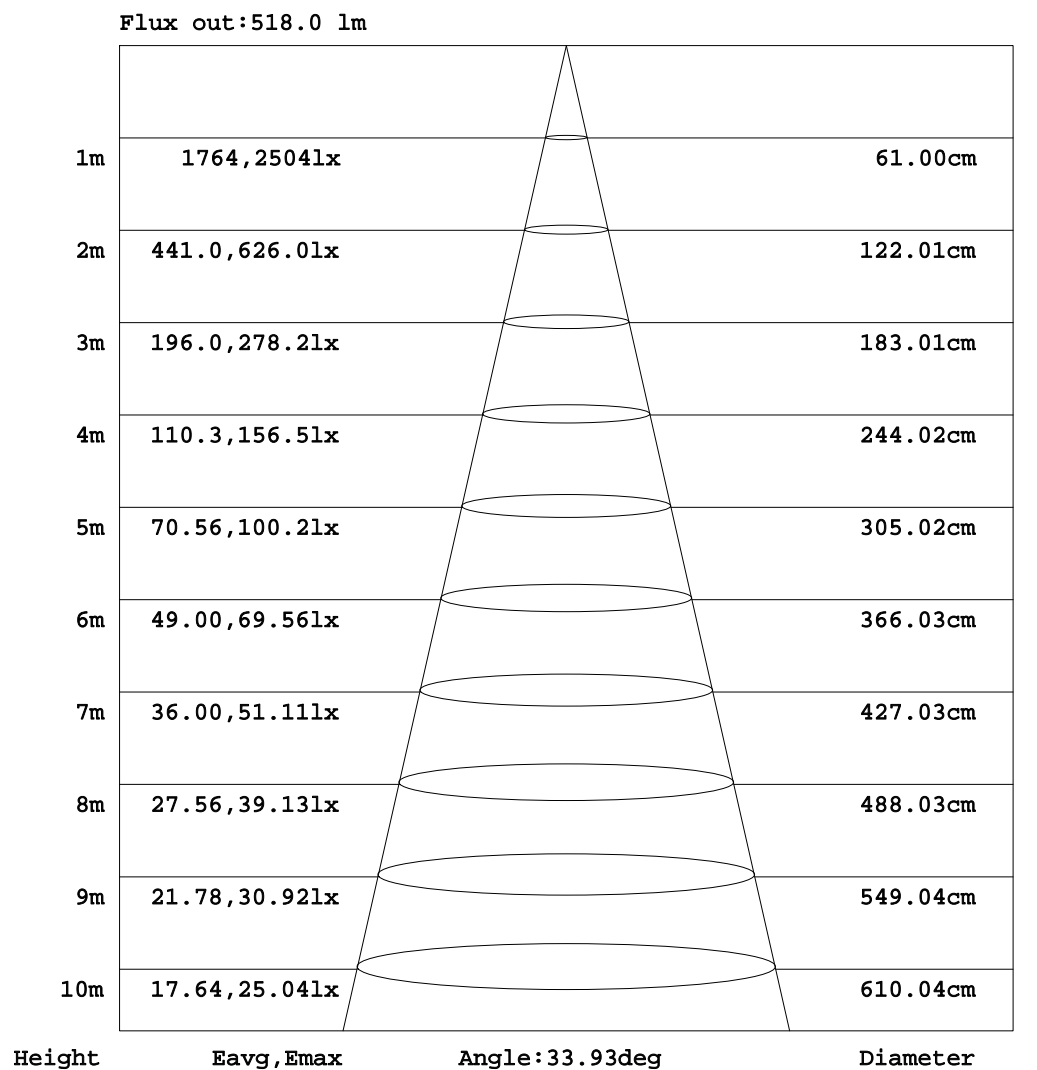


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**AAI Figure**

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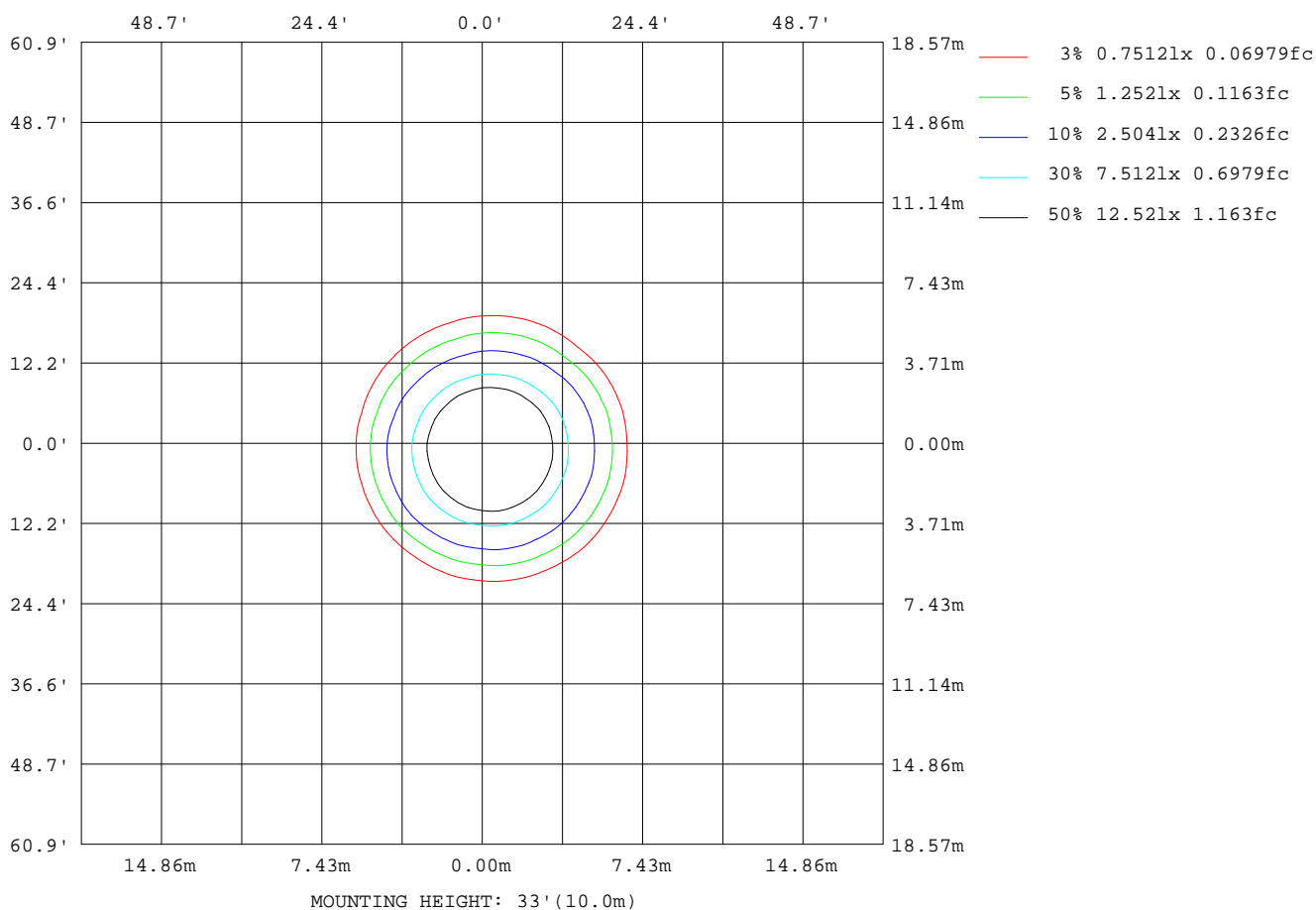
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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**ISOLUX DIAGRAM**

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### LED Avg.L Report

Test:U:48.00V I:0.2843A P:13.65W PF:1.000 Freq:0Hz Lamp Flux:885.095x1 lm		
NAME: ML26-PS55-14W-927-36	TYPE:Low Voltage Track System Module	
SPEC.:2700K	DIM.: $\phi$ 55mm*H180mm	
MFR.: NEKO LIGHTING AG		

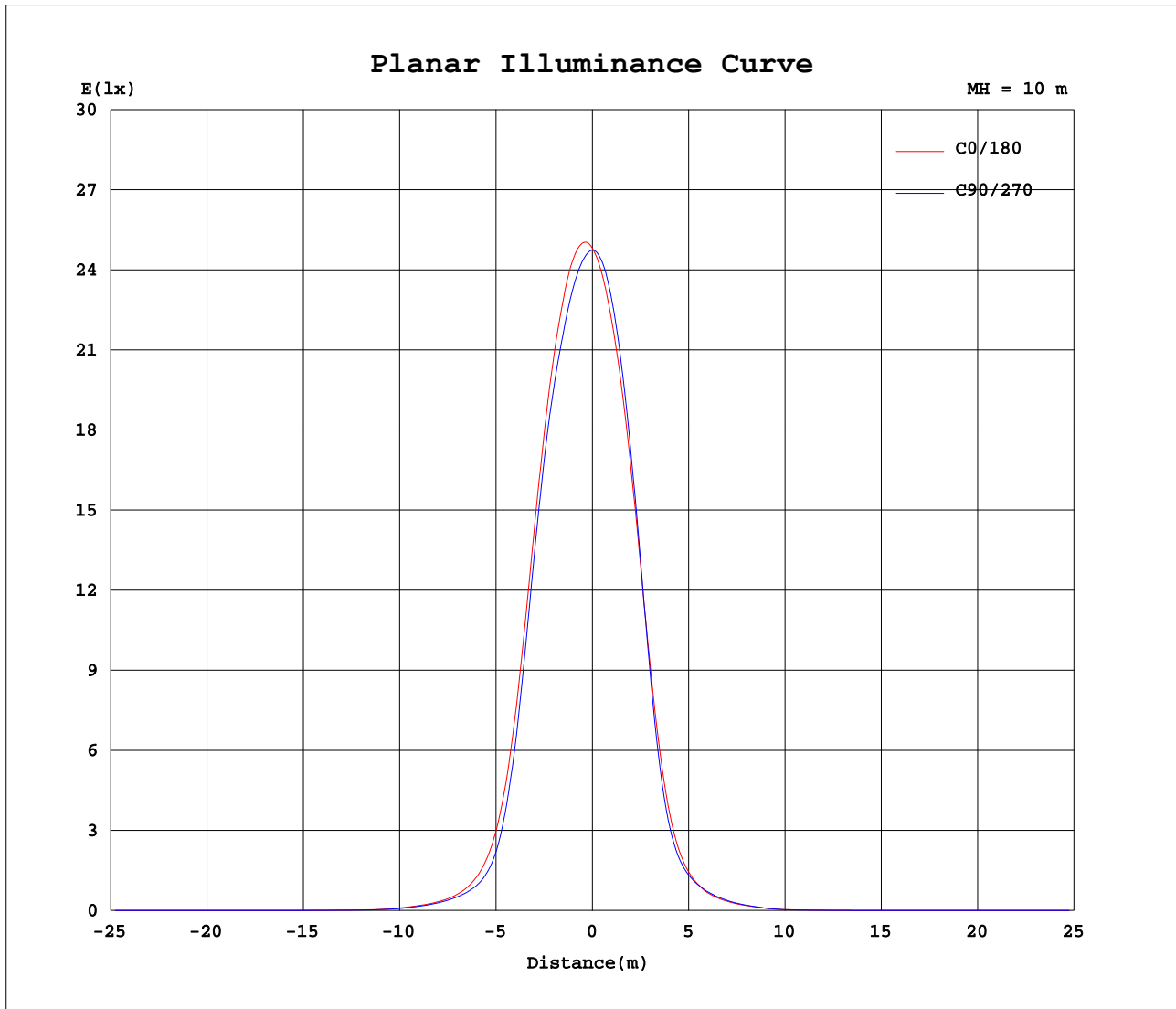
AvgL	cd/m2
L_0~180 (65) av	220
L_0~180 (75) av	71
L_0~180 (85) av	163
L_90~270 (65) av	161
L_90~270 (75) av	64
L_90~270 (85) av	153
L_45 (65) av	183
L_45 (75) av	69
L_45 (85) av	169

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-05-09

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:58%  
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: Jason  
Test Date: 2020-05-09

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity: 58%  
Test Distance: 5.850m [K=1.0000]  
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:5.850m [K=1.0000]
Remarks:

```

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:5.850m [K=1.0000]
Remarks:

```