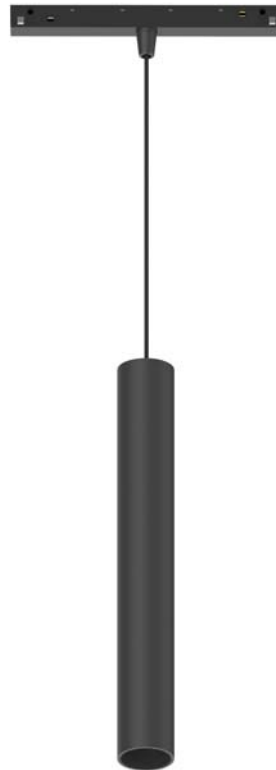


Low Voltage Track System Module ML26-PS40-12W-930-18



Light Output Ratio:	100.0%	
Luminaire Power:	12.21 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: Jason Long  
Test Date: 2019-12-04

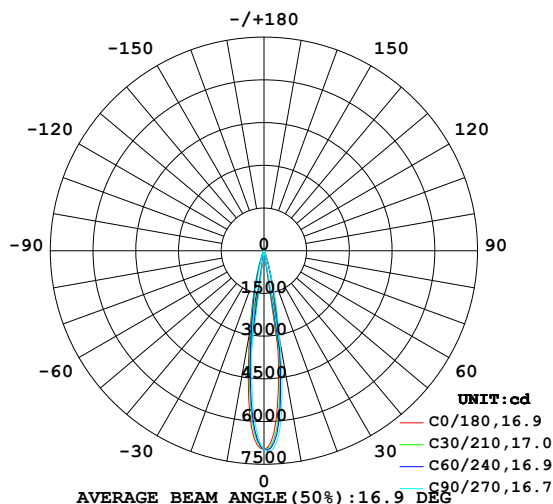
$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity: 56%  
Test Distance: 5.850m [K=1.0000]  
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

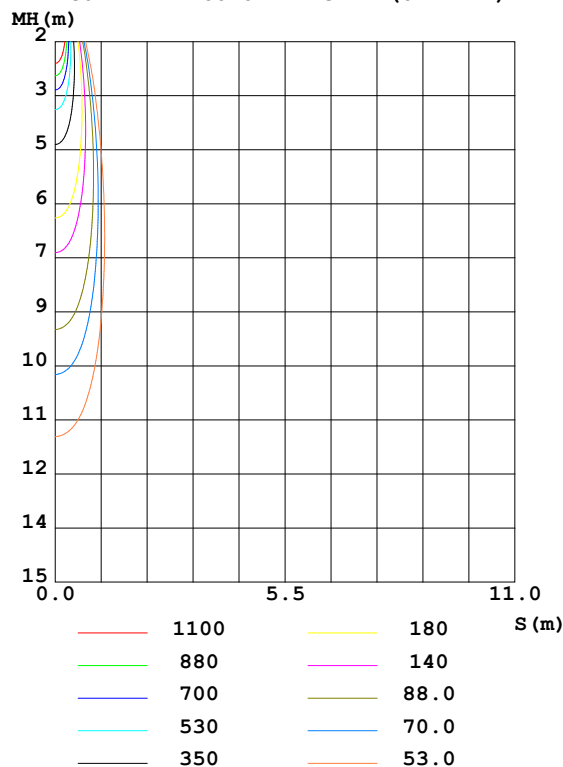
Test:U:48.00V I:0.2543A P:12.21W PF:1.000 Freq:0Hz Lamp Flux:795.52lx1 lm		
NAME: ML26-PS40-12W-930-18	TYPE:Low Voltage Track System Module	
SPEC.:3000K	DIM.: $\phi$ 40mm*H400mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 65.17 lm/W			
MODEL	CITIZEN-3000K	I <sub>max</sub> (cd)	7198	S/MH (C0/180)	0.30
NOMINAL POWER (W)	12	LOR (%)	100.0	S/MH (C90/270)	0.25
RATED VOLTAGE (V)	48	TOTAL FLUX (lm)	795.52	$\eta$ UP,DN (C0-180)	0.0,58.0
NOMINAL FLUX (lm)	795.521	CIE CLASS	DIRECT	$\eta$ UP,DN (C180-360)	0.0,42.0
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  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason Long  
Test Date:2019-12-04

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:56%  
Test Distance:5.850m [K=1.0000]  
Remarks:

### ZONAL FLUX DIAGRAM

#### ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	2486	2982	3264	3988	2855	2444	2074	1694	0- 10	436.2	436.2	54.8, 54.8
20	250.6	327.2	334.6	471.0	376.2	330.4	217.5	145.7	10- 20	296.8	733.0	92.1, 92.1
30	28.08	33.14	37.08	44.63	37.19	32.91	24.38	19.16	20- 30	50.32	783.3	98.5, 98.5
40	4.643	6.084	7.079	8.045	7.228	6.397	3.775	3.114	30- 40	9.336	792.6	99.6, 99.6
50	1.041	1.184	1.274	1.461	1.184	1.073	0.9187	0.8239	40- 50	2.052	794.7	99.9, 99.9
60	0.2962	0.3148	0.3370	0.3921	0.3106	0.2959	0.2466	0.2318	50- 60	0.5705	795.3	100, 100
70	0.1067	0.0912	0.1050	0.1036	0.0891	0.1001	0.0742	0.0883	60- 70	0.1710	795.4	100, 100
80	0.0436	0.0326	0.0460	0.0331	0.0304	0.0392	0.0239	0.0331	70- 80	0.0627	795.5	100, 100
90	0.0239	0.0217	0.0219	0.0221	0.0152	0.0152	0.0109	0.0132	80- 90	0.0257	795.5	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): 794.04 lm

%lum = 99.8%

%lamp = 99.8%

Conical surface Flux(120deg): 795.26 lm

%lum = 100.0%

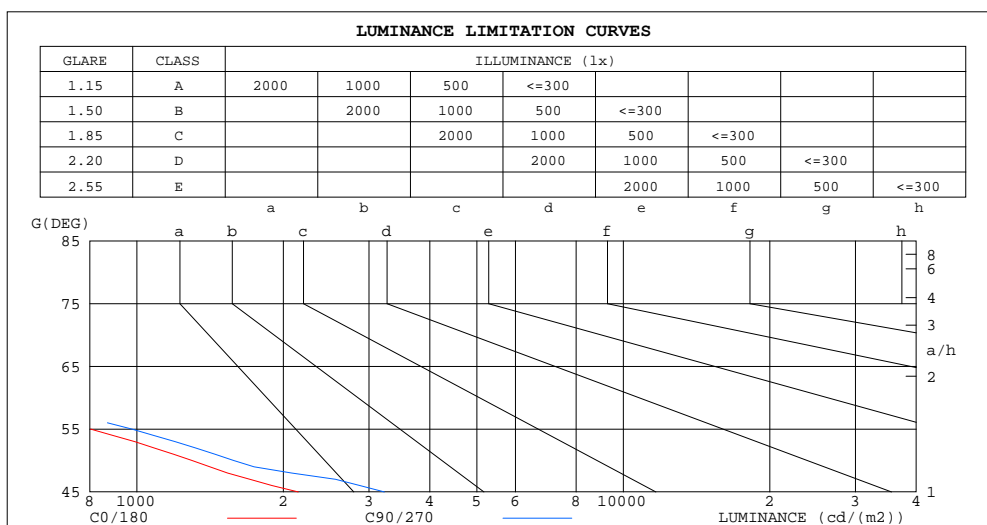
%lamp = 100.0%

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Jason Long  
Test Date: 2019-12-04

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity: 56%  
Test Distance: 5.850m [K=1.0000]  
Remarks:

### LUMINANCE LIMITATION CURVES

Test:U:48.00V I:0.2543A P:12.21W PF:1.000 Freq:0Hz Lamp Flux:795.52lx1 lm		
NAME: ML26-PS40-12W-930-18	TYPE:Low Voltage Track System Module	
SPEC.:3000K	DIM.: $\phi$ 40mm*H400mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	260	300
80	201	211
75	215	209
70	250	245
65	322	326
60	474	537
55	803	976
50	1296	1579
45	2146	3226

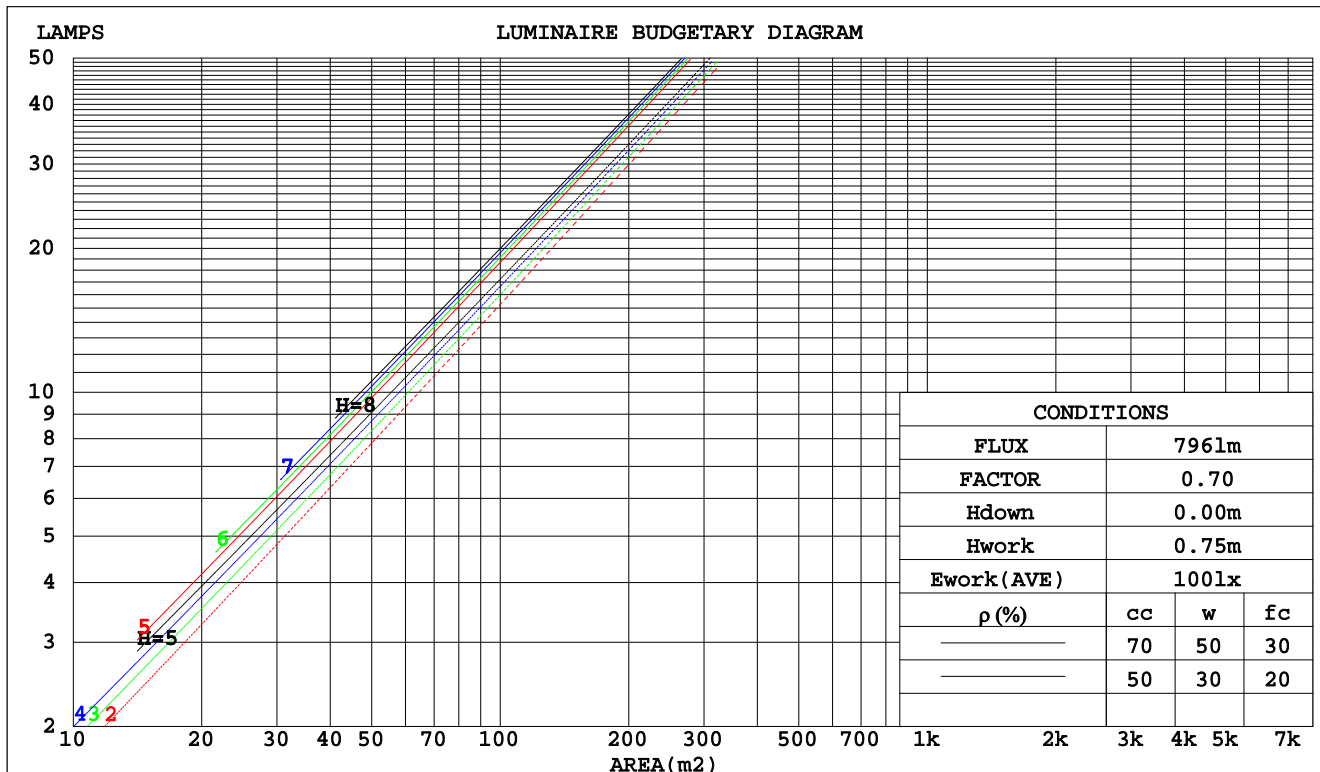
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason Long  
Test Date:2019-12-04

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:56%  
Test Distance:5.850m [K=1.0000]  
Remarks:

**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

Test:U:48.00V I:0.2543A P:12.21W PF:1.000 Freq:0Hz Lamp Flux:795.52lx1 lm		
NAME: ML26-PS40-12W-930-18	TYPE:Low Voltage Track System Module	
SPEC.:3000K	DIM.: $\phi 40\text{mm} \times \text{H}400\text{mm}$	
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	1.14	1.12	1.11	1.12	1.10	1.09	1.08	1.07	1.06	1.04	1.03	1.02	1.01	1.00	.00	.98
2.0	1.09	1.07	1.05	1.08	1.06	1.04	1.05	1.03	1.01	1.02	1.01	.99	.99	.98	.97	.96
3.0	1.06	1.03	1.00	1.05	1.02	.00	1.02	.00	.98	.00	.98	.97	.98	.96	.95	.94
4.0	1.03	.99	.97	1.02	.99	.96	.00	.97	.95	.98	.96	.94	.96	.95	.93	.92
5.0	1.00	.97	.94	.99	.96	.94	.98	.95	.93	.96	.94	.92	.95	.93	.91	.91
6.0	.98	.94	.92	.97	.94	.91	.96	.93	.91	.95	.92	.90	.93	.91	.90	.89
7.0	.95	.92	.90	.95	.92	.89	.94	.91	.89	.93	.90	.89	.92	.90	.88	.87
8.0	.93	.90	.88	.93	.90	.88	.92	.89	.87	.91	.89	.87	.91	.88	.87	.86
9.0	.92	.88	.86	.91	.88	.86	.91	.88	.86	.90	.87	.86	.89	.87	.85	.85
10.0	.90	.87	.85	.90	.87	.85	.89	.86	.84	.88	.86	.84	.88	.86	.84	.83



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason Long  
Test Date:2019-12-04

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:56%  
Test Distance:5.850m [K=1.0000]  
Remarks:

## WEC AND CCEC

Test:U:48.00V I:0.2543A P:12.21W PF:1.000 Freq:0Hz Lamp Flux:795.521x1 lm		
NAME: ML26-PS40-12W-930-18	TYPE:Low Voltage Track System Module	
SPEC.:3000K	DIM.: φ40mm*H400mm	
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						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.120	.068	.022	.113	.064	.020	.101	.058	.018	.089	.052	.017	.079	.046	.015		
2.0	.109	.060	.018	.104	.057	.018	.094	.052	.016	.084	.047	.015	.076	.043	.014		
3.0	.100	.053	.016	.096	.051	.015	.087	.047	.014	.080	.044	.013	.073	.040	.012		
4.0	.093	.048	.014	.089	.047	.014	.082	.044	.013	.076	.041	.012	.070	.038	.012		
5.0	.087	.044	.013	.083	.043	.012	.078	.040	.012	.072	.038	.011	.067	.036	.011		
6.0	.081	.041	.012	.079	.040	.011	.074	.038	.011	.069	.036	.011	.065	.034	.010		
7.0	.077	.038	.011	.074	.037	.011	.070	.035	.010	.066	.034	.010	.062	.032	.010		
8.0	.072	.035	.010	.071	.035	.010	.067	.033	.010	.063	.032	.009	.060	.031	.009		
9.0	.069	.033	.009	.067	.033	.009	.064	.032	.009	.061	.031	.009	.058	.029	.009		
10.0	.066	.031	.009	.064	.031	.009	.061	.030	.008	.059	.029	.008	.056	.028	.008		

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						Ceiling Cavity Exitance Coefficients(CCEC)										
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020		
1.0	.167	.158	.149	.143	.135	.129	.098	.093	.089	.056	.054	.052	.018	.017	.017		
2.0	.148	.133	.120	.127	.114	.104	.087	.079	.072	.050	.046	.042	.016	.015	.014		
3.0	.132	.113	.098	.113	.098	.085	.078	.068	.060	.045	.040	.035	.014	.013	.012		
4.0	.118	.098	.082	.102	.084	.071	.070	.059	.050	.040	.034	.030	.013	.011	.010		
5.0	.107	.085	.069	.092	.073	.060	.063	.051	.042	.037	.030	.025	.012	.010	.008		
6.0	.097	.075	.058	.084	.065	.051	.058	.045	.036	.034	.027	.021	.011	.009	.007		
7.0	.089	.066	.050	.077	.057	.043	.053	.040	.031	.031	.024	.018	.010	.008	.006		
8.0	.082	.059	.043	.071	.051	.038	.049	.036	.027	.029	.021	.016	.009	.007	.005		
9.0	.076	.053	.038	.066	.046	.033	.046	.032	.023	.027	.019	.014	.009	.006	.005		
10.0	.071	.048	.033	.061	.042	.029	.042	.029	.020	.025	.017	.012	.008	.006	.004		

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason Long  
Test Date:2019-12-04

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:56%  
Test Distance:5.850m [K=1.0000]  
Remarks:

## UGR(Unified Glare Rating) Table

Test:U:48.00V I:0.2543A P:12.21W PF:1.000 Freq:0Hz Lamp Flux:795.52lx1 lm										
NAME: ML26-PS40-12W-930-18					TYPE:Low Voltage Track System Module					
SPEC.:3000K					DIM.: $\phi$ 40mm*H400mm					
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	3.1	3.6	3.3	3.8	3.9	4.2	4.7	4.4	4.9	5.0
3H	3.0	3.5	3.2	3.6	3.8	4.1	4.6	4.3	4.8	4.9
4H	2.9	3.4	3.1	3.6	3.8	4.0	4.5	4.3	4.7	4.9
6H	2.8	3.3	3.1	3.5	3.7	3.9	4.4	4.2	4.6	4.8
8H	2.8	3.2	3.1	3.5	3.7	3.9	4.3	4.2	4.6	4.8
12H	2.7	3.2	3.0	3.4	3.7	3.8	4.3	4.1	4.5	4.8
4H 2H	2.9	3.4	3.1	3.6	3.8	4.0	4.5	4.3	4.7	4.9
3H	2.8	3.2	3.1	3.4	3.7	3.9	4.3	4.2	4.5	4.8
4H	2.7	3.1	3.0	3.4	3.6	3.8	4.2	4.1	4.4	4.7
6H	2.6	2.9	2.9	3.3	3.6	3.7	4.0	4.0	4.3	4.7
8H	2.5	2.9	2.9	3.2	3.6	3.6	3.9	4.0	4.3	4.6
12H	2.5	2.8	2.9	3.1	3.5	3.6	3.9	4.0	4.2	4.6
8H 4H	2.5	2.8	2.9	3.2	3.5	3.6	3.9	4.0	4.3	4.6
6H	2.4	2.7	2.8	3.1	3.5	3.5	3.8	3.9	4.2	4.6
8H	2.4	2.6	2.8	3.0	3.5	3.4	3.7	3.9	4.1	4.5
12H	2.3	2.5	2.8	3.0	3.4	3.4	3.6	3.9	4.0	4.5
12H 4H	2.5	2.8	2.9	3.1	3.5	3.6	3.9	4.0	4.2	4.6
6H	2.4	2.6	2.8	3.0	3.4	3.4	3.7	3.9	4.1	4.5
8H	2.3	2.5	2.8	3.0	3.4	3.4	3.6	3.8	4.0	4.5
Variations with the observer position at spacings:										
S = 1.0H	+ 2.8 / - 8.4					+ 3.8 / - 8.9				
1.5H	+ 4.8 / - 6.3					+ 5.9 / - 7.1				
2.0H	+ 5.0 / - 4.7					+ 5.8 / - 5.8				

CIE Pub.117, 795.5 lm Total Lamp Luminous Flux Correct ( $8\log(F/F_0) = -0.8$ )

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason Long  
Test Date:2019-12-04

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:56%  
Test Distance:5.850m [K=1.0000]  
Remarks:

### UTILIZATION FACTORS TABLE

Test:U:48.00V I:0.2543A P:12.21W PF:1.000 Freq:0Hz Lamp Flux:795.52lx1 lm		
NAME: ML26-PS40-12W-930-18	TYPE:Low Voltage Track System Module	
SPEC.:3000K	DIM.: $\phi$ 40mm*H400mm	
MFR.: NEKO LIGHTING AG		

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) $k(RI) \times RCR = 5$									
$k = 0.60$	91	86	82	91	86	82	90	85	82	79
0.80	98	93	90	98	93	90	97	92	89	86
1.00	102	97	94	101	97	94	100	96	93	89
1.25	105	101	98	104	100	97	103	99	97	93
1.50	108	104	101	107	103	100	105	101	99	95
2.00	110	106	103	109	105	103	106	103	101	96
2.50	111	108	105	110	107	104	107	104	103	97
3.00	113	110	107	111	108	106	108	106	104	98
4.00	115	112	110	113	111	109	109	107	106	99
5.00	116	114	112	114	112	111	110	109	108	100
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

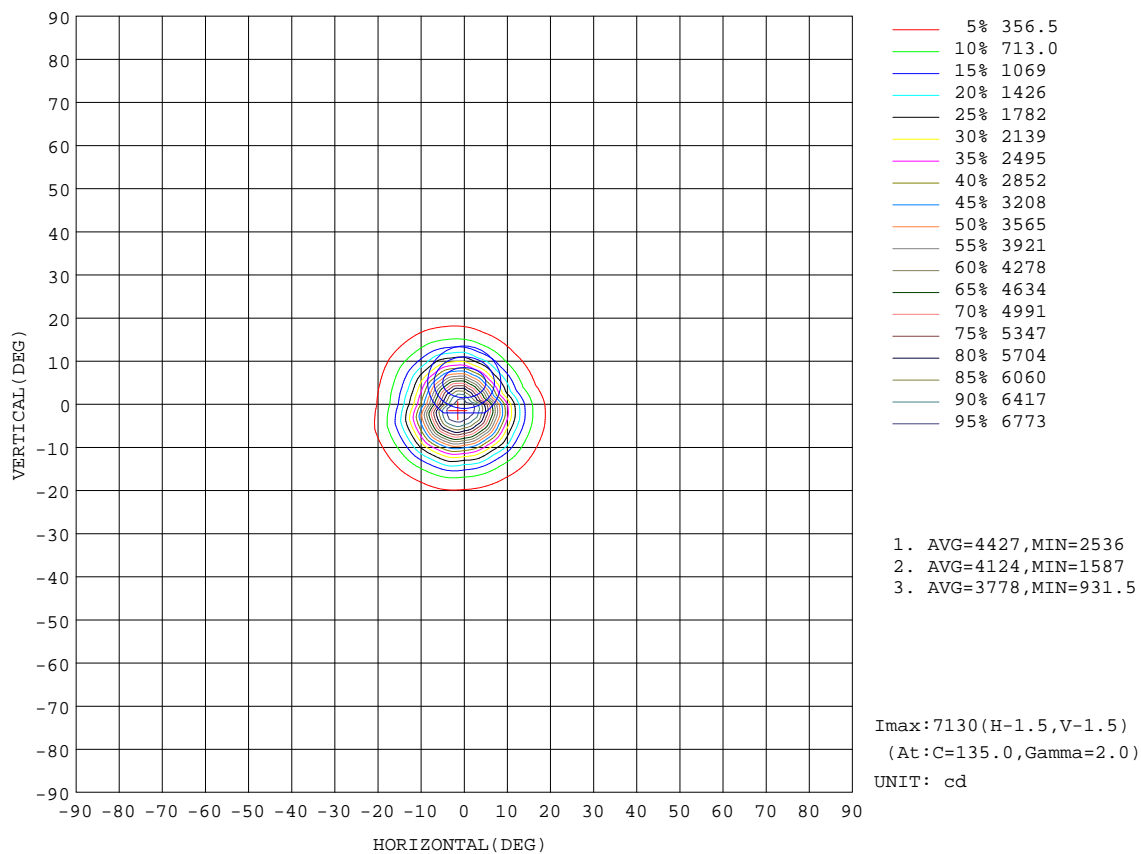
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Jason Long  
 Test Date:2019-12-04

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
 Humidity:56%  
 Test Distance:5.850m [K=1.0000]  
 Remarks:



ISOCANDELA DIAGRAM

Test:U:48.00V I:0.2543A P:12.21W PF:1.000 Freq:0Hz Lamp Flux:795.52lx1 lm		
NAME: ML26-PS40-12W-930-18	TYPE:Low Voltage Track System Module	
SPEC.:3000K	DIM.: $\phi$ 40mm*H400mm	
MFR.: NEKO LIGHTING AG		



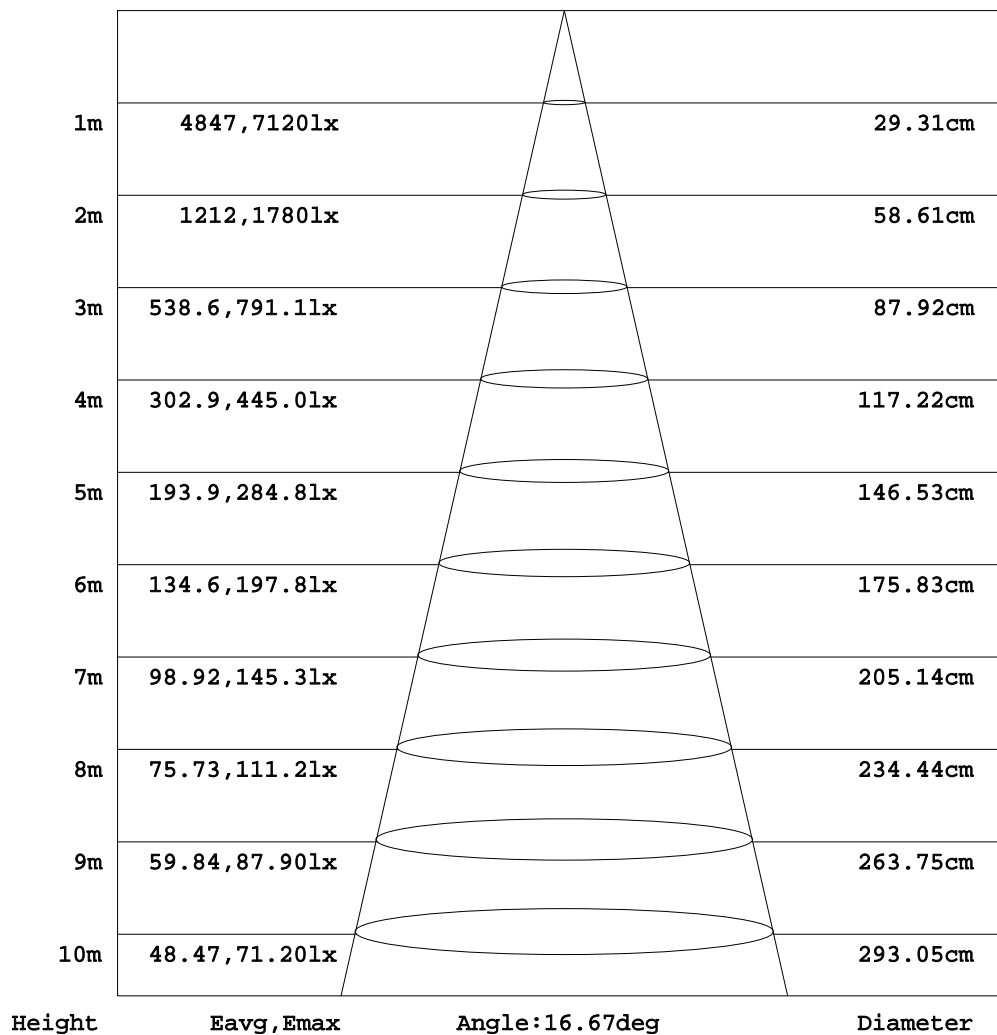
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason Long  
Test Date:2019-12-04

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:56%  
Test Distance:5.850m [K=1.0000]  
Remarks:

**AAI Figure**

Test:U:48.00V I:0.2543A P:12.21W PF:1.000 Freq:0Hz Lamp Flux:795.52lx1 lm		
NAME: ML26-PS40-12W-930-18	TYPE:Low Voltage Track System Module	
SPEC.:3000K	DIM.: $\phi$ 40mm*H400mm	
MFR.: NEKO LIGHTING AG		

Flux out:382.0 lm



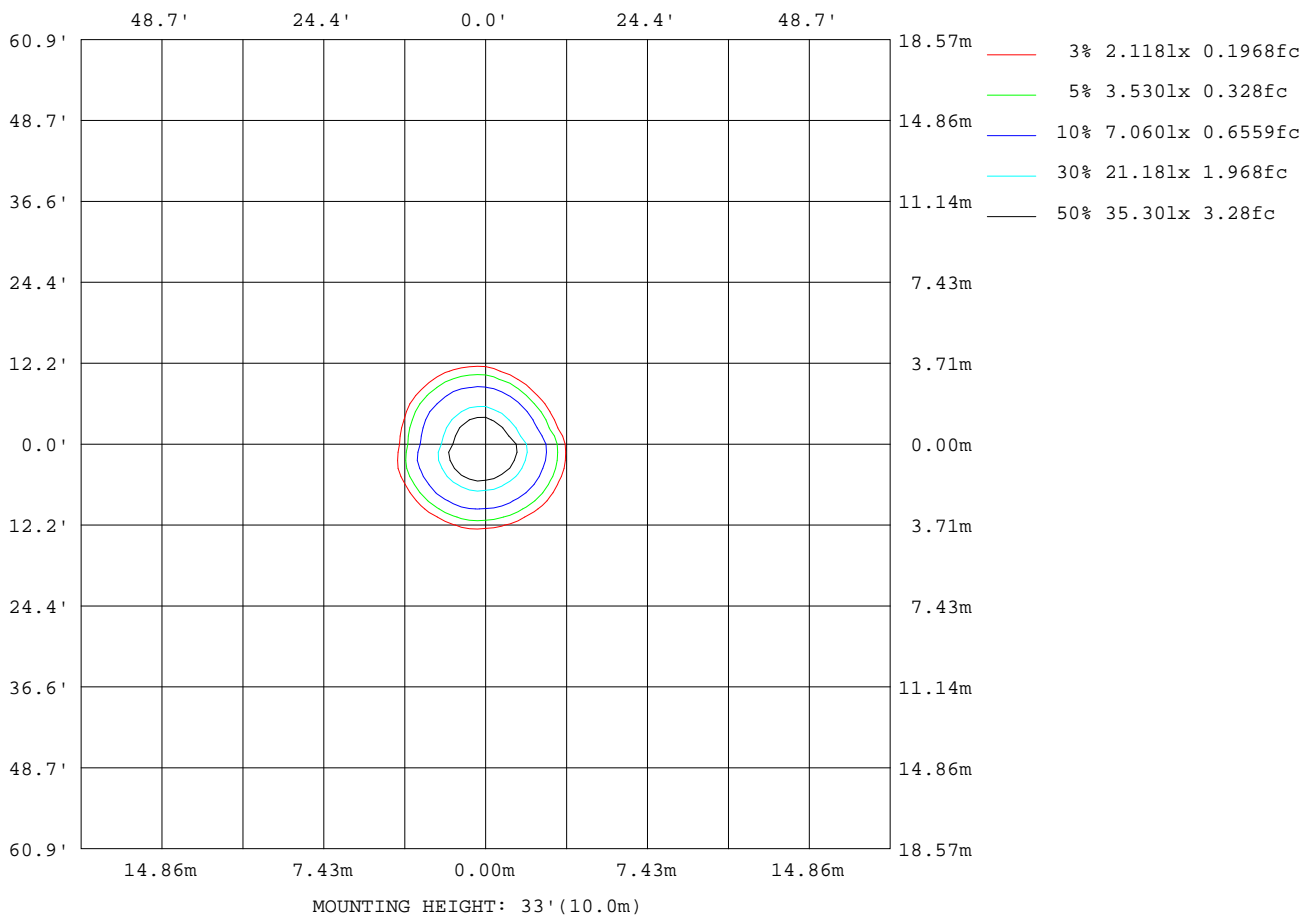
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason Long  
Test Date:2019-12-04

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:56%  
Test Distance:5.850m [K=1.0000]  
Remarks:

ISOLUX DIAGRAM

Test:U:48.00V I:0.2543A P:12.21W PF:1.000 Freq:0Hz Lamp Flux:795.52lx1 lm		
NAME: ML26-PS40-12W-930-18	TYPE:Low Voltage Track System Module	
SPEC.:3000K	DIM.: $\phi$ 40mm*H400mm	
MFR.: NEKO LIGHTING AG		



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason Long  
Test Date:2019-12-04

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:56%  
Test Distance:5.850m [K=1.0000]  
Remarks:

### LED Avg.L Report

Test:U:48.00V I:0.2543A P:12.21W PF:1.000 Freq:0Hz Lamp Flux:795.52lx1 lm		
NAME: ML26-PS40-12W-930-18	TYPE:Low Voltage Track System Module	
SPEC.:3000K	DIM.: $\phi$ 40mm*H400mm	
MFR.: NEKO LIGHTING AG		

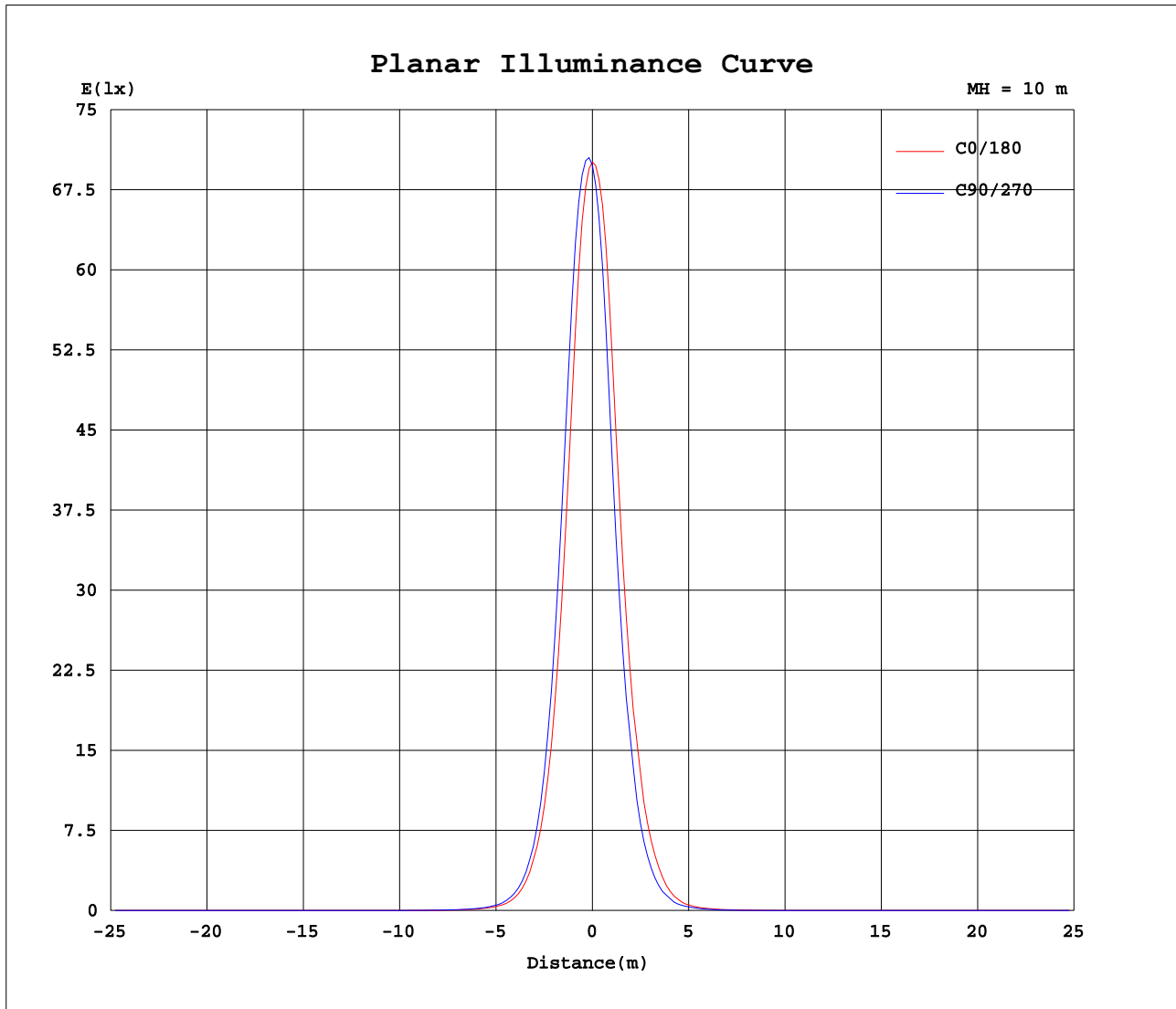
AvgL	cd/m2
L_0~180 (65) av	316
L_0~180 (75) av	177
L_0~180 (85) av	199
L_90~270 (65) av	290
L_90~270 (75) av	168
L_90~270 (85) av	200
L_45 (65) av	305
L_45 (75) av	173
L_45 (85) av	190

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason Long  
Test Date:2019-12-04

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:56%  
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 Long  
Test Date: 2019-12-04

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity: 56%  
Test Distance: 5.850m [K=1.0000]  
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks:

```

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks:

```