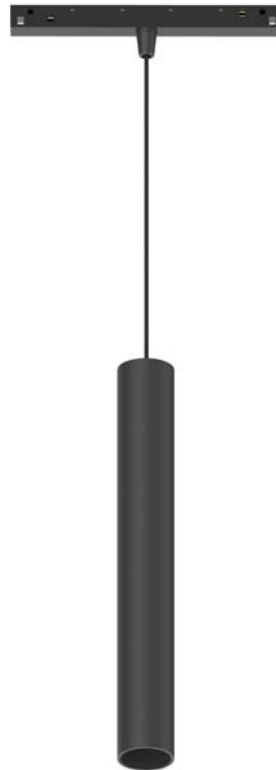


Low Voltage Track System Module ML26-PS40-12W-930-45



Light Output Ratio:	100.0%	
Luminaire Power:	12.21 W	
SHR Nominal:	0.50	Calculated using the TM5
SHR Maximum:	0.70	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

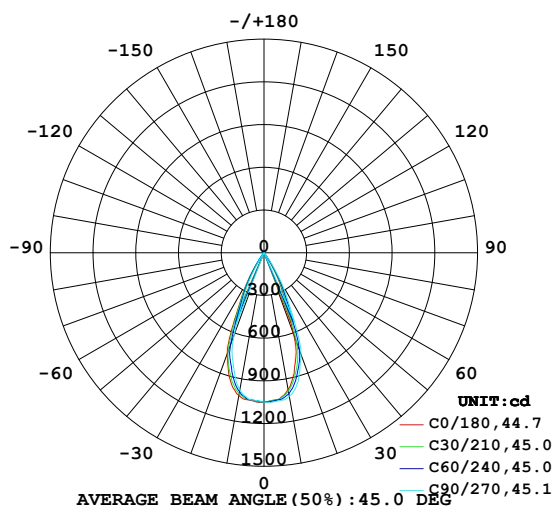
γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 56%
Test Distance: 5.850m [K=1.0000]
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

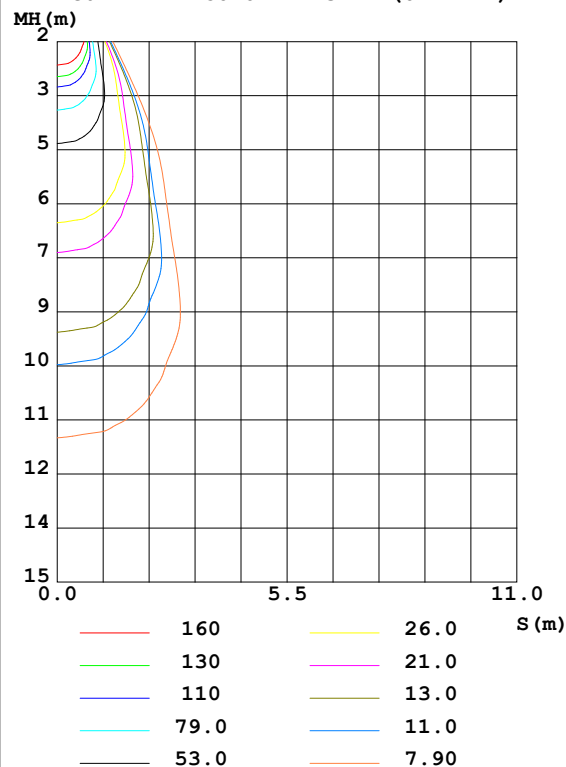
Test:U:48.00V I:0.2544A P:12.21W PF:1.000 Freq:0Hz Lamp Flux:573.033x1 lm		
NAME: ML26-PS40-12W-930-45	TYPE:Low Voltage Track System Module	
SPEC.:3000K	DIM.: ϕ 40mm*H400mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 46.93 lm/W			
MODEL	CITIZEN-3000K	I _{max} (cd)	1060	S/MH (C0/180)	0.70
NOMINAL POWER (W)	12	LOR (%)	100.0	S/MH (C90/270)	0.65
RATED VOLTAGE (V)	48	TOTAL FLUX (lm)	573.03	η UP, DN (C0-180)	0.0, 53.5
NOMINAL FLUX (lm)	573.033	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 46.5
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	48	η down (%)	100.0	CIBSE SHR MAX	0.70

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

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:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	976.6	998.2	1023	1041	1017	996.6	980.0	957.5	0- 10	98.14	98.14	17.1,17.1
20	612.9	711.3	759.4	797.5	757.5	705.5	616.7	529.6	10- 20	241.9	340.0	59.3,59.3
30	148.8	200.5	249.5	281.6	231.3	192.3	154.5	121.1	20- 30	183.6	523.5	91.4,91.4
40	8.674	11.37	14.04	19.57	12.88	10.59	8.313	7.212	30- 40	42.83	566.4	98.8,98.8
50	2.726	3.116	3.441	3.847	3.375	2.996	2.665	2.361	40- 50	4.473	570.9	99.6,99.6
60	0.7480	0.8271	0.8779	1.017	0.9162	0.8179	0.7291	0.6618	50- 60	1.532	572.4	99.9,99.9
70	0.2450	0.2378	0.2561	0.2843	0.2662	0.2536	0.2161	0.2148	60- 70	0.4681	572.9	100,100
80	0.0700	0.0589	0.0810	0.0722	0.0654	0.0722	0.0436	0.0548	70- 80	0.1486	573.0	100,100
90	0.0218	0.0197	0.0219	0.0197	0.0066	0.0066	0.0109	0.0131	80- 90	0.0334	573.0	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): 569.2 lm

%lum = 99.3%

%lamp = 99.3%

Conical surface Flux(120deg): 572.38 lm

%lum = 99.9%

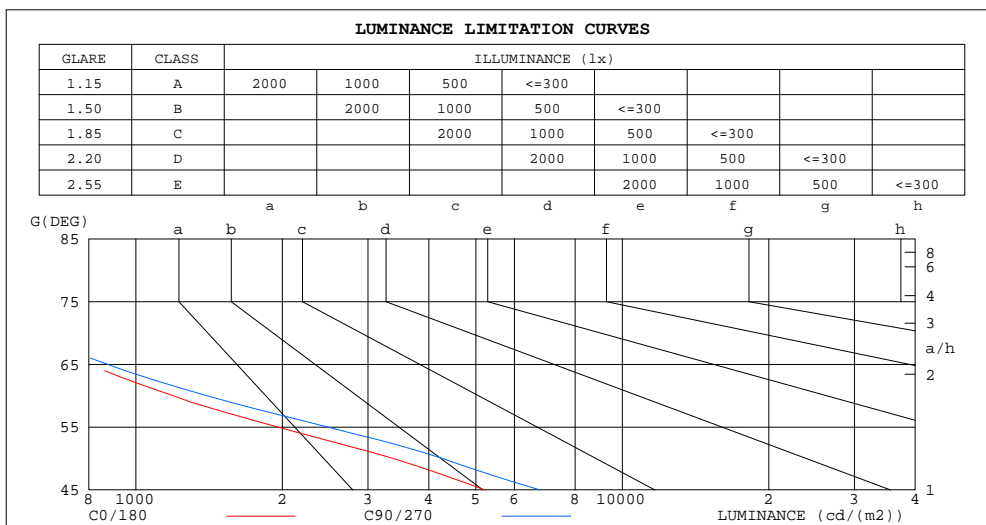
%lamp = 99.9%

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:

LUMINANCE LIMITATION CURVES

Test:U:48.00V I:0.2544A P:12.21W PF:1.000 Freq:0Hz Lamp Flux:573.033x1 lm		
NAME: ML26-PS40-12W-930-45	TYPE:Low Voltage Track System Module	
SPEC.:3000K	DIM.: $\phi 40\text{mm} \times \text{H}400\text{mm}$	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	280	420
80	321	371
75	431	451
70	571	596
65	796	875
60	1192	1398
55	1958	2481
50	3380	4263
45	5211	6772

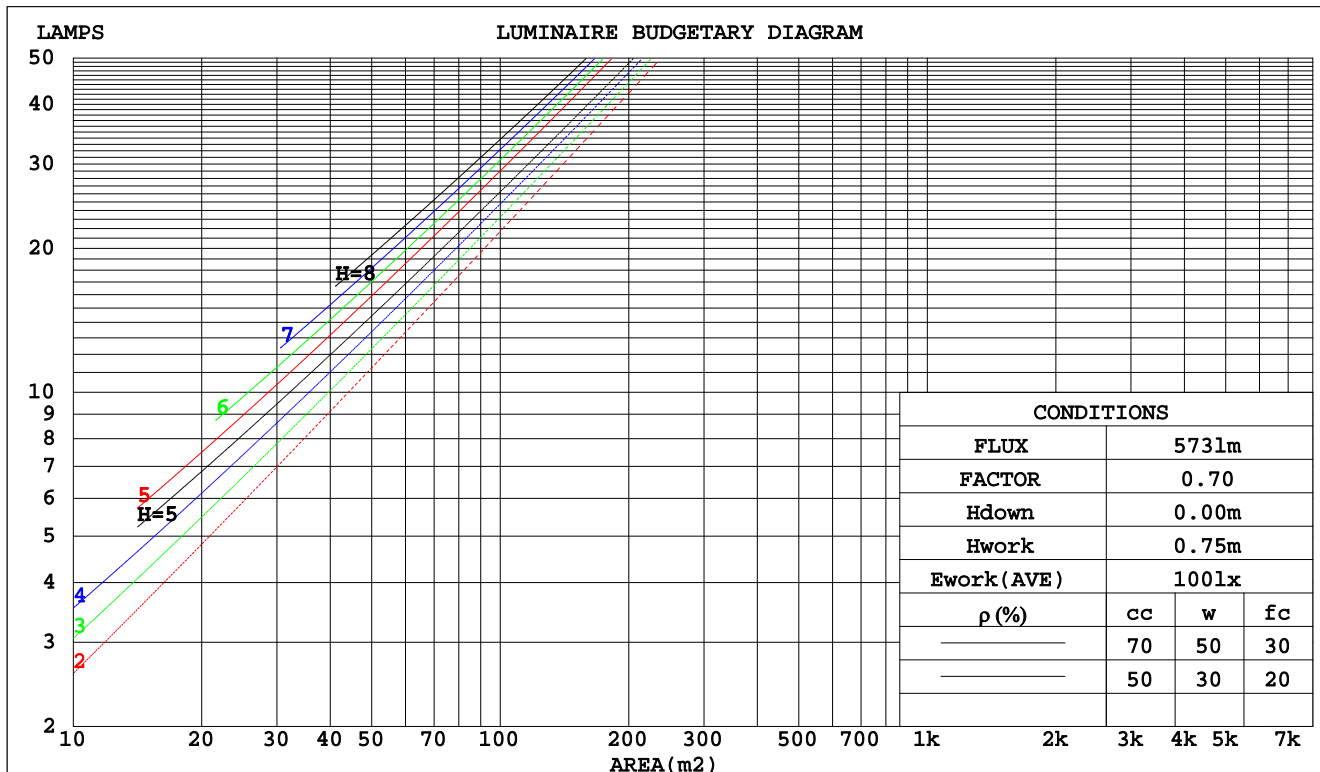
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason Long
Test Date:2019-12-04

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:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:48.00V I:0.2544A P:12.21W PF:1.000 Freq:0Hz Lamp Flux:573.033x1 lm		
NAME: ML26-PS40-12W-930-45	TYPE:Low Voltage Track System Module	
SPEC.:3000K	DIM.: ϕ 40mm*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	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	1.12	1.10	1.08	1.10	1.08	1.06	1.06	1.04	1.03	1.02	1.01	.00	.99	.98	.97	.95
2.0	1.06	1.02	.99	1.04	1.01	.98	1.01	.98	.96	.98	.96	.94	.95	.94	.92	.91
3.0	.00	.96	.92	.99	.95	.92	.96	.93	.90	.94	.91	.89	.92	.89	.88	.86
4.0	.95	.90	.87	.94	.90	.86	.92	.88	.85	.90	.87	.84	.88	.85	.83	.82
5.0	.90	.85	.82	.89	.85	.81	.88	.84	.81	.86	.83	.80	.85	.82	.79	.78
6.0	.86	.81	.77	.85	.81	.77	.84	.80	.77	.83	.79	.76	.81	.78	.76	.75
7.0	.82	.77	.74	.82	.77	.73	.80	.76	.73	.79	.75	.73	.78	.75	.72	.71
8.0	.79	.74	.70	.78	.73	.70	.77	.73	.70	.76	.72	.69	.75	.72	.69	.68
9.0	.75	.70	.67	.75	.70	.67	.74	.70	.67	.73	.69	.66	.72	.69	.66	.65
10.0	.72	.67	.64	.72	.67	.64	.71	.67	.64	.70	.66	.64	.70	.66	.63	.62



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:

WEC AND CCEC

Test:U:48.00V I:0.2544A P:12.21W PF:1.000 Freq:0Hz Lamp Flux:573.033x1 lm		
NAME: ML26-PS40-12W-930-45	TYPE:Low Voltage Track System Module	
SPEC.:3000K	DIM.: ϕ 40mm*H400mm	
MFR.: NEKO LIGHTING AG		

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	.155	.088	.028	.148	.085	.027	.136	.078	.025	.124	.072	.023	.114	.066	.021		
2.0	.146	.080	.025	.140	.077	.024	.130	.072	.022	.120	.068	.021	.112	.063	.020		
3.0	.138	.073	.022	.133	.071	.021	.124	.067	.020	.116	.064	.020	.109	.060	.019		
4.0	.131	.068	.020	.127	.066	.020	.119	.063	.019	.112	.060	.018	.106	.057	.017		
5.0	.124	.063	.018	.121	.062	.018	.114	.059	.018	.108	.057	.017	.103	.055	.016		
6.0	.118	.059	.017	.115	.058	.017	.110	.056	.016	.105	.054	.016	.100	.052	.016		
7.0	.113	.056	.016	.111	.055	.016	.106	.053	.015	.101	.052	.015	.097	.050	.015		
8.0	.108	.053	.015	.106	.052	.015	.102	.051	.015	.098	.050	.014	.094	.048	.014		
9.0	.104	.050	.014	.102	.050	.014	.098	.049	.014	.095	.047	.014	.091	.046	.013		
10.0	.100	.048	.013	.098	.048	.013	.095	.047	.013	.092	.045	.013	.088	.045	.013		

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	.170	.158	.147	.145	.135	.126	.099	.093	.087	.057	.054	.051	.018	.017	.016		
2.0	.153	.133	.116	.131	.114	.100	.090	.079	.070	.052	.046	.041	.017	.015	.013		
3.0	.139	.113	.093	.119	.098	.081	.082	.068	.057	.047	.040	.033	.015	.013	.011		
4.0	.128	.098	.076	.109	.085	.066	.075	.059	.046	.044	.035	.028	.014	.011	.009		
5.0	.118	.086	.063	.101	.075	.055	.070	.052	.039	.040	.031	.023	.013	.010	.008		
6.0	.110	.077	.053	.095	.066	.046	.065	.047	.033	.038	.027	.019	.012	.009	.006		
7.0	.103	.069	.045	.089	.060	.039	.061	.042	.028	.036	.025	.016	.012	.008	.005		
8.0	.097	.062	.039	.084	.054	.034	.058	.038	.024	.034	.022	.014	.011	.007	.005		
9.0	.092	.057	.033	.079	.049	.029	.055	.035	.021	.032	.021	.012	.010	.007	.004		
10.0	.087	.052	.029	.075	.046	.026	.052	.032	.018	.030	.019	.011	.010	.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:0.2544A P:12.21W PF:1.000 Freq:0Hz Lamp Flux:573.033x1 lm										
NAME: ML26-PS40-12W-930-45					TYPE:Low Voltage Track System Module					
SPEC.:3000K					DIM.: ϕ 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	14.1	14.9	14.3	15.0	15.2	17.7	18.5	17.9	18.6	18.8
3H	14.0	14.7	14.2	14.9	15.1	17.5	18.2	17.8	18.4	18.6
4H	13.9	14.6	14.1	14.8	15.0	17.4	18.1	17.7	18.3	18.6
6H	13.8	14.4	14.1	14.7	14.9	17.4	18.0	17.6	18.2	18.5
8H	13.7	14.4	14.0	14.6	14.9	17.3	17.9	17.6	18.2	18.4
12H	13.7	14.3	14.0	14.6	14.8	17.3	17.9	17.6	18.1	18.4
4H 2H	13.9	14.6	14.1	14.8	15.0	17.4	18.1	17.7	18.3	18.6
3H	13.7	14.3	14.0	14.6	14.8	17.3	17.9	17.6	18.1	18.4
4H	13.6	14.2	14.0	14.5	14.8	17.2	17.7	17.5	18.0	18.3
6H	13.5	14.0	13.9	14.3	14.7	17.1	17.6	17.4	17.9	18.2
8H	13.5	13.9	13.9	14.3	14.6	17.0	17.5	17.4	17.8	18.2
12H	13.4	13.8	13.8	14.2	14.6	17.0	17.4	17.4	17.7	18.1
8H 4H	13.5	13.9	13.9	14.3	14.6	17.0	17.5	17.4	17.8	18.2
6H	13.4	13.7	13.8	14.1	14.5	16.9	17.3	17.3	17.7	18.1
8H	13.3	13.6	13.8	14.1	14.5	16.9	17.2	17.3	17.6	18.0
12H	13.3	13.5	13.7	14.0	14.4	16.8	17.1	17.3	17.5	18.0
12H 4H	13.4	13.8	13.8	14.2	14.6	17.0	17.4	17.4	17.7	18.1
6H	13.3	13.6	13.8	14.0	14.5	16.9	17.2	17.3	17.6	18.0
8H	13.3	13.5	13.7	14.0	14.4	16.8	17.1	17.3	17.5	18.0
Variations with the observer position at spacings:										
S = 1.0H	+ 3.4 / - 7.1					+ 5.0 / - 9.2				
1.5H	+ 5.1 / - 5.1					+ 7.2 / - 7.3				
2.0H	+ 4.2 / - 4.7					+ 4.8 / - 5.7				

CIE Pub.117, 573.0 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = -1.9$)

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:

UTILIZATION FACTORS TABLE

Test:U:48.00V I:0.2544A P:12.21W PF:1.000 Freq:0Hz Lamp Flux:573.033x1 lm		
NAME: ML26-PS40-12W-930-45	TYPE:Low Voltage Track System Module	
SPEC.:3000K	DIM.: ϕ 40mm*H400mm	
MFR.: NEKO LIGHTING AG		

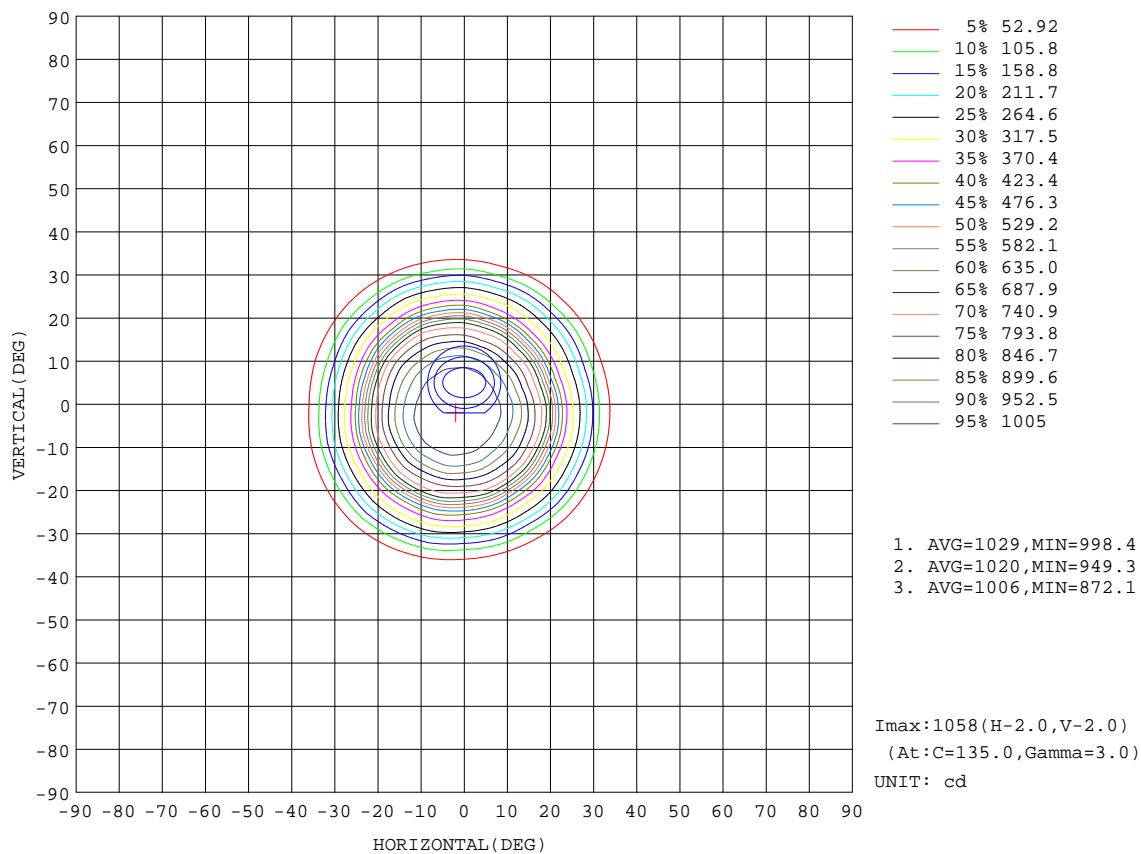
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	91	85	82	90	85	82	90	85	81	78
0.80	98	93	89	97	92	89	96	92	89	85
1.00	102	97	93	101	96	93	99	96	93	89
1.25	105	100	97	104	100	97	102	99	96	92
1.50	108	103	100	106	103	100	104	101	99	95
2.00	110	106	103	108	105	102	106	103	101	96
2.50	111	108	105	110	107	104	107	104	102	97
3.00	113	110	107	111	108	106	108	105	104	98
4.00	115	112	110	112	110	109	109	107	106	99
5.00	116	114	112	114	112	110	110	108	107	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

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:

ISOCANDELA DIAGRAM

Test:U:48.00V I:0.2544A P:12.21W PF:1.000 Freq:0Hz Lamp Flux:573.033x1 lm		
NAME: ML26-PS40-12W-930-45	TYPE:Low Voltage Track System Module	
SPEC.:3000K	DIM.: ϕ 40mm*H400mm	
MFR.: NEKO LIGHTING AG		



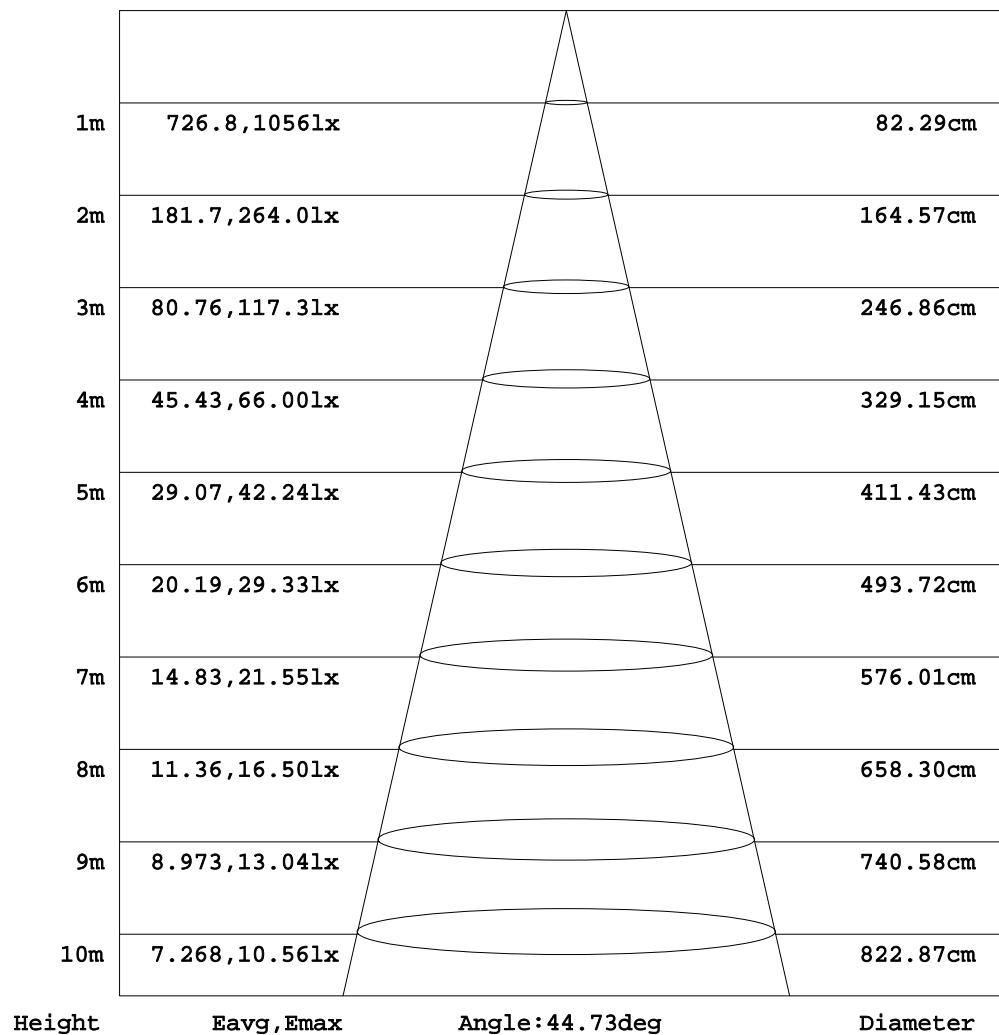
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason Long
Test Date:2019-12-04

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:

AAI Figure

Test:U:48.00V I:0.2544A P:12.21W PF:1.000 Freq:0Hz Lamp Flux:573.033x1 lm		
NAME: ML26-PS40-12W-930-45	TYPE:Low Voltage Track System Module	
SPEC.:3000K	DIM.: ϕ 40mm*H400mm	
MFR.: NEKO LIGHTING AG		

Flux out:411.4 lm



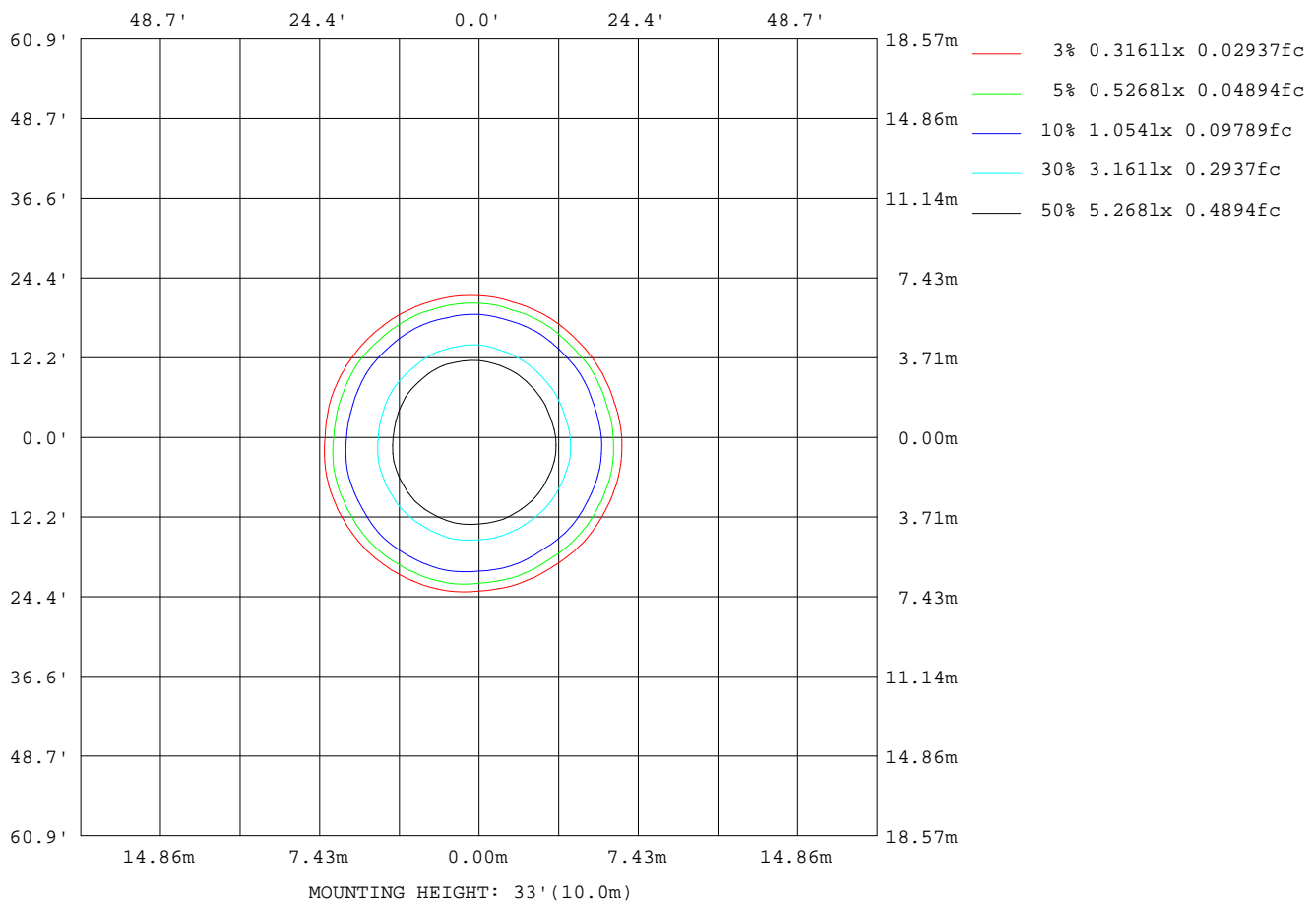
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

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:

ISOLUX DIAGRAM

Test:U:48.00V I:0.2544A P:12.21W PF:1.000 Freq:0Hz Lamp Flux:573.033x1 lm		
NAME: ML26-PS40-12W-930-45	TYPE:Low Voltage Track System Module	
SPEC.:3000K	DIM.: ϕ 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

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:

LED Avg.L Report

Test:U:48.00V I:0.2544A P:12.21W PF:1.000 Freq:0Hz Lamp Flux:573.033x1 lm		
NAME: ML26-PS40-12W-930-45	TYPE:Low Voltage Track System Module	
SPEC.:3000K	DIM.: ϕ 40mm*H400mm	
MFR.: NEKO LIGHTING AG		

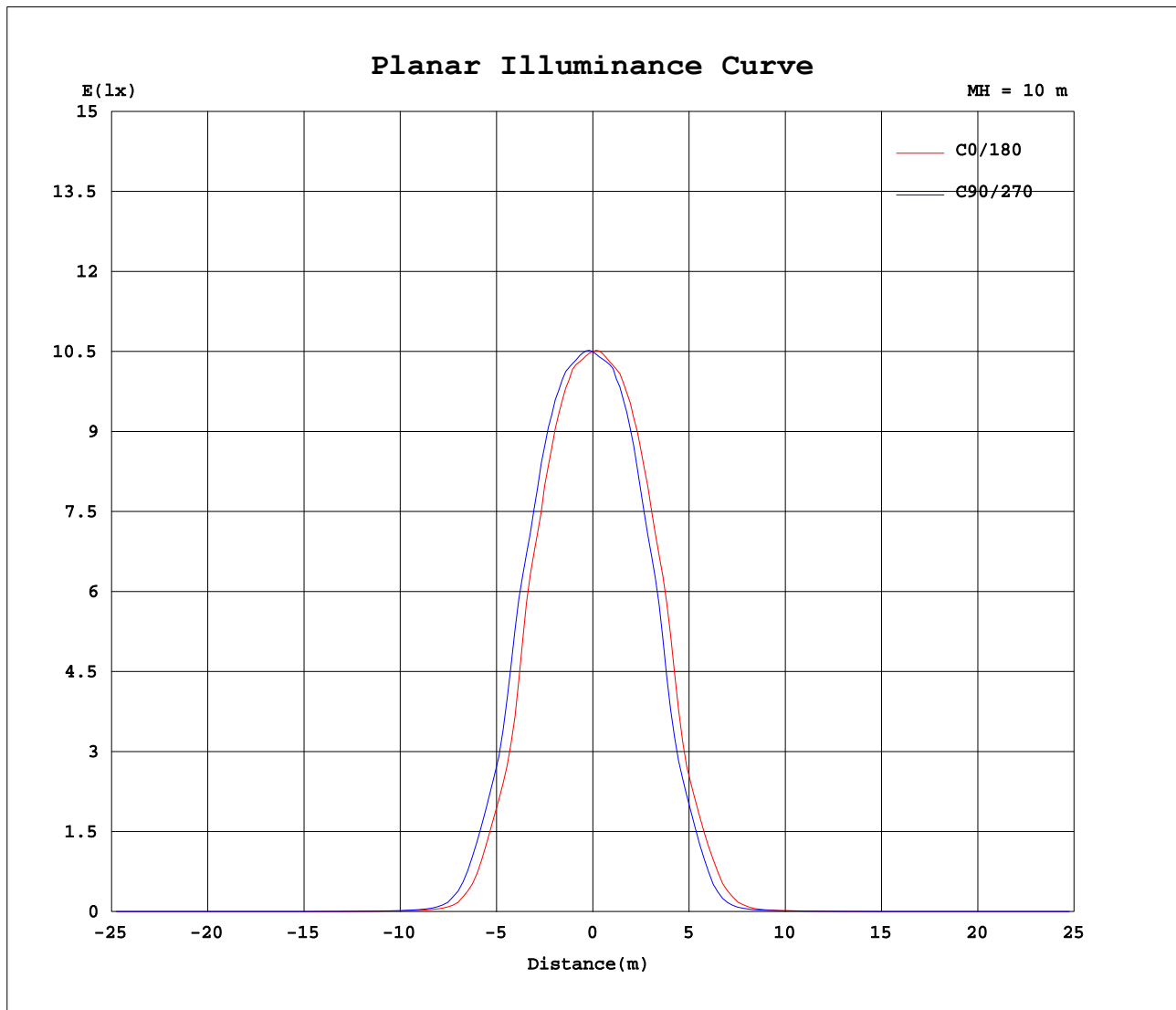
AvgL	cd/m2
L_0~180 (65) av	856
L_0~180 (75) av	427
L_0~180 (85) av	210
L_90~270 (65) av	809
L_90~270 (75) av	397
L_90~270 (85) av	250
L_45 (65) av	843
L_45 (75) av	410
L_45 (85) av	220

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

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:

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

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:

```

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γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:56%
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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:

```