

Low Voltage Track System Module ML26-GL560-13W-930



Light Output Ratio:	100.0%	
Luminaire Power:	12.97 W	
SHR Nominal:	1.25	Calculated using the TM5
SHR Maximum:	1.35	fine grid method.

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Jason  
Test Date: 2020-05-06

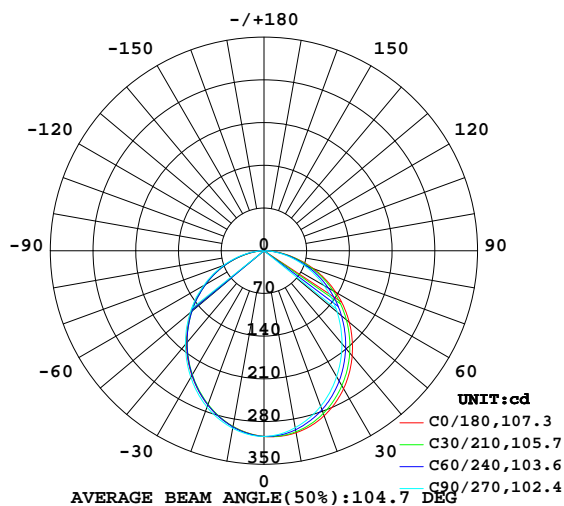
γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity: 58%  
Test Distance: 5.850m [K=1.0000]  
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

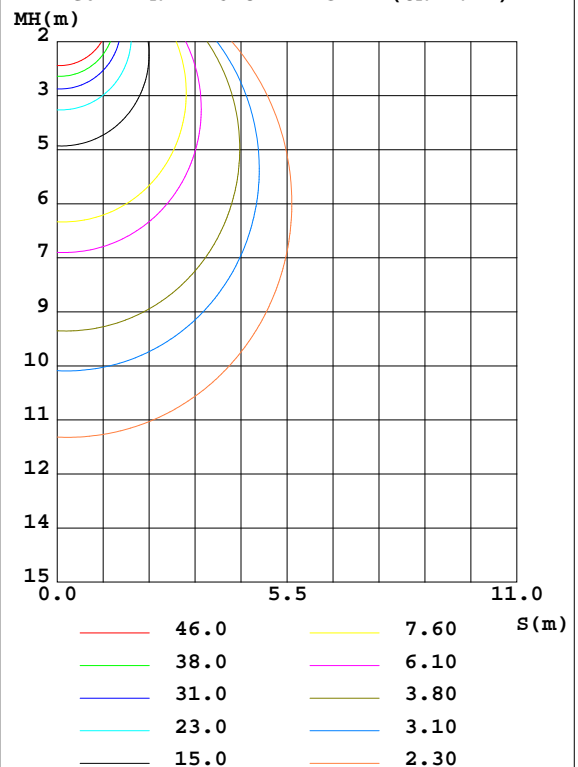
Test:U:48.00V I:0.2702A P:12.97W PF:1.000 Freq:0Hz Lamp Flux:802.429x1 lm		
NAME: ML26-GL560-13W-930	TYPE:Low Voltage Track System Module	
SPEC.:3000K	DIM.: L560mm*W22mm*H43mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 61.87 lm/W			
MODEL	SAMSUNG-3000K	I <sub>max</sub> (cd)	305.3	S/MH(C0/180)	1.16
NOMINAL POWER(W)	13	LOR(%)	100.0	S/MH(C90/270)	1.18
RATED VOLTAGE(V)	48	TOTAL FLUX(lm)	802.43	η UP,DN(C0-180)	0.0,50.2
NOMINAL FLUX(lm)	802.429	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,49.8
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	48	η down(%)	100.0	CIBSE SHR MAX	1.35

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
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Temperature:25.3DEG  
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## ZONAL FLUX DIAGRAM

### ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	302.8	299.8	294.5	292.2	292.4	292.4	295.4	300.1	0- 10	28.65	28.65	3.57,3.57
20	287.9	281.0	271.3	267.1	268.8	267.7	272.7	281.5	10- 20	80.86	109.5	13.6,13.6
30	260.9	251.6	238.2	233.8	236.2	234.3	239.7	252.1	20- 30	119.7	229.3	28.6,28.6
40	224.8	214.1	198.9	194.8	197.8	195.2	200.3	214.4	30- 40	140.5	369.8	46.1,46.1
50	182.4	171.8	156.7	153.1	156.1	153.4	158.0	172.0	40- 50	142.1	511.8	63.8,63.8
60	135.7	126.1	113.5	109.5	111.7	110.0	114.0	126.8	50- 60	125.9	637.7	79.5,79.5
70	86.38	79.90	70.39	66.46	67.35	66.48	70.81	80.17	60- 70	94.90	732.6	91.3,91.3
80	37.47	35.36	29.72	26.55	25.61	26.37	30.11	35.05	70- 80	54.41	787.0	98.1,98.1
90	2.694	3.172	2.113	1.006	0.3776	0.7827	1.492	2.218	80- 90	15.41	802.4	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): 441.77 lm

%lum = 55.1%

%lamp = 55.1%

Conical surface Flux(120deg): 637.7 lm

%lum = 79.5%

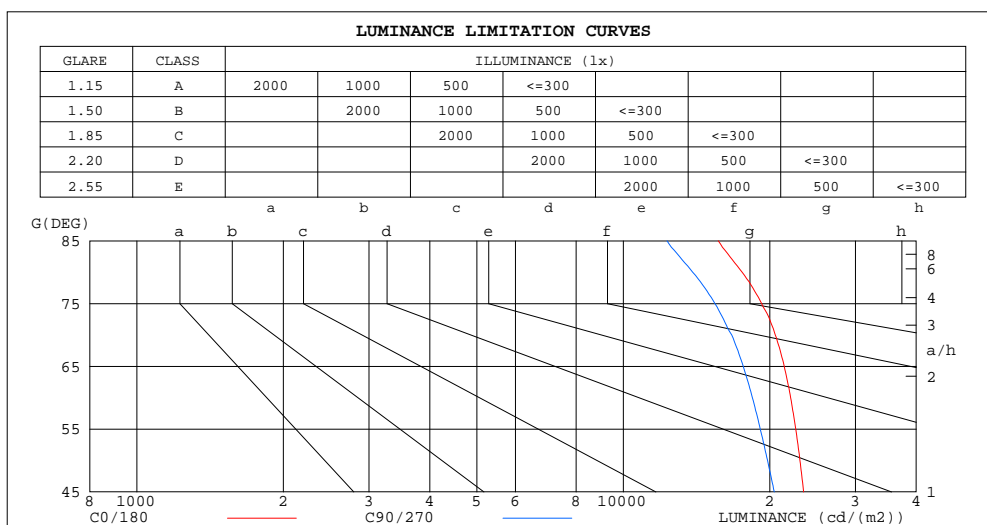
%lamp = 79.5%

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-05-06

$\gamma$  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:0.2702A P:12.97W PF:1.000 Freq:0Hz Lamp Flux:802.429x1 lm		
NAME: ML26-GL560-13W-930	TYPE:Low Voltage Track System Module	
SPEC.:3000K	DIM.: L560mm*W22mm*H43mm	
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LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	15677	12296
80	17542	13887
75	19239	15431
70	20532	16701
65	21417	17644
60	22073	18425
55	22610	19120
50	23070	19788
45	23481	20427

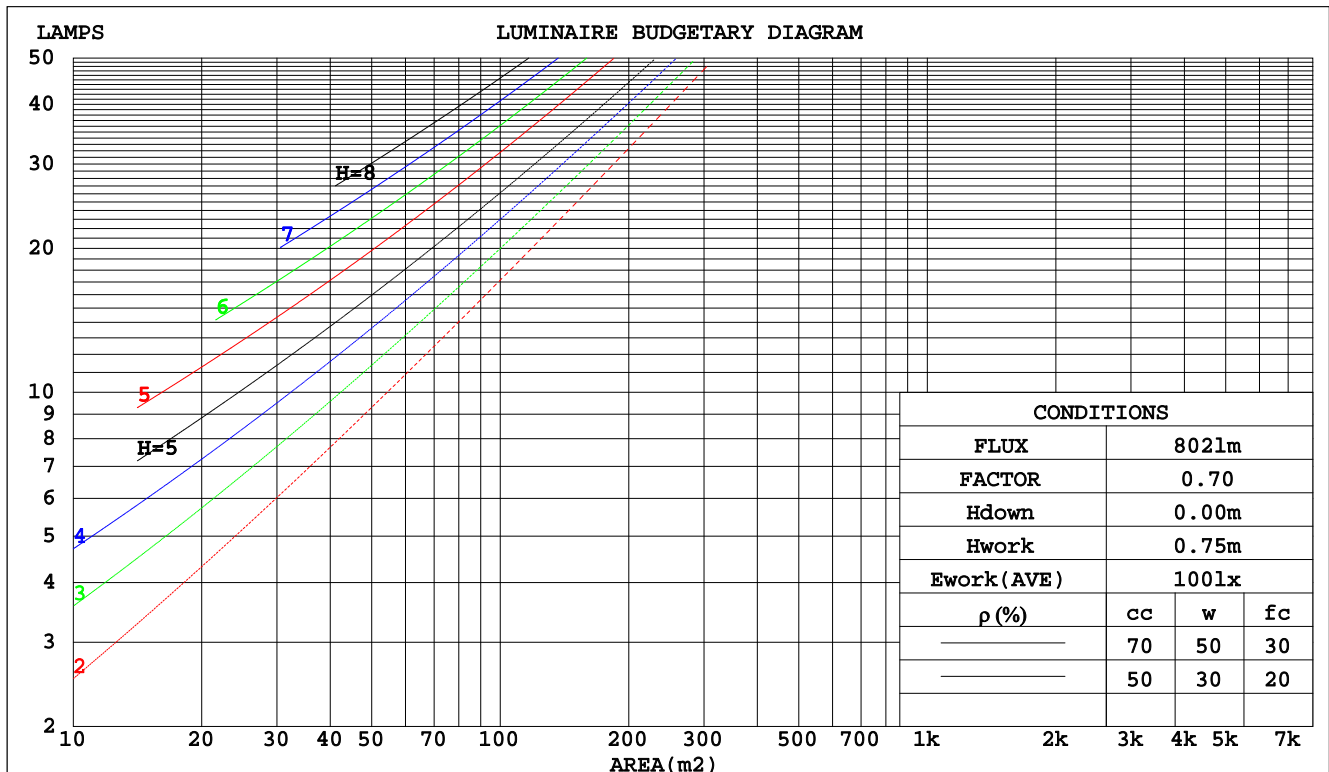
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**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

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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	.00
1.0	1.04	.00	.96	1.02	.98	.94	.98	.94	.91	.94	.91	.89	.90	.88	.86	.84
2.0	.91	.84	.78	.89	.83	.77	.85	.80	.76	.82	.78	.74	.79	.75	.72	.70
3.0	.80	.72	.65	.78	.71	.65	.75	.69	.64	.73	.67	.62	.70	.65	.61	.59
4.0	.71	.62	.55	.70	.61	.55	.67	.60	.54	.65	.59	.54	.63	.57	.53	.51
5.0	.63	.54	.48	.62	.54	.48	.60	.53	.47	.58	.52	.47	.56	.51	.46	.44
6.0	.57	.48	.42	.56	.48	.42	.54	.47	.41	.53	.46	.41	.51	.45	.41	.39
7.0	.52	.43	.37	.51	.43	.37	.50	.42	.37	.48	.41	.36	.47	.41	.36	.34
8.0	.47	.39	.33	.47	.39	.33	.45	.38	.33	.44	.37	.33	.43	.37	.32	.30
9.0	.44	.35	.30	.43	.35	.30	.42	.35	.30	.41	.34	.29	.40	.34	.29	.27
10.0	.40	.32	.27	.40	.32	.27	.39	.32	.27	.38	.31	.27	.37	.31	.27	.25



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## WEC AND CCEC

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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	.306	.174	.055	.299	.171	.054	.286	.164	.052	.274	.158	.051	.263	.152	.049		
2.0	.288	.158	.048	.282	.155	.048	.270	.150	.047	.259	.146	.046	.250	.141	.044		
3.0	.267	.142	.043	.261	.140	.042	.251	.136	.041	.241	.132	.041	.233	.129	.040		
4.0	.246	.128	.038	.241	.126	.037	.232	.123	.037	.224	.120	.036	.216	.117	.036		
5.0	.228	.116	.034	.224	.115	.033	.215	.112	.033	.208	.110	.033	.201	.107	.032		
6.0	.211	.106	.030	.208	.105	.030	.200	.103	.030	.194	.101	.030	.187	.099	.029		
7.0	.197	.097	.028	.193	.096	.027	.187	.095	.027	.181	.093	.027	.175	.091	.027		
8.0	.184	.090	.025	.181	.089	.025	.175	.088	.025	.170	.086	.025	.165	.085	.025		
9.0	.172	.083	.023	.170	.083	.023	.165	.081	.023	.160	.080	.023	.155	.079	.023		
10.0	.162	.078	.022	.160	.077	.022	.155	.076	.021	.151	.075	.021	.147	.074	.021		

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	.180	.156	.135	.154	.134	.116	.105	.092	.080	.061	.053	.047	.019	.017	.015		
2.0	.172	.132	.098	.147	.114	.085	.101	.079	.059	.058	.046	.035	.019	.015	.011		
3.0	.164	.114	.075	.140	.099	.065	.096	.068	.045	.056	.040	.027	.018	.013	.009		
4.0	.156	.101	.059	.134	.087	.051	.092	.061	.036	.053	.036	.021	.017	.012	.007		
5.0	.149	.090	.048	.128	.078	.041	.088	.055	.029	.051	.032	.017	.016	.010	.006		
6.0	.141	.082	.039	.122	.071	.034	.084	.050	.024	.049	.029	.014	.016	.010	.005		
7.0	.135	.075	.033	.116	.065	.029	.080	.046	.021	.047	.027	.012	.015	.009	.004		
8.0	.128	.069	.029	.110	.060	.025	.076	.042	.018	.044	.025	.011	.014	.008	.004		
9.0	.122	.064	.025	.105	.056	.022	.073	.039	.016	.042	.023	.009	.014	.008	.003		
10.0	.117	.060	.023	.100	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003		

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-05-06

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:

## UGR(Unified Glare Rating) Table

Test:U:48.00V I:0.2702A P:12.97W PF:1.000 Freq:0Hz Lamp Flux:802.429x1 lm										
NAME: ML26-GL560-13W-930					TYPE:Low Voltage Track System Module					
SPEC.:3000K					DIM.: L560mm*W22mm*H43mm					
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	24.7	26.2	24.9	26.4	26.6	23.9	25.4	24.2	25.6	25.8
3H	26.3	27.7	26.6	27.9	28.1	25.4	26.8	25.7	27.0	27.2
4H	26.9	28.3	27.2	28.5	28.8	26.0	27.3	26.3	27.5	27.8
6H	27.4	28.7	27.7	28.9	29.2	26.4	27.6	26.7	27.9	28.2
8H	27.6	28.8	27.9	29.1	29.3	26.5	27.7	26.8	28.0	28.3
12H	27.7	28.8	28.0	29.1	29.4	26.6	27.7	26.9	28.0	28.3
4H 2H	25.2	26.5	25.5	26.8	27.0	24.7	26.0	25.0	26.2	26.5
3H	27.0	28.2	27.4	28.5	28.8	26.3	27.4	26.6	27.7	28.0
4H	27.8	28.9	28.2	29.2	29.5	27.0	28.0	27.4	28.4	28.7
6H	28.4	29.4	28.8	29.7	30.1	27.5	28.5	27.9	28.8	29.2
8H	28.6	29.5	29.1	29.9	30.3	27.7	28.6	28.1	29.0	29.3
12H	28.8	29.6	29.2	30.0	30.4	27.8	28.6	28.3	29.0	29.4
8H 4H	28.0	28.9	28.5	29.3	29.7	27.3	28.2	27.7	28.6	29.0
6H	28.8	29.5	29.3	30.0	30.4	28.0	28.8	28.5	29.2	29.6
8H	29.1	29.8	29.6	30.2	30.7	28.3	29.0	28.8	29.4	29.8
12H	29.4	29.9	29.9	30.4	30.9	28.5	29.1	29.0	29.5	30.0
12H 4H	28.0	28.9	28.5	29.2	29.6	27.4	28.2	27.8	28.5	29.0
6H	28.9	29.5	29.3	29.9	30.4	28.1	28.8	28.6	29.2	29.6
8H	29.2	29.8	29.7	30.2	30.7	28.4	29.0	28.9	29.4	29.9
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.2					+ 0.2 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.4				

CIE Pub.117, 802.4 lm Total Lamp Luminous Flux Correct ( $8\log(F/F_0) = -0.8$ )

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

### UTILIZATION FACTORS TABLE

Test:U:48.00V I:0.2702A P:12.97W PF:1.000 Freq:0Hz Lamp Flux:802.429x1 lm		
NAME: ML26-GL560-13W-930	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	58	47	40	58	47	40	56	46	40	33
0.80	68	57	50	67	56	49	66	56	49	42
1.00	77	66	59	75	65	58	73	67	58	51
1.25	84	73	66	82	73	66	80	71	65	58
1.50	89	79	72	87	78	71	84	76	70	63
2.00	95	87	81	94	86	80	90	84	78	71
2.50	99	92	86	97	90	85	93	88	83	75
3.00	102	96	90	100	94	89	96	91	87	79
4.00	106	101	96	104	99	95	100	96	92	83
5.00	109	104	100	106	102	98	102	98	95	86
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

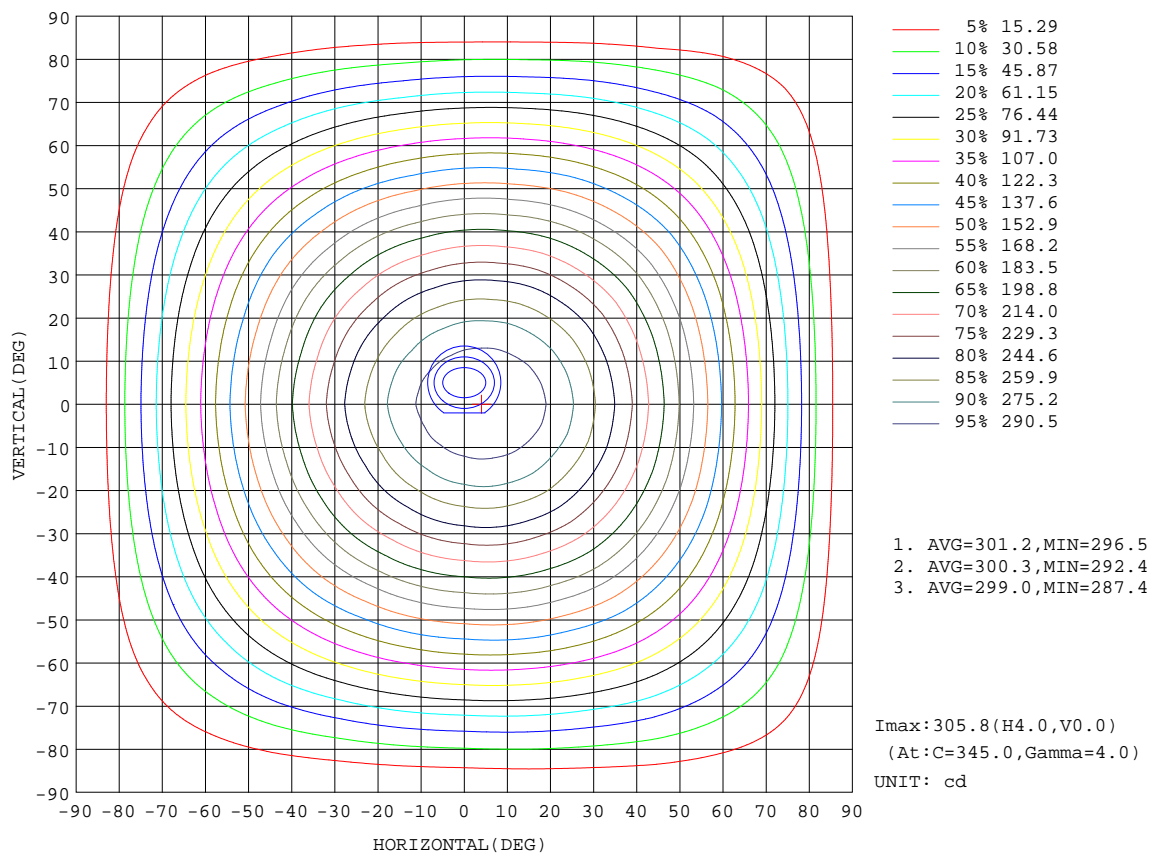
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ISOCANDELA DIAGRAM

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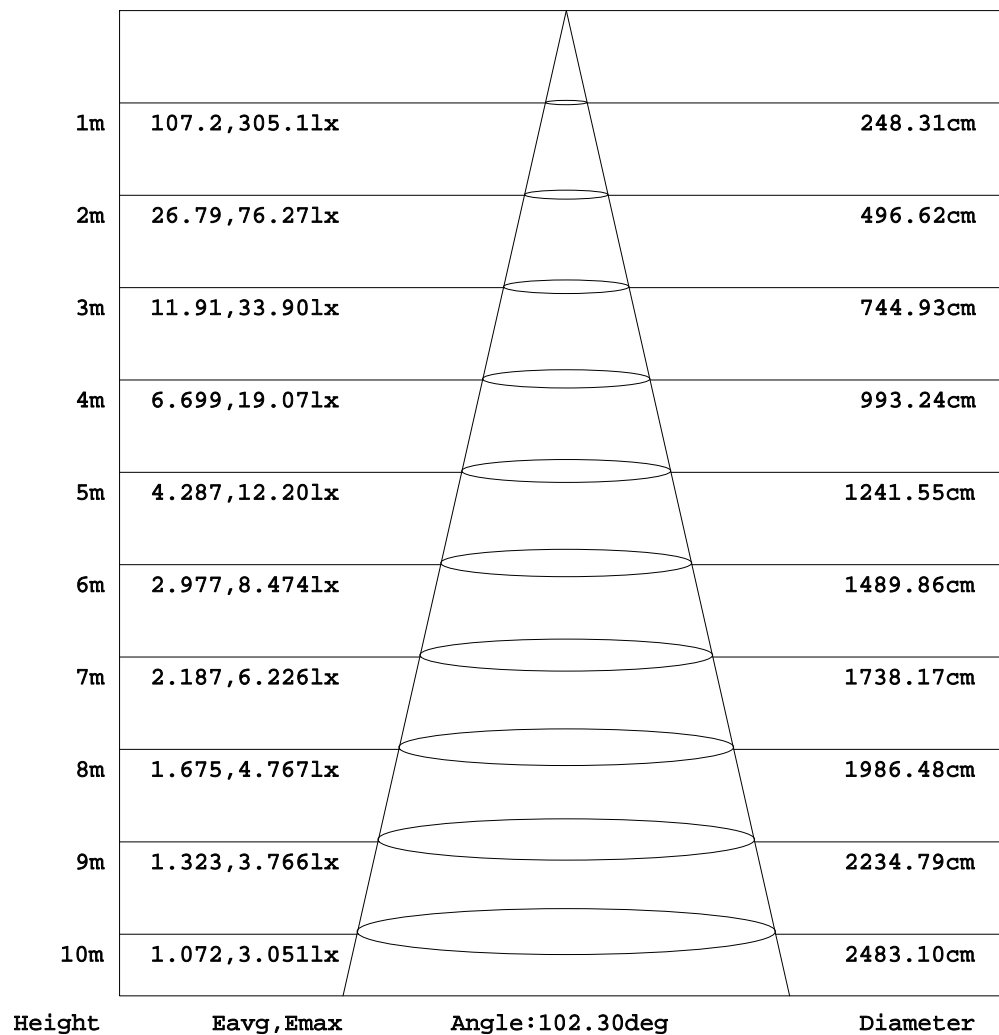
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AAI Figure

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Flux out:532.2 lm



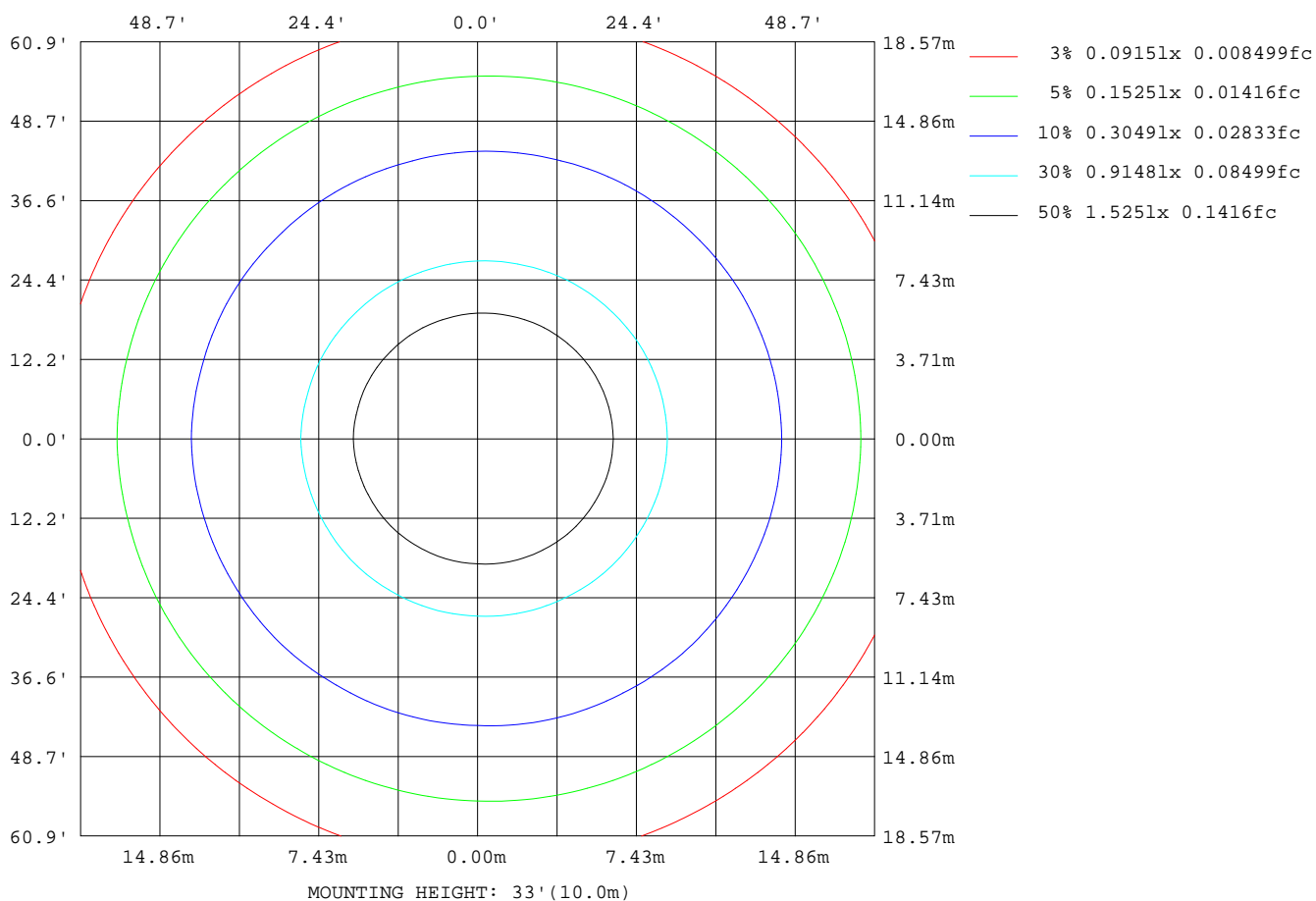
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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**ISOLUX DIAGRAM**

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### LED Avg.L Report

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SPEC.:3000K	DIM.: L560mm*W22mm*H43mm	
MFR.: NEKO LIGHTING AG		

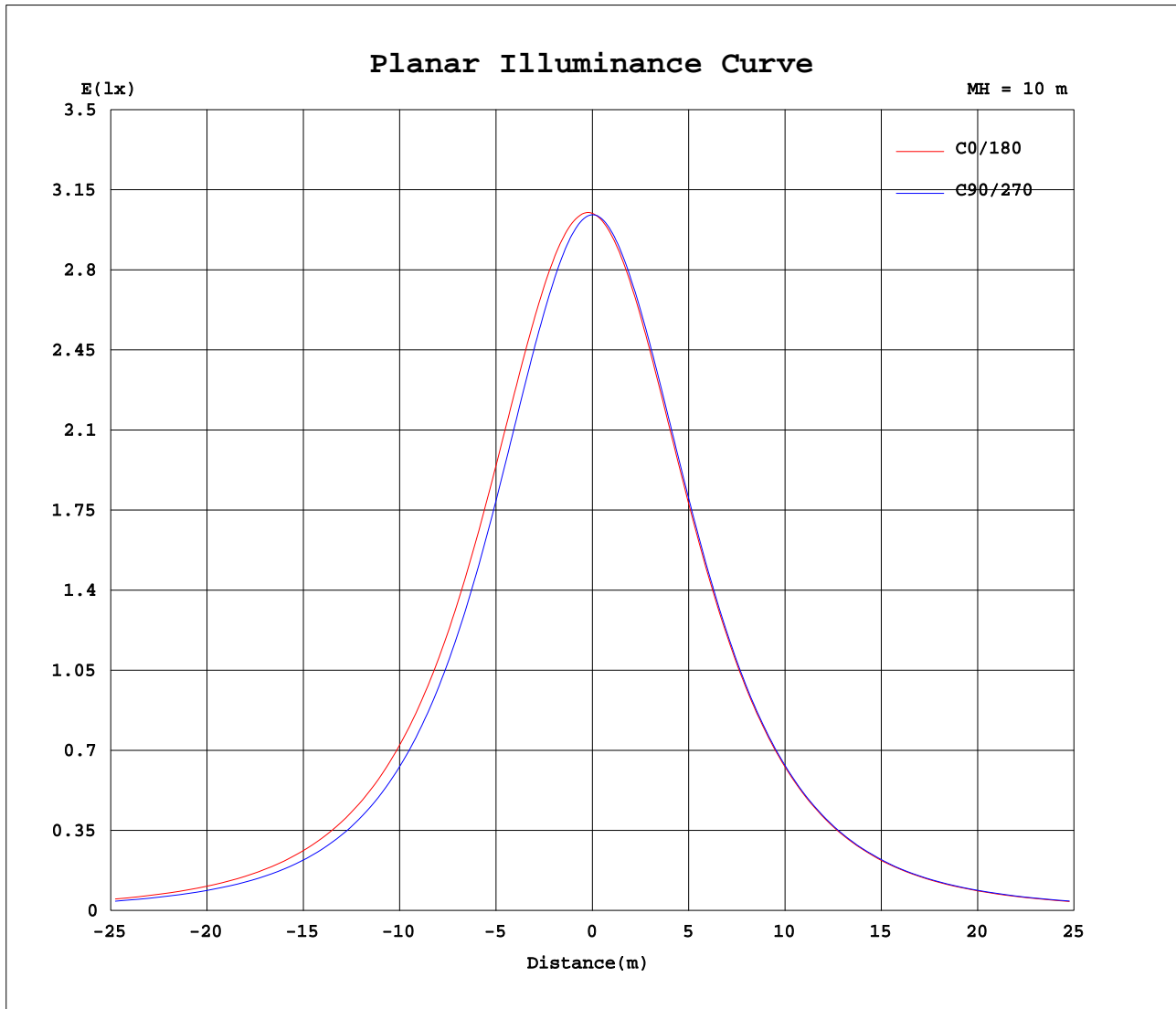
AvgL	cd/m2
L_0~180(65)av	19290
L_0~180(75)av	16755
L_0~180(85)av	12247
L_90~270(65)av	17698
L_90~270(75)av	15526
L_90~270(85)av	11783
L_45(65)av	18387
L_45(75)av	16089
L_45(85)av	12157

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-05-06

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:

### Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Jason  
Test Date: 2020-05-06

$\gamma$  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:

```