

Low Voltage Track System Module ML26-SG280-7W-940



Light Output Ratio:	100.0%	
Luminaire Power:	6.83 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

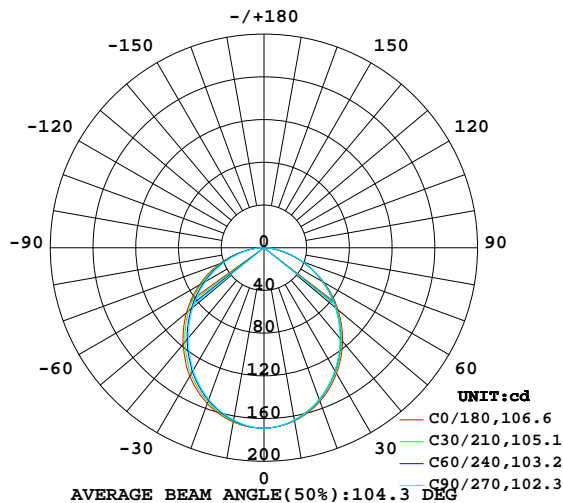
γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity: 58%  
Test Distance: 5.850m [K=1.0000]  
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

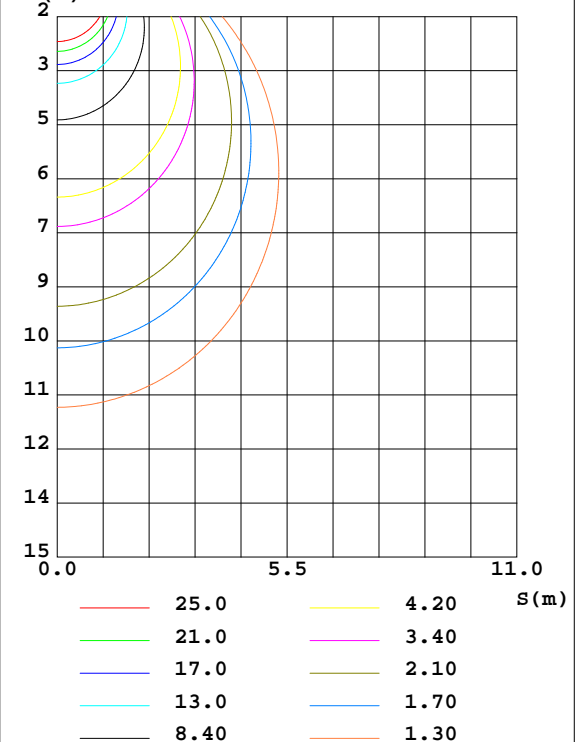
Test:U:48.00V I:0.1423A P:6.830W PF:1.000 Freq:0Hz Lamp Flux:442.627x1 lm		
NAME: ML26-SG280-7W-940	TYPE:Low Voltage Track System	Serial No.:
SPEC.:4000K	DIM.: L284mm*W22mm*H43mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 64.80 lm/W
MODEL	SAMSUNG-4000K	I <sub>max</sub> (cd)	169.0	S/MH(C0/180)	1.23	
NOMINAL POWER(W)	7	LOR(%)	100.0	S/MH(C90/270)	1.17	
RATED VOLTAGE(V)	48	TOTAL FLUX(lm)	442.63	η UP,DN(C0-180)	0.0,49.9	
NOMINAL FLUX(lm)	442.627	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.1	
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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γ Range: 0 - 90DEG  
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Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
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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	164.6	164.2	163.8	164.8	165.6	164.5	163.7	164.0	0- 10	15.91	15.91	3.59,3.59
20	153.1	151.7	151.2	153.0	155.2	152.6	151.0	151.6	10- 20	44.87	60.78	13.7,13.7
30	135.8	134.0	132.9	135.9	138.9	135.1	132.4	133.6	20- 30	66.39	127.2	28.7,28.7
40	114.4	111.8	111.0	114.2	117.8	113.9	110.1	112.0	30- 40	77.64	204.8	46.3,46.3
50	90.47	88.19	87.56	91.01	94.70	90.64	86.77	88.32	40- 50	78.31	283.1	64,64
60	64.62	63.53	63.13	66.72	70.02	66.08	62.88	63.25	50- 60	69.23	352.3	79.6,79.6
70	38.41	38.57	39.13	41.98	44.43	41.68	39.03	38.35	60- 70	52.02	404.4	91.4,91.4
80	13.83	15.34	16.62	18.52	19.48	18.43	16.64	15.12	70- 80	29.72	434.1	98.1,98.1
90	0.2974	0.7411	1.347	1.850	1.616	1.839	1.174	0.6406	80- 90	8.535	442.6	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): 244.52 lm

%lum = 55.2%

%lamp = 55.2%

Conical surface Flux(120deg): 352.35 lm

%lum = 79.6%

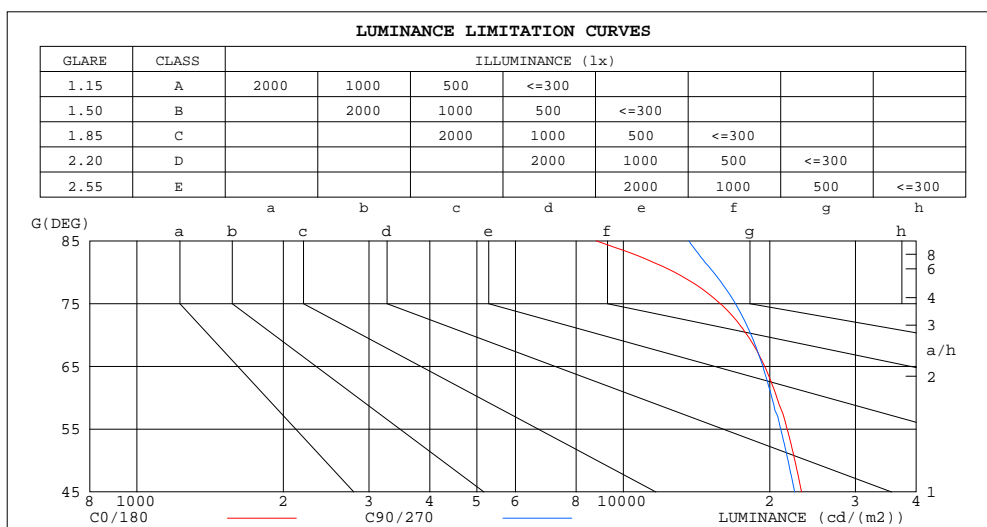
%lamp = 79.6%

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:

**LUMINANCE LIMITATION CURVES**

Test:U:48.00V I:0.1423A P:6.830W PF:1.000 Freq:0Hz Lamp Flux:442.627x1 lm		
NAME: ML26-SG280-7W-940	TYPE:Low Voltage Track System	Serial No.:
SPEC.:4000K	DIM.: L284mm*W22mm*H43mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	8789	13644
80	12740	15320
75	15818	16994
70	17970	18309
65	19527	19357
60	20680	20208
55	21718	21066
50	22520	21803
45	23240	22502

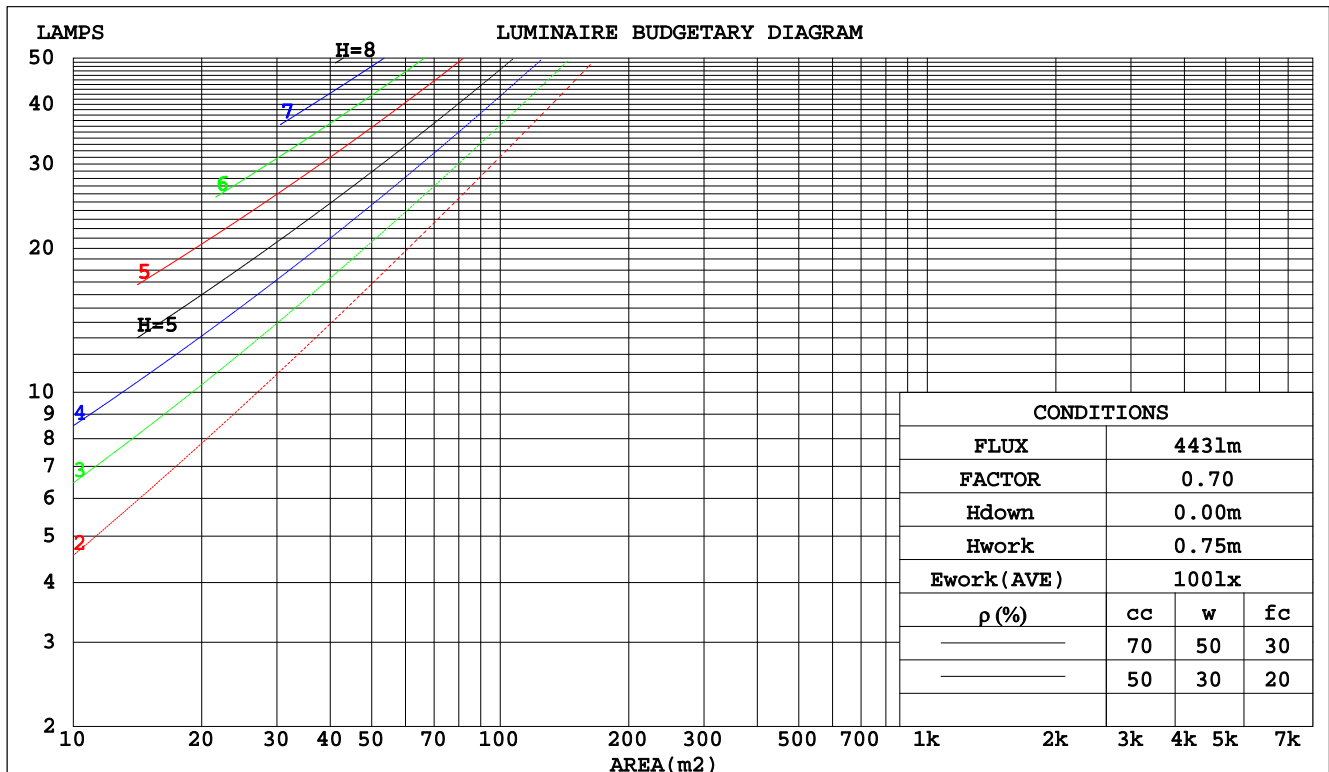
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CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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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	.76	.72	.70
3.0	.80	.72	.65	.78	.71	.65	.75	.69	.64	.73	.67	.63	.70	.65	.61	.59
4.0	.71	.62	.56	.70	.61	.55	.67	.60	.54	.65	.59	.54	.63	.57	.53	.51
5.0	.63	.55	.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	.38	.33	.43	.37	.32	.31
9.0	.44	.35	.30	.43	.35	.30	.42	.35	.30	.41	.34	.30	.40	.34	.29	.28
10.0	.40	.32	.27	.40	.32	.27	.39	.32	.27	.38	.31	.27	.37	.31	.27	.25



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Humidity:58%  
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## WEC AND CCEC

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SPEC.:4000K	DIM.: L284mm*W22mm*H43mm	
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	.306	.174	.055	.299	.170	.054	.285	.164	.052	.273	.158	.051	.262	.152	.049		
2.0	.288	.158	.048	.281	.155	.048	.270	.150	.047	.259	.145	.045	.249	.141	.044		
3.0	.266	.142	.042	.261	.140	.042	.250	.136	.041	.241	.132	.040	.232	.128	.040		
4.0	.246	.128	.038	.241	.126	.037	.232	.123	.037	.223	.120	.036	.216	.117	.036		
5.0	.227	.116	.034	.223	.115	.033	.215	.112	.033	.208	.110	.033	.200	.107	.032		
6.0	.211	.106	.030	.207	.105	.030	.200	.103	.030	.193	.100	.030	.187	.098	.029		
7.0	.197	.097	.028	.193	.096	.027	.187	.094	.027	.181	.093	.027	.175	.091	.027		
8.0	.184	.090	.025	.181	.089	.025	.175	.087	.025	.170	.086	.025	.164	.084	.025		
9.0	.172	.083	.023	.170	.083	.023	.164	.081	.023	.160	.080	.023	.155	.079	.023		
10.0	.162	.078	.022	.160	.077	.022	.155	.076	.021	.151	.075	.021	.146	.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	.099	.147	.114	.085	.101	.079	.059	.058	.046	.035	.019	.015	.011	
3.0	.164	.114	.075	.140	.099	.065	.096	.068	.046	.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	.040	.122	.071	.034	.084	.050	.024	.049	.029	.014	.016	.010	.005	
7.0	.135	.075	.034	.116	.065	.029	.080	.046	.021	.046	.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	.116	.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:0.1423A P:6.830W PF:1.000 Freq:0Hz Lamp Flux:442.627x1 lm										
NAME: ML26-SG280-7W-940					TYPE:Low Voltage Track SystemSerial No.:					
SPEC.:4000K					DIM.: L284mm*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	26.2	27.7	26.5	27.9	28.1	26.1	27.6	26.4	27.8	28.0
3H	27.6	29.0	27.9	29.2	29.5	27.6	28.9	27.9	29.2	29.4
4H	28.1	29.5	28.5	29.7	30.0	28.1	29.5	28.5	29.7	30.0
6H	28.5	29.7	28.8	30.0	30.2	28.6	29.8	28.9	30.1	30.4
8H	28.5	29.7	28.9	30.0	30.3	28.7	29.9	29.0	30.2	30.5
12H	28.5	29.7	28.9	30.0	30.3	28.8	29.9	29.1	30.2	30.5
4H 2H	26.8	28.1	27.1	28.4	28.6	26.7	28.0	27.0	28.3	28.5
3H	28.4	29.5	28.7	29.8	30.1	28.3	29.5	28.7	29.8	30.1
4H	29.0	30.1	29.4	30.4	30.7	29.0	30.1	29.4	30.4	30.7
6H	29.4	30.4	29.8	30.7	31.1	29.6	30.5	30.0	30.9	31.2
8H	29.5	30.4	30.0	30.8	31.2	29.8	30.6	30.2	31.0	31.4
12H	29.6	30.4	30.0	30.8	31.2	29.9	30.7	30.3	31.1	31.5
8H 4H	29.2	30.1	29.6	30.5	30.9	29.3	30.1	29.7	30.5	30.9
6H	29.8	30.5	30.2	30.9	31.3	29.9	30.7	30.4	31.1	31.5
8H	30.0	30.6	30.4	31.0	31.5	30.2	30.9	30.7	31.3	31.7
12H	30.1	30.6	30.6	31.1	31.6	30.4	31.0	30.9	31.4	31.9
12H 4H	29.2	30.0	29.7	30.4	30.8	29.3	30.1	29.7	30.5	30.9
6H	29.8	30.5	30.3	30.9	31.4	30.0	30.6	30.4	31.1	31.5
8H	30.1	30.6	30.5	31.1	31.5	30.3	30.8	30.8	31.3	31.8
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.2				

CIE Pub.117, 442.6 lm Total Lamp Luminous Flux Correct ( $8\log(F/F_0) = -2.8$ )

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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:

### UTILIZATION FACTORS TABLE

Test:U:48.00V I:0.1423A P:6.830W PF:1.000 Freq:0Hz Lamp Flux:442.627x1 lm		
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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) x RCR = 5									
k = 0.60	58	47	40	58	47	40	57	46	40	34
0.80	68	57	50	67	57	50	66	56	49	42
1.00	77	66	59	76	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	72	84	76	71	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	103	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	99	102	99	95	86
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004										
Suspended										
SHRNOM = 1.25										

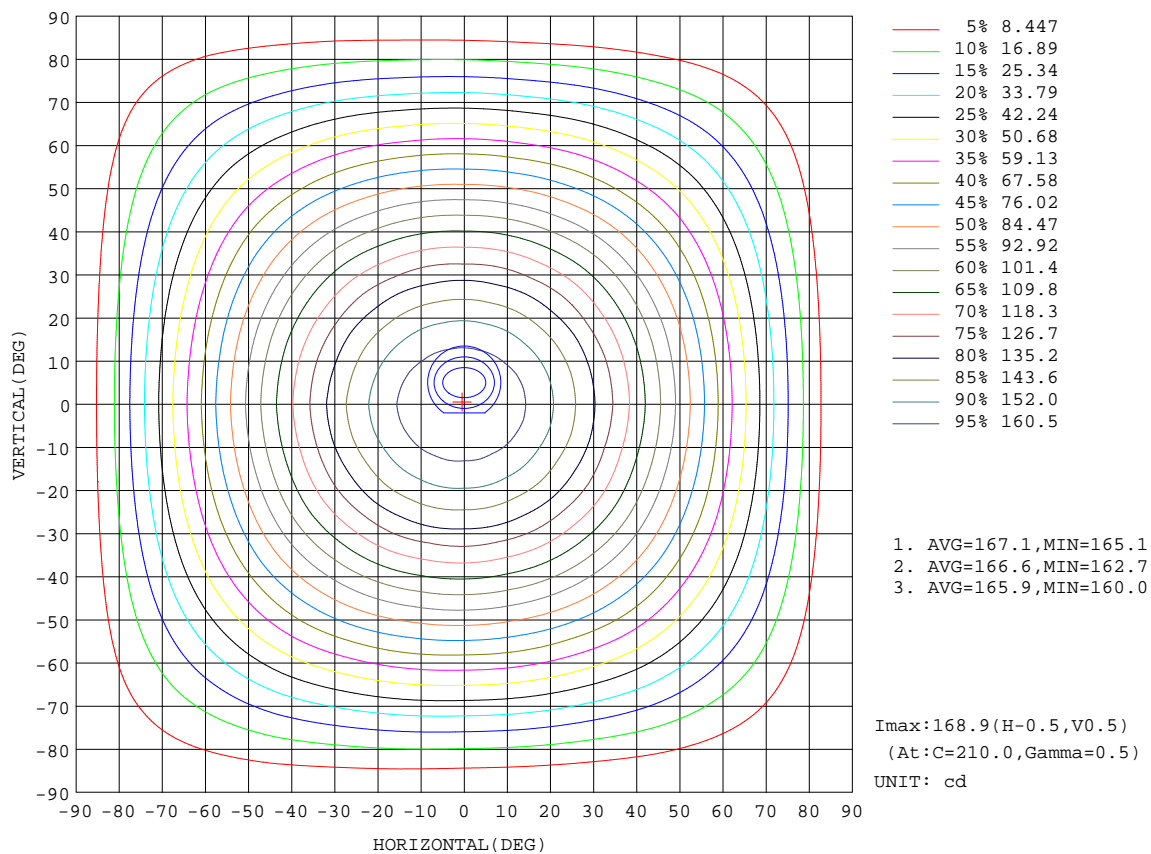
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ISOCANDELA DIAGRAM

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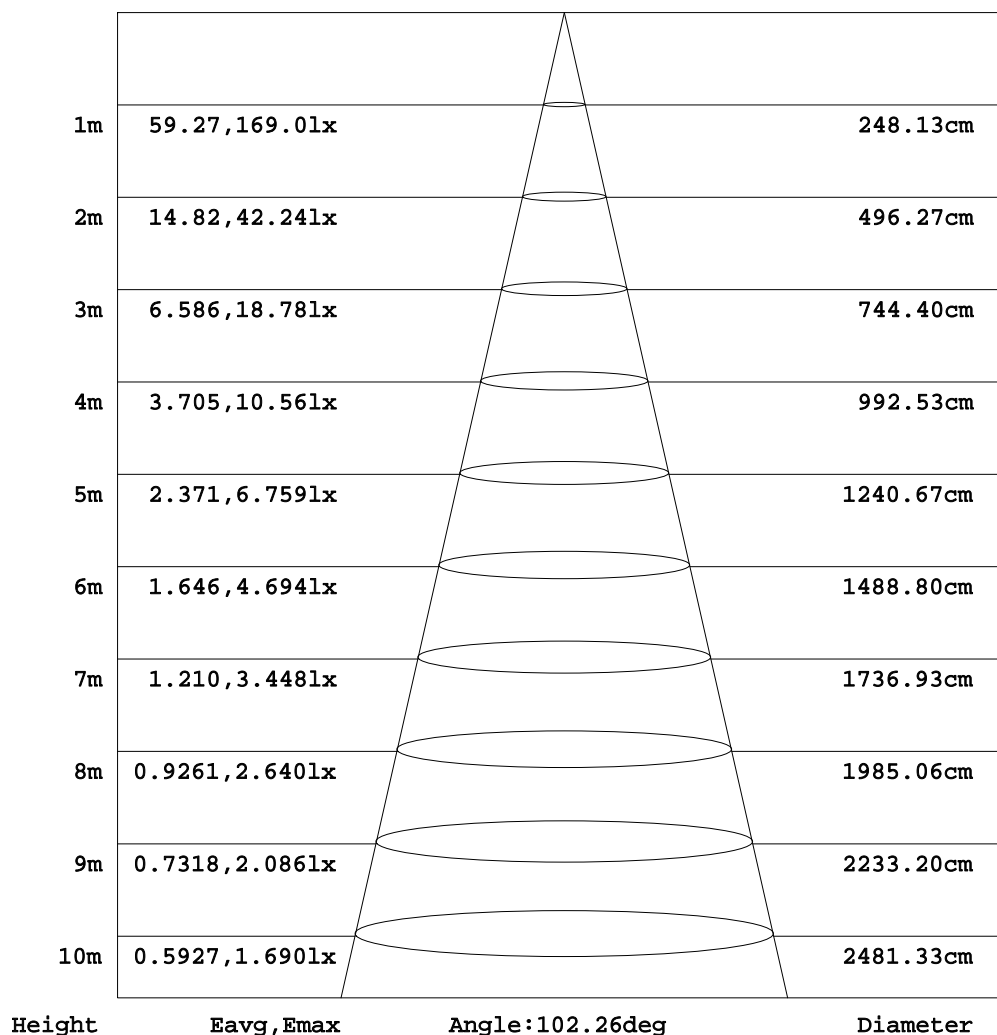
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AAI Figure

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Flux out:294.3 lm



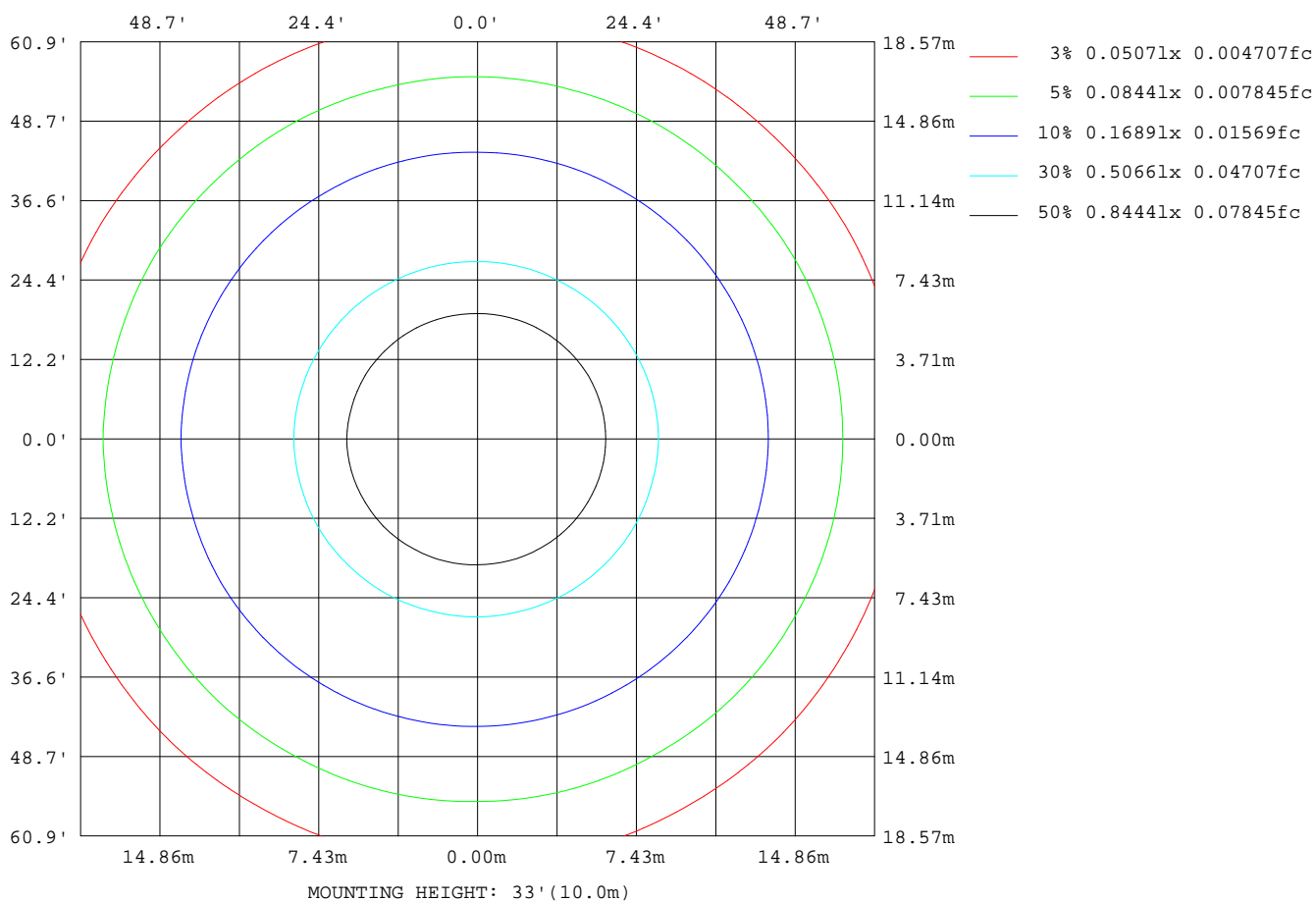
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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ISOLUX DIAGRAM

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### LED Avg.L Report

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SPEC.:4000K	DIM.: L284mm*W22mm*H43mm	
MFR.: NEKO LIGHTING AG		

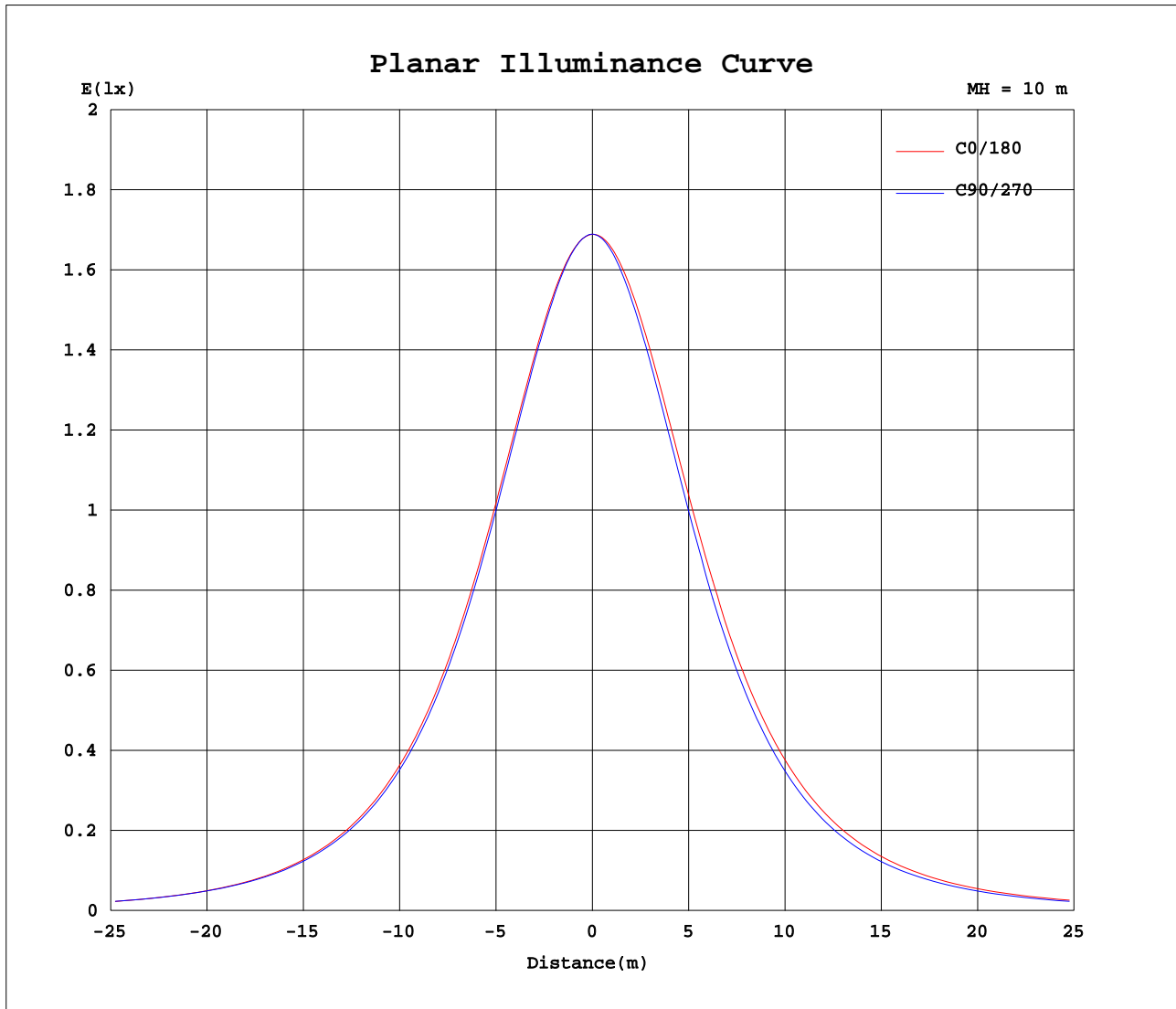
AvgL	cd/m2
L_0~180(65)av	20614
L_0~180(75)av	17699
L_0~180(85)av	12584
L_90~270(65)av	19320
L_90~270(75)av	16989
L_90~270(85)av	13662
L_45(65)av	19891
L_45(75)av	17372
L_45(85)av	13630

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:

```