

Low Voltage Track System Module ML26-GL840-19W-930



Light Output Ratio:	100.0%	
Luminaire Power:	19.2 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 Long  
Test Date: 2020-04-25

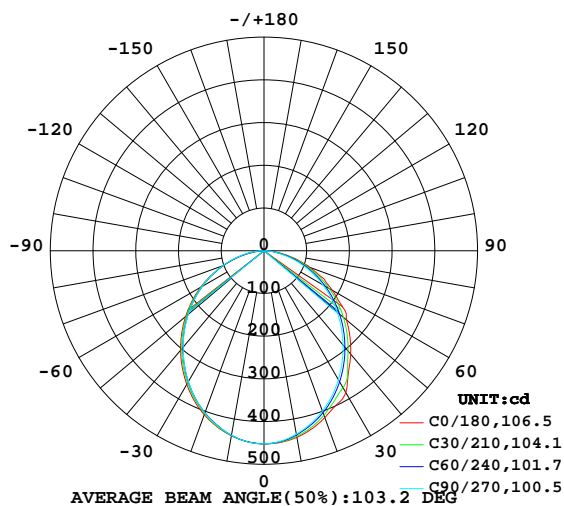
γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity: 58%  
Test Distance: 5.850m [K=1.0000]  
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

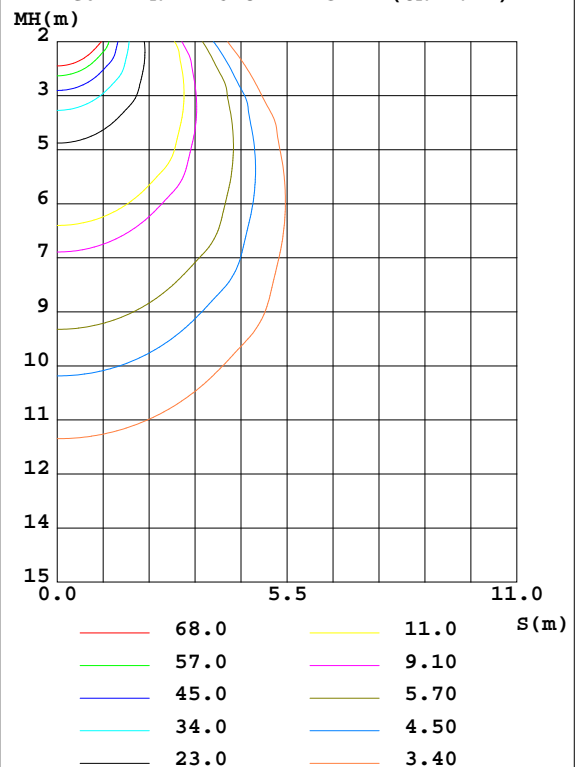
Test:U:48.00V I:0.4000A P:19.20W PF:1.000 Freq:0Hz Lamp Flux:1163.18x1 lm		
NAME: ML26-GL840-19W-930	TYPE:Low Voltage Track System Module	
SPEC.:3000K	DIM.: L840mm*W22mm*H43mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 60.58 lm/W
MODEL	SAMSUNG-3000K	I <sub>max</sub> (cd)	452.1	S/MH(C0/180)	1.20	
NOMINAL POWER(W)	19	LOR(%)	100.0	S/MH(C90/270)	1.17	
RATED VOLTAGE(V)	48	TOTAL FLUX(lm)	1163.2	η UP,DN(C0-180)	0.0,49.5	
NOMINAL FLUX(lm)	1163.18	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.5	
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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## ZONAL FLUX DIAGRAM

### ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	443.5	439.9	435.9	436.8	439.8	438.7	438.7	441.4	0- 10	42.53	42.53	3.66,3.66
20	415.7	406.9	399.8	400.9	408.6	403.9	404.2	410.0	10- 20	119.7	162.3	13.9,13.9
30	382.9	359.7	348.5	351.7	361.5	356.0	354.2	363.5	20- 30	176.9	339.2	29.2,29.2
40	315.5	304.0	288.0	292.1	303.8	296.7	294.7	315.4	30- 40	206.9	546.1	46.9,46.9
50	252.7	237.5	223.8	227.8	239.6	233.1	231.4	243.0	40- 50	206.8	752.9	64.7,64.7
60	184.2	171.2	158.6	161.1	171.4	167.2	167.0	177.3	50- 60	181.6	934.5	80.3,80.3
70	114.0	104.0	94.40	93.93	100.9	100.9	102.6	110.7	60- 70	134.6	1069	91.9,91.9
80	46.68	42.02	35.66	33.67	35.78	39.54	43.45	47.74	70- 80	74.55	1144	98.3,98.3
90	2.644	2.382	1.610	0.9743	0.4621	1.403	2.970	4.317	80- 90	19.51	1163	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): 651.18 lm

%lum = 56.0%

%lamp = 56.0%

Conical surface Flux(120deg): 934.48 lm

%lum = 80.3%

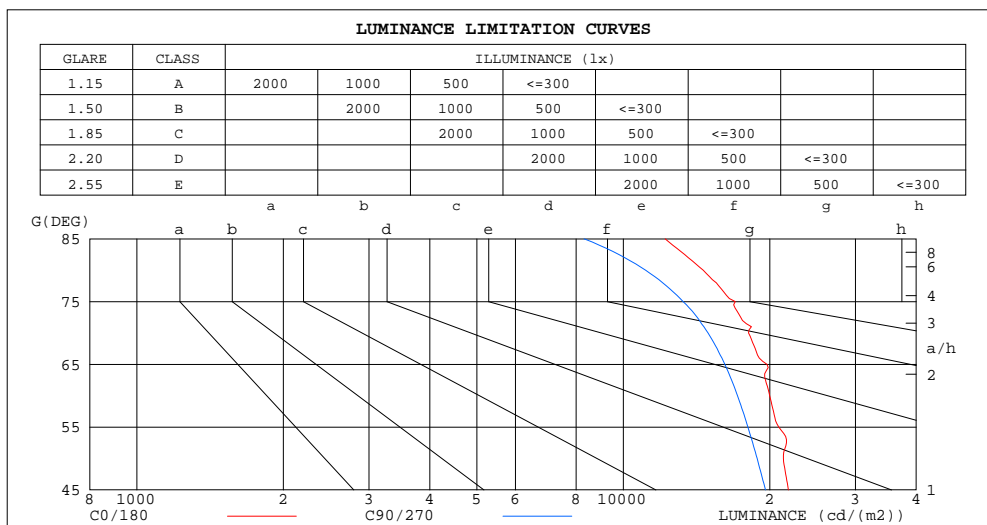
%lamp = 80.3%

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  
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Remarks:

**LUMINANCE LIMITATION CURVES**

Test:U:48.00V I:0.4000A P:19.20W PF:1.000 Freq:0Hz Lamp Flux:1163.18x1 lm		
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SPEC.:3000K	DIM.: L840mm*W22mm*H43mm	
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LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	12191	8308
80	14594	11110
75	16987	13271
70	18089	14929
65	19734	16172
60	19992	17161
55	20872	18034
50	21341	18836
45	21843	19593

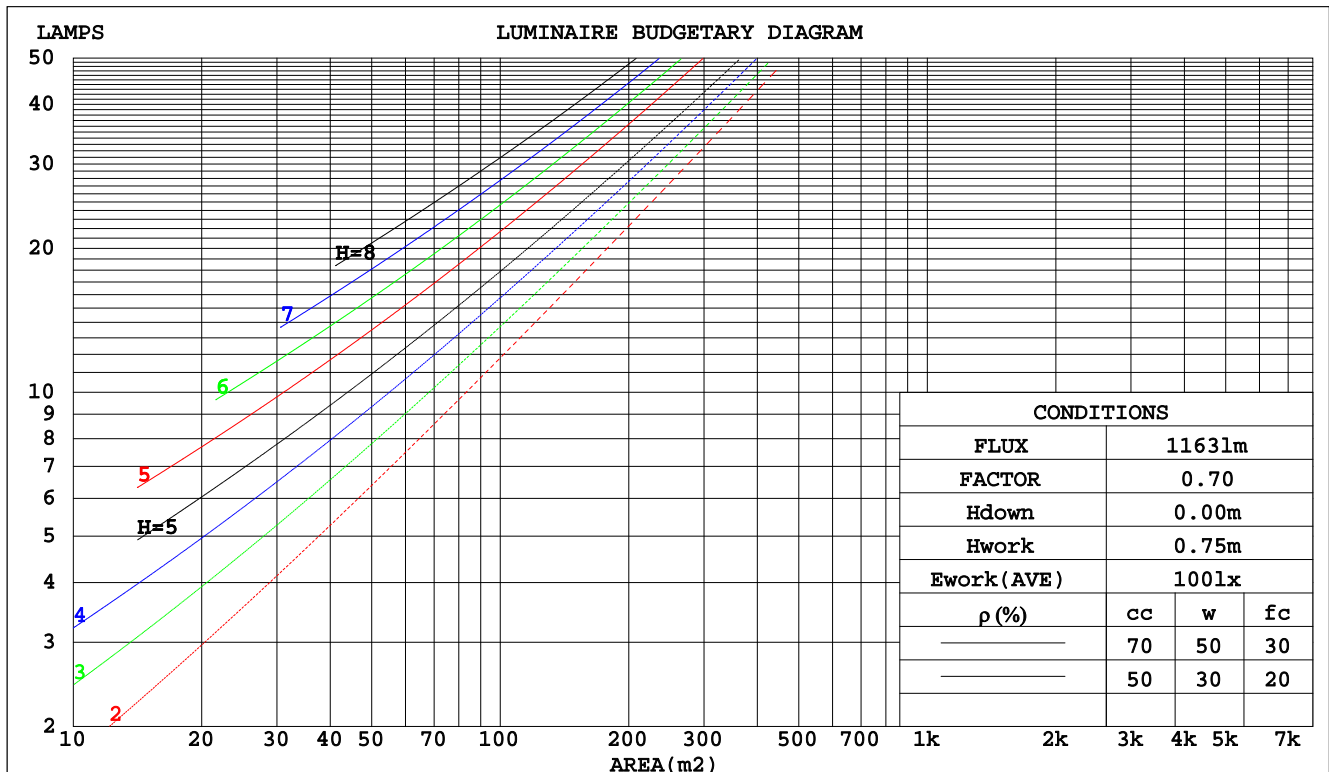
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**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

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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	1.00	.96	1.02	.98	.95	.98	.95	.92	.94	.91	.89	.90	.88	.86	.84
2.0	.91	.85	.79	.89	.83	.78	.86	.81	.76	.83	.78	.74	.80	.76	.73	.71
3.0	.80	.72	.66	.79	.71	.65	.76	.69	.64	.73	.68	.63	.70	.66	.62	.60
4.0	.71	.63	.56	.70	.62	.56	.68	.60	.55	.65	.59	.54	.63	.58	.53	.51
5.0	.64	.55	.48	.63	.54	.48	.61	.53	.48	.59	.52	.47	.57	.51	.47	.45
6.0	.58	.49	.42	.57	.48	.42	.55	.47	.42	.53	.47	.41	.52	.46	.41	.39
7.0	.52	.44	.38	.52	.43	.37	.50	.43	.37	.49	.42	.37	.47	.41	.37	.35
8.0	.48	.39	.34	.47	.39	.34	.46	.39	.33	.45	.38	.33	.43	.37	.33	.31
9.0	.44	.36	.30	.43	.36	.30	.42	.35	.30	.41	.35	.30	.40	.34	.30	.28
10.0	.41	.33	.28	.40	.33	.27	.39	.32	.27	.38	.32	.27	.37	.31	.27	.25



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## WEC AND CCEC

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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						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.301	.171	.054	.294	.168	.053	.281	.161	.051	.268	.155	.050	.257	.149	.048		
2.0	.284	.156	.048	.278	.153	.047	.266	.148	.046	.256	.143	.045	.246	.139	.044		
3.0	.264	.140	.042	.258	.138	.042	.248	.134	.041	.239	.131	.040	.230	.127	.039		
4.0	.244	.127	.037	.239	.125	.037	.230	.122	.036	.222	.119	.036	.214	.116	.035		
5.0	.226	.115	.033	.222	.114	.033	.214	.111	.033	.206	.109	.032	.199	.106	.032		
6.0	.210	.105	.030	.206	.104	.030	.199	.102	.030	.192	.100	.029	.186	.098	.029		
7.0	.196	.097	.027	.192	.096	.027	.186	.094	.027	.180	.092	.027	.174	.090	.027		
8.0	.183	.089	.025	.180	.089	.025	.174	.087	.025	.169	.086	.025	.164	.084	.024		
9.0	.172	.083	.023	.169	.082	.023	.164	.081	.023	.159	.080	.023	.154	.078	.023		
10.0	.162	.077	.021	.159	.077	.021	.154	.076	.021	.150	.075	.021	.146	.073	.021		

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	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	.171	.132	.099	.147	.114	.086	.101	.079	.060	.058	.046	.035	.019	.015	.011	
3.0	.163	.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	.148	.090	.048	.127	.078	.042	.088	.055	.029	.051	.032	.017	.016	.010	.006	
6.0	.141	.082	.040	.121	.071	.035	.084	.050	.024	.049	.029	.015	.016	.010	.005	
7.0	.134	.075	.034	.115	.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	.069	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
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Operators:Jason Long  
Test Date:2020-04-25

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:0.4000A P:19.20W PF:1.000 Freq:0Hz Lamp Flux:1163.18x1 lm										
NAME: ML26-GL840-19W-930					TYPE:Low Voltage Track System Module					
SPEC.:3000K					DIM.: L840mm*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	22.9	24.4	23.1	24.6	24.8	22.2	23.7	22.5	23.9	24.1
3H	24.4	25.8	24.7	26.0	26.2	23.6	25.0	23.9	25.2	25.4
4H	25.0	26.3	25.3	26.6	26.8	24.1	25.4	24.4	25.7	25.9
6H	25.4	26.6	25.7	26.9	27.2	24.4	25.7	24.8	25.9	26.2
8H	25.5	26.7	25.9	27.0	27.3	24.5	25.7	24.9	26.0	26.3
12H	25.6	26.7	25.9	27.0	27.3	24.5	25.7	24.9	26.0	26.3
4H 2H	23.4	24.7	23.7	24.9	25.2	22.9	24.2	23.2	24.5	24.7
3H	25.1	26.2	25.4	26.5	26.8	24.4	25.6	24.8	25.9	26.2
4H	25.8	26.9	26.2	27.2	27.5	25.1	26.1	25.4	26.4	26.7
6H	26.3	27.3	26.7	27.6	28.0	25.5	26.4	25.9	26.8	27.1
8H	26.5	27.4	26.9	27.8	28.1	25.6	26.5	26.0	26.9	27.2
12H	26.6	27.4	27.1	27.8	28.2	25.7	26.5	26.1	26.9	27.3
8H 4H	26.0	26.9	26.4	27.2	27.6	25.3	26.2	25.7	26.6	26.9
6H	26.7	27.4	27.1	27.8	28.2	25.9	26.6	26.4	27.0	27.5
8H	26.9	27.6	27.4	28.0	28.4	26.1	26.7	26.6	27.2	27.6
12H	27.1	27.7	27.6	28.1	28.6	26.2	26.8	26.7	27.2	27.7
12H 4H	26.0	26.8	26.4	27.2	27.6	25.3	26.1	25.8	26.5	26.9
6H	26.7	27.4	27.2	27.8	28.2	26.0	26.6	26.4	27.0	27.5
8H	27.0	27.6	27.5	28.0	28.5	26.2	26.8	26.7	27.2	27.7
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	+ 0.3 / - 0.3					+ 0.2 / - 0.3				

CIE Pub.117, 1163 lm Total Lamp Luminous Flux Correct ( $8\log(F/F_0) = 0.5$ )

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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:0.4000A P:19.20W PF:1.000 Freq:0Hz Lamp Flux:1163.18x1 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	59	47	41	58	47	41	57	47	40	34
0.80	69	58	50	68	57	50	66	56	50	43
1.00	77	66	59	76	66	59	74	67	58	51
1.25	84	74	67	83	73	67	80	72	66	59
1.50	89	79	73	87	79	72	84	77	71	64
2.00	96	87	81	94	86	80	90	84	79	71
2.50	100	92	86	98	91	85	94	88	83	75
3.00	103	96	91	101	95	90	97	92	88	79
4.00	107	101	97	104	99	95	100	96	93	84
5.00	109	104	100	107	102	99	102	99	96	87
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004										
Suspended										
SHRNOM = 1.25										

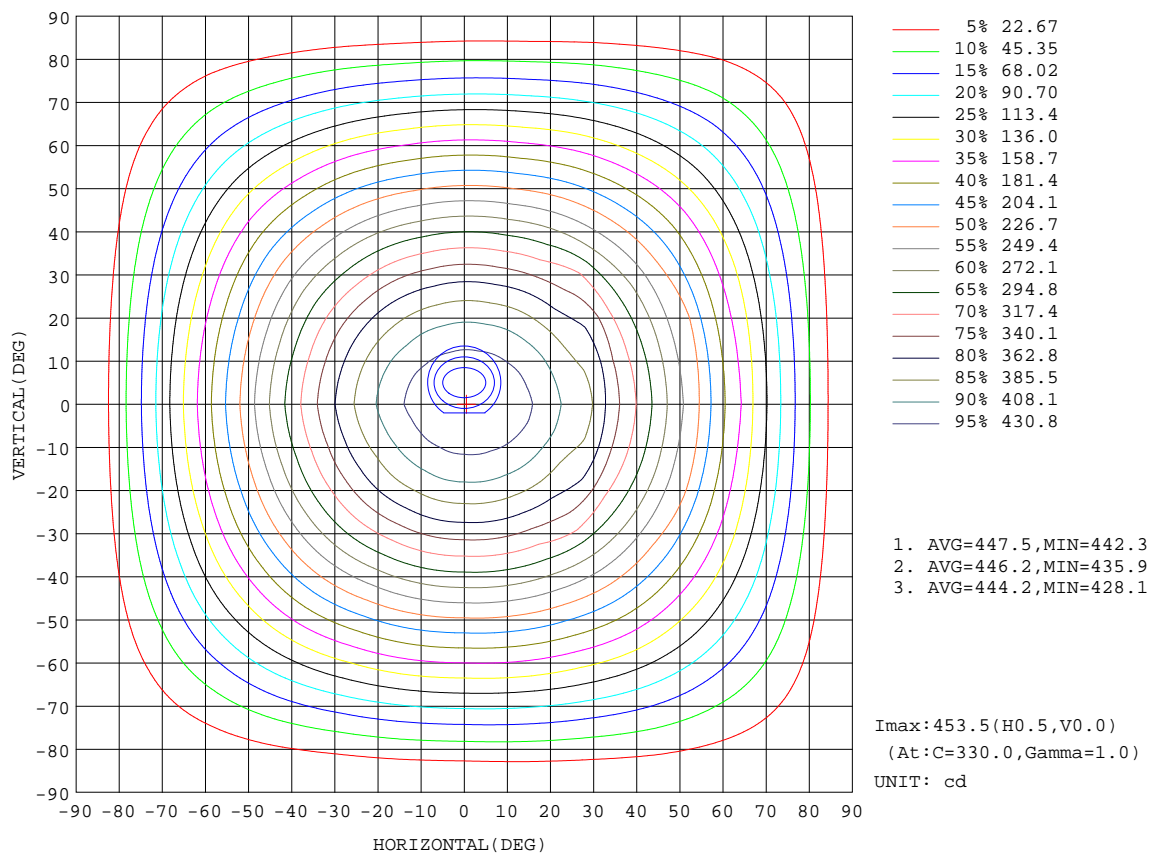
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# ISOCANDELA DIAGRAM

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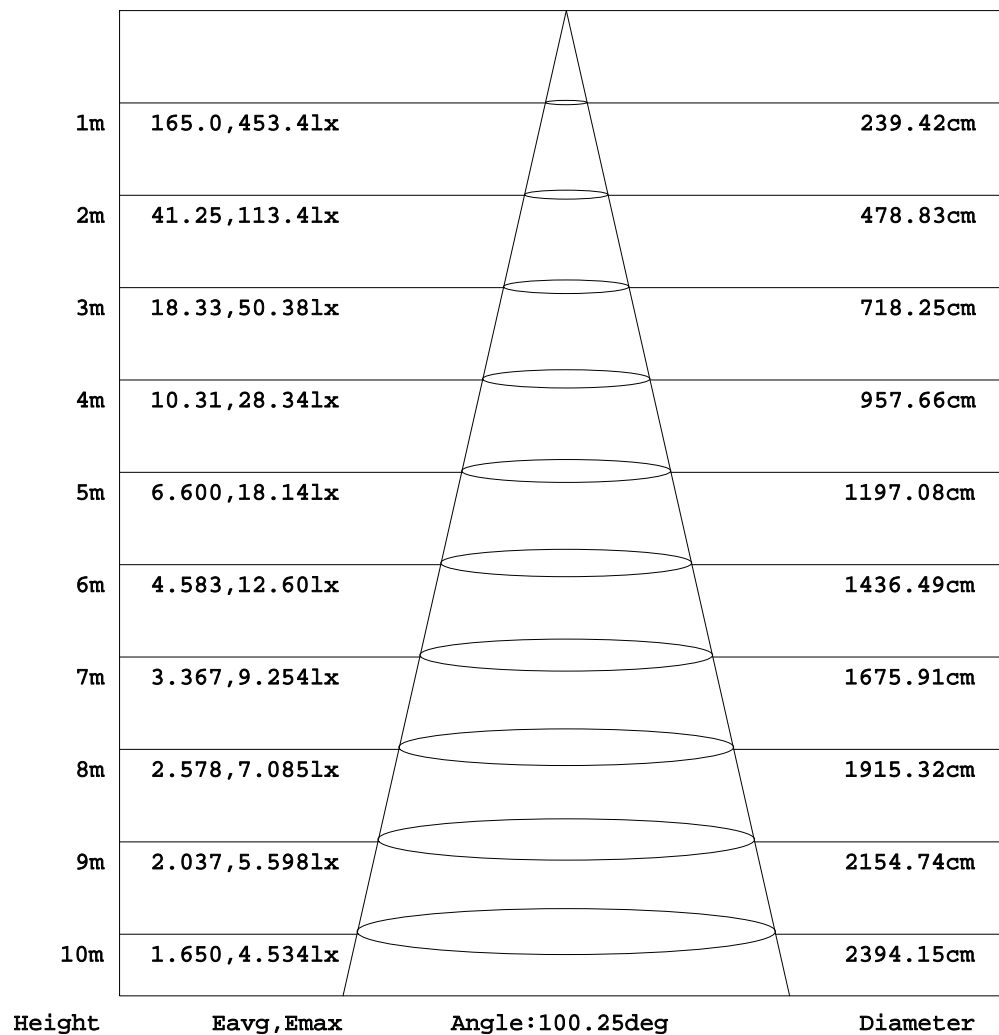
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AAI Figure

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Flux out:762.8 lm



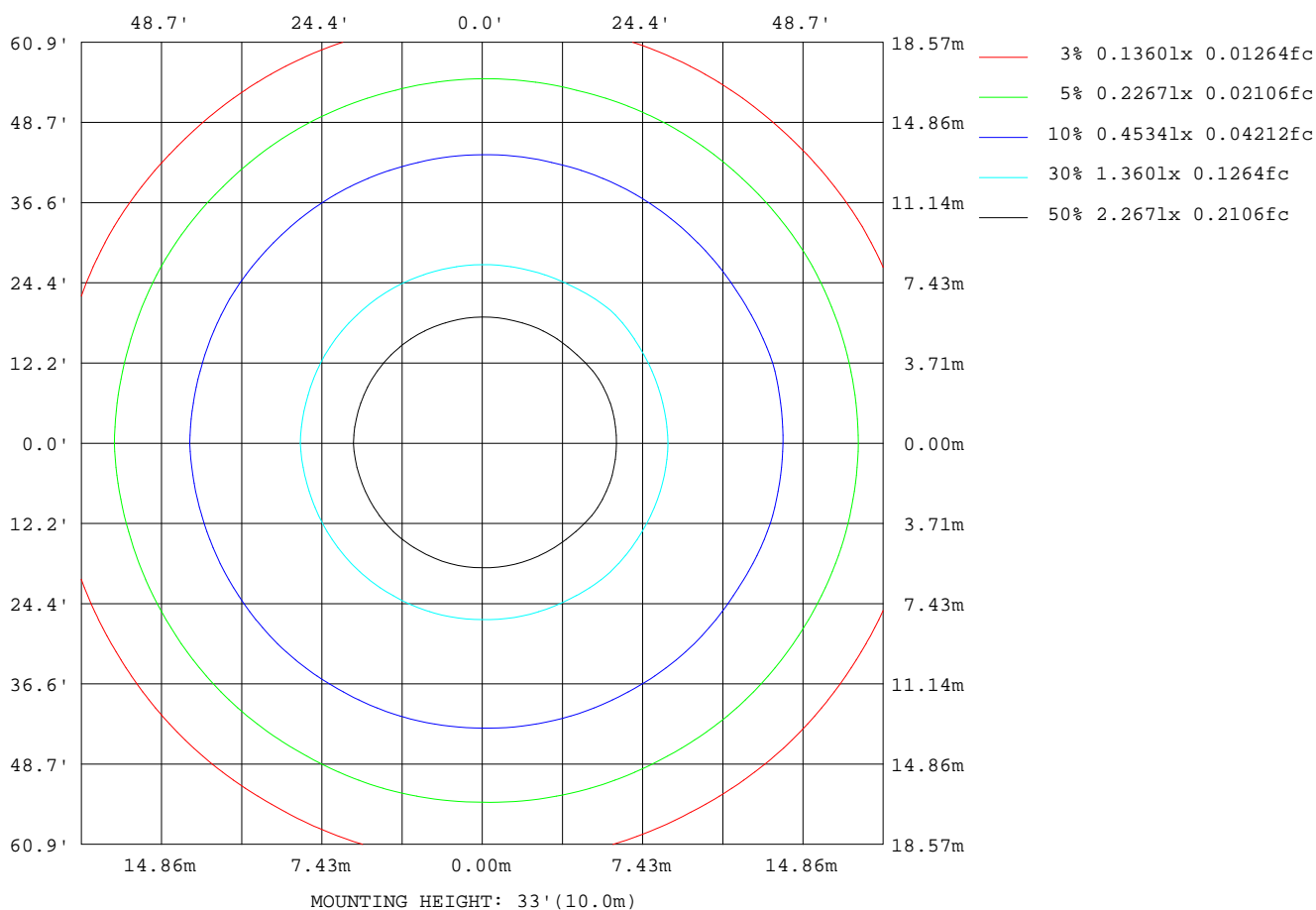
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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ISOLUX DIAGRAM

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### LED Avg.L Report

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SPEC.:3000K	DIM.: L840mm*W22mm*H43mm	
MFR.: NEKO LIGHTING AG		

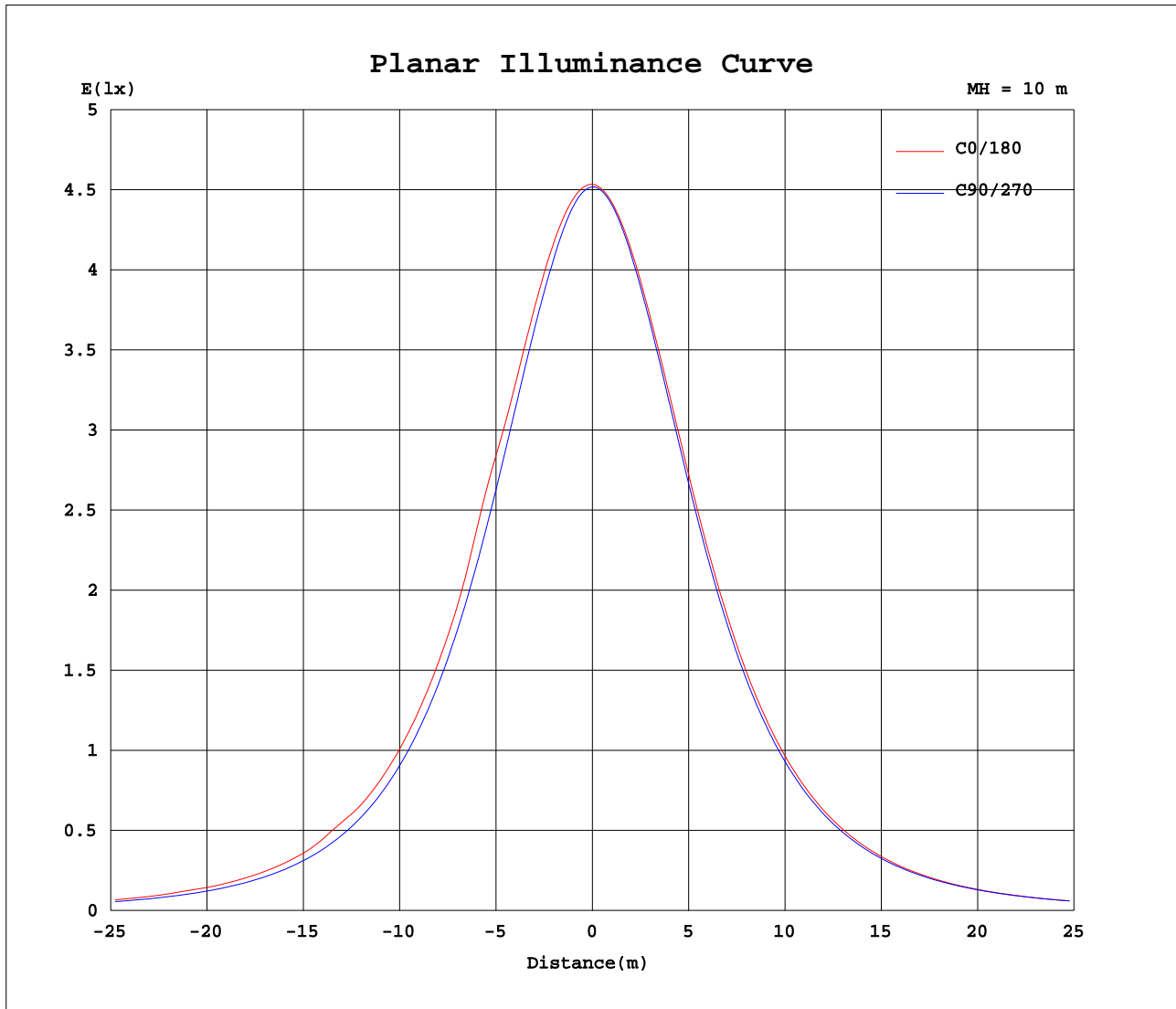
AvgL	cd/m2
L_0~180(65)av	18580
L_0~180(75)av	15460
L_0~180(85)av	9688
L_90~270(65)av	16716
L_90~270(75)av	14158
L_90~270(85)av	10135
L_45(65)av	17378
L_45(75)av	14710
L_45(85)av	10308

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason Long  
Test Date:2020-04-25

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 Long  
Test Date: 2020-04-25

$\gamma$  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:

```