

Low Voltage Track System Module ML26-RT55-10W-927-35-60#60



Light Output Ratio:	100.0%	
Luminaire Power:	9.679 W	
SHR Nominal:	0.75	Calculated using the TM5
SHR Maximum:	0.90	fine grid method.

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Jason  
Test Date: 2020-05-11

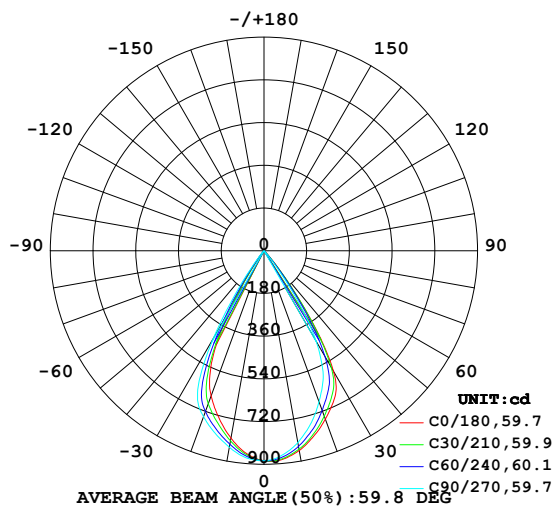
γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity: 58%  
Test Distance: 5.850m [K=1.0000]  
Remarks:

**LUMINAIRE PHOTOMETRIC TEST REPORT**

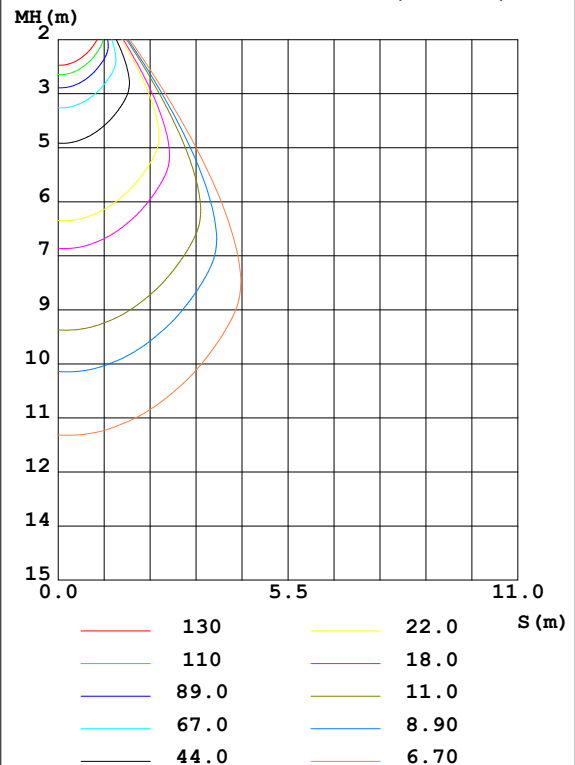
Test:U:48.00V I:0.2016A P:9.679W PF:1.000 Freq:0Hz Lamp Flux:704.228x1 lm		
NAME: ML26-RT55-10W-927-35-60#60	TYPE:Low Voltage Track System Module	
SPEC.:2700K	DIM.: $\phi 55\text{mm} \times \text{H}150\text{mm}$	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 72.76 lm/W			
MODEL	CITIZEN-2700K	I <sub>max</sub> (cd)	888.3	S/MH (C0/180)	0.79
NOMINAL POWER (W)	10	LOR (%)	100.0	S/MH (C90/270)	0.86
RATED VOLTAGE (V)	48	TOTAL FLUX (lm)	704.23	$\eta$ UP,DN (C0-180)	0.0,50.7
NOMINAL FLUX (lm)	704.228	CIE CLASS	DIRECT	$\eta$ UP,DN (C180-360)	0.0,49.3
LAMPS INSIDE	1	$\eta$ up (%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE (V)	48	$\eta$ down (%)	100.0	CIBSE SHR MAX	0.90

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
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 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Jason  
 Test Date:2020-05-11

$\gamma$  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	854.7	844.9	820.8	802.8	801.9	819.4	840.7	852.3	0- 10	81.75	81.75	11.6,11.6
20	755.5	733.0	677.9	636.7	650.9	702.9	744.7	758.0	10- 20	217.0	298.8	42.4,42.4
30	584.7	547.0	439.1	347.5	280.0	309.9	428.9	529.9	20- 30	274.7	573.5	81.4,81.4
40	73.81	72.07	33.30	13.46	10.49	13.08	27.94	48.24	30- 40	119.2	692.7	98.4,98.4
50	4.979	4.337	3.289	2.412	1.941	1.944	2.418	3.584	40- 50	8.910	701.6	99.6,99.6
60	1.665	1.640	1.336	0.9510	0.7498	0.7240	0.9172	1.233	50- 60	1.687	703.3	99.9,99.9
70	0.4962	0.5129	0.4270	0.3016	0.2115	0.1990	0.2054	0.3197	60- 70	0.6584	703.9	100,100
80	0.1705	0.1593	0.1533	0.0874	0.0544	0.0678	0.0655	0.1205	70- 80	0.2147	704.2	100,100
90	0.0655	0.0656	0.0590	0.0481	0.0240	0.0219	0.0262	0.0394	80- 90	0.0719	704.2	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): 699.47 lm

%lum = 99.3%

%lamp = 99.3%

Conical surface Flux(120deg): 703.28 lm

%lum = 99.9%

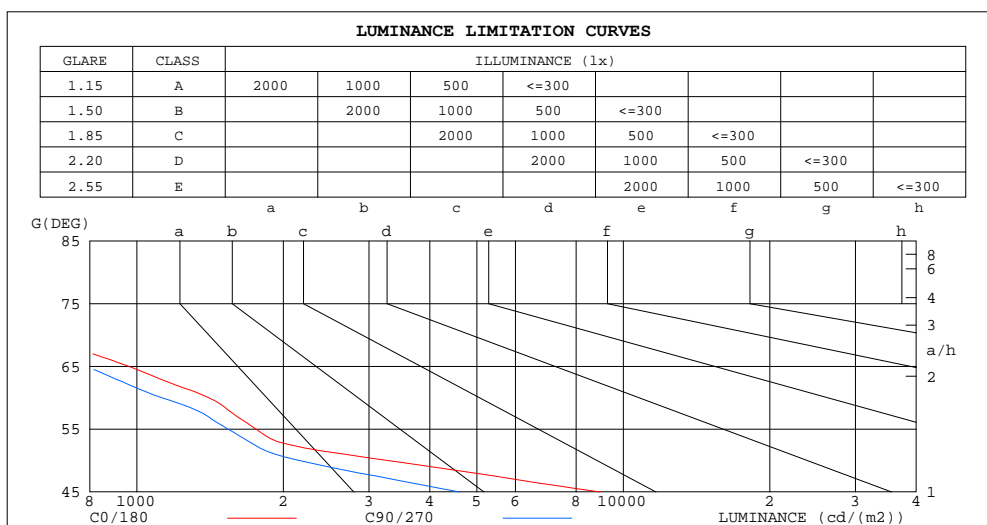
%lamp = 99.9%

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Operators:Jason  
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 $\gamma$  Interval: 0.5DEG  
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Humidity:58%  
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Remarks:

### LUMINANCE LIMITATION CURVES

Test:U:48.00V I:0.2016A P:9.679W PF:1.000 Freq:0Hz Lamp Flux:704.228x1 lm		
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SPEC.:2700K	DIM.: $\phi$ 55mm*H150mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	455	392
80	414	372
75	474	427
70	612	526
65	962	785
60	1405	1125
55	1758	1539
50	3268	2155
45	8961	4602

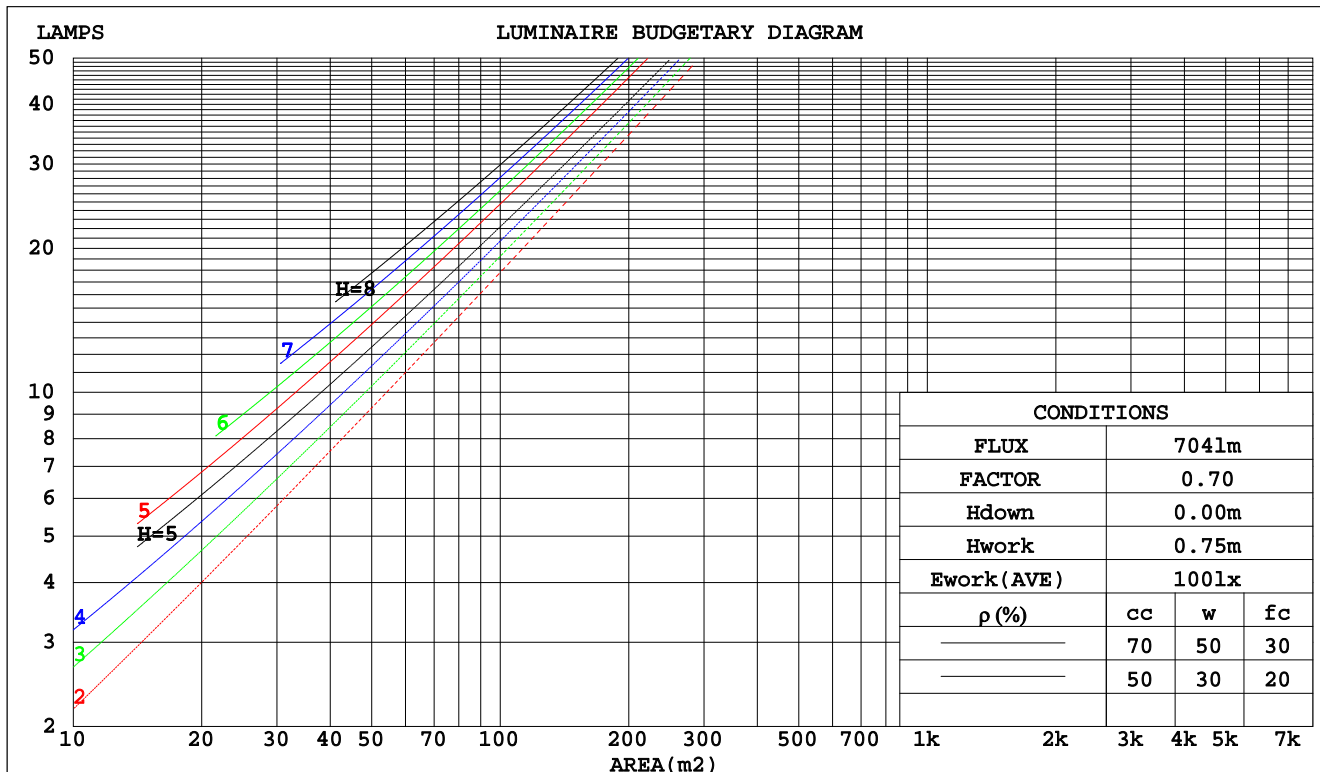
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**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

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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	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	1.11	1.09	1.07	1.09	1.07	1.05	1.05	1.03	1.02	1.01	1.00	.99	.98	.97	.96	.94
2.0	1.04	1.00	.97	1.02	.99	.96	.99	.96	.94	.96	.94	.92	.94	.92	.90	.89
3.0	.98	.93	.89	.96	.92	.89	.94	.90	.87	.91	.88	.86	.89	.87	.85	.83
4.0	.92	.87	.83	.91	.86	.82	.89	.85	.81	.87	.83	.80	.85	.82	.80	.78
5.0	.87	.81	.77	.86	.81	.77	.84	.79	.76	.82	.78	.75	.81	.77	.75	.73
6.0	.82	.76	.72	.81	.76	.72	.79	.75	.71	.78	.74	.71	.77	.73	.70	.69
7.0	.77	.72	.68	.77	.71	.67	.75	.71	.67	.74	.70	.67	.73	.69	.66	.65
8.0	.73	.67	.64	.73	.67	.63	.71	.67	.63	.70	.66	.63	.70	.66	.63	.61
9.0	.69	.64	.60	.69	.64	.60	.68	.63	.60	.67	.63	.59	.66	.62	.59	.58
10.0	.66	.60	.57	.65	.60	.57	.65	.60	.56	.64	.59	.56	.63	.59	.56	.55



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## WEC AND CCEC

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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	.168	.096	.030	.161	.092	.029	.149	.085	.027	.137	.079	.025	.127	.073	.024		
2.0	.160	.088	.027	.154	.085	.026	.144	.080	.025	.134	.075	.024	.125	.071	.022		
3.0	.152	.081	.024	.147	.079	.024	.139	.075	.023	.130	.071	.022	.123	.068	.021		
4.0	.145	.075	.022	.141	.074	.022	.133	.071	.021	.126	.068	.020	.120	.065	.020		
5.0	.138	.071	.020	.135	.069	.020	.128	.067	.020	.122	.064	.019	.116	.062	.019		
6.0	.132	.066	.019	.129	.065	.019	.123	.063	.018	.118	.061	.018	.113	.059	.018		
7.0	.127	.063	.018	.124	.062	.018	.119	.060	.017	.114	.059	.017	.110	.057	.017		
8.0	.122	.059	.017	.119	.059	.017	.115	.057	.016	.110	.056	.016	.106	.055	.016		
9.0	.117	.057	.016	.115	.056	.016	.111	.055	.016	.107	.054	.015	.103	.052	.015		
10.0	.113	.054	.015	.111	.053	.015	.107	.052	.015	.103	.051	.015	.100	.050	.014		

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	.170	.157	.146	.146	.135	.125	.100	.093	.087	.057	.054	.050	.018	.017	.016		
2.0	.155	.133	.114	.132	.114	.099	.091	.079	.069	.052	.046	.040	.017	.015	.013		
3.0	.142	.114	.091	.122	.098	.079	.083	.068	.055	.048	.040	.033	.015	.013	.011		
4.0	.131	.099	.074	.113	.085	.064	.077	.059	.045	.045	.035	.027	.014	.011	.009		
5.0	.122	.087	.061	.105	.075	.053	.072	.053	.037	.042	.031	.022	.014	.010	.007		
6.0	.115	.078	.051	.099	.067	.044	.068	.047	.031	.039	.028	.019	.013	.009	.006		
7.0	.108	.070	.043	.093	.061	.037	.064	.042	.027	.037	.025	.016	.012	.008	.005		
8.0	.103	.064	.037	.088	.055	.032	.061	.039	.023	.036	.023	.014	.012	.007	.004		
9.0	.098	.058	.032	.084	.051	.028	.058	.036	.020	.034	.021	.012	.011	.007	.004		
10.0	.093	.054	.028	.080	.047	.024	.056	.033	.017	.032	.020	.010	.011	.006	.003		

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Temperature:25.3DEG  
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 $\gamma$  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:0.2016A P:9.679W PF:1.000 Freq:0Hz Lamp Flux:704.228x1 lm										
NAME: ML26-RT55-10W-927-35-60#60					TYPE:Low Voltage Track System Module					
SPEC.:2700K					DIM.: $\phi$ 55mm*H150mm					
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	23.0	23.9	23.2	24.0	24.2	21.4	22.3	21.6	22.4	22.6
3H	22.8	23.6	23.1	23.8	24.0	21.2	22.0	21.5	22.2	22.4
4H	22.7	23.5	23.0	23.7	23.9	21.1	21.9	21.4	22.1	22.3
6H	22.6	23.4	22.9	23.6	23.8	21.0	21.8	21.3	22.0	22.2
8H	22.6	23.3	22.9	23.5	23.8	21.0	21.7	21.3	21.9	22.2
12H	22.6	23.2	22.9	23.5	23.8	21.0	21.6	21.3	21.9	22.2
4H 2H	22.7	23.5	23.0	23.7	23.9	21.1	21.9	21.4	22.1	22.3
3H	22.6	23.2	22.9	23.5	23.8	21.0	21.6	21.3	21.9	22.2
4H	22.5	23.1	22.8	23.4	23.7	20.9	21.5	21.2	21.8	22.1
6H	22.4	22.9	22.7	23.2	23.6	20.8	21.3	21.1	21.6	22.0
8H	22.3	22.8	22.7	23.2	23.5	20.7	21.2	21.1	21.6	21.9
12H	22.3	22.7	22.7	23.1	23.5	20.7	21.1	21.1	21.5	21.9
8H 4H	22.3	22.8	22.7	23.2	23.5	20.7	21.2	21.1	21.6	21.9
6H	22.2	22.6	22.6	23.0	23.4	20.6	21.0	21.0	21.4	21.8
8H	22.2	22.5	22.6	22.9	23.4	20.6	20.9	21.0	21.3	21.8
12H	22.1	22.4	22.6	22.8	23.3	20.5	20.8	21.0	21.2	21.7
12H 4H	22.3	22.7	22.7	23.1	23.5	20.7	21.1	21.1	21.5	21.9
6H	22.2	22.5	22.6	22.9	23.4	20.6	20.9	21.0	21.3	21.8
8H	22.1	22.4	22.6	22.8	23.3	20.5	20.8	21.0	21.2	21.7
Variations with the observer position at spacings:										
S = 1.0H	+ 4.4 / -17.5					+ 3.7 / -15.1				
1.5H	+ 7.1 / -16.0					+ 6.4 / -13.6				
2.0H	+ 6.7 / - 4.5					+ 4.6 / - 3.3				

CIE Pub.117, 704.2 lm Total Lamp Luminous Flux Correct ( $8\log(F/F_0) = -1.2$ )

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Humidity:58%  
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### UTILIZATION FACTORS TABLE

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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) $k(RI) \times RCR = 5$									
$k = 0.60$	91	85	81	90	85	81	89	84	81	78
0.80	98	92	89	97	92	89	96	91	88	85
1.00	101	96	93	101	96	93	99	96	92	89
1.25	105	100	97	104	100	97	102	99	96	92
1.50	107	103	100	106	102	100	104	101	99	94
2.00	110	106	103	108	105	102	106	103	101	96
2.50	111	108	105	110	106	104	107	104	102	97
3.00	113	109	107	111	108	106	108	105	104	97
4.00	114	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		

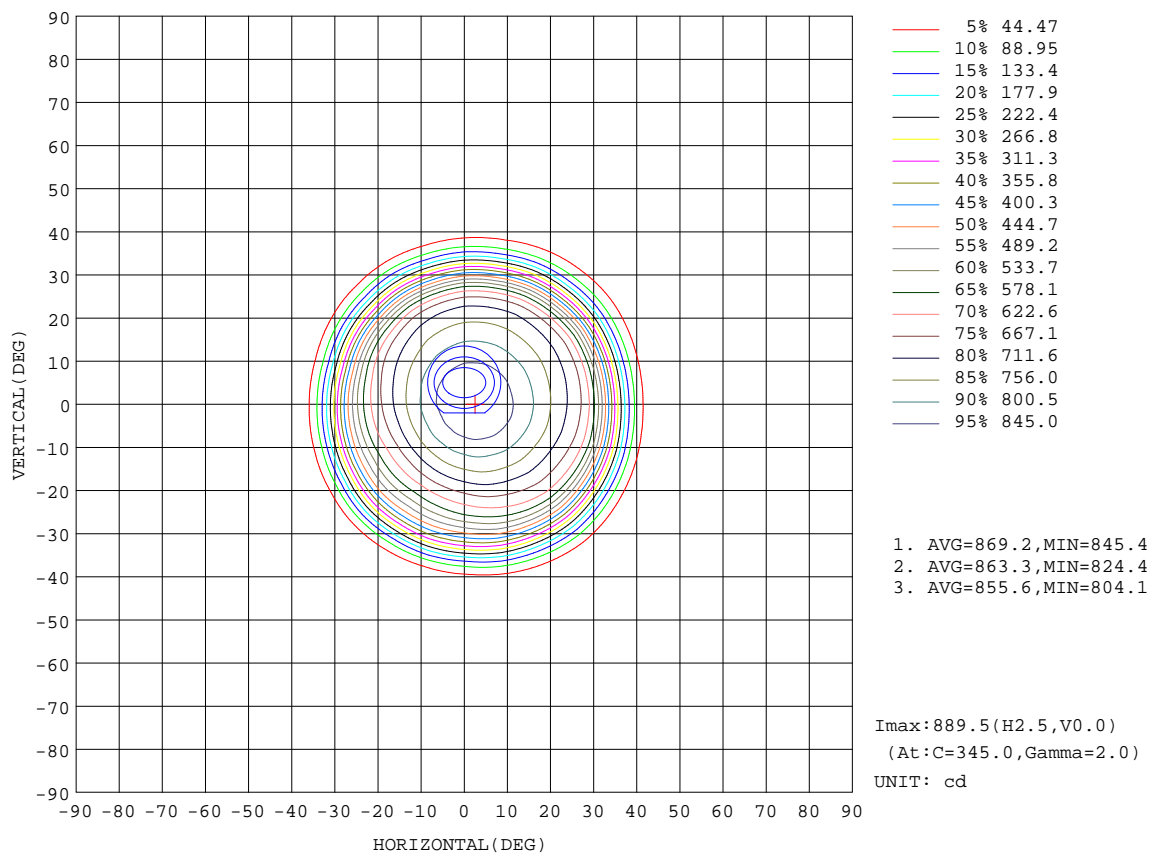
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ISOCANDELA DIAGRAM

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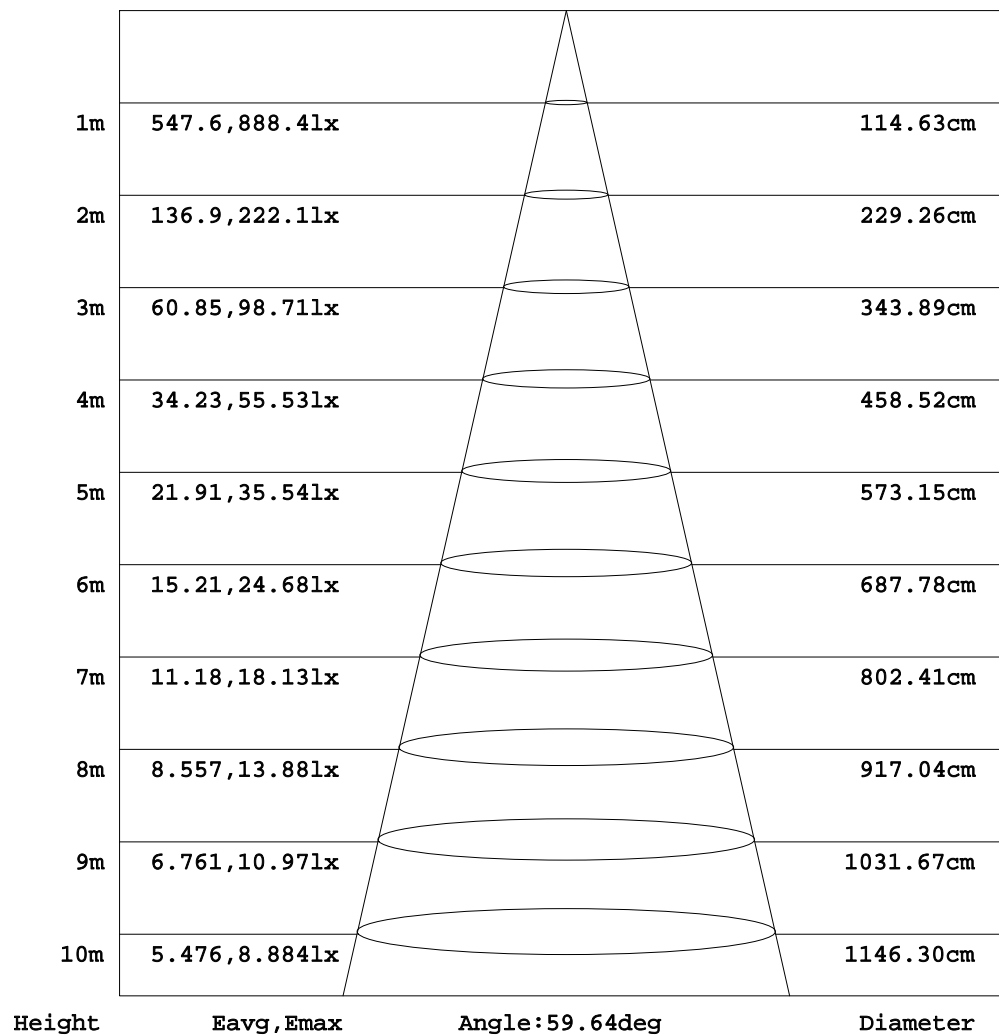
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**AAI Figure**

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Flux out:573.5 lm



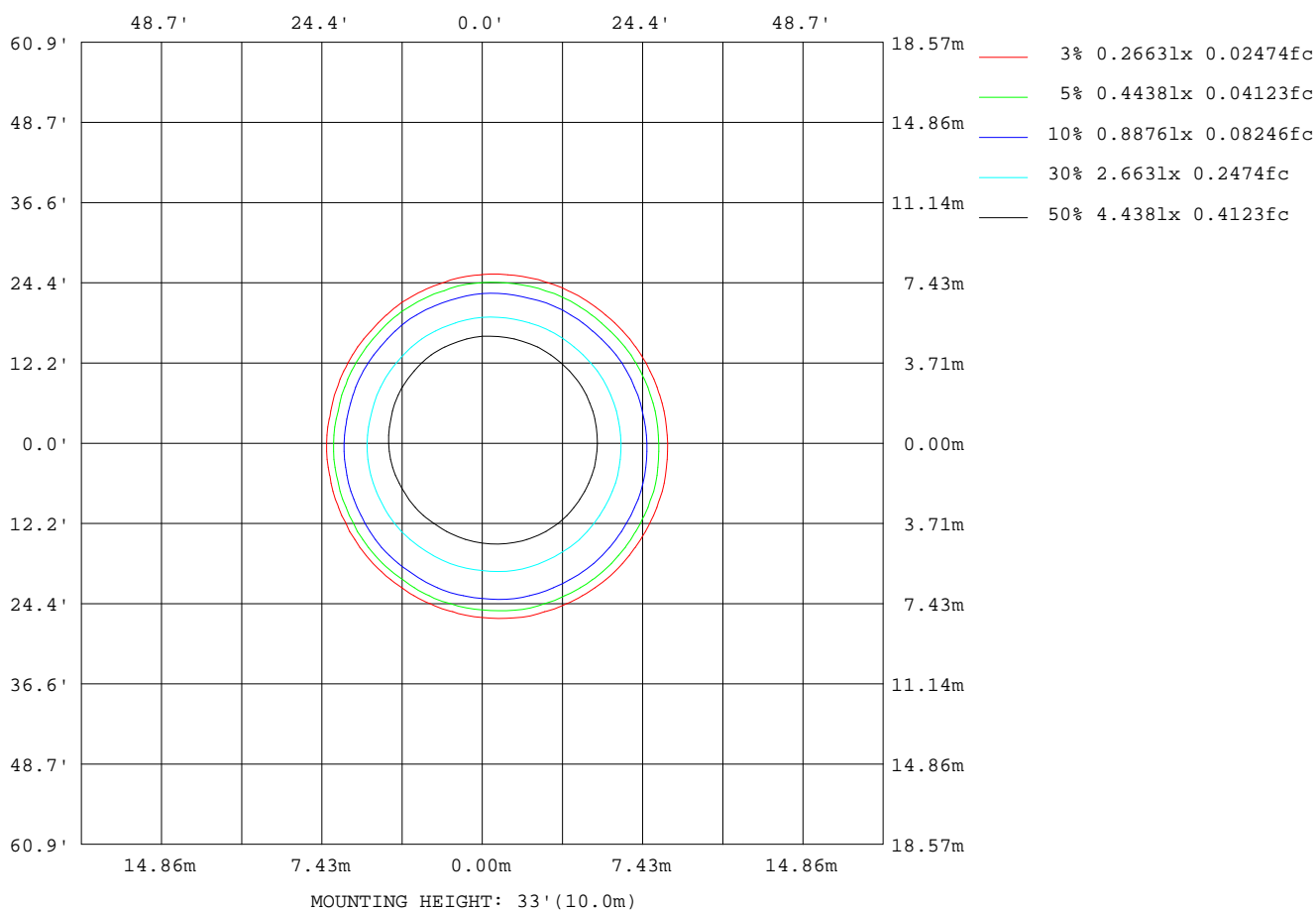
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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**ISOLUX DIAGRAM**

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Test Distance:5.850m [K=1.0000]  
Remarks:

### LED Avg.L Report

Test:U:48.00V I:0.2016A P:9.679W PF:1.000 Freq:0Hz Lamp Flux:704.228x1 lm		
NAME: ML26-RT55-10W-927-35-60#60	TYPE:Low Voltage Track System Module	
SPEC.:2700K	DIM.: $\phi$ 55mm*H150mm	
MFR.: NEKO LIGHTING AG		

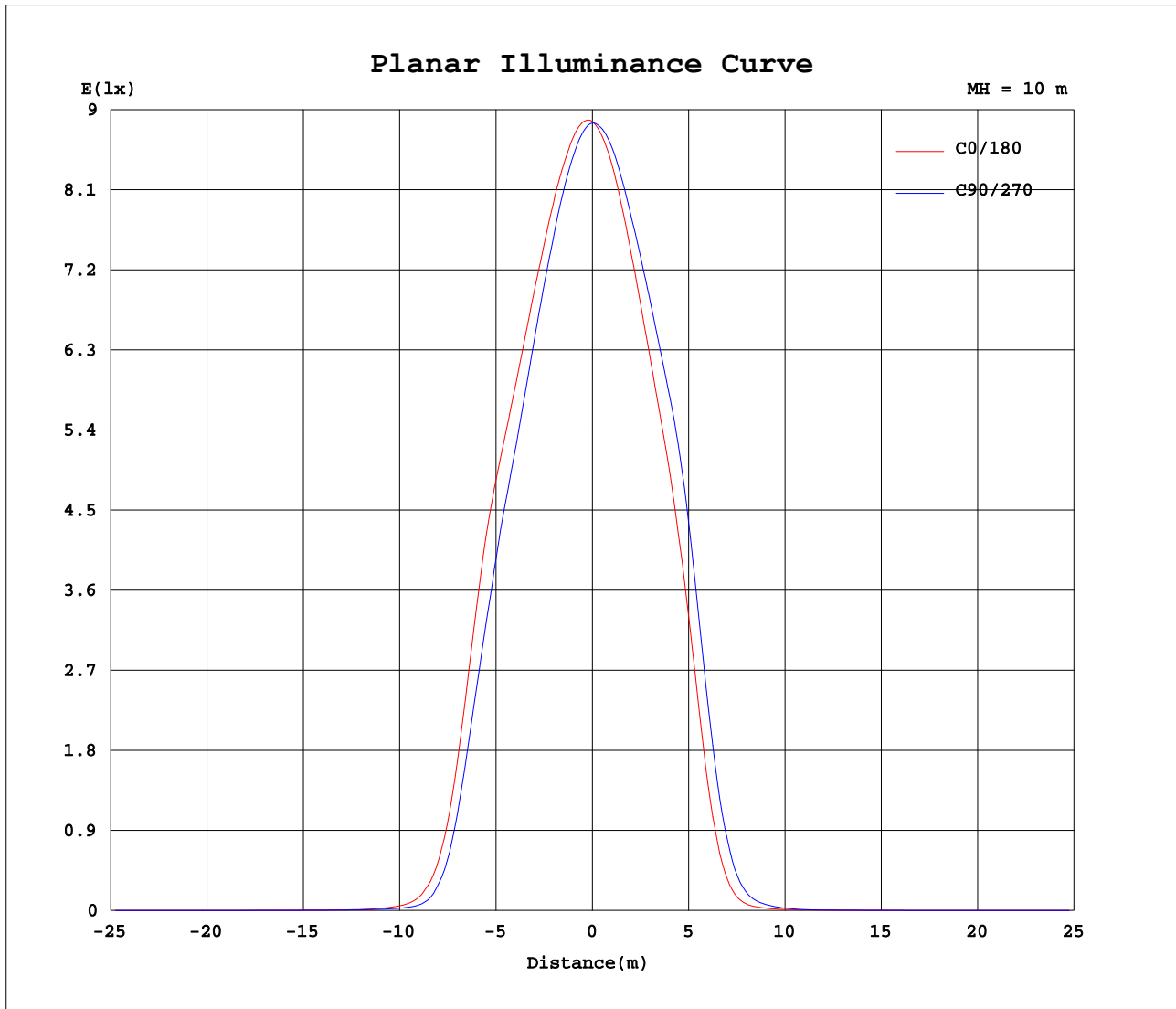
AvgL	cd/m2
L_0~180 (65) av	670
L_0~180 (75) av	329
L_0~180 (85) av	296
L_90~270 (65) av	593
L_90~270 (75) av	310
L_90~270 (85) av	286
L_45 (65) av	624
L_45 (75) av	317
L_45 (85) av	288

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-05-11

$\gamma$  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:

### Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Jason  
Test Date: 2020-05-11

$\gamma$  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:

```