

Low Voltage Track System Module ML26-RS25-5W-930-45



Light Output Ratio:	100.0%	
Luminaire Power:	5.263 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: 2019-12-03

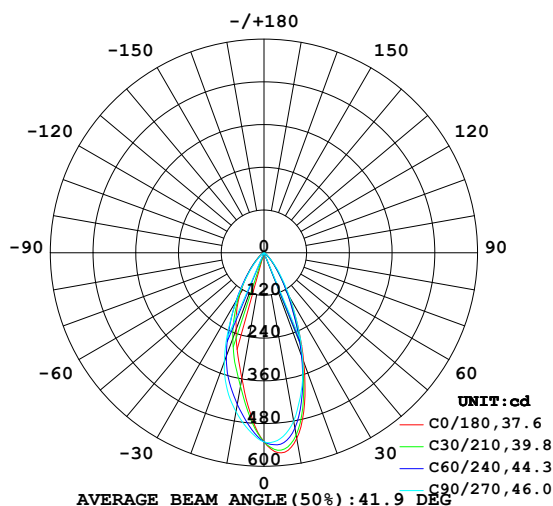
γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 56%
Test Distance: 5.850m [K=1.0000]
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

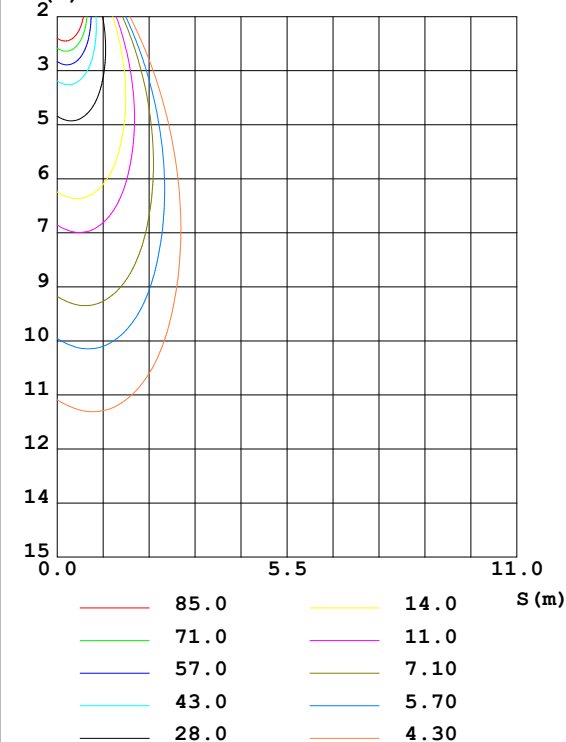
Test:U:48.00V I:0.1096A P:5.263W PF:1.000 Freq:0Hz Lamp Flux:347.722x1 lm		
NAME: ML26-RS25-5W-930-45	TYPE:Low Voltage Track System Module	
SPEC.:3000K	DIM.: \varnothing 25mm*H40mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 66.07 lm/W			
MODEL	OSRAM-3000K	I _{max} (cd)	599.5	S/MH (C0/180)	0.52
NOMINAL POWER (W)	5	LOR (%)	100.0	S/MH (C90/270)	0.74
RATED VOLTAGE (V)	48	TOTAL FLUX (lm)	347.72	η UP,DN (C0-180)	0.0,48.7
NOMINAL FLUX (lm)	347.722	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0,51.3
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:2019-12-03

γ Range: 0 - 90DEG
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ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	530.2	516.4	480.4	386.4	358.9	403.8	453.1	557.6	0- 10	47.30	47.30	13.6,13.6
20	327.1	314.6	318.5	258.0	229.5	279.6	326.6	390.2	10- 20	108.1	155.4	44.7,44.7
30	140.1	133.5	145.5	151.3	136.3	147.5	154.1	162.6	20- 30	101.2	256.6	73.8,73.8
40	44.51	43.70	50.14	62.12	59.51	56.70	51.79	50.61	30- 40	57.84	314.4	90.4,90.4
50	13.03	13.16	14.43	19.86	20.05	17.74	14.72	13.74	40- 50	23.45	337.8	97.2,97.2
60	3.321	3.403	3.982	5.590	5.623	5.069	3.960	3.323	50- 60	8.140	346.0	99.5,99.5
70	0.1386	0.0432	0.0865	0.4495	0.5156	0.2542	0.0701	0.1093	60- 70	1.662	347.6	100,100
80	0.0194	0.0152	0.0263	0.0155	0.0107	0.0239	0.0022	0.0133	70- 80	0.0607	347.7	100,100
90	0.0129	0.0152	0.0154	0.0155	0.0021	0.0065	0.0022	0.0044	80- 90	0.0131	347.7	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): 329.07 lm

%lum = 94.6%

%lamp = 94.6%

Conical surface Flux(120deg): 345.99 lm

%lum = 99.5%

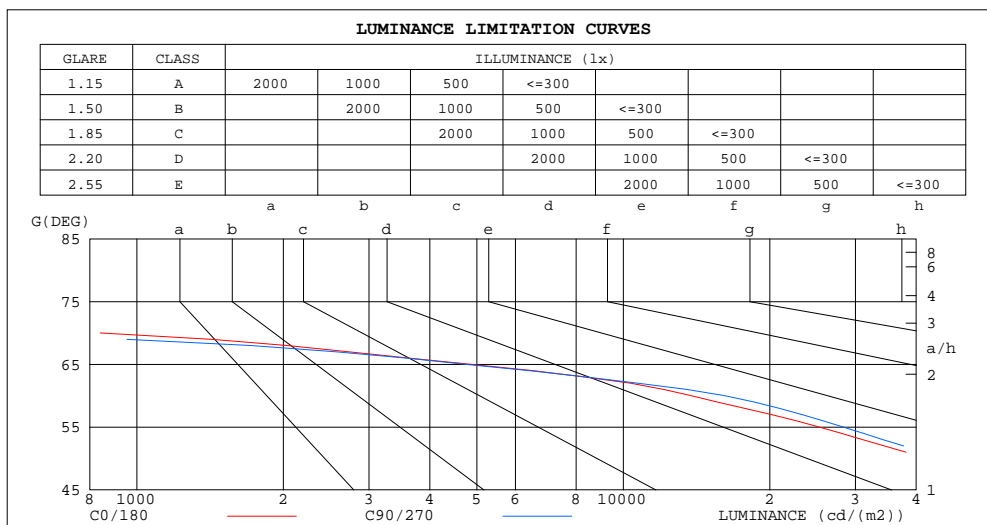
%lamp = 99.5%

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason Long
Test Date:2019-12-03

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

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SPEC.:3000K	DIM.: ϕ 25mm*H40mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	359	359
80	231	308
75	259	311
70	841	513
65	4862	4736
60	13785	16154
55	25268	28330
50	42075	45541
45	70799	77146

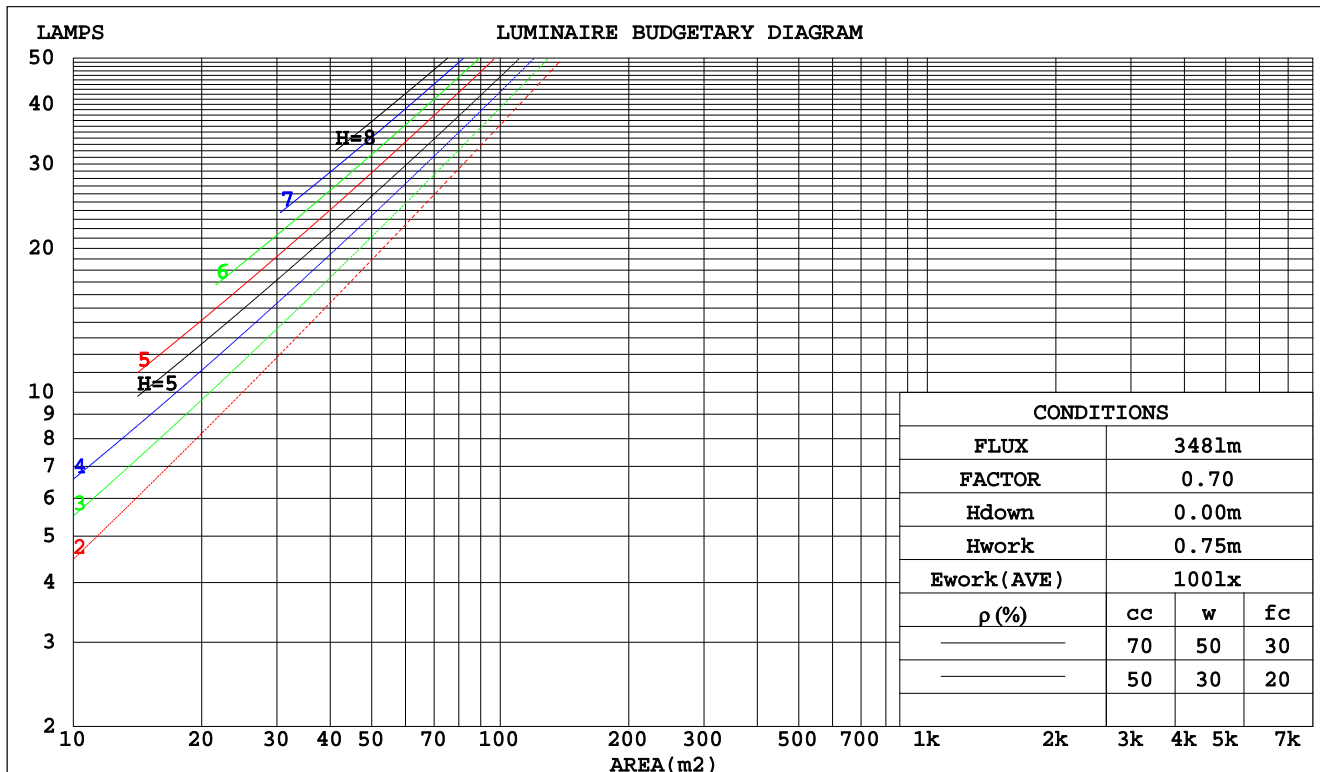
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CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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SPEC.:3000K	DIM.: $\varnothing 25\text{mm} \times \text{H}40\text{mm}$	
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	.00
1.0	1.11	1.09	1.06	1.09	1.07	1.05	1.05	1.03	1.01	1.01	.00	.98	.98	.97	.96	.94
2.0	1.03	.00	.96	1.02	.98	.95	.99	.96	.93	.96	.93	.91	.93	.91	.89	.88
3.0	.97	.92	.88	.95	.91	.87	.93	.89	.86	.90	.87	.85	.88	.85	.83	.82
4.0	.91	.85	.81	.89	.84	.81	.87	.83	.80	.85	.82	.79	.83	.80	.78	.76
5.0	.85	.79	.75	.84	.79	.75	.82	.78	.74	.81	.77	.74	.79	.76	.73	.71
6.0	.80	.74	.70	.79	.74	.70	.78	.73	.69	.76	.72	.69	.75	.71	.68	.67
7.0	.76	.70	.66	.75	.69	.66	.74	.69	.65	.73	.68	.65	.71	.67	.64	.63
8.0	.72	.66	.62	.71	.65	.62	.70	.65	.61	.69	.64	.61	.68	.64	.61	.60
9.0	.68	.62	.58	.67	.62	.58	.66	.61	.58	.66	.61	.58	.65	.61	.58	.56
10.0	.64	.59	.55	.64	.59	.55	.63	.58	.55	.62	.58	.55	.62	.58	.55	.53



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Humidity:56%
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WEC AND CCEC

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SPEC.:3000K	DIM.: \varnothing 25mm*H40mm	
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	.174	.099	.031	.168	.096	.030	.155	.089	.028	.143	.083	.027	.133	.077	.025		
2.0	.167	.092	.028	.161	.089	.027	.151	.084	.026	.141	.079	.025	.132	.075	.024		
3.0	.159	.085	.025	.154	.083	.025	.145	.079	.024	.137	.075	.023	.129	.072	.022		
4.0	.151	.079	.023	.147	.077	.023	.140	.074	.022	.132	.071	.021	.126	.068	.021		
5.0	.144	.074	.021	.141	.072	.021	.134	.070	.021	.128	.067	.020	.122	.065	.020		
6.0	.138	.069	.020	.134	.068	.020	.128	.066	.019	.123	.064	.019	.118	.062	.018		
7.0	.131	.065	.018	.129	.064	.018	.123	.062	.018	.118	.061	.018	.114	.059	.017		
8.0	.126	.061	.017	.123	.061	.017	.118	.059	.017	.114	.058	.017	.110	.056	.016		
9.0	.120	.058	.016	.118	.057	.016	.114	.056	.016	.110	.055	.016	.106	.054	.016		
10.0	.115	.055	.015	.113	.055	.015	.109	.054	.015	.106	.053	.015	.102	.052	.015		

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	.171	.157	.145	.146	.135	.125	.100	.093	.086	.058	.054	.050	.018	.017	.016	
2.0	.156	.133	.113	.133	.114	.098	.091	.079	.068	.053	.046	.040	.017	.015	.013	
3.0	.143	.114	.090	.123	.098	.078	.084	.068	.055	.049	.040	.032	.016	.013	.011	
4.0	.133	.099	.073	.114	.085	.063	.078	.060	.045	.045	.035	.026	.015	.011	.009	
5.0	.124	.087	.060	.106	.075	.052	.073	.053	.037	.042	.031	.022	.014	.010	.007	
6.0	.116	.078	.050	.100	.067	.044	.069	.047	.031	.040	.028	.018	.013	.009	.006	
7.0	.110	.070	.042	.095	.061	.037	.065	.043	.026	.038	.025	.016	.012	.008	.005	
8.0	.104	.064	.036	.090	.055	.032	.062	.039	.022	.036	.023	.013	.012	.008	.004	
9.0	.099	.059	.032	.085	.051	.028	.059	.036	.020	.034	.021	.012	.011	.007	.004	
10.0	.094	.054	.028	.081	.047	.024	.056	.033	.017	.033	.020	.010	.011	.006	.003	

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason Long
Test Date:2019-12-03

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:0.1096A P:5.263W PF:1.000 Freq:0Hz Lamp Flux:347.722x1 lm										
NAME: ML26-RS25-5W-930-45					TYPE:Low Voltage Track System Module					
SPEC.:3000K					DIM.: ϕ 25mm*H40mm					
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	25.5	26.5	25.7	26.6	26.8	25.7	26.7	25.9	26.8	27.0
3H	25.4	26.2	25.6	26.4	26.6	25.6	26.4	25.8	26.6	26.8
4H	25.3	26.1	25.5	26.3	26.5	25.5	26.3	25.7	26.5	26.7
6H	25.2	25.9	25.5	26.2	26.4	25.4	26.1	25.7	26.4	26.6
8H	25.1	25.9	25.4	26.1	26.4	25.3	26.1	25.6	26.3	26.6
12H	25.1	25.8	25.4	26.1	26.3	25.3	26.0	25.6	26.3	26.5
4H 2H	25.3	26.1	25.6	26.3	26.6	25.5	26.3	25.8	26.5	26.8
3H	25.1	25.8	25.5	26.1	26.4	25.3	26.0	25.7	26.3	26.6
4H	25.0	25.7	25.4	26.0	26.3	25.2	25.9	25.6	26.2	26.5
6H	24.9	25.5	25.3	25.8	26.2	25.1	25.7	25.5	26.0	26.4
8H	24.9	25.4	25.3	25.8	26.1	25.1	25.6	25.5	26.0	26.3
12H	24.8	25.3	25.3	25.7	26.1	25.0	25.5	25.5	25.9	26.3
8H 4H	24.9	25.4	25.3	25.8	26.1	25.1	25.6	25.5	26.0	26.3
6H	24.8	25.2	25.2	25.6	26.0	25.0	25.4	25.4	25.8	26.2
8H	24.7	25.1	25.2	25.5	26.0	24.9	25.3	25.4	25.7	26.2
12H	24.7	25.0	25.2	25.4	25.9	24.9	25.2	25.4	25.6	26.1
12H 4H	24.8	25.3	25.3	25.7	26.1	25.0	25.5	25.5	25.9	26.3
6H	24.7	25.1	25.2	25.5	26.0	24.9	25.3	25.4	25.7	26.2
8H	24.7	25.0	25.2	25.4	25.9	24.9	25.2	25.4	25.6	26.1
Variations with the observer position at spacings:										
S = 1.0H	+ 2.9 / - 7.3					+ 3.1 / - 7.0				
1.5H	+ 4.4 / - 4.9					+ 4.6 / - 5.0				
2.0H	+ 5.0 / - 9.6					+ 5.3 / -10.5				

CIE Pub.117, 347.7 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = -3.7$)

C Range: 0 - 360DEG
C Interval: 15.0DEG
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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:0.1096A P:5.263W PF:1.000 Freq:0Hz Lamp Flux:347.722x1 lm		
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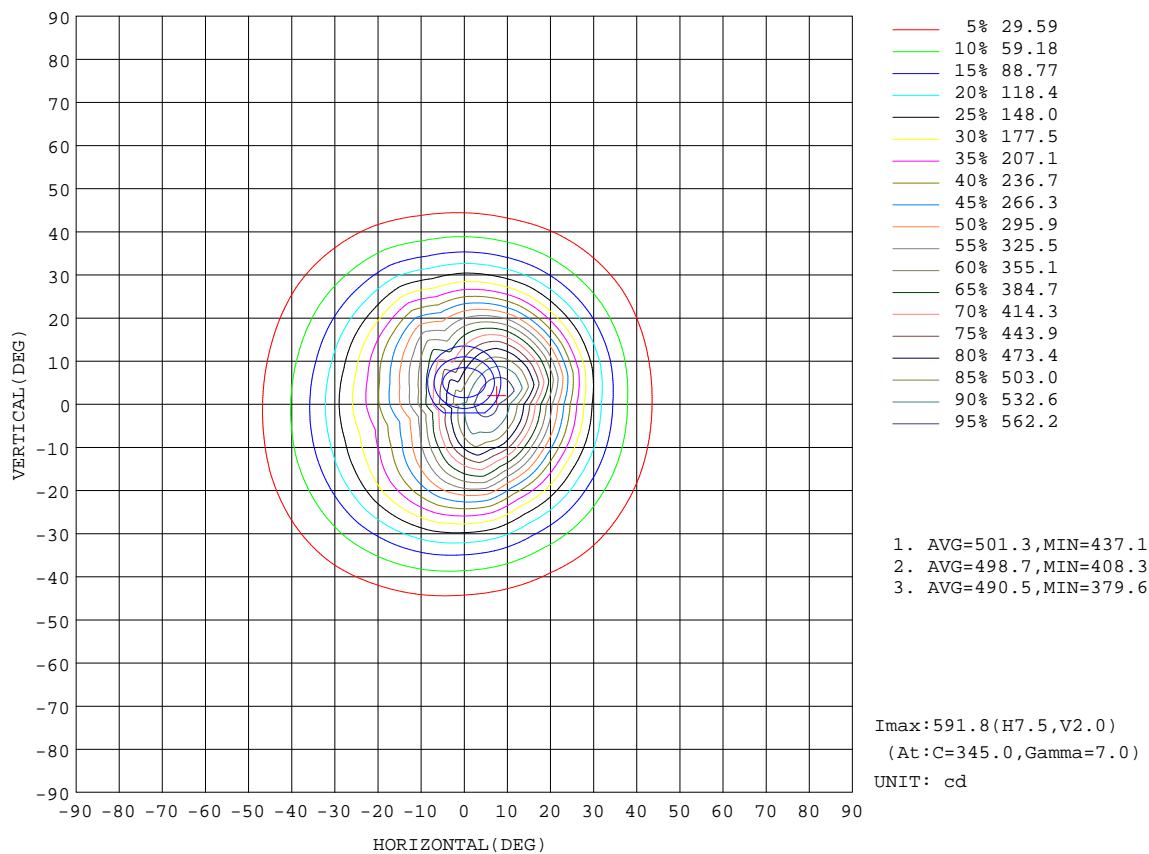
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	85	79	75	85	79	75	84	78	74	71
0.80	93	87	83	93	87	83	91	86	83	79
1.00	98	92	89	97	92	88	96	92	88	84
1.25	102	97	93	101	96	93	99	95	92	88
1.50	105	100	97	104	100	96	102	98	95	91
2.00	108	104	101	107	103	100	104	101	98	93
2.50	110	106	103	108	105	102	105	102	100	94
3.00	112	108	105	110	107	104	106	104	102	96
4.00	114	111	108	111	109	107	108	106	104	97
5.00	115	112	111	113	111	109	109	107	106	98
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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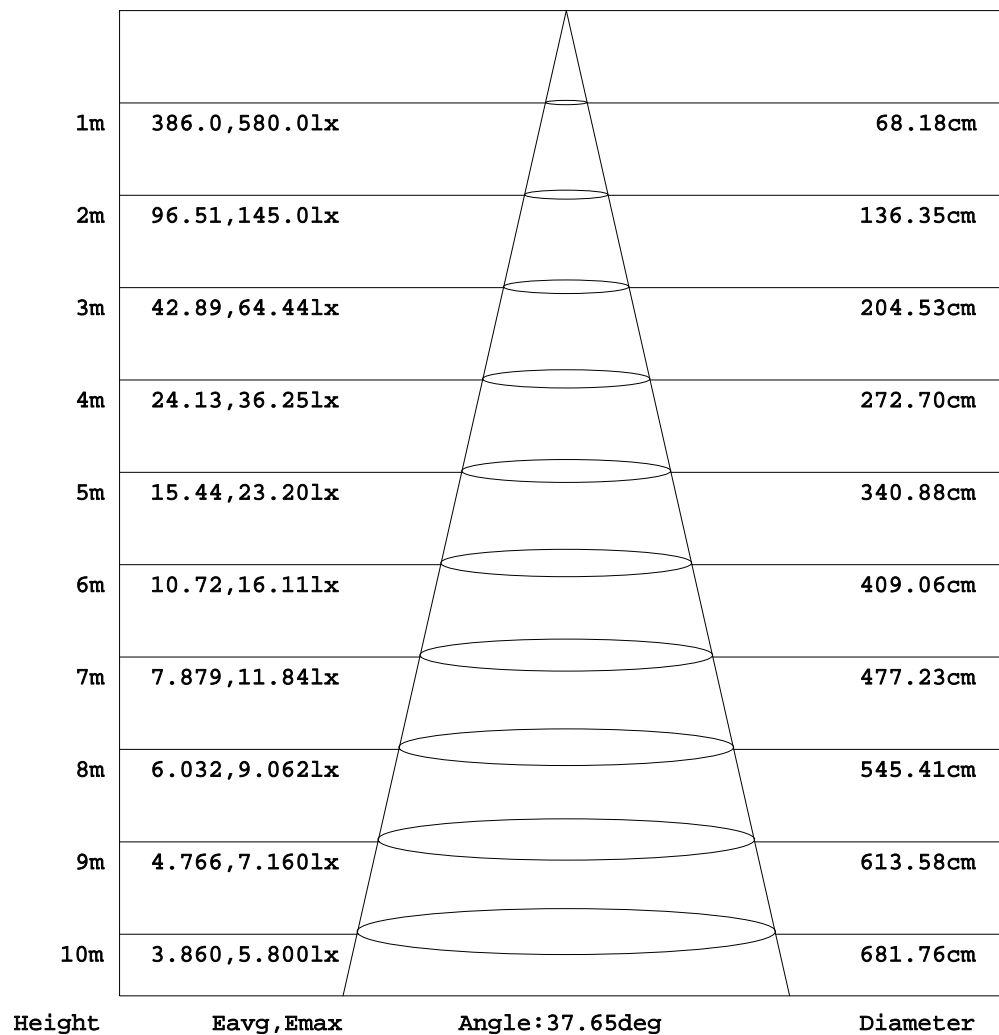
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AAI Figure

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Flux out:143.8 lm



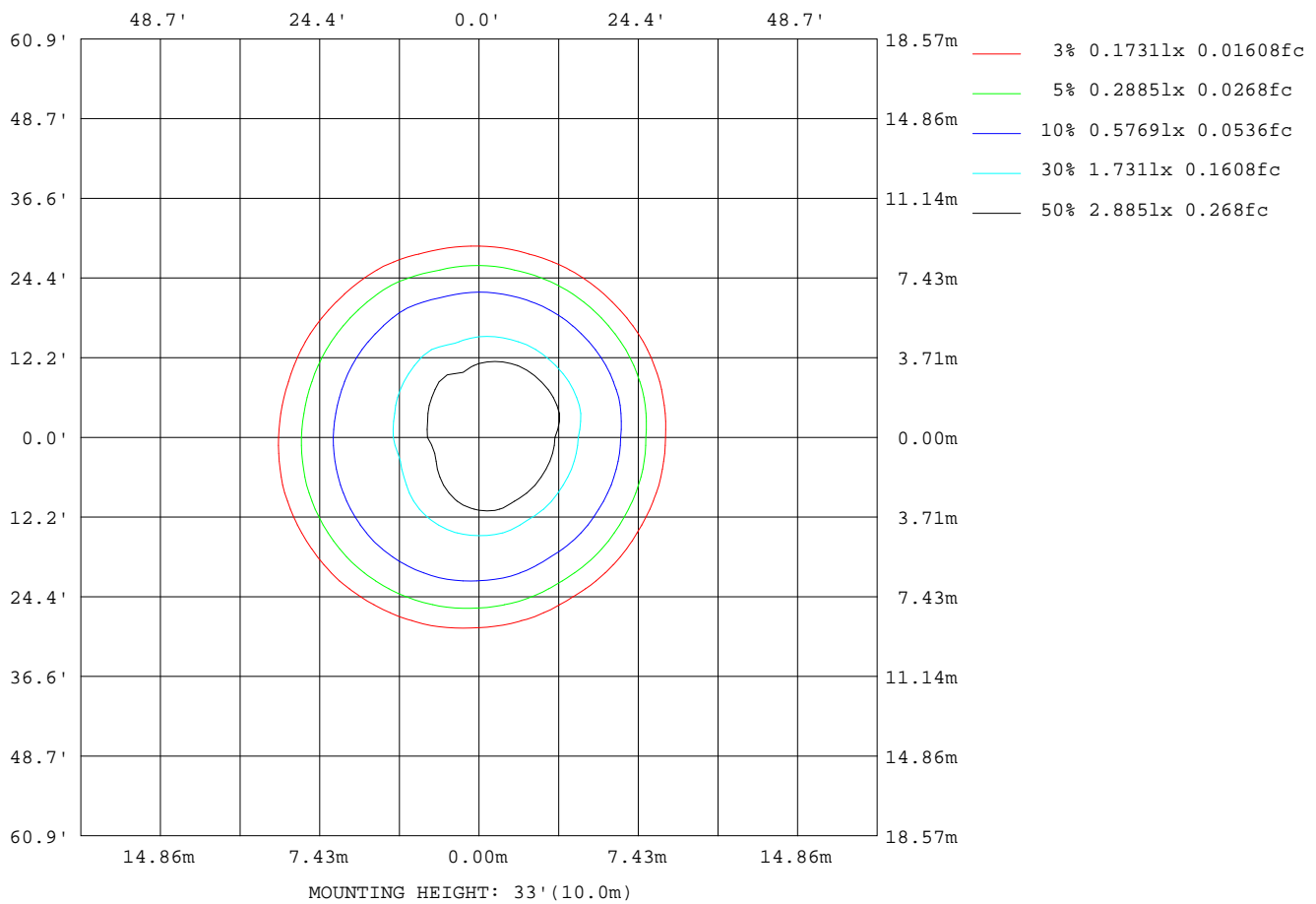
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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ISOLUX DIAGRAM

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LED Avg.L Report

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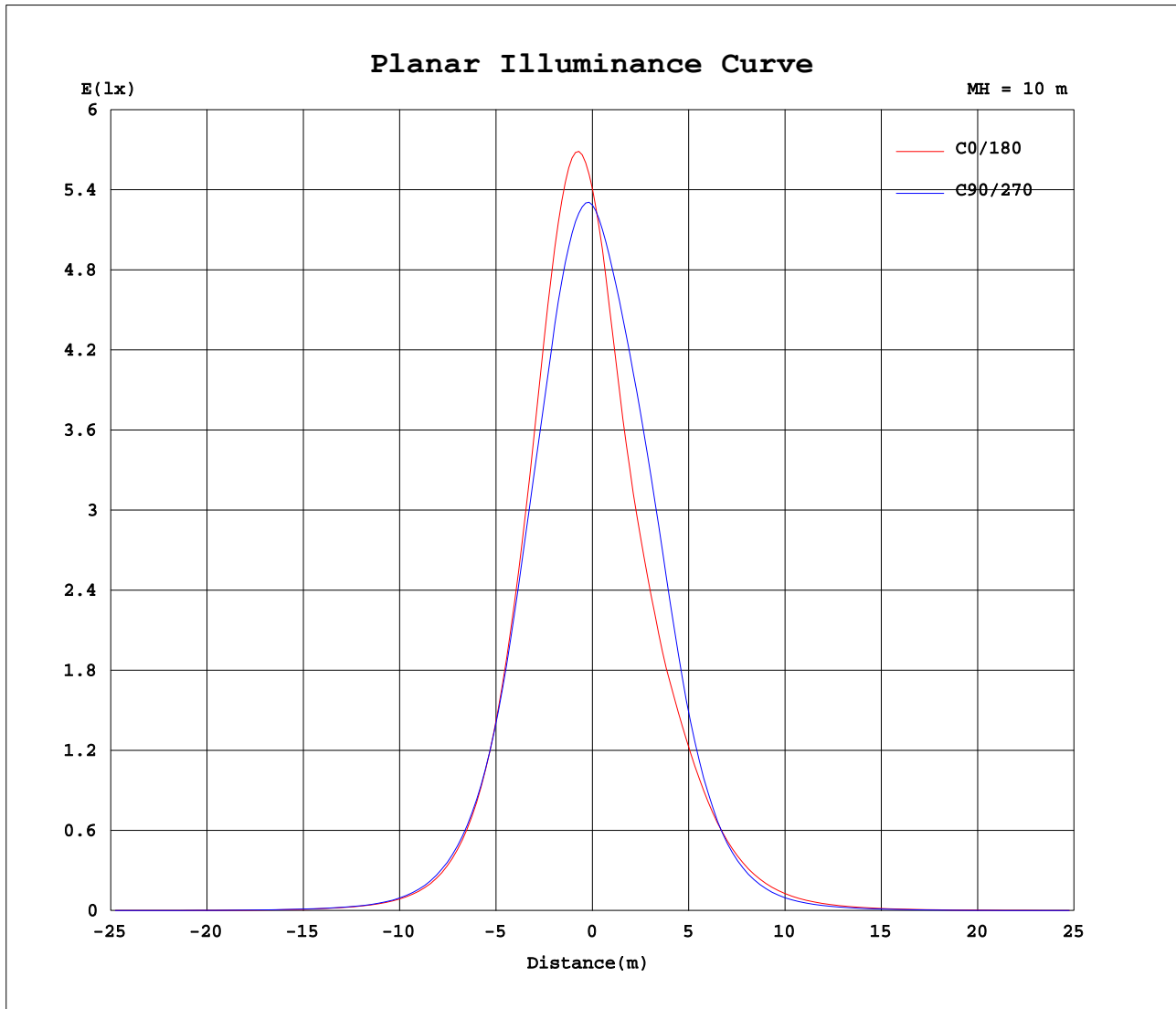
AvgL	cd/m2
L_0~180 (65) av	8301
L_0~180 (75) av	262
L_0~180 (85) av	201
L_90~270 (65) av	4921
L_90~270 (75) av	225
L_90~270 (85) av	206
L_45 (65) av	6868
L_45 (75) av	250
L_45 (85) av	307

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason Long
Test Date:2019-12-03

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: 2019-12-03

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:

```

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:

```

```

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:

```