

Low Voltage Track System Module ML26-PS55-14W-930-45



Light Output Ratio:	100.0%	
Luminaire Power:	13.67 W	
SHR Nominal:	0.75	Calculated using the TM5
SHR Maximum:	0.75	fine grid method.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Jason
Test Date: 2020-05-09

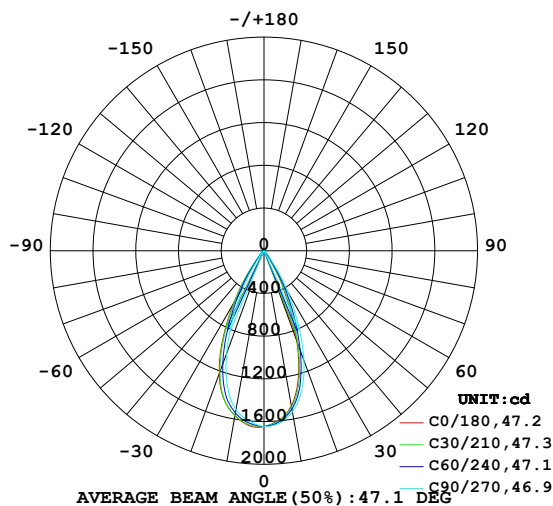
γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 58%
Test Distance: 5.850m [K=1.0000]
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

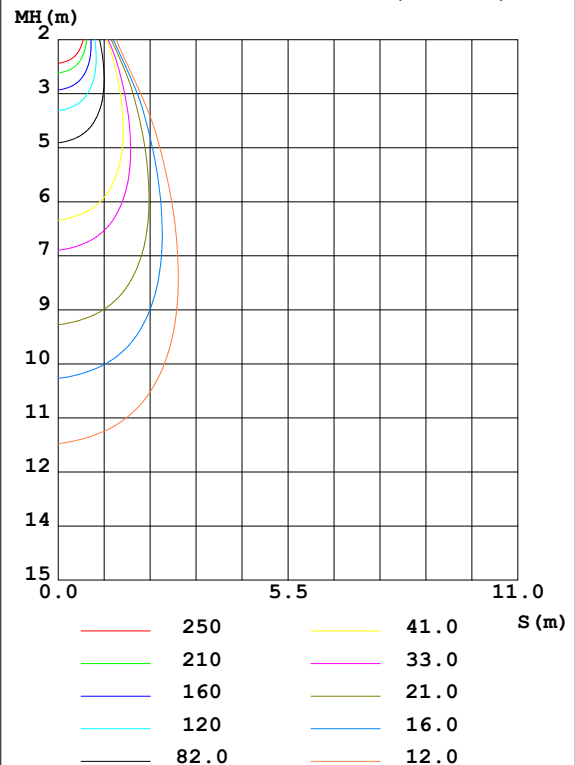
Test:U:48.00V I:0.2847A P:13.67W PF:1.000 Freq:0Hz Lamp Flux:991.513x1 lm		
NAME: ML26-PS55-14W-930-50	TYPE:Low Voltage Track System Module	
SPEC.:3000K	DIM.: ϕ 55mm*H180mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 72.55 lm/W			
MODEL	CITIZEN-3000K	I _{max} (cd)	1654	S/MH (C0/180)	0.79
NOMINAL POWER (W)	14	LOR (%)	100.0	S/MH (C90/270)	0.71
RATED VOLTAGE (V)	48	TOTAL FLUX (lm)	991.51	η UP, DN (C0-180)	0.0, 50.7
NOMINAL FLUX (lm)	991.513	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 49.3
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE (V)	48	η down (%)	100.0	CIBSE SHR MAX	0.75

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



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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	1476	1499	1531	1562	1568	1553	1509	1467	0- 10	151.2	151.2	15.2,15.2
20	900.6	964.3	1093	1191	1225	1166	1025	897.1	10- 20	367.9	519.0	52.3,52.3
30	258.3	327.8	443.0	539.3	567.6	504.5	371.2	258.2	20- 30	326.0	845.0	85.2,85.2
40	41.15	54.86	74.14	95.90	97.47	78.78	55.44	39.71	30- 40	117.5	962.5	97.1,97.1
50	4.796	7.087	12.82	18.76	18.37	12.13	6.614	4.359	40- 50	24.63	987.2	99.6,99.6
60	0.5558	0.7898	1.241	1.922	1.839	1.327	0.7660	0.5237	50- 60	3.741	990.9	99.9,99.9
70	0.1180	0.1005	0.1643	0.2142	0.2006	0.1686	0.1048	0.1095	60- 70	0.4541	991.4	100,100
80	0.0698	0.0546	0.0875	0.0831	0.0698	0.0765	0.0393	0.0547	70- 80	0.1029	991.5	100,100
90	0.0546	0.0546	0.0569	0.0591	0.0415	0.0350	0.0284	0.0306	80- 90	0.0581	991.5	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): 979.55 lm

%lum = 98.8%

%lamp = 98.8%

Conical surface Flux(120deg): 990.9 lm

%lum = 99.9%

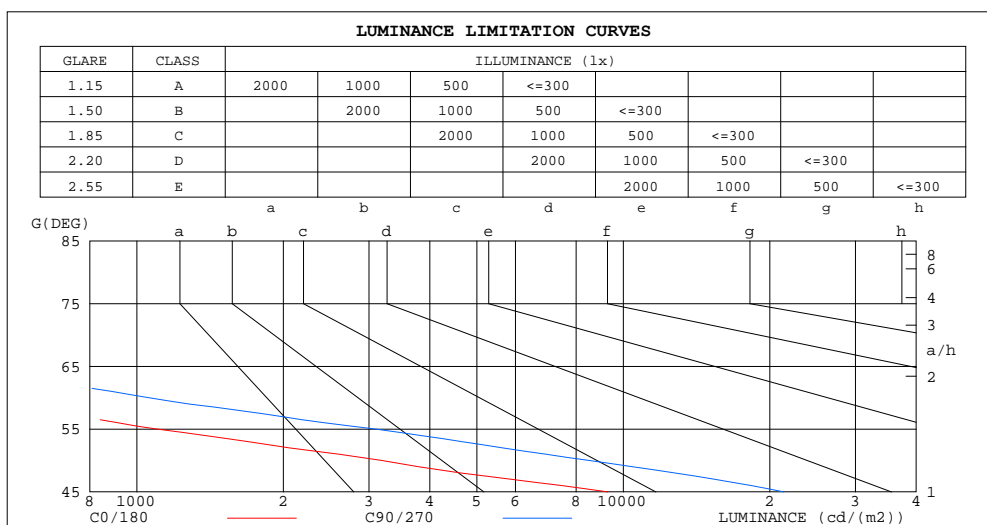
%lamp = 99.9%

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Remarks:

LUMINANCE LIMITATION CURVES

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SPEC.:3000K	DIM.: ϕ 55mm*H180mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	278	342
80	172	215
75	140	191
70	147	205
65	201	431
60	474	1057
55	1098	3092
50	3182	8492
45	9302	21382

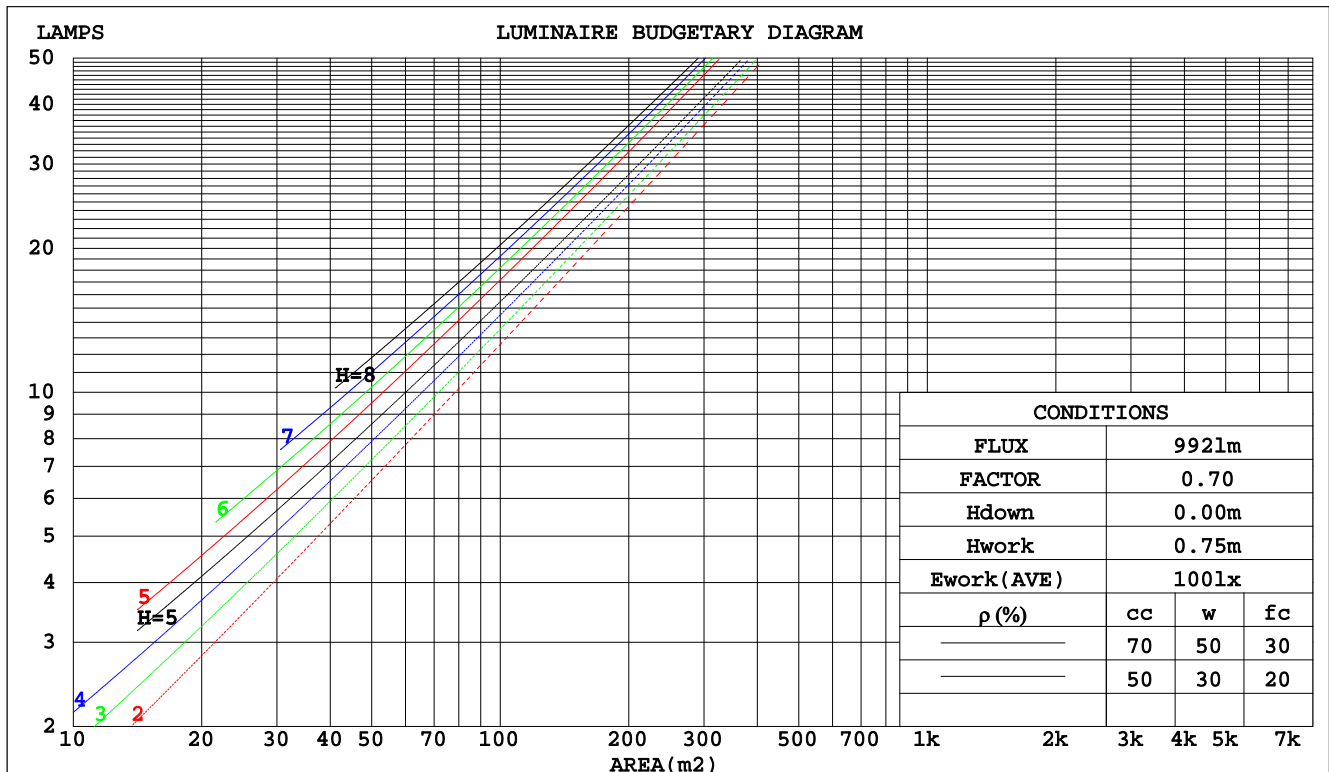
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CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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SPEC.:3000K	DIM.: $\phi 55\text{mm} \times \text{H}180\text{mm}$	
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	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	1.12	1.09	1.07	1.09	1.07	1.06	1.05	1.04	1.02	1.02	1.01	.99	.98	.97	.96	.95
2.0	1.05	1.01	.98	1.03	.90	.97	1.00	.97	.95	.97	.95	.93	.94	.93	.91	.90
3.0	.99	.94	.91	.97	.93	.90	.95	.92	.89	.93	.90	.87	.90	.88	.86	.85
4.0	.93	.88	.85	.92	.88	.84	.90	.86	.83	.88	.85	.82	.86	.84	.81	.80
5.0	.88	.83	.79	.88	.83	.79	.86	.82	.78	.84	.81	.78	.83	.80	.77	.76
6.0	.84	.79	.75	.83	.78	.75	.82	.77	.74	.80	.77	.74	.79	.76	.73	.72
7.0	.80	.74	.71	.79	.74	.71	.78	.73	.70	.77	.73	.70	.76	.72	.69	.68
8.0	.76	.71	.67	.75	.70	.67	.74	.70	.67	.73	.69	.66	.72	.69	.66	.65
9.0	.72	.67	.64	.72	.67	.64	.71	.66	.63	.70	.66	.63	.69	.66	.63	.62
10.0	.69	.64	.61	.69	.64	.60	.68	.63	.60	.67	.63	.60	.67	.63	.60	.59



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WEC AND CCEC

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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	.161	.092	.029	.155	.088	.028	.142	.082	.026	.131	.075	.024	.120	.070	.022		
2.0	.153	.084	.026	.147	.081	.025	.137	.076	.024	.127	.071	.022	.118	.067	.021		
3.0	.145	.077	.023	.140	.075	.023	.132	.071	.022	.123	.068	.021	.116	.064	.020		
4.0	.138	.072	.021	.134	.070	.021	.126	.067	.020	.119	.064	.019	.113	.061	.019		
5.0	.131	.067	.019	.128	.066	.019	.121	.063	.019	.115	.061	.018	.109	.058	.018		
6.0	.125	.063	.018	.122	.062	.018	.117	.060	.017	.111	.058	.017	.106	.056	.017		
7.0	.120	.059	.017	.117	.058	.017	.112	.057	.016	.107	.055	.016	.103	.054	.016		
8.0	.115	.056	.016	.113	.055	.016	.108	.054	.015	.104	.053	.015	.100	.051	.015		
9.0	.110	.053	.015	.108	.053	.015	.104	.052	.015	.100	.050	.014	.097	.049	.014		
10.0	.106	.051	.014	.104	.050	.014	.101	.049	.014	.097	.048	.014	.094	.047	.014		

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	.170	.157	.146	.145	.135	.126	.100	.093	.087	.057	.054	.051	.018	.017	.016	
2.0	.154	.133	.115	.132	.114	.099	.090	.079	.069	.052	.046	.041	.017	.015	.013	
3.0	.140	.113	.092	.120	.098	.080	.083	.068	.056	.048	.040	.033	.015	.013	.011	
4.0	.129	.099	.075	.111	.085	.065	.076	.059	.046	.044	.035	.027	.014	.011	.009	
5.0	.120	.087	.062	.103	.075	.054	.071	.052	.038	.041	.031	.023	.013	.010	.007	
6.0	.112	.077	.052	.097	.067	.045	.067	.047	.032	.039	.028	.019	.012	.009	.006	
7.0	.106	.069	.044	.091	.060	.038	.063	.042	.027	.036	.025	.016	.012	.008	.005	
8.0	.100	.063	.038	.086	.055	.033	.059	.038	.023	.035	.023	.014	.011	.007	.005	
9.0	.095	.058	.033	.082	.050	.029	.056	.035	.020	.033	.021	.012	.011	.007	.004	
10.0	.090	.053	.029	.078	.046	.025	.054	.033	.018	.031	.019	.011	.010	.006	.004	

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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:0.2847A P:13.67W PF:1.000 Freq:0Hz Lamp Flux:991.513x1 lm										
NAME: ML26-PS55-14W-930-50					TYPE:Low Voltage Track System Module					
SPEC.:3000K					DIM.: \varnothing 55mm*H180mm					
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	13.5	14.4	13.7	14.5	14.7	17.4	18.2	17.6	18.4	18.6
3H	13.4	14.1	13.6	14.3	14.5	17.2	18.0	17.5	18.2	18.4
4H	13.3	14.0	13.5	14.2	14.4	17.2	17.9	17.4	18.1	18.3
6H	13.2	13.9	13.5	14.1	14.3	17.1	17.8	17.4	18.0	18.2
8H	13.1	13.8	13.4	14.0	14.3	17.0	17.7	17.3	17.9	18.2
12H	13.1	13.7	13.4	14.0	14.3	17.0	17.6	17.3	17.9	18.1
4H 2H	13.3	14.0	13.5	14.2	14.4	17.2	17.9	17.4	18.1	18.3
3H	13.1	13.7	13.4	14.0	14.3	17.0	17.6	17.3	17.9	18.1
4H	13.0	13.6	13.3	13.9	14.2	16.9	17.5	17.2	17.8	18.1
6H	12.9	13.4	13.3	13.7	14.1	16.8	17.3	17.2	17.6	18.0
8H	12.9	13.3	13.2	13.7	14.0	16.7	17.2	17.1	17.6	17.9
12H	12.8	13.2	13.2	13.6	14.0	16.7	17.1	17.1	17.5	17.9
8H 4H	12.9	13.3	13.2	13.7	14.0	16.7	17.2	17.1	17.6	17.9
6H	12.7	13.1	13.2	13.5	13.9	16.6	17.0	17.1	17.4	17.8
8H	12.7	13.0	13.1	13.4	13.9	16.6	16.9	17.0	17.3	17.8
12H	12.6	12.9	13.1	13.4	13.8	16.5	16.8	17.0	17.2	17.7
12H 4H	12.8	13.2	13.2	13.6	14.0	16.7	17.1	17.1	17.5	17.9
6H	12.7	13.0	13.1	13.4	13.9	16.6	16.9	17.0	17.3	17.8
8H	12.6	12.9	13.1	13.4	13.8	16.5	16.8	17.0	17.2	17.7
Variations with the observer position at spacings:										
S = 1.0H	+ 2.8 / -17.8					+ 4.2 / -16.8				
1.5H	+ 5.1 / -13.7					+ 6.3 / -14.5				
2.0H	+ 6.8 / -13.5					+ 8.0 / -15.9				

CIE Pub.117, 991.5 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = -0.0$)

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 γ 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

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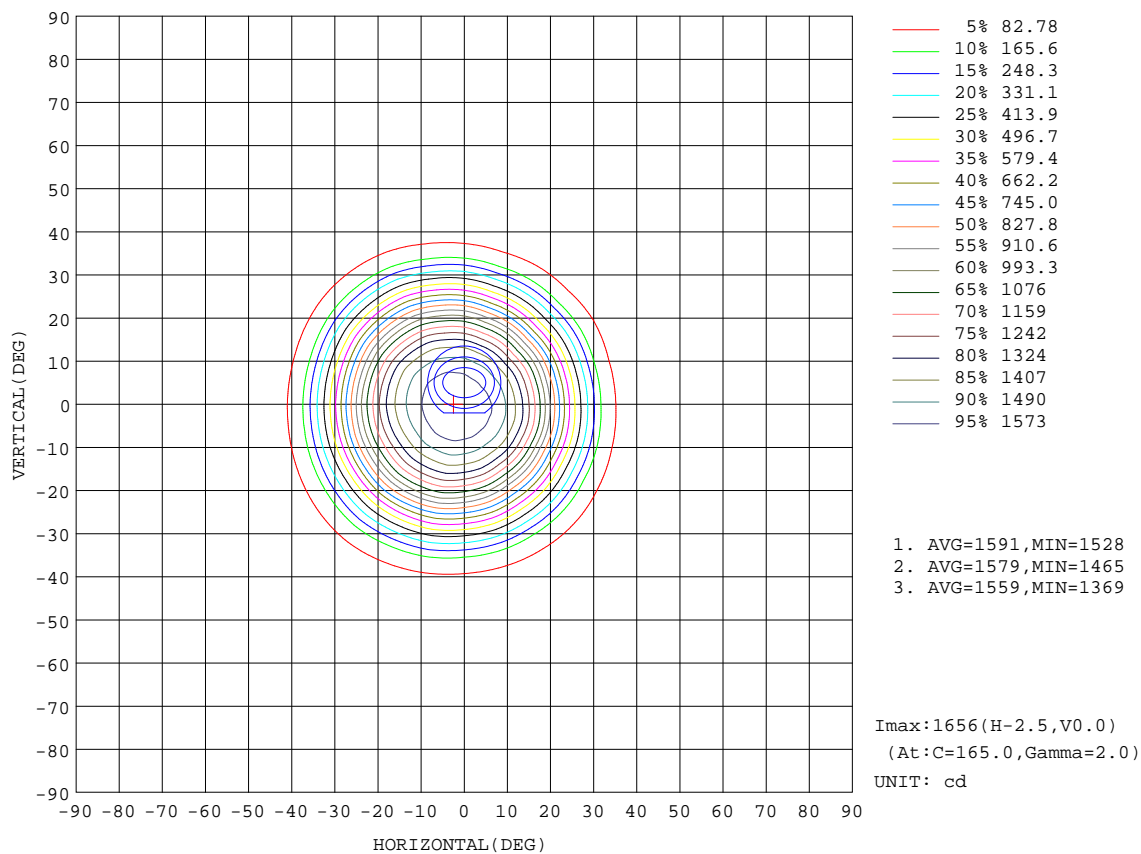
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	90	84	80	89	84	80	88	83	80	77
0.80	97	91	88	96	91	88	95	91	88	84
1.00	101	96	92	100	95	92	99	95	92	88
1.25	105	100	97	104	99	96	102	98	95	92
1.50	107	103	100	106	102	99	104	101	98	94
2.00	109	106	103	108	105	102	105	103	100	95
2.50	111	107	105	109	106	104	106	104	102	96
3.00	112	109	107	111	108	106	107	105	103	97
4.00	114	112	110	112	110	108	109	107	106	99
5.00	115	113	112	113	112	110	109	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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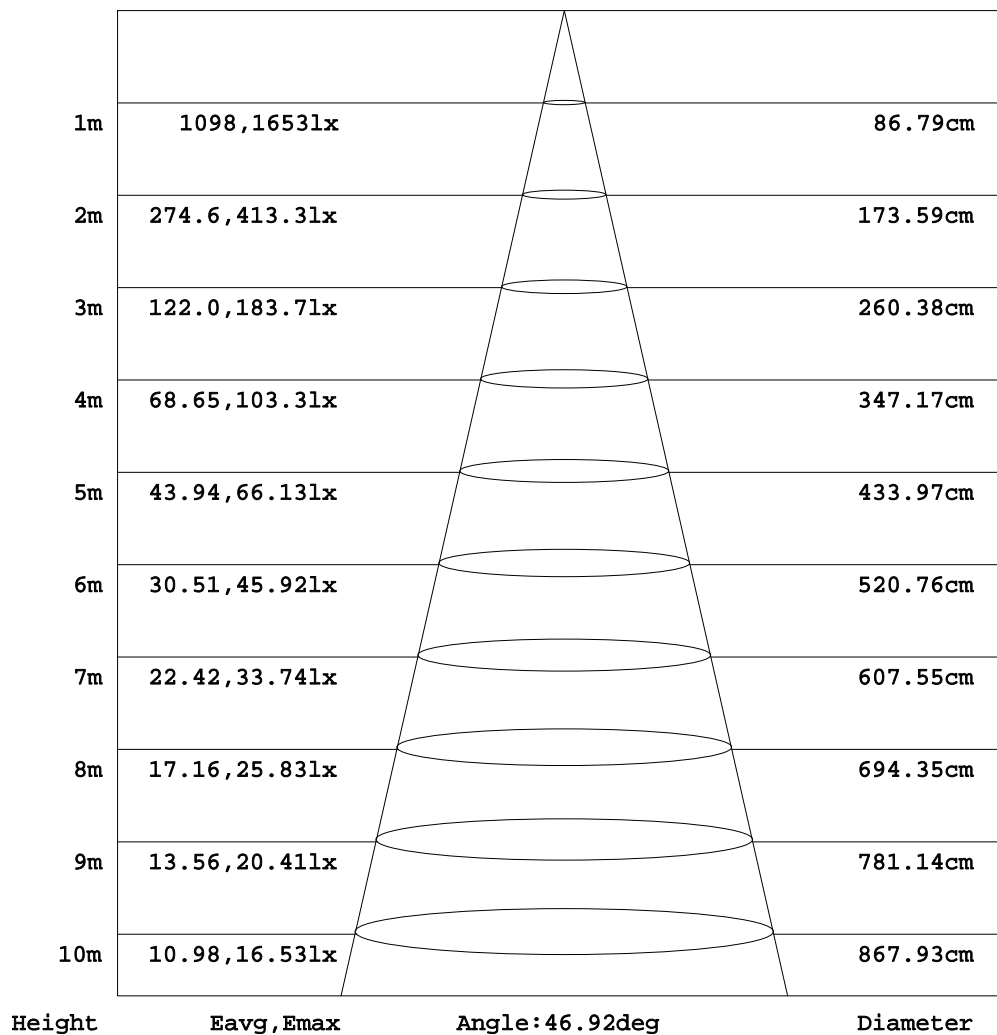
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AAI Figure

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Flux out:652.4 lm



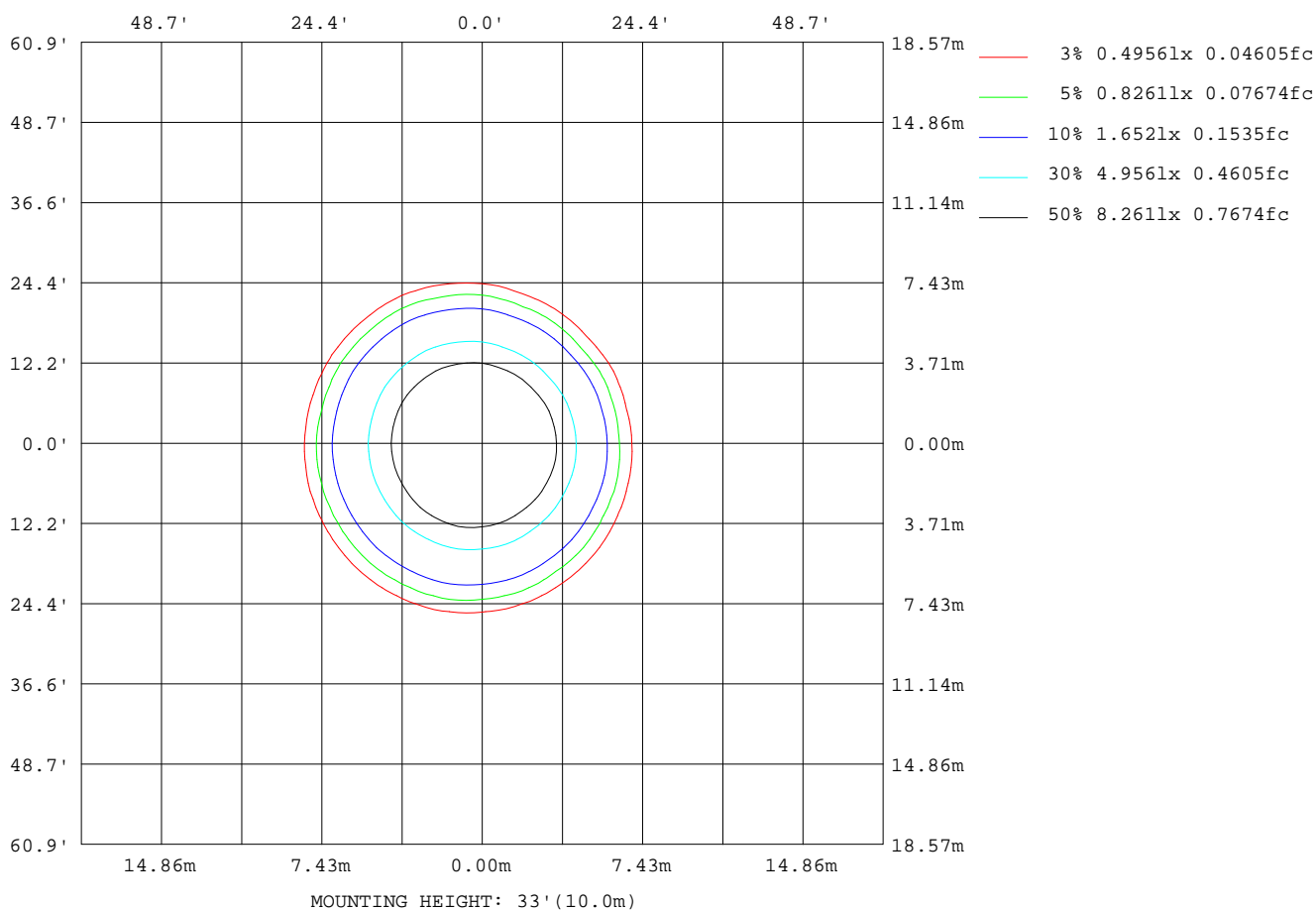
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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ISOLUX DIAGRAM

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LED Avg.L Report

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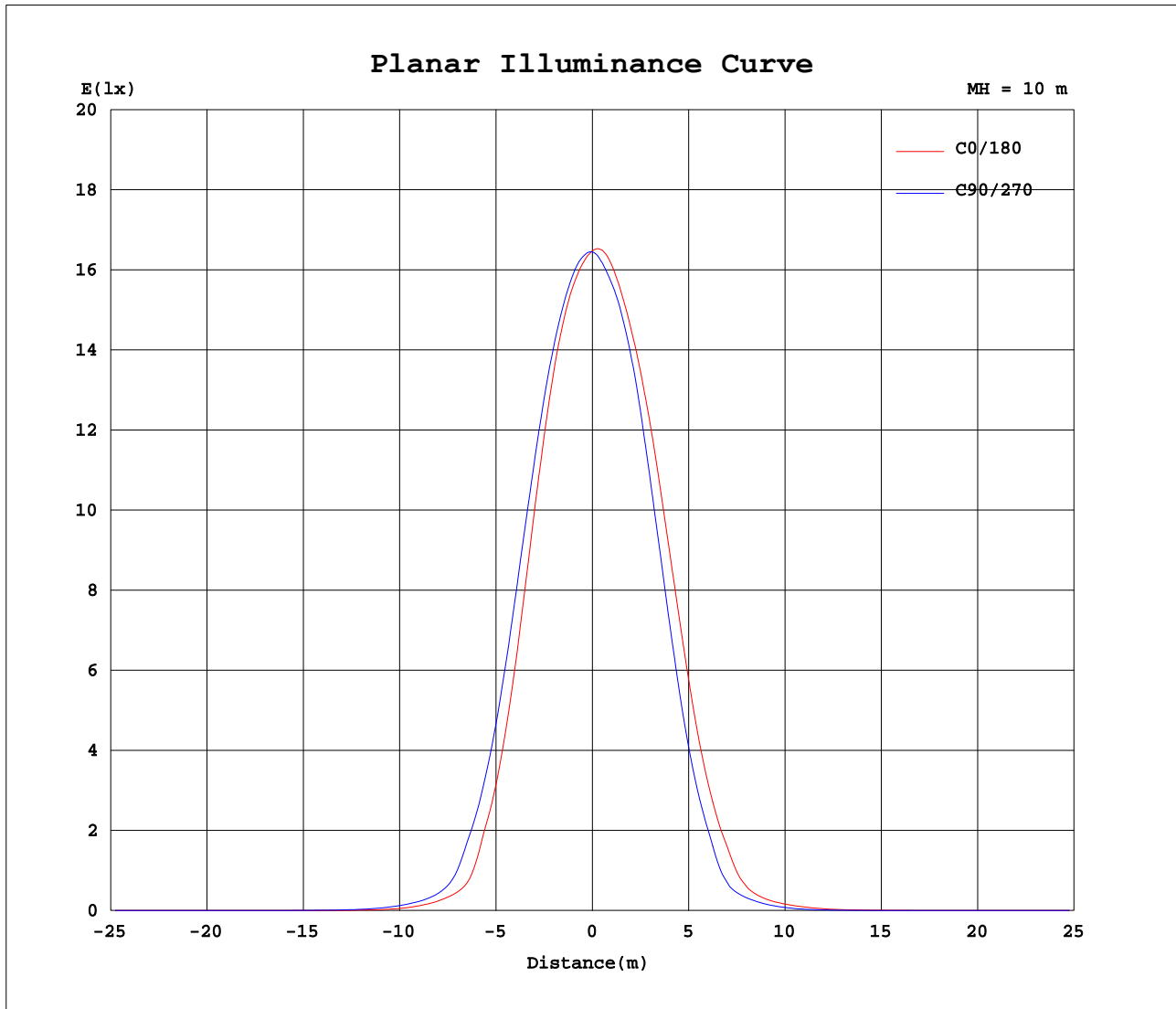
AvgL	cd/m2
L_0~180 (65) av	413
L_0~180 (75) av	158
L_0~180 (85) av	251
L_90~270 (65) av	339
L_90~270 (75) av	149
L_90~270 (85) av	246
L_45 (65) av	401
L_45 (75) av	156
L_45 (85) av	262

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-05-09

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: 2020-05-09

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:

```

```

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:

```