

Low Voltage Track System Module ML26-RS40-24W-927-30



Light Output Ratio:	100.0%	
Luminaire Power:	23.57 W	
SHR Nominal:	0.50	Calculated using the TM5
SHR Maximum:	0.50	fine grid method.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Jason
Test Date: 2020-05-12

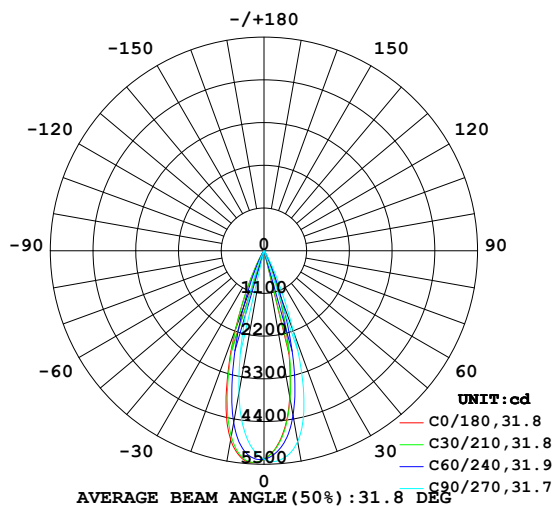
γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 58%
Test Distance: 5.850m [K=1.0000]
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

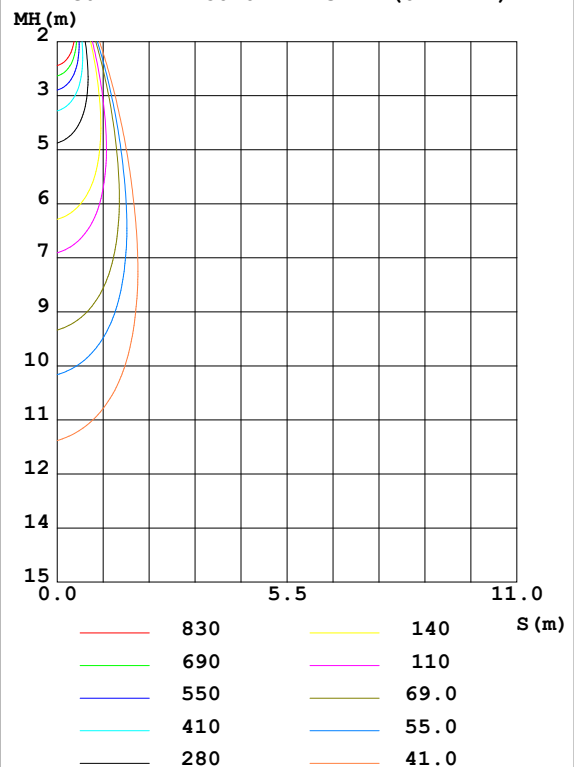
Test:U:48.00V I:0.4911A P:23.57W PF:1.000 Freq:0Hz Lamp Flux:1595.02x1 lm		
NAME: ML26-RS40-24W-927-30	TYPE:Low Voltage Track System Module	
SPEC.:2700K	DIM.: ϕ 40mm*H105mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 67.66 lm/W			
MODEL	CITIZEN-2700K	I _{max} (cd)	5630	S/MH (C0/180)	0.56
NOMINAL POWER (W)	24	LOR (%)	100.0	S/MH (C90/270)	0.43
RATED VOLTAGE (V)	48	TOTAL FLUX (lm)	1595.0	η UP, DN (C0-180)	0.0, 56.7
NOMINAL FLUX (lm)	1595.02	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 43.3
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	48	η down (%)	100.0	CIBSE SHR MAX	0.50

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	3832	4069	4993	5393	4944	4688	3714	2925	0- 10	464.1	464.1	29.1,29.1
20	976.3	1153	2237	2894	2136	1869	798.2	398.6	10- 20	790.3	1254	78.7,78.7
30	107.6	129.6	236.6	376.3	248.5	194.5	66.91	47.57	20- 30	291.0	1546	96.9,96.9
40	14.28	17.81	32.57	48.44	30.79	24.07	8.126	3.793	30- 40	42.01	1588	99.5,99.5
50	1.348	1.492	2.339	3.374	1.907	1.673	1.092	0.8978	40- 50	6.391	1594	99.9,99.9
60	0.2966	0.3174	0.5749	0.7184	0.4463	0.4273	0.2002	0.1682	50- 60	0.8063	1595	100,100
70	0.0831	0.0618	0.1124	0.1043	0.0680	0.0897	0.0453	0.0613	60- 70	0.1802	1595	100,100
80	0.0575	0.0512	0.0583	0.0545	0.0405	0.0470	0.0410	0.0454	70- 80	0.0618	1595	100,100
90	0.0596	0.0576	0.0518	0.0545	0.0405	0.0427	0.0410	0.0454	80- 90	0.0532	1595	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): 1592.5 lm

%lum = 99.8%

%lamp = 99.8%

Conical surface Flux(120deg): 1594.7 lm

%lum = 100.0%

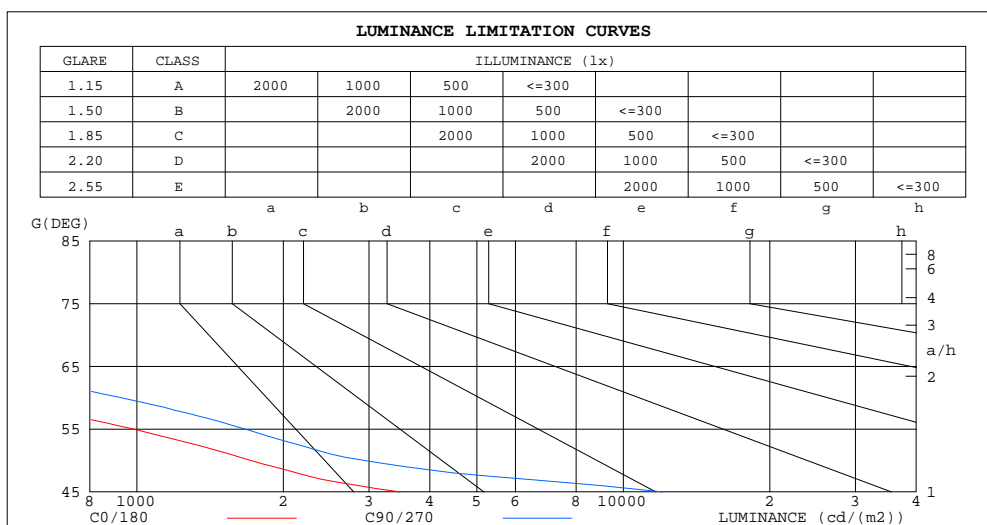
%lamp = 100.0%

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Test Speed: HIGH
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Humidity:58%
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Remarks:

LUMINANCE LIMITATION CURVES

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LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	519	499
80	271	271
75	195	229
70	199	265
65	264	446
60	485	928
55	985	1669
50	1714	2936
45	3478	12032

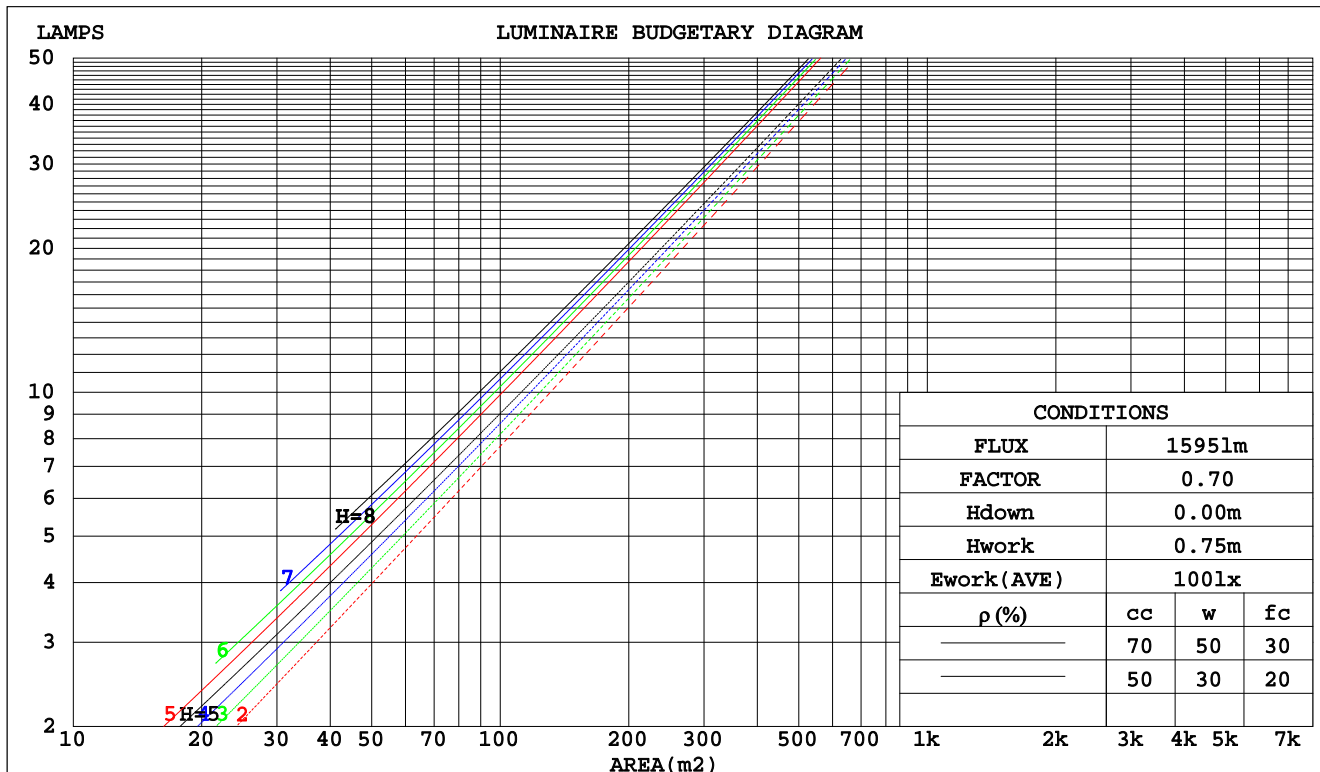
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CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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SPEC.:2700K	DIM.: $\phi 40\text{mm} \times H105\text{mm}$	
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	1.00
1.0	1.13	1.11	1.09	1.11	1.09	1.07	1.07	1.05	1.04	1.03	1.02	1.01	.00	.99	.98	.96
2.0	1.07	1.04	1.02	1.06	1.03	1.01	1.03	1.00	.99	.00	.98	.96	.97	.96	.94	.93
3.0	1.03	.99	.96	1.01	.98	.95	.99	.96	.94	.97	.94	.92	.95	.93	.91	.90
4.0	.99	.95	.91	.97	.94	.91	.95	.92	.90	.94	.91	.89	.92	.90	.88	.87
5.0	.95	.91	.87	.94	.90	.87	.92	.89	.86	.91	.88	.86	.89	.87	.85	.84
6.0	.91	.87	.84	.91	.87	.84	.89	.86	.83	.88	.85	.83	.87	.84	.82	.81
7.0	.88	.84	.81	.88	.84	.81	.87	.83	.80	.85	.82	.80	.84	.82	.80	.79
8.0	.85	.81	.78	.85	.81	.78	.84	.80	.78	.83	.80	.77	.82	.79	.77	.76
9.0	.83	.78	.76	.82	.78	.75	.81	.78	.75	.81	.77	.75	.80	.77	.75	.74
10.0	.80	.76	.73	.80	.76	.73	.79	.75	.73	.78	.75	.73	.78	.75	.73	.72



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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	.139	.079	.025	.132	.075	.024	.120	.069	.022	.108	.063	.020	.098	.057	.018		
2.0	.129	.071	.022	.123	.068	.021	.113	.063	.020	.104	.058	.018	.095	.054	.017		
3.0	.120	.064	.019	.116	.062	.019	.107	.058	.018	.099	.054	.017	.092	.051	.016		
4.0	.113	.059	.017	.109	.057	.017	.102	.054	.016	.095	.051	.015	.089	.048	.015		
5.0	.107	.054	.016	.104	.053	.015	.097	.051	.015	.092	.048	.014	.086	.046	.014		
6.0	.101	.051	.015	.099	.050	.014	.093	.048	.014	.088	.046	.013	.084	.044	.013		
7.0	.097	.048	.014	.094	.047	.013	.089	.045	.013	.085	.044	.013	.081	.042	.012		
8.0	.092	.045	.013	.090	.044	.013	.086	.043	.012	.082	.042	.012	.079	.040	.012		
9.0	.088	.043	.012	.086	.042	.012	.083	.041	.012	.079	.040	.011	.076	.039	.011		
10.0	.085	.041	.011	.083	.040	.011	.080	.039	.011	.077	.038	.011	.074	.037	.011		

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	.168	.158	.148	.144	.135	.127	.099	.093	.088	.057	.054	.051	.018	.017	.017	
2.0	.151	.133	.118	.129	.114	.102	.088	.079	.071	.051	.046	.042	.016	.015	.014	
3.0	.136	.113	.095	.116	.098	.083	.080	.068	.058	.046	.040	.034	.015	.013	.011	
4.0	.123	.098	.079	.106	.085	.068	.073	.059	.048	.042	.035	.028	.014	.011	.009	
5.0	.113	.086	.066	.097	.074	.057	.067	.052	.040	.039	.030	.024	.012	.010	.008	
6.0	.104	.076	.055	.090	.066	.048	.062	.046	.034	.036	.027	.020	.012	.009	.007	
7.0	.097	.068	.047	.083	.059	.041	.058	.041	.029	.033	.024	.017	.011	.008	.006	
8.0	.090	.061	.041	.078	.053	.035	.054	.037	.025	.031	.022	.015	.010	.007	.005	
9.0	.085	.055	.035	.073	.048	.031	.051	.034	.022	.030	.020	.013	.010	.007	.004	
10.0	.080	.051	.031	.069	.044	.027	.048	.031	.019	.028	.018	.011	.009	.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:0.4911A P:23.57W PF:1.000 Freq:0Hz Lamp Flux:1595.02x1 lm										
NAME: ML26-RS40-24W-927-30					TYPE:Low Voltage Track System Module					
SPEC.:2700K					DIM.: ϕ 40mm*H105mm					
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	6.5	7.2	6.7	7.3	7.5	9.2	9.9	9.4	10.0	10.2
3H	6.4	7.0	6.6	7.2	7.4	9.1	9.7	9.3	9.9	10.1
4H	6.3	6.9	6.5	7.1	7.3	9.0	9.6	9.3	9.8	10.0
6H	6.2	6.8	6.5	7.0	7.2	8.9	9.5	9.2	9.7	9.9
8H	6.2	6.7	6.4	6.9	7.2	8.9	9.4	9.2	9.7	9.9
12H	6.1	6.6	6.4	6.9	7.2	8.8	9.3	9.1	9.6	9.9
4H 2H	6.3	6.9	6.5	7.1	7.3	9.0	9.6	9.3	9.8	10.0
3H	6.1	6.6	6.4	6.9	7.2	8.8	9.3	9.1	9.6	9.9
4H	6.0	6.5	6.3	6.8	7.1	8.7	9.2	9.1	9.5	9.8
6H	5.9	6.3	6.3	6.7	7.0	8.6	9.0	9.0	9.4	9.7
8H	5.9	6.3	6.2	6.6	7.0	8.6	9.0	9.0	9.3	9.7
12H	5.8	6.2	6.2	6.5	6.9	8.5	8.9	8.9	9.2	9.6
8H 4H	5.9	6.2	6.2	6.6	7.0	8.6	9.0	9.0	9.3	9.7
6H	5.7	6.1	6.2	6.5	6.9	8.5	8.8	8.9	9.2	9.6
8H	5.7	6.0	6.1	6.4	6.8	8.4	8.7	8.8	9.1	9.5
12H	5.6	5.9	6.1	6.3	6.8	8.3	8.6	8.8	9.0	9.5
12H 4H	5.8	6.2	6.2	6.5	6.9	8.5	8.9	8.9	9.2	9.6
6H	5.7	6.0	6.1	6.4	6.8	8.4	8.7	8.8	9.1	9.5
8H	5.6	5.9	6.1	6.3	6.8	8.3	8.6	8.8	9.0	9.5
Variations with the observer position at spacings:										
S = 1.0H	+ 3.4 / -15.0					+ 4.9 / -16.5				
1.5H	+ 6.0 / -12.3					+ 7.5 / -14.8				
2.0H	+ 5.6 / - 6.0					+ 9.4 / -10.2				

CIE Pub.117, 1595 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 1.6$)

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Humidity:58%
Test Distance:5.850m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

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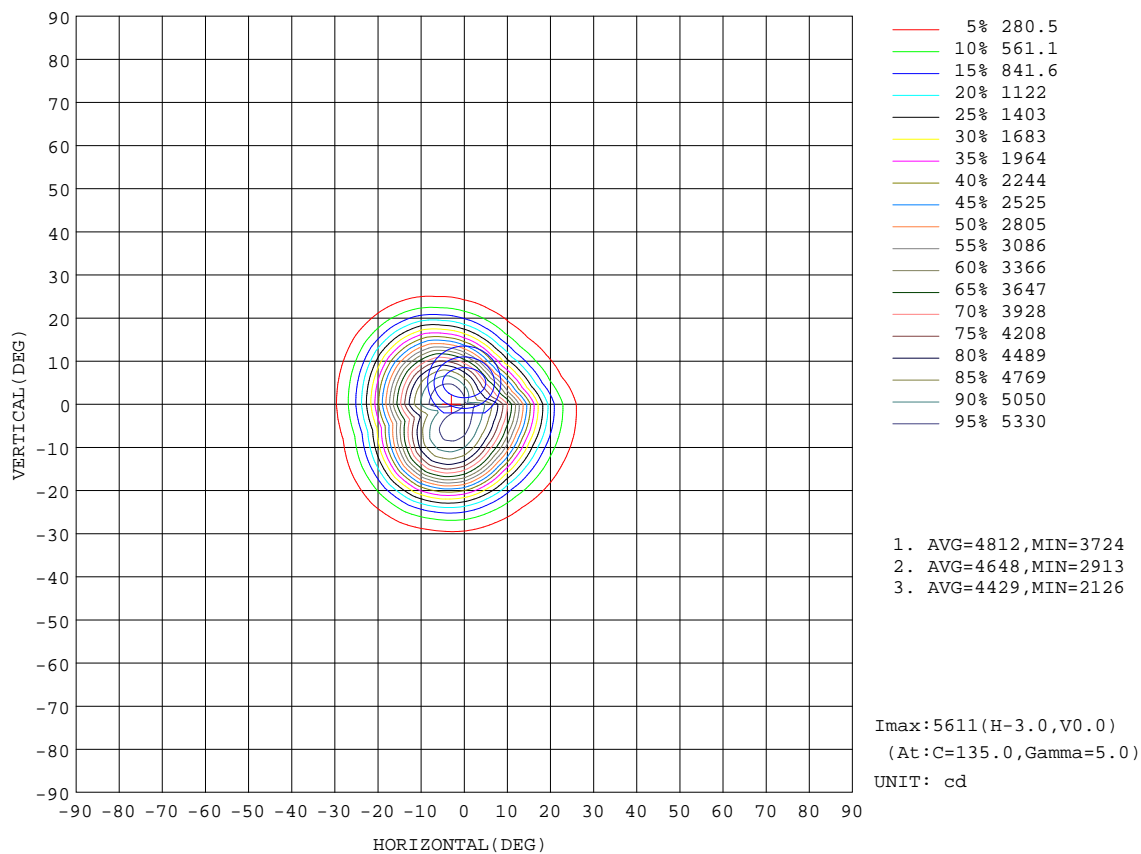
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	91	86	82	91	85	82	90	85	82	79
0.80	98	93	90	98	93	90	96	92	89	86
1.00	102	97	94	101	97	93	100	96	93	89
1.25	105	101	98	104	100	97	103	99	97	93
1.50	108	104	101	107	103	100	104	101	99	95
2.00	110	106	103	109	105	103	106	103	101	96
2.50	111	108	105	110	107	104	107	104	103	97
3.00	113	110	107	111	108	106	108	106	104	98
4.00	115	112	110	113	111	109	109	107	106	99
5.00	116	114	112	114	112	111	110	109	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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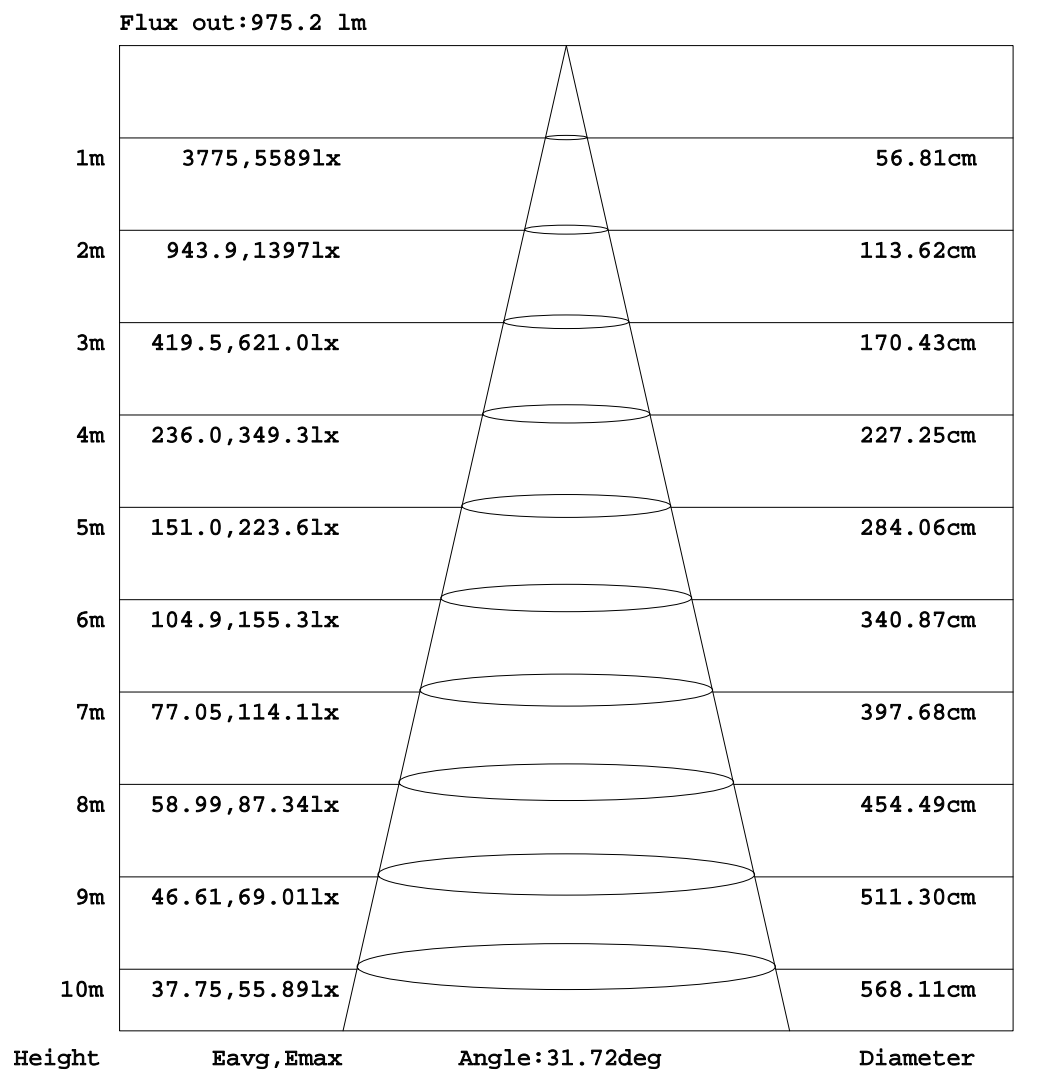


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AAI Figure

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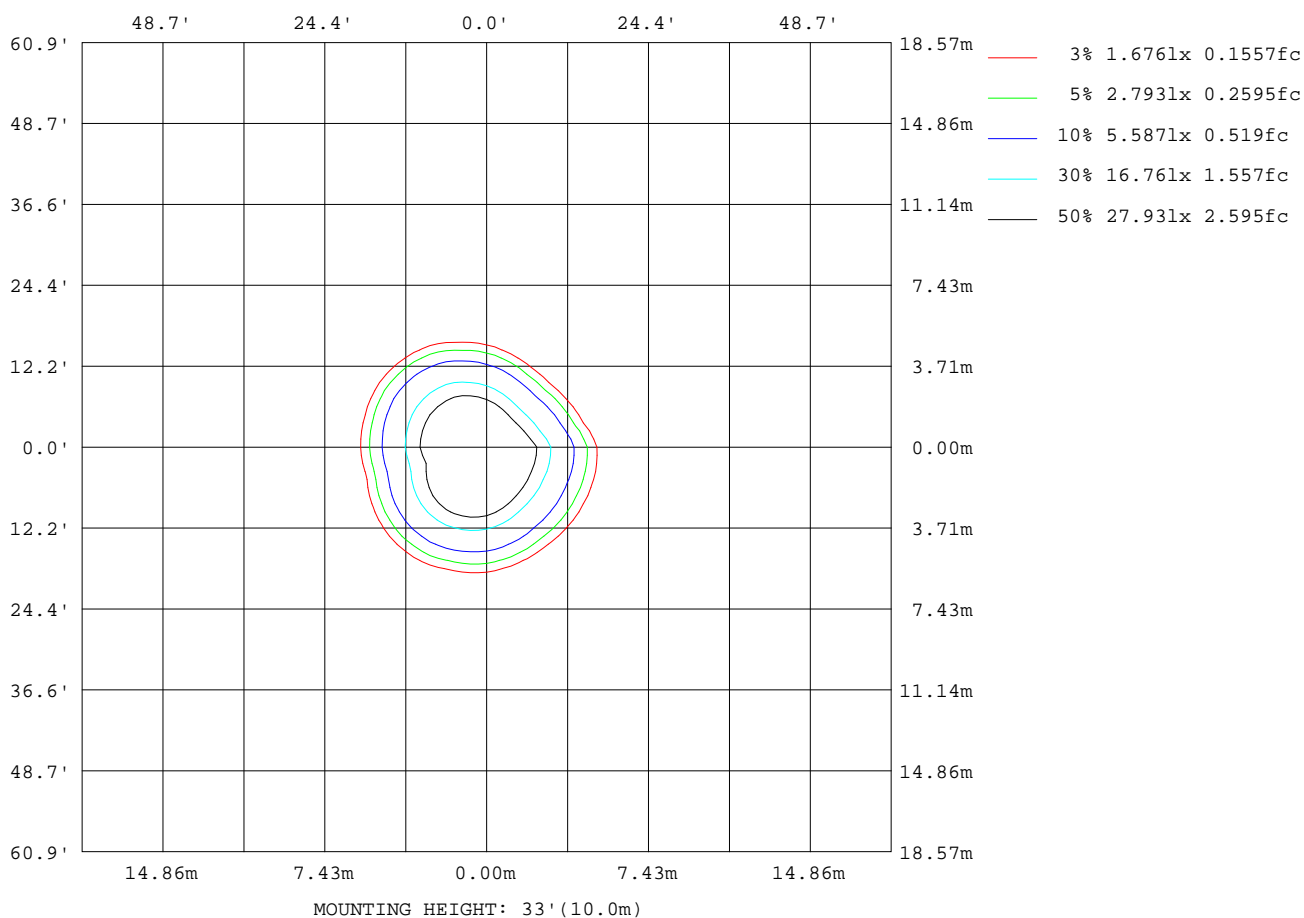
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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ISOLUX DIAGRAM

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LED Avg.L Report

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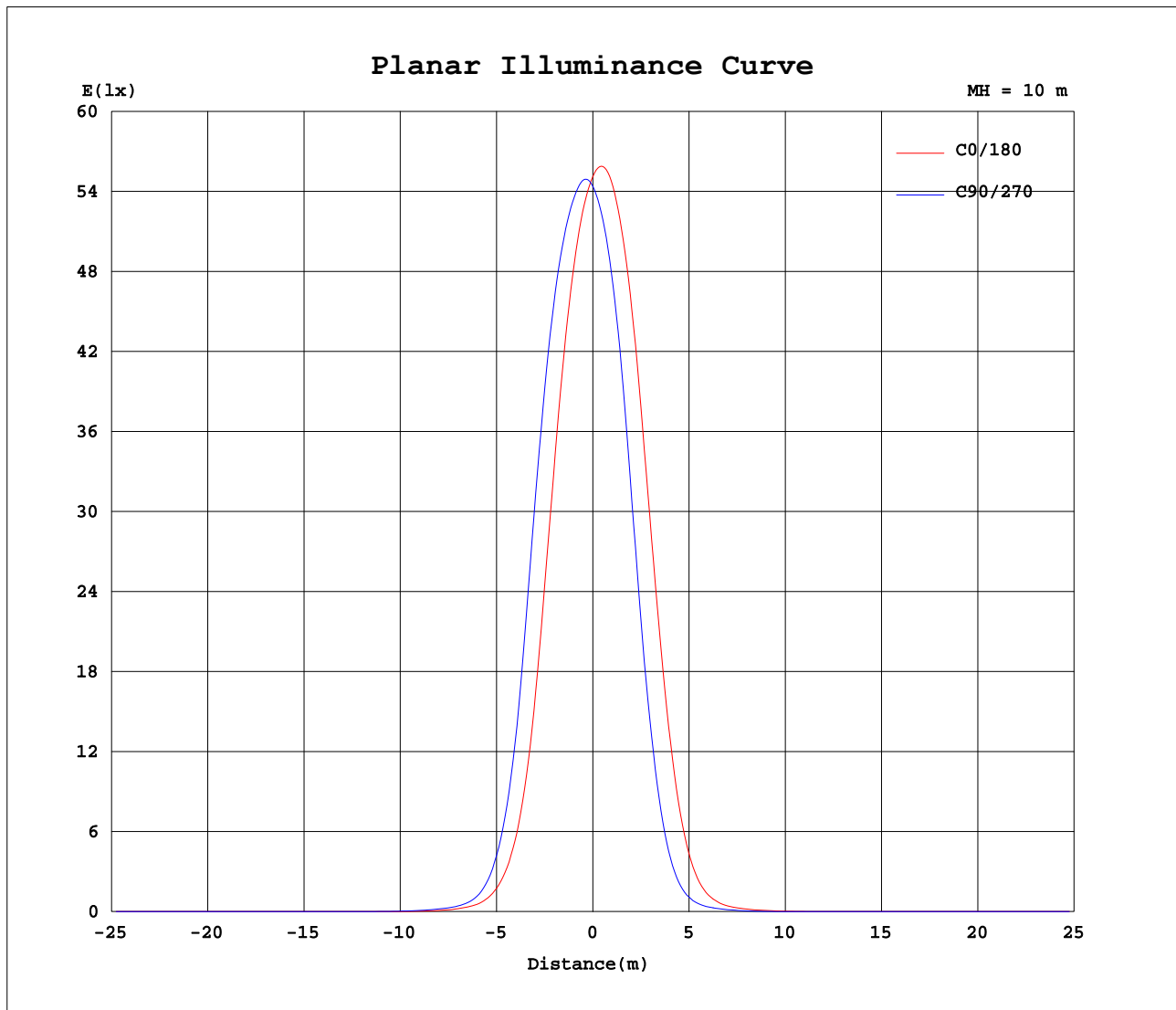
AvgL	cd/m2
L_0~180 (65) av	283
L_0~180 (75) av	157
L_0~180 (85) av	438
L_90~270 (65) av	301
L_90~270 (75) av	176
L_90~270 (85) av	434
L_45 (65) av	309
L_45 (75) av	176
L_45 (85) av	457

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-05-12

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: 2020-05-12

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:

```