

Low Voltage Track System Module ML26-PS55-14W-940-35



Light Output Ratio:	100.0%	
Luminaire Power:	13.92 W	
SHR Nominal:	0.50	Calculated using the TM5
SHR Maximum:	0.55	fine grid method.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Jason Long
Test Date: 2020-04-20

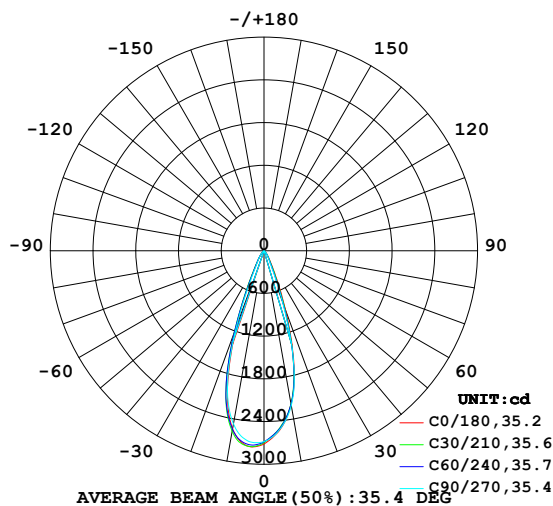
γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 58%
Test Distance: 5.850m [K=1.0000]
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

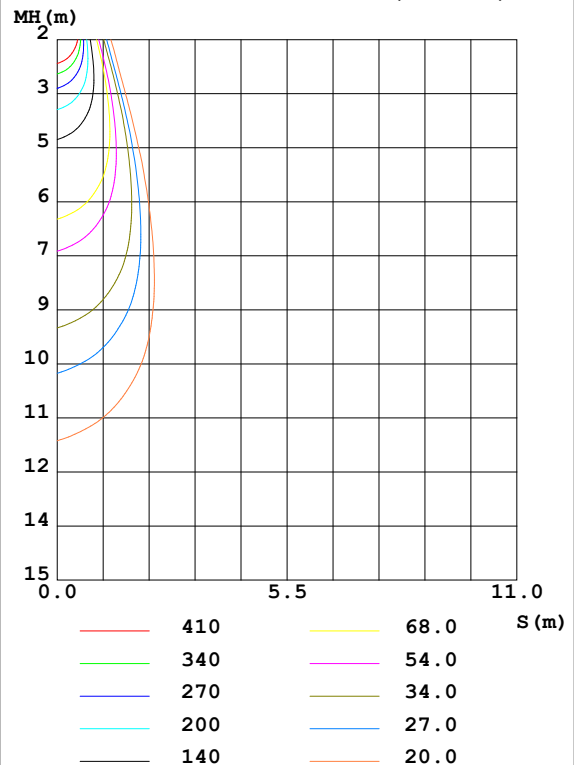
Test:U:48.00V I:0.2900A P:13.92W PF:1.000 Freq:0Hz Lamp Flux:1011.49x1 lm		
NAME: ML26-PS55-14W-940-35	TYPE:Low Voltage Track System	Serial No.:
SPEC.:4000K	DIM.: ϕ 55mm*H180mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 72.66 lm/W
MODEL	CITIZEN-4000K	I _{max} (cd)	2761	S/MH (C0/180)	0.57	
NOMINAL POWER (W)	14	LOR (%)	100.0	S/MH (C90/270)	0.56	
RATED VOLTAGE (V)	48	TOTAL FLUX (lm)	1011.5	η UP, DN (C0-180)	0.0, 46.3	
NOMINAL FLUX (lm)	1011.49	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 53.7	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50	
TEST VOLTAGE (V)	48	η down (%)	100.0	CIBSE SHR MAX	0.55	

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	2191	2198	2210	2339	2542	2557	2471	2271	0- 10	241.0	241.0	23.8,23.8
20	884.7	831.6	757.3	900.2	1134	1209	1126	924.2	10- 20	471.5	712.5	70.4,70.4
30	182.5	160.5	135.9	158.2	210.1	217.1	187.8	182.2	20- 30	196.5	909.0	89.9,89.9
40	62.18	57.80	52.31	58.33	69.04	73.47	72.59	67.67	30- 40	68.82	977.8	96.7,96.7
50	14.00	13.86	12.04	12.60	14.83	16.37	14.65	13.30	40- 50	25.23	1003	99.2,99.2
60	3.315	3.171	2.868	3.222	3.801	3.973	3.625	3.157	50- 60	6.764	1010	99.8,99.8
70	0.5013	0.4456	0.4290	0.4347	0.4824	0.5342	0.5173	0.4902	60- 70	1.317	1011	100,100
80	0.1729	0.1377	0.1511	0.1354	0.1333	0.1663	0.1462	0.1641	70- 80	0.2962	1011	100,100
90	0.0525	0.0503	0.0503	0.0503	0.0394	0.0437	0.0415	0.0394	80- 90	0.0940	1011	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): 994.9 lm

%lum = 98.4%

%lamp = 98.4%

Conical surface Flux(120deg): 1009.8 lm

%lum = 99.8%

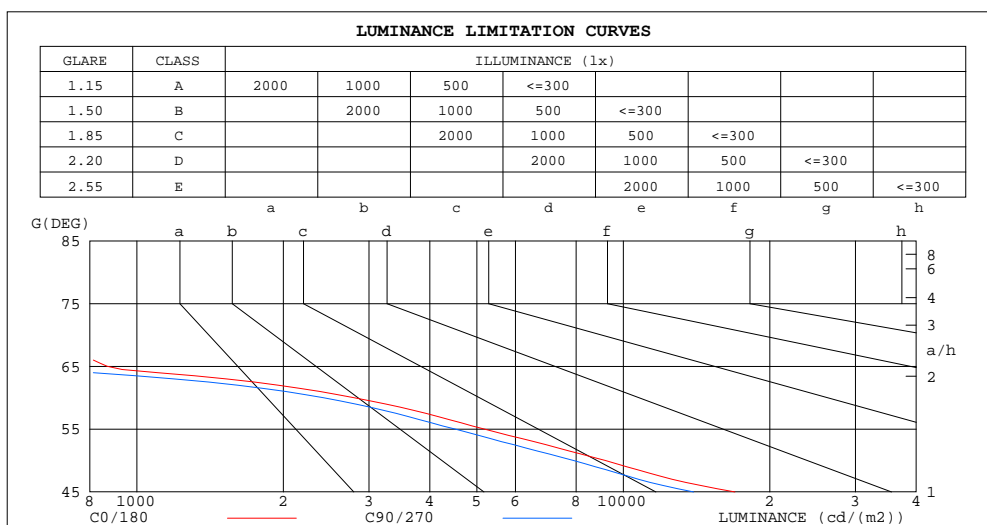
%lamp = 99.8%

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Remarks:

LUMINANCE LIMITATION CURVES

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SPEC.:4000K	DIM.: ϕ 55mm*H180mm	
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LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	466	413
80	419	366
75	470	406
70	617	528
65	869	731
60	2792	2416
55	5179	4510
50	9173	7891
45	16961	13945

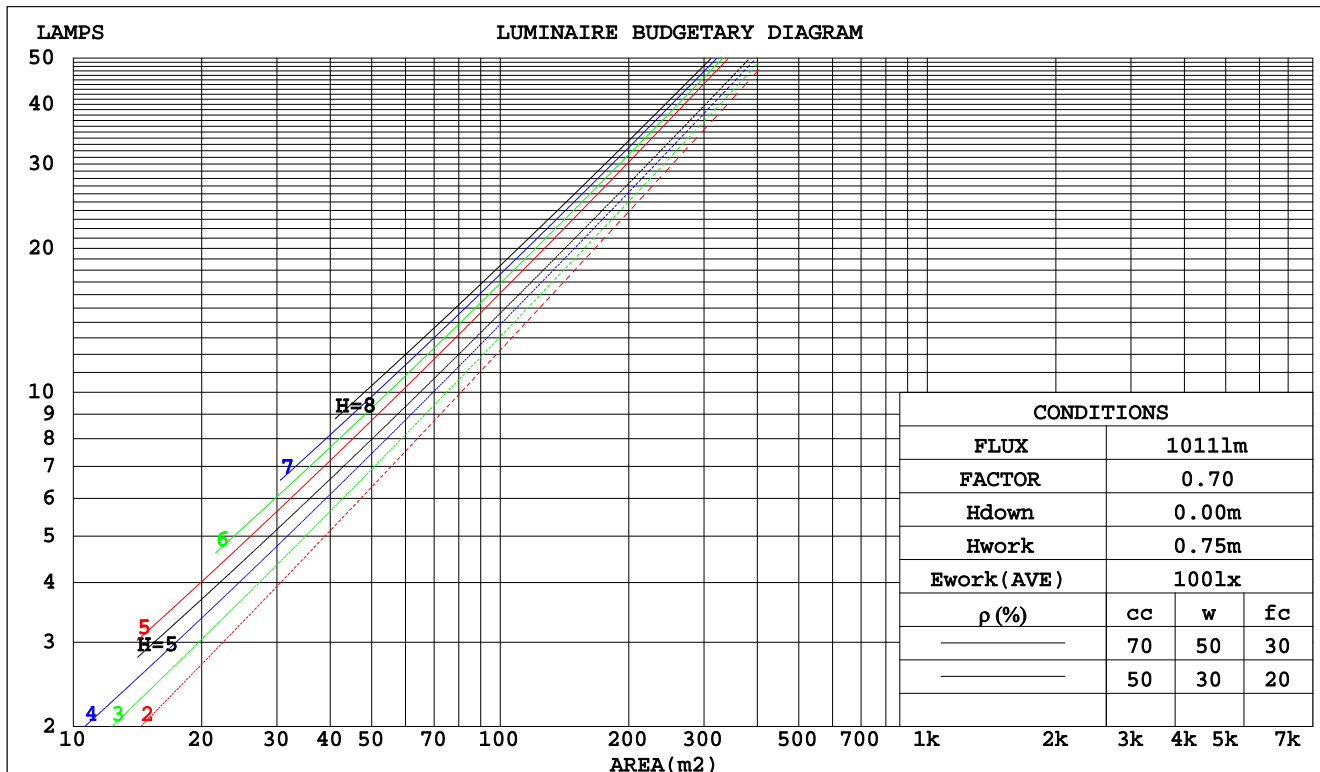
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CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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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	1.00
1.0	1.12	1.10	1.08	1.10	1.08	1.07	1.06	1.05	1.03	1.02	1.01	1.00	.99	.98	.97	.96
2.0	1.06	1.03	1.00	1.05	1.02	.99	1.01	.99	.97	.99	.97	.95	.96	.94	.93	.91
3.0	1.01	.97	.94	.90	.96	.93	.97	.94	.92	.95	.92	.90	.93	.91	.89	.87
4.0	.96	.92	.88	.95	.91	.88	.93	.90	.87	.91	.88	.86	.89	.87	.85	.84
5.0	.92	.87	.84	.91	.87	.84	.89	.86	.83	.88	.85	.82	.86	.84	.81	.80
6.0	.88	.83	.80	.87	.83	.80	.86	.82	.79	.85	.81	.79	.84	.81	.78	.77
7.0	.85	.80	.77	.84	.79	.76	.83	.79	.76	.82	.78	.76	.81	.78	.75	.74
8.0	.81	.77	.73	.81	.76	.73	.80	.76	.73	.79	.75	.73	.78	.75	.72	.71
9.0	.78	.74	.71	.78	.73	.70	.77	.73	.70	.76	.73	.70	.76	.72	.70	.69
10.0	.76	.71	.68	.75	.71	.68	.74	.70	.68	.74	.70	.68	.73	.70	.67	.66



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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	.149	.085	.027	.143	.081	.026	.130	.075	.024	.119	.068	.022	.108	.063	.020		
2.0	.140	.077	.024	.134	.074	.023	.124	.069	.021	.115	.064	.020	.106	.060	.019		
3.0	.132	.070	.021	.127	.068	.020	.118	.064	.019	.110	.060	.019	.103	.057	.018		
4.0	.124	.065	.019	.120	.063	.019	.113	.060	.018	.106	.057	.017	.100	.054	.016		
5.0	.118	.060	.017	.114	.059	.017	.108	.056	.017	.102	.054	.016	.097	.052	.016		
6.0	.112	.056	.016	.109	.055	.016	.103	.053	.015	.098	.051	.015	.093	.049	.015		
7.0	.107	.053	.015	.104	.052	.015	.099	.050	.014	.095	.049	.014	.090	.047	.014		
8.0	.102	.050	.014	.100	.049	.014	.095	.048	.014	.091	.046	.013	.088	.045	.013		
9.0	.098	.047	.013	.096	.047	.013	.092	.045	.013	.088	.044	.013	.085	.043	.012		
10.0	.094	.045	.012	.092	.044	.012	.088	.043	.012	.085	.042	.012	.082	.041	.012		

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	.169	.158	.147	.145	.135	.127	.099	.093	.088	.057	.054	.051	.018	.017	.016		
2.0	.152	.133	.116	.130	.114	.101	.089	.079	.070	.051	.046	.041	.017	.015	.013		
3.0	.138	.113	.094	.118	.098	.081	.081	.068	.057	.047	.040	.034	.015	.013	.011		
4.0	.126	.098	.077	.108	.085	.067	.074	.059	.047	.043	.035	.028	.014	.011	.009		
5.0	.116	.086	.064	.100	.074	.056	.069	.052	.039	.040	.031	.023	.013	.010	.008		
6.0	.108	.076	.054	.093	.066	.047	.064	.046	.033	.037	.027	.020	.012	.009	.007		
7.0	.101	.068	.046	.087	.059	.040	.060	.042	.028	.035	.024	.017	.011	.008	.006		
8.0	.094	.062	.039	.081	.054	.034	.056	.038	.024	.033	.022	.015	.011	.007	.005		
9.0	.089	.056	.034	.077	.049	.030	.053	.034	.021	.031	.020	.013	.010	.007	.004		
10.0	.084	.052	.030	.073	.045	.026	.050	.032	.019	.029	.019	.011	.010	.006	.004		

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γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
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Humidity:58%
Test Distance:5.850m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:48.00V I:0.2900A P:13.92W PF:1.000 Freq:0Hz Lamp Flux:1011.49x1 lm										
NAME: ML26-PS55-14W-940-35					TYPE:Low Voltage Track SystemSerial No.:					
SPEC.:4000K					DIM.: ϕ 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	14.1	14.9	14.3	15.0	15.2	13.2	14.0	13.4	14.1	14.3
3H	14.0	14.7	14.2	14.9	15.0	13.1	13.8	13.3	14.0	14.1
4H	13.9	14.6	14.2	14.8	15.0	13.0	13.7	13.3	13.9	14.1
6H	13.8	14.4	14.1	14.7	14.9	12.9	13.5	13.2	13.8	14.0
8H	13.8	14.4	14.1	14.6	14.9	12.9	13.5	13.2	13.7	14.0
12H	13.7	14.3	14.0	14.6	14.8	12.8	13.4	13.1	13.7	13.9
4H 2H	13.9	14.6	14.2	14.8	15.0	13.0	13.7	13.3	13.9	14.1
3H	13.8	14.3	14.1	14.6	14.9	12.9	13.4	13.2	13.7	14.0
4H	13.7	14.2	14.0	14.5	14.8	12.8	13.3	13.1	13.6	13.9
6H	13.6	14.0	13.9	14.3	14.7	12.7	13.1	13.0	13.5	13.8
8H	13.5	13.9	13.9	14.3	14.6	12.6	13.0	13.0	13.4	13.8
12H	13.5	13.8	13.9	14.2	14.6	12.6	13.0	13.0	13.3	13.7
8H 4H	13.5	13.9	13.9	14.3	14.6	12.6	13.0	13.0	13.4	13.8
6H	13.4	13.8	13.8	14.1	14.6	12.5	12.9	12.9	13.3	13.7
8H	13.3	13.7	13.8	14.1	14.5	12.5	12.8	12.9	13.2	13.6
12H	13.3	13.6	13.8	14.0	14.5	12.4	12.7	12.9	13.1	13.6
12H 4H	13.5	13.8	13.9	14.2	14.6	12.6	13.0	13.0	13.3	13.7
6H	13.3	13.7	13.8	14.1	14.5	12.5	12.8	12.9	13.2	13.6
8H	13.3	13.6	13.7	14.0	14.5	12.4	12.7	12.9	13.1	13.6
Variations with the observer position at spacings:										
S = 1.0H	+ 2.9 / - 8.9					+ 2.6 / - 8.9				
1.5H	+ 4.7 / - 6.5					+ 4.3 / - 6.1				
2.0H	+ 5.5 / -10.9					+ 5.0 / -10.8				

CIE Pub.117, 1011 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 0.0$)

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UTILIZATION FACTORS TABLE

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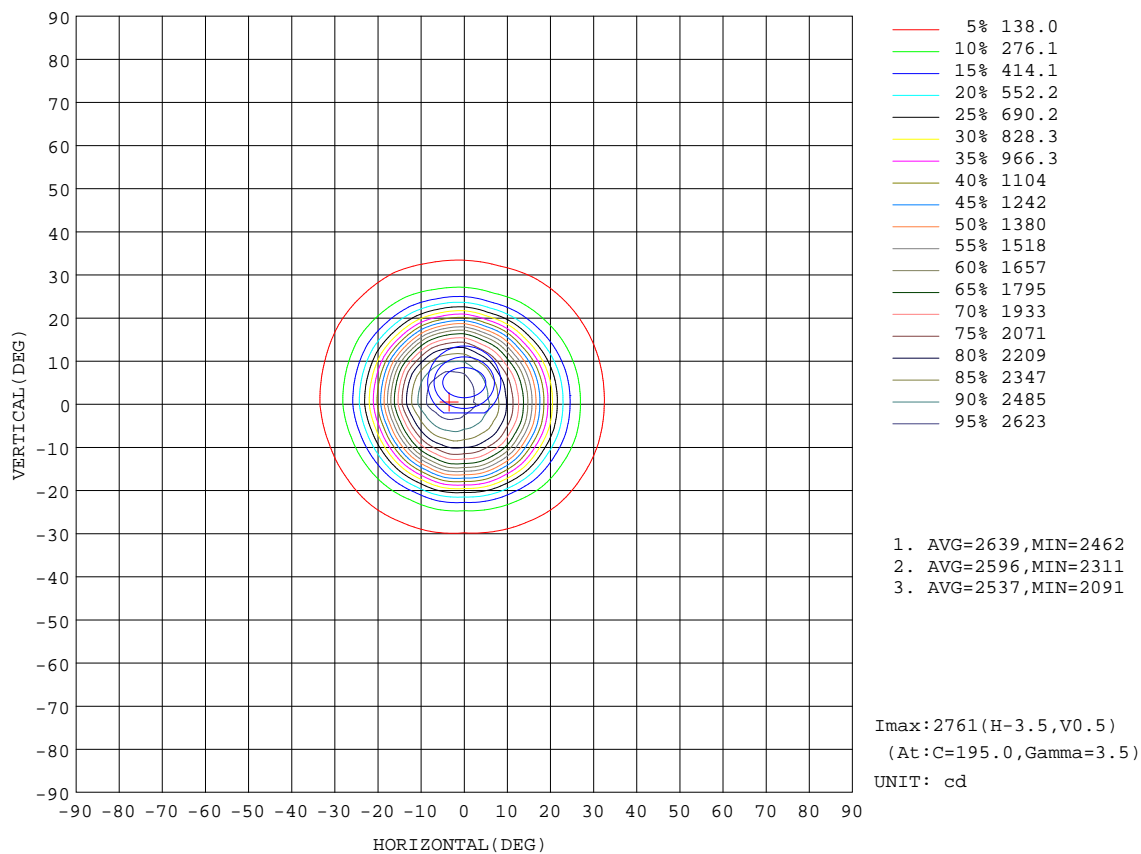
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	89	83	80	89	83	80	88	83	80	76
0.80	97	91	88	96	91	88	95	90	87	84
1.00	101	96	92	100	95	92	98	95	91	88
1.25	104	100	96	103	99	96	102	98	95	91
1.50	107	103	100	106	102	99	104	100	98	94
2.00	109	105	103	108	104	102	105	102	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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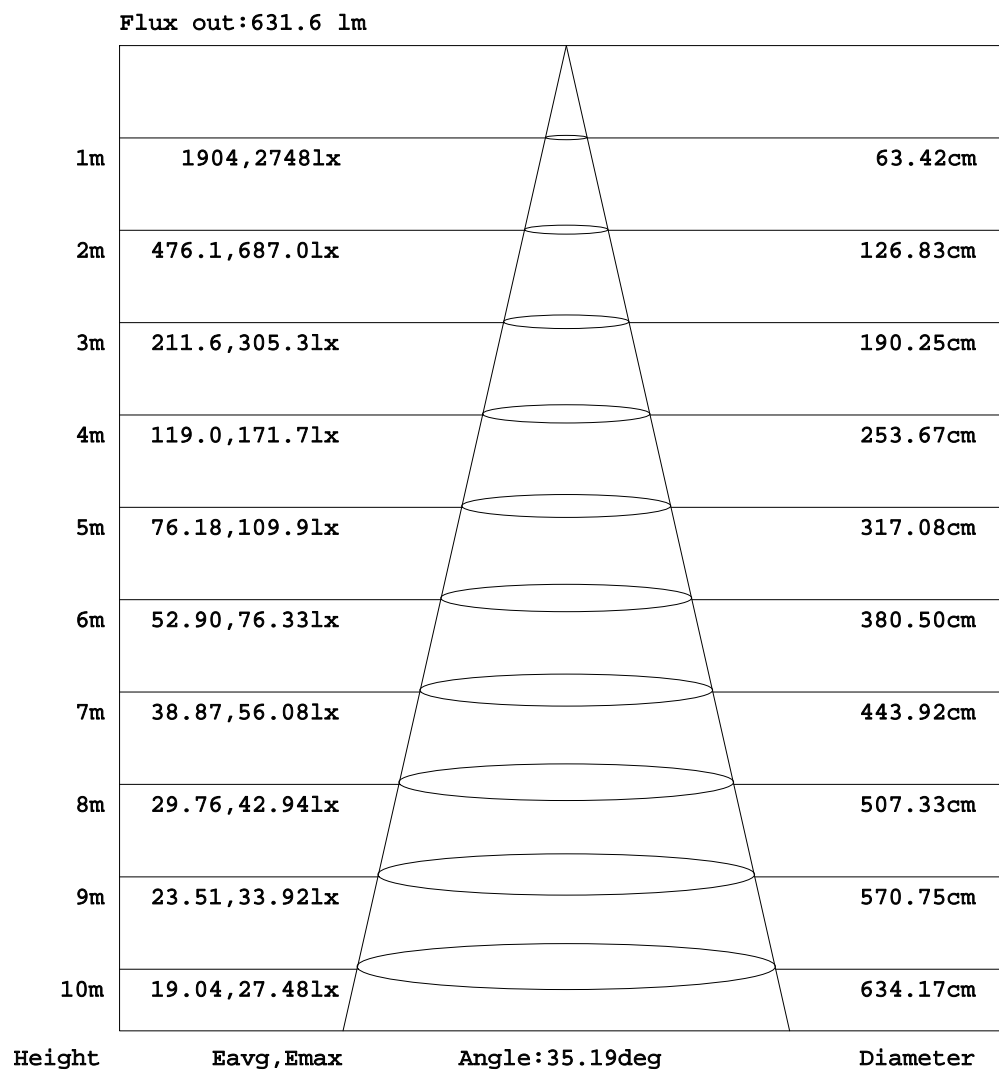


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AAI Figure

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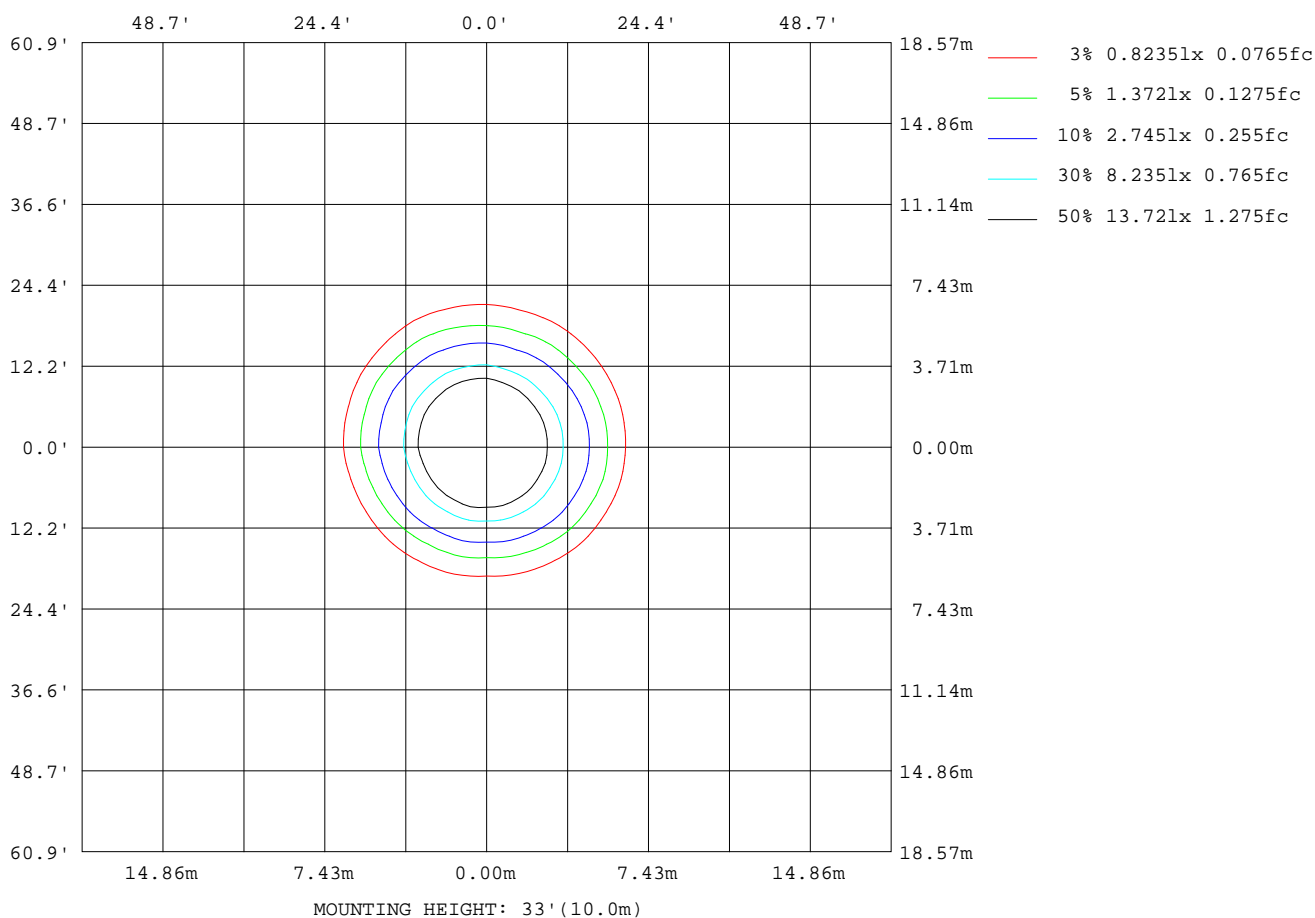
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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ISOLUX DIAGRAM

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LED Avg.L Report

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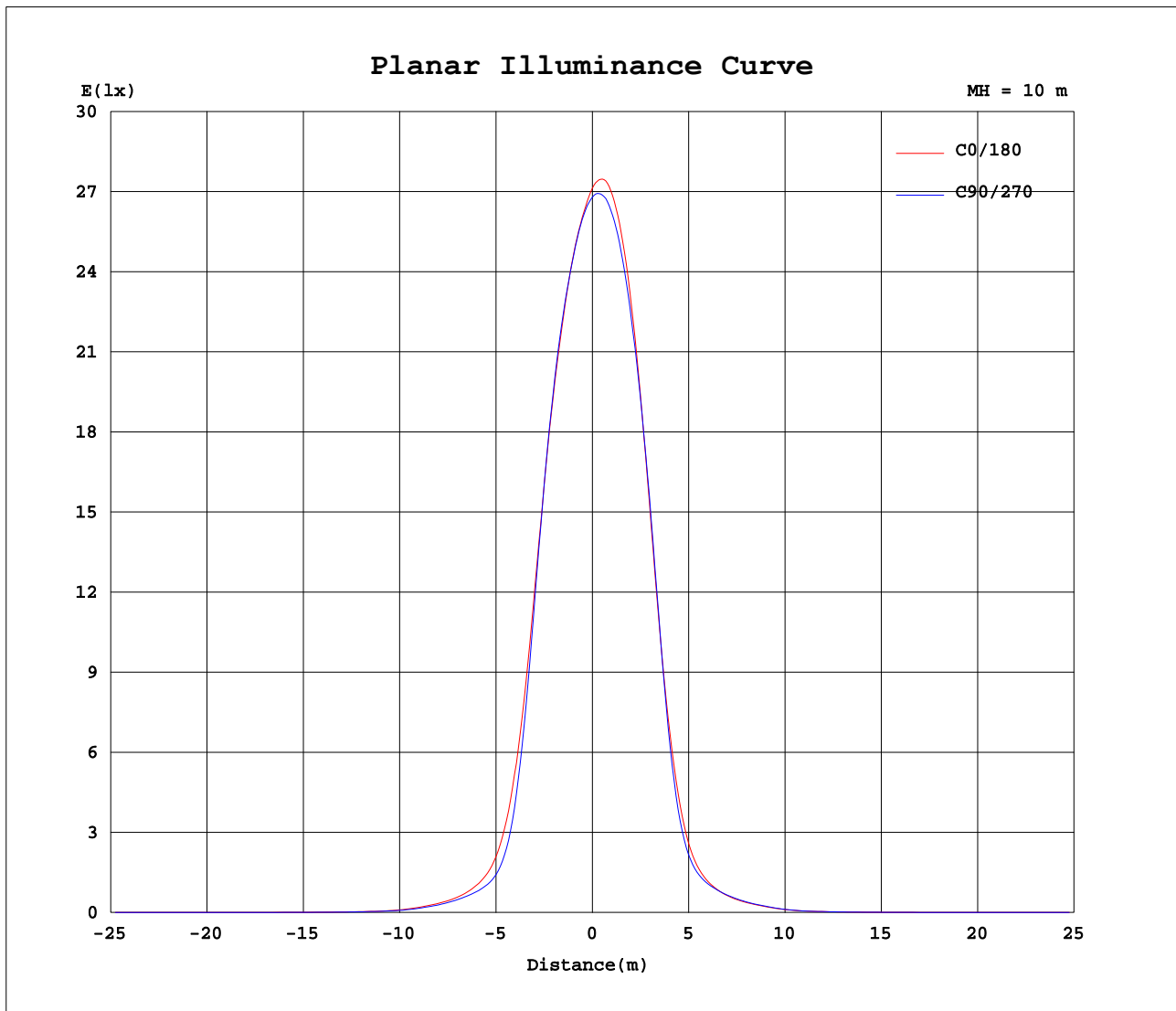
AvgL	cd/m2
L_0~180 (65) av	967
L_0~180 (75) av	441
L_0~180 (85) av	391
L_90~270 (65) av	929
L_90~270 (75) av	425
L_90~270 (85) av	375
L_45 (65) av	911
L_45 (75) av	431
L_45 (85) av	388

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason Long
Test Date:2020-04-20

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: 2020-04-20

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:

```