

Low Voltage Track System Module ML26-RS40-16W-940-45



Light Output Ratio:	100.0%	
Luminaire Power:	15.57 W	
SHR Nominal:	0.50	Calculated using the TM5
SHR Maximum:	0.60	fine grid method.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Jason
Test Date: 2020-05-19

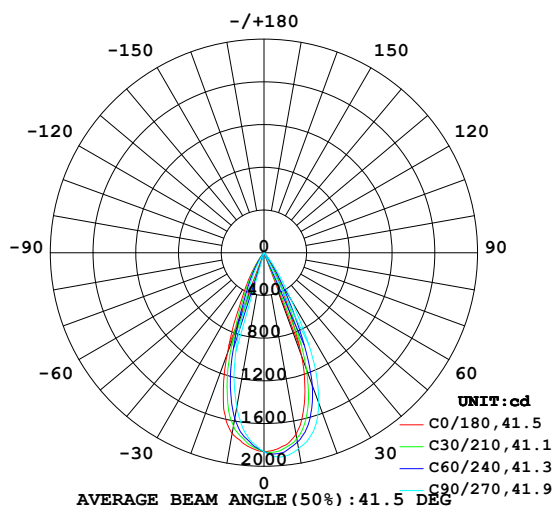
γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 58%
Test Distance: 5.850m [K=1.0000]
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

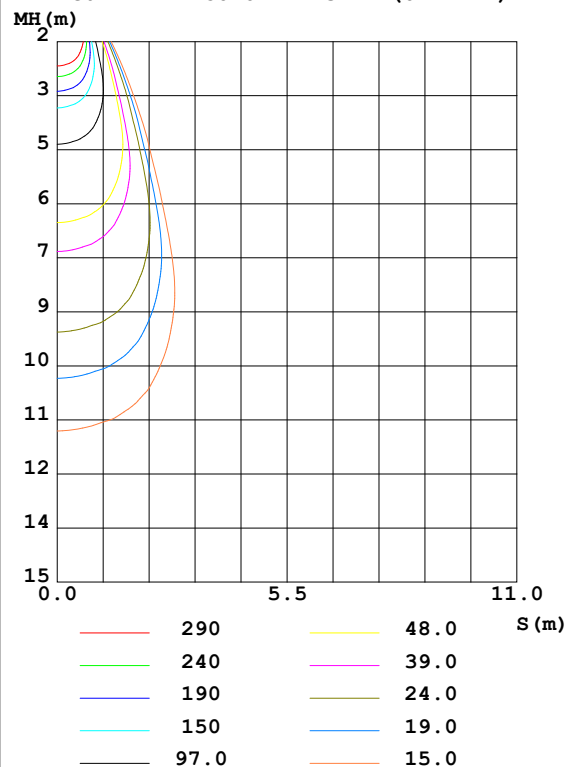
Test:U:48.00V I:0.3243A P:15.57W PF:1.000 Freq:0Hz Lamp Flux:898.72lx1 lm		
NAME: ML26-RS40-16W-940-45	TYPE:Low Voltage Track System Module	
SPEC.:4000K	DIM.: ϕ 40mm*H70mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 57.74 lm/W			
MODEL	CITIZEN-4000K	I _{max} (cd)	1943	S/MH (C0/180)	0.63
NOMINAL POWER (W)	16	LOR (%)	100.0	S/MH (C90/270)	0.51
RATED VOLTAGE (V)	48	TOTAL FLUX (lm)	898.72	η UP, DN (C0-180)	0.0, 62.5
NOMINAL FLUX (lm)	898.721	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 37.5
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	48	η down (%)	100.0	CIBSE SHR MAX	0.60

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	1726	1792	1861	1909	1718	1605	1468	1376	0- 10	169.2	169.2	18.8,18.8
20	1031	1244	1498	1506	1004	762.9	548.4	451.8	10- 20	381.1	550.2	61.2,61.2
30	192.1	287.4	506.6	560.1	282.2	200.1	107.1	50.16	20- 30	264.6	814.8	90.7,90.7
40	14.01	26.31	56.71	80.35	33.45	21.16	7.921	5.882	30- 40	73.61	888.4	98.9,98.9
50	2.675	3.551	5.475	7.172	3.899	3.037	1.642	1.085	40- 50	8.306	896.7	99.8,99.8
60	0.4907	0.7138	1.107	1.414	0.6147	0.4236	0.2464	0.2232	50- 60	1.544	898.3	100,100
70	0.1179	0.1310	0.2256	0.2525	0.1175	0.0994	0.0604	0.0713	60- 70	0.3101	898.6	100,100
80	0.0505	0.0402	0.0716	0.0621	0.0315	0.0423	0.0282	0.0368	70- 80	0.0823	898.7	100,100
90	0.0420	0.0402	0.0433	0.0437	0.0294	0.0275	0.0282	0.0299	80- 90	0.0427	898.7	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): 894.53 lm

%lum = 99.5%

%lamp = 99.5%

Conical surface Flux(120deg): 898.29 lm

%lum = 100.0%

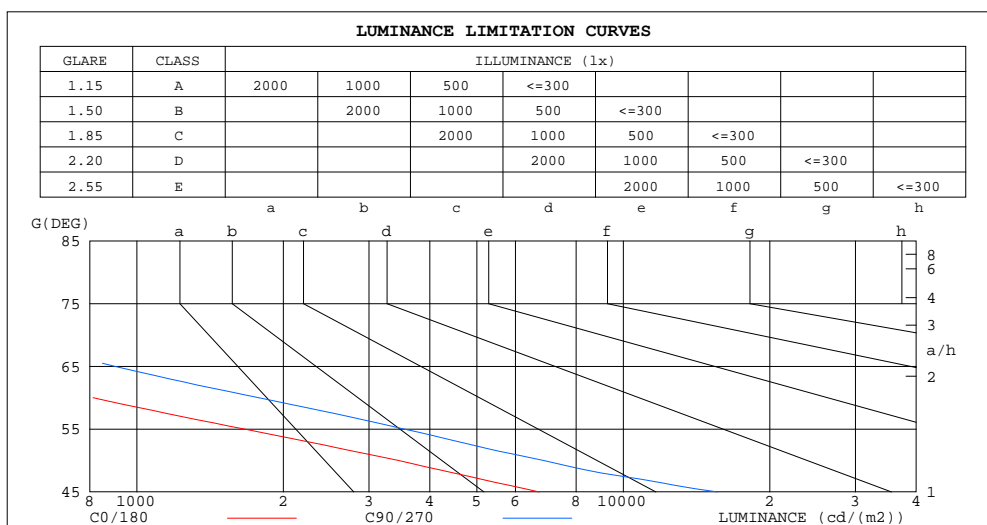
%lamp = 100.0%

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Test Speed: HIGH
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Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
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Remarks:

LUMINANCE LIMITATION CURVES

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SPEC.:4000K	DIM.: $\phi 40\text{mm} \times H70\text{mm}$	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	399	479
80	241	331
75	235	377
70	285	530
65	442	900
60	813	1779
55	1664	3543
50	3446	6846
45	6710	15606

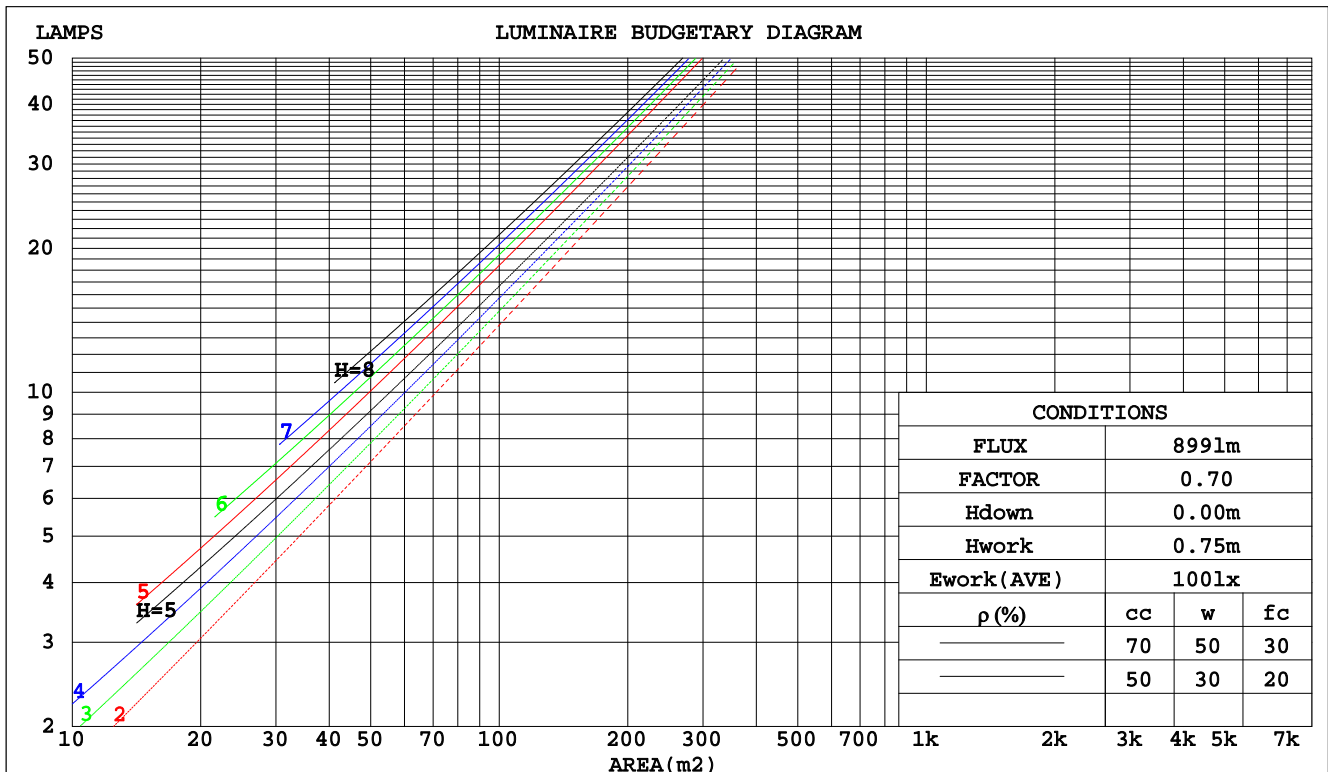
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CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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SPEC.:4000K	DIM.: ϕ 40mm*H70mm	
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	1.00
1.0	1.12	1.10	1.08	1.10	1.08	1.06	1.06	1.04	1.03	1.02	1.01	.00	.99	.98	.97	.95
2.0	1.06	1.02	.00	1.04	1.01	.98	1.01	.98	.96	.98	.96	.94	.95	.94	.92	.91
3.0	1.00	.96	.93	.99	.95	.92	.96	.93	.91	.94	.91	.89	.92	.90	.88	.86
4.0	.95	.91	.87	.94	.90	.87	.92	.89	.86	.90	.87	.85	.88	.86	.84	.82
5.0	.91	.86	.82	.90	.85	.82	.88	.84	.81	.87	.83	.81	.85	.82	.80	.79
6.0	.87	.82	.78	.86	.81	.78	.84	.80	.77	.83	.80	.77	.82	.79	.76	.75
7.0	.83	.78	.74	.82	.77	.74	.81	.77	.74	.80	.76	.73	.79	.75	.73	.72
8.0	.79	.74	.71	.79	.74	.71	.78	.73	.70	.77	.73	.70	.76	.72	.70	.69
9.0	.76	.71	.68	.75	.71	.68	.75	.70	.67	.74	.70	.67	.73	.70	.67	.66
10.0	.73	.68	.65	.72	.68	.65	.72	.68	.65	.71	.67	.64	.70	.67	.64	.63



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WEC AND CCEC

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NAME: ML26-RS40-16W-940-45	TYPE:Low Voltage Track System Module	
SPEC.:4000K	DIM.: φ40mm*H70mm	
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	.153	.087	.028	.147	.084	.027	.134	.077	.025	.123	.071	.023	.112	.065	.021	
2.0	.144	.079	.024	.139	.076	.024	.128	.071	.022	.119	.067	.021	.110	.062	.020	
3.0	.136	.072	.022	.132	.070	.021	.123	.067	.020	.115	.063	.019	.107	.059	.018	
4.0	.129	.067	.020	.125	.065	.019	.118	.062	.019	.111	.059	.018	.104	.057	.017	
5.0	.123	.062	.018	.119	.061	.018	.113	.059	.017	.107	.056	.017	.101	.054	.016	
6.0	.117	.059	.017	.114	.058	.017	.108	.056	.016	.103	.054	.016	.098	.052	.015	
7.0	.112	.055	.016	.109	.054	.015	.104	.053	.015	.100	.051	.015	.095	.050	.015	
8.0	.107	.052	.015	.105	.052	.015	.100	.050	.014	.096	.049	.014	.093	.047	.014	
9.0	.103	.050	.014	.101	.049	.014	.097	.048	.014	.093	.047	.013	.090	.046	.013	
10.0	.099	.047	.013	.097	.047	.013	.094	.046	.013	.090	.045	.013	.087	.044	.013	

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	.169	.158	.147	.145	.135	.126	.099	.093	.087	.057	.054	.051	.018	.017	.016		
2.0	.153	.133	.116	.131	.114	.100	.090	.079	.070	.052	.046	.041	.017	.015	.013		
3.0	.139	.113	.093	.119	.098	.081	.082	.068	.057	.047	.040	.033	.015	.013	.011		
4.0	.127	.098	.076	.109	.085	.066	.075	.059	.047	.043	.035	.028	.014	.011	.009		
5.0	.118	.086	.063	.101	.075	.055	.070	.052	.039	.040	.031	.023	.013	.010	.008		
6.0	.109	.077	.053	.094	.066	.046	.065	.046	.033	.038	.027	.019	.012	.009	.006		
7.0	.103	.069	.045	.088	.060	.039	.061	.042	.028	.035	.025	.017	.011	.008	.005		
8.0	.097	.062	.039	.083	.054	.034	.057	.038	.024	.033	.022	.014	.011	.007	.005		
9.0	.091	.057	.034	.079	.049	.029	.054	.035	.021	.032	.020	.012	.010	.007	.004		
10.0	.087	.052	.029	.075	.045	.026	.052	.032	.018	.030	.019	.011	.010	.006	.004		

C Range: 0 - 360DEG
C Interval: 15.0DEG
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Temperature:25.3DEG
Operators:Jason
Test Date:2020-05-19

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:0.3243A P:15.57W PF:1.000 Freq:0Hz Lamp Flux:898.72lx1 lm										
NAME: ML26-RS40-16W-940-45					TYPE:Low Voltage Track System Module					
SPEC.:4000K					DIM.: ϕ 40mm*H70mm					
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	14.4	15.2	14.7	15.4	15.5	19.4	20.2	19.6	20.4	20.5
3H	14.3	15.0	14.5	15.2	15.4	19.3	20.0	19.5	20.2	20.4
4H	14.2	14.9	14.5	15.1	15.3	19.2	19.9	19.5	20.1	20.3
6H	14.1	14.8	14.4	15.0	15.2	19.1	19.7	19.4	20.0	20.2
8H	14.1	14.7	14.4	14.9	15.2	19.1	19.7	19.4	19.9	20.2
12H	14.0	14.6	14.3	14.9	15.2	19.0	19.6	19.3	19.9	20.1
4H 2H	14.2	14.9	14.5	15.1	15.3	19.2	19.9	19.5	20.1	20.3
3H	14.0	14.6	14.3	14.9	15.2	19.0	19.6	19.3	19.9	20.1
4H	13.9	14.5	14.3	14.8	15.1	18.9	19.5	19.3	19.8	20.1
6H	13.8	14.3	14.2	14.6	15.0	18.8	19.3	19.2	19.6	20.0
8H	13.8	14.2	14.2	14.6	14.9	18.8	19.2	19.2	19.6	19.9
12H	13.7	14.1	14.1	14.5	14.9	18.7	19.1	19.1	19.5	19.9
8H 4H	13.8	14.2	14.2	14.6	14.9	18.8	19.2	19.2	19.6	19.9
6H	13.7	14.0	14.1	14.4	14.8	18.7	19.0	19.1	19.4	19.8
8H	13.6	13.9	14.1	14.4	14.8	18.6	18.9	19.0	19.3	19.8
12H	13.6	13.8	14.0	14.3	14.7	18.5	18.8	19.0	19.3	19.7
12H 4H	13.7	14.1	14.1	14.5	14.9	18.7	19.1	19.1	19.5	19.9
6H	13.6	13.9	14.1	14.4	14.8	18.6	18.9	19.0	19.3	19.8
8H	13.6	13.8	14.0	14.3	14.7	18.5	18.8	19.0	19.3	19.7
Variations with the observer position at spacings:										
S = 1.0H	+ 3.2 / -13.5					+ 5.7 / -17.3				
1.5H	+ 5.6 / - 9.5					+ 8.4 / -15.0				
2.0H	+ 5.4 / - 7.9					+ 7.6 / - 9.8				

CIE Pub.117, 898.7 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = -0.4$)

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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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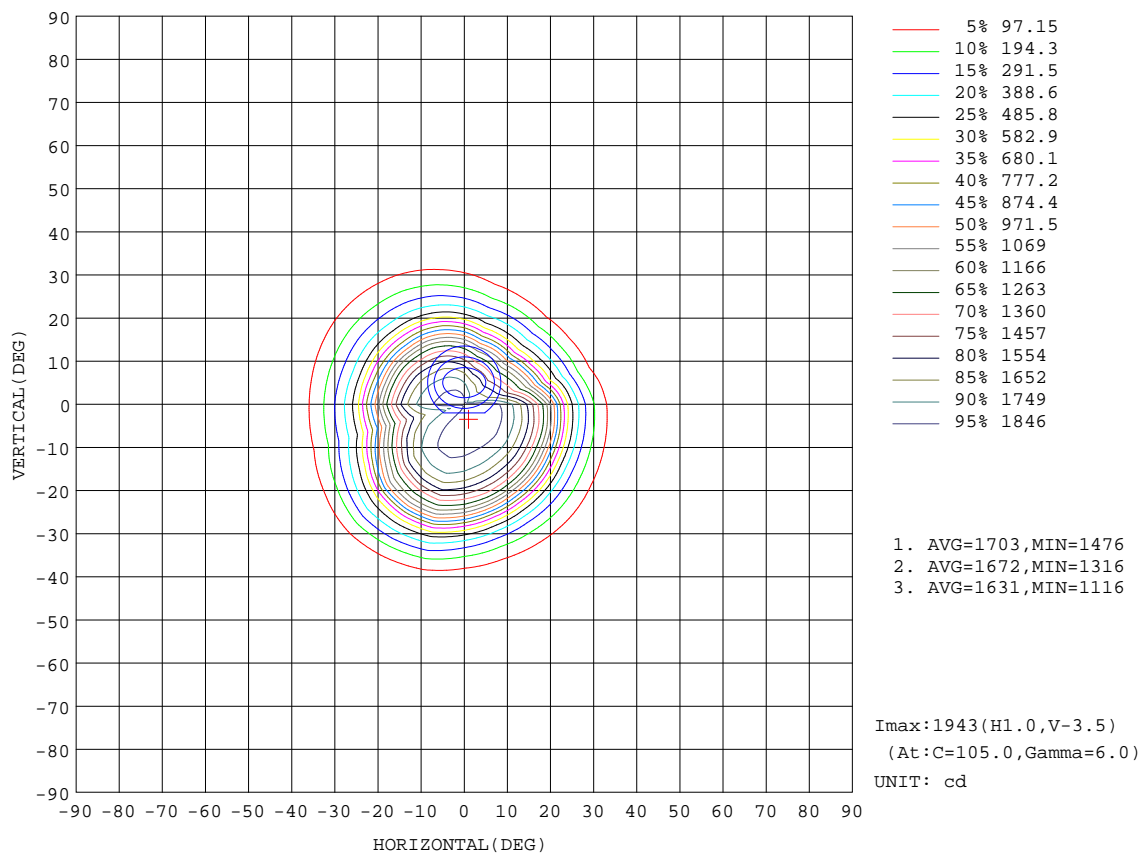
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	91	85	82	90	85	82	90	85	82	78
0.80	98	93	89	97	92	89	96	92	89	85
1.00	102	97	93	101	96	93	99	96	93	89
1.25	105	101	97	104	100	97	102	99	96	92
1.50	108	103	100	106	103	100	104	101	99	95
2.00	110	106	103	108	105	102	106	103	101	96
2.50	111	108	105	110	107	104	107	104	102	97
3.00	113	110	107	111	108	106	108	106	104	98
4.00	115	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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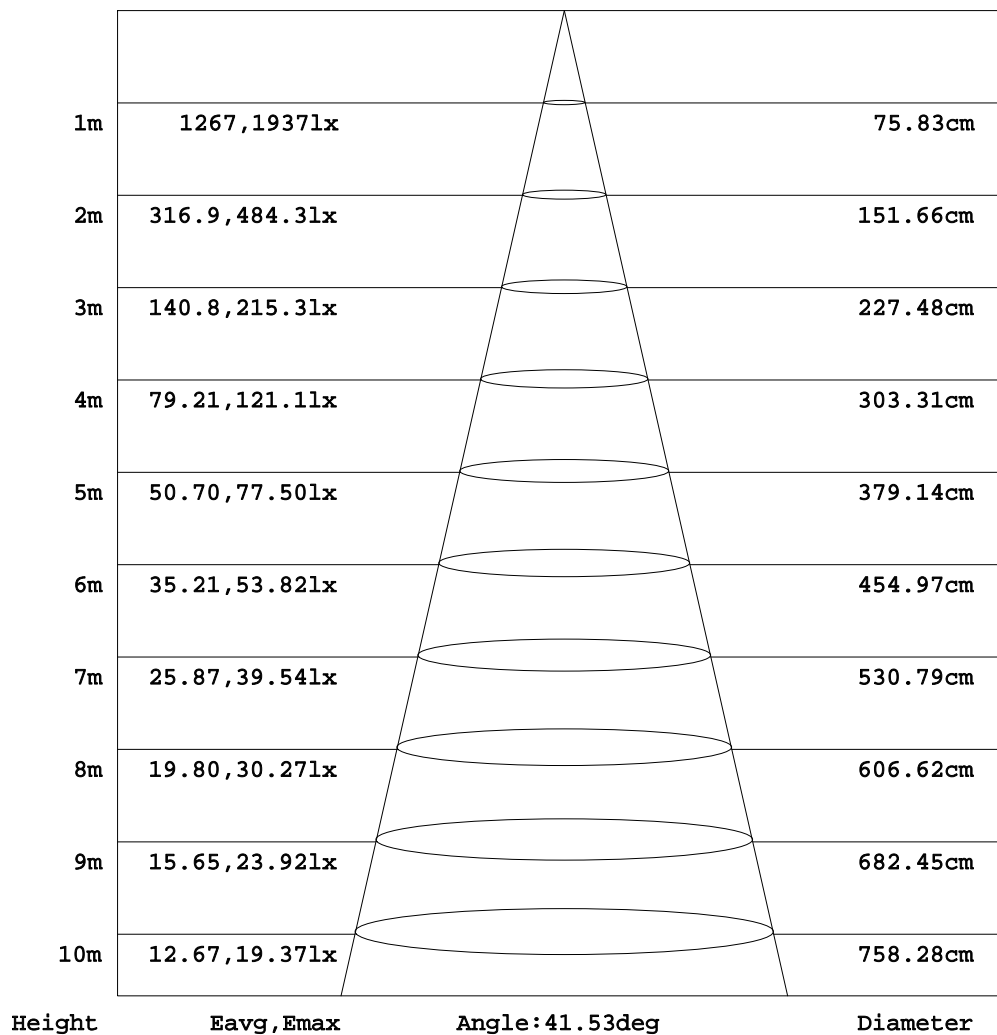
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AAI Figure

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Flux out:586.7 lm



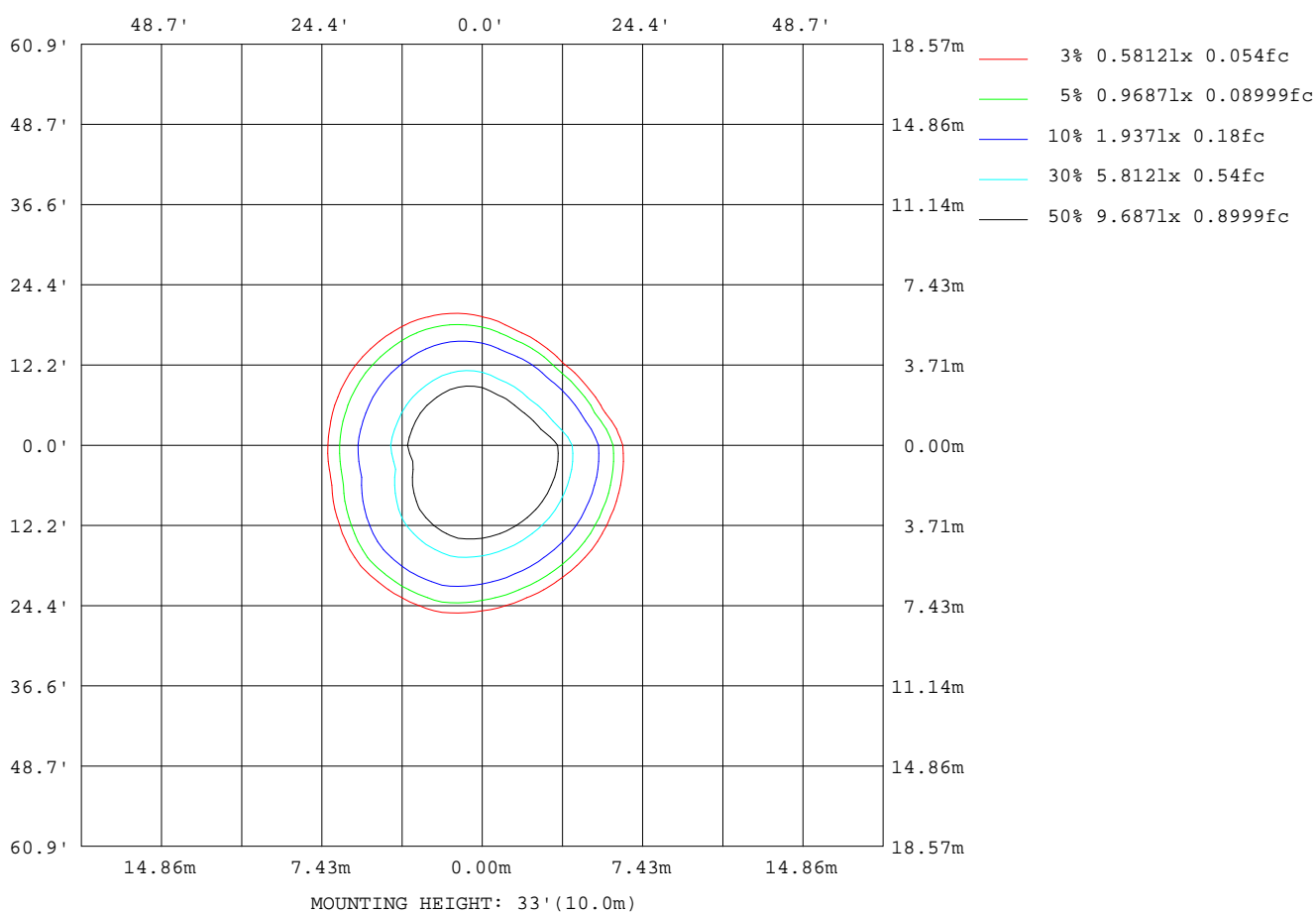
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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ISOLUX DIAGRAM

Test:U:48.00V I:0.3243A P:15.57W PF:1.000 Freq:0Hz Lamp Flux:898.72lx 1m		
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LED Avg.L Report

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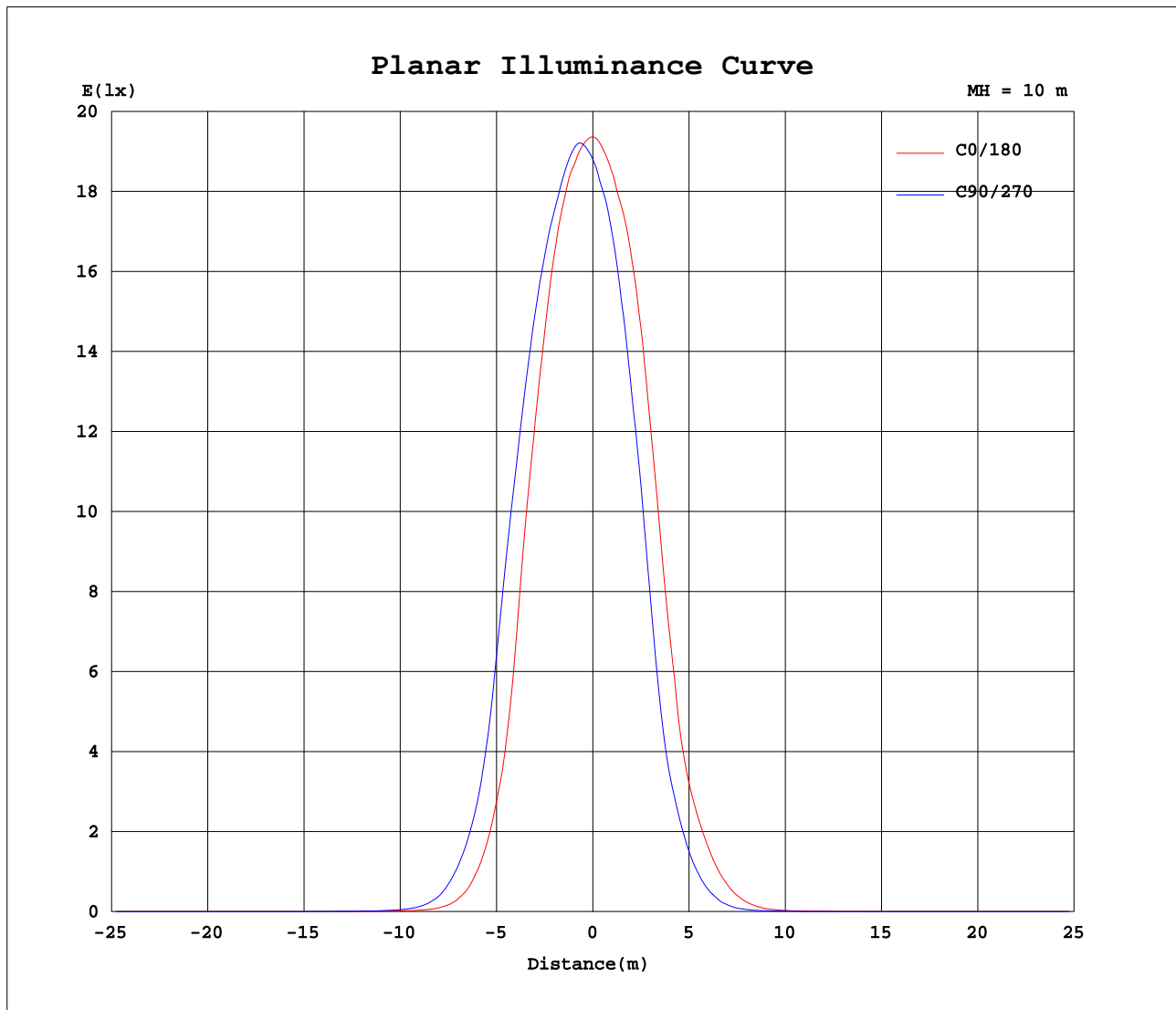
AvgL	cd/m2
L_0~180 (65) av	455
L_0~180 (75) av	207
L_0~180 (85) av	317
L_90~270 (65) av	552
L_90~270 (75) av	233
L_90~270 (85) av	366
L_45 (65) av	556
L_45 (75) av	224
L_45 (85) av	337

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-05-19

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: 2020-05-19

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:

```