

Low Voltage Track System Module ML26-RS40-16W-927-30



Light Output Ratio:	100.0%	
Luminaire Power:	15.99 W	
SHR Nominal:	0.00	Calculated using the TM5
SHR Maximum:	1.00	fine grid method.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Jason
Test Date: 2020-05-11

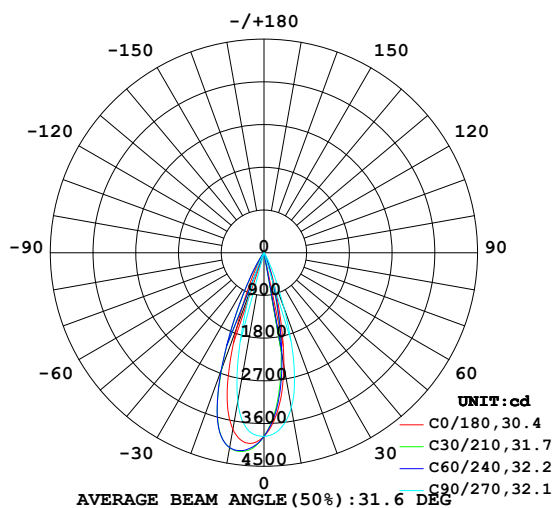
γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 58%
Test Distance: 5.850m [K=1.0000]
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

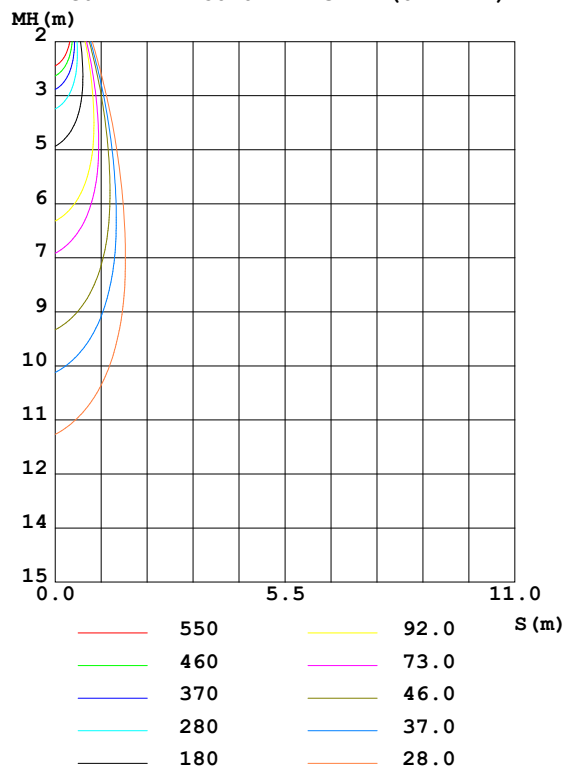
Test:U:48.00V I:0.3332A P:15.99W PF:1.000 Freq:0Hz Lamp Flux:1218.46x1 lm		
NAME: ML26-RS40-16W-927-30	TYPE:Low Voltage Track System Module	
SPEC.:2700K	DIM.: ϕ 40mm*H70mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 76.18 lm/W			
MODEL	CITIZEN-2700K	I _{max} (cd)	4241	S/MH (C0/180)	0.57
NOMINAL POWER (W)	16	LOR (%)	100.0	S/MH (C90/270)	0.47
RATED VOLTAGE (V)	48	TOTAL FLUX (lm)	1218.5	η UP,DN (C0-180)	0.0,46.3
NOMINAL FLUX (lm)	1218.46	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0,53.7
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE (V)	48	η down (%)	100.0	CIBSE SHR MAX	1.00

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
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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	2409	2090	3317	3847	3777	4206	3181	2171	0- 10	334.7	334.7	27.5, 27.5
20	429.7	292.4	1228	2104	1672	2718	796.7	261.8	10- 20	588.6	923.3	75.8, 75.8
30	44.81	34.97	138.1	295.7	209.8	531.1	69.23	29.39	20- 30	247.0	1170	96, 96
40	4.903	2.889	21.61	38.14	27.61	47.40	8.351	2.177	30- 40	41.51	1212	99.5, 99.5
50	0.8615	0.6455	1.439	2.850	1.925	4.219	0.8988	0.6104	40- 50	5.693	1217	99.9, 99.9
60	0.1871	0.1106	0.3808	0.6172	0.4579	0.6855	0.1896	0.1301	50- 60	0.6916	1218	100, 100
70	0.0692	0.0452	0.0836	0.0915	0.0713	0.1313	0.0397	0.0512	60- 70	0.1665	1218	100, 100
80	0.0484	0.0475	0.0501	0.0405	0.0346	0.0542	0.0334	0.0362	70- 80	0.0552	1218	100, 100
90	0.0484	0.0678	0.0439	0.0405	0.0346	0.0362	0.0334	0.0341	80- 90	0.0452	1218	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): 1216.1 lm

%lum = 99.8%

%lamp = 99.8%

Conical surface Flux(120deg): 1218.2 lm

%lum = 100.0%

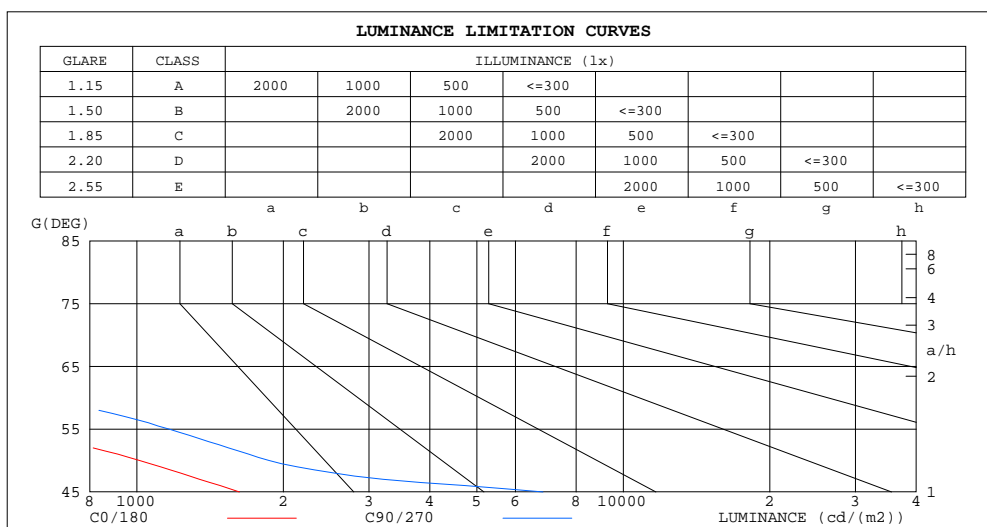
%lamp = 100.0%

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C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
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γ Range: 0 - 90DEG
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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	419	419
80	211	240
75	161	188
70	153	204
65	177	318
60	282	635
55	547	1164
50	1012	1867
45	1624	6836

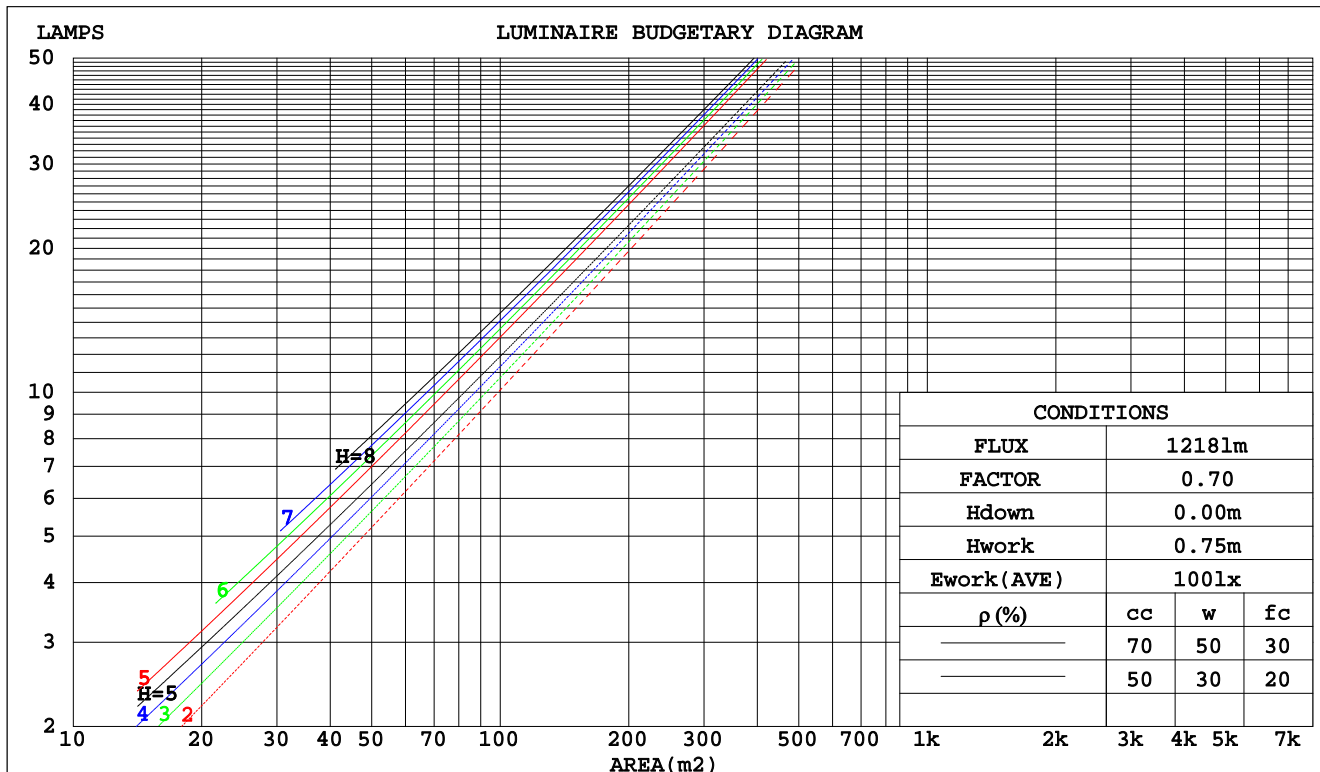
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CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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SPEC.:2700K	DIM.: $\phi 40\text{mm} \times \text{H}70\text{mm}$	
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	1.01	1.06	1.03	1.00	1.02	1.00	.98	.00	.98	.96	.97	.95	.94	.93
3.0	1.02	.99	.96	1.01	.98	.95	.99	.96	.93	.96	.94	.92	.94	.92	.91	.89
4.0	.98	.94	.91	.97	.93	.90	.95	.92	.89	.93	.90	.88	.91	.89	.87	.86
5.0	.94	.90	.87	.93	.89	.86	.92	.88	.86	.90	.87	.85	.89	.86	.84	.83
6.0	.91	.86	.83	.90	.86	.83	.89	.85	.82	.87	.84	.82	.86	.83	.81	.80
7.0	.87	.83	.80	.87	.83	.80	.86	.82	.79	.85	.81	.79	.84	.81	.79	.77
8.0	.84	.80	.77	.84	.80	.77	.83	.79	.77	.82	.79	.76	.81	.78	.76	.75
9.0	.82	.77	.74	.81	.77	.74	.80	.77	.74	.80	.76	.74	.79	.76	.74	.73
10.0	.79	.75	.72	.79	.75	.72	.78	.74	.72	.77	.74	.71	.77	.74	.71	.70



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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	.141	.080	.025	.134	.077	.024	.122	.070	.022	.111	.064	.020	.100	.058	.019		
2.0	.131	.072	.022	.126	.069	.021	.116	.064	.020	.106	.060	.019	.097	.055	.017		
3.0	.123	.065	.020	.118	.063	.019	.110	.059	.018	.102	.056	.017	.094	.052	.016		
4.0	.116	.060	.018	.112	.058	.017	.104	.055	.017	.098	.052	.016	.091	.050	.015		
5.0	.109	.056	.016	.106	.054	.016	.100	.052	.015	.094	.050	.015	.089	.047	.014		
6.0	.104	.052	.015	.101	.051	.015	.096	.049	.014	.091	.047	.014	.086	.045	.013		
7.0	.099	.049	.014	.096	.048	.014	.092	.046	.013	.087	.045	.013	.083	.043	.013		
8.0	.095	.046	.013	.092	.045	.013	.088	.044	.013	.084	.043	.012	.081	.041	.012		
9.0	.091	.044	.012	.089	.043	.012	.085	.042	.012	.082	.041	.012	.078	.040	.012		
10.0	.087	.042	.012	.085	.041	.012	.082	.040	.011	.079	.039	.011	.076	.038	.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	.169	.158	.148	.144	.135	.127	.099	.093	.088	.057	.054	.051	.018	.017	.017	
2.0	.151	.133	.117	.129	.114	.102	.089	.079	.071	.051	.046	.042	.016	.015	.014	
3.0	.136	.113	.095	.117	.098	.082	.080	.068	.058	.046	.040	.034	.015	.013	.011	
4.0	.124	.098	.078	.106	.085	.068	.073	.059	.048	.042	.035	.028	.014	.011	.009	
5.0	.114	.086	.065	.098	.074	.057	.067	.052	.040	.039	.030	.024	.013	.010	.008	
6.0	.105	.076	.055	.090	.066	.048	.062	.046	.034	.036	.027	.020	.012	.009	.007	
7.0	.098	.068	.047	.084	.059	.041	.058	.041	.029	.034	.024	.017	.011	.008	.006	
8.0	.091	.061	.040	.079	.053	.035	.054	.037	.025	.032	.022	.015	.010	.007	.005	
9.0	.086	.056	.035	.074	.048	.031	.051	.034	.022	.030	.020	.013	.010	.007	.004	
10.0	.081	.051	.031	.070	.044	.027	.049	.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:0.3332A P:15.99W PF:1.000 Freq:0Hz Lamp Flux:1218.46x1 lm										
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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	1.0	1.7	1.2	1.8	2.0	5.1	5.8	5.3	6.0	6.1
3H	0.8	1.5	1.1	1.7	1.9	5.0	5.6	5.2	5.8	6.0
4H	0.8	1.4	1.0	1.6	1.8	4.9	5.5	5.2	5.7	5.9
6H	0.7	1.3	1.0	1.5	1.7	4.8	5.4	5.1	5.6	5.9
8H	0.7	1.2	0.9	1.5	1.7	4.8	5.3	5.1	5.6	5.8
12H	0.6	1.1	0.9	1.4	1.7	4.7	5.3	5.0	5.5	5.8
4H 2H	0.8	1.4	1.0	1.6	1.8	4.9	5.5	5.2	5.7	5.9
3H	0.6	1.1	0.9	1.4	1.7	4.7	5.3	5.0	5.5	5.8
4H	0.5	1.0	0.8	1.3	1.6	4.6	5.1	5.0	5.4	5.7
6H	0.4	0.8	0.8	1.2	1.5	4.5	5.0	4.9	5.3	5.6
8H	0.4	0.8	0.8	1.1	1.5	4.5	4.9	4.9	5.2	5.6
12H	0.3	0.7	0.7	1.1	1.5	4.4	4.8	4.8	5.2	5.6
8H 4H	0.4	0.8	0.7	1.1	1.5	4.5	4.9	4.9	5.2	5.6
6H	0.3	0.6	0.7	1.0	1.4	4.4	4.7	4.8	5.1	5.5
8H	0.2	0.5	0.7	0.9	1.4	4.3	4.6	4.8	5.0	5.5
12H	0.2	0.4	0.7	0.9	1.3	4.3	4.5	4.7	5.0	5.4
12H 4H	0.3	0.7	0.7	1.0	1.4	4.4	4.8	4.8	5.2	5.5
6H	0.2	0.5	0.6	0.9	1.4	4.3	4.6	4.8	5.0	5.5
8H	0.2	0.4	0.6	0.9	1.3	4.3	4.5	4.7	4.9	5.4
Variations with the observer position at spacings:										
S = 1.0H	+ 5.5 / -10.8					+ 6.7 / -16.9				
1.5H	+ 8.1 / - 9.7					+ 9.3 / -16.1				
2.0H	+ 5.1 / - 3.8					+10.4 / - 8.1				

CIE Pub.117, 1218 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 0.7$)

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 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
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UTILIZATION FACTORS TABLE

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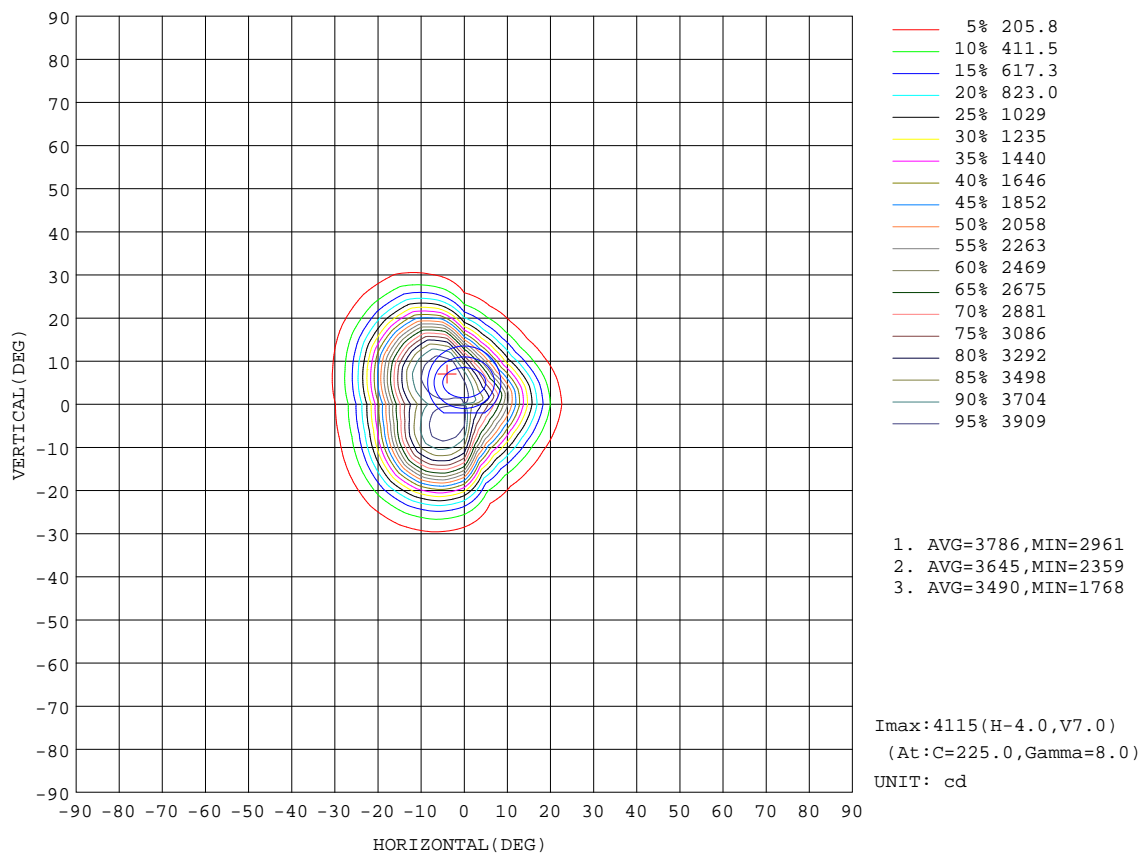
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	91	86	82	91	85	82	90	85	82	79
0.80	98	93	90	98	93	90	96	92	89	86
1.00	102	97	94	101	96	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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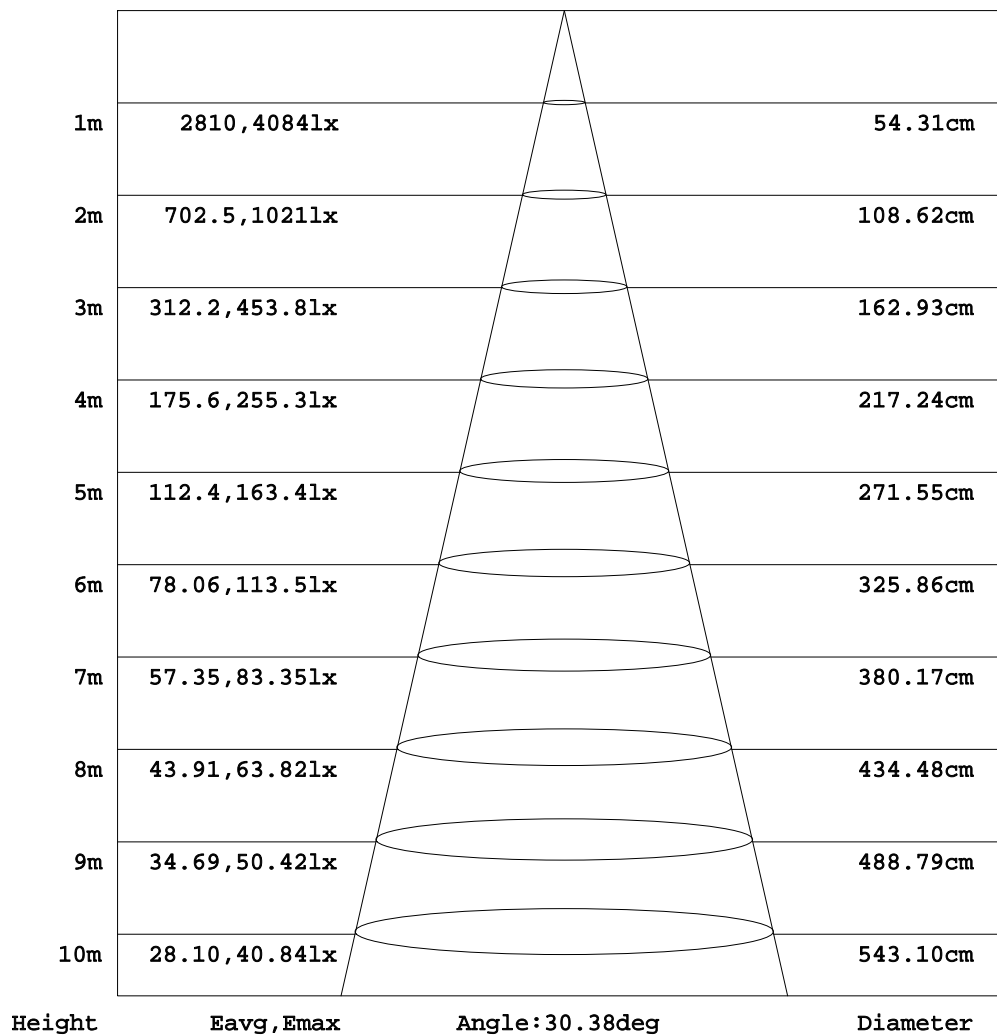
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AAI Figure

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Flux out:679.0 lm



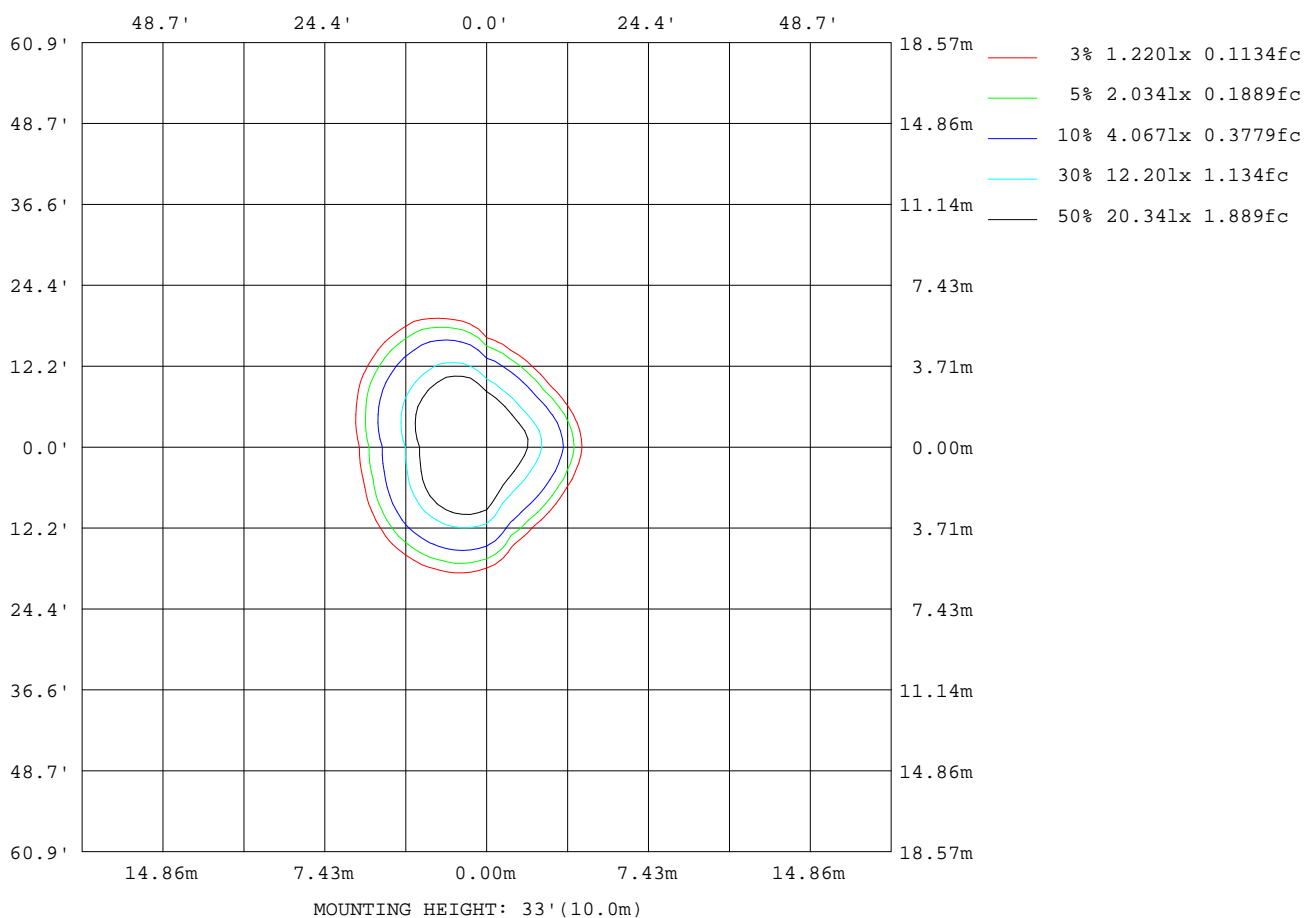
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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ISOLUX DIAGRAM

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LED Avg.L Report

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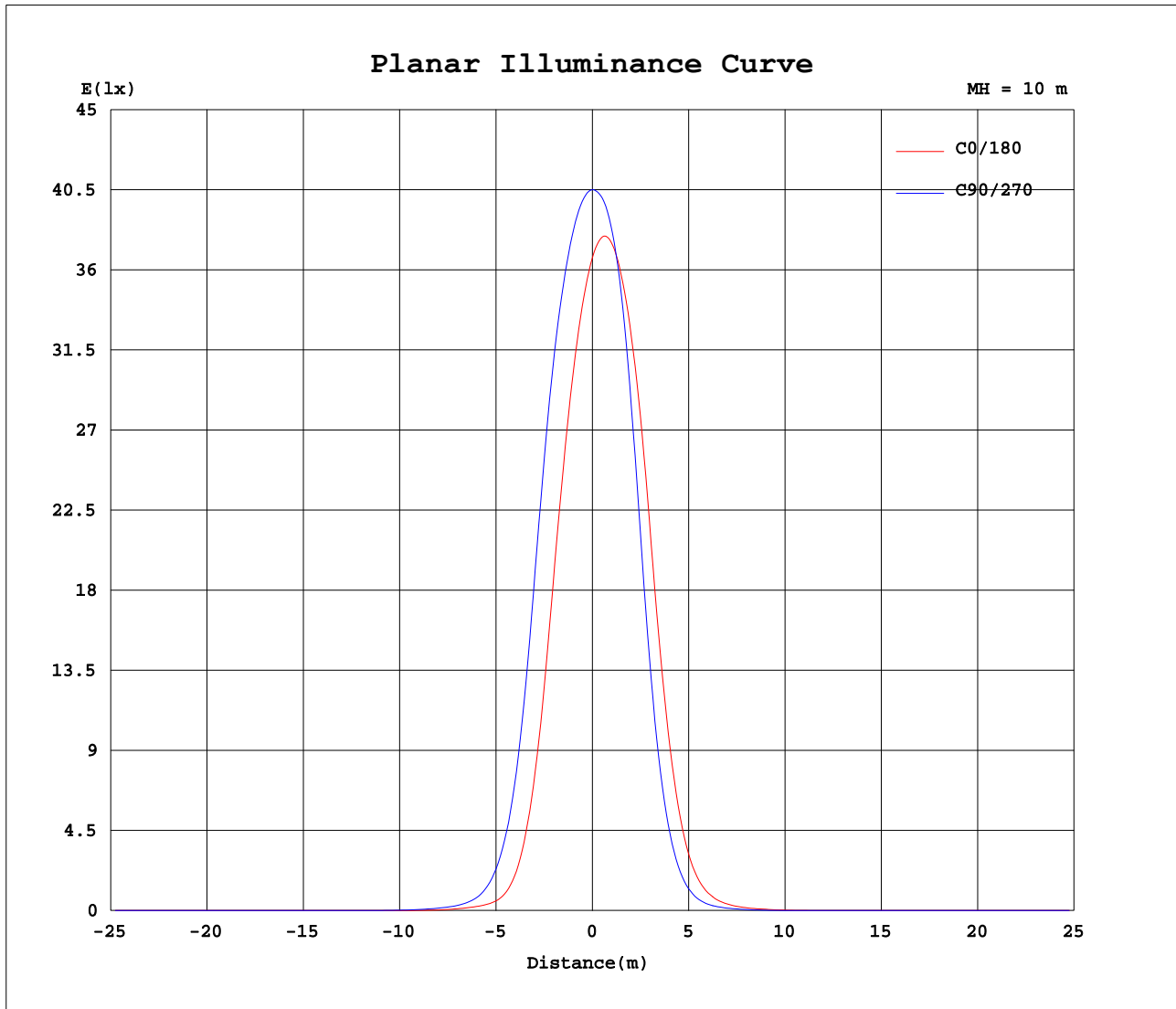
AvgL	cd/m2
L_0~180 (65) av	252
L_0~180 (75) av	142
L_0~180 (85) av	379
L_90~270 (65) av	226
L_90~270 (75) av	141
L_90~270 (85) av	353
L_45 (65) av	323
L_45 (75) av	159
L_45 (85) av	392

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-05-11

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: 2020-05-11

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:

```