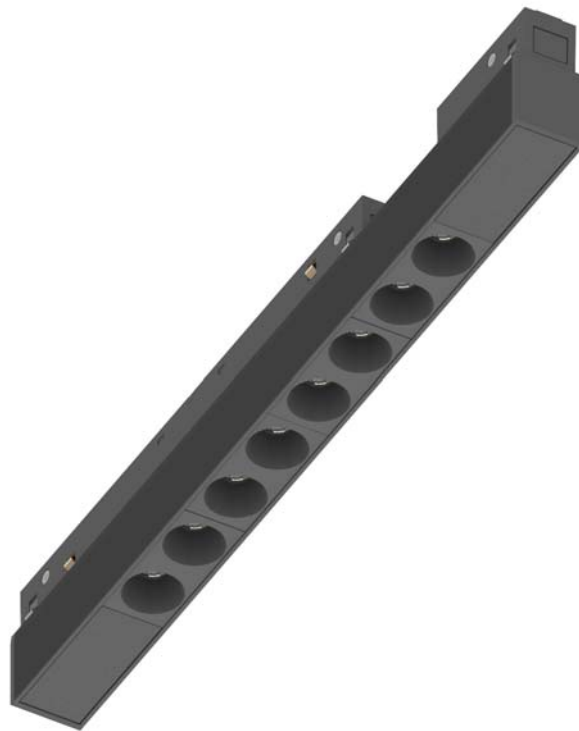


Low Voltage Track System Module ML26-AL280-9W-940-20



Light Output Ratio:	100.0%	
Luminaire Power:	8.947 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: 2020-05-13

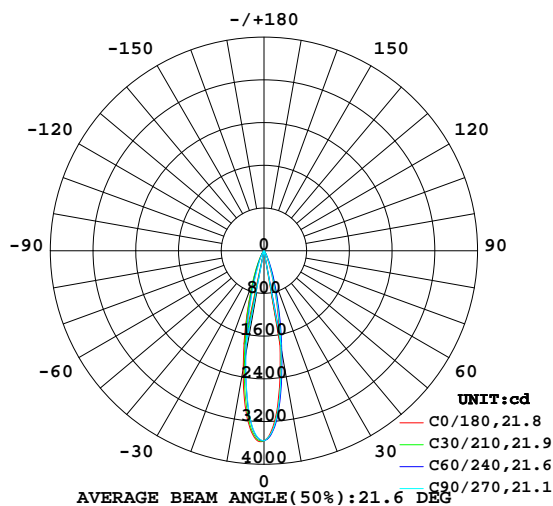
γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 58%
Test Distance: 5.850m [K=1.0000]
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

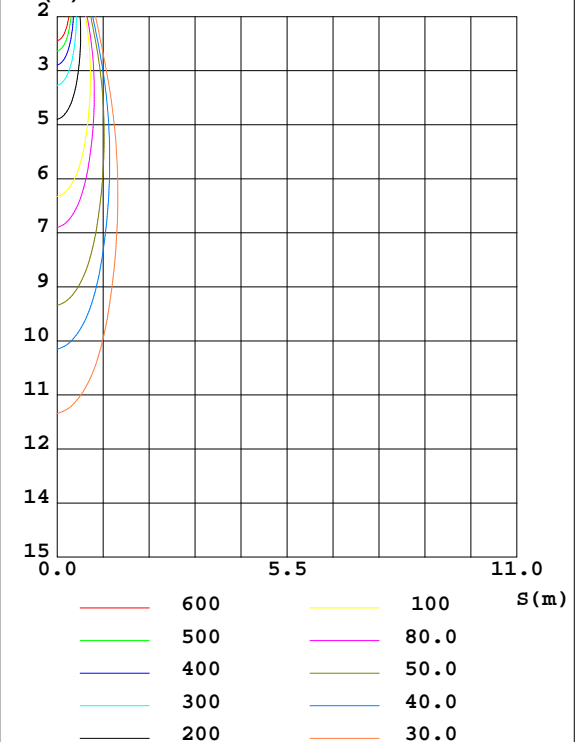
Test:U:48.00V I:0.1864A P:8.947W PF:1.000 Freq:0Hz Lamp Flux:787.77lx1 lm		
NAME: ML26-AL280-9W-940-20	TYPE:Low Voltage Track System Module	
SPEC.:4000K	DIM.: L284mm*W22mm*H43mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 88.05 lm/W			
MODEL	OSRAM-4000K	I _{max} (cd)	5267	S/MH(C0/180)	0.41
NOMINAL POWER(W)	9	LOR(%)	100.0	S/MH(C90/270)	0.37
RATED VOLTAGE(V)	48	TOTAL FLUX(lm)	787.77	η UP,DN(C0-180)	0.0,57.3
NOMINAL FLUX(lm)	787.771	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,42.7
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
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-05-13

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:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	1719	1928	1844	3326	2252	2029	1960	1222	0- 10	263.9	263.9	33.5,33.5
20	322.0	513.1	358.0	1047	575.3	565.9	396.2	283.0	10- 20	319.3	583.2	74,74
30	75.40	105.0	68.61	273.9	124.1	137.8	81.17	93.57	20- 30	130.1	713.3	90.6,90.6
40	24.31	27.51	19.03	66.01	34.80	35.87	21.99	39.49	30- 40	43.65	757.0	96.1,96.1
50	11.42	13.11	8.719	27.17	14.12	16.53	8.617	22.58	40- 50	18.33	775.3	98.4,98.4
60	0.5685	0.7028	0.3646	20.48	0.8366	1.687	0.4371	4.658	50- 60	8.535	783.9	99.5,99.5
70	0.3368	0.2837	0.2046	2.063	0.3772	0.3772	0.2671	3.955	60- 70	1.821	785.7	99.7,99.7
80	0.1499	0.1184	0.1053	3.098	0.2431	0.2353	0.1416	3.256	70- 80	1.054	786.7	99.9,99.9
90	0.1459	0.1225	0.1296	3.839	0.1225	0.1089	0.0587	2.555	80- 90	1.029	787.8	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): 767.64 lm

%lum = 97.4%

%lamp = 97.4%

Conical surface Flux(120deg): 783.87 lm

%lum = 99.5%

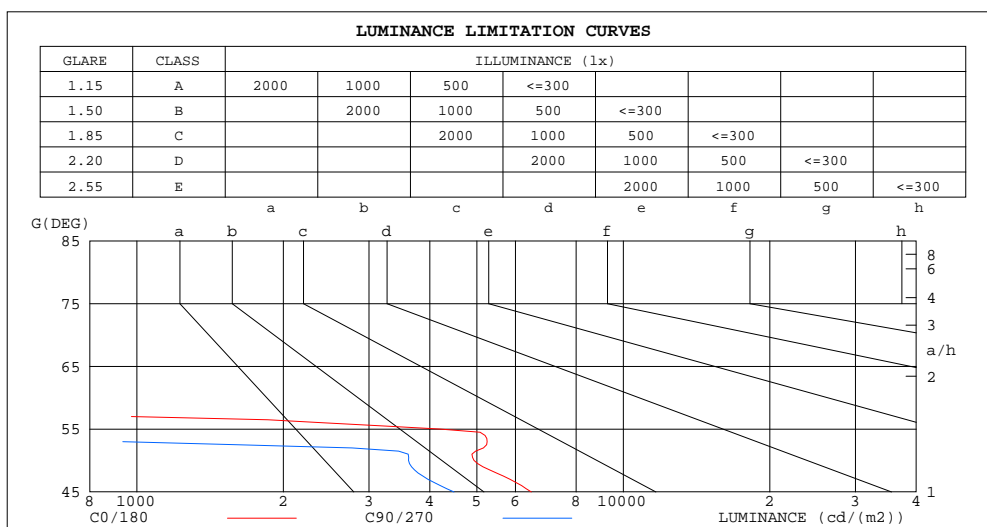
%lamp = 99.5%

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-05-13

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:

LUMINANCE LIMITATION CURVES

Test:U:48.00V I:0.1864A P:8.947W PF:1.000 Freq:0Hz Lamp Flux:787.77lx1 lm		
NAME: ML26-AL280-9W-940-20	TYPE:Low Voltage Track System Module	
SPEC.:4000K	DIM.: L284mm*W22mm*H43mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	266	279
80	240	162
75	261	150
70	273	160
65	292	171
60	316	195
55	4194	238
50	4933	3619
45	6469	4485

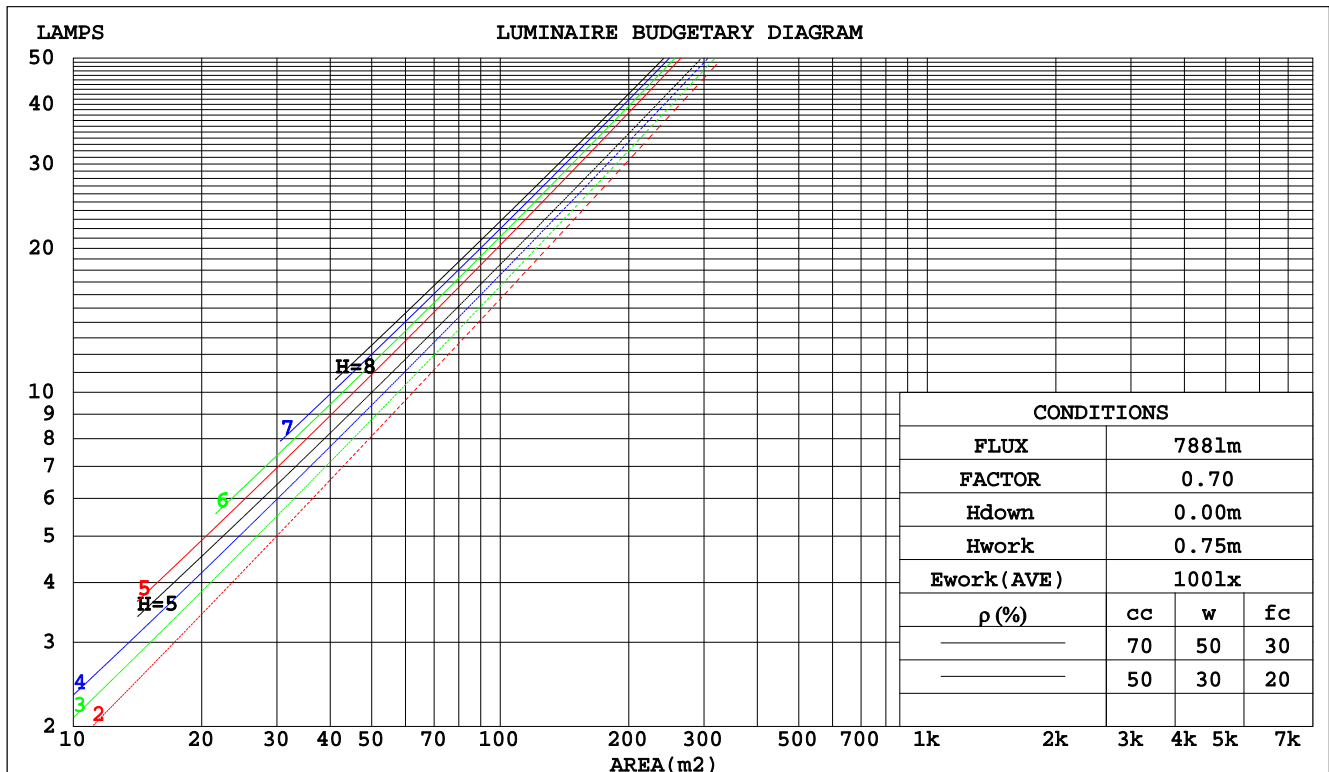
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-05-13

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:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:48.00V I:0.1864A P:8.947W PF:1.000 Freq:0Hz Lamp Flux:787.77lx1 lm		
NAME: ML26-AL280-9W-940-20	TYPE:Low Voltage Track System Module	
SPEC.:4000K	DIM.: L284mm*W22mm*H43mm	
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	1.09	1.10	1.09	1.07	1.06	1.05	1.04	1.03	1.02	1.01	.99	.98	.98	.96
2.0	1.07	1.04	1.01	1.05	1.02	.00	1.02	.00	.98	.99	.97	.96	.96	.95	.94	.92
3.0	1.02	.98	.95	1.01	.97	.94	.98	.95	.93	.96	.93	.91	.94	.92	.90	.89
4.0	.97	.93	.90	.96	.93	.90	.94	.91	.89	.93	.90	.88	.91	.89	.87	.85
5.0	.94	.89	.86	.93	.89	.86	.91	.88	.85	.90	.87	.84	.88	.86	.83	.82
6.0	.90	.86	.82	.89	.85	.82	.88	.84	.82	.87	.84	.81	.86	.83	.81	.80
7.0	.87	.82	.79	.86	.82	.79	.85	.81	.79	.84	.81	.78	.83	.80	.78	.77
8.0	.84	.80	.77	.83	.79	.76	.83	.79	.76	.82	.78	.76	.81	.78	.76	.75
9.0	.81	.77	.74	.81	.77	.74	.80	.76	.74	.79	.76	.74	.79	.76	.73	.72
10.0	.79	.75	.72	.79	.74	.72	.78	.74	.72	.77	.74	.71	.77	.73	.71	.70



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-05-13

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:

WEC AND CCEC

Test:U:48.00V I:0.1864A P:8.947W PF:1.000 Freq:0Hz Lamp Flux:787.771x1 lm		
NAME: ML26-AL280-9W-940-20	TYPE:Low Voltage Track System Module	
SPEC.:4000K	DIM.: L284mm*W22mm*H43mm	
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	.145	.082	.026	.138	.079	.025	.126	.072	.023	.114	.066	.021	.104	.060	.019		
2.0	.135	.074	.023	.129	.071	.022	.119	.066	.021	.110	.061	.019	.101	.057	.018		
3.0	.126	.067	.020	.121	.065	.020	.113	.061	.019	.105	.057	.018	.097	.054	.017		
4.0	.118	.061	.018	.114	.060	.018	.107	.057	.017	.100	.054	.016	.094	.051	.016		
5.0	.111	.057	.016	.108	.056	.016	.102	.053	.016	.096	.051	.015	.091	.048	.015		
6.0	.105	.053	.015	.103	.052	.015	.097	.050	.014	.092	.048	.014	.087	.046	.014		
7.0	.100	.050	.014	.098	.049	.014	.093	.047	.014	.089	.045	.013	.084	.044	.013		
8.0	.095	.047	.013	.093	.046	.013	.089	.045	.013	.085	.043	.012	.082	.042	.012		
9.0	.091	.044	.012	.089	.043	.012	.086	.042	.012	.082	.041	.012	.079	.040	.012		
10.0	.087	.042	.012	.085	.041	.012	.082	.040	.011	.079	.039	.011	.076	.038	.011		

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	.127	.099	.093	.088	.057	.054	.051	.018	.017	.017	
2.0	.151	.133	.117	.130	.114	.101	.089	.079	.071	.051	.046	.041	.016	.015	.013	
3.0	.137	.113	.095	.117	.098	.082	.080	.068	.058	.046	.040	.034	.015	.013	.011	
4.0	.125	.098	.078	.107	.085	.068	.074	.059	.048	.043	.035	.028	.014	.011	.009	
5.0	.114	.086	.065	.098	.074	.056	.068	.052	.040	.039	.030	.024	.013	.010	.008	
6.0	.106	.076	.055	.091	.066	.048	.063	.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	.092	.061	.040	.079	.053	.035	.055	.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	

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-05-13

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:0.1864A P:8.947W PF:1.000 Freq:0Hz Lamp Flux:787.77lx1 lm										
NAME: ML26-AL280-9W-940-20					TYPE:Low Voltage Track System Module					
SPEC.:4000K					DIM.: L284mm*W22mm*H43mm					
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	11.2	11.9	11.4	12.0	12.2	8.8	9.5	9.0	9.7	9.8
3H	11.0	11.7	11.3	11.9	12.0	8.7	9.3	8.9	9.5	9.7
4H	10.9	11.6	11.2	11.8	12.0	8.6	9.2	8.9	9.4	9.7
6H	10.9	11.4	11.1	11.7	11.9	8.5	9.1	8.8	9.4	9.6
8H	10.8	11.4	11.1	11.6	11.9	8.5	9.1	8.8	9.3	9.6
12H	10.8	11.3	11.1	11.6	11.8	8.5	9.0	8.8	9.3	9.5
4H 2H	11.0	11.6	11.2	11.8	12.0	8.8	9.4	9.0	9.6	9.8
3H	10.8	11.4	11.1	11.6	11.9	8.6	9.1	8.9	9.4	9.7
4H	10.7	11.2	11.1	11.5	11.8	8.5	9.0	8.9	9.3	9.6
6H	10.6	11.1	11.0	11.4	11.7	8.4	8.9	8.8	9.2	9.5
8H	10.6	11.0	11.0	11.3	11.7	8.4	8.8	8.8	9.1	9.5
12H	10.5	10.9	10.9	11.3	11.7	8.3	8.7	8.7	9.1	9.5
8H 4H	10.6	11.0	11.0	11.3	11.7	8.4	8.8	8.8	9.1	9.5
6H	10.5	10.8	10.9	11.2	11.6	8.3	8.6	8.7	9.0	9.4
8H	10.4	10.7	10.9	11.1	11.6	8.2	8.5	8.7	8.9	9.4
12H	10.4	10.6	10.8	11.1	11.5	8.2	8.4	8.6	8.9	9.3
12H 4H	10.5	10.9	10.9	11.3	11.6	8.3	8.7	8.7	9.1	9.4
6H	10.4	10.7	10.8	11.1	11.6	8.2	8.5	8.7	8.9	9.4
8H	10.3	10.6	10.8	11.0	11.5	8.2	8.4	8.6	8.9	9.3
Variations with the observer position at spacings:										
S = 1.0H	+ 2.1 / - 6.8					+ 2.6 / -12.8				
1.5H	+ 1.7 / - 1.7					+ 2.0 / - 5.0				
2.0H	+ 3.2 / -14.1					+ 4.1 / -12.8				

CIE Pub.117, 787.8 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = -0.8$)

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-05-13

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:

UTILIZATION FACTORS TABLE

Test:U:48.00V I:0.1864A P:8.947W PF:1.000 Freq:0Hz Lamp Flux:787.77lx1 lm		
NAME: ML26-AL280-9W-940-20	TYPE:Low Voltage Track System Module	
SPEC.:4000K	DIM.: L284mm*W22mm*H43mm	
MFR.: NEKO LIGHTING AG		

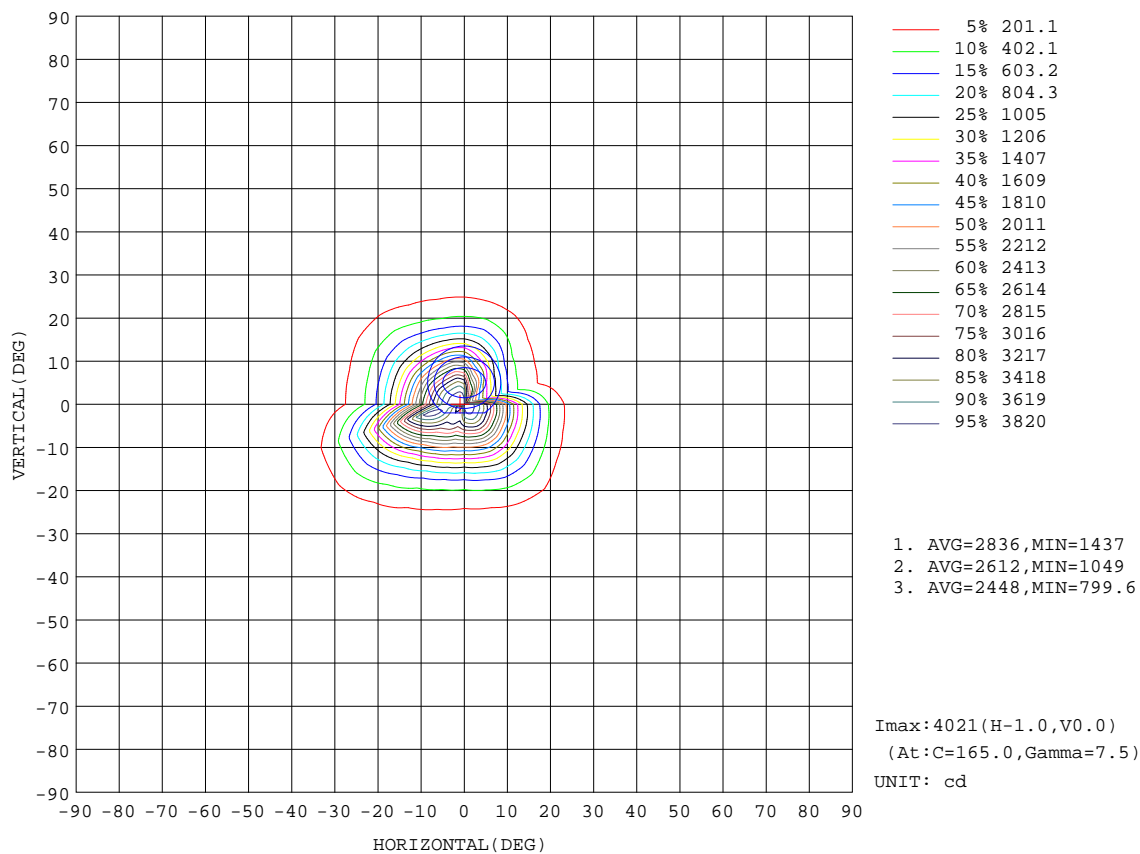
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	89	83	79	89	83	79	88	82	79	76
0.80	96	91	87	96	90	87	94	90	87	83
1.00	100	95	92	100	95	91	98	94	91	87
1.25	104	99	96	103	99	96	101	98	95	91
1.50	107	102	99	106	102	99	103	100	98	93
2.00	109	105	102	108	104	101	105	102	100	95
2.50	111	107	104	109	106	103	106	104	101	96
3.00	112	109	106	110	108	105	107	105	103	97
4.00	114	111	109	112	110	108	109	107	105	98
5.00	115	113	111	113	111	110	109	108	107	99
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-05-13

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:

ISOCANDELA DIAGRAM

Test:U:48.00V I:0.1864A P:8.947W PF:1.000 Freq:0Hz Lamp Flux:787.77lx1 lm		
NAME: ML26-AL280-9W-940-20	TYPE:Low Voltage Track System Module	
SPEC.:4000K	DIM.: L284mm*W22mm*H43mm	
MFR.: NEKO LIGHTING AG		



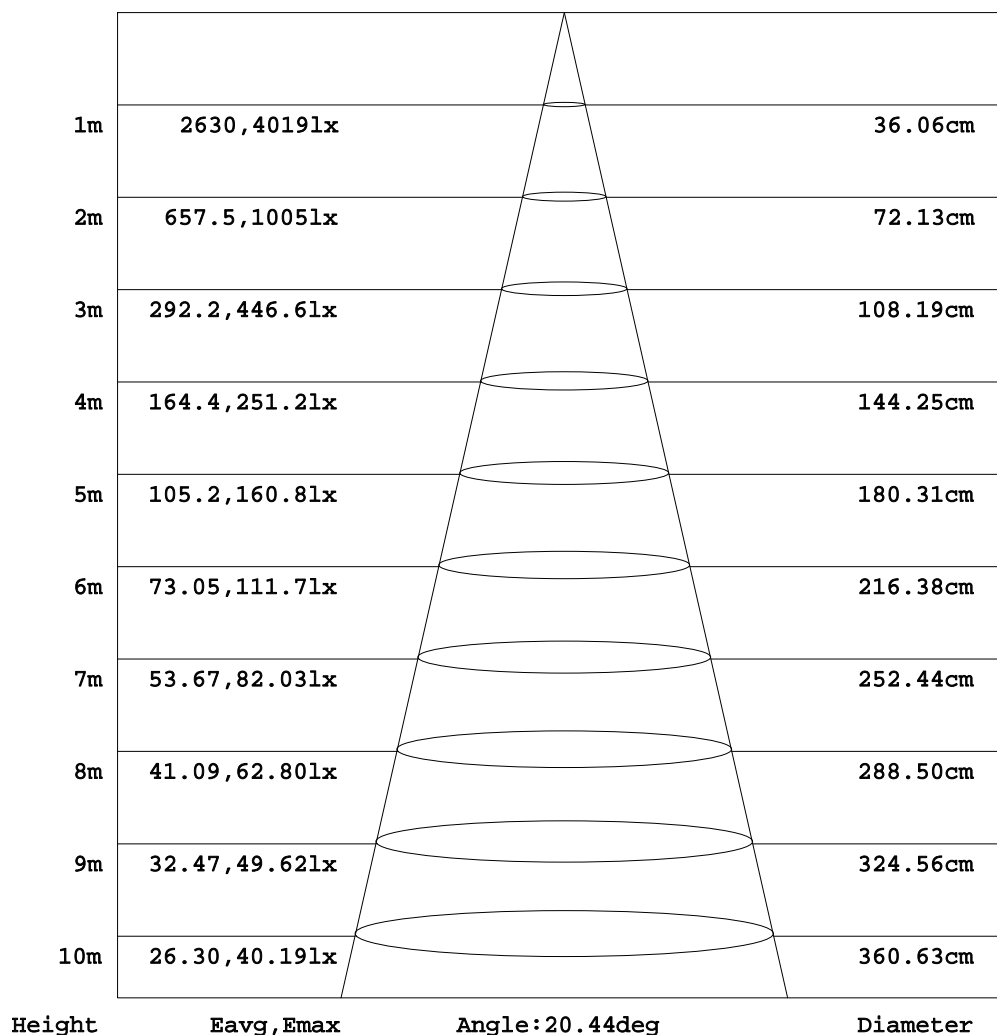
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-05-13

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:

AAI Figure

Test:U:48.00V I:0.1864A P:8.947W PF:1.000 Freq:0Hz Lamp Flux:787.77lx1 lm		
NAME: ML26-AL280-9W-940-20	TYPE:Low Voltage Track System Module	
SPEC.:4000K	DIM.: L284mm*W22mm*H43mm	
MFR.: NEKO LIGHTING AG		

Flux out:283.8 lm



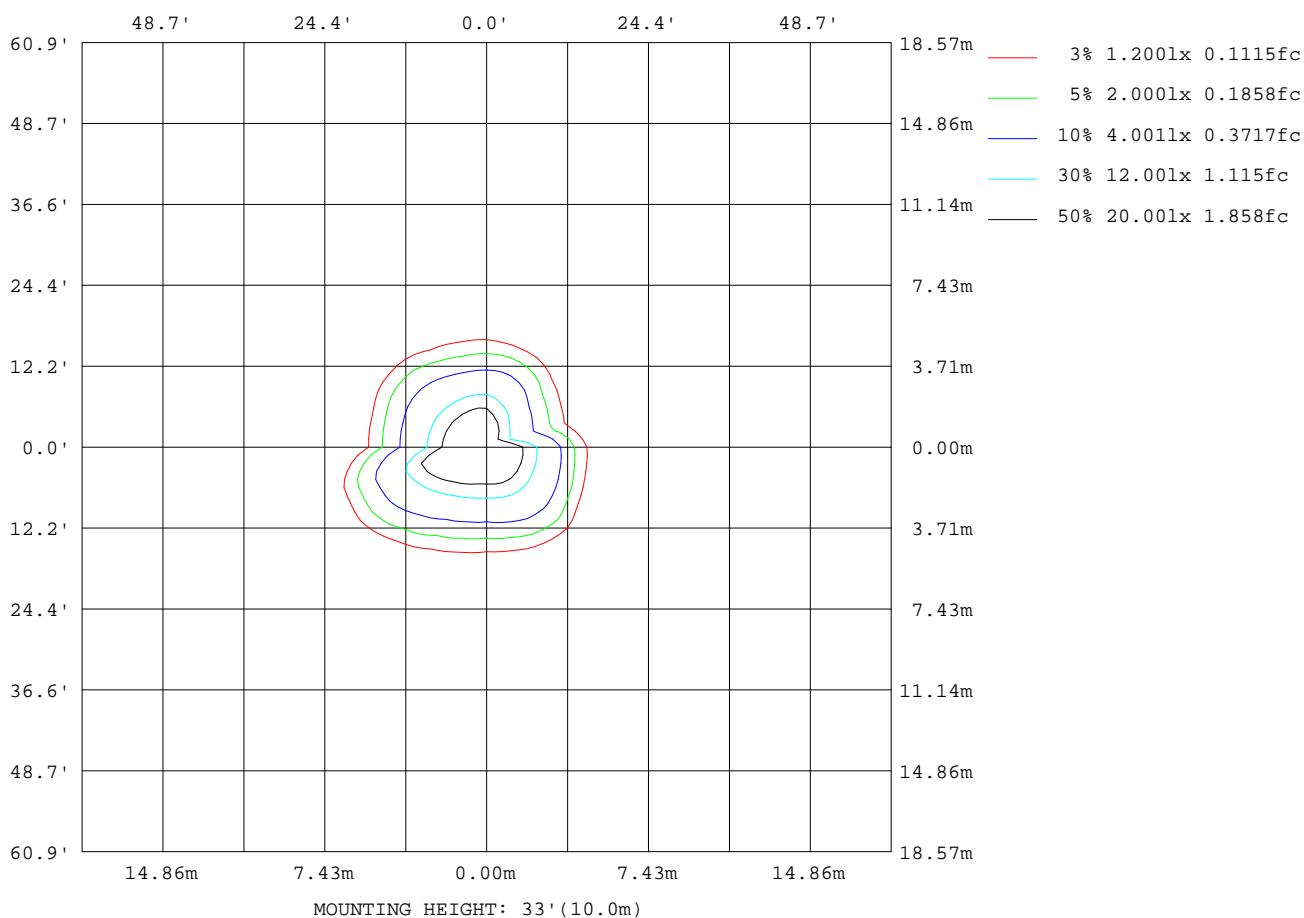
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-05-13

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:

ISOLUX DIAGRAM

Test:U:48.00V I:0.1864A P:8.947W PF:1.000 Freq:0Hz Lamp Flux:787.77lx1 lm		
NAME: ML26-AL280-9W-940-20	TYPE:Low Voltage Track System Module	
SPEC.:4000K	DIM.: L284mm*W22mm*H43mm	
MFR.: NEKO LIGHTING AG		



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-05-13

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:

LED Avg.L Report

Test:U:48.00V I:0.1864A P:8.947W PF:1.000 Freq:0Hz Lamp Flux:787.77lx1 lm		
NAME: ML26-AL280-9W-940-20	TYPE:Low Voltage Track System Module	
SPEC.:4000K	DIM.: L284mm*W22mm*H43mm	
MFR.: NEKO LIGHTING AG		

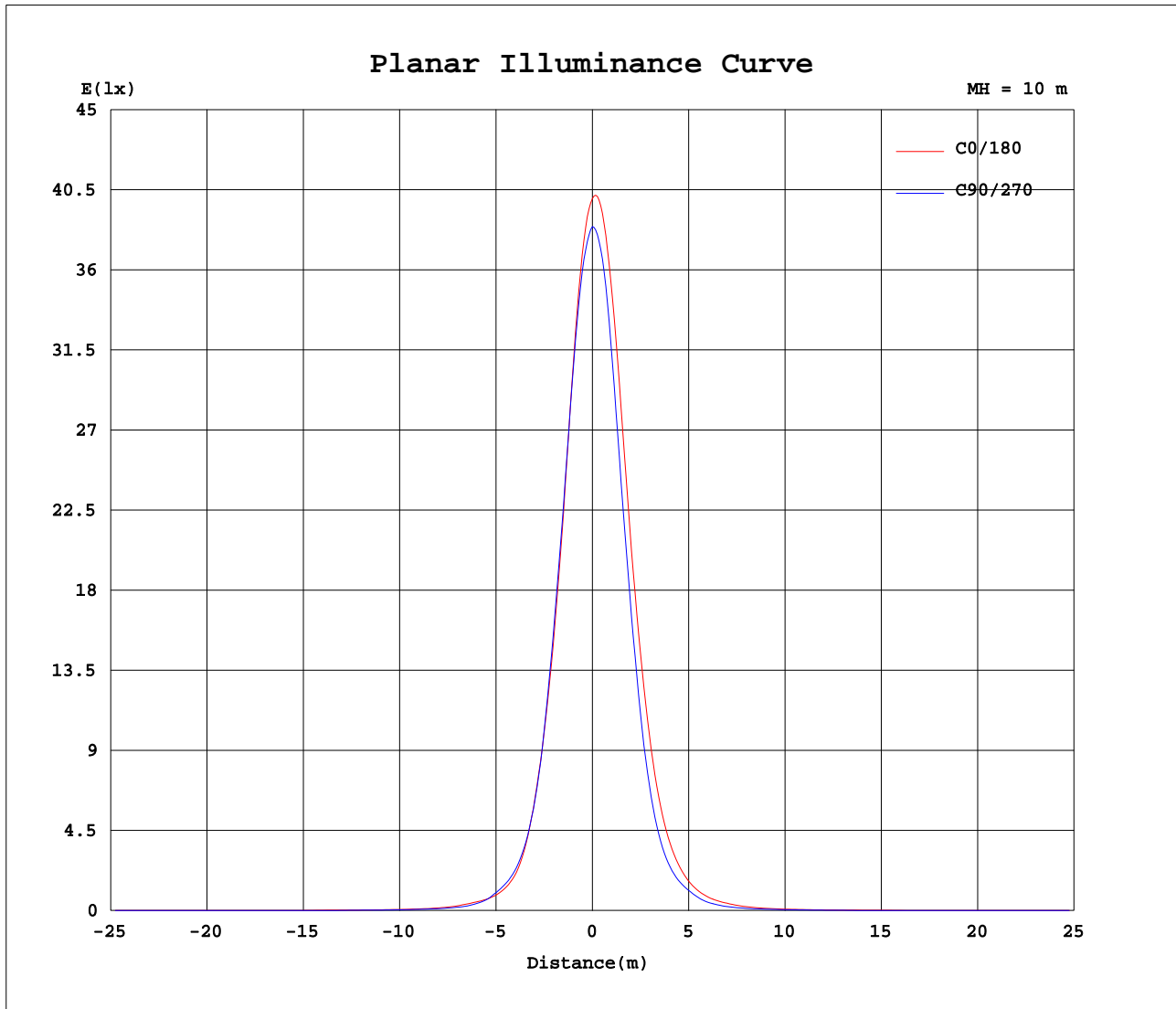
AvgL	cd/m2
L_0~180(65)av	259
L_0~180(75)av	266
L_0~180(85)av	355
L_90~270(65)av	179
L_90~270(75)av	168
L_90~270(85)av	261
L_45(65)av	994
L_45(75)av	1595
L_45(85)av	4743

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-05-13

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: 2020-05-13

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:

```