

LED Track Light Series PORTOFINO L-830-20°



Light Output Ratio:	100.0%	
Luminaire Power:	13.51 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: 2020-06-28

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
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: 1.0DEG
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	1677	1644	1466	1375	1354	1379	1515	1620	0- 10	209.6	209.6	30.8,30.8
20	417.3	403.4	365.8	350.4	333.9	336.9	375.7	414.6	10- 20	211.3	420.9	61.9,61.9
30	177.6	168.8	158.3	155.5	150.9	152.5	167.2	183.7	20- 30	110.9	531.9	78.2,78.2
40	96.76	91.76	87.17	82.08	76.71	74.81	89.04	98.29	30- 40	76.25	608.1	89.4,89.4
50	50.46	47.68	43.77	38.01	14.24	7.699	16.11	48.29	40- 50	43.96	652.1	95.8,95.8
60	23.95	23.49	21.19	9.188	2.101	1.414	2.187	9.633	50- 60	18.59	670.7	98.6,98.6
70	8.616	10.11	7.972	1.692	0.1525	0.0673	0.2396	1.658	60- 70	7.231	677.9	99.6,99.6
80	1.200	2.544	1.222	0.3240	0.0318	0.0325	0.0328	0.2667	70- 80	2.034	679.9	99.9,99.9
90	0.3923	0.5560	0.4752	0.0489	0.0318	0.0325	0.0328	0.0600	80- 90	0.3907	680.3	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): 634.44 lm

%lum = 93.3%

%lamp = 93.3%

Conical surface Flux(120deg): 670.65 lm

%lum = 98.6%

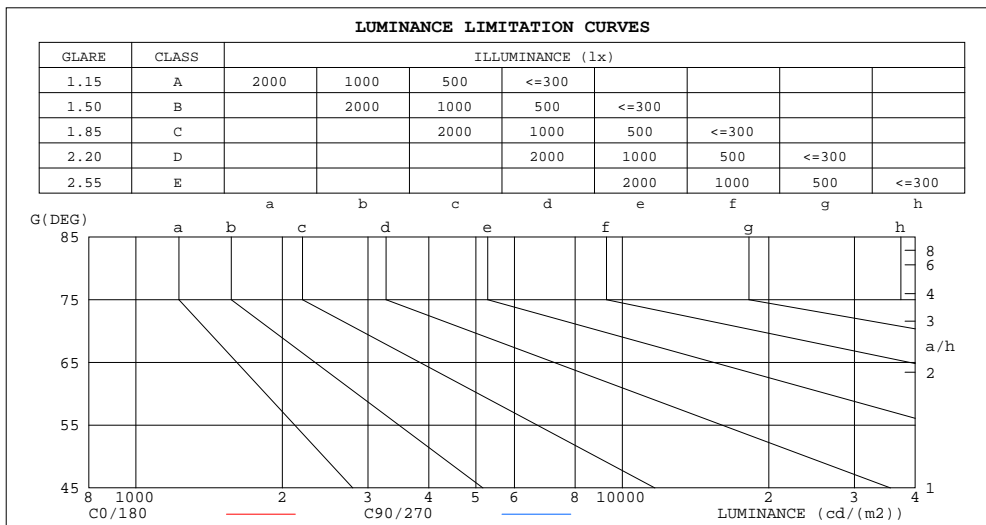
%lamp = 98.6%

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-06-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
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:221.1V I:0.1141A P:13.51W PF:0.5355 Freq:49.99Hz Lamp Flux:680.31lx1 lm		
NAME: PORTOFINO L-830-20°	TYPE:Track Light Series	
SPEC.:3000K	DIM.: ϕ 124mm*H126mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	32	35
80	37	36
75	69	63
70	133	120
65	194	171
60	254	217
55	327	275
50	416	349
45	526	453

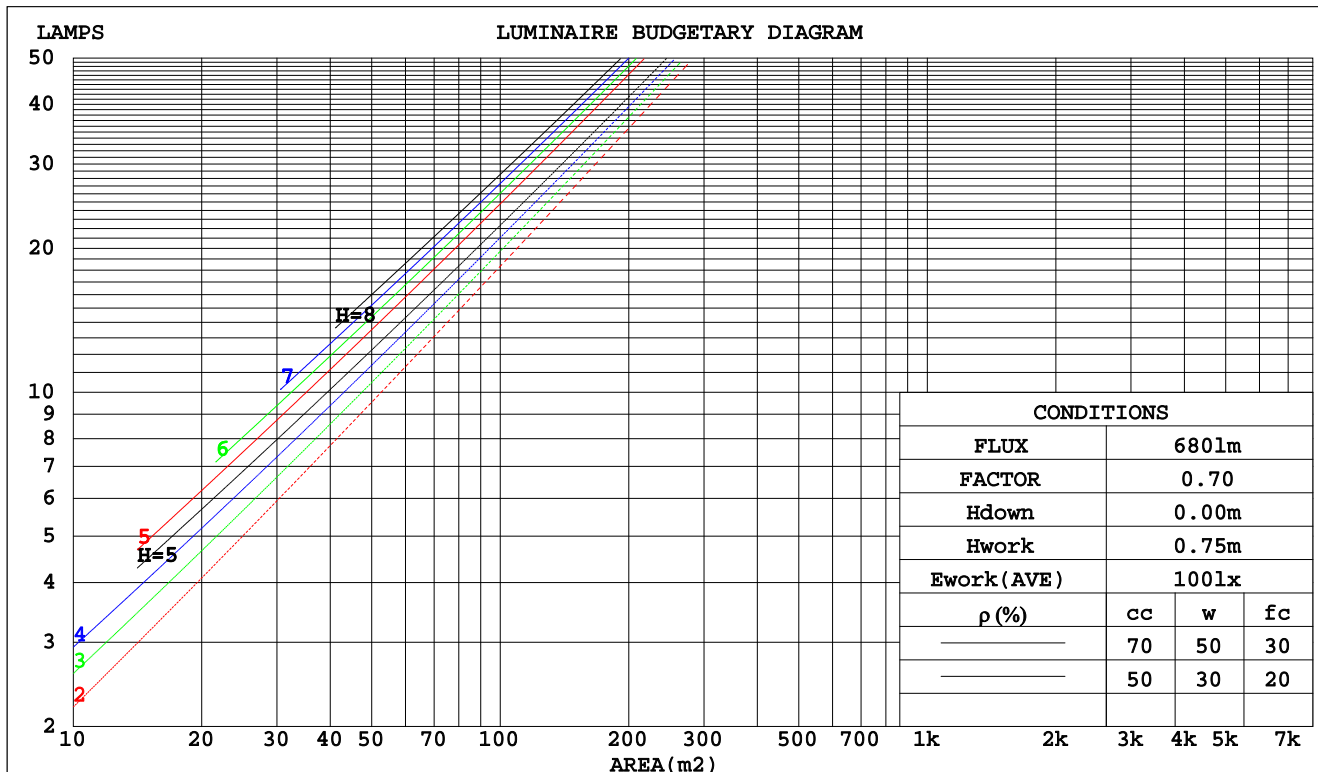
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-06-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
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:221.1V I:0.1141A P:13.51W PF:0.5355 Freq:49.99Hz Lamp Flux:680.31lx1 lm		
NAME: PORTOFINO L-830-20°	TYPE:Track Light Series	
SPEC.:3000K	DIM.: ϕ 124mm*H126mm	
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	.00
1.0	1.12	1.09	1.07	1.10	1.08	1.06	1.05	1.04	1.02	1.02	1.01	.99	.98	.97	.97	.95
2.0	1.05	1.01	.98	1.03	1.00	.97	1.00	.97	.95	.97	.95	.93	.94	.93	.91	.90
3.0	.99	.95	.91	.98	.94	.91	.95	.92	.89	.93	.90	.88	.91	.88	.86	.85
4.0	.94	.89	.85	.93	.88	.85	.91	.87	.84	.89	.86	.83	.87	.84	.82	.81
5.0	.89	.84	.81	.88	.84	.80	.87	.83	.80	.85	.82	.79	.84	.81	.78	.77
6.0	.85	.80	.77	.85	.80	.76	.83	.79	.76	.82	.78	.75	.81	.77	.75	.74
7.0	.82	.77	.73	.81	.76	.73	.80	.76	.73	.79	.75	.72	.78	.74	.72	.71
8.0	.78	.73	.70	.78	.73	.70	.77	.73	.70	.76	.72	.69	.75	.72	.69	.68
9.0	.76	.71	.67	.75	.70	.67	.74	.70	.67	.73	.70	.67	.73	.69	.67	.65
10.0	.73	.68	.65	.72	.68	.65	.72	.68	.65	.71	.67	.64	.70	.67	.64	.63



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-06-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
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:221.1V I:0.1141A P:13.51W PF:0.5355 Freq:49.99Hz Lamp Flux:680.31lx1 lm		
NAME: PORTOFINO L-830-20°	TYPE:Track Light Series	
SPEC.:3000K	DIM.: φ124mm*H126mm	
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	.161	.091	.029	.154	.088	.028	.142	.081	.026	.130	.075	.024	.119	.069	.022		
2.0	.152	.083	.026	.147	.081	.025	.136	.076	.024	.127	.071	.022	.118	.067	.021		
3.0	.143	.076	.023	.139	.074	.022	.130	.070	.021	.122	.067	.020	.114	.063	.020		
4.0	.135	.070	.021	.131	.069	.020	.124	.066	.020	.117	.063	.019	.110	.060	.018		
5.0	.128	.065	.019	.124	.064	.019	.118	.061	.018	.112	.059	.018	.106	.057	.017		
6.0	.121	.060	.017	.118	.059	.017	.112	.057	.017	.107	.055	.016	.102	.054	.016		
7.0	.114	.057	.016	.112	.056	.016	.107	.054	.016	.102	.052	.015	.098	.051	.015		
8.0	.109	.053	.015	.106	.052	.015	.102	.051	.015	.098	.050	.014	.094	.048	.014		
9.0	.104	.050	.014	.102	.049	.014	.098	.048	.014	.094	.047	.013	.091	.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	.170	.157	.146	.145	.135	.126	.099	.093	.087	.057	.054	.051	.018	.017	.016		
2.0	.154	.133	.115	.132	.114	.099	.090	.079	.069	.052	.046	.041	.017	.015	.013		
3.0	.140	.113	.092	.120	.098	.080	.082	.068	.056	.048	.040	.033	.015	.013	.011		
4.0	.129	.098	.075	.110	.085	.065	.076	.059	.046	.044	.035	.027	.014	.011	.009		
5.0	.119	.086	.062	.102	.075	.054	.070	.052	.038	.041	.031	.023	.013	.010	.008		
6.0	.111	.077	.053	.095	.067	.046	.066	.047	.032	.038	.027	.019	.012	.009	.006		
7.0	.104	.069	.045	.089	.060	.039	.062	.042	.028	.036	.025	.016	.012	.008	.005		
8.0	.097	.062	.039	.084	.054	.034	.058	.038	.024	.034	.022	.014	.011	.007	.005		
9.0	.092	.057	.034	.079	.049	.029	.055	.035	.021	.032	.021	.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
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-06-28

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
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:221.1V I:0.1141A P:13.51W PF:0.5355 Freq:49.99Hz Lamp Flux:680.31lx1 lm										
NAME: PORTOFINO L-830-20°					TYPE:Track Light Series					
SPEC.:3000K					DIM.: ϕ 124mm*H126mm					
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	7.0	7.8	7.3	8.0	8.2	6.3	7.1	6.6	7.3	7.5
3H	7.4	8.2	7.7	8.4	8.6	6.7	7.5	7.0	7.6	7.8
4H	7.5	8.2	7.7	8.4	8.6	6.7	7.4	7.0	7.7	7.9
6H	7.4	8.1	7.7	8.3	8.6	6.7	7.4	7.0	7.6	7.8
8H	7.4	8.0	7.7	8.3	8.5	6.6	7.3	7.0	7.5	7.8
12H	7.3	7.9	7.6	8.2	8.5	6.6	7.2	6.9	7.5	7.8
4H 2H	7.2	7.9	7.5	8.1	8.3	6.6	7.3	6.8	7.5	7.7
3H	7.7	8.3	8.0	8.6	8.8	7.0	7.7	7.4	7.9	8.2
4H	7.8	8.3	8.1	8.6	8.9	7.1	7.7	7.5	8.0	8.3
6H	7.7	8.2	8.1	8.6	8.9	7.1	7.6	7.5	7.9	8.3
8H	7.7	8.2	8.1	8.5	8.9	7.1	7.5	7.4	7.9	8.2
12H	7.6	8.1	8.1	8.4	8.8	7.0	7.4	7.4	7.8	8.2
8H 4H	7.7	8.2	8.1	8.5	8.9	7.1	7.6	7.5	7.9	8.3
6H	7.7	8.1	8.1	8.5	8.9	7.1	7.5	7.5	7.9	8.3
8H	7.7	8.0	8.1	8.4	8.9	7.1	7.4	7.5	7.8	8.3
12H	7.6	7.9	8.1	8.4	8.8	7.0	7.3	7.5	7.8	8.2
12H 4H	7.7	8.1	8.1	8.5	8.9	7.1	7.5	7.5	7.9	8.3
6H	7.7	8.0	8.1	8.4	8.9	7.1	7.4	7.5	7.8	8.3
8H	7.7	7.9	8.1	8.4	8.9	7.1	7.3	7.5	7.8	8.3
Variations with the observer position at spacings:										
S = 1.0H	+ 0.9 / - 1.3					+ 1.0 / - 1.4				
1.5H	+ 1.0 / - 0.8					+ 1.0 / - 0.9				
2.0H	+ 2.0 / - 1.6					+ 1.8 / - 1.5				

CIE Pub.117, 680.3 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = -1.3$)

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-06-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
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:221.1V I:0.1141A P:13.51W PF:0.5355 Freq:49.99Hz Lamp Flux:680.31lx1 lm		
NAME: PORTOFINO L-830-20°	TYPE:Track Light Series	
SPEC.:3000K	DIM.: $\varnothing 124\text{mm} \times H126\text{mm}$	
MFR.: NEKO LIGHTING AG		

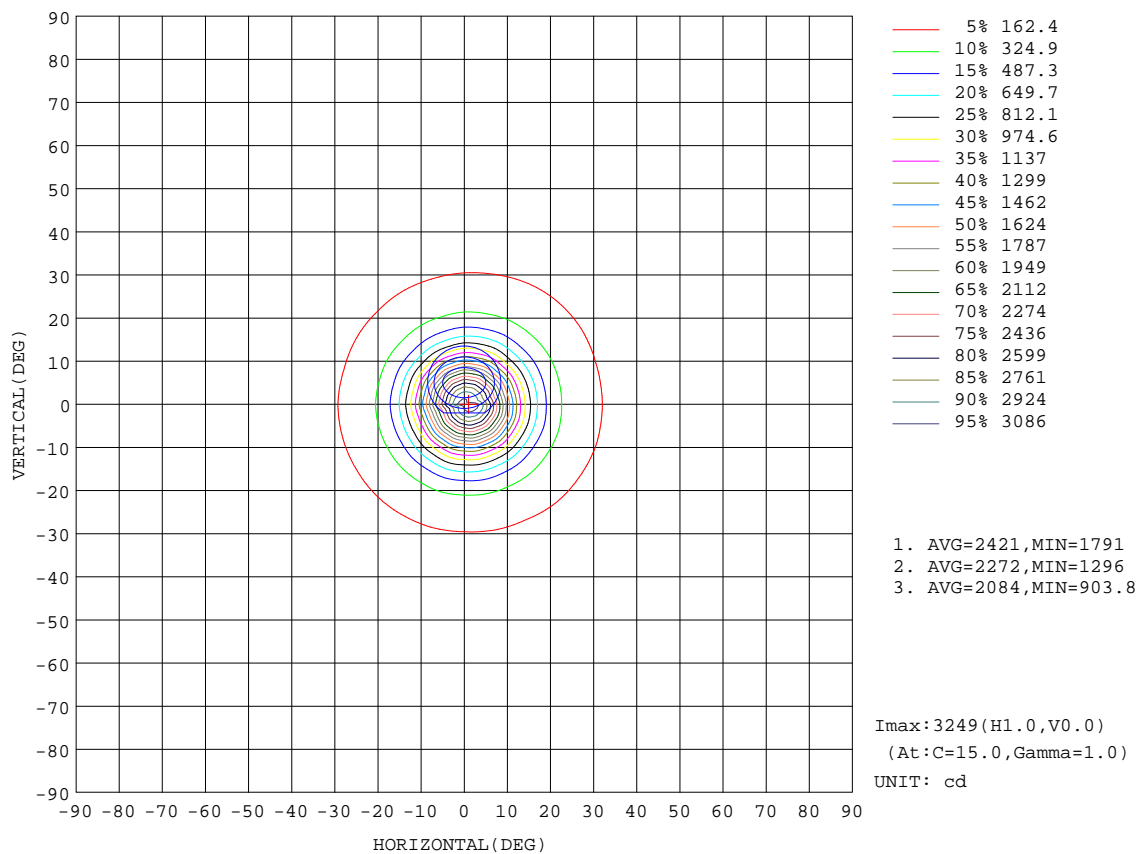
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	85	78	74	84	78	74	83	77	74	70
0.80	93	86	82	92	86	82	91	85	82	78
1.00	98	92	88	97	91	87	95	91	87	83
1.25	102	96	93	101	96	92	99	95	91	87
1.50	105	100	96	104	99	96	101	97	95	90
2.00	108	103	100	106	102	99	104	100	98	92
2.50	110	106	102	108	104	102	105	102	100	94
3.00	111	108	105	109	106	104	106	104	101	95
4.00	113	110	108	111	109	107	108	106	104	97
5.00	115	112	110	113	110	109	109	107	106	98
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:2020-06-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:58%
 Test Distance:5.850m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:221.1V I:0.1141A P:13.51W PF:0.5355 Freq:49.99Hz Lamp Flux:680.31lx1 lm		
NAME: PORTOFINO L-830-20°	TYPE:Track Light Series	
SPEC.:3000K	DIM.: ϕ 124mm*H126mm	
MFR.: NEKO LIGHTING AG		

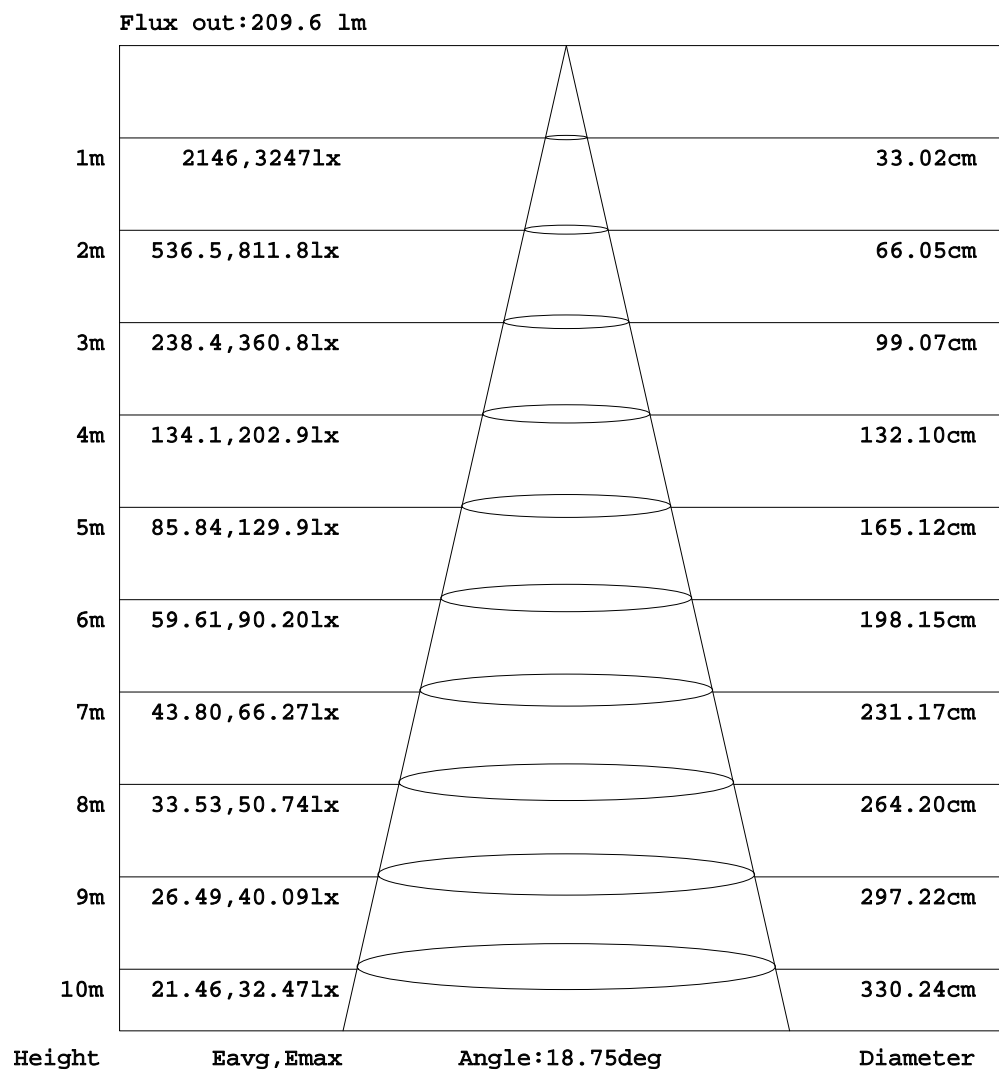


C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-06-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:5.850m [K=1.0000]
Remarks:

AAI Figure

Test:U:221.1V I:0.1141A P:13.51W PF:0.5355 Freq:49.99Hz Lamp Flux:680.31lx1 lm		
NAME: PORTOFINO L-830-20°	TYPE:Track Light Series	
SPEC.:3000K	DIM.: φ124mm*H126mm	
MFR.: NEKO LIGHTING AG		



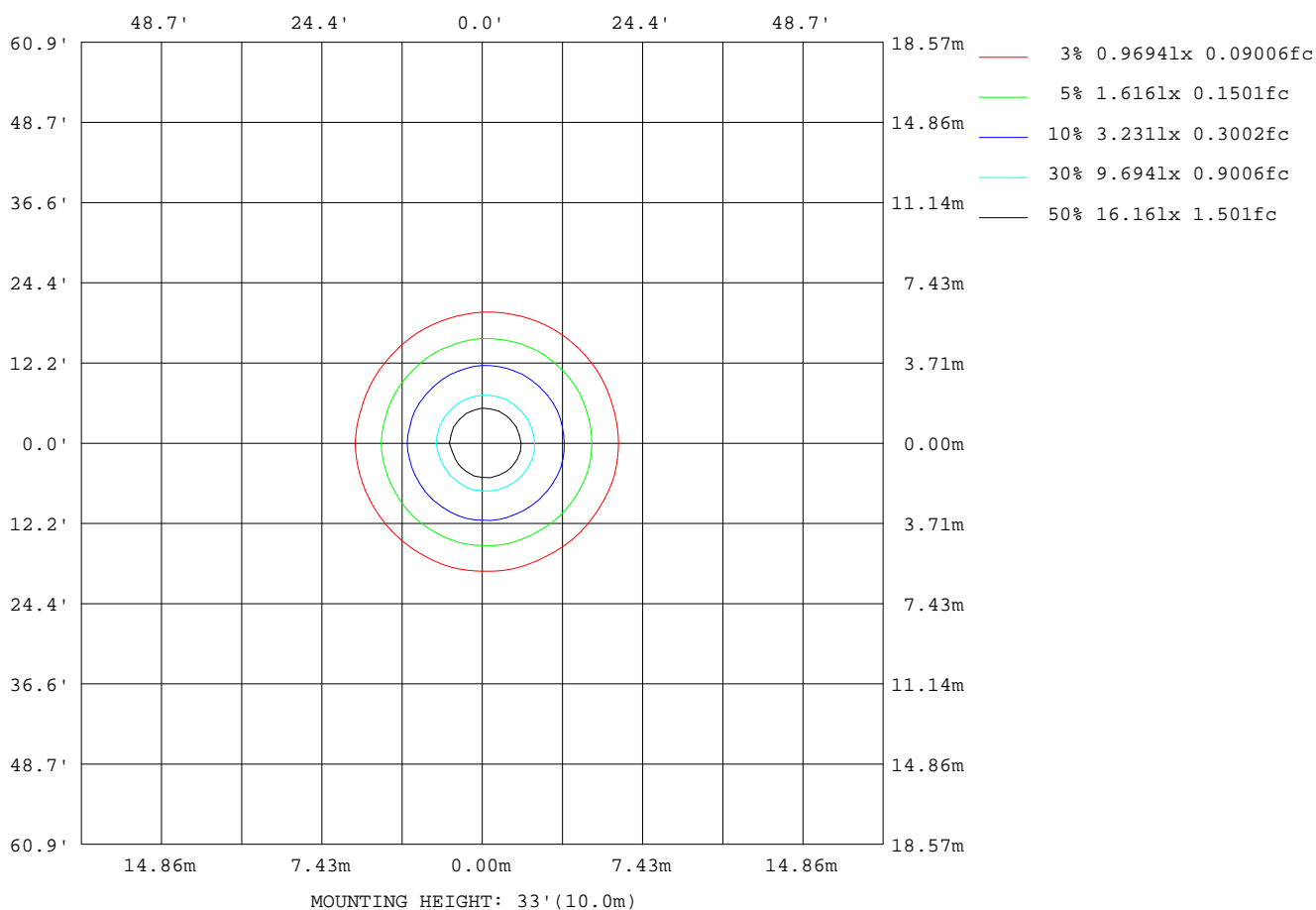
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-06-28

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:5.850m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:221.1V I:0.1141A P:13.51W PF:0.5355 Freq:49.99Hz Lamp Flux:680.31lx 1m		
NAME: PORTOFINO L-830-20°	TYPE:Track Light Series	
SPEC.:3000K	DIM.: ϕ 124mm*H126mm	
MFR.: NEKO LIGHTING AG		



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-06-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
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:221.1V I:0.1141A P:13.51W PF:0.5355 Freq:49.99Hz Lamp Flux:680.31lx1 lm		
NAME: PORTOFINO L-830-20°	TYPE:Track Light Series	
SPEC.:3000K	DIM.: ϕ 124mm*H126mm	
MFR.: NEKO LIGHTING AG		

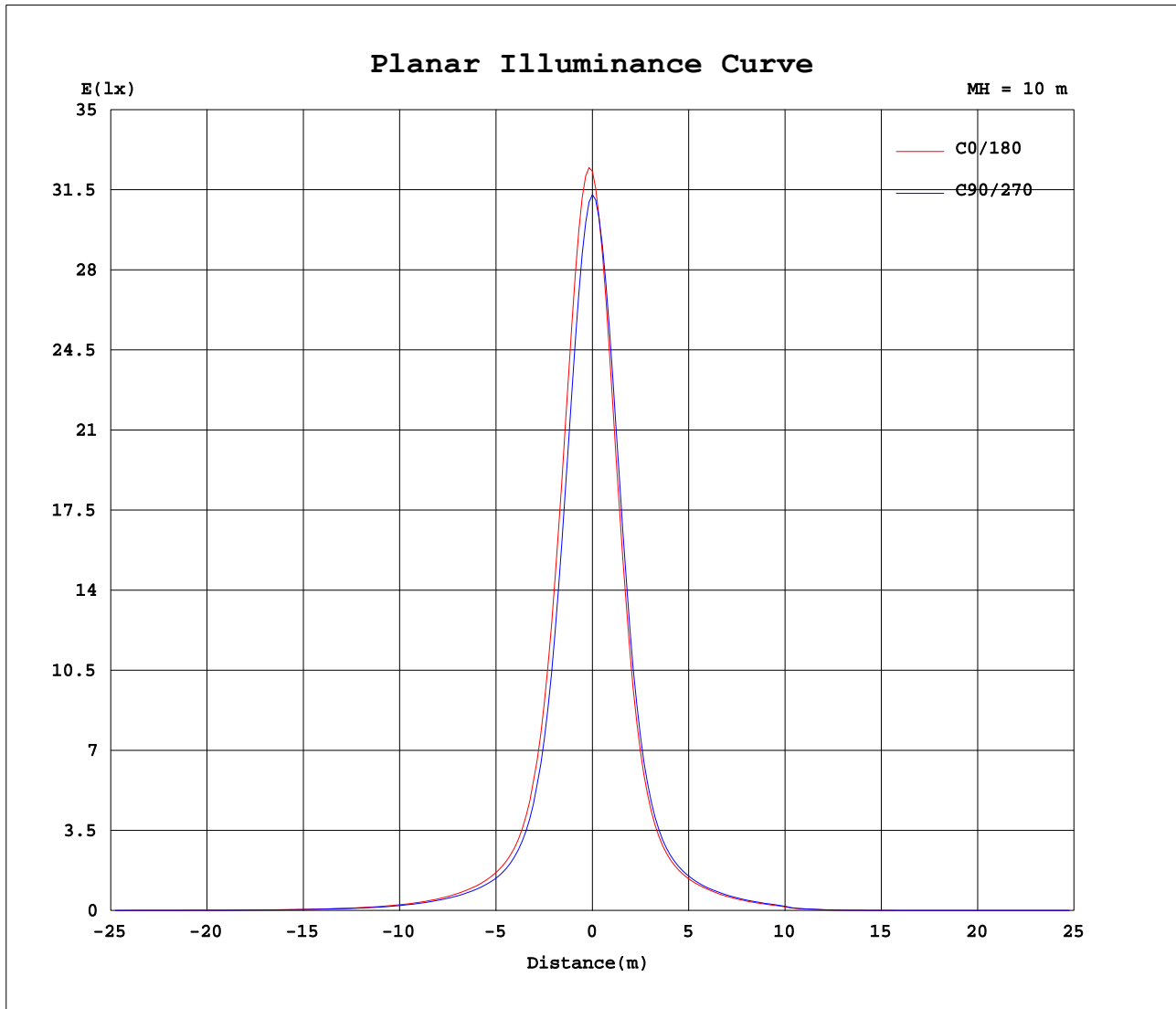
AvgL	cd/m2
L_0~180 (65) av	100
L_0~180 (75) av	34
L_0~180 (85) av	16
L_90~270 (65) av	92
L_90~270 (75) av	32
L_90~270 (85) av	18
L_45 (65) av	74
L_45 (75) av	36
L_45 (85) av	19

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-06-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
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: 2020-06-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
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: 1.0DEG
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: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:5.850m [K=1.0000]
Remarks:

```