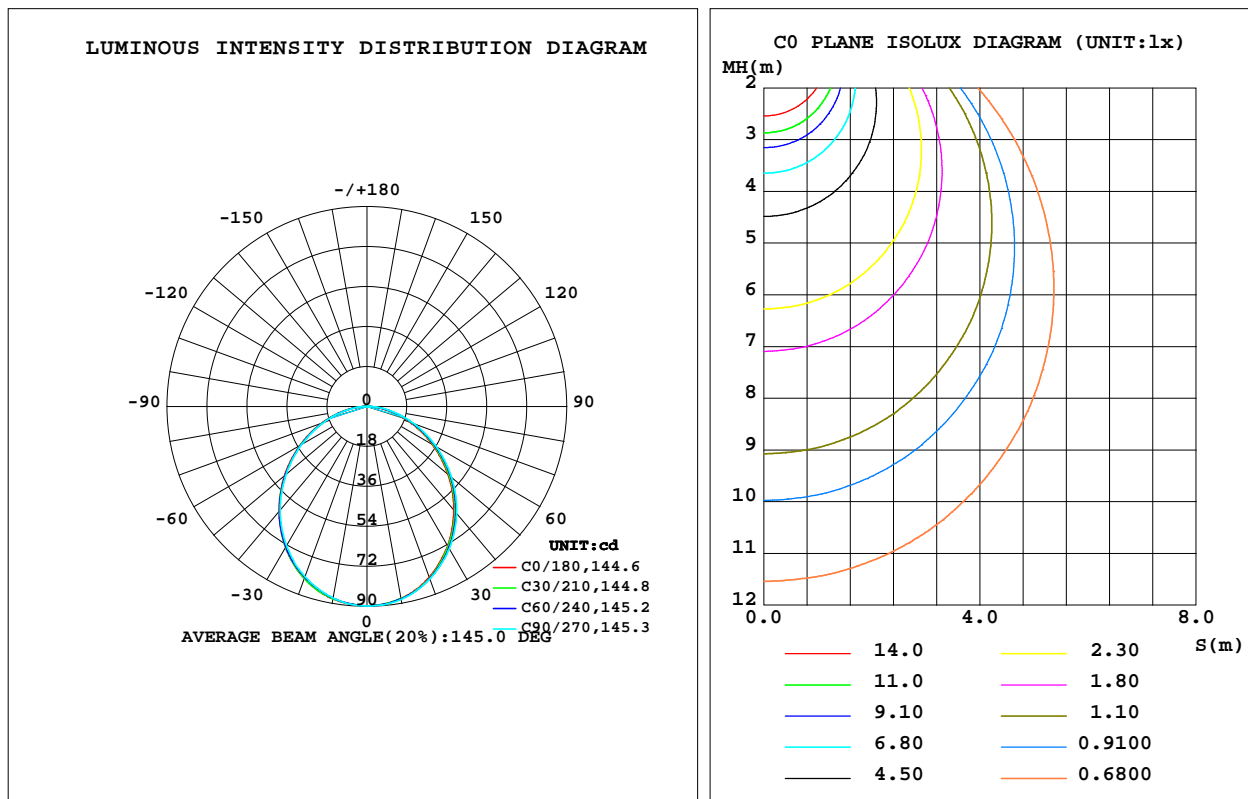


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.04V I:0.0369A P:4.3936W PF:0.9918 Freq:59.98Hz Lamp Flux:239.176x1 lm		
NAME: MVP-1-30-NK	TYPE:	WEIGHT:
SPEC.:4.3W	DIM.:	SERIAL No.:
MFR.: LiBo	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 54.44 lm/W			
MODEL	MVP-1-30-NK	I <sub>max</sub> (cd)	89.83	S/MH(C0/180)	1.22
NOMINAL POWER(W)	4.3	LOR(%)	100.0	S/MH(C90/270)	1.21
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	239.18	h UP,DN(C0-180)	0.2,50.6
NOMINAL FLUX(lm)	239.176	CIE CLASS	DIRECT	h UP,DN(C180-360)	0.2,49.0
LAMPS INSIDE	1	h up(%)	0.4	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	120	h down(%)	99.6	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:  
 Test Date:16 July 2020

g Range: 0 - 180DEG  
 g Interval: 0.5DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.0.402  
 Humidity:65.0%  
 Test Distance:3.010m [K=1.0000]  
 Remarks:

## ZONAL FLUX DIAGRAM

### ZONAL FLUX DIAGRAM:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	87.81	87.92	88.19	88.18	87.97	87.86	87.61	87.38	0- 10	8.478	8.478	3.54,3.54
20	81.84	82.58	82.67	82.82	82.43	82.27	81.56	81.11	10- 20	24.09	32.57	13.6,13.6
30	72.62	73.56	74.03	74.23	73.29	73.13	72.42	71.93	20- 30	35.92	68.49	28.6,28.6
40	60.90	62.05	62.85	62.95	61.59	61.14	60.82	60.40	30- 40	42.29	110.8	46.3,46.3
50	47.68	48.98	49.74	49.76	48.49	47.85	47.55	46.99	40- 50	42.52	153.3	64.1,64.1
60	33.90	35.12	35.94	35.92	34.73	34.06	33.77	33.17	50- 60	37.11	190.4	79.6,79.6
70	20.40	21.57	22.30	22.38	21.33	20.72	20.44	19.90	60- 70	27.49	217.9	91.1,91.1
80	8.468	9.510	10.05	10.20	9.408	8.869	8.635	8.047	70- 80	15.79	233.7	97.7,97.7
90	0.0121	0.0115	0.0148	0.0088	0.0591	0	0	0	80- 90	4.502	238.2	99.6,99.6
100	0.0632	0.0597	0.0579	0.0512	0.0440	0.0404	0.0475	0.0440	90-100	0.0253	238.2	99.6,99.6
110	0.1446	0.1292	0.1244	0.1171	0.1143	0.1079	0.1152	0.1147	100-110	0.0879	238.3	99.6,99.6
120	0.2262	0.1921	0.1917	0.1852	0.1788	0.1631	0.1765	0.1739	110-120	0.1515	238.5	99.7,99.7
130	0.2727	0.2442	0.2459	0.2360	0.2145	0.2067	0.2256	0.2197	120-130	0.1873	238.6	99.8,99.8
140	0.2838	0.2778	0.2804	0.2685	0.2284	0.2174	0.2533	0.2315	130-140	0.1885	238.8	99.9,99.9
150	0.2721	0.2707	0.3055	0.2527	0.2167	0.2036	0.2525	0.2087	140-150	0.1591	239.0	99.9,99.9
160	0.2380	0.2334	0.2485	0.2057	0.1864	0.1647	0.1988	0.1839	150-160	0.1074	239.1	100,100
170	0.2313	0.2240	0.2044	0.1980	0.1925	0.1720	0.1861	0.1908	160-170	0.0574	239.2	100,100
180	0.2217	0.2366	0.2277	0.2334	0.2208	0.2369	0.2289	0.2297	170-180	0.0197	239.2	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:  
 Test Date:16 July 2020

g Range: 0 - 180DEG  
 g Interval: 0.5DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.0.402  
 Humidity:65.0%  
 Test Distance:3.010m [K=1.0000]  
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.04V I:0.0369A P:4.3936W PF:0.9918 Freq:59.98Hz Lamp Flux:239.176x1 lm											
NAME: MVP-1-30-NK					TYPE:			WEIGHT:			
SPEC.:4.3W					DIM.:			SERIAL No.:			
MFR.: LiBo					SUR.:			Shielding Angle:			
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	6.0	7.5	6.3	7.7	7.9	6.2	7.7	6.5	7.9	8.1	
	3H	7.4	8.8	7.7	9.0	9.3	7.7	9.1	8.0	9.3	9.5
	4H	8.0	9.3	8.3	9.5	9.8	8.3	9.6	8.6	9.9	10.1
	6H	8.4	9.6	8.7	9.9	10.2	8.8	10.0	9.1	10.3	10.6
	8H	8.5	9.7	8.8	9.9	10.2	8.9	10.1	9.3	10.4	10.7
	12H	8.4	9.6	8.8	9.9	10.2	9.1	10.2	9.4	10.5	10.8
4H	2H	6.6	7.9	6.9	8.2	8.5	6.8	8.1	7.1	8.3	8.6
	3H	8.2	9.4	8.6	9.7	10.0	8.4	9.6	8.8	9.9	10.2
	4H	8.9	9.9	9.3	10.3	10.6	9.2	10.2	9.6	10.5	10.9
	6H	9.4	10.3	9.8	10.7	11.1	9.8	10.7	10.2	11.1	11.4
	8H	9.6	10.4	10.0	10.8	11.2	10.0	10.9	10.4	11.3	11.7
	12H	9.6	10.4	10.0	10.8	11.2	10.2	11.0	10.6	11.4	11.8
8H	4H	9.2	10.0	9.6	10.4	10.8	9.4	10.3	9.8	10.7	11.1
	6H	9.8	10.6	10.3	11.0	11.4	10.2	10.9	10.6	11.3	11.8
	8H	10.1	10.7	10.6	11.2	11.6	10.5	11.2	11.0	11.6	12.0
	12H	10.2	10.7	10.7	11.2	11.7	10.8	11.4	11.3	11.8	12.3
12H	4H	9.2	10.0	9.6	10.4	10.8	9.4	10.2	9.9	10.6	11.0
	6H	9.9	10.6	10.4	11.0	11.5	10.2	10.9	10.7	11.3	11.8
	8H	10.2	10.8	10.7	11.2	11.7	10.6	11.2	11.1	11.6	12.1
Variations with the observer position at spacings:											
S = 1.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.2					
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3					
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.2					

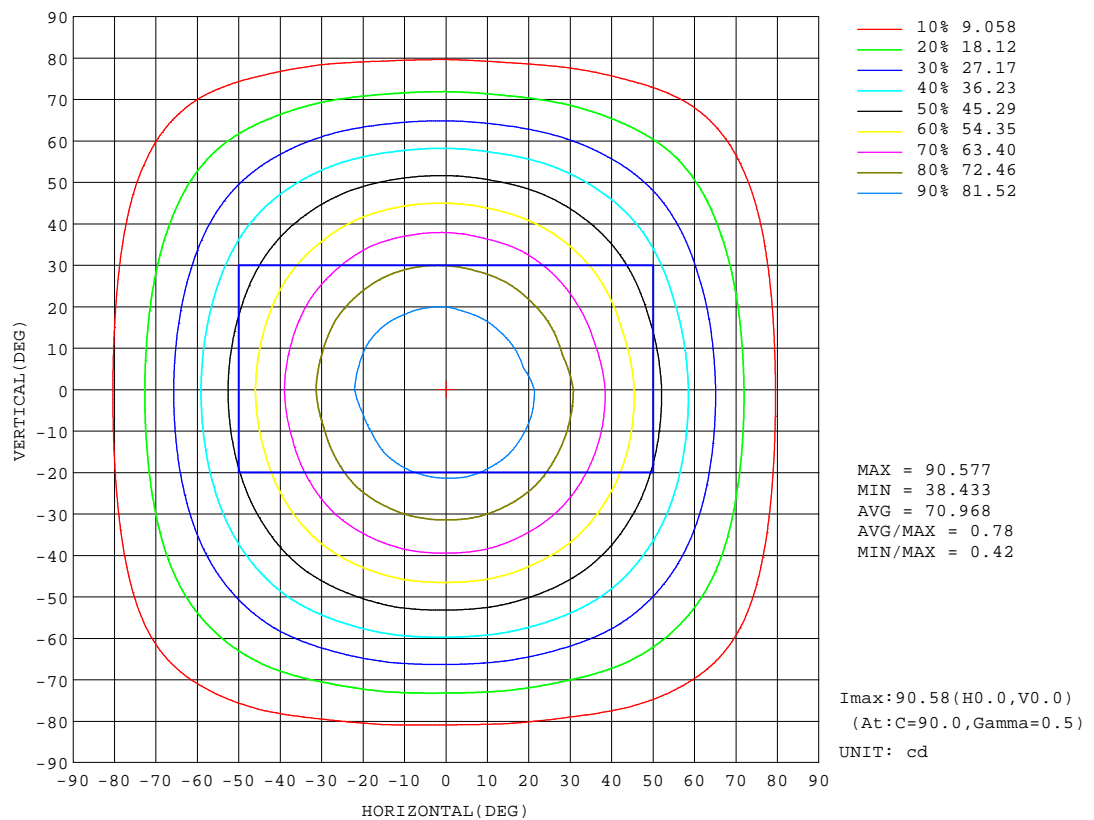
CIE Pub.117, 239.2 lm Total Lamp Luminous Flux Corrected ( $8\log(F/F_0) = -5.0$ )

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:  
Test Date:16 July 2020

g Range: 0 - 180DEG  
g Interval: 0.5DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.0.402  
Humidity:65.0%  
Test Distance:3.010m [K=1.0000]  
Remarks:

## ISOCANDELA DIAGRAM

Test:U:120.04V I:0.0369A P:4.3936W PF:0.9918 Freq:59.98Hz Lamp Flux:239.176x1 lm		
NAME: MVP-1-30-NK	TYPE:	WEIGHT:
SPEC.:4.3W	DIM.:	SERIAL No.:
MFR.: LiBo	SUR.:	Shielding Angle:

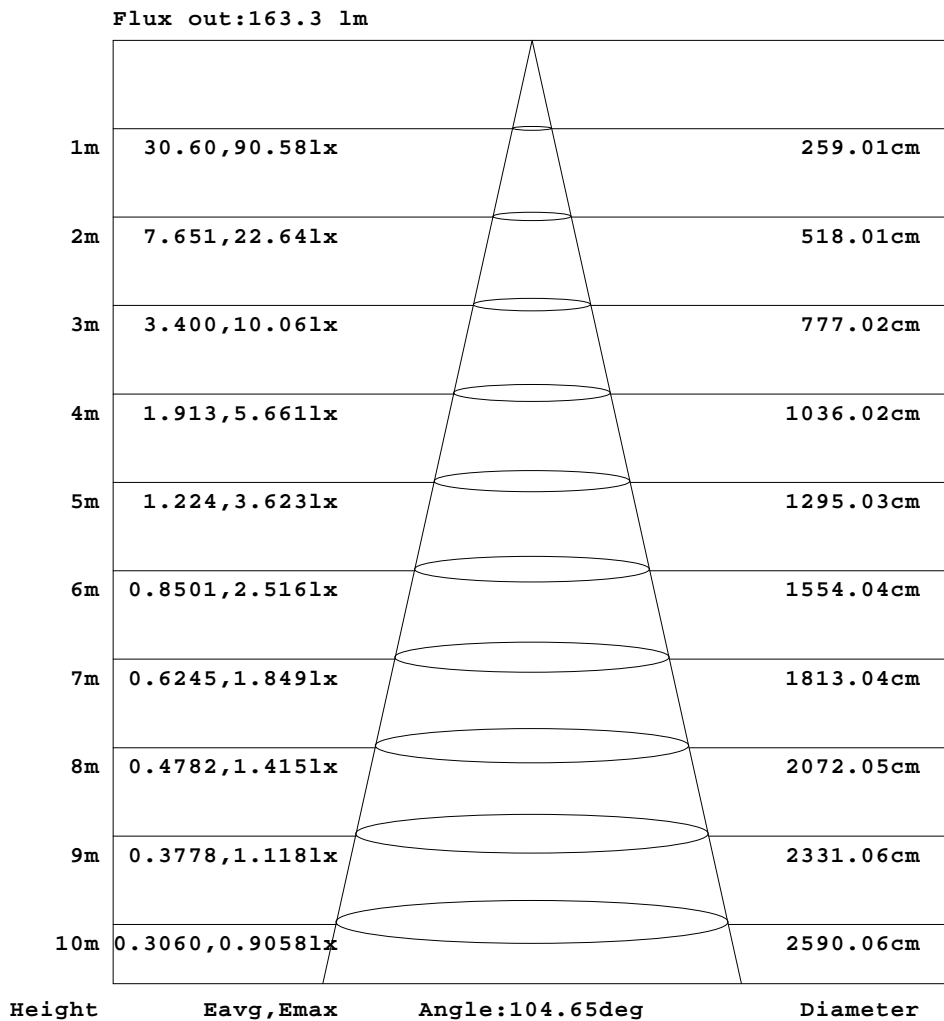


C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:  
Test Date:16 July 2020

g Range: 0 - 180DEG  
g Interval: 0.5DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.0.402  
Humidity:65.0%  
Test Distance:3.010m [K=1.0000]  
Remarks:

### AAI Figure

Test:U:120.04V I:0.0369A P:4.3936W PF:0.9918 Freq:59.98Hz Lamp Flux:239.176x1 lm		
NAME: MVP-1-30-NK	TYPE:	WEIGHT:
SPEC.:4.3W	DIM.:	SERIAL No.:
MFR.: LiBo	SUR.:	Shielding Angle:



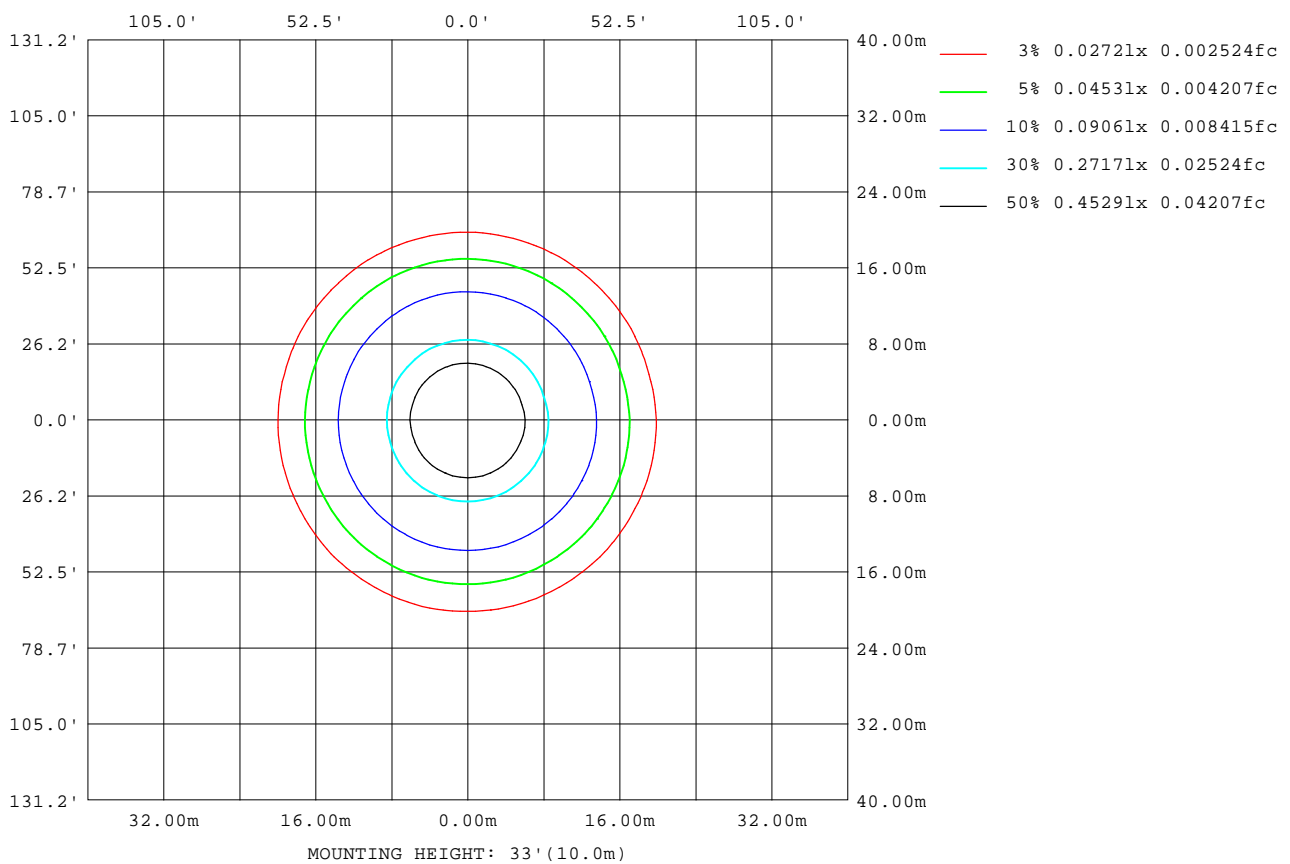
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:  
Test Date:16 July 2020

g Range: 0 - 180DEG  
g Interval: 0.5DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.0.402  
Humidity:65.0%  
Test Distance:3.010m [K=1.0000]  
Remarks:

### ISOLUX DIAGRAM

Test:U:120.04V I:0.0369A P:4.3936W PF:0.9918 Freq:59.98Hz Lamp Flux:239.176x1 lm		
NAME: MVP-1-30-NK	TYPE:	WEIGHT:
SPEC.:4.3W	DIM.:	SERIAL No.:
MFR.: LiBo	SUR.:	Shielding Angle:



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:  
Test Date:16 July 2020

g Range: 0 - 180DEG  
g Interval: 0.5DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.0.402  
Humidity:65.0%  
Test Distance:3.010m [K=1.0000]  
Remarks:

### LED Avg.L Report

Test:U:120.04V I:0.0369A P:4.3936W PF:0.9918 Freq:59.98Hz Lamp Flux:239.176x1 lm		
NAME: MVP-1-30-NK	TYPE:	WEIGHT:
SPEC.:4.3W	DIM.:	SERIAL No.:
MFR.: LiBo	SUR.:	Shielding Angle:

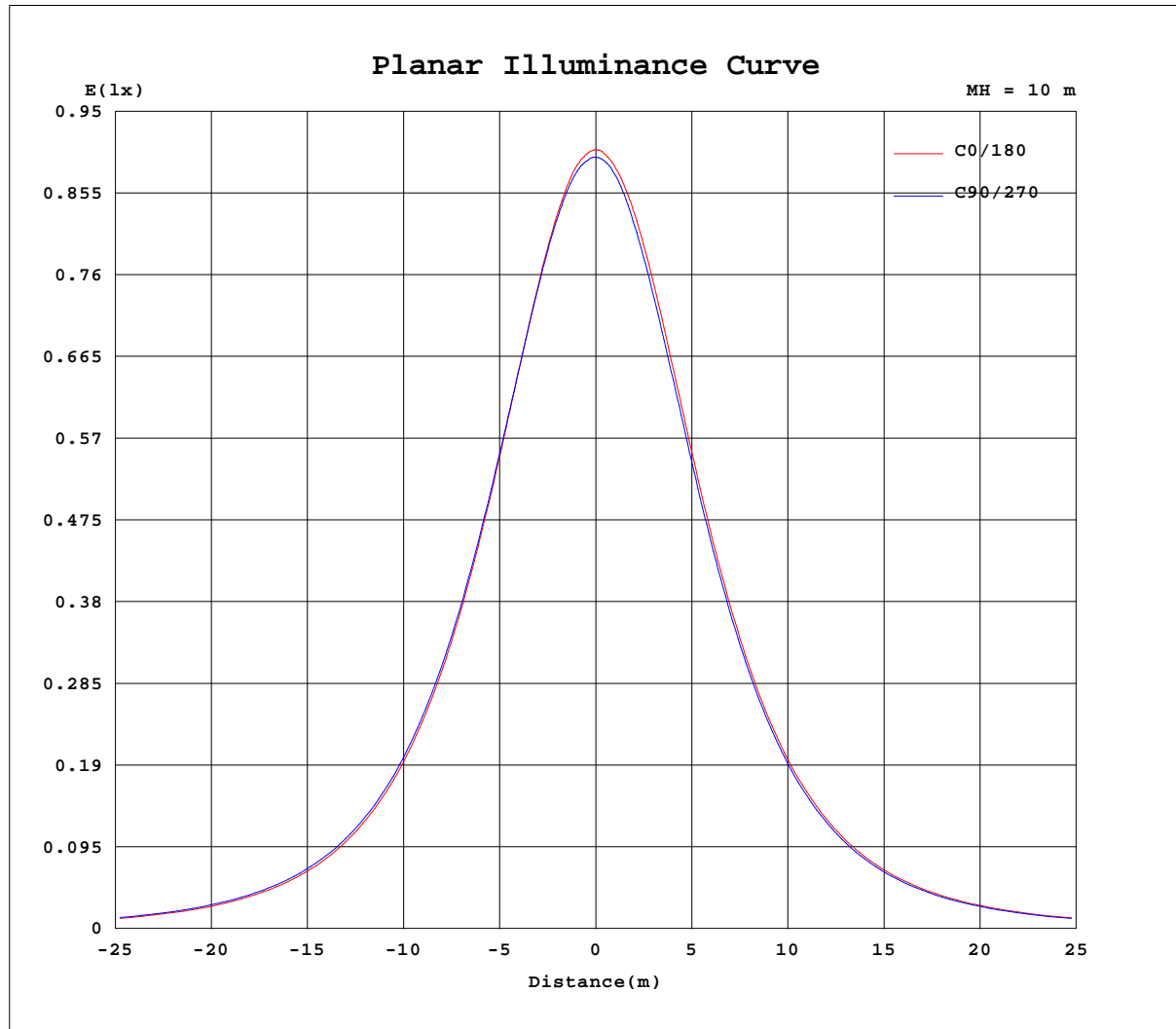
AvgL	cd/m2
L_0~180(65)av	130
L_0~180(75)av	113
L_0~180(85)av	27
L_90~270(65)av	133
L_90~270(75)av	117
L_90~270(85)av	99
L_45(65)av	131
L_45(75)av	115
L_45(85)av	95

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:  
Test Date:16 July 2020

g Range: 0 - 180DEG  
g Interval: 0.5DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.0.402  
Humidity:65.0%  
Test Distance:3.010m [K=1.0000]  
Remarks:

### Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 16 July 2020

g Range: 0 - 180DEG  
 g Interval: 0.5DEG  
 Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.0.402  
 Humidity: 65.0%  
 Test Distance: 3.010m [K=1.0000]  
 Remarks:



LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.04V I:0.0369A P:4.3936W PF:0.9918 Freq:59.98Hz Lamp Flux:239.176x1 lm		
NAME: MVP-1-30-NK	TYPE:	WEIGHT:
SPEC.:4.3W	DIM.:	SERIAL No.:
MFR.: LiBo	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C(DEG) g (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8
5	89.3	89.3	89.2	89.3	89.3	89.4	89.5	89.4	89.4	89.4	89.4	89.4	89.3	89.2	89.1	89.1	89.1	89.2	89.3
10	87.8	87.9	87.8	87.9	88.0	88.1	88.2	88.3	88.2	88.2	88.1	88.1	88.0	87.9	87.9	87.9	87.6	87.5	87.6
15	85.4	85.6	85.6	85.8	85.8	85.9	85.9	85.8	85.8	85.9	85.9	85.9	85.7	85.7	85.7	85.6	85.1	84.8	85.0
20	81.8	82.2	82.3	82.6	82.5	82.7	82.7	82.5	82.7	82.8	82.5	82.8	82.4	82.3	82.5	82.3	81.8	81.7	81.6
25	77.5	77.9	78.0	78.3	78.5	78.7	78.6	78.8	79.0	78.8	78.5	78.6	78.3	78.2	78.3	78.2	77.9	77.6	77.4
30	72.6	72.8	72.9	73.6	73.7	74.0	74.0	74.2	74.2	74.2	73.9	73.8	73.3	73.1	73.3	73.1	73.0	72.7	72.4
35	67.0	67.3	67.5	68.1	68.3	68.7	68.7	68.9	69.0	68.9	68.6	68.3	67.7	67.5	67.5	67.4	67.5	67.1	66.9
40	60.9	61.4	61.5	62.0	62.3	62.9	62.8	63.1	63.0	63.0	62.5	62.3	61.6	61.4	61.4	61.1	61.3	61.0	60.8
45	54.5	55.0	55.1	55.7	55.9	56.5	56.4	56.7	56.6	56.5	56.0	55.8	55.1	54.9	54.8	54.6	54.8	54.5	54.3
50	47.7	48.2	48.4	49.0	49.3	49.7	49.7	50.1	49.9	49.8	49.3	49.2	48.5	48.2	48.1	47.9	48.0	47.6	47.6
55	40.8	41.3	41.5	42.1	42.3	42.8	42.9	43.2	42.9	42.9	42.4	42.3	41.6	41.2	41.2	41.0	41.0	40.7	40.7
60	33.9	34.4	34.6	35.1	35.3	35.9	35.9	36.3	36.0	35.9	35.5	35.3	34.7	34.3	34.3	34.1	34.1	33.8	33.8
65	27.0	27.5	27.7	28.2	28.4	28.9	29.0	29.3	29.1	29.1	28.6	28.5	27.9	27.5	27.5	27.3	27.3	27.0	27.0
70	20.4	20.9	21.0	21.6	21.7	22.2	22.3	22.6	22.3	22.4	21.9	21.8	21.3	20.9	21.0	20.7	20.8	20.4	20.4
75	14.2	14.6	14.7	15.3	15.4	15.9	15.9	16.2	16.0	16.1	15.6	15.6	15.1	14.8	14.8	14.5	14.7	14.3	14.3
80	8.47	8.93	9.02	9.51	9.58	10.1	10.1	10.4	10.1	10.2	9.79	9.79	9.41	9.08	9.15	8.87	8.96	8.61	8.63
85	0.67	3.87	4.06	4.44	4.61	4.93	4.98	5.13	4.99	4.96	4.69	4.62	1.72	4.12	4.11	3.97	3.95	3.73	3.64
90	0.01	0.01	0.02	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.06	0.00	0.00	0.00	0.00	0.00	0.00
95	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	0.01
100	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.05	0.05	0.05	0.06	0.04	0.04	0.04	0.04	0.04	0.04	0.05
105	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.09	0.08	0.07	0.07	0.07	0.07	0.08	0.08
110	0.14	0.14	0.13	0.13	0.13	0.13	0.12	0.12	0.12	0.12	0.12	0.13	0.11	0.11	0.10	0.11	0.11	0.11	0.12
115	0.18	0.17	0.17	0.16	0.16	0.16	0.16	0.16	0.15	0.15	0.15	0.16	0.15	0.14	0.14	0.14	0.14	0.14	0.14
120	0.23	0.21	0.20	0.19	0.19	0.19	0.19	0.19	0.18	0.19	0.19	0.20	0.18	0.17	0.17	0.16	0.17	0.17	0.18
125	0.26	0.24	0.23	0.22	0.22	0.22	0.22	0.22	0.21	0.21	0.21	0.22	0.21	0.19	0.19	0.19	0.19	0.19	0.20
130	0.27	0.26	0.25	0.24	0.24	0.25	0.25	0.24	0.23	0.24	0.23	0.23	0.21	0.21	0.20	0.21	0.21	0.22	0.23
135	0.28	0.27	0.27	0.26	0.26	0.27	0.27	0.26	0.25	0.26	0.25	0.24	0.23	0.22	0.21	0.22	0.22	0.23	0.24
140	0.28	0.27	0.27	0.28	0.28	0.29	0.28	0.28	0.27	0.27	0.25	0.25	0.23	0.22	0.21	0.22	0.23	0.25	0.25
145	0.29	0.27	0.27	0.28	0.30	0.31	0.30	0.29	0.28	0.27	0.25	0.25	0.23	0.22	0.21	0.22	0.23	0.24	0.26
150	0.27	0.26	0.27	0.27	0.30	0.31	0.31	0.29	0.28	0.25	0.24	0.24	0.22	0.20	0.20	0.20	0.23	0.24	0.25
155	0.25	0.25	0.25	0.25	0.28	0.29	0.29	0.28	0.25	0.23	0.22	0.23	0.20	0.19	0.19	0.18	0.20	0.22	0.23
160	0.24	0.24	0.23	0.23	0.25	0.26	0.25	0.25	0.23	0.21	0.20	0.22	0.19	0.18	0.17	0.16	0.18	0.19	0.20
165	0.22	0.23	0.22	0.22	0.23	0.23	0.23	0.22	0.21	0.19	0.19	0.20	0.18	0.17	0.16	0.17	0.18	0.19	0.19
170	0.23	0.24	0.24	0.22	0.21	0.21	0.20	0.21	0.20	0.20	0.21	0.21	0.19	0.19	0.17	0.17	0.17	0.18	0.19
175	0.22	0.23	0.24	0.23	0.22	0.22	0.21	0.22	0.22	0.21	0.21	0.21	0.20	0.20	0.19	0.19	0.19	0.19	0.19
180	0.22	0.23	0.22	0.24	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.22	0.22	0.22	0.23	0.24	0.23	0.23	0.23

C Range: 0 - 360DEG

C Interval: 15.0DEG

Test Speed: MEDIUM

Temperature:25.3DEG

Operators:

Test Date:16 July 2020

g Range: 0 - 180DEG

g Interval: 0.5DEG

Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.0.402

Humidity:65.0%

Test Distance:3.010m [K=1.0000]

Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.04V I:0.0369A P:4.3936W PF:0.9918 Freq:59.98Hz Lamp Flux:239.176x1 lm		
NAME: MVP-1-30-NK	TYPE:	WEIGHT:
SPEC.:4.3W	DIM.:	SERIAL No.:
MFR.: LiBo	SUR.:	Shielding Angle:

Table--2

UNIT: cd

C(DEG) g (DEG)	285	300	315	330	345														
0	89.8	89.8	89.8	89.8	89.8														
5	89.2	89.2	89.2	89.3	89.4														
10	87.5	87.5	87.4	87.6	87.7														
15	84.7	84.7	84.6	85.0	85.1														
20	81.1	81.2	81.1	81.4	81.7														
25	76.8	77.0	76.8	77.2	77.2														
30	72.0	72.0	71.9	72.1	72.2														
35	66.4	66.6	66.4	66.6	66.7														
40	60.4	60.5	60.4	60.4	60.5														
45	54.0	54.0	53.9	54.0	54.0														
50	47.2	47.3	47.0	47.2	47.3														
55	40.3	40.3	40.1	40.3	40.3														
60	33.4	33.4	33.2	33.5	33.4														
65	26.6	26.6	26.4	26.7	26.6														
70	20.1	20.1	19.9	20.2	20.1														
75	13.9	14.0	13.7	13.9	13.8														
80	8.26	8.27	8.05	8.25	8.18														
85	3.36	3.30	3.14	3.27	3.28														
90	0.00	0.00	0.00	0.00	0.00														
95	0.02	0.01	0.01	0.01	0.01														
100	0.05	0.05	0.04	0.05	0.04														
105	0.08	0.08	0.08	0.08	0.08														
110	0.12	0.12	0.11	0.12	0.12														
115	0.15	0.14	0.14	0.15	0.15														
120	0.18	0.17	0.17	0.18	0.19														
125	0.20	0.19	0.20	0.20	0.21														
130	0.23	0.22	0.22	0.22	0.23														
135	0.24	0.23	0.23	0.23	0.23														
140	0.26	0.24	0.23	0.23	0.24														
145	0.25	0.24	0.22	0.22	0.23														
150	0.25	0.23	0.21	0.22	0.22														
155	0.23	0.21	0.19	0.21	0.22														
160	0.21	0.19	0.18	0.19	0.21														
165	0.20	0.19	0.19	0.19	0.20														
170	0.19	0.19	0.19	0.21	0.21														
175	0.20	0.19	0.21	0.22	0.22														
180	0.23	0.22	0.23	0.23	0.22														

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:  
Test Date:16 July 2020

g Range: 0 - 180DEG  
g Interval: 0.5DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.0.402  
Humidity:65.0%  
Test Distance:3.010m [K=1.0000]  
Remarks: