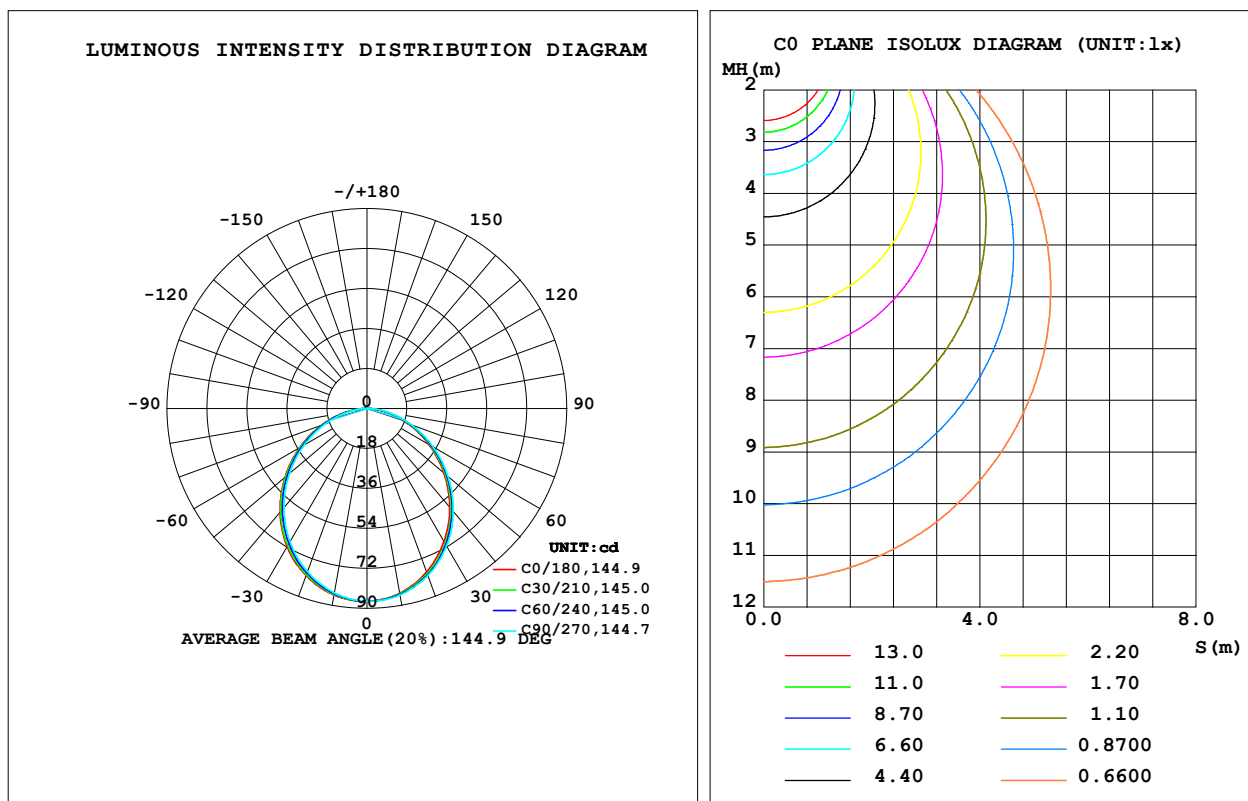


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.02V I:0.0366A P:4.3565W PF:0.9917 Freq:59.98Hz Lamp Flux:230.343x1 lm		
NAME: MVP-1-30-BK	TYPE:	WEIGHT:
SPEC.: 4.3W	DIM.:	SERIAL No.:
MFR.: LiBo	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 52.87 lm/W			
MODEL	MVP-1-30-BK	I _{max} (cd)	86.88	S/MH (C0/180)	1.24
NOMINAL POWER (W)	4.3	LOR (%)	100.0	S/MH (C90/270)	1.20
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	230.34	h UP, DN (C0-180)	0.2, 50.5
NOMINAL FLUX (lm)	230.343	CIE CLASS	DIRECT	h UP, DN (C180-360)	0.2, 49.1
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	84.49	84.95	85.31	85.58	85.35	84.85	84.31	84.16	0~ 10	8.193	8.193	3.56,3.56
20	78.37	79.60	80.05	80.64	80.10	79.16	78.24	77.82	10~ 20	23.26	31.45	13.7,13.7
30	69.30	70.82	71.61	72.58	71.89	70.69	69.39	68.59	20~ 30	34.67	66.12	28.7,28.7
40	58.01	59.40	60.48	61.55	60.92	59.83	58.22	57.21	30~ 40	40.81	106.9	46.4,46.4
50	45.25	46.71	47.61	48.60	48.21	47.18	45.61	44.48	40~ 50	41.02	148.0	64.2,64.2
60	32.06	33.38	34.22	35.10	34.89	33.91	32.44	31.38	50~ 60	35.83	183.8	79.8,79.8
70	19.15	20.27	21.02	21.79	21.69	20.76	19.56	18.61	60~ 70	26.54	210.3	91.3,91.3
80	7.666	8.493	9.014	9.703	9.622	8.814	8.007	7.303	70~ 80	15.07	225.4	97.9,97.9
90	0.0046	0.0053	0.0038	0.0064	0	0	0	0	80~ 90	4.029	229.4	99.6,99.6
100	0.0571	0.0538	0.0434	0.0406	0.0331	0.0305	0.0318	0.0360	90~100	0.0172	229.5	99.6,99.6
110	0.1433	0.1231	0.1094	0.1036	0.0967	0.0918	0.0991	0.1075	100~110	0.0770	229.5	99.6,99.6
120	0.2169	0.1859	0.1811	0.1677	0.1647	0.1519	0.1607	0.1682	110~120	0.1396	229.7	99.7,99.7
130	0.2621	0.2368	0.2273	0.2174	0.2034	0.1948	0.2082	0.2113	120~130	0.1755	229.8	99.8,99.8
140	0.2742	0.2688	0.2621	0.2470	0.2133	0.2067	0.2361	0.2180	130~140	0.1776	230.0	99.9,99.9
150	0.2570	0.2599	0.2878	0.2363	0.2003	0.1876	0.2358	0.2012	140~150	0.1496	230.2	99.9,99.9
160	0.2228	0.2185	0.2322	0.1934	0.1720	0.1535	0.1830	0.1705	150~160	0.1007	230.3	100,100
170	0.2131	0.2114	0.1932	0.1876	0.1803	0.1591	0.1752	0.1788	160~170	0.0536	230.3	100,100
180	0.2136	0.2212	0.2125	0.2239	0.2129	0.2225	0.2125	0.2230	170~180	0.0184	230.3	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:120.02V I:0.0366A P:4.3565W PF:0.9917 Freq:59.98Hz Lamp Flux:230.343x1 lm											
NAME: MVP-1-30-BK					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	5.8	7.3	6.1	7.5	7.7	6.0	7.5	6.3	7.7	7.9	
	7.2	8.5	7.5	8.8	9.0	7.5	8.8	7.8	9.1	9.3	
	7.7	9.0	8.0	9.3	9.5	8.0	9.4	8.4	9.6	9.9	
	8.1	9.3	8.4	9.6	9.9	8.5	9.7	8.8	10.0	10.3	
	8.1	9.3	8.5	9.6	9.9	8.6	9.8	9.0	10.1	10.4	
	8.1	9.2	8.4	9.5	9.8	8.7	9.9	9.1	10.2	10.5	
4H	2H	6.4	7.7	6.7	7.9	8.2	6.5	7.9	6.9	8.1	8.4
	3H	7.9	9.1	8.3	9.4	9.7	8.2	9.3	8.5	9.6	9.9
	4H	8.6	9.6	9.0	10.0	10.3	8.9	9.9	9.3	10.3	10.6
	6H	9.1	10.0	9.5	10.4	10.7	9.5	10.4	9.9	10.7	11.1
	8H	9.2	10.1	9.6	10.4	10.8	9.7	10.5	10.1	10.9	11.3
	12H	9.2	10.0	9.6	10.4	10.8	9.8	10.6	10.2	11.0	11.4
8H	4H	8.9	9.7	9.3	10.1	10.5	9.1	10.0	9.5	10.4	10.8
	6H	9.5	10.2	9.9	10.6	11.1	9.8	10.6	10.3	11.0	11.4
	8H	9.7	10.3	10.2	10.8	11.2	10.1	10.8	10.6	11.2	11.7
	12H	9.8	10.3	10.3	10.8	11.3	10.4	10.9	10.8	11.4	11.8
12H	4H	8.9	9.7	9.3	10.1	10.5	9.1	9.9	9.6	10.3	10.7
	6H	9.5	10.2	10.0	10.6	11.1	9.9	10.5	10.4	11.0	11.4
	8H	9.8	10.3	10.3	10.8	11.3	10.2	10.8	10.7	11.2	11.7
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					

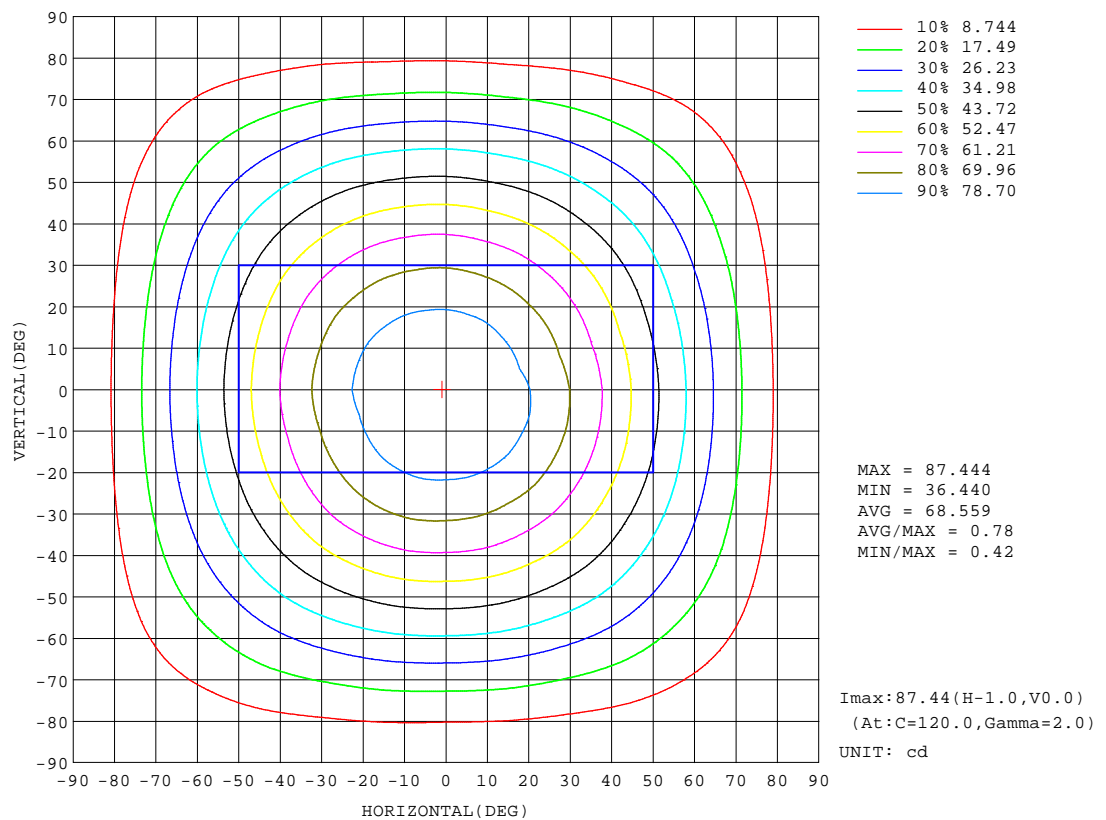
CIE Pub.117, 230.3 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = -5.1$)

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:120.02V I:0.0366A P:4.3565W PF:0.9917 Freq:59.98Hz Lamp Flux:230.343x1 lm		
NAME: MVP-1-30-BK	TYPE:	WEIGHT:
SPEC.: 4.3W	DIM.:	SERIAL No.:
MFR.: LiBo	SUR.:	Shielding Angle:



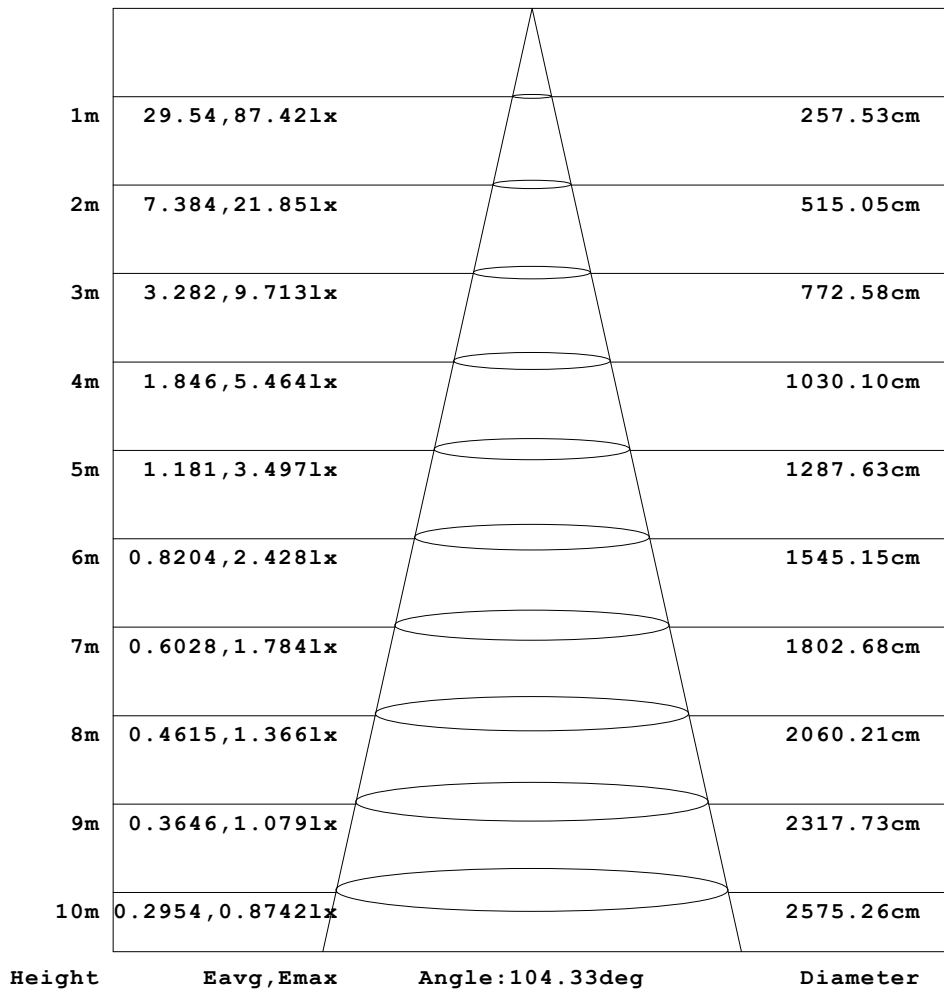
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: MEDIUM
Temperature: 25.3DEG
Operators:
Test Date: 16 July 2020

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:120.02V I:0.0366A P:4.3565W PF:0.9917 Freq:59.98Hz Lamp Flux:230.343x1 lm		
NAME: MVP-1-30-BK	TYPE:	WEIGHT:
SPEC.:4.3W	DIM.:	SERIAL No.:
MFR.: LiBo	SUR.:	Shielding Angle:

Flux out:157.6 lm



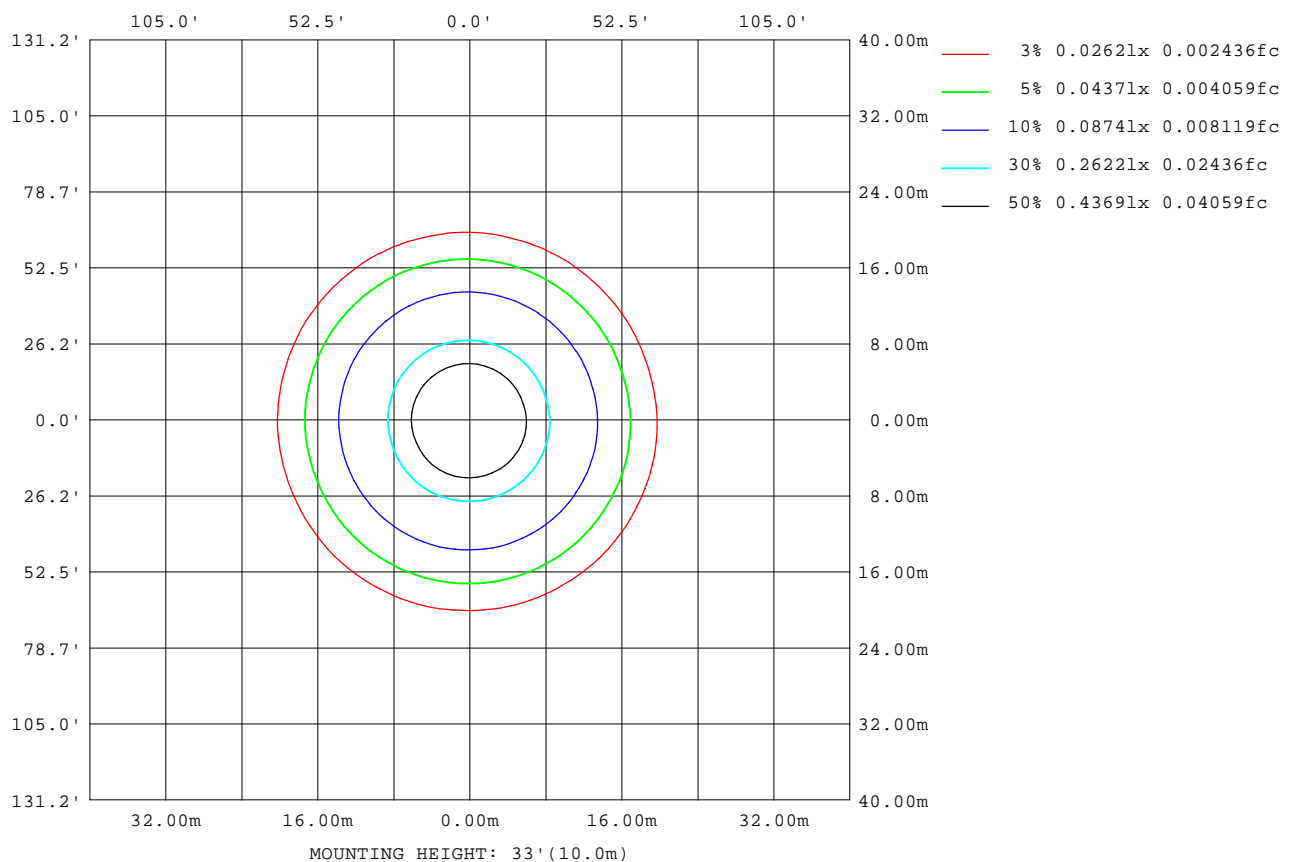
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: 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:120.02V I:0.0366A P:4.3565W PF:0.9917 Freq:59.98Hz Lamp Flux:230.343x1 lm		
NAME: MVP-1-30-BK	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:120.02V I:0.0366A P:4.3565W PF:0.9917 Freq:59.98Hz Lamp Flux:230.343x1 lm		
NAME: MVP-1-30-BK	TYPE:	WEIGHT:
SPEC.: 4.3W	DIM.:	SERIAL No.:
MFR.: LiBo	SUR.:	Shielding Angle:

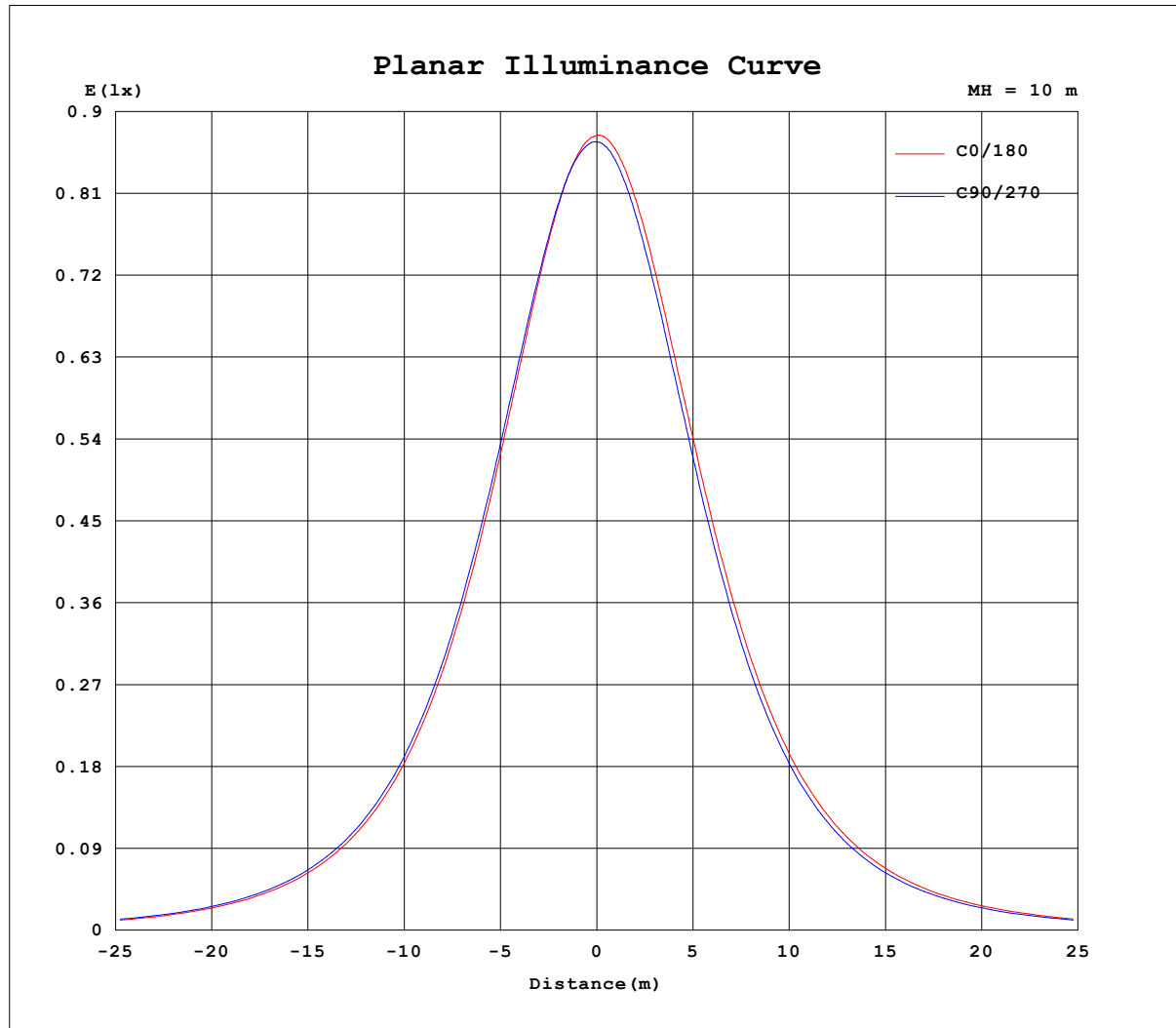
AvgL	cd/m2
L_0~180 (65) av	127
L_0~180 (75) av	110
L_0~180 (85) av	16
L_90~270 (65) av	126
L_90~270 (75) av	109
L_90~270 (85) av	84
L_45 (65) av	127
L_45 (75) av	110
L_45 (85) av	84

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:120.02V I:0.0366A P:4.3565W PF:0.9917 Freq:59.98Hz Lamp Flux:230.343x1 lm		
NAME: MVP-1-30-BK	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	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8
5	86.1	86.2	86.2	86.3	86.3	86.5	86.5	86.6	86.7	86.7	86.6	86.6	86.6	86.5	86.4	86.3	86.2	86.2	86.1
10	84.5	84.7	84.7	84.9	85.0	85.3	85.3	85.4	85.5	85.6	85.5	85.5	85.3	85.1	85.0	84.8	84.6	84.5	84.3
15	81.9	82.2	82.4	82.6	82.8	83.1	83.0	83.3	83.6	83.6	83.4	83.3	83.2	83.0	82.7	82.4	82.2	81.8	81.6
20	78.4	79.0	79.2	79.6	79.7	80.0	80.0	80.3	80.5	80.6	80.4	80.4	80.1	79.9	79.7	79.2	78.9	78.5	78.2
25	74.1	74.8	75.1	75.5	75.8	76.0	76.2	76.8	76.9	77.0	76.7	76.7	76.4	76.0	75.9	75.3	75.0	74.5	74.2
30	69.3	69.9	70.3	70.8	70.9	71.4	71.6	72.3	72.5	72.6	72.3	72.2	71.9	71.5	71.3	70.7	70.2	69.7	69.4
35	63.9	64.4	64.8	65.3	65.5	66.1	66.4	67.0	67.3	67.4	67.1	66.9	66.7	66.2	66.2	65.5	65.0	64.4	64.0
40	58.0	58.5	58.9	59.4	59.7	60.3	60.5	61.1	61.3	61.5	61.3	61.1	60.9	60.5	60.4	59.8	59.3	58.6	58.2
45	51.7	52.3	52.5	53.2	53.5	54.0	54.2	54.7	54.9	55.2	55.0	54.9	54.7	54.3	54.2	53.6	53.1	52.5	52.1
50	45.3	45.8	46.1	46.7	47.0	47.5	47.6	48.2	48.4	48.6	48.4	48.5	48.2	47.9	47.8	47.2	46.7	46.0	45.6
55	38.7	39.1	39.4	40.1	40.3	40.8	41.0	41.4	41.6	41.9	41.7	41.8	41.6	41.3	41.1	40.6	40.1	39.4	39.0
60	32.1	32.5	32.8	33.4	33.6	34.1	34.2	34.7	34.8	35.1	35.0	35.1	34.9	34.6	34.4	33.9	33.5	32.8	32.4
65	25.5	26.0	26.2	26.7	26.9	27.4	27.5	28.0	28.1	28.4	28.2	28.4	28.2	27.9	27.8	27.3	26.9	26.2	25.9
70	19.2	19.6	19.8	20.3	20.4	20.9	21.0	21.4	21.5	21.8	21.7	21.8	21.7	21.4	21.2	20.8	20.5	19.8	19.6
75	13.1	13.6	13.6	14.2	14.2	14.7	14.8	15.2	15.2	15.5	15.4	15.6	15.4	15.1	15.0	14.5	14.4	13.7	13.5
80	7.67	7.99	8.09	8.49	8.59	9.01	9.01	9.43	9.40	9.70	9.54	9.74	9.62	9.28	9.27	8.81	8.70	8.17	8.01
85	0.40	3.16	3.26	3.59	3.70	4.00	4.09	4.33	4.35	4.50	4.42	4.50	0.95	4.16	4.08	3.79	3.66	3.34	3.19
90	0.00	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	0.06	0.06	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.02	0.03	0.03	0.03	0.03
105	0.10	0.09	0.09	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.07	0.07
110	0.14	0.13	0.13	0.12	0.12	0.11	0.11	0.10	0.10	0.10	0.11	0.11	0.10	0.09	0.09	0.09	0.10	0.10	0.10
115	0.18	0.17	0.16	0.16	0.15	0.15	0.15	0.14	0.14	0.14	0.14	0.14	0.13	0.12	0.12	0.13	0.12	0.13	0.13
120	0.22	0.21	0.20	0.19	0.18	0.18	0.18	0.17	0.17	0.17	0.17	0.18	0.16	0.15	0.15	0.15	0.15	0.15	0.16
125	0.25	0.23	0.23	0.21	0.21	0.21	0.21	0.20	0.19	0.19	0.20	0.20	0.19	0.18	0.17	0.17	0.17	0.17	0.18
130	0.26	0.25	0.25	0.24	0.23	0.23	0.23	0.22	0.22	0.22	0.22	0.22	0.20	0.19	0.19	0.19	0.20	0.20	0.21
135	0.27	0.26	0.26	0.26	0.25	0.25	0.25	0.24	0.23	0.24	0.23	0.23	0.21	0.20	0.19	0.20	0.21	0.21	0.22
140	0.27	0.26	0.26	0.27	0.27	0.27	0.26	0.26	0.26	0.25	0.23	0.23	0.21	0.20	0.19	0.21	0.22	0.23	0.24
145	0.27	0.26	0.26	0.27	0.28	0.29	0.28	0.27	0.26	0.25	0.23	0.23	0.21	0.19	0.19	0.20	0.21	0.23	0.24
150	0.26	0.25	0.25	0.26	0.28	0.30	0.29	0.28	0.26	0.24	0.22	0.22	0.20	0.18	0.18	0.19	0.21	0.22	0.24
155	0.24	0.24	0.24	0.24	0.26	0.28	0.27	0.26	0.24	0.22	0.21	0.21	0.18	0.17	0.17	0.17	0.19	0.21	0.22
160	0.22	0.23	0.22	0.22	0.23	0.24	0.23	0.22	0.21	0.19	0.19	0.20	0.17	0.16	0.16	0.15	0.16	0.18	0.18
165	0.21	0.21	0.21	0.21	0.21	0.22	0.21	0.21	0.20	0.18	0.18	0.19	0.17	0.16	0.15	0.16	0.16	0.17	0.18
170	0.21	0.22	0.22	0.21	0.20	0.20	0.19	0.19	0.19	0.19	0.19	0.19	0.18	0.17	0.17	0.16	0.16	0.17	0.18
175	0.21	0.21	0.22	0.21	0.20	0.21	0.20	0.20	0.21	0.20	0.19	0.19	0.18	0.18	0.18	0.18	0.18	0.18	0.18
180	0.21	0.21	0.21	0.22	0.21	0.21	0.21	0.21	0.21	0.22	0.22	0.21	0.21	0.21	0.21	0.22	0.22	0.21	0.21

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:120.02V I:0.0366A P:4.3565W PF:0.9917 Freq:59.98Hz Lamp Flux:230.343x1 lm		
NAME: MVP-1-30-BK	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	86.8	86.8	86.8	86.8	86.8														
5	86.0	86.0	86.0	86.0	86.0														
10	84.2	84.2	84.2	84.2	84.3														
15	81.5	81.5	81.4	81.5	81.6														
20	78.0	78.0	77.8	77.8	77.9														
25	73.8	73.7	73.5	73.6	73.6														
30	68.8	68.7	68.6	68.8	68.9														
35	63.5	63.4	63.1	63.3	63.5														
40	57.6	57.4	57.2	57.4	57.4														
45	51.4	51.2	50.9	51.2	51.2														
50	44.9	44.8	44.5	44.8	44.8														
55	38.4	38.3	37.9	38.2	38.2														
60	31.8	31.7	31.4	31.6	31.6														
65	25.3	25.2	24.9	25.1	25.1														
70	19.0	18.9	18.6	18.8	18.8														
75	13.0	13.0	12.6	12.9	12.8														
80	7.59	7.53	7.30	7.43	7.40														
85	2.92	2.85	2.69	2.75	2.72														
90	0.00	0.00	0.00	0.00	0.00														
95	0.01	0.01	0.01	0.01	0.01														
100	0.04	0.03	0.04	0.04	0.04														
105	0.07	0.07	0.07	0.07	0.08														
110	0.11	0.10	0.11	0.11	0.11														
115	0.13	0.13	0.14	0.14	0.15														
120	0.16	0.16	0.17	0.18	0.18														
125	0.18	0.18	0.19	0.19	0.20														
130	0.21	0.21	0.21	0.21	0.22														
135	0.23	0.22	0.22	0.22	0.23														
140	0.24	0.23	0.22	0.22	0.23														
145	0.24	0.23	0.21	0.21	0.22														
150	0.24	0.22	0.20	0.21	0.21														
155	0.22	0.20	0.18	0.20	0.20														
160	0.19	0.18	0.17	0.18	0.19														
165	0.18	0.18	0.17	0.18	0.19														
170	0.18	0.18	0.18	0.19	0.20														
175	0.18	0.19	0.20	0.21	0.20														
180	0.21	0.22	0.22	0.22	0.21														

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: