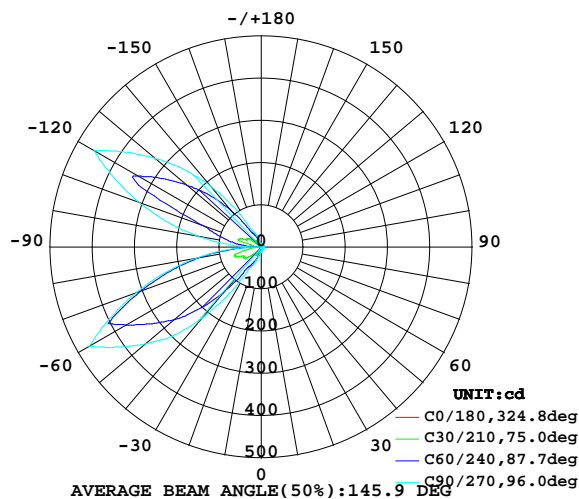


## LUMINAIRE PHOTOMETRIC TEST REPORT

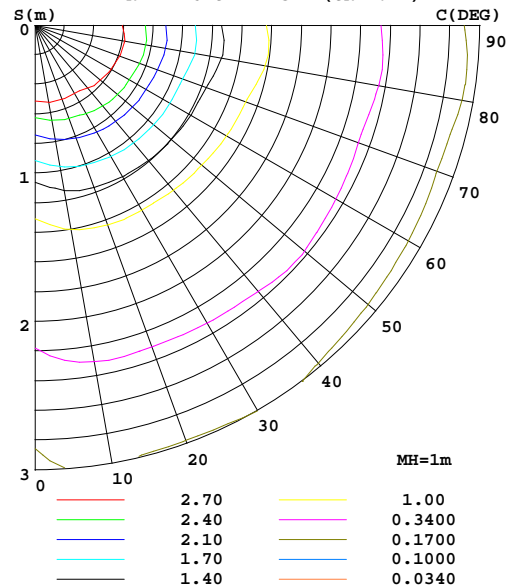
NAME: E41048-BZ	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:161117001
MFR.: Maxim Light International Inc	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 30.20 lm/W
MODEL	Bridgelux LED	Imax(cd)	470.8	S/MH(C0/180)	1.88	
NOMINAL POWER(W)	19	LOR(%)	19.6	S/MH(C90/270)	2.24	
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	670.49	h UP,DN(C0-180)	0.3,0.4	
NOMINAL FLUX(lm)	1710	CIE CLASS	DIFFUSE	h UP,DN(C180-360)	8.8,10.0	
LAMPS INSIDE	2	h up(%)	9.2	CIBSE SHR NOM	0.00	
TEST VOLTAGE(V)	120.4	h down(%)	10.4	CIBSE SHR MAX	1.00	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



PLANAR ISOLUX DIAGRAM(UNIT:lx)



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:30DEG  
Operators:LCZ  
Test Date:2016-11-17

g Range: 0 - 180DEG  
g Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.275  
Humidity:65.0%  
Test Distance:6.172m [K=1.0000]  
Remarks:

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
5	3.448	3.350	3.232	3.232	3.304	6.148	7.231	6.107	0- 5	0.0988	0.0988	0.01,0.00
10	3.591	3.417	3.186	3.219	3.468	9.233	11.18	8.798	5- 10	0.3792	0.4780	0.07,0.01
15	3.710	3.480	3.141	3.237	3.780	12.52	15.14	11.41	10- 15	0.7839	1.262	0.19,0.04
20	3.782	3.538	3.492	3.274	4.112	15.99	31.04	13.96	15- 20	1.446	2.708	0.40,0.08
25	3.809	3.824	3.842	3.595	4.432	25.56	46.93	20.46	20- 25	2.619	5.327	0.79,0.16
30	3.881	4.144	4.193	3.962	4.721	34.49	62.83	25.65	25- 30	4.153	9.480	1.41,0.28
35	4.000	4.459	4.538	4.309	4.956	41.17	142.1	28.89	30- 35	6.907	16.39	2.44,0.48
40	4.154	4.746	4.882	4.619	5.137	52.81	221.4	36.89	35- 40	12.64	29.03	4.33,0.85
45	4.285	5.033	5.227	4.879	5.144	99.13	300.7	72.59	40- 45	20.42	49.45	7.37,1.45
50	4.382	5.301	5.680	5.091	4.944	136.9	357.4	98.17	45- 50	29.08	78.53	11.7,2.3
55	4.496	5.540	6.134	5.287	4.684	166.4	414.1	114.2	50- 55	37.60	116.1	17.3,3.4
60	4.595	5.677	6.588	5.384	4.585	206.6	470.8	147.3	55- 60	46.44	162.6	24.2,4.75
65	4.669	5.762	5.812	5.434	4.548	248.4	392.4	178.7	60- 65	52.39	215.0	32.1,6.29
70	4.704	5.363	5.037	5.019	4.515	238.1	314.1	167.6	65- 70	48.97	263.9	39.4,7.72
75	4.684	4.360	4.261	4.036	4.463	168.5	235.7	114.5	70- 75	39.92	303.9	45.3,8.88
80	3.935	3.350	3.486	3.018	3.593	107.2	157.3	70.95	75- 80	28.70	332.6	49.6,9.72
85	1.512	2.327	2.710	1.988	1.480	52.13	78.94	33.99	80- 85	17.32	349.9	52.2,10.2
90	0.3121	1.302	1.934	0.9564	0.4716	0.5246	0.5672	0.4633	85- 90	6.038	355.9	53.1,10.4
95	1.432	2.269	2.507	1.956	1.771	46.28	76.77	30.74	90- 95	5.517	361.4	53.9,10.6
100	3.261	3.233	3.080	2.955	2.910	95.40	153.0	64.21	95-100	15.65	377.1	56.2,11
105	4.260	4.174	3.652	3.936	3.119	151.0	229.2	103.8	100-105	25.78	402.9	60.1,11.8
110	4.181	5.096	4.225	4.880	3.229	214.3	305.4	152.2	105-110	36.10	439.0	65.5,12.8
115	4.112	5.419	4.797	5.214	3.418	212.1	381.6	161.5	110-115	44.40	483.4	72.1,14.1
120	4.047	5.256	5.370	5.089	3.591	176.3	457.8	130.6	115-120	47.52	530.9	79.2,15.5
125	3.948	5.039	5.042	4.920	3.770	136.5	392.7	96.63	120-125	41.63	572.5	85.4,16.7
130	3.854	4.758	4.714	4.714	3.931	109.8	327.6	82.48	125-130	33.00	605.5	90.3,17.7
135	3.755	4.450	4.386	4.473	3.881	78.16	262.5	60.59	130-135	25.02	630.5	94,18.4
140	3.586	4.133	4.032	4.178	3.725	38.51	190.9	29.86	135-140	17.24	647.8	96.6,18.9
145	3.356	3.801	3.678	3.849	3.522	28.90	119.4	22.53	140-145	10.40	658.2	98.2,19.2
150	3.133	3.429	3.324	3.528	3.302	24.18	47.82	19.59	145-150	5.384	663.6	99,19.4
155	2.868	3.043	2.977	3.154	3.050	17.86	35.41	15.29	150-155	3.105	666.7	99.4,19.5
160	2.593	2.648	2.630	2.756	2.836	10.92	23.01	10.05	155-160	1.929	668.6	99.7,19.5
165	2.318	2.373	2.284	2.494	2.581	8.583	10.60	8.049	160-165	1.034	669.6	99.9,19.6
170	2.061	2.127	2.115	2.241	2.282	6.279	7.686	5.980	165-170	0.5378	670.2	100,19.6
175	1.853	1.930	1.947	1.990	2.029	4.035	4.775	3.916	170-175	0.2474	670.4	100,19.6
180	1.779	1.779	1.779	1.779	1.863	1.863	1.863	1.863	175-180	0.0599	670.5	100,19.6
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:30DEG  
Operators:LCZ  
Test Date:2016-11-17

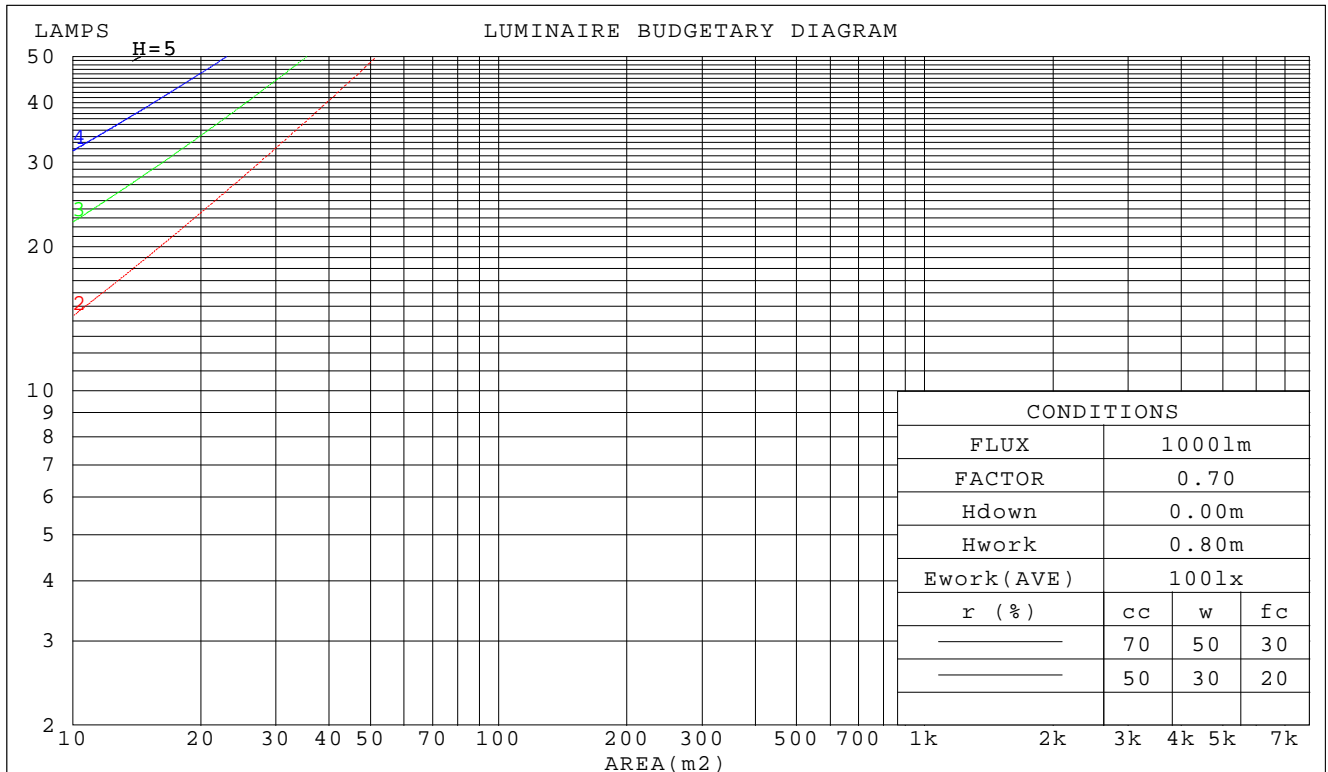
g Range: 0 - 180DEG  
g Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.275  
Humidity:65.0%  
Test Distance:6.172m [K=1.0000]  
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: E41048-BZ	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:161117001
MFR.: Maxim Light International Inc	SUR.:	PROTECTION ANGLE:

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:30DEG  
 Operators:LCZ  
 Test Date:2016-11-17

g Range: 0 - 180DEG  
 g Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.275  
 Humidity:65.0%  
 Test Distance:6.172m [K=1.0000]  
 Remarks:

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## WEC AND CCEC

NAME: E41048-BZ	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:161117001
MFR.: Maxim Light International Inc	SUR.:	PROTECTION ANGLE:

rcc	80%	70%	50%	30%	10%	0
rw	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	0
rfc	20%	20%	20%	20%	20%	0
RCR	RCR:Room Cavity Ratio Wall Exitance Coefficients(WEC)					
0.0						
1.0	.073 .042 .013	.069 .040 .013	.061 .035 .011	.054 .031 .010	.048 .028 .009	
2.0	.066 .036 .011	.062 .034 .011	.055 .031 .010	.049 .027 .009	.042 .024 .008	
3.0	.060 .032 .009	.056 .030 .009	.049 .027 .008	.043 .024 .007	.038 .021 .006	
4.0	.054 .028 .008	.051 .026 .008	.044 .024 .007	.039 .021 .006	.034 .018 .006	
5.0	.049 .025 .007	.046 .024 .007	.040 .021 .006	.035 .018 .005	.030 .016 .005	
6.0	.045 .022 .006	.042 .021 .006	.037 .019 .005	.032 .017 .005	.027 .014 .004	
7.0	.041 .020 .006	.038 .019 .005	.034 .017 .005	.029 .015 .004	.025 .013 .004	
8.0	.038 .018 .005	.035 .017 .005	.031 .016 .004	.027 .014 .004	.023 .012 .003	
9.0	.035 .017 .005	.033 .016 .005	.029 .014 .004	.025 .012 .004	.021 .011 .003	
10.0	.033 .016 .004	.031 .015 .004	.027 .013 .004	.023 .012 .003	.020 .010 .003	

rcc	80%	70%	50%	30%	10%	0
rw	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	0
rfc	20%	20%	20%	20%	20%	0
RCR	RCR:Room Cavity Ratio Ceiling Cavity Exitance Coefficients(CCEC)					
0.0	.107 .107 .107	.092 .092 .092	.063 .063 .063	.036 .036 .036	.012 .012 .012	
1.0	.107 .101 .096	.091 .087 .083	.063 .060 .057	.036 .035 .033	.012 .011 .011	
2.0	.106 .097 .089	.091 .083 .077	.062 .058 .054	.036 .034 .032	.012 .011 .010	
3.0	.105 .094 .085	.090 .081 .074	.062 .056 .052	.036 .033 .031	.011 .011 .010	
4.0	.104 .092 .083	.089 .079 .072	.061 .055 .050	.035 .032 .030	.011 .011 .010	
5.0	.102 .090 .081	.088 .078 .070	.061 .054 .050	.035 .032 .029	.011 .010 .010	
6.0	.101 .089 .080	.087 .077 .069	.060 .054 .049	.035 .032 .029	.011 .010 .010	
7.0	.100 .087 .079	.086 .076 .069	.059 .053 .049	.034 .031 .029	.011 .010 .010	
8.0	.098 .086 .078	.085 .075 .068	.059 .053 .048	.034 .031 .029	.011 .010 .010	
9.0	.097 .086 .078	.084 .074 .068	.058 .052 .048	.034 .031 .029	.011 .010 .009	
10.0	.096 .085 .077	.083 .074 .067	.057 .052 .048	.034 .031 .029	.011 .010 .009	

C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:30DEG  
 Operators:LCZ  
 Test Date:2016-11-17

g Range: 0 - 180DEG  
 g Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.275  
 Humidity:65.0%  
 Test Distance:6.172m [K=1.0000]  
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

Uncorrected UGR Table

NAME: E41048-BZ					TYPE:					WEIGHT:				
DIM.:					SPEC.:					SERIAL No.:161117001				
MFR.: Maxim Light International Inc					SUR.:					PROTECTION 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	-2.6	-1.4	-1.8	-0.6	0.6	-1.6	-0.4	-0.7	0.5	1.6				
3H	0.6	1.7	1.5	2.6	3.7	1.0	2.1	1.9	3.0	4.1				
4H	2.4	3.4	3.3	4.3	5.5	2.2	3.2	3.1	4.1	5.3				
6H	4.1	5.0	4.9	5.9	7.1	3.4	4.3	4.3	5.3	6.4				
8H	4.6	5.5	5.5	6.4	7.6	4.0	4.9	4.9	5.8	7.0				
12H	5.0	5.8	5.9	6.8	8.0	4.6	5.5	5.5	6.4	7.6				
4H 2H	-1.4	-0.4	-0.6	0.5	1.6	-0.7	0.2	0.1	1.2	2.3				
3H	1.8	2.7	2.7	3.6	4.8	2.0	2.8	2.9	3.7	4.9				
4H	3.6	4.4	4.6	5.4	6.6	3.3	4.0	4.2	5.0	6.2				
6H	5.4	6.0	6.3	7.0	8.2	4.6	5.3	5.5	6.2	7.5				
8H	6.0	6.6	6.9	7.6	8.8	5.3	5.9	6.2	6.9	8.1				
12H	6.5	7.0	7.4	8.0	9.3	6.0	6.6	6.9	7.5	8.8				
8H 4H	4.1	4.7	5.0	5.7	6.9	3.7	4.4	4.7	5.3	6.6				
6H	5.9	6.5	6.9	7.5	8.7	5.3	5.8	6.2	6.8	8.1				
8H	6.7	7.2	7.7	8.2	9.5	6.1	6.6	7.1	7.5	8.8				
12H	7.3	7.7	8.3	8.8	10.1	7.0	7.4	8.0	8.4	9.7				
12H 4H	4.1	4.7	5.1	5.7	6.9	3.8	4.4	4.8	5.4	6.7				
6H	6.0	6.5	7.0	7.5	8.8	5.4	5.9	6.4	6.9	8.2				
8H	6.9	7.3	7.9	8.3	9.6	6.3	6.7	7.3	7.7	9.0				
Variations with the observer position at spacings:														
S = 1.0H	+ 0.2 / - 0.2					+ 0.1 / - 0.2								
1.5H	+ 0.2 / - 0.4					+ 0.2 / - 0.3								
2.0H	+ 0.2 / - 0.6					+ 0.4 / - 0.5								

CIE Pub.117 Corrected 3420 lm Total Lamp Luminous Flux.(8log(F/F0) = 4.3)

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:30DEG  
Operators:LCZ  
Test Date:2016-11-17

g Range: 0 - 180DEG  
g Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.275  
Humidity:65.0%  
Test Distance:6.172m [K=1.0000]  
Remarks:

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## UTILIZATION FACTORS TABLE

NAME: E41048-BZ	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:161117001
MFR.: Maxim Light International Inc	SUR.:	PROTECTION ANGLE:

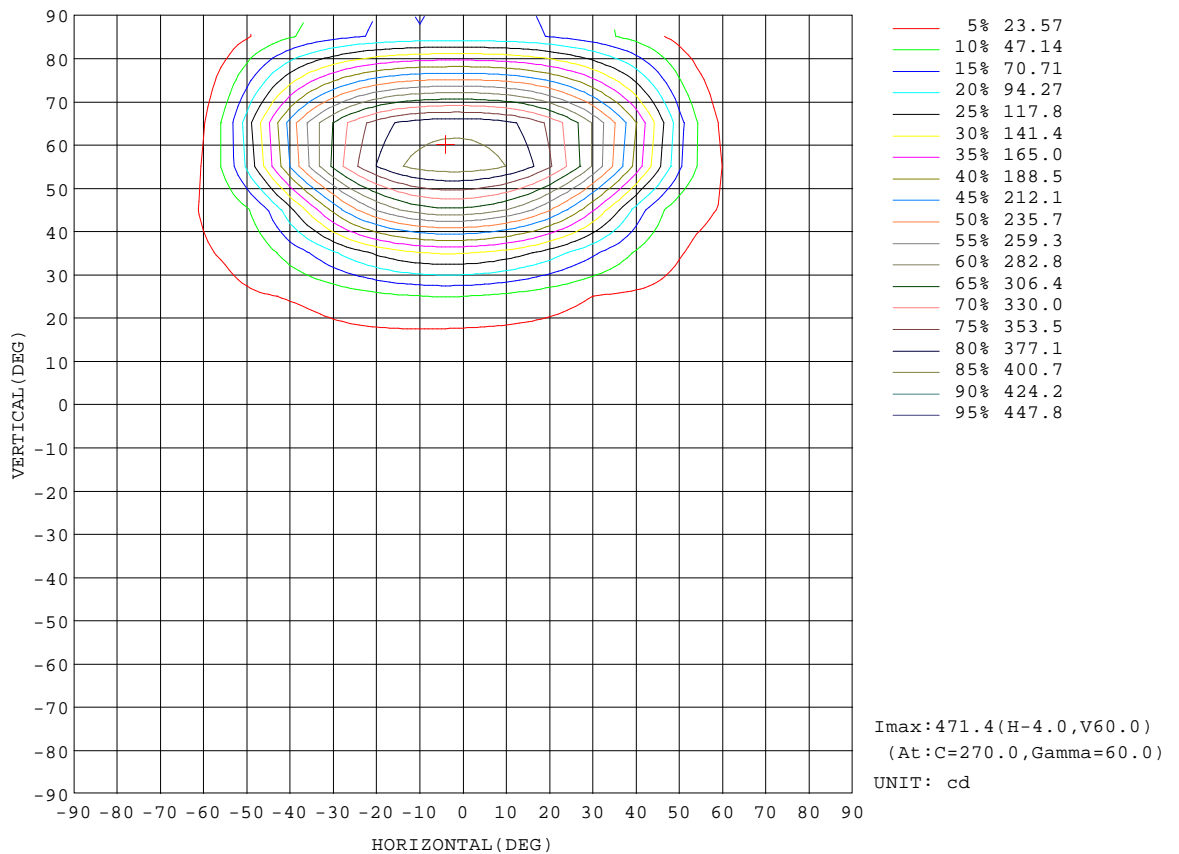
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT)    k(RI) x RCR = 5									
k = 0.60	6	4	2	6	4	2	5	3	2	0
0.80	8	5	4	8	5	3	7	4	3	1
1.00	10	7	5	9	7	5	8	6	4	2
1.25	11	9	7	11	8	6	9	7	5	3
1.50	13	10	8	12	9	7	10	8	7	3
2.00	14	12	10	13	11	9	11	10	8	5
2.50	15	13	11	14	12	11	12	11	9	5
3.00	16	14	13	15	13	12	13	11	10	6
4.00	17	16	14	16	15	13	14	13	12	7
5.00	18	17	16	17	16	14	14	13	12	8
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004										
Suspended										
SHRNOM = 1.25										

C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:30DEG  
 Operators:LCZ  
 Test Date:2016-11-17

g Range: 0 - 180DEG  
 g Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.275  
 Humidity:65.0%  
 Test Distance:6.172m [K=1.0000]  
 Remarks:

## ISOCANDELA DIAGRAM

NAME: E41048-BZ	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:161117001
MFR.: Maxim Light International Inc	SUR.:	PROTECTION ANGLE:



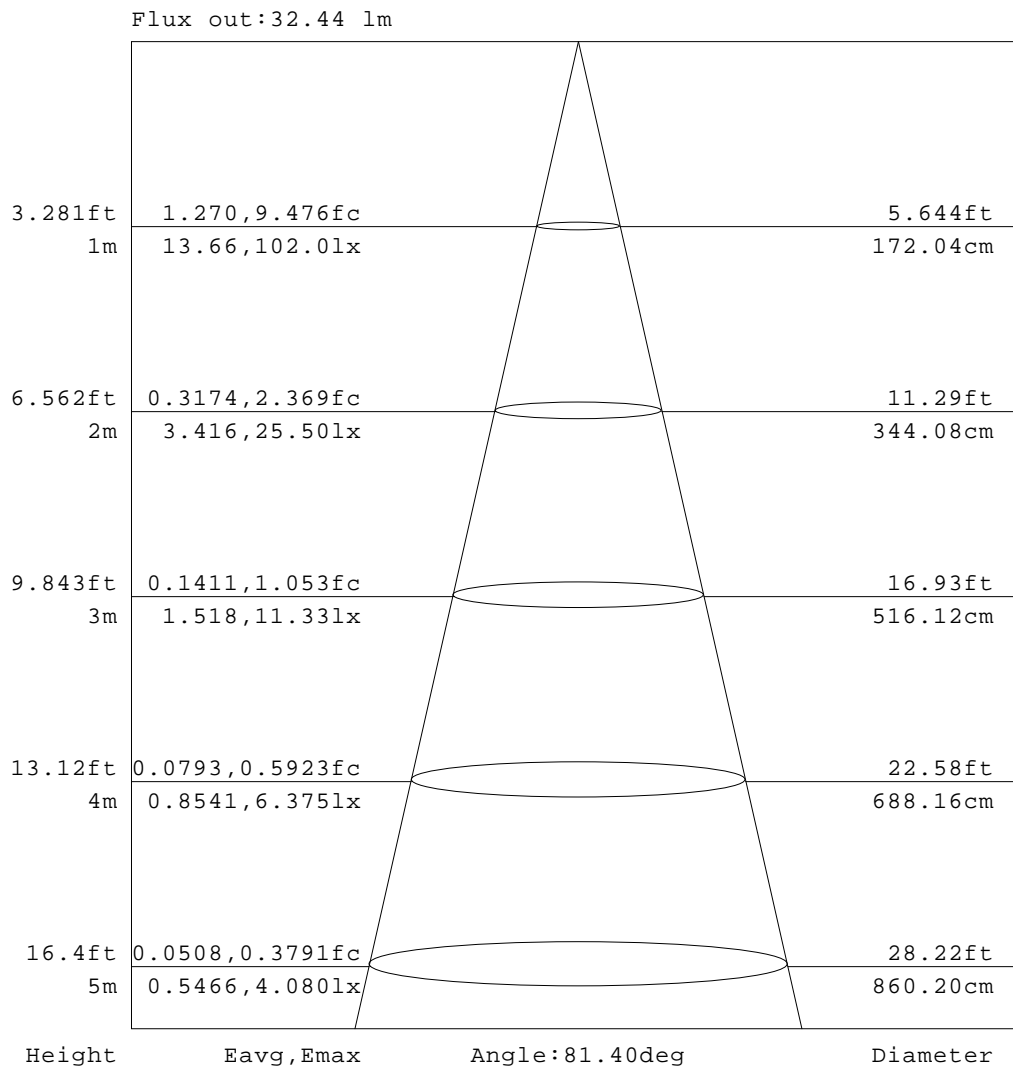
C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:30DEG  
Operators:LCZ  
Test Date:2016-11-17

g Range: 0 - 180DEG  
g Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.275  
Humidity:65.0%  
Test Distance:6.172m [K=1.0000]  
Remarks:

# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## AAI Figure

NAME: E41048-BZ	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:161117001
MFR.: Maxim Light International Inc	SUR.:	PROTECTION 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: 5.0DEG  
Test Speed: HIGH  
Temperature:30DEG  
Operators:LCZ  
Test Date:2016-11-17

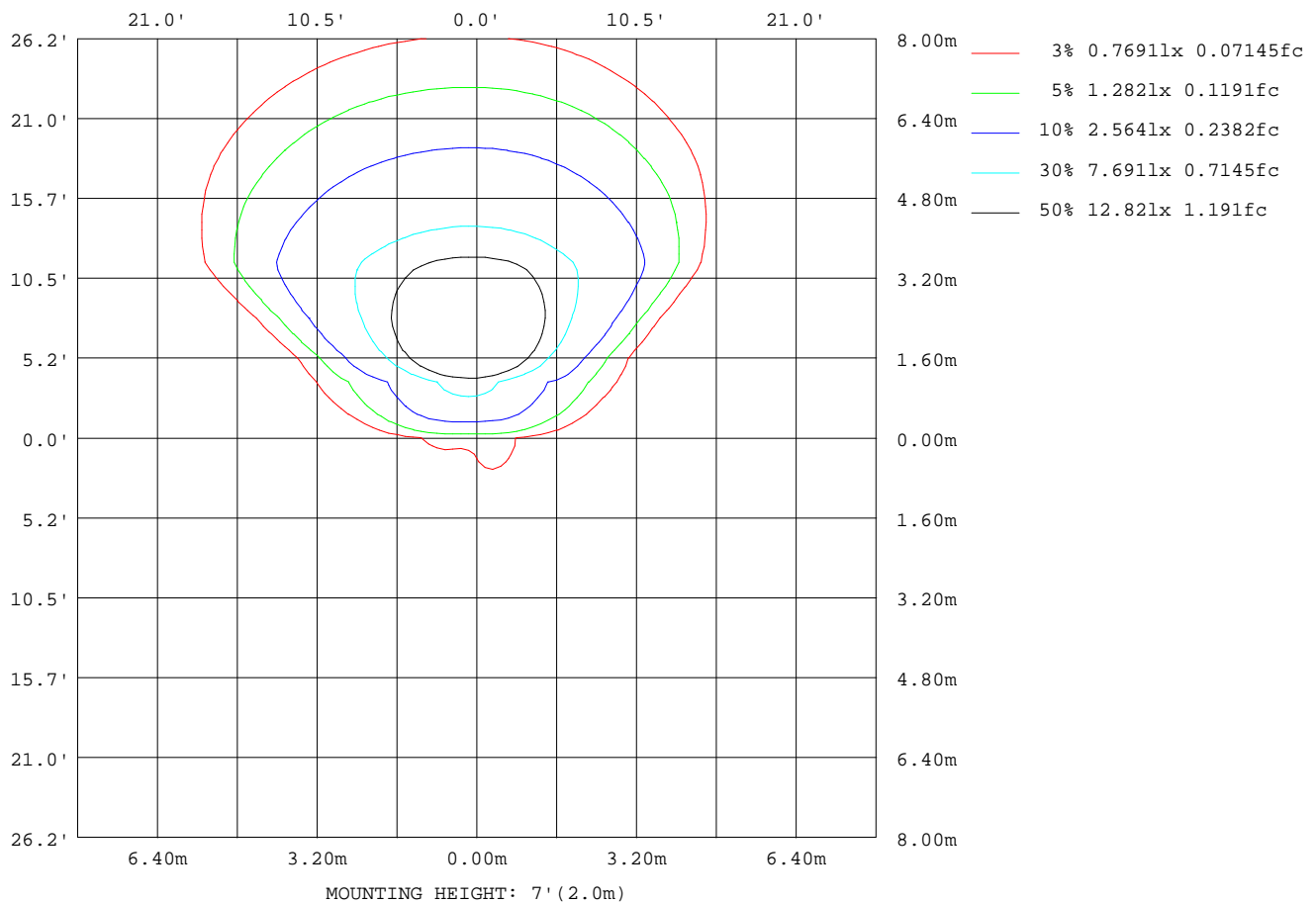
g Range: 0 - 180DEG  
g Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.275  
Humidity:65.0%  
Test Distance:6.172m [K=1.0000]  
Remarks:



# EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## ISOLUX DIAGRAM

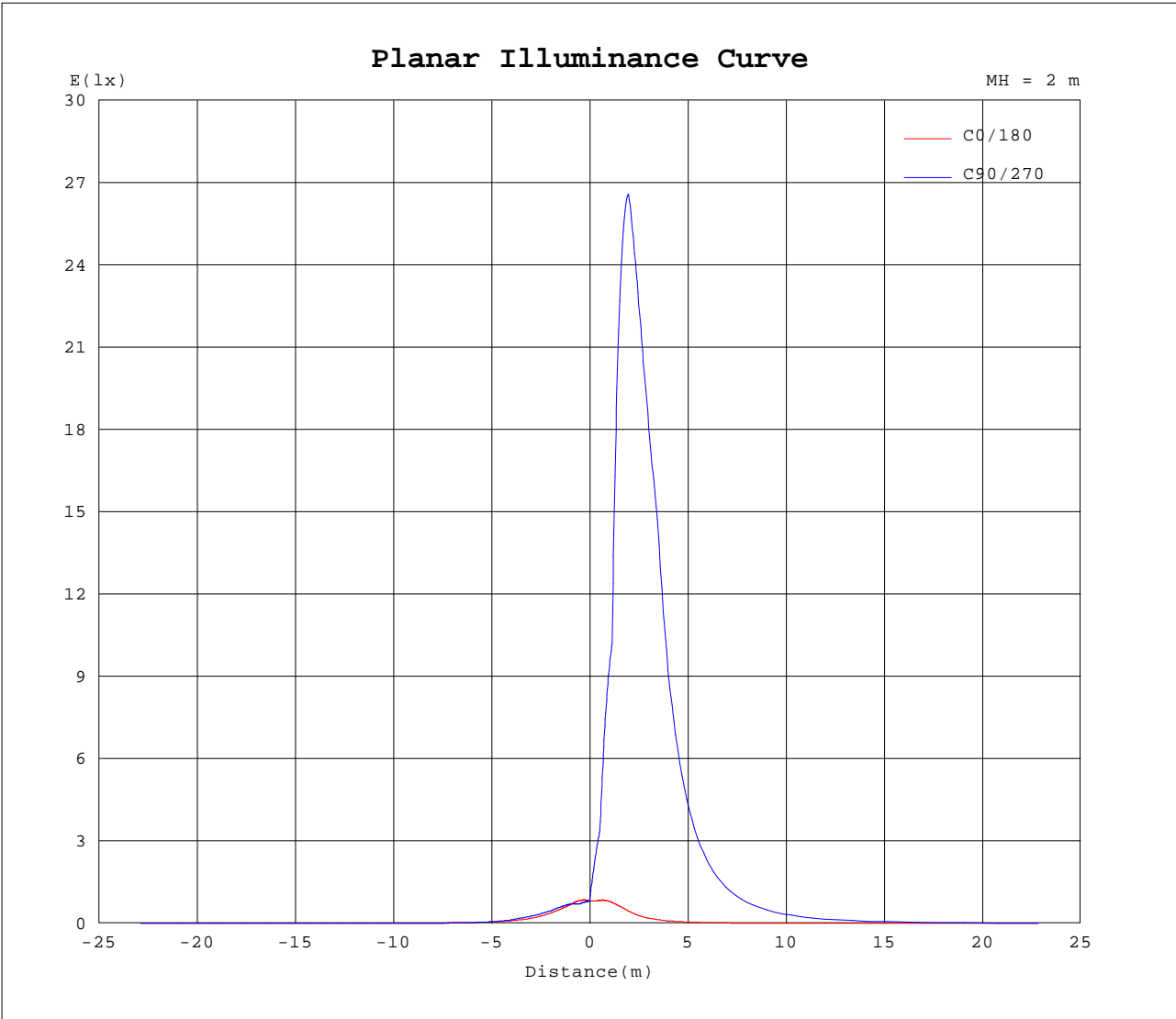
NAME: E41048-BZ	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:161117001
MFR.: Maxim Light International Inc	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature: 30DEG  
 Operators: LCZ  
 Test Date: 2016-11-17

g Range: 0 - 180DEG  
 g Interval: 0.5DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.275  
 Humidity: 65.0%  
 Test Distance: 6.172m [K=1.0000]  
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:30DEG  
Operators:LCZ  
Test Date:2016-11-17

g Range: 0 - 180DEG  
g Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.275  
Humidity:65.0%  
Test Distance:6.172m [K=1.0000]  
Remarks:

## EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: E41048-BZ	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:161117001
MFR.: Maxim Light International Inc	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C(DEG) g (DEG)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
0	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28
5	3.45	3.44	3.43	3.42	3.41	3.40	3.39	3.38	3.36	3.35	3.34	3.32	3.31	3.29	3.28	3.26	3.25	3.24	3.23
10	3.59	3.58	3.57	3.55	3.53	3.51	3.49	3.47	3.44	3.42	3.39	3.36	3.34	3.31	3.28	3.25	3.23	3.20	3.19
15	3.71	3.70	3.68	3.66	3.64	3.61	3.58	3.55	3.52	3.48	3.44	3.40	3.35	3.31	3.27	3.23	3.20	3.16	3.14
20	3.78	3.78	3.77	3.75	3.73	3.70	3.67	3.63	3.59	3.54	3.53	3.55	3.56	3.57	3.57	3.56	3.54	3.52	3.49
25	3.81	3.83	3.84	3.85	3.85	3.83	3.80	3.75	3.79	3.82	3.85	3.88	3.90	3.91	3.92	3.92	3.90	3.88	3.84
30	3.88	3.93	3.97	3.99	4.01	4.00	4.01	4.07	4.11	4.14	4.17	4.19	4.21	4.24	4.25	4.26	4.25	4.23	4.19
35	4.00	4.09	4.16	4.21	4.24	4.28	4.33	4.38	4.41	4.46	4.48	4.50	4.52	4.54	4.58	4.60	4.61	4.58	4.54
40	4.15	4.28	4.39	4.47	4.53	4.59	4.65	4.68	4.71	4.75	4.78	4.81	4.82	4.84	4.88	4.92	4.96	4.93	4.88
45	4.28	4.47	4.64	4.76	4.82	4.88	4.93	4.99	5.01	5.03	5.06	5.10	5.12	5.13	5.18	5.24	5.30	5.28	5.23
50	4.38	4.65	4.89	5.05	5.10	5.14	5.18	5.22	5.27	5.30	5.34	5.37	5.42	5.44	5.51	5.65	5.78	5.78	5.68
55	4.50	4.81	5.11	5.25	5.34	5.38	5.37	5.40	5.46	5.54	5.58	5.65	5.72	5.77	5.85	6.05	6.27	6.29	6.13
60	4.59	4.98	5.27	5.36	5.46	5.48	5.49	5.53	5.58	5.68	5.78	5.89	6.02	6.10	6.18	6.43	6.75	6.80	6.59
65	4.67	5.13	5.36	5.44	5.42	5.46	5.51	5.54	5.61	5.76	5.93	6.02	5.94	5.83	5.74	5.82	6.02	6.02	5.81
70	4.70	5.33	5.42	5.35	5.33	5.35	5.42	5.48	5.53	5.36	5.26	5.16	5.11	5.04	4.97	5.02	5.19	5.20	5.04
75	4.68	5.42	5.27	5.08	5.03	5.14	5.05	4.71	4.48	4.36	4.32	4.29	4.27	4.24	4.20	4.23	4.37	4.39	4.26
80	3.94	4.42	4.21	4.03	4.20	3.93	3.71	3.52	3.39	3.35	3.37	3.40	3.42	3.43	3.42	3.45	3.55	3.57	3.49
85	1.51	2.31	2.40	2.24	2.30	2.30	2.29	2.27	2.27	2.33	2.42	2.51	2.57	2.61	2.64	2.67	2.74	2.75	2.71
90	0.31	0.35	0.45	0.38	0.48	0.63	0.84	1.00	1.14	1.30	1.46	1.62	1.72	1.80	1.86	1.90	1.93	1.93	1.93
95	1.43	1.68	1.78	1.95	2.08	2.19	2.24	2.22	2.22	2.27	2.35	2.43	2.46	2.48	2.50	2.50	2.51	2.51	2.51
100	3.26	3.44	3.65	3.69	3.77	3.78	3.61	3.41	3.28	3.23	3.24	3.23	3.20	3.16	3.14	3.10	3.08	3.08	3.08
105	4.26	4.49	4.60	4.79	4.70	4.95	4.90	4.56	4.30	4.17	4.11	4.03	3.92	3.84	3.77	3.70	3.66	3.65	3.65
110	4.18	4.40	4.56	4.71	4.90	5.04	5.15	5.24	5.30	5.10	4.96	4.80	4.63	4.51	4.39	4.29	4.24	4.22	4.22
115	4.11	4.27	4.43	4.59	4.78	4.98	5.12	5.17	5.27	5.42	5.53	5.53	5.31	5.16	5.00	4.87	4.82	4.79	4.80
120	4.05	4.18	4.30	4.47	4.64	4.82	4.95	5.06	5.15	5.26	5.31	5.33	5.34	5.35	5.33	5.31	5.33	5.35	5.37
125	3.95	4.07	4.19	4.34	4.49	4.61	4.72	4.84	4.96	5.04	5.06	5.06	5.06	5.07	5.04	5.02	5.02	5.03	5.04
130	3.85	3.97	4.08	4.19	4.30	4.39	4.49	4.60	4.70	4.76	4.77	4.77	4.78	4.77	4.76	4.73	4.72	4.71	4.71
135	3.75	3.84	3.92	3.97	4.06	4.16	4.26	4.35	4.42	4.45	4.46	4.47	4.47	4.46	4.44	4.42	4.40	4.39	4.39
140	3.59	3.66	3.71	3.76	3.82	3.92	4.01	4.08	4.11	4.13	4.14	4.15	4.13	4.11	4.08	4.06	4.04	4.02	4.03
145	3.36	3.43	3.50	3.55	3.60	3.66	3.72	3.76	3.78	3.80	3.80	3.79	3.77	3.74	3.71	3.69	3.67	3.66	3.68
150	3.13	3.20	3.26	3.31	3.34	3.35	3.36	3.39	3.42	3.43	3.43	3.42	3.39	3.37	3.34	3.32	3.30	3.30	3.32
155	2.87	2.92	2.97	3.00	3.02	3.03	3.02	3.01	3.03	3.04	3.04	3.03	3.01	2.99	2.97	2.96	2.95	2.96	2.98
160	2.59	2.64	2.67	2.70	2.72	2.72	2.72	2.70	2.68	2.65	2.63	2.63	2.62	2.61	2.60	2.60	2.61	2.62	2.63
165	2.32	2.35	2.38	2.40	2.41	2.41	2.41	2.41	2.39	2.37	2.35	2.33	2.31	2.29	2.28	2.27	2.27	2.28	2.28
170	2.06	2.08	2.10	2.11	2.12	2.13	2.13	2.13	2.13	2.13	2.12	2.12	2.11	2.11	2.11	2.11	2.11	2.11	2.12
175	1.85	1.87	1.88	1.89	1.90	1.91	1.91	1.92	1.93	1.93	1.93	1.94	1.94	1.94	1.94	1.94	1.94	1.95	1.95
180	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:30DEG  
Operators:LCZ  
Test Date:2016-11-17

g Range: 0 - 180DEG  
g Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.275  
Humidity:65.0%  
Test Distance:6.172m [K=1.0000]  
Remarks:

## EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: E41048-BZ	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:161117001
MFR.: Maxim Light International Inc	SUR.:	PROTECTION ANGLE:

Table--2

UNIT: cd

C(DEG) g (DEG)	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185
0	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28
5	3.23	3.22	3.22	3.22	3.22	3.22	3.22	3.23	3.23	3.24	3.24	3.25	3.26	3.27	3.28	3.29	3.30	3.30	3.66
10	3.17	3.16	3.16	3.15	3.16	3.17	3.18	3.20	3.22	3.25	3.27	3.30	3.33	3.36	3.39	3.42	3.45	3.47	4.20
15	3.12	3.10	3.08	3.08	3.08	3.11	3.14	3.18	3.24	3.30	3.37	3.43	3.49	3.56	3.62	3.68	3.73	3.78	4.92
20	3.46	3.42	3.38	3.34	3.31	3.28	3.27	3.25	3.27	3.36	3.46	3.56	3.66	3.76	3.86	3.95	4.03	4.11	5.66
25	3.80	3.76	3.72	3.69	3.67	3.66	3.65	3.62	3.60	3.56	3.52	3.65	3.78	3.92	4.06	4.19	4.32	4.43	6.39
30	4.15	4.10	4.06	4.04	4.04	4.03	4.02	3.99	3.96	3.92	3.87	3.81	3.87	4.05	4.22	4.40	4.56	4.72	7.08
35	4.49	4.44	4.40	4.39	4.39	4.38	4.37	4.35	4.31	4.26	4.20	4.14	4.06	4.12	4.33	4.55	4.76	4.96	7.72
40	4.82	4.77	4.73	4.72	4.71	4.71	4.69	4.66	4.62	4.57	4.49	4.41	4.33	4.24	4.41	4.66	4.90	5.14	8.27
45	5.15	5.10	5.06	5.03	5.03	5.02	4.98	4.92	4.88	4.81	4.74	4.65	4.58	4.51	4.50	4.74	4.95	5.14	8.60
50	5.56	5.46	5.40	5.36	5.34	5.30	5.22	5.16	5.09	5.01	4.93	4.86	4.80	4.76	4.71	4.76	4.86	4.94	8.77
55	5.96	5.83	5.74	5.67	5.61	5.53	5.42	5.36	5.29	5.18	5.08	5.01	4.99	4.94	4.84	4.75	4.72	4.68	8.84
60	6.36	6.19	6.07	5.97	5.86	5.73	5.60	5.50	5.38	5.27	5.17	5.09	5.07	5.03	4.93	4.80	4.70	4.58	8.20
65	5.63	5.54	5.51	5.54	5.56	5.61	5.69	5.62	5.43	5.28	5.18	5.14	5.10	5.03	4.99	4.87	4.72	4.55	6.45
70	4.89	4.81	4.78	4.78	4.78	4.80	4.85	4.93	5.02	5.21	5.17	5.07	4.98	4.88	4.85	4.83	4.76	4.52	5.36
75	4.14	4.08	4.04	4.02	4.00	3.98	3.99	4.00	4.04	4.16	4.40	4.64	4.70	4.56	4.50	4.55	4.66	4.46	5.11
80	3.40	3.35	3.31	3.27	3.21	3.15	3.11	3.04	3.02	3.07	3.17	3.31	3.52	3.73	3.57	3.63	3.62	3.59	4.20
85	2.66	2.62	2.57	2.51	2.43	2.32	2.22	2.09	1.99	1.94	1.92	1.92	2.01	2.00	1.94	1.80	1.56	1.48	2.13
90	1.92	1.89	1.84	1.75	1.64	1.50	1.34	1.14	0.96	0.80	0.65	0.52	0.44	0.41	0.41	0.43	0.34	0.47	0.58
95	2.51	2.51	2.49	2.44	2.37	2.29	2.19	2.05	1.96	1.91	1.91	1.99	2.17	2.23	2.27	2.23	2.08	1.77	1.81
100	3.09	3.12	3.14	3.14	3.11	3.08	3.05	2.97	2.96	3.01	3.15	3.40	3.80	4.12	4.03	4.02	3.72	2.91	3.21
105	3.68	3.73	3.79	3.83	3.83	3.87	3.90	3.88	3.94	4.08	4.34	4.72	4.91	4.77	4.67	4.54	4.26	3.12	3.11
110	4.26	4.34	4.43	4.51	4.56	4.64	4.74	4.79	4.88	5.09	5.03	4.93	4.84	4.72	4.55	4.36	4.05	3.23	3.46
115	4.84	4.94	5.06	5.18	5.27	5.39	5.55	5.43	5.21	5.06	4.94	4.85	4.74	4.59	4.42	4.22	3.96	3.42	4.51
120	5.40	5.47	5.52	5.54	5.51	5.44	5.36	5.25	5.09	4.94	4.82	4.71	4.59	4.47	4.31	4.15	3.93	3.59	5.86
125	5.08	5.14	5.20	5.23	5.22	5.17	5.10	5.03	4.92	4.79	4.66	4.54	4.43	4.32	4.19	4.06	3.92	3.77	6.54
130	4.75	4.82	4.87	4.90	4.91	4.88	4.84	4.78	4.71	4.61	4.49	4.37	4.25	4.14	4.03	3.96	3.89	3.93	6.66
135	4.42	4.48	4.54	4.57	4.59	4.59	4.55	4.51	4.47	4.41	4.31	4.18	4.06	3.94	3.84	3.82	3.80	3.88	6.35
140	4.07	4.12	4.17	4.22	4.25	4.28	4.26	4.22	4.18	4.13	4.06	3.96	3.83	3.71	3.67	3.66	3.65	3.73	5.92
145	3.71	3.75	3.80	3.84	3.88	3.93	3.95	3.91	3.85	3.80	3.72	3.66	3.57	3.51	3.51	3.49	3.46	3.52	5.43
150	3.35	3.38	3.42	3.46	3.50	3.54	3.56	3.56	3.53	3.46	3.40	3.33	3.30	3.30	3.29	3.28	3.25	3.30	4.91
155	3.00	3.02	3.05	3.08	3.11	3.13	3.15	3.18	3.15	3.12	3.07	3.08	3.08	3.07	3.06	3.04	3.02	3.05	4.37
160	2.65	2.66	2.68	2.70	2.72	2.73	2.74	2.74	2.76	2.81	2.84	2.85	2.85	2.85	2.84	2.82	2.80	2.84	3.88
165	2.30	2.31	2.34	2.36	2.39	2.42	2.44	2.47	2.49	2.52	2.53	2.55	2.56	2.56	2.56	2.55	2.53	2.58	3.35
170	2.13	2.14	2.15	2.17	2.18	2.20	2.21	2.23	2.24	2.25	2.26	2.26	2.26	2.26	2.25	2.24	2.23	2.28	2.79
175	1.95	1.96	1.96	1.97	1.97	1.98	1.98	1.98	1.99	1.99	1.99	1.99	1.99	1.99	1.98	1.97	1.96	2.03	2.28
180	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.86	1.86

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:30DEG  
Operators:LCZ  
Test Date:2016-11-17

g Range: 0 - 180DEG  
g Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.275  
Humidity:65.0%  
Test Distance:6.172m [K=1.0000]  
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: E41048-BZ	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:161117001
MFR.: Maxim Light International Inc	SUR.:	PROTECTION ANGLE:

Table--3

UNIT: cd

C(DEG) g (DEG)	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280
0	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28
5	4.01	4.36	4.70	5.02	5.33	5.62	5.89	6.15	6.38	6.58	6.76	6.91	7.03	7.12	7.19	7.22	7.23	7.21	7.17
10	4.93	5.64	6.33	6.99	7.61	8.20	8.74	9.23	9.68	10.1	10.4	10.7	10.9	11.1	11.2	11.2	11.2	11.1	11.0
15	6.03	7.12	8.17	9.18	10.1	11.0	11.8	12.5	13.2	13.7	14.2	14.6	14.9	15.1	15.2	15.2	15.1	15.0	14.8
20	7.18	8.66	10.1	11.5	12.7	13.9	15.0	16.0	18.1	21.1	23.9	26.3	28.2	29.7	30.7	31.1	31.0	30.4	29.3
25	8.32	10.2	12.0	13.8	15.4	16.9	21.2	25.6	29.8	33.8	37.5	40.8	43.5	45.5	46.8	47.3	46.9	45.8	43.9
30	9.41	11.7	13.9	16.0	19.2	24.1	29.2	34.5	39.9	45.2	50.2	54.7	58.4	61.2	62.9	63.4	62.8	61.0	58.1
35	10.5	13.1	15.7	19.1	23.7	29.0	34.8	41.2	48.0	55.0	76.5	97.3	115	128	137	142	142	138	130
40	11.4	14.5	17.7	21.7	26.3	31.8	38.2	52.8	84.3	115	143	168	189	205	216	221	221	216	205
45	12.1	15.5	19.4	23.3	27.7	33.2	63.5	99.1	136	173	207	238	263	282	295	301	301	294	281
50	12.6	16.6	20.9	25.2	33.1	60.2	95.3	137	182	227	267	299	324	342	353	358	357	351	339
55	13.1	17.7	22.4	28.9	47.2	76.8	117	166	224	275	317	352	379	397	409	414	414	408	396
60	12.8	18.6	24.0	32.6	49.6	80.7	142	207	268	323	370	407	435	453	465	470	471	466	454
65	11.4	19.2	24.5	31.2	54.4	106	176	248	315	366	382	391	396	397	396	394	392	390	387
70	8.30	14.9	24.2	34.3	66.6	127	199	238	267	287	302	311	316	317	317	315	314	312	309
75	6.10	8.95	14.5	28.5	59.5	96.3	134	168	194	211	224	232	236	238	238	237	236	234	232
80	4.75	5.36	7.00	13.2	31.3	55.2	82.3	107	126	139	148	154	158	159	159	158	157	156	154
85	2.66	2.96	3.34	5.48	13.5	25.2	39.1	52.1	62.2	69.1	74.0	77.1	78.9	79.6	79.6	79.3	78.9	78.4	77.4
90	0.69	0.74	0.74	0.72	0.71	0.66	0.58	0.52	0.45	0.47	0.50	0.48	0.48	0.53	0.58	0.59	0.57	0.52	0.49
95	2.23	2.62	2.99	5.65	10.4	21.8	34.4	46.3	53.0	63.0	36.6	71.7	74.6	76.2	73.1	77.3	76.8	75.8	74.0
100	3.65	3.88	6.47	13.2	22.0	47.8	72.2	95.4	94.3	127	70.7	144	149	152	146	154	153	151	148
105	3.59	6.70	13.5	26.6	36.0	84.0	118	151	157	192	102	217	224	227	221	231	229	226	221
110	6.20	12.1	18.9	26.2	56.7	111	175	214	238	256	140	291	300	303	299	307	305	302	296
115	7.10	14.1	17.8	25.2	45.3	90.8	150	212	272	266	265	367	376	372	380	384	382	377	370
120	8.75	13.3	18.7	26.0	40.0	56.3	118	176	236	182	337	379	412	410	447	458	458	450	435
125	9.51	13.4	17.3	22.6	34.2	59.0	94.8	137	182	184	283	320	350	306	385	393	393	386	371
130	9.38	12.4	15.8	19.2	25.3	47.6	76.5	110	149	190	229	262	289	271	322	328	328	321	308
135	8.79	11.2	14.2	17.2	20.3	24.0	48.6	78.2	110	144	175	203	226	245	257	263	262	256	244
140	8.08	10.2	12.5	15.4	18.7	22.5	27.0	38.5	65.6	92.4	118	141	160	176	186	191	191	186	177
145	7.31	9.14	10.9	13.3	16.5	20.2	24.3	28.9	33.9	39.2	58.4	77.2	93.1	106	114	119	119	116	109
150	6.49	8.03	9.52	10.9	13.2	16.6	20.3	24.2	28.3	32.4	36.3	39.9	43.1	45.5	47.2	48.0	47.8	46.6	44.6
155	5.68	6.94	8.17	9.33	10.4	11.5	14.6	17.9	21.1	24.2	27.1	29.7	32.0	33.7	34.9	35.5	35.4	34.7	33.3
160	4.90	5.90	6.87	7.80	8.67	9.49	10.2	10.9	12.5	14.8	17.0	18.9	20.4	21.7	22.5	23.0	23.0	22.6	21.8
165	4.12	4.86	5.57	6.25	6.90	7.51	8.07	8.58	9.04	9.44	9.78	10.1	10.3	10.5	10.6	10.6	10.6	10.5	10.4
170	3.30	3.79	4.27	4.72	5.15	5.56	5.94	6.28	6.59	6.86	7.10	7.30	7.46	7.57	7.65	7.69	7.69	7.64	7.56
175	2.53	2.78	3.02	3.25	3.46	3.67	3.86	4.03	4.19	4.33	4.46	4.56	4.64	4.71	4.75	4.77	4.77	4.76	4.72
180	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:30DEG  
Operators:LCZ  
Test Date:2016-11-17

g Range: 0 - 180DEG  
g Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.275  
Humidity:65.0%  
Test Distance:6.172m [K=1.0000]  
Remarks:

## EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

## LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: E41048-BZ	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:161117001
MFR.: Maxim Light International Inc	SUR.:	PROTECTION ANGLE:

Table--4

UNIT: cd

C(DEG) g (DEG)	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355				
0	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28				
5	7.09	6.99	6.86	6.71	6.53	6.33	6.11	5.86	5.60	5.33	5.04	4.74	4.42	4.10	3.78				
10	10.8	10.6	10.3	10.0	9.65	9.24	8.80	8.32	7.80	7.26	6.69	6.10	5.49	4.87	4.23				
15	14.5	14.1	13.7	13.2	12.7	12.1	11.4	10.7	9.94	9.13	8.29	7.42	6.51	5.59	4.66				
20	27.7	25.7	23.5	21.1	18.5	15.8	14.0	13.0	12.0	10.9	9.82	8.67	7.48	6.26	5.03				
25	41.3	38.3	34.9	31.3	27.6	24.0	20.5	17.1	14.0	12.7	11.3	9.86	8.38	6.87	5.35				
30	54.2	49.7	44.8	39.8	34.8	30.1	25.6	21.7	18.1	15.0	12.7	11.0	9.27	7.49	5.69				
35	117	101	82.2	61.0	40.1	34.2	28.9	24.4	20.6	17.4	14.5	12.1	10.1	8.09	6.05				
40	190	170	146	119	91.3	63.5	36.9	26.2	22.6	19.5	16.5	13.4	10.9	8.63	6.39				
45	262	237	207	173	139	105	72.6	45.5	25.0	21.7	18.3	14.8	11.4	9.01	6.64				
50	321	295	262	223	180	137	98.2	65.7	41.3	25.4	19.9	16.0	12.2	9.17	6.72				
55	377	350	314	271	223	169	114	73.8	47.4	30.9	21.7	17.0	12.6	8.48	6.35				
60	435	405	366	320	266	208	147	90.3	46.4	29.9	22.4	18.0	12.9	7.82	5.73				
65	380	369	352	331	304	248	179	114	62.0	32.4	23.4	17.9	11.6	7.21	5.37				
70	303	293	278	259	235	206	168	125	69.5	37.0	22.9	16.0	9.15	6.29	5.29				
75	227	218	206	191	171	147	114	79.8	49.9	29.5	16.8	10.7	7.54	5.84	5.32				
80	151	145	137	125	111	93.8	71.0	46.8	28.3	15.7	9.86	7.31	6.03	4.98	4.55				
85	75.6	72.5	68.1	62.3	55.1	45.8	34.0	21.8	12.9	7.05	4.59	3.66	3.29	2.74	2.38				
90	0.43	0.40	0.39	0.40	0.43	0.43	0.46	0.47	0.51	0.51	0.51	0.50	0.51	0.50	0.51				
95	71.4	67.8	63.2	57.6	50.6	41.6	30.7	19.9	12.1	6.42	3.67	2.91	2.61	1.90	1.58				
100	143	136	127	116	102	85.1	64.2	42.2	26.7	14.3	8.02	5.68	4.73	3.67	3.29				
105	214	205	192	176	157	133	104	71.6	46.9	27.0	14.6	8.29	5.70	4.40	4.21				
110	287	275	259	240	216	188	152	112	63.5	34.3	20.6	13.6	6.87	4.52	4.08				
115	360	346	328	306	280	226	162	102	55.5	29.4	21.2	15.4	9.01	5.27	4.15				
120	411	379	339	293	241	187	131	80.6	41.3	26.5	19.8	15.5	10.3	5.63	4.41				
125	349	320	284	242	196	147	96.6	63.2	41.6	26.9	18.5	14.1	9.73	5.77	4.78				
130	288	262	230	192	152	115	82.5	55.2	34.9	21.2	16.3	12.7	8.85	6.33	4.98				
135	227	204	177	147	117	87.6	60.6	37.9	20.6	17.6	14.4	11.2	8.10	6.52	4.99				
140	163	145	124	100	76.0	52.1	29.9	21.1	18.1	15.4	12.6	9.65	7.72	6.21	4.73				
145	97.8	83.9	67.4	49.0	31.2	26.6	22.5	19.0	16.0	13.2	10.7	8.70	7.29	5.87	4.45				
150	41.7	38.3	34.5	30.6	26.8	23.0	19.6	16.4	13.6	11.0	9.19	7.98	6.76	5.51	4.26				
155	31.4	29.1	26.5	23.7	20.9	18.1	15.3	12.6	10.1	9.18	8.17	7.15	6.10	5.03	3.96				
160	20.6	19.2	17.4	15.6	13.5	11.5	10.1	9.37	8.64	7.86	7.05	6.21	5.35	4.47	3.57				
165	10.2	9.95	9.66	9.33	8.95	8.52	8.05	7.53	6.98	6.39	5.78	5.14	4.47	3.79	3.10				
170	7.43	7.28	7.08	6.86	6.59	6.30	5.98	5.63	5.26	4.86	4.44	4.00	3.55	3.08	2.60				
175	4.66	4.58	4.48	4.36	4.23	4.08	3.92	3.73	3.54	3.33	3.12	2.89	2.66	2.42	2.17				
180	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86				

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:30DEG  
Operators:LCZ  
Test Date:2016-11-17

g Range: 0 - 180DEG  
g Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.275  
Humidity:65.0%  
Test Distance:6.172m [K=1.0000]  
Remarks: