



Report No.:

Test Time: 2019-07-05 15:11

## Luminaire Property

Luminaire Manufacturer:

Luminaire Category: LED STREET LIGHTING

Lamp Catalog: PHILIPS

Number of Lamps: 144PCS

Current: 0.374 A

Power Factor: 0.996

Luminaire Description: BML-2018B-80W

Lamp Description: PHILIPS 3030 4000K

Voltage: 221.0 V

Power: 82.33 W

## Photometric Results

CIE Class: Direct

Measurement Flux: 11199.3 lm

Downward Ratio: 98%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 156.4, 132.1, 137.4, 137.9

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 147.9, 73.7, 99.1, 100.3

Luminaire Efficacy Rating (LER): 136.08

Max. Intensity: 4847.01 cd

S/MH(C0/C180): 1.56

Total Rated Lamp Lumens: 11199.3 lm

Efficiency: 100%

Upward Ratio: 2%

Central Intensity: 3756.74 cd

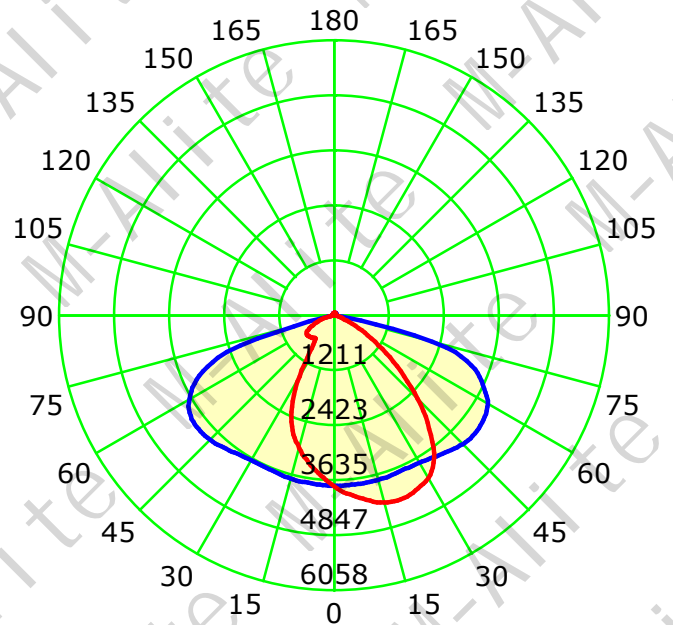
Pos of Max. Intensity: H30 V52

S/MH(C90/C270): 1.14

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd

— C0-C180 — C90-C270

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-1600L

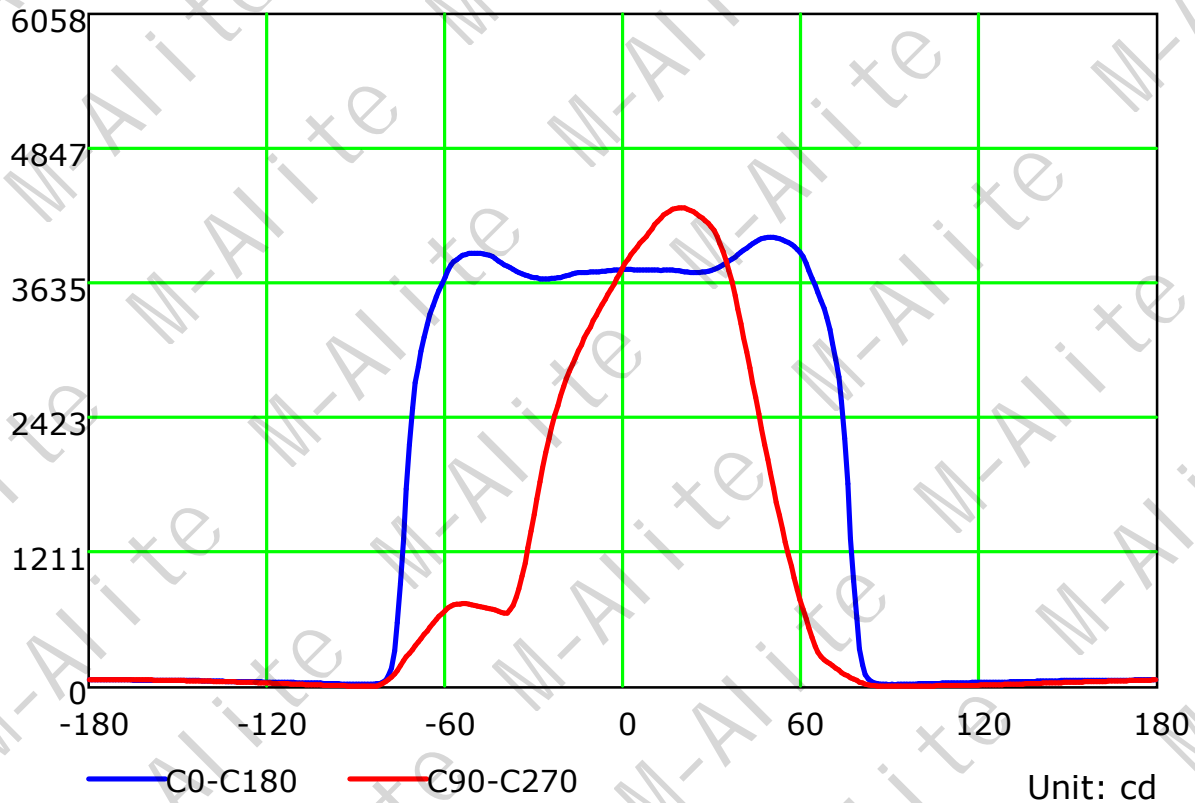
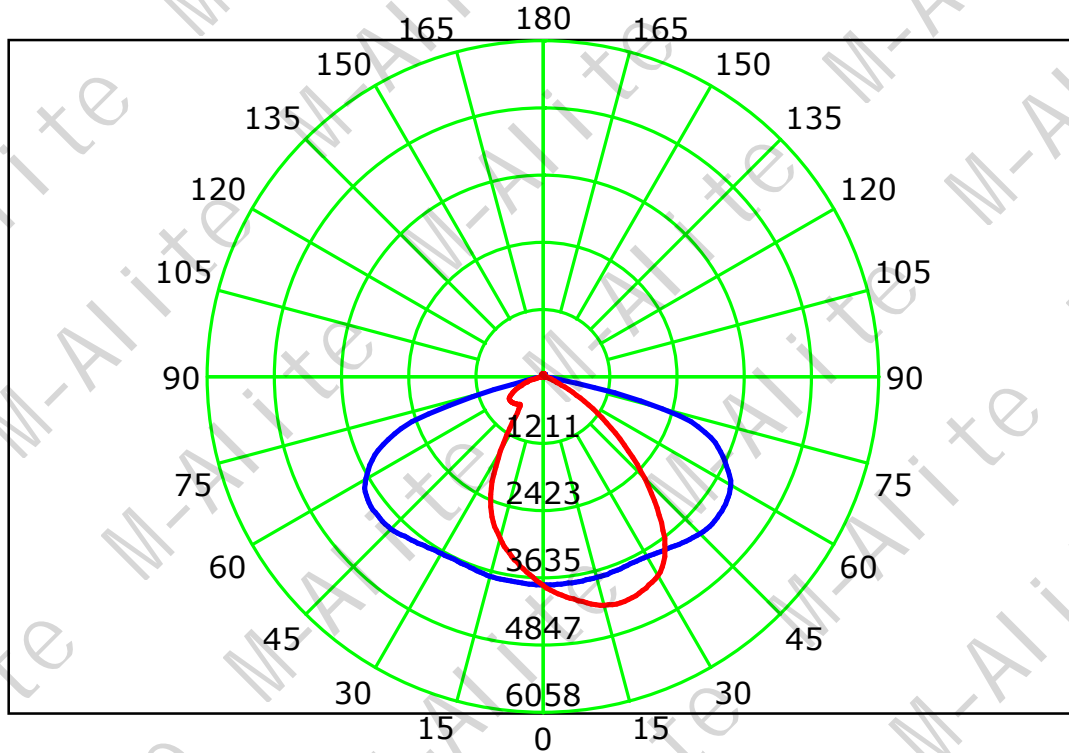
Distance: 8.367 m

Humidity:

Inspector:



### Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1600L  
Distance: 8.367 m  
Humidity:  
Inspector:



### Coefficients Of Utilization - Zonal Cavity Method

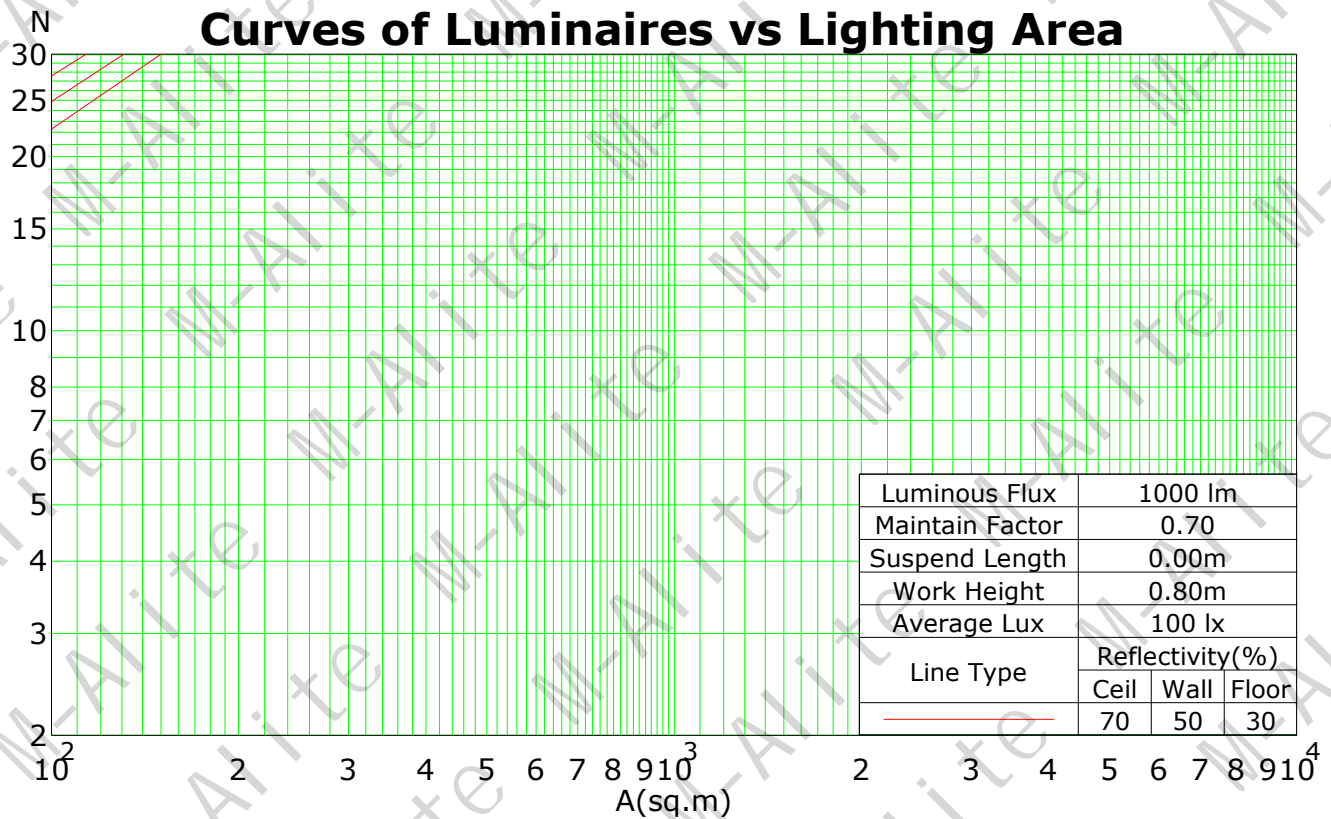
RC	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.5	0.5	0.5	0.3	0.3	0.3	0.1	0.1	0.1	0
RW	0.7	0.5	0.3	0.1	0.7	0.5	0.3	0.1	0.5	0.3	0.1	0.5	0.3	0.1	0.5	0.3	0.1	0
RCR	RF = 0.2																	
0	119	119	119	119	116	116	116	116	110	110	110	105	105	105	100	100	100	98
1	109	105	101	97	106	102	99	95	98	95	92	94	91	89	90	88	86	84
2	99	91	85	79	97	89	83	78	86	81	76	82	78	74	79	75	72	70
3	90	80	72	66	88	78	71	65	75	69	64	72	67	62	70	65	61	59
4	83	71	62	56	80	69	61	55	67	60	54	64	58	53	62	57	52	50
5	76	63	54	48	74	62	54	47	60	52	47	57	51	46	55	50	45	43
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	50	44	40	38
7	65	51	43	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	29
9	56	43	35	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26
10	53	39	32	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

Spacing Criteria (0-180): 1.56

Spacing Criteria (90-270): 1.14

Spacing Criteria (Diagonal): 1.41

### Curves of Luminaires vs Lighting Area

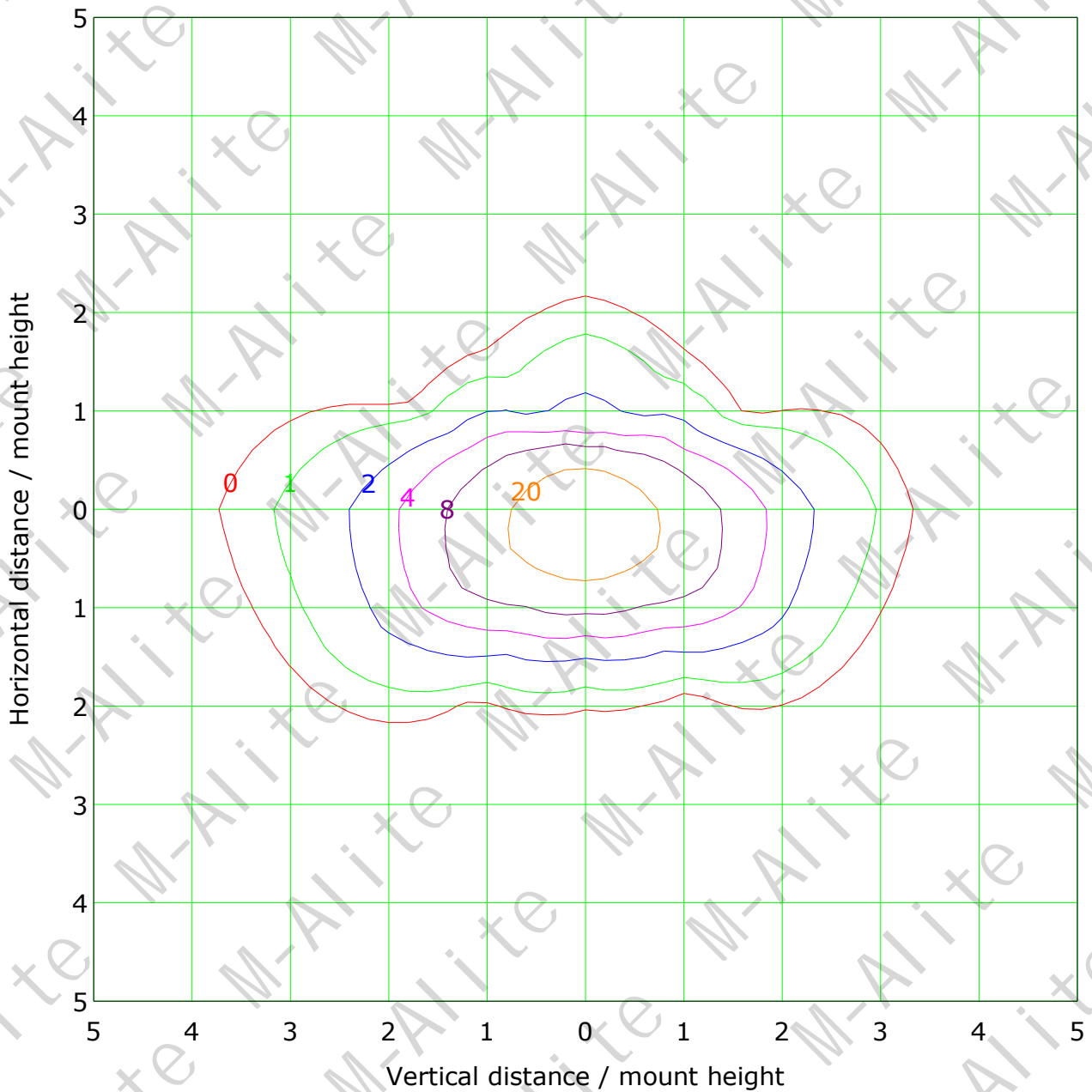


C Plane (°):0.0-360.0: 30.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-1600L  
 Distance: 8.367 m  
 Humidity:  
 Inspector:



### IsoLux Plot



Mounting Height: 10.0m		Max Lux(100%): 39.4 lx	
— ( 1%):	0.4 lx	— ( 2%):	0.8 lx
— ( 5%):	2.0 lx	— ( 10%):	3.9 lx
— ( 20%):	7.9 lx	— ( 50%):	19.7 lx
— (100%):	39.4 lx		

C Plane (°):0.0-360.0: 30.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

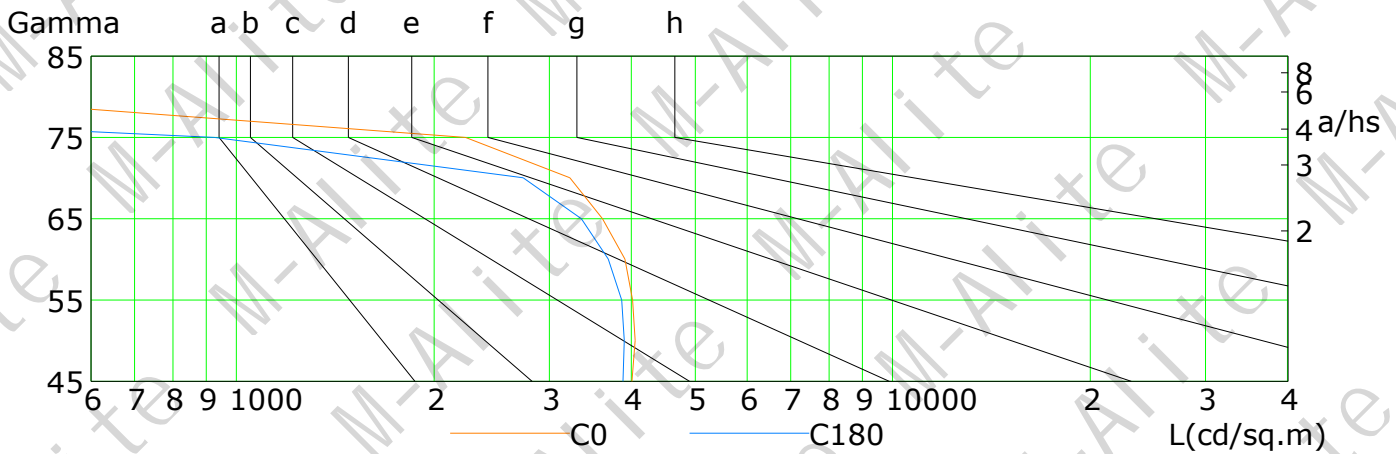
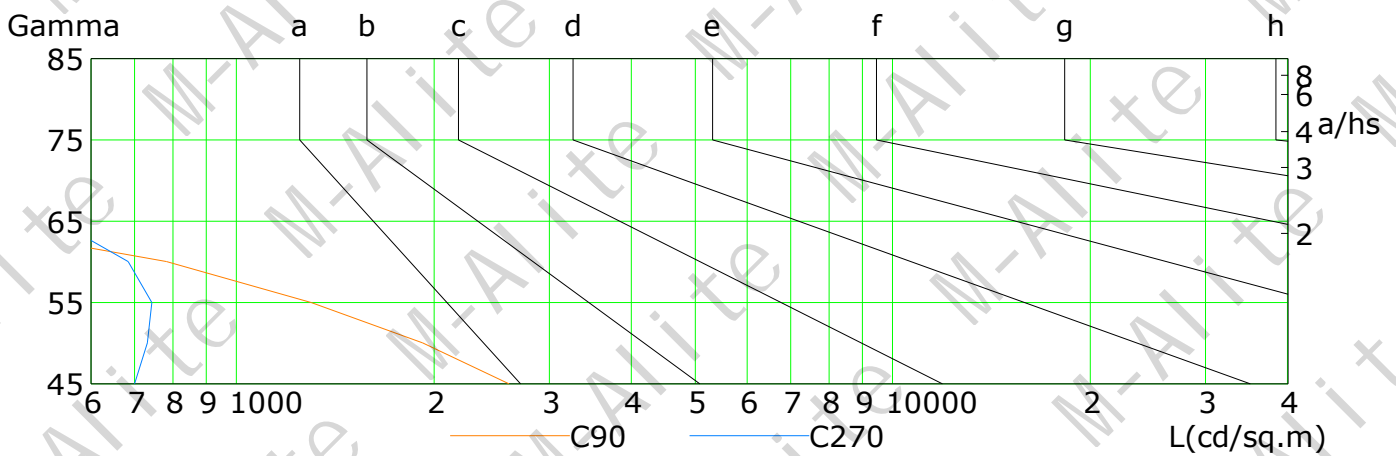
Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-1600L  
 Distance: 8.367 m  
 Humidity:  
 Inspector:



## Lum Limit Curve

Dazzle	Quality	Illuminance (lx)							
		2000	1000	500	<=300				
1.15	A								
1.50	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.20	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300

a b c d e f g h



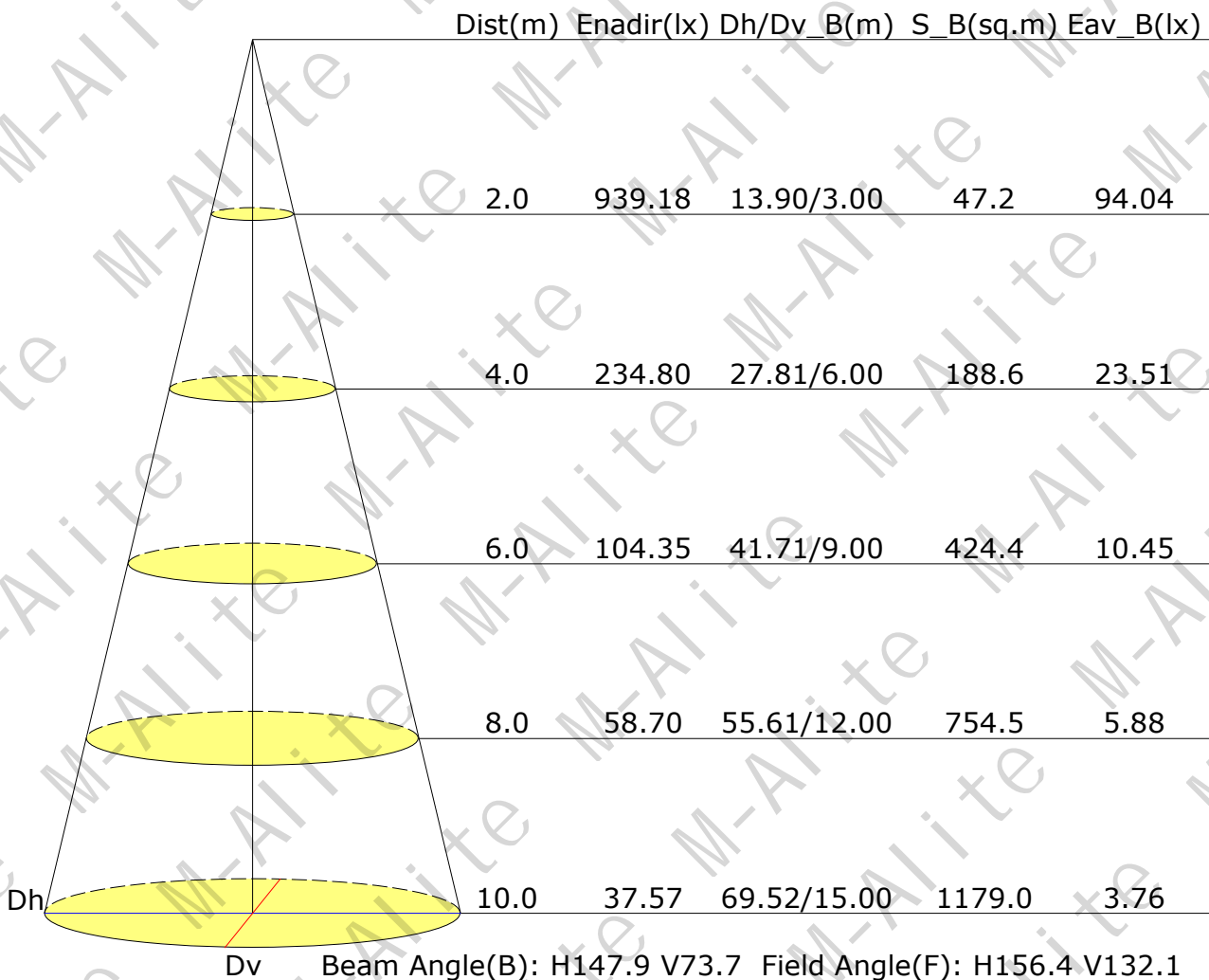
L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	4006	4048	4016	3913	3617	3219	2233	337	33
C90	2606	1922	1302	783	362	203	109	40	7
C180	3885	3901	3869	3692	3354	2738	926	52	18
C270	700	732	744	685	536	364	185	43	3

C Plane (°):0.0-360.0: 30.0  
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 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-1600L  
 Distance: 8.367 m  
 Humidity:  
 Inspector:



### Illuminance at a Distance



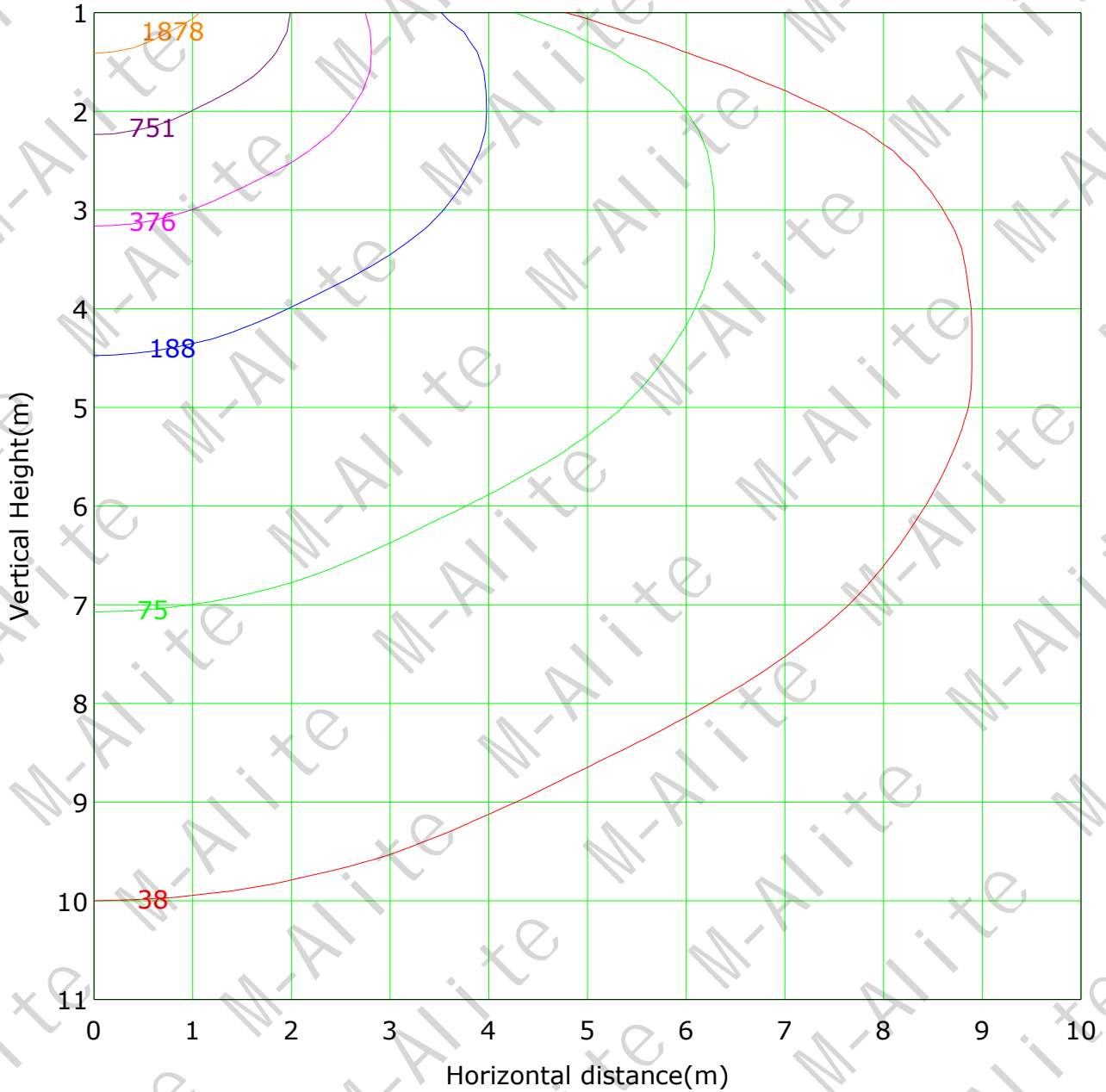
C Plane (°):0.0-360.0: 30.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-1600L  
 Distance: 8.367 m  
 Humidity:  
 Inspector:





### Vertical IsoLux Plot



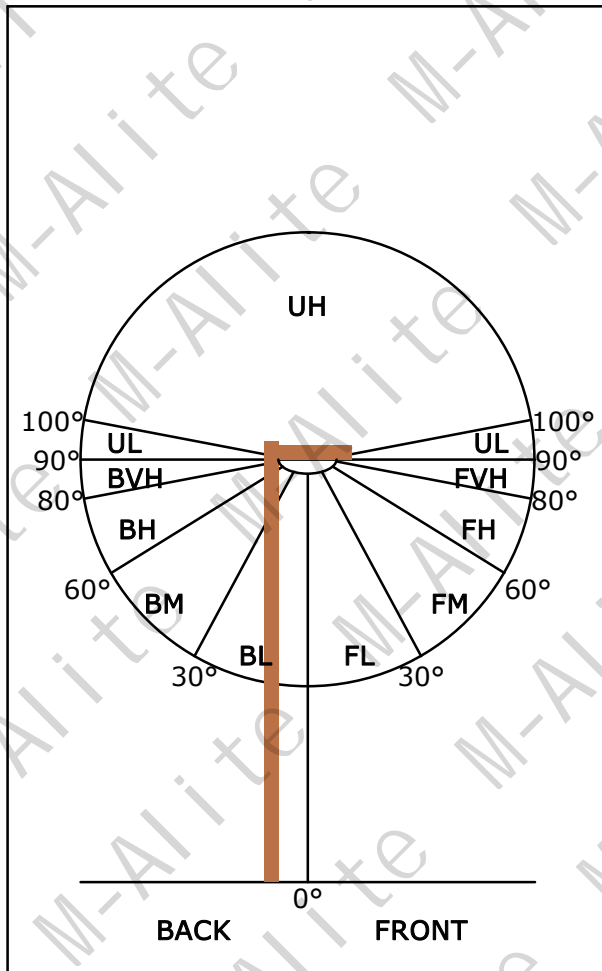
Lowest(m): 1.0m    Highest(m): 11.0m    Max Lux: 3756.7 lx  
 ( 1%): 37.6 lx    ( 2%): 75.1 lx  
 ( 5%): 187.8 lx    ( 10%): 375.7 lx  
 ( 20%): 751.3 lx    ( 50%): 1878.4 lx  
 (100%): 3756.7 lx

C Plane (°):0.0-360.0: 30.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-1600L  
 Distance: 8.367 m  
 Humidity:  
 Inspector:



**FLUX DISTRIBUTION TABLE BASED ON THE IESNA LUMINAIRE CLASSIFICATION SYSTEM**



ZONE	LUMENS	% LAMP LUMENS
<b>FORWARD LIGHT</b>	<b>7133</b>	<b>63.7</b>
FL ( 0°-30°)	1711	15.3
FM (30°-60°)	4055	36.2
FH (60°-80°)	1352	12.1
FVH (80°-90°)	15	0.1
<b>BACK LIGHT</b>	<b>3871</b>	<b>34.6</b>
BL ( 0°-30°)	1285	11.5
BM (30°-60°)	1921	17.2
BH (60°-80°)	651	5.8
BVH (80°-90°)	14	0.1
<b>UP LIGHT</b>	<b>195</b>	<b>1.7</b>
UL (90°-100°)	14	0.1
UH (100°-180°)	181	1.6
<b>TRAPPED LIGHT</b>	<b>NA</b>	<b>NA</b>

<b>BUG(Backlight,Uplight,Glare) Rating Base On TM-15-07</b>	
Asymmetrical Luminaire Types (Type I,II,III,IV)	B3 U3 G2
Quadrilateral Symmetrical Luminaire Types (Type V,Area Light)	B3 U3 G1

C Plane (°):0.0-360.0: 30.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-1600L  
 Distance: 8.367 m  
 Humidity:  
 Inspector: