

REPORT NUMBER: ITL70571

PAGE: 1 OF 4

ISSUE DATE: 11/17/11

PREPARED FOR: EVLUMA

CATALOG NUMBER: 66890324 GDRL, MOGUL SHORT, CLEARLIGHT BEACON

LAMP: ONE 50-WATT MOGUL BASE LED LAMP WITH INTEGRAL LED DRIVER, CAST FINNED DIFFUSE METAL BODY, CAST GRAY-PAINTED METAL TOP, ONE WHITE CIRCUIT BOARD WITH 16 WHITE LIGHT EMITTING DIODES (LEDS) EACH WITH CLEAR HEMISPHERICAL INTEGRAL LENS, FABRICATED SPECULAR SEGMENTED METAL REFLECTOR, FROSTED SEMI-HEMISPHERICAL PLASTIC LENS, CLEAR PLASTIC LENS RETAINING CENTER POST. VERTICAL BASE-UP POSITION.

TOTAL INPUT WATTS = 45.8 AT 120.0 VOLTS

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (120VAC, 60Hz) TO THE LAMP. LAMP INFORMATION PROVIDED BY CLIENT.

TEST PROCEDURE: IESNA LM-79-08

TEST DISTANCE = 25.25 FEET

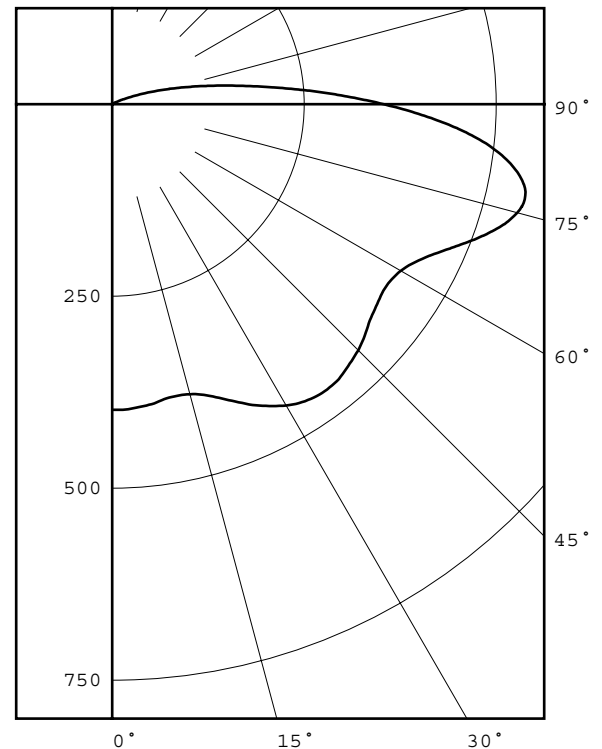
DEG	CANDELA	LUMENS
0	398	
5	396	38
15	391	112
25	432	200
35	464	290
45	453	350
55	429	387
65	462	463
75	546	569
85	471	503
90	355	
95	232	260
105	77	86
115	12	15
125	0	1
135	0	0
145	0	0
155	0	0
165	0	0
175	0	0
180	0	0

ZONAL LUMEN SUMMARY		
ZONE	LUMENS	%FIXT
0- 30	350	10.7
0- 40	640	19.6
0- 60	1377	42.1
0- 90	2912	89.0
90-120	360	11.0
90-130	360	11.0
90-150	360	11.0
90-180	360	11.0
0-180	3272	100.0

EFFICACY = 71.4 Lm/W

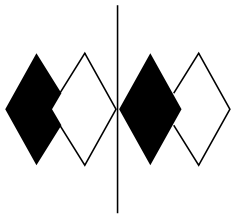
CIE TYPE - SEMI-DIRECT

LUMINAIRE SPACING CRITERION = 1.73



Checked *M. KLOPF*

Approved *R. BEATTIE*
Lighting Engineer



itl boulder
THE LIGHT CENTER OF THE INDUSTRY SINCE 1955



INDEPENDENT TESTING LABORATORIES, INC.
 3386 LONGHORN ROAD, BOULDER, CO 80302 USA

PHONE: (303)442-1255 • FAX: (303)449-5274 • E-MAIL: itl@itlboulder.com • WEBSITE: www.itlboulder.com

REPORT NUMBER: ITL70571
 ISSUE DATE: 11/17/11
 PREPARED FOR: EVLUMA

PAGE: 2 OF 4

CANDELA DISTRIBUTION

	0.0
0.0	398
5.0	396
10.0	390
15.0	391
20.0	407
25.0	432
30.0	453
35.0	464
40.0	463
45.0	453
50.0	438
55.0	429
60.0	434
65.0	462
70.0	508
75.0	546
80.0	539
85.0	471
90.0	355
95.0	232
100.0	139
105.0	77
110.0	35
115.0	12
120.0	3
125.0	0
130.0	0
135.0	0
140.0	0
145.0	0
150.0	0
155.0	0
160.0	0
165.0	0
170.0	0
175.0	0
180.0	0



INDEPENDENT TESTING LABORATORIES, INC.
 3386 LONGHORN ROAD, BOULDER, CO 80302 USA

PHONE: (303)442-1255 • FAX: (303)449-5274 • E-MAIL: itl@itlboulder.com • WEBSITE: www.itlboulder.com

REPORT NUMBER: ITL70571
 ISSUE DATE: 11/17/11
 PREPARED FOR: EVLUMA

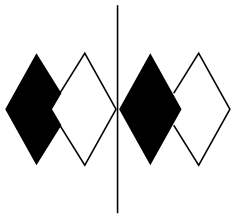
PAGE: 3 OF 4

5-DEGREE
 ZONAL LUMEN SUMMARY

0- 5	9.
5- 10	28.
10- 15	46.
15- 20	66.
20- 25	88.
25- 30	112.
30- 35	135.
35- 40	155.
40- 45	170.
45- 50	180.
50- 55	188.
55- 60	199.
60- 65	217.
65- 70	245.
70- 75	276.
75- 80	293.
80- 85	276.
85- 90	227.
90- 95	160.
95-100	100.
100-105	57.
105-110	29.
110-115	11.
115-120	3.
120-125	1.
125-130	0.
130-135	0.
135-140	0.
140-145	0.
145-150	0.
150-155	0.
155-160	0.
160-165	0.
165-170	0.
170-175	0.
175-180	0.

10-DEGREE
 ZONAL LUMEN SUMMARY

0- 10	38.
0- 20	150.
0- 30	350.
0- 40	640.
0- 50	990.
0- 60	1377.
0- 70	1839.
0- 80	2408.
0- 90	2912.
0-100	3171.
0-110	3257.
0-120	3271.
0-130	3272.
0-140	3272.
0-150	3272.
0-160	3272.
0-170	3272.
0-180	3272.



itl boulder
THE LIGHT CENTER OF THE INDUSTRY SINCE 1955



INDEPENDENT TESTING LABORATORIES, INC.
3386 LONGHORN ROAD, BOULDER, CO 80302 USA

PHONE: (303)442-1255 • FAX: (303)449-5274 • E-MAIL: itl@itlboulder.com • WEBSITE: www.itlboulder.com

REPORT NUMBER: ITL70571
ISSUE DATE: 11/17/11
PREPARED FOR: EVLUMA

PAGE: 4 OF 4

ADDRESS: 624 RAINIER AVE SOUTH
SEATTLE, WA 98144

THIS ITL REPORT WITH THE USE OF THE NVLAP LOGO SHALL NOT BE USED BY THE CLIENT TO CLAIM PRODUCT CERTIFICATION, APPROVAL, OR ENDORSEMENT BY NVLAP, NIST, OR ANY AGENCY OF THE FEDERAL GOVERNMENT.



INDEPENDENT TESTING LABORATORIES, INC.
3386 LONGHORN ROAD, BOULDER, CO 80302 USA

PHONE: (303)442-1255 • FAX: (303)449-5274 • E-MAIL: itl@itlboulder.com • WEBSITE: www.itlboulder.com

REPORT NUMBER: ITL70573
DATE: 11/18/11
PREPARED FOR: EVLUMA

Page 1 of 3

ADDRESS: 624 RAINIER AVE SOUTH
SEATTLE, WA 98144

CATALOG NUMBER: 66890324 GDRL, MOGUL SHORT, CLEARLIGHT BEACON

LAMP: ONE 50-WATT MOGUL BASE LED LAMP WITH INTEGRAL LED DRIVER, CAST FINNED DIFFUSE METAL BODY, CAST GRAY-PAINTED METAL TOP, ONE WHITE CIRCUIT BOARD WITH 16 WHITE LIGHT EMITTING DIODES (LEDS) EACH WITH CLEAR HEMISPHERICAL INTEGRAL LENS, FABRICATED SPECULAR SEGMENTED METAL REFLECTOR, FROSTED SEMI-HEMISPHERICAL PLASTIC LENS, CLEAR PLASTIC LENS RETAINING CENTER POST. VERTICAL BASE-UP POSITION.

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (120VAC, 60HZ) TO THE LAMP. LAMP INFORMATION PROVIDED BY CLIENT.

INSTRUMENTS:	Associated Power Technologies APT6040 AC Power Source	Calibration Due:	N/A
	Yokogawa WT210 Digital Power Meter #6		09/28/12
	Ocean Optics QE65000 Spectroradiometer		03/26/12
	ITL 2.0 Meter Diameter Integrating Sphere, 4π Geometry		03/26/12

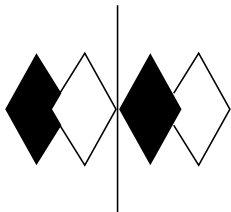
OBJECT OF TEST: Measure the Spectral Power Distribution (SPD), Correlated Color Temperature (CCT), Color Rendering Indices (CRIa,1-14), Chromaticity Coordinates (x,y), ANSI C78.377 Duv, and electrical data to the luminaire including Power Factor (PF).

PROCEDURE: The luminaire was provided by the customer and had an unknown number of burn hours. The luminaire was mounted inside the integrating sphere in a vertical base-up position (LEDs facing down) and allowed to stabilize. After stabilization occurred, measurements were taken with the luminaire operating in the integrating sphere. In order to measure mean performance, multiple data sets were recorded and averaged. Readings were taken with the luminaire operating at 120VAC input in a 25 +/-1 degree Celsius free air ambient and in accordance with IESNA LM-79-08. All data are traceable to the National Institute of Standards and Technology.

RESULTS: (continued subsequent pages)

THIS ITL REPORT WITH THE USE OF THE NVLAP LOGO SHALL NOT BE USED BY THE CLIENT TO CLAIM PRODUCT CERTIFICATION, APPROVAL, OR ENDORSEMENT BY NVLAP, NIST, OR ANY AGENCY OF THE FEDERAL GOVERNMENT.

Checked	<i>T BERGER</i>
Approved	<i>N GULLY</i> Lighting Engineer



itl boulder

THE LIGHT CENTER OF THE INDUSTRY SINCE 1955



NVLAP LAB CODE: 200925-0

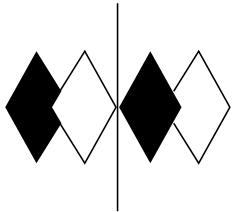
INDEPENDENT TESTING LABORATORIES, INC.
3386 LONGHORN ROAD, BOULDER, CO 80302 USA

PHONE: (303)442-1255 • FAX: (303)449-5274 • E-MAIL: itl@itlboulder.com • WEBSITE: www.itlboulder.com

REPORT NUMBER: ITL70573
DATE: 11/18/11
PREPARED FOR: EVLUMA
CATALOG NUMBER: 66890324 GDRL, MOGUL SHORT, CLEARLIGHT BEACON

RESULTS:

SPECTRORADIOMETRIC	
Observer	CIE 1931 2 degree
Chromaticity Ordinate x	0.3695
Chromaticity Ordinate y	0.3682
Correlated Color Temp CCT (K)	4253
Color Rendering Index (CRIa)	69
Color Rendering Index 1 (Light greyish red)	69
Color Rendering Index 2 (Dark greyish yellow)	73
Color Rendering Index 3 (Strong yellowish green)	74
Color Rendering Index 4 (Moderate yellowish green)	70
Color Rendering Index 5 (Light bluish green)	68
Color Rendering Index 6 (Light blue)	62
Color Rendering Index 7 (Light violet)	78
Color Rendering Index 8 (Light reddish purple)	60
Color Rendering Index 9 (Strong red)	-12
Color Rendering Index 10 (Strong yellow)	35
Color Rendering Index 11 (Strong green)	66
Color Rendering Index 12 (Strong blue)	37
Color Rendering Index 13 (Light yellowish pink (skin))	68
Color Rendering Index 14 (Moderate olive green (leaf))	85
ANSI C78.377-2008 Duv	-0.001
ELECTRICAL	
Input Voltage (Volts AC)	120.0
Input Current (mA AC)	422
Input Power (Watts)	45.0
Input Power Factor (%)	88.9



PHONE: (303)442-1255 • FAX: (303)449-5274 • E-MAIL: itl@itlboulder.com • WEBSITE: www.itlboulder.com
 REPORT NUMBER: ITL70573
 DATE: 11/18/11
 PREPARED FOR: EVLUMA
 CATALOG NUMBER: 66890324 GDRL, MOGUL SHORT, CLEARLIGHT BEACON

RESULTS:

Wavelength	mW per nm	Wavelength	mW per nm	Wavelength	mW per nm
380	1.429	515	27.985	650	27.343
385	1.801	520	33.621	655	25.326
390	2.236	525	38.715	660	23.380
395	2.884	530	43.055	665	21.515
400	3.621	535	46.566	670	19.760
405	4.295	540	49.337	675	18.106
410	5.578	545	51.400	680	16.572
415	8.718	550	52.865	685	15.142
420	15.982	555	53.832	690	13.809
425	29.626	560	54.372	695	12.588
430	44.053	565	54.545	700	11.458
435	56.682	570	54.359	705	10.402
440	63.869	575	53.918	710	9.452
445	62.817	580	53.229	715	8.575
450	48.296	585	52.293	720	7.769
455	28.554	590	51.150	725	7.030
460	16.671	595	49.766	730	6.366
465	11.304	600	48.180	735	5.755
470	8.082	605	46.419	740	5.207
475	6.298	610	44.510	745	4.715
480	5.692	615	42.474	750	4.262
485	5.800	620	40.337	755	3.867
490	6.716	625	38.203	760	3.507
495	8.811	630	35.993	765	3.174
500	12.204	635	33.766	770	2.873
505	16.764	640	31.597	775	2.605
510	22.204	645	29.437	780	2.365

