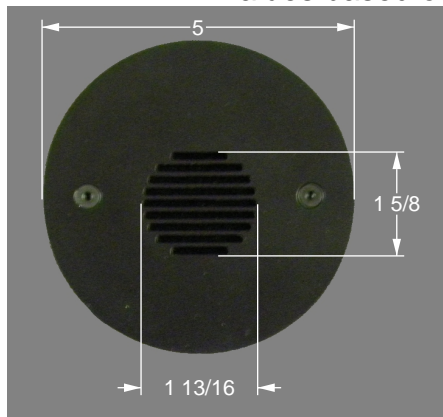


ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINATION

Values based on 1 foot mounting height.



REPORT NUMBER: ITL86653

ISSUE DATE: 02/23/16

PAGE: 1 OF 8

ISSUE DATE: 02/29/10 PAGE:
PREPARED FOR: B-K LIGHTING, INC.

CATALOG NUMBER: SSL-LED-e102-C-0-DEGREES,
BQL-LED-e102-C-0-DEGREES, SQL-LED-e102-C-0-
DEGREES, VBL-LED-e102-C-0-DEGREES

LUMINAIRE: CAST METAL WALL MOUNTING HOUSING,
ONE ADJUSTABLE LED MODULE CONSISTING OF:
MACHINED BLACK FINISHED METAL HEAT SINK,
ONE BLACK CIRCUIT BOARD WITH 3 LEDS, ONE
CLEAR CONICAL PLASTIC OPTIC PER LED WITH
FROSTED SURFACE OPPOSITE LED, MOLDED BLACK
PLASTIC OPTIC MOUNTING FRAME. FABRICATED
DIFFUSE METAL LED MODULE MOUNTING
BRACKETS, MACHINED BLACK FINISHED METAL
OPTIC ASSEMBLY MOUNTING COLLAR, CLEAR FLAT
LINEAR PRISMATIC GLASS LENS, CAST BLACK
PAINTED LOUVERED METAL FACEPLATE, LENS
PRISMS OUT AND VERTICAL. LED MODULE AIMED
AT THE HORIZON.

LAMPS: THREE WHITE LIGHT EMITTING DIODES (LEDS), AIMED AT THE HORIZON.

INPUT ELECTRICAL: 12.0 VOLTS, 4.77 WATTS,
0.445 AMPS

LED DRIVER: B-K LIGHTING 524439/400188-L-L,
DRIVER HAS MULTIPLE LEADS, ONLY LINE INPUT
AND LED OUTPUT LEADS CONNECTED FOR THIS TEST.

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (12VAC, 60Hz) TO THE DRIVER. POTENTIOMETER ON THE LED CIRCUIT BOARD SET TO POSITION "9" FOR THIS TEST.

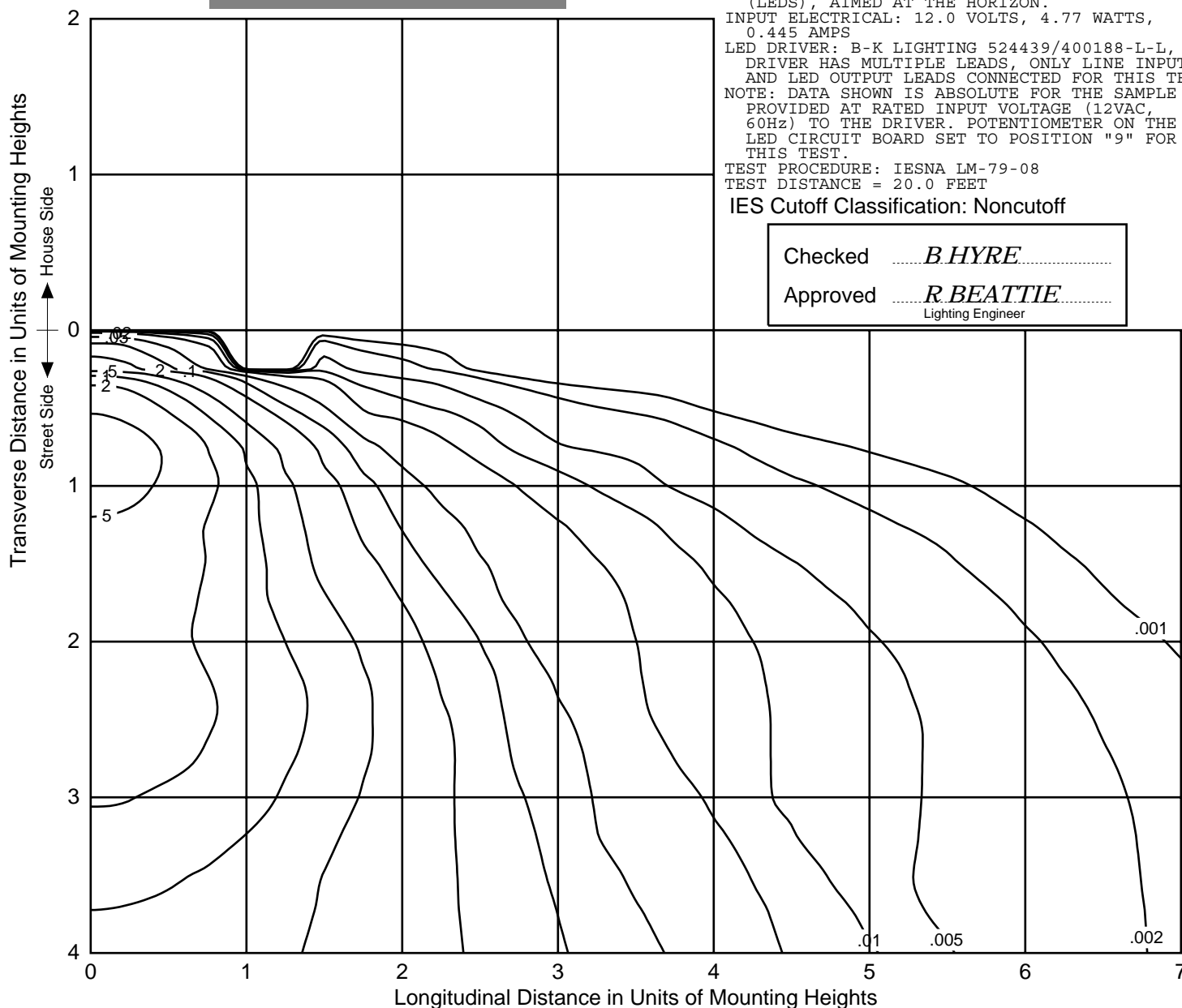
TEST PROCEDURE: IESNA LM-79-08

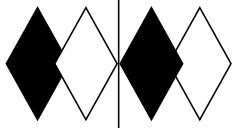
TEST DISTANCE = 20.0 FEET

IES Cutoff Classification: Noncutoff

Checked B HYRE

Approved R BEATTIE
Lighting Engineer





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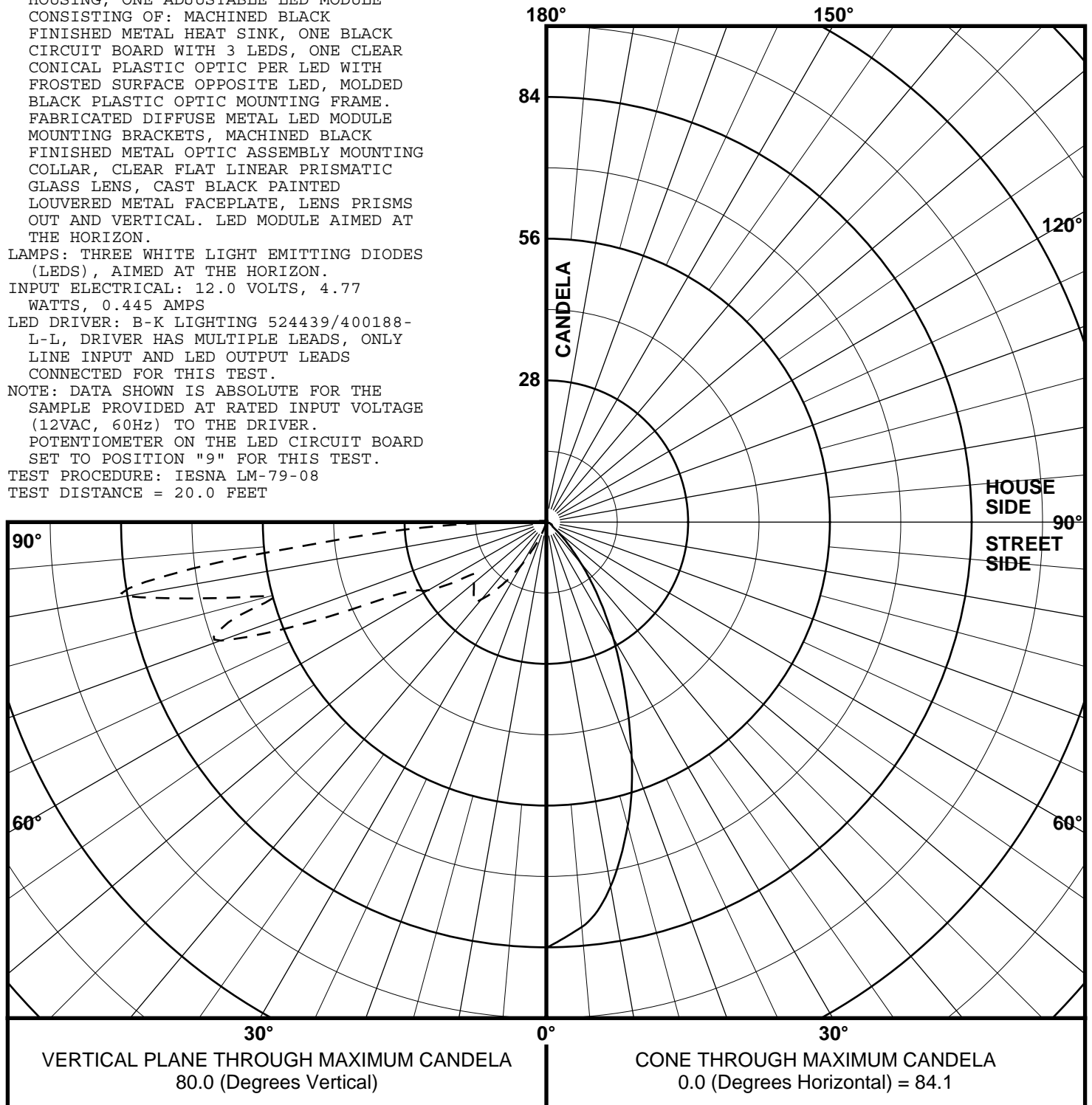
NVLAP
NVLAP LAB CODE: 200925-0

INDEPENDENT TESTING LABORATORIES, INC.
4066 CAMELOT CIRCLE, LONGMONT, CO 80504 USA

PHONE: (303) 442-1255 • FAX: (970) 535-3114 • E-MAIL: itl@itlboulder.com • WEBSITE: www.itlboulder.com

REPORT NUMBER: ITL86653
ISSUE DATE: 02/23/16 PAGE: 2 OF 8
PREPARED FOR: B-K LIGHTING, INC.
CATALOG NUMBER: SSL-LED-e102-C-0-DEGREES, BQL-LED-e102-C-0-DEGREES, SQL-LED-e102-C-0-DEGREES, VBL-LED-e102-C-0-DEGREES
LUMINAIRE: CAST METAL WALL MOUNTING HOUSING, ONE ADJUSTABLE LED MODULE CONSISTING OF: MACHINED BLACK FINISHED METAL HEAT SINK, ONE BLACK CIRCUIT BOARD WITH 3 LEDS, ONE CLEAR CONICAL PLASTIC OPTIC PER LED WITH FROSTED SURFACE OPPOSITE LED, MOLDED BLACK PLASTIC OPTIC MOUNTING FRAME. FABRICATED DIFFUSE METAL LED MODULE MOUNTING BRACKETS, MACHINED BLACK FINISHED METAL OPTIC ASSEMBLY MOUNTING COLLAR, CLEAR FLAT LINEAR PRISMATIC GLASS LENS, CAST BLACK PAINTED LOUVERED METAL FACEPLATE, LENS PRISMS OUT AND VERTICAL. LED MODULE AIMED AT THE HORIZON.
LAMPS: THREE WHITE LIGHT EMITTING DIODES (LEDs), AIMED AT THE HORIZON.
INPUT ELECTRICAL: 12.0 VOLTS, 4.77 WATTS, 0.445 AMPS
LED DRIVER: B-K LIGHTING 524439/400188-L-L, DRIVER HAS MULTIPLE LEADS, ONLY LINE INPUT AND LED OUTPUT LEADS CONNECTED FOR THIS TEST.
NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (12VAC, 60Hz) TO THE DRIVER. POTENTIOMETER ON THE LED CIRCUIT BOARD SET TO POSITION "9" FOR THIS TEST.
TEST PROCEDURE: IESNA LM-79-08
TEST DISTANCE = 20.0 FEET

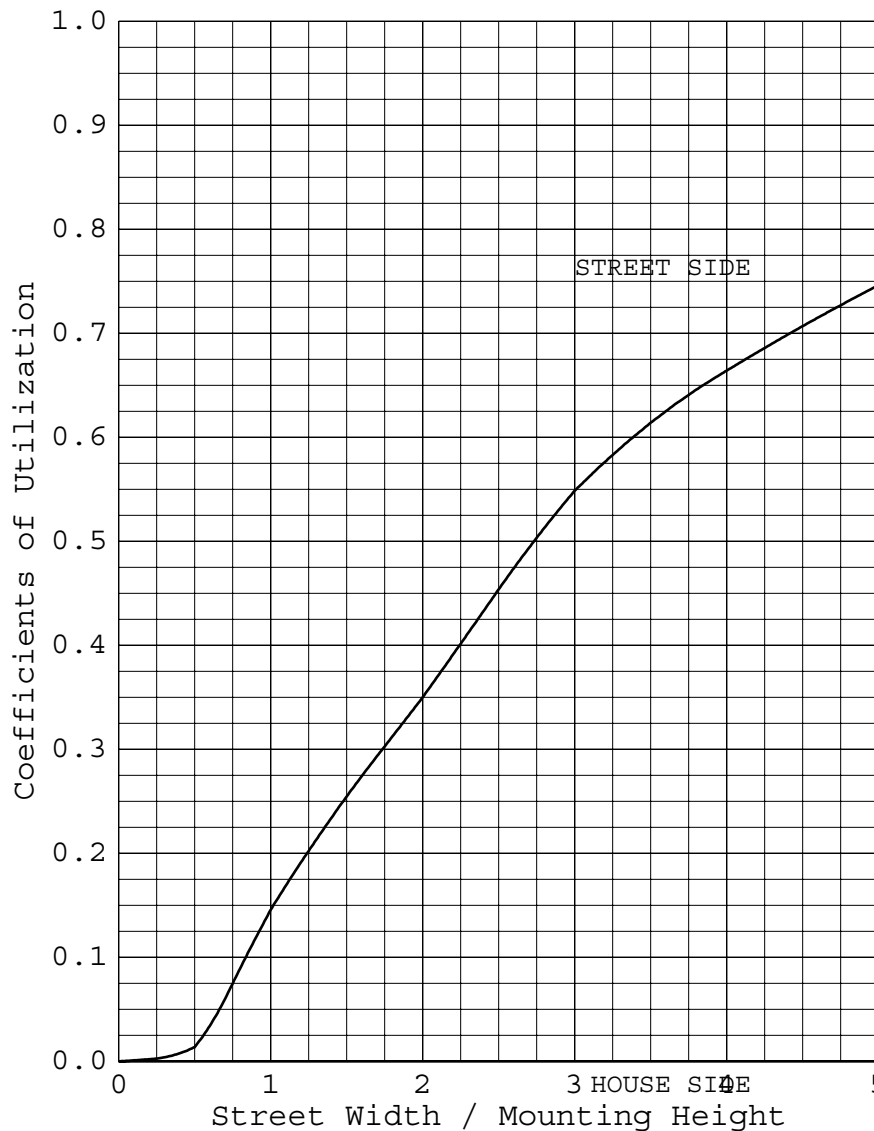
MAXIMUM PLANE AND MAXIMUM CONE PLOTS OF CANDELA



REPORT NUMBER: ITL86653
ISSUE DATE: 02/23/16
PREPARED FOR: B-K LIGHTING, INC.

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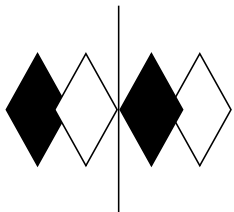
COEFFICIENTS OF UTILIZATION AND FLUX DISTRIBUTION



	LUMENS	PERCENT OF FIXTURE
DOWNWARD STREET SIDE	32.4	98.0
DOWNWARD HOUSE SIDE	0.0	0.0
DOWNWARD TOTAL	32.4	98.0
UPWARD STREET SIDE	0.7	2.0
UPWARD HOUSE SIDE	0.0	0.0
UPWARD TOTAL	0.7	2.0
TOTAL FLUX	33.1	100.0

EFFICACY = 6.9 lm/W

ALL CANDELA AND LUMENS IN THIS REPORT ARE BASED ON ABSOLUTE PHOTOMETRY.
THE COEFFICIENT OF UTILIZATION VALUES ARE BASED ON THE TOTAL ABSOLUTE
LUMEN OUTPUT OF THIS LUMINAIRE SAMPLE.



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REPORT NUMBER: ITL86653
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FLUX DISTRIBUTION BY SOLID ANGLE

(PER IESNA TM-15-11, LUMINAIRE CLASSIFICATION
SYSTEM FOR OUTDOOR LUMINAIRES)

	LUMENS	PERCENT OF FIXTURE	BUG ZONE RATINGS
FORWARD LIGHT	32.4	98.0	
FL (0- 30)	0.4	1.4	
FM (30- 60)	8.4	25.3	
FH (60- 80)	16.6	50.2	G0
FVH(80- 90)	7.0	21.1	G0
BACK LIGHT	0.0	0.0	
BL (0- 30)	0.0	0.0	B0
BM (30- 60)	0.0	0.0	B0
BH (60- 80)	0.0	0.0	B0 G0
BVH(80- 90)	0.0	0.0	G0
UPLIGHT	0.7	2.0	
UL (90-100)	0.4	1.2	U1
UH (100-180)	0.2	0.7	U1
TRAPPED LIGHT	0.0	0.0	
TOTAL FLUX	33.1	100.0	

BACKLIGHT, UPLIGHT, AND GLARE (BUG) RATINGS
(PER ADDENDUM A FOR IESNA TM-15-11)

BUG RATING: B0 U1 G0



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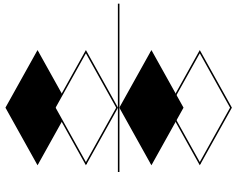
PAGE: 5 OF 8

CANDELA TABULATION

	STREET	SIDE	LATERAL ANGLE									
		0.0	5.0	15.0	25.0	35.0	45.0	55.0	65.0	75.0	85.0	90.0
	180.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	175.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	165.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	155.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	145.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	135.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	125.0	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	115.0	0.4	0.4	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0
	105.0	0.9	0.9	0.7	0.6	0.3	0.2	0.0	0.0	0.0	0.0	0.0
	95.0	1.5	1.5	1.3	0.9	0.6	0.3	0.1	0.0	0.0	0.0	0.0
	92.5	1.6	1.6	1.4	1.0	0.7	0.4	0.2	0.1	0.0	0.0	0.0
	90.0	7.1	7.8	6.1	3.9	1.9	0.8	0.3	0.2	0.0	0.0	0.0
	87.5	24.1	23.8	18.6	11.1	5.5	2.0	0.6	0.4	0.1	0.0	0.0
	85.0	42.7	40.9	32.8	19.6	9.8	3.5	0.9	0.7	0.2	0.0	0.0
V	82.5	70.7	68.5	53.1	31.8	15.7	5.3	1.2	0.8	0.3	0.0	0.0
E	80.0<<	84.1	80.3	62.1	36.6	17.7	5.8	1.5	1.1	0.4	0.0	0.0
R	77.5	69.6	65.8	50.6	30.0	14.5	5.2	1.7	1.1	0.3	0.0	0.0
T	75.0	56.4	54.0	42.5	26.8	14.6	5.9	1.9	1.1	0.3	0.0	0.0
I	72.5	65.9	64.2	51.3	33.3	18.0	6.9	2.0	1.0	0.2	0.0	0.0
C	70.0	68.4	66.5	53.5	34.0	17.8	6.5	1.9	0.9	0.2	0.0	0.0
A	67.5	53.8	51.6	41.5	26.2	13.8	5.5	1.9	0.8	0.2	0.0	0.0
L	65.0	36.6	35.1	29.3	19.3	11.1	5.0	2.0	0.7	0.2	0.0	0.0
	62.5	29.2	28.7	24.4	16.6	10.3	5.2	2.2	0.7	0.1	0.0	0.0
A	60.0	26.9	26.6	22.6	16.1	10.2	5.4	2.6	0.8	0.1	0.0	0.0
N	57.5	22.9	22.6	19.3	14.0	9.3	5.5	2.9	0.8	0.1	0.0	0.0
G	55.0	18.1	18.0	16.0	12.4	9.1	6.0	2.9	0.8	0.1	0.0	0.0
L	52.5	17.7	17.6	16.3	13.2	9.9	6.5	2.9	0.7	0.0	0.0	0.0
E	50.0	18.7	18.7	17.4	14.0	10.5	6.6	2.8	0.7	0.0	0.0	0.0
	47.5	19.4	19.3	17.8	14.7	11.2	6.3	2.6	0.6	0.0	0.0	0.0
	45.0	20.3	20.2	18.9	15.7	10.6	5.9	2.4	0.5	0.0	0.0	0.0
	42.5	21.2	21.1	19.5	14.8	9.8	5.3	2.1	0.4	0.0	0.0	0.0
	40.0	19.9	19.6	17.5	13.4	8.8	4.6	1.8	0.3	0.0	0.0	0.0
	37.5	17.6	17.4	15.4	11.8	7.6	3.9	1.4	0.3	0.0	0.0	0.0
	35.0	15.0	14.8	13.1	10.0	6.3	3.1	1.1	0.2	0.0	0.0	0.0
	32.5	12.3	12.1	10.7	8.0	5.0	2.4	0.8	0.1	0.0	0.0	0.0
	30.0	9.6	9.4	8.3	6.1	3.7	1.7	0.6	0.1	0.0	0.0	0.0
	25.0	4.8	4.6	4.0	2.9	1.7	0.8	0.2	0.1	0.0	0.0	0.0
	20.0	1.6	1.5	1.3	1.0	0.6	0.3	0.1	0.0	0.0	0.0	0.0
	15.0	0.4	0.4	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0
	10.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

||
PLANE OF MAXIMUM CANDELA

CONE OF MAXIMUM CANDELA



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INDEPENDENT TESTING LABORATORIES, INC.
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PAGE: 6 OF 8

CANDELA TABULATION

	HOUSE SIDE					LATERAL ANGLE				
	95.0	105.0	115.0	125.0	135.0	145.0	155.0	165.0	175.0	180.0
180.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V 82.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E 80.0<<	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
R 77.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T 75.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I 72.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C 70.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A 67.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
L 65.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A 60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
N 57.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
G 55.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
L 52.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E 50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

CONE OF MAXIMUM CANDELA



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PREPARED FOR: B-K LIGHTING, INC.

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5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	0.0
5- 10	0.0
10- 15	0.0
15- 20	0.0
20- 25	0.1
25- 30	0.3
30- 35	0.6
35- 40	1.1
40- 45	1.5
45- 50	1.6
50- 55	1.6
55- 60	1.9
60- 65	2.5
65- 70	4.0
70- 75	5.0
75- 80	5.2
80- 85	5.1
85- 90	1.9
90- 95	0.3
95-100	0.1
100-105	0.1
105-110	0.1
110-115	0.0
115-120	0.0
120-125	0.0
125-130	0.0
130-135	0.0
135-140	0.0
140-145	0.0
145-150	0.0
150-155	0.0
155-160	0.0
160-165	0.0
165-170	0.0
170-175	0.0
175-180	0.0

10-DEGREE
ZONAL LUMEN SUMMARY

0- 10	0.0
0- 20	0.0
0- 30	0.4
0- 40	2.2
0- 50	5.3
0- 60	8.8
0- 70	15.3
0- 80	25.4
0- 90	32.4
0-100	32.8
0-110	33.0
0-120	33.0
0-130	33.0
0-140	33.1
0-150	33.1
0-160	33.1
0-170	33.1
0-180	33.1



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PAGE: 8 OF 8

ADDRESS: 40429 BRICKYARD DRIVE
MADERA, CA 93636-9515

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