

REPORT NUMBER: ITL85005

PAGE: 1 OF 9

ISSUE DATE: 06/29/15

PREPARED FOR: LED ROADWAY LIGHTING LTD.

CATALOG NUMBER: NXT 72M 0 X 2ES 7 XX 3 XX X XX X

LUMINAIRE: CAST METAL HOUSING WITH SEMI-DIFFUSE INTERIOR FINISH, 2 WHITE CIRCUIT BOARDS EACH WITH 36 LEDS, 2 CLEAR PLASTIC LENSES WITH 1 OPTIC PER LED, CLEAR FLAT GLASS LENS IN CAST SEMI-DIFFUSE METAL DOOR FRAME.

LAMPS: SEVENTY-TWO WHITE LIGHT EMITTING DIODES (LEDs), VERTICAL BASE-UP POSITION.

INPUT ELECTRICAL: 120.0 VOLTS, 157.5 WATTS, 1.37 AMPS

LED DRIVER: LED ROADWAY LIGHTING J150UN, DRIVER HAS MULTIPLE LEADS, ONLY LINE INPUT AND LED OUTPUT LEADS CONNECTED FOR THIS TEST, OUTPUT CURRENT ROTARY SWITCH SET TO 700mA. LRL65633-LF SURGE PROTECTOR.

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

TEST PROCEDURE: IESNA LM-79-08

TEST DISTANCE = 35.0 FEET

TOTAL LUMEN OUTPUT: 17169

COLOR TEMPERATURE AS MEASURED IN INTEGRATING SPHERE TEST # ITL85007.PS: 3789K

COLOR RENDERING INDEX AS MEASURED IN INTEGRATING SPHERE TEST # ITL85007.PS: 73

LED DC DRIVE CURRENT (mA): 700 (PROVIDED BY CLIENT)

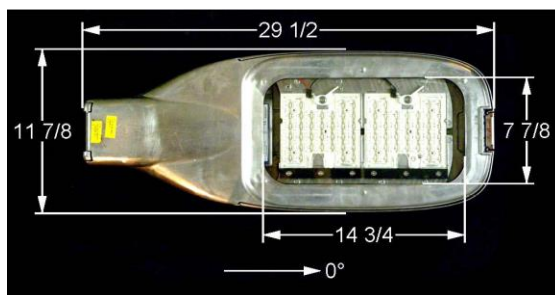
POWER FACTOR: 95.8

BUG RATING: B3 U0 G3

LUMINAIRE EFFICACY: 109.0

IES CLASSIFICATION: Medium, Type II

**CUTOFF DESIGNATION IS NOT INTENDED TO BE USED WITH ABSOLUTE PHOTOMETRIC TESTS.

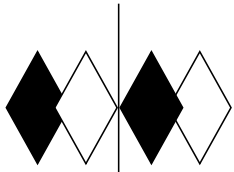


FLUX DISTRIBUTION

LUMENS	DOWNWARD	UPWARD	TOTALS
HOUSE SIDE	5576	0	5576
STREET SIDE	11593	0	11593
TOTALS	17169	0	17169

TESTING WAS PERFORMED IN ACCORDANCE WITH IESNA LM-79-08
TEST ANGULAR INCREMENTS AND REPORT FORMATTING WAS BASED ON IESNA LM-31-95

THIS REPORT IS BASED ON PUBLISHED INDUSTRY PROCEDURES. FIELD PERFORMANCE MAY DIFFER FROM LABORATORY PERFORMANCE.



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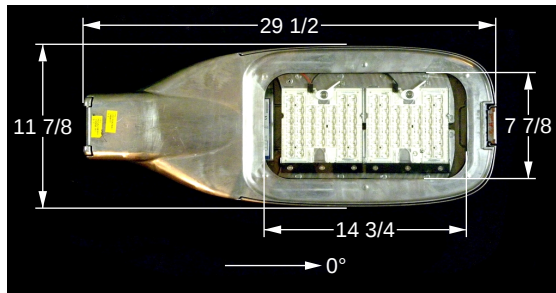
NVLAP
NVLAP LAB CODE: 200925-0

INDEPENDENT TESTING LABORATORIES, INC.

4066 CAMELOT CIRCLE, LONGMONT, CO 80504 USA

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINATION

Values based on 30 foot mounting height.



REPORT NUMBER: ITL85005

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PREPARED FOR: LED ROADWAY LIGHTING LTD.

CATALOG NUMBER: NXT 72M 0 X 2ES 7 XX 3
XX X XX X

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WATTS, 1.37 AMPS

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TEST PROCEDURE: IESNA LM-79-08

TEST DISTANCE = 35.0 FEET

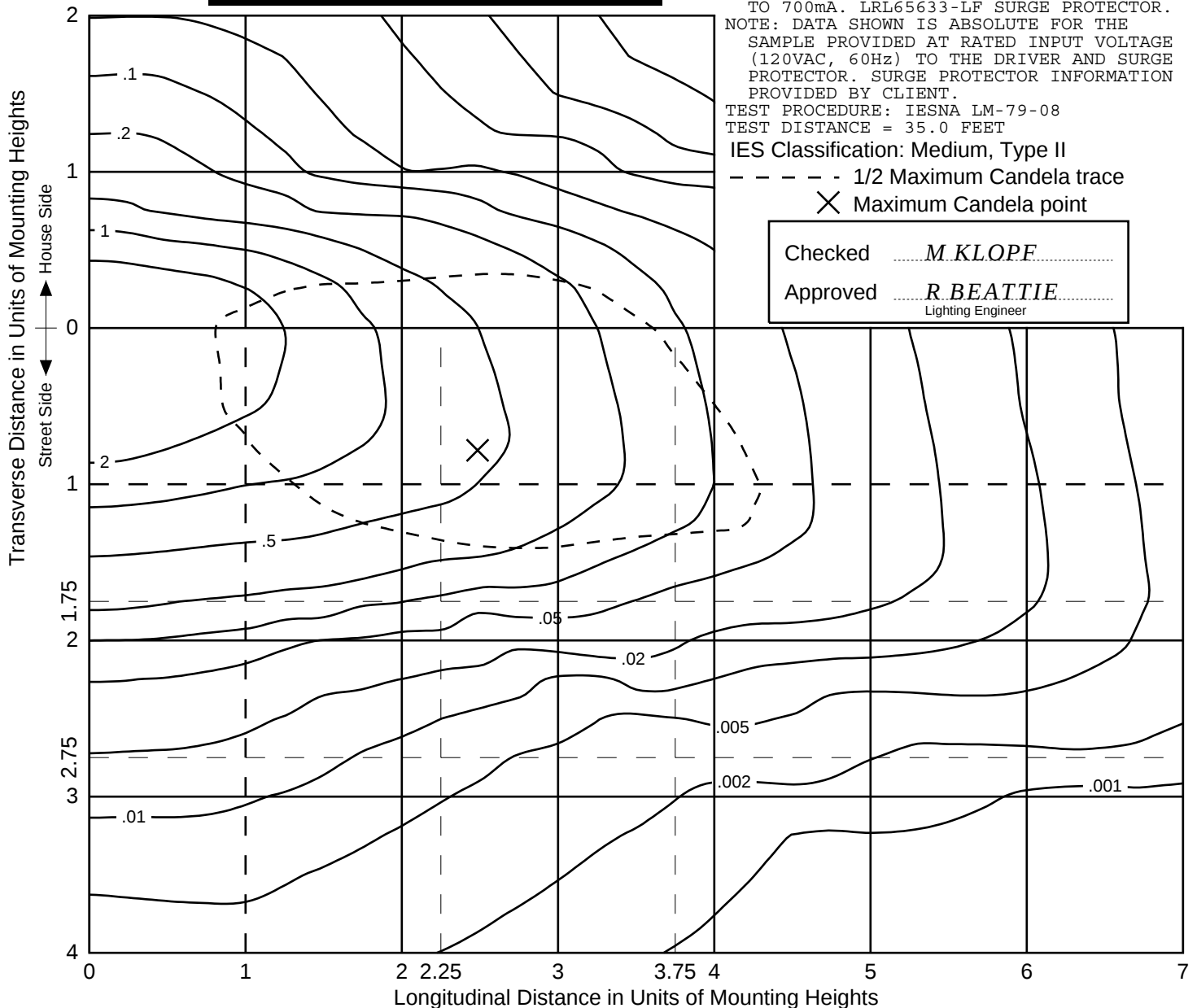
IES Classification: Medium, Type II

--- 1/2 Maximum Candela trace

X Maximum Candela point

CheckedM.KLOPF.....

ApprovedR.BEATTIE.....
Lighting Engineer



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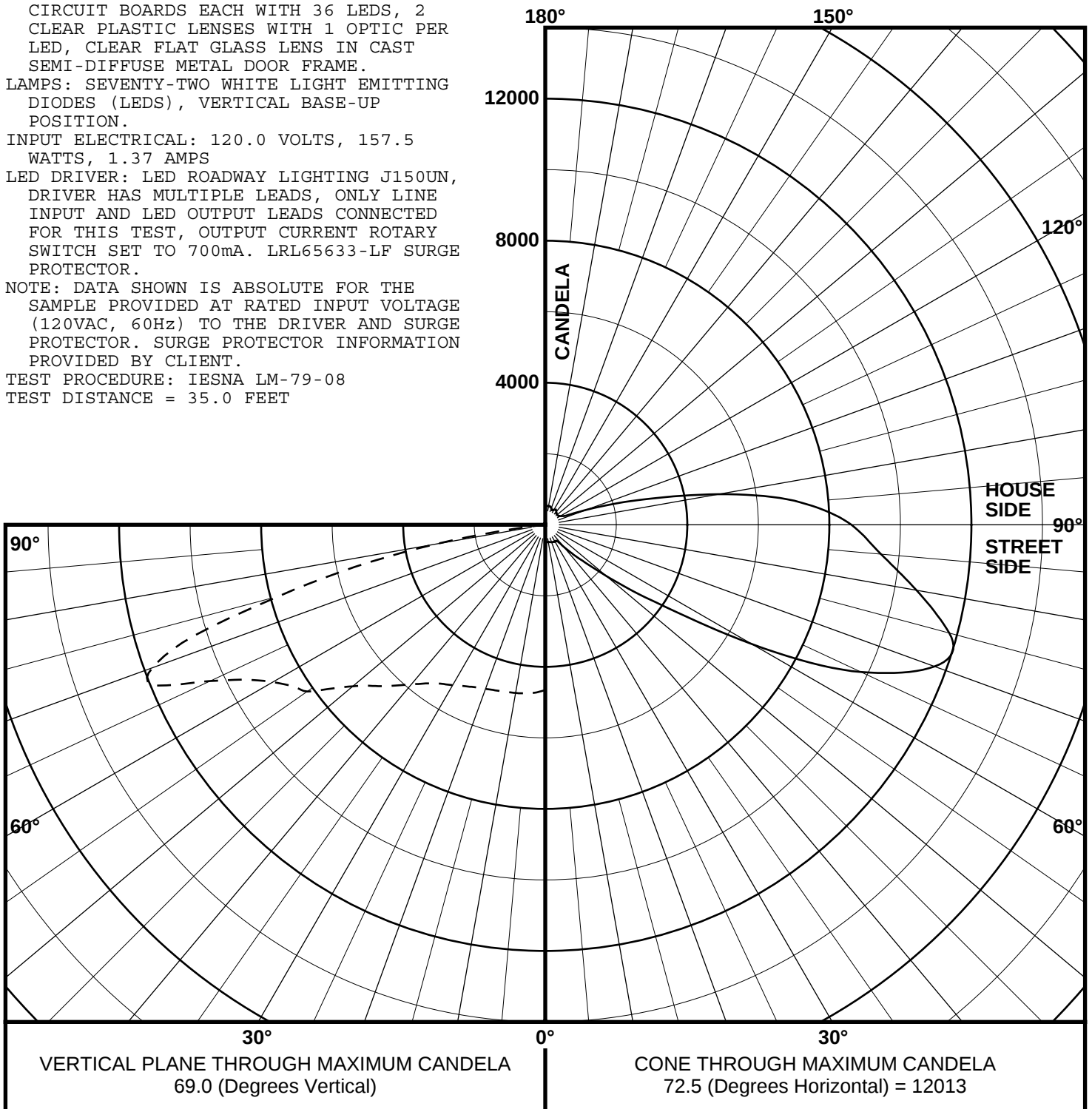
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TEST DISTANCE = 35.0 FEET

MAXIMUM PLANE AND MAXIMUM CONE PLOTS OF CANDELA





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NVLAP LAB CODE: 200925-0

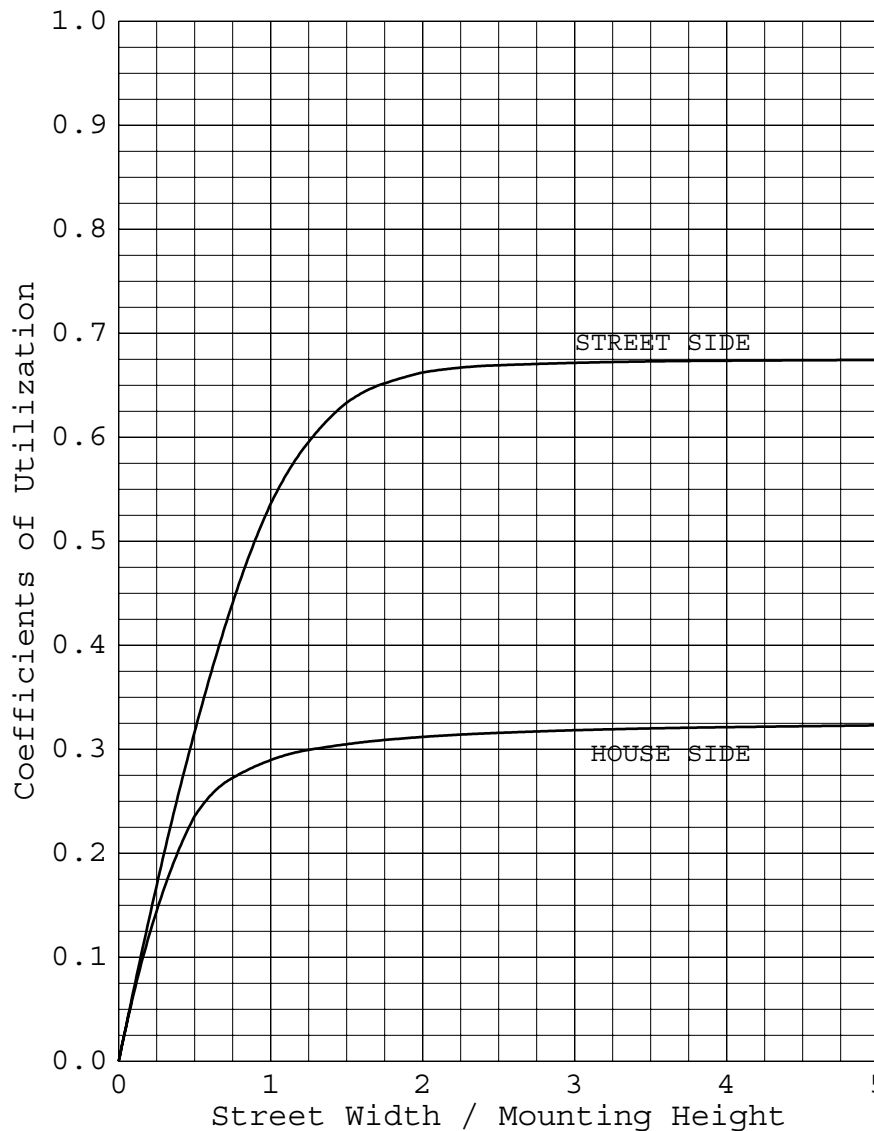
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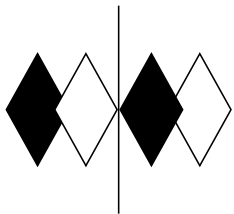
COEFFICIENTS OF UTILIZATION AND FLUX DISTRIBUTION



	LUMENS	PERCENT OF FIXTURE
DOWNWARD STREET SIDE	11593	67.5
DOWNWARD HOUSE SIDE	5576	32.5
DOWNWARD TOTAL	17169	100.0
UPWARD STREET SIDE	0	0.0
UPWARD HOUSE SIDE	0	0.0
UPWARD TOTAL	0	0.0
TOTAL FLUX	17169	100.0

EFFICACY = 109.0 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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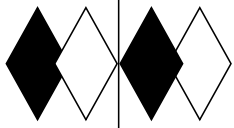
FLUX DISTRIBUTION BY SOLID ANGLE

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

	LUMENS	PERCENT OF FIXTURE	BUG ZONE RATINGS
FORWARD LIGHT	11593.	67.5	
FL (0- 30)	2063.2	12.0	
FM (30- 60)	5865.6	34.2	
FH (60- 80)	3570.0	20.8	G2
FVH(80- 90)	93.6	0.5	G1
BACK LIGHT	5576.	32.5	
BL (0- 30)	1474.6	8.6	B3
BM (30- 60)	2720.3	15.8	B3
BH (60- 80)	1332.6	7.8	B3 G3
BVH(80- 90)	48.9	0.3	G1
UPLIGHT	0.	0.0	
UL (90-100)	0.0	0.0	U0
UH (100-180)	0.0	0.0	U0
TRAPPED LIGHT	0.	0.0	
TOTAL FLUX	17169.	100.0	

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

BUG RATING: B3 U0 G3



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CANDELA TABULATION

	STREET SIDE										
	0.0	5.0	15.0	25.0	35.0	45.0	55.0	65.0	72.5	75.0	85.0
180.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
175.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
165.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
155.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
145.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
135.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
125.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
115.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
105.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
95.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
92.5	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
90.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
87.5	5.	5.	4.	4.	2.	2.	3.	6.	8.	10.	8.
85.0	28.	29.	35.	35.	22.	22.	21.	24.	34.	44.	28.
V 82.5	74.	77.	102.	92.	64.	77.	73.	152.	897.	1012.	550.
E 80.0	139.	143.	184.	134.	121.	147.	149.	492.	3129.	3398.	2374.
R 77.5	192.	196.	239.	186.	194.	206.	267.	1519.	5505.	6006.	4715.
T 75.0	223.	235.	276.	264.	268.	302.	496.	4009.	7762.	8269.	6406.
I 72.5	301.	305.	342.	353.	353.	491.	1302.	6772.	10339.	10557.	8106.
C 70.0	421.	417.	448.	468.	470.	969.	3045.	9143.	11771.	11615.	9219.
A 69.0<<	493.	488.	508.	534.	547.	1334.	3818.	9809.	12013.	11778.	9490.
L 67.5	584.	586.	603.	639.	759.	2084.	4889.	10204.	11826.	11585.	9647.
65.0	763.	771.	829.	989.	1588.	3437.	6175.	9600.	10416.	10333.	9123.
A 62.5	1156.	1161.	1320.	1695.	2600.	4394.	6551.	8886.	9453.	9336.	8512.
N 60.0	1746.	1742.	1918.	2357.	3170.	4667.	6441.	8390.	8858.	8750.	8197.
G 57.5	2222.	2209.	2347.	2719.	3408.	4697.	6346.	8102.	8447.	8349.	7993.
L 55.0	2542.	2523.	2640.	2974.	3614.	4724.	6253.	7943.	8180.	8059.	7769.
E 52.5	2790.	2770.	2867.	3195.	3827.	4755.	6112.	7354.	7572.	7558.	7509.
50.0	2980.	2964.	3079.	3424.	4036.	4840.	6007.	6911.	7075.	7081.	7195.
47.5	3151.	3162.	3295.	3640.	4227.	4944.	5899.	6539.	6709.	6753.	6916.
45.0	3346.	3362.	3514.	3854.	4391.	5007.	5718.	6204.	6424.	6488.	6661.
42.5	3560.	3581.	3756.	4153.	4584.	5103.	5607.	5917.	6137.	6225.	6412.
40.0	3894.	3931.	4148.	4473.	4789.	5198.	5460.	5664.	5870.	5957.	6133.
37.5	4400.	4422.	4566.	4737.	4983.	5242.	5288.	5447.	5638.	5715.	5879.
35.0	4783.	4798.	4877.	4976.	5126.	5194.	5117.	5267.	5450.	5519.	5641.
30.0	5208.	5233.	5235.	5217.	5087.	4890.	4874.	5066.	5216.	5253.	5281.
25.0	5163.	5190.	5084.	4941.	4777.	4725.	4792.	4960.	5030.	5041.	4998.
20.0	4773.	4805.	4768.	4729.	4698.	4758.	4842.	4936.	4917.	4902.	4813.
15.0	4740.	4780.	4772.	4783.	4813.	4877.	4930.	4915.	4851.	4833.	4738.
10.0	4895.	4945.	4937.	4942.	4954.	4947.	4916.	4864.	4809.	4792.	4714.
5.0	4887.	4923.	4896.	4880.	4863.	4846.	4818.	4791.	4757.	4749.	4704.
0.0	4653.	4653.	4653.	4653.	4653.	4653.	4653.	4653.	4653.	4653.	4653.

||
PLANE OF MAXIMUM CANDELA

CONE OF MAXIMUM CANDELA



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CANDELA TABULATION

HOUSE SIDE		LATERAL ANGLE										
		90.0	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.
	175.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	165.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	155.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	145.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	135.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	125.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	115.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	105.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	95.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	92.5	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	90.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	87.5	10.	8.	5.	4.	3.	2.	2.	1.	0.	0.	0.
	85.0	28.	27.	20.	15.	13.	19.	26.	44.	33.	10.	3.
V	82.5	583.	462.	63.	58.	55.	85.	105.	129.	156.	146.	145.
E	80.0	2122.	1672.	174.	129.	120.	165.	214.	244.	296.	313.	316.
R	77.5	4059.	3175.	386.	210.	194.	245.	320.	367.	466.	499.	499.
T	75.0	5656.	4487.	794.	308.	282.	313.	397.	427.	575.	641.	637.
I	72.5	7366.	6096.	1534.	424.	358.	372.	444.	443.	612.	676.	682.
C	70.0	8391.	7029.	2357.	542.	422.	427.	494.	451.	551.	580.	580.
A	69.0<<	8622.	7223.	2663.	586.	446.	447.	516.	457.	532.	534.	532.
L	67.5	8741.	7330.	3047.	650.	486.	477.	547.	478.	515.	485.	481.
	65.0	8419.	7257.	3608.	751.	541.	535.	589.	533.	521.	470.	462.
A	62.5	8083.	7184.	4103.	907.	589.	598.	616.	606.	560.	514.	504.
N	60.0	7949.	7215.	4557.	1188.	645.	659.	623.	658.	627.	571.	554.
G	57.5	7882.	7331.	4965.	1621.	712.	718.	648.	687.	686.	630.	615.
L	55.0	7718.	7285.	5257.	2127.	804.	768.	693.	704.	729.	687.	666.
E	52.5	7458.	7032.	5286.	2640.	960.	808.	737.	745.	774.	722.	704.
	50.0	7180.	6819.	5307.	3086.	1206.	857.	787.	785.	805.	758.	745.
	47.5	6935.	6629.	5317.	3422.	1528.	921.	844.	831.	818.	786.	780.
	45.0	6668.	6419.	5264.	3648.	1871.	1057.	907.	880.	860.	835.	831.
	42.5	6405.	6183.	5186.	3777.	2184.	1277.	985.	928.	909.	895.	893.
	40.0	6129.	5924.	5068.	3855.	2442.	1515.	1128.	989.	955.	936.	932.
	37.5	5861.	5671.	4929.	3893.	2662.	1742.	1318.	1117.	1026.	990.	985.
	35.0	5608.	5431.	4797.	3907.	2856.	1971.	1517.	1289.	1181.	1127.	1118.
	30.0	5210.	5040.	4547.	3914.	3184.	2496.	1992.	1701.	1534.	1455.	1448.
	25.0	4905.	4754.	4364.	3942.	3467.	2990.	2596.	2277.	2079.	1984.	1978.
	20.0	4720.	4592.	4297.	4009.	3723.	3424.	3158.	2922.	2767.	2668.	2684.
	15.0	4654.	4553.	4333.	4123.	3942.	3769.	3608.	3479.	3377.	3324.	3340.
	10.0	4647.	4576.	4427.	4285.	4163.	4052.	3971.	3903.	3855.	3831.	3849.
	5.0	4664.	4629.	4552.	4479.	4414.	4350.	4308.	4260.	4240.	4228.	4245.
	0.0	4653.	4653.	4653.	4653.	4653.	4653.	4653.	4653.	4653.	4653.	4653.

CONE OF MAXIMUM CANDELA



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5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	111
5- 10	326
10- 15	524
15- 20	698
20- 25	859
25- 30	1020
30- 35	1167
35- 40	1291
40- 45	1394
45- 50	1494
50- 55	1590
55- 60	1650
60- 65	1628
65- 70	1536
70- 75	1149
75- 80	589
80- 85	138
85- 90	5
90- 95	0
95-100	0
100-105	0
105-110	0
110-115	0
115-120	0
120-125	0
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	437
0- 20	1659
0- 30	3538
0- 40	5996
0- 50	8883
0- 60	12124
0- 70	15288
0- 80	17026
0- 90	17169
0-100	17169
0-110	17169
0-120	17169
0-130	17169
0-140	17169
0-150	17169
0-160	17169
0-170	17169
0-180	17169



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