

REPORT NUMBER: ITL85766

ISSUE DATE: 10/15/15

PAGE: 1 OF 9

PREPARED FOR: LED ROADWAY LIGHTING LTD.

CATALOG NUMBER: NXT 60M 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. ONLY 60 LEDS ON FOR THIS TEST.

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

INPUT ELECTRICAL: 120.0 VOLTS, 131.9 WATTS, 1.12 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: 14362

COLOR TEMPERATURE AS MEASURED IN INTEGRATING SPHERE TEST # ITL85781: 3787K

COLOR RENDERING INDEX AS MEASURED IN INTEGRATING SPHERE TEST # ITL85781: 73

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

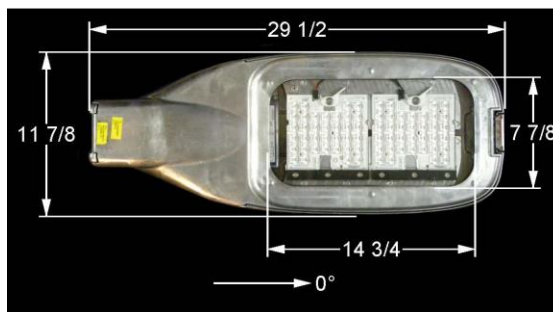
POWER FACTOR: 98.1 %

BUG RATING: B3 U0 G3

LUMINAIRE EFFICACY: 108.9 lm/W

IES CLASSIFICATION: Medium, Type II

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

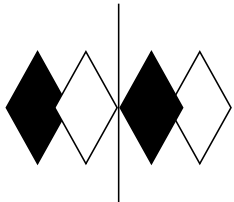


FLUX DISTRIBUTION

LUMENS	DOWNWARD	UPWARD	TOTALS
HOUSE SIDE	4653	0	4653
STREET SIDE	9709	0	9709
TOTALS	14362	0	14362

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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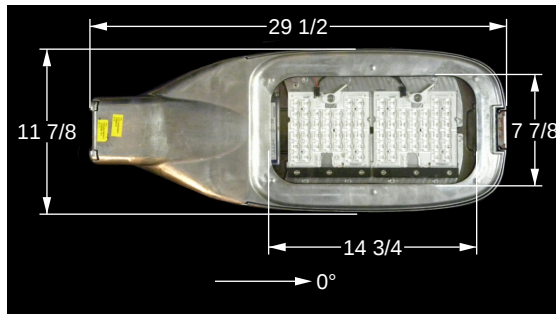
NVLAP
NVLAP LAB CODE: 200925-0

INDEPENDENT TESTING LABORATORIES, INC.

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ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINATION

Values based on 30 foot mounting height.



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PAGE: 2 OF 9

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CATALOG NUMBER: NXT 60M 0 X 2ES 7 XX 3 XX X XX X

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TEST PROCEDURE: IESNA LM-79-08

TEST DISTANCE = 35.0 FEET

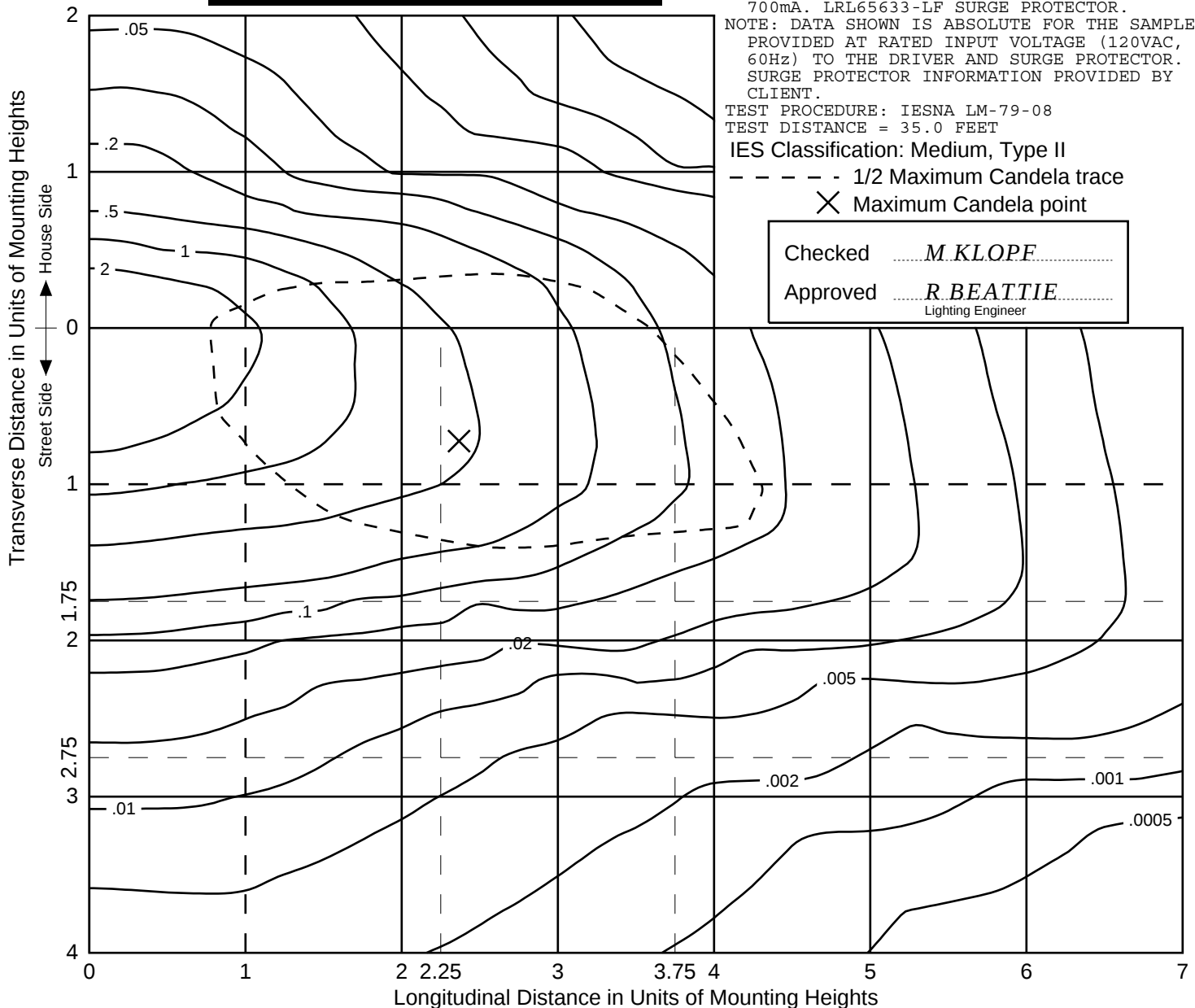
IES Classification: Medium, Type II

--- 1/2 Maximum Candela trace

X Maximum Candela point

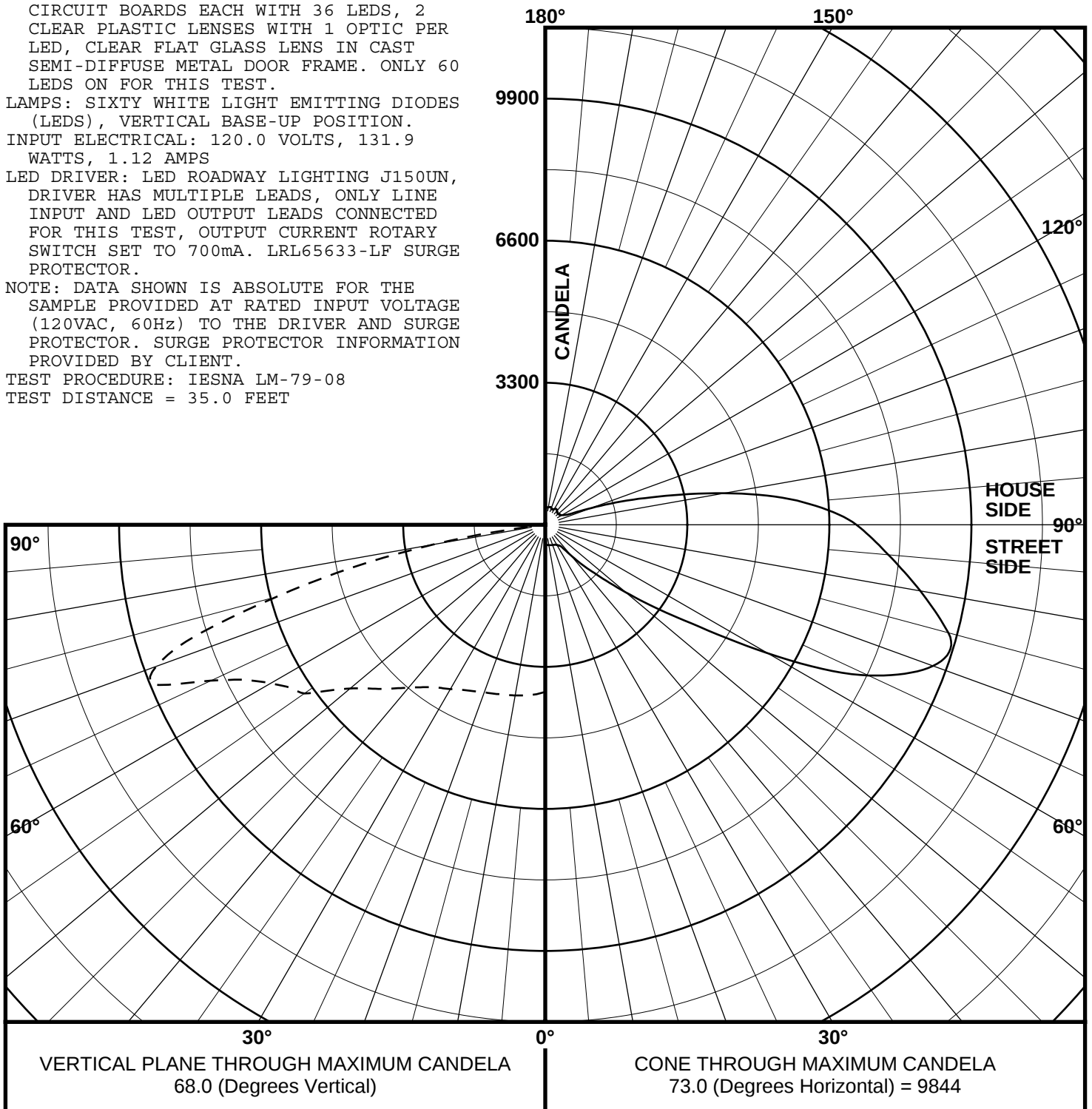
CheckedM.KLOPF.....

ApprovedR.BEATTIE.....
Lighting Engineer



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CATALOG NUMBER: NXT 60M 0 X 2ES 7 XX 3
XX X XX X
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TEST PROCEDURE: IESNA LM-79-08
TEST DISTANCE = 35.0 FEET

MAXIMUM PLANE AND MAXIMUM CONE PLOTS OF CANDELA





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NVLAP LAB CODE: 200925-0

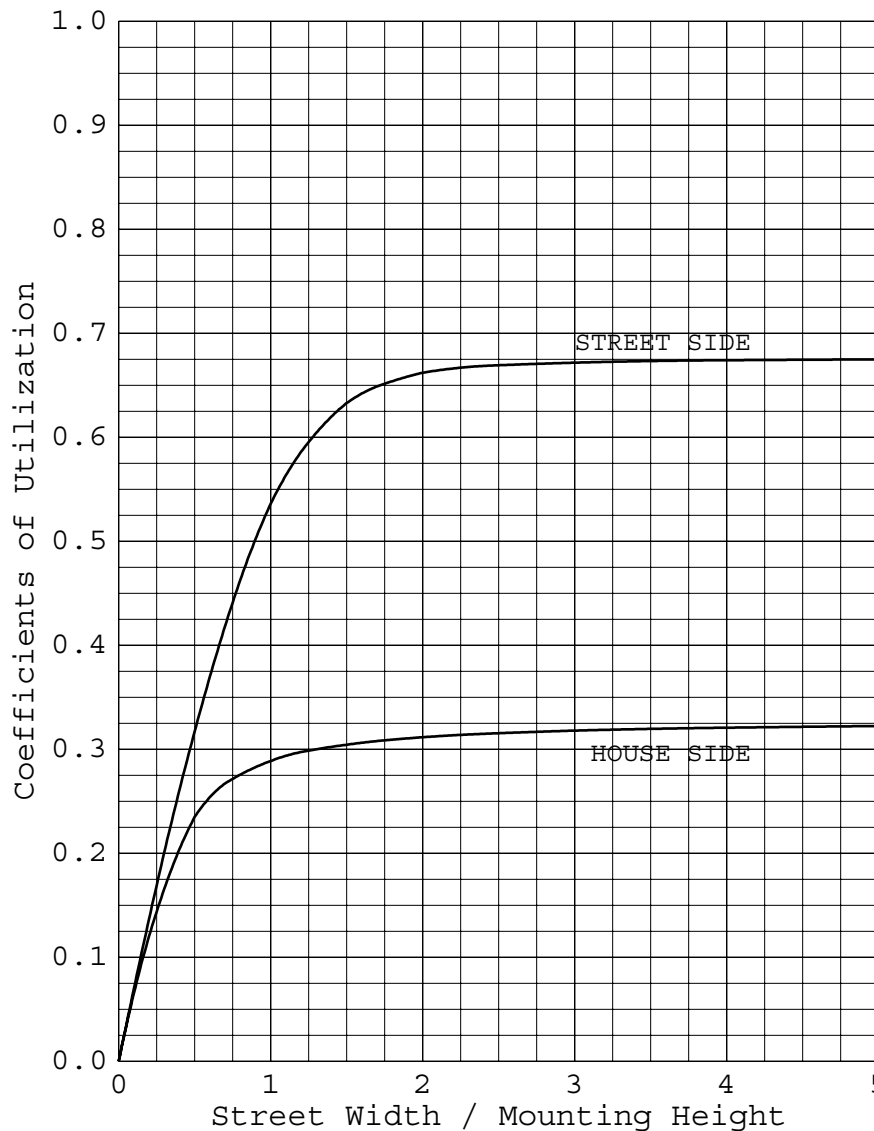
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PAGE: 4 OF 9

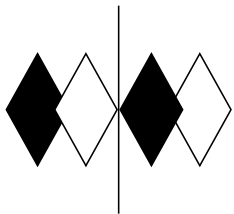
COEFFICIENTS OF UTILIZATION AND FLUX DISTRIBUTION



	LUMENS	PERCENT OF FIXTURE
DOWNWARD STREET SIDE	9709	67.6
DOWNWARD HOUSE SIDE	4653	32.4
DOWNWARD TOTAL	14362	100.0
UPWARD STREET SIDE	0	0.0
UPWARD HOUSE SIDE	0	0.0
UPWARD TOTAL	0	0.0
TOTAL FLUX	14362	100.0

EFFICACY = 108.9 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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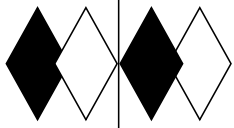
FLUX DISTRIBUTION BY SOLID ANGLE

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

	LUMENS	PERCENT OF FIXTURE	BUG ZONE RATINGS
FORWARD LIGHT	9709.	67.6	
FL (0- 30)	1733.3	12.1	
FM (30- 60)	4933.3	34.4	
FH (60- 80)	2960.5	20.6	G2
FVH(80- 90)	81.8	0.6	G1
BACK LIGHT	4653.	32.4	
BL (0- 30)	1234.5	8.6	B3
BM (30- 60)	2280.7	15.9	B2
BH (60- 80)	1100.0	7.7	B3 G3
BVH(80- 90)	37.7	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	14362.	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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PAGE: 6 OF 9

CANDELA TABULATION

	STREET SIDE										
	0.0	5.0	15.0	25.0	35.0	45.0	55.0	65.0	73.0	75.0	85.0
	180.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	175.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	165.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	155.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	145.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	135.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	125.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	115.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	105.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	95.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	92.5	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	90.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	87.5	6.	6.	6.	5.	3.	3.	3.	5.	8.	7.
	85.0	30.	31.	37.	37.	25.	23.	23.	25.	43.	27.
V	82.5	72.	75.	97.	89.	65.	79.	80.	138.	791.	471.
E	80.0	132.	137.	173.	133.	121.	147.	160.	428.	2643.	2005.
R	77.5	179.	185.	222.	181.	188.	203.	270.	1261.	4596.	3897.
T	75.0	213.	221.	257.	251.	257.	287.	485.	3233.	6474.	5292.
I	72.5	282.	285.	316.	328.	330.	445.	1193.	5485.	8433.	6691.
C	70.0	371.	379.	402.	416.	426.	837.	2539.	7470.	9616.	7632.
A	68.0<<	459.	470.	490.	511.	598.	1538.	3762.	8283.	9844.	8002.
L	67.5	483.	495.	516.	540.	680.	1766.	4039.	8320.	9726.	8015.
	65.0	639.	641.	696.	824.	1382.	2935.	5104.	7903.	8571.	7624.
A	62.5	982.	984.	1125.	1417.	2173.	3669.	5435.	7350.	7811.	7118.
N	60.0	1477.	1473.	1633.	1978.	2652.	3912.	5382.	6962.	7365.	6859.
G	57.5	1870.	1861.	1989.	2292.	2871.	3949.	5316.	6731.	7036.	6688.
L	55.0	2137.	2122.	2236.	2506.	3054.	3975.	5241.	6618.	6829.	6518.
E	52.5	2354.	2331.	2427.	2694.	3242.	4017.	5128.	6117.	6321.	6300.
	50.0	2521.	2497.	2600.	2895.	3414.	4094.	5044.	5750.	5918.	6032.
	47.5	2692.	2668.	2791.	3076.	3579.	4185.	4959.	5467.	5623.	5798.
	45.0	2861.	2842.	2986.	3262.	3729.	4252.	4816.	5184.	5392.	5584.
	42.5	3054.	3035.	3199.	3514.	3904.	4315.	4714.	4944.	5155.	5373.
	40.0	3354.	3339.	3530.	3794.	4080.	4389.	4585.	4741.	4942.	5142.
	37.5	3776.	3745.	3880.	4036.	4225.	4430.	4442.	4567.	4758.	4933.
	35.0	4102.	4065.	4147.	4230.	4332.	4371.	4306.	4426.	4605.	4735.
	30.0	4417.	4383.	4398.	4398.	4277.	4103.	4102.	4264.	4406.	4432.
	25.0	4356.	4318.	4252.	4134.	4021.	3968.	4041.	4182.	4250.	4188.
	20.0	4040.	4011.	3988.	3965.	3959.	4011.	4086.	4157.	4143.	4030.
	15.0	4035.	4016.	4020.	4049.	4068.	4109.	4147.	4130.	4077.	3957.
	10.0	4157.	4147.	4142.	4161.	4163.	4159.	4126.	4077.	4025.	3926.
	5.0	4130.	4122.	4104.	4101.	4078.	4061.	4036.	4000.	3967.	3917.
	0.0	3882.	3882.	3882.	3882.	3882.	3882.	3882.	3882.	3882.	3882.
									PLANE OF MAXIMUM CANDELA		
									CONE OF MAXIMUM CANDELA		



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PAGE: 7 OF 9

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.
	175.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	165.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	155.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	145.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	135.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	125.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	115.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	105.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	95.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	92.5	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	90.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	87.5	6.	5.	2.	2.	1.	1.	0.	0.	0.	0.
	85.0	24.	22.	15.	11.	9.	11.	18.	29.	19.	6.
V	82.5	463.	364.	55.	49.	45.	61.	81.	93.	110.	107.
E	80.0	1702.	1337.	154.	111.	97.	127.	164.	187.	224.	240.
R	77.5	3261.	2546.	333.	182.	160.	191.	251.	292.	370.	389.
T	75.0	4605.	3697.	664.	265.	238.	253.	318.	342.	466.	520.
I	72.5	5966.	4904.	1240.	365.	305.	310.	362.	355.	496.	536.
C	70.0	6883.	5736.	1926.	468.	363.	360.	411.	369.	447.	466.
A	68.0<<	7228.	6020.	2399.	548.	409.	398.	448.	392.	429.	402.
L	67.5	7245.	6044.	2498.	566.	417.	407.	458.	401.	428.	396.
	65.0	7027.	6021.	2962.	651.	469.	456.	499.	452.	445.	398.
A	62.5	6749.	5970.	3378.	782.	513.	511.	527.	517.	482.	436.
N	60.0	6638.	6000.	3771.	995.	562.	565.	538.	565.	542.	490.
G	57.5	6590.	6098.	4124.	1334.	620.	614.	559.	592.	591.	540.
L	55.0	6463.	6080.	4375.	1741.	700.	658.	596.	608.	626.	587.
E	52.5	6243.	5867.	4403.	2157.	826.	698.	635.	642.	664.	618.
	50.0	6008.	5685.	4424.	2532.	1021.	743.	678.	678.	691.	651.
	47.5	5792.	5529.	4435.	2821.	1279.	798.	727.	720.	706.	678.
	45.0	5569.	5356.	4396.	3018.	1556.	906.	781.	760.	739.	717.
	42.5	5348.	5156.	4336.	3135.	1815.	1082.	846.	799.	781.	766.
	40.0	5117.	4943.	4242.	3205.	2032.	1276.	961.	850.	820.	803.
	37.5	4897.	4737.	4129.	3242.	2216.	1465.	1116.	952.	881.	850.
	35.0	4689.	4543.	4021.	3262.	2378.	1653.	1279.	1088.	1006.	960.
	30.0	4361.	4220.	3815.	3274.	2659.	2085.	1664.	1423.	1289.	1232.
	25.0	4106.	3980.	3667.	3311.	2909.	2501.	2163.	1895.	1734.	1658.
	20.0	3951.	3847.	3611.	3375.	3119.	2867.	2635.	2439.	2307.	2251.
	15.0	3890.	3809.	3632.	3463.	3306.	3155.	3015.	2912.	2829.	2784.
	10.0	3879.	3822.	3701.	3594.	3488.	3398.	3319.	3260.	3218.	3200.
	5.0	3891.	3862.	3801.	3747.	3686.	3637.	3595.	3561.	3547.	3534.
	0.0	3882.	3882.	3882.	3882.	3882.	3882.	3882.	3882.	3882.	3882.

CONE OF MAXIMUM CANDELA



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PAGE: 8 OF 9

5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	92
5- 10	273
10- 15	439
15- 20	586
20- 25	721
25- 30	856
30- 35	982
35- 40	1087
40- 45	1173
45- 50	1256
50- 55	1334
55- 60	1382
60- 65	1358
65- 70	1271
70- 75	945
75- 80	487
80- 85	116
85- 90	4
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	365
0- 20	1391
0- 30	2968
0- 40	5037
0- 50	7465
0- 60	10182
0- 70	12811
0- 80	14242
0- 90	14362
0-100	14362
0-110	14362
0-120	14362
0-130	14362
0-140	14362
0-150	14362
0-160	14362
0-170	14362
0-180	14362



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PAGE: 9 OF 9

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