

REPORT NUMBER: ITL85759

ISSUE DATE: 10/23/15

PAGE: 1 OF 9

PREPARED FOR: LED ROADWAY LIGHTING LTD.

CATALOG NUMBER: NXT 48M 0 X 2ES 5 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 48 LEDS ON FOR THIS TEST.

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

INPUT ELECTRICAL: 120.0 VOLTS, 76.8 WATTS, 0.646 AMPS

LED DRIVER: LED ROADWAY LIGHTING J100UN, DRIVER HAS MULTIPLE LEADS, ONLY LINE INPUT AND LED OUTPUT LEADS CONNECTED FOR THIS TEST, OUTPUT CURRENT ROTARY SWITCH SET TO 525mA. 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: 8993

COLOR TEMPERATURE AS MEASURED IN INTEGRATING SPHERE TEST # ITL85774: 3758K

COLOR RENDERING INDEX AS MEASURED IN INTEGRATING SPHERE TEST # ITL85774: 73

LED DC DRIVE CURRENT (mA): 525 (PROVIDED BY CLIENT)

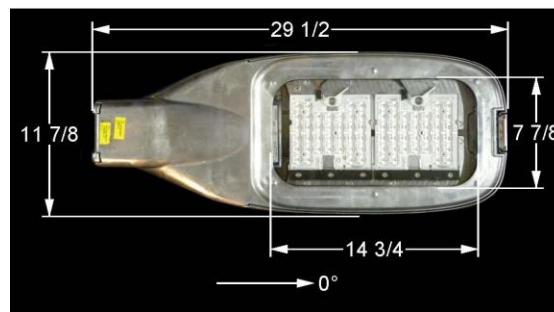
POWER FACTOR: 99.1 %

BUG RATING: B2 U0 G2

LUMINAIRE EFFICACY: 117.1 lm/W

IES CLASSIFICATION: Medium, Type II

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

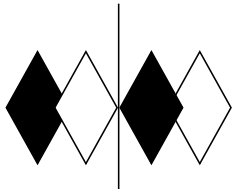


FLUX DISTRIBUTION

LUMENS	DOWNWARD	UPWARD	TOTALS
HOUSE SIDE	2930	0	2930
STREET SIDE	6064	0	6064
TOTALS	8993	0	8993

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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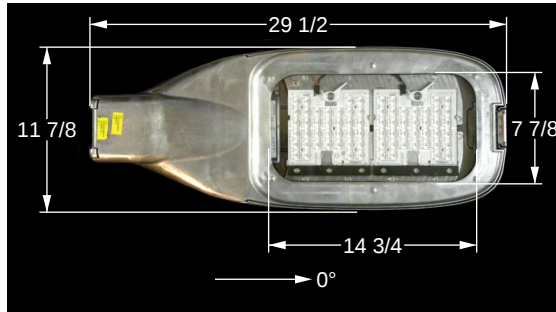
NVLAP
NVLAP LAB CODE: 200925-0

INDEPENDENT TESTING LABORATORIES, INC.

4066 CAMELOT CIRCLE, LONGMONT, CO 80504 USA

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINATION

Values based on 30 foot mounting height.



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TEST PROCEDURE: IESNA LM-79-08

TEST DISTANCE = 35.0 FEET

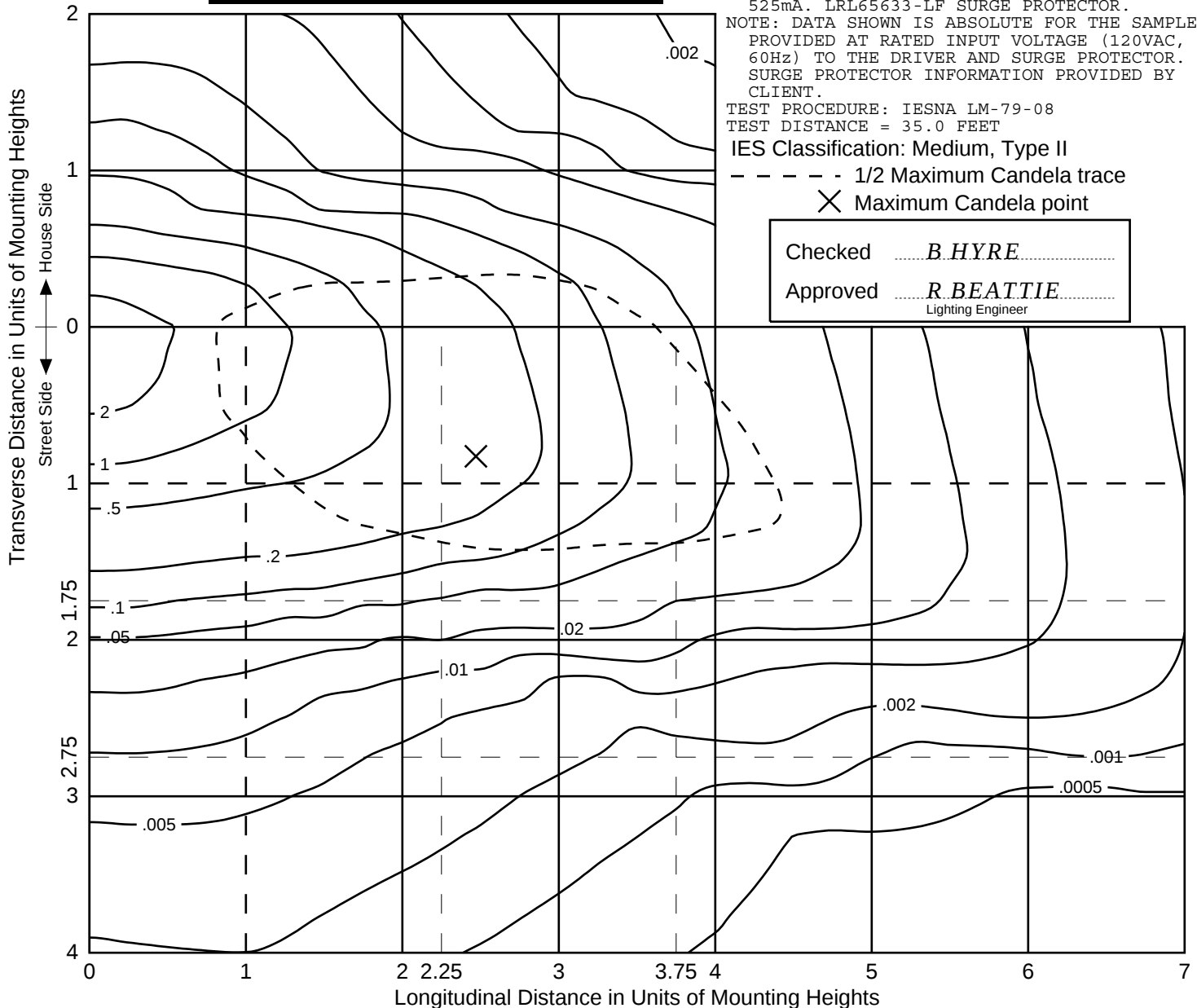
IES Classification: Medium, Type II

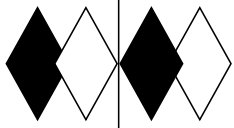
--- 1/2 Maximum Candela trace

X Maximum Candela point

Checked *B. HYRE*

Approved *R. BEATTIE*
Lighting Engineer





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PREPARED FOR: LED ROADWAY LIGHTING LTD.

CATALOG NUMBER: NXT 48M 0 X 2ES 5 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 48 LEDS ON FOR THIS TEST.

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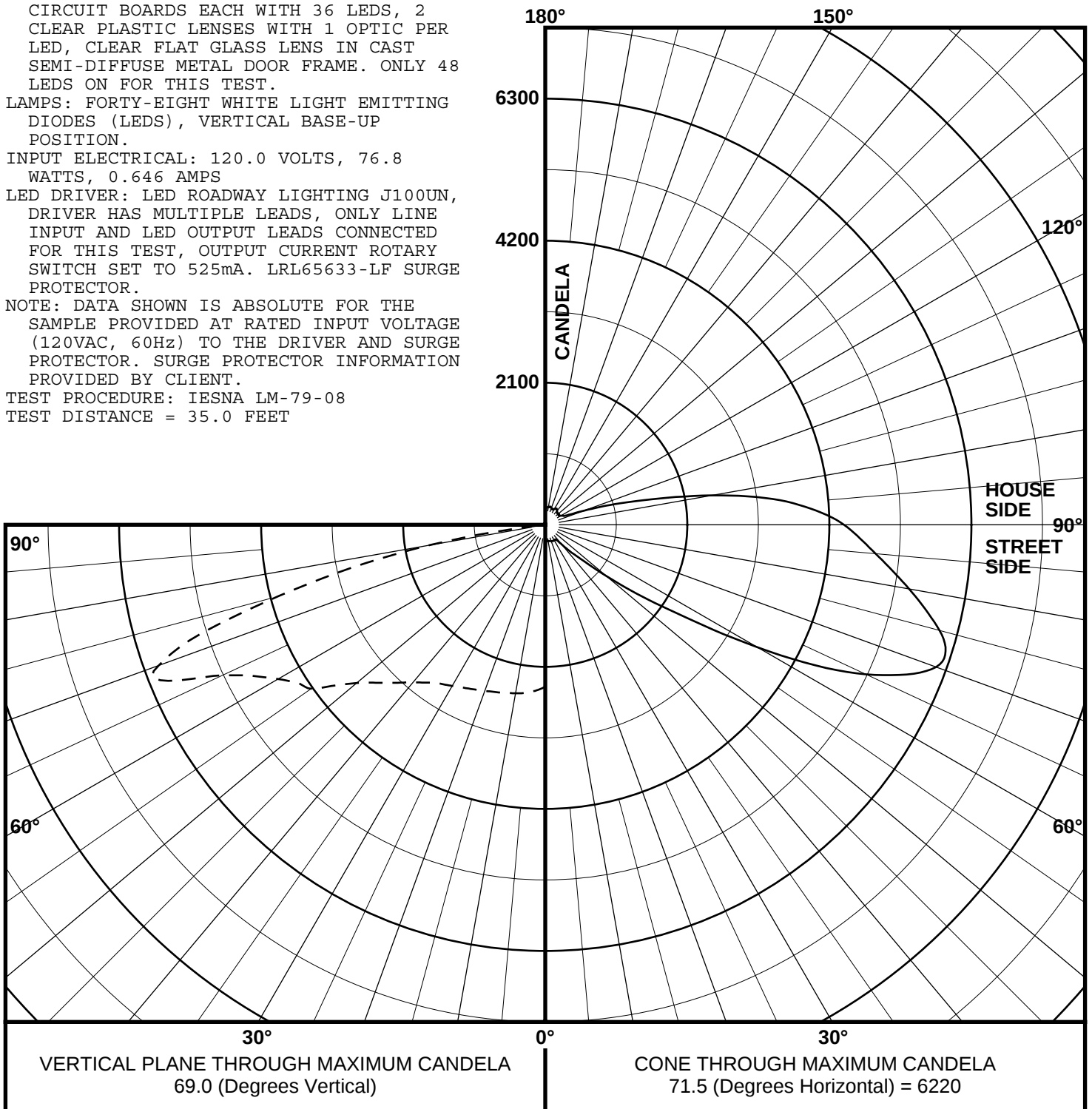
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TEST PROCEDURE: IESNA LM-79-08

TEST DISTANCE = 35.0 FEET

MAXIMUM PLANE AND MAXIMUM CONE PLOTS OF CANDELA





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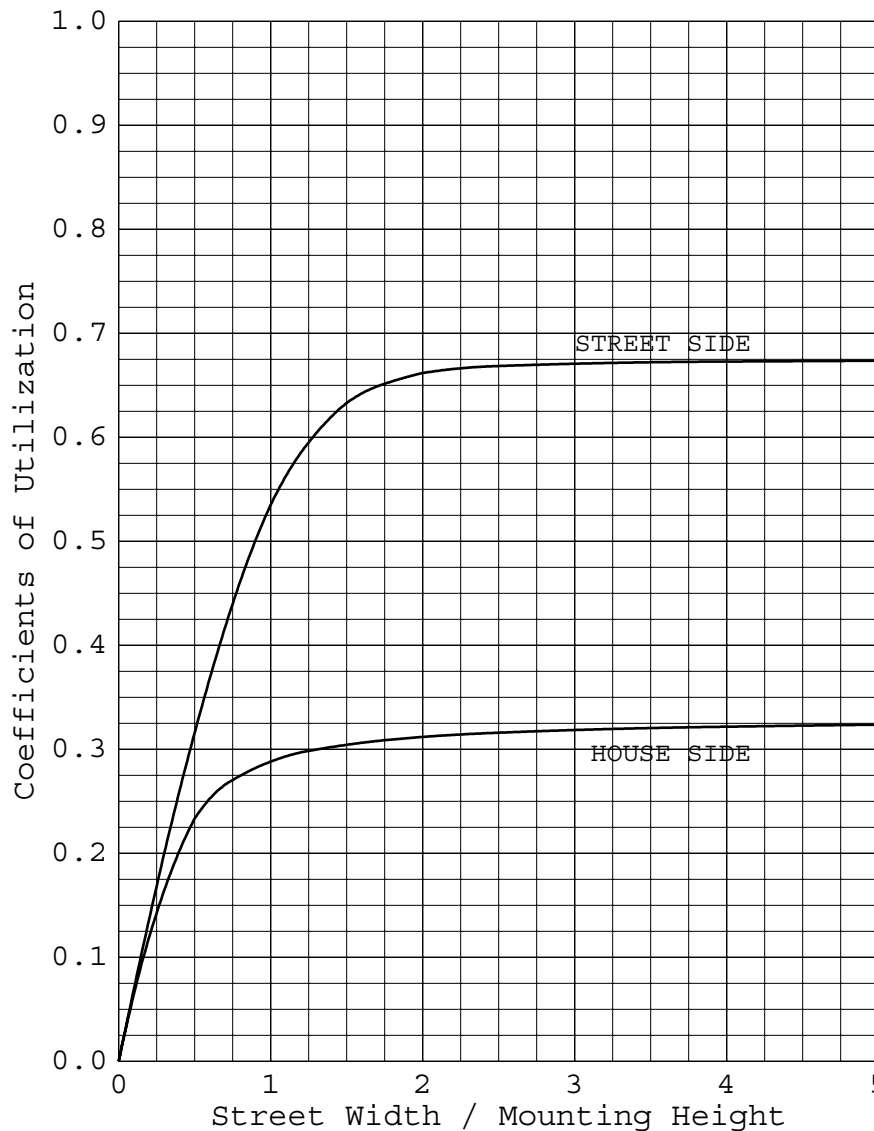
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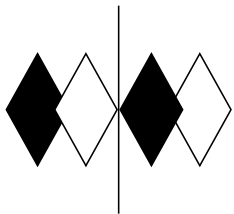
COEFFICIENTS OF UTILIZATION AND FLUX DISTRIBUTION



	LUMENS	PERCENT OF FIXTURE
DOWNWARD STREET SIDE	6064	67.4
DOWNWARD HOUSE SIDE	2930	32.6
DOWNWARD TOTAL	8993	100.0
UPWARD STREET SIDE	0	0.0
UPWARD HOUSE SIDE	0	0.0
UPWARD TOTAL	0	0.0
TOTAL FLUX	8993	100.0

EFFICACY = 117.1 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	6064.	67.4	
FL (0- 30)	1089.5	12.1	
FM (30- 60)	3063.6	34.1	
FH (60- 80)	1859.0	20.7	G2
FVH(80- 90)	51.7	0.6	G1
BACK LIGHT	2930.	32.6	
BL (0- 30)	772.5	8.6	B2
BM (30- 60)	1429.3	15.9	B2
BH (60- 80)	699.7	7.8	B2 G2
BVH(80- 90)	28.1	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	8993.	100.0	

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

BUG RATING: B2 U0 G2



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CANDELA TABULATION

	STREET SIDE										
	0.0	5.0	15.0	25.0	35.0	45.0	55.0	65.0	71.5	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	1.	2.	2.	1.	0.	0.	1.	3.	4.	5.
	85.0	12.	14.	17.	14.	10.	9.	8.	9.	12.	13.
V	82.5	34.	37.	50.	43.	32.	38.	34.	66.	508.	341.
E	80.0	68.	73.	96.	72.	63.	79.	75.	243.	1737.	1319.
R	77.5	101.	106.	130.	100.	105.	109.	139.	815.	2928.	2502.
T	75.0	122.	129.	150.	143.	145.	157.	260.	2149.	4085.	3363.
I	72.5	159.	166.	183.	189.	188.	250.	726.	3604.	5319.	4191.
C	70.0	213.	219.	231.	240.	236.	466.	1683.	4914.	6085.	4760.
A	69.0<<	234.	238.	251.	264.	264.	652.	2091.	5230.	6220.	4902.
L	67.5	265.	272.	284.	304.	355.	1053.	2650.	5317.	6032.	4968.
	65.0	338.	349.	371.	448.	772.	1831.	3295.	4953.	5266.	4658.
A	62.5	530.	551.	627.	822.	1309.	2318.	3440.	4585.	4844.	4391.
N	60.0	849.	874.	969.	1199.	1618.	2434.	3381.	4348.	4560.	4249.
G	57.5	1118.	1133.	1205.	1410.	1762.	2458.	3335.	4193.	4349.	4144.
L	55.0	1291.	1304.	1365.	1540.	1879.	2473.	3284.	4115.	4225.	4027.
E	52.5	1426.	1436.	1483.	1660.	1998.	2496.	3195.	3797.	3898.	3885.
	50.0	1532.	1543.	1598.	1783.	2113.	2552.	3138.	3564.	3640.	3727.
	47.5	1636.	1651.	1718.	1900.	2231.	2612.	3079.	3392.	3454.	3575.
	45.0	1739.	1760.	1846.	2020.	2327.	2662.	2992.	3220.	3306.	3444.
	42.5	1845.	1880.	1985.	2179.	2437.	2706.	2936.	3073.	3165.	3321.
	40.0	2023.	2066.	2196.	2359.	2555.	2748.	2866.	2947.	3040.	3183.
	37.5	2289.	2333.	2428.	2522.	2653.	2777.	2785.	2848.	2941.	3062.
	35.0	2510.	2555.	2609.	2655.	2715.	2747.	2701.	2762.	2853.	2946.
	30.0	2737.	2781.	2782.	2773.	2707.	2586.	2572.	2673.	2751.	2764.
	25.0	2723.	2755.	2705.	2625.	2535.	2485.	2544.	2629.	2672.	2621.
	20.0	2506.	2540.	2519.	2484.	2485.	2525.	2573.	2612.	2613.	2515.
	15.0	2496.	2538.	2539.	2550.	2565.	2585.	2603.	2593.	2568.	2465.
	10.0	2567.	2611.	2608.	2600.	2605.	2605.	2586.	2554.	2529.	2438.
	5.0	2537.	2572.	2567.	2553.	2549.	2535.	2521.	2497.	2479.	2423.
	0.0	2395.	2395.	2395.	2395.	2395.	2395.	2395.	2395.	2395.	2395.

||
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	6.	5.	3.	2.	1.	1.	1.	0.	0.	0.	0.
	85.0	13.	12.	9.	8.	8.	11.	19.	30.	24.	10.	2.
V	82.5	317.	241.	31.	33.	34.	50.	68.	77.	95.	101.	89.
E	80.0	1165.	881.	90.	73.	70.	97.	133.	148.	185.	202.	190.
R	77.5	2149.	1640.	202.	120.	112.	138.	185.	221.	289.	326.	307.
T	75.0	2966.	2364.	409.	170.	160.	175.	214.	232.	338.	378.	373.
I	72.5	3755.	3134.	764.	234.	201.	209.	241.	226.	315.	346.	351.
C	70.0	4292.	3592.	1176.	291.	236.	241.	275.	240.	280.	275.	274.
A	69.0<<	4417.	3675.	1320.	313.	249.	252.	288.	251.	277.	256.	255.
L	67.5	4471.	3709.	1538.	342.	272.	269.	304.	270.	282.	249.	246.
	65.0	4302.	3686.	1850.	396.	303.	299.	329.	306.	297.	264.	260.
A	62.5	4170.	3692.	2117.	475.	331.	332.	346.	348.	325.	292.	284.
N	60.0	4114.	3721.	2356.	615.	361.	364.	350.	375.	363.	326.	315.
G	57.5	4082.	3779.	2564.	833.	398.	394.	365.	389.	392.	359.	349.
L	55.0	3987.	3748.	2718.	1093.	448.	425.	389.	398.	414.	386.	373.
E	52.5	3840.	3604.	2702.	1352.	530.	453.	413.	418.	437.	405.	392.
	50.0	3700.	3499.	2721.	1582.	666.	482.	443.	444.	448.	424.	417.
	47.5	3558.	3403.	2729.	1761.	831.	519.	473.	468.	460.	442.	437.
	45.0	3423.	3299.	2706.	1867.	999.	591.	504.	491.	479.	466.	463.
	42.5	3289.	3177.	2668.	1936.	1154.	705.	547.	514.	502.	492.	489.
	40.0	3151.	3050.	2613.	1981.	1281.	823.	624.	551.	526.	513.	511.
	37.5	3016.	2929.	2547.	2008.	1395.	943.	722.	623.	571.	549.	549.
	35.0	2891.	2810.	2483.	2022.	1494.	1060.	823.	707.	652.	626.	627.
	30.0	2698.	2612.	2365.	2036.	1668.	1327.	1068.	920.	834.	799.	799.
	25.0	2548.	2467.	2276.	2062.	1822.	1578.	1378.	1214.	1110.	1067.	1066.
	20.0	2448.	2381.	2240.	2100.	1953.	1801.	1663.	1546.	1460.	1421.	1422.
	15.0	2407.	2353.	2250.	2152.	2064.	1975.	1898.	1826.	1770.	1747.	1758.
	10.0	2397.	2358.	2286.	2224.	2167.	2119.	2079.	2044.	2014.	2002.	2022.
	5.0	2402.	2381.	2340.	2309.	2276.	2250.	2227.	2213.	2196.	2183.	2214.
	0.0	2395.	2395.	2395.	2395.	2395.	2395.	2395.	2395.	2395.	2395.	2395.

CONE OF MAXIMUM CANDELA



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5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	57
5- 10	170
10- 15	275
15- 20	368
20- 25	453
25- 30	539
30- 35	616
35- 40	679
40- 45	730
45- 50	780
50- 55	828
55- 60	859
60- 65	842
65- 70	793
70- 75	602
75- 80	321
80- 85	77
85- 90	2
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	227
0- 20	870
0- 30	1862
0- 40	3158
0- 50	4668
0- 60	6355
0- 70	7990
0- 80	8914
0- 90	8993
0-100	8993
0-110	8993
0-120	8993
0-130	8993
0-140	8993
0-150	8993
0-160	8993
0-170	8993
0-180	8993



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