

REPORT NUMBER: ITL85757

ISSUE DATE: 10/22/15

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PREPARED FOR: LED ROADWAY LIGHTING LTD.

CATALOG NUMBER: NXT 48M 0 X 2ES 3 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, 53.6 WATTS, 0.454 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 350mA. 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: 6536

COLOR TEMPERATURE AS MEASURED IN INTEGRATING SPHERE TEST # ITL85772: 3744K

COLOR RENDERING INDEX AS MEASURED IN INTEGRATING SPHERE TEST # ITL85772: 73

LED DC DRIVE CURRENT (mA): 350 (PROVIDED BY CLIENT)

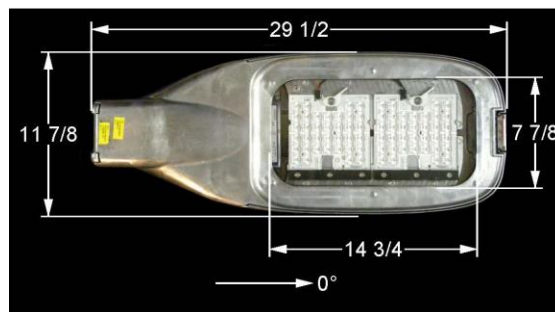
POWER FACTOR: 98.4 %

BUG RATING: B2 U0 G2

LUMINAIRE EFFICACY: 121.9 lm/W

IES CLASSIFICATION: Medium, Type II

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

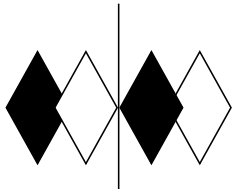


FLUX DISTRIBUTION

LUMENS	DOWNWARD	UPWARD	TOTALS
HOUSE SIDE	2132	0	2132
STREET SIDE	4405	0	4405
TOTALS	6536	0	6536

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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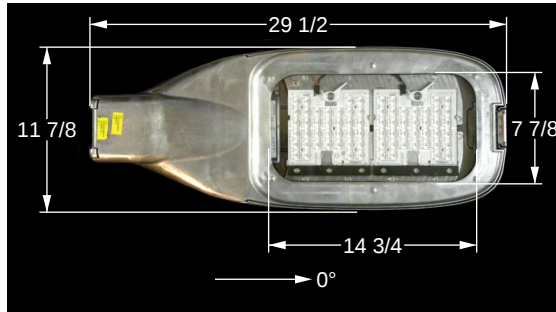
NVLAP
NVLAP LAB CODE: 200925-0

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

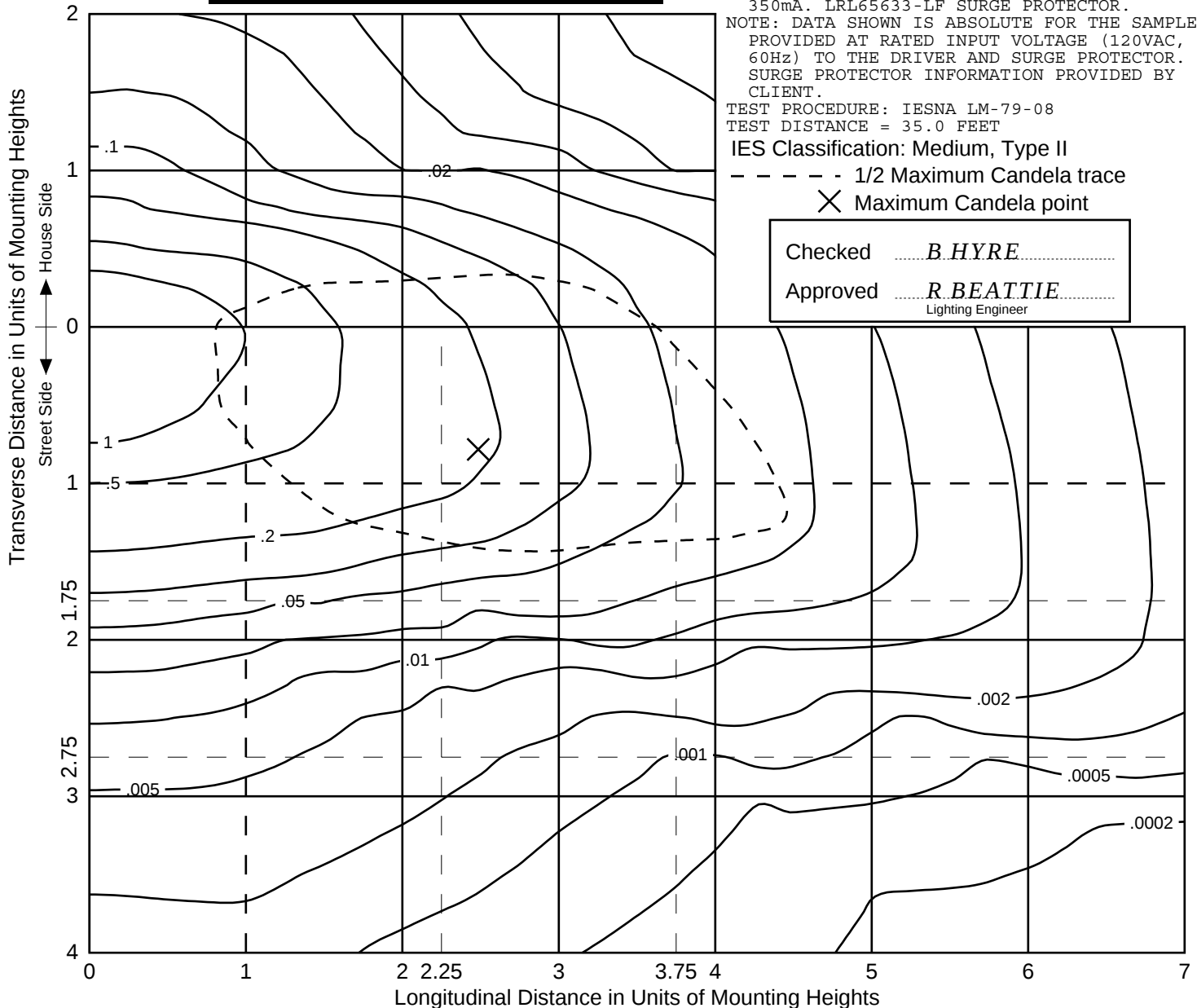
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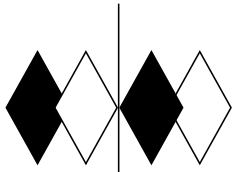
--- 1/2 Maximum Candela trace

X Maximum Candela point

Checked *B. HYRE*

Approved *R. BEATTIE*
Lighting Engineer





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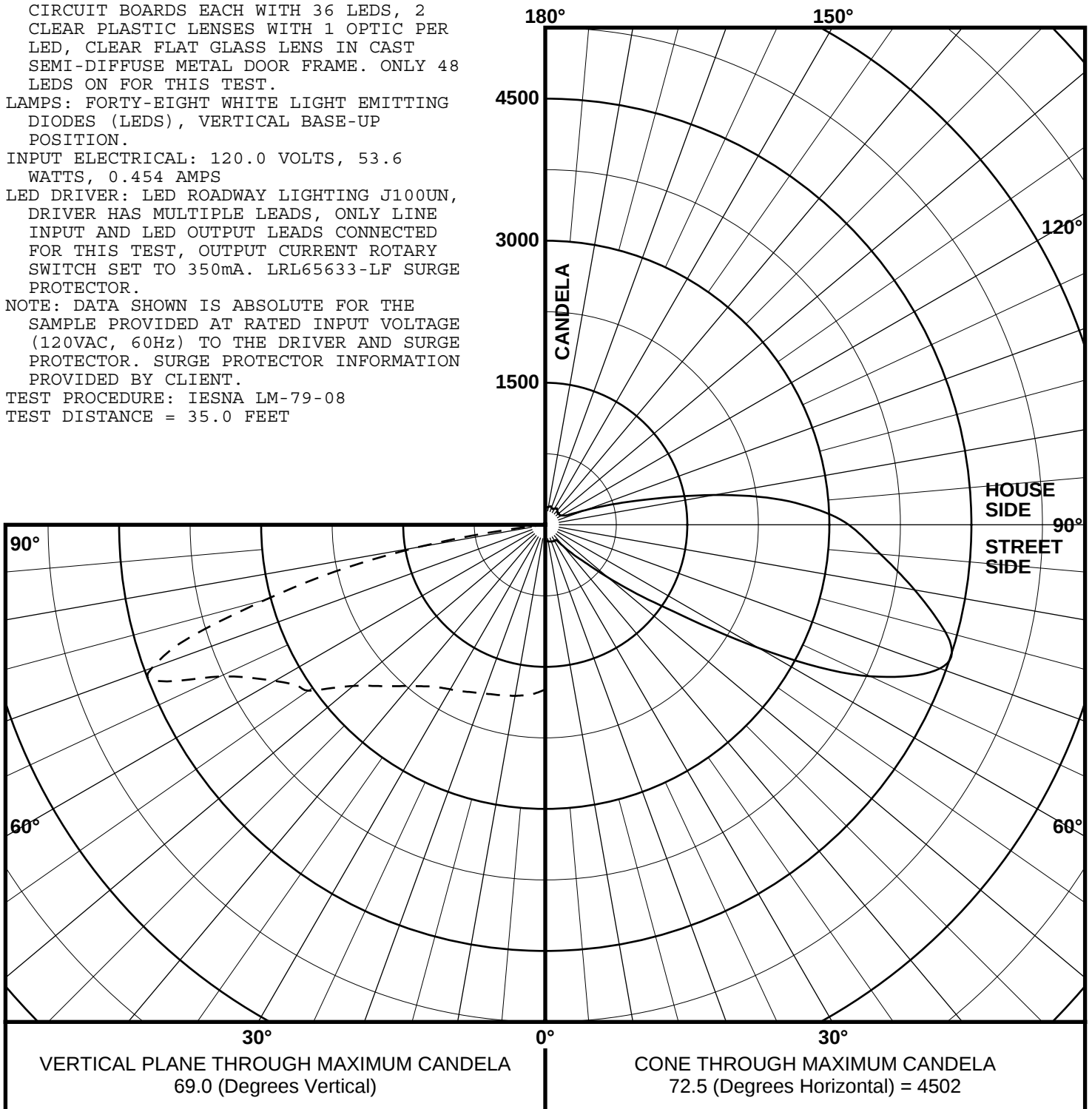
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TEST PROCEDURE: IESNA LM-79-08

TEST DISTANCE = 35.0 FEET

MAXIMUM PLANE AND MAXIMUM CONE PLOTS OF CANDELA

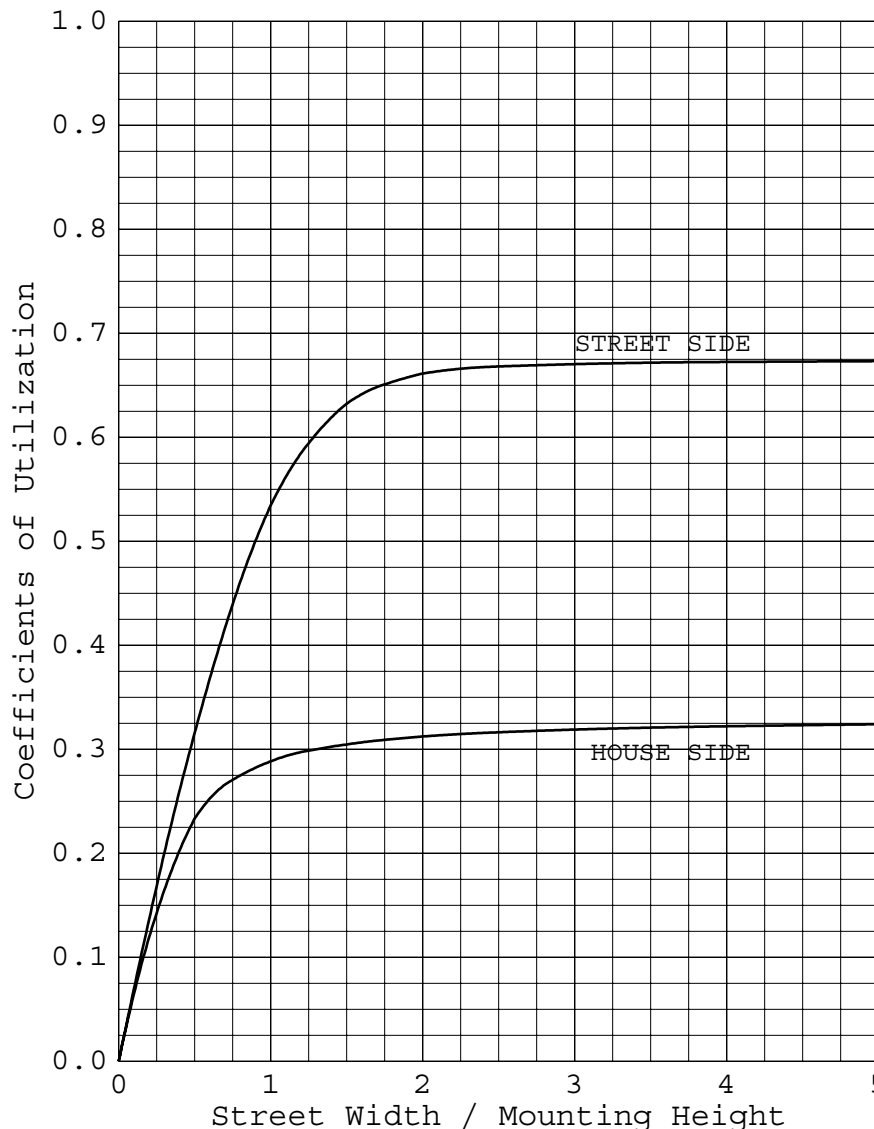




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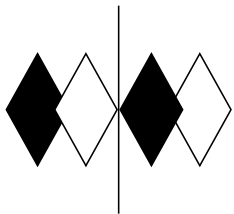
COEFFICIENTS OF UTILIZATION AND FLUX DISTRIBUTION



	LUMENS	PERCENT OF FIXTURE
DOWNWARD STREET SIDE	4405	67.4
DOWNWARD HOUSE SIDE	2132	32.6
DOWNWARD TOTAL	6536	100.0
UPWARD STREET SIDE	0	0.0
UPWARD HOUSE SIDE	0	0.0
UPWARD TOTAL	0	0.0
TOTAL FLUX	6536	100.0

EFFICACY = 121.9 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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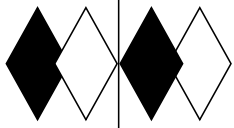
FLUX DISTRIBUTION BY SOLID ANGLE

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

	LUMENS	PERCENT OF FIXTURE	BUG ZONE RATINGS
FORWARD LIGHT	4405.	67.4	
FL (0- 30)	792.6	12.1	
FM (30- 60)	2226.1	34.1	
FH (60- 80)	1348.1	20.6	G1
FVH(80- 90)	38.0	0.6	G1
BACK LIGHT	2132.	32.6	
BL (0- 30)	562.5	8.6	B2
BM (30- 60)	1040.5	15.9	B2
BH (60- 80)	508.2	7.8	B2 G2
BVH(80- 90)	20.5	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	6536.	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	72.5	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.	1.	1.	0.	0.	0.	1.	2.	3.	4.
	85.0	10.	10.	12.	11.	7.	6.	7.	8.	10.	10.
V	82.5	26.	26.	35.	32.	23.	27.	24.	51.	417.	254.
E	80.0	50.	51.	71.	52.	47.	57.	54.	186.	1370.	1005.
R	77.5	75.	76.	95.	71.	78.	79.	99.	627.	2262.	1844.
T	75.0	90.	93.	110.	104.	107.	114.	183.	1610.	3054.	2455.
I	72.5	117.	119.	135.	138.	138.	180.	506.	2668.	3919.	3051.
C	70.0	157.	157.	169.	176.	174.	353.	1186.	3579.	4418.	3455.
A	69.0<<	172.	173.	184.	193.	196.	497.	1482.	3786.	4502.	3553.
L	67.5	196.	197.	208.	223.	267.	799.	1889.	3829.	4322.	3585.
	65.0	252.	253.	274.	332.	580.	1356.	2375.	3569.	3790.	3349.
A	62.5	404.	407.	467.	608.	966.	1687.	2499.	3309.	3499.	3175.
N	60.0	637.	632.	716.	879.	1181.	1765.	2452.	3143.	3297.	3076.
G	57.5	824.	823.	883.	1030.	1283.	1783.	2422.	3034.	3140.	3006.
L	55.0	947.	950.	997.	1122.	1366.	1794.	2386.	2977.	3054.	2919.
E	52.5	1042.	1045.	1082.	1208.	1453.	1812.	2321.	2748.	2830.	2816.
	50.0	1117.	1124.	1166.	1300.	1538.	1854.	2280.	2587.	2647.	2703.
	47.5	1189.	1202.	1253.	1385.	1621.	1899.	2236.	2463.	2516.	2597.
	45.0	1263.	1280.	1336.	1474.	1695.	1935.	2173.	2337.	2410.	2502.
	42.5	1349.	1367.	1444.	1591.	1775.	1968.	2132.	2237.	2311.	2410.
	40.0	1488.	1505.	1599.	1722.	1861.	1999.	2083.	2142.	2222.	2311.
	37.5	1681.	1697.	1765.	1839.	1931.	2018.	2022.	2071.	2149.	2224.
	35.0	1825.	1858.	1897.	1935.	1978.	1997.	1963.	2009.	2085.	2137.
	30.0	1993.	2022.	2022.	2018.	1967.	1883.	1872.	1946.	2006.	2006.
	25.0	1973.	2004.	1971.	1905.	1846.	1810.	1853.	1912.	1946.	1905.
	20.0	1827.	1851.	1834.	1811.	1812.	1839.	1874.	1900.	1897.	1829.
	15.0	1821.	1850.	1853.	1857.	1869.	1881.	1893.	1885.	1862.	1790.
	10.0	1870.	1901.	1899.	1892.	1896.	1894.	1879.	1856.	1834.	1771.
	5.0	1841.	1870.	1866.	1854.	1849.	1842.	1832.	1813.	1798.	1760.
	0.0	1740.	1740.	1740.	1740.	1740.	1740.	1740.	1740.	1740.	1740.

||
PLANE OF MAXIMUM CANDELA

CONE OF MAXIMUM CANDELA



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CANDELA TABULATION

	HOUSE SIDE										
	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	4.	4.	2.	1.	0.	0.	0.	0.	0.	0.
	85.0	10.	9.	7.	6.	5.	8.	14.	22.	18.	8.
V	82.5	221.	177.	24.	25.	25.	35.	50.	57.	70.	74.
E	80.0	836.	645.	67.	54.	52.	69.	96.	109.	135.	146.
R	77.5	1556.	1192.	151.	87.	83.	99.	133.	162.	211.	234.
T	75.0	2146.	1686.	307.	125.	118.	128.	155.	168.	246.	274.
I	72.5	2741.	2244.	571.	171.	147.	153.	175.	165.	226.	248.
C	70.0	3120.	2590.	865.	215.	173.	176.	199.	176.	202.	197.
A	69.0<<	3205.	2654.	967.	229.	183.	185.	209.	184.	201.	184.
L	67.5	3229.	2684.	1114.	251.	199.	197.	222.	197.	205.	181.
	65.0	3103.	2671.	1344.	292.	221.	218.	239.	224.	217.	193.
A	62.5	3021.	2680.	1539.	352.	241.	242.	252.	255.	238.	213.
N	60.0	2984.	2701.	1711.	458.	263.	265.	255.	274.	264.	237.
G	57.5	2961.	2743.	1862.	620.	290.	287.	266.	284.	286.	262.
L	55.0	2893.	2719.	1971.	810.	327.	310.	284.	290.	302.	281.
E	52.5	2788.	2616.	1959.	997.	388.	330.	302.	305.	318.	295.
	50.0	2689.	2541.	1972.	1163.	486.	351.	323.	324.	326.	310.
	47.5	2589.	2469.	1978.	1285.	607.	377.	345.	341.	335.	321.
	45.0	2487.	2395.	1961.	1363.	729.	431.	368.	358.	349.	339.
	42.5	2389.	2307.	1935.	1412.	842.	513.	398.	375.	366.	358.
	40.0	2290.	2216.	1898.	1444.	939.	601.	455.	401.	384.	375.
	37.5	2196.	2128.	1848.	1463.	1023.	685.	529.	454.	415.	402.
	35.0	2105.	2038.	1805.	1473.	1095.	772.	603.	515.	475.	460.
	30.0	1962.	1897.	1719.	1482.	1218.	967.	782.	670.	609.	587.
	25.0	1851.	1792.	1654.	1500.	1328.	1151.	1006.	890.	810.	783.
	20.0	1780.	1732.	1628.	1528.	1423.	1312.	1212.	1129.	1069.	1039.
	15.0	1749.	1710.	1636.	1565.	1501.	1438.	1382.	1335.	1290.	1274.
	10.0	1741.	1713.	1662.	1618.	1573.	1542.	1509.	1490.	1469.	1453.
	5.0	1744.	1729.	1701.	1678.	1654.	1637.	1618.	1610.	1599.	1589.
	0.0	1740.	1740.	1740.	1740.	1740.	1740.	1740.	1740.	1740.	1740.

CONE OF MAXIMUM CANDELA



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5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	42
5- 10	124
10- 15	200
15- 20	268
20- 25	330
25- 30	392
30- 35	449
35- 40	494
40- 45	531
45- 50	567
50- 55	602
55- 60	624
60- 65	611
65- 70	574
70- 75	437
75- 80	234
80- 85	57
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	165
0- 20	633
0- 30	1355
0- 40	2298
0- 50	3396
0- 60	4622
0- 70	5807
0- 80	6478
0- 90	6536
0-100	6536
0-110	6536
0-120	6536
0-130	6536
0-140	6536
0-150	6536
0-160	6536
0-170	6536
0-180	6536



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