

REPORT NUMBER: ITL85758

ISSUE DATE: 10/22/15

PAGE: 1 OF 9

PREPARED FOR: LED ROADWAY LIGHTING LTD.

CATALOG NUMBER: NXT 48M 0 X 2ES 4 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, 67.4 WATTS, 0.568 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 450mA. 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: 8048

COLOR TEMPERATURE AS MEASURED IN INTEGRATING SPHERE TEST # ITL85773: 3753K

COLOR RENDERING INDEX AS MEASURED IN INTEGRATING SPHERE TEST # ITL85773: 73

LED DC DRIVE CURRENT (mA): 450 (PROVIDED BY CLIENT)

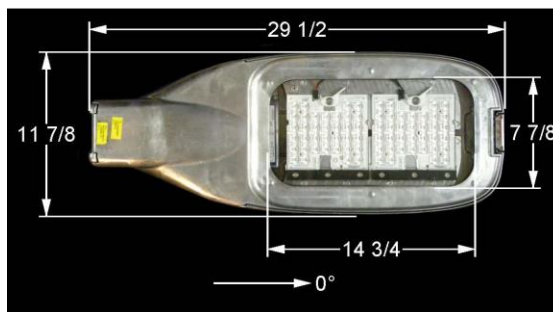
POWER FACTOR: 98.9 %

BUG RATING: B2 U0 G2

LUMINAIRE EFFICACY: 119.4 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	2623	0	2623
STREET SIDE	5425	0	5425
TOTALS	8048	0	8048

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



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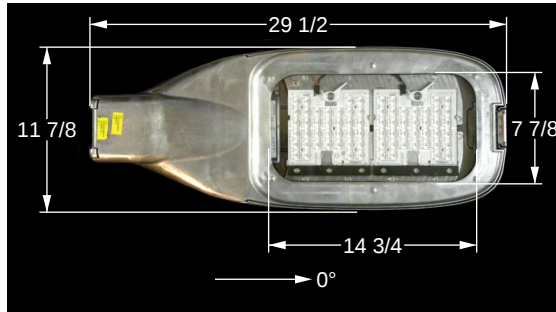
NVLAP
NVLAP LAB CODE: 200925-0

INDEPENDENT TESTING LABORATORIES, INC.

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ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINATION

Values based on 30 foot mounting height.



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CATALOG NUMBER: NXT 48M 0 X 2ES 4 XX 3 XX X XX X

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TEST PROCEDURE: IESNA LM-79-08

TEST DISTANCE = 35.0 FEET

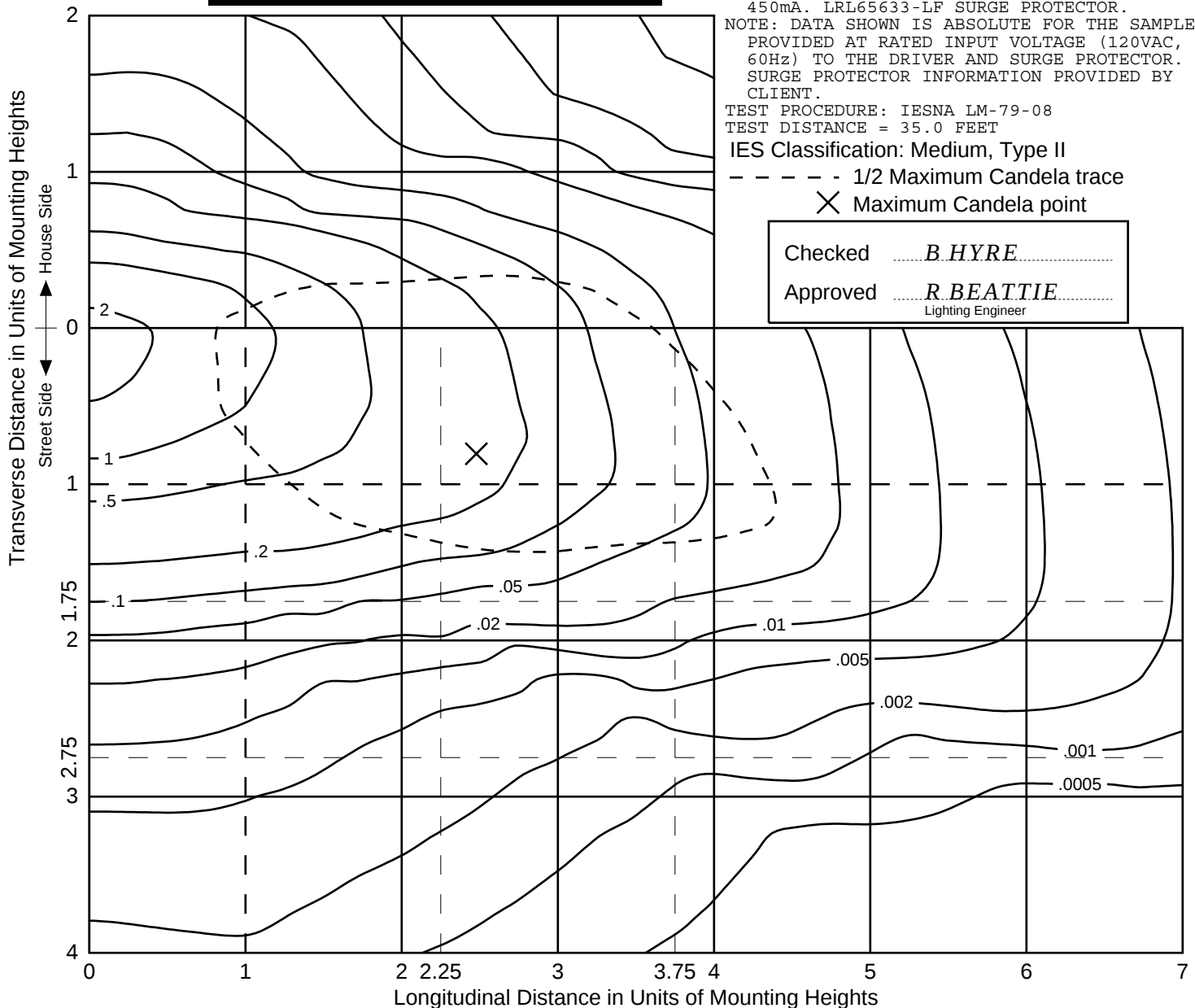
IES Classification: Medium, Type II

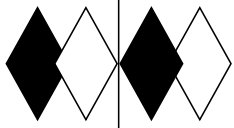
--- 1/2 Maximum Candela trace

X Maximum Candela point

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 4 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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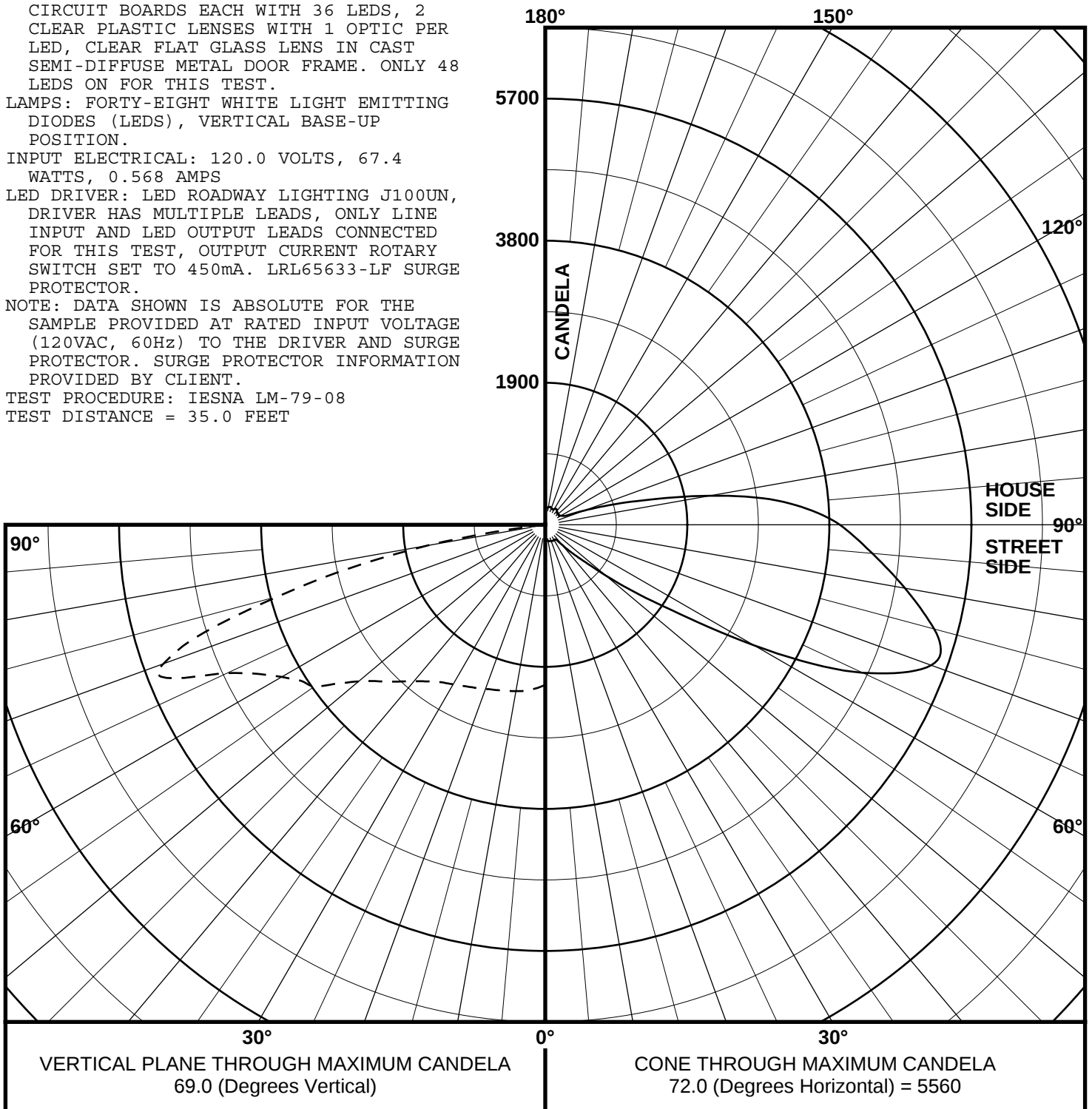
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TEST DISTANCE = 35.0 FEET

MAXIMUM PLANE AND MAXIMUM CONE PLOTS OF CANDELA





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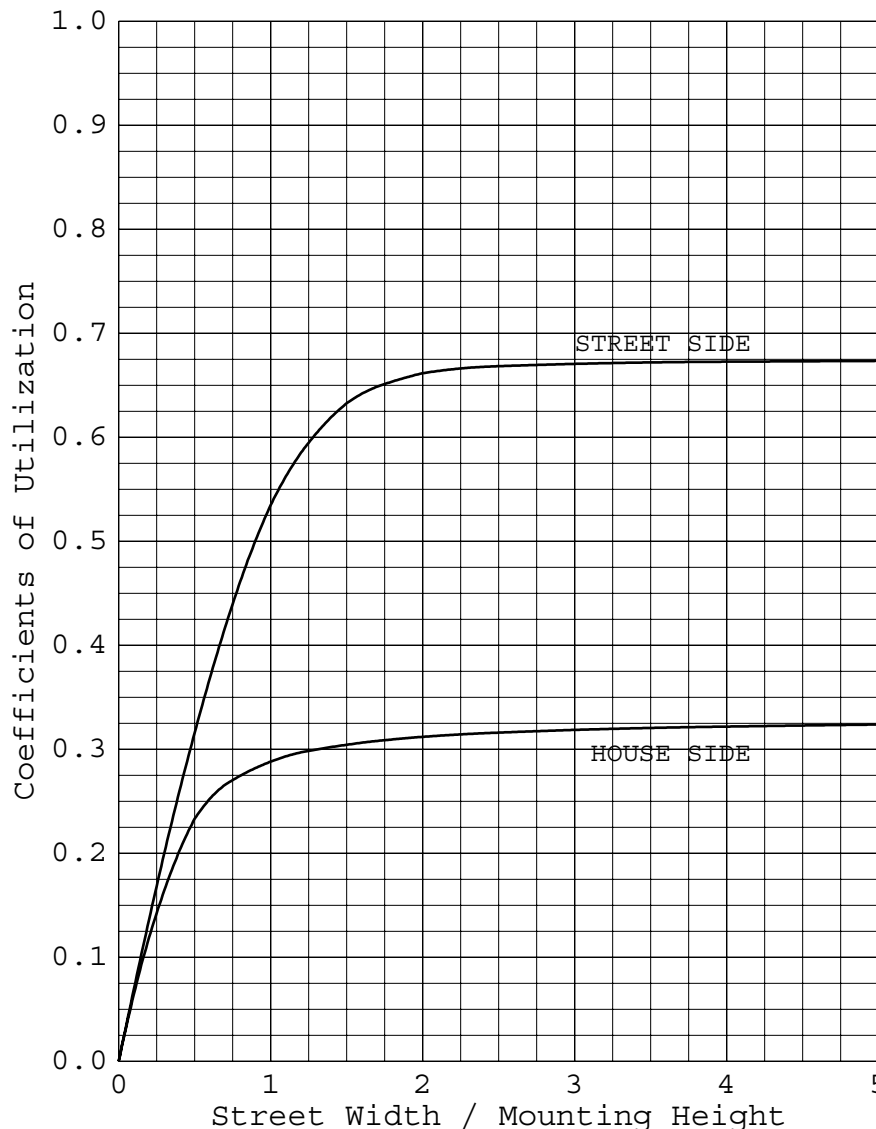
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COEFFICIENTS OF UTILIZATION AND FLUX DISTRIBUTION



	LUMENS	PERCENT OF FIXTURE
DOWNWARD STREET SIDE	5425	67.4
DOWNWARD HOUSE SIDE	2623	32.6
DOWNWARD TOTAL	8048	100.0
UPWARD STREET SIDE	0	0.0
UPWARD HOUSE SIDE	0	0.0
UPWARD TOTAL	0	0.0
TOTAL FLUX	8048	100.0

EFFICACY = 119.4 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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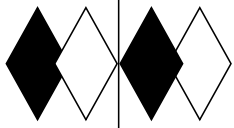
FLUX DISTRIBUTION BY SOLID ANGLE

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

	LUMENS	PERCENT OF FIXTURE	BUG ZONE RATINGS
FORWARD LIGHT	5425.	67.4	
FL (0- 30)	975.4	12.1	
FM (30- 60)	2742.1	34.1	
FH (60- 80)	1661.8	20.6	G1
FVH(80- 90)	46.1	0.6	G1
BACK LIGHT	2623.	32.6	
BL (0- 30)	691.1	8.6	B2
BM (30- 60)	1279.1	15.9	B2
BH (60- 80)	626.8	7.8	B2 G2
BVH(80- 90)	25.6	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	8048.	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	LATERAL ANGLE										
		0.0	5.0	15.0	25.0	35.0	45.0	55.0	65.0	72.0	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	1.	1.	1.	1.	0.	0.	1.	2.	4.	5.	6.
	85.0	11.	12.	15.	14.	9.	8.	7.	9.	12.	13.	12.
V	82.5	31.	32.	44.	41.	29.	33.	30.	62.	466.	467.	318.
E	80.0	61.	64.	88.	66.	57.	70.	66.	230.	1588.	1663.	1254.
R	77.5	91.	94.	117.	89.	94.	97.	122.	776.	2677.	2872.	2287.
T	75.0	110.	114.	135.	128.	130.	140.	228.	1984.	3698.	3876.	3048.
I	72.5	143.	147.	166.	172.	169.	221.	633.	3286.	4779.	4817.	3747.
C	70.0	193.	194.	207.	215.	213.	426.	1478.	4408.	5437.	5284.	4273.
A	69.0<<	212.	214.	226.	237.	238.	595.	1841.	4680.	5560.	5385.	4391.
L	67.5	241.	244.	256.	273.	321.	957.	2341.	4743.	5367.	5302.	4428.
	65.0	308.	312.	336.	408.	715.	1655.	2931.	4414.	4693.	4660.	4141.
A	62.5	487.	490.	573.	749.	1187.	2082.	3081.	4088.	4323.	4278.	3917.
N	60.0	772.	777.	879.	1083.	1451.	2181.	3025.	3880.	4071.	4028.	3794.
G	57.5	1006.	1011.	1086.	1268.	1579.	2203.	2987.	3744.	3882.	3840.	3701.
L	55.0	1158.	1166.	1226.	1382.	1684.	2215.	2944.	3675.	3770.	3707.	3598.
E	52.5	1278.	1284.	1330.	1488.	1793.	2236.	2862.	3389.	3486.	3478.	3469.
	50.0	1371.	1381.	1427.	1600.	1897.	2284.	2810.	3191.	3260.	3274.	3327.
	47.5	1461.	1480.	1535.	1704.	1999.	2339.	2756.	3038.	3095.	3122.	3203.
	45.0	1553.	1578.	1649.	1812.	2081.	2384.	2678.	2884.	2967.	3006.	3084.
	42.5	1658.	1687.	1774.	1954.	2180.	2423.	2626.	2747.	2843.	2890.	2974.
	40.0	1825.	1858.	1971.	2115.	2287.	2463.	2562.	2636.	2731.	2779.	2851.
	37.5	2061.	2095.	2176.	2259.	2374.	2485.	2490.	2548.	2640.	2683.	2741.
	35.0	2255.	2291.	2338.	2379.	2430.	2457.	2417.	2473.	2562.	2599.	2634.
	30.0	2448.	2489.	2488.	2482.	2421.	2314.	2303.	2394.	2465.	2486.	2472.
	25.0	2428.	2466.	2426.	2346.	2271.	2227.	2280.	2353.	2393.	2392.	2345.
	20.0	2245.	2276.	2254.	2225.	2227.	2263.	2304.	2339.	2336.	2322.	2251.
	15.0	2236.	2274.	2276.	2282.	2299.	2315.	2330.	2321.	2294.	2276.	2203.
	10.0	2299.	2338.	2335.	2329.	2332.	2331.	2314.	2286.	2259.	2245.	2180.
	5.0	2267.	2302.	2297.	2285.	2277.	2267.	2257.	2232.	2214.	2203.	2167.
	0.0	2142.	2142.	2142.	2142.	2142.	2142.	2142.	2142.	2142.	2142.	2142.

||
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	5.	5.	3.	2.	1.	1.	1.	0.	0.	0.	0.
	85.0	11.	11.	8.	7.	8.	10.	18.	28.	22.	9.	2.
V	82.5	273.	226.	29.	30.	31.	44.	63.	71.	87.	91.	82.
E	80.0	1026.	801.	83.	67.	65.	86.	120.	135.	169.	182.	173.
R	77.5	1909.	1480.	186.	108.	103.	123.	166.	199.	262.	292.	277.
T	75.0	2634.	2131.	375.	154.	146.	158.	193.	207.	303.	339.	334.
I	72.5	3358.	2783.	695.	209.	182.	187.	218.	203.	280.	307.	314.
C	70.0	3831.	3203.	1060.	262.	213.	216.	247.	217.	250.	246.	246.
A	69.0<<	3940.	3282.	1188.	282.	225.	226.	258.	227.	248.	229.	228.
L	67.5	3983.	3315.	1370.	308.	246.	241.	273.	243.	253.	223.	221.
	65.0	3834.	3297.	1651.	353.	273.	268.	294.	276.	267.	237.	233.
A	62.5	3723.	3305.	1893.	425.	297.	298.	311.	313.	291.	261.	255.
N	60.0	3674.	3332.	2107.	552.	324.	327.	314.	336.	325.	293.	283.
G	57.5	3646.	3382.	2294.	746.	358.	354.	329.	348.	351.	323.	314.
L	55.0	3562.	3355.	2426.	977.	403.	382.	348.	357.	371.	346.	334.
E	52.5	3433.	3228.	2411.	1207.	479.	406.	370.	374.	391.	362.	351.
	50.0	3311.	3134.	2429.	1412.	599.	432.	397.	397.	401.	380.	373.
	47.5	3182.	3045.	2438.	1565.	740.	464.	424.	419.	412.	395.	391.
	45.0	3059.	2951.	2417.	1666.	893.	530.	453.	440.	429.	417.	415.
	42.5	2940.	2840.	2386.	1728.	1034.	635.	491.	461.	450.	440.	441.
	40.0	2816.	2727.	2338.	1769.	1154.	743.	562.	492.	471.	461.	460.
	37.5	2701.	2618.	2276.	1793.	1254.	845.	649.	555.	511.	493.	493.
	35.0	2588.	2513.	2219.	1805.	1343.	951.	740.	635.	586.	563.	563.
	30.0	2412.	2337.	2113.	1819.	1495.	1185.	958.	826.	750.	716.	710.
	25.0	2280.	2208.	2036.	1844.	1630.	1411.	1234.	1085.	993.	954.	950.
	20.0	2191.	2132.	2004.	1878.	1748.	1613.	1487.	1382.	1304.	1269.	1271.
	15.0	2152.	2105.	2012.	1924.	1846.	1769.	1698.	1636.	1585.	1560.	1571.
	10.0	2144.	2109.	2045.	1989.	1939.	1897.	1861.	1834.	1807.	1785.	1808.
	5.0	2148.	2129.	2094.	2067.	2036.	2015.	1992.	1983.	1968.	1953.	1979.
	0.0	2142.	2142.	2142.	2142.	2142.	2142.	2142.	2142.	2142.	2142.	2142.

CONE OF MAXIMUM CANDELA



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5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	51
5- 10	152
10- 15	246
15- 20	329
20- 25	406
25- 30	482
30- 35	552
35- 40	608
40- 45	653
45- 50	698
50- 55	741
55- 60	769
60- 65	753
65- 70	709
70- 75	539
75- 80	288
80- 85	70
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	203
0- 20	778
0- 30	1666
0- 40	2827
0- 50	4178
0- 60	5688
0- 70	7150
0- 80	7976
0- 90	8048
0-100	8048
0-110	8048
0-120	8048
0-130	8048
0-140	8048
0-150	8048
0-160	8048
0-170	8048
0-180	8048



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REPORT NUMBER: ITL85758
ISSUE DATE: 10/22/15
PREPARED FOR: LED ROADWAY LIGHTING LTD.

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