

REPORT NUMBER: ITL88673-GONIOPHOTOMETRY

ISSUE DATE: 12/07/16

PAGE: 1 OF 9

PREPARED FOR: LED ROADWAY LIGHTING LTD.

CATALOG NUMBER: NXT 72M 0 X 3LM 7 XX 3 XX X XX

LUMINAIRE: CAST METAL HOUSING WITH GRAY PAINTED 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 GRAY PAINTED METAL DOOR FRAME.

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

INPUT ELECTRICAL: 120.0 VOLTS, 152.9 WATTS, 1.28 AMPS

LED DRIVER: LED ROADWAY LIGHTING J150UNV3, 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: 16620

COLOR TEMPERATURE AS MEASURED IN INTEGRATING SPHERE TEST # ITL88673-SPHERE: 3763K

COLOR RENDERING INDEX AS MEASURED IN INTEGRATING SPHERE TEST # ITL88673-SPHERE: 73

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

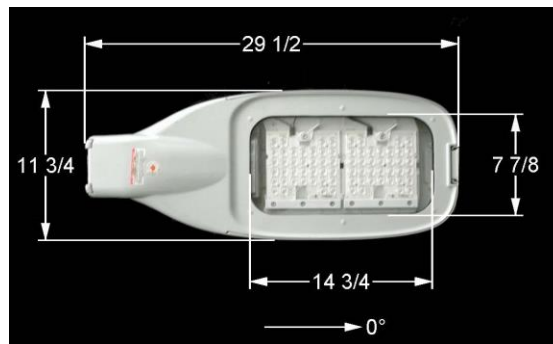
POWER FACTOR: 99.5 %

BUG RATING: B3 U0 G3

LUMINAIRE EFFICACY: 108.7 lm/W

IES CLASSIFICATION: Medium, Type III

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



FLUX DISTRIBUTION

LUMENS	DOWNWARD	UPWARD	TOTALS
HOUSE SIDE	3715	0	3715
STREET SIDE	12905	0	12905
TOTALS	16620	0	16620

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
TESTING

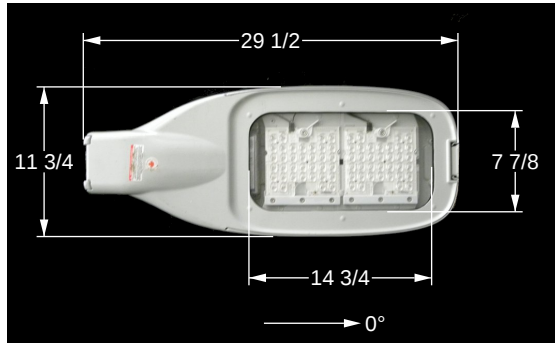
NVLAP LAB CODE: 200925-0

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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CATALOG NUMBER: NXT 72M 0 X 3LM 7 XX 3 XX X XX

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TEST PROCEDURE: IESNA LM-79-08

TEST DISTANCE = 35.0 FEET

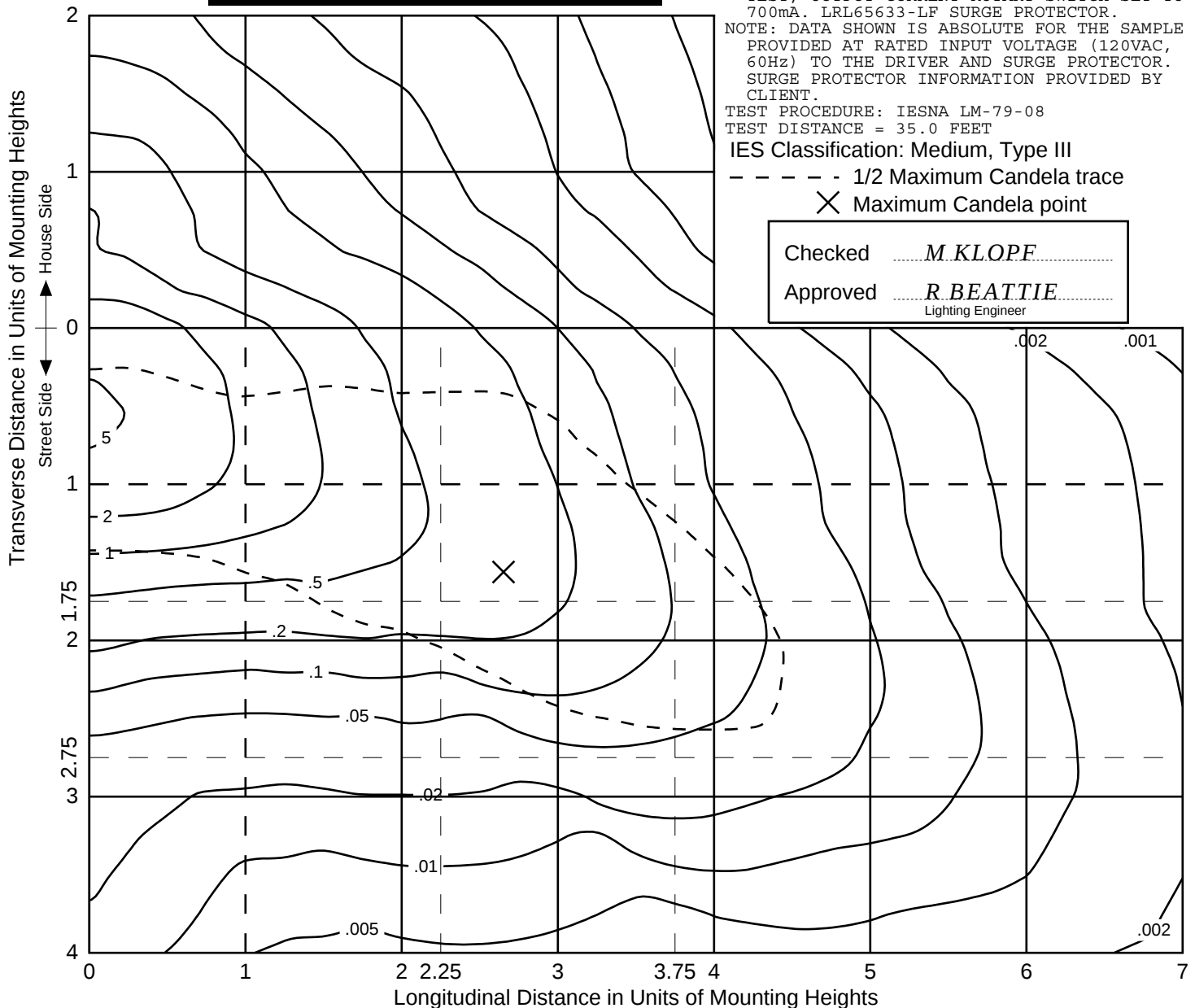
IES Classification: Medium, Type III

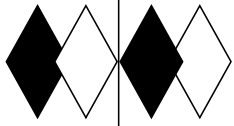
--- 1/2 Maximum Candela trace

X Maximum Candela point

CheckedM.KLOPF.....

ApprovedR.BEATTIE.....
Lighting Engineer





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PREPARED FOR: LED ROADWAY LIGHTING LTD.
CATALOG NUMBER: NXT 72M 0 X 3LM 7 XX 3
XX X XX

LUMINAIRE: CAST METAL HOUSING WITH GRAY
PAINTED 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
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LAMPS: SEVENTY-TWO WHITE LIGHT EMITTING
DIODES (LEDs), VERTICAL BASE-UP
POSITION.

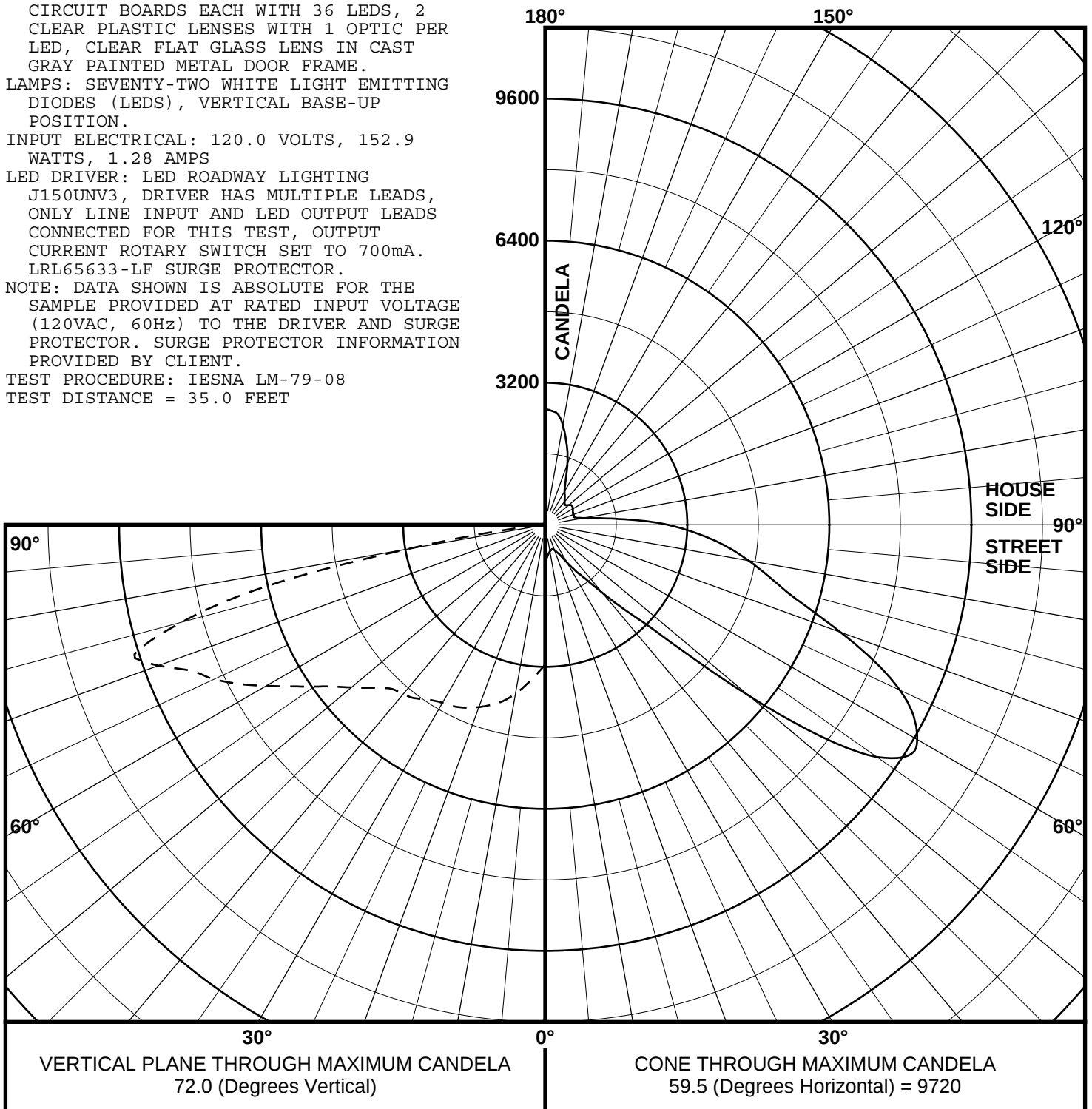
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LED DRIVER: LED ROADWAY LIGHTING
J150UNV3, DRIVER HAS MULTIPLE LEADS,
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PROTECTOR. SURGE PROTECTOR INFORMATION
PROVIDED BY CLIENT.

TEST PROCEDURE: IESNA LM-79-08
TEST DISTANCE = 35.0 FEET

MAXIMUM PLANE AND MAXIMUM CONE PLOTS OF CANDELA

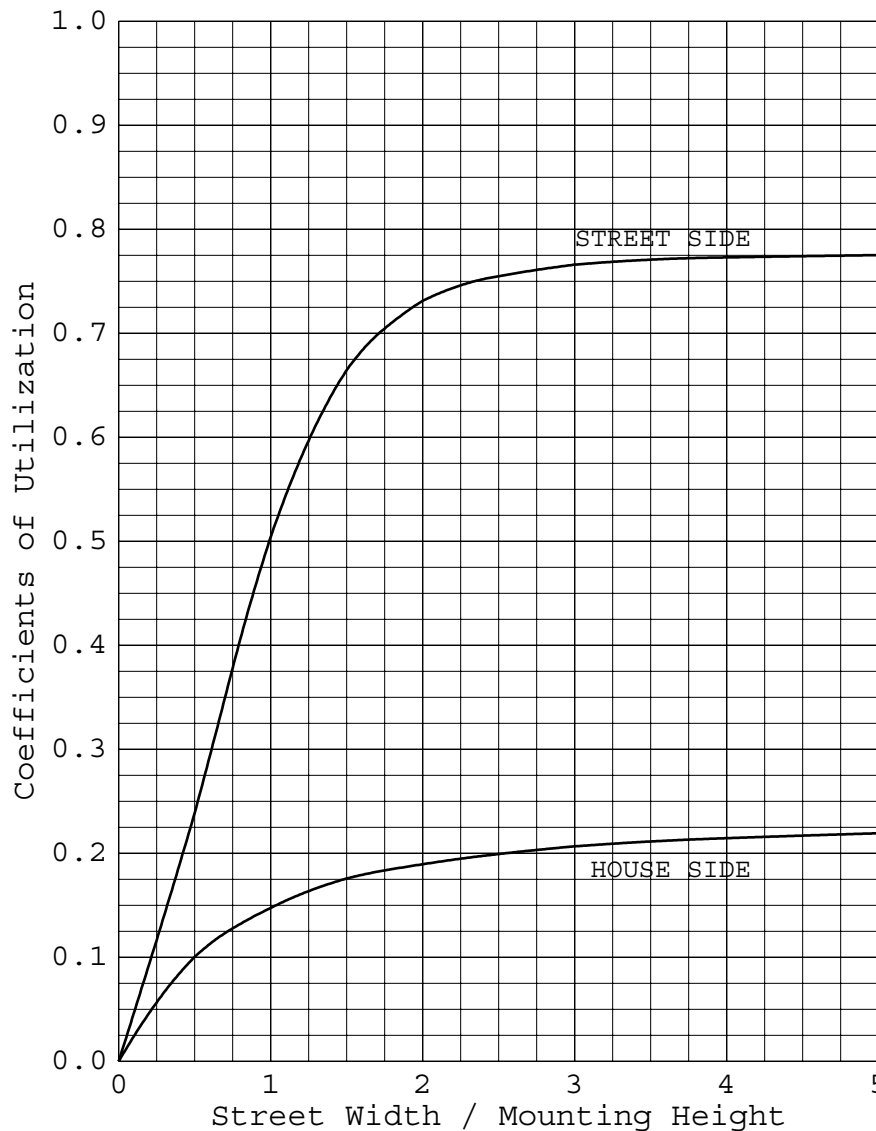




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PAGE: 4 OF 9

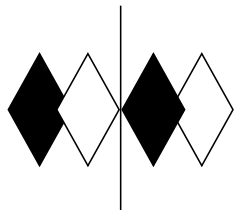
COEFFICIENTS OF UTILIZATION AND FLUX DISTRIBUTION



	LUMENS	PERCENT OF FIXTURE
DOWNWARD STREET SIDE	12905	77.6
DOWNWARD HOUSE SIDE	3715	22.4
DOWNWARD TOTAL	16620	100.0
UPWARD STREET SIDE	0	0.0
UPWARD HOUSE SIDE	0	0.0
UPWARD TOTAL	0	0.0
TOTAL FLUX	16620	100.0

EFFICACY = 108.7 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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PAGE: 5 OF 9

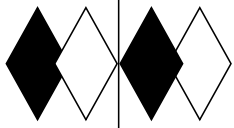
FLUX DISTRIBUTION BY SOLID ANGLE

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

	LUMENS	PERCENT OF FIXTURE	BUG ZONE RATINGS
FORWARD LIGHT	12905.	77.6	
FL (0- 30)	1969.7	11.9	
FM (30- 60)	7033.5	42.3	
FH (60- 80)	3784.2	22.8	G2
FVH(80- 90)	117.2	0.7	G2
BACK LIGHT	3715.	22.4	
BL (0- 30)	757.8	4.6	B2
BM (30- 60)	1752.2	10.5	B2
BH (60- 80)	1140.0	6.9	B3 G3
BVH(80- 90)	65.2	0.4	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	16620.	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	59.5	65.0	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.	5.	5.	5.	5.	8.	9.	10.	10.	9.
	85.0	58.	48.	32.	29.	36.	31.	31.	34.	30.	24.
V	82.5	202.	160.	88.	85.	145.	155.	494.	957.	980.	311.
E	80.0	530.	416.	169.	190.	300.	411.	1921.	3166.	3261.	829.
R	77.5	776.	596.	261.	317.	602.	875.	4683.	6524.	5988.	1636.
T	75.0	1008.	804.	389.	473.	902.	1610.	7467.	8485.	7774.	2845.
I	72.5	846.	722.	539.	671.	1285.	2738.	8997.	9703.	8756.	3592.
C	72.0<<	815.	688.	572.	721.	1368.	3076.	9117.	9720.	8819.	3770.
A	70.0	776.	762.	742.	987.	1786.	4717.	9266.	9274.	8451.	4217.
L	67.5	1214.	1144.	1110.	1443.	2687.	6367.	9068.	8608.	7557.	4402.
	65.0	1833.	1702.	1684.	2264.	3667.	7366.	8679.	8234.	7119.	4277.
A	62.5	2631.	2490.	2519.	3193.	4831.	7674.	8168.	7768.	6762.	4216.
N	60.0	3363.	3235.	3313.	3989.	6078.	7651.	7640.	7255.	6380.	4163.
G	57.5	3924.	3823.	4027.	5038.	6978.	7540.	7174.	6777.	6002.	4102.
L	55.0	4591.	4582.	5034.	6350.	7587.	7440.	6745.	6353.	5648.	4026.
E	52.5	5602.	5695.	6359.	7455.	7955.	7346.	6425.	5985.	5320.	3896.
	50.0	7047.	7106.	7551.	8249.	8144.	7261.	6181.	5700.	5084.	3742.
	47.5	8220.	8216.	8380.	8644.	8172.	7182.	5950.	5433.	4907.	3597.
	45.0	8929.	8884.	8823.	8729.	8139.	7068.	5739.	5199.	4731.	3476.
	42.5	9223.	9155.	8980.	8666.	8000.	6929.	5581.	5037.	4603.	3367.
	40.0	9305.	9151.	8911.	8510.	7775.	6756.	5453.	4979.	4544.	3283.
	37.5	9079.	8922.	8646.	8199.	7534.	6485.	5302.	4911.	4504.	3225.
	35.0	8604.	8527.	8192.	7778.	7172.	6169.	5150.	4796.	4419.	3184.
	30.0	7638.	7596.	7257.	6855.	6324.	5660.	4939.	4634.	4287.	3132.
	25.0	6499.	6497.	6241.	5993.	5657.	5252.	4777.	4537.	4235.	3197.
	20.0	5517.	5562.	5424.	5271.	5084.	4854.	4530.	4370.	4156.	3288.
	15.0	4828.	4880.	4805.	4729.	4610.	4465.	4264.	4162.	4000.	3325.
	10.0	4323.	4376.	4320.	4272.	4193.	4080.	3941.	3863.	3750.	3290.
	5.0	3780.	3800.	3783.	3750.	3697.	3618.	3534.	3494.	3441.	3216.
	0.0	3145.	3145.	3145.	3145.	3145.	3145.	3145.	3145.	3145.	3145.

||
PLANE OF MAXIMUM CANDELA

CONE OF MAXIMUM CANDELA



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PAGE: 7 OF 9

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	9.	9.	9.	9.	7.	6.	6.	4.	2.	1.
	85.0	24.	23.	24.	26.	29.	34.	65.	123.	155.	69.
V	82.5	141.	65.	81.	90.	98.	112.	188.	345.	437.	425.
E	80.0	423.	152.	176.	196.	200.	225.	354.	601.	827.	945.
R	77.5	923.	319.	287.	308.	339.	362.	503.	854.	1276.	1579.
T	75.0	1808.	779.	440.	466.	511.	497.	641.	1031.	1578.	2036.
I	72.5	2640.	1413.	630.	651.	703.	611.	749.	1094.	1860.	2501.
C	72.0<<	2762.	1562.	678.	687.	741.	633.	766.	1085.	1866.	2549.
A	70.0	3114.	2069.	905.	809.	879.	722.	806.	1038.	1801.	2562.
L	67.5	3438.	2393.	1145.	934.	980.	806.	837.	920.	1555.	2262.
	65.0	3574.	2678.	1298.	1015.	999.	872.	884.	894.	1276.	1797.
A	62.5	3532.	2721.	1386.	1041.	1024.	930.	942.	959.	1221.	1510.
N	60.0	3517.	2746.	1436.	1037.	1043.	977.	1002.	1090.	1280.	1405.
G	57.5	3492.	2752.	1461.	1011.	1038.	1014.	1058.	1284.	1384.	1404.
L	55.0	3458.	2757.	1490.	1006.	1029.	1055.	1108.	1508.	1561.	1476.
E	52.5	3373.	2732.	1520.	1010.	1014.	1091.	1149.	1680.	1804.	1697.
	50.0	3253.	2671.	1552.	1017.	999.	1126.	1196.	1684.	1982.	1957.
	47.5	3140.	2621.	1584.	1033.	997.	1149.	1274.	1614.	1928.	2031.
	45.0	3042.	2557.	1592.	1057.	1017.	1163.	1373.	1625.	1831.	1946.
	42.5	2967.	2525.	1627.	1093.	1043.	1158.	1402.	1683.	1884.	1987.
	40.0	2907.	2496.	1668.	1135.	1066.	1142.	1323.	1629.	1860.	1984.
	37.5	2876.	2492.	1710.	1194.	1086.	1120.	1233.	1463.	1683.	1806.
	35.0	2859.	2494.	1760.	1271.	1105.	1119.	1203.	1316.	1462.	1567.
	30.0	2826.	2504.	1878.	1454.	1167.	1151.	1170.	1242.	1293.	1338.
	25.0	2906.	2616.	2067.	1654.	1356.	1232.	1212.	1216.	1256.	1286.
	20.0	3039.	2799.	2340.	1934.	1631.	1399.	1318.	1301.	1299.	1310.
	15.0	3130.	2945.	2594.	2261.	1982.	1750.	1542.	1421.	1385.	1390.
	10.0	3163.	3039.	2797.	2572.	2360.	2191.	2040.	1935.	1857.	1816.
	5.0	3154.	3092.	2972.	2864.	2755.	2661.	2588.	2522.	2501.	2482.
	0.0	3145.	3145.	3145.	3145.	3145.	3145.	3145.	3145.	3145.	3145.

CONE OF MAXIMUM CANDELA



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PAGE: 8 OF 9

5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	75
5- 10	225
10- 15	370
15- 20	518
20- 25	680
25- 30	860
30- 35	1068
35- 40	1304
40- 45	1512
45- 50	1644
50- 55	1659
55- 60	1599
60- 65	1535
65- 70	1440
70- 75	1237
75- 80	713
80- 85	174
85- 90	8
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	300
0- 20	1188
0- 30	2727
0- 40	5100
0- 50	8255
0- 60	11513
0- 70	14488
0- 80	16437
0- 90	16620
0-100	16620
0-110	16620
0-120	16620
0-130	16620
0-140	16620
0-150	16620
0-160	16620
0-170	16620
0-180	16620



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PAGE: 9 OF 9

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