

REPORT NUMBER: ITL85764

ISSUE DATE: 10/14/15

PAGE: 1 OF 9

PREPARED FOR: LED ROADWAY LIGHTING LTD.

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

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

INPUT ELECTRICAL: 120.0 VOLTS, 98.1 WATTS, 0.826 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 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: 11376

COLOR TEMPERATURE AS MEASURED IN INTEGRATING SPHERE TEST # ITL85779: 3764K

COLOR RENDERING INDEX AS MEASURED IN INTEGRATING SPHERE TEST # ITL85779: 73

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

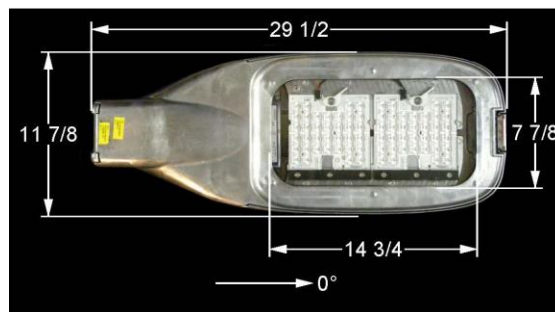
POWER FACTOR: 99.0 %

BUG RATING: B2 U0 G2

LUMINAIRE EFFICACY: 116.0 lm/W

IES CLASSIFICATION: Medium, Type II

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

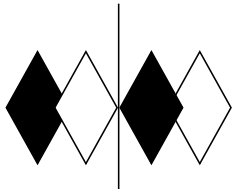


FLUX DISTRIBUTION

LUMENS	DOWNWARD	UPWARD	TOTALS
HOUSE SIDE	3681	0	3681
STREET SIDE	7695	0	7695
TOTALS	11376	0	11376

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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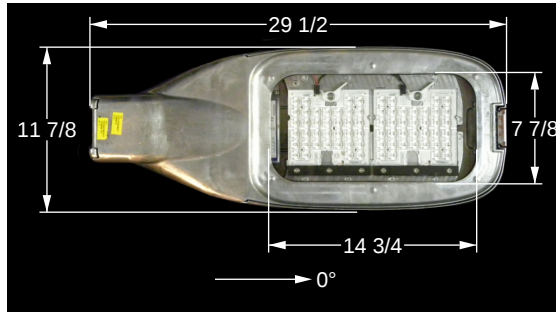
NVLAP
NVLAP LAB CODE: 200925-0

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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CATALOG NUMBER: NXT 60M 0 X 2ES 5 XX 3 XX X XX X

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

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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 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

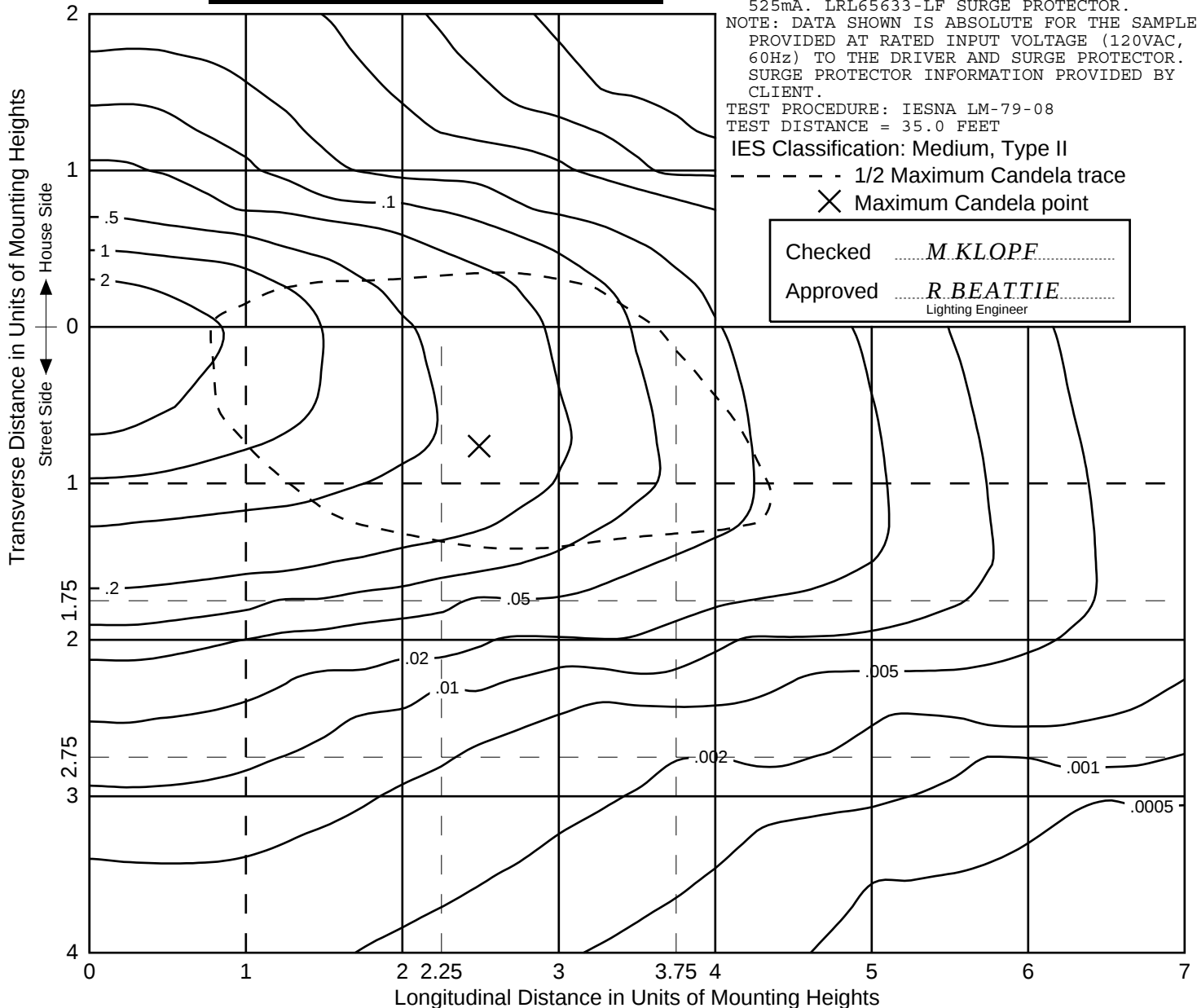
IES Classification: Medium, Type II

--- 1/2 Maximum Candela trace

X Maximum Candela point

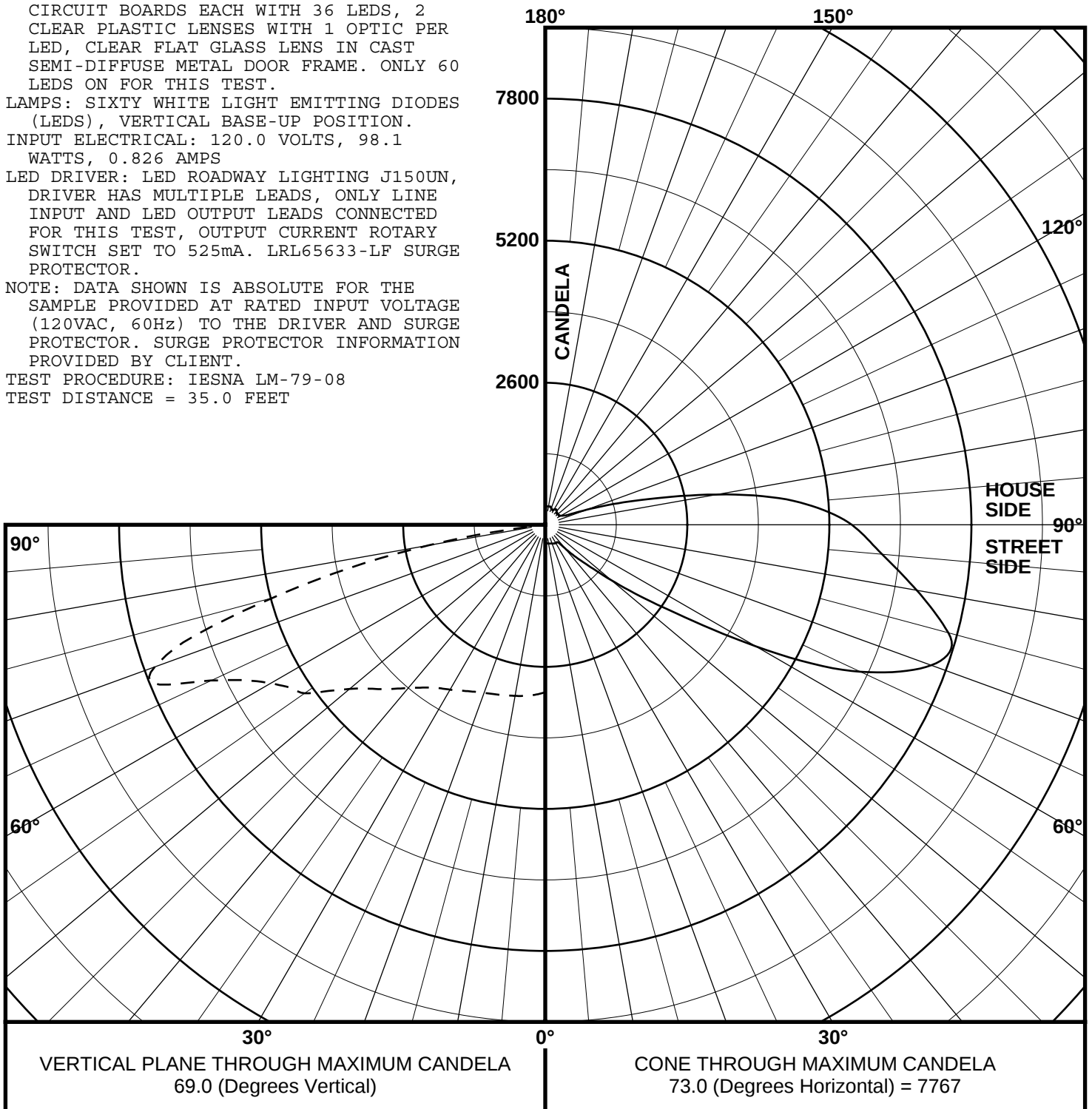
CheckedM.KLOPF.....

ApprovedR.BEATTIE.....
Lighting Engineer



REPORT NUMBER: ITL85764
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CATALOG NUMBER: NXT 60M 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 60 LEDS ON FOR THIS TEST.
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TEST PROCEDURE: IESNA LM-79-08
TEST DISTANCE = 35.0 FEET

MAXIMUM PLANE AND MAXIMUM CONE PLOTS OF CANDELA

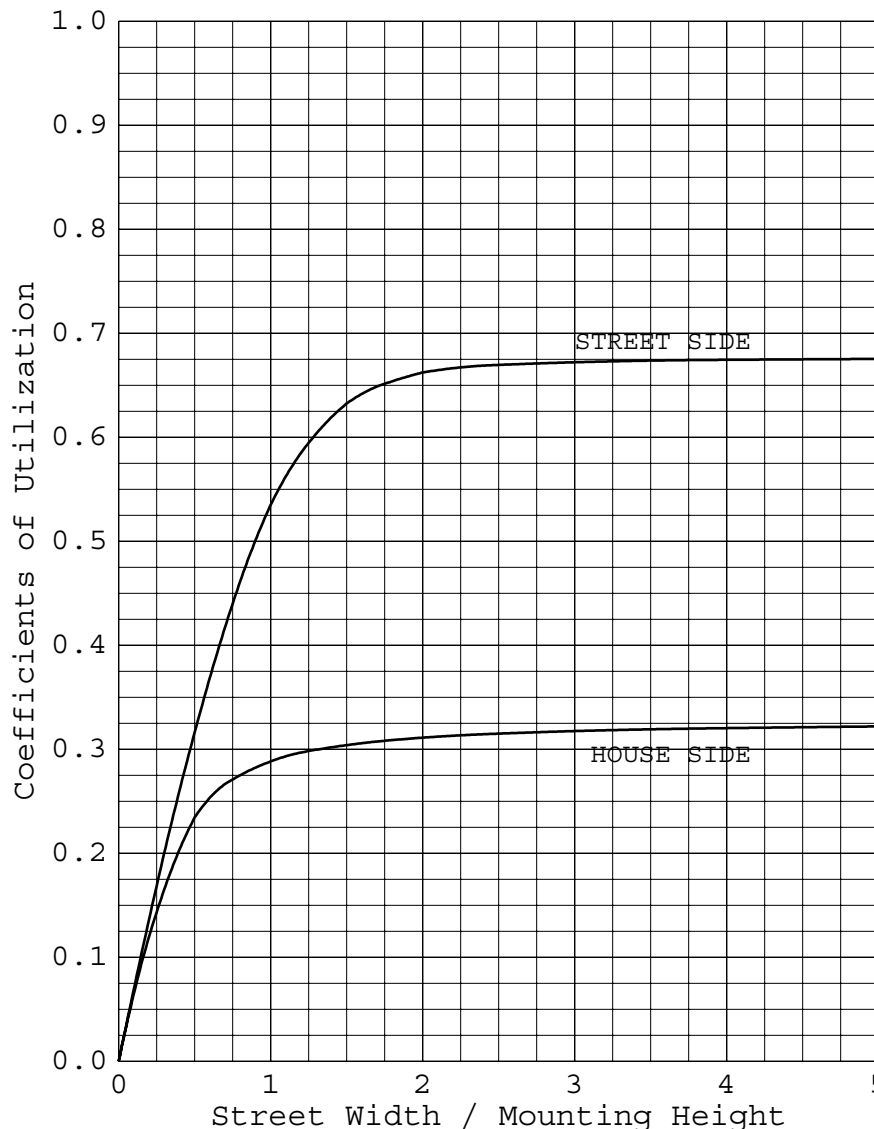




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COEFFICIENTS OF UTILIZATION AND FLUX DISTRIBUTION



	LUMENS	PERCENT OF FIXTURE
DOWNWARD STREET SIDE	7695	67.6
DOWNWARD HOUSE SIDE	3681	32.4
DOWNWARD TOTAL	11376	100.0
UPWARD STREET SIDE	0	0.0
UPWARD HOUSE SIDE	0	0.0
UPWARD TOTAL	0	0.0
TOTAL FLUX	11376	100.0

EFFICACY = 116.0 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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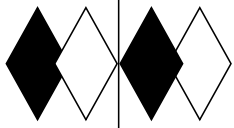
FLUX DISTRIBUTION BY SOLID ANGLE

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

	LUMENS	PERCENT OF FIXTURE	BUG ZONE RATINGS
FORWARD LIGHT	7695.	67.6	
FL (0- 30)	1371.8	12.1	
FM (30- 60)	3902.1	34.3	
FH (60- 80)	2354.2	20.7	G2
FVH(80- 90)	66.9	0.6	G1
BACK LIGHT	3681.	32.4	
BL (0- 30)	976.1	8.6	B2
BM (30- 60)	1803.9	15.9	B2
BH (60- 80)	870.7	7.7	B2 G2
BVH(80- 90)	30.1	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	11376.	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	73.0	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	4.	4.	5.	4.	3.	2.	3.	4.	6.	6.	7.
	85.0	24.	25.	30.	29.	20.	19.	18.	19.	31.	32.	21.
V	82.5	57.	60.	79.	70.	54.	65.	64.	110.	659.	683.	417.
E	80.0	104.	108.	137.	105.	96.	119.	127.	351.	2166.	2335.	1669.
R	77.5	141.	146.	176.	144.	150.	163.	216.	1056.	3699.	3972.	3156.
T	75.0	168.	177.	204.	200.	203.	232.	395.	2649.	5170.	5343.	4186.
I	72.5	221.	231.	252.	261.	261.	362.	994.	4414.	6707.	6773.	5243.
C	70.0	299.	309.	321.	337.	338.	688.	2139.	5959.	7605.	7494.	5998.
A	69.0<<	334.	344.	354.	378.	386.	937.	2630.	6367.	7767.	7637.	6189.
L	67.5	388.	401.	412.	444.	534.	1438.	3304.	6565.	7642.	7516.	6299.
	65.0	502.	515.	560.	704.	1085.	2347.	4095.	6224.	6745.	6657.	5967.
A	62.5	773.	812.	906.	1163.	1733.	2931.	4306.	5794.	6165.	6081.	5592.
N	60.0	1170.	1197.	1308.	1580.	2099.	3093.	4254.	5493.	5802.	5758.	5401.
G	57.5	1486.	1493.	1586.	1823.	2264.	3121.	4211.	5311.	5543.	5499.	5279.
L	55.0	1695.	1696.	1776.	1987.	2409.	3143.	4151.	5221.	5379.	5317.	5139.
E	52.5	1866.	1856.	1925.	2136.	2559.	3179.	4060.	4831.	4997.	4984.	4969.
	50.0	1997.	1979.	2067.	2296.	2705.	3244.	3994.	4543.	4676.	4686.	4759.
	47.5	2130.	2113.	2215.	2438.	2837.	3318.	3923.	4310.	4434.	4468.	4574.
	45.0	2264.	2250.	2370.	2589.	2955.	3370.	3807.	4087.	4254.	4300.	4406.
	42.5	2422.	2401.	2546.	2788.	3099.	3419.	3724.	3904.	4070.	4128.	4242.
	40.0	2651.	2649.	2812.	3004.	3231.	3478.	3624.	3744.	3902.	3955.	4060.
	37.5	2992.	2969.	3081.	3202.	3350.	3506.	3515.	3611.	3758.	3800.	3895.
	35.0	3246.	3220.	3288.	3352.	3431.	3452.	3408.	3498.	3637.	3674.	3739.
	30.0	3498.	3471.	3484.	3479.	3384.	3247.	3250.	3378.	3484.	3498.	3498.
	25.0	3440.	3405.	3355.	3268.	3186.	3148.	3205.	3314.	3360.	3357.	3309.
	20.0	3203.	3183.	3166.	3146.	3140.	3182.	3242.	3291.	3274.	3261.	3183.
	15.0	3199.	3187.	3190.	3210.	3224.	3256.	3282.	3264.	3221.	3205.	3126.
	10.0	3292.	3284.	3281.	3293.	3294.	3289.	3261.	3223.	3180.	3168.	3101.
	5.0	3263.	3256.	3242.	3240.	3221.	3208.	3186.	3160.	3133.	3127.	3093.
	0.0	3067.	3067.	3067.	3067.	3067.	3067.	3067.	3067.	3067.	3067.	3067.
										PLANE OF	MAXIMUM CANDELA	

||
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.	2.	1.	1.	1.	0.	0.	0.	0.	0.
	85.0	20.	18.	11.	9.	7.	9.	14.	23.	16.	5.	1.
V	82.5	394.	291.	42.	38.	35.	50.	63.	72.	88.	83.	77.
E	80.0	1399.	1058.	120.	90.	79.	101.	132.	146.	175.	192.	192.
R	77.5	2648.	2030.	261.	144.	130.	153.	200.	231.	291.	312.	310.
T	75.0	3691.	2944.	521.	210.	186.	202.	251.	269.	369.	411.	411.
I	72.5	4744.	3938.	972.	289.	241.	247.	286.	280.	393.	422.	430.
C	70.0	5444.	4557.	1509.	369.	287.	287.	326.	292.	354.	367.	372.
A	69.0<<	5611.	4683.	1703.	401.	304.	302.	343.	299.	344.	340.	344.
L	67.5	5698.	4757.	1959.	445.	332.	323.	365.	318.	339.	313.	313.
	65.0	5518.	4733.	2337.	513.	373.	362.	397.	359.	352.	315.	313.
A	62.5	5317.	4709.	2671.	617.	408.	405.	420.	411.	381.	346.	340.
N	60.0	5234.	4736.	2978.	792.	446.	447.	429.	448.	430.	389.	378.
G	57.5	5199.	4814.	3252.	1052.	494.	487.	445.	470.	469.	429.	419.
L	55.0	5094.	4800.	3453.	1374.	558.	524.	475.	482.	496.	466.	454.
E	52.5	4917.	4630.	3475.	1719.	659.	557.	505.	510.	528.	491.	480.
	50.0	4731.	4485.	3489.	2010.	816.	593.	540.	538.	549.	518.	510.
	47.5	4557.	4361.	3497.	2232.	1020.	637.	578.	570.	561.	538.	536.
	45.0	4379.	4226.	3465.	2377.	1239.	728.	621.	603.	587.	569.	569.
	42.5	4206.	4070.	3415.	2469.	1441.	870.	672.	636.	620.	608.	609.
	40.0	4024.	3903.	3339.	2526.	1612.	1025.	761.	676.	650.	637.	637.
	37.5	3860.	3740.	3250.	2556.	1757.	1174.	885.	759.	697.	674.	674.
	35.0	3697.	3586.	3171.	2573.	1885.	1324.	1015.	865.	794.	761.	763.
	30.0	3438.	3331.	3012.	2585.	2107.	1657.	1322.	1129.	1021.	979.	968.
	25.0	3239.	3143.	2898.	2615.	2299.	1978.	1718.	1497.	1368.	1319.	1302.
	20.0	3122.	3040.	2854.	2668.	2469.	2267.	2091.	1933.	1815.	1778.	1758.
	15.0	3074.	3009.	2870.	2737.	2615.	2493.	2389.	2303.	2235.	2200.	2190.
	10.0	3065.	3019.	2926.	2839.	2759.	2686.	2625.	2585.	2551.	2537.	2526.
	5.0	3073.	3051.	3003.	2958.	2912.	2873.	2845.	2822.	2805.	2799.	2787.
	0.0	3067.	3067.	3067.	3067.	3067.	3067.	3067.	3067.	3067.	3067.	3067.

CONE OF MAXIMUM CANDELA



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5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	73
5- 10	216
10- 15	348
15- 20	464
20- 25	570
25- 30	677
30- 35	777
35- 40	860
40- 45	928
45- 50	993
50- 55	1055
55- 60	1093
60- 65	1074
65- 70	1007
70- 75	752
75- 80	391
80- 85	94
85- 90	3
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	289
0- 20	1101
0- 30	2348
0- 40	3985
0- 50	5906
0- 60	8054
0- 70	10135
0- 80	11279
0- 90	11376
0-100	11376
0-110	11376
0-120	11376
0-130	11376
0-140	11376
0-150	11376
0-160	11376
0-170	11376
0-180	11376



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