

REPORT NUMBER: ITL85714

ISSUE DATE: 10/01/15

PAGE: 1 OF 9

REVISED: 06/21/16

PREPARED FOR: LED ROADWAY LIGHTING LTD.

CATALOG NUMBER: NXT 36S 0 X 2ES 5 XX 4 XX X XX X

LUMINAIRE: CAST METAL HOUSING WITH GRAY PAINTED INTERIOR FINISH, 1 WHITE CIRCUIT BOARD WITH 36 LEDS, 1 CLEAR PLASTIC LENS WITH 1 OPTIC PER LED, CLEAR FLAT GLASS LENS IN CAST GRAY PAINTED METAL DOOR FRAME.

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

INPUT ELECTRICAL: 120.0 VOLTS, 59.2 WATTS, 0.498 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 = 20.0 FEET

TOTAL LUMEN OUTPUT: 6493

COLOR TEMPERATURE AS MEASURED IN INTEGRATING SPHERE TEST # ITL85717: 3141K

COLOR RENDERING INDEX AS MEASURED IN INTEGRATING SPHERE TEST # ITL85717: 72

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

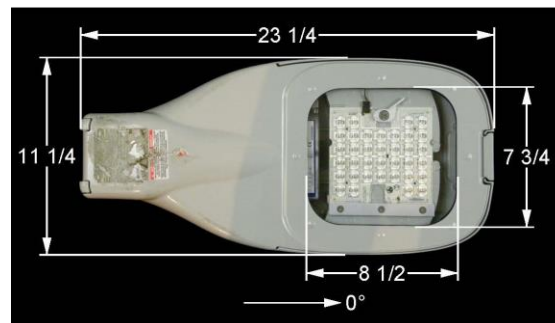
POWER FACTOR: 99.1 %

BUG RATING: B2 U0 G1

LUMINAIRE EFFICACY: 109.7 lm/W

IES CLASSIFICATION: Medium, Type II

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

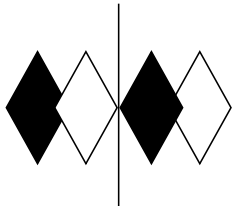


FLUX DISTRIBUTION

LUMENS	DOWNWARD	UPWARD	TOTALS
HOUSE SIDE	2058	0	2058
STREET SIDE	4435	0	4435
TOTALS	6493	0	6493

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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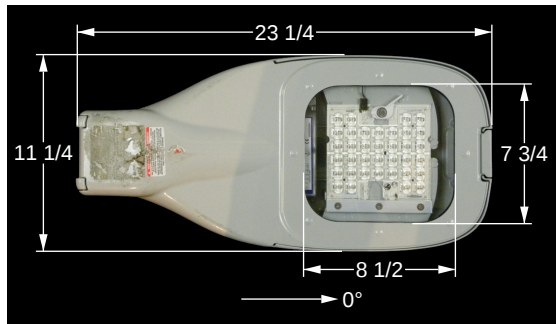
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NVLAP
NVLAP LAB CODE: 200925-0

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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XX X XX X
LUMINAIRE: CAST METAL HOUSING WITH GRAY
PAINTED INTERIOR FINISH, 1 WHITE
CIRCUIT BOARD WITH 36 LEDs, 1 CLEAR
PLASTIC LENS WITH 1 OPTIC PER LED,
CLEAR FLAT GLASS LENS IN CAST GRAY
PAINTED METAL DOOR FRAME.
LAMPS: THIRTY-SIX WHITE LIGHT EMITTING
DIODES (LEDs), VERTICAL BASE-UP
POSITION.
INPUT ELECTRICAL: 120.0 VOLTS, 59.2
WATTS, 0.498 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 = 20.0 FEET

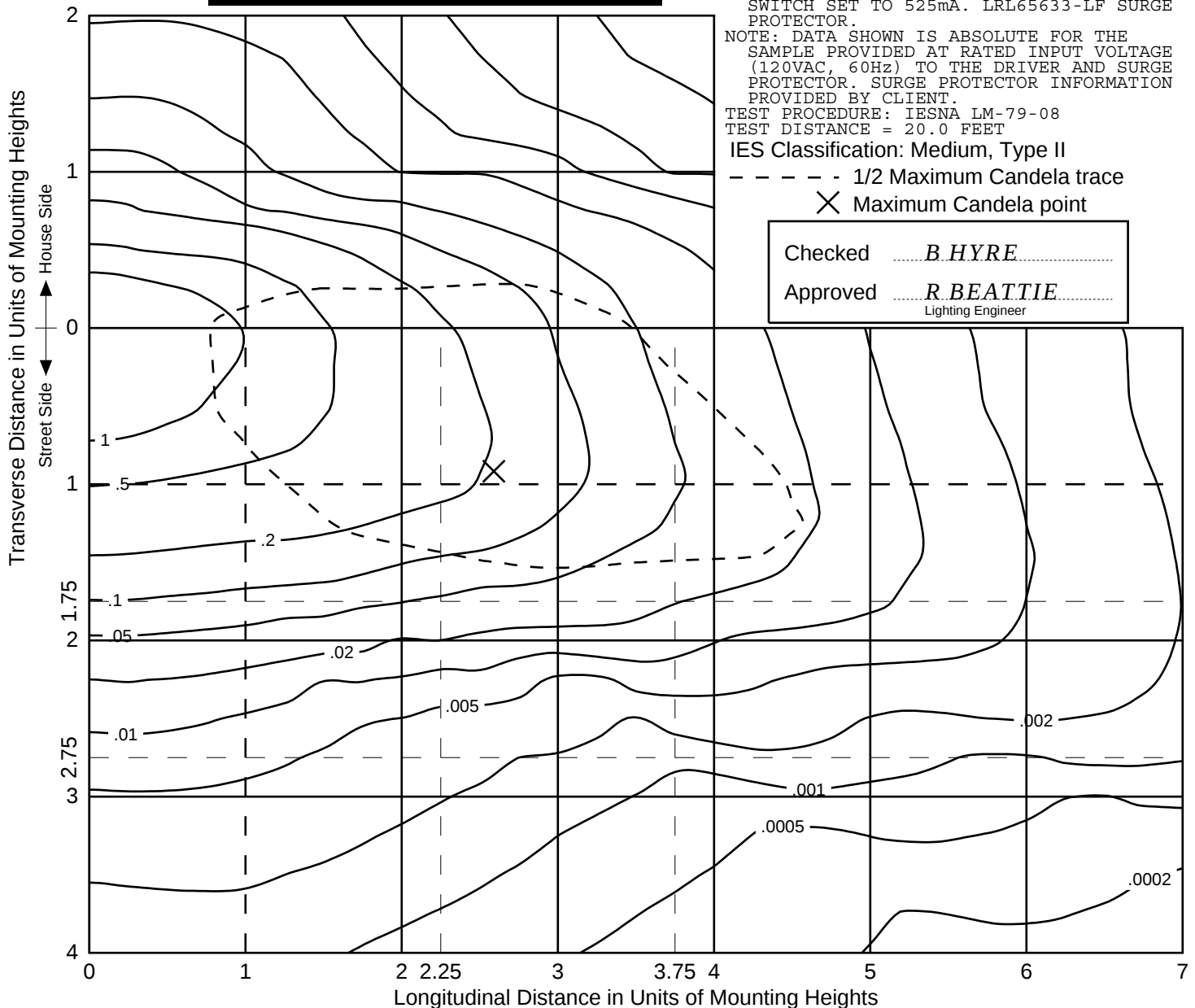
IES Classification: Medium, Type II

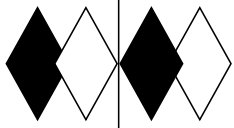
--- 1/2 Maximum Candela trace

X Maximum Candela point

Checked *B. HYRE*

Approved *R. BEATTIE*
Lighting Engineer





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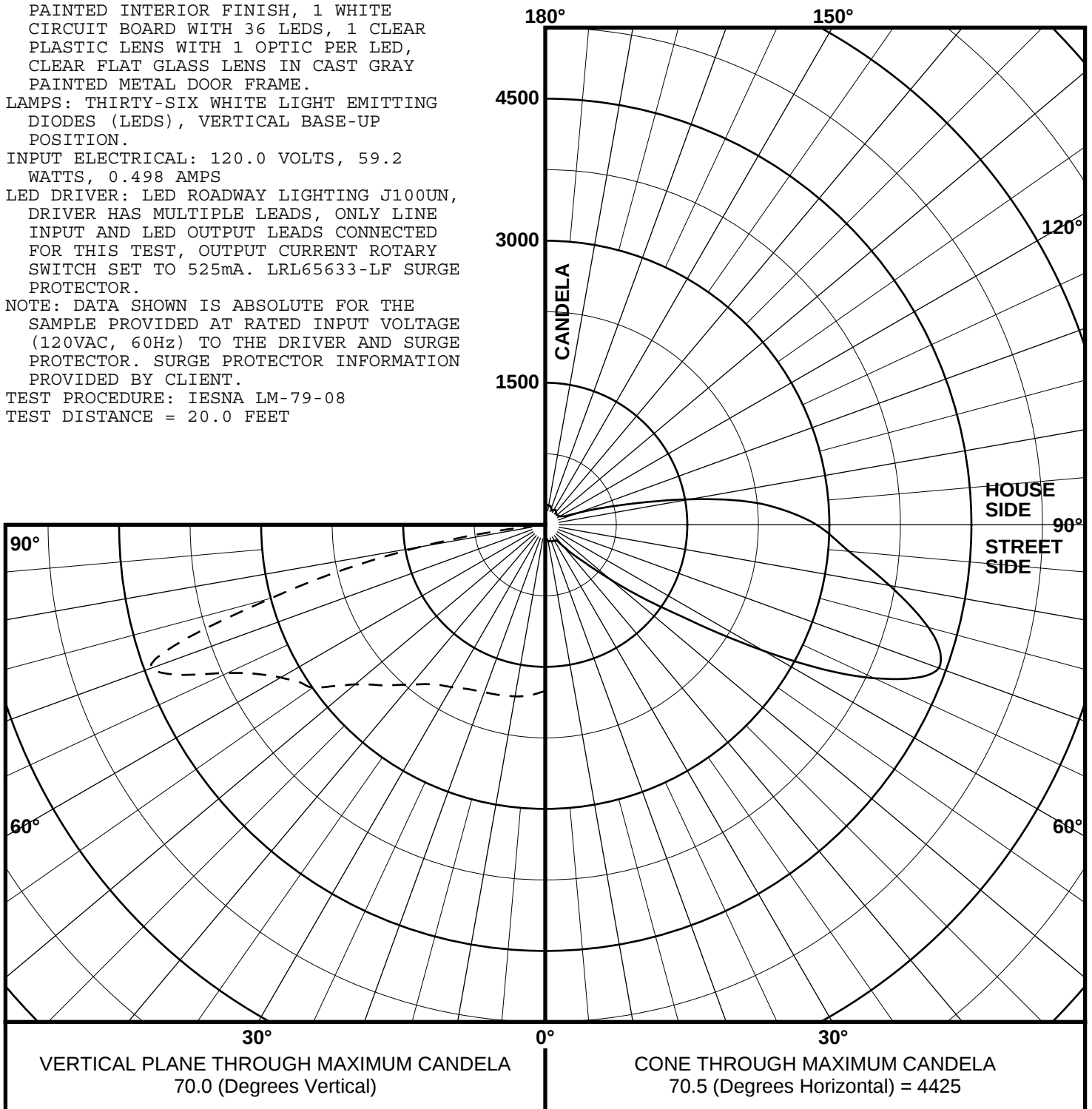
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TEST PROCEDURE: IESNA LM-79-08
TEST DISTANCE = 20.0 FEET

MAXIMUM PLANE AND MAXIMUM CONE PLOTS OF CANDELA





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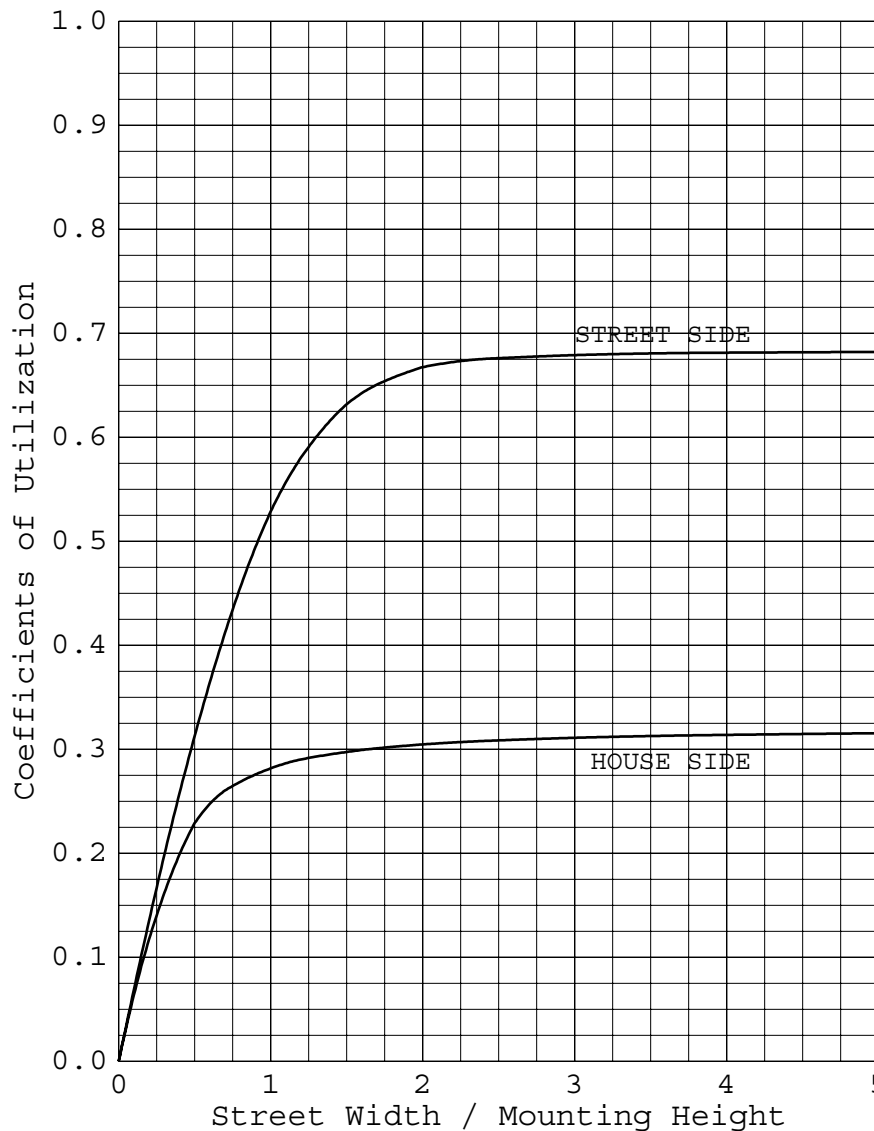
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COEFFICIENTS OF UTILIZATION AND FLUX DISTRIBUTION



	LUMENS	PERCENT OF FIXTURE
DOWNWARD STREET SIDE	4435	68.3
DOWNWARD HOUSE SIDE	2058	31.7
DOWNWARD TOTAL	6493	100.0
UPWARD STREET SIDE	0	0.0
UPWARD HOUSE SIDE	0	0.0
UPWARD TOTAL	0	0.0
TOTAL FLUX	6493	100.0

EFFICACY = 109.7 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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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	4435.	68.3	
FL (0- 30)	791.7	12.2	
FM (30- 60)	2206.9	34.0	
FH (60- 80)	1388.5	21.4	G1
FVH(80- 90)	48.0	0.7	G1
BACK LIGHT	2058.	31.7	
BL (0- 30)	560.1	8.6	B2
BM (30- 60)	1013.6	15.6	B2
BH (60- 80)	465.8	7.2	B1 G1
BVH(80- 90)	18.7	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	6493.	100.0	

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

BUG RATING: B2 U0 G1



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CANDELA TABULATION

	STREET	SIDE										
		0.0	5.0	15.0	25.0	35.0	45.0	55.0	65.0	70.5	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	3.	4.	4.	4.	5.	5.	5.	6.	6.	7.	7.
	85.0	10.	11.	14.	14.	13.	14.	15.	25.	92.	87.	43.
V	82.5	25.	27.	37.	33.	27.	33.	32.	101.	551.	570.	311.
E	80.0	46.	49.	63.	48.	48.	56.	62.	325.	1332.	1511.	924.
R	77.5	63.	67.	83.	70.	76.	81.	117.	991.	2168.	2455.	1677.
T	75.0	81.	85.	101.	103.	106.	127.	248.	1994.	3001.	3259.	2264.
I	72.5	110.	116.	130.	139.	143.	221.	799.	3045.	3943.	3935.	2827.
C	70.0<<	161.	167.	180.	191.	200.	507.	1552.	3833.	4425.	4188.	3220.
A	67.5	219.	230.	240.	261.	386.	1048.	2174.	3894.	4141.	4033.	3308.
L	65.0	303.	318.	360.	469.	781.	1561.	2521.	3529.	3701.	3598.	3129.
	62.5	509.	530.	598.	772.	1112.	1787.	2499.	3285.	3414.	3312.	2993.
A	60.0	738.	757.	815.	974.	1240.	1808.	2437.	3128.	3227.	3147.	2929.
N	57.5	891.	895.	942.	1070.	1322.	1822.	2413.	3025.	3087.	3011.	2870.
G	55.0	990.	993.	1031.	1149.	1400.	1814.	2395.	2952.	2998.	2919.	2825.
L	52.5	1076.	1075.	1113.	1231.	1470.	1803.	2322.	2737.	2796.	2770.	2756.
E	50.0	1148.	1150.	1198.	1313.	1531.	1830.	2265.	2576.	2623.	2629.	2664.
	47.5	1225.	1230.	1281.	1383.	1577.	1862.	2208.	2458.	2498.	2521.	2570.
	45.0	1298.	1303.	1353.	1447.	1619.	1882.	2153.	2350.	2398.	2432.	2487.
	42.5	1368.	1372.	1424.	1523.	1691.	1907.	2123.	2253.	2294.	2345.	2405.
	40.0	1450.	1462.	1521.	1618.	1771.	1937.	2096.	2158.	2203.	2252.	2314.
	37.5	1582.	1594.	1642.	1731.	1846.	1972.	2042.	2077.	2121.	2168.	2225.
	35.0	1718.	1727.	1782.	1847.	1910.	1980.	1972.	2004.	2058.	2102.	2146.
	32.5	1867.	1875.	1904.	1930.	1960.	1967.	1915.	1958.	2013.	2048.	2077.
	30.0	1959.	1965.	1976.	1980.	1972.	1900.	1868.	1932.	1979.	1998.	2013.
	25.0	2017.	2019.	2009.	1955.	1862.	1811.	1826.	1893.	1915.	1919.	1905.
	20.0	1863.	1859.	1840.	1818.	1800.	1811.	1859.	1887.	1881.	1872.	1826.
	15.0	1826.	1824.	1823.	1829.	1852.	1879.	1895.	1877.	1862.	1845.	1792.
	10.0	1909.	1908.	1906.	1912.	1910.	1901.	1881.	1854.	1840.	1825.	1776.
	5.0	1888.	1883.	1872.	1865.	1858.	1851.	1840.	1819.	1808.	1796.	1765.
	0.0	1755.	1755.	1755.	1755.	1755.	1755.	1755.	1755.	1755.	1755.	1755.

||
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	6.	6.	5.	4.	3.	2.	0.	0.	0.	0.
	85.0	49.	35.	14.	12.	11.	12.	11.	10.	4.	0.
V	82.5	316.	225.	32.	29.	25.	32.	38.	41.	42.	17.
E	80.0	818.	579.	74.	52.	47.	60.	77.	80.	92.	95.
R	77.5	1442.	1051.	156.	86.	76.	89.	113.	131.	158.	173.
T	75.0	1981.	1518.	290.	123.	111.	117.	143.	155.	202.	223.
I	72.5	2523.	2022.	517.	168.	142.	140.	164.	162.	224.	234.
C	70.0<<	2865.	2356.	773.	210.	166.	163.	188.	167.	203.	210.
A	67.5	2950.	2440.	991.	242.	190.	187.	212.	182.	191.	175.
L	65.0	2861.	2447.	1200.	279.	214.	209.	232.	205.	196.	174.
	62.5	2817.	2481.	1400.	334.	235.	232.	247.	234.	216.	193.
A	60.0	2812.	2533.	1582.	431.	258.	255.	250.	256.	242.	218.
N	57.5	2801.	2587.	1735.	588.	284.	278.	259.	267.	265.	241.
G	55.0	2774.	2594.	1877.	766.	317.	300.	276.	278.	284.	264.
L	52.5	2713.	2544.	1889.	958.	370.	320.	295.	298.	305.	283.
E	50.0	2634.	2486.	1921.	1126.	457.	340.	312.	315.	318.	300.
	47.5	2552.	2437.	1941.	1258.	577.	366.	333.	331.	325.	313.
	45.0	2470.	2383.	1938.	1345.	702.	411.	356.	346.	340.	333.
	42.5	2382.	2305.	1922.	1398.	816.	493.	385.	365.	359.	355.
	40.0	2290.	2219.	1888.	1433.	912.	582.	431.	387.	373.	367.
	37.5	2199.	2133.	1846.	1454.	997.	667.	504.	433.	399.	387.
	35.0	2115.	2051.	1803.	1465.	1071.	750.	582.	499.	455.	437.
	32.5	2040.	1976.	1762.	1471.	1138.	844.	663.	569.	519.	500.
	30.0	1970.	1907.	1719.	1474.	1200.	947.	760.	654.	590.	564.
	25.0	1857.	1800.	1656.	1491.	1310.	1137.	987.	869.	794.	758.
	20.0	1782.	1736.	1629.	1520.	1411.	1303.	1197.	1116.	1063.	1027.
	15.0	1755.	1719.	1637.	1568.	1497.	1436.	1376.	1327.	1294.	1267.
	10.0	1749.	1725.	1671.	1622.	1582.	1547.	1516.	1489.	1472.	1456.
	5.0	1751.	1740.	1716.	1694.	1666.	1647.	1631.	1619.	1613.	1603.
	0.0	1755.	1755.	1755.	1755.	1755.	1755.	1755.	1755.	1755.	1755.

CONE OF MAXIMUM CANDELA



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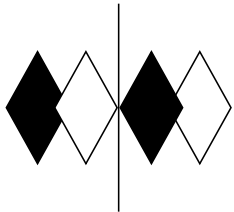
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5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	42
5- 10	124
10- 15	200
15- 20	267
20- 25	329
25- 30	390
30- 35	442
35- 40	484
40- 45	524
45- 50	561
50- 55	595
55- 60	614
60- 65	607
65- 70	571
70- 75	441
75- 80	234
80- 85	63
85- 90	4
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	166
0- 20	633
0- 30	1352
0- 40	2279
0- 50	3363
0- 60	4572
0- 70	5751
0- 80	6427
0- 90	6493
0-100	6493
0-110	6493
0-120	6493
0-130	6493
0-140	6493
0-150	6493
0-160	6493
0-170	6493
0-180	6493



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