

REPORT NUMBER: ITL85312

ISSUE DATE: 07/29/15

PAGE: 1 OF 9

PREPARED FOR: LED ROADWAY LIGHTING LTD.

CATALOG NUMBER: NXT 12C 5 X 2ES 7 XX 3 XX X XX X

LUMINAIRE: CAST METAL HOUSING WITH GRAY PAINTED INTERIOR FINISH, 1 WHITE CIRCUIT BOARD WITH 12 LEDS, 1 CLEAR PLASTIC LENS WITH 1 OPTIC PER LED, CLEAR FLAT GLASS LENS IN CAST GRAY PAINTED METAL DOOR FRAME.

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

INPUT ELECTRICAL: 120.0 VOLTS, 28.4 WATTS, 0.239 AMPS

LED DRIVER: LED ROADWAY LIGHTING LRL65642-LF, DRIVER HAS MULTIPLE LEADS, ONLY LINE INPUT AND LED OUTPUT LEADS CONNECTED FOR THIS TEST, CLIENT STATES DRIVER IS 700mA OUTPUT. LRLM-WH91/92-OU1 SURGE PROTECTOR.

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (120VAC, 60Hz) TO THE DRIVER AND SURGE PROTECTOR. LED DRIVER AND SURGE PROTECTOR INFORMATION PROVIDED BY CLIENT.

TEST PROCEDURE: IESNA LM-79-08

TEST DISTANCE = 20.0 FEET

TOTAL LUMEN OUTPUT: 2831

COLOR TEMPERATURE AS MEASURED IN INTEGRATING SPHERE TEST # ITL85314: 3793K

COLOR RENDERING INDEX AS MEASURED IN INTEGRATING SPHERE TEST # ITL85314: 73

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

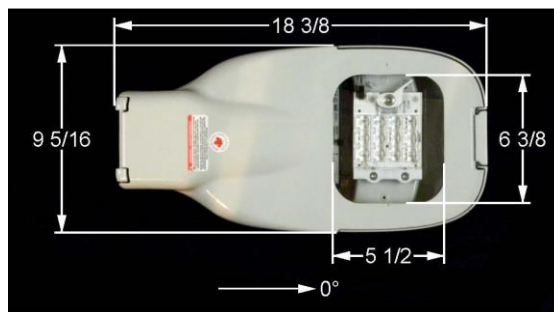
POWER FACTOR: 99.0 %

BUG RATING: B1 U0 G1

LUMINAIRE EFFICACY: 99.7 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	953	0	953
STREET SIDE	1877	0	1877
TOTALS	2831	0	2831

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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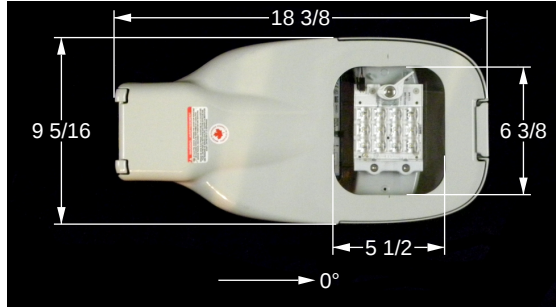
NVLAP
NVLAP LAB CODE: 200925-0

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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PREPARED FOR: LED ROADWAY LIGHTING LTD.

CATALOG NUMBER: NXT 12C 5 X 2ES 7 XX 3 XX X XX X

LUMINAIRE: CAST METAL HOUSING WITH GRAY PAINTED INTERIOR FINISH, 1 WHITE CIRCUIT BOARD WITH 12 LEDS, 1 CLEAR PLASTIC LENS WITH 1 OPTIC PER LED, CLEAR FLAT GLASS LENS IN CAST GRAY PAINTED METAL FRAME. LAMPS: TWELVE WHITE LIGHT EMITTING DIODES (LEDs), VERTICAL BASE-UP POSITION.

INPUT ELECTRICAL: 120.0 VOLTS, 28.4 WATTS, 0.239 AMPS

LED DRIVER: LED ROADWAY LIGHTING

LRL65642-LF, DRIVER HAS MULTIPLE LEADS, ONLY LINE INPUT AND LED OUTPUT LEADS CONNECTED FOR THIS TEST, CLIENT STATES DRIVER IS 700mA OUTPUT. LRLM-WH91/92-OU1 SURGE PROTECTOR.

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (120VAC, 60Hz) TO THE DRIVER AND SURGE PROTECTOR. LED DRIVER AND SURGE PROTECTOR INFORMATION PROVIDED BY CLIENT.

TEST PROCEDURE: IESNA LM-79-08

TEST DISTANCE = 20.0 FEET

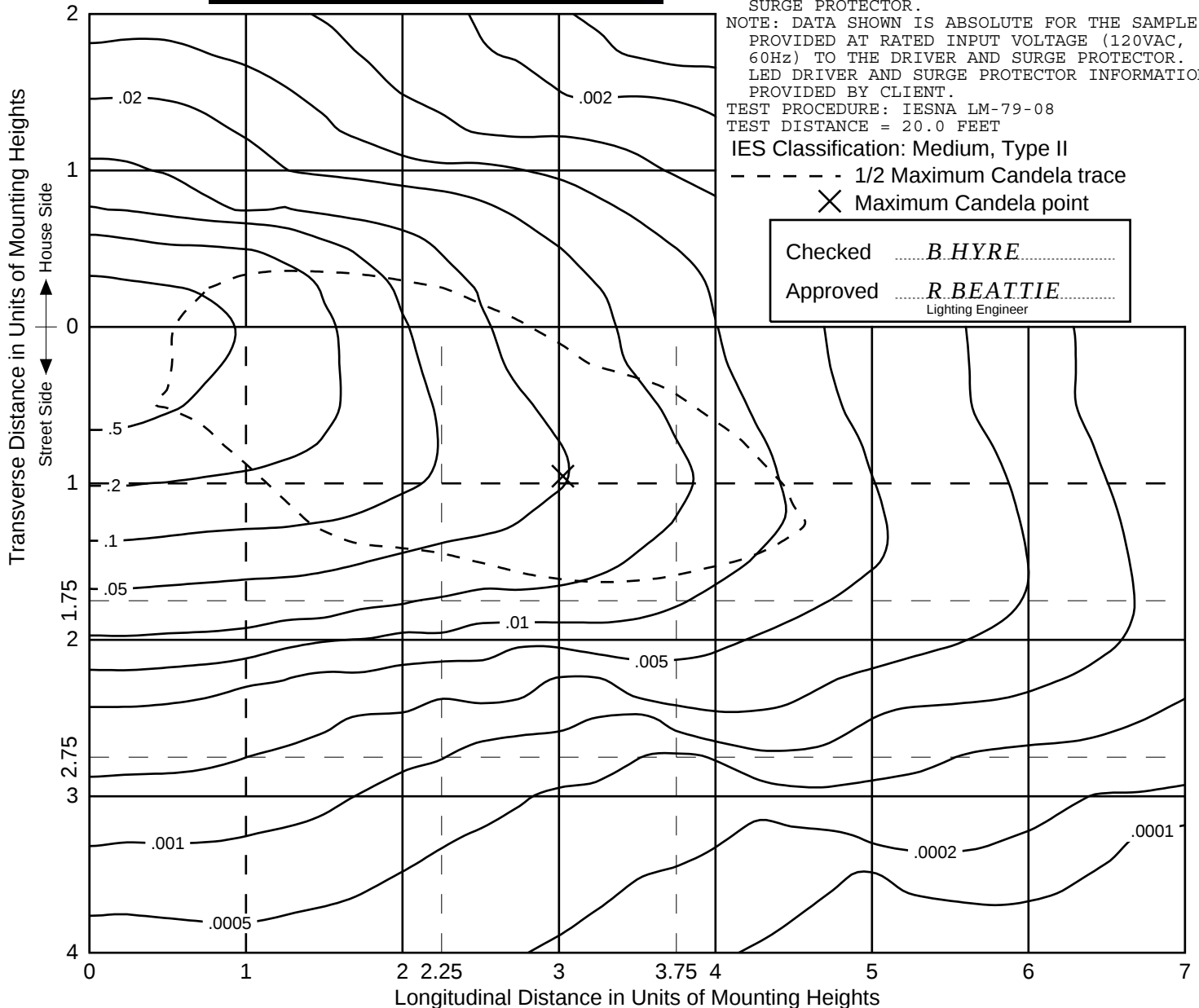
IES Classification: Medium, Type II

--- 1/2 Maximum Candela trace

X Maximum Candela point

Checked B. HYRE

Approved R. BEATTIE
Lighting Engineer



REPORT NUMBER: ITL85312
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CATALOG NUMBER: NXT 12C 5 X 2ES 7 XX 3
XX X XX X

LUMINAIRE: CAST METAL HOUSING WITH GRAY
PAINTED INTERIOR FINISH, 1 WHITE
CIRCUIT BOARD WITH 12 LEDS, 1 CLEAR
PLASTIC LENS WITH 1 OPTIC PER LED,
CLEAR FLAT GLASS LENS IN CAST GRAY
PAINTED METAL DOOR FRAME.

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

INPUT ELECTRICAL: 120.0 VOLTS, 28.4
WATTS, 0.239 AMPS

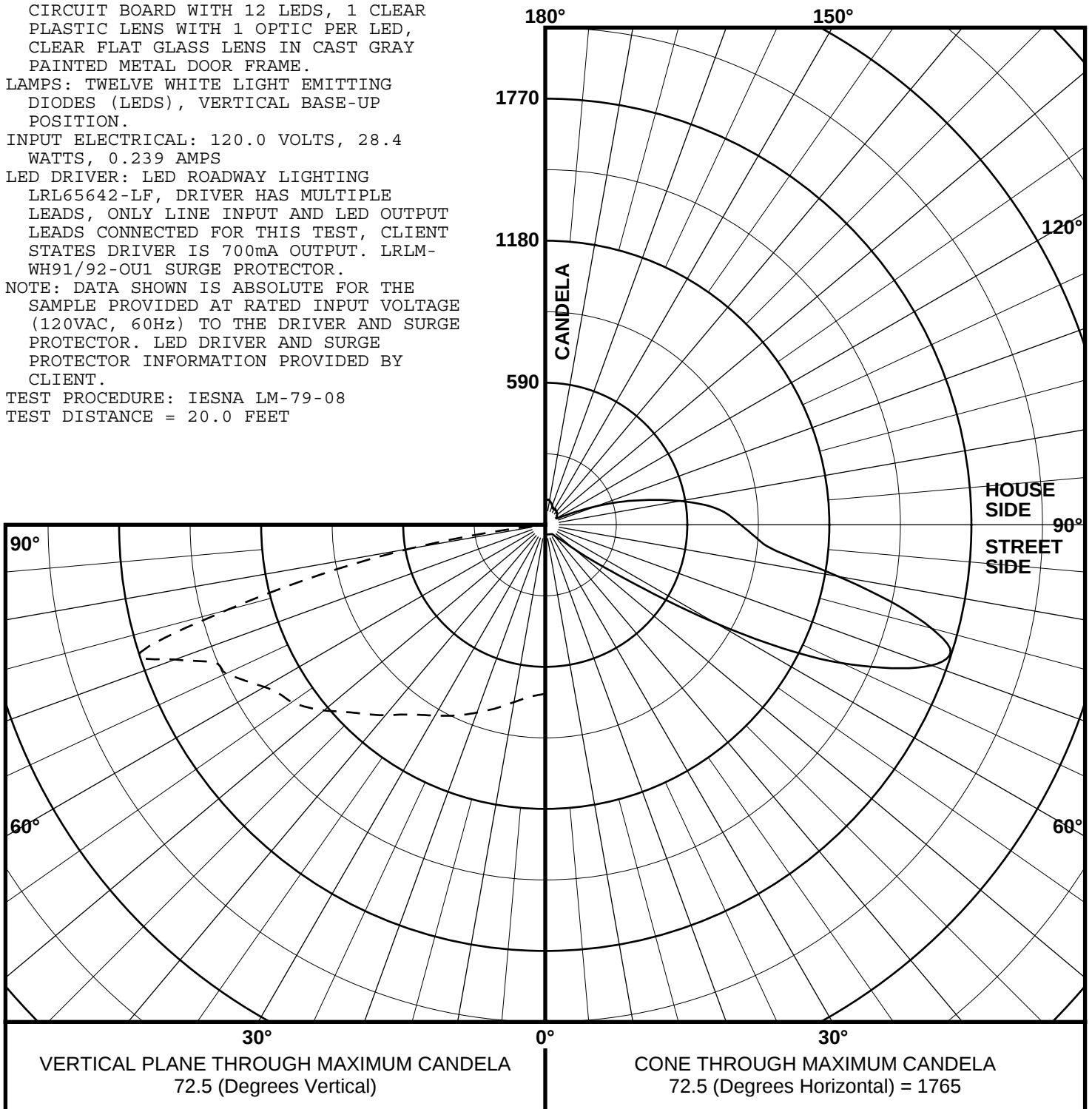
LED DRIVER: LED ROADWAY LIGHTING
LRL65642-LF, DRIVER HAS MULTIPLE
LEADS, ONLY LINE INPUT AND LED OUTPUT
LEADS CONNECTED FOR THIS TEST, CLIENT
STATES DRIVER IS 700mA OUTPUT. LRLM-
WH91/92-OU1 SURGE PROTECTOR.

NOTE: DATA SHOWN IS ABSOLUTE FOR THE
SAMPLE PROVIDED AT RATED INPUT VOLTAGE
(120VAC, 60Hz) TO THE DRIVER AND SURGE
PROTECTOR. LED DRIVER AND SURGE
PROTECTOR INFORMATION PROVIDED BY
CLIENT.

TEST PROCEDURE: IESNA LM-79-08

TEST DISTANCE = 20.0 FEET

MAXIMUM PLANE AND MAXIMUM CONE PLOTS OF CANDELA

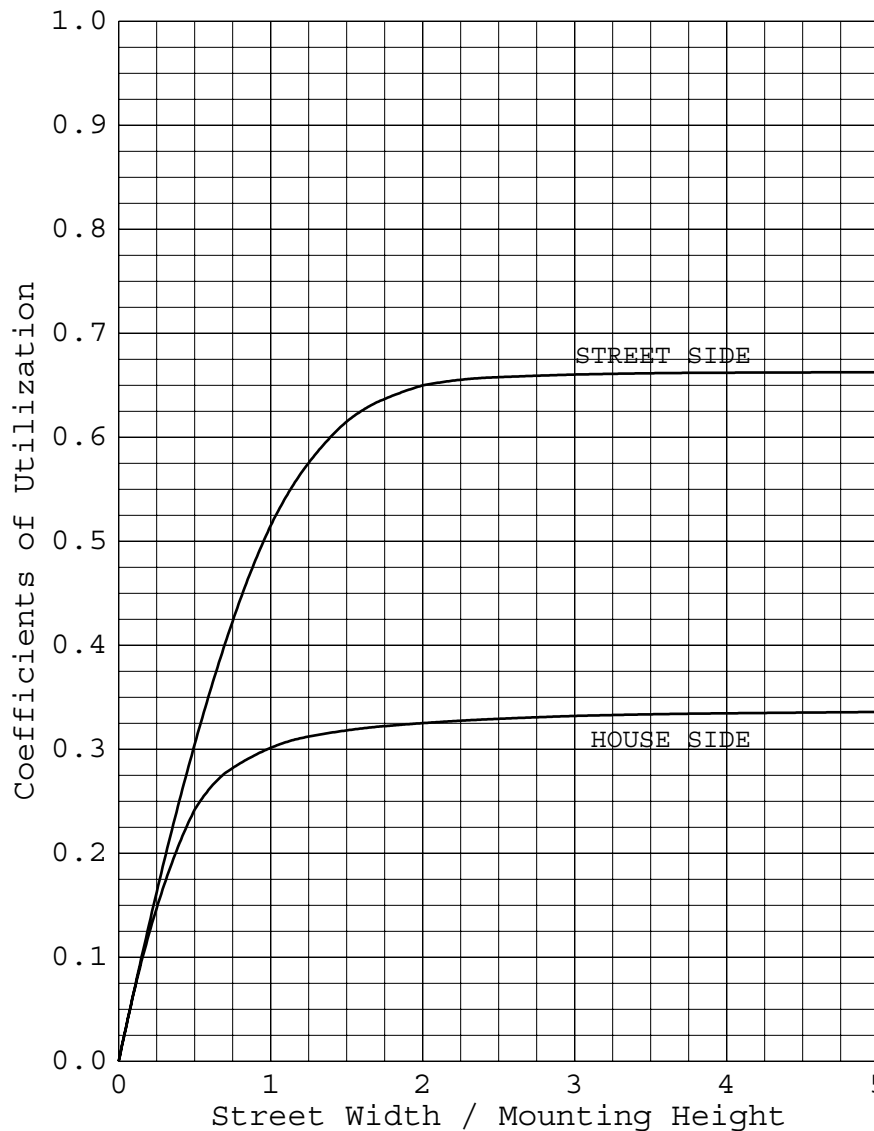




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COEFFICIENTS OF UTILIZATION AND FLUX DISTRIBUTION



	LUMENS	PERCENT OF FIXTURE
DOWNWARD STREET SIDE	1877	66.3
DOWNWARD HOUSE SIDE	953	33.7
DOWNWARD TOTAL	2831	100.0
UPWARD STREET SIDE	0	0.0
UPWARD HOUSE SIDE	0	0.0
UPWARD TOTAL	0	0.0
TOTAL FLUX	2831	100.0

EFFICACY = 99.7 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	1877.	66.3	
FL (0- 30)	336.3	11.9	
FM (30- 60)	973.4	34.4	
FH (60- 80)	551.7	19.5	G0
FVH(80- 90)	15.9	0.6	G1
BACK LIGHT	953.	33.7	
BL (0- 30)	253.4	9.0	B1
BM (30- 60)	486.9	17.2	B1
BH (60- 80)	206.5	7.3	B1 G1
BVH(80- 90)	6.5	0.2	G0
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	2831.	100.0	

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

BUG RATING: B1 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	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.	1.	1.	2.	2.	2.	2.	2.
	85.0	3.	3.	3.	3.	3.	4.	5.	6.	7.	7.
V	82.5	5.	6.	8.	8.	8.	10.	11.	32.	183.	189.
E	80.0	15.	15.	21.	14.	16.	18.	23.	170.	568.	591.
R	77.5	17.	18.	23.	24.	26.	28.	46.	561.	958.	979.
T	75.0	27.	27.	33.	37.	36.	44.	110.	967.	1368.	1414.
I	72.5<<	41.	40.	45.	47.	47.	83.	342.	1360.	1765.	1661.
C	70.0	54.	54.	58.	61.	76.	209.	645.	1526.	1636.	1510.
A	67.5	75.	76.	79.	101.	162.	432.	918.	1547.	1493.	1411.
L	65.0	124.	128.	150.	211.	331.	662.	1108.	1498.	1462.	1391.
	62.5	208.	216.	242.	328.	489.	787.	1103.	1408.	1403.	1350.
A	60.0	301.	306.	341.	412.	545.	789.	1063.	1352.	1347.	1309.
N	57.5	367.	374.	397.	455.	572.	793.	1045.	1306.	1308.	1284.
G	55.0	416.	417.	433.	488.	601.	797.	1030.	1270.	1284.	1269.
L	52.5	442.	445.	467.	522.	626.	800.	1014.	1216.	1245.	1245.
E	50.0	467.	471.	497.	559.	646.	808.	999.	1162.	1200.	1207.
	47.5	493.	498.	528.	587.	672.	818.	987.	1107.	1149.	1166.
	45.0	522.	527.	559.	617.	709.	832.	978.	1059.	1106.	1127.
	42.5	551.	554.	592.	667.	753.	851.	970.	1023.	1069.	1089.
	40.0	598.	603.	661.	726.	789.	874.	946.	989.	1033.	1052.
	37.5	686.	696.	739.	782.	821.	896.	914.	952.	994.	1010.
	35.0	768.	775.	800.	822.	851.	893.	879.	921.	963.	979.
	32.5	819.	823.	835.	846.	874.	855.	851.	899.	937.	952.
	30.0	836.	839.	854.	869.	849.	813.	827.	881.	915.	926.
	25.0	819.	821.	812.	788.	761.	768.	815.	854.	874.	875.
	20.0	726.	726.	731.	736.	751.	787.	814.	832.	830.	825.
	15.0	752.	755.	768.	781.	790.	802.	810.	804.	789.	780.
	10.0	794.	796.	803.	805.	802.	797.	789.	769.	748.	741.
	5.0	769.	770.	772.	770.	760.	748.	736.	725.	718.	716.
	0.0	702.	702.	702.	702.	702.	702.	702.	702.	702.	702.
									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.
	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	2.	2.	2.	1.	1.	1.	0.	0.	0.	0.
	85.0	7.	6.	6.	5.	4.	4.	2.	1.	1.	0.
V	82.5	94.	73.	15.	11.	10.	11.	10.	9.	6.	1.
E	80.0	318.	271.	62.	20.	19.	24.	24.	25.	24.	6.
R	77.5	536.	491.	155.	37.	31.	40.	46.	46.	48.	48.
T	75.0	704.	642.	296.	62.	45.	58.	61.	63.	76.	81.
I	72.5<<	812.	725.	391.	94.	59.	69.	75.	77.	94.	105.
C	70.0	897.	812.	470.	119.	75.	76.	82.	81.	105.	108.
A	67.5	962.	887.	568.	147.	91.	84.	84.	82.	102.	98.
L	65.0	1032.	959.	652.	175.	101.	96.	88.	82.	88.	92.
	62.5	1073.	1005.	726.	218.	109.	106.	96.	90.	84.	76.
A	60.0	1114.	1062.	800.	279.	118.	113.	105.	100.	91.	81.
N	57.5	1150.	1108.	866.	363.	128.	119.	110.	110.	101.	90.
G	55.0	1187.	1149.	930.	459.	141.	124.	118.	118.	113.	102.
L	52.5	1209.	1177.	973.	548.	159.	131.	127.	129.	124.	113.
E	50.0	1216.	1193.	998.	624.	206.	141.	136.	138.	133.	123.
	47.5	1208.	1189.	1011.	682.	272.	153.	146.	143.	139.	135.
	45.0	1186.	1167.	1011.	718.	346.	175.	157.	154.	151.	148.
	42.5	1142.	1125.	992.	736.	412.	214.	169.	162.	162.	161.
	40.0	1090.	1077.	964.	744.	464.	260.	191.	171.	168.	168.
	37.5	1041.	1029.	934.	745.	506.	310.	225.	192.	180.	176.
	35.0	995.	981.	899.	740.	539.	361.	259.	221.	205.	200.
	32.5	947.	934.	863.	732.	565.	409.	303.	251.	232.	225.
	30.0	905.	889.	830.	723.	587.	458.	354.	291.	262.	252.
	25.0	828.	813.	772.	707.	624.	537.	463.	404.	370.	354.
	20.0	771.	758.	733.	698.	651.	601.	555.	516.	493.	476.
	15.0	735.	726.	711.	693.	671.	645.	625.	604.	592.	584.
	10.0	715.	709.	700.	692.	684.	675.	667.	658.	654.	654.
	5.0	706.	702.	697.	693.	690.	688.	687.	683.	683.	686.
	0.0	702.	702.	702.	702.	702.	702.	702.	702.	702.	702.

CONE OF MAXIMUM CANDELA



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5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	17
5- 10	52
10- 15	86
15- 20	116
20- 25	145
25- 30	175
30- 35	203
35- 40	225
40- 45	242
45- 50	257
50- 55	266
55- 60	267
60- 65	258
65- 70	225
70- 75	179
75- 80	98
80- 85	22
85- 90	1
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	69
0- 20	271
0- 30	590
0- 40	1017
0- 50	1516
0- 60	2050
0- 70	2532
0- 80	2808
0- 90	2831
0-100	2831
0-110	2831
0-120	2831
0-130	2831
0-140	2831
0-150	2831
0-160	2831
0-170	2831
0-180	2831



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