

REPORT NUMBER: ITL85794

ISSUE DATE: 10/06/15

PAGE: 1 OF 9

PREPARED FOR: LED ROADWAY LIGHTING LTD.

CATALOG NUMBER: NXT 12C 5 X 4AH 5 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: 230.0 VOLTS, 21.2 WATTS, 0.0998 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 525mA OUTPUT. LRLM-WH91/92-OU1 SURGE PROTECTOR.

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (230VAC, 50Hz) 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: 2114

COLOR TEMPERATURE AS MEASURED IN INTEGRATING SPHERE TEST # ITL85797: 3755K

COLOR RENDERING INDEX AS MEASURED IN INTEGRATING SPHERE TEST # ITL85797: 73

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

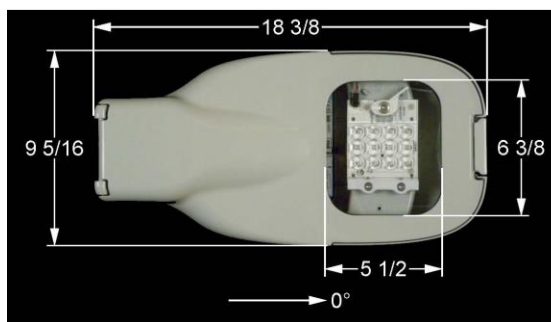
POWER FACTOR: 92.4 %

BUG RATING: B1 U0 G1

LUMINAIRE EFFICACY: 99.7 lm/W

IES CLASSIFICATION: Short, Type IV

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

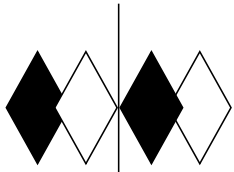


FLUX DISTRIBUTION

LUMENS	DOWNWARD	UPWARD	TOTALS
HOUSE SIDE	862	0	862
STREET SIDE	1252	0	1252
TOTALS	2114	0	2114

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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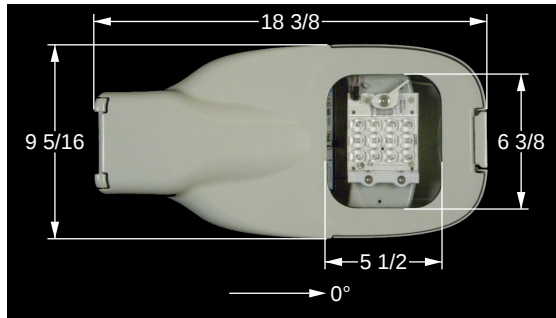
NVLAP
NVLAP LAB CODE: 200925-0

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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PAGE: 2 OF 9

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NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (230VAC, 50Hz) 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

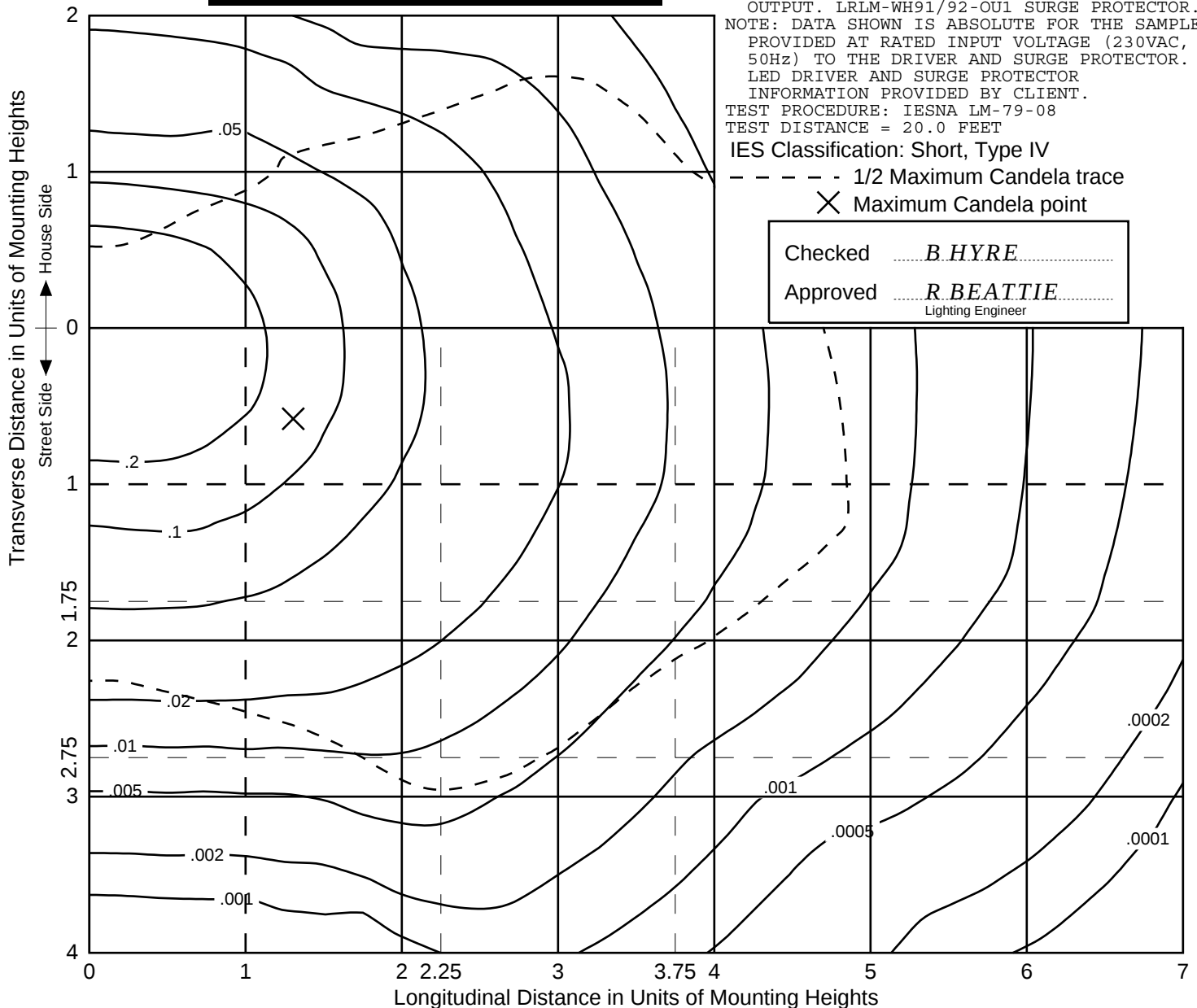
IES Classification: Short, Type IV

--- 1/2 Maximum Candela trace

X Maximum Candela point

Checked *B. HYRE*

Approved *R. BEATTIE*
Lighting Engineer





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PAGE: 3 OF 9

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CATALOG NUMBER: NXT 12C 5 X 4AH 5 XX 3

XX X XX X

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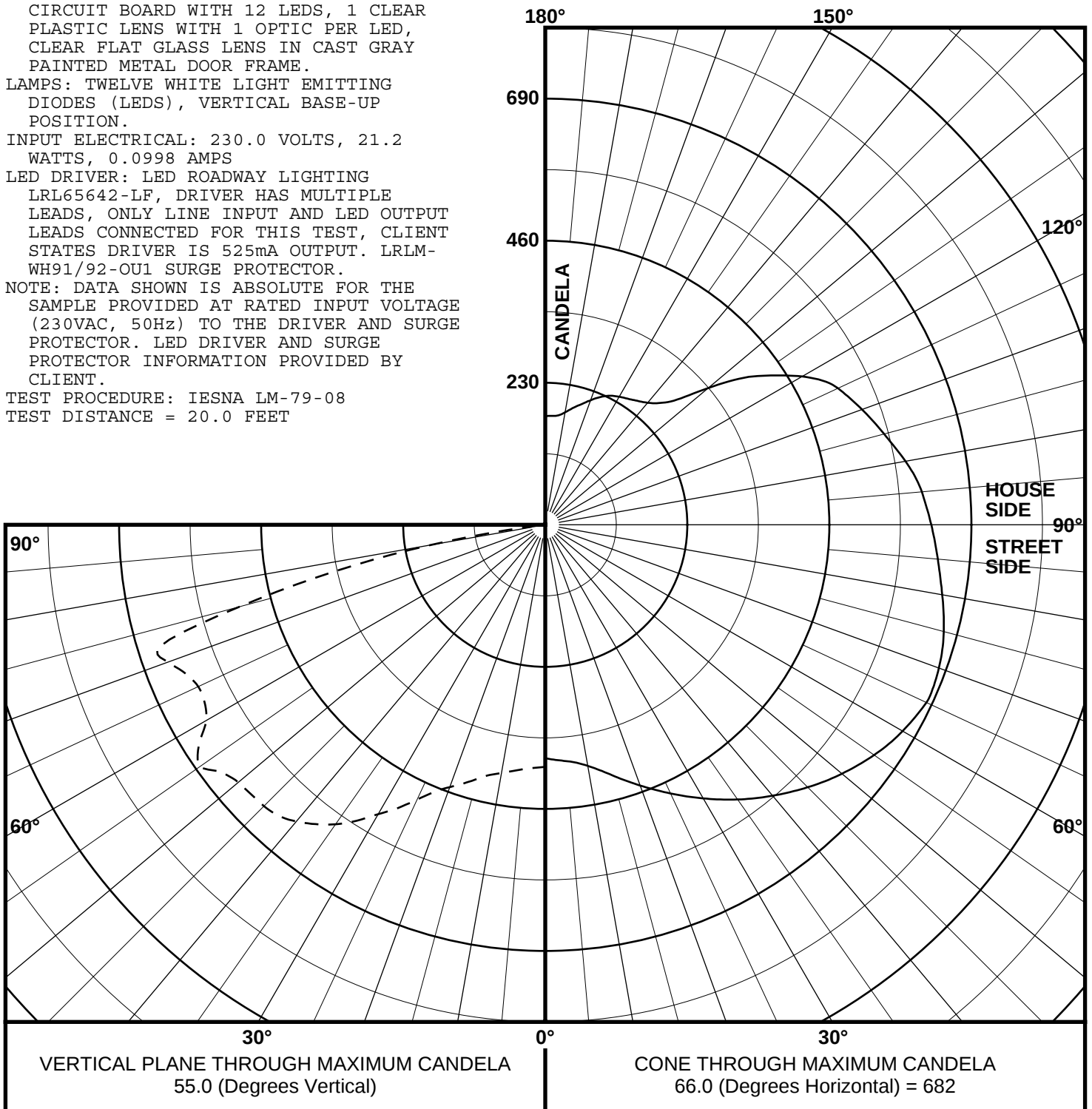
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TEST PROCEDURE: IESNA LM-79-08

TEST DISTANCE = 20.0 FEET

MAXIMUM PLANE AND MAXIMUM CONE PLOTS OF CANDELA

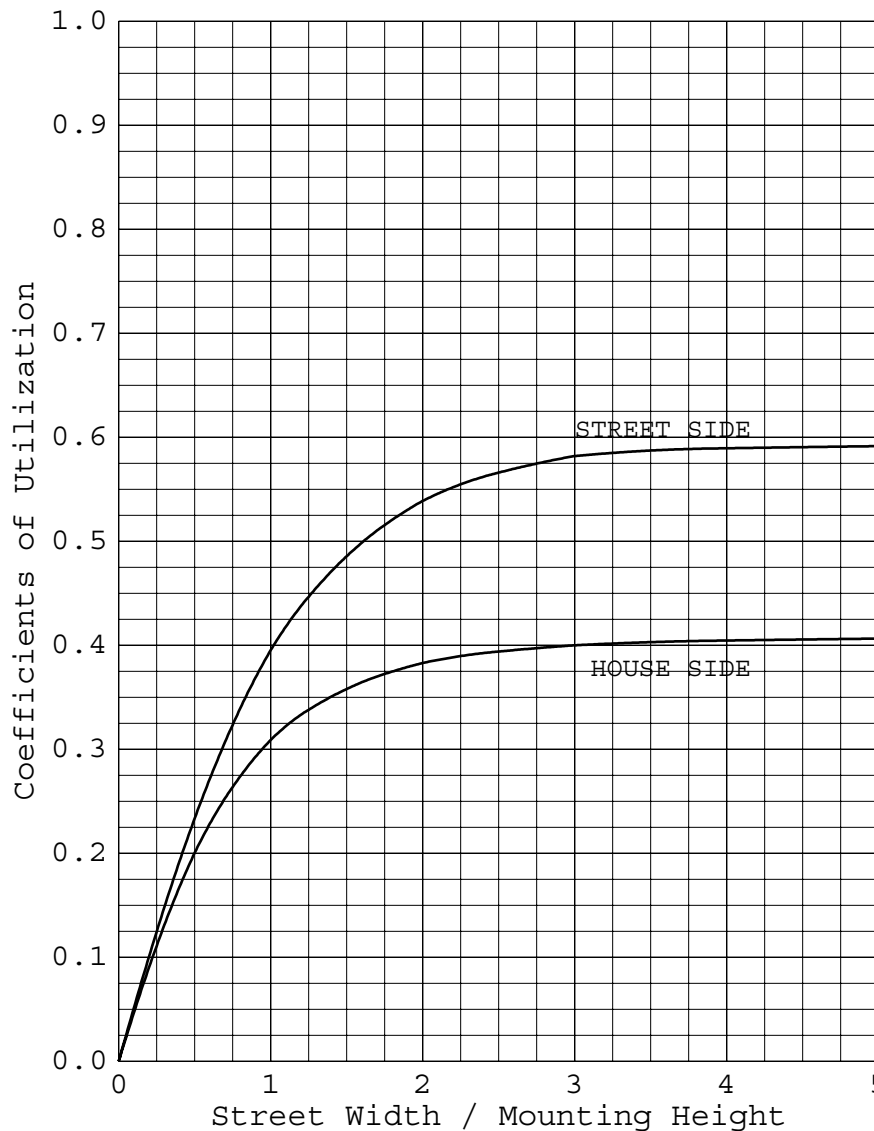




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PAGE: 4 OF 9

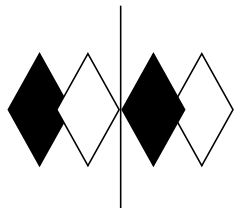
COEFFICIENTS OF UTILIZATION AND FLUX DISTRIBUTION



	LUMENS	PERCENT OF FIXTURE
DOWNWARD STREET SIDE	1252	59.2
DOWNWARD HOUSE SIDE	862	40.8
DOWNWARD TOTAL	2114	100.0
UPWARD STREET SIDE	0	0.0
UPWARD HOUSE SIDE	0	0.0
UPWARD TOTAL	0	0.0
TOTAL FLUX	2114	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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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	1252.	59.2	
FL (0- 30)	198.0	9.4	
FM (30- 60)	618.0	29.2	
FH (60- 80)	425.2	20.1	G0
FVH(80- 90)	11.2	0.5	G1
BACK LIGHT	862.	40.8	
BL (0- 30)	166.6	7.9	B1
BM (30- 60)	430.0	20.3	B1
BH (60- 80)	253.8	12.0	B1 G1
BVH(80- 90)	11.6	0.6	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	2114.	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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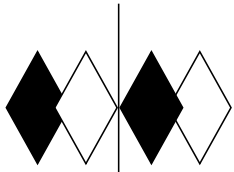
PAGE: 6 OF 9

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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	66.0	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.	1.	1.	1.	1.	1.	1.	1.
	85.0	3.	3.	3.	3.	3.	3.	4.	4.	4.	4.	5.
V	82.5	4.	4.	5.	5.	13.	16.	17.	36.	36.	53.	72.
E	80.0	11.	12.	14.	13.	60.	80.	89.	184.	189.	267.	249.
R	77.5	29.	30.	25.	32.	186.	216.	234.	347.	350.	411.	381.
T	75.0	35.	37.	50.	113.	319.	403.	477.	509.	513.	556.	504.
I	72.5	99.	102.	127.	199.	411.	553.	609.	646.	653.	672.	606.
C	70.0	179.	182.	222.	344.	511.	569.	614.	646.	650.	657.	596.
A	67.5	295.	298.	362.	453.	524.	566.	599.	628.	630.	636.	594.
L	65.0	378.	378.	415.	469.	523.	561.	587.	618.	620.	627.	596.
	62.5	391.	392.	420.	469.	519.	557.	588.	620.	622.	628.	603.
A	60.0	386.	391.	416.	466.	515.	556.	594.	631.	634.	637.	618.
N	57.5	378.	383.	414.	465.	514.	563.	621.	662.	665.	660.	635.
G	55.0<<	378.	384.	420.	480.	543.	601.	650.	681.	682.	668.	638.
L	52.5	380.	384.	416.	469.	520.	566.	617.	659.	659.	652.	633.
E	50.0	372.	376.	403.	452.	506.	556.	611.	648.	649.	641.	621.
	47.5	374.	377.	404.	450.	501.	558.	616.	645.	646.	635.	612.
	45.0	377.	380.	405.	451.	501.	564.	620.	644.	644.	629.	605.
	42.5	383.	386.	410.	453.	508.	574.	622.	639.	639.	616.	589.
	40.0	390.	393.	417.	461.	520.	580.	618.	627.	627.	598.	569.
	37.5	403.	405.	432.	477.	532.	580.	612.	613.	611.	578.	549.
	35.0	427.	432.	456.	496.	539.	579.	599.	594.	592.	557.	526.
	32.5	454.	456.	475.	507.	548.	572.	583.	569.	568.	536.	506.
	30.0	472.	475.	492.	520.	548.	560.	558.	543.	541.	515.	489.
	25.0	504.	506.	515.	524.	530.	520.	507.	492.	491.	469.	455.
	20.0	490.	491.	490.	489.	482.	476.	466.	453.	452.	437.	425.
	15.0	456.	455.	457.	454.	449.	443.	436.	426.	426.	417.	408.
	10.0	430.	430.	431.	430.	424.	420.	413.	408.	408.	402.	396.
	5.0	403.	403.	405.	405.	403.	402.	400.	397.	397.	394.	392.
	0.0	392.	392.	392.	392.	392.	392.	392.	392.	392.	392.	392.
										PLANE OF MAXIMUM CANDELA		
										CONE OF MAXIMUM CANDELA		



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PAGE: 7 OF 9

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	1.	1.	1.	2.	2.	2.	1.	0.	0.	0.
	85.0	4.	5.	5.	5.	5.	4.	4.	3.	1.	0.
V	82.5	80.	83.	52.	43.	55.	24.	12.	12.	9.	3.
E	80.0	245.	244.	181.	159.	141.	62.	25.	24.	21.	8.
R	77.5	364.	356.	285.	252.	225.	106.	47.	42.	43.	41.
T	75.0	470.	445.	368.	333.	292.	150.	62.	55.	59.	59.
I	72.5	542.	490.	425.	386.	294.	156.	80.	72.	74.	80.
C	70.0	552.	514.	461.	416.	294.	161.	110.	89.	92.	94.
A	67.5	564.	535.	489.	449.	313.	191.	156.	123.	114.	119.
L	65.0	574.	551.	510.	475.	340.	238.	216.	170.	150.	144.
	62.5	587.	571.	527.	486.	358.	287.	276.	211.	185.	179.
A	60.0	603.	591.	548.	498.	383.	311.	322.	251.	205.	189.
N	57.5	622.	609.	562.	509.	402.	298.	303.	256.	211.	188.
G	55.0<<	625.	612.	568.	523.	420.	281.	247.	230.	199.	177.
L	52.5	624.	609.	565.	514.	423.	293.	217.	199.	190.	186.
E	50.0	607.	594.	555.	508.	432.	320.	229.	197.	190.	191.
	47.5	599.	584.	548.	502.	440.	344.	258.	209.	198.	196.
	45.0	592.	578.	541.	496.	445.	368.	285.	230.	210.	206.
	42.5	576.	565.	529.	489.	446.	382.	310.	255.	228.	220.
	40.0	560.	550.	516.	482.	444.	389.	329.	278.	253.	241.
	37.5	541.	529.	501.	471.	438.	393.	343.	300.	275.	265.
	35.0	520.	509.	484.	459.	431.	393.	352.	318.	295.	286.
	32.5	498.	488.	468.	448.	423.	393.	361.	332.	315.	307.
	30.0	478.	469.	452.	437.	416.	393.	369.	347.	332.	326.
	25.0	445.	437.	427.	419.	408.	395.	382.	369.	361.	358.
	20.0	418.	414.	410.	407.	404.	399.	392.	386.	382.	381.
	15.0	404.	402.	401.	400.	400.	399.	397.	394.	393.	393.
	10.0	395.	395.	395.	395.	395.	396.	396.	394.	395.	396.
	5.0	392.	392.	393.	392.	393.	394.	394.	394.	394.	396.
	0.0	392.	392.	392.	392.	392.	392.	392.	392.	392.	392.

CONE OF MAXIMUM CANDELA



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PAGE: 8 OF 9

5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	9
5- 10	29
10- 15	49
15- 20	70
20- 25	92
25- 30	115
30- 35	135
35- 40	154
40- 45	169
45- 50	182
50- 55	197
55- 60	212
60- 65	212
65- 70	200
70- 75	169
75- 80	97
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	38
0- 20	157
0- 30	365
0- 40	654
0- 50	1004
0- 60	1413
0- 70	1825
0- 80	2092
0- 90	2114
0-100	2114
0-110	2114
0-120	2114
0-130	2114
0-140	2114
0-150	2114
0-160	2114
0-170	2114
0-180	2114



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