



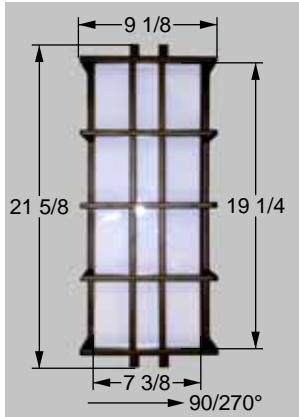
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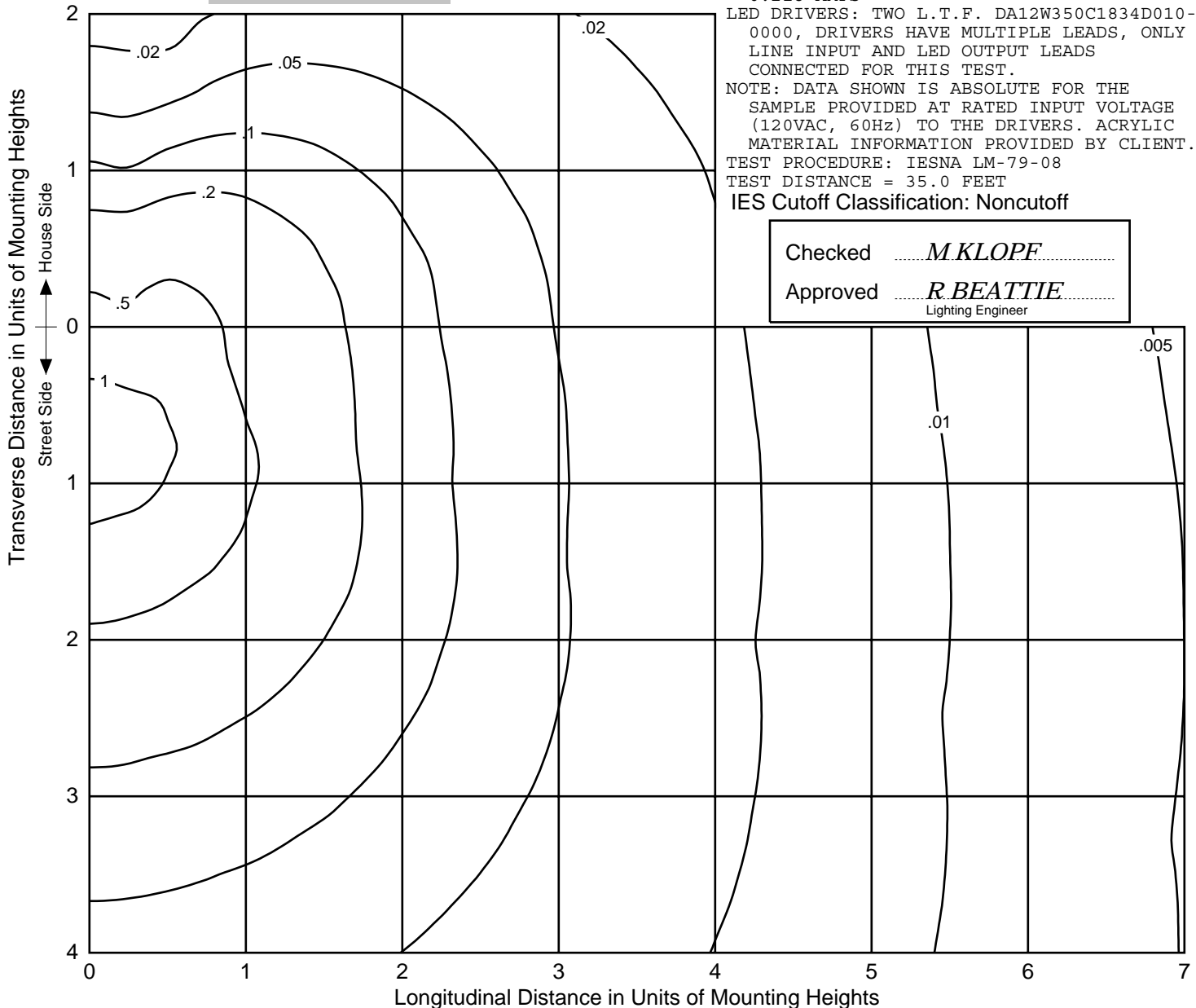
INDEPENDENT TESTING LABORATORIES, INC.  
 4066 CAMELOT CIRCLE, LONGMONT, CO 80504 USA

PHONE: (303) 442-1255 • FAX: (970) 535-3114 • E-MAIL: itl@itlboulder.com • WEBSITE: www.itlboulder.com

**ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINATION**  
 Values based on 6.67 foot mounting height.



REPORT NUMBER: ITL87410-GONIOPHOTOMETRY  
 ISSUE DATE: 06/07/16 PAGE: 1 OF 8  
 PREPARED FOR: OXYGEN LIGHTING  
 CATALOG NUMBER: 3-711  
 LUMINAIRE: FABRICATED WHITE PAINTED METAL MOUNTING PLATE/REFLECTOR, FORMED SEMI-DIFFUSE METAL CIRCUIT BOARD MOUNT, 2 WHITE CIRCUIT BOARDS EACH WITH 30 LEDS, TRANSLUCENT WHITE FROSTED ACRYLIC DIFFUSER WITH FROSTED TRANSLUCENT WHITE ACRYLIC TOP AND BOTTOM END CAPS, FABRICATED BROWN PAINTED METAL FACEPLATE WITH 5 HORIZONTAL BARS AND 2 VERTICAL BARS. DIFFUSER FROSTED SIDE IN.  
 LAMPS: SIXTY WHITE LIGHT EMITTING DIODES (LEDS), AIMED AT THE HORIZON.  
 INPUT ELECTRICAL: 120.0 VOLTS, 25.2 WATTS, 0.218 AMPS  
 LED DRIVERS: TWO L.T.F. DA12W350C1834D010-0000, DRIVERS HAVE MULTIPLE LEADS, ONLY LINE INPUT AND LED OUTPUT LEADS CONNECTED FOR THIS TEST.  
 NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (120VAC, 60Hz) TO THE DRIVERS. ACRYLIC MATERIAL INFORMATION PROVIDED BY CLIENT.  
 TEST PROCEDURE: IESNA LM-79-08  
 TEST DISTANCE = 35.0 FEET  
 IES Cutoff Classification: Noncutoff





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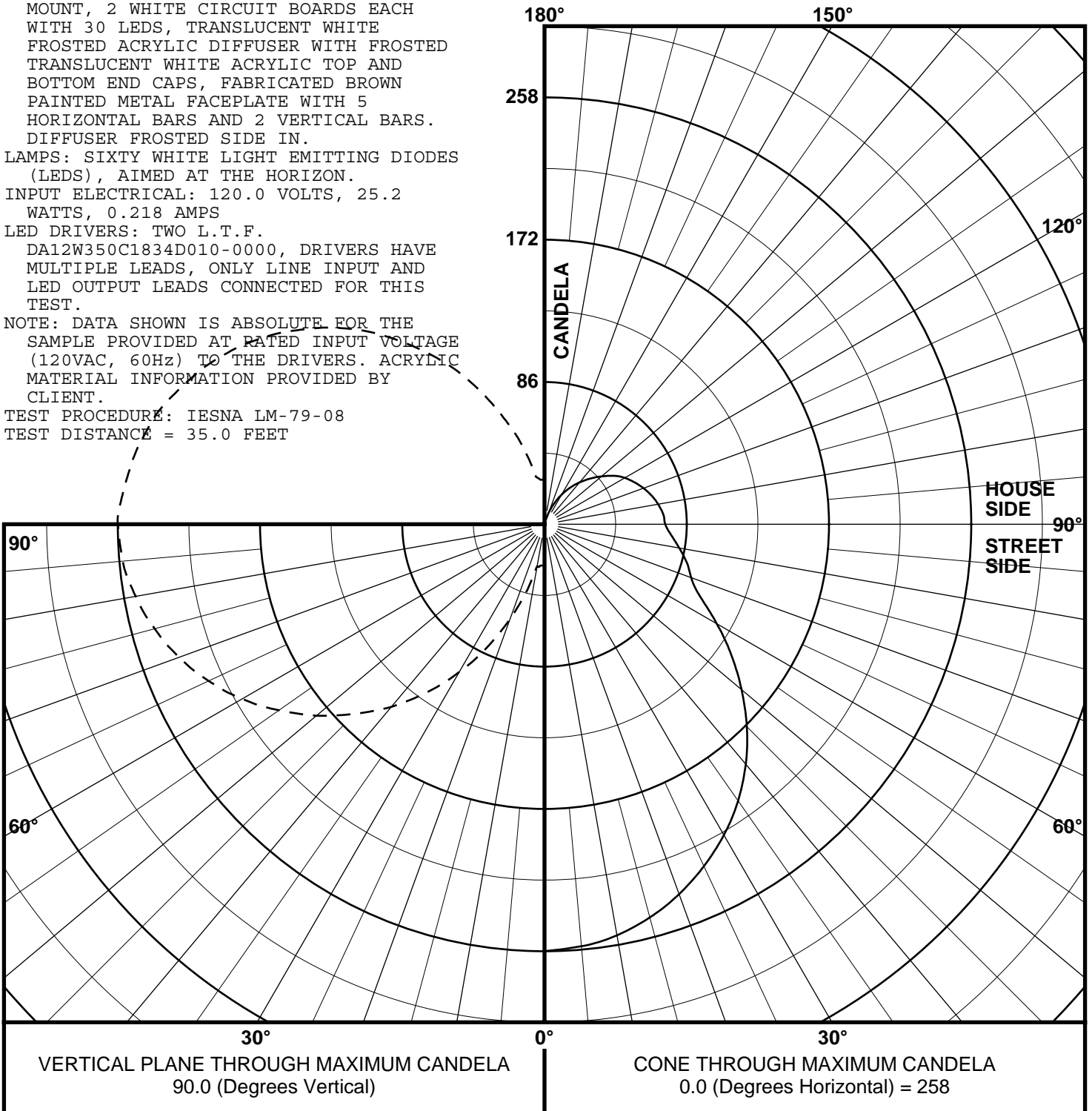
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TEST DISTANCE = 35.0 FEET

MAXIMUM PLANE AND MAXIMUM CONE PLOTS OF CANDELA

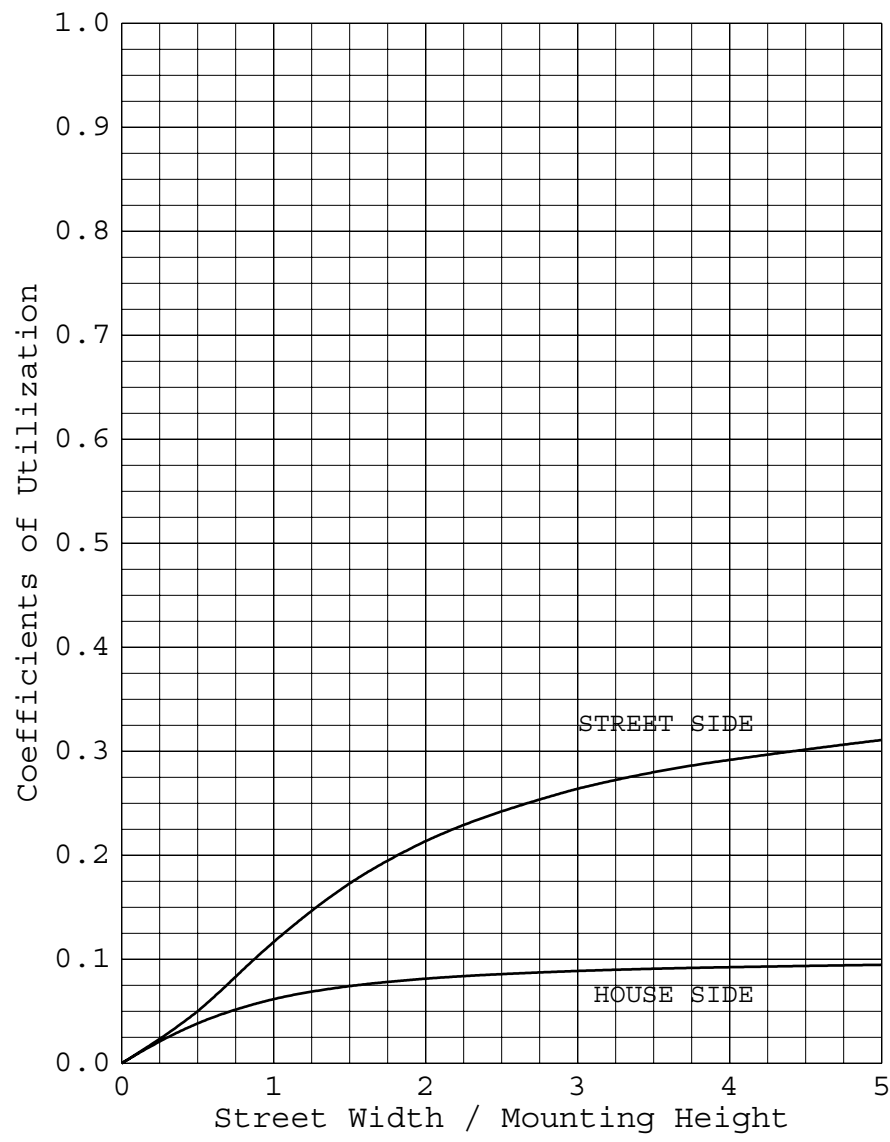




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PAGE: 3 OF 8

COEFFICIENTS OF UTILIZATION AND FLUX DISTRIBUTION



	LUMENS	PERCENT OF FIXTURE
DOWNWARD STREET SIDE	385	39.0
DOWNWARD HOUSE SIDE	104	10.6
DOWNWARD TOTAL	490	49.6
UPWARD STREET SIDE	391	39.6
UPWARD HOUSE SIDE	107	10.8
UPWARD TOTAL	498	50.4
TOTAL FLUX	988	100.0

EFFICACY = 39.2 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: 4 OF 8

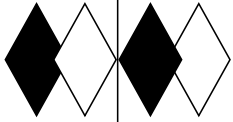
FLUX DISTRIBUTION BY SOLID ANGLE

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

	LUMENS	PERCENT OF FIXTURE	BUG ZONE RATINGS
FORWARD LIGHT	385.	39.0	
FL ( 0- 30)	18.6	1.9	
FM ( 30- 60)	122.0	12.3	
FH ( 60- 80)	154.3	15.6	G0
FVH( 80- 90)	90.6	9.2	G1
BACK LIGHT	104.	10.6	
BL ( 0- 30)	11.2	1.1	B0
BM ( 30- 60)	37.5	3.8	B0
BH ( 60- 80)	35.7	3.6	B0 G0
BVH( 80- 90)	19.9	2.0	G1
UPLIGHT	498.	50.4	
UL ( 90-100)	110.6	11.2	U3
UH (100-180)	387.5	39.2	U3
TRAPPED LIGHT	0.	0.0	
TOTAL FLUX	988.	100.0	

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

BUG RATING: B0 U3 G1



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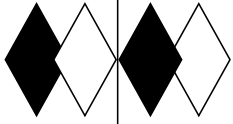
PAGE: 5 OF 8

CANDELA TABULATION

	STREET SIDE											
	0.0	5.0	15.0	25.0	35.0	45.0	55.0	65.0	75.0	85.0	90.0	
180.0	27.	27.	27.	27.	27.	27.	27.	27.	27.	27.	27.	27.
175.0	27.	27.	27.	27.	27.	27.	27.	27.	27.	27.	27.	27.
165.0	46.	45.	43.	38.	34.	30.	28.	29.	29.	30.	30.	30.
155.0	86.	85.	80.	71.	63.	54.	45.	39.	39.	39.	39.	38.
145.0	128.	127.	119.	108.	95.	81.	66.	54.	49.	48.	48.	48.
135.0	167.	165.	155.	142.	126.	107.	86.	67.	60.	57.	55.	55.
125.0	200.	197.	187.	172.	153.	129.	103.	79.	69.	63.	61.	61.
115.0	226.	223.	213.	196.	174.	147.	117.	89.	77.	69.	66.	66.
105.0	245.	242.	232.	214.	191.	162.	129.	98.	84.	74.	71.	71.
95.0	255.	253.	243.	226.	201.	171.	137.	103.	88.	77.	73.	73.
92.5	257.	254.	244.	227.	202.	173.	138.	104.	89.	77.	73.	73.
90.0<<	258.	256.	246.	228.	204.	173.	138.	104.	89.	77.	73.	73.
87.5	257.	255.	245.	228.	203.	172.	138.	103.	88.	77.	73.	73.
85.0	256.	253.	243.	226.	201.	171.	137.	102.	88.	77.	73.	73.
V 82.5	254.	251.	241.	223.	199.	169.	135.	101.	87.	76.	72.	72.
E 80.0	251.	248.	238.	221.	196.	166.	133.	100.	86.	75.	72.	72.
R 77.5	248.	245.	235.	217.	193.	163.	130.	98.	84.	74.	71.	71.
T 75.0	244.	242.	231.	214.	190.	160.	128.	96.	83.	73.	70.	70.
I 72.5	240.	238.	226.	210.	186.	157.	125.	94.	81.	72.	69.	69.
C 70.0	235.	233.	221.	205.	182.	153.	122.	92.	79.	71.	67.	67.
A 67.5	230.	227.	216.	200.	177.	150.	119.	90.	78.	69.	66.	66.
L 65.0	224.	222.	211.	194.	173.	145.	116.	87.	75.	68.	65.	65.
62.5	218.	215.	205.	189.	167.	141.	112.	85.	74.	66.	64.	64.
A 60.0	211.	208.	198.	183.	162.	137.	108.	83.	72.	65.	63.	63.
N 57.5	204.	201.	191.	176.	156.	131.	105.	80.	70.	64.	61.	61.
G 55.0	196.	194.	184.	169.	150.	126.	101.	77.	68.	62.	60.	60.
L 52.5	188.	186.	176.	162.	143.	121.	96.	74.	65.	60.	59.	59.
E 50.0	180.	178.	168.	155.	137.	115.	92.	71.	63.	59.	57.	57.
47.5	171.	169.	160.	147.	130.	110.	87.	68.	61.	57.	55.	55.
45.0	162.	160.	151.	139.	123.	103.	83.	65.	58.	55.	54.	54.
42.5	153.	151.	142.	130.	115.	97.	78.	62.	55.	53.	52.	52.
40.0	144.	142.	133.	122.	108.	91.	73.	58.	53.	51.	50.	50.
37.5	134.	132.	124.	113.	100.	84.	68.	55.	50.	49.	48.	48.
35.0	124.	122.	114.	104.	92.	78.	63.	51.	47.	46.	46.	46.
32.5	114.	112.	105.	95.	84.	71.	58.	48.	45.	44.	44.	44.
30.0	103.	102.	95.	86.	75.	64.	53.	44.	42.	42.	41.	41.
25.0	82.	81.	75.	67.	59.	51.	42.	37.	37.	37.	36.	36.
20.0	61.	61.	56.	50.	44.	38.	33.	31.	32.	32.	32.	32.
15.0	42.	42.	39.	36.	31.	27.	27.	27.	28.	28.	28.	28.
10.0	26.	26.	26.	26.	26.	25.	25.	25.	24.	24.	24.	24.
5.0	25.	26.	25.	25.	25.	25.	25.	25.	25.	25.	25.	25.
0.0	25.	25.	25.	25.	25.	25.	25.	25.	25.	25.	25.	25.

||  
 PLANE OF MAXIMUM CANDELA

CONE OF MAXIMUM CANDELA



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PAGE: 6 OF 8

CANDELA TABULATION

	HOUSE SIDE		LATERAL ANGLE							
	95.0	105.0	115.0	125.0	135.0	145.0	155.0	165.0	175.0	180.0
180.0	27.	27.	27.	27.	27.	27.	27.	27.	27.	27.
175.0	27.	27.	27.	27.	27.	27.	27.	27.	27.	27.
165.0	29.	29.	28.	27.	26.	25.	26.	26.	26.	26.
155.0	38.	37.	35.	32.	29.	25.	23.	23.	23.	23.
145.0	47.	45.	42.	37.	32.	26.	22.	19.	19.	20.
135.0	54.	52.	47.	41.	34.	27.	20.	15.	15.	15.
125.0	60.	57.	51.	44.	36.	27.	18.	11.	10.	11.
115.0	65.	61.	54.	46.	36.	26.	15.	6.	5.	5.
105.0	69.	65.	58.	49.	38.	26.	13.	1.	0.	0.
95.0	72.	67.	60.	51.	39.	27.	14.	1.	0.	0.
92.5	72.	67.	60.	51.	40.	27.	14.	1.	0.	0.
90.0<<	72.	67.	60.	51.	39.	27.	14.	1.	0.	0.
87.5	72.	67.	60.	51.	39.	27.	14.	1.	0.	0.
85.0	71.	67.	60.	50.	39.	27.	14.	1.	0.	0.
V 82.5	71.	66.	59.	50.	39.	26.	14.	1.	0.	0.
E 80.0	70.	66.	59.	49.	38.	26.	13.	1.	0.	0.
R 77.5	69.	65.	58.	49.	38.	26.	13.	1.	0.	0.
T 75.0	68.	64.	57.	48.	37.	25.	13.	1.	0.	0.
I 72.5	67.	63.	56.	47.	37.	25.	14.	2.	1.	2.
C 70.0	66.	62.	55.	47.	36.	25.	14.	3.	3.	3.
A 67.5	65.	61.	54.	46.	36.	25.	14.	4.	4.	4.
L 65.0	64.	60.	54.	46.	36.	26.	15.	6.	5.	5.
62.5	62.	59.	53.	45.	36.	26.	16.	7.	6.	7.
A 60.0	61.	58.	52.	44.	35.	26.	16.	8.	8.	8.
N 57.5	60.	57.	51.	44.	35.	26.	17.	9.	9.	9.
G 55.0	59.	55.	50.	43.	35.	26.	17.	10.	10.	10.
L 52.5	57.	54.	49.	42.	34.	26.	18.	11.	11.	11.
E 50.0	56.	53.	48.	42.	34.	26.	18.	12.	12.	12.
47.5	54.	51.	47.	41.	33.	26.	19.	13.	13.	13.
45.0	53.	50.	45.	40.	33.	26.	19.	14.	14.	14.
42.5	51.	48.	44.	39.	32.	26.	19.	15.	15.	15.
40.0	49.	47.	43.	38.	32.	25.	20.	16.	16.	17.
37.5	47.	45.	41.	37.	31.	25.	20.	17.	17.	17.
35.0	45.	43.	40.	35.	30.	25.	20.	18.	18.	18.
32.5	43.	41.	38.	34.	30.	25.	21.	19.	19.	19.
30.0	41.	39.	37.	33.	29.	24.	21.	20.	20.	20.
25.0	36.	35.	33.	30.	27.	24.	22.	21.	21.	22.
20.0	32.	31.	29.	27.	25.	23.	23.	23.	23.	23.
15.0	28.	27.	26.	25.	24.	24.	24.	24.	24.	24.
10.0	24.	24.	24.	24.	24.	24.	24.	24.	25.	25.
5.0	25.	25.	25.	25.	25.	25.	25.	25.	25.	25.
0.0	25.	25.	25.	25.	25.	25.	25.	25.	25.	25.

CONE OF MAXIMUM CANDELA



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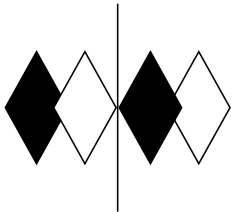
PAGE: 7 OF 8

5-DEGREE  
ZONAL LUMEN SUMMARY

0- 5	1
5- 10	2
10- 15	3
15- 20	5
20- 25	8
25- 30	11
30- 35	15
35- 40	20
40- 45	24
45- 50	29
50- 55	34
55- 60	38
60- 65	42
65- 70	46
70- 75	49
75- 80	52
80- 85	55
85- 90	56
90- 95	56
95-100	55
100-105	53
105-110	50
110-115	46
115-120	43
120-125	39
125-130	34
130-135	30
135-140	25
140-145	20
145-150	16
150-155	12
155-160	8
160-165	6
165-170	3
170-175	2
175-180	1

10-DEGREE  
ZONAL LUMEN SUMMARY

0- 10	2
0- 20	11
0- 30	30
0- 40	65
0- 50	118
0- 60	189
0- 70	278
0- 80	379
0- 90	490
0-100	600
0-110	703
0-120	792
0-130	865
0-140	920
0-150	956
0-160	976
0-170	985
0-180	988



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