

itl boulder
THE LIGHT CENTER OF THE INDUSTRY SINCE 1955

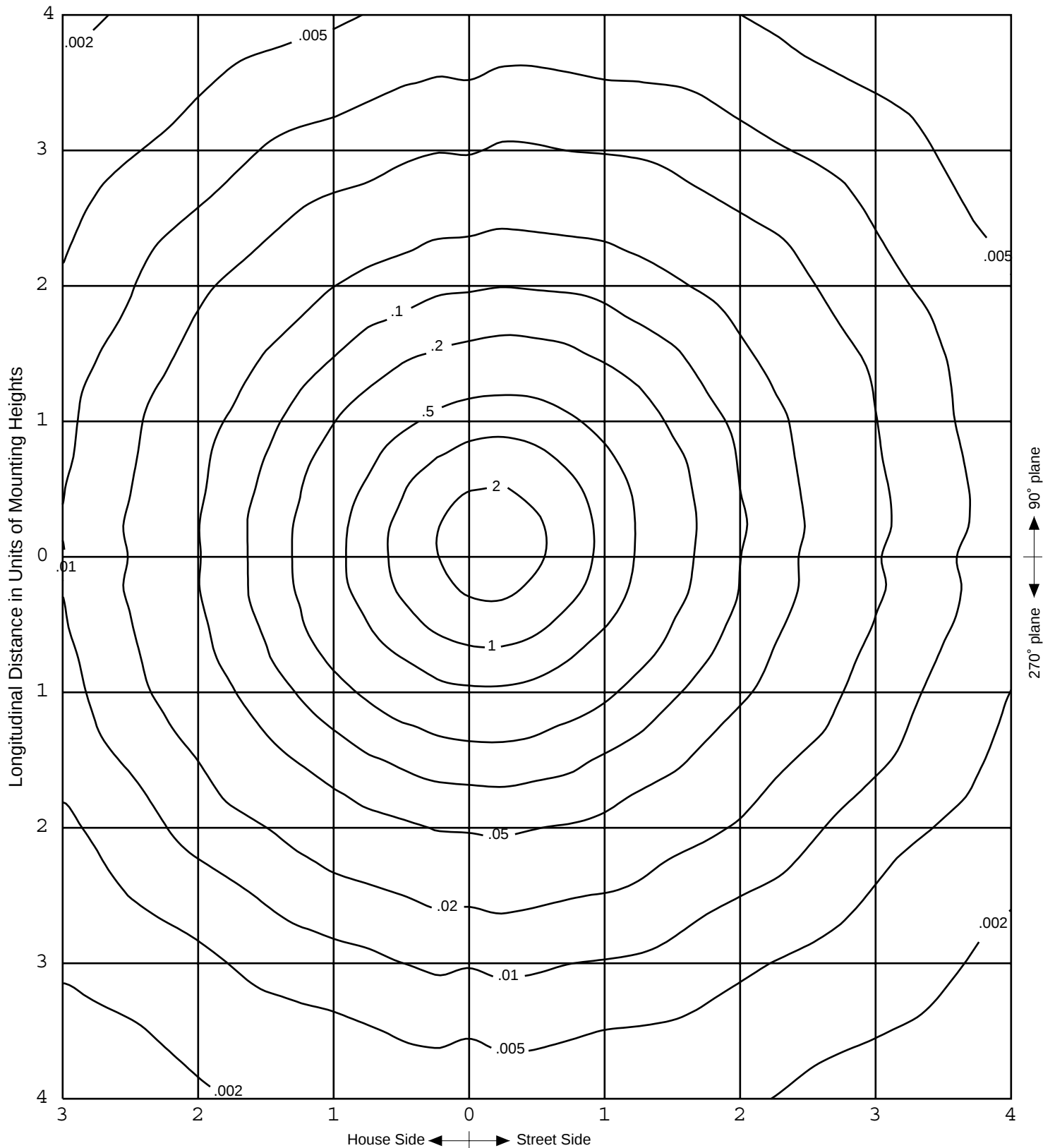
REPORT NUMBER: ITL58053
DATE: 11/29/06
PREPARED FOR: LIGHTING BY BRANFORD

INDEPENDENT TESTING LABORATORIES, INC.
3386 LONGHORN ROAD, BOULDER, CO 80302 USA

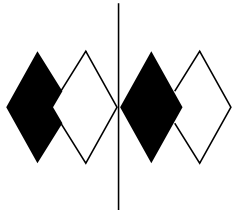
PHONE: (303)442-1255 • FAX: (303)449-5274 • E-MAIL: itl@itlboulder.com • WEBSITE: www.itlboulder.com

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINATION

Values based on 10 foot mounting height.



THIS REPORT IS BASED ON PUBLISHED INDUSTRY PROCEDURES. FIELD PERFORMANCE MAY DIFFER FROM LABORATORY PERFORMANCE.



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MAXIMUM PLANE AND MAXIMUM CONE PLOTS OF CANDELA

REPORT NUMBER: ITL58053

DATE: 11/29/06

PREPARED FOR: LIGHTING BY BRANFORD

CATALOG NUMBER: GB-2000

LUMINAIRE: CAST METAL HOUSING WITH
WHITE PAINTED GENERAL INTERIOR
FINISH, FORMED METAL REFLECTOR WITH
PREMIUM SPECULAR FINISH, FROSTED FLAT
GLASS LENS, FROSTED SIDE UP.

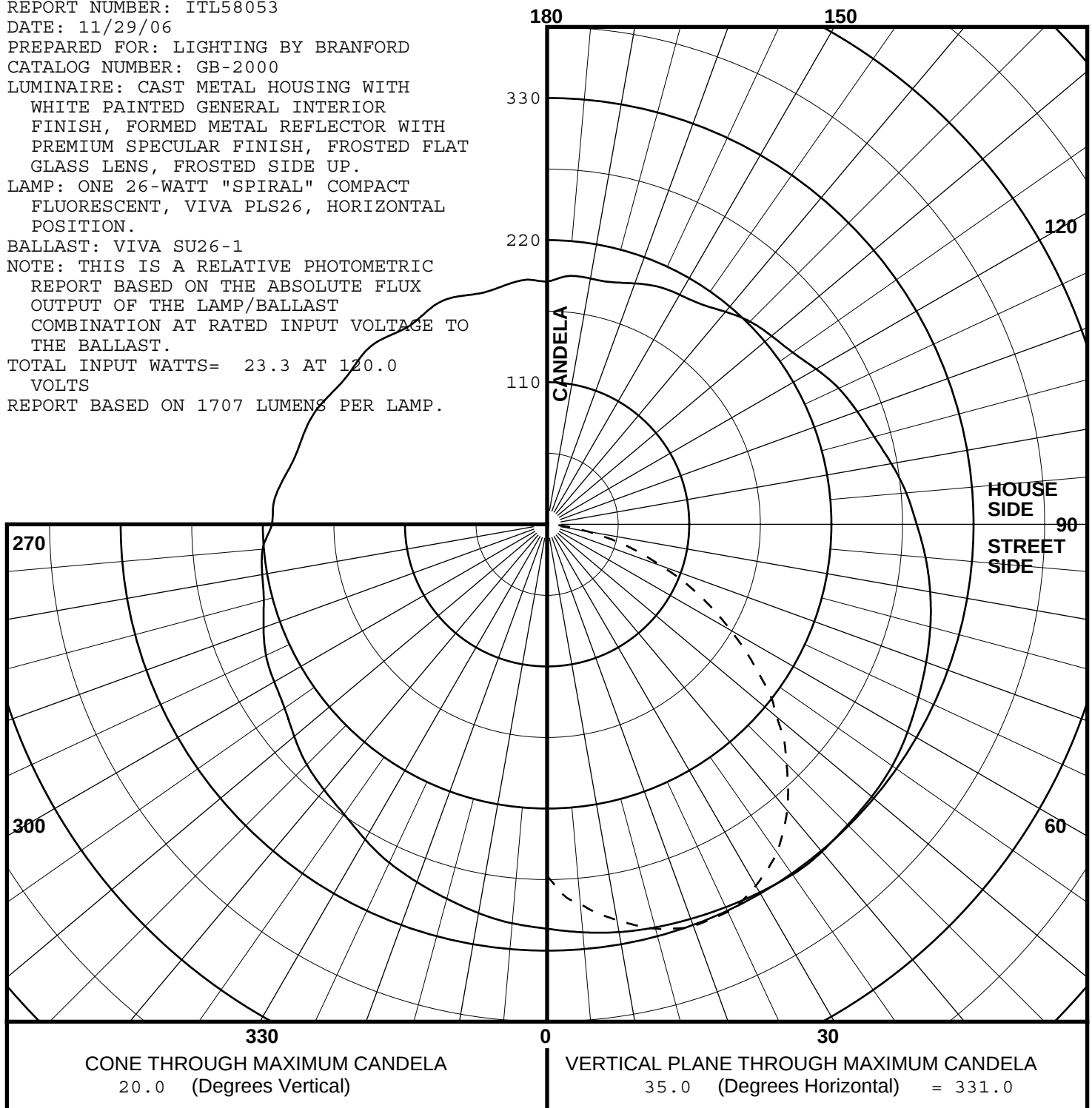
LAMP: ONE 26-WATT "SPIRAL" COMPACT
FLUORESCENT, VIVA PLS26, HORIZONTAL
POSITION.

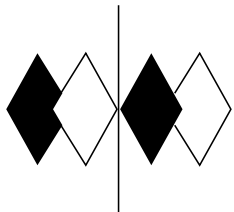
BALLAST: VIVA SU26-1

NOTE: THIS IS A RELATIVE PHOTOMETRIC
REPORT BASED ON THE ABSOLUTE FLUX
OUTPUT OF THE LAMP/BALLAST
COMBINATION AT RATED INPUT VOLTAGE TO
THE BALLAST.

TOTAL INPUT WATTS= 23.3 AT 120.0
VOLTS

REPORT BASED ON 1707 LUMENS PER LAMP.





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COEFFICIENTS OF UTILIZATION AND FLUX DISTRIBUTION

REPORT NUMBER: ITL58053

DATE: 11/29/06

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CATALOG NUMBER: GB-2000

LUMINAIRE: CAST METAL HOUSING WITH
WHITE PAINTED GENERAL INTERIOR

FINISH, FORMED METAL REFLECTOR WITH
PREMIUM SPECULAR FINISH, FROSTED FLAT
GLASS LENS, FROSTED SIDE UP.

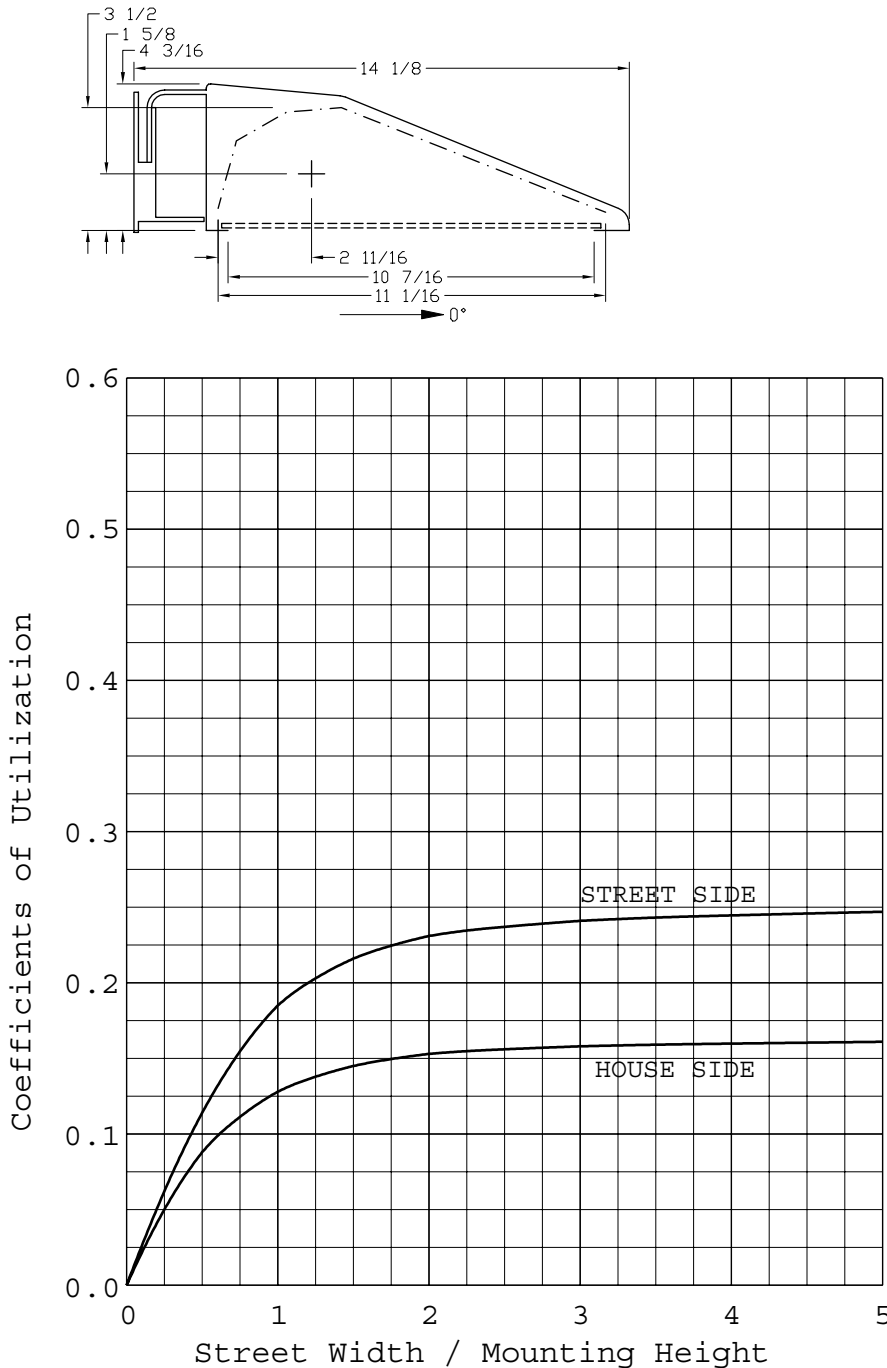
LAMP: ONE 26-WATT "SPIRAL" COMPACT
FLUORESCENT, VIVA PLS26, HORIZONTAL
POSITION.

BALLAST: VIVA SU26-1

NOTE: THIS IS A RELATIVE PHOTOMETRIC
REPORT BASED ON THE ABSOLUTE FLUX
OUTPUT OF THE LAMP/BALLAST
COMBINATION AT RATED INPUT VOLTAGE TO
THE BALLAST.

TOTAL INPUT WATTS= 23.3 AT 120.0
VOLTS

REPORT BASED ON 1707 LUMENS PER LAMP.



	LUMENS	PERCENT OF LAMP
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DOWNWARD STREET SIDE	426	24.96
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DOWNWARD HOUSE SIDE	276	16.17
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DOWNWARD TOTAL	702	41.12
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UPWARD STREET SIDE	0	0.00
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UPWARD HOUSE SIDE	0	0.00
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UPWARD TOTAL	0	0.00
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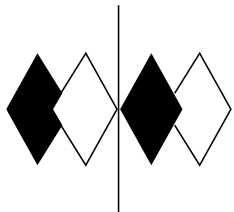
TOTAL FLUX	702	41.12
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CheckedR.HYRE.....

ApprovedR.BEATTIE.....

ALL CANDELA, LUMENS AND COEFFICIENT OF UTILIZATION VALUES IN THIS REPORT
ARE BASED ON RELATIVE PHOTOMETRY WHICH ASSUMES A BALLAST FACTOR OF 1.00.
ANY CALCULATIONS PREPARED FROM THESE DATA SHOULD INCLUDE AN APPROPRIATE
BALLAST FACTOR.

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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
	90.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	87.5	3.	4.	3.	6.	4.	7.	5.	7.	4.	3.
	85.0	8.	11.	9.	13.	11.	15.	11.	14.	10.	9.
	82.5	15.	20.	17.	24.	20.	26.	20.	23.	17.	15.
	80.0	26.	30.	29.	36.	32.	39.	31.	35.	28.	24.
	77.5	36.	42.	41.	50.	47.	54.	46.	48.	39.	34.
	75.0	49.	57.	56.	65.	63.	70.	61.	63.	52.	45.
	72.5	61.	69.	70.	81.	78.	86.	76.	77.	66.	56.
	70.0	76.	83.	84.	96.	94.	103.	94.	92.	79.	67.
V	67.5	90.	100.	99.	113.	113.	120.	110.	108.	93.	81.
E	65.0	104.	114.	114.	129.	130.	138.	127.	124.	108.	93.
R	62.5	118.	129.	132.	146.	147.	155.	144.	140.	122.	106.
T	60.0	133.	144.	148.	164.	164.	173.	161.	156.	137.	118.
I	57.5	150.	160.	164.	182.	182.	190.	177.	174.	154.	131.
C	55.0	165.	176.	180.	198.	199.	209.	196.	190.	169.	144.
A	52.5	180.	191.	196.	214.	218.	225.	213.	206.	184.	159.
L	50.0	196.	207.	212.	230.	232.	241.	228.	221.	198.	172.
	47.5	211.	222.	227.	246.	249.	256.	244.	236.	213.	185.
A	45.0	226.	237.	243.	260.	262.	270.	258.	250.	227.	198.
N	42.5	240.	251.	257.	274.	276.	283.	272.	263.	240.	209.
G	40.0	254.	264.	271.	287.	289.	295.	283.	275.	253.	222.
L	37.5	267.	276.	283.	297.	300.	305.	294.	286.	265.	233.
E	35.0	278.	287.	294.	307.	310.	313.	304.	295.	275.	245.
	32.5	288.	296.	303.	315.	317.	320.	312.	303.	285.	255.
	30.0	296.	304.	311.	320.	323.	325.	318.	309.	292.	263.
	27.5	303.	310.	316.	325.	328.	329.	322.	314.	298.	271.
	25.0	308.	314.	320.	328.	331.	331.	325.	317.	303.	278.
	22.5	311.	316.	322.	328.	331.	331.	326.	318.	305.	282.
	20.0<<	313.	317.	323.	327.	331.	329.	326.	317.	307.	286.
	17.5	313.	316.	322.	325.	328.	326.	323.	315.	307.	288.
	15.0	312.	313.	319.	320.	324.	321.	319.	311.	305.	288.
	12.5	309.	310.	315.	315.	318.	315.	314.	307.	302.	288.
	10.0	304.	304.	309.	308.	311.	308.	308.	301.	298.	286.
	7.5	299.	297.	302.	300.	304.	301.	301.	294.	293.	284.
	5.0	292.	290.	294.	291.	295.	291.	293.	287.	287.	281.
	2.5	284.	281.	285.	281.	287.	283.	285.	280.	281.	277.
	0.0	272.	272.	272.	272.	272.	272.	272.	272.	272.	272.
					PLANE OF MAXIMUM CANDELA						
					CONE OF MAXIMUM CANDELA						



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REPORT NUMBER: ITL58053
PREPARED FOR: LIGHTING BY BRANFORD

DATE: 11/29/06

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
	90.0	0.	0.	0.	0.	0.	0.	0.	0.	0.
	87.5	6.	3.	4.	2.	2.	0.	1.	0.	1.
	85.0	11.	8.	9.	6.	6.	3.	4.	2.	3.
	82.5	18.	13.	15.	11.	12.	8.	8.	6.	7.
	80.0	26.	21.	22.	18.	18.	13.	14.	11.	12.
	77.5	36.	29.	30.	25.	25.	20.	20.	16.	18.
	75.0	47.	39.	40.	33.	33.	27.	28.	22.	24.
	72.5	58.	48.	49.	41.	41.	34.	34.	29.	31.
	70.0	69.	59.	58.	50.	49.	41.	41.	36.	37.
V	67.5	82.	70.	68.	59.	57.	50.	49.	43.	45.
E	65.0	92.	80.	78.	68.	65.	58.	57.	50.	52.
R	62.5	106.	91.	88.	77.	74.	66.	65.	58.	59.
T	60.0	118.	102.	98.	86.	83.	74.	72.	65.	67.
I	57.5	131.	114.	108.	95.	93.	82.	80.	73.	75.
C	55.0	143.	125.	118.	106.	101.	90.	88.	81.	83.
A	52.5	156.	137.	129.	115.	110.	99.	96.	90.	91.
L	50.0	168.	148.	139.	125.	119.	107.	104.	97.	98.
	47.5	181.	159.	149.	134.	128.	116.	113.	105.	106.
A	45.0	193.	171.	160.	143.	136.	123.	121.	113.	114.
N	42.5	205.	182.	170.	153.	145.	132.	129.	122.	122.
G	40.0	217.	194.	180.	162.	154.	141.	137.	129.	130.
L	37.5	228.	205.	191.	171.	163.	149.	145.	137.	138.
E	35.0	239.	216.	200.	180.	172.	158.	153.	145.	145.
	32.5	248.	225.	211.	191.	180.	166.	162.	154.	153.
	30.0	258.	235.	219.	200.	189.	174.	169.	161.	160.
	27.5	265.	243.	228.	207.	197.	183.	177.	168.	169.
	25.0	271.	251.	236.	216.	206.	191.	186.	177.	177.
	22.5	276.	256.	243.	224.	213.	200.	194.	185.	184.
	20.0<<	279.	262.	249.	232.	222.	208.	203.	194.	193.
	17.5	282.	267.	255.	239.	230.	217.	212.	202.	202.
	15.0	283.	270.	259.	245.	237.	225.	221.	211.	211.
	12.5	283.	272.	263.	251.	244.	233.	230.	221.	221.
	10.0	281.	274.	266.	256.	250.	242.	239.	231.	232.
	7.5	280.	274.	268.	261.	257.	249.	248.	241.	242.
	5.0	278.	274.	269.	264.	262.	256.	256.	250.	252.
	2.5	274.	273.	270.	267.	266.	262.	264.	260.	262.
	0.0	272.	272.	272.	272.	272.	272.	272.	272.	272.

CONE OF MAXIMUM CANDELA



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CANDELA TABULATION

	HOUSE	SIDE									LATERAL ANGLE
		185.0	195.0	205.0	215.0	225.0	235.0	245.0	255.0	265.0	
	90.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	87.5	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	85.0	2.	1.	3.	1.	2.	2.	3.	2.	3.	2.
	82.5	6.	4.	6.	5.	6.	4.	6.	5.	7.	5.
	80.0	11.	10.	11.	9.	11.	9.	11.	9.	12.	10.
	77.5	17.	15.	17.	14.	17.	14.	17.	15.	18.	16.
	75.0	24.	21.	23.	21.	23.	20.	23.	21.	26.	23.
	72.5	30.	27.	30.	27.	30.	27.	29.	28.	33.	30.
	70.0	37.	35.	37.	33.	36.	33.	36.	34.	40.	38.
V	67.5	45.	42.	44.	41.	44.	40.	43.	42.	48.	46.
E	65.0	52.	49.	51.	49.	51.	47.	51.	49.	56.	54.
R	62.5	59.	56.	59.	56.	58.	54.	58.	57.	63.	62.
T	60.0	67.	63.	67.	63.	66.	62.	65.	65.	72.	70.
I	57.5	75.	71.	75.	71.	74.	70.	74.	73.	80.	79.
C	55.0	82.	80.	83.	79.	81.	78.	83.	82.	88.	88.
A	52.5	90.	88.	90.	88.	90.	86.	90.	90.	98.	97.
L	50.0	98.	95.	98.	95.	97.	94.	98.	98.	106.	105.
	47.5	106.	103.	106.	103.	106.	102.	107.	106.	115.	113.
A	45.0	113.	111.	113.	111.	113.	110.	115.	115.	123.	122.
N	42.5	121.	118.	121.	118.	121.	118.	123.	123.	132.	131.
G	40.0	129.	126.	129.	125.	129.	126.	131.	132.	140.	140.
L	37.5	136.	134.	136.	133.	136.	134.	140.	141.	148.	150.
E	35.0	143.	140.	144.	141.	144.	143.	148.	148.	159.	157.
	32.5	152.	148.	151.	149.	153.	151.	157.	158.	168.	168.
	30.0	159.	156.	159.	156.	160.	159.	165.	167.	176.	177.
	27.5	166.	163.	166.	164.	168.	167.	173.	176.	185.	186.
	25.0	174.	171.	174.	172.	177.	176.	182.	185.	194.	196.
	22.5	182.	177.	182.	179.	185.	185.	191.	193.	203.	203.
	20.0<<	190.	186.	191.	187.	194.	193.	200.	202.	212.	213.
	17.5	199.	195.	200.	197.	203.	203.	211.	211.	221.	222.
	15.0	208.	204.	208.	206.	212.	211.	220.	220.	231.	231.
	12.5	219.	214.	219.	216.	223.	221.	229.	230.	239.	239.
	10.0	230.	224.	230.	226.	233.	232.	238.	239.	247.	247.
	7.5	240.	235.	241.	237.	243.	243.	249.	248.	255.	255.
	5.0	251.	247.	251.	248.	253.	251.	257.	256.	262.	261.
	2.5	262.	258.	262.	259.	264.	261.	266.	264.	269.	267.
	0.0	272.	272.	272.	272.	272.	272.	272.	272.	272.	272.

CONE OF MAXIMUM CANDELA



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CANDELA TABULATION

STREET SIDE		LATERAL ANGLE								
		275.0	285.0	295.0	305.0	315.0	325.0	335.0	345.0	355.0 360.0
V E R T I C A L	90.0	0.	0.	0.	0.	0.	0.	0.	0.	0.
	87.5	0.	0.	0.	0.	0.	0.	1.	1.	3.
	85.0	3.	2.	4.	3.	4.	4.	6.	6.	9.
	82.5	7.	6.	8.	7.	10.	9.	13.	12.	17.
	80.0	13.	12.	14.	12.	17.	15.	22.	21.	28.
	77.5	19.	18.	22.	20.	25.	24.	32.	32.	40.
	75.0	27.	25.	29.	28.	33.	33.	42.	43.	52.
	72.5	34.	33.	38.	36.	43.	43.	53.	54.	65.
	70.0	42.	41.	46.	44.	52.	52.	64.	66.	78.
	67.5	50.	49.	56.	54.	62.	64.	76.	80.	92.
	65.0	58.	58.	63.	64.	72.	75.	88.	93.	106.
	62.5	67.	66.	74.	73.	82.	86.	100.	106.	120.
	60.0	76.	75.	83.	83.	93.	97.	113.	120.	135.
	57.5	84.	84.	93.	93.	105.	109.	126.	134.	150.
	55.0	93.	94.	102.	104.	116.	121.	141.	148.	165.
	52.5	102.	104.	112.	115.	128.	135.	155.	164.	182.
N G L E	50.0	111.	113.	122.	125.	139.	146.	168.	178.	197.
	47.5	120.	122.	132.	136.	151.	160.	182.	193.	212.
	45.0	129.	132.	142.	147.	163.	171.	195.	207.	226.
	42.5	138.	141.	153.	159.	175.	184.	208.	221.	240.
	40.0	147.	150.	163.	170.	187.	197.	221.	233.	253.
	37.5	156.	160.	173.	180.	199.	209.	233.	245.	265.
	35.0	165.	170.	184.	191.	210.	221.	244.	257.	276.
	32.5	175.	181.	194.	203.	221.	233.	255.	269.	285.
	30.0	185.	189.	205.	213.	230.	243.	264.	277.	293.
	27.5	194.	199.	214.	222.	240.	252.	272.	285.	299.
	25.0	203.	208.	224.	232.	249.	261.	279.	291.	305.
	22.5	212.	218.	232.	240.	257.	268.	285.	296.	308.
	20.0<<	221.	227.	240.	248.	263.	274.	289.	300.	310.
	17.5	230.	235.	248.	256.	269.	279.	291.	301.	310.
	15.0	238.	243.	255.	261.	273.	282.	292.	301.	308.
	12.5	245.	250.	260.	266.	276.	284.	292.	300.	305.
	10.0	253.	257.	265.	270.	277.	284.	290.	297.	301.
	7.5	260.	262.	269.	273.	278.	283.	287.	294.	295.
	5.0	265.	267.	271.	274.	277.	281.	283.	288.	288.
	2.5	270.	270.	272.	274.	274.	278.	278.	282.	280.
	0.0	272.	272.	272.	272.	272.	272.	272.	272.	272.

CONE OF MAXIMUM CANDELA