



itl boulder

THE LIGHT CENTER OF THE INDUSTRY SINCE 1955

INDEPENDENT TESTING LABORATORIES, INC.

3386 LONGHORN ROAD, BOULDER, CO 80302 USA

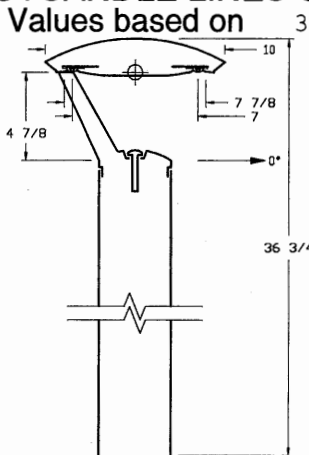
PHONE: (303)442-1255

FAX: (303)449-5274

E-MAIL: itl@itlboulder.com

WEBSITE: www.itlboulder.com

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINATION



REPORT NUMBER: ITL64508

DATE: 03/29/10

PREPARED FOR: BETALED, A DIVISION OF RUUD LIGHTING

CATALOG NUMBER: PWY-EDG-5S-**-18-C-UL or BXBP*R18C-U (350mA)

LUMINAIRE: FABRICATED GRAY PAINTED CYLINDRICAL METAL LOWER HOUSING, FABRICATED GRAY PAINTED METAL TOP TRIM/HEAT SINK, THREE CIRCUIT BOARDS EACH WITH SIX LEDS MOUNTED AROUND PERIMETER OF A CAST GRAY PAINTED METAL PLATE, CAST BLACK PAINTED METAL CIRCUIT BOARD RETAINING RING, ONE CLEAR PLASTIC NON-INTEGRAL LENS BELOW EACH LED. CAST GRAY PAINTED METAL LOWER HOUSING CAP WITH THREE VERTICAL SUPPORTS.

LAMPS: EIGHTEEN WHITE LIGHT EMITTING DIODES (LEDS), VERTICAL BASE-UP POSITION.

TOTAL INPUT WATTS = 23.8 AT 240.0 VOLTS

LED DRIVER: THOMAS RESEARCH PRODUCTS TRC-025S070PS

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (240VAC, 60Hz) TO THE LED DRIVER. CLIENT STATES LEDES HAVE BEEN SEASONED FOR A MINIMUM OF 100 HOURS.

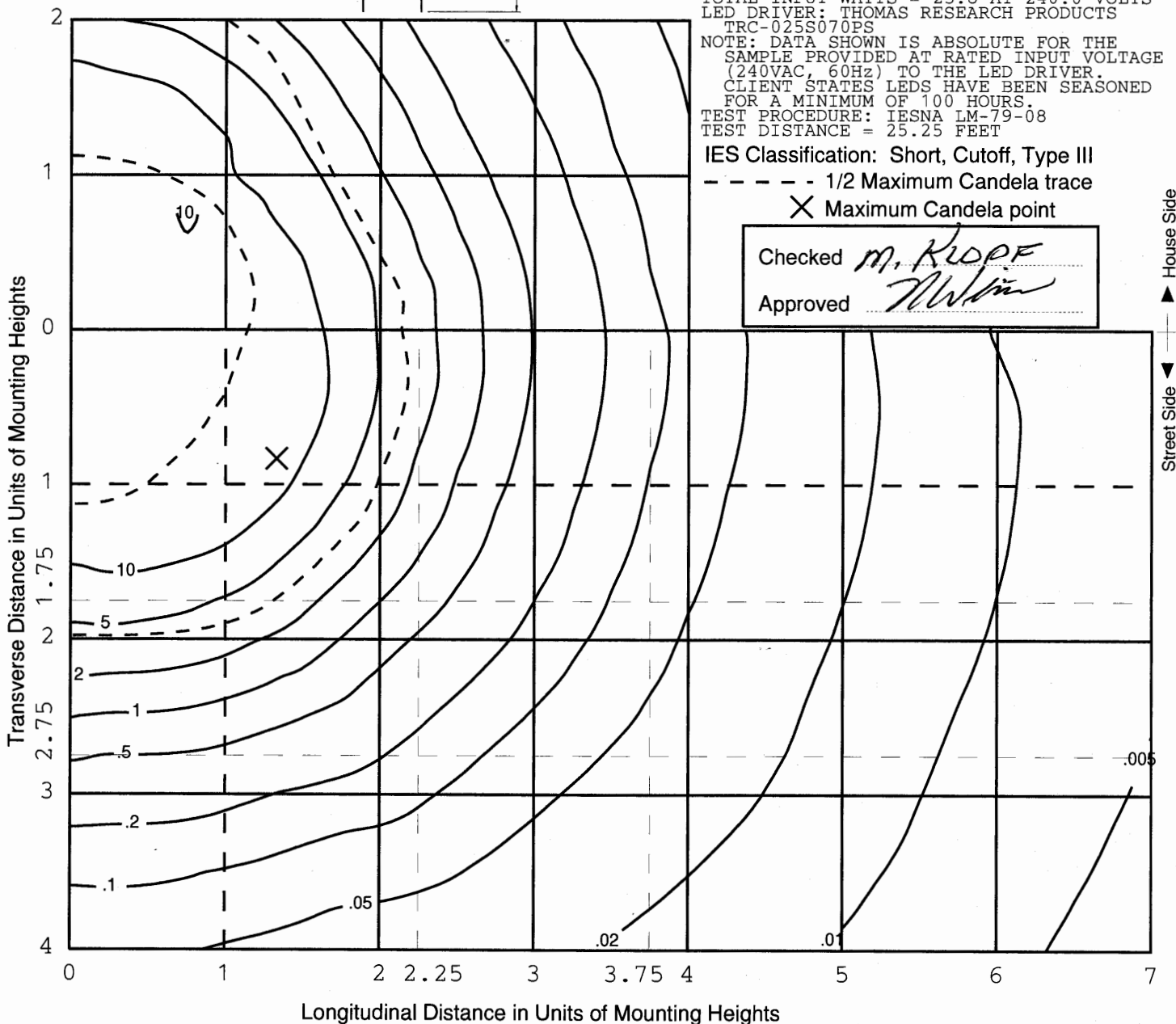
TEST PROCEDURE: IESNA LM-79-08

TEST DISTANCE = 25.25 FEET

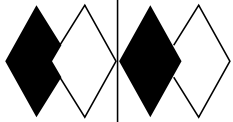
IES Classification: Short, Cutoff, Type III

--- 1/2 Maximum Candela trace

X Maximum Candela point



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



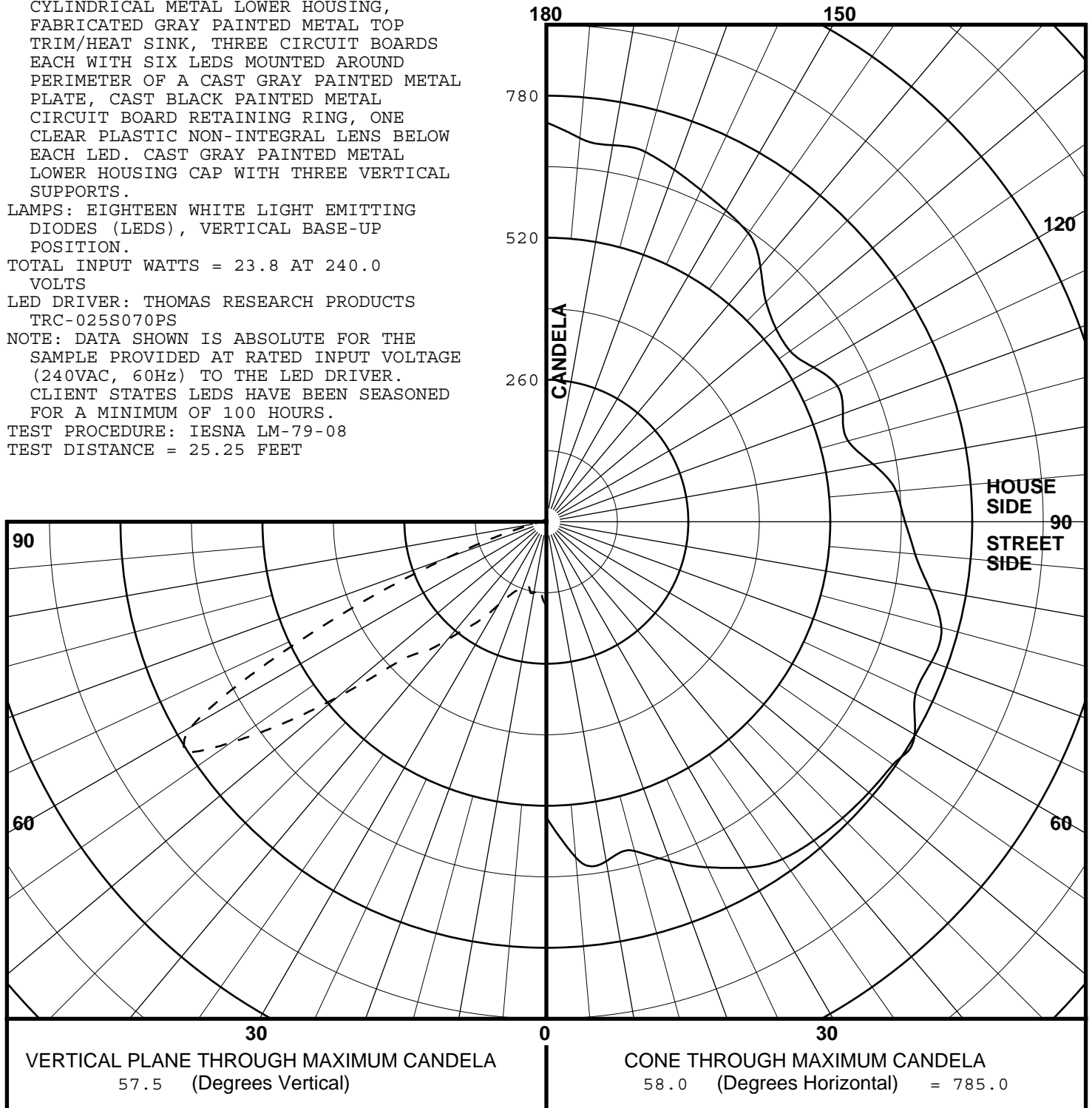
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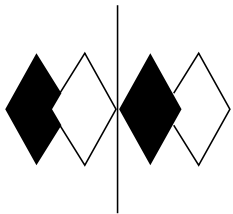
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 CATALOG NUMBER: PWY-EDG-5S-**-02-C-UL
 or BXP*R18C-U (350mA)
 LUMINAIRE: FABRICATED GRAY PAINTED
 CYLINDRICAL METAL LOWER HOUSING,
 FABRICATED GRAY PAINTED METAL TOP
 TRIM/HEAT SINK, THREE CIRCUIT BOARDS
 EACH WITH SIX LEDS MOUNTED AROUND
 PERIMETER OF A CAST GRAY PAINTED METAL
 PLATE, CAST BLACK PAINTED METAL
 CIRCUIT BOARD RETAINING RING, ONE
 CLEAR PLASTIC NON-INTEGRAL LENS BELOW
 EACH LED. CAST GRAY PAINTED METAL
 LOWER HOUSING CAP WITH THREE VERTICAL
 SUPPORTS.
 LAMPS: EIGHTEEN WHITE LIGHT EMITTING
 DIODES (LEDS), VERTICAL BASE-UP
 POSITION.
 TOTAL INPUT WATTS = 23.8 AT 240.0
 VOLTS
 LED DRIVER: THOMAS RESEARCH PRODUCTS
 TRC-025S070PS
 NOTE: DATA SHOWN IS ABSOLUTE FOR THE
 SAMPLE PROVIDED AT RATED INPUT VOLTAGE
 (240VAC, 60Hz) TO THE LED DRIVER.
 CLIENT STATES LEDS HAVE BEEN SEASONED
 FOR A MINIMUM OF 100 HOURS.
 TEST PROCEDURE: IESNA LM-79-08
 TEST DISTANCE = 25.25 FEET

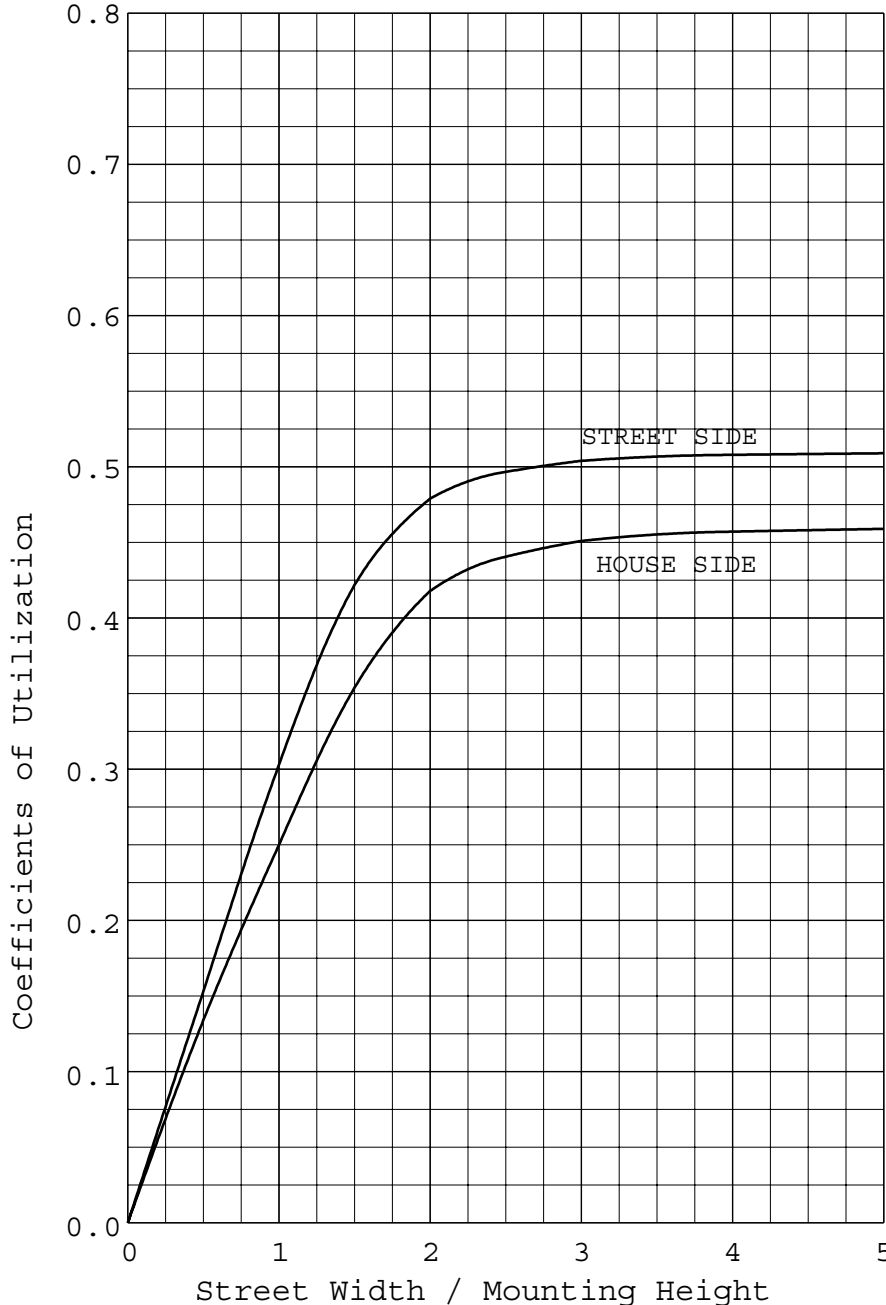
MAXIMUM PLANE AND MAXIMUM CONE PLOTS OF CANDELA





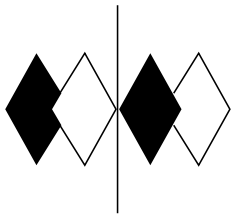
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COEFFICIENTS OF UTILIZATION AND FLUX DISTRIBUTION



	LUMENS	PERCENT OF FIXTURE
DOWNWARD STREET SIDE	792.	51.3
DOWNWARD HOUSE SIDE	716.	46.4
DOWNWARD TOTAL	1507.	97.7
UPWARD STREET SIDE	17.	1.1
UPWARD HOUSE SIDE	19.	1.2
UPWARD TOTAL	36.	2.3
TOTAL FLUX	1543.	100.0
EFFICACY = 64.8 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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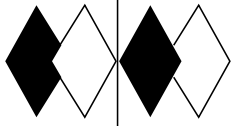
FLUX DISTRIBUTION BY SOLID ANGLE
 (PER IESNA TM-15-07, LUMINAIRE CLASSIFICATION
 SYSTEM FOR OUTDOOR LUMINAIRES)

	LUMENS	PERCENT OF FIXTURE
FORWARD LIGHT	792.	51.3
FL (0- 30)		3.9
FM (30- 60)		31.6
FH (60- 80)		15.2
FVH(80- 90)		0.6
BACK LIGHT	716.	46.4
BL (0- 30)		3.7
BM (30- 60)		26.8
BH (60- 80)		15.2
BVH(80- 90)		0.6
UPLIGHT	36.	2.3
UL (90-100)		0.8
UH (100-180)		1.5
TRAPPED LIGHT	0.	0.0
TOTAL FLUX	1543.	100.0

BACKLIGHT, UPLIGHT, AND GLARE (BUG) RATINGS
 (PER ADDENDUM A FOR IESNA TM-15-07)

BUG RATING: B1 U2 G1	FIRST DETERMINING SECONDARY SOLID ANGLE*	LUMENS
BACKLIGHT RATING: B1	BH	235.3
UPLIGHT RATING : U2	UH	23.8
GLARE RATING : G1	BH	235.3

* NOTE: OTHER DETERMINING SOLID ANGLES MAY FALL INTO THIS SAME CATEGORY. ONLY THE FIRST DETERMINING ANGLES FROM THE TABLES A1-A3 IN THE ADDENDUM ARE SHOWN.



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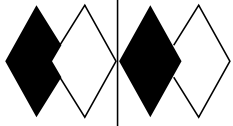
PREPARED FOR: BETALED, A DIVISION OF RUUD LIGHTING

CANDELA TABULATION

	STREET SIDE			LATERAL ANGLE							
	0.0	5.0	15.0	25.0	35.0	45.0	55.0	58.0	65.0	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	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
135.0	4.	4.	4.	3.	3.	3.	3.	3.	3.	3.	3.
125.0	7.	7.	6.	5.	5.	4.	4.	4.	4.	4.	5.
115.0	8.	8.	8.	7.	6.	6.	6.	6.	6.	6.	6.
105.0	9.	9.	9.	9.	7.	8.	8.	8.	8.	8.	7.
95.0	12.	12.	12.	11.	9.	10.	10.	10.	10.	11.	9.
92.5	13.	13.	13.	12.	10.	12.	12.	12.	12.	12.	11.
90.0	13.	13.	13.	12.	12.	14.	14.	15.	15.	14.	12.
87.5	14.	14.	14.	13.	13.	15.	15.	15.	15.	16.	14.
85.0	15.	15.	15.	14.	15.	16.	16.	16.	16.	17.	15.
V 82.5	17.	17.	17.	16.	17.	19.	19.	19.	19.	19.	18.
E 80.0	19.	21.	20.	19.	22.	25.	27.	27.	25.	25.	24.
R 77.5	25.	29.	25.	26.	34.	36.	40.	40.	38.	37.	37.
T 75.0	39.	42.	41.	43.	58.	59.	64.	64.	64.	61.	63.
I 72.5	68.	67.	75.	80.	103.	102.	113.	113.	112.	107.	110.
C 70.0	121.	114.	132.	146.	177.	175.	191.	194.	185.	181.	184.
A 67.5	201.	187.	213.	243.	284.	280.	298.	308.	291.	288.	288.
L 65.0	308.	293.	327.	372.	415.	417.	438.	453.	423.	425.	409.
62.5	426.	432.	468.	525.	568.	575.	598.	616.	577.	580.	552.
A 60.0	493.	569.	578.	627.	697.	721.	735.	751.	705.	714.	656.
N 58.0	536.	614.	614.	681.	741.	766.	776.	783.	748.	749.	680.
G 57.5<<	541.	617.	624.	698.	754.	767.	775.	785.	746.	749.	678.
L 55.0	545.	562.	567.	624.	699.	708.	708.	705.	677.	676.	611.
E 52.5	520.	510.	522.	565.	631.	621.	612.	605.	593.	597.	555.
50.0	451.	431.	426.	448.	526.	536.	511.	500.	478.	478.	468.
47.5	355.	327.	357.	368.	402.	397.	393.	401.	397.	384.	357.
45.0	290.	310.	293.	326.	338.	352.	346.	344.	341.	333.	308.
42.5	282.	288.	282.	294.	302.	312.	307.	319.	304.	295.	275.
40.0	262.	267.	263.	273.	275.	277.	274.	282.	269.	260.	250.
37.5	240.	244.	242.	251.	253.	255.	251.	250.	246.	237.	226.
35.0	219.	225.	222.	230.	231.	231.	229.	227.	224.	215.	204.
30.0	176.	182.	191.	185.	180.	181.	178.	176.	174.	168.	162.
25.0	154.	146.	153.	154.	151.	146.	144.	143.	142.	142.	150.
20.0	138.	143.	139.	138.	139.	134.	131.	130.	133.	137.	140.
15.0	139.	143.	136.	141.	133.	133.	124.	124.	127.	132.	136.
10.0	131.	136.	130.	136.	128.	136.	133.	132.	136.	132.	135.
5.0	119.	126.	123.	126.	122.	123.	124.	124.	123.	127.	123.
0.0	154.	154.	154.	154.	154.	154.	154.	154.	154.	154.	154.

||
 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.	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	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
135.0	3.	3.	4.	4.	4.	4.	3.	3.	3.	3.	3.
125.0	5.	6.	6.	7.	7.	6.	6.	5.	4.	4.	4.
115.0	7.	7.	8.	8.	9.	8.	8.	6.	6.	6.	6.
105.0	8.	9.	10.	10.	10.	10.	9.	7.	8.	8.	8.
95.0	9.	11.	12.	12.	13.	12.	11.	9.	10.	10.	10.
92.5	10.	13.	13.	13.	14.	13.	12.	11.	12.	12.	12.
90.0	11.	13.	14.	14.	14.	14.	13.	12.	14.	15.	15.
87.5	12.	13.	15.	14.	15.	15.	14.	14.	15.	15.	16.
85.0	13.	15.	16.	16.	16.	16.	14.	15.	16.	16.	16.
V 82.5	15.	17.	18.	18.	18.	18.	16.	19.	19.	19.	20.
E 80.0	21.	22.	22.	23.	24.	25.	23.	27.	27.	30.	29.
R 77.5	36.	32.	30.	33.	35.	36.	36.	43.	43.	47.	48.
T 75.0	61.	55.	49.	51.	53.	60.	64.	72.	75.	81.	82.
I 72.5	109.	104.	90.	87.	86.	107.	119.	132.	130.	140.	145.
C 70.0	180.	176.	156.	138.	150.	171.	200.	219.	216.	228.	239.
A 67.5	269.	274.	237.	212.	227.	251.	301.	326.	324.	333.	352.
L 65.0	383.	399.	332.	307.	310.	355.	420.	439.	452.	458.	489.
62.5	515.	532.	471.	422.	417.	476.	544.	573.	589.	591.	629.
A 60.0	627.	615.	574.	532.	514.	565.	642.	668.	692.	697.	735.
N 58.0	657.	639.	588.	583.	545.	578.	624.	681.	712.	734.	743.
G 57.5<<	657.	643.	572.	588.	545.	569.	645.	670.	701.	705.	731.
L 55.0	589.	566.	499.	531.	477.	486.	563.	596.	611.	610.	624.
E 52.5	507.	495.	437.	478.	434.	439.	490.	523.	533.	528.	533.
50.0	423.	410.	350.	382.	369.	373.	407.	423.	432.	436.	442.
47.5	321.	322.	293.	304.	286.	284.	310.	333.	347.	341.	354.
45.0	293.	277.	248.	255.	249.	241.	278.	285.	294.	297.	296.
42.5	252.	247.	242.	234.	228.	226.	241.	249.	255.	257.	268.
40.0	235.	226.	228.	220.	218.	211.	219.	220.	223.	224.	233.
37.5	218.	205.	209.	204.	204.	194.	197.	197.	199.	200.	200.
35.0	199.	185.	188.	184.	183.	185.	172.	176.	178.	179.	179.
30.0	171.	170.	159.	152.	158.	153.	146.	142.	144.	144.	144.
25.0	153.	147.	139.	139.	143.	141.	140.	132.	128.	128.	128.
20.0	143.	135.	139.	139.	141.	135.	136.	134.	131.	125.	125.
15.0	139.	137.	140.	135.	136.	130.	131.	127.	128.	120.	120.
10.0	134.	130.	133.	129.	133.	128.	128.	128.	126.	121.	121.
5.0	125.	125.	122.	125.	123.	125.	124.	124.	126.	123.	126.
0.0	154.	154.	154.	154.	154.	154.	154.	154.	154.	154.	154.

CONE OF MAXIMUM CANDELA