

**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

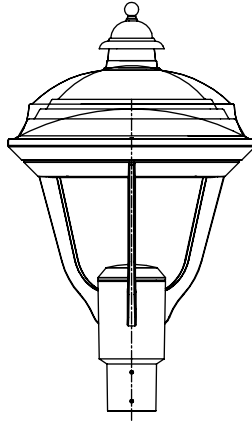
FAX: (303)449-5274

E-MAIL: [itl@itlboulder.com](mailto:itl@itlboulder.com)

WEBSITE: [www.itlboulder.com](http://www.itlboulder.com)

## ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINATION

Values based on 20 foot mounting height.



REPORT NUMBER: ITL64431

DATE: 03/23/10

PREPARED FOR: LSI INDUSTRIES, INC.

CATALOG NUMBER: XENM/XINM/XLXM PT 3 LED

63 CW F UE

LUMINAIRE: CAST BLACK PAINTED METAL,  
POST TOP FITTER, CAST BLACK PAINTED  
METAL POST TOP CAP, THREE FABRICATED  
BLACK PAINTED METAL SUPPORT ARMS, FLAT  
METAL CIRCUIT BOARD MOUNTING PLATE,  
ONE CIRCUIT BOARD WITH 63 LEDS,  
FABRICATED PREMIUM SPECULAR METAL  
REFLECTOR, FLAT PREMIUM SPECULAR METAL  
REFLECTOR SURROUND, CAST BLACK PAINTED  
METAL UPPER HOUSING WITH FORMED BLACK  
PAINTED METAL TOP, CLEAR FLAT GLASS LENS.

LAMPS: SIXTY-THREE 1.15-WATT WHITE  
LIGHT EMITTING DIODES (LEDs) EACH WITH  
CLEAR SEMI-HEMISPHERICAL INTEGRAL  
LENS, VERTICAL BASE-UP POSITION.

TOTAL INPUT WATTS = 77.0 AT 120.0 VOLTS

LED DRIVER: LED ELECTRONIC 350mA DRIVER

NOTE: DATA SHOWN IS ABSOLUTE FOR THE  
SAMPLE PROVIDED AT RATED INPUT VOLTAGE  
(120VAC, 60Hz) TO THE LED DRIVER. LAMP  
AND LED DRIVER INFORMATION PROVIDED BY  
CLIENT. THE LUMINAIRE HOUSING PROVIDED  
TO ITL TO TEST AND GENERATE THIS  
REPORT WAS MODEL NUMBER "XENM PT 3 LED  
63 CW F UE" THE OTHER HOUSINGS  
DEPICTED IN THE DRAWING AND LISTED AS  
ADDITIONAL CATALOG NUMBERS SHOULD  
PRODUCE COMPARABLE RESULTS. DRAWING  
PROVIDED BY CLIENT.

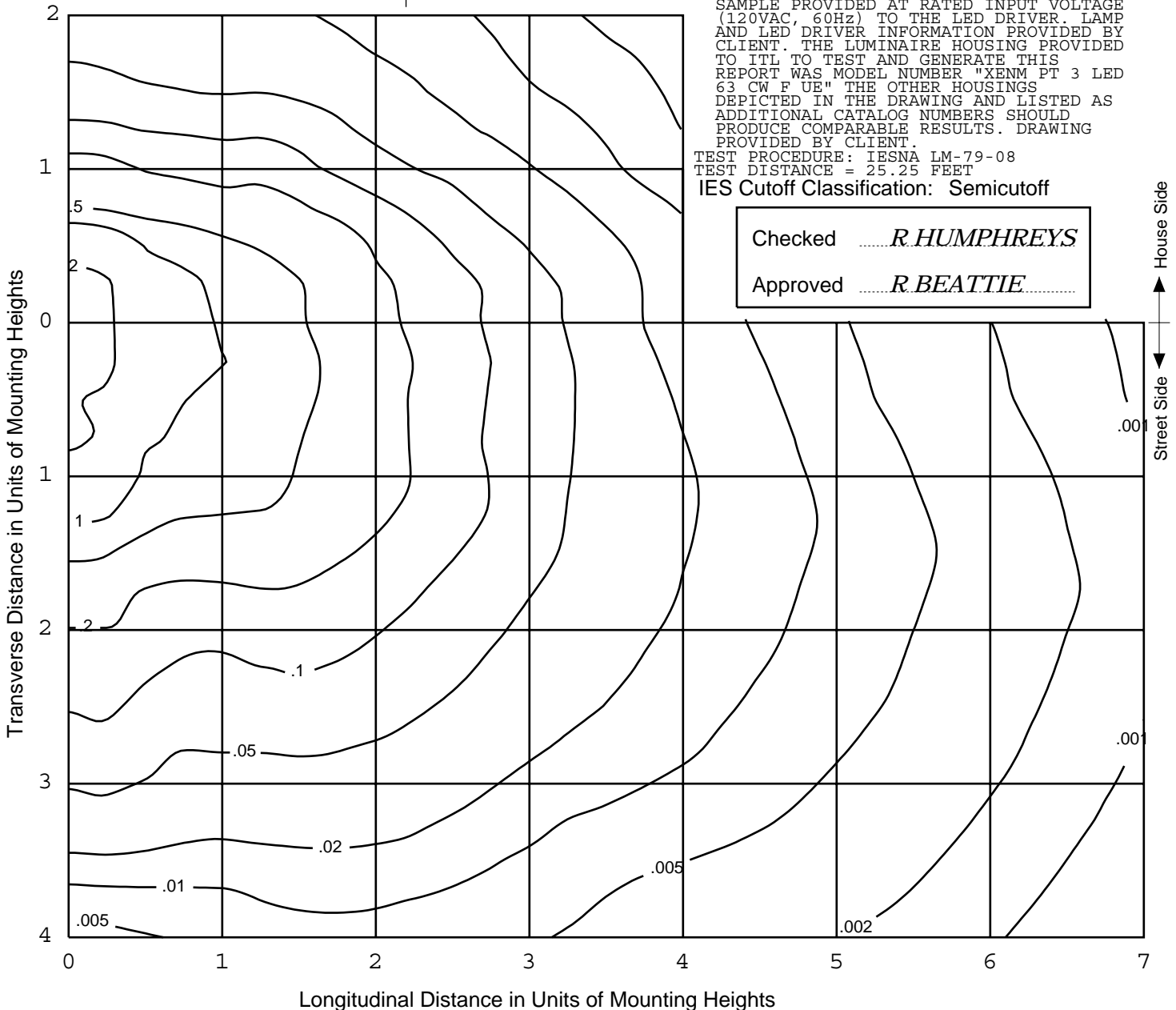
TEST PROCEDURE: IESNA LM-79-08

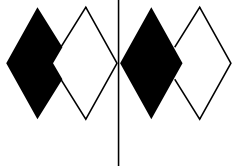
TEST DISTANCE = 25.25 FEET

IES Cutoff Classification: Semicutoff

Checked R. HUMPHREYS

Approved R. BEATTIE





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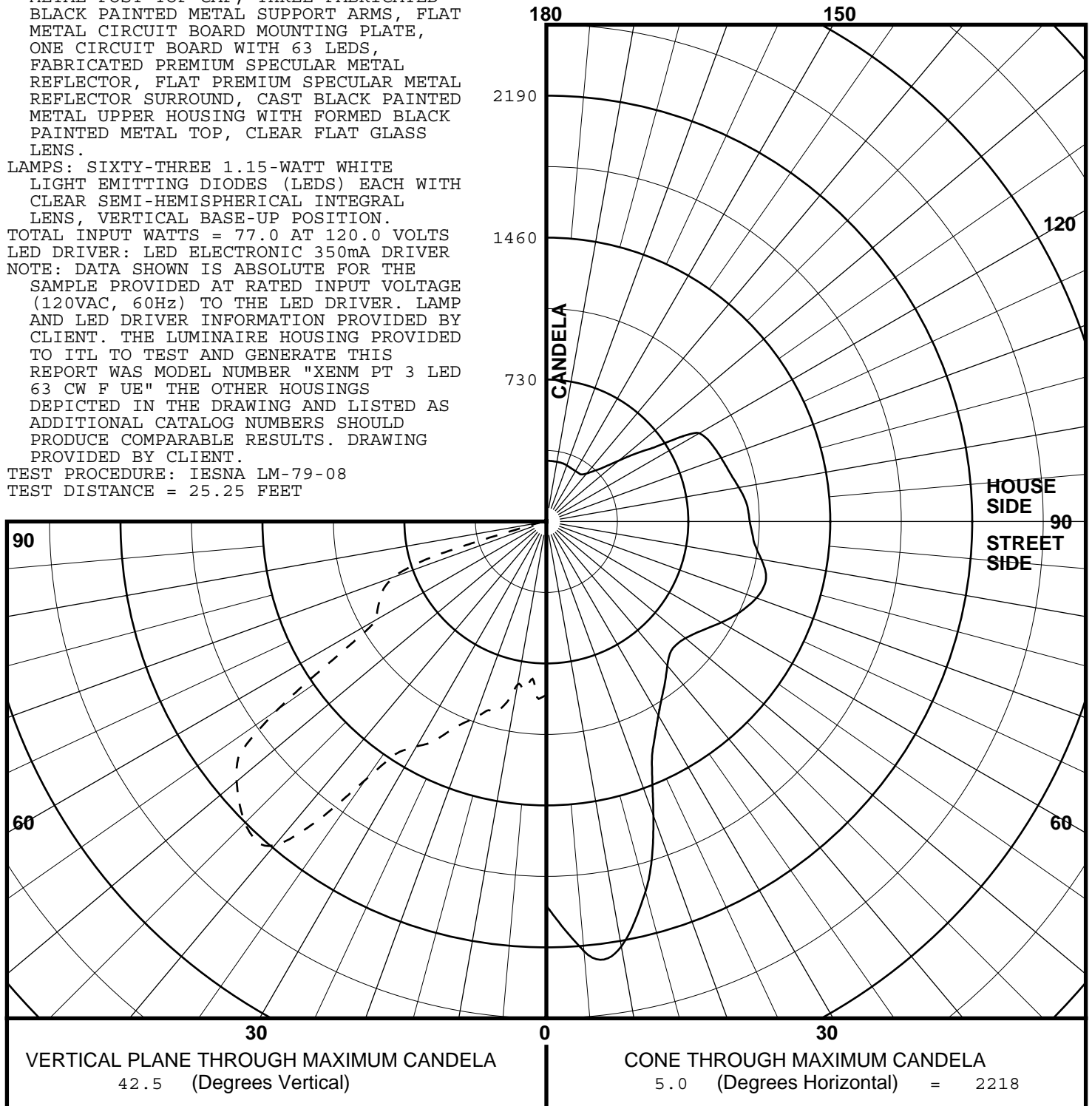
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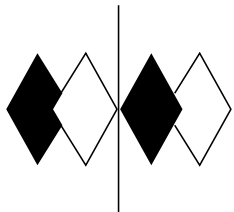
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TEST DISTANCE = 25.25 FEET

## MAXIMUM PLANE AND MAXIMUM CONE PLOTS OF CANDELA





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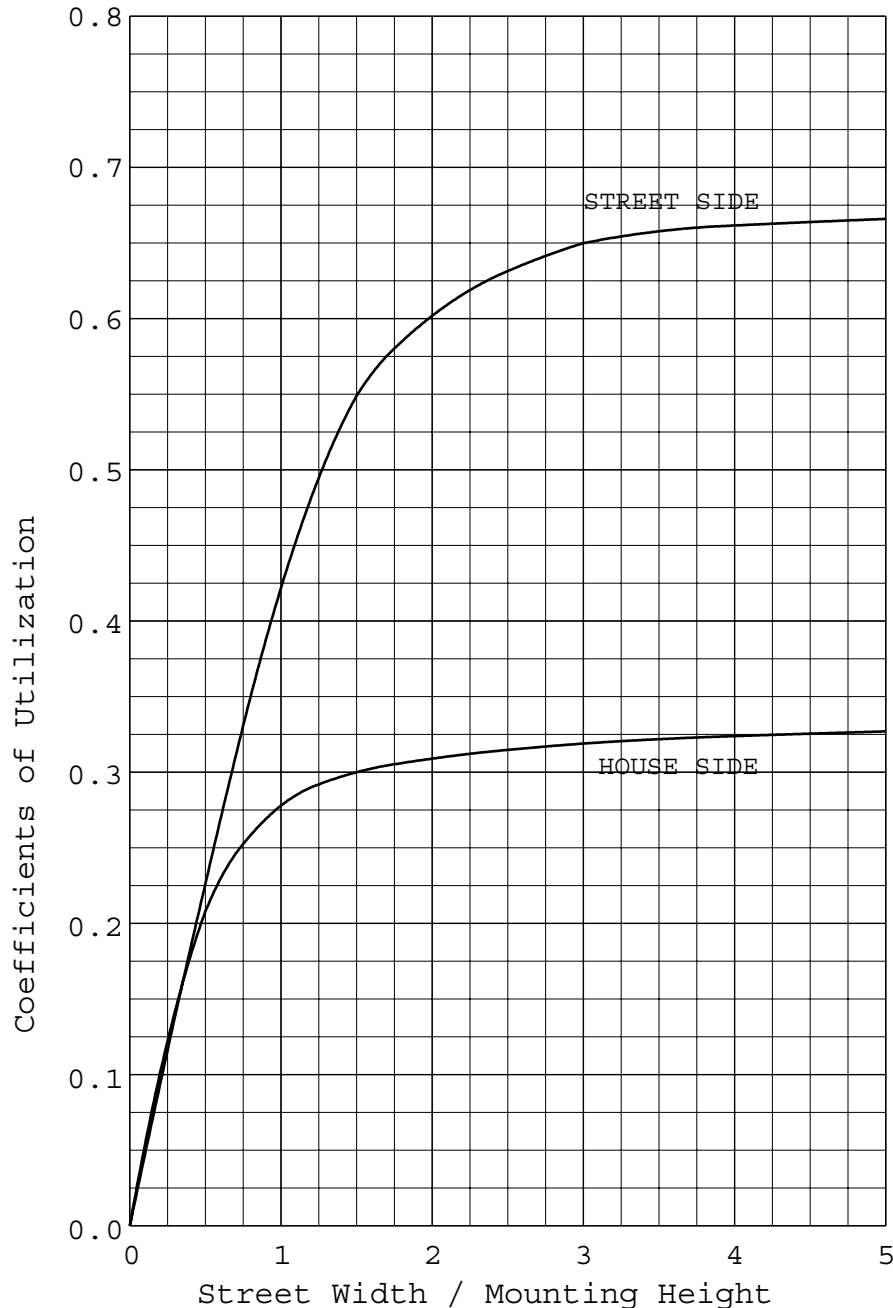
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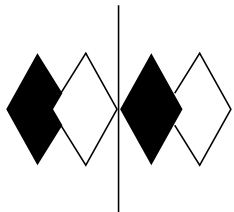
PREPARED FOR: LSI INDUSTRIES, INC.

#### COEFFICIENTS OF UTILIZATION AND FLUX DISTRIBUTION



	LUMENS	PERCENT OF FIXTURE
DOWNWARD STREET SIDE	2797.	66.9
DOWNWARD HOUSE SIDE	1382.	33.0
DOWNWARD TOTAL	4179.	99.9
UPWARD STREET SIDE	1.	0.0
UPWARD HOUSE SIDE	2.	0.1
UPWARD TOTAL	3.	0.1
TOTAL FLUX	4182.	100.0
EFFICACY = 54.3 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

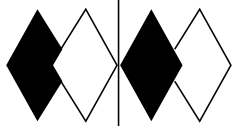
(PER IESNA TM-15-07, LUMINAIRE CLASSIFICATION  
SYSTEM FOR OUTDOOR LUMINAIRES)

	LUMENS	PERCENT OF FIXTURE
FORWARD LIGHT	2797.	66.9
FL ( 0- 30)		9.5
FM ( 30- 60)		35.4
FH ( 60- 80)		21.1
FVH( 80- 90)		0.9
BACK LIGHT	1382.	33.0
BL ( 0- 30)		9.3
BM ( 30- 60)		15.9
BH ( 60- 80)		7.4
BVH( 80- 90)		0.4
UPLIGHT	3.	0.1
UL ( 90-100)		0.0
UH (100-180)		0.0
TRAPPED LIGHT	0.	0.0
TOTAL FLUX	4182.	100.0

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

BUG RATING: B1 U1 G1	FIRST DETERMINING SECONDARY SOLID ANGLE*	LUMENS
BACKLIGHT RATING: B1	BH	309.3
UPLIGHT RATING : U1	UH	2.0
GLARE RATING : G1	FVH	36.0

\* 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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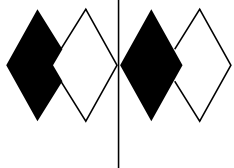
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CANDELA TABULATION

	STREET SIDE		LATERAL ANGLE								
	0.0	5.0	15.0	25.0	35.0	45.0	55.0	65.0	75.0	85.0	90.0
	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.	1.	1.	1.	1.	1.
	125.0	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.
	115.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.
	105.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	95.0	0.	0.	0.	0.	1.	2.	2.	1.	1.	1.
	92.5	0.	0.	0.	0.	2.	2.	2.	2.	1.	1.
	90.0	0.	0.	0.	0.	2.	3.	2.	2.	2.	1.
	87.5	3.	5.	4.	7.	9.	10.	6.	5.	4.	4.
	85.0	97.	88.	55.	78.	40.	27.	24.	46.	48.	23.
V	82.5	36.	41.	35.	51.	62.	85.	123.	148.	162.	93.
E	80.0	39.	38.	95.	148.	211.	185.	372.	458.	453.	245.
R	77.5	64.	66.	128.	252.	350.	425.	629.	664.	644.	432.
T	75.0	144.	161.	242.	483.	733.	824.	860.	893.	714.	534.
I	72.5	605.	654.	523.	690.	930.	1065.	1064.	1136.	1012.	911.
C	70.0	768.	835.	581.	681.	1052.	1130.	1226.	1425.	991.	1020.
A	67.5	826.	906.	612.	646.	1076.	1188.	1492.	1502.	1152.	1168.
L	65.0	852.	945.	626.	637.	1001.	1378.	1596.	1557.	1241.	1212.
	62.5	886.	978.	629.	653.	928.	1603.	1645.	1557.	1356.	1277.
A	60.0	914.	1013.	691.	741.	1097.	1629.	1711.	1501.	1475.	1340.
N	57.5	1118.	1240.	939.	931.	1242.	1544.	1720.	1473.	1550.	1367.
G	55.0	1527.	1687.	1321.	1066.	1221.	1452.	1571.	1495.	1610.	1396.
L	52.5	1793.	1997.	1600.	1094.	1221.	1393.	1327.	1371.	1573.	1403.
E	50.0	1864.	2079.	1757.	1128.	1225.	1307.	1122.	1255.	1407.	1300.
	47.5	1913.	2142.	1885.	1163.	1222.	1173.	1073.	1179.	1277.	1158.
	45.0	1952.	2192.	1953.	1234.	1181.	1011.	1032.	1152.	1187.	1071.
	42.5<<	1975.	2218.	1970.	1294.	1052.	921.	977.	1100.	1168.	1069.
	40.0	1933.	2174.	1891.	1307.	913.	894.	949.	1054.	1144.	1069.
	37.5	1734.	1947.	1674.	1245.	865.	873.	916.	1040.	1129.	1045.
	35.0	1457.	1621.	1435.	1197.	841.	828.	892.	989.	1109.	1028.
	32.5	1287.	1404.	1309.	1221.	878.	783.	843.	971.	1016.	967.
	30.0	1185.	1336.	1221.	1183.	971.	751.	815.	910.	961.	930.
	25.0	1102.	1194.	1085.	1110.	1081.	925.	762.	765.	781.	813.
	20.0	1025.	1074.	1023.	1012.	1036.	1024.	954.	862.	751.	795.
	15.0	1002.	1014.	1078.	974.	963.	970.	919.	894.	891.	914.
	10.0	845.	851.	898.	902.	851.	853.	844.	828.	875.	856.
	5.0	808.	812.	837.	847.	843.	827.	862.	898.	872.	830.
	0.0	892.	892.	892.	892.	892.	892.	892.	892.	892.	892.

||  
PLANE OF MAXIMUM CANDELA

CONE OF MAXIMUM CANDELA



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	HOUSE SIDE					LATERAL ANGLE					
	95.0	105.0	115.0	120.0	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	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
135.0	1.	1.	1.	1.	1.	2.	2.	2.	1.	2.	2.
125.0	1.	2.	1.	1.	1.	2.	2.	2.	2.	1.	1.
115.0	1.	1.	1.	1.	1.	1.	1.	0.	0.	0.	0.
105.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
95.0	1.	1.	1.	1.	1.	1.	0.	2.	2.	2.	2.
92.5	1.	1.	1.	1.	1.	1.	0.	2.	2.	2.	2.
90.0	1.	1.	1.	1.	1.	1.	1.	2.	3.	3.	3.
87.5	3.	3.	2.	2.	3.	4.	4.	6.	6.	6.	6.
85.0	11.	11.	10.	11.	12.	14.	19.	25.	38.	36.	37.
V 82.5	54.	26.	33.	37.	32.	44.	62.	68.	96.	88.	83.
E 80.0	168.	62.	55.	67.	73.	71.	89.	132.	165.	168.	196.
R 77.5	337.	122.	121.	99.	106.	137.	171.	143.	124.	129.	139.
T 75.0	454.	235.	174.	135.	146.	151.	195.	241.	204.	218.	220.
I 72.5	758.	356.	197.	190.	175.	161.	176.	222.	200.	192.	198.
C 70.0	930.	539.	279.	203.	204.	152.	174.	199.	191.	182.	188.
A 67.5	1013.	711.	357.	276.	239.	191.	162.	197.	189.	210.	215.
L 65.0	1055.	789.	448.	345.	314.	221.	158.	160.	188.	205.	214.
62.5	1114.	979.	550.	415.	379.	253.	175.	153.	141.	144.	147.
A 60.0	1226.	1121.	670.	498.	440.	298.	169.	149.	143.	150.	155.
N 57.5	1287.	1183.	769.	563.	509.	312.	192.	141.	138.	147.	149.
G 55.0	1318.	1213.	740.	589.	519.	296.	239.	166.	140.	143.	137.
L 52.5	1319.	1171.	744.	577.	468.	323.	271.	213.	180.	162.	161.
E 50.0	1225.	1095.	831.	541.	443.	351.	275.	251.	250.	222.	220.
47.5	1106.	1018.	893.	598.	448.	343.	281.	258.	279.	284.	286.
45.0	1048.	961.	930.	780.	487.	343.	293.	273.	289.	292.	292.
42.5<<	1034.	976.	939.	908.	653.	379.	299.	302.	311.	312.	313.
40.0	1038.	978.	953.	943.	822.	401.	317.	322.	338.	345.	345.
37.5	1031.	974.	950.	940.	878.	530.	352.	343.	353.	361.	363.
35.0	1007.	958.	865.	893.	865.	735.	428.	383.	379.	377.	382.
32.5	938.	908.	846.	834.	826.	821.	688.	481.	425.	427.	428.
30.0	929.	861.	786.	766.	790.	818.	956.	816.	596.	535.	520.
25.0	807.	771.	718.	712.	707.	969.	1111.	1142.	1160.	1198.	1144.
20.0	795.	802.	887.	925.	987.	997.	999.	1031.	1068.	1085.	1057.
15.0	949.	946.	978.	996.	990.	975.	979.	980.	933.	980.	948.
10.0	910.	884.	876.	869.	892.	921.	927.	924.	872.	933.	934.
5.0	862.	905.	899.	877.	865.	840.	847.	850.	881.	868.	859.
0.0	892.	892.	892.	892.	892.	892.	892.	892.	892.	892.	892.

CONE OF MAXIMUM CANDELA