

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

Values based on 20 foot mounting height.

REPORT NUMBER: ITL64427

DATE: 03/17/10

PREPARED FOR: LSI INDUSTRIES, INC.

CATALOG NUMBER: XENM/XINM SA 3 LED 63

CW F UE

LUMINAIRE: CAST BLACK PAINTED METAL HOUSING, FORMED BLACK PAINTED METAL TOP, FLAT METAL CIRCUIT BOARD MOUNTING PLATE, ONE CIRCUIT BOARD WITH 63 LEDS, FABRICATED PREMIUM SPECULAR METAL REFLECTOR, FLAT PREMIUM SPECULAR METAL REFLECTOR SURROUND, 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 = 77.5 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 SA 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.

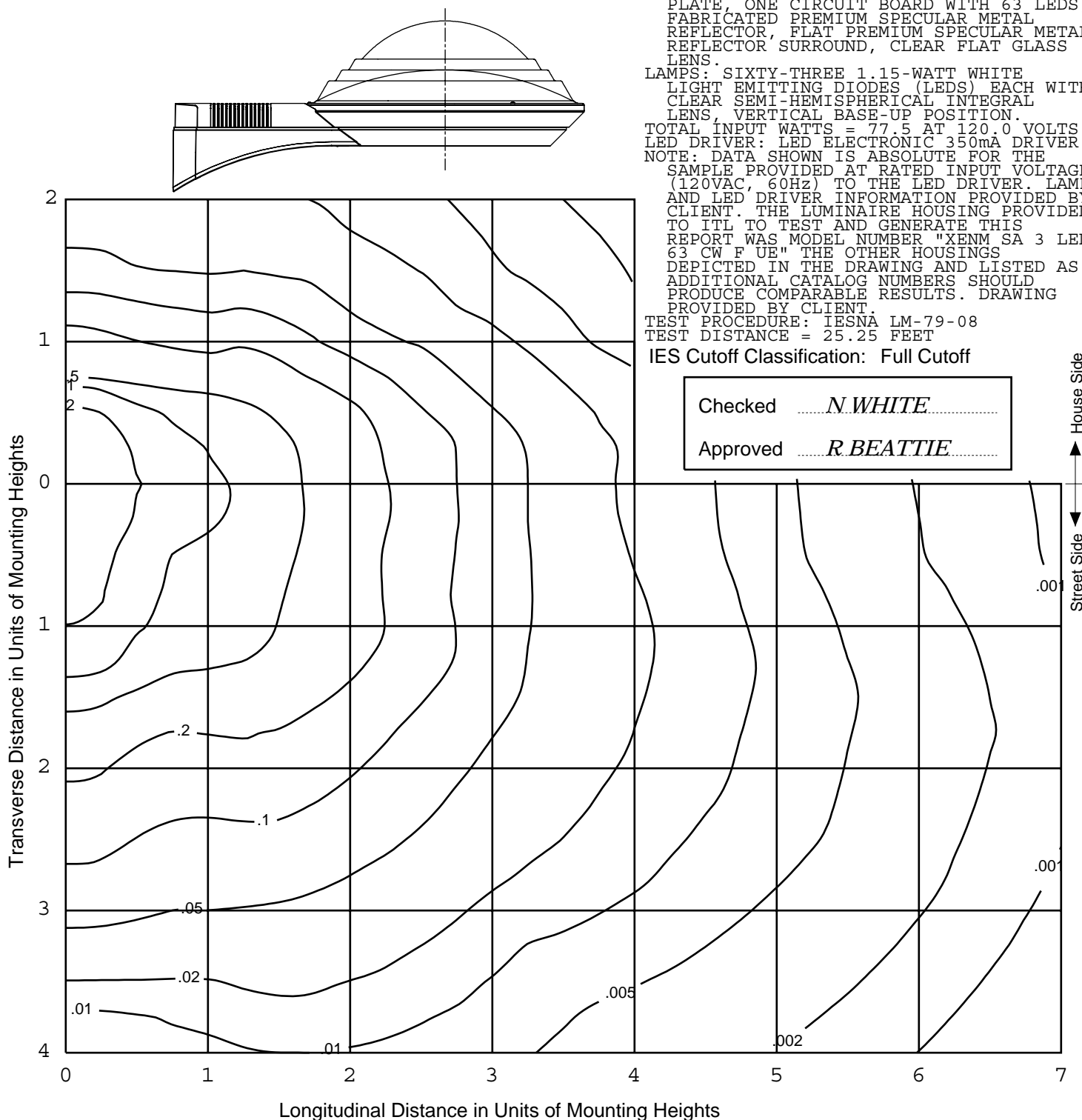
TEST PROCEDURE: IESNA LM-79-08

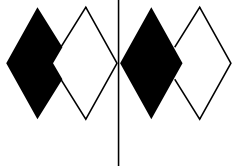
TEST DISTANCE = 25.25 FEET

IES Cutoff Classification: Full Cutoff

Checked N. WHITE

Approved R. BEATTIE





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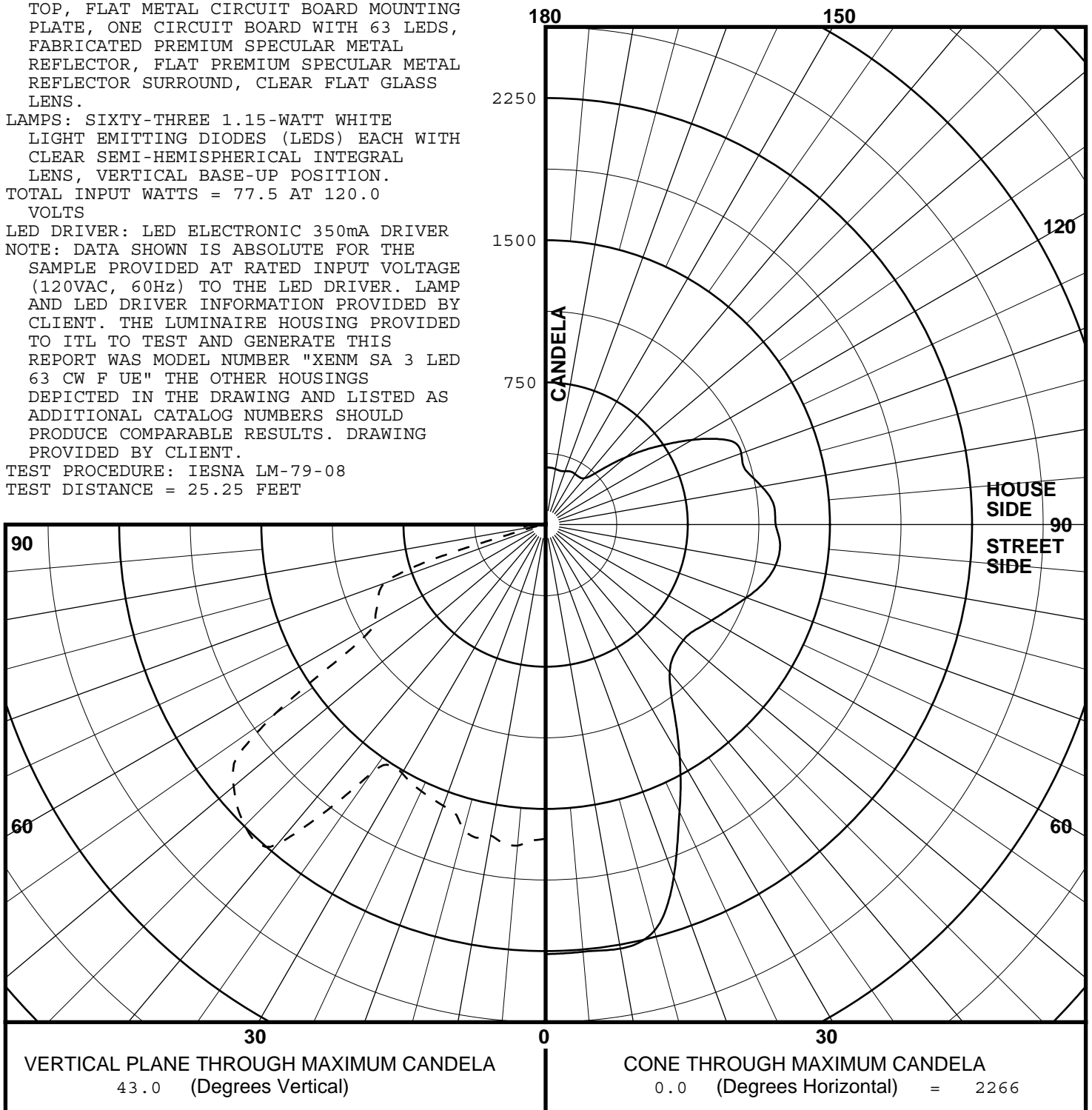
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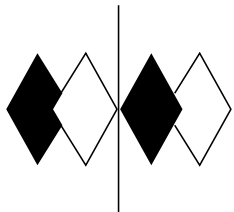
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MAXIMUM PLANE AND MAXIMUM CONE PLOTS OF CANDELA





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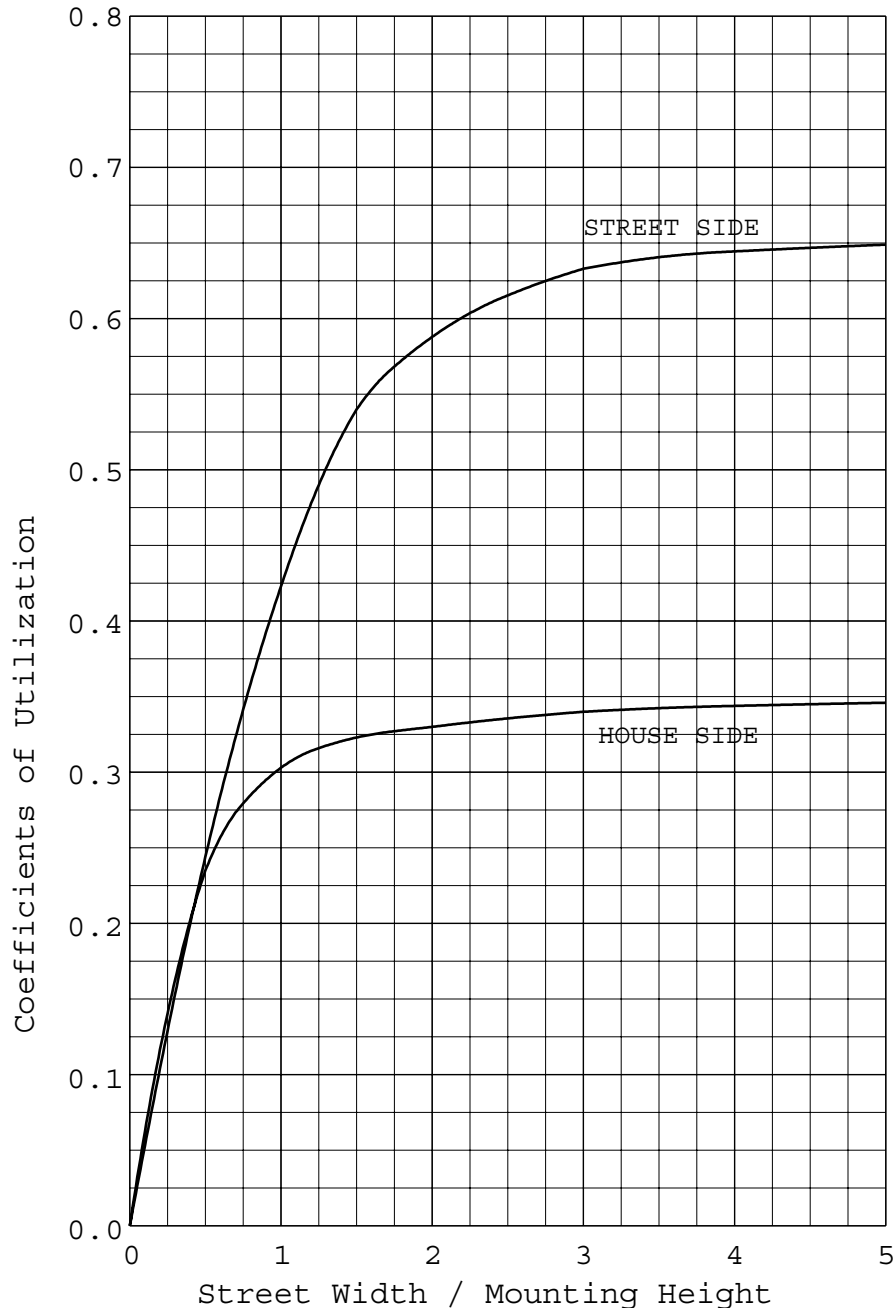
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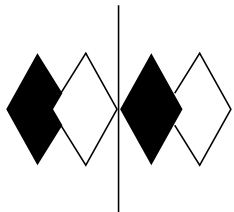
PREPARED FOR: LSI INDUSTRIES, INC.

COEFFICIENTS OF UTILIZATION AND FLUX DISTRIBUTION



	LUMENS	PERCENT OF FIXTURE
DOWNWARD STREET SIDE	3212.	65.2
DOWNWARD HOUSE SIDE	1714.	34.8
DOWNWARD TOTAL	4926.	100.0
UPWARD STREET SIDE	0.	0.0
UPWARD HOUSE SIDE	0.	0.0
UPWARD TOTAL	0.	0.0
TOTAL FLUX	4926.	100.0
EFFICACY = 63.6 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

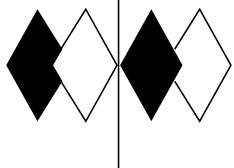
(PER IESNA TM-15-07, LUMINAIRE CLASSIFICATION
SYSTEM FOR OUTDOOR LUMINAIRES)

	LUMENS	PERCENT OF FIXTURE
FORWARD LIGHT	3212.	65.2
FL (0- 30)		12.6
FM (30- 60)		32.7
FH (60- 80)		19.1
FVH(80- 90)		0.8
BACK LIGHT	1714.	34.8
BL (0- 30)		12.1
BM (30- 60)		15.5
BH (60- 80)		6.9
BVH(80- 90)		0.3
UPLIGHT	0.	0.0
UL (90-100)		0.0
UH (100-180)		0.0
TRAPPED LIGHT	0.	0.0
TOTAL FLUX	4926.	100.0

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

BUG RATING: B2 U1 G1	FIRST DETERMINING SECONDARY SOLID ANGLE*	LUMENS
BACKLIGHT RATING: B2	BL	597.9
UPLIGHT RATING : U1	FVH	37.5
GLARE RATING : G1	FVH	37.5

* 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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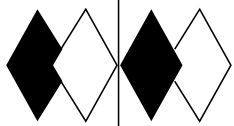
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CANDELA TABULATION

	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
	90.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	87.5	9.	12.	12.	13.	10.	9.	6.	4.	3.	2.	2.
	85.0	117.	111.	68.	80.	43.	25.	23.	46.	68.	35.	26.
	82.5	51.	53.	48.	49.	55.	90.	109.	141.	166.	99.	92.
	80.0	44.	41.	106.	184.	228.	216.	347.	466.	418.	216.	195.
	77.5	75.	75.	197.	330.	422.	424.	640.	687.	657.	437.	420.
	75.0	183.	195.	336.	655.	768.	838.	855.	884.	767.	553.	526.
	72.5	687.	690.	670.	836.	977.	1071.	1062.	1141.	973.	847.	835.
	70.0	910.	894.	736.	855.	1118.	1158.	1211.	1455.	1040.	1038.	1005.
	67.5	953.	950.	743.	822.	1168.	1196.	1502.	1538.	1177.	1196.	1161.
	65.0	975.	983.	744.	754.	1097.	1380.	1646.	1569.	1255.	1314.	1271.
	62.5	1010.	1016.	772.	772.	1111.	1652.	1701.	1567.	1362.	1393.	1316.
	60.0	1039.	1046.	839.	842.	1337.	1674.	1759.	1539.	1478.	1474.	1391.
	57.5	1206.	1225.	1146.	1121.	1362.	1620.	1716.	1532.	1570.	1538.	1477.
V	55.0	1750.	1779.	1654.	1279.	1323.	1546.	1560.	1482.	1618.	1592.	1544.
E	52.5	2073.	2080.	1897.	1329.	1333.	1419.	1354.	1362.	1539.	1589.	1536.
R	50.0	2149.	2148.	2037.	1384.	1348.	1308.	1172.	1281.	1415.	1491.	1442.
T	47.5	2206.	2204.	2147.	1481.	1345.	1175.	1062.	1205.	1301.	1371.	1351.
I	45.0	2245.	2246.	2214.	1616.	1277.	1029.	986.	1117.	1228.	1287.	1268.
C	43.0<<	2266.	2262.	2218.	1672.	1174.	963.	967.	1063.	1191.	1242.	1214.
A	42.5	2263.	2259.	2223.	1670.	1128.	952.	961.	1036.	1176.	1227.	1206.
L	40.0	2200.	2186.	2091.	1546.	1016.	943.	956.	1013.	1105.	1190.	1177.
	37.5	1909.	1895.	1774.	1389.	1050.	948.	961.	1015.	1105.	1169.	1166.
A	35.0	1600.	1593.	1546.	1375.	1132.	965.	971.	1025.	1115.	1172.	1163.
N	32.5	1513.	1514.	1521.	1430.	1218.	1024.	990.	1043.	1133.	1163.	1152.
G	30.0	1514.	1518.	1509.	1476.	1286.	1146.	1024.	1071.	1147.	1154.	1153.
L	27.5	1536.	1538.	1520.	1501.	1366.	1256.	1138.	1125.	1149.	1149.	1153.
E	25.0	1552.	1545.	1527.	1519.	1454.	1321.	1293.	1241.	1210.	1182.	1177.
	22.5	1565.	1558.	1542.	1536.	1517.	1420.	1390.	1363.	1338.	1296.	1291.
	20.0	1578.	1570.	1557.	1551.	1566.	1538.	1466.	1429.	1427.	1391.	1396.
	17.5	1596.	1598.	1587.	1587.	1616.	1612.	1554.	1518.	1469.	1432.	1440.
	15.0	1667.	1668.	1653.	1649.	1649.	1631.	1624.	1616.	1556.	1521.	1521.
	12.5	1692.	1691.	1674.	1656.	1640.	1638.	1654.	1643.	1621.	1615.	1610.
	10.0	1666.	1665.	1651.	1652.	1656.	1666.	1664.	1639.	1625.	1628.	1627.
	7.5	1696.	1700.	1701.	1703.	1688.	1673.	1666.	1653.	1647.	1646.	1640.
	5.0	1700.	1703.	1695.	1687.	1674.	1670.	1666.	1660.	1655.	1651.	1647.
	2.5	1668.	1669.	1672.	1669.	1670.	1663.	1659.	1654.	1651.	1647.	1648.
	0.0	1657.	1657.	1657.	1657.	1657.	1657.	1657.	1657.	1657.	1657.	1657.
		PLANE OF MAXIMUM CANDELA										
		CONE OF MAXIMUM CANDELA										



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	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	2.	1.	1.	1.	1.	1.	0.	0.	0.
	85.0	19.	10.	9.	12.	14.	17.	18.	13.	2.
	82.5	78.	28.	37.	33.	44.	56.	62.	62.	14.
	80.0	179.	70.	58.	78.	73.	88.	123.	150.	117.
	77.5	422.	133.	144.	108.	142.	170.	133.	121.	117.
	75.0	541.	259.	169.	140.	149.	199.	227.	190.	176.
	72.5	804.	420.	206.	190.	166.	184.	207.	193.	177.
	70.0	1017.	624.	325.	207.	160.	194.	203.	198.	185.
	67.5	1144.	818.	380.	250.	214.	164.	199.	199.	212.
	65.0	1214.	1038.	473.	356.	225.	173.	153.	165.	183.
	62.5	1295.	1230.	620.	413.	262.	169.	150.	139.	138.
	60.0	1390.	1309.	786.	480.	332.	160.	145.	141.	150.
	57.5	1459.	1362.	881.	576.	322.	200.	137.	133.	153.
V	55.0	1524.	1397.	896.	618.	310.	262.	172.	133.	140.
E	52.5	1514.	1372.	976.	568.	331.	281.	241.	198.	168.
R	50.0	1428.	1286.	1081.	513.	351.	288.	258.	262.	263.
T	47.5	1329.	1197.	1070.	489.	359.	288.	276.	271.	283.
I	45.0	1254.	1125.	1046.	574.	381.	302.	289.	284.	294.
C	43.0<<	1208.	1096.	1056.	718.	400.	307.	309.	294.	301.
A	42.5	1190.	1098.	1061.	807.	403.	311.	317.	301.	307.
L	40.0	1144.	1068.	1055.	976.	458.	353.	331.	328.	336.
	37.5	1128.	1073.	1046.	1015.	675.	391.	383.	349.	354.
A	35.0	1134.	1070.	1011.	1018.	920.	546.	417.	418.	407.
N	32.5	1117.	1056.	998.	1019.	1056.	935.	581.	466.	450.
G	30.0	1119.	1056.	1021.	1035.	1177.	1227.	1072.	759.	634.
L	27.5	1131.	1072.	1064.	1112.	1261.	1323.	1458.	1317.	1193.
E	25.0	1164.	1153.	1172.	1237.	1290.	1420.	1537.	1552.	1558.
	22.5	1281.	1294.	1283.	1309.	1336.	1496.	1571.	1589.	1604.
	20.0	1389.	1379.	1350.	1378.	1442.	1532.	1569.	1595.	1615.
	17.5	1435.	1424.	1443.	1476.	1548.	1555.	1565.	1583.	1610.
	15.0	1527.	1528.	1562.	1568.	1580.	1603.	1591.	1580.	1595.
	12.5	1611.	1602.	1617.	1605.	1600.	1620.	1631.	1657.	1655.
	10.0	1625.	1619.	1618.	1625.	1625.	1622.	1640.	1650.	1656.
	7.5	1635.	1633.	1631.	1630.	1640.	1646.	1658.	1665.	1667.
	5.0	1642.	1641.	1641.	1641.	1646.	1648.	1662.	1669.	1674.
	2.5	1648.	1653.	1652.	1653.	1654.	1655.	1656.	1657.	1660.
	0.0	1657.	1657.	1657.	1657.	1657.	1657.	1657.	1657.	1657.

CONE OF MAXIMUM CANDELA