

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.

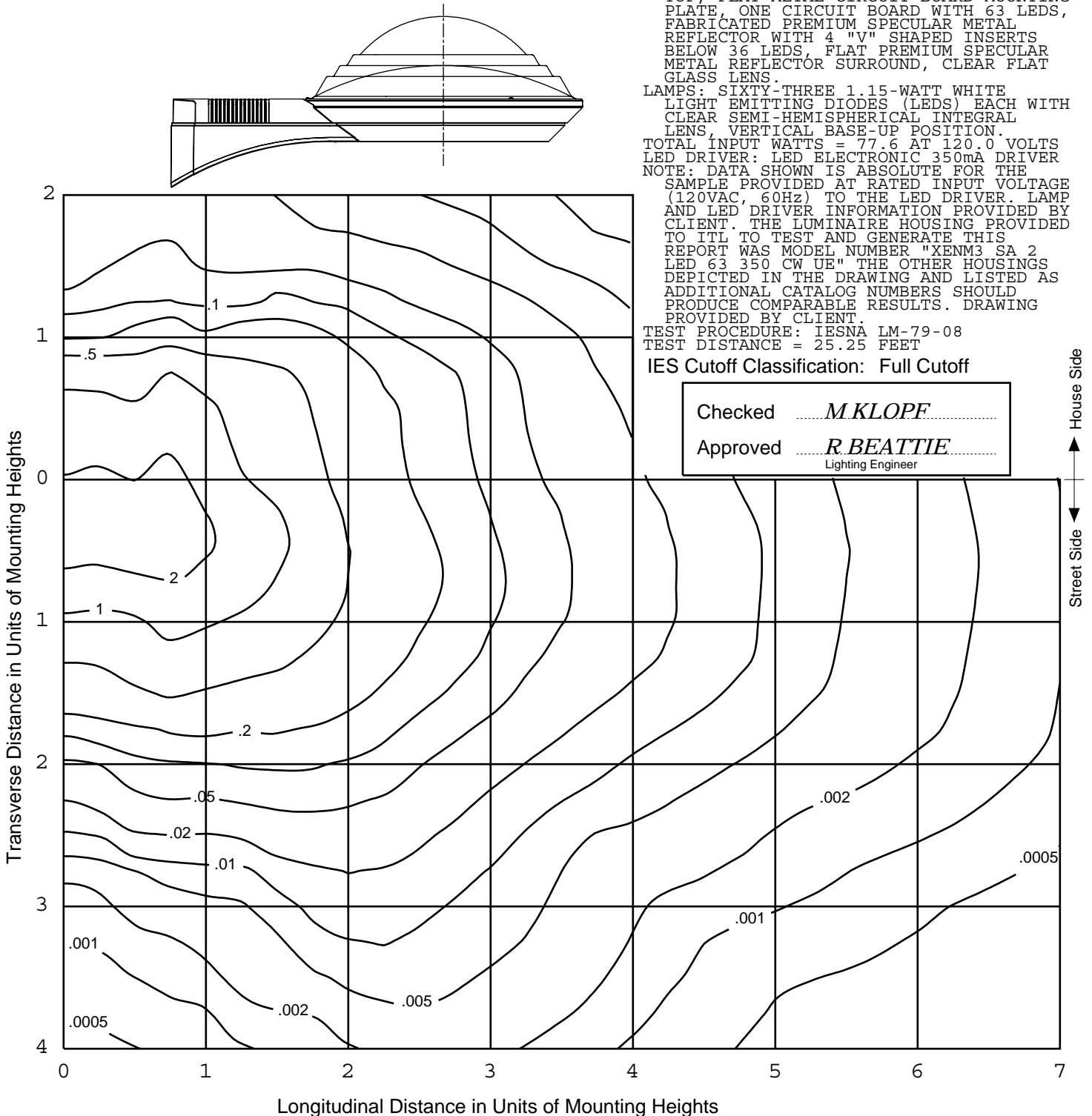
REPORT NUMBER: ITL64426
ISSUE DATE: 08/15/11 PAGE: 1 OF 6
DATE SAMPLE TESTED: 03/16/10
PREPARED FOR: LSI INDUSTRIES, INC.
CATALOG NUMBER: XENM3/XINM3 SA 2 LED 63 350 CW UE
LUMINAIRE: CAST BLACK PAINTED METAL HOUSING, FORMED BLACK PAINTED METAL TOP, FLAT METAL CIRCUIT BOARD MOUNTING PLATE, ONE CIRCUIT BOARD WITH 63 LEDS, FABRICATED PREMIUM SPECULAR METAL REFLECTOR WITH 4 "V" SHAPED INSERTS BELOW 36 LEDS, 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 = 77.6 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 "XENM3 SA 2 LED 63 350 CW UE" THE OTHER HOUSINGS DEPICTED IN THE DRAWING AND LISTED AS ADDITIONAL CATALOG NUMBERS SHOULD PRODUCE COMPARABLE RESULTS. DRAWING PROVIDED BY CLIENT.

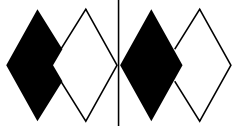
TEST PROCEDURE: IESNA LM-79-08
TEST DISTANCE = 25.25 FEET

IES Cutoff Classification: Full Cutoff

Checked *M.KLOPF*

Approved *R.BEATTIE*
Lighting Engineer





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CATALOG NUMBER: XENM3/XINM3 SA 2 LED 63
350 CW 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 WITH 4 "V" SHAPED INSERTS
BELOW 36 LEDS, 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 = 77.6 AT 120.0 VOLTS

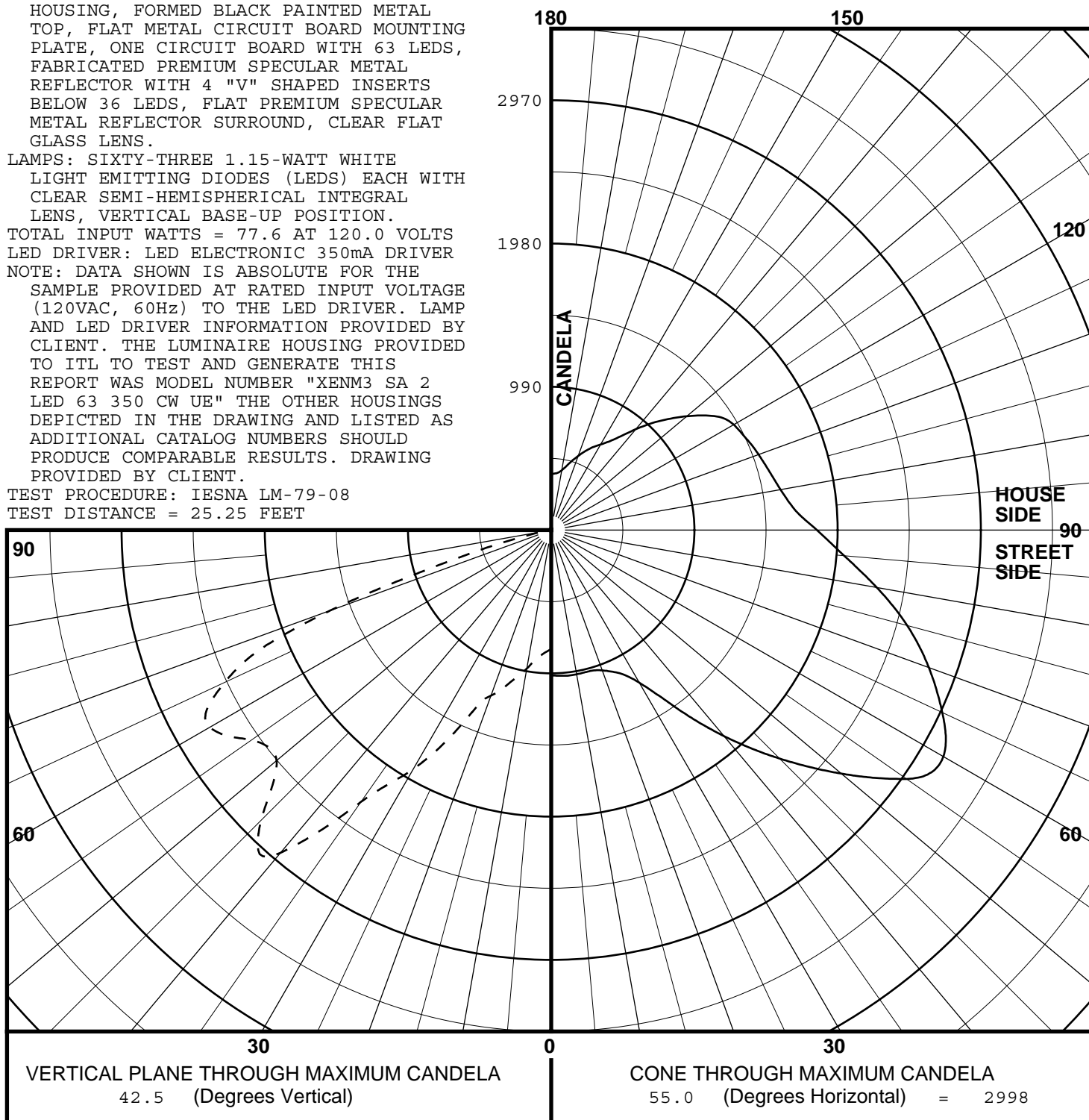
LED DRIVER: LED ELECTRONIC 350mA DRIVER

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
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TO ITL TO TEST AND GENERATE THIS
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LED 63 350 CW 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

MAXIMUM PLANE AND MAXIMUM CONE PLOTS OF CANDELA





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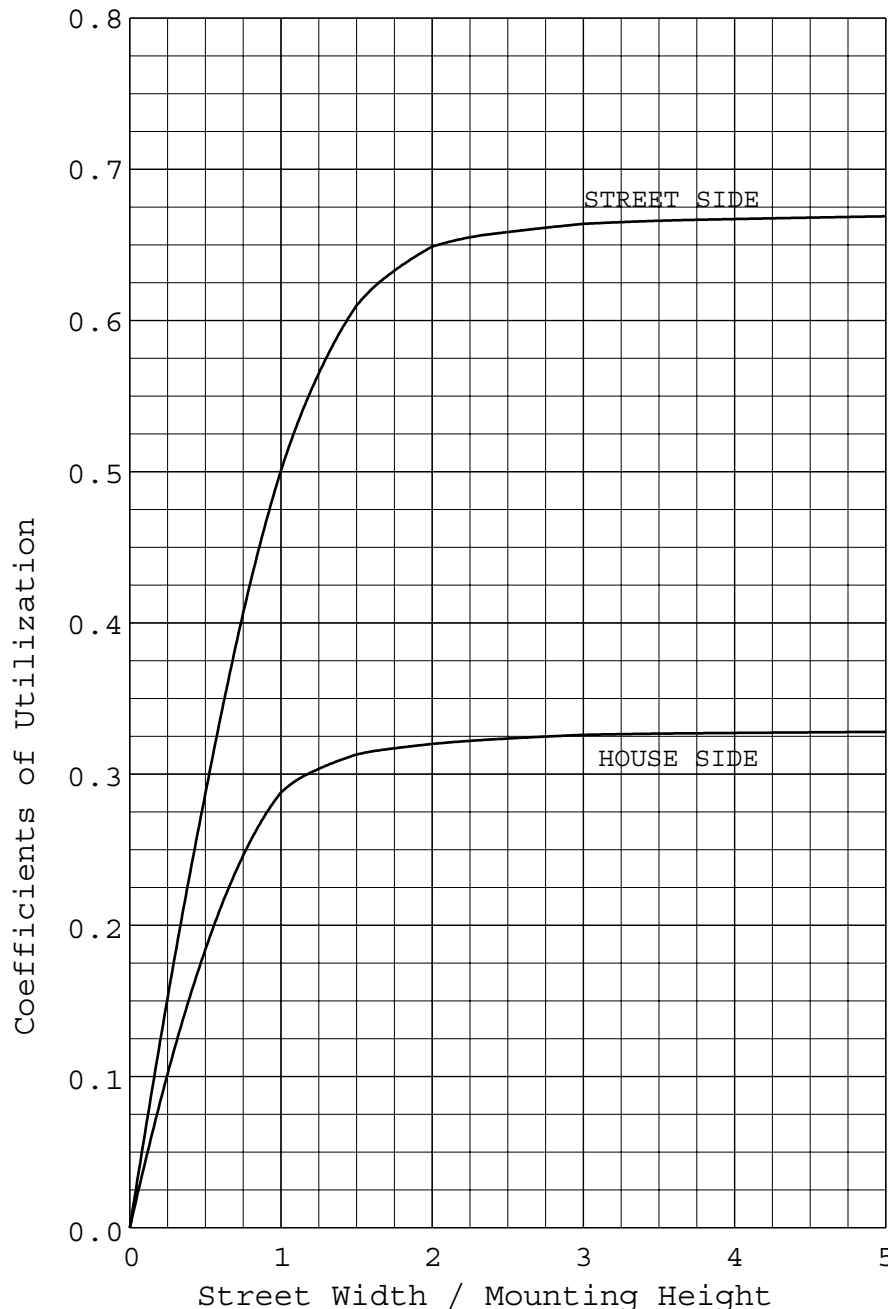
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COEFFICIENTS OF UTILIZATION AND FLUX DISTRIBUTION



	LUMENS	PERCENT OF FIXTURE
DOWNWARD STREET SIDE	3703	66.9
DOWNWARD HOUSE SIDE	1835	33.1
DOWNWARD TOTAL	5538	100.0
UPWARD STREET SIDE	0	0.0
UPWARD HOUSE SIDE	0	0.0
UPWARD TOTAL	0	0.0
TOTAL FLUX	5538	100.0
EFFICACY = 71.4 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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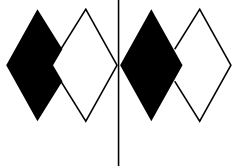
FLUX DISTRIBUTION BY SOLID ANGLE

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

	LUMENS	PERCENT OF FIXTURE	BUG ZONE RATINGS
FORWARD LIGHT	3703.	66.9	
FL (0- 30)	531.2	9.6	
FM (30- 60)	2170.1	39.2	
FH (60- 80)	988.0	17.8	G1
FVH(80- 90)	13.4	0.2	U1 G1
BACK LIGHT	1835.	33.1	
BL (0- 30)	336.4	6.1	B1
BM (30- 60)	1060.0	19.1	B2
BH (60- 80)	430.6	7.8	B1 G1
BVH(80- 90)	8.3	0.1	U0 G0
UPLIGHT	0.	0.0	
UL (90-100)	0.0	0.0	U0
UH (100-180)	0.0	0.0	U0
TRAPPED LIGHT	0.	0.0	
TOTAL FLUX	5538.	100.0	

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

BUG RATING: B2 U1 G1



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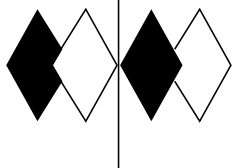
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CANDELA TABULATION

	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	0.	0.	0.	0.	0.	1.	2.	2.	2.	2.
	85.0	1.	1.	2.	3.	4.	6.	7.	10.	16.	17.
	82.5	4.	3.	7.	9.	14.	15.	20.	44.	112.	104.
	80.0	6.	6.	11.	18.	40.	65.	64.	135.	327.	331.
	77.5	9.	9.	16.	42.	198.	214.	158.	361.	712.	619.
	75.0	12.	14.	26.	92.	329.	340.	429.	688.	1057.	914.
	72.5	16.	18.	38.	79.	356.	701.	862.	1419.	1546.	1161.
	70.0	23.	26.	82.	174.	590.	1065.	1626.	1930.	2029.	1503.
	67.5	87.	92.	277.	410.	768.	1548.	2211.	2499.	2353.	1643.
	65.0	145.	149.	365.	543.	1068.	2032.	2490.	2681.	2480.	1825.
	62.5	208.	214.	414.	900.	1614.	2075.	2683.	2742.	2576.	2029.
	60.0	398.	412.	722.	1551.	1771.	2103.	2727.	2863.	2932.	2250.
	57.5	707.	718.	983.	1621.	1867.	2133.	2649.	2856.	2900.	2310.
V	55.0	786.	794.	1027.	1527.	1938.	2188.	2529.	2846.	2723.	2174.
E	52.5	852.	855.	984.	1340.	1978.	2215.	2463.	2837.	2528.	1982.
R	50.0	896.	896.	957.	1182.	1892.	2206.	2478.	2893.	2405.	1830.
T	47.5	933.	937.	970.	1095.	1726.	2241.	2615.	2934.	2402.	1823.
I	45.0	974.	975.	993.	1069.	1604.	2250.	2836.	2972.	2496.	1918.
C	42.5<<	1004.	1011.	1010.	1088.	1492.	2233.	2998.	2983.	2548.	2033.
A	40.0	1037.	1041.	1041.	1126.	1474.	2261.	2911.	2942.	2608.	2102.
L	37.5	1093.	1094.	1099.	1187.	1564.	2221.	2614.	2736.	2576.	2174.
	35.0	1195.	1187.	1212.	1304.	1634.	2130.	2293.	2380.	2283.	2042.
A	32.5	1324.	1320.	1351.	1417.	1581.	1974.	2075.	2054.	1885.	1649.
N	30.0	1422.	1428.	1436.	1473.	1531.	1782.	1907.	1871.	1617.	1368.
G	27.5	1449.	1454.	1437.	1442.	1491.	1552.	1716.	1759.	1468.	1223.
L	25.0	1412.	1412.	1400.	1382.	1440.	1430.	1501.	1571.	1385.	1188.
E	22.5	1342.	1344.	1337.	1334.	1374.	1373.	1299.	1316.	1262.	1160.
	20.0	1279.	1281.	1283.	1272.	1284.	1295.	1218.	1192.	1154.	1101.
	17.5	1234.	1233.	1221.	1215.	1239.	1208.	1160.	1150.	1106.	1041.
	15.0	1169.	1169.	1166.	1161.	1149.	1118.	1088.	1086.	1064.	1017.
	12.5	1116.	1116.	1109.	1095.	1072.	1046.	1028.	1012.	981.	944.
	10.0	1050.	1050.	1042.	1025.	1003.	986.	972.	952.	924.	898.
	7.5	980.	981.	977.	966.	950.	930.	912.	895.	878.	861.
	5.0	916.	916.	914.	907.	895.	883.	873.	861.	851.	838.
	2.5	863.	862.	861.	857.	852.	848.	844.	839.	834.	830.
	0.0	822.	822.	822.	822.	822.	822.	822.	822.	822.	822.
							PLANE OF MAXIMUM CANDELA				
							CONE OF MAXIMUM CANDELA				



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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	2.	2.	1.	1.	0.	0.	0.	0.	0.
	85.0	14.	8.	5.	4.	3.	3.	1.	0.	0.
	82.5	74.	38.	24.	17.	13.	16.	7.	6.	0.
	80.0	253.	105.	53.	35.	36.	74.	27.	20.	2.
	77.5	447.	260.	113.	61.	54.	134.	69.	37.	12.
	75.0	621.	476.	195.	145.	82.	132.	92.	48.	23.
	72.5	853.	856.	323.	169.	128.	122.	142.	165.	30.
	70.0	1198.	1238.	527.	206.	137.	145.	173.	232.	49.
	67.5	1357.	1390.	826.	305.	163.	154.	204.	196.	84.
	65.0	1499.	1579.	1320.	560.	202.	150.	216.	128.	100.
	62.5	1699.	1718.	1685.	804.	234.	150.	196.	98.	93.
	60.0	1827.	1790.	1757.	942.	255.	161.	193.	130.	83.
	57.5	1867.	1786.	1738.	1143.	285.	196.	184.	152.	77.
V	55.0	1795.	1665.	1587.	1276.	425.	258.	199.	143.	82.
E	52.5	1618.	1480.	1455.	1337.	838.	344.	211.	142.	93.
R	50.0	1486.	1403.	1484.	1421.	1215.	526.	216.	138.	103.
T	47.5	1483.	1445.	1518.	1440.	1282.	737.	299.	153.	124.
I	45.0	1584.	1540.	1511.	1442.	1201.	772.	467.	271.	206.
C	42.5<<	1685.	1562.	1490.	1374.	1068.	769.	618.	475.	394.
A	40.0	1751.	1587.	1437.	1225.	952.	796.	678.	605.	573.
L	37.5	1805.	1542.	1302.	1010.	839.	804.	711.	639.	624.
	35.0	1678.	1361.	1101.	852.	770.	777.	737.	669.	647.
A	32.5	1365.	1109.	954.	795.	765.	744.	722.	692.	667.
N	30.0	1117.	952.	881.	777.	753.	742.	709.	692.	680.
G	27.5	1014.	913.	859.	787.	750.	753.	714.	679.	674.
L	25.0	1011.	919.	850.	813.	759.	748.	712.	683.	686.
E	22.5	1020.	928.	829.	790.	747.	729.	710.	699.	691.
	20.0	1027.	942.	813.	778.	785.	732.	707.	693.	683.
	17.5	989.	935.	840.	786.	759.	745.	712.	696.	689.
	15.0	971.	928.	861.	792.	770.	756.	729.	714.	705.
	12.5	907.	880.	848.	799.	778.	765.	755.	741.	733.
	10.0	871.	850.	826.	802.	785.	772.	762.	756.	751.
	7.5	844.	827.	809.	795.	783.	775.	769.	767.	766.
	5.0	827.	816.	805.	796.	790.	784.	781.	778.	777.
	2.5	824.	818.	812.	807.	803.	800.	799.	797.	797.
	0.0	822.	822.	822.	822.	822.	822.	822.	822.	822.

CONE OF MAXIMUM CANDELA