

itl boulder
THE LIGHT CENTER OF THE INDUSTRY SINCE 1955

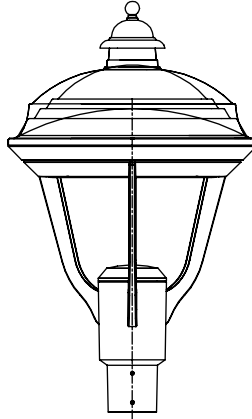
NVLAP
NVLAP LAB CODE: 200925-0

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: ITL68997
ISSUE DATE: 06/22/11 PAGE: 1 OF 7
PREPARED FOR: LSI INDUSTRIES, INC.
CATALOG NUMBER: XENM3/XINM3/XLXM3 PT 5
LED 63 450 CW UE
LUMINAIRE: CAST BROWN PAINTED METAL
POST TOP FITTER, CAST BROWN PAINTED
METAL POST TOP CAP, THREE FABRICATED
BROWN PAINTED METAL SUPPORT ARMS, FLAT
METAL CIRCUIT BOARD MOUNTING PLATE,
ONE CIRCUIT BOARD WITH 63 LEDS,
FABRICATED PREMIUM SPECULAR METAL
REFLECTOR WITH 12 "V" SHAVED INSERTS
BELOW 63 LEDS, CAST BLACK PAINTED
METAL UPPER HOUSING WITH FORMED BLACK
PAINTED METAL TOP, CLEAR FLAT GLASS LENS.
LAMPS: SIXTY-THREE 1.5-WATT WHITE LIGHT
EMITTING DIODES (LEDs) EACH WITH CLEAR
SEMI-HEMISPHERICAL INTEGRAL LENS,
VERTICAL BASE-UP POSITION.
LED DRIVER: LED ELECTRONIC 450mA 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 2 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.
TOTAL INPUT WATTS = 96.6 AT 120.0 VOLTS
TEST PROCEDURE: IESNA LM-79-08
TEST DISTANCE = 33.25 FEET

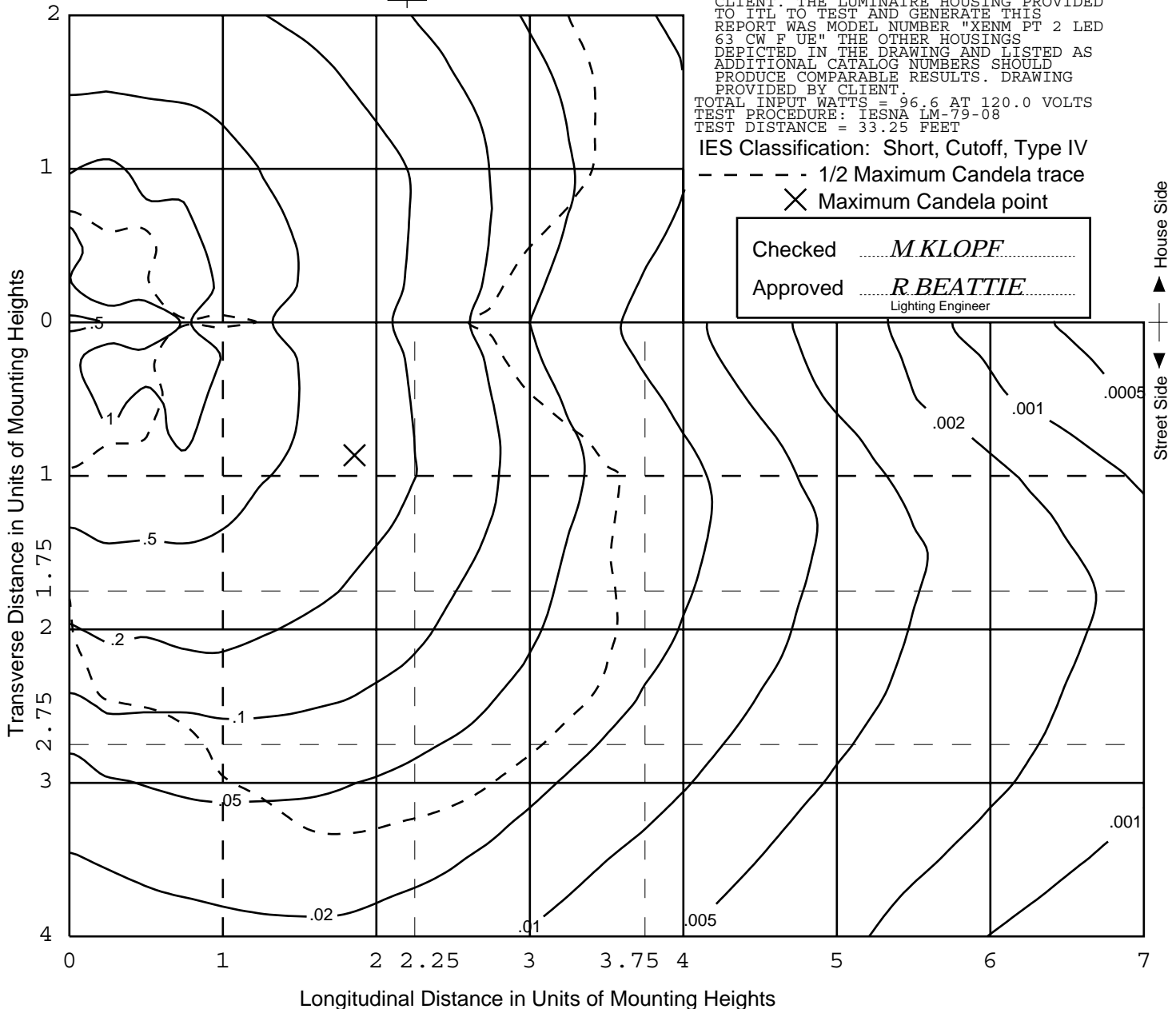
IES Classification: Short, Cutoff, Type IV

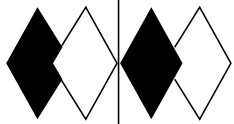
--- 1/2 Maximum Candela trace

× Maximum Candela point

Checked M.KLOPF

Approved R.BEATTIE
Lighting Engineer





itl boulder

THE LIGHT CENTER OF THE INDUSTRY SINCE 1955

NVLAP
NVLAP LAB CODE: 200925-0

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

REPORT NUMBER: ITL68997

ISSUE DATE: 06/22/11 PAGE: 2 OF 7

PREPARED FOR: LSI INDUSTRIES, INC.

CATALOG NUMBER: XENM3/XINM3/XLXM3 PT 5

LED 63 450 CW UE

LUMINAIRE: CAST BROWN PAINTED METAL
POST TOP FITTER, CAST BROWN PAINTED
METAL POST TOP CAP, THREE FABRICATED
BROWN PAINTED METAL SUPPORT ARMS, FLAT
METAL CIRCUIT BOARD MOUNTING PLATE,
ONE CIRCUIT BOARD WITH 63 LEDs,
FABRICATED PREMIUM SPECULAR METAL
REFLECTOR WITH 12 "V" SHAVED INSERTS
BELOW 63 LEDs, CAST BLACK PAINTED
METAL UPPER HOUSING WITH FORMED BLACK
PAINTED METAL TOP, CLEAR FLAT GLASS
LENS.

LAMPS: SIXTY-THREE 1.5-WATT WHITE LIGHT
EMITTING DIODES (LEDs) EACH WITH CLEAR
SEMI-HEMISPHERICAL INTEGRAL LENS,
VERTICAL BASE-UP POSITION.

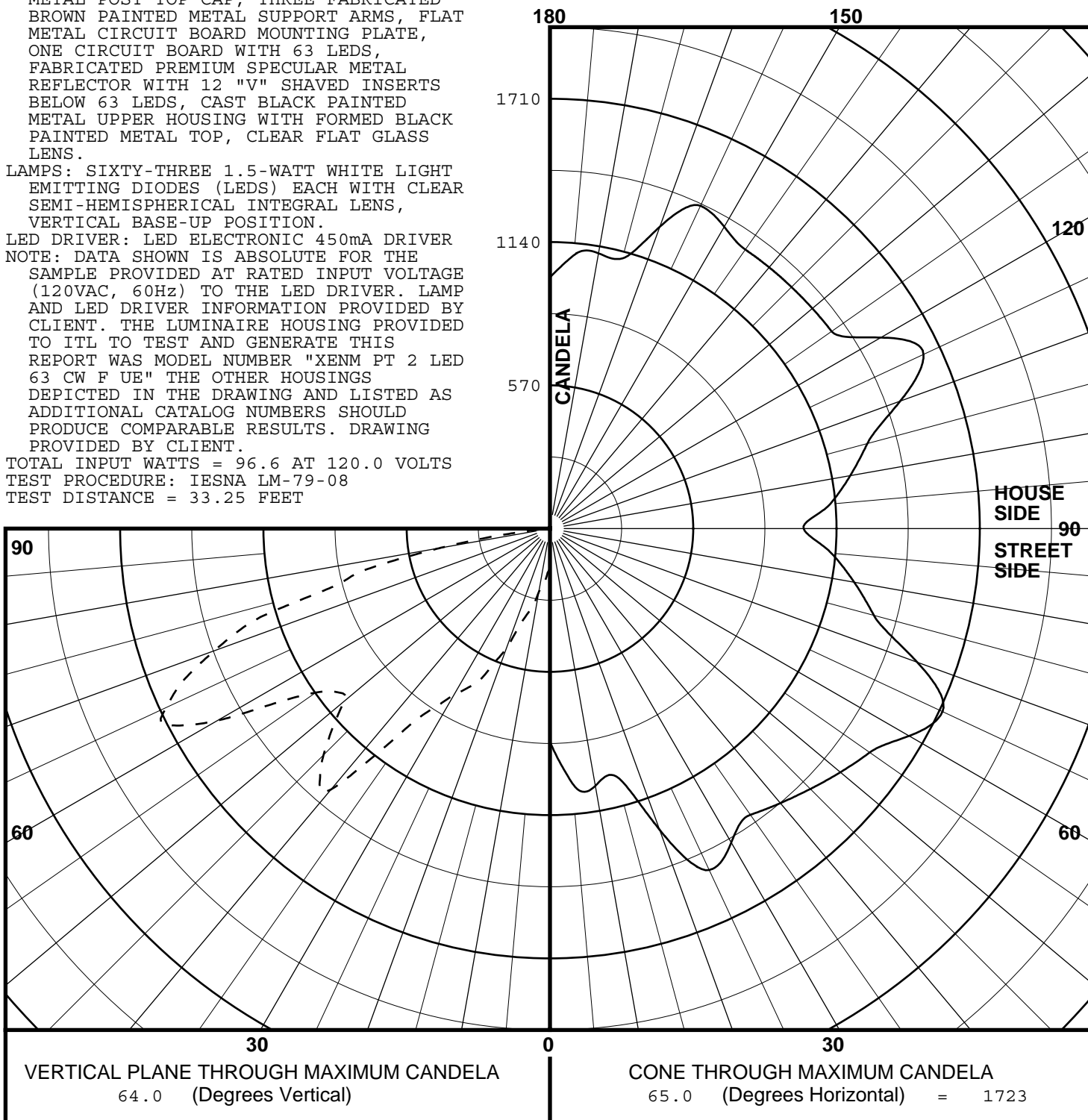
LED DRIVER: LED ELECTRONIC 450mA DRIVER
NOTE: DATA SHOWN IS ABSOLUTE FOR THE
SAMPLE PROVIDED AT RATED INPUT VOLTAGE
(120VAC, 60Hz) TO THE LED DRIVER. LAMP
AND LED DRIVER INFORMATION PROVIDED BY
CLIENT. THE LUMINAIRE HOUSING PROVIDED
TO ITL TO TEST AND GENERATE THIS
REPORT WAS MODEL NUMBER "XENM PT 2 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.

TOTAL INPUT WATTS = 96.6 AT 120.0 VOLTS

TEST PROCEDURE: IESNA LM-79-08

TEST DISTANCE = 33.25 FEET

MAXIMUM PLANE AND MAXIMUM CONE PLOTS OF CANDELA

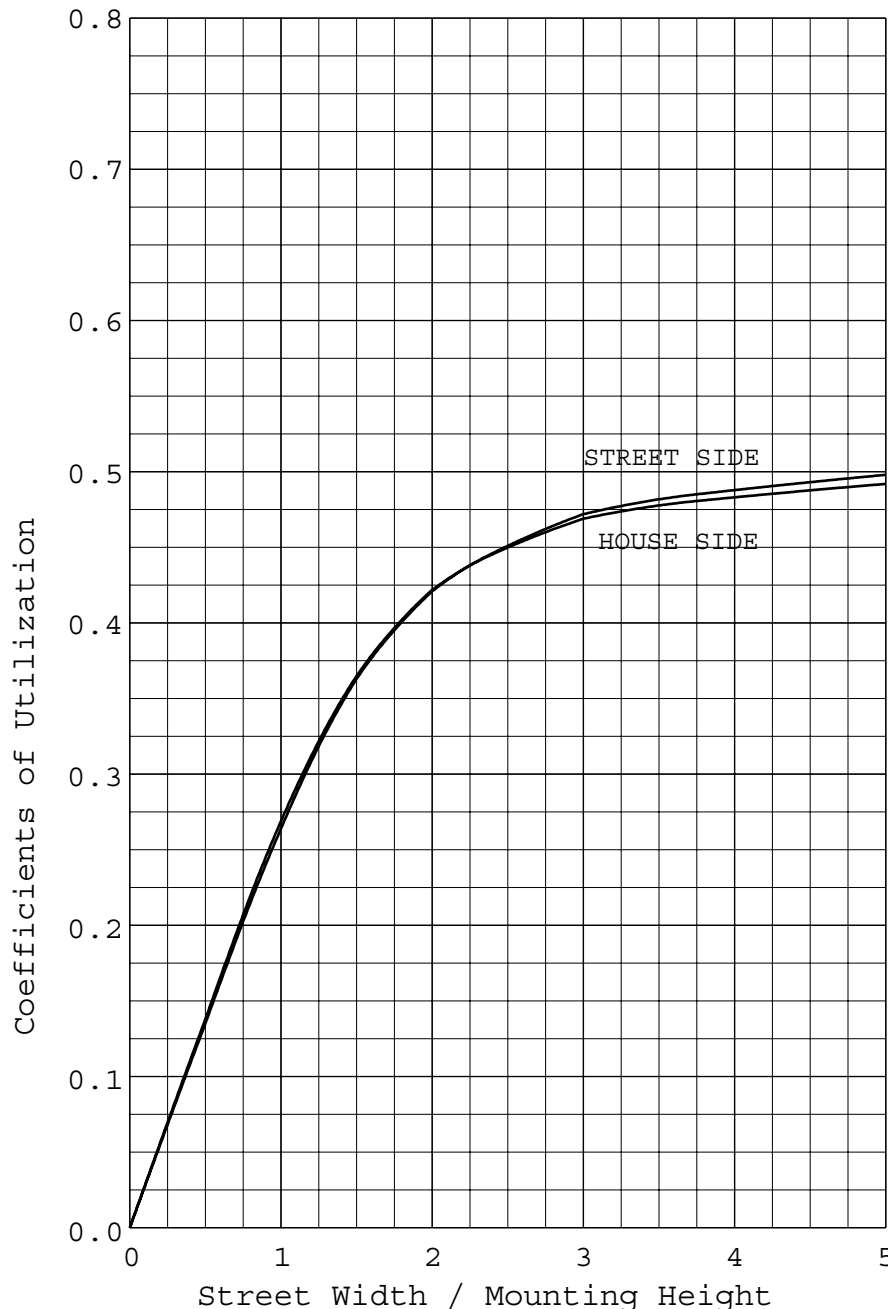




REPORT NUMBER: ITL68997
ISSUE DATE: 06/22/11
PREPARED FOR: LSI INDUSTRIES, INC.

PAGE: 3 OF 7

COEFFICIENTS OF UTILIZATION AND FLUX DISTRIBUTION



	LUMENS	PERCENT OF FIXTURE
DOWNWARD STREET SIDE	2518	50.1
DOWNWARD HOUSE SIDE	2503	49.8
DOWNWARD TOTAL	5021	99.9
UPWARD STREET SIDE	3	0.1
UPWARD HOUSE SIDE	3	0.1
UPWARD TOTAL	6	0.1
TOTAL FLUX	5027	100.0
EFFICACY = 52.0 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.



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

REPORT NUMBER: ITL68997
ISSUE DATE: 06/22/11
PREPARED FOR: LSI INDUSTRIES, INC.

PAGE: 4 OF 7

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	2518.	50.1	
FL (0- 30)	199.1	4.0	
FM (30- 60)	1219.6	24.3	
FH (60- 80)	1050.1	20.9	G1
FVH(80- 90)	48.8	1.0	U1 G1
BACK LIGHT	2503.	49.8	
BL (0- 30)	226.3	4.5	B1
BM (30- 60)	1246.5	24.8	B2
BH (60- 80)	987.1	19.6	B2 G1
BVH(80- 90)	42.9	0.9	U1 G1
UPLIGHT	6.	0.1	
UL (90-100)	1.3	0.0	U1
UH (100-180)	5.0	0.1	U1
TRAPPED LIGHT	0.	0.0	
TOTAL FLUX	5027.	100.0	

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

BUG RATING: B2 U1 G1



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

REPORT NUMBER: ITL68997
ISSUE DATE: 06/22/11
PREPARED FOR: LSI INDUSTRIES, INC.

PAGE: 5 OF 7

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
	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	2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
	125.0	2.	1.	2.	2.	2.	2.	2.	2.	2.	2.
	115.0	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
	105.0	0.	1.	1.	0.	1.	1.	1.	1.	1.	1.
	95.0	0.	0.	0.	0.	1.	2.	3.	3.	2.	1.
	92.5	0.	0.	0.	0.	1.	2.	3.	3.	2.	1.
	90.0	0.	0.	1.	0.	1.	2.	3.	4.	3.	1.
	87.5	3.	6.	6.	7.	7.	6.	6.	7.	6.	2.
	85.0	29.	54.	87.	68.	32.	29.	21.	40.	56.	45.
V	82.5	51.	87.	212.	217.	142.	124.	92.	189.	218.	55.
E	80.0	84.	119.	304.	381.	332.	373.	396.	444.	423.	119.
R	77.5	159.	201.	395.	586.	650.	627.	713.	743.	676.	308.
T	75.0	316.	384.	596.	851.	952.	1117.	1116.	893.	850.	458.
I	72.5	432.	519.	792.	954.	1245.	1398.	1338.	1257.	1077.	608.
C	70.0	540.	736.	795.	1123.	1411.	1525.	1373.	1421.	1197.	951.
A	67.5	699.	888.	965.	1354.	1440.	1533.	1548.	1578.	1217.	1051.
L	65.0	842.	997.	1015.	1448.	1420.	1468.	1564.	1685.	1307.	1089.
	64.0<<	849.	1017.	1021.	1499.	1390.	1465.	1553.	1723.	1334.	1124.
A	62.5	844.	1015.	1038.	1503.	1347.	1447.	1529.	1696.	1367.	1157.
N	60.0	868.	1051.	1085.	1325.	1492.	1415.	1479.	1528.	1354.	1173.
G	57.5	858.	1034.	1075.	1264.	1571.	1402.	1388.	1289.	1301.	1139.
L	55.0	915.	1078.	1136.	1235.	1619.	1425.	1311.	1137.	1228.	1061.
E	52.5	939.	1085.	1195.	1194.	1491.	1440.	1228.	1069.	1159.	1000.
	50.0	910.	1077.	1198.	1142.	1316.	1493.	1204.	1068.	1084.	946.
	47.5	901.	1069.	1214.	1113.	1163.	1413.	1231.	1172.	1088.	920.
	45.0	909.	1066.	1189.	1047.	1114.	1144.	1282.	1274.	1202.	921.
	42.5	847.	980.	1069.	989.	880.	837.	1165.	1355.	1257.	958.
	40.0	802.	902.	944.	827.	687.	764.	957.	1355.	1341.	1002.
	37.5	713.	739.	756.	669.	642.	706.	831.	1125.	1286.	943.
	35.0	569.	571.	555.	609.	608.	648.	777.	930.	1051.	723.
	30.0	439.	449.	559.	693.	669.	643.	706.	765.	645.	470.
	25.0	426.	438.	498.	644.	668.	713.	677.	667.	456.	338.
	20.0	392.	397.	439.	579.	631.	679.	697.	507.	393.	273.
	15.0	356.	366.	398.	430.	493.	464.	398.	354.	318.	245.
	10.0	291.	275.	266.	261.	254.	262.	273.	258.	257.	191.
	5.0	234.	230.	227.	213.	214.	202.	207.	205.	181.	160.
	0.0	160.	160.	160.	160.	160.	160.	160.	160.	160.	160.

PLANE OF MAXIMUM CANDELA

CONE OF MAXIMUM CANDELA



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

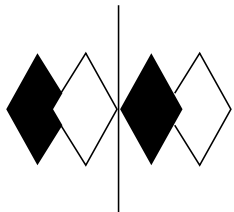
REPORT NUMBER: ITL68997
ISSUE DATE: 06/22/11
PREPARED FOR: LSI INDUSTRIES, INC.

PAGE: 6 OF 7

CANDELA TABULATION

	HOUSE SIDE									
	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.
	175.0	0.	0.	0.	0.	0.	0.	0.	0.	0.
	165.0	0.	0.	0.	0.	0.	0.	0.	0.	0.
	155.0	0.	0.	0.	0.	0.	0.	0.	0.	0.
	145.0	0.	0.	0.	0.	0.	0.	0.	0.	0.
	135.0	2.	2.	1.	1.	1.	2.	2.	2.	2.
	125.0	2.	1.	1.	1.	2.	2.	2.	2.	2.
	115.0	1.	1.	1.	1.	1.	1.	1.	1.	1.
	105.0	1.	1.	1.	1.	1.	1.	1.	1.	1.
	95.0	1.	1.	1.	1.	1.	1.	1.	1.	1.
	92.5	1.	1.	1.	1.	1.	1.	2.	2.	2.
	90.0	1.	1.	1.	1.	1.	2.	2.	2.	1.
	87.5	3.	4.	4.	3.	4.	5.	6.	8.	10.
	85.0	39.	31.	28.	21.	21.	28.	56.	91.	56.
V	82.5	60.	161.	140.	68.	99.	118.	194.	240.	102.
E	80.0	114.	364.	365.	294.	288.	266.	388.	355.	131.
R	77.5	311.	606.	674.	524.	512.	550.	605.	435.	210.
T	75.0	463.	779.	865.	922.	862.	778.	833.	561.	350.
I	72.5	645.	1002.	1177.	1209.	1174.	1017.	887.	782.	515.
C	70.0	932.	1139.	1288.	1308.	1384.	1270.	983.	763.	632.
A	67.5	1026.	1179.	1443.	1363.	1399.	1402.	1286.	891.	814.
L	65.0	1091.	1262.	1606.	1376.	1377.	1367.	1412.	1097.	1043.
	64.0<<	1119.	1307.	1640.	1368.	1359.	1355.	1417.	1113.	1092.
A	62.5	1147.	1387.	1588.	1362.	1355.	1369.	1419.	1124.	1130.
N	60.0	1172.	1401.	1421.	1352.	1290.	1412.	1358.	1187.	1166.
G	57.5	1150.	1310.	1225.	1339.	1297.	1447.	1270.	1228.	1195.
L	55.0	1077.	1187.	1090.	1241.	1327.	1468.	1208.	1209.	1223.
E	52.5	997.	1078.	1038.	1188.	1394.	1444.	1182.	1246.	1188.
	50.0	903.	1015.	1056.	1121.	1402.	1328.	1185.	1262.	1158.
	47.5	883.	1006.	1104.	1123.	1326.	1207.	1165.	1313.	1156.
	45.0	895.	1072.	1210.	1150.	1128.	1114.	1160.	1313.	1170.
	42.5	952.	1131.	1336.	1154.	872.	1026.	1132.	1255.	1156.
	40.0	994.	1207.	1321.	1033.	774.	851.	1051.	1112.	1082.
	37.5	930.	1140.	1126.	902.	729.	758.	867.	949.	948.
	35.0	728.	876.	987.	901.	767.	681.	683.	744.	783.
	30.0	424.	636.	841.	900.	827.	834.	771.	563.	500.
	25.0	327.	486.	695.	864.	909.	845.	729.	551.	439.
	20.0	268.	385.	582.	753.	820.	773.	681.	534.	475.
	15.0	234.	282.	365.	460.	492.	547.	526.	488.	447.
	10.0	186.	211.	238.	273.	300.	327.	347.	362.	383.
	5.0	158.	165.	173.	189.	193.	219.	224.	240.	238.
	0.0	160.	160.	160.	160.	160.	160.	160.	160.	160.

CONE OF MAXIMUM CANDELA



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

REPORT NUMBER: ITL68997
ISSUE DATE: 06/22/11
PREPARED FOR: LSI INDUSTRIES, INC.

PAGE: 7 OF 7

ADDRESS: 10000 ALLIANCE ROAD
CINCINNATI, OH 45242-0728

THIS ITL REPORT WITH THE USE OF THE NVLAP LOGO SHALL NOT BE USED BY THE CLIENT TO CLAIM PRODUCT CERTIFICATION, APPROVAL, OR ENDORSEMENT BY NVLAP, NIST, OR ANY AGENCY OF THE FEDERAL GOVERNMENT.