

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: INVUE

Report Number:

Luminaire Tested: **ENT-SA1B-740-U-T3-ULG**

Issue Date: 3/30/2022

Test Information

Test Method: LM-79-08
Report Number: REPORT IS A COMBINATION OF REPORTS P401152 AND P226775
Test Lab: INNOVATION CENTER
Issue Date: 3/30/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1B-740-U-T3-ULG
Description: ENTRI LED LUMINAIRE WITH UPLIGHT
(1) 70 CRI, 4000K, 450mA LIGHTSQUARE WITH 16 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5263.9 lumens
Efficiency: N/A
Efficacy: 125.0 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.1')
IES Classification: Type III - Short
BUG Rating: B1 - U5 - G1

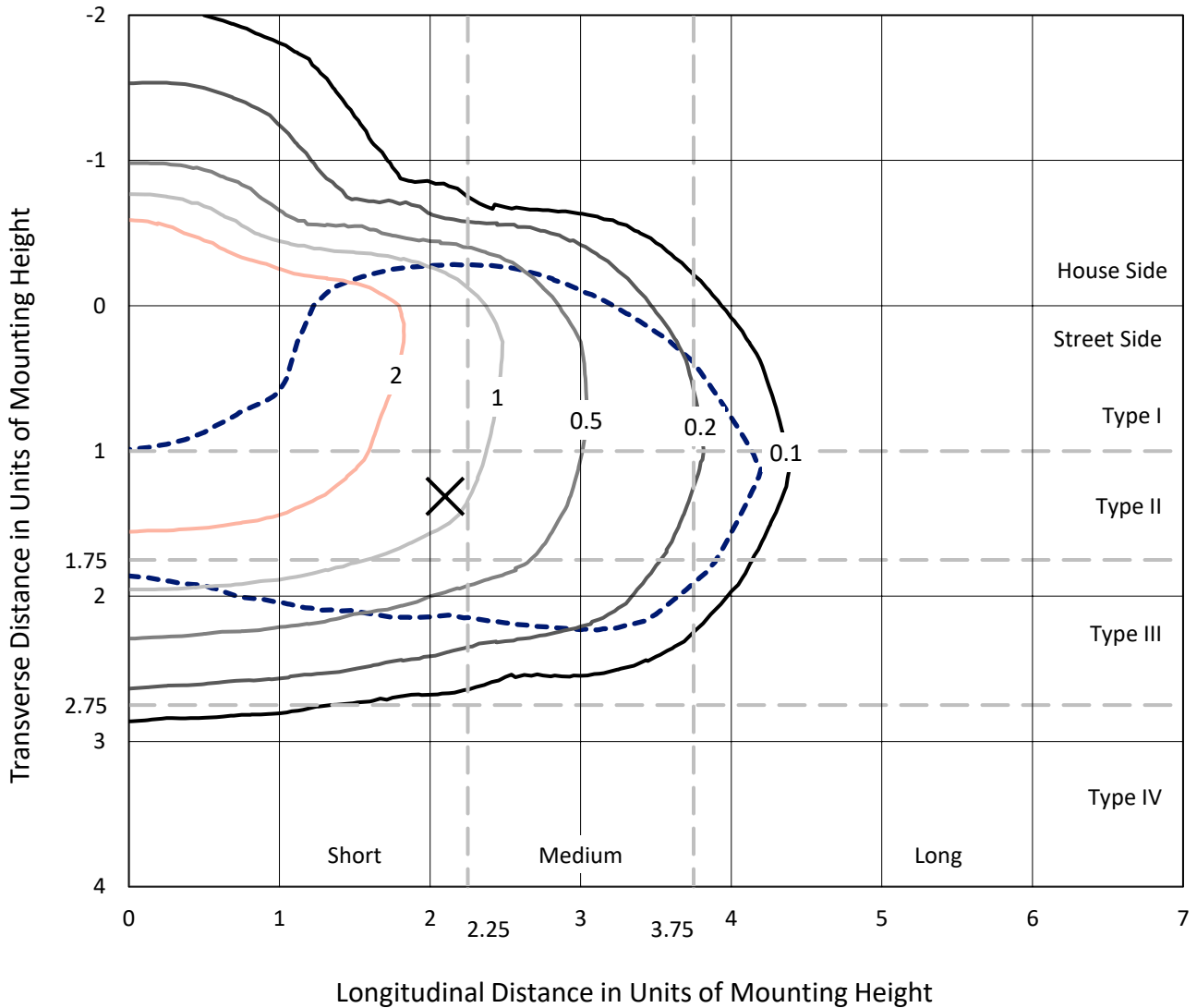
Input Watts (W): 42.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER:
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Iso-Footcandle Lines of Horizontal Illumination

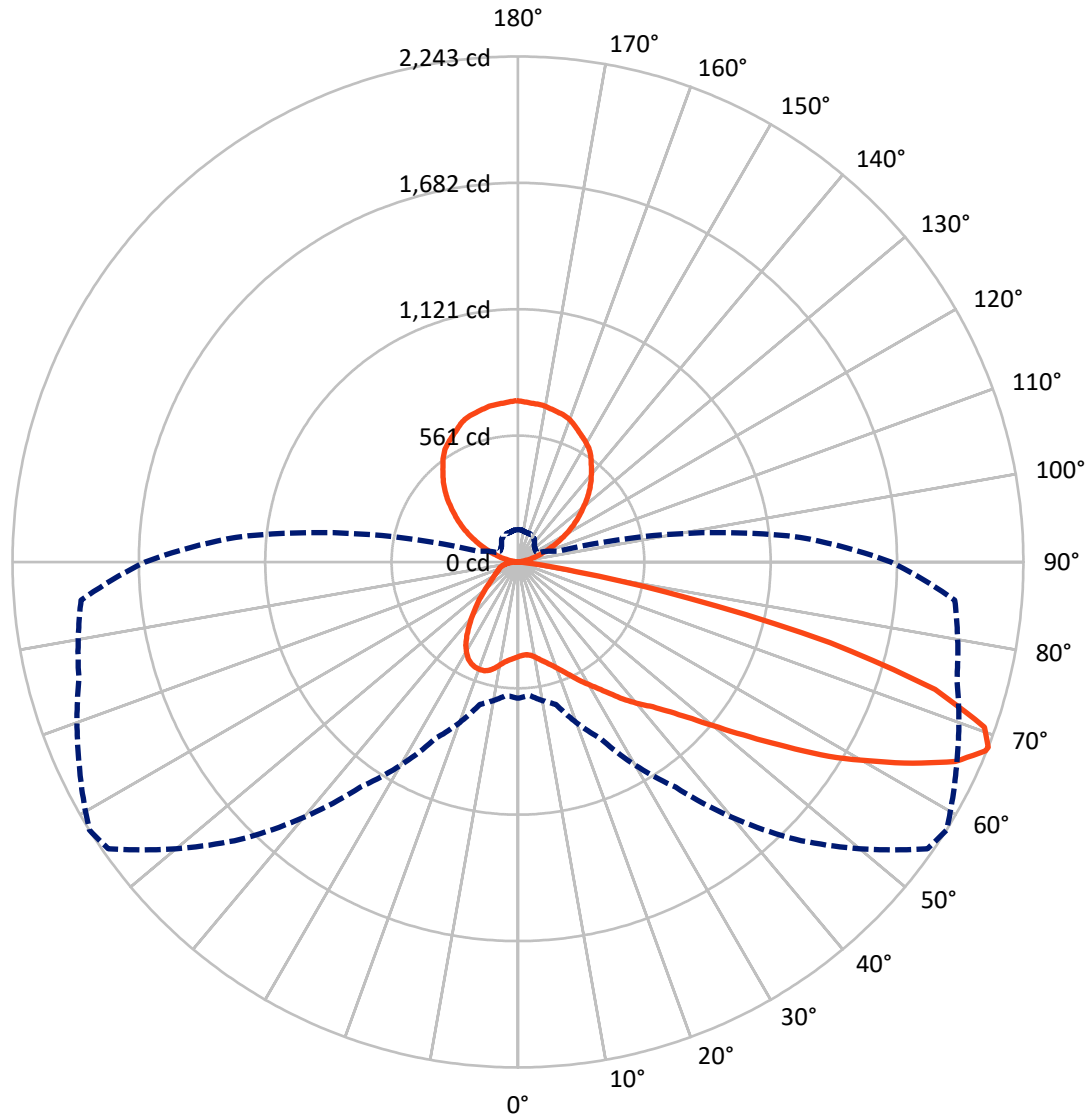
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.7 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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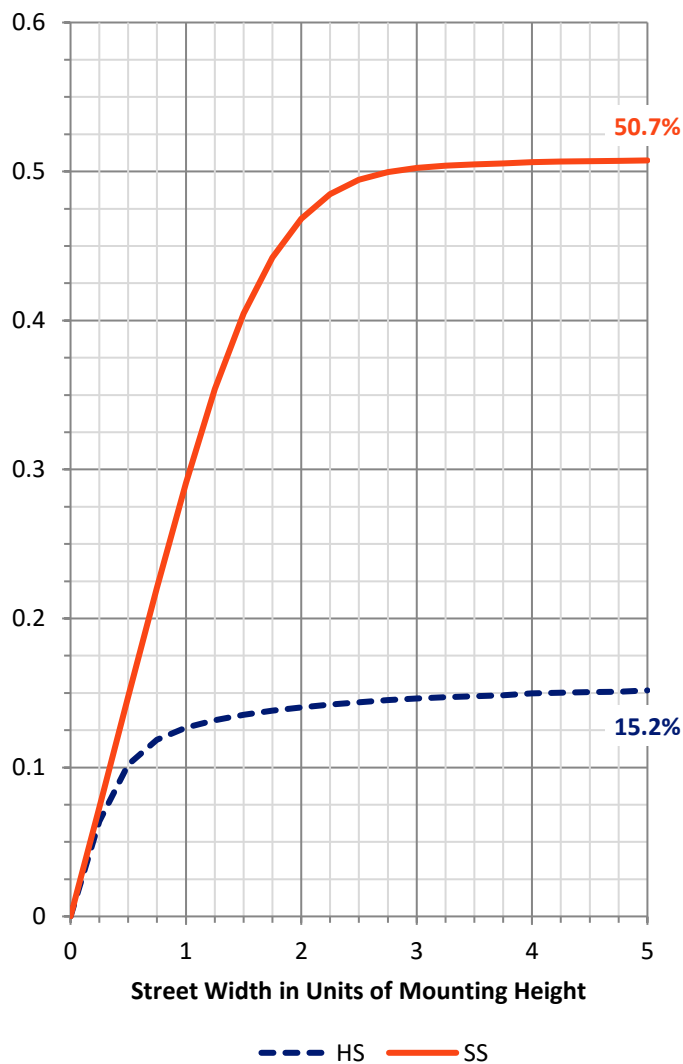
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	817.2	887.0	1704.1
	% Fixture	15.5	16.8	32.4
Street Side	Lumens	2672.8	887.0	3559.8
	% Fixture	50.8	16.8	67.6
Total	Lumens	3490.0	1773.9	5263.9
	% Fixture	66.3	33.7	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.3	0.8
10°-20°	135.0	2.6
20°-30°	242.8	4.6
30°-40°	356.7	6.8
40°-50°	523.1	9.9
50°-60°	782.0	14.9
60°-70°	914.3	17.4
70°-80°	450.8	8.6
80°-90°	44.0	0.8
90°-100°	8.4	0.2
100°-110°	58.7	1.1
110°-120°	169.9	3.2
120°-130°	279.4	5.3
130°-140°	344.6	6.5
140°-150°	352.5	6.7
150°-160°	297.0	5.6
160°-170°	195.5	3.7
170°-180°	67.8	1.3
0°-90°	3490.0	66.3
0°-180°	5263.9	100.0

Coefficient of Utilization



REPORT NUMBER:

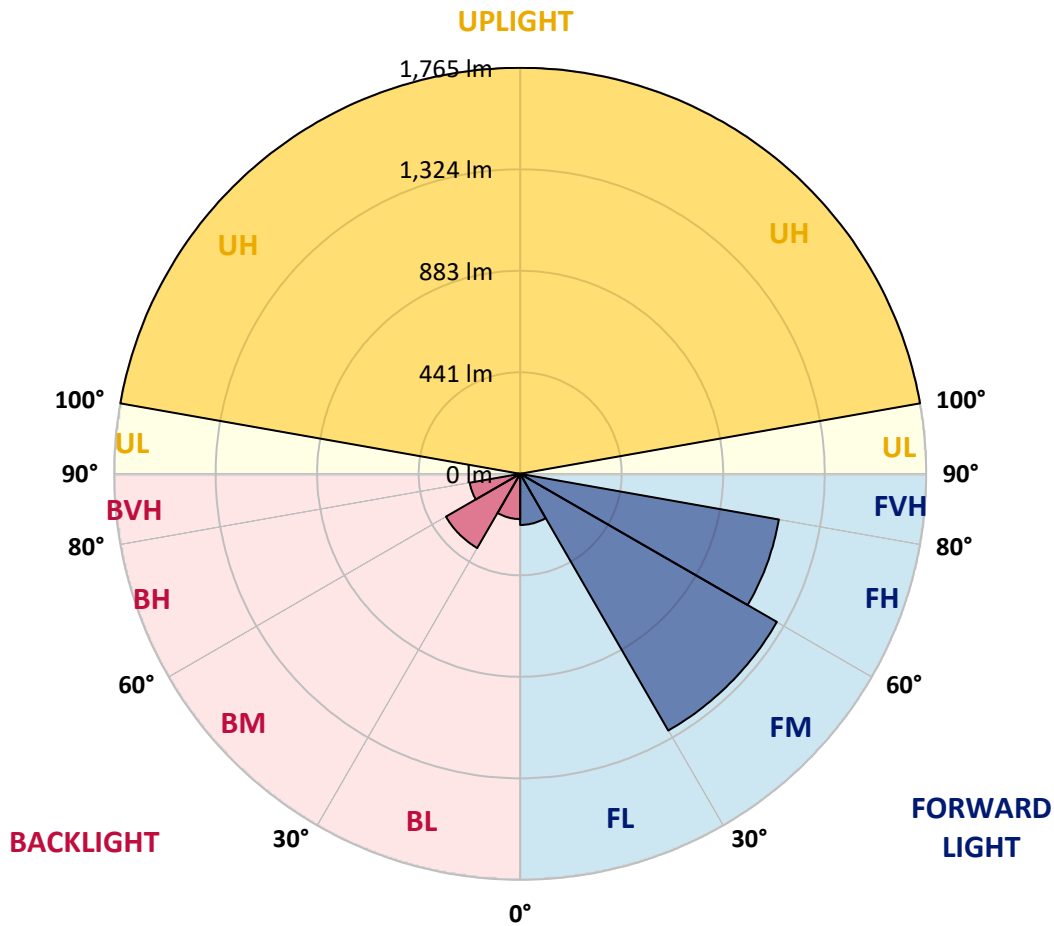
CATALOG NUMBER: ENT-SA1B-740-U-T3-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	222.3	4.2			
FM (30°-60°)	1289.1	24.5			
FH (60°-80°)	1142.5	21.7			G1/1800
FVH (80°-90°)	18.9	0.4			G1/100
BL (0°-30°)	196.8	3.7	B1/500		
BM (30°-60°)	372.7	7.1	B1/1000		
BH (60°-80°)	222.7	4.2	B1/500		G1/500
BVH (80°-90°)	25.1	0.5			G1/100
UL (90°-100°)	8.4	0.2		U1/10	
UH (100°-180°)	1765.5	33.5		U5	

BUG Rating: B1-U5-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	419.1	419.1	419.1	419.1	419.1	419.1	419.1	419.1	419.1	419.1	419.1
2.5°	408.9	408.9	410.3	410.8	411.8	412.8	413.7	414.2	415.7	417.6	418.6
5°	405.5	405.9	406.9	407.4	408.9	410.8	412.3	413.3	415.7	419.6	422.0
7.5°	413.3	414.7	415.2	415.7	416.2	417.6	417.6	418.1	420.6	424.5	427.9
10°	425.9	426.9	428.4	429.8	431.3	432.3	429.3	429.8	430.8	434.7	439.6
12.5°	442.0	442.0	442.5	444.4	445.9	448.8	445.9	445.9	445.9	449.3	455.2
15°	460.0	459.1	459.1	461.0	461.5	463.4	462.0	462.0	463.9	467.3	473.2
17.5°	480.5	482.0	480.5	479.5	478.1	479.0	480.0	481.0	484.9	490.3	493.7
20°	510.2	512.7	511.7	507.8	501.5	498.5	501.9	503.9	511.7	518.0	518.5
22.5°	557.5	556.0	554.6	547.8	535.1	527.3	527.8	530.7	542.9	552.6	547.8
25°	601.4	602.8	602.8	593.1	576.5	560.4	561.9	563.4	575.5	584.3	571.1
27.5°	654.5	653.5	653.0	639.9	619.9	604.3	596.0	599.9	608.7	612.1	586.7
30°	709.5	713.4	709.5	691.0	672.0	652.0	635.5	634.5	638.9	638.4	605.3
32.5°	775.8	772.4	771.0	749.5	725.6	699.3	678.4	674.9	672.5	669.1	627.2
35°	827.0	831.4	831.4	812.9	784.6	758.8	726.1	723.2	717.3	706.1	655.9
37.5°	887.4	886.4	889.9	868.4	840.2	815.3	785.1	776.8	763.6	747.1	690.1
40°	946.4	948.8	956.6	930.8	905.0	885.5	842.6	827.5	807.5	792.4	739.8
42.5°	1026.8	1030.2	1033.1	1011.7	981.0	963.4	897.2	878.2	867.0	864.0	805.6
45°	1124.3	1130.1	1132.5	1113.1	1095.5	1053.6	965.9	948.3	936.2	948.8	895.2
47.5°	1217.8	1214.9	1226.1	1225.6	1227.6	1177.4	1064.8	1038.5	1026.8	1059.0	998.0
50°	1270.5	1274.8	1299.2	1324.1	1358.7	1322.6	1179.3	1153.0	1139.4	1179.3	1118.9
52.5°	1297.8	1303.6	1336.3	1405.9	1479.5	1462.5	1317.2	1288.0	1276.3	1315.3	1248.5
55°	1300.2	1303.6	1347.5	1455.6	1571.6	1577.0	1474.7	1446.9	1430.8	1456.1	1389.9
57.5°	1259.7	1249.5	1325.0	1463.0	1630.6	1696.4	1647.7	1627.7	1582.4	1609.6	1565.3
60°	1187.6	1197.9	1271.9	1432.7	1655.5	1789.5	1821.1	1790.9	1738.3	1749.5	1754.4
62.5°	1078.5	1091.6	1168.6	1362.6	1635.5	1868.4	1981.5	1966.4	1895.7	1889.9	1898.6
65°	923.0	915.2	1001.0	1209.1	1540.9	1894.7	2138.9	2132.5	2048.2	1979.5	1982.9
67.5°	665.7	658.4	718.3	933.2	1285.1	1796.8	2222.7	2236.8	2140.3	2019.0	1966.4
68°	604.3	594.1	654.0	862.6	1219.3	1740.2	2218.3	2242.7	2147.2	2016.6	1945.9
70°	348.0	331.4	389.4	562.9	897.7	1464.9	2128.6	2195.9	2131.1	1969.3	1811.9
72.5°	109.2	109.2	150.6	227.6	440.5	926.9	1821.1	1935.7	1949.3	1790.0	1505.8
75°	68.2	68.2	78.5	107.7	175.4	393.3	1256.3	1430.8	1548.7	1506.8	1097.9
77.5°	46.3	45.3	52.1	66.8	98.0	126.2	630.6	774.9	947.4	1028.7	642.3
80°	25.3	25.8	32.2	40.0	55.6	58.5	185.2	261.7	417.2	488.8	243.7
82.5°	14.6	14.1	15.6	17.5	24.4	25.3	53.1	65.3	109.2	101.4	65.3
85°	0.0	0.5	0.5	0.5	1.0	2.4	6.8	10.2	16.6	22.9	16.1
87.5°	0.0	0.0	0.0	0.0	0.5	0.5	1.0	1.0	1.0	1.0	1.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	4.1	4.1	5.1	6.1	6.1	6.1	7.2	7.2	7.2	6.1	6.1
95°	5.1	5.1	6.1	7.2	7.2	7.2	7.2	7.5	8.2	7.2	7.2
97.5°	7.2	7.2	8.2	8.2	9.2	9.2	12.3	11.7	10.2	9.2	8.2
100°	8.2	8.2	9.2	10.2	12.3	21.5	29.7	28.7	26.6	23.5	19.4
102.5°	11.3	11.3	13.3	18.4	27.6	40.9	51.1	50.2	48.1	43.0	39.9
105°	21.5	22.5	27.6	36.8	49.1	64.4	73.7	73.0	71.6	66.5	62.4
107.5°	41.9	43.0	50.1	59.3	74.7	90.0	97.2	96.9	96.2	92.1	89.0



REPORT NUMBER:
 CATALOG NUMBER: ENT-SA1B-740-U-T3-ULG

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
110°	67.5	69.6	75.7	89.0	104.3	116.6	122.8	123.1	123.8	121.7	118.7
112.5°	101.3	101.3	108.4	123.8	137.1	146.3	151.4	152.0	153.4	152.4	150.4
115°	143.2	142.2	150.4	162.6	171.9	178.0	183.1	184.0	186.2	183.1	181.1
117.5°	188.2	188.2	193.3	201.5	206.6	209.7	215.8	217.1	219.9	214.8	212.8
120°	230.2	228.1	231.2	238.3	242.4	248.6	251.6	252.9	255.7	250.6	248.6
122.5°	269.0	266.0	267.0	273.1	277.2	283.4	285.4	286.6	289.5	284.4	282.3
125°	304.8	300.7	302.8	305.9	312.0	317.1	320.2	320.8	322.2	317.1	317.1
127.5°	337.6	336.6	336.6	340.6	346.8	347.8	352.9	353.2	353.9	353.9	352.9
130°	371.3	369.3	370.3	374.4	378.5	380.5	385.7	386.9	389.7	389.7	387.7
132.5°	405.1	403.0	402.0	410.2	413.3	414.3	420.4	422.0	425.5	423.5	423.5
135°	438.8	435.8	435.8	441.9	445.0	447.0	453.2	454.7	458.3	457.3	460.3
137.5°	470.6	467.5	469.5	470.6	474.6	478.7	483.9	484.5	485.9	486.9	492.0
140°	499.2	496.1	498.2	500.2	502.3	508.4	511.5	512.1	513.5	515.6	520.7
142.5°	529.9	526.8	528.9	529.9	533.0	537.0	539.1	541.0	545.2	545.2	546.3
145°	562.6	558.5	556.5	559.6	562.6	563.6	568.8	570.6	574.9	573.9	570.8
147.5°	588.2	585.1	584.1	587.2	587.2	588.2	593.3	594.9	598.4	599.4	596.4
150°	608.7	605.6	606.6	606.6	606.6	606.6	610.7	611.6	613.8	616.8	619.9
152.5°	625.0	622.0	622.0	623.0	624.0	624.0	625.0	626.0	628.1	632.2	637.3
155°	643.4	639.3	639.3	641.4	644.5	642.4	640.4	641.9	645.5	650.6	652.6
157.5°	660.8	657.8	657.8	658.8	660.8	659.8	658.8	660.0	662.9	664.9	664.9
160°	678.2	675.1	674.1	671.1	670.0	670.0	673.1	675.0	679.2	676.2	675.1
162.5°	688.4	684.4	684.4	680.3	676.2	678.2	682.3	683.6	686.4	685.4	683.3
165°	696.6	693.6	691.5	691.5	688.4	688.4	687.4	689.0	692.5	695.6	693.6
167.5°	705.8	702.8	699.7	701.7	703.8	700.7	693.6	695.4	699.7	703.8	703.8
170°	714.0	711.0	707.9	707.9	708.9	706.9	701.7	702.7	704.8	709.9	712.0
172.5°	715.0	713.0	711.0	708.9	705.8	705.8	704.8	705.7	707.9	709.9	712.0
175°	716.1	714.0	713.0	711.0	706.9	705.8	705.8	707.4	711.0	712.0	709.9
177.5°	723.2	721.2	716.1	715.0	713.0	711.0	709.9	711.5	715.0	717.1	714.0
180°	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	419.1	419.1	419.1	419.1	419.1	419.1	419.1	419.1	419.1	419.1	419.1
2.5°	419.6	421.1	423.5	425.4	426.4	425.4	428.8	428.4	429.3	429.3	430.3
5°	424.0	425.9	430.3	432.7	435.2	436.2	440.1	441.0	443.0	444.0	443.5
7.5°	430.3	432.7	438.1	442.5	445.9	448.3	454.7	457.6	460.5	461.5	462.5
10°	442.0	445.4	451.3	456.6	461.5	464.9	470.3	474.2	477.1	478.1	479.0
12.5°	457.6	461.5	468.8	476.1	481.5	483.4	482.9	482.0	482.0	481.5	482.0
15°	475.6	479.5	488.8	495.6	496.1	489.8	481.0	476.6	475.6	475.6	476.1
17.5°	496.6	501.5	507.3	511.2	501.9	486.4	476.1	471.7	470.8	470.3	469.3
20°	520.5	523.4	525.3	520.5	500.0	482.0	470.3	463.9	459.1	458.6	456.6
22.5°	545.8	544.8	542.4	524.9	494.6	471.7	455.7	444.0	437.6	437.1	435.2
25°	564.3	560.4	553.1	525.8	484.9	455.2	432.3	413.7	405.5	401.6	402.5
27.5°	576.5	568.2	555.6	521.0	467.8	429.8	397.7	373.3	361.1	359.2	360.6
30°	591.1	578.0	557.5	508.8	443.5	394.2	352.3	328.0	321.1	317.7	318.7
32.5°	608.7	591.6	563.8	490.3	412.8	352.8	307.5	290.4	282.6	276.3	278.3
35°	631.6	610.1	574.1	463.9	373.8	309.0	275.3	259.7	245.6	238.8	239.3
37.5°	658.4	634.0	582.8	433.2	331.4	275.8	247.6	229.0	211.5	198.3	195.9
40°	701.3	681.3	590.2	399.1	290.9	248.5	220.3	199.3	182.7	169.6	168.1
42.5°	772.9	738.3	590.6	358.2	256.3	225.1	197.9	175.0	156.4	145.2	144.7
45°	857.2	803.6	580.4	314.3	226.1	201.8	177.9	152.0	141.3	134.0	133.0
47.5°	957.1	878.7	558.0	273.4	200.3	178.8	157.4	141.8	134.0	128.7	128.7
50°	1071.1	966.9	535.6	238.3	175.4	160.3	145.7	137.4	131.6	126.7	126.2
52.5°	1199.8	1071.1	528.3	202.7	155.0	143.3	141.8	134.0	129.1	125.7	124.8
55°	1353.3	1188.1	535.1	175.0	138.9	136.5	139.4	133.0	129.6	124.3	122.8
57.5°	1530.7	1302.1	527.8	151.6	127.7	130.1	136.5	133.0	130.1	123.3	121.3
60°	1697.8	1404.0	478.1	132.1	117.0	122.3	132.6	128.7	124.3	122.8	121.8
62.5°	1787.5	1437.1	381.1	117.0	108.7	114.5	126.2	121.3	118.4	121.8	122.3
65°	1788.5	1399.6	280.2	105.8	101.9	107.7	119.9	118.4	120.4	128.2	129.6
67.5°	1689.1	1285.6	197.9	95.5	95.0	102.3	122.8	132.6	134.0	141.8	141.8
68°	1655.0	1257.3	183.7	94.1	93.6	102.3	125.2	135.0	136.0	143.3	142.8
70°	1467.8	1062.9	133.0	88.2	91.1	109.6	138.4	141.8	136.0	144.2	143.8
72.5°	1147.2	786.1	99.4	81.9	86.7	108.2	139.4	136.0	127.2	129.1	126.7
75°	775.3	501.0	81.9	75.0	77.0	91.6	126.7	128.2	117.9	116.0	113.1
77.5°	405.9	234.9	66.3	66.8	68.7	79.4	113.1	116.5	107.2	101.4	100.4
80°	149.6	93.1	54.1	59.0	59.9	69.7	97.0	102.3	93.6	89.2	88.2
82.5°	54.6	46.3	44.8	51.7	50.7	59.5	84.8	88.7	79.4	75.0	72.6
85°	15.1	17.1	28.3	40.4	39.5	46.3	68.2	71.6	63.8	52.6	51.2
87.5°	1.0	3.4	11.2	23.9	24.9	28.8	49.2	54.1	47.3	39.0	38.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	6.1	6.1	6.1	7.2	7.2	6.1	6.1	6.1	5.1	4.1	4.1
95°	7.2	7.2	7.2	8.2	7.2	7.2	7.2	7.2	6.1	5.1	5.1
97.5°	8.2	8.2	9.2	10.2	12.3	9.2	9.2	8.2	8.2	7.2	7.2
100°	19.4	19.4	23.5	26.6	29.7	21.5	12.3	10.2	9.2	8.2	8.2
102.5°	38.9	39.9	43.0	48.1	51.1	40.9	27.6	18.4	13.3	11.3	11.3
105°	62.4	62.4	66.5	71.6	73.7	64.4	49.1	36.8	27.6	22.5	21.5
107.5°	88.0	89.0	92.1	96.2	97.2	90.0	74.7	59.3	50.1	43.0	41.9



REPORT NUMBER:
 CATALOG NUMBER: ENT-SA1B-740-U-T3-ULG

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	119.7	118.7	121.7	123.8	122.8	116.6	104.3	89.0	75.7	69.6	67.5
112.5°	150.4	150.4	152.4	153.4	151.4	146.3	137.1	123.8	108.4	101.3	101.3
115°	182.1	181.1	183.1	186.2	183.1	178.0	171.9	162.6	150.4	142.2	143.2
117.5°	213.8	212.8	214.8	219.9	215.8	209.7	206.6	201.5	193.3	188.2	188.2
120°	248.6	248.6	250.6	255.7	251.6	248.6	242.4	238.3	231.2	228.1	230.2
122.5°	283.4	282.3	284.4	289.5	285.4	283.4	277.2	273.1	267.0	266.0	269.0
125°	317.1	317.1	317.1	322.2	320.2	317.1	312.0	305.9	302.8	300.7	304.8
127.5°	355.0	352.9	353.9	353.9	352.9	347.8	346.8	340.6	336.6	336.6	337.6
130°	388.7	387.7	389.7	389.7	385.7	380.5	378.5	374.4	370.3	369.3	371.3
132.5°	424.5	423.5	423.5	425.5	420.4	414.3	413.3	410.2	402.0	403.0	405.1
135°	461.4	460.3	457.3	458.3	453.2	447.0	445.0	441.9	435.8	435.8	438.8
137.5°	493.1	492.0	486.9	485.9	483.9	478.7	474.6	470.6	469.5	467.5	470.6
140°	522.7	520.7	515.6	513.5	511.5	508.4	502.3	500.2	498.2	496.1	499.2
142.5°	548.3	546.3	545.2	545.2	539.1	537.0	533.0	529.9	528.9	526.8	529.9
145°	572.9	570.8	573.9	574.9	568.8	563.6	562.6	559.6	556.5	558.5	562.6
147.5°	598.4	596.4	599.4	598.4	593.3	588.2	587.2	587.2	584.1	585.1	588.2
150°	624.0	619.9	616.8	613.8	610.7	606.6	606.6	606.6	606.6	605.6	608.7
152.5°	642.4	637.3	632.2	628.1	625.0	624.0	624.0	623.0	622.0	622.0	625.0
155°	655.7	652.6	650.6	645.5	640.4	642.4	644.5	641.4	639.3	639.3	643.4
157.5°	670.0	664.9	664.9	662.9	658.8	659.8	660.8	658.8	657.8	657.8	660.8
160°	681.3	675.1	676.2	679.2	673.1	670.0	670.0	671.1	674.1	675.1	678.2
162.5°	689.5	683.3	685.4	686.4	682.3	678.2	676.2	680.3	684.4	684.4	688.4
165°	697.7	693.6	695.6	692.5	687.4	688.4	688.4	691.5	691.5	693.6	696.6
167.5°	709.9	703.8	703.8	699.7	693.6	700.7	703.8	701.7	699.7	702.8	705.8
170°	717.1	712.0	709.9	704.8	701.7	706.9	708.9	707.9	707.9	711.0	714.0
172.5°	717.1	712.0	709.9	707.9	704.8	705.8	705.8	708.9	711.0	713.0	715.0
175°	715.0	709.9	712.0	711.0	705.8	705.8	706.9	711.0	713.0	714.0	716.1
177.5°	718.1	714.0	717.1	715.0	709.9	711.0	713.0	715.0	716.1	721.2	723.2
180°	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1

(END OF REPORT)