

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-SA1E-740-U-T4FT-HSS-ULG**

Issue Date: 3/30/2022

Test Information

Test Method: LM-79-08
Report Number: REPORT IS A COMBINATION OF REPORTS P401694 AND P226775
Test Lab: INNOVATION CENTER
Issue Date: 3/30/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1E-740-U-T4FT-HSS-ULG
Description: ENTRI LED LUMINAIRE WITH UPLIGHT
(1) 70 CRI, 4000K, 1050mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV FORWARD
THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6755.9 lumens
Efficiency: N/A
Efficacy: 91.4 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.1')
IES Classification: Type IV - Short
BUG Rating: B1 - U5 - G2

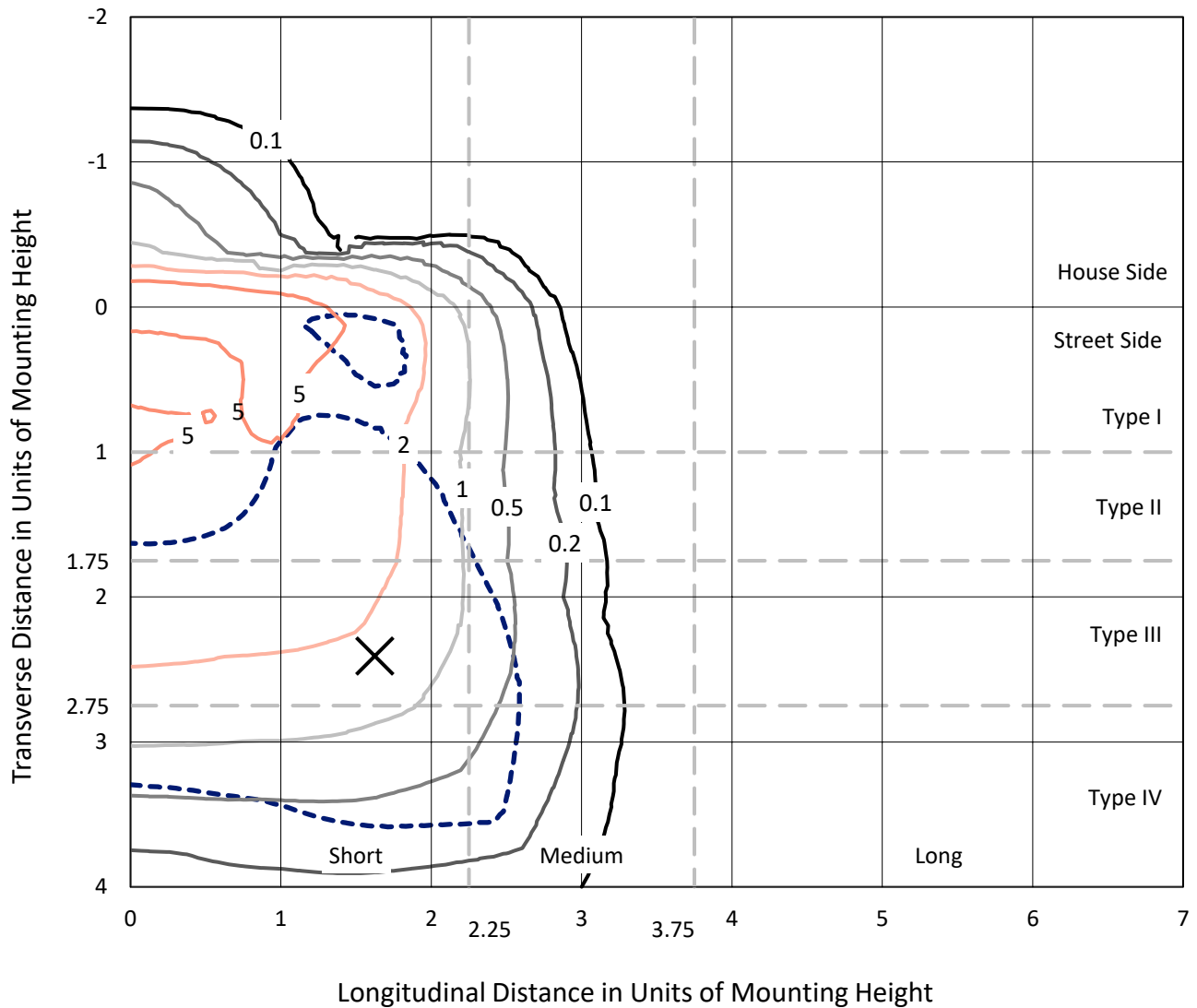
Input Watts (W): 73.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

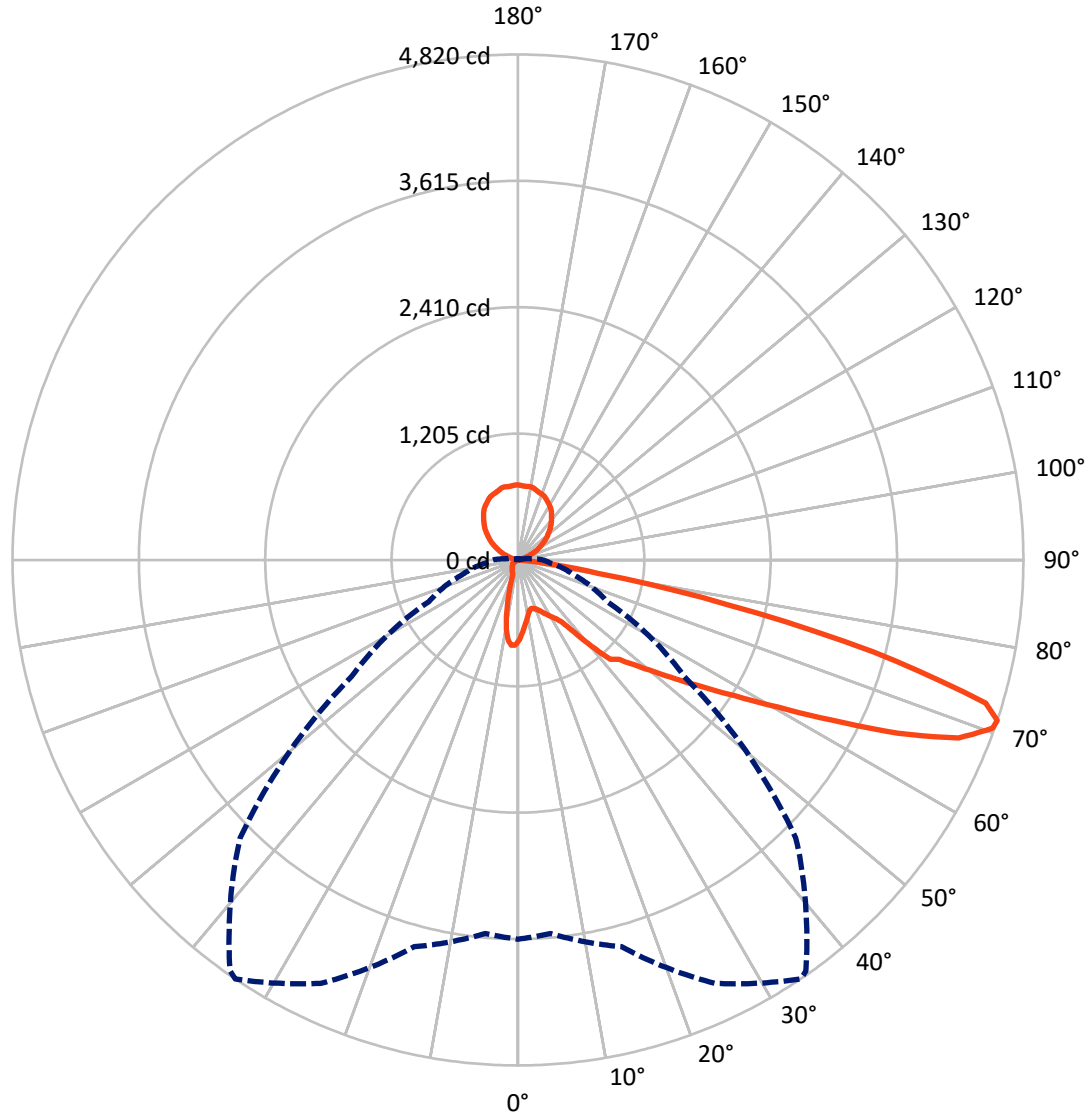
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.7 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 34-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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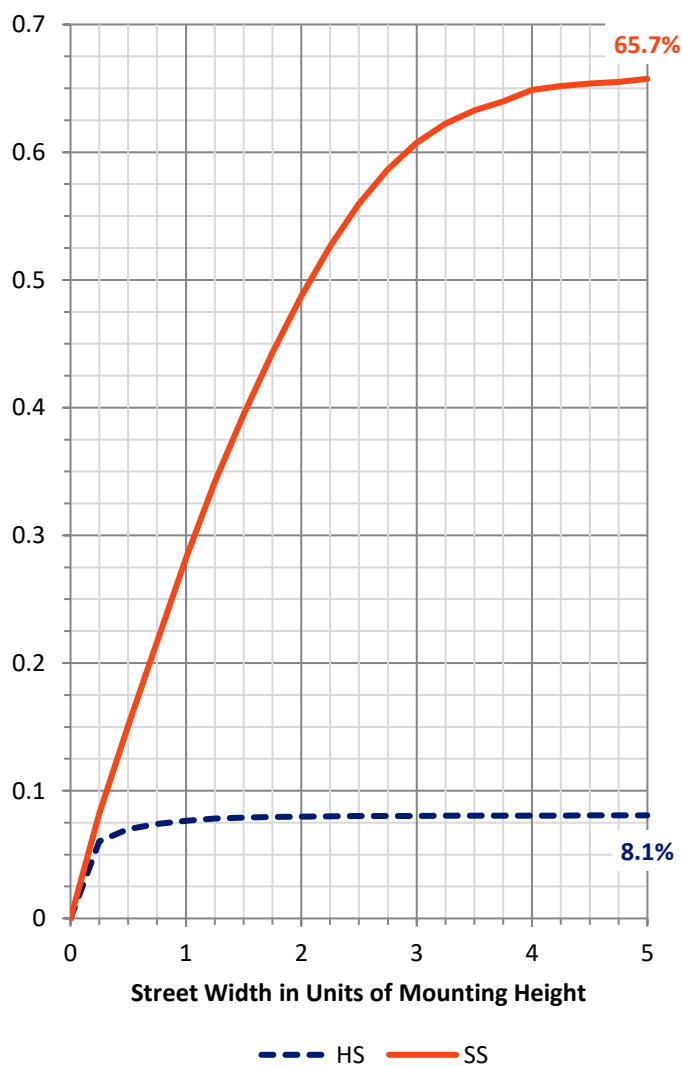
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	550.9	887.0	1437.9
	% Fixture	8.2	13.1	21.3
Street Side	Lumens	4431.1	887.0	5318.1
	% Fixture	65.6	13.1	78.7
Total	Lumens	4982.0	1773.9	6755.9
	% Fixture	73.7	26.3	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.0	1.0
10°-20°	155.9	2.3
20°-30°	232.8	3.4
30°-40°	388.7	5.8
40°-50°	702.1	10.4
50°-60°	1114.0	16.5
60°-70°	1496.9	22.2
70°-80°	794.3	11.8
80°-90°	29.3	0.4
90°-100°	8.4	0.1
100°-110°	58.7	0.9
110°-120°	169.9	2.5
120°-130°	279.4	4.1
130°-140°	344.6	5.1
140°-150°	352.5	5.2
150°-160°	297.0	4.4
160°-170°	195.5	2.9
170°-180°	67.8	1.0
0°-90°	4982.0	73.7
0°-180°	6755.9	100.0

Coefficient of Utilization

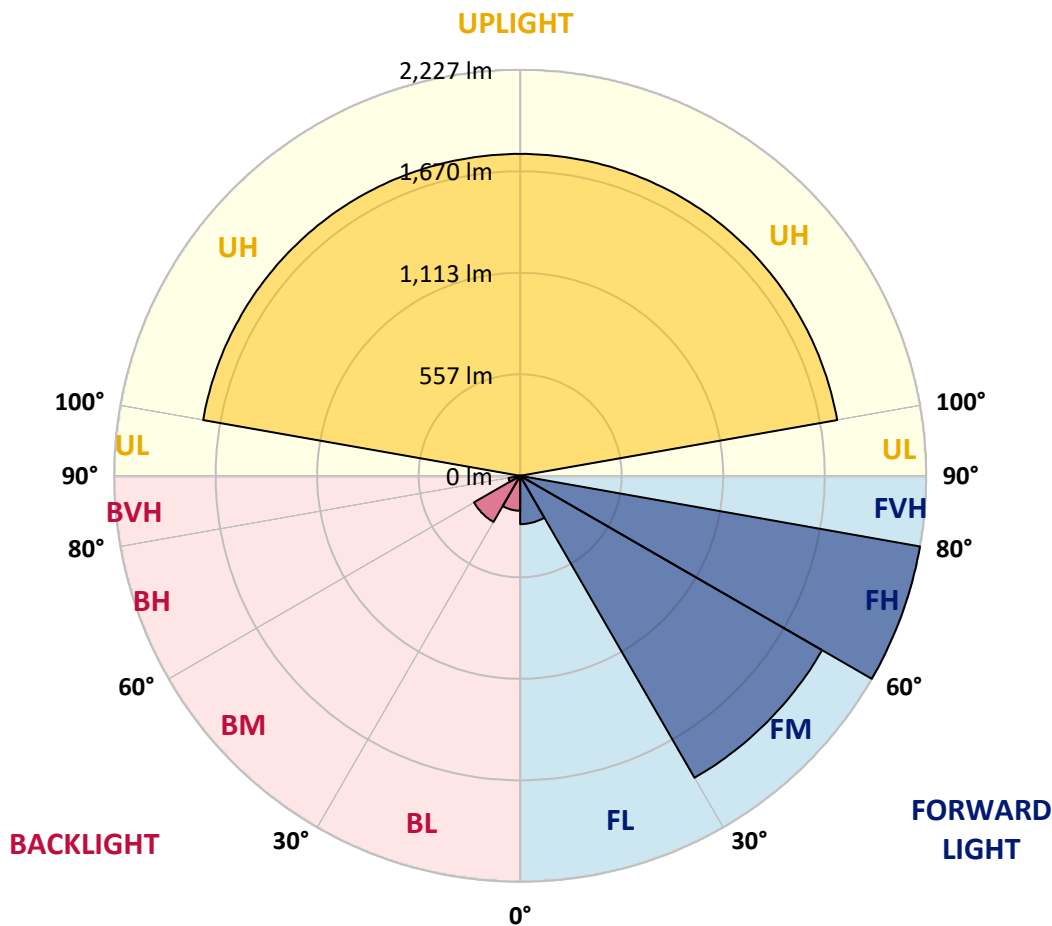


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	265.1	3.9			
FM (30°-60°)	1912.4	28.3			
FH (60°-80°)	2226.9	33.0			G2/5000
FVH (80°-90°)	26.7	0.4			G1/100
BL (0°-30°)	191.6	2.8	B1/500		
BM (30°-60°)	292.3	4.3	B1/1000		
BH (60°-80°)	64.3	1.0	B0/110		G0/110
BVH (80°-90°)	2.6	0.0			G0/10
UL (90°-100°)	8.4	0.1		U1/10	
UH (100°-180°)	1765.5	26.1		U5	

BUG Rating: B1-U5-G2
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	771.9	771.9	771.9	771.9	771.9	771.9	771.9	771.9	771.9	771.9	771.9
2.5°	702.9	693.9	701.9	705.9	708.9	712.9	718.9	729.9	741.9	755.9	763.9
5°	612.9	617.9	620.9	631.9	642.9	644.9	663.9	685.9	713.9	741.9	765.9
7.5°	540.0	540.0	549.0	566.0	584.0	586.0	618.9	647.9	687.9	730.9	769.9
10°	482.0	484.0	491.0	508.0	531.0	536.0	573.0	612.9	662.9	718.9	773.9
12.5°	463.0	462.0	461.0	473.0	492.0	497.0	538.0	586.0	644.9	712.9	783.9
15°	475.0	472.0	465.0	467.0	479.0	484.0	520.0	568.0	633.9	711.9	800.9
17.5°	494.0	490.0	477.0	473.0	486.0	491.0	521.0	563.0	629.9	716.9	820.9
20°	517.0	513.0	493.0	488.0	501.0	505.0	536.0	572.0	631.9	726.9	847.9
22.5°	550.0	545.0	516.0	510.0	523.0	527.0	560.0	592.9	643.9	744.9	884.9
25°	589.9	584.0	547.0	539.0	555.0	559.0	591.9	622.9	663.9	768.9	931.9
27.5°	633.9	626.9	587.9	572.0	589.9	595.9	626.9	660.9	692.9	798.9	993.9
30°	673.9	665.9	627.9	609.9	627.9	630.9	667.9	705.9	739.9	849.9	1084.9
32.5°	784.9	764.9	705.9	653.9	665.9	671.9	716.9	776.9	827.9	910.9	1201.9
35°	950.9	934.9	862.9	772.9	730.9	732.9	790.9	866.9	889.9	981.9	1346.9
37.5°	1110.9	1096.9	1033.9	950.9	870.9	873.9	883.9	956.9	983.9	1104.9	1523.9
40°	1285.9	1263.9	1213.9	1134.9	1079.9	1066.9	1017.9	1068.9	1127.9	1259.9	1716.9
42.5°	1366.9	1345.9	1293.9	1298.9	1292.9	1269.9	1172.9	1243.9	1309.9	1484.9	1929.8
45°	1500.9	1459.9	1352.9	1360.9	1352.9	1354.9	1378.9	1481.9	1538.9	1722.9	2170.8
47.5°	1624.9	1577.9	1465.9	1457.9	1492.9	1510.9	1639.9	1764.8	1769.8	1929.8	2359.8
50°	1737.9	1703.9	1600.9	1601.9	1665.9	1685.9	1943.8	2057.8	1956.8	2088.8	2507.8
52.5°	1887.8	1839.8	1747.9	1780.8	1880.8	1898.8	2246.8	2314.8	2091.8	2232.8	2623.8
55°	2026.8	2000.8	1932.8	1981.8	2134.8	2181.8	2554.8	2512.8	2186.8	2360.8	2679.8
57.5°	2254.8	2229.8	2211.8	2236.8	2441.8	2500.8	2866.8	2652.8	2260.8	2445.8	2653.8
60°	2634.8	2609.8	2555.8	2578.8	2845.8	2875.8	3111.7	2794.8	2289.8	2469.8	2551.8
62.5°	3103.7	3072.7	2985.7	3091.7	3359.7	3358.7	3365.7	2869.8	2252.8	2398.8	2282.8
65°	3526.7	3483.7	3438.7	3654.7	3980.7	3935.7	3635.7	2878.8	2135.8	2055.8	1765.8
67.5°	3834.7	3817.7	3842.7	4179.6	4530.6	4485.6	3897.7	2754.8	1777.8	1483.9	1090.9
70°	3822.7	3787.7	3946.7	4484.6	4803.6	4766.6	3886.7	2263.8	1185.9	785.9	457.0
71°	3615.7	3575.7	3817.7	4454.6	4819.6	4784.6	3746.7	1936.8	937.9	555.0	301.0
72.5°	2793.8	2914.8	3299.7	4133.6	4665.6	4620.6	3365.7	1482.9	593.9	321.0	151.0
75°	1181.9	1247.9	1958.8	2950.7	3499.7	3476.7	2268.8	684.9	273.0	145.0	58.0
77.5°	304.0	300.0	599.9	1265.9	2037.8	2073.8	1045.9	235.0	142.0	103.0	33.0
80°	59.0	64.0	171.0	440.0	777.9	798.9	341.0	103.0	95.0	81.0	17.0
82.5°	6.0	7.0	30.0	136.0	261.0	252.0	75.0	39.0	58.0	55.0	8.0
85°	0.0	0.0	1.0	1.0	1.0	1.0	1.0	4.0	14.0	15.0	2.0
87.5°	0.0	0.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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	6.1	7.2	7.2	6.1	6.1
95°	5.1	5.1	6.1	7.2	7.2	7.2	7.2	7.2	8.2	7.2	7.2
97.5°	7.2	7.2	8.2	8.2	9.1	9.2	9.2	12.3	10.2	9.2	8.2
100°	8.2	8.2	9.2	10.2	12.1	12.3	21.5	29.7	26.6	23.5	19.4
102.5°	11.3	11.3	13.3	18.4	26.7	27.6	40.9	51.1	48.1	43.0	39.9
105°	21.5	22.5	27.6	36.8	47.9	49.1	64.4	73.7	71.6	66.5	62.4
107.5°	41.9	43.0	50.1	59.3	73.2	74.7	90.0	97.2	96.2	92.1	89.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
110°	67.5	69.6	75.7	89.0	102.8	104.3	116.6	122.8	123.8	121.7	118.7
112.5°	101.3	101.3	108.4	123.8	135.8	137.1	146.3	151.4	153.4	152.4	150.4
115°	143.2	142.2	150.4	162.6	171.0	171.9	178.0	183.1	186.2	183.1	181.1
117.5°	188.2	188.2	193.3	201.5	206.1	206.6	209.7	215.8	219.9	214.8	212.8
120°	230.2	228.1	231.2	238.3	242.0	242.4	248.6	251.6	255.7	250.6	248.6
122.5°	269.0	266.0	267.0	273.1	276.8	277.2	283.4	285.4	289.5	284.4	282.3
125°	304.8	300.7	302.8	305.9	311.4	312.0	317.1	320.2	322.2	317.1	317.1
127.5°	337.6	336.6	336.6	340.6	346.2	346.8	347.8	352.9	353.9	353.9	352.9
130°	371.3	369.3	370.3	374.4	378.1	378.5	380.5	385.7	389.7	389.7	387.7
132.5°	405.1	403.0	402.0	410.2	413.0	413.3	414.3	420.4	425.5	423.5	423.5
135°	438.8	435.8	435.8	441.9	444.7	445.0	447.0	453.2	458.3	457.3	460.3
137.5°	470.6	467.5	469.5	470.6	474.2	474.6	478.7	483.9	485.9	486.9	492.0
140°	499.2	496.1	498.2	500.2	502.1	502.3	508.4	511.5	513.5	515.6	520.7
142.5°	529.9	526.8	528.9	529.9	532.7	533.0	537.0	539.1	545.2	545.2	546.3
145°	562.6	558.5	556.5	559.6	562.3	562.6	563.6	568.8	574.9	573.9	570.8
147.5°	588.2	585.1	584.1	587.2	587.2	587.2	588.2	593.3	598.4	599.4	596.4
150°	608.7	605.6	606.6	606.6	606.6	606.6	606.6	610.7	613.8	616.8	619.9
152.5°	625.0	622.0	622.0	623.0	623.9	624.0	624.0	625.0	628.1	632.2	637.3
155°	643.4	639.3	639.3	641.4	644.2	644.5	642.4	640.4	645.5	650.6	652.6
157.5°	660.8	657.8	657.8	658.8	660.6	660.8	659.8	658.8	662.9	664.9	664.9
160°	678.2	675.1	674.1	671.1	670.1	670.0	670.0	673.1	679.2	676.2	675.1
162.5°	688.4	684.4	684.4	680.3	676.6	676.2	678.2	682.3	686.4	685.4	683.3
165°	696.6	693.6	691.5	691.5	688.7	688.4	688.4	687.4	692.5	695.6	693.6
167.5°	705.8	702.8	699.7	701.7	703.6	703.8	700.7	693.6	699.7	703.8	703.8
170°	714.0	711.0	707.9	707.9	708.8	708.9	706.9	701.7	704.8	709.9	712.0
172.5°	715.0	713.0	711.0	708.9	706.1	705.8	705.8	704.8	707.9	709.9	712.0
175°	716.1	714.0	713.0	711.0	707.3	706.9	705.8	705.8	711.0	712.0	709.9
177.5°	723.2	721.2	716.1	715.0	713.2	713.0	711.0	709.9	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°	771.9	771.9	771.9	771.9	771.9	771.9	771.9	771.9	771.9	771.9	771.9
2.5°	769.9	778.9	788.9	795.9	802.9	803.9	813.9	811.9	814.9	815.9	814.9
5°	778.9	790.9	809.9	819.9	823.9	816.9	814.9	803.9	799.9	794.9	789.9
7.5°	788.9	803.9	825.9	830.9	816.9	790.9	769.9	742.9	717.9	701.9	703.9
10°	799.9	818.9	836.9	823.9	787.9	736.9	677.9	617.9	565.0	545.0	552.0
12.5°	813.9	836.9	844.9	808.9	738.9	635.9	529.0	438.0	383.0	350.0	346.0
15°	834.9	857.9	848.9	784.9	660.9	500.0	367.0	275.0	222.0	205.0	196.0
17.5°	860.9	882.9	848.9	741.9	550.0	358.0	223.0	167.0	150.0	146.0	147.0
20°	892.9	913.9	844.9	676.9	424.0	220.0	149.0	138.0	138.0	138.0	137.0
22.5°	935.9	946.9	838.9	590.9	292.0	149.0	132.0	131.0	132.0	132.0	132.0
25°	987.9	985.9	827.9	488.0	184.0	127.0	126.0	126.0	127.0	128.0	128.0
27.5°	1056.9	1035.9	808.9	365.0	130.0	118.0	120.0	122.0	124.0	126.0	126.0
30°	1152.9	1101.9	777.9	247.0	110.0	109.0	113.0	119.0	122.0	124.0	124.0
32.5°	1255.9	1169.9	724.9	158.0	101.0	100.0	104.0	113.0	121.0	123.0	123.0
35°	1385.9	1242.9	645.9	114.0	95.0	93.0	97.0	105.0	117.0	123.0	123.0
37.5°	1522.9	1320.9	531.0	96.0	89.0	87.0	90.0	96.0	110.0	121.0	122.0
40°	1668.9	1389.9	399.0	89.0	83.0	82.0	83.0	89.0	100.0	115.0	118.0
42.5°	1815.8	1447.9	279.0	82.0	78.0	76.0	78.0	82.0	92.0	105.0	107.0
45°	1977.8	1511.9	186.0	76.0	74.0	72.0	74.0	77.0	84.0	91.0	92.0
47.5°	2095.8	1534.9	128.0	69.0	68.0	69.0	70.0	72.0	76.0	77.0	76.0
50°	2173.8	1522.9	92.0	62.0	63.0	66.0	66.0	67.0	67.0	64.0	63.0
52.5°	2230.8	1478.9	71.0	53.0	59.0	62.0	62.0	60.0	58.0	54.0	53.0
55°	2236.8	1379.9	56.0	46.0	53.0	58.0	57.0	53.0	49.0	45.0	45.0
57.5°	2160.8	1229.9	46.0	39.0	46.0	51.0	49.0	45.0	40.0	37.0	37.0
60°	2037.8	1075.9	39.0	33.0	38.0	43.0	40.0	37.0	32.0	29.0	29.0
62.5°	1810.8	923.9	32.0	27.0	31.0	34.0	33.0	30.0	25.0	23.0	22.0
65°	1387.9	702.9	24.0	21.0	24.0	28.0	26.0	23.0	20.0	17.0	16.0
67.5°	833.9	423.0	19.0	16.0	19.0	22.0	20.0	17.0	14.0	12.0	12.0
70°	353.0	181.0	15.0	12.0	14.0	17.0	16.0	14.0	11.0	10.0	10.0
71°	240.0	129.0	13.0	11.0	13.0	16.0	15.0	13.0	11.0	10.0	10.0
72.5°	123.0	66.0	11.0	9.0	12.0	14.0	14.0	12.0	10.0	10.0	10.0
75°	44.0	28.0	9.0	8.0	10.0	10.0	11.0	11.0	11.0	11.0	10.0
77.5°	25.0	17.0	8.0	8.0	8.0	9.0	11.0	12.0	13.0	13.0	12.0
80°	14.0	9.0	5.0	6.0	8.0	9.0	11.0	12.0	14.0	14.0	13.0
82.5°	7.0	3.0	1.0	3.0	5.0	8.0	9.0	10.0	12.0	11.0	11.0
85°	1.0	0.0	0.0	1.0	3.0	4.0	6.0	8.0	10.0	10.0	9.0
87.5°	0.0	0.0	0.0	0.0	1.0	2.0	3.0	5.0	7.0	8.0	7.0
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:
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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)