

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: P162598

Luminaire Tested: **ECM-E02-LED-E1-SL4-HSS-7050**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P162598
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33728)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ECM-E02-LED-E1-SL4-HSS-7050
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (42) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3970.3 lumens
Efficiency: N/A
Efficacy: 76.2 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 1' x H: 0.1')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B0 - U0 - G2

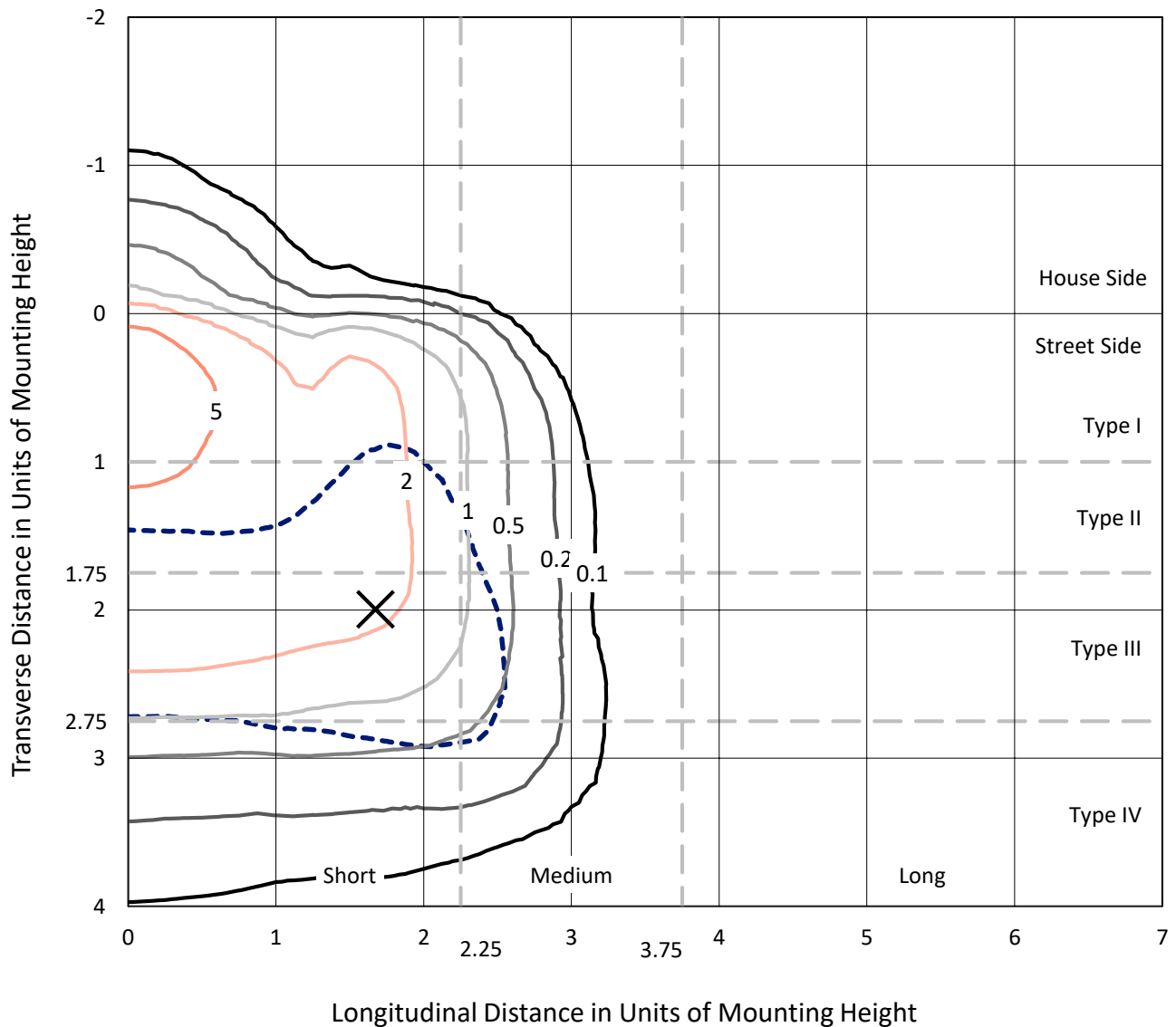
Input Watts (W): 52.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

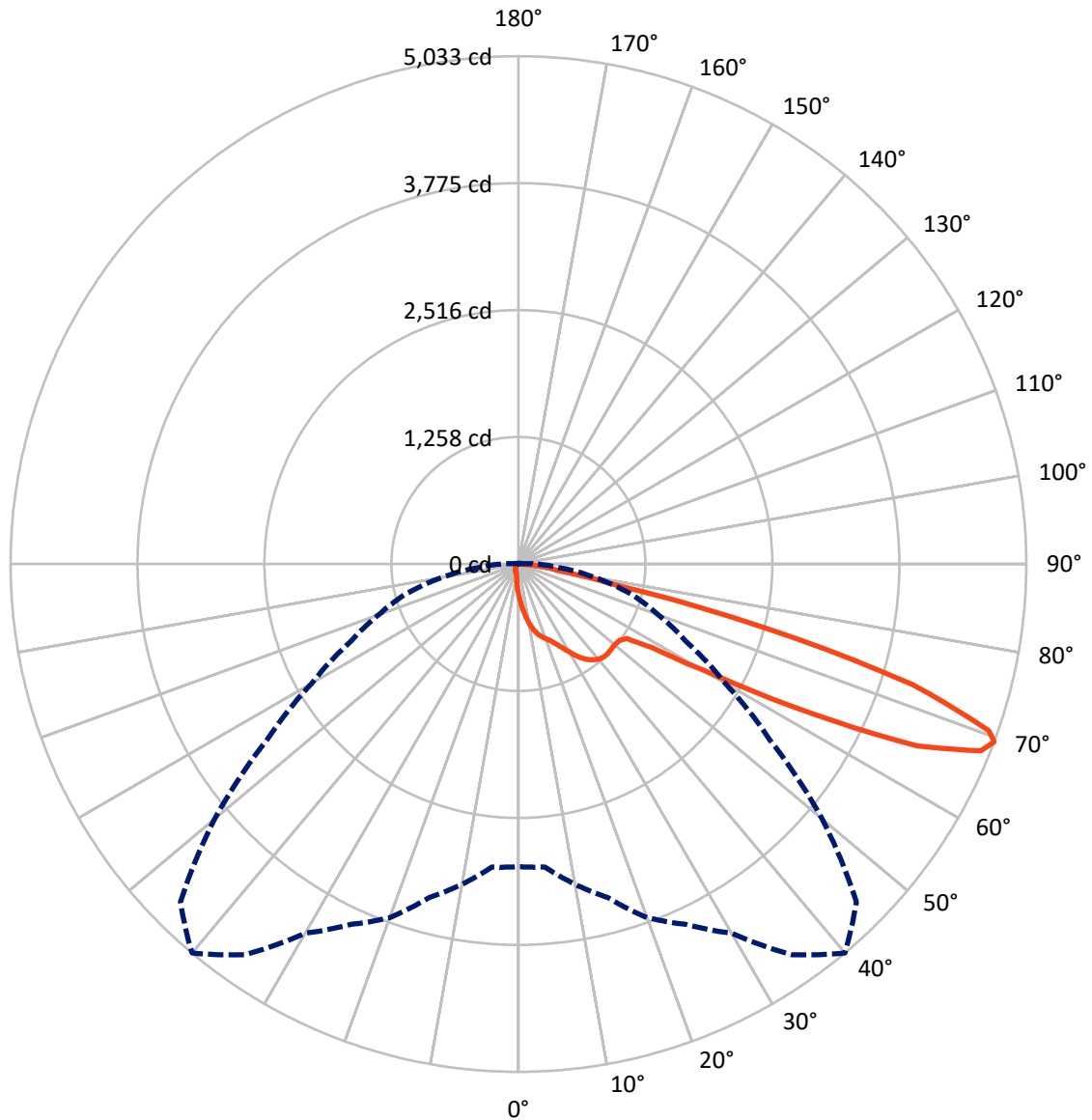
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.9 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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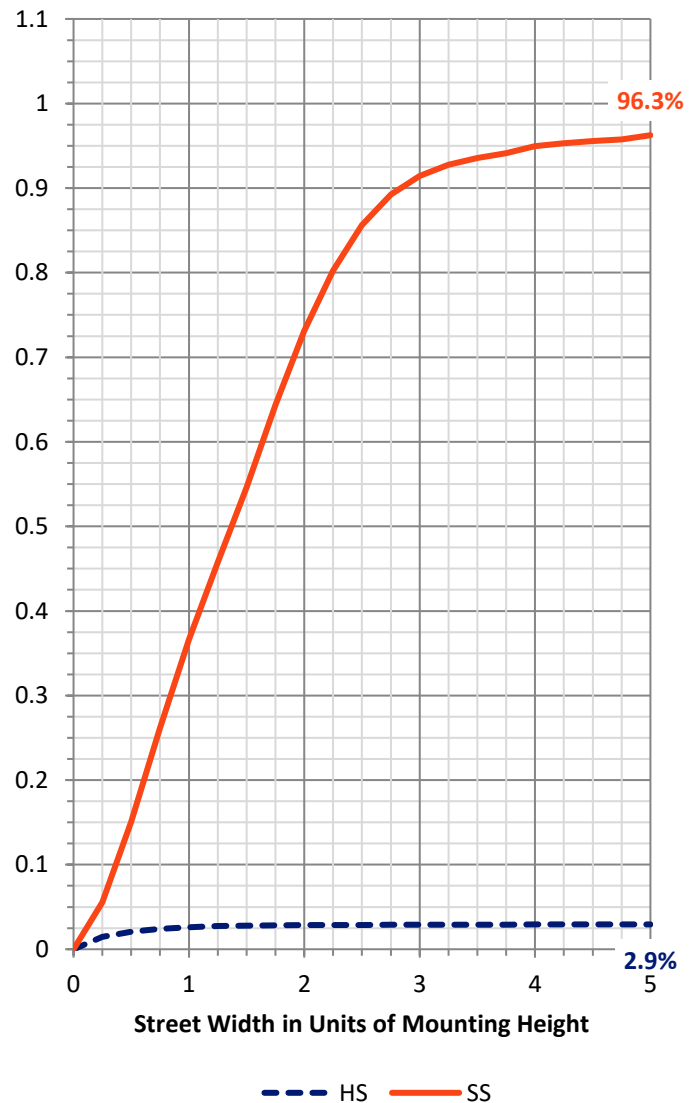
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	118.3	0.0	118.3
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	3852.0	0.0	3852.0
	% Fixture	97.0	0.0	97.0
Total	Lumens	3970.3	0.0	3970.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.8	0.8
10°-20°	106.3	2.7
20°-30°	203.4	5.1
30°-40°	338.2	8.5
40°-50°	457.6	11.5
50°-60°	715.7	18.0
60°-70°	1471.4	37.1
70°-80°	592.1	14.9
80°-90°	54.8	1.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	3970.3	100.0
0°-180°	3970.3	100.0



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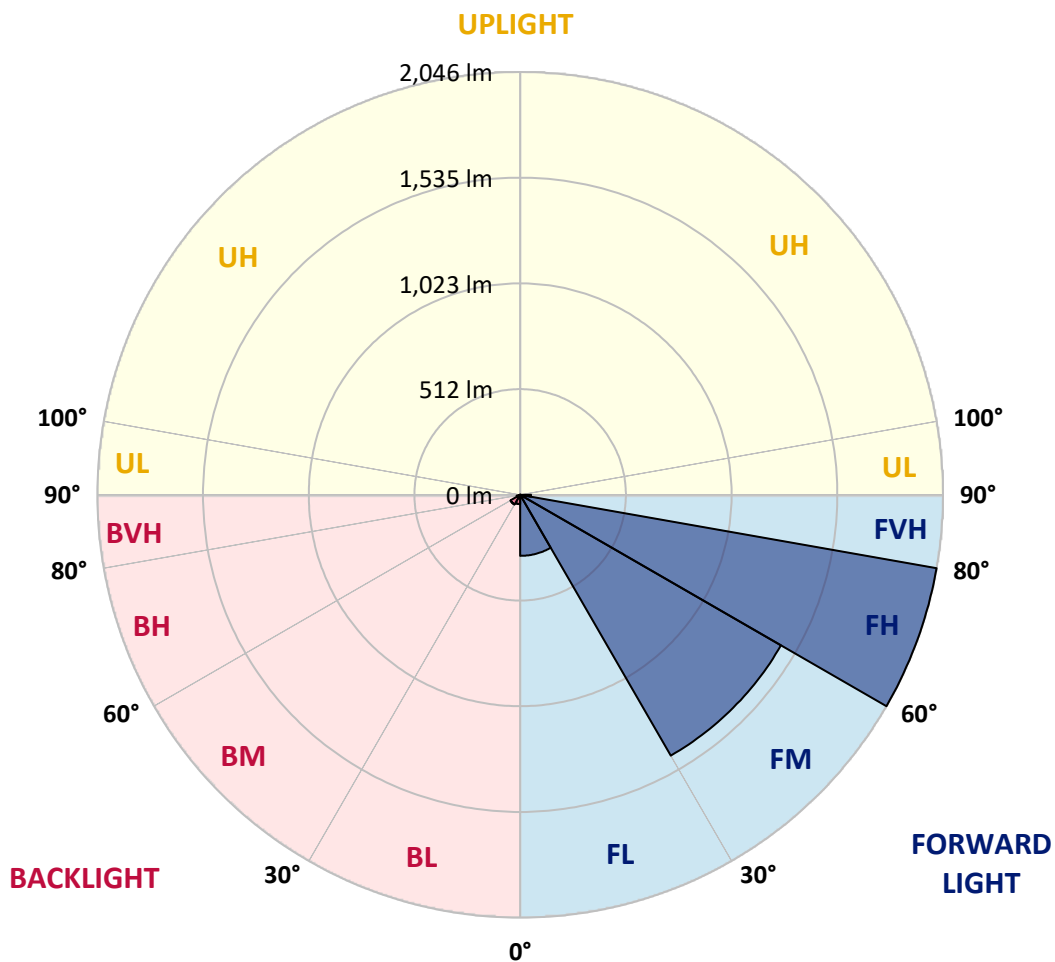
CATALOG NUMBER: ECM-E02-LED-E1-SL4-HSS-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	295.5	7.4			
FM	(30°-60°)	1457.5	36.7			
FH	(60°-80°)	2046.3	51.5			G2/5000
FVH	(80°-90°)	52.7	1.3			G1/100
BL	(0°-30°)	45.0	1.1	B0/110		
BM	(30°-60°)	54.0	1.4	B0/220		
BH	(60°-80°)	17.3	0.4	B0/110		G0/110
BVH	(80°-90°)	2.0	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	299.8	299.8	299.8	299.8	299.8	299.8	299.8	299.8	299.8	299.8	299.8
2.5°	400.0	395.5	390.3	390.3	383.7	383.7	379.8	369.4	368.1	362.3	356.4
5°	510.5	506.6	500.1	494.3	489.1	480.0	473.5	461.1	447.5	434.5	422.8
7.5°	618.5	616.6	604.9	602.9	594.5	579.5	566.5	548.3	524.9	506.6	485.2
10°	718.7	714.1	711.5	700.5	688.1	671.8	651.7	629.5	602.3	573.7	543.1
12.5°	798.0	795.4	783.7	779.2	766.2	749.9	724.5	695.9	668.6	631.5	595.8
15°	857.2	852.6	844.8	837.7	822.1	807.8	784.4	753.2	720.0	679.6	636.7
17.5°	906.7	898.2	896.2	885.2	868.9	852.0	826.0	797.4	758.4	718.0	671.2
20°	973.0	961.3	957.4	941.1	922.3	898.9	868.9	833.1	792.2	748.0	699.8
22.5°	1051.0	1042.6	1034.1	1019.8	995.7	962.6	919.0	880.0	827.9	779.2	727.1
25°	1161.6	1154.4	1140.8	1121.3	1091.4	1051.7	999.0	941.8	880.6	818.2	757.1
27.5°	1268.9	1262.4	1252.7	1237.7	1203.9	1160.3	1095.3	1022.4	945.0	869.6	801.9
30°	1369.7	1363.8	1354.1	1339.1	1309.2	1266.3	1192.8	1114.8	1018.5	930.7	849.4
32.5°	1478.3	1476.4	1465.3	1443.9	1417.9	1359.9	1280.0	1196.0	1098.5	997.0	902.1
35°	1601.3	1586.3	1575.9	1554.4	1510.2	1448.4	1354.7	1263.1	1160.3	1056.2	950.2
37.5°	1705.3	1691.0	1678.0	1650.7	1596.7	1518.0	1412.0	1311.2	1205.2	1099.2	991.2
40°	1781.4	1774.3	1758.7	1722.9	1662.4	1568.7	1454.3	1344.3	1237.7	1131.0	1024.3
42.5°	1838.0	1826.9	1809.4	1772.3	1700.7	1594.1	1471.2	1358.0	1252.7	1150.5	1045.8
45°	1858.8	1849.7	1833.4	1793.1	1715.7	1601.3	1470.5	1354.1	1253.3	1156.4	1060.1
47.5°	1846.4	1837.3	1823.0	1785.3	1709.2	1592.8	1458.8	1343.0	1246.8	1158.3	1073.2
50°	1805.5	1800.3	1789.2	1757.4	1689.0	1576.5	1448.4	1337.2	1245.5	1168.1	1091.4
52.5°	1801.6	1798.4	1784.7	1752.8	1683.2	1571.3	1447.1	1340.4	1256.6	1180.4	1104.4
55°	2201.5	2155.4	2051.9	1964.2	1819.8	1648.1	1512.8	1393.1	1303.4	1229.2	1175.9
57.5°	3129.0	3060.1	2924.1	2757.0	2425.3	2099.5	1838.6	1650.0	1557.0	1523.2	1543.4
60°	3563.5	3551.1	3529.7	3450.3	3280.5	3000.3	2688.1	2350.5	2215.2	2203.5	2244.5
62.5°	3769.6	3761.8	3768.3	3758.6	3705.9	3623.9	3534.2	3388.5	3254.5	3168.1	2984.6
65°	3864.6	3869.8	3906.9	3936.1	3942.6	3964.1	4029.8	4211.3	4343.9	4120.8	3611.6
67.5°	3623.3	3653.9	3739.1	3845.7	3970.6	4091.6	4286.7	4669.1	4941.7	4679.5	3956.3
69°	2999.6	3014.6	3222.7	3423.6	3728.7	3942.0	4224.9	4726.4	5032.7	4736.8	3929.0
70°	2361.5	2375.2	2598.3	2871.5	3387.2	3661.7	4031.8	4629.4	4947.5	4660.6	3788.5
72.5°	1065.3	1045.8	1124.5	1270.9	1831.5	2267.2	2914.4	3750.8	4081.8	3733.9	2834.4
75°	744.1	735.6	744.1	744.7	831.8	1073.2	1354.1	2033.1	2514.4	2169.7	1354.1
77.5°	576.3	570.4	564.6	558.1	568.5	636.7	664.0	721.3	936.6	885.8	516.4
80°	455.9	450.7	465.0	460.4	460.4	468.2	463.0	441.6	401.3	372.0	333.0
82.5°	212.0	213.3	213.3	231.6	279.0	325.8	340.8	319.3	283.5	241.3	194.5
85°	20.2	22.8	38.4	59.2	117.7	132.7	133.3	110.5	110.5	87.2	70.3
87.5°	0.0	0.7	0.7	0.7	5.9	16.3	13.7	3.9	2.0	2.0	3.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	299.8	299.8	299.8	299.8	299.8	299.8	299.8	299.8	299.8	299.8	299.8
2.5°	346.0	344.1	336.2	328.4	321.3	313.5	306.3	299.1	291.3	285.5	278.3
5°	404.6	390.3	374.0	358.4	342.8	326.5	309.6	294.6	279.0	264.7	251.1
7.5°	463.7	435.8	413.7	385.7	360.3	334.9	311.5	287.4	265.4	244.6	225.1
10°	513.8	480.0	445.5	409.8	373.3	339.5	307.0	278.3	249.1	223.8	199.7
12.5°	554.8	511.8	469.5	424.7	383.7	340.8	300.5	266.0	231.6	202.9	178.2
15°	591.9	542.4	491.7	439.7	387.7	338.8	293.9	251.1	216.0	183.4	155.4
17.5°	621.8	565.2	507.9	449.4	393.5	336.2	285.5	240.7	199.7	165.8	138.5
20°	647.8	588.6	526.8	461.1	397.4	335.6	278.3	227.7	185.4	149.6	122.9
22.5°	671.8	612.7	546.3	476.1	403.3	334.9	271.8	217.9	173.0	137.2	110.5
25°	699.2	636.7	567.2	491.7	413.7	337.5	268.0	210.1	161.9	125.5	100.8
27.5°	729.8	664.0	591.9	511.2	427.3	342.8	266.7	201.6	152.2	114.4	93.0
30°	772.7	696.6	616.6	530.7	439.7	348.6	265.4	196.4	142.4	106.0	85.2
32.5°	810.3	728.5	643.9	550.9	453.3	354.5	264.7	189.3	133.3	97.5	79.4
35°	850.0	757.7	667.3	570.4	465.0	361.0	264.1	184.1	124.8	89.1	73.5
37.5°	884.5	782.4	685.5	587.3	478.0	366.8	264.7	179.5	117.0	82.0	68.3
40°	913.8	807.8	705.7	602.9	491.7	375.9	265.4	175.0	109.2	75.5	63.8
42.5°	939.8	831.8	727.1	620.5	507.3	386.4	269.3	171.0	102.7	69.6	59.2
45°	960.0	853.9	750.6	645.2	532.7	403.3	276.4	168.4	96.2	64.4	55.3
47.5°	980.8	886.5	790.2	684.2	569.8	429.9	288.7	167.8	91.0	60.5	52.1
50°	1009.4	919.0	825.3	723.9	603.6	457.2	303.7	168.4	84.6	56.6	48.8
52.5°	1030.2	952.2	870.9	792.8	684.2	540.5	361.6	180.2	81.3	53.4	44.9
55°	1153.1	1139.5	1141.4	1154.4	1070.6	919.7	604.9	260.2	95.6	60.5	44.3
57.5°	1626.0	1674.1	1702.0	1701.4	1562.9	1296.2	812.3	334.3	106.6	70.3	52.7
60°	2247.7	2211.3	2160.0	2033.1	1849.0	1479.6	908.6	359.7	92.3	56.0	48.2
62.5°	2797.3	2584.0	2394.7	2189.2	1947.9	1543.4	928.1	357.7	80.7	42.3	33.8
65°	3140.1	2756.3	2450.7	2193.1	1908.9	1490.0	878.0	328.4	68.3	34.5	28.0
67.5°	3222.0	2663.4	2230.8	1902.4	1594.8	1159.6	644.5	247.2	53.4	28.6	24.7
69°	3043.2	2367.4	1848.4	1475.7	1160.3	769.4	398.7	156.1	41.0	26.0	22.8
70°	2799.3	2059.1	1505.6	1184.3	859.2	540.5	279.0	109.9	33.2	24.1	20.8
72.5°	1801.0	1081.6	740.2	515.1	354.5	215.3	109.2	49.5	25.4	20.2	16.9
75°	698.5	400.0	290.0	220.5	172.4	119.6	66.4	31.9	21.5	16.9	13.0
77.5°	344.1	263.4	215.3	147.6	85.9	53.4	35.8	24.7	17.6	12.4	8.5
80°	271.8	180.8	107.9	67.0	50.8	38.4	27.3	20.2	13.0	7.8	5.9
82.5°	139.2	76.1	56.0	45.6	37.7	29.9	22.1	14.3	8.5	5.2	4.6
85°	43.6	31.9	28.6	28.0	26.0	21.5	15.6	9.1	5.2	3.3	3.3
87.5°	3.3	4.6	5.9	4.6	5.2	4.6	5.9	3.9	2.6	2.6	2.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	299.8	299.8	299.8	299.8	299.8	299.8	299.8	299.8	299.8	299.8	299.8
2.5°	273.1	265.4	258.2	253.7	245.2	242.0	238.7	237.4	231.6	232.9	227.7
5°	238.7	225.1	214.7	204.2	194.5	187.3	181.5	174.3	168.4	165.8	160.6
7.5°	207.5	189.9	176.3	165.2	153.5	144.4	136.6	131.4	126.1	120.9	118.3
10°	180.2	161.3	145.7	134.6	123.5	115.7	109.9	106.0	102.7	100.8	100.1
12.5°	154.8	136.6	122.2	112.5	104.0	100.1	97.5	95.6	94.9	94.3	94.3
15°	135.3	117.0	106.0	98.8	94.9	93.0	92.3	91.0	89.8	89.1	89.1
17.5°	117.0	103.4	95.6	91.7	89.8	88.5	87.2	85.9	84.6	83.9	83.9
20°	104.7	93.6	89.8	87.2	85.2	83.9	82.0	80.7	80.0	79.4	78.7
22.5°	94.9	87.8	85.2	83.3	80.7	78.7	77.4	76.1	74.8	74.2	73.5
25°	87.8	83.3	81.3	78.7	76.1	74.2	72.2	70.3	69.0	68.3	67.0
27.5°	82.6	79.4	76.8	73.5	70.9	69.0	67.0	65.1	63.8	62.5	61.8
30°	78.1	74.8	71.6	69.0	65.7	63.8	61.2	59.2	58.6	57.3	56.0
32.5°	73.5	70.3	67.0	63.8	60.5	57.9	56.6	54.0	52.7	52.1	50.8
35°	68.3	65.1	61.2	58.6	55.3	52.7	50.8	48.8	47.5	46.2	45.6
37.5°	63.8	59.9	56.0	52.7	50.1	47.5	45.6	43.6	42.3	41.0	40.3
40°	58.6	54.7	50.8	47.5	44.9	43.0	41.0	39.0	37.7	37.1	37.1
42.5°	54.0	49.5	45.6	43.0	41.0	38.4	36.4	34.5	33.8	33.2	33.8
45°	49.5	44.9	41.6	39.0	37.1	34.5	32.5	31.2	30.6	31.2	31.9
47.5°	45.6	41.0	37.7	35.8	33.8	31.9	29.9	28.6	28.6	29.9	31.2
50°	41.6	37.1	34.5	33.2	31.2	29.3	26.7	26.0	26.7	28.0	29.3
52.5°	37.7	32.5	30.6	29.9	28.0	26.0	24.1	23.4	24.1	25.4	24.7
55°	33.8	28.6	28.0	27.3	25.4	22.8	20.8	20.8	20.8	20.2	18.9
57.5°	32.5	25.4	24.7	24.1	22.1	19.5	18.2	16.9	16.3	14.3	13.7
60°	33.8	22.8	22.8	21.5	19.5	16.9	15.0	13.0	11.7	10.4	10.4
62.5°	27.3	20.8	20.2	18.9	16.3	13.7	11.7	9.8	9.1	8.5	8.5
65°	22.1	18.9	17.6	15.6	13.7	11.1	9.1	7.8	7.2	7.2	7.8
67.5°	20.2	16.9	15.0	13.0	11.1	8.5	7.2	6.5	6.5	7.2	7.2
69°	18.9	15.6	13.7	11.7	9.8	7.8	6.5	6.5	6.5	6.5	7.2
70°	17.6	15.0	13.0	11.1	8.5	6.5	5.9	5.9	6.5	6.5	7.2
72.5°	13.7	11.7	11.1	9.1	6.5	5.9	5.2	5.9	5.9	6.5	6.5
75°	10.4	8.5	8.5	7.2	5.2	4.6	4.6	5.2	5.2	5.9	5.9
77.5°	7.2	5.9	5.9	5.2	4.6	3.9	3.9	4.6	5.2	5.2	5.9
80°	5.2	4.6	3.9	4.6	3.9	3.3	3.9	4.6	4.6	5.2	5.2
82.5°	3.9	3.9	3.9	3.9	3.3	3.3	3.9	3.9	4.6	5.2	5.2
85°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.9	3.9	4.6	4.6
87.5°	2.0	2.0	2.0	2.6	2.6	3.3	3.3	3.3	3.3	3.9	3.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	299.8	299.8	299.8	299.8
2.5°	226.4	225.7	223.1	223.8
5°	158.7	154.8	157.4	156.7
7.5°	116.4	115.7	115.1	116.4
10°	99.5	99.5	98.8	99.5
12.5°	93.6	93.6	93.6	93.6
15°	89.1	89.1	88.5	88.5
17.5°	83.9	83.9	83.9	83.3
20°	78.7	78.1	78.1	78.1
22.5°	72.9	72.2	72.2	72.2
25°	67.0	66.4	66.4	66.4
27.5°	61.2	60.5	59.9	59.9
30°	55.3	54.7	54.0	54.0
32.5°	49.5	48.8	48.2	48.2
35°	44.3	44.3	43.6	43.0
37.5°	39.7	39.7	39.7	39.7
40°	36.4	37.1	37.1	37.1
42.5°	34.5	35.1	35.8	36.4
45°	33.2	34.5	35.1	35.1
47.5°	32.5	33.2	33.8	33.8
50°	29.9	29.3	29.3	29.3
52.5°	24.1	22.8	22.1	21.5
55°	17.6	16.9	15.6	15.6
57.5°	12.4	12.4	11.7	11.7
60°	9.8	9.8	9.1	9.8
62.5°	8.5	8.5	8.5	8.5
65°	7.8	7.8	7.8	7.8
67.5°	7.8	7.8	7.8	7.8
69°	7.2	7.2	7.2	7.2
70°	7.2	7.2	7.2	7.2
72.5°	6.5	6.5	6.5	6.5
75°	5.9	6.5	6.5	6.5
77.5°	5.9	5.9	5.9	5.9
80°	5.2	5.2	5.9	5.9
82.5°	5.2	5.2	5.2	5.2
85°	4.6	4.6	5.2	5.2
87.5°	3.9	3.9	4.6	4.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)