

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: P162452

Luminaire Tested: **ECM-F03-LED-E1-SL3-HSS**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P162452
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33727)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ECM-F03-LED-E1-SL3-HSS
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (21) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4082.5 lumens
Efficiency: N/A
Efficacy: 52.1 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 1' x H: 0.1')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B0 - U0 - G2

Input Watts (W): 78.3
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

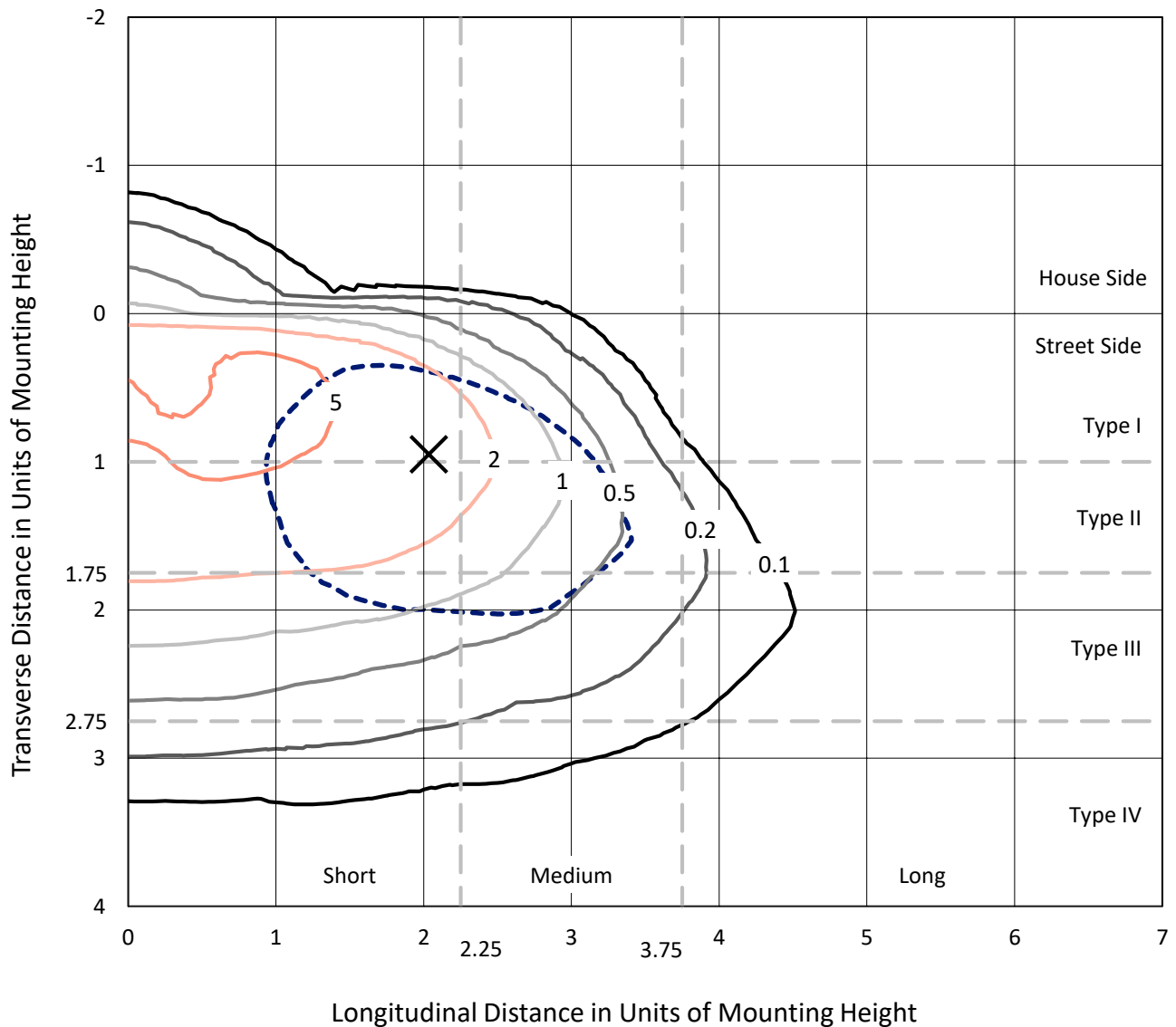


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

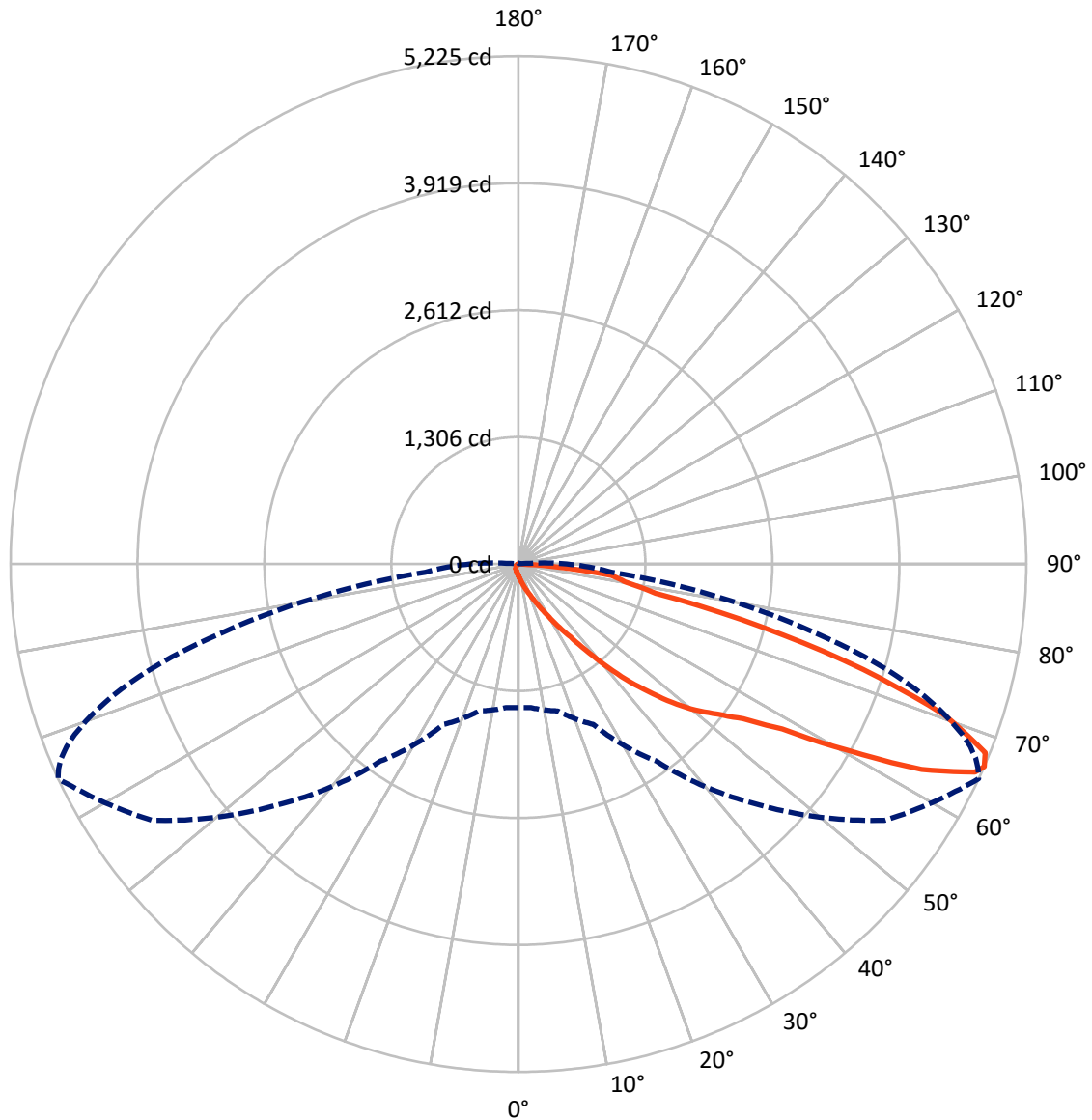


Based on 10 foot mounting height. Maximum calculated value = 6.7 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	88.5	0.0	88.5
	% Fixture	2.2	0.0	2.2
Street Side	Lumens	3994.0	0.0	3994.0
	% Fixture	97.8	0.0	97.8
Total	Lumens	4082.5	0.0	4082.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	13.8	0.3
10°-20°	58.5	1.4
20°-30°	126.2	3.1
30°-40°	269.4	6.6
40°-50°	595.8	14.6
50°-60°	1009.7	24.7
60°-70°	1347.3	33.0
70°-80°	593.5	14.5
80°-90°	68.4	1.7
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°	4082.5	100.0
0°-180°	4082.5	100.0

Coefficient of Utilization



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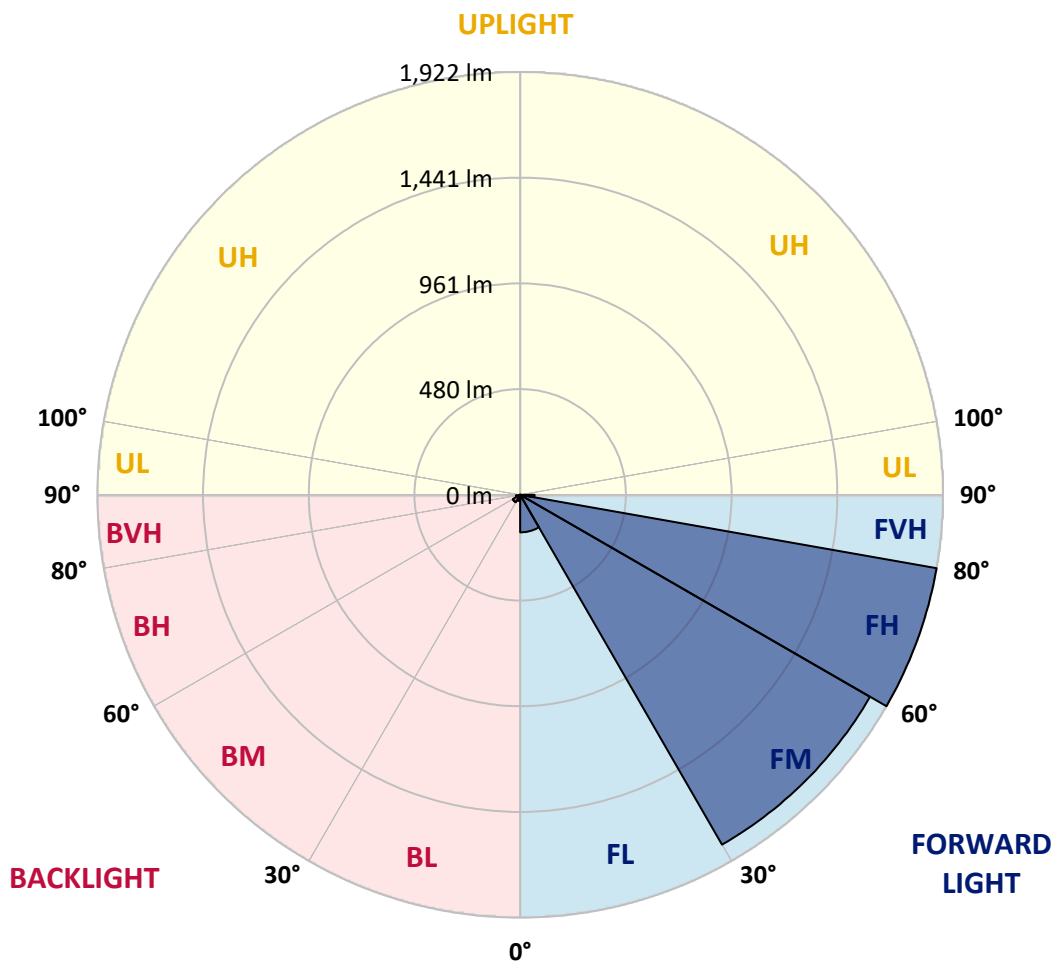
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	170.5	4.2			
FM	(30°-60°)	1836.0	45.0			
FH	(60°-80°)	1921.8	47.1			G2/5000
FVH	(80°-90°)	65.6	1.6			G1/100
BL	(0°-30°)	27.9	0.7	B0/110		
BM	(30°-60°)	38.8	1.0	B0/220		
BH	(60°-80°)	19.0	0.5	B0/110		G0/110
BVH	(80°-90°)	2.7	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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	123.3	123.3	123.3	123.3	123.3	123.3	123.3	123.3	123.3	123.3	123.3
2.5°	155.4	154.6	151.5	151.5	146.8	143.6	139.7	135.8	135.8	135.0	134.2
5°	205.6	200.9	200.1	191.5	184.4	174.3	164.9	152.2	150.7	149.1	148.3
7.5°	261.4	260.6	253.5	243.3	229.2	210.3	191.5	171.1	168.0	166.4	163.3
10°	333.6	329.6	320.2	303.0	281.8	256.7	226.0	193.8	190.0	186.8	185.2
12.5°	402.6	395.6	390.1	368.1	341.4	304.5	267.6	221.3	218.2	214.3	208.0
15°	467.0	460.7	451.3	432.5	402.6	356.3	313.2	256.7	248.8	243.3	238.6
17.5°	517.3	513.3	502.3	481.1	448.9	408.1	356.3	292.7	286.5	279.4	270.8
20°	565.1	559.6	542.4	513.3	478.8	447.4	407.3	339.9	331.2	322.6	313.2
22.5°	610.6	605.1	576.9	529.0	492.1	478.8	464.6	393.2	379.9	372.8	363.4
25°	674.2	662.4	618.5	542.4	492.9	503.1	527.4	462.3	449.7	439.5	424.7
27.5°	759.7	744.0	675.0	561.9	496.1	529.8	599.7	546.2	533.0	521.2	504.6
30°	856.3	846.1	763.7	609.1	518.8	569.0	680.5	653.0	637.3	623.2	603.5
32.5°	953.6	939.5	857.9	698.6	580.0	645.1	781.8	777.1	756.6	743.3	722.1
35°	1039.2	1032.1	971.6	845.3	719.7	778.6	916.7	922.2	904.2	890.1	866.5
37.5°	1097.3	1097.3	1085.5	1003.1	941.8	985.8	1115.3	1116.1	1098.0	1065.8	1054.1
40°	1127.1	1135.7	1178.1	1193.8	1190.7	1247.2	1375.9	1361.8	1346.8	1330.3	1291.1
42.5°	1188.3	1196.2	1286.4	1394.7	1465.4	1539.9	1628.6	1623.9	1605.9	1576.0	1539.9
45°	1291.9	1302.1	1409.7	1581.5	1726.8	1832.7	1889.2	1867.3	1849.2	1820.9	1802.0
47.5°	1423.8	1443.3	1565.0	1777.8	1952.8	2127.8	2186.7	2128.6	2112.8	2090.9	2060.3
50°	1564.3	1583.1	1712.6	1955.9	2153.7	2362.5	2460.6	2362.5	2339.7	2332.7	2298.1
52.5°	1685.9	1701.6	1826.4	2093.3	2307.5	2552.4	2695.3	2565.7	2549.3	2525.7	2500.6
55°	1758.1	1770.7	1887.6	2159.2	2411.9	2723.5	2922.1	2808.3	2783.9	2774.5	2738.4
57.5°	1782.5	1795.0	1900.2	2167.8	2468.4	2879.7	3197.6	3201.6	3172.5	3138.7	3127.7
60°	1782.5	1796.6	1885.3	2146.6	2523.4	3046.1	3564.9	3892.2	3829.4	3823.2	3783.1
62.5°	1708.7	1722.0	1811.5	2081.5	2597.2	3270.6	4076.6	4654.3	4636.2	4595.4	4529.5
65°	1548.5	1556.4	1644.3	1915.1	2568.9	3477.0	4520.1	5161.3	5132.3	5052.2	4967.5
66°	1476.4	1482.6	1565.0	1820.1	2476.2	3505.3	4598.6	5224.9	5177.0	5109.5	5013.8
67.5°	1371.9	1382.9	1441.0	1643.5	2254.2	3407.1	4549.1	5180.2	5138.6	5056.9	4961.2
70°	915.9	908.1	1113.0	1261.3	1717.3	2776.1	4081.4	4651.2	4652.0	4613.5	4575.1
72.5°	434.8	439.5	499.2	776.2	1124.0	1854.6	3248.6	3712.5	3765.8	3696.8	3648.9
75°	312.4	319.5	355.6	474.8	670.2	1113.0	2105.8	2596.4	2597.9	2475.5	2366.4
77.5°	91.1	94.9	133.4	292.7	502.3	751.1	1209.5	1443.3	1409.7	1321.7	1239.4
80°	37.6	37.6	39.2	93.4	201.7	510.2	846.1	1111.4	1107.4	1073.7	1025.1
82.5°	14.1	14.9	18.8	38.5	47.9	125.6	564.3	964.6	962.2	914.4	879.8
85°	1.6	1.6	4.7	16.5	18.1	23.5	113.0	425.4	423.1	425.4	372.8
87.5°	0.0	0.0	0.8	1.6	2.4	3.1	4.7	16.5	18.1	17.3	15.7
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):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	123.3	123.3	123.3	123.3	123.3	123.3	123.3	123.3	123.3	123.3	123.3
2.5°	134.2	132.7	132.7	131.8	131.8	131.8	131.1	130.3	130.3	129.5	128.7
5°	146.8	145.2	144.4	142.8	142.1	141.2	139.7	138.9	137.4	136.5	135.8
7.5°	161.7	158.6	157.8	155.4	153.1	151.5	149.9	147.5	146.0	142.8	142.1
10°	180.5	176.6	173.4	170.3	168.0	164.0	161.7	158.6	155.4	153.1	150.7
12.5°	204.8	199.4	194.7	191.5	186.0	181.3	176.6	174.3	168.0	164.9	160.9
15°	231.6	225.3	219.8	213.5	209.6	201.7	195.4	188.4	185.2	179.7	173.4
17.5°	266.1	255.8	247.2	241.0	233.1	225.3	218.2	211.2	201.7	195.4	187.6
20°	303.0	294.3	282.6	271.6	262.2	252.7	242.5	233.1	224.5	214.3	204.8
22.5°	350.0	337.5	323.4	312.4	299.8	289.6	275.5	262.9	248.8	235.4	224.5
25°	409.7	393.2	379.9	364.2	349.3	333.6	316.3	300.6	282.6	270.0	251.1
27.5°	483.5	467.8	449.7	429.4	414.4	390.9	368.1	348.5	327.3	307.7	286.5
30°	577.7	554.9	536.1	516.4	486.6	463.9	437.2	410.5	381.5	361.8	329.6
32.5°	690.7	666.4	638.1	609.8	582.4	550.2	517.3	484.3	452.1	416.0	383.0
35°	828.8	799.8	767.6	737.0	694.6	660.1	618.5	573.0	536.8	495.2	453.6
37.5°	1011.7	963.8	935.6	903.4	846.1	799.0	752.7	707.1	643.6	599.7	540.8
40°	1240.9	1212.6	1166.3	1114.5	1062.7	1000.7	938.0	877.5	803.7	742.5	674.2
42.5°	1510.1	1468.5	1421.4	1346.8	1294.3	1221.3	1149.9	1069.8	979.5	901.1	821.0
45°	1762.8	1713.4	1677.3	1602.8	1547.8	1461.4	1375.1	1290.3	1185.9	1084.7	992.1
47.5°	2036.0	1995.1	1935.5	1875.1	1819.4	1722.0	1628.6	1525.8	1415.9	1295.8	1175.7
50°	2276.1	2243.9	2203.2	2130.2	2068.2	1986.5	1876.7	1764.4	1625.5	1506.2	1369.6
52.5°	2480.2	2455.1	2397.8	2346.0	2290.3	2213.3	2115.2	2007.7	1857.8	1726.8	1571.3
55°	2721.2	2703.1	2652.9	2620.7	2571.3	2497.5	2405.7	2305.9	2147.4	2004.5	1828.8
57.5°	3115.9	3101.8	3057.9	3044.5	2995.9	2931.5	2818.5	2711.8	2526.5	2349.1	2148.2
60°	3769.8	3741.5	3677.1	3644.2	3541.3	3455.0	3308.3	3161.5	2937.8	2711.8	2470.0
62.5°	4469.9	4390.6	4268.1	4163.0	4017.0	3867.1	3670.9	3446.4	3184.2	2915.8	2638.0
65°	4847.4	4712.4	4557.8	4390.6	4201.4	3980.9	3733.7	3464.5	3182.6	2899.3	2605.8
66°	4890.6	4738.3	4574.2	4388.2	4177.9	3943.2	3692.1	3409.5	3116.8	2840.5	2546.9
67.5°	4836.4	4677.1	4503.7	4297.2	4069.6	3826.3	3562.6	3269.0	2987.2	2707.1	2421.3
70°	4457.3	4298.8	4144.1	3926.8	3684.2	3439.3	3189.7	2861.7	2594.8	2337.4	2083.0
72.5°	3559.4	3451.8	3298.8	3112.8	2876.5	2589.3	2381.3	2087.8	1856.2	1606.6	1409.7
75°	2224.4	2072.9	1883.7	1646.7	1466.1	1233.0	1111.4	888.5	756.6	641.3	529.8
77.5°	1137.3	1023.5	890.8	757.4	629.5	502.3	388.5	274.7	185.2	128.7	95.8
80°	939.5	839.1	729.2	607.5	494.5	383.8	276.3	188.4	120.1	78.5	61.3
82.5°	776.2	691.5	593.4	480.4	382.2	301.4	209.6	136.5	84.8	55.0	43.2
85°	330.5	299.8	231.6	183.7	138.1	102.0	71.4	47.9	33.8	27.5	25.1
87.5°	14.1	15.7	14.9	11.8	8.7	8.7	7.8	6.3	6.3	6.3	6.3
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):

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	123.3	123.3	123.3	123.3	123.3	123.3	123.3	123.3	123.3	123.3	123.3
2.5°	128.7	128.0	127.1	127.1	126.4	125.6	120.9	117.0	112.3	109.1	106.0
5°	134.2	133.4	131.8	131.1	129.5	128.7	118.5	109.9	102.8	97.3	93.4
7.5°	139.7	138.9	136.5	134.2	133.4	131.8	115.4	104.4	94.9	88.7	84.8
10°	146.8	144.4	142.1	138.9	136.5	134.2	112.3	98.1	87.9	82.4	78.5
12.5°	157.0	153.1	149.1	145.2	142.1	138.1	110.7	92.6	82.4	76.1	72.2
15°	168.7	163.3	158.6	153.8	148.3	144.4	107.6	87.9	77.7	71.4	66.7
17.5°	179.7	173.4	166.4	159.3	153.8	148.3	104.4	83.2	73.0	66.7	62.0
20°	195.4	186.0	177.4	168.7	160.9	153.8	99.6	78.5	69.1	62.0	57.3
22.5°	212.7	201.7	190.7	179.0	168.7	159.3	95.8	74.5	65.1	58.1	52.6
25°	234.7	221.3	206.4	191.5	179.7	167.2	91.8	70.7	61.3	54.2	48.6
27.5°	265.3	246.4	230.0	211.2	193.1	179.0	88.7	67.5	57.3	50.2	44.7
30°	306.8	279.4	253.5	233.1	211.9	191.5	85.5	63.6	54.2	46.3	40.0
32.5°	353.2	321.0	291.2	260.6	233.9	210.3	82.4	60.4	50.2	42.3	36.9
35°	410.5	369.7	329.6	294.3	262.2	230.7	79.3	57.3	47.1	38.5	32.9
37.5°	492.9	441.9	389.3	343.7	302.1	260.6	76.9	54.2	43.2	34.5	29.1
40°	605.9	540.0	475.7	413.7	359.4	307.7	73.8	51.0	40.0	31.4	25.9
42.5°	728.4	648.3	563.5	493.7	419.1	354.0	70.7	47.9	36.9	28.2	22.8
45°	880.7	780.9	678.2	583.2	492.1	408.1	67.5	44.7	32.9	25.1	19.6
47.5°	1047.0	919.9	803.7	684.4	576.1	475.7	63.6	42.3	29.8	22.0	17.3
50°	1218.1	1083.9	937.1	801.3	672.6	543.1	59.7	38.5	26.7	19.6	14.1
52.5°	1402.6	1244.1	1094.2	925.3	775.5	631.9	55.7	35.3	24.4	17.3	11.8
55°	1637.3	1459.9	1284.0	1094.9	914.4	734.6	51.8	31.4	21.2	14.9	9.4
57.5°	1932.4	1722.0	1506.2	1292.7	1073.7	869.6	48.6	27.5	18.1	12.5	7.8
60°	2211.0	1965.3	1704.0	1458.3	1211.0	973.2	43.9	24.4	15.7	10.2	7.8
62.5°	2355.4	2075.2	1793.5	1522.7	1258.9	1010.1	39.2	20.4	13.4	8.7	7.1
65°	2320.1	2034.4	1761.3	1488.1	1229.9	986.6	34.5	18.1	11.8	7.8	7.1
66°	2269.0	1986.5	1711.8	1452.0	1205.6	961.5	32.2	17.3	11.0	7.8	6.3
67.5°	2157.6	1884.5	1622.3	1380.6	1138.9	913.6	29.1	15.7	10.2	7.1	6.3
70°	1842.9	1594.8	1385.3	1170.3	973.2	770.0	23.5	13.4	8.7	6.3	6.3
72.5°	1219.7	1051.0	911.2	784.1	655.4	508.6	19.6	11.0	7.1	6.3	5.5
75°	459.9	416.0	357.1	321.0	280.2	245.7	15.7	7.1	5.5	5.5	5.5
77.5°	81.6	75.4	66.7	61.3	56.5	51.8	12.5	4.7	4.7	5.5	5.5
80°	55.0	51.0	46.3	42.3	39.2	35.3	8.7	4.0	4.7	4.7	5.5
82.5°	39.2	36.9	34.5	31.4	29.1	25.9	5.5	4.0	4.7	4.7	4.7
85°	23.5	22.0	20.4	18.8	16.5	15.7	4.0	4.0	4.0	4.7	4.7
87.5°	6.3	5.5	6.3	6.3	4.7	5.5	3.1	3.1	3.1	4.0	4.0
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):

	145°	155°	165°	175°	180°
0°	123.3	123.3	123.3	123.3	123.3
2.5°	104.4	104.4	102.8	105.2	105.2
5°	90.2	90.2	89.5	90.2	90.2
7.5°	82.4	81.6	81.6	81.6	82.4
10°	75.4	74.5	74.5	74.5	74.5
12.5°	69.1	68.3	67.5	68.3	68.3
15°	63.6	62.0	62.0	62.0	62.0
17.5°	58.9	57.3	56.5	56.5	56.5
20°	54.2	51.8	51.8	51.8	51.8
22.5°	49.4	47.1	47.1	47.1	47.1
25°	44.7	42.3	42.3	42.3	42.3
27.5°	40.8	38.5	38.5	38.5	38.5
30°	36.1	34.5	34.5	35.3	34.5
32.5°	32.9	30.6	30.6	31.4	31.4
35°	29.1	27.5	27.5	27.5	27.5
37.5°	25.1	23.5	23.5	23.5	23.5
40°	22.0	20.4	19.6	20.4	20.4
42.5°	18.8	17.3	16.5	16.5	16.5
45°	16.5	14.1	13.4	14.1	14.1
47.5°	13.4	11.8	11.8	12.5	12.5
50°	10.2	10.2	11.0	12.5	12.5
52.5°	9.4	9.4	11.0	12.5	12.5
55°	8.7	9.4	11.0	11.8	12.5
57.5°	7.8	9.4	11.0	11.8	11.8
60°	7.8	8.7	10.2	11.8	11.8
62.5°	7.1	7.8	9.4	11.0	11.0
65°	7.1	7.8	9.4	11.0	11.0
66°	7.1	7.8	9.4	11.0	11.0
67.5°	7.1	7.8	9.4	11.0	11.0
70°	7.1	7.8	9.4	10.2	10.2
72.5°	6.3	7.1	8.7	10.2	10.2
75°	6.3	7.1	8.7	10.2	10.2
77.5°	6.3	7.1	8.7	10.2	10.2
80°	6.3	7.1	8.7	9.4	10.2
82.5°	5.5	7.1	7.8	9.4	9.4
85°	5.5	6.3	7.8	8.7	9.4
87.5°	4.7	5.5	6.3	7.8	7.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)