

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: P162438

Luminaire Tested: **ECM-E02-LED-E1-SL3-HSS-7050**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P162438
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-E02-LED-E1-SL3-HSS-7050
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 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: 3383 lumens
Efficiency: N/A
Efficacy: 64.9 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 1' x H: 0.1')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B0 - U0 - G1

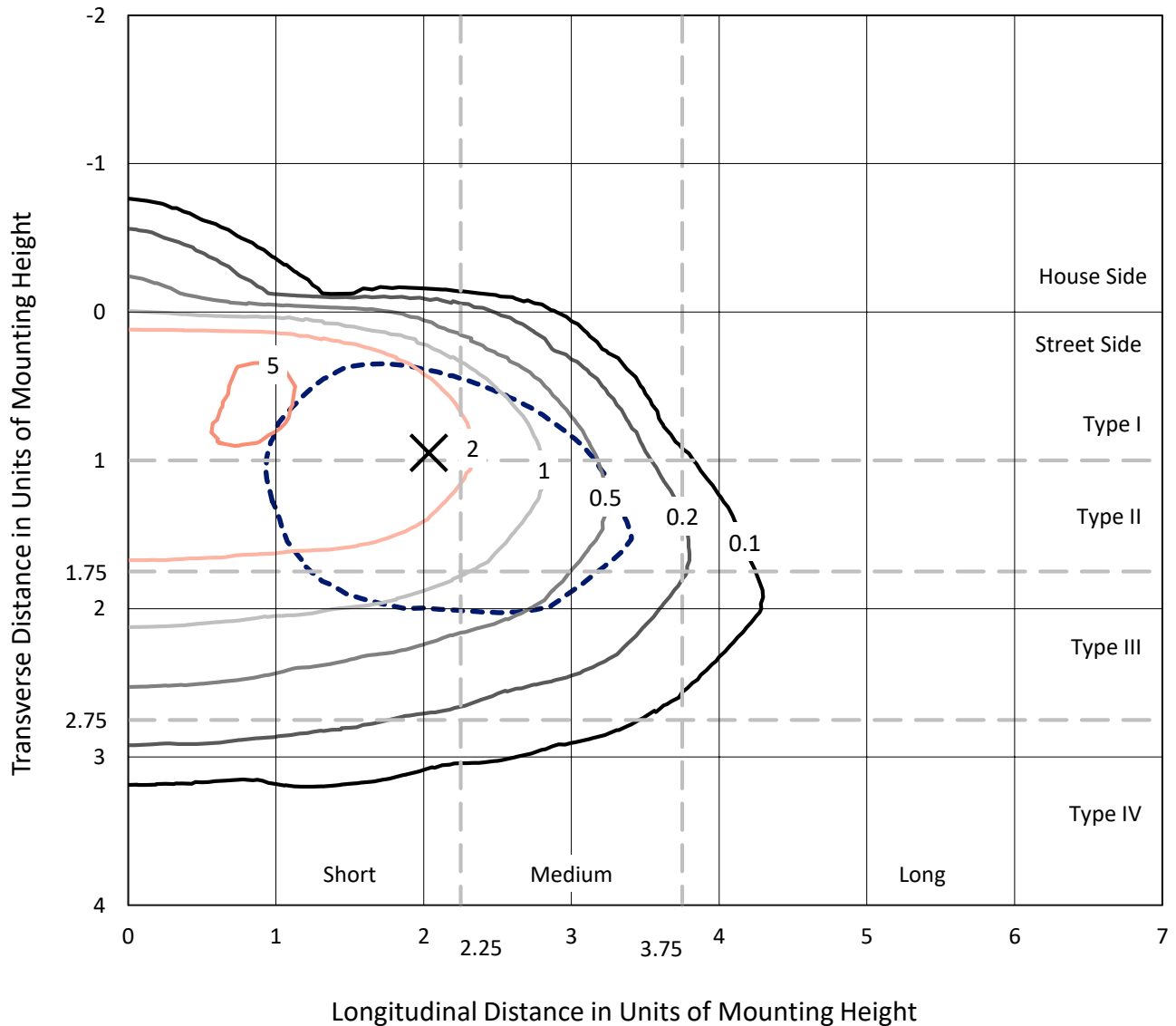
Input Watts (W): 52.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

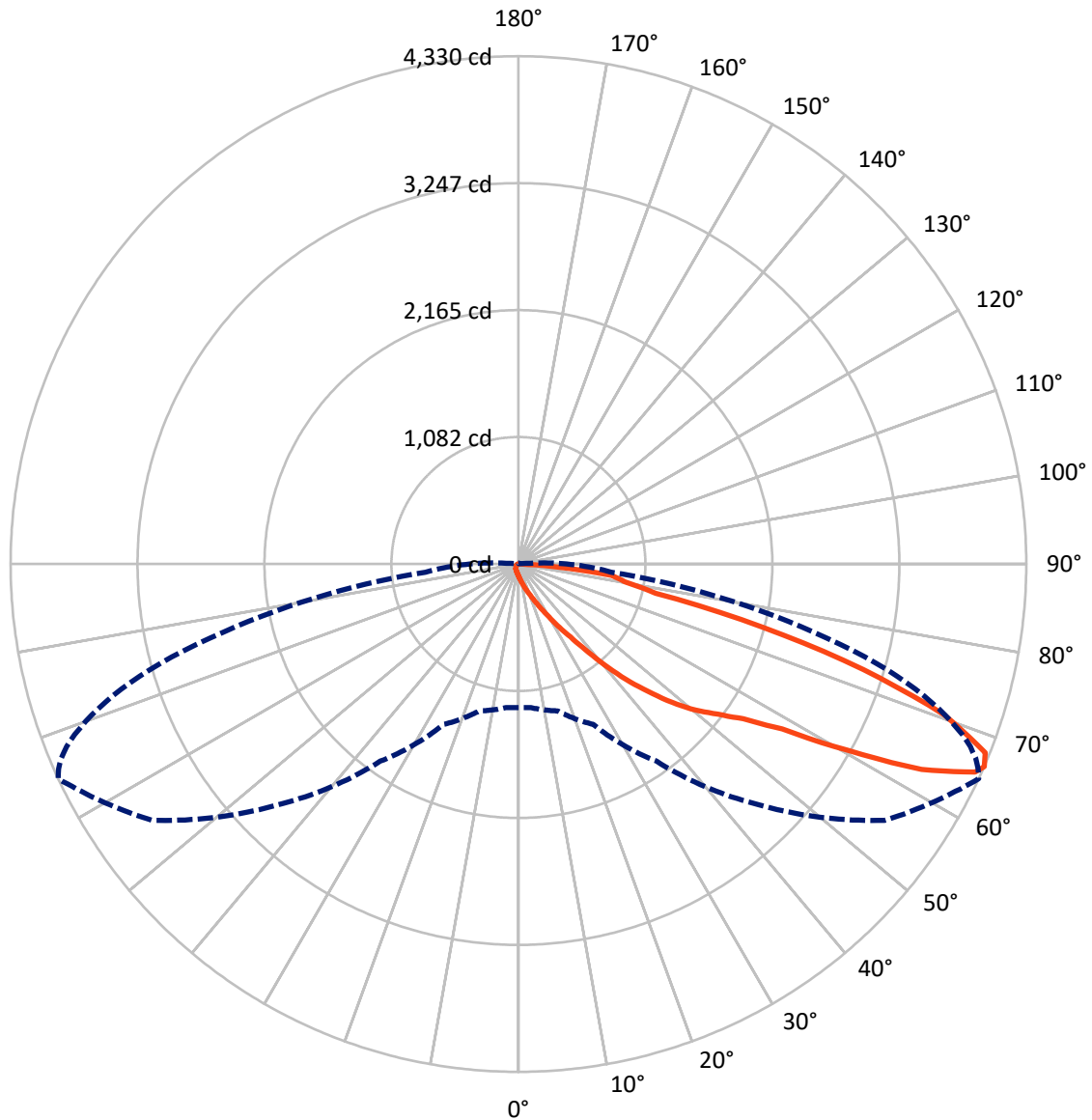
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.6 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	73.4	0.0	73.4
	% Fixture	2.2	0.0	2.2
Street Side	Lumens	3309.7	0.0	3309.7
	% Fixture	97.8	0.0	97.8
Total	Lumens	3383.0	0.0	3383.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	11.4	0.3
10°-20°	48.5	1.4
20°-30°	104.5	3.1
30°-40°	223.3	6.6
40°-50°	493.7	14.6
50°-60°	836.7	24.7
60°-70°	1116.5	33.0
70°-80°	491.8	14.5
80°-90°	56.7	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°	3383.0	100.0
0°-180°	3383.0	100.0



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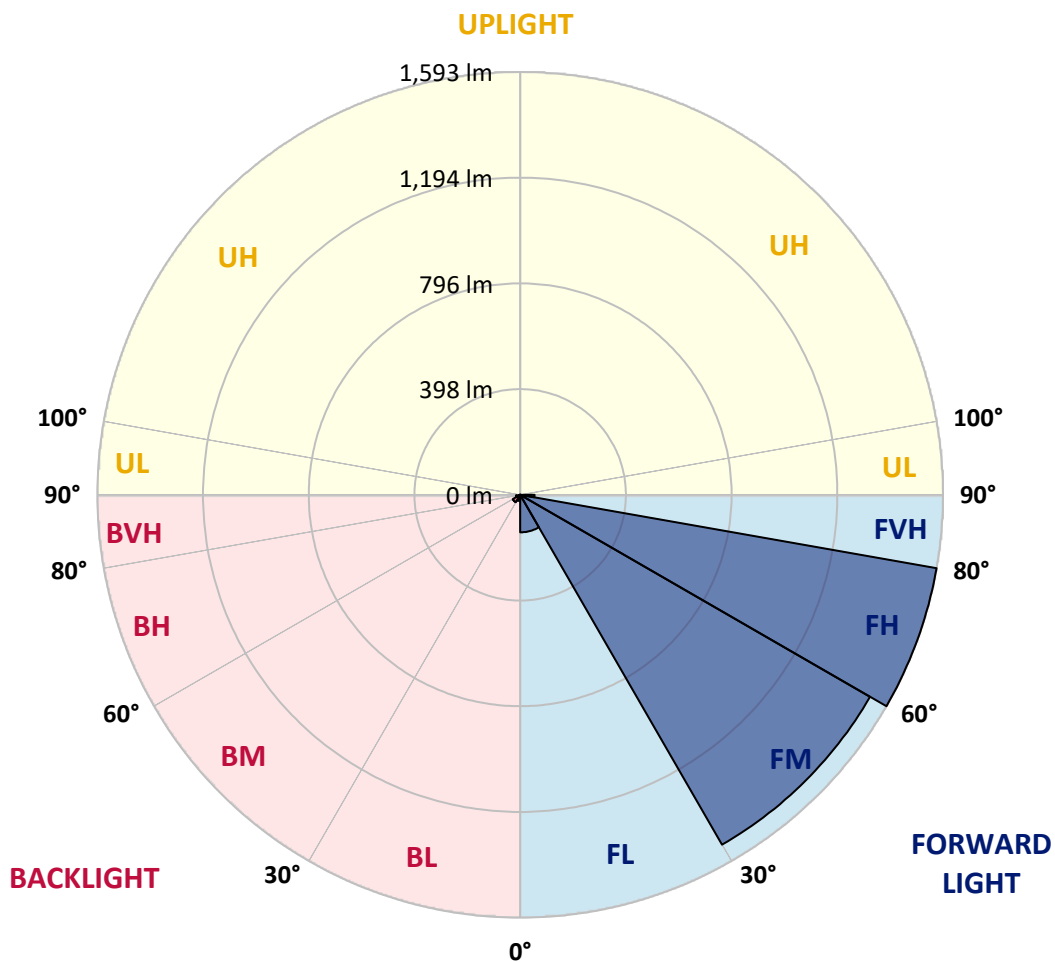
CATALOG NUMBER: ECM-E02-LED-E1-SL3-HSS-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	141.3	4.2			
FM	(30°-60°)	1521.4	45.0			
FH	(60°-80°)	1592.5	47.1			G1/1800
FVH	(80°-90°)	54.4	1.6			G1/100
BL	(0°-30°)	23.1	0.7	B0/110		
BM	(30°-60°)	32.2	1.0	B0/220		
BH	(60°-80°)	15.7	0.5	B0/110		G0/110
BVH	(80°-90°)	2.3	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-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	102.1	102.1	102.1	102.1	102.1	102.1	102.1	102.1	102.1	102.1	102.1
2.5°	128.8	128.1	125.5	125.5	121.6	119.0	115.7	112.5	112.5	111.8	111.2
5°	170.4	166.5	165.8	158.7	152.8	144.4	136.6	126.1	124.8	123.5	122.9
7.5°	216.6	216.0	210.1	201.6	189.9	174.3	158.7	141.8	139.2	137.9	135.3
10°	276.4	273.1	265.4	251.1	233.5	212.7	187.3	160.6	157.4	154.8	153.5
12.5°	333.6	327.8	323.2	305.0	282.9	252.4	221.8	183.4	180.8	177.6	172.4
15°	387.0	381.8	374.0	358.4	333.6	295.2	259.5	212.7	206.2	201.6	197.7
17.5°	428.6	425.4	416.3	398.7	372.0	338.2	295.2	242.6	237.4	231.6	224.4
20°	468.2	463.7	449.4	425.4	396.8	370.7	337.5	281.6	274.4	267.3	259.5
22.5°	506.0	501.4	478.0	438.4	407.8	396.8	385.0	325.8	314.8	308.9	301.1
25°	558.7	548.9	512.5	449.4	408.5	416.9	437.1	383.1	372.7	364.2	351.9
27.5°	629.5	616.6	559.4	465.6	411.1	439.0	496.9	452.6	441.6	431.9	418.2
30°	709.6	701.1	632.8	504.7	429.9	471.5	563.9	541.1	528.1	516.4	500.1
32.5°	790.2	778.5	710.9	578.9	480.6	534.6	647.8	643.9	627.0	615.9	598.4
35°	861.1	855.2	805.2	700.5	596.4	645.2	759.7	764.2	749.3	737.6	718.0
37.5°	909.3	909.3	899.5	831.2	780.5	816.9	924.2	924.9	909.9	883.2	873.5
40°	934.0	941.1	976.2	989.2	986.6	1033.5	1140.1	1128.4	1116.1	1102.4	1069.9
42.5°	984.7	991.2	1066.0	1155.7	1214.3	1276.1	1349.5	1345.6	1330.7	1306.0	1276.1
45°	1070.6	1079.0	1168.1	1310.5	1430.9	1518.6	1565.5	1547.3	1532.3	1508.9	1493.3
47.5°	1179.8	1196.0	1296.9	1473.1	1618.2	1763.2	1812.0	1763.9	1750.8	1732.6	1707.2
50°	1296.2	1311.8	1419.2	1620.8	1784.7	1957.7	2038.9	1957.7	1938.8	1933.0	1904.3
52.5°	1397.0	1410.0	1513.4	1734.6	1912.1	2115.1	2233.4	2126.1	2112.5	2092.9	2072.1
55°	1456.9	1467.3	1564.2	1789.2	1998.6	2256.8	2421.4	2327.1	2306.9	2299.1	2269.2
57.5°	1477.0	1487.4	1574.6	1796.4	2045.4	2386.2	2649.7	2653.0	2628.9	2600.9	2591.8
60°	1477.0	1488.7	1562.2	1778.8	2091.0	2524.2	2954.1	3225.3	3173.3	3168.1	3134.9
62.5°	1415.9	1427.0	1501.1	1724.8	2152.2	2710.1	3378.1	3856.8	3841.8	3808.0	3753.4
65°	1283.2	1289.7	1362.5	1587.0	2128.7	2881.2	3745.6	4276.9	4252.9	4186.5	4116.3
66°	1223.4	1228.6	1296.9	1508.2	2051.9	2904.6	3810.6	4329.6	4289.9	4234.0	4154.7
67.5°	1136.9	1146.0	1194.1	1361.9	1867.9	2823.3	3769.6	4292.5	4258.1	4190.4	4111.1
70°	759.0	752.5	922.3	1045.2	1423.1	2300.4	3382.0	3854.2	3854.9	3823.0	3791.1
72.5°	360.3	364.2	413.7	643.2	931.4	1536.8	2692.0	3076.3	3120.5	3063.3	3023.7
75°	258.9	264.7	294.6	393.5	555.4	922.3	1745.0	2151.5	2152.8	2051.3	1960.9
77.5°	75.5	78.7	110.5	242.6	416.3	622.4	1002.2	1196.0	1168.1	1095.3	1027.0
80°	31.2	31.2	32.5	77.4	167.1	422.8	701.1	921.0	917.7	889.7	849.4
82.5°	11.7	12.4	15.6	31.9	39.7	104.0	467.6	799.3	797.4	757.7	729.1
85°	1.3	1.3	3.9	13.7	15.0	19.5	93.6	352.5	350.6	352.5	308.9
87.5°	0.0	0.0	0.7	1.3	2.0	2.6	3.9	13.7	15.0	14.3	13.0
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):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	102.1	102.1	102.1	102.1	102.1	102.1	102.1	102.1	102.1	102.1	102.1
2.5°	111.2	109.9	109.9	109.2	109.2	109.2	108.6	107.9	107.9	107.3	106.6
5°	121.6	120.3	119.6	118.3	117.7	117.0	115.7	115.1	113.8	113.1	112.5
7.5°	134.0	131.4	130.7	128.8	126.8	125.5	124.2	122.2	120.9	118.3	117.7
10°	149.6	146.3	143.7	141.1	139.2	135.9	134.0	131.4	128.8	126.8	124.8
12.5°	169.7	165.2	161.3	158.7	154.1	150.2	146.3	144.4	139.2	136.6	133.3
15°	191.9	186.7	182.1	176.9	173.7	167.1	161.9	156.1	153.5	148.9	143.7
17.5°	220.5	212.0	204.9	199.7	193.2	186.7	180.8	175.0	167.1	161.9	155.4
20°	251.1	243.9	234.2	225.1	217.3	209.4	201.0	193.2	186.0	177.6	169.7
22.5°	290.0	279.6	268.0	258.9	248.5	240.0	228.3	217.9	206.2	195.1	186.0
25°	339.5	325.8	314.8	301.8	289.4	276.4	262.1	249.1	234.2	223.8	208.1
27.5°	400.7	387.7	372.7	355.8	343.4	323.9	305.0	288.7	271.2	255.0	237.4
30°	478.7	459.8	444.2	428.0	403.3	384.4	362.3	340.1	316.1	299.8	273.1
32.5°	572.4	552.2	528.8	505.3	482.6	455.9	428.6	401.3	374.6	344.7	317.4
35°	686.8	662.7	636.0	610.7	575.6	547.0	512.5	474.8	444.9	410.4	375.9
37.5°	838.3	798.7	775.3	748.6	701.1	662.1	623.7	586.0	533.3	496.9	448.1
40°	1028.3	1004.8	966.5	923.6	880.6	829.2	777.2	727.1	666.0	615.3	558.7
42.5°	1251.4	1216.9	1177.8	1116.1	1072.5	1012.0	952.8	886.5	811.6	746.7	680.3
45°	1460.8	1419.8	1389.9	1328.1	1282.6	1211.0	1139.5	1069.2	982.7	898.9	822.1
47.5°	1687.1	1653.3	1603.9	1553.8	1507.6	1427.0	1349.5	1264.4	1173.3	1073.8	974.3
50°	1886.1	1859.4	1825.6	1765.2	1713.8	1646.1	1555.1	1462.1	1346.9	1248.1	1134.9
52.5°	2055.2	2034.4	1987.0	1944.0	1897.8	1834.1	1752.8	1663.7	1539.4	1430.9	1302.1
55°	2254.9	2239.9	2198.3	2171.6	2130.7	2069.5	1993.4	1910.8	1779.5	1661.1	1515.4
57.5°	2582.0	2570.3	2533.9	2522.9	2482.6	2429.2	2335.6	2247.1	2093.6	1946.6	1780.1
60°	3123.8	3100.4	3047.1	3019.8	2934.5	2863.0	2741.4	2619.8	2434.4	2247.1	2046.7
62.5°	3704.0	3638.3	3536.8	3449.6	3328.7	3204.5	3041.9	2855.9	2638.6	2416.2	2185.9
65°	4016.8	3904.9	3776.8	3638.3	3481.5	3298.8	3093.9	2870.8	2637.3	2402.5	2159.3
66°	4052.6	3926.4	3790.4	3636.3	3462.0	3267.5	3059.4	2825.3	2582.7	2353.7	2110.5
67.5°	4007.7	3875.7	3731.9	3560.9	3372.3	3170.7	2952.1	2708.8	2475.4	2243.2	2006.4
70°	3693.6	3562.2	3434.0	3253.9	3052.9	2850.0	2643.2	2371.3	2150.2	1936.9	1726.1
72.5°	2949.5	2860.4	2733.5	2579.4	2383.6	2145.7	1973.3	1730.0	1538.1	1331.3	1168.1
75°	1843.2	1717.7	1560.9	1364.5	1214.9	1021.7	921.0	736.3	627.0	531.4	439.0
77.5°	942.4	848.1	738.2	627.6	521.6	416.3	321.9	227.7	153.5	106.6	79.4
80°	778.5	695.3	604.2	503.4	409.8	318.0	229.0	156.1	99.5	65.1	50.8
82.5°	643.2	573.0	491.7	398.1	316.7	249.8	173.7	113.1	70.3	45.6	35.8
85°	273.8	248.5	191.9	152.2	114.4	84.6	59.2	39.7	28.0	22.8	20.8
87.5°	11.7	13.0	12.4	9.8	7.2	7.2	6.5	5.2	5.2	5.2	5.2
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°	102.1	102.1	102.1	102.1	102.1	102.1	102.1	102.1	102.1	102.1	102.1
2.5°	106.6	106.0	105.3	105.3	104.7	104.0	100.1	96.9	93.0	90.4	87.8
5°	111.2	110.5	109.2	108.6	107.3	106.6	98.2	91.0	85.2	80.7	77.4
7.5°	115.7	115.1	113.1	111.2	110.5	109.2	95.6	86.5	78.7	73.5	70.3
10°	121.6	119.6	117.7	115.1	113.1	111.2	93.0	81.3	72.9	68.3	65.1
12.5°	130.1	126.8	123.5	120.3	117.7	114.4	91.7	76.8	68.3	63.1	59.9
15°	139.8	135.3	131.4	127.4	122.9	119.6	89.1	72.9	64.4	59.2	55.3
17.5°	148.9	143.7	137.9	132.0	127.4	122.9	86.5	69.0	60.5	55.3	51.4
20°	161.9	154.1	147.0	139.8	133.3	127.4	82.6	65.1	57.3	51.4	47.5
22.5°	176.3	167.1	158.0	148.3	139.8	132.0	79.4	61.8	54.0	48.2	43.6
25°	194.5	183.4	171.0	158.7	148.9	138.5	76.1	58.6	50.8	44.9	40.3
27.5°	219.9	204.2	190.6	175.0	160.0	148.3	73.5	56.0	47.5	41.6	37.1
30°	254.3	231.6	210.1	193.2	175.6	158.7	70.9	52.7	44.9	38.4	33.2
32.5°	292.6	266.0	241.3	216.0	193.8	174.3	68.3	50.1	41.6	35.1	30.6
35°	340.1	306.3	273.1	243.9	217.3	191.2	65.7	47.5	39.0	31.9	27.3
37.5°	408.5	366.2	322.6	284.8	250.4	216.0	63.8	44.9	35.8	28.6	24.1
40°	502.1	447.5	394.2	342.8	297.8	255.0	61.2	42.3	33.2	26.0	21.5
42.5°	603.6	537.2	466.9	409.1	347.3	293.3	58.6	39.7	30.6	23.4	18.9
45°	729.8	647.1	562.0	483.2	407.8	338.2	56.0	37.1	27.3	20.8	16.3
47.5°	867.6	762.3	666.0	567.2	477.4	394.2	52.7	35.1	24.7	18.2	14.3
50°	1009.4	898.2	776.6	664.0	557.4	450.0	49.5	31.9	22.1	16.3	11.7
52.5°	1162.2	1030.9	906.7	766.8	642.6	523.6	46.2	29.3	20.2	14.3	9.8
55°	1356.7	1209.7	1064.0	907.3	757.7	608.8	43.0	26.0	17.6	12.4	7.8
57.5°	1601.3	1427.0	1248.1	1071.2	889.7	720.6	40.3	22.8	15.0	10.4	6.5
60°	1832.1	1628.6	1412.0	1208.4	1003.5	806.5	36.4	20.2	13.0	8.5	6.5
62.5°	1951.8	1719.6	1486.1	1261.8	1043.2	837.0	32.5	16.9	11.1	7.2	5.9
65°	1922.5	1685.8	1459.5	1233.1	1019.1	817.5	28.6	15.0	9.8	6.5	5.9
66°	1880.2	1646.1	1418.5	1203.2	999.0	796.7	26.7	14.3	9.1	6.5	5.2
67.5°	1787.9	1561.6	1344.3	1144.0	943.7	757.1	24.1	13.0	8.5	5.9	5.2
70°	1527.1	1321.6	1147.9	969.7	806.5	638.0	19.5	11.1	7.2	5.2	5.2
72.5°	1010.7	870.9	755.1	649.7	543.1	421.5	16.3	9.1	5.9	5.2	4.6
75°	381.1	344.7	295.9	266.0	232.2	203.6	13.0	5.9	4.6	4.6	4.6
77.5°	67.7	62.5	55.3	50.8	46.9	43.0	10.4	3.9	3.9	4.6	4.6
80°	45.6	42.3	38.4	35.1	32.5	29.3	7.2	3.3	3.9	3.9	4.6
82.5°	32.5	30.6	28.6	26.0	24.1	21.5	4.6	3.3	3.9	3.9	3.9
85°	19.5	18.2	16.9	15.6	13.7	13.0	3.3	3.3	3.3	3.9	3.9
87.5°	5.2	4.6	5.2	5.2	3.9	4.6	2.6	2.6	2.6	3.3	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):

	145°	155°	165°	175°	180°
0°	102.1	102.1	102.1	102.1	102.1
2.5°	86.5	86.5	85.2	87.2	87.2
5°	74.8	74.8	74.2	74.8	74.8
7.5°	68.3	67.7	67.7	67.7	68.3
10°	62.5	61.8	61.8	61.8	61.8
12.5°	57.3	56.6	56.0	56.6	56.6
15°	52.7	51.4	51.4	51.4	51.4
17.5°	48.8	47.5	46.9	46.9	46.9
20°	44.9	43.0	43.0	43.0	43.0
22.5°	41.0	39.0	39.0	39.0	39.0
25°	37.1	35.1	35.1	35.1	35.1
27.5°	33.8	31.9	31.9	31.9	31.9
30°	29.9	28.6	28.6	29.3	28.6
32.5°	27.3	25.4	25.4	26.0	26.0
35°	24.1	22.8	22.8	22.8	22.8
37.5°	20.8	19.5	19.5	19.5	19.5
40°	18.2	16.9	16.3	16.9	16.9
42.5°	15.6	14.3	13.7	13.7	13.7
45°	13.7	11.7	11.1	11.7	11.7
47.5°	11.1	9.8	9.8	10.4	10.4
50°	8.5	8.5	9.1	10.4	10.4
52.5°	7.8	7.8	9.1	10.4	10.4
55°	7.2	7.8	9.1	9.8	10.4
57.5°	6.5	7.8	9.1	9.8	9.8
60°	6.5	7.2	8.5	9.8	9.8
62.5°	5.9	6.5	7.8	9.1	9.1
65°	5.9	6.5	7.8	9.1	9.1
66°	5.9	6.5	7.8	9.1	9.1
67.5°	5.9	6.5	7.8	9.1	9.1
70°	5.9	6.5	7.8	8.5	8.5
72.5°	5.2	5.9	7.2	8.5	8.5
75°	5.2	5.9	7.2	8.5	8.5
77.5°	5.2	5.9	7.2	8.5	8.5
80°	5.2	5.9	7.2	7.8	8.5
82.5°	4.6	5.9	6.5	7.8	7.8
85°	4.6	5.2	6.5	7.2	7.8
87.5°	3.9	4.6	5.2	6.5	6.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)