

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: P162455

Luminaire Tested: **ECM-E04-LED-E1-SL3-HSS-8030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P162455
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-E04-LED-E1-SL3-HSS-8030
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (84) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5565.1 lumens
Efficiency: N/A
Efficacy: 57.3 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.67' x L: 1' x H: 0.1')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B0 - U0 - G2

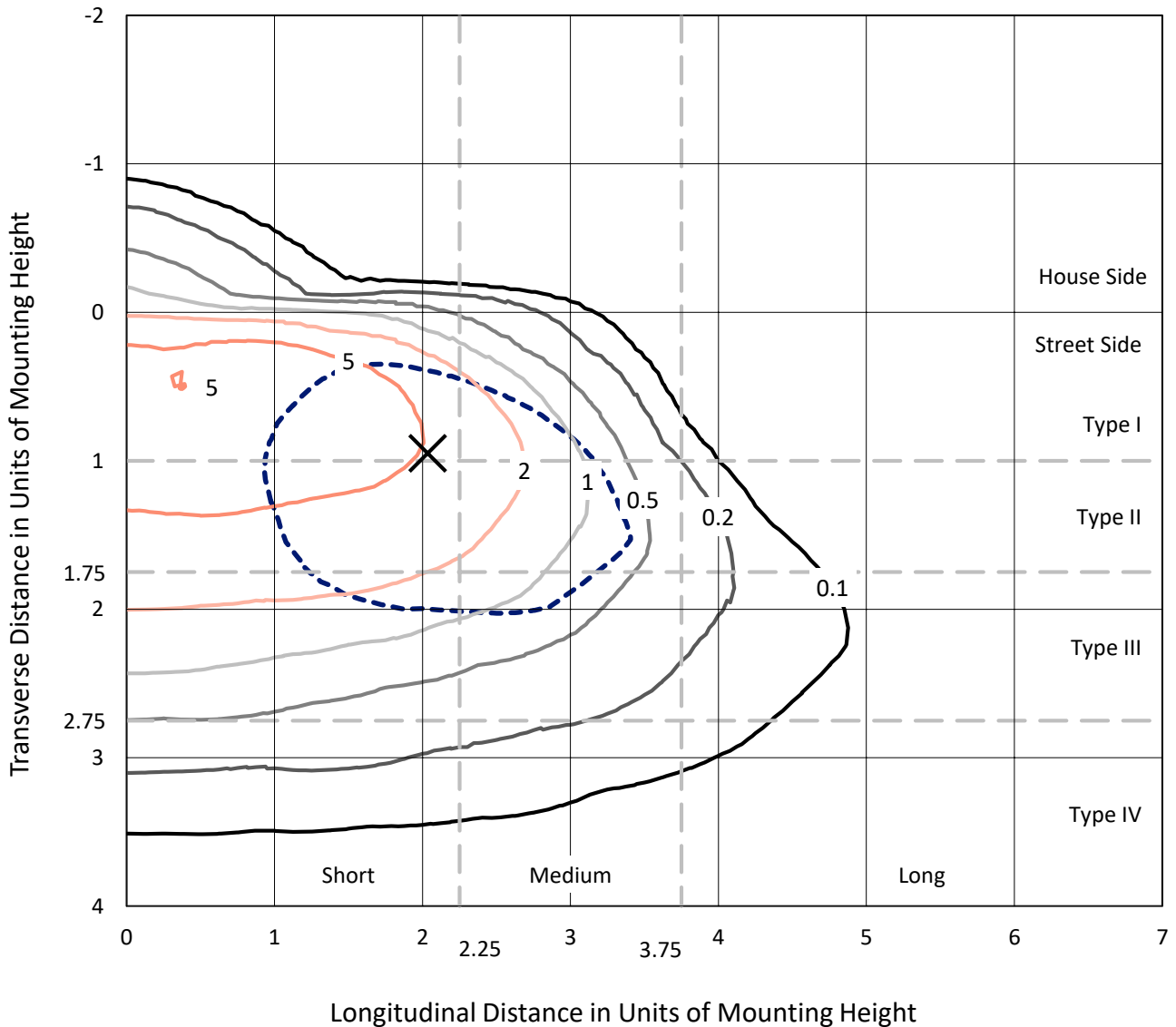
Input Watts (W): 97.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

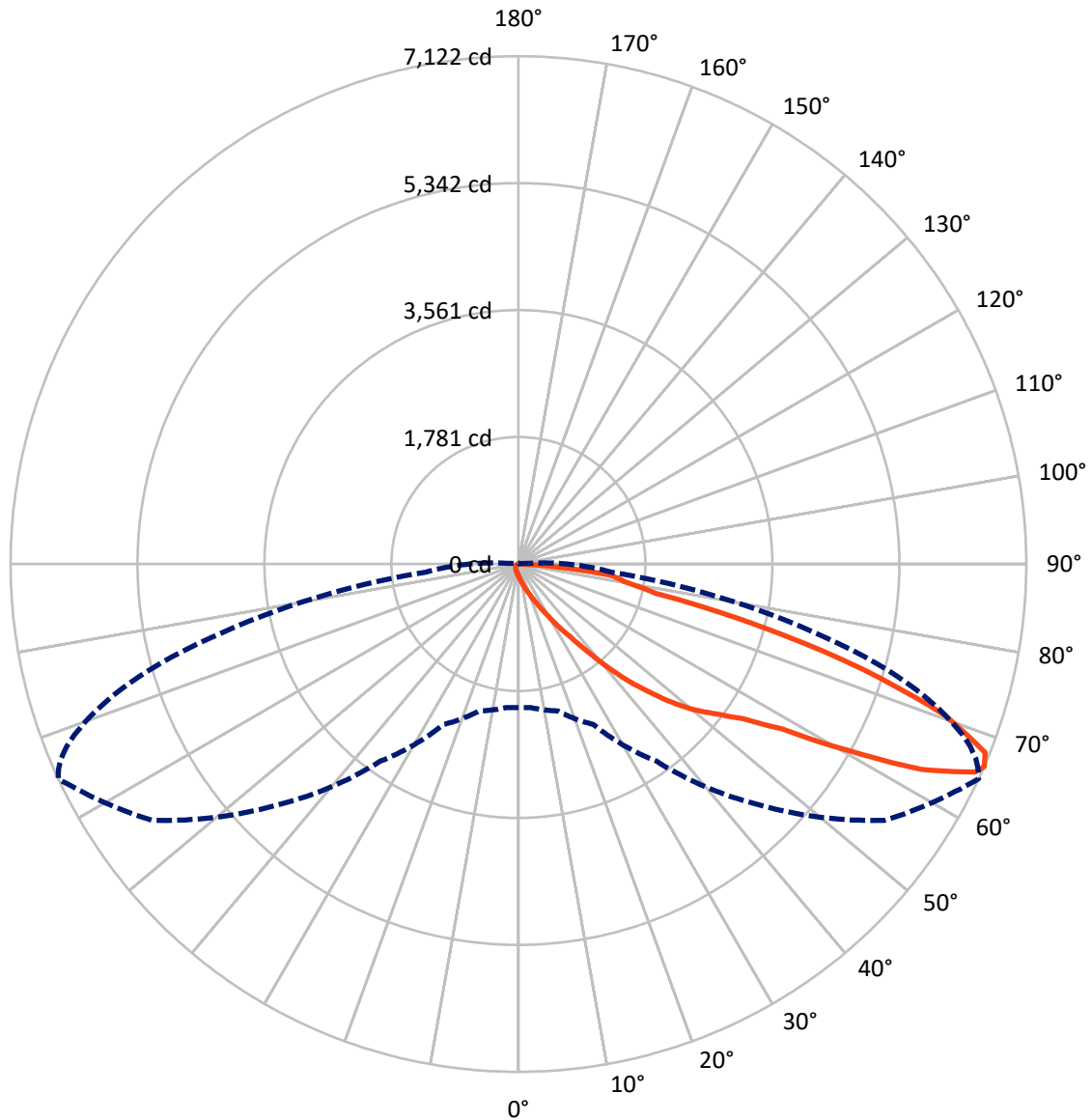
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.2 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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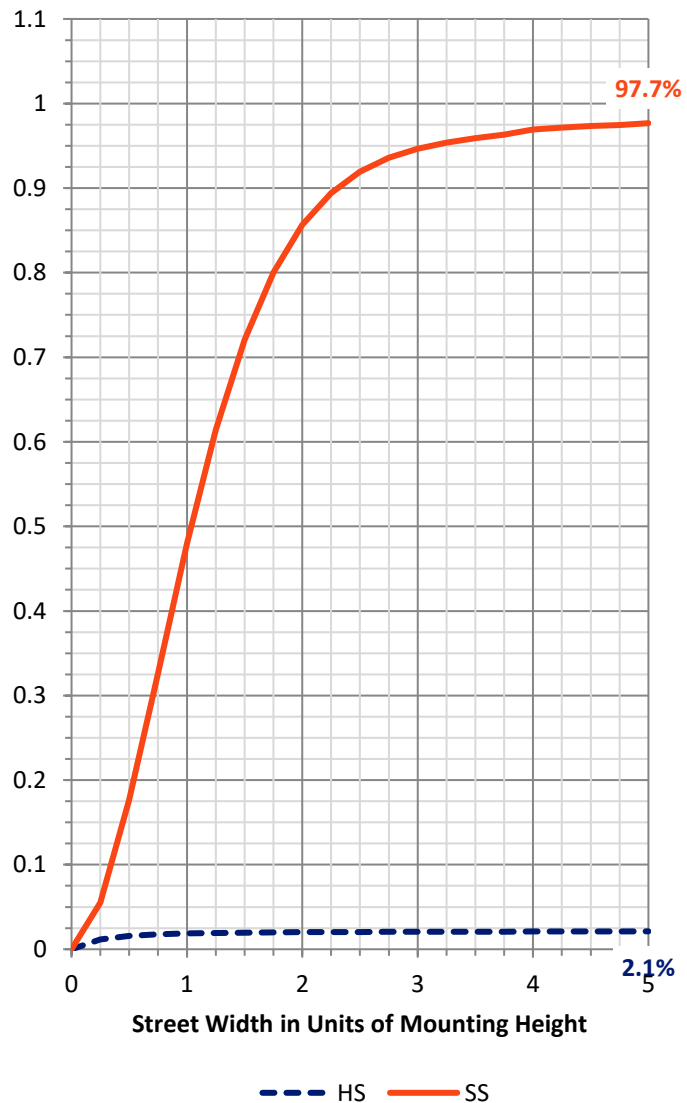
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	120.6	0.0	120.6
	% Fixture	2.2	0.0	2.2
Street Side	Lumens	5444.5	0.0	5444.5
	% Fixture	97.8	0.0	97.8
Total	Lumens	5565.1	0.0	5565.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.8	0.3
10°-20°	79.7	1.4
20°-30°	172.0	3.1
30°-40°	367.2	6.6
40°-50°	812.2	14.6
50°-60°	1376.4	24.7
60°-70°	1836.6	33.0
70°-80°	809.0	14.5
80°-90°	93.2	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°	5565.1	100.0
0°-180°	5565.1	100.0



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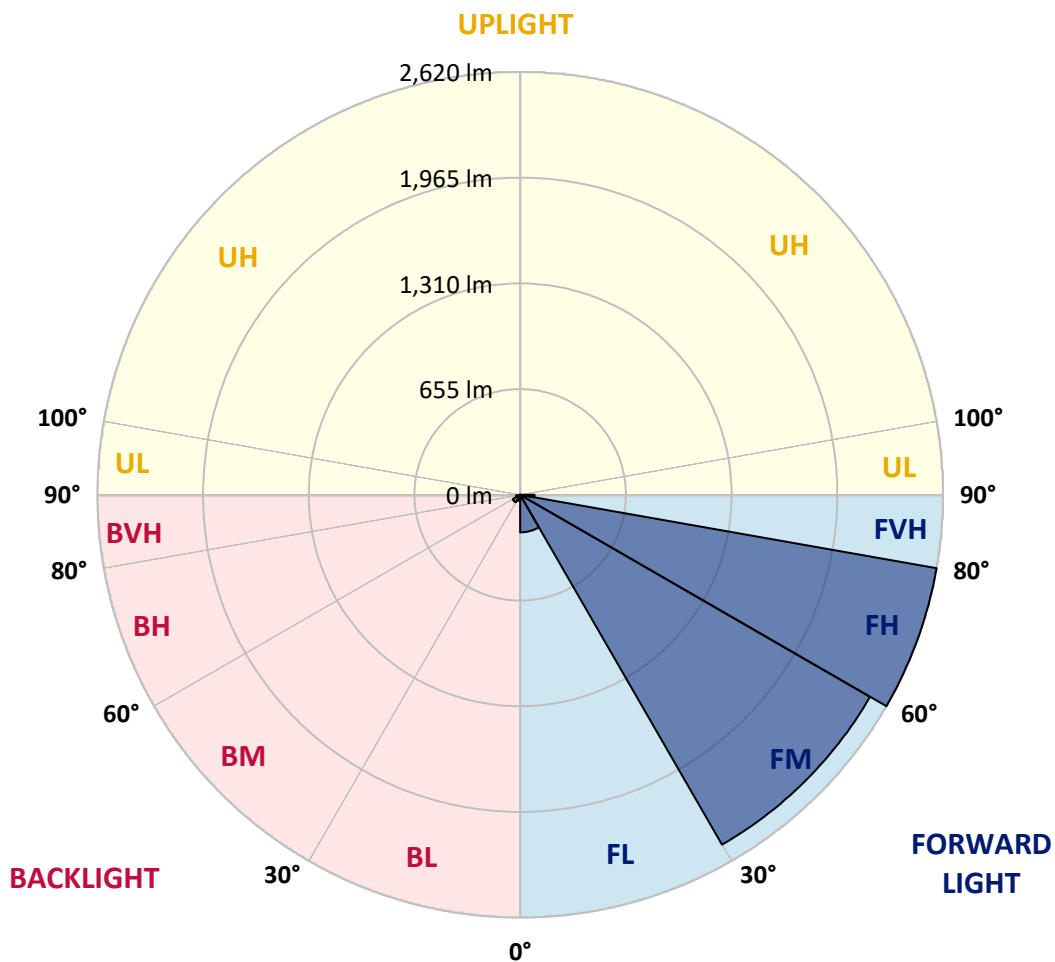
CATALOG NUMBER: ECM-E04-LED-E1-SL3-HSS-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	232.5	4.2			
FM	(30°-60°)	2502.8	45.0			
FH	(60°-80°)	2619.8	47.1			G2/5000
FVH	(80°-90°)	89.5	1.6			G1/100
BL	(0°-30°)	38.0	0.7	B0/110		
BM	(30°-60°)	53.0	1.0	B0/220		
BH	(60°-80°)	25.9	0.5	B0/110		G0/110
BVH	(80°-90°)	3.7	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°	168.0	168.0	168.0	168.0	168.0	168.0	168.0	168.0	168.0	168.0	168.0
2.5°	211.9	210.8	206.5	206.5	200.1	195.8	190.4	185.1	185.1	184.0	183.0
5°	280.3	273.9	272.8	261.1	251.4	237.6	224.7	207.5	205.4	203.2	202.2
7.5°	356.3	355.3	345.6	331.6	312.4	286.7	261.1	233.3	229.0	226.9	222.6
10°	454.7	449.3	436.5	413.0	384.1	349.9	308.1	264.2	258.9	254.7	252.5
12.5°	548.8	539.3	531.7	501.8	465.4	415.1	364.8	301.7	297.4	292.1	283.6
15°	636.6	628.0	615.2	589.6	548.8	485.7	426.9	349.9	339.2	331.6	325.2
17.5°	705.1	699.7	684.8	655.8	611.9	556.4	485.7	399.0	390.5	380.9	369.1
20°	770.3	762.9	739.3	699.7	652.7	609.8	555.2	463.3	451.5	439.8	426.9
22.5°	832.4	824.9	786.4	721.1	670.8	652.7	633.3	536.0	517.9	508.2	495.4
25°	919.0	903.0	843.1	739.3	671.9	685.8	719.0	630.2	613.1	599.1	578.9
27.5°	1035.6	1014.3	920.2	766.0	676.2	722.2	817.4	744.6	726.5	710.4	687.9
30°	1167.3	1153.3	1041.0	830.3	707.3	775.7	927.6	890.1	868.7	849.5	822.7
32.5°	1300.0	1280.7	1169.4	952.2	790.7	879.4	1065.7	1059.3	1031.4	1013.2	984.3
35°	1416.6	1406.9	1324.5	1152.3	981.1	1061.4	1249.7	1257.1	1232.6	1213.3	1181.1
37.5°	1495.8	1495.8	1479.7	1367.4	1283.9	1343.9	1520.3	1521.4	1496.8	1452.9	1436.9
40°	1536.4	1548.1	1605.9	1627.3	1623.1	1700.1	1875.6	1856.3	1836.0	1813.5	1760.0
42.5°	1619.9	1630.6	1753.6	1901.2	1997.6	2099.2	2220.0	2213.6	2189.1	2148.4	2099.2
45°	1761.1	1775.0	1921.6	2155.9	2353.8	2498.2	2575.3	2545.4	2520.7	2482.2	2456.5
47.5°	1940.8	1967.5	2133.4	2423.4	2661.9	2900.5	2980.8	2901.6	2880.1	2850.2	2808.5
50°	2132.4	2158.0	2334.6	2666.2	2935.9	3220.4	3354.1	3220.4	3189.4	3179.8	3132.7
52.5°	2298.1	2319.5	2489.7	2853.5	3145.5	3479.4	3674.1	3497.5	3475.1	3442.9	3408.7
55°	2396.6	2413.7	2573.2	2943.3	3287.9	3712.5	3983.3	3828.1	3794.9	3782.1	3732.9
57.5°	2429.8	2446.9	2590.3	2955.1	3364.8	3925.5	4358.8	4364.2	4324.6	4278.6	4263.6
60°	2429.8	2449.0	2569.9	2926.2	3439.8	4152.3	4859.6	5305.7	5220.1	5211.6	5157.0
62.5°	2329.2	2347.4	2469.4	2837.4	3540.4	4458.3	5557.1	6344.6	6319.9	6264.3	6174.4
65°	2110.9	2121.7	2241.4	2610.6	3501.8	4739.7	6161.6	7035.7	6996.1	6887.0	6771.5
66°	2012.5	2021.1	2133.4	2481.1	3375.5	4778.2	6268.6	7122.4	7057.1	6965.1	6834.6
67.5°	1870.2	1885.1	1964.4	2240.4	3072.8	4644.4	6201.2	7061.4	7004.7	6893.4	6763.0
70°	1248.5	1237.9	1517.2	1719.4	2341.0	3784.2	5563.6	6340.3	6341.4	6289.0	6236.5
72.5°	592.7	599.1	680.5	1058.1	1532.1	2528.1	4428.4	5060.7	5133.4	5039.3	4974.0
75°	425.8	435.5	484.7	647.3	913.6	1517.2	2870.6	3539.2	3541.4	3374.5	3225.7
77.5°	124.1	129.4	181.9	399.0	684.8	1023.9	1648.7	1967.5	1921.6	1801.8	1689.4
80°	51.3	51.3	53.5	127.3	274.9	695.4	1153.3	1515.0	1509.6	1463.6	1397.3
82.5°	19.2	20.4	25.7	52.4	65.3	171.2	769.3	1314.9	1311.7	1246.4	1199.4
85°	2.1	2.1	6.4	22.5	24.6	32.1	154.1	579.9	576.7	579.9	508.2
87.5°	0.0	0.0	1.1	2.1	3.3	4.3	6.4	22.5	24.6	23.5	21.4
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°	168.0	168.0	168.0	168.0	168.0	168.0	168.0	168.0	168.0	168.0	168.0
2.5°	183.0	180.8	180.8	179.7	179.7	179.7	178.7	177.6	177.6	176.6	175.4
5°	200.1	197.9	196.8	194.7	193.7	192.5	190.4	189.4	187.3	186.1	185.1
7.5°	220.5	216.2	215.0	211.9	208.6	206.5	204.4	201.1	199.0	194.7	193.7
10°	246.1	240.7	236.4	232.2	229.0	223.6	220.5	216.2	211.9	208.6	205.4
12.5°	279.2	271.8	265.4	261.1	253.5	247.1	240.7	237.6	229.0	224.7	219.3
15°	315.7	307.1	299.6	291.0	285.7	274.9	266.4	256.8	252.5	245.0	236.4
17.5°	362.7	348.7	337.0	328.5	317.8	307.1	297.4	287.9	274.9	266.4	255.7
20°	413.0	401.2	385.2	370.2	357.4	344.5	330.6	317.8	306.0	292.1	279.2
22.5°	477.1	460.0	440.8	425.8	408.7	394.8	375.5	358.4	339.2	320.9	306.0
25°	558.5	536.0	517.9	496.5	476.1	454.7	431.2	409.7	385.2	368.1	342.3
27.5°	659.1	637.7	613.1	585.3	564.9	532.8	501.8	475.0	446.2	419.4	390.5
30°	787.5	756.4	730.8	704.0	663.4	632.3	596.0	559.5	520.0	493.2	449.3
32.5°	941.6	908.4	869.9	831.3	793.9	750.0	705.1	660.1	616.2	567.0	522.1
35°	1129.8	1090.2	1046.3	1004.7	946.8	899.8	843.1	781.1	731.8	675.1	618.4
37.5°	1379.1	1313.8	1275.3	1231.4	1153.3	1089.2	1026.1	964.0	877.3	817.4	737.2
40°	1691.6	1653.0	1589.9	1519.3	1448.6	1364.1	1278.6	1196.1	1095.6	1012.1	919.0
42.5°	2058.6	2001.8	1937.6	1836.0	1764.3	1664.8	1567.5	1458.3	1335.2	1228.3	1119.1
45°	2403.0	2335.6	2286.4	2184.8	2109.9	1992.2	1874.4	1758.9	1616.6	1478.7	1352.4
47.5°	2775.4	2719.7	2638.4	2556.1	2480.1	2347.4	2220.0	2079.9	1930.2	1766.4	1602.7
50°	3102.7	3058.8	3003.3	2903.8	2819.3	2708.0	2558.2	2405.1	2215.8	2053.1	1867.0
52.5°	3380.9	3346.7	3268.6	3197.9	3122.0	3017.1	2883.4	2736.8	2532.4	2353.8	2141.9
55°	3709.4	3684.8	3616.3	3572.4	3505.0	3404.4	3279.3	3143.4	2927.3	2732.5	2492.9
57.5°	4247.5	4228.3	4168.4	4150.2	4083.9	3996.1	3842.1	3696.6	3444.0	3202.2	2928.3
60°	5138.8	5100.3	5012.5	4967.6	4827.4	4709.7	4509.7	4309.6	4004.7	3696.6	3367.0
62.5°	6093.2	5985.1	5818.1	5674.8	5475.8	5271.5	5004.0	4698.0	4340.6	3974.7	3596.0
65°	6607.8	6423.8	6213.0	5985.1	5727.2	5426.6	5089.6	4722.6	4338.5	3952.2	3552.1
66°	6666.6	6459.0	6235.4	5981.9	5695.1	5375.2	5032.9	4647.7	4248.7	3872.0	3471.8
67.5°	6592.8	6375.6	6139.2	5857.7	5547.5	5215.9	4856.3	4456.2	4072.1	3690.2	3300.7
70°	6076.1	5859.9	5649.1	5352.8	5022.2	4688.3	4348.1	3900.9	3537.1	3186.2	2839.5
72.5°	4852.0	4705.4	4496.8	4243.2	3921.2	3529.7	3246.1	2845.9	2530.3	2190.1	1921.6
75°	3032.2	2825.7	2567.8	2244.7	1998.6	1680.8	1515.0	1211.2	1031.4	874.1	722.2
77.5°	1550.4	1395.2	1214.3	1032.5	858.1	684.8	529.6	374.5	252.5	175.4	130.5
80°	1280.7	1143.8	994.0	828.1	674.1	523.2	376.6	256.8	163.7	107.0	83.5
82.5°	1058.1	942.6	808.9	654.8	521.0	410.9	285.7	186.1	115.6	74.9	58.9
85°	450.5	408.7	315.7	250.4	188.3	139.1	97.3	65.3	46.0	37.5	34.2
87.5°	19.2	21.4	20.4	16.1	11.8	11.8	10.7	8.6	8.6	8.6	8.6
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°	168.0	168.0	168.0	168.0	168.0	168.0	168.0	168.0	168.0	168.0	168.0
2.5°	175.4	174.4	173.3	173.3	172.3	171.2	164.7	159.5	153.0	148.8	144.5
5°	183.0	181.9	179.7	178.7	176.6	175.4	161.6	149.8	140.1	132.7	127.3
7.5°	190.4	189.4	186.1	183.0	181.9	179.7	157.3	142.4	129.4	120.9	115.6
10°	200.1	196.8	193.7	189.4	186.1	183.0	153.0	133.7	119.8	112.3	107.0
12.5°	214.0	208.6	203.2	197.9	193.7	188.3	150.9	126.3	112.3	103.8	98.5
15°	230.0	222.6	216.2	209.6	202.2	196.8	146.6	119.8	105.9	97.3	90.9
17.5°	245.0	236.4	226.9	217.2	209.6	202.2	142.4	113.4	99.5	90.9	84.5
20°	266.4	253.5	241.8	230.0	219.3	209.6	135.8	107.0	94.2	84.5	78.1
22.5°	290.0	274.9	259.9	244.0	230.0	217.2	130.5	101.6	88.8	79.2	71.7
25°	319.9	301.7	281.3	261.1	245.0	227.9	125.1	96.3	83.5	73.8	66.3
27.5°	361.7	335.9	313.5	287.9	263.2	244.0	120.9	92.1	78.1	68.4	61.0
30°	418.3	380.9	345.6	317.8	288.9	261.1	116.6	86.6	73.8	63.1	54.6
32.5°	481.4	437.6	396.9	355.3	318.8	286.7	112.3	82.4	68.4	57.7	50.3
35°	559.5	503.9	449.3	401.2	357.4	314.5	108.0	78.1	64.1	52.4	44.9
37.5°	671.9	602.4	530.7	468.6	411.9	355.3	104.9	73.8	58.9	47.0	39.6
40°	826.0	736.1	648.4	563.9	490.0	419.4	100.6	69.5	54.6	42.8	35.3
42.5°	992.9	883.7	768.1	672.9	571.3	482.5	96.3	65.3	50.3	38.5	31.1
45°	1200.5	1064.6	924.5	794.9	670.8	556.4	92.1	61.0	44.9	34.2	26.8
47.5°	1427.2	1253.9	1095.6	933.0	785.4	648.4	86.6	57.7	40.6	29.9	23.5
50°	1660.5	1477.5	1277.5	1092.3	916.9	740.3	81.4	52.4	36.3	26.8	19.2
52.5°	1911.9	1695.9	1491.5	1261.4	1057.1	861.3	76.0	48.2	33.2	23.5	16.1
55°	2231.8	1990.0	1750.3	1492.5	1246.4	1001.4	70.7	42.8	28.9	20.4	12.8
57.5°	2634.2	2347.4	2053.1	1762.1	1463.6	1185.4	66.3	37.5	24.6	17.1	10.7
60°	3013.9	2679.1	2322.8	1987.9	1650.8	1326.6	59.9	33.2	21.4	14.0	10.7
62.5°	3210.8	2828.8	2444.8	2075.7	1716.1	1376.9	53.5	27.8	18.2	11.8	9.7
65°	3162.6	2773.2	2400.9	2028.5	1676.5	1344.9	47.0	24.6	16.1	10.7	9.7
66°	3093.1	2708.0	2333.5	1979.3	1643.4	1310.7	43.9	23.5	15.0	10.7	8.6
67.5°	2941.1	2568.9	2211.5	1882.0	1552.5	1245.4	39.6	21.4	14.0	9.7	8.6
70°	2512.2	2174.0	1888.4	1595.3	1326.6	1049.6	32.1	18.2	11.8	8.6	8.6
72.5°	1662.7	1432.6	1242.1	1068.8	893.4	693.3	26.8	15.0	9.7	8.6	7.5
75°	626.9	567.0	486.8	437.6	381.9	334.9	21.4	9.7	7.5	7.5	7.5
77.5°	111.3	102.7	90.9	83.5	77.1	70.7	17.1	6.4	6.4	7.5	7.5
80°	74.9	69.5	63.1	57.7	53.5	48.2	11.8	5.4	6.4	6.4	7.5
82.5°	53.5	50.3	47.0	42.8	39.6	35.3	7.5	5.4	6.4	6.4	6.4
85°	32.1	29.9	27.8	25.7	22.5	21.4	5.4	5.4	5.4	6.4	6.4
87.5°	8.6	7.5	8.6	8.6	6.4	7.5	4.3	4.3	4.3	5.4	5.4
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°	168.0	168.0	168.0	168.0	168.0
2.5°	142.4	142.4	140.1	143.4	143.4
5°	123.0	123.0	122.0	123.0	123.0
7.5°	112.3	111.3	111.3	111.3	112.3
10°	102.7	101.6	101.6	101.6	101.6
12.5°	94.2	93.1	92.1	93.1	93.1
15°	86.6	84.5	84.5	84.5	84.5
17.5°	80.2	78.1	77.1	77.1	77.1
20°	73.8	70.7	70.7	70.7	70.7
22.5°	67.4	64.1	64.1	64.1	64.1
25°	61.0	57.7	57.7	57.7	57.7
27.5°	55.6	52.4	52.4	52.4	52.4
30°	49.2	47.0	47.0	48.2	47.0
32.5°	44.9	41.7	41.7	42.8	42.8
35°	39.6	37.5	37.5	37.5	37.5
37.5°	34.2	32.1	32.1	32.1	32.1
40°	29.9	27.8	26.8	27.8	27.8
42.5°	25.7	23.5	22.5	22.5	22.5
45°	22.5	19.2	18.2	19.2	19.2
47.5°	18.2	16.1	16.1	17.1	17.1
50°	14.0	14.0	15.0	17.1	17.1
52.5°	12.8	12.8	15.0	17.1	17.1
55°	11.8	12.8	15.0	16.1	17.1
57.5°	10.7	12.8	15.0	16.1	16.1
60°	10.7	11.8	14.0	16.1	16.1
62.5°	9.7	10.7	12.8	15.0	15.0
65°	9.7	10.7	12.8	15.0	15.0
66°	9.7	10.7	12.8	15.0	15.0
67.5°	9.7	10.7	12.8	15.0	15.0
70°	9.7	10.7	12.8	14.0	14.0
72.5°	8.6	9.7	11.8	14.0	14.0
75°	8.6	9.7	11.8	14.0	14.0
77.5°	8.6	9.7	11.8	14.0	14.0
80°	8.6	9.7	11.8	12.8	14.0
82.5°	7.5	9.7	10.7	12.8	12.8
85°	7.5	8.6	10.7	11.8	12.8
87.5°	6.4	7.5	8.6	10.7	10.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)