

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: P162458

Luminaire Tested: **ECM-E04-LED-E1-SL3-HSS-7050**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P162458  
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-7050  
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) 5000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

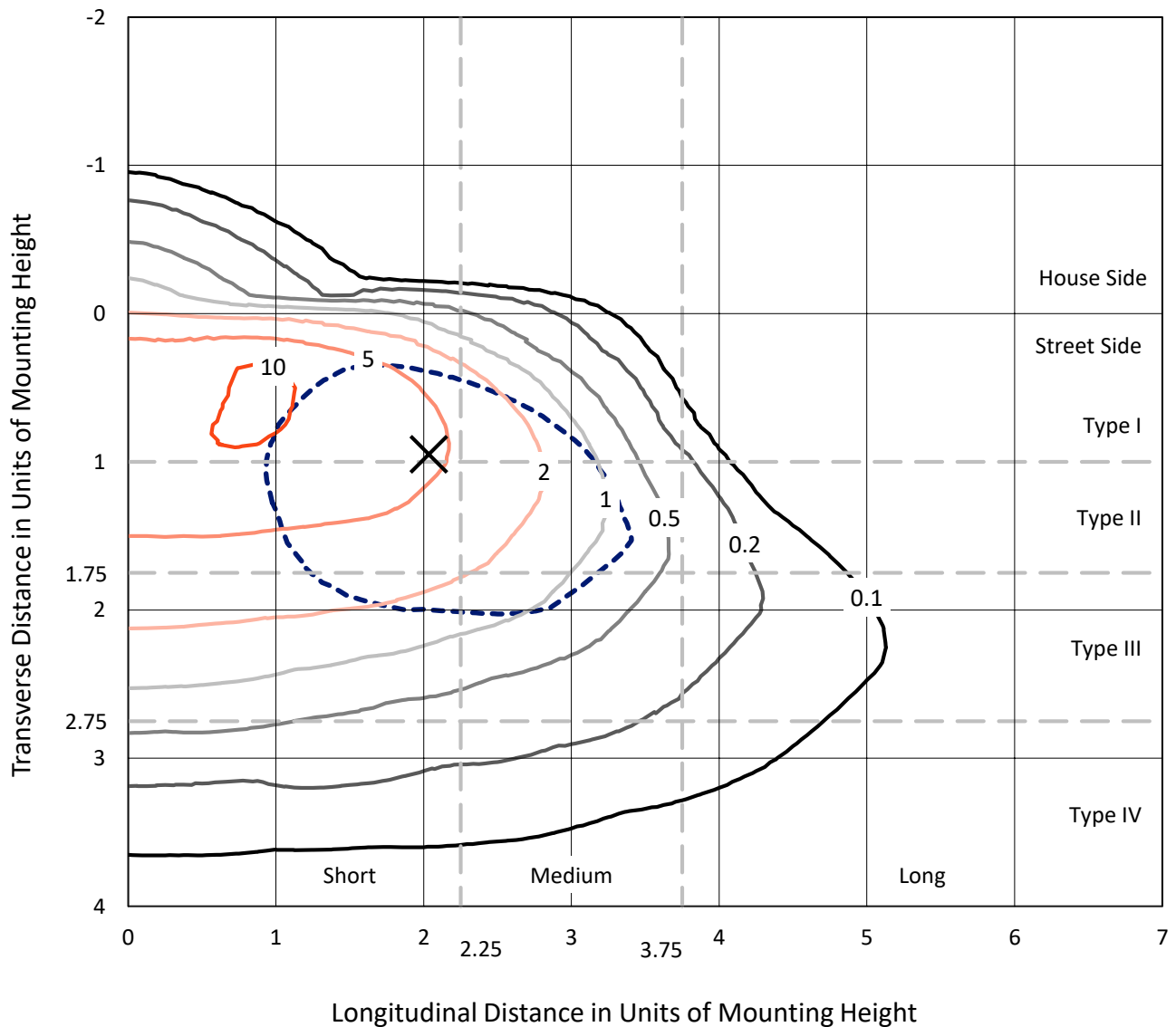
Lumens per Lamp: N/A  
Luminaire Lumens: 6766 lumens  
Efficiency: N/A  
Efficacy: 69.6 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.67' x L: 1' x H: 0.1')  
IES Classification: Type III - Short - Non-Cutoff  
BUG Rating: B0 - U0 - G2  
  
Input Watts (W): 97.2  
Input Voltage (V): NR  
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

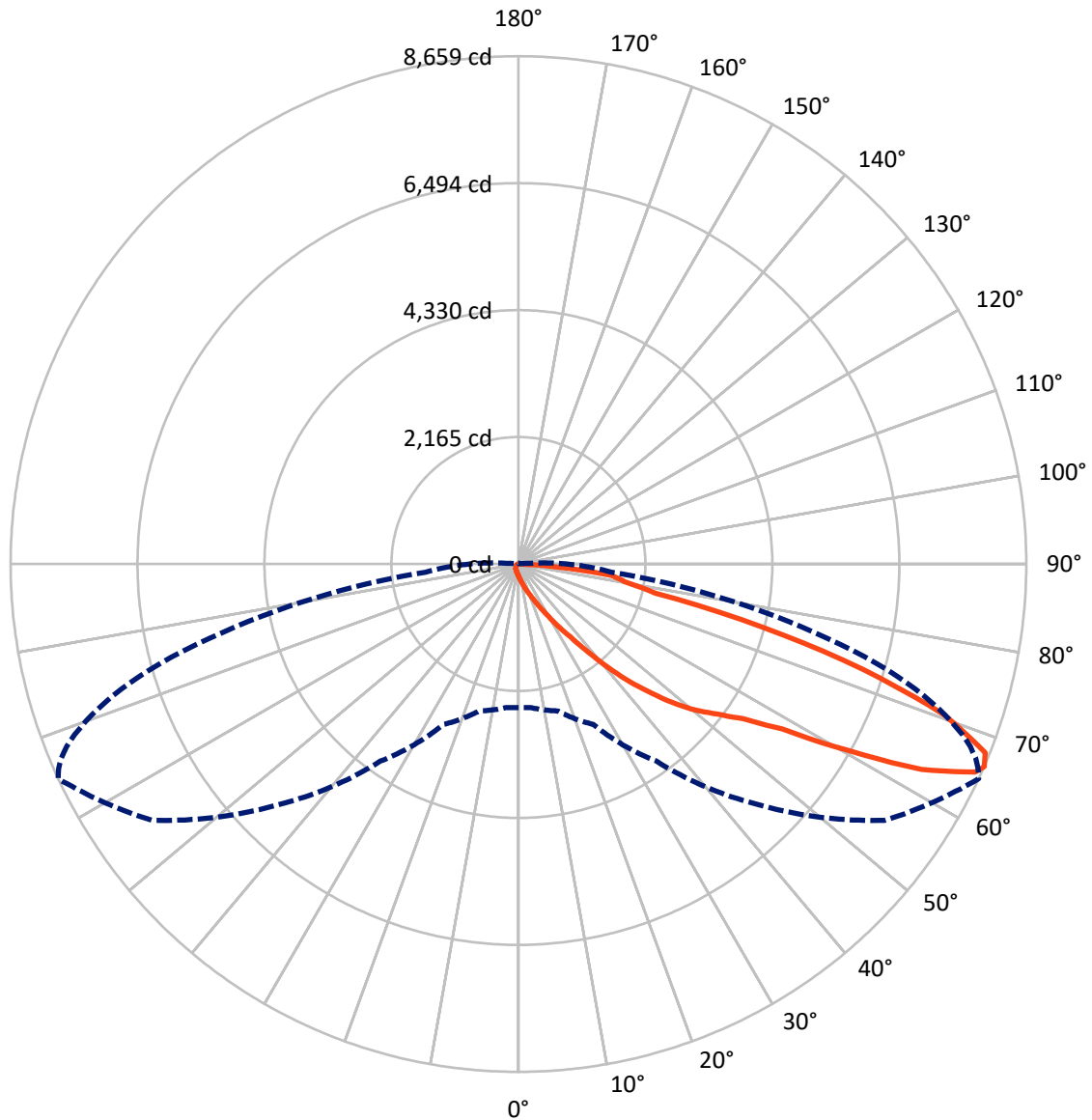
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11.2 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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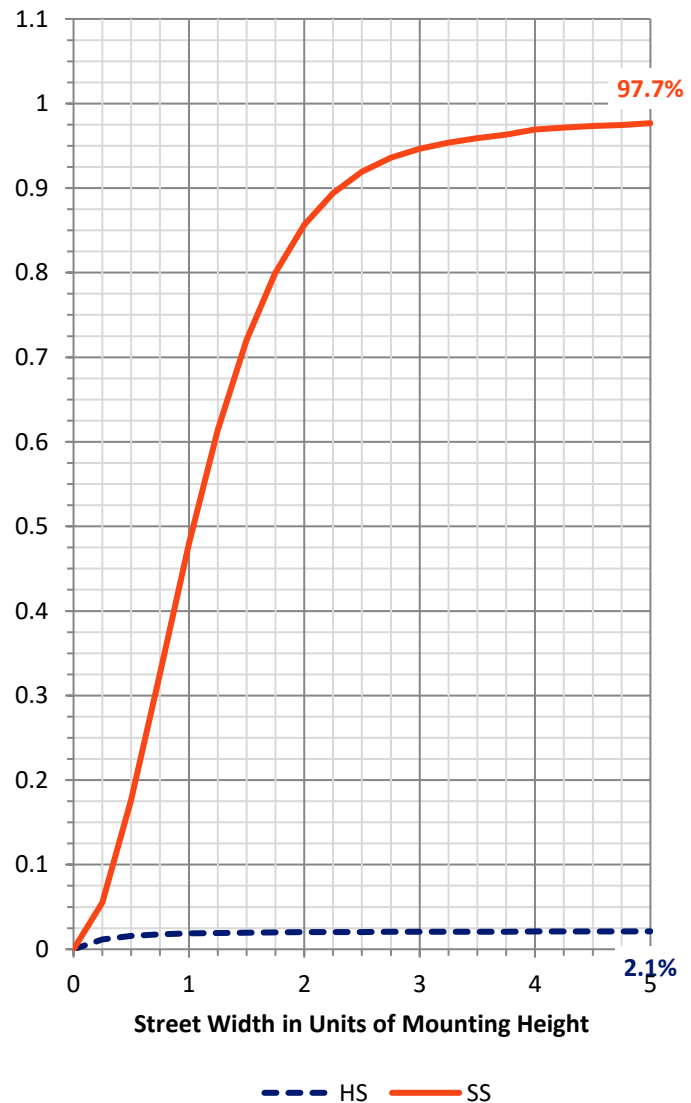
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	146.7	0.0	146.7
	% Fixture	2.2	0.0	2.2
<b>Street Side</b>	Lumens	6619.3	0.0	6619.3
	% Fixture	97.8	0.0	97.8
<b>Total</b>	Lumens	6766.0	0.0	6766.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	22.9	0.3
10°-20°	96.9	1.4
20°-30°	209.1	3.1
30°-40°	446.5	6.6
40°-50°	987.4	14.6
50°-60°	1673.3	24.7
60°-70°	2232.9	33.0
70°-80°	983.6	14.5
80°-90°	113.3	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°	6766.0	100.0
0°-180°	6766.0	100.0



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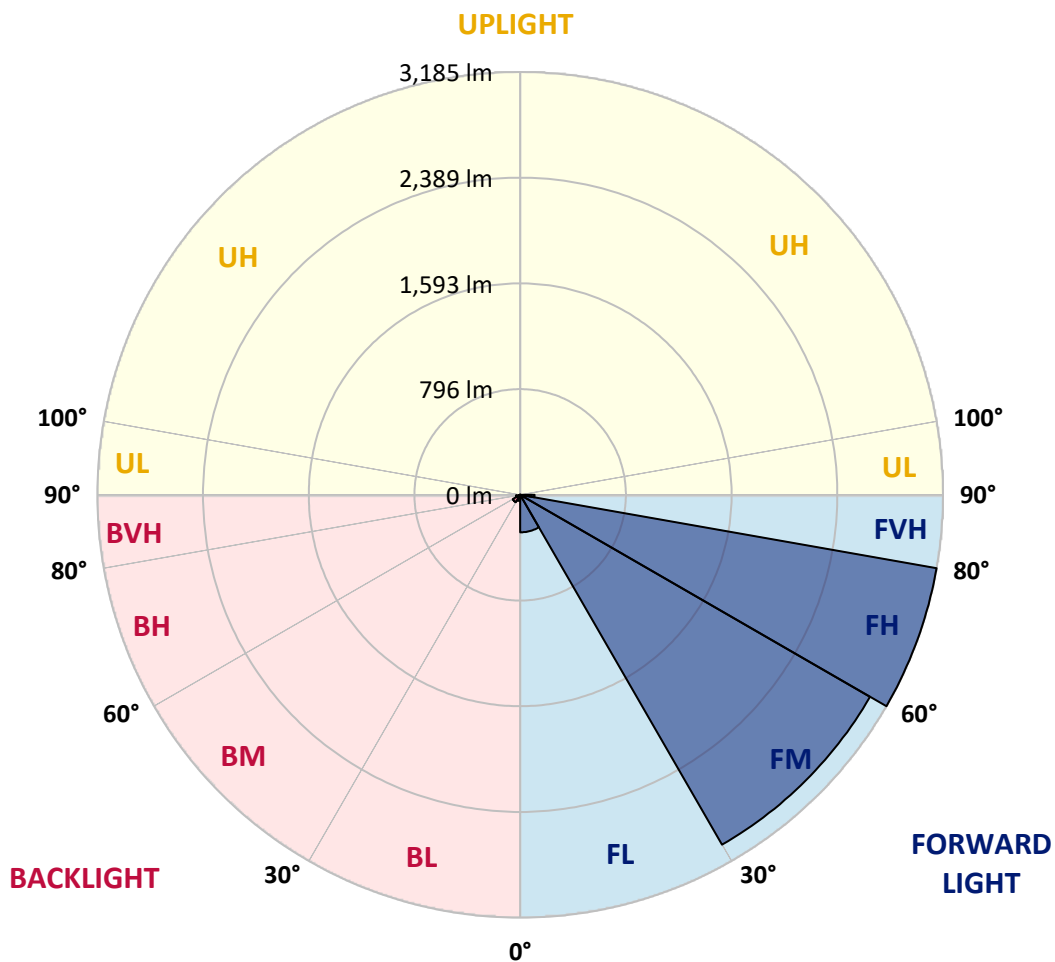
CATALOG NUMBER: ECM-E04-LED-E1-SL3-HSS-7050

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	282.6	4.2			
FM	(30°-60°)	3042.9	45.0			
FH	(60°-80°)	3185.1	47.1			G2/5000
FVH	(80°-90°)	108.8	1.6			G2/225
BL	(0°-30°)	46.3	0.7	B0/110		
BM	(30°-60°)	64.4	1.0	B0/220		
BH	(60°-80°)	31.5	0.5	B0/110		G0/110
BVH	(80°-90°)	4.5	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°	204.3	204.3	204.3	204.3	204.3	204.3	204.3	204.3	204.3	204.3	204.3
2.5°	257.6	256.3	251.1	251.1	243.3	238.1	231.5	225.1	225.1	223.7	222.5
5°	340.8	333.0	331.6	317.4	305.6	288.8	273.2	252.3	249.7	247.1	245.9
7.5°	433.2	431.9	420.2	403.2	379.8	348.6	317.4	283.6	278.4	275.8	270.6
10°	552.9	546.3	530.7	502.1	466.9	425.4	374.6	321.2	314.8	309.6	307.0
12.5°	667.2	655.6	646.4	610.1	565.9	504.7	443.6	366.8	361.6	355.2	344.8
15°	774.0	763.6	748.0	716.8	667.2	590.5	519.1	425.4	412.4	403.2	395.4
17.5°	857.3	850.7	832.5	797.4	744.0	676.4	590.5	485.1	474.7	463.1	448.8
20°	936.5	927.5	898.9	850.7	793.5	741.4	675.0	563.3	548.9	534.7	519.1
22.5°	1012.0	1002.8	956.1	876.7	815.5	793.5	770.0	651.6	629.6	617.9	602.3
25°	1117.4	1097.8	1025.0	898.9	816.9	833.7	874.1	766.2	745.4	728.4	703.8
27.5°	1259.1	1233.1	1118.7	931.3	822.1	878.1	993.8	905.3	883.3	863.7	836.3
30°	1419.2	1402.2	1265.7	1009.4	859.9	943.1	1127.8	1082.2	1056.2	1032.8	1000.2
32.5°	1580.5	1557.1	1421.8	1157.7	961.3	1069.2	1295.6	1287.8	1253.9	1231.9	1196.7
35°	1722.2	1710.4	1610.3	1401.0	1192.7	1290.4	1519.3	1528.3	1498.5	1475.1	1436.0
37.5°	1818.5	1818.5	1799.0	1662.4	1560.9	1633.8	1848.4	1849.7	1819.8	1766.4	1747.0
40°	1867.9	1882.2	1952.5	1978.5	1973.3	2067.0	2280.3	2256.9	2232.1	2204.8	2139.8
42.5°	1969.4	1982.4	2132.0	2311.5	2428.6	2552.1	2699.1	2691.3	2661.4	2611.9	2552.1
45°	2141.1	2158.0	2336.2	2621.1	2861.7	3037.3	3131.0	3094.6	3064.6	3017.8	2986.5
47.5°	2359.6	2392.1	2593.7	2946.3	3236.3	3526.4	3623.9	3527.8	3501.6	3465.2	3414.5
50°	2592.5	2623.7	2838.3	3241.5	3569.3	3915.3	4077.9	3915.3	3877.6	3866.0	3808.6
52.5°	2794.0	2820.0	3026.9	3469.2	3824.2	4230.2	4466.8	4252.2	4225.0	4185.8	4144.2
55°	2913.7	2934.5	3128.4	3578.4	3997.3	4513.6	4842.8	4654.1	4613.8	4598.2	4538.4
57.5°	2954.1	2974.9	3149.2	3592.7	4090.9	4772.5	5299.4	5305.9	5257.8	5201.8	5183.6
60°	2954.1	2977.5	3124.4	3557.6	4182.0	5048.3	5908.2	6450.5	6346.5	6336.1	6269.8
62.5°	2831.8	2853.9	3002.2	3449.6	4304.3	5420.3	6756.2	7713.6	7683.6	7616.0	7506.7
65°	2566.4	2579.5	2725.1	3173.9	4257.4	5762.5	7491.1	8553.9	8505.7	8373.0	8232.6
66°	2446.8	2457.2	2593.7	3016.5	4103.9	5809.3	7621.2	8659.2	8579.9	8468.0	8309.4
67.5°	2273.7	2291.9	2388.2	2723.8	3735.8	5646.6	7539.3	8585.1	8516.1	8380.8	8222.3
70°	1518.0	1505.0	1844.5	2090.4	2846.1	4600.8	6764.1	7708.4	7709.7	7646.0	7582.2
72.5°	720.6	728.4	827.3	1286.5	1862.7	3073.7	5383.9	6152.7	6241.0	6126.7	6047.3
75°	517.7	529.5	589.3	787.0	1110.8	1844.5	3490.0	4302.9	4305.5	4102.6	3921.8
77.5°	150.9	157.3	221.1	485.1	832.5	1244.9	2004.5	2392.1	2336.2	2190.5	2054.0
80°	62.4	62.4	65.0	154.7	334.2	845.5	1402.2	1841.9	1835.4	1779.4	1698.8
82.5°	23.4	24.8	31.2	63.8	79.4	208.1	935.3	1598.7	1594.7	1515.4	1458.2
85°	2.6	2.6	7.8	27.4	30.0	39.0	187.3	705.0	701.2	705.0	617.9
87.5°	0.0	0.0	1.4	2.6	4.0	5.2	7.8	27.4	30.0	28.6	26.0
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°	204.3	204.3	204.3	204.3	204.3	204.3	204.3	204.3	204.3	204.3	204.3
2.5°	222.5	219.9	219.9	218.5	218.5	218.5	217.3	215.9	215.9	214.7	213.3
5°	243.3	240.7	239.3	236.7	235.5	234.1	231.5	230.3	227.7	226.3	225.1
7.5°	268.0	262.8	261.5	257.6	253.7	251.1	248.5	244.5	241.9	236.7	235.5
10°	299.2	292.6	287.4	282.2	278.4	271.8	268.0	262.8	257.6	253.7	249.7
12.5°	339.4	330.4	322.6	317.4	308.2	300.4	292.6	288.8	278.4	273.2	266.7
15°	383.8	373.4	364.2	353.8	347.4	334.2	323.8	312.2	307.0	297.8	287.4
17.5°	441.0	424.0	409.8	399.4	386.4	373.4	361.6	350.0	334.2	323.8	310.8
20°	502.1	487.7	468.3	450.1	434.5	418.8	402.0	386.4	372.0	355.2	339.4
22.5°	580.1	559.3	535.9	517.7	496.9	479.9	456.5	435.8	412.4	390.2	372.0
25°	679.0	651.6	629.6	603.6	578.9	552.9	524.3	498.1	468.3	447.5	416.2
27.5°	801.3	775.3	745.4	711.6	686.8	647.8	610.1	577.5	542.5	509.9	474.7
30°	957.4	919.7	888.5	855.9	806.5	768.8	724.6	680.2	632.2	599.7	546.3
32.5°	1144.7	1104.4	1057.6	1010.6	965.2	911.9	857.3	802.6	749.2	689.4	634.8
35°	1373.6	1325.5	1272.1	1221.5	1151.2	1094.0	1025.0	949.6	889.7	820.7	751.8
37.5°	1676.7	1597.3	1550.5	1497.2	1402.2	1324.2	1247.5	1171.9	1066.6	993.8	896.3
40°	2056.6	2009.7	1932.9	1847.1	1761.2	1658.5	1554.5	1454.2	1332.0	1230.5	1117.4
42.5°	2502.7	2433.8	2355.7	2232.1	2145.0	2024.0	1905.7	1773.0	1623.3	1493.3	1360.6
45°	2921.5	2839.6	2779.8	2656.2	2565.1	2422.0	2278.9	2138.4	1965.5	1797.7	1644.2
47.5°	3374.2	3306.5	3207.7	3107.6	3015.2	2853.9	2699.1	2528.7	2346.6	2147.6	1948.5
50°	3772.2	3718.9	3651.3	3530.3	3427.6	3292.3	3110.2	2924.1	2693.9	2496.2	2269.9
52.5°	4110.4	4068.9	3973.9	3888.0	3795.6	3668.1	3505.6	3327.3	3078.9	2861.7	2604.1
55°	4509.8	4479.8	4396.7	4343.3	4261.3	4139.0	3986.9	3821.6	3558.9	3322.1	3030.8
57.5°	5164.0	5140.7	5067.9	5045.7	4965.1	4858.4	4671.1	4494.2	4187.2	3893.2	3560.2
60°	6247.6	6200.8	6094.1	6039.5	5869.0	5725.9	5482.8	5239.6	4868.8	4494.2	4093.5
62.5°	7407.9	7276.6	7073.6	6899.3	6657.4	6408.9	6083.7	5711.7	5277.2	4832.4	4371.9
65°	8033.6	7809.9	7553.6	7276.6	6963.0	6597.6	6187.8	5741.7	5274.6	4805.0	4318.5
66°	8105.1	7852.7	7580.9	7272.6	6924.0	6535.1	6118.9	5650.6	5165.4	4707.5	4221.0
67.5°	8015.4	7751.3	7463.9	7121.7	6744.5	6341.3	5904.2	5417.7	4950.8	4486.4	4012.9
70°	7387.1	7124.3	6868.1	6507.8	6105.9	5699.9	5286.4	4742.7	4300.3	3873.8	3452.2
72.5°	5899.0	5720.7	5467.1	5158.8	4767.3	4291.3	3946.5	3460.0	3076.3	2662.7	2336.2
75°	3686.5	3435.4	3121.8	2729.0	2429.8	2043.5	1841.9	1472.5	1253.9	1062.8	878.1
77.5°	1884.9	1696.2	1476.4	1255.3	1043.2	832.5	643.8	455.3	307.0	213.3	158.7
80°	1557.1	1390.6	1208.5	1006.8	819.5	636.0	457.9	312.2	199.1	130.1	101.5
82.5°	1286.5	1146.0	983.4	796.1	633.4	499.5	347.4	226.3	140.5	91.1	71.6
85°	547.7	496.9	383.8	304.4	228.9	169.1	118.3	79.4	56.0	45.6	41.6
87.5°	23.4	26.0	24.8	19.6	14.4	14.4	13.0	10.4	10.4	10.4	10.4
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):**

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	204.3	204.3	204.3	204.3	204.3	204.3	204.3	204.3	204.3	204.3	204.3
2.5°	213.3	212.1	210.7	210.7	209.5	208.1	200.3	193.9	186.1	180.9	175.7
5°	222.5	221.1	218.5	217.3	214.7	213.3	196.5	182.1	170.3	161.3	154.7
7.5°	231.5	230.3	226.3	222.5	221.1	218.5	191.3	173.1	157.3	146.9	140.5
10°	243.3	239.3	235.5	230.3	226.3	222.5	186.1	162.5	145.7	136.5	130.1
12.5°	260.2	253.7	247.1	240.7	235.5	228.9	183.5	153.5	136.5	126.1	119.7
15°	279.6	270.6	262.8	254.9	245.9	239.3	178.3	145.7	128.7	118.3	110.5
17.5°	297.8	287.4	275.8	264.1	254.9	245.9	173.1	137.9	120.9	110.5	102.7
20°	323.8	308.2	294.0	279.6	266.7	254.9	165.1	130.1	114.5	102.7	94.9
22.5°	352.6	334.2	316.0	296.6	279.6	264.1	158.7	123.5	107.9	96.3	87.2
25°	389.0	366.8	342.0	317.4	297.8	277.0	152.1	117.1	101.5	89.8	80.6
27.5°	439.7	408.4	381.2	350.0	320.0	296.6	146.9	111.9	94.9	83.2	74.2
30°	508.5	463.1	420.2	386.4	351.2	317.4	141.7	105.3	89.8	76.8	66.4
32.5°	585.3	532.1	482.5	431.9	387.6	348.6	136.5	100.1	83.2	70.2	61.2
35°	680.2	612.7	546.3	487.7	434.5	382.4	131.3	94.9	78.0	63.8	54.6
37.5°	816.9	732.4	645.2	569.7	500.7	431.9	127.5	89.8	71.6	57.2	48.2
40°	1004.2	894.9	788.3	685.6	595.7	509.9	122.3	84.6	66.4	52.0	43.0
42.5°	1207.1	1074.4	933.9	818.1	694.6	586.7	117.1	79.4	61.2	46.8	37.8
45°	1459.5	1294.3	1123.9	966.5	815.5	676.4	111.9	74.2	54.6	41.6	32.6
47.5°	1735.2	1524.5	1332.0	1134.3	954.8	788.3	105.3	70.2	49.4	36.4	28.6
50°	2018.8	1796.4	1553.1	1328.1	1114.8	900.1	98.9	63.8	44.2	32.6	23.4
52.5°	2324.5	2061.8	1813.3	1533.5	1285.2	1047.2	92.3	58.6	40.4	28.6	19.6
55°	2713.4	2419.4	2128.0	1814.6	1515.4	1217.5	85.9	52.0	35.2	24.8	15.6
57.5°	3202.5	2853.9	2496.2	2142.4	1779.4	1441.2	80.6	45.6	30.0	20.8	13.0
60°	3664.3	3257.1	2824.0	2416.8	2007.1	1612.9	72.8	40.4	26.0	17.0	13.0
62.5°	3903.6	3439.2	2972.3	2523.5	2086.4	1674.1	65.0	33.8	22.2	14.4	11.8
65°	3845.0	3371.6	2918.9	2466.2	2038.3	1635.1	57.2	30.0	19.6	13.0	11.8
66°	3760.5	3292.3	2837.0	2406.4	1998.0	1593.5	53.4	28.6	18.2	13.0	10.4
67.5°	3575.8	3123.2	2688.7	2288.1	1887.5	1514.1	48.2	26.0	17.0	11.8	10.4
70°	3054.2	2643.1	2295.9	1939.5	1612.9	1276.1	39.0	22.2	14.4	10.4	10.4
72.5°	2021.4	1741.8	1510.2	1299.5	1086.2	842.9	32.6	18.2	11.8	10.4	9.2
75°	762.2	689.4	591.9	532.1	464.3	407.2	26.0	11.8	9.2	9.2	9.2
77.5°	135.3	124.9	110.5	101.5	93.7	85.9	20.8	7.8	7.8	9.2	9.2
80°	91.1	84.6	76.8	70.2	65.0	58.6	14.4	6.6	7.8	7.8	9.2
82.5°	65.0	61.2	57.2	52.0	48.2	43.0	9.2	6.6	7.8	7.8	7.8
85°	39.0	36.4	33.8	31.2	27.4	26.0	6.6	6.6	6.6	7.8	7.8
87.5°	10.4	9.2	10.4	10.4	7.8	9.2	5.2	5.2	5.2	6.6	6.6
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):**

	145°	155°	165°	175°	180°
0°	204.3	204.3	204.3	204.3	204.3
2.5°	173.1	173.1	170.3	174.3	174.3
5°	149.5	149.5	148.3	149.5	149.5
7.5°	136.5	135.3	135.3	135.3	136.5
10°	124.9	123.5	123.5	123.5	123.5
12.5°	114.5	113.1	111.9	113.1	113.1
15°	105.3	102.7	102.7	102.7	102.7
17.5°	97.5	94.9	93.7	93.7	93.7
20°	89.8	85.9	85.9	85.9	85.9
22.5°	82.0	78.0	78.0	78.0	78.0
25°	74.2	70.2	70.2	70.2	70.2
27.5°	67.6	63.8	63.8	63.8	63.8
30°	59.8	57.2	57.2	58.6	57.2
32.5°	54.6	50.8	50.8	52.0	52.0
35°	48.2	45.6	45.6	45.6	45.6
37.5°	41.6	39.0	39.0	39.0	39.0
40°	36.4	33.8	32.6	33.8	33.8
42.5°	31.2	28.6	27.4	27.4	27.4
45°	27.4	23.4	22.2	23.4	23.4
47.5°	22.2	19.6	19.6	20.8	20.8
50°	17.0	17.0	18.2	20.8	20.8
52.5°	15.6	15.6	18.2	20.8	20.8
55°	14.4	15.6	18.2	19.6	20.8
57.5°	13.0	15.6	18.2	19.6	19.6
60°	13.0	14.4	17.0	19.6	19.6
62.5°	11.8	13.0	15.6	18.2	18.2
65°	11.8	13.0	15.6	18.2	18.2
66°	11.8	13.0	15.6	18.2	18.2
67.5°	11.8	13.0	15.6	18.2	18.2
70°	11.8	13.0	15.6	17.0	17.0
72.5°	10.4	11.8	14.4	17.0	17.0
75°	10.4	11.8	14.4	17.0	17.0
77.5°	10.4	11.8	14.4	17.0	17.0
80°	10.4	11.8	14.4	15.6	17.0
82.5°	9.2	11.8	13.0	15.6	15.6
85°	9.2	10.4	13.0	14.4	15.6
87.5°	7.8	9.2	10.4	13.0	13.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)