

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: P139448

Luminaire Tested: **ENT-E02-LED-E1-BL2-8030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P139448
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33644)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-E02-LED-E1-BL2-8030
Description: ENTRI LED LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 2
Light Source: (42) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4621.9 lumens
Efficiency: N/A
Efficacy: 98.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.33' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 46.9
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

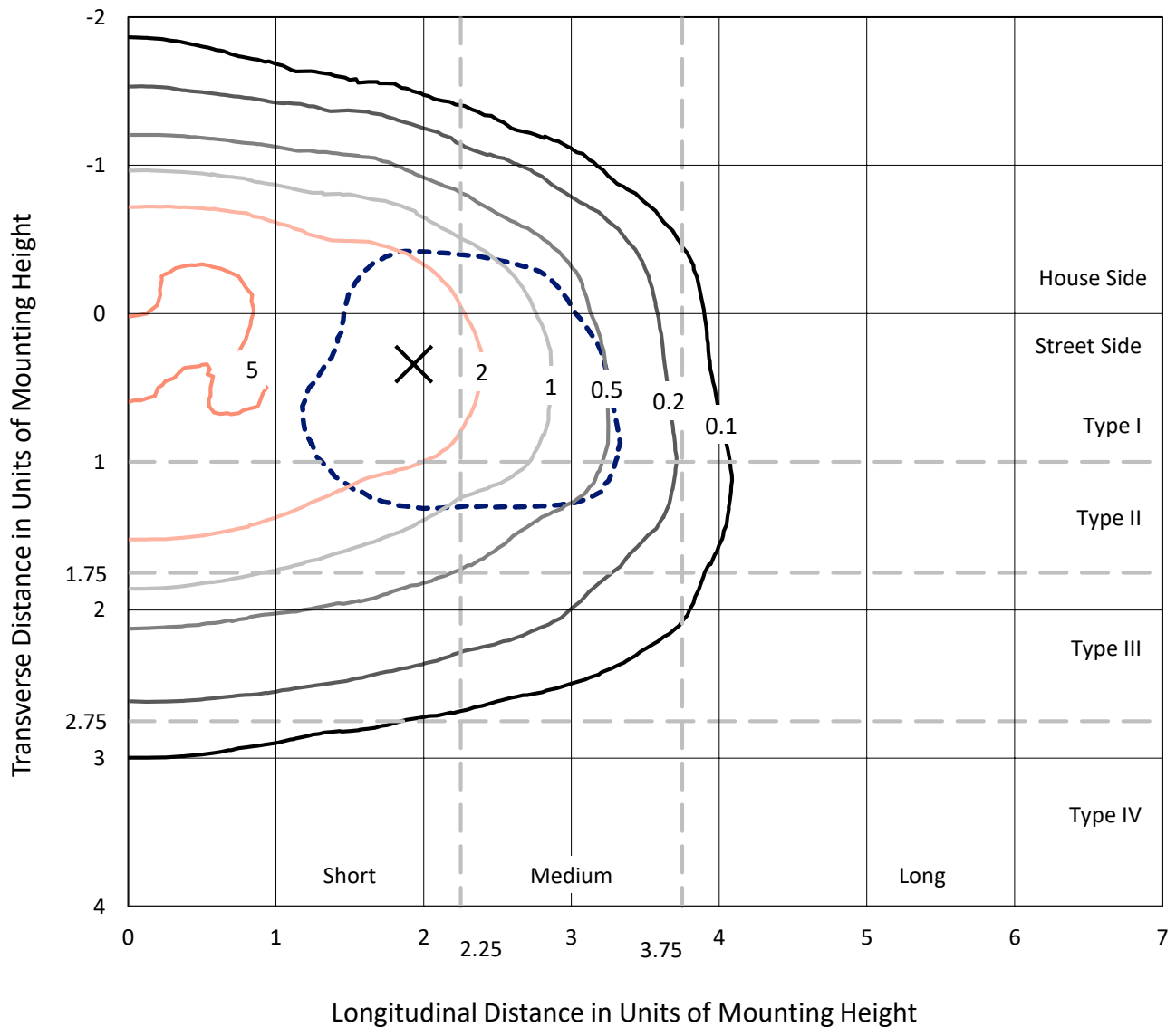


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Iso-Footcandle Lines of Horizontal Illumination

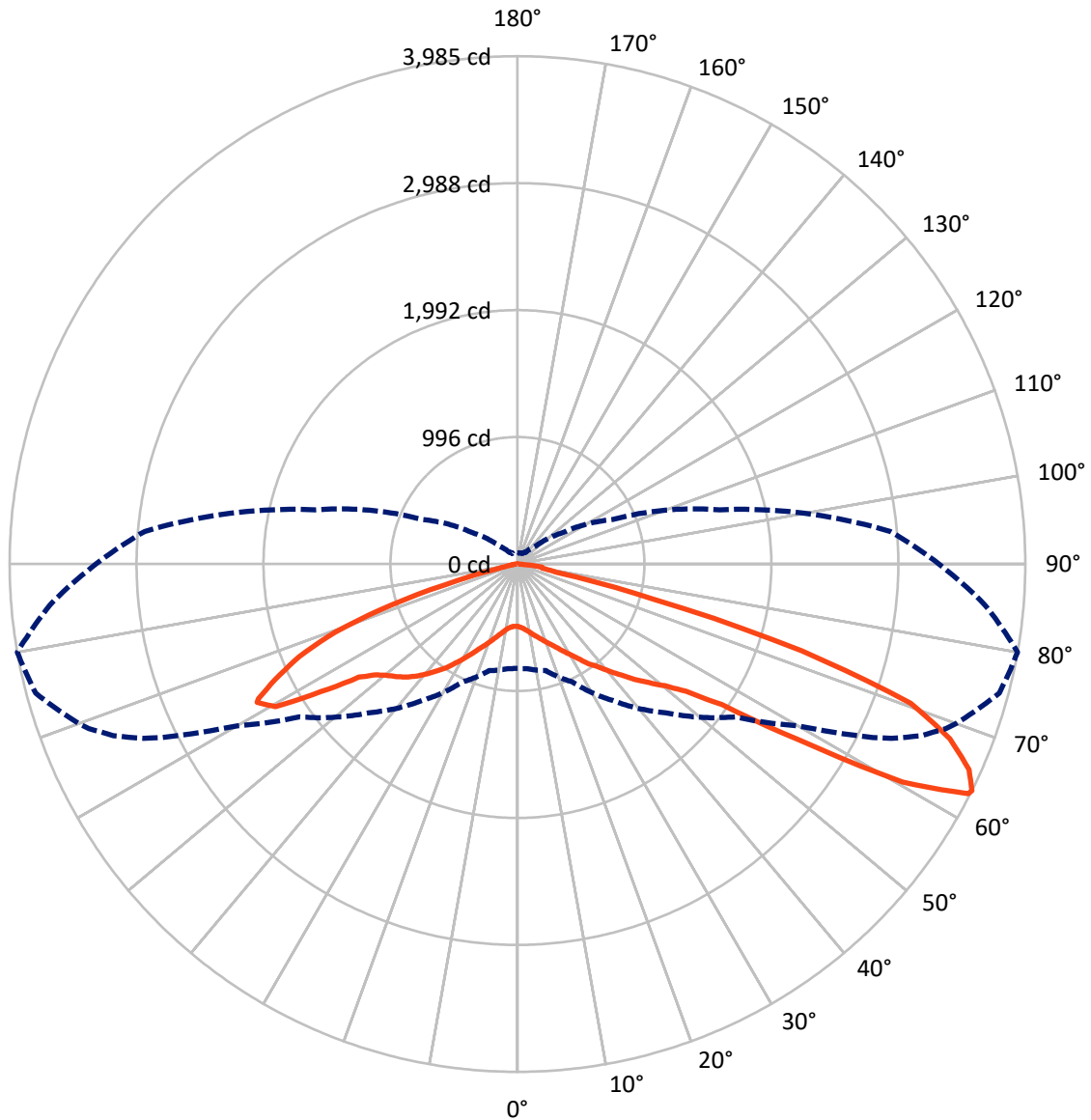
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 80-Deg Lateral - - - Horizontal Cone Through 63-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1439.4	0.0	1439.4
	% Fixture	31.1	0.0	31.1
Street Side	Lumens	3182.5	0.0	3182.5
	% Fixture	68.9	0.0	68.9
Total	Lumens	4621.9	0.0	4621.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.1	1.1
10°-20°	168.3	3.6
20°-30°	316.2	6.8
30°-40°	501.9	10.9
40°-50°	757.5	16.4
50°-60°	1064.7	23.0
60°-70°	1242.3	26.9
70°-80°	480.2	10.4
80°-90°	41.8	0.9
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°	4621.9	100.0
0°-180°	4621.9	100.0



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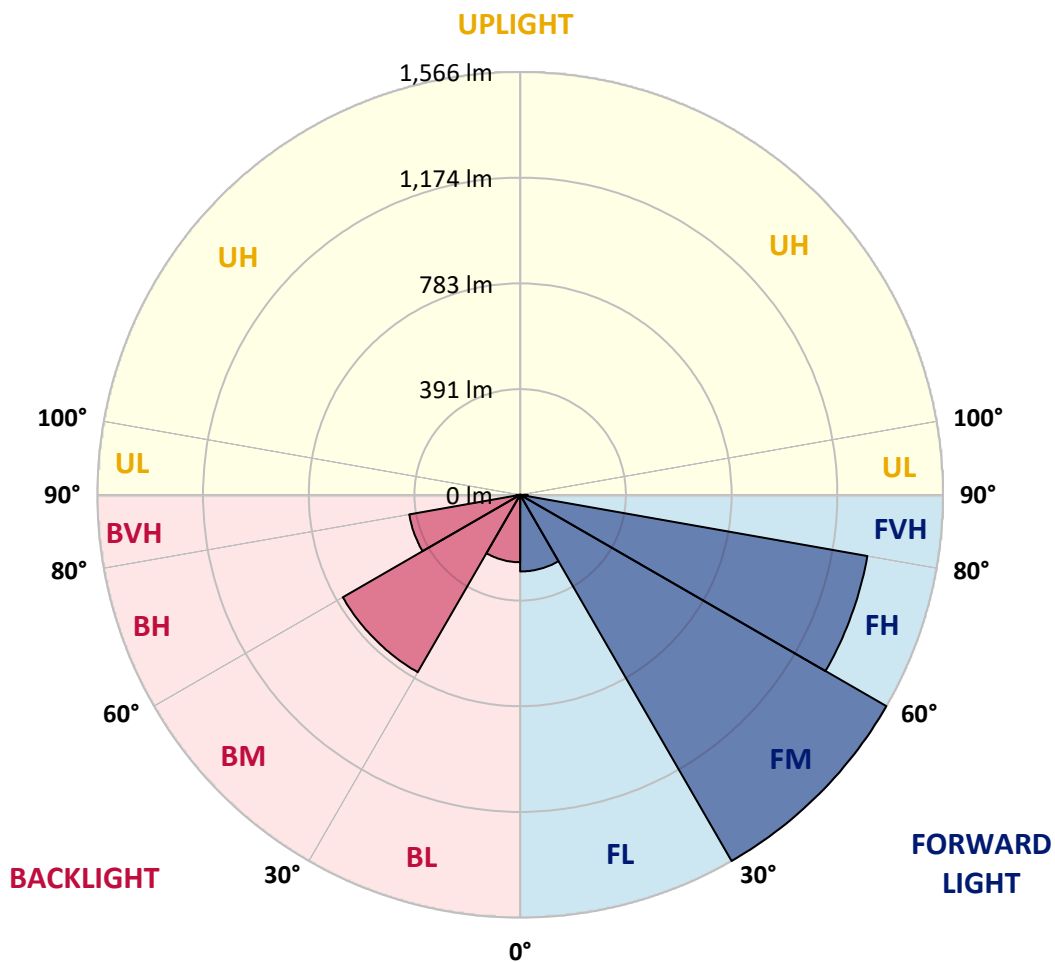
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	283.9	6.1			
FM (30°-60°)	1565.6	33.9			
FH (60°-80°)	1305.2	28.2			G1/1800
FVH (80°-90°)	27.8	0.6			G1/100
BL (0°-30°)	249.7	5.4	B1/500		
BM (30°-60°)	758.5	16.4	B1/1000		
BH (60°-80°)	417.3	9.0	B1/500		G1/500
BVH (80°-90°)	14.0	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	489.5	489.5	489.5	489.5	489.5	489.5	489.5	489.5	489.5	489.5	489.5
2.5°	514.0	512.3	513.1	512.3	512.3	510.6	505.6	505.6	504.7	505.6	503.9
5°	541.8	541.0	540.2	538.5	538.5	535.1	526.7	525.0	525.8	524.1	520.7
7.5°	573.1	572.2	570.5	567.2	565.5	560.4	548.6	546.9	546.1	544.4	541.8
10°	604.3	603.5	600.9	596.7	592.5	584.9	573.1	568.8	568.0	567.2	564.6
12.5°	636.4	633.8	634.7	627.1	620.3	611.0	597.5	593.3	592.5	591.6	590.8
15°	671.8	671.0	669.3	659.2	646.5	633.8	620.3	615.3	611.9	612.7	611.9
17.5°	705.6	704.7	698.8	684.5	667.6	653.2	636.4	633.0	633.0	632.1	632.1
20°	730.1	729.2	723.3	705.6	683.6	667.6	654.1	654.1	653.2	654.1	654.9
22.5°	741.0	741.0	733.4	714.0	690.4	678.6	674.3	676.9	677.7	678.6	680.3
25°	745.2	745.2	737.6	714.9	692.9	694.6	699.7	703.9	705.6	705.6	711.5
27.5°	752.8	753.7	743.6	719.1	701.4	717.4	730.1	736.0	738.5	740.2	747.8
30°	775.6	774.8	766.3	740.2	726.7	749.5	772.3	778.2	784.1	784.1	792.5
32.5°	809.4	808.5	803.5	783.2	777.3	806.0	826.3	838.9	838.1	839.8	845.7
35°	854.1	855.0	858.3	853.3	858.3	887.0	909.8	914.9	915.7	916.6	917.4
37.5°	904.8	905.6	924.2	940.2	963.0	1005.2	1018.7	1021.2	1015.3	1015.3	1013.6
40°	942.7	947.0	988.3	1030.5	1078.6	1136.0	1156.3	1151.2	1147.0	1143.6	1133.5
42.5°	1020.4	1022.9	1066.8	1127.6	1195.1	1274.4	1309.9	1293.0	1292.2	1277.0	1269.4
45°	1098.0	1104.8	1152.0	1220.4	1301.4	1411.2	1463.5	1449.1	1446.6	1439.8	1418.7
47.5°	1159.6	1168.9	1221.3	1302.3	1395.1	1521.7	1615.4	1625.5	1619.6	1612.0	1595.1
50°	1212.0	1219.6	1272.7	1361.4	1467.7	1606.1	1740.3	1776.6	1781.7	1778.3	1774.1
52.5°	1245.7	1253.3	1305.7	1400.2	1509.9	1668.6	1833.1	1904.9	1920.1	1919.2	1937.0
55°	1246.6	1255.0	1309.0	1412.8	1533.5	1711.6	1919.2	2032.3	2050.9	2073.7	2111.7
57.5°	1200.2	1208.6	1276.1	1396.0	1540.3	1745.4	2002.8	2202.0	2252.6	2297.3	2402.0
60°	1071.0	1074.4	1148.7	1309.0	1508.2	1737.8	2066.1	2348.0	2419.7	2516.8	2685.6
62.5°	872.7	879.4	925.0	1081.2	1358.8	1671.1	2091.4	2510.9	2629.0	2770.8	3040.9
63°	817.8	823.7	865.9	1020.4	1308.2	1650.0	2090.6	2537.0	2667.0	2813.0	3104.2
65°	631.3	633.0	664.2	780.7	1073.6	1496.4	2045.0	2499.9	2664.5	2835.0	3140.5
67.5°	508.9	514.8	546.1	627.9	848.2	1256.7	1840.7	2165.7	2277.9	2445.9	2809.6
70°	398.4	408.5	438.0	530.9	723.3	1011.9	1548.7	1807.8	1877.0	1957.2	2266.1
72.5°	263.3	265.9	270.9	322.4	504.7	787.4	1288.8	1465.2	1492.2	1549.6	1700.6
75°	124.1	133.4	140.9	167.1	243.9	515.7	934.3	1040.6	1072.7	1132.6	1187.5
77.5°	54.0	53.2	56.5	76.8	128.3	229.6	581.5	768.9	779.8	766.3	742.7
80°	16.9	17.7	18.6	20.3	40.5	109.7	251.5	516.5	570.5	606.8	596.7
82.5°	1.7	0.8	2.5	5.1	8.4	16.0	94.5	242.2	304.7	373.9	462.5
85°	0.0	0.0	0.8	0.8	1.7	3.4	5.9	25.3	42.2	49.0	97.1
87.5°	0.0	0.0	0.8	0.8	1.7	2.5	2.5	3.4	3.4	3.4	3.4
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):

	65°	66°	67°	68°	69°	70°	75°	80°	85°	90°	95°
0°	489.5	489.5	489.5	489.5	489.5	489.5	489.5	489.5	489.5	489.5	489.5
2.5°	503.0	503.0	501.3	502.2	501.3	501.3	499.6	498.0	497.1	492.9	490.4
5°	520.7	520.7	519.9	518.2	518.2	517.4	513.1	508.9	506.4	501.3	496.3
7.5°	541.0	540.2	538.5	536.8	536.8	535.9	530.0	525.8	520.7	513.1	507.2
10°	564.6	563.8	562.1	559.6	559.6	558.7	552.8	546.1	541.8	532.6	525.0
12.5°	589.9	587.4	586.6	584.9	583.2	583.2	578.1	571.4	568.0	557.9	550.3
15°	611.0	609.4	608.5	607.7	606.8	605.1	600.9	595.0	592.5	584.0	578.1
17.5°	631.3	631.3	632.1	630.5	629.6	627.9	625.4	623.7	621.2	613.6	610.2
20°	654.9	654.9	656.6	655.8	654.9	657.5	656.6	655.8	655.8	649.0	646.5
22.5°	682.8	681.9	684.5	683.6	684.5	687.0	690.4	688.7	692.1	687.9	686.2
25°	714.9	714.0	716.5	718.2	719.9	721.6	728.4	730.1	734.3	733.4	730.1
27.5°	751.2	752.0	752.8	757.1	759.6	761.3	770.6	775.6	784.1	780.7	784.1
30°	793.4	797.6	800.9	805.2	806.0	807.7	822.9	828.0	832.2	834.7	839.8
32.5°	851.6	854.1	855.0	860.0	861.7	864.2	880.3	887.0	892.9	893.8	903.1
35°	922.5	924.2	926.7	929.2	932.6	930.9	949.5	959.6	967.2	968.1	978.2
37.5°	1016.2	1010.3	1012.8	1009.4	1004.3	1004.3	1010.3	1020.4	1028.8	1035.6	1045.7
40°	1128.4	1124.2	1123.4	1115.8	1107.3	1099.7	1096.3	1102.3	1109.0	1114.9	1127.6
42.5°	1256.7	1252.5	1238.1	1233.1	1218.7	1210.3	1187.5	1190.0	1201.8	1205.2	1212.8
45°	1406.9	1391.7	1386.7	1355.4	1349.5	1337.7	1294.7	1291.3	1301.4	1302.3	1297.2
47.5°	1578.3	1567.3	1555.5	1533.5	1510.7	1491.3	1425.5	1390.9	1401.9	1401.0	1376.5
50°	1764.8	1763.1	1745.4	1731.0	1710.8	1682.9	1565.6	1502.3	1510.7	1503.1	1458.4
52.5°	1942.9	1937.8	1937.0	1926.0	1918.4	1909.1	1766.5	1657.6	1638.2	1622.2	1564.8
55°	2130.2	2142.9	2134.5	2152.2	2165.7	2164.0	2104.9	1945.4	1846.7	1834.0	1746.2
57.5°	2442.5	2472.9	2513.4	2515.1	2551.4	2603.7	2710.1	2595.3	2348.0	2299.0	2181.7
60°	2800.4	2878.9	2980.1	3029.9	3107.6	3188.6	3455.3	3473.0	3127.0	2937.9	2722.7
62.5°	3159.9	3262.9	3382.7	3460.4	3556.6	3619.9	3901.8	3969.3	3653.6	3305.1	2950.6
63°	3235.9	3341.4	3445.2	3521.1	3602.2	3660.4	3913.6	3984.5	3682.3	3305.9	2936.2
65°	3275.5	3374.3	3455.3	3522.8	3576.8	3616.5	3816.5	3893.3	3644.4	3183.5	2775.0
67.5°	2974.2	3132.9	3235.0	3316.9	3371.7	3426.6	3610.6	3658.7	3482.3	2945.5	2530.3
70°	2461.9	2645.1	2806.3	2933.7	3028.2	3111.8	3305.1	3272.2	3120.2	2559.8	2146.3
72.5°	1811.2	1970.7	2127.7	2272.0	2395.2	2501.6	2629.0	2331.1	2099.8	1702.3	1485.4
75°	1217.9	1252.5	1324.2	1396.0	1440.7	1471.1	1392.6	1109.8	901.4	808.5	707.3
77.5°	719.1	695.4	698.0	680.3	668.4	665.9	558.7	310.6	163.7	167.1	175.6
80°	573.9	547.8	519.9	488.7	468.4	446.5	363.8	199.2	70.9	57.4	59.9
82.5°	464.2	457.4	442.3	410.2	378.1	340.1	259.9	191.6	40.5	32.1	34.6
85°	90.3	101.3	91.2	99.6	74.3	70.1	41.4	44.7	16.0	14.3	17.7
87.5°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	6.8
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):

	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	489.5	489.5	489.5	489.5	489.5	489.5	489.5	489.5	489.5
2.5°	486.1	482.8	480.2	476.9	475.2	472.6	471.8	469.3	470.1
5°	487.8	481.9	476.9	471.8	468.4	466.7	465.0	463.4	463.4
7.5°	496.3	488.7	482.8	476.9	474.3	470.9	470.1	467.6	467.6
10°	514.0	505.6	498.0	491.2	487.8	483.6	481.9	479.4	479.4
12.5°	540.2	532.6	524.1	514.0	507.2	502.2	498.0	496.3	496.3
15°	569.7	563.8	557.0	543.5	532.6	523.3	514.8	511.5	510.6
17.5°	605.1	600.1	593.3	578.1	560.4	541.0	526.7	519.9	519.1
20°	648.2	643.1	633.0	611.9	584.0	553.7	530.9	520.7	519.9
22.5°	692.1	692.1	675.2	640.6	599.2	558.7	528.3	514.8	512.3
25°	740.2	742.7	717.4	663.4	607.7	556.2	517.4	500.5	497.1
27.5°	798.4	795.9	753.7	681.1	608.5	546.1	499.6	479.4	476.0
30°	862.6	845.7	783.2	691.2	602.6	527.5	476.0	453.2	450.7
32.5°	926.7	890.4	805.2	692.9	585.7	500.5	444.8	421.2	417.8
35°	995.1	930.1	818.7	683.6	557.9	464.2	406.0	383.2	379.8
37.5°	1052.5	960.5	822.9	659.2	515.7	422.0	370.5	346.9	341.0
40°	1104.8	982.4	815.3	619.5	468.4	380.6	333.4	313.1	311.4
42.5°	1152.9	992.5	788.3	568.0	421.2	345.2	302.1	282.7	281.0
45°	1190.0	985.8	742.7	511.5	382.3	314.8	274.3	256.6	253.2
47.5°	1213.7	961.3	680.3	464.2	350.3	283.6	243.9	225.3	222.0
50°	1232.2	925.0	617.0	427.9	319.0	251.5	212.7	195.8	193.3
52.5°	1256.7	878.6	562.1	395.0	282.7	215.2	180.6	164.6	162.0
55°	1310.7	838.9	523.3	358.7	243.9	177.2	148.5	138.4	135.0
57.5°	1493.9	852.4	498.8	314.8	199.2	142.6	123.2	117.3	116.5
60°	1686.3	909.8	487.0	264.2	154.5	115.6	104.7	103.0	102.1
62.5°	1676.2	858.3	438.0	207.6	119.0	95.4	90.3	91.2	91.2
63°	1642.4	827.1	422.0	195.0	113.1	92.8	87.8	87.8	87.8
65°	1438.2	701.4	342.7	147.7	94.5	82.7	78.5	79.3	80.2
67.5°	1187.5	506.4	225.3	103.0	85.2	75.1	70.1	68.4	68.4
70°	908.1	341.0	133.4	89.5	84.4	70.1	61.6	59.9	59.9
72.5°	595.9	208.5	90.3	89.5	83.6	66.7	57.4	54.0	54.0
75°	273.5	103.0	75.1	86.1	79.3	61.6	50.6	46.4	45.6
77.5°	106.3	65.0	67.5	72.6	61.6	50.6	45.6	42.2	41.4
80°	61.6	52.3	59.1	52.3	44.7	38.8	38.8	36.3	35.4
82.5°	44.7	44.7	45.6	38.0	33.8	32.1	32.1	29.5	28.7
85°	32.1	32.9	38.0	30.4	26.2	22.8	21.1	21.1	20.3
87.5°	16.0	26.2	21.1	12.7	11.8	11.0	11.0	11.0	10.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)