

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: P139593

Luminaire Tested: **ENT-F02-LED-E1-BL3-8030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P139593
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33645)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-F02-LED-E1-BL3-8030
Description: ENTRI LED LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL
Light Source: (14) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3765.7 lumens
Efficiency: N/A
Efficacy: 76.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.33' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

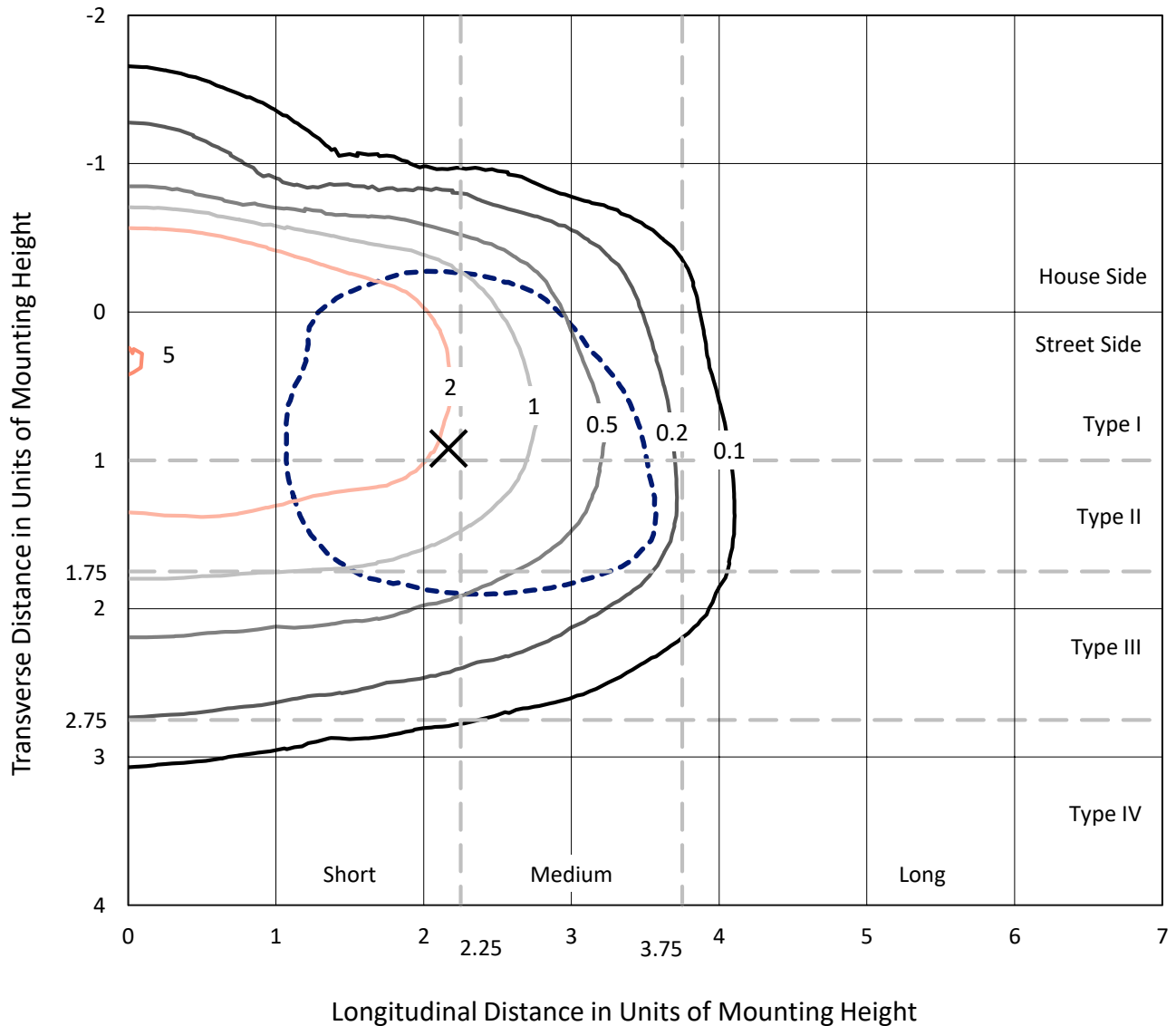
Input Watts (W): 49.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

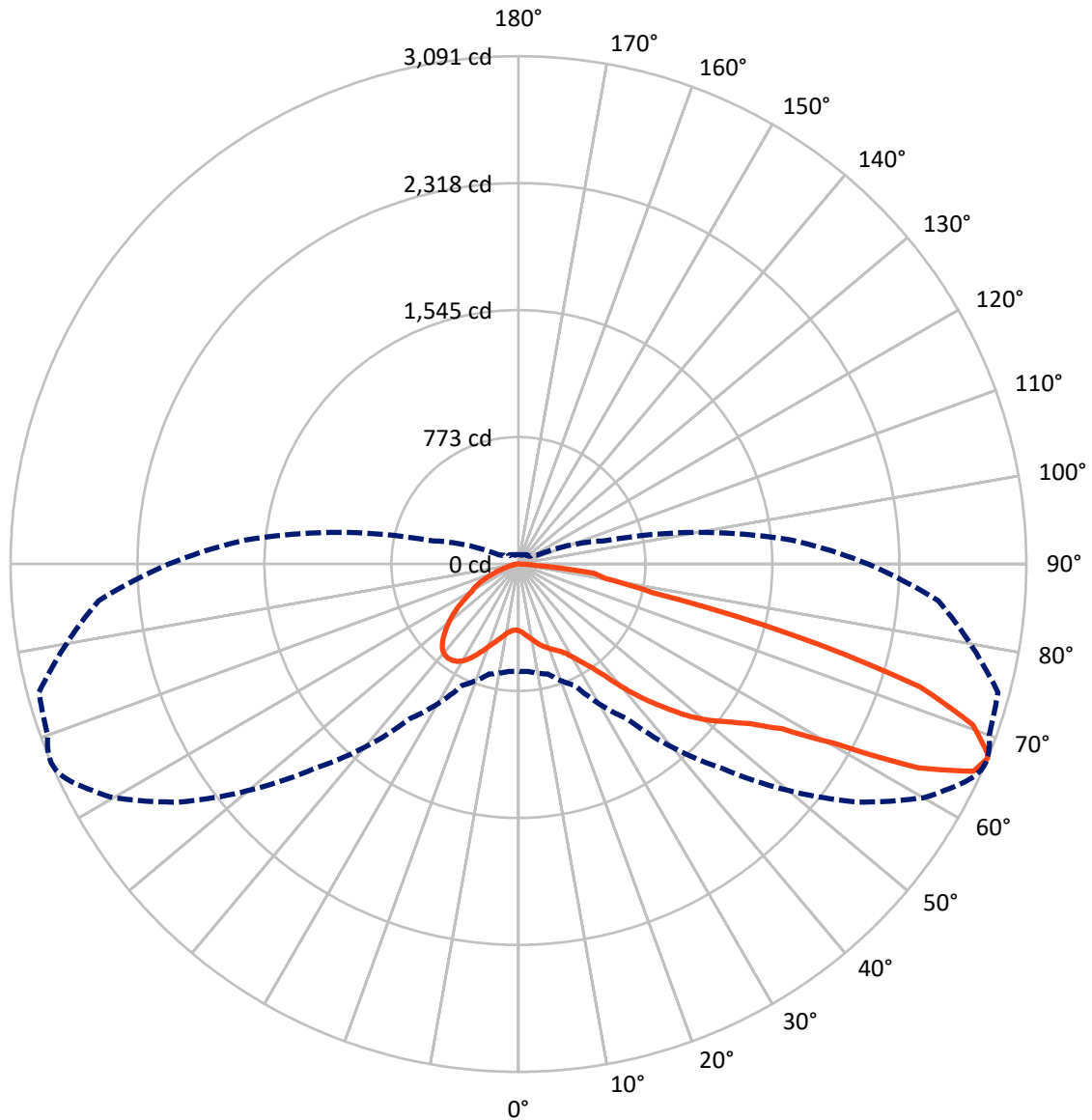
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.2 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	914.3	0.0	914.3
	% Fixture	24.3	0.0	24.3
Street Side	Lumens	2851.4	0.0	2851.4
	% Fixture	75.7	0.0	75.7
Total	Lumens	3765.7	0.0	3765.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.9	1.1
10°-20°	141.4	3.8
20°-30°	256.3	6.8
30°-40°	374.6	9.9
40°-50°	567.5	15.1
50°-60°	813.9	21.6
60°-70°	1040.1	27.6
70°-80°	485.6	12.9
80°-90°	45.5	1.2
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°	3765.7	100.0
0°-180°	3765.7	100.0



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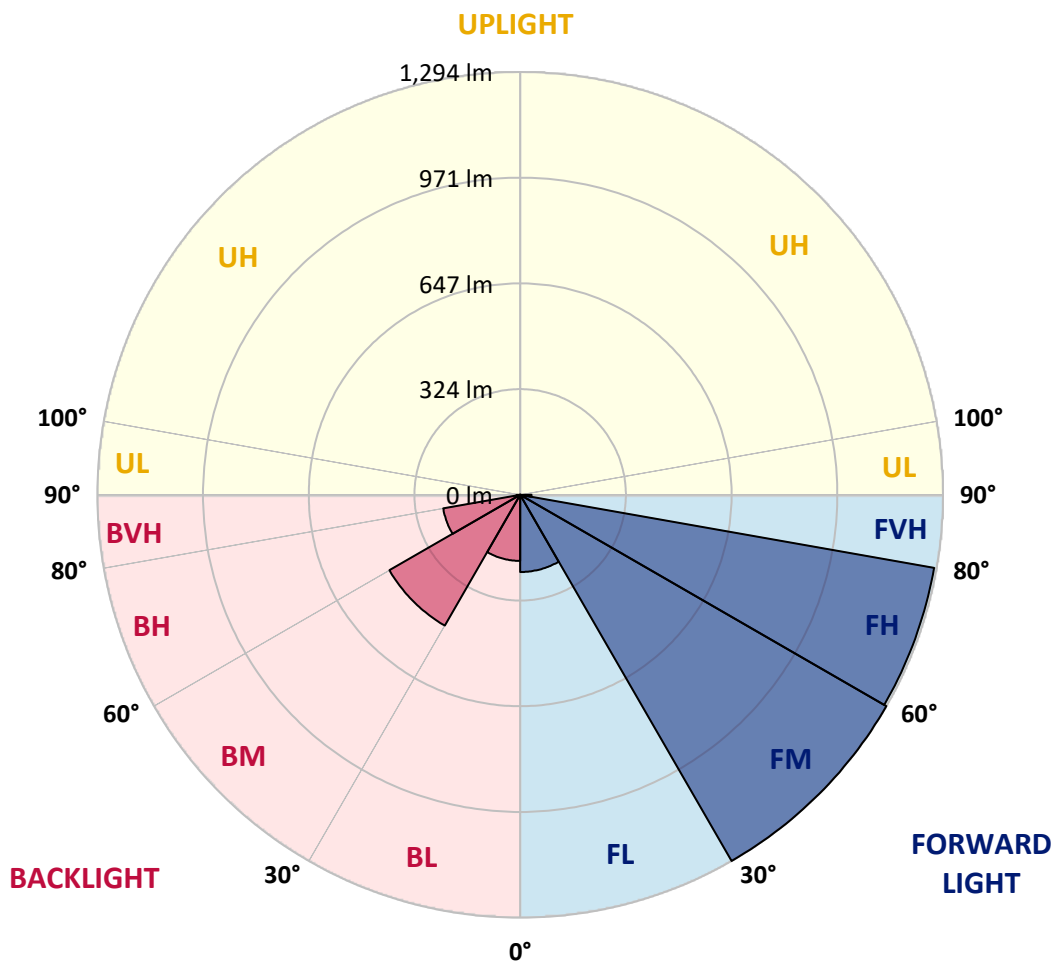
CATALOG NUMBER: ENT-F02-LED-E1-BL3-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	236.2	6.3			
FM	(30°-60°)	1294.2	34.4			
FH	(60°-80°)	1286.5	34.2			G1/1800
FVH	(80°-90°)	34.5	0.9			G1/100
BL	(0°-30°)	202.3	5.4	B1/500		
BM	(30°-60°)	461.9	12.3	B1/1000		
BH	(60°-80°)	239.2	6.4	B1/500		G1/500
BVH	(80°-90°)	11.0	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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	405.5	405.5	405.5	405.5	405.5	405.5	405.5	405.5	405.5	405.5	405.5
2.5°	421.5	421.5	422.2	422.2	421.5	421.5	417.3	417.3	417.3	416.6	416.6
5°	444.5	445.2	445.2	444.5	443.1	440.3	434.8	434.8	434.8	434.1	432.7
7.5°	471.0	470.3	471.0	468.9	466.1	462.6	455.0	454.3	452.9	452.9	451.5
10°	500.3	498.2	500.3	497.5	491.9	485.6	476.6	473.8	473.8	473.8	471.0
12.5°	530.2	529.5	530.9	526.0	516.3	509.3	500.3	496.8	496.1	496.1	494.7
15°	563.0	562.3	558.1	550.4	537.9	531.6	521.2	517.0	516.3	516.3	514.2
17.5°	597.1	597.1	586.7	570.6	553.2	544.2	536.5	533.7	533.0	533.0	532.3
20°	626.4	626.4	612.4	586.0	560.9	551.1	548.3	548.3	548.3	548.3	549.0
22.5°	648.0	645.9	627.1	594.3	563.7	555.3	562.3	563.0	563.0	564.4	565.1
25°	657.7	657.0	634.7	595.7	563.0	561.6	576.9	579.0	580.4	581.8	583.9
27.5°	658.4	658.4	636.1	595.0	562.3	572.7	595.0	601.3	602.7	605.5	608.9
30°	651.4	652.1	633.3	594.3	567.1	593.6	623.6	635.4	638.2	642.4	648.0
32.5°	643.1	644.5	633.3	601.3	588.7	629.8	669.6	686.3	689.1	694.6	700.2
35°	644.5	646.6	648.7	629.2	636.8	691.9	749.0	758.7	758.0	767.1	769.9
37.5°	653.5	658.4	673.7	677.2	706.5	783.1	843.1	864.0	864.0	872.3	869.5
40°	654.9	662.6	700.9	741.3	799.2	893.2	975.4	999.8	999.8	1003.3	1001.9
42.5°	687.7	694.6	749.7	821.5	903.7	1014.4	1105.0	1126.6	1131.5	1128.0	1130.8
45°	746.9	751.8	819.4	909.9	1004.7	1130.8	1231.8	1252.7	1257.6	1254.1	1249.9
47.5°	822.1	829.1	900.9	1008.2	1105.7	1238.1	1361.4	1385.8	1390.7	1385.1	1387.2
50°	884.9	898.1	974.7	1101.5	1203.3	1330.1	1461.8	1495.2	1499.4	1499.4	1500.8
52.5°	942.0	953.8	1027.7	1169.1	1282.0	1413.0	1536.3	1579.5	1584.4	1587.9	1590.6
55°	965.7	977.5	1051.4	1198.4	1330.1	1490.3	1622.7	1680.5	1683.3	1692.4	1704.2
57.5°	966.4	976.1	1048.6	1197.7	1355.2	1560.0	1740.4	1830.3	1841.5	1853.3	1873.5
60°	900.9	912.7	985.2	1162.9	1376.1	1638.0	1918.8	2083.9	2100.0	2134.1	2178.7
62.5°	801.9	810.3	873.0	1047.9	1376.1	1746.0	2205.9	2479.0	2532.6	2588.4	2670.6
65°	710.0	716.2	756.0	907.1	1278.5	1833.8	2506.2	2820.4	2878.2	2920.0	2989.7
67°	652.8	655.6	693.3	816.6	1147.5	1763.4	2526.4	2844.1	2893.5	2936.7	3024.5
67.5°	633.3	635.4	671.0	793.6	1107.1	1720.9	2495.7	2824.6	2878.2	2922.1	3011.3
70°	487.0	480.7	511.4	624.3	894.6	1373.3	2191.2	2570.3	2631.6	2690.1	2798.1
72.5°	290.5	281.5	301.0	362.3	579.7	965.0	1661.7	2109.0	2187.1	2260.2	2401.6
75°	174.9	175.6	190.2	232.7	316.3	606.9	1073.7	1372.6	1445.7	1514.7	1626.2
77.5°	87.1	86.4	99.6	135.2	230.6	376.9	623.6	791.5	815.9	848.6	835.4
80°	27.9	27.2	29.3	36.9	82.9	252.9	392.3	496.8	507.9	514.2	521.9
82.5°	4.2	4.9	5.6	9.1	15.3	60.6	243.9	345.6	360.9	379.0	413.9
85°	0.0	0.0	0.7	0.7	2.1	4.9	23.0	59.2	62.0	75.2	88.5
87.5°	0.0	0.0	0.0	0.7	1.4	2.1	3.5	3.5	3.5	3.5	3.5
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°	85°	90°	95°	105°
0°	405.5	405.5	405.5	405.5	405.5	405.5	405.5	405.5	405.5	405.5	405.5
2.5°	416.0	416.0	415.3	414.6	414.6	414.6	413.2	412.5	408.3	406.9	404.1
5°	432.7	432.7	431.3	430.6	429.9	429.9	427.8	423.6	418.0	414.6	409.0
7.5°	450.8	450.1	448.7	448.7	445.9	445.9	443.1	435.5	429.9	425.0	418.0
10°	471.7	471.0	468.9	468.2	466.8	465.4	462.6	453.6	448.0	441.7	433.4
12.5°	494.7	493.3	491.9	491.2	489.8	488.4	485.6	477.3	471.7	465.4	455.7
15°	514.9	514.2	512.8	512.1	512.1	510.7	508.6	501.0	495.4	488.4	480.7
17.5°	533.0	532.3	531.6	531.6	530.9	530.9	530.2	523.2	519.8	514.2	506.5
20°	548.3	549.0	549.0	549.0	549.7	550.4	551.8	548.3	544.8	540.0	535.8
22.5°	565.1	565.7	567.8	567.8	569.2	569.9	574.8	574.1	572.7	569.2	565.7
25°	585.3	586.7	588.0	590.1	590.8	592.9	601.3	604.8	602.0	599.9	603.4
27.5°	611.7	614.5	615.9	618.7	620.1	622.9	635.4	643.1	641.0	641.7	649.4
30°	651.4	654.2	658.4	659.8	664.7	666.1	680.7	692.6	692.6	691.2	705.1
32.5°	704.4	706.5	711.4	714.9	717.6	720.4	734.4	746.9	748.3	752.5	758.0
35°	774.1	775.5	778.3	783.8	783.1	784.5	792.2	804.7	811.7	821.5	804.7
37.5°	866.0	870.9	869.5	870.2	864.6	868.1	870.9	884.2	898.8	908.5	843.7
40°	997.0	1000.5	997.0	992.2	988.0	985.9	981.7	996.3	1008.9	1001.9	874.4
42.5°	1124.5	1125.9	1123.1	1114.8	1111.3	1104.3	1093.2	1111.3	1118.3	1085.5	890.4
45°	1250.6	1248.6	1243.7	1242.3	1235.3	1228.3	1222.1	1233.9	1231.1	1167.0	897.4
47.5°	1383.0	1380.9	1377.4	1371.9	1364.2	1362.8	1357.2	1355.8	1335.6	1236.7	893.9
50°	1498.7	1500.1	1492.4	1495.2	1491.7	1484.7	1479.9	1482.7	1434.6	1298.0	886.9
52.5°	1598.3	1598.3	1594.8	1598.3	1596.9	1593.4	1597.6	1642.9	1543.3	1384.4	876.5
55°	1714.0	1718.1	1715.4	1718.8	1720.9	1728.6	1746.0	1851.9	1705.6	1490.3	852.8
57.5°	1883.3	1893.7	1890.9	1904.9	1917.4	1937.6	2001.0	2112.5	1907.0	1606.7	806.1
60°	2187.1	2221.2	2219.8	2244.2	2269.3	2292.3	2403.0	2424.6	2134.8	1758.6	771.3
62.5°	2692.9	2720.8	2732.6	2759.1	2775.1	2779.3	2868.5	2710.3	2338.2	1896.5	751.8
65°	3020.3	3031.5	3041.9	3038.5	3028.7	3012.7	3018.3	2683.8	2270.7	1808.0	645.2
67°	3059.4	3082.4	3090.7	3085.1	3070.5	3048.2	3021.0	2564.0	2127.1	1670.1	545.5
67.5°	3048.2	3071.9	3079.6	3074.7	3062.2	3045.4	3013.4	2518.7	2078.4	1625.5	519.8
70°	2869.2	2903.3	2934.7	2945.1	2945.8	2943.0	2911.0	2198.9	1769.0	1364.9	394.4
72.5°	2446.2	2490.1	2555.6	2534.7	2568.2	2546.6	2473.4	1502.9	1212.3	975.4	276.6
75°	1650.6	1670.1	1723.0	1662.4	1668.0	1629.7	1345.4	873.0	751.8	634.7	166.5
77.5°	830.5	843.1	834.7	798.5	784.5	753.2	582.5	189.5	189.5	225.7	87.1
80°	526.7	531.6	537.2	545.5	556.0	557.4	404.1	55.7	50.2	52.3	47.4
82.5°	432.0	445.2	462.6	466.1	470.3	473.8	278.7	30.7	25.1	27.9	33.4
85°	100.3	108.7	103.8	92.0	98.2	75.9	39.0	12.5	11.1	13.9	23.0
87.5°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	2.8	4.9	11.8
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):

	115°	125°	135°	145°	155°	165°	175°	180°
0°	405.5	405.5	405.5	405.5	405.5	405.5	405.5	405.5
2.5°	401.3	399.2	396.4	395.7	395.0	393.7	393.0	392.3
5°	403.4	399.2	395.0	392.3	390.9	389.5	388.1	388.1
7.5°	411.8	406.9	400.6	397.8	395.0	393.0	391.6	391.6
10°	425.7	420.1	412.5	409.0	405.5	403.4	402.0	400.6
12.5°	446.6	439.6	430.6	425.0	421.5	420.8	419.4	418.7
15°	472.4	464.7	455.0	449.4	443.8	442.4	441.0	440.3
17.5°	498.2	491.9	484.2	474.5	463.3	454.3	450.1	449.4
20°	527.4	524.6	512.8	491.2	466.8	448.0	440.3	440.3
22.5°	564.4	556.7	528.1	489.8	453.6	427.1	416.6	416.6
25°	604.8	579.0	526.0	474.5	429.9	397.1	383.2	383.2
27.5°	640.3	585.3	513.5	448.7	394.4	358.8	342.8	342.1
30°	668.2	581.8	491.2	412.5	352.5	312.1	294.0	294.0
32.5°	683.5	569.9	460.5	370.0	301.7	255.7	233.4	234.1
35°	687.7	549.7	420.1	313.5	240.4	195.1	174.9	174.9
37.5°	683.5	517.7	370.0	251.5	179.8	147.7	132.4	131.0
40°	669.6	469.6	303.1	183.9	133.8	115.0	108.7	107.3
42.5°	641.7	411.8	227.8	131.7	107.3	99.6	98.2	97.5
45°	597.8	333.7	158.2	103.1	96.1	94.1	94.1	93.4
47.5°	542.8	255.0	112.9	91.3	90.6	90.6	90.6	90.6
50°	481.4	180.5	92.0	86.4	85.7	87.1	87.8	87.8
52.5°	418.0	126.1	84.3	82.9	81.5	83.6	84.3	84.3
55°	349.1	98.9	80.8	79.4	77.3	78.0	79.4	79.4
57.5°	278.0	87.8	79.4	77.3	73.2	73.2	74.6	74.6
60°	220.9	84.3	78.7	73.9	68.3	68.3	69.7	70.4
62.5°	184.6	83.6	78.7	70.4	66.2	64.1	65.5	65.5
65°	154.0	83.6	76.6	70.4	62.7	59.9	61.3	61.3
67°	128.9	82.2	75.2	70.4	61.3	57.8	57.8	57.8
67.5°	121.9	81.5	75.9	70.4	60.6	57.1	56.4	56.4
70°	91.3	73.9	75.9	71.1	59.2	52.3	50.9	50.9
72.5°	71.1	67.6	73.9	73.2	57.8	48.1	45.3	44.6
75°	57.8	61.3	74.6	71.1	54.3	43.9	39.7	39.0
77.5°	49.5	52.3	62.7	57.1	45.3	39.0	34.8	34.1
80°	39.0	44.6	44.6	39.0	33.4	31.4	29.3	29.3
82.5°	31.4	34.1	29.3	26.5	25.1	24.4	23.0	23.0
85°	25.8	27.9	21.6	19.5	18.8	18.1	16.7	16.7
87.5°	20.2	17.4	11.1	10.5	10.5	9.8	9.8	10.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)