

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: P141873

Luminaire Tested: **ECM-F02-LED-E1-T3-8030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P141873
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33683)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ECM-F02-LED-E1-T3-8030
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 3
Light Source: (14) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4091.6 lumens
Efficiency: N/A
Efficacy: 74.4 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

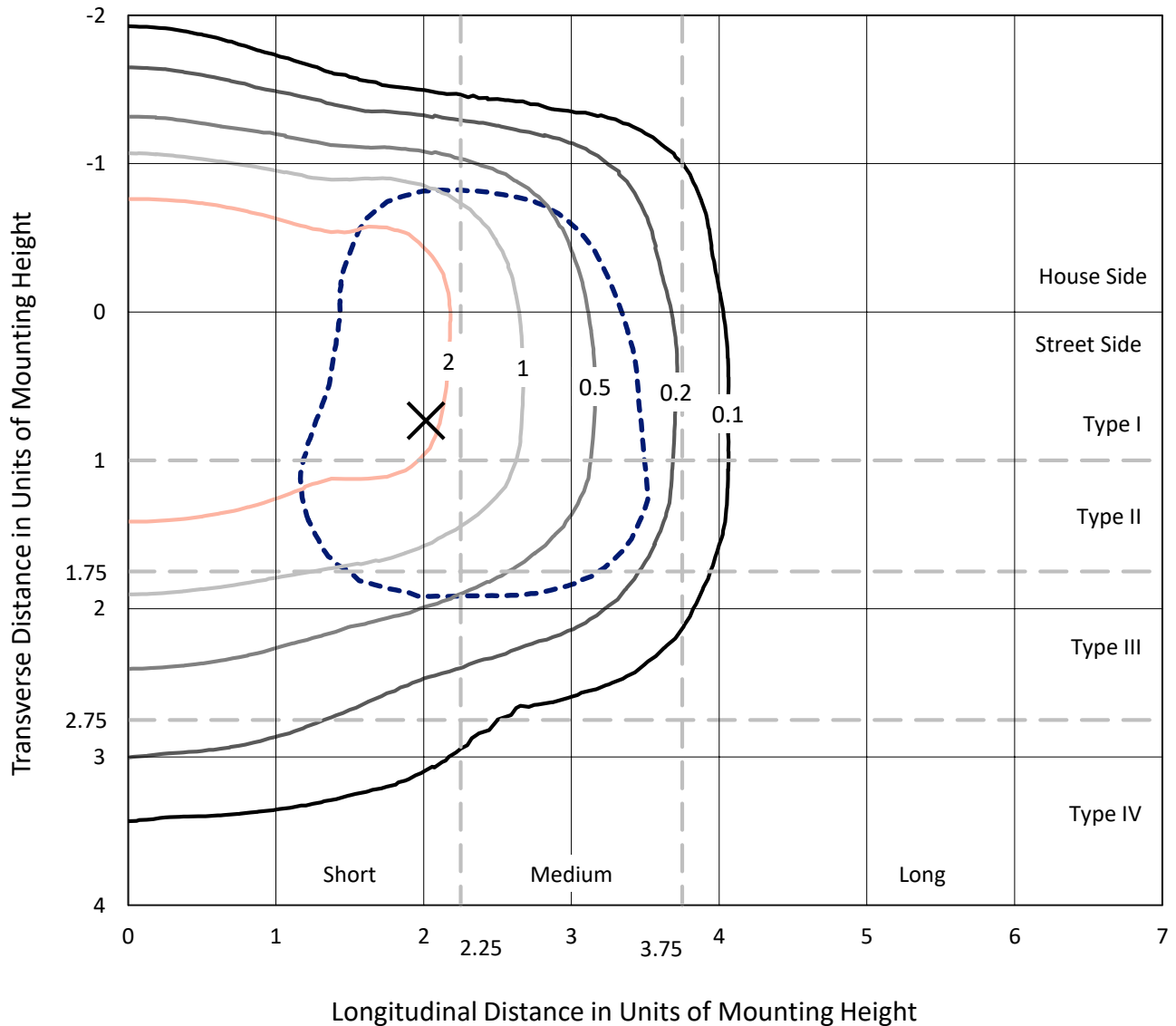
Input Watts (W): 55
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

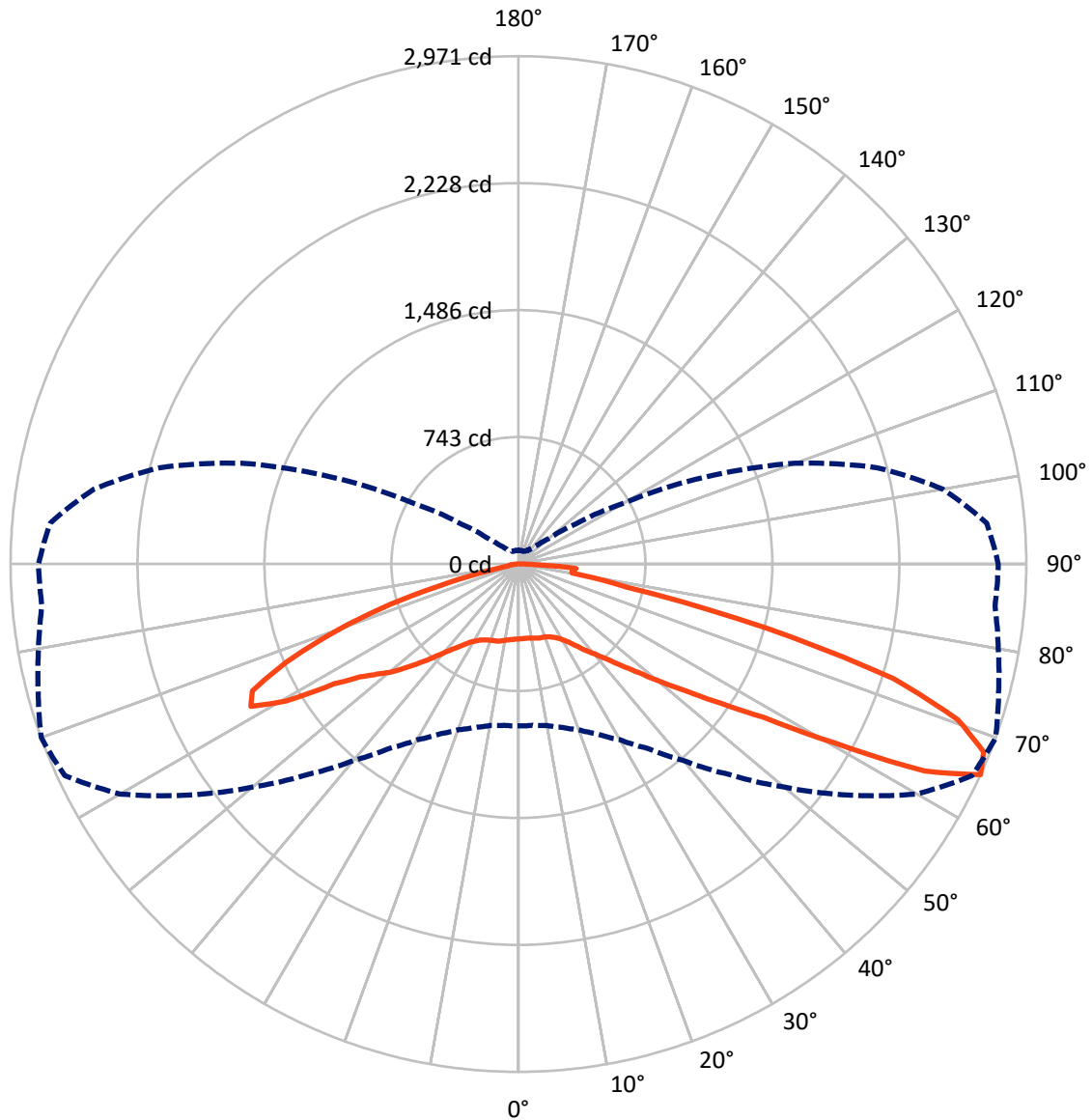
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.4 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1381.2	0.0	1381.2
	% Fixture	33.8	0.0	33.8
Street Side	Lumens	2710.4	0.0	2710.4
	% Fixture	66.2	0.0	66.2
Total	Lumens	4091.6	0.0	4091.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.2	1.0
10°-20°	125.0	3.1
20°-30°	214.9	5.3
30°-40°	344.5	8.4
40°-50°	564.0	13.8
50°-60°	882.8	21.6
60°-70°	1240.7	30.3
70°-80°	587.1	14.4
80°-90°	90.2	2.2
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°	4091.6	100.0
0°-180°	4091.6	100.0



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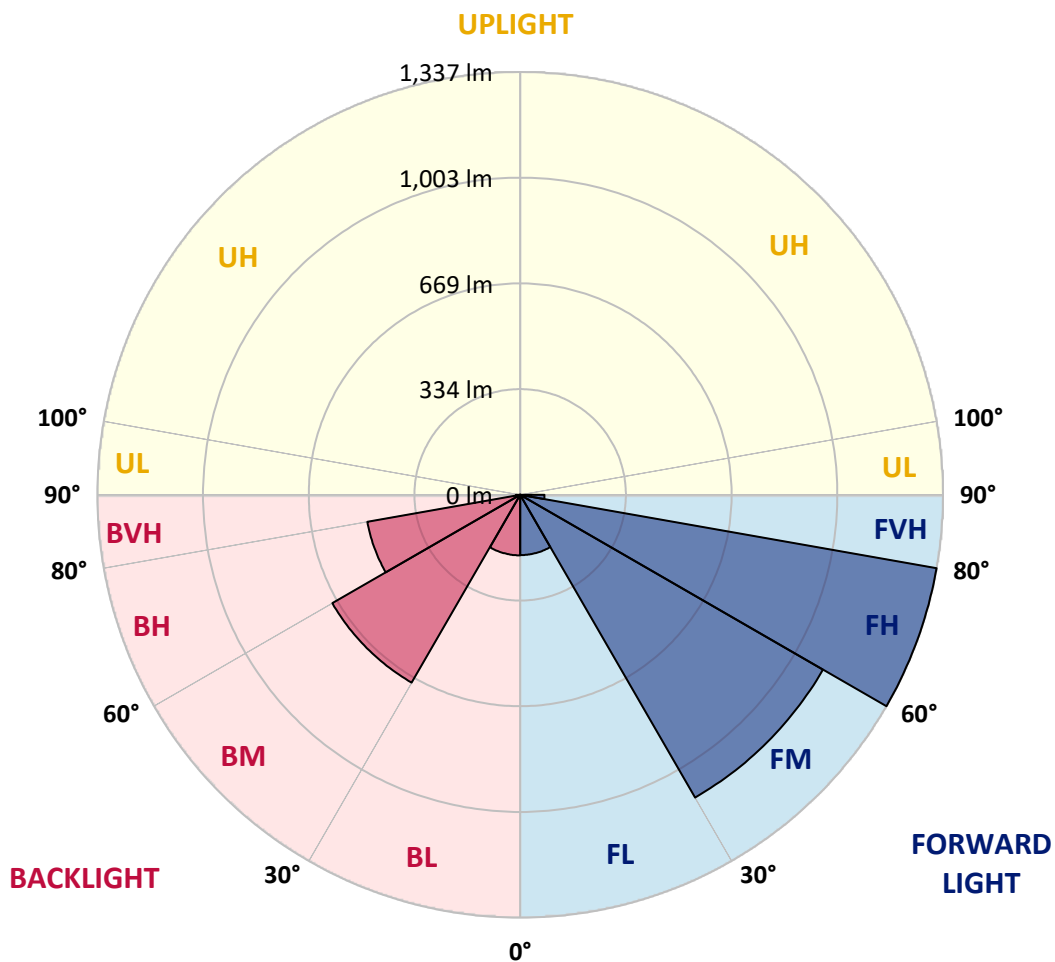
CATALOG NUMBER: ECM-F02-LED-E1-T3-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	190.6	4.7			
FM	(30°-60°)	1105.7	27.0			
FH	(60°-80°)	1337.2	32.7			G1/1800
FVH	(80°-90°)	76.9	1.9			G1/100
BL	(0°-30°)	191.5	4.7	B1/500		
BM	(30°-60°)	685.7	16.8	B1/1000		
BH	(60°-80°)	490.6	12.0	B1/500		G1/500
BVH	(80°-90°)	13.3	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°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	438.5	438.5	438.5	438.5	438.5	438.5	438.5	438.5	438.5	438.5	438.5
2.5°	436.2	436.6	436.6	435.7	435.7	436.2	436.2	436.6	436.6	436.6	437.1
5°	436.2	436.6	436.6	436.2	435.7	436.6	436.2	436.6	436.6	436.6	436.6
7.5°	435.2	435.7	435.7	435.2	435.7	436.2	436.2	437.1	437.5	437.5	438.0
10°	430.6	431.0	431.5	431.5	432.4	433.8	434.3	436.2	436.6	438.0	438.9
12.5°	422.2	422.2	423.2	424.1	425.5	428.3	429.7	432.4	434.8	436.6	439.9
15°	414.8	414.8	415.7	416.2	419.0	420.8	423.6	426.9	431.0	434.8	439.9
17.5°	418.5	418.5	418.0	417.6	418.0	418.0	420.4	423.6	427.3	432.4	438.9
20°	432.9	432.4	430.6	429.7	429.2	427.3	425.9	425.5	427.3	431.0	437.5
22.5°	445.4	444.5	444.1	443.1	444.5	443.6	441.7	439.4	436.6	435.2	438.9
25°	452.9	453.3	453.3	453.3	456.1	457.1	458.0	455.2	451.9	447.3	447.8
27.5°	463.1	463.6	462.6	464.5	467.7	470.1	472.4	474.2	472.4	469.6	466.3
30°	484.9	484.9	483.5	484.9	487.7	490.0	493.3	496.5	496.5	493.8	490.5
32.5°	507.7	508.2	508.2	509.1	513.3	515.1	519.8	523.0	525.3	523.5	525.3
35°	535.1	534.6	536.0	536.5	543.0	545.3	554.6	556.9	560.6	561.6	563.0
37.5°	580.6	581.5	578.8	576.9	582.5	582.5	594.5	601.1	600.1	606.6	611.3
40°	654.0	649.8	648.4	647.5	650.8	650.3	649.8	658.6	662.8	663.8	666.1
42.5°	735.3	736.7	735.3	738.5	738.5	736.2	734.4	733.0	740.9	746.0	746.9
45°	830.5	832.4	829.6	827.3	833.3	836.5	836.5	840.3	846.8	849.1	847.7
47.5°	906.7	911.8	909.5	912.7	922.5	933.6	948.5	958.2	965.2	971.7	981.9
50°	975.4	977.8	983.3	994.0	1008.4	1026.1	1050.2	1074.4	1088.3	1104.6	1116.6
52.5°	1017.2	1024.2	1032.6	1050.2	1074.4	1099.0	1136.1	1175.6	1210.9	1229.0	1243.4
55°	1042.3	1047.4	1058.6	1082.7	1116.6	1153.3	1199.8	1254.1	1301.0	1341.0	1372.1
57.5°	1041.4	1045.6	1060.9	1087.4	1127.8	1173.8	1231.8	1299.6	1368.9	1435.3	1493.8
60°	1021.4	1025.1	1040.5	1068.8	1112.9	1167.7	1237.4	1320.5	1414.4	1514.2	1616.9
62.5°	990.8	993.5	1007.0	1035.3	1079.9	1138.5	1220.2	1329.4	1462.7	1620.1	1819.4
65°	947.6	947.6	960.1	989.4	1032.1	1097.6	1187.7	1315.9	1500.3	1740.0	2029.8
67.5°	883.9	883.9	894.1	918.3	951.7	997.3	1087.4	1220.7	1415.3	1702.4	2041.4
70°	763.6	765.5	765.5	780.3	795.2	815.6	858.4	960.6	1143.1	1423.7	1757.2
72.5°	559.7	525.8	552.3	576.4	593.2	604.3	628.9	661.0	752.9	963.4	1265.3
75°	352.5	361.4	381.3	408.8	450.1	492.8	539.7	559.7	551.4	576.4	779.4
77.5°	213.7	206.2	225.7	266.6	313.1	371.1	458.9	535.1	578.8	576.0	551.8
80°	92.4	90.1	103.1	122.6	145.4	197.9	278.2	382.7	498.9	566.2	556.0
82.5°	33.0	33.4	42.3	50.2	60.4	77.6	110.1	176.0	279.2	397.6	491.4
85°	9.8	10.7	14.9	20.9	23.7	26.9	37.2	55.3	94.3	150.5	267.5
87.5°	2.8	3.3	4.2	7.4	7.0	6.5	7.4	11.6	8.8	7.4	37.2
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	438.5	438.5	438.5	438.5	438.5	438.5	438.5	438.5	438.5	438.5	438.5
2.5°	436.6	436.6	436.6	437.1	436.6	436.6	437.1	437.1	437.5	438.0	438.9
5°	436.2	436.2	436.6	436.6	436.6	437.1	437.5	438.0	438.9	440.3	441.7
7.5°	437.5	437.5	437.1	437.5	437.5	438.0	438.9	439.4	441.3	442.7	445.0
10°	438.9	438.9	439.4	439.9	439.9	440.8	442.2	442.7	444.5	447.3	449.6
12.5°	440.8	442.2	444.1	445.0	445.9	446.8	448.2	449.2	451.5	455.2	458.0
15°	442.2	445.4	447.3	449.6	451.0	451.5	452.9	454.7	457.1	460.8	464.0
17.5°	442.2	446.4	449.2	451.5	453.8	455.2	456.6	458.5	461.7	465.4	468.7
20°	441.7	447.8	451.5	455.2	459.4	460.8	463.1	465.0	468.7	473.3	475.6
22.5°	444.1	451.0	456.1	462.6	467.3	471.0	473.8	477.0	479.8	483.1	484.0
25°	451.0	458.0	466.3	474.2	480.7	486.3	490.0	492.8	496.1	497.5	495.6
27.5°	462.6	467.7	479.4	491.0	501.2	508.2	512.3	516.0	517.0	519.8	512.8
30°	483.5	485.9	497.9	514.7	526.3	537.9	543.5	547.2	547.6	545.8	533.7
32.5°	517.9	513.7	524.4	546.7	564.4	574.1	582.9	585.3	583.9	577.8	558.3
35°	559.7	553.2	558.3	590.8	610.3	624.7	633.1	635.4	632.2	621.5	594.5
37.5°	611.3	608.9	611.3	642.4	676.3	689.8	693.5	696.3	688.4	668.9	633.6
40°	668.4	668.9	666.1	694.4	737.1	756.7	765.5	759.4	749.7	721.8	682.8
42.5°	747.4	744.6	734.8	760.4	815.2	835.2	843.1	838.4	828.7	793.3	747.8
45°	851.9	842.6	833.3	846.8	899.7	925.7	937.3	934.1	916.9	874.2	831.4
47.5°	979.6	969.9	952.7	950.3	1003.8	1034.4	1038.6	1033.5	1020.5	977.8	925.3
50°	1113.8	1111.1	1103.2	1084.6	1132.4	1163.1	1160.3	1156.6	1142.2	1087.8	1034.0
52.5°	1252.7	1258.3	1253.2	1240.2	1291.3	1303.8	1304.8	1293.6	1276.9	1226.7	1153.3
55°	1398.6	1419.5	1427.4	1437.6	1478.0	1476.2	1465.5	1439.0	1443.2	1386.0	1284.3
57.5°	1553.3	1617.4	1668.0	1690.7	1729.3	1740.4	1713.5	1722.3	1718.6	1659.6	1499.4
60°	1757.2	1910.4	2042.4	2123.6	2175.7	2155.7	2193.3	2195.2	2258.8	2129.2	1879.3
62.5°	2082.3	2363.8	2597.9	2668.0	2681.5	2676.9	2632.3	2676.9	2664.8	2506.9	2183.1
65°	2355.9	2690.8	2928.6	2971.3	2908.6	2851.0	2799.0	2807.8	2750.2	2521.7	2174.3
67.5°	2393.1	2726.6	2947.2	2935.1	2798.1	2691.3	2604.9	2537.0	2419.5	2212.8	1910.0
70°	2099.0	2452.5	2736.8	2727.5	2537.0	2394.4	2254.2	2152.0	2032.1	1872.4	1585.8
72.5°	1632.7	1947.6	2223.1	2294.6	2106.9	1949.5	1820.8	1690.7	1567.2	1415.3	1234.6
75°	1111.5	1348.4	1476.6	1496.1	1324.3	1206.3	1156.6	1050.2	919.2	886.7	752.9
77.5°	645.6	736.7	697.7	645.6	519.8	381.8	291.7	249.4	250.4	287.5	275.4
80°	524.9	499.8	394.4	316.3	215.1	109.6	73.4	63.2	63.6	73.9	71.5
82.5°	541.1	555.5	456.6	319.6	220.2	116.1	55.7	41.3	48.3	52.5	51.6
85°	400.9	525.3	471.0	339.1	236.4	123.6	36.2	22.8	32.0	39.0	41.8
87.5°	112.4	176.5	137.0	90.6	66.0	22.3	14.4	12.1	14.9	20.4	20.4
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	438.5	438.5	438.5	438.5	438.5	438.5	438.5	438.5	438.5	438.5	438.5
2.5°	439.4	441.3	440.8	441.7	442.2	443.6	444.5	444.1	444.1	445.0	445.9
5°	443.1	445.4	445.4	446.8	448.2	450.1	451.5	450.6	451.0	451.9	452.9
7.5°	446.8	449.6	450.1	451.5	452.4	453.3	454.3	452.9	452.4	452.4	451.9
10°	451.5	454.3	453.8	453.8	453.3	452.4	450.6	447.3	445.0	443.6	442.7
12.5°	459.4	461.2	458.5	455.7	451.0	447.8	443.6	439.9	437.1	434.8	433.8
15°	466.3	465.4	462.2	457.1	450.6	445.4	441.3	436.2	432.9	430.1	428.7
17.5°	470.1	466.8	462.2	457.5	451.9	447.3	442.2	436.2	431.0	427.3	425.5
20°	473.8	468.7	462.6	458.0	453.8	450.1	446.4	438.9	432.4	426.9	424.1
22.5°	479.4	472.4	466.3	462.2	458.0	454.3	450.6	443.6	436.6	429.2	425.0
25°	487.3	478.0	473.8	469.6	465.0	461.2	456.1	449.6	442.2	433.4	427.3
27.5°	499.8	491.4	486.8	482.6	477.0	471.0	465.4	456.6	449.6	439.4	431.5
30°	517.9	509.1	504.9	500.7	494.2	486.3	478.4	467.3	457.5	445.9	435.7
32.5°	540.7	536.0	530.9	523.9	515.1	505.4	493.8	478.9	465.0	450.6	437.5
35°	576.0	568.1	559.7	552.7	539.7	526.3	508.6	486.8	468.2	450.6	434.8
37.5°	616.4	608.0	596.9	584.3	564.8	543.5	518.8	491.4	466.8	445.4	427.8
40°	665.2	654.5	639.6	615.9	587.1	555.1	522.1	487.7	458.9	434.3	413.9
42.5°	729.7	707.9	679.1	644.2	603.4	559.7	517.9	478.0	445.4	418.5	398.1
45°	802.6	767.8	721.4	669.3	612.7	557.9	508.6	462.2	425.5	395.7	374.4
47.5°	881.1	826.8	758.5	685.1	613.6	547.6	490.5	438.5	397.1	365.6	339.1
50°	969.9	880.2	784.5	693.0	607.6	529.5	464.5	404.6	361.8	324.2	300.1
52.5°	1046.0	927.1	802.6	689.8	586.2	497.9	421.8	363.7	313.5	280.1	256.4
55°	1136.1	972.6	812.4	673.5	551.8	448.7	375.8	311.2	263.8	234.1	213.7
57.5°	1288.0	1049.7	820.8	640.5	495.1	386.9	312.1	251.8	214.6	188.6	174.2
60°	1581.1	1199.3	855.1	591.3	423.2	312.6	241.1	196.9	164.9	147.7	137.5
62.5°	1773.0	1301.0	839.8	515.6	330.7	234.1	176.5	142.1	123.6	111.0	106.4
65°	1724.2	1198.4	712.5	408.8	230.4	155.6	118.4	97.5	89.2	82.7	79.9
67.5°	1480.8	966.6	516.5	264.3	145.8	94.8	77.6	69.2	65.5	62.7	62.2
70°	1179.8	681.4	307.0	140.3	80.8	62.7	55.3	52.0	50.6	50.6	50.6
72.5°	856.1	392.5	151.0	75.7	54.3	47.8	44.6	43.7	43.2	43.2	43.7
75°	489.1	170.0	77.6	52.0	44.6	41.3	39.5	39.5	39.5	39.5	39.9
77.5°	170.5	77.6	54.8	43.7	38.6	36.7	35.8	36.7	37.2	37.2	37.2
80°	62.2	54.8	46.9	38.1	34.4	32.5	32.5	33.9	34.8	33.9	33.4
82.5°	49.2	43.2	38.1	33.0	30.2	29.3	29.7	30.7	30.2	29.7	28.3
85°	37.6	28.3	26.5	24.6	24.2	24.2	26.0	26.5	24.6	23.7	22.3
87.5°	18.6	14.9	13.5	15.8	15.3	13.9	14.4	14.4	12.1	11.1	11.6
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):

	165°	170°	175°	180°
0°	438.5	438.5	438.5	438.5
2.5°	445.9	446.4	447.8	447.3
5°	452.4	452.9	453.8	453.8
7.5°	451.0	451.5	451.5	451.5
10°	440.3	440.3	441.3	441.3
12.5°	432.0	431.5	431.5	430.6
15°	426.9	425.9	426.4	425.0
17.5°	423.2	422.7	422.7	421.8
20°	421.8	420.8	420.4	419.4
22.5°	420.8	420.4	419.4	418.5
25°	423.2	420.8	420.4	419.4
27.5°	425.5	423.2	421.3	420.8
30°	427.8	423.6	421.3	420.4
32.5°	427.3	421.8	418.5	417.1
35°	422.2	415.3	411.1	409.7
37.5°	412.5	404.6	398.1	395.7
40°	398.5	388.3	382.3	379.0
42.5°	381.8	370.2	365.1	362.3
45°	354.4	345.1	339.1	336.8
47.5°	323.7	311.2	305.6	303.3
50°	284.3	274.0	269.4	266.2
52.5°	242.5	233.2	229.0	227.1
55°	202.1	197.4	190.9	189.5
57.5°	164.0	162.6	157.9	157.5
60°	133.3	131.0	127.7	127.7
62.5°	105.0	102.7	101.3	101.3
65°	80.8	80.4	79.4	79.0
67.5°	62.2	63.6	64.1	63.2
70°	52.0	52.5	52.5	52.5
72.5°	45.1	45.1	45.1	44.6
75°	40.9	40.9	39.9	39.5
77.5°	37.6	37.2	37.6	37.2
80°	33.0	32.5	31.6	30.7
82.5°	27.4	26.9	24.6	24.6
85°	21.4	20.0	18.1	16.3
87.5°	12.1	10.7	7.9	5.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)