

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: P162601

Luminaire Tested: **ECM-F02-LED-E1-SL4-HSS-7030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P162601
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33728)
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-SL4-HSS-7030
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (14) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2917.4 lumens
Efficiency: N/A
Efficacy: 53.0 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 1' x H: 0.1')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B0 - U0 - G1

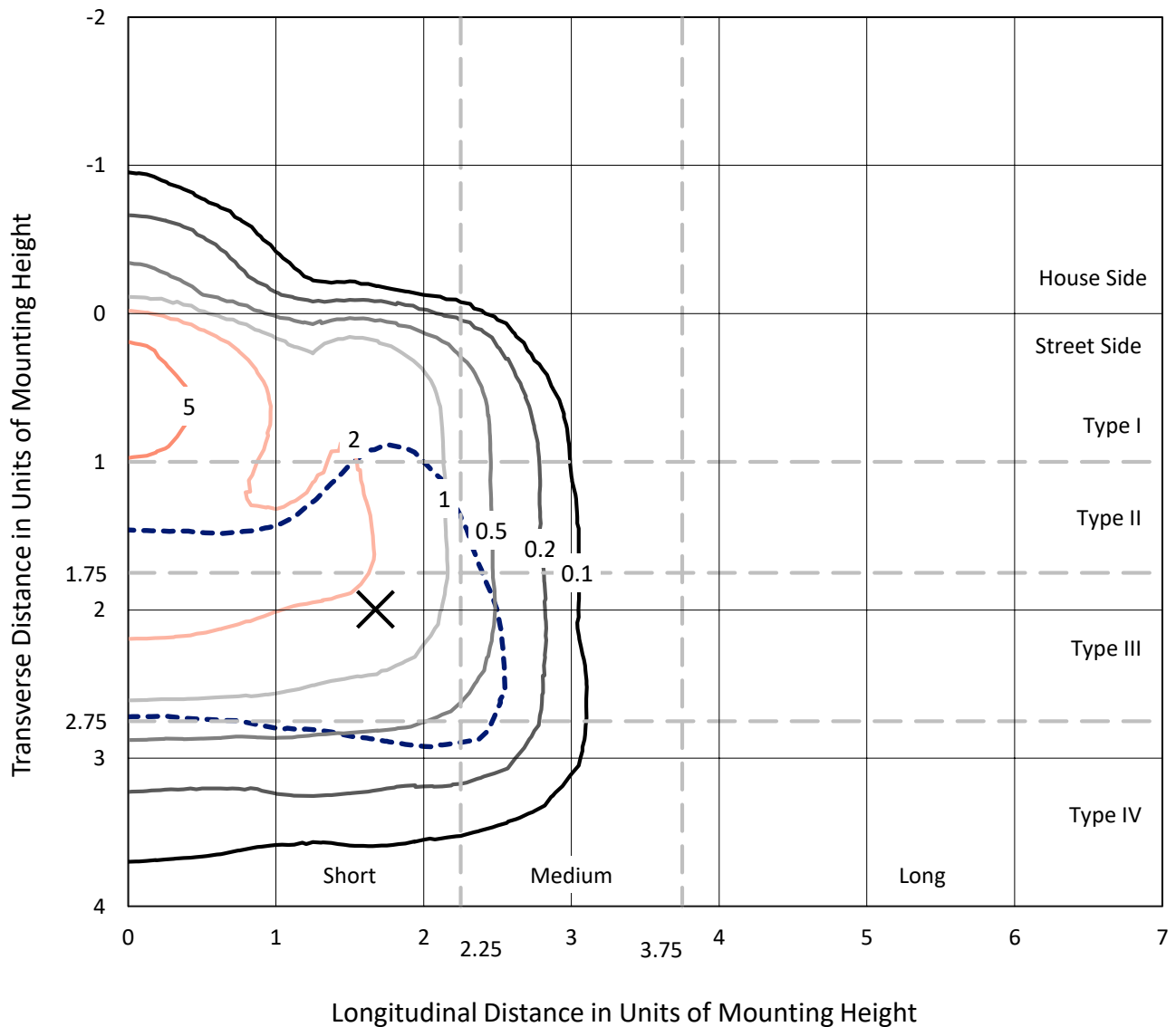
Input Watts (W): 55
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

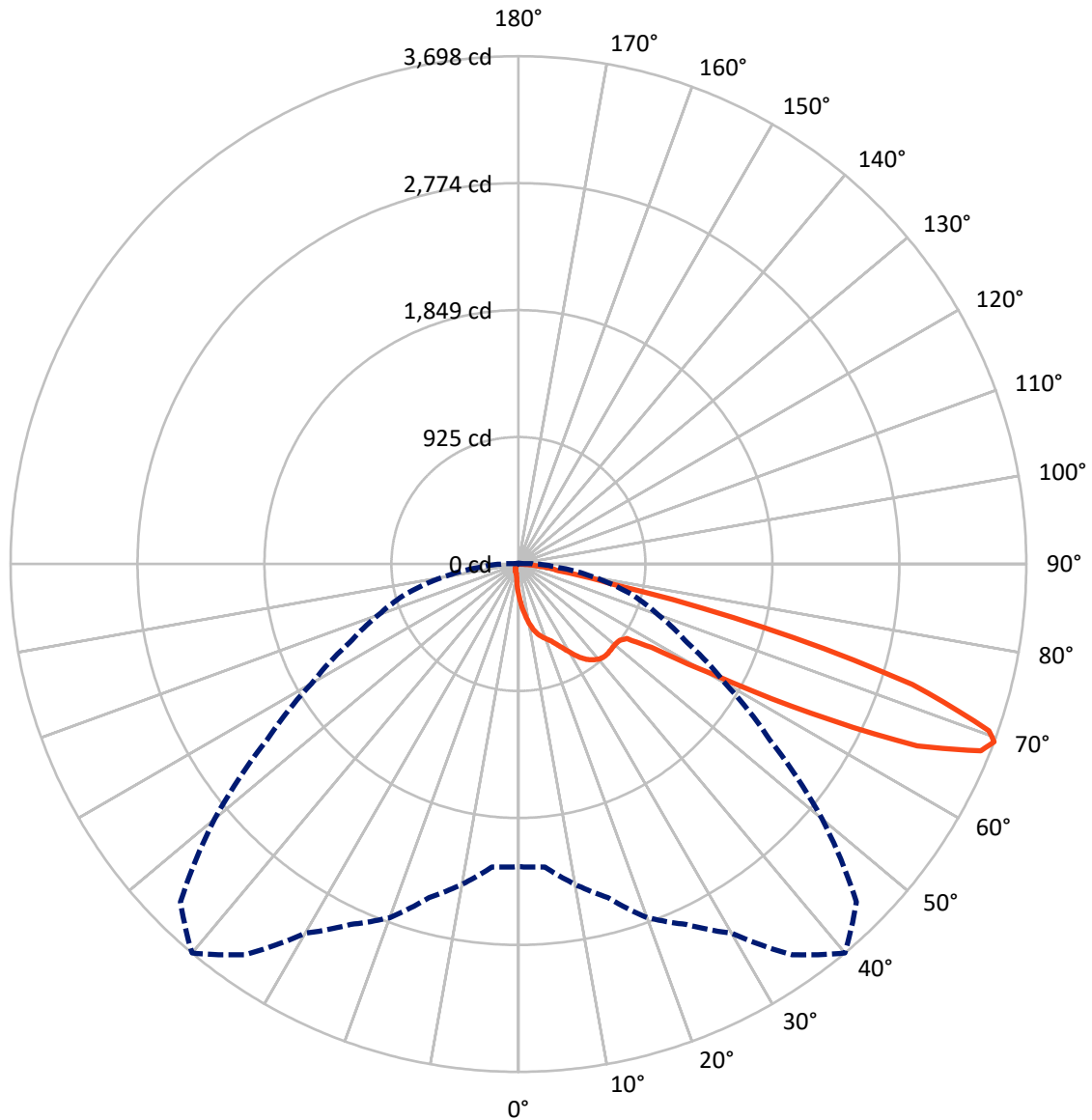
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.5 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	86.9	0.0	86.9
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	2830.5	0.0	2830.5
	% Fixture	97.0	0.0	97.0
Total	Lumens	2917.4	0.0	2917.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.6	0.8
10°-20°	78.1	2.7
20°-30°	149.4	5.1
30°-40°	248.5	8.5
40°-50°	336.3	11.5
50°-60°	525.9	18.0
60°-70°	1081.2	37.1
70°-80°	435.1	14.9
80°-90°	40.3	1.4
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°	2917.4	100.0
0°-180°	2917.4	100.0

Coefficient of Utilization



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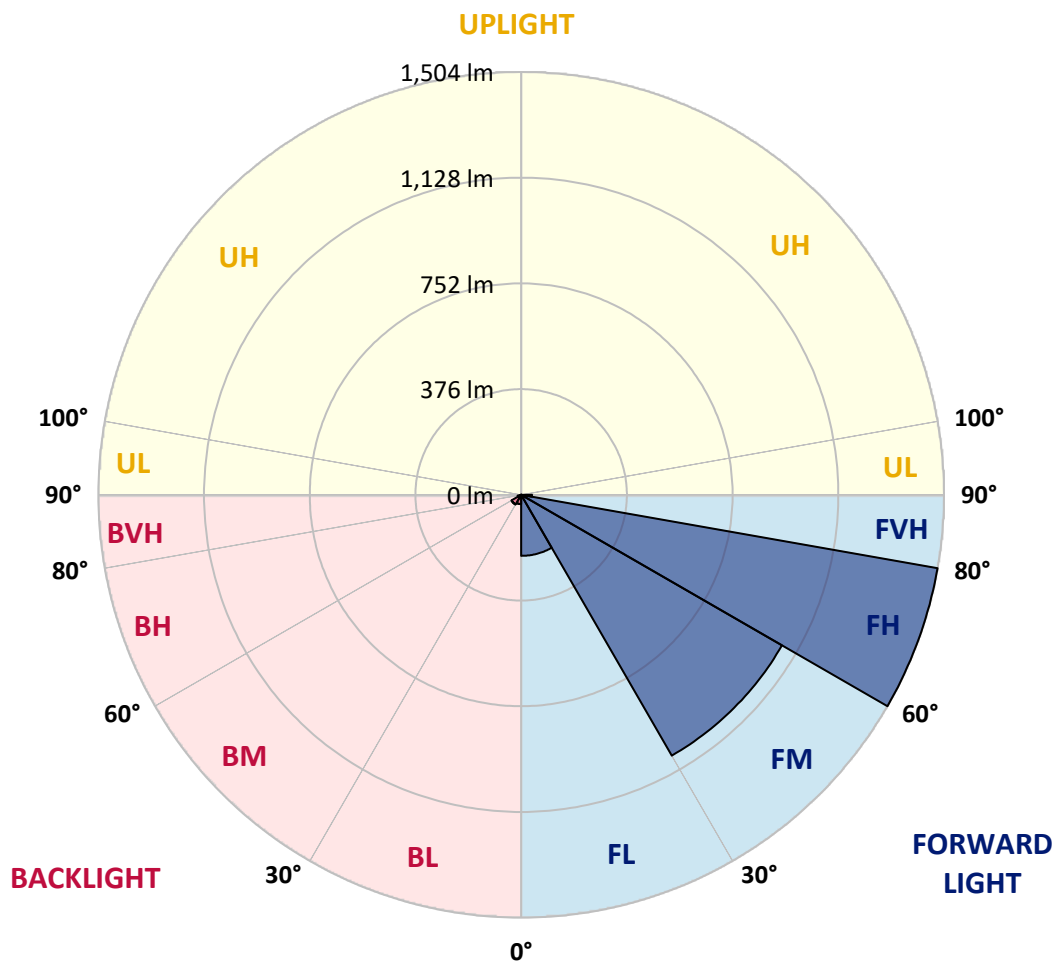
CATALOG NUMBER: ECM-F02-LED-E1-SL4-HSS-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	217.1	7.4			
FM	(30°-60°)	1071.0	36.7			
FH	(60°-80°)	1503.6	51.5			G1/1800
FVH	(80°-90°)	38.7	1.3			G1/100
BL	(0°-30°)	33.0	1.1	B0/110		
BM	(30°-60°)	39.7	1.4	B0/220		
BH	(60°-80°)	12.7	0.4	B0/110		G0/110
BVH	(80°-90°)	1.5	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-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	220.3	220.3	220.3	220.3	220.3	220.3	220.3	220.3	220.3	220.3	220.3
2.5°	293.9	290.6	286.8	286.8	281.9	281.9	279.1	271.4	270.5	266.2	261.9
5°	375.1	372.3	367.5	363.2	359.4	352.7	347.9	338.8	328.8	319.2	310.6
7.5°	454.5	453.0	444.5	443.0	436.8	425.8	416.3	402.9	385.7	372.3	356.5
10°	528.1	524.7	522.8	514.7	505.6	493.7	478.9	462.6	442.5	421.5	399.1
12.5°	586.4	584.5	575.9	572.5	563.0	551.0	532.4	511.4	491.3	464.1	437.8
15°	629.9	626.5	620.8	615.6	604.1	593.5	576.4	553.4	529.1	499.4	467.9
17.5°	666.2	660.0	658.5	650.4	638.5	626.1	607.0	585.9	557.3	527.6	493.2
20°	714.9	706.3	703.5	691.5	677.7	660.5	638.5	612.2	582.1	549.6	514.2
22.5°	772.3	766.1	759.9	749.4	731.7	707.3	675.3	646.6	608.4	572.5	534.3
25°	853.6	848.3	838.2	823.9	801.9	772.8	734.1	692.0	647.1	601.2	556.3
27.5°	932.4	927.6	920.5	909.5	884.6	852.6	804.8	751.3	694.4	639.0	589.3
30°	1006.5	1002.2	995.0	984.0	962.0	930.5	876.5	819.1	748.4	683.9	624.2
32.5°	1086.3	1084.8	1076.8	1061.0	1041.9	999.3	940.5	878.9	807.2	732.6	662.9
35°	1176.6	1165.6	1158.0	1142.2	1109.7	1064.3	995.5	928.1	852.6	776.1	698.2
37.5°	1253.1	1242.6	1233.0	1212.9	1173.3	1115.5	1037.5	963.5	885.6	807.7	728.4
40°	1309.0	1303.8	1292.3	1266.0	1221.5	1152.7	1068.6	987.8	909.5	831.1	752.7
42.5°	1350.6	1342.5	1329.5	1302.3	1249.7	1171.4	1081.0	997.9	920.5	845.4	768.5
45°	1365.9	1359.2	1347.2	1317.6	1260.7	1176.6	1080.6	995.0	920.9	849.8	779.0
47.5°	1356.8	1350.1	1339.6	1311.8	1256.0	1170.4	1072.0	986.9	916.2	851.2	788.6
50°	1326.7	1322.9	1314.7	1291.3	1241.1	1158.4	1064.3	982.6	915.2	858.3	801.9
52.5°	1323.8	1321.4	1311.4	1288.0	1236.9	1154.6	1063.3	985.0	923.3	867.4	811.5
55°	1617.7	1583.8	1507.8	1443.3	1337.2	1211.0	1111.6	1023.7	957.7	903.2	864.1
57.5°	2299.2	2248.6	2148.7	2025.9	1782.1	1542.7	1351.1	1212.5	1144.1	1119.3	1134.1
60°	2618.5	2609.4	2593.6	2535.3	2410.6	2204.6	1975.2	1727.1	1627.8	1619.2	1649.3
62.5°	2770.0	2764.2	2769.0	2761.8	2723.1	2662.9	2597.0	2489.9	2391.5	2327.9	2193.1
65°	2839.7	2843.6	2870.8	2892.3	2897.1	2912.9	2961.1	3094.5	3192.0	3028.0	2653.9
67.5°	2662.5	2684.9	2747.5	2825.9	2917.7	3006.5	3149.9	3430.9	3631.2	3438.6	2907.1
69°	2204.1	2215.1	2368.0	2515.7	2739.9	2896.6	3104.5	3473.0	3698.1	3480.6	2887.0
70°	1735.3	1745.3	1909.3	2110.0	2489.0	2690.7	2962.6	3401.8	3635.5	3424.7	2783.8
72.5°	782.8	768.5	826.3	933.8	1345.8	1666.0	2141.5	2756.1	2999.4	2743.7	2082.7
75°	546.7	540.5	546.7	547.2	611.2	788.6	995.0	1494.0	1847.6	1594.3	995.0
77.5°	423.4	419.1	414.8	410.1	417.7	467.9	487.9	530.0	688.2	650.9	379.5
80°	335.0	331.2	341.7	338.3	338.3	344.1	340.3	324.5	294.9	273.3	244.7
82.5°	155.8	156.7	156.7	170.2	205.0	239.4	250.4	234.6	208.4	177.3	142.9
85°	14.8	16.7	28.2	43.5	86.5	97.5	98.0	81.2	81.2	64.0	51.6
87.5°	0.0	0.5	0.5	0.5	4.3	12.0	10.1	2.9	1.5	1.5	2.4
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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CATALOG NUMBER: ECM-F02-LED-E1-SL4-HSS-7030

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	220.3	220.3	220.3	220.3	220.3	220.3	220.3	220.3	220.3	220.3	220.3
2.5°	254.2	252.8	247.1	241.3	236.1	230.4	225.1	219.8	214.1	209.8	204.5
5°	297.3	286.8	274.8	263.3	251.9	239.9	227.5	216.5	205.0	194.5	184.5
7.5°	340.8	320.2	304.0	283.4	264.8	246.1	228.9	211.2	195.0	179.7	165.4
10°	377.5	352.7	327.4	301.1	274.3	249.5	225.6	204.5	183.0	164.4	146.7
12.5°	407.7	376.1	345.0	312.1	281.9	250.4	220.8	195.5	170.2	149.1	130.9
15°	434.9	398.6	361.3	323.1	284.9	249.0	216.0	184.5	158.7	134.8	114.2
17.5°	456.9	415.3	373.2	330.2	289.1	247.1	209.8	176.8	146.7	121.8	101.8
20°	476.0	432.5	387.1	338.8	292.0	246.6	204.5	167.3	136.2	109.9	90.3
22.5°	493.7	450.2	401.4	349.9	296.3	246.1	199.8	160.1	127.1	100.8	81.2
25°	513.8	467.9	416.8	361.3	304.0	248.0	196.9	154.4	119.0	92.2	74.1
27.5°	536.2	487.9	434.9	375.6	314.0	251.9	195.9	148.1	111.8	84.1	68.4
30°	567.8	511.9	453.0	390.0	323.1	256.2	195.0	144.3	104.7	77.9	62.6
32.5°	595.5	535.3	473.2	404.8	333.1	260.5	194.5	139.1	98.0	71.7	58.3
35°	624.6	556.7	490.3	419.1	341.7	265.3	194.0	135.3	91.7	65.5	54.0
37.5°	649.9	574.9	503.7	431.5	351.3	269.5	194.5	131.9	86.0	60.2	50.2
40°	671.5	593.5	518.5	443.0	361.3	276.2	195.0	128.6	80.3	55.4	46.8
42.5°	690.6	611.2	534.3	455.9	372.8	283.9	197.8	125.7	75.5	51.1	43.5
45°	705.4	627.5	551.5	474.1	391.4	296.3	203.1	123.8	70.7	47.3	40.6
47.5°	720.7	651.4	580.7	502.8	418.7	315.9	212.2	123.3	66.9	44.4	38.3
50°	741.7	675.3	606.5	531.9	443.5	336.0	223.2	123.8	62.1	41.6	35.8
52.5°	757.0	699.7	639.9	582.6	502.8	397.2	265.7	132.4	59.7	39.2	33.0
55°	847.3	837.3	838.7	848.3	786.7	675.8	444.5	191.2	70.3	44.4	32.5
57.5°	1194.8	1230.2	1250.7	1250.2	1148.4	952.5	596.9	245.7	78.4	51.6	38.7
60°	1651.6	1624.9	1587.2	1494.0	1358.7	1087.3	667.6	264.3	67.9	41.1	35.4
62.5°	2055.5	1898.8	1759.7	1608.7	1431.3	1134.1	682.0	262.8	59.3	31.1	24.8
65°	2307.4	2025.4	1800.8	1611.5	1402.7	1094.9	645.2	241.3	50.2	25.3	20.6
67.5°	2367.6	1957.1	1639.2	1397.9	1171.9	852.1	473.6	181.6	39.2	21.0	18.1
69°	2236.1	1739.6	1358.2	1084.4	852.6	565.3	293.0	114.7	30.1	19.1	16.7
70°	2056.9	1513.1	1106.4	870.3	631.3	397.2	205.0	80.8	24.4	17.7	15.3
72.5°	1323.4	794.8	543.9	378.5	260.5	158.2	80.3	36.3	18.6	14.8	12.4
75°	513.3	293.9	213.1	162.0	126.7	87.9	48.8	23.4	15.8	12.4	9.6
77.5°	252.8	193.6	158.2	108.5	63.1	39.2	26.3	18.1	12.9	9.1	6.2
80°	199.8	132.9	79.3	49.2	37.3	28.2	20.1	14.8	9.6	5.7	4.3
82.5°	102.3	55.9	41.1	33.5	27.7	22.0	16.2	10.5	6.2	3.8	3.4
85°	32.0	23.4	21.0	20.6	19.1	15.8	11.5	6.7	3.8	2.4	2.4
87.5°	2.4	3.4	4.3	3.4	3.8	3.4	4.3	2.9	1.9	1.9	1.5
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	220.3	220.3	220.3	220.3	220.3	220.3	220.3	220.3	220.3	220.3	220.3
2.5°	200.7	195.0	189.8	186.4	180.2	177.8	175.4	174.4	170.2	171.1	167.3
5°	175.4	165.4	157.7	150.0	142.9	137.6	133.4	128.1	123.8	121.8	118.0
7.5°	152.5	139.5	129.5	121.4	112.8	106.1	100.4	96.6	92.7	88.9	87.0
10°	132.4	118.5	107.1	98.9	90.8	85.1	80.8	77.9	75.5	74.1	73.6
12.5°	113.8	100.4	89.8	82.7	76.5	73.6	71.7	70.3	69.8	69.3	69.3
15°	99.4	86.0	77.9	72.6	69.8	68.4	67.9	66.9	65.9	65.5	65.5
17.5°	86.0	76.0	70.3	67.4	65.9	65.0	64.0	63.1	62.1	61.6	61.6
20°	77.0	68.8	65.9	64.0	62.6	61.6	60.2	59.3	58.8	58.3	57.8
22.5°	69.8	64.5	62.6	61.2	59.3	57.8	56.9	55.9	54.9	54.5	54.0
25°	64.5	61.2	59.7	57.8	55.9	54.5	53.0	51.6	50.7	50.2	49.2
27.5°	60.7	58.3	56.4	54.0	52.1	50.7	49.2	47.8	46.8	45.9	45.4
30°	57.4	54.9	52.6	50.7	48.3	46.8	44.9	43.5	43.0	42.1	41.1
32.5°	54.0	51.6	49.2	46.8	44.4	42.5	41.6	39.7	38.7	38.3	37.3
35°	50.2	47.8	44.9	43.0	40.6	38.7	37.3	35.8	34.9	33.9	33.5
37.5°	46.8	44.0	41.1	38.7	36.8	34.9	33.5	32.0	31.1	30.1	29.6
40°	43.0	40.2	37.3	34.9	33.0	31.6	30.1	28.7	27.7	27.2	27.2
42.5°	39.7	36.3	33.5	31.6	30.1	28.2	26.7	25.3	24.8	24.4	24.8
45°	36.3	33.0	30.6	28.7	27.2	25.3	23.9	22.9	22.5	22.9	23.4
47.5°	33.5	30.1	27.7	26.3	24.8	23.4	22.0	21.0	21.0	22.0	22.9
50°	30.6	27.2	25.3	24.4	22.9	21.5	19.6	19.1	19.6	20.6	21.5
52.5°	27.7	23.9	22.5	22.0	20.6	19.1	17.7	17.2	17.7	18.6	18.1
55°	24.8	21.0	20.6	20.1	18.6	16.7	15.3	15.3	15.3	14.8	13.9
57.5°	23.9	18.6	18.1	17.7	16.2	14.3	13.4	12.4	12.0	10.5	10.1
60°	24.8	16.7	16.7	15.8	14.3	12.4	11.0	9.6	8.6	7.6	7.6
62.5°	20.1	15.3	14.8	13.9	12.0	10.1	8.6	7.2	6.7	6.2	6.2
65°	16.2	13.9	12.9	11.5	10.1	8.1	6.7	5.7	5.3	5.3	5.7
67.5°	14.8	12.4	11.0	9.6	8.1	6.2	5.3	4.8	4.8	5.3	5.3
69°	13.9	11.5	10.1	8.6	7.2	5.7	4.8	4.8	4.8	4.8	5.3
70°	12.9	11.0	9.6	8.1	6.2	4.8	4.3	4.3	4.8	4.8	5.3
72.5°	10.1	8.6	8.1	6.7	4.8	4.3	3.8	4.3	4.3	4.8	4.8
75°	7.6	6.2	6.2	5.3	3.8	3.4	3.4	3.8	3.8	4.3	4.3
77.5°	5.3	4.3	4.3	3.8	3.4	2.9	2.9	3.4	3.8	3.8	4.3
80°	3.8	3.4	2.9	3.4	2.9	2.4	2.9	3.4	3.4	3.8	3.8
82.5°	2.9	2.9	2.9	2.9	2.4	2.4	2.9	2.9	3.4	3.8	3.8
85°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.9	2.9	3.4	3.4
87.5°	1.5	1.5	1.5	1.9	1.9	2.4	2.4	2.4	2.4	2.9	2.9
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°	220.3	220.3	220.3	220.3
2.5°	166.3	165.8	163.9	164.4
5°	116.6	113.8	115.7	115.2
7.5°	85.6	85.1	84.6	85.6
10°	73.1	73.1	72.6	73.1
12.5°	68.8	68.8	68.8	68.8
15°	65.5	65.5	65.0	65.0
17.5°	61.6	61.6	61.6	61.2
20°	57.8	57.4	57.4	57.4
22.5°	53.5	53.0	53.0	53.0
25°	49.2	48.8	48.8	48.8
27.5°	44.9	44.4	44.0	44.0
30°	40.6	40.2	39.7	39.7
32.5°	36.3	35.8	35.4	35.4
35°	32.5	32.5	32.0	31.6
37.5°	29.2	29.2	29.2	29.2
40°	26.7	27.2	27.2	27.2
42.5°	25.3	25.8	26.3	26.7
45°	24.4	25.3	25.8	25.8
47.5°	23.9	24.4	24.8	24.8
50°	22.0	21.5	21.5	21.5
52.5°	17.7	16.7	16.2	15.8
55°	12.9	12.4	11.5	11.5
57.5°	9.1	9.1	8.6	8.6
60°	7.2	7.2	6.7	7.2
62.5°	6.2	6.2	6.2	6.2
65°	5.7	5.7	5.7	5.7
67.5°	5.7	5.7	5.7	5.7
69°	5.3	5.3	5.3	5.3
70°	5.3	5.3	5.3	5.3
72.5°	4.8	4.8	4.8	4.8
75°	4.3	4.8	4.8	4.8
77.5°	4.3	4.3	4.3	4.3
80°	3.8	3.8	4.3	4.3
82.5°	3.8	3.8	3.8	3.8
85°	3.4	3.4	3.8	3.8
87.5°	2.9	2.9	3.4	3.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)