

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: P162596

Luminaire Tested: **ECM-E02-LED-E1-SL4-HSS-7030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P162596
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-E02-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: (42) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3534 lumens
Efficiency: N/A
Efficacy: 67.8 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 - G2

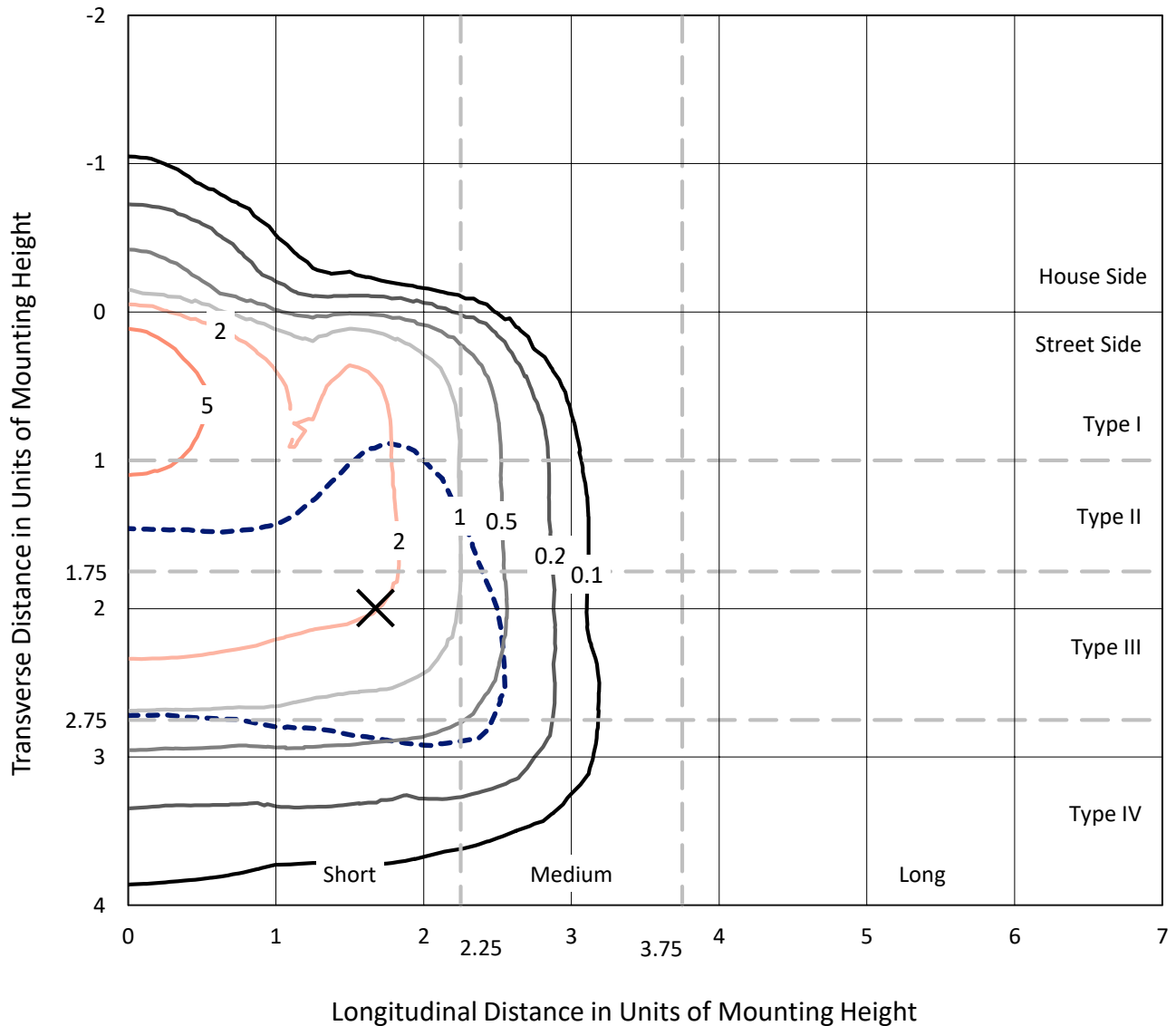
Input Watts (W): 52.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

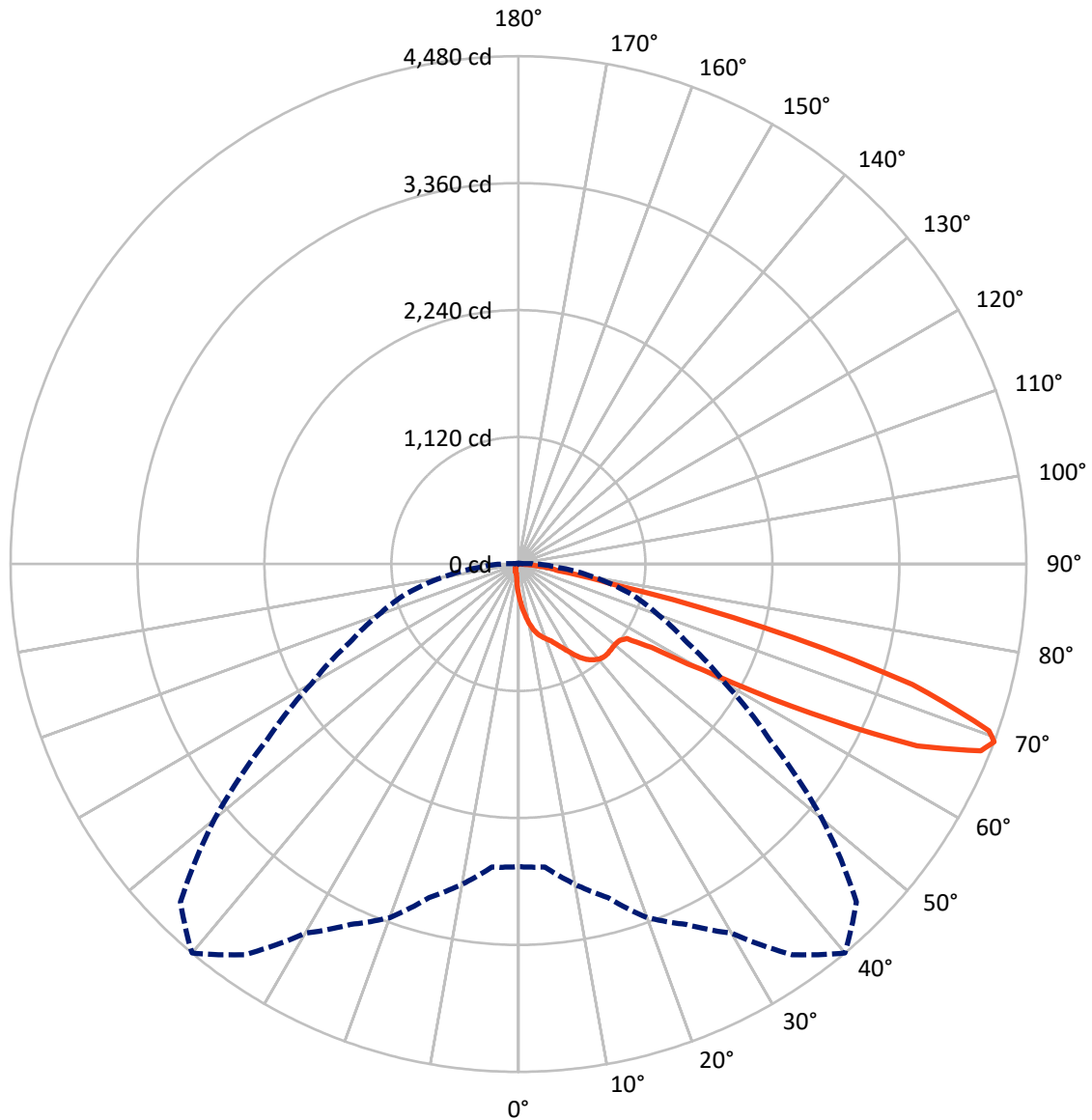
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.9 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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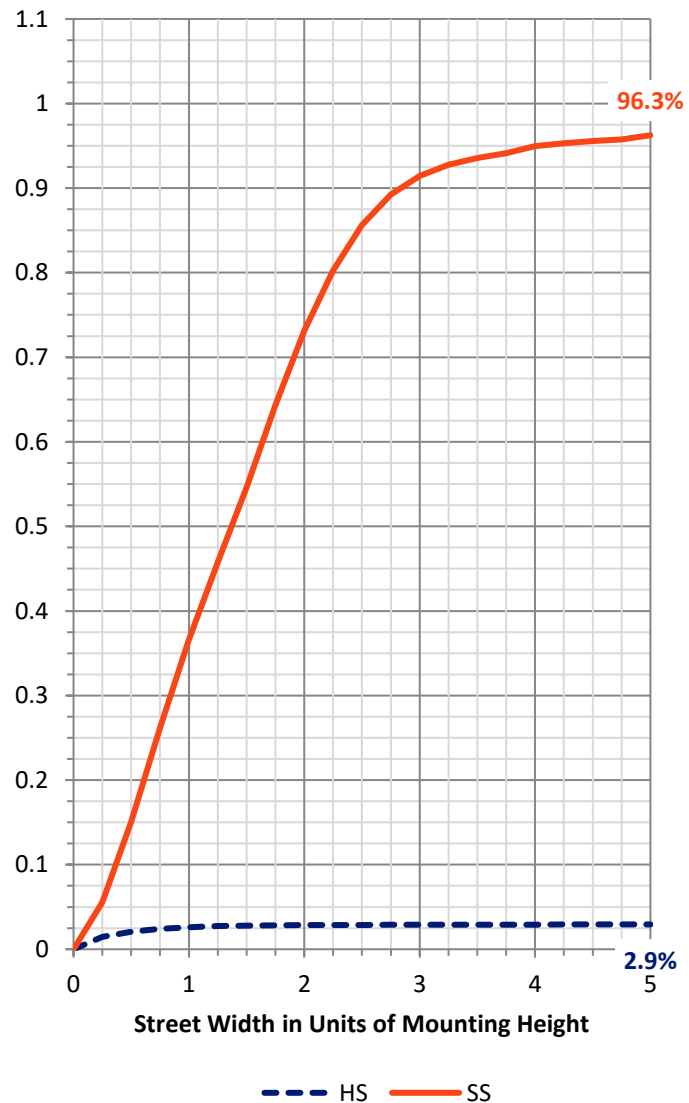
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	105.3	0.0	105.3
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	3428.7	0.0	3428.7
	% Fixture	97.0	0.0	97.0
Total	Lumens	3534.0	0.0	3534.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.4	0.8
10°-20°	94.6	2.7
20°-30°	181.0	5.1
30°-40°	301.0	8.5
40°-50°	407.3	11.5
50°-60°	637.0	18.0
60°-70°	1309.8	37.1
70°-80°	527.0	14.9
80°-90°	48.8	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°	3534.0	100.0
0°-180°	3534.0	100.0



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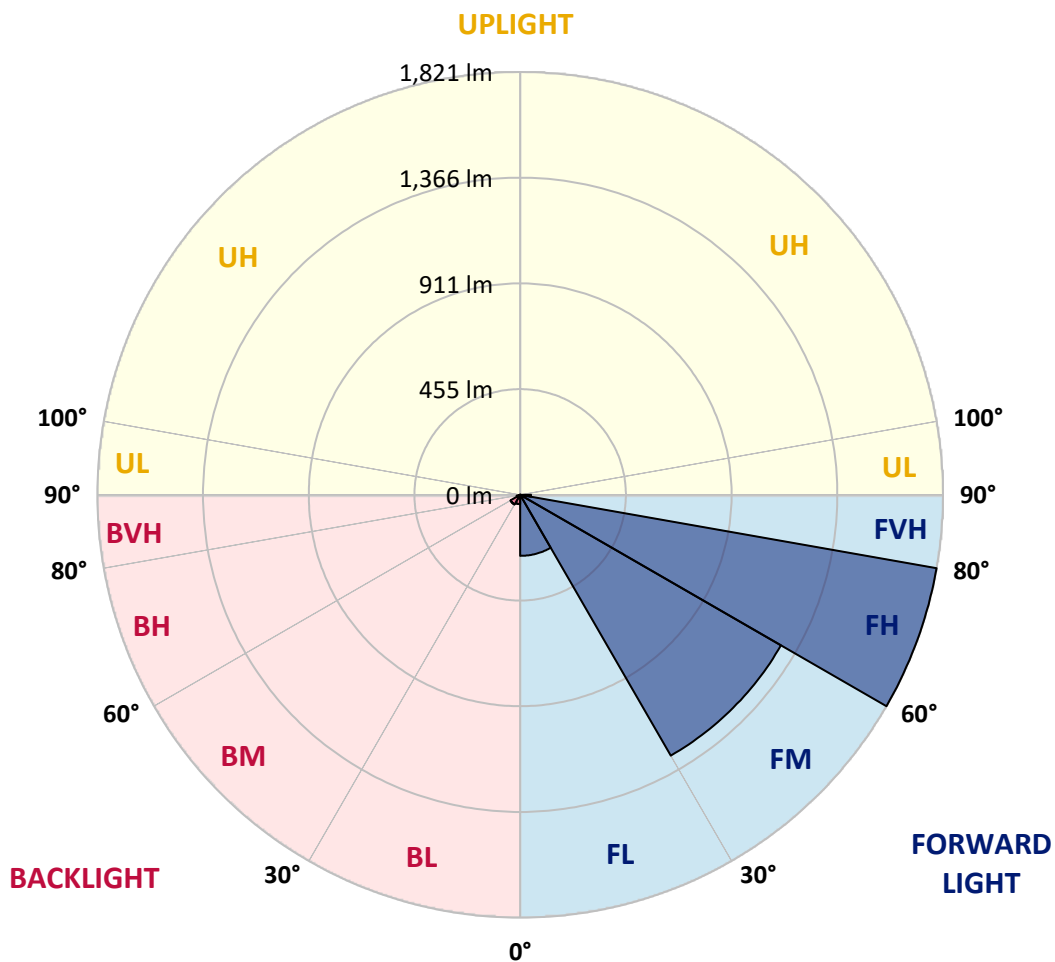
CATALOG NUMBER: ECM-E02-LED-E1-SL4-HSS-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	263.0	7.4			
FM	(30°-60°)	1297.4	36.7			
FH	(60°-80°)	1821.4	51.5			G2/5000
FVH	(80°-90°)	46.9	1.3			G1/100
BL	(0°-30°)	40.0	1.1	B0/110		
BM	(30°-60°)	48.1	1.4	B0/220		
BH	(60°-80°)	15.4	0.4	B0/110		G0/110
BVH	(80°-90°)	1.8	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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	266.9	266.9	266.9	266.9	266.9	266.9	266.9	266.9	266.9	266.9	266.9
2.5°	356.0	352.0	347.4	347.4	341.5	341.5	338.1	328.8	327.6	322.5	317.2
5°	454.4	451.0	445.2	440.0	435.4	427.3	421.5	410.5	398.3	386.7	376.3
7.5°	550.6	548.8	538.4	536.7	529.1	515.8	504.2	488.0	467.2	451.0	431.9
10°	639.7	635.6	633.3	623.5	612.5	598.0	580.1	560.4	536.1	510.6	483.4
12.5°	710.3	708.0	697.6	693.5	682.0	667.5	644.9	619.4	595.1	562.1	530.3
15°	763.0	758.9	752.0	745.7	731.8	719.0	698.2	670.4	640.9	604.9	566.8
17.5°	807.0	799.5	797.7	787.9	773.4	758.4	735.2	709.7	675.0	639.1	597.5
20°	866.0	855.6	852.2	837.7	820.9	800.1	773.4	741.6	705.1	665.8	622.9
22.5°	935.5	928.0	920.5	907.7	886.3	856.8	818.0	783.3	737.0	693.5	647.2
25°	1034.0	1027.6	1015.4	998.0	971.4	936.1	889.2	838.3	783.8	728.3	673.9
27.5°	1129.4	1123.7	1115.0	1101.7	1071.6	1032.8	974.9	910.1	841.2	774.0	713.8
30°	1219.2	1214.0	1205.3	1192.0	1165.4	1127.1	1061.7	992.3	906.6	828.4	756.1
32.5°	1315.9	1314.1	1304.3	1285.2	1262.1	1210.5	1139.3	1064.6	977.8	887.5	803.0
35°	1425.3	1412.0	1402.7	1383.6	1344.3	1289.2	1205.9	1124.3	1032.8	940.1	845.8
37.5°	1517.9	1505.2	1493.6	1469.3	1421.2	1351.2	1256.8	1167.1	1072.8	978.4	882.3
40°	1585.6	1579.3	1565.4	1533.6	1479.7	1396.3	1294.5	1196.6	1101.7	1006.8	911.8
42.5°	1636.0	1626.2	1610.5	1577.5	1513.8	1418.9	1309.5	1208.8	1115.0	1024.1	930.9
45°	1654.6	1646.5	1632.0	1596.0	1527.2	1425.3	1309.0	1205.3	1115.6	1029.3	943.6
47.5°	1643.5	1635.4	1622.7	1589.1	1521.4	1417.8	1298.5	1195.5	1109.8	1031.1	955.2
50°	1607.1	1602.4	1592.6	1564.3	1503.4	1403.3	1289.2	1190.3	1108.6	1039.8	971.4
52.5°	1603.6	1600.7	1588.6	1560.2	1498.3	1398.6	1288.1	1193.1	1118.5	1050.7	983.0
55°	1959.6	1918.5	1826.5	1748.3	1619.8	1467.0	1346.6	1240.0	1160.1	1094.1	1046.7
57.5°	2785.2	2723.8	2602.8	2454.1	2158.8	1868.8	1636.6	1468.7	1385.9	1355.8	1373.8
60°	3171.9	3160.9	3141.8	3071.2	2920.0	2670.6	2392.7	2092.2	1971.8	1961.4	1997.9
62.5°	3355.4	3348.5	3354.2	3345.5	3298.7	3225.7	3145.8	3016.2	2896.9	2819.9	2656.6
65°	3439.9	3444.5	3477.6	3503.6	3509.4	3528.5	3587.0	3748.5	3866.6	3668.0	3214.7
67.5°	3225.2	3252.4	3328.2	3423.1	3534.3	3642.0	3815.7	4156.0	4398.6	4165.3	3521.6
69°	2670.0	2683.3	2868.5	3047.4	3318.9	3508.8	3760.6	4207.0	4479.7	4216.3	3497.2
70°	2102.0	2114.2	2312.8	2555.9	3015.0	3259.3	3588.7	4120.7	4403.8	4148.5	3372.2
72.5°	948.2	930.9	1001.0	1131.2	1630.2	2018.1	2594.2	3338.6	3633.3	3323.6	2522.9
75°	662.3	654.8	662.3	662.8	740.4	955.2	1205.3	1809.7	2238.1	1931.2	1205.3
77.5°	512.9	507.7	502.5	496.7	506.0	566.8	591.1	642.0	833.6	788.5	459.7
80°	405.8	401.2	413.9	409.9	409.9	416.8	412.2	393.1	357.2	331.1	296.4
82.5°	188.7	189.9	189.9	206.1	248.4	290.0	303.4	284.2	252.4	214.8	173.1
85°	18.0	20.3	34.2	52.7	104.8	118.1	118.7	98.4	98.4	77.6	62.5
87.5°	0.0	0.6	0.6	0.6	5.2	14.5	12.2	3.5	1.8	1.8	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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	266.9	266.9	266.9	266.9	266.9	266.9	266.9	266.9	266.9	266.9	266.9
2.5°	308.0	306.3	299.3	292.3	286.0	279.1	272.7	266.3	259.3	254.2	247.8
5°	360.1	347.4	332.9	319.0	305.1	290.6	275.6	262.3	248.4	235.6	223.5
7.5°	412.8	387.9	368.2	343.3	320.7	298.1	277.3	255.9	236.2	217.7	200.3
10°	457.3	427.3	396.6	364.7	332.3	302.2	273.3	247.8	221.7	199.2	177.7
12.5°	493.8	455.6	417.9	378.0	341.5	303.4	267.5	236.8	206.1	180.6	158.6
15°	526.8	482.8	437.7	391.3	345.1	301.6	261.6	223.5	192.2	163.2	138.3
17.5°	553.4	503.1	452.1	400.0	350.2	299.3	254.2	214.2	177.7	147.6	123.3
20°	576.6	523.9	468.9	410.5	353.7	298.7	247.8	202.6	165.0	133.2	109.4
22.5°	598.0	545.3	486.3	423.8	358.9	298.1	242.0	193.9	154.0	122.1	98.4
25°	622.4	566.8	504.8	437.7	368.2	300.4	238.5	187.0	144.1	111.7	89.8
27.5°	649.6	591.1	526.8	455.0	380.3	305.1	237.3	179.4	135.5	101.9	82.8
30°	687.8	620.0	548.8	472.4	391.3	310.3	236.2	174.8	126.8	94.4	75.8
32.5°	721.3	648.4	573.2	490.3	403.5	315.5	235.6	168.5	118.7	86.8	70.6
35°	756.6	674.4	594.0	507.7	413.9	321.3	235.0	163.9	111.1	79.3	65.4
37.5°	787.3	696.5	610.2	522.7	425.5	326.5	235.6	159.8	104.2	72.9	60.8
40°	813.4	719.0	628.1	536.7	437.7	334.6	236.2	155.8	97.2	67.2	56.7
42.5°	836.5	740.4	647.2	552.3	451.6	343.9	239.7	152.2	91.5	61.9	52.7
45°	854.5	760.1	668.1	574.3	474.2	358.9	246.1	149.9	85.7	57.3	49.2
47.5°	873.0	789.1	703.4	609.0	507.2	382.7	257.0	149.4	81.0	53.8	46.3
50°	898.5	818.0	734.6	644.3	537.2	407.0	270.4	149.9	75.3	50.4	43.4
52.5°	917.0	847.5	775.2	705.7	609.0	481.1	321.9	160.4	72.3	47.5	39.9
55°	1026.4	1014.2	1016.0	1027.6	952.9	818.6	538.4	231.6	85.1	53.8	39.4
57.5°	1447.3	1490.2	1515.0	1514.5	1391.2	1153.8	723.1	297.6	94.9	62.5	46.9
60°	2000.7	1968.3	1922.6	1809.7	1645.9	1317.1	808.7	320.2	82.2	49.8	42.9
62.5°	2489.9	2300.1	2131.6	1948.7	1733.8	1373.8	826.1	318.4	71.8	37.6	30.1
65°	2795.0	2453.4	2181.4	1952.1	1699.1	1326.3	781.5	292.3	60.8	30.7	24.9
67.5°	2868.0	2370.7	1985.7	1693.4	1419.5	1032.2	573.7	220.0	47.5	25.5	22.0
69°	2708.8	2107.3	1645.3	1313.6	1032.8	684.8	354.9	139.0	36.5	23.1	20.3
70°	2491.7	1832.9	1340.2	1054.2	764.8	481.1	248.4	97.9	29.5	21.4	18.5
72.5°	1603.1	962.7	658.8	458.5	315.5	191.6	97.2	44.0	22.6	18.0	15.0
75°	621.7	356.0	258.2	196.2	153.4	106.5	59.1	28.4	19.1	15.0	11.6
77.5°	306.3	234.5	191.6	131.4	76.4	47.5	31.8	22.0	15.6	11.0	7.6
80°	242.0	160.9	96.1	59.6	45.2	34.2	24.3	18.0	11.6	6.9	5.2
82.5°	123.9	67.7	49.8	40.6	33.6	26.6	19.7	12.7	7.6	4.6	4.1
85°	38.8	28.4	25.5	24.9	23.1	19.1	13.9	8.1	4.6	2.9	2.9
87.5°	2.9	4.1	5.2	4.1	4.6	4.1	5.2	3.5	2.3	2.3	1.8
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	266.9	266.9	266.9	266.9	266.9	266.9	266.9	266.9	266.9	266.9	266.9
2.5°	243.1	236.2	229.9	225.8	218.2	215.4	212.4	211.3	206.1	207.3	202.6
5°	212.4	200.3	191.1	181.8	173.1	166.7	161.5	155.1	149.9	147.6	143.0
7.5°	184.7	169.0	156.9	147.0	136.6	128.5	121.6	117.0	112.3	107.7	105.3
10°	160.4	143.6	129.7	119.8	110.0	103.0	97.9	94.4	91.5	89.8	89.1
12.5°	137.8	121.6	108.8	100.2	92.6	89.1	86.8	85.1	84.5	84.0	84.0
15°	120.4	104.2	94.4	88.0	84.5	82.8	82.2	81.0	79.9	79.3	79.3
17.5°	104.2	92.1	85.1	81.7	79.9	78.7	77.6	76.4	75.3	74.7	74.7
20°	93.2	83.4	79.9	77.6	75.8	74.7	72.9	71.8	71.2	70.6	70.0
22.5°	84.5	78.2	75.8	74.1	71.8	70.0	68.9	67.7	66.6	66.0	65.4
25°	78.2	74.1	72.3	70.0	67.7	66.0	64.2	62.5	61.4	60.8	59.6
27.5°	73.5	70.6	68.3	65.4	63.1	61.4	59.6	57.9	56.7	55.6	55.0
30°	69.5	66.6	63.7	61.4	58.5	56.7	54.4	52.7	52.1	51.0	49.8
32.5°	65.4	62.5	59.6	56.7	53.8	51.5	50.4	48.0	46.9	46.3	45.2
35°	60.8	57.9	54.4	52.1	49.2	46.9	45.2	43.4	42.3	41.1	40.6
37.5°	56.7	53.3	49.8	46.9	44.6	42.3	40.6	38.8	37.6	36.5	35.9
40°	52.1	48.7	45.2	42.3	39.9	38.2	36.5	34.7	33.6	33.0	33.0
42.5°	48.0	44.0	40.6	38.2	36.5	34.2	32.4	30.7	30.1	29.5	30.1
45°	44.0	39.9	37.0	34.7	33.0	30.7	28.9	27.8	27.2	27.8	28.4
47.5°	40.6	36.5	33.6	31.8	30.1	28.4	26.6	25.5	25.5	26.6	27.8
50°	37.0	33.0	30.7	29.5	27.8	26.1	23.7	23.1	23.7	24.9	26.1
52.5°	33.6	28.9	27.2	26.6	24.9	23.1	21.4	20.8	21.4	22.6	22.0
55°	30.1	25.5	24.9	24.3	22.6	20.3	18.5	18.5	18.5	18.0	16.8
57.5°	28.9	22.6	22.0	21.4	19.7	17.4	16.2	15.0	14.5	12.7	12.2
60°	30.1	20.3	20.3	19.1	17.4	15.0	13.3	11.6	10.4	9.3	9.3
62.5°	24.3	18.5	18.0	16.8	14.5	12.2	10.4	8.7	8.1	7.6	7.6
65°	19.7	16.8	15.6	13.9	12.2	9.9	8.1	6.9	6.4	6.4	6.9
67.5°	18.0	15.0	13.3	11.6	9.9	7.6	6.4	5.8	5.8	6.4	6.4
69°	16.8	13.9	12.2	10.4	8.7	6.9	5.8	5.8	5.8	5.8	6.4
70°	15.6	13.3	11.6	9.9	7.6	5.8	5.2	5.2	5.8	5.8	6.4
72.5°	12.2	10.4	9.9	8.1	5.8	5.2	4.6	5.2	5.2	5.8	5.8
75°	9.3	7.6	7.6	6.4	4.6	4.1	4.1	4.6	4.6	5.2	5.2
77.5°	6.4	5.2	5.2	4.6	4.1	3.5	3.5	4.1	4.6	4.6	5.2
80°	4.6	4.1	3.5	4.1	3.5	2.9	3.5	4.1	4.1	4.6	4.6
82.5°	3.5	3.5	3.5	3.5	2.9	2.9	3.5	3.5	4.1	4.6	4.6
85°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	3.5	3.5	4.1	4.1
87.5°	1.8	1.8	1.8	2.3	2.3	2.9	2.9	2.9	2.9	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):

	165°	170°	175°	180°
0°	266.9	266.9	266.9	266.9
2.5°	201.5	200.9	198.6	199.2
5°	141.3	137.8	140.1	139.5
7.5°	103.6	103.0	102.5	103.6
10°	88.6	88.6	88.0	88.6
12.5°	83.4	83.4	83.4	83.4
15°	79.3	79.3	78.7	78.7
17.5°	74.7	74.7	74.7	74.1
20°	70.0	69.5	69.5	69.5
22.5°	64.8	64.2	64.2	64.2
25°	59.6	59.1	59.1	59.1
27.5°	54.4	53.8	53.3	53.3
30°	49.2	48.7	48.0	48.0
32.5°	44.0	43.4	42.9	42.9
35°	39.4	39.4	38.8	38.2
37.5°	35.3	35.3	35.3	35.3
40°	32.4	33.0	33.0	33.0
42.5°	30.7	31.2	31.8	32.4
45°	29.5	30.7	31.2	31.2
47.5°	28.9	29.5	30.1	30.1
50°	26.6	26.1	26.1	26.1
52.5°	21.4	20.3	19.7	19.1
55°	15.6	15.0	13.9	13.9
57.5°	11.0	11.0	10.4	10.4
60°	8.7	8.7	8.1	8.7
62.5°	7.6	7.6	7.6	7.6
65°	6.9	6.9	6.9	6.9
67.5°	6.9	6.9	6.9	6.9
69°	6.4	6.4	6.4	6.4
70°	6.4	6.4	6.4	6.4
72.5°	5.8	5.8	5.8	5.8
75°	5.2	5.8	5.8	5.8
77.5°	5.2	5.2	5.2	5.2
80°	4.6	4.6	5.2	5.2
82.5°	4.6	4.6	4.6	4.6
85°	4.1	4.1	4.6	4.6
87.5°	3.5	3.5	4.1	4.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)