

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: P162589

Luminaire Tested: **ECM-E01-LED-E1-SL4-HSS-7060**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P162589
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-E01-LED-E1-SL4-HSS-7060
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (21) 5700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1985.1 lumens
Efficiency: N/A
Efficacy: 80.4 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 1' x H: 0.1')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B0 - U0 - G1

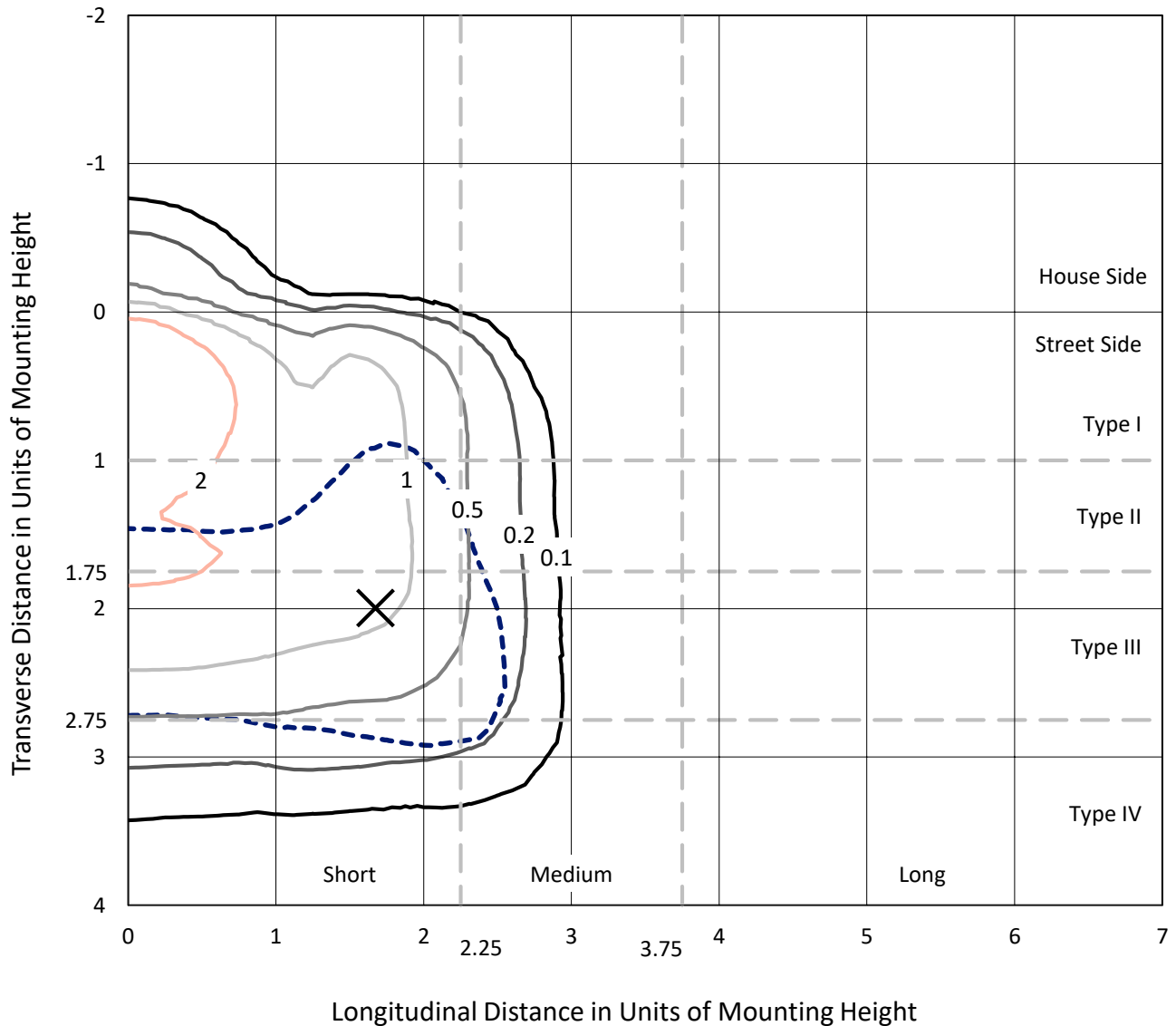
Input Watts (W): 24.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

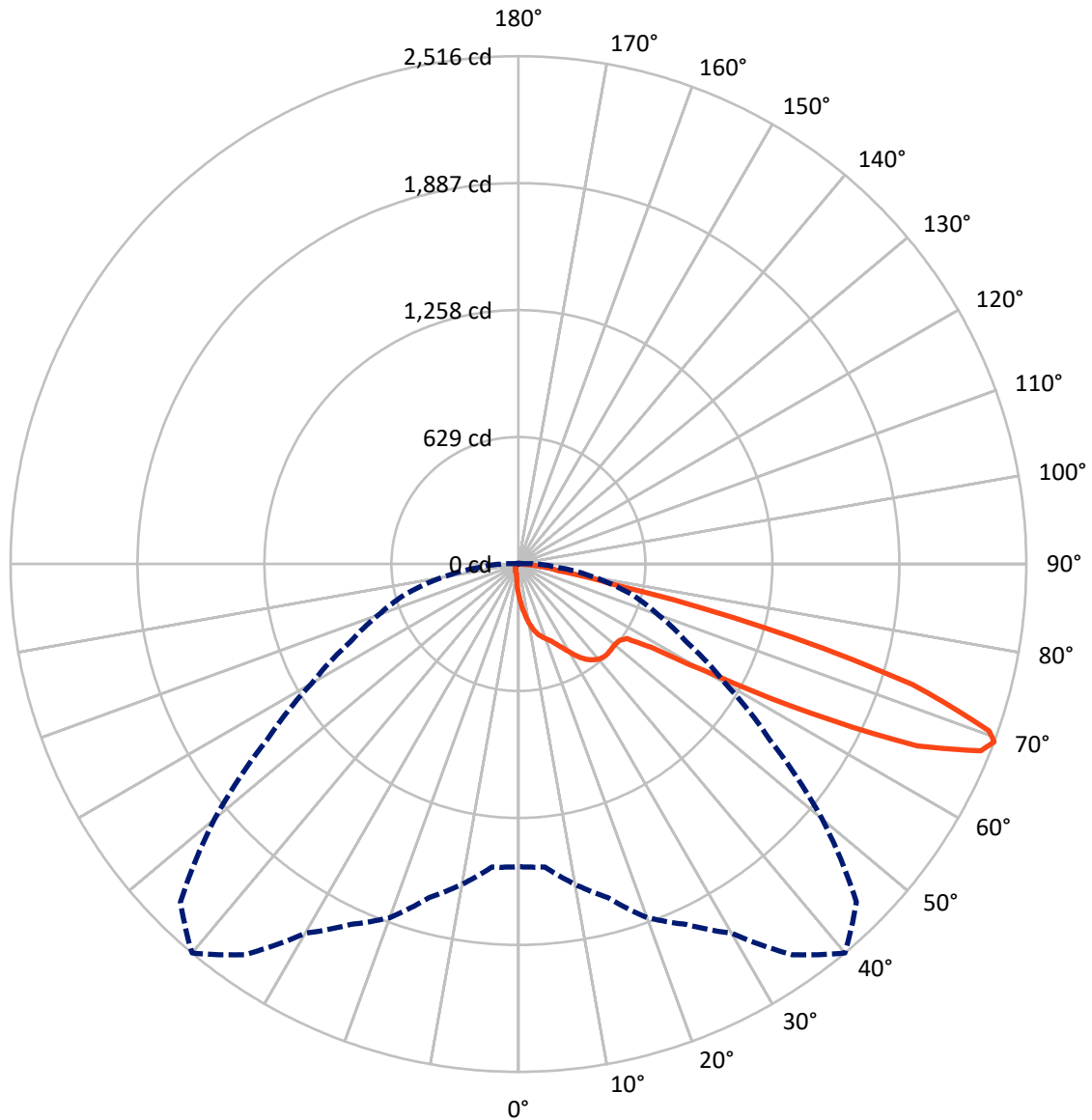
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.4 fc
 Type 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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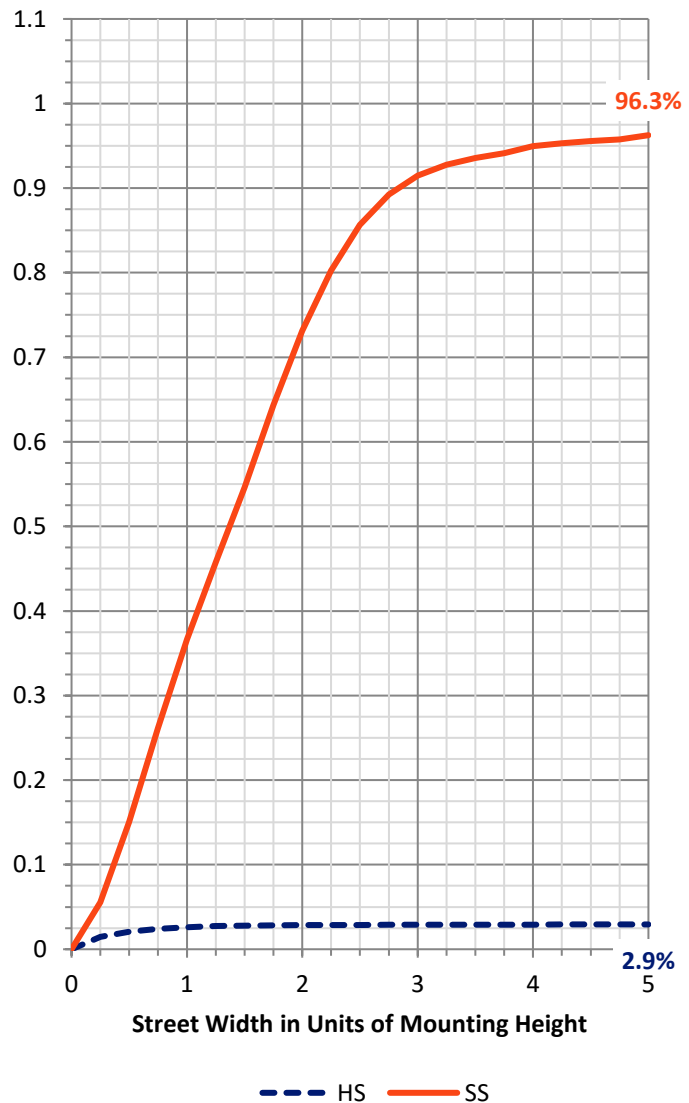
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	59.1	0.0	59.1
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	1926.0	0.0	1926.0
	% Fixture	97.0	0.0	97.0
Total	Lumens	1985.1	0.0	1985.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	15.4	0.8
10°-20°	53.1	2.7
20°-30°	101.7	5.1
30°-40°	169.1	8.5
40°-50°	228.8	11.5
50°-60°	357.8	18.0
60°-70°	735.7	37.1
70°-80°	296.0	14.9
80°-90°	27.4	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°	1985.1	100.0
0°-180°	1985.1	100.0



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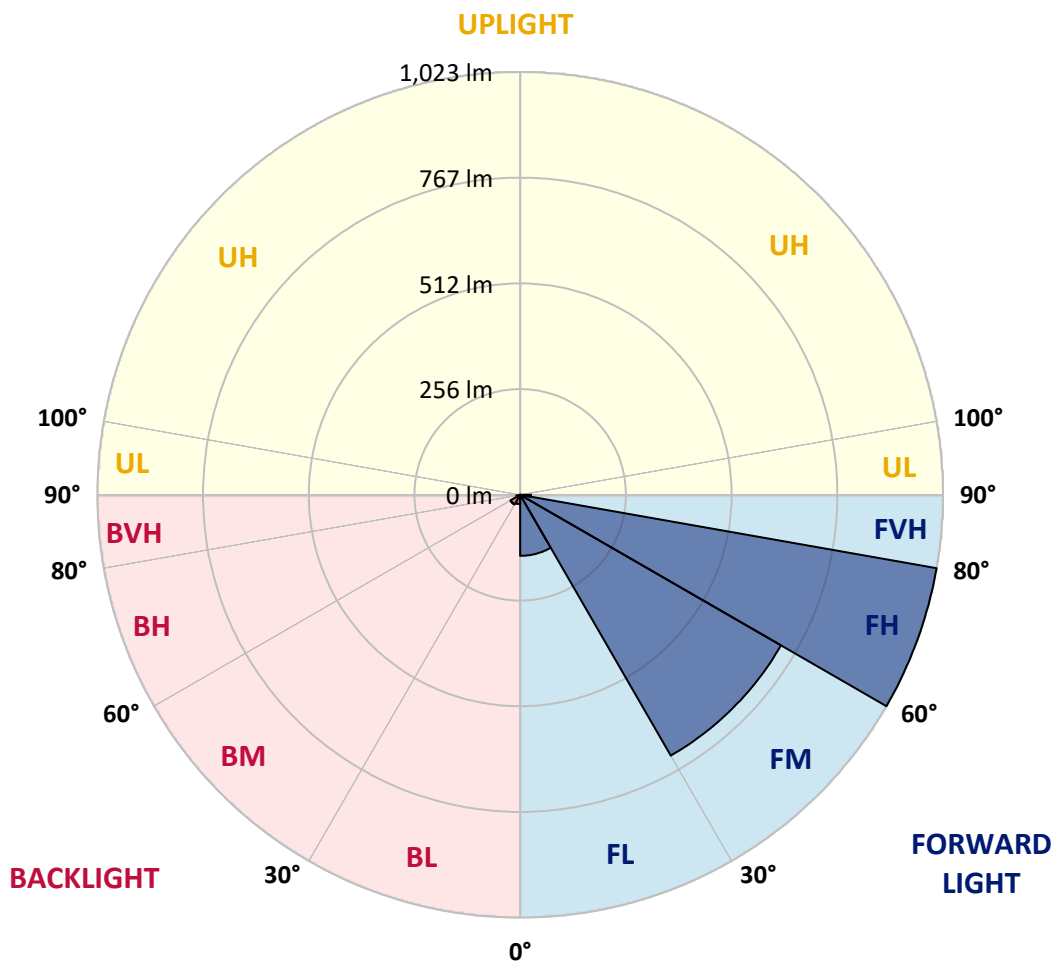
CATALOG NUMBER: ECM-E01-LED-E1-SL4-HSS-7060

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	147.7	7.4			
FM	(30°-60°)	728.8	36.7			
FH	(60°-80°)	1023.1	51.5			G1/1800
FVH	(80°-90°)	26.4	1.3			G1/100
BL	(0°-30°)	22.5	1.1	B0/110		
BM	(30°-60°)	27.0	1.4	B0/220		
BH	(60°-80°)	8.6	0.4	B0/110		G0/110
BVH	(80°-90°)	1.0	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°	149.9	149.9	149.9	149.9	149.9	149.9	149.9	149.9	149.9	149.9	149.9
2.5°	200.0	197.7	195.1	195.1	191.8	191.8	189.9	184.7	184.0	181.1	178.2
5°	255.3	253.3	250.1	247.2	244.6	240.0	236.8	230.6	223.7	217.2	211.4
7.5°	309.3	308.3	302.4	301.5	297.2	289.7	283.2	274.1	262.4	253.3	242.6
10°	359.3	357.1	355.8	350.2	344.1	335.9	325.9	314.8	301.1	286.8	271.5
12.5°	399.0	397.7	391.9	389.6	383.1	374.9	362.2	348.0	334.3	315.8	297.9
15°	428.6	426.3	422.4	418.9	411.1	403.9	392.2	376.6	360.0	339.8	318.4
17.5°	453.3	449.1	448.1	442.6	434.5	426.0	413.0	398.7	379.2	359.0	335.6
20°	486.5	480.6	478.7	470.5	461.1	449.4	434.5	416.6	396.1	374.0	349.9
22.5°	525.5	521.3	517.1	509.9	497.9	481.3	459.5	440.0	414.0	389.6	363.5
25°	580.8	577.2	570.4	560.6	545.7	525.8	499.5	470.9	440.3	409.1	378.5
27.5°	634.4	631.2	626.3	618.8	601.9	580.2	547.6	511.2	472.5	434.8	401.0
30°	684.9	681.9	677.1	669.6	654.6	633.1	596.4	557.4	509.3	465.3	424.7
32.5°	739.2	738.2	732.7	721.9	708.9	680.0	640.0	598.0	549.2	498.5	451.0
35°	800.6	793.1	787.9	777.2	755.1	724.2	677.4	631.5	580.2	528.1	475.1
37.5°	852.7	845.5	839.0	825.3	798.3	759.0	706.0	655.6	602.6	549.6	495.6
40°	890.7	887.1	879.3	861.4	831.2	784.4	727.1	672.2	618.8	565.5	512.2
42.5°	919.0	913.5	904.7	886.1	850.4	797.0	735.6	679.0	626.3	575.3	522.9
45°	929.4	924.9	916.7	896.5	857.9	800.6	735.3	677.1	626.6	578.2	530.1
47.5°	923.2	918.7	911.5	892.6	854.6	796.4	729.4	671.5	623.4	579.2	536.6
50°	902.7	900.1	894.6	878.7	844.5	788.3	724.2	668.6	622.7	584.1	545.7
52.5°	900.8	899.2	892.3	876.4	841.6	785.7	723.5	670.2	628.3	590.2	552.2
55°	1100.8	1077.7	1026.0	982.1	909.9	824.0	756.4	696.6	651.7	614.6	588.0
57.5°	1564.5	1530.0	1462.1	1378.5	1212.7	1049.7	919.3	825.0	778.5	761.6	771.7
60°	1781.7	1775.5	1764.8	1725.2	1640.3	1500.1	1344.0	1175.2	1107.6	1101.8	1122.3
62.5°	1884.8	1880.9	1884.2	1879.3	1852.9	1812.0	1767.1	1694.3	1627.3	1584.0	1492.3
65°	1932.3	1934.9	1953.4	1968.1	1971.3	1982.1	2014.9	2105.6	2172.0	2060.4	1805.8
67.5°	1811.7	1826.9	1869.5	1922.9	1985.3	2045.8	2143.4	2334.6	2470.8	2339.8	1978.2
69°	1499.8	1507.3	1611.3	1711.8	1864.3	1971.0	2112.4	2363.2	2516.4	2368.4	1964.5
70°	1180.8	1187.6	1299.2	1435.7	1693.6	1830.8	2015.9	2314.7	2473.7	2330.3	1894.3
72.5°	532.7	522.9	562.3	635.4	915.7	1133.6	1457.2	1875.4	2040.9	1866.9	1417.2
75°	372.0	367.8	372.0	372.3	415.9	536.6	677.1	1016.6	1257.2	1084.8	677.1
77.5°	288.1	285.2	282.3	279.0	284.2	318.4	332.0	360.6	468.3	442.9	258.2
80°	228.0	225.4	232.5	230.2	230.2	234.1	231.5	220.8	200.6	186.0	166.5
82.5°	106.0	106.6	106.6	115.8	139.5	162.9	170.4	159.7	141.8	120.6	97.2
85°	10.1	11.4	19.2	29.6	58.9	66.4	66.7	55.3	55.3	43.6	35.1
87.5°	0.0	0.3	0.3	0.3	2.9	8.1	6.8	1.9	1.0	1.0	1.6
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	149.9	149.9	149.9	149.9	149.9	149.9	149.9	149.9	149.9	149.9	149.9
2.5°	173.0	172.0	168.1	164.2	160.7	156.8	153.2	149.6	145.7	142.8	139.2
5°	202.3	195.1	187.0	179.2	171.4	163.3	154.8	147.3	139.5	132.4	125.5
7.5°	231.9	217.9	206.8	192.8	180.1	167.5	155.8	143.7	132.7	122.3	112.5
10°	256.9	240.0	222.8	204.9	186.6	169.8	153.5	139.2	124.5	111.9	99.8
12.5°	277.4	255.9	234.8	212.3	191.8	170.4	150.3	133.0	115.8	101.4	89.1
15°	295.9	271.2	245.9	219.8	193.8	169.4	147.0	125.5	108.0	91.7	77.7
17.5°	310.9	282.6	254.0	224.7	196.7	168.1	142.8	120.3	99.8	82.9	69.3
20°	323.9	294.3	263.4	230.6	198.7	167.8	139.2	113.8	92.7	74.8	61.5
22.5°	335.9	306.3	273.1	238.1	201.6	167.5	135.9	108.9	86.5	68.6	55.3
25°	349.6	318.4	283.6	245.9	206.8	168.8	134.0	105.0	81.0	62.8	50.4
27.5°	364.9	332.0	295.9	255.6	213.6	171.4	133.3	100.8	76.1	57.2	46.5
30°	386.3	348.3	308.3	265.4	219.8	174.3	132.7	98.2	71.2	53.0	42.6
32.5°	405.2	364.2	322.0	275.4	226.7	177.2	132.4	94.6	66.7	48.8	39.7
35°	425.0	378.8	333.7	285.2	232.5	180.5	132.0	92.0	62.4	44.6	36.7
37.5°	442.3	391.2	342.8	293.6	239.0	183.4	132.4	89.8	58.5	41.0	34.1
40°	456.9	403.9	352.8	301.5	245.9	187.9	132.7	87.5	54.6	37.7	31.9
42.5°	469.9	415.9	363.5	310.2	253.7	193.2	134.6	85.5	51.4	34.8	29.6
45°	480.0	427.0	375.3	322.6	266.3	201.6	138.2	84.2	48.1	32.2	27.6
47.5°	490.4	443.2	395.1	342.1	284.9	215.0	144.4	83.9	45.5	30.2	26.0
50°	504.7	459.5	412.7	361.9	301.8	228.6	151.9	84.2	42.3	28.3	24.4
52.5°	515.1	476.1	435.4	396.4	342.1	270.2	180.8	90.1	40.6	26.7	22.4
55°	576.6	569.7	570.7	577.2	535.3	459.8	302.4	130.1	47.8	30.2	22.1
57.5°	813.0	837.1	851.0	850.7	781.4	648.1	406.2	167.2	53.3	35.1	26.3
60°	1123.9	1105.7	1080.0	1016.6	924.5	739.8	454.3	179.8	46.2	28.0	24.1
62.5°	1398.7	1292.0	1197.4	1094.6	973.9	771.7	464.0	178.9	40.3	21.1	16.9
65°	1570.0	1378.2	1225.3	1096.6	954.4	745.0	439.0	164.2	34.1	17.2	14.0
67.5°	1611.0	1331.7	1115.4	951.2	797.4	579.8	322.3	123.6	26.7	14.3	12.3
69°	1521.6	1183.7	924.2	737.9	580.2	384.7	199.3	78.1	20.5	13.0	11.4
70°	1399.6	1029.6	752.8	592.2	429.6	270.2	139.5	55.0	16.6	12.0	10.4
72.5°	900.5	540.8	370.1	257.6	177.2	107.6	54.6	24.7	12.7	10.1	8.4
75°	349.3	200.0	145.0	110.2	86.2	59.8	33.2	15.9	10.7	8.4	6.5
77.5°	172.0	131.7	107.6	73.8	42.9	26.7	17.9	12.3	8.8	6.2	4.2
80°	135.9	90.4	54.0	33.5	25.4	19.2	13.6	10.1	6.5	3.9	2.9
82.5°	69.6	38.0	28.0	22.8	18.8	14.9	11.0	7.1	4.2	2.6	2.3
85°	21.8	15.9	14.3	14.0	13.0	10.7	7.8	4.5	2.6	1.6	1.6
87.5°	1.6	2.3	2.9	2.3	2.6	2.3	2.9	1.9	1.3	1.3	1.0
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°	149.9	149.9	149.9	149.9	149.9	149.9	149.9	149.9	149.9	149.9	149.9
2.5°	136.6	132.7	129.1	126.8	122.6	121.0	119.3	118.7	115.8	116.4	113.8
5°	119.3	112.5	107.3	102.1	97.2	93.6	90.7	87.2	84.2	82.9	80.3
7.5°	103.7	94.9	88.1	82.6	76.8	72.2	68.3	65.7	63.1	60.5	59.2
10°	90.1	80.7	72.9	67.3	61.8	57.9	55.0	53.0	51.4	50.4	50.1
12.5°	77.4	68.3	61.1	56.3	52.0	50.1	48.8	47.8	47.5	47.2	47.2
15°	67.7	58.5	53.0	49.4	47.5	46.5	46.2	45.5	44.9	44.6	44.6
17.5°	58.5	51.7	47.8	45.9	44.9	44.2	43.6	42.9	42.3	41.9	41.9
20°	52.4	46.8	44.9	43.6	42.6	41.9	41.0	40.3	40.0	39.7	39.3
22.5°	47.5	43.9	42.6	41.6	40.3	39.3	38.7	38.0	37.4	37.1	36.7
25°	43.9	41.6	40.6	39.3	38.0	37.1	36.1	35.1	34.5	34.1	33.5
27.5°	41.3	39.7	38.4	36.7	35.4	34.5	33.5	32.5	31.9	31.2	30.9
30°	39.0	37.4	35.8	34.5	32.8	31.9	30.6	29.6	29.3	28.6	28.0
32.5°	36.7	35.1	33.5	31.9	30.2	28.9	28.3	27.0	26.3	26.0	25.4
35°	34.1	32.5	30.6	29.3	27.6	26.3	25.4	24.4	23.7	23.1	22.8
37.5°	31.9	29.9	28.0	26.3	25.0	23.7	22.8	21.8	21.1	20.5	20.1
40°	29.3	27.3	25.4	23.7	22.4	21.5	20.5	19.5	18.8	18.5	18.5
42.5°	27.0	24.7	22.8	21.5	20.5	19.2	18.2	17.2	16.9	16.6	16.9
45°	24.7	22.4	20.8	19.5	18.5	17.2	16.2	15.6	15.3	15.6	15.9
47.5°	22.8	20.5	18.8	17.9	16.9	15.9	14.9	14.3	14.3	14.9	15.6
50°	20.8	18.5	17.2	16.6	15.6	14.6	13.3	13.0	13.3	14.0	14.6
52.5°	18.8	16.2	15.3	14.9	14.0	13.0	12.0	11.7	12.0	12.7	12.3
55°	16.9	14.3	14.0	13.6	12.7	11.4	10.4	10.4	10.4	10.1	9.4
57.5°	16.2	12.7	12.3	12.0	11.0	9.7	9.1	8.4	8.1	7.1	6.8
60°	16.9	11.4	11.4	10.7	9.7	8.4	7.5	6.5	5.8	5.2	5.2
62.5°	13.6	10.4	10.1	9.4	8.1	6.8	5.8	4.9	4.5	4.2	4.2
65°	11.0	9.4	8.8	7.8	6.8	5.5	4.5	3.9	3.6	3.6	3.9
67.5°	10.1	8.4	7.5	6.5	5.5	4.2	3.6	3.2	3.2	3.6	3.6
69°	9.4	7.8	6.8	5.8	4.9	3.9	3.2	3.2	3.2	3.2	3.6
70°	8.8	7.5	6.5	5.5	4.2	3.2	2.9	2.9	3.2	3.2	3.6
72.5°	6.8	5.8	5.5	4.5	3.2	2.9	2.6	2.9	2.9	3.2	3.2
75°	5.2	4.2	4.2	3.6	2.6	2.3	2.3	2.6	2.6	2.9	2.9
77.5°	3.6	2.9	2.9	2.6	2.3	1.9	1.9	2.3	2.6	2.6	2.9
80°	2.6	2.3	1.9	2.3	1.9	1.6	1.9	2.3	2.3	2.6	2.6
82.5°	1.9	1.9	1.9	1.9	1.6	1.6	1.9	1.9	2.3	2.6	2.6
85°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.9	1.9	2.3	2.3
87.5°	1.0	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.6	1.9	1.9
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°	149.9	149.9	149.9	149.9
2.5°	113.2	112.8	111.5	111.9
5°	79.4	77.4	78.7	78.4
7.5°	58.2	57.9	57.6	58.2
10°	49.8	49.8	49.4	49.8
12.5°	46.8	46.8	46.8	46.8
15°	44.6	44.6	44.2	44.2
17.5°	41.9	41.9	41.9	41.6
20°	39.3	39.0	39.0	39.0
22.5°	36.4	36.1	36.1	36.1
25°	33.5	33.2	33.2	33.2
27.5°	30.6	30.2	29.9	29.9
30°	27.6	27.3	27.0	27.0
32.5°	24.7	24.4	24.1	24.1
35°	22.1	22.1	21.8	21.5
37.5°	19.8	19.8	19.8	19.8
40°	18.2	18.5	18.5	18.5
42.5°	17.2	17.5	17.9	18.2
45°	16.6	17.2	17.5	17.5
47.5°	16.2	16.6	16.9	16.9
50°	14.9	14.6	14.6	14.6
52.5°	12.0	11.4	11.0	10.7
55°	8.8	8.4	7.8	7.8
57.5°	6.2	6.2	5.8	5.8
60°	4.9	4.9	4.5	4.9
62.5°	4.2	4.2	4.2	4.2
65°	3.9	3.9	3.9	3.9
67.5°	3.9	3.9	3.9	3.9
69°	3.6	3.6	3.6	3.6
70°	3.6	3.6	3.6	3.6
72.5°	3.2	3.2	3.2	3.2
75°	2.9	3.2	3.2	3.2
77.5°	2.9	2.9	2.9	2.9
80°	2.6	2.6	2.9	2.9
82.5°	2.6	2.6	2.6	2.6
85°	2.3	2.3	2.6	2.6
87.5°	1.9	1.9	2.3	2.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)