

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: P162597

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

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P162597
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
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) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3869.2 lumens
Efficiency: N/A
Efficacy: 74.3 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

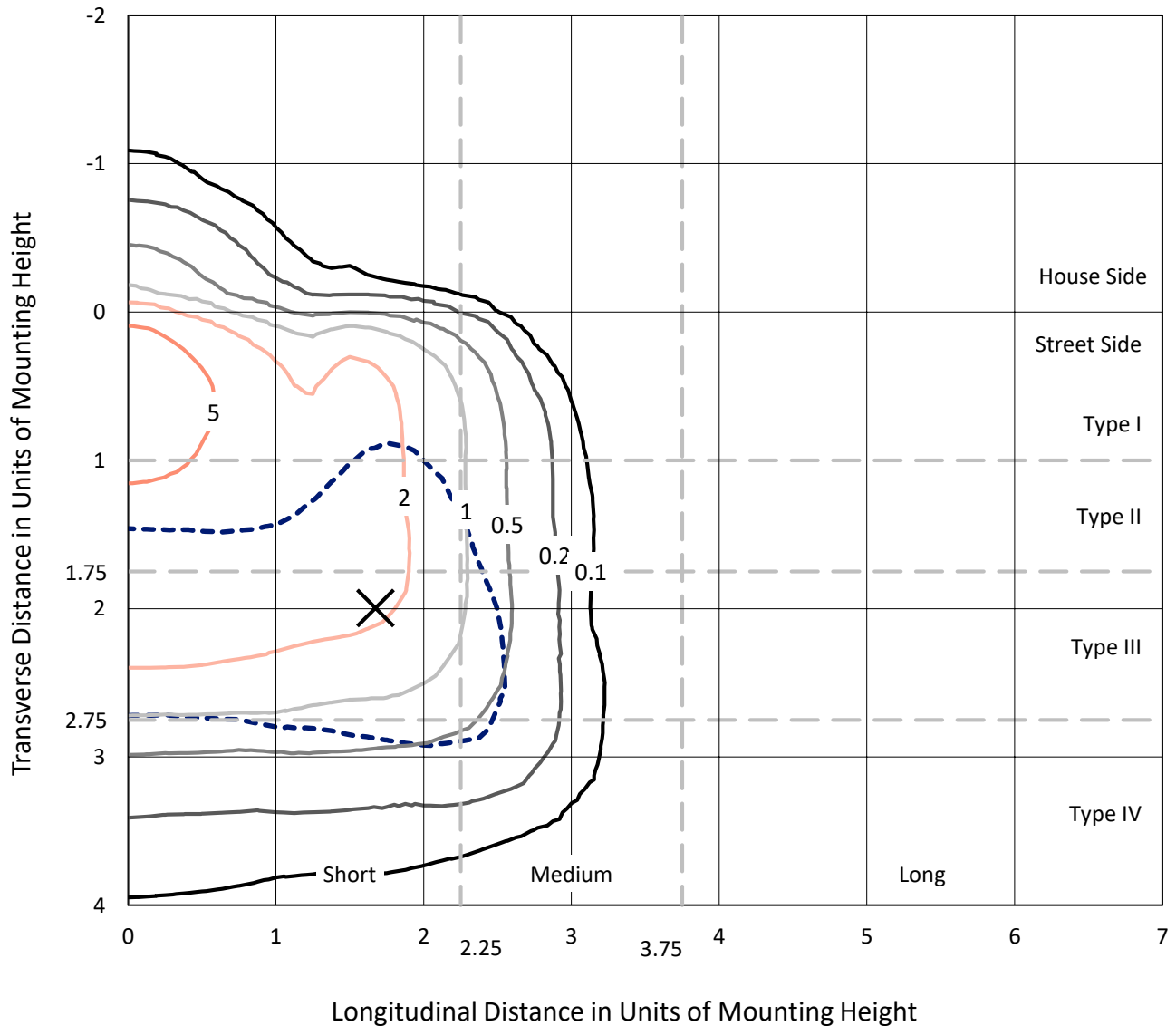


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

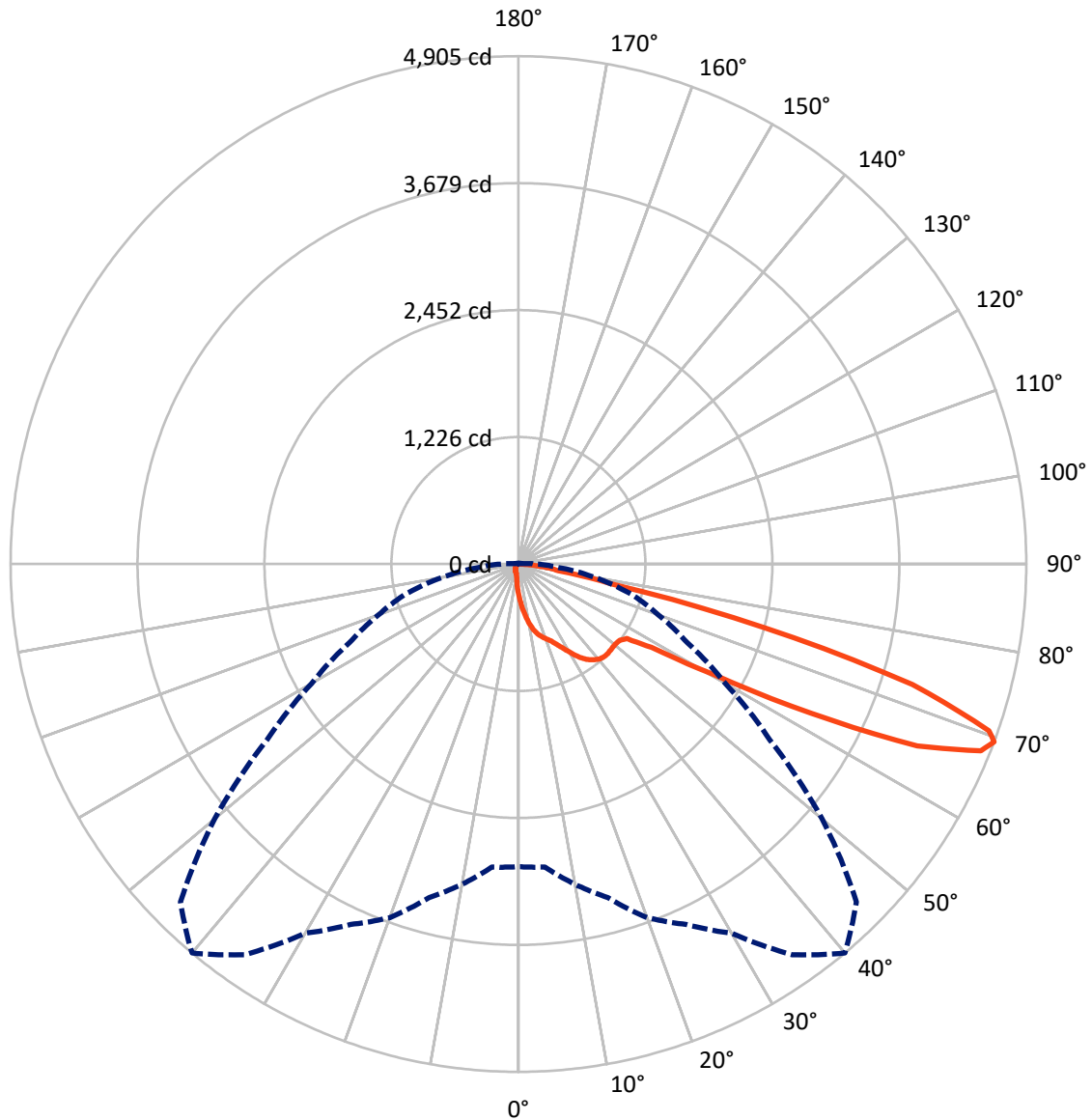


Based on 10 foot mounting height. Maximum calculated value = 8.7 fc
 Type IV - Short - Semi-Cutoff

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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	115.2	0.0	115.2
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	3754.0	0.0	3754.0
	% Fixture	97.0	0.0	97.0
Total	Lumens	3869.2	0.0	3869.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.0	0.8
10°-20°	103.5	2.7
20°-30°	198.2	5.1
30°-40°	329.6	8.5
40°-50°	446.0	11.5
50°-60°	697.5	18.0
60°-70°	1434.0	37.1
70°-80°	577.0	14.9
80°-90°	53.4	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°	3869.2	100.0
0°-180°	3869.2	100.0



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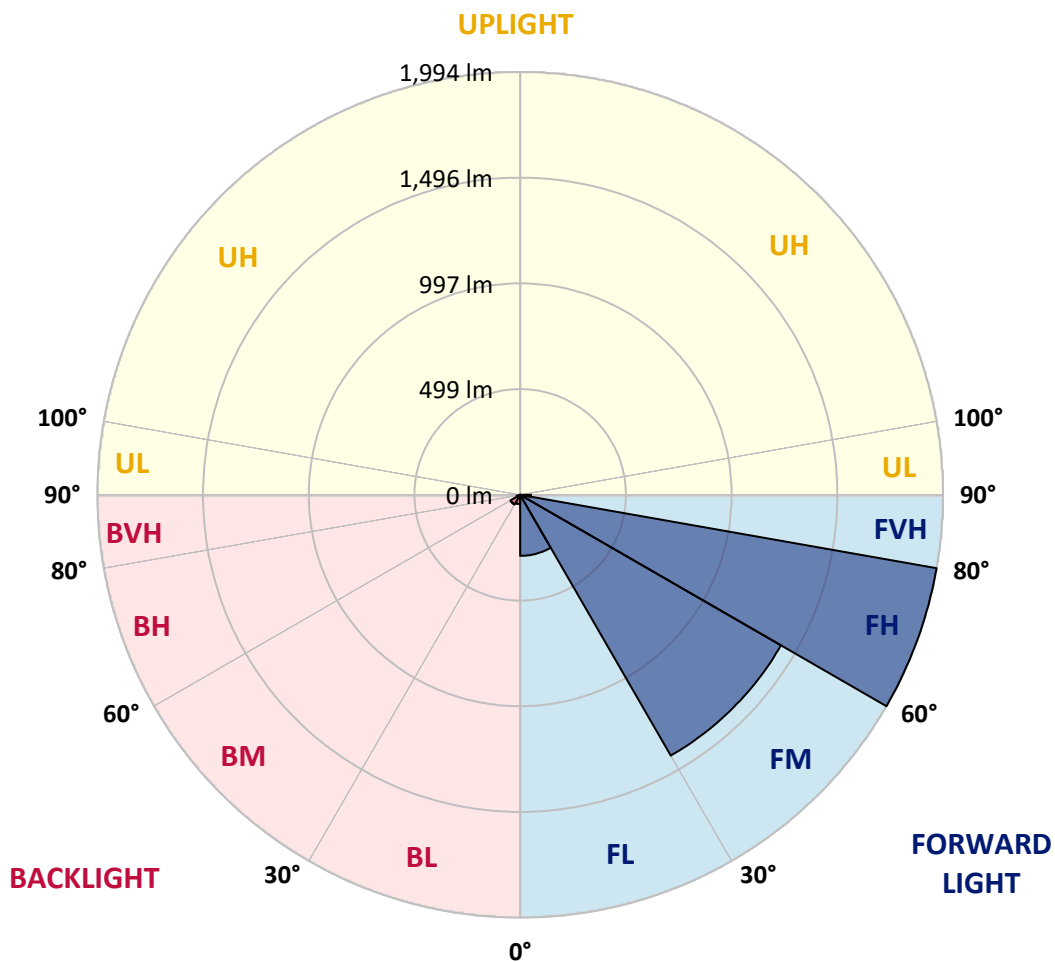
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	287.9	7.4			
FM (30°-60°)	1420.5	36.7			
FH (60°-80°)	1994.2	51.5			G2/5000
FVH (80°-90°)	51.4	1.3			G1/100
BL (0°-30°)	43.8	1.1	B0/110		
BM (30°-60°)	52.6	1.4	B0/220		
BH (60°-80°)	16.8	0.4	B0/110		G0/110
BVH (80°-90°)	2.0	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-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	292.2	292.2	292.2	292.2	292.2	292.2	292.2	292.2	292.2	292.2	292.2
2.5°	389.8	385.4	380.3	380.3	373.9	373.9	370.1	360.0	358.7	353.1	347.3
5°	497.5	493.7	487.4	481.7	476.7	467.8	461.5	449.4	436.1	423.4	412.0
7.5°	602.8	600.9	589.5	587.6	579.3	564.7	552.1	534.3	511.5	493.7	472.9
10°	700.4	695.9	693.4	682.7	670.6	654.7	635.1	613.5	586.9	559.1	529.3
12.5°	777.7	775.2	763.8	759.3	746.7	730.8	706.1	678.2	651.6	615.5	580.6
15°	835.4	830.9	823.3	816.4	801.2	787.2	764.4	734.0	701.7	662.3	620.5
17.5°	883.6	875.3	873.4	862.7	846.8	830.3	805.0	777.1	739.1	699.7	654.1
20°	948.2	936.8	933.0	917.1	898.8	876.0	846.8	811.9	772.0	728.9	682.0
22.5°	1024.3	1016.1	1007.8	993.9	970.4	938.1	895.6	857.6	806.9	759.3	708.6
25°	1132.1	1125.1	1111.7	1092.7	1063.6	1024.9	973.6	917.8	858.2	797.4	737.8
27.5°	1236.6	1230.3	1220.8	1206.2	1173.3	1130.8	1067.4	996.4	921.0	847.5	781.5
30°	1334.9	1329.1	1319.7	1305.1	1275.9	1234.1	1162.5	1086.4	992.6	907.0	827.8
32.5°	1440.7	1438.8	1428.1	1407.1	1381.8	1325.3	1247.4	1165.6	1070.5	971.7	879.1
35°	1560.5	1545.9	1535.8	1514.9	1471.8	1411.5	1320.3	1230.9	1130.8	1029.3	926.1
37.5°	1661.9	1648.0	1635.3	1608.7	1556.1	1479.4	1376.1	1277.8	1174.5	1071.2	966.0
40°	1736.1	1729.1	1713.9	1679.1	1620.1	1528.8	1417.3	1310.1	1206.2	1102.3	998.3
42.5°	1791.2	1780.5	1763.3	1727.2	1657.5	1553.5	1433.7	1323.5	1220.8	1121.3	1019.2
45°	1811.5	1802.7	1786.8	1747.5	1672.1	1560.5	1433.1	1319.7	1221.4	1127.0	1033.1
47.5°	1799.5	1790.6	1776.7	1739.9	1665.7	1552.3	1421.7	1308.9	1215.1	1128.9	1045.9
50°	1759.5	1754.5	1743.7	1712.7	1646.1	1536.4	1411.5	1303.2	1213.8	1138.4	1063.6
52.5°	1755.7	1752.6	1739.3	1708.2	1640.4	1531.3	1410.3	1306.3	1224.6	1150.4	1076.3
55°	2145.5	2100.5	1999.7	1914.2	1773.5	1606.1	1474.3	1357.7	1270.2	1197.9	1146.0
57.5°	3049.4	2982.2	2849.7	2686.9	2363.6	2046.1	1791.9	1608.1	1517.4	1484.5	1504.1
60°	3472.8	3460.7	3439.9	3362.5	3197.1	2923.9	2619.7	2290.7	2158.9	2147.5	2187.4
62.5°	3673.7	3666.1	3672.5	3662.9	3611.6	3531.7	3444.3	3302.3	3171.7	3087.5	2908.7
65°	3766.3	3771.3	3807.5	3836.0	3842.3	3863.3	3927.3	4104.1	4233.4	4016.0	3519.7
67.5°	3531.1	3560.9	3643.9	3747.9	3869.6	3987.5	4177.7	4550.3	4815.9	4560.5	3855.7
69°	2923.3	2937.9	3140.7	3336.5	3633.8	3841.7	4117.4	4606.1	4904.7	4616.3	3829.0
70°	2301.5	2314.8	2532.2	2798.4	3301.1	3568.5	3929.2	4511.7	4821.6	4542.1	3692.1
72.5°	1038.2	1019.2	1095.9	1238.5	1784.9	2209.5	2840.3	3655.3	3978.0	3638.9	2762.3
75°	725.1	716.9	725.1	725.7	810.7	1045.9	1319.7	1981.4	2450.4	2114.5	1319.7
77.5°	561.6	555.9	550.2	543.9	554.0	620.5	647.1	702.9	912.7	863.3	503.3
80°	444.3	439.3	453.2	448.7	448.7	456.3	451.3	430.4	391.1	362.5	324.5
82.5°	206.6	207.9	207.9	225.7	271.9	317.5	332.1	311.2	276.3	235.1	189.5
85°	19.7	22.2	37.4	57.7	114.7	129.3	129.9	107.7	107.7	84.9	68.5
87.5°	0.0	0.7	0.7	0.7	5.7	15.9	13.3	3.8	1.9	1.9	3.2
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°	292.2	292.2	292.2	292.2	292.2	292.2	292.2	292.2	292.2	292.2	292.2
2.5°	337.2	335.3	327.7	320.1	313.1	305.5	298.5	291.5	283.9	278.3	271.3
5°	394.3	380.3	364.5	349.3	334.1	318.2	301.7	287.1	271.9	258.0	244.7
7.5°	451.9	424.7	403.1	375.9	351.1	326.4	303.6	280.1	258.6	238.3	219.3
10°	500.7	467.8	434.2	399.3	363.8	330.9	299.2	271.3	242.7	218.1	194.6
12.5°	540.7	498.8	457.6	413.9	373.9	332.1	292.9	259.3	225.7	197.7	173.7
15°	576.8	528.6	479.2	428.5	377.8	330.2	286.5	244.7	210.5	178.7	151.5
17.5°	605.9	550.8	495.0	438.0	383.5	327.7	278.3	234.5	194.6	161.6	135.0
20°	631.3	573.6	513.4	449.4	387.3	327.1	271.3	221.9	180.7	145.8	119.8
22.5°	654.7	597.1	532.4	464.0	393.0	326.4	264.9	212.3	168.6	133.7	107.7
25°	681.4	620.5	552.7	479.2	403.1	328.9	261.1	204.7	157.8	122.3	98.3
27.5°	711.2	647.1	576.8	498.2	416.4	334.1	259.9	196.5	148.3	111.5	90.7
30°	753.0	678.9	600.9	517.2	428.5	339.7	258.6	191.4	138.8	103.3	83.0
32.5°	789.7	709.9	627.5	536.9	441.8	345.5	258.0	184.5	129.9	95.1	77.3
35°	828.4	738.4	650.3	555.9	453.2	351.8	257.3	179.4	121.7	86.9	71.6
37.5°	862.0	762.5	668.1	572.3	465.9	357.5	258.0	174.9	114.1	79.9	66.5
40°	890.5	787.2	687.7	587.6	479.2	366.3	258.6	170.5	106.5	73.5	62.1
42.5°	915.9	810.7	708.6	604.7	494.4	376.5	262.4	166.7	100.1	67.8	57.7
45°	935.5	832.2	731.5	628.8	519.1	393.0	269.4	164.1	93.8	62.7	53.9
47.5°	955.8	863.9	770.1	666.8	555.3	419.0	281.4	163.5	88.7	58.9	50.7
50°	983.7	895.6	804.3	705.5	588.2	445.6	296.0	164.1	82.4	55.1	47.5
52.5°	1004.0	927.9	848.7	772.7	666.8	526.7	352.4	175.6	79.2	52.0	43.7
55°	1123.8	1110.5	1112.4	1125.1	1043.3	896.3	589.5	253.5	93.2	58.9	43.1
57.5°	1584.6	1631.5	1658.7	1658.1	1523.1	1263.3	791.7	325.8	103.9	68.5	51.3
60°	2190.5	2155.1	2105.0	1981.4	1802.0	1442.0	885.5	350.5	90.0	54.5	46.9
62.5°	2726.1	2518.3	2333.8	2133.5	1898.3	1504.1	904.5	348.6	78.6	41.2	32.9
65°	3060.2	2686.2	2388.3	2137.3	1860.3	1452.1	855.7	320.1	66.5	33.6	27.3
67.5°	3140.1	2595.6	2174.1	1854.0	1554.2	1130.1	628.1	240.9	52.0	27.9	24.1
69°	2965.7	2307.2	1801.4	1438.2	1130.8	749.8	388.5	152.1	39.9	25.3	22.2
70°	2728.1	2006.7	1467.3	1154.2	837.3	526.7	271.9	107.1	32.3	23.5	20.3
72.5°	1755.1	1054.1	721.3	502.0	345.5	209.8	106.5	48.2	24.7	19.7	16.5
75°	680.7	389.8	282.7	214.9	168.0	116.6	64.7	31.1	20.9	16.5	12.7
77.5°	335.3	256.7	209.8	143.9	83.7	52.0	34.9	24.1	17.1	12.1	8.3
80°	264.9	176.2	105.2	65.3	49.5	37.4	26.6	19.7	12.7	7.6	5.7
82.5°	135.7	74.1	54.5	44.4	36.7	29.1	21.5	13.9	8.3	5.1	4.5
85°	42.5	31.1	27.9	27.3	25.3	20.9	15.2	8.9	5.1	3.2	3.2
87.5°	3.2	4.5	5.7	4.5	5.1	4.5	5.7	3.8	2.5	2.5	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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	292.2	292.2	292.2	292.2	292.2	292.2	292.2	292.2	292.2	292.2	292.2
2.5°	266.2	258.6	251.7	247.2	238.9	235.8	232.6	231.3	225.7	226.9	221.9
5°	232.6	219.3	209.2	199.0	189.5	182.5	176.9	169.9	164.1	161.6	156.5
7.5°	202.2	185.1	171.8	161.0	149.6	140.7	133.1	128.1	122.9	117.9	115.3
10°	175.6	157.2	142.0	131.2	120.4	112.8	107.1	103.3	100.1	98.3	97.6
12.5°	150.9	133.1	119.1	109.7	101.4	97.6	95.1	93.2	92.5	91.9	91.9
15°	131.9	114.1	103.3	96.3	92.5	90.7	90.0	88.7	87.5	86.9	86.9
17.5°	114.1	100.8	93.2	89.4	87.5	86.2	84.9	83.7	82.4	81.7	81.7
20°	102.1	91.3	87.5	84.9	83.0	81.7	79.9	78.6	77.9	77.3	76.7
22.5°	92.5	85.6	83.0	81.1	78.6	76.7	75.4	74.1	72.9	72.3	71.6
25°	85.6	81.1	79.2	76.7	74.1	72.3	70.3	68.5	67.2	66.5	65.3
27.5°	80.5	77.3	74.8	71.6	69.1	67.2	65.3	63.4	62.1	60.9	60.2
30°	76.1	72.9	69.7	67.2	64.0	62.1	59.6	57.7	57.1	55.8	54.5
32.5°	71.6	68.5	65.3	62.1	58.9	56.4	55.1	52.6	51.3	50.7	49.5
35°	66.5	63.4	59.6	57.1	53.9	51.3	49.5	47.5	46.3	45.0	44.4
37.5°	62.1	58.3	54.5	51.3	48.8	46.3	44.4	42.5	41.2	39.9	39.3
40°	57.1	53.3	49.5	46.3	43.7	41.9	39.9	38.0	36.7	36.1	36.1
42.5°	52.6	48.2	44.4	41.9	39.9	37.4	35.5	33.6	32.9	32.3	32.9
45°	48.2	43.7	40.5	38.0	36.1	33.6	31.7	30.4	29.8	30.4	31.1
47.5°	44.4	39.9	36.7	34.9	32.9	31.1	29.1	27.9	27.9	29.1	30.4
50°	40.5	36.1	33.6	32.3	30.4	28.5	26.0	25.3	26.0	27.3	28.5
52.5°	36.7	31.7	29.8	29.1	27.3	25.3	23.5	22.8	23.5	24.7	24.1
55°	32.9	27.9	27.3	26.6	24.7	22.2	20.3	20.3	20.3	19.7	18.4
57.5°	31.7	24.7	24.1	23.5	21.5	19.0	17.7	16.5	15.9	13.9	13.3
60°	32.9	22.2	22.2	20.9	19.0	16.5	14.6	12.7	11.4	10.1	10.1
62.5°	26.6	20.3	19.7	18.4	15.9	13.3	11.4	9.5	8.9	8.3	8.3
65°	21.5	18.4	17.1	15.2	13.3	10.8	8.9	7.6	7.0	7.0	7.6
67.5°	19.7	16.5	14.6	12.7	10.8	8.3	7.0	6.3	6.3	7.0	7.0
69°	18.4	15.2	13.3	11.4	9.5	7.6	6.3	6.3	6.3	6.3	7.0
70°	17.1	14.6	12.7	10.8	8.3	6.3	5.7	5.7	6.3	6.3	7.0
72.5°	13.3	11.4	10.8	8.9	6.3	5.7	5.1	5.7	5.7	6.3	6.3
75°	10.1	8.3	8.3	7.0	5.1	4.5	4.5	5.1	5.1	5.7	5.7
77.5°	7.0	5.7	5.7	5.1	4.5	3.8	3.8	4.5	5.1	5.1	5.7
80°	5.1	4.5	3.8	4.5	3.8	3.2	3.8	4.5	4.5	5.1	5.1
82.5°	3.8	3.8	3.8	3.8	3.2	3.2	3.8	3.8	4.5	5.1	5.1
85°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.8	3.8	4.5	4.5
87.5°	1.9	1.9	1.9	2.5	2.5	3.2	3.2	3.2	3.2	3.8	3.8
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):

	165°	170°	175°	180°
0°	292.2	292.2	292.2	292.2
2.5°	220.6	219.9	217.4	218.1
5°	154.7	150.9	153.4	152.7
7.5°	113.5	112.8	112.2	113.5
10°	97.0	97.0	96.3	97.0
12.5°	91.3	91.3	91.3	91.3
15°	86.9	86.9	86.2	86.2
17.5°	81.7	81.7	81.7	81.1
20°	76.7	76.1	76.1	76.1
22.5°	71.0	70.3	70.3	70.3
25°	65.3	64.7	64.7	64.7
27.5°	59.6	58.9	58.3	58.3
30°	53.9	53.3	52.6	52.6
32.5°	48.2	47.5	46.9	46.9
35°	43.1	43.1	42.5	41.9
37.5°	38.7	38.7	38.7	38.7
40°	35.5	36.1	36.1	36.1
42.5°	33.6	34.2	34.9	35.5
45°	32.3	33.6	34.2	34.2
47.5°	31.7	32.3	32.9	32.9
50°	29.1	28.5	28.5	28.5
52.5°	23.5	22.2	21.5	20.9
55°	17.1	16.5	15.2	15.2
57.5°	12.1	12.1	11.4	11.4
60°	9.5	9.5	8.9	9.5
62.5°	8.3	8.3	8.3	8.3
65°	7.6	7.6	7.6	7.6
67.5°	7.6	7.6	7.6	7.6
69°	7.0	7.0	7.0	7.0
70°	7.0	7.0	7.0	7.0
72.5°	6.3	6.3	6.3	6.3
75°	5.7	6.3	6.3	6.3
77.5°	5.7	5.7	5.7	5.7
80°	5.1	5.1	5.7	5.7
82.5°	5.1	5.1	5.1	5.1
85°	4.5	4.5	5.1	5.1
87.5°	3.8	3.8	4.5	4.5
90°	0.0	0.0	0.0	0.0

(END OF REPORT)