

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:

Luminaire Tested: **ENV-SA1B-740-U-SL2-ULG**

Issue Date: 3/30/2022

Test Information

Test Method: LM-79-08
Report Number:
REPORT IS A COMBINATION OF REPORTS P401128 AND P226775
Test Lab: INNOVATION CENTER
Issue Date: 3/30/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1B-740-U-SL2-ULG
Description: ENTRI LED LUMINAIRE WITH UPLIGHT
(1) 70 CRI, 4000K, 450mA LIGHTSQUARE WITH 16 LEDS AND TYPE II SPILL LIGHT
ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5159.9 lumens
Efficiency: N/A
Efficacy: 122.6 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.1')
IES Classification: Type III - Medium
BUG Rating: B1 - U5 - G1

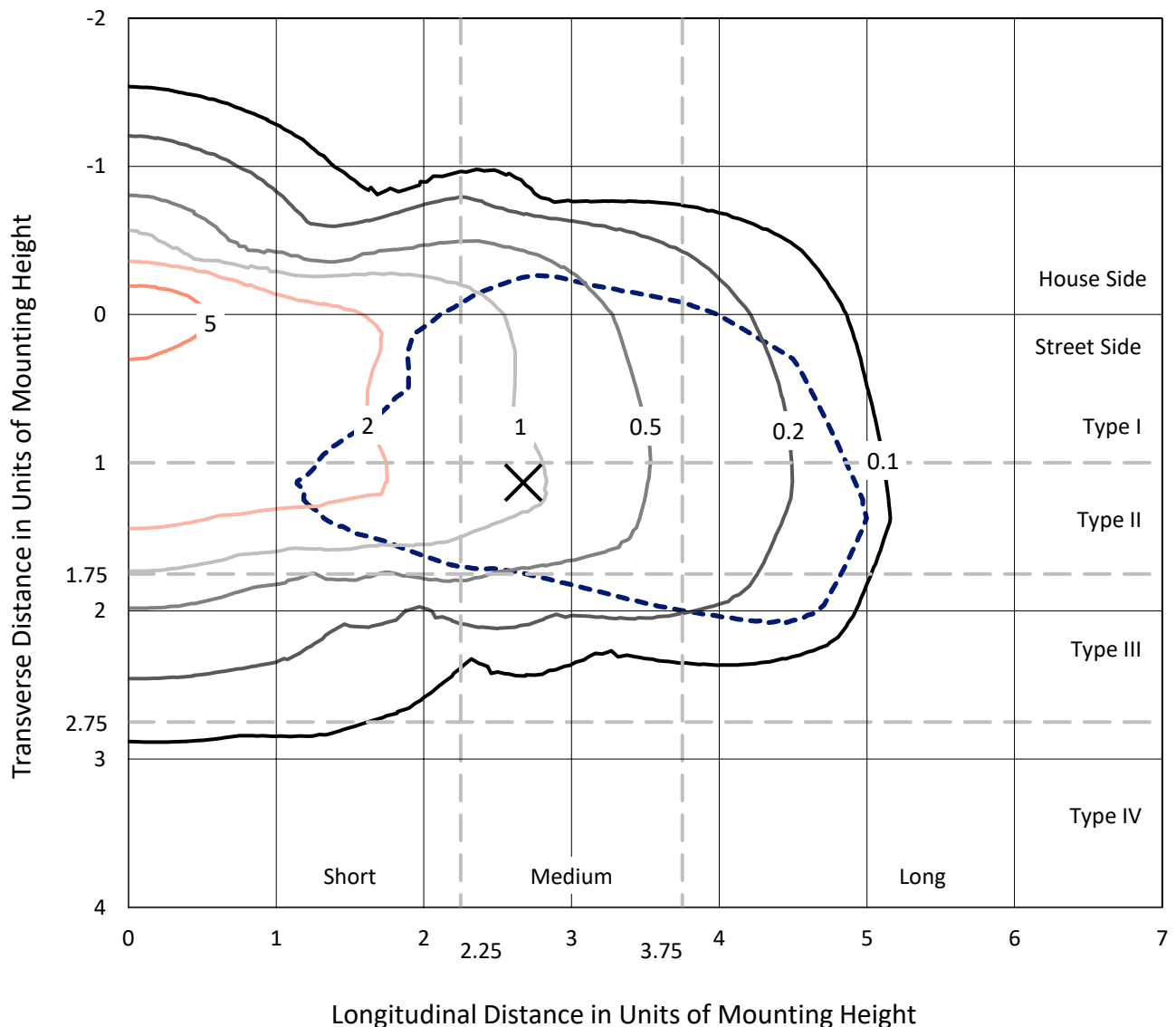
Input Watts (W): 42.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

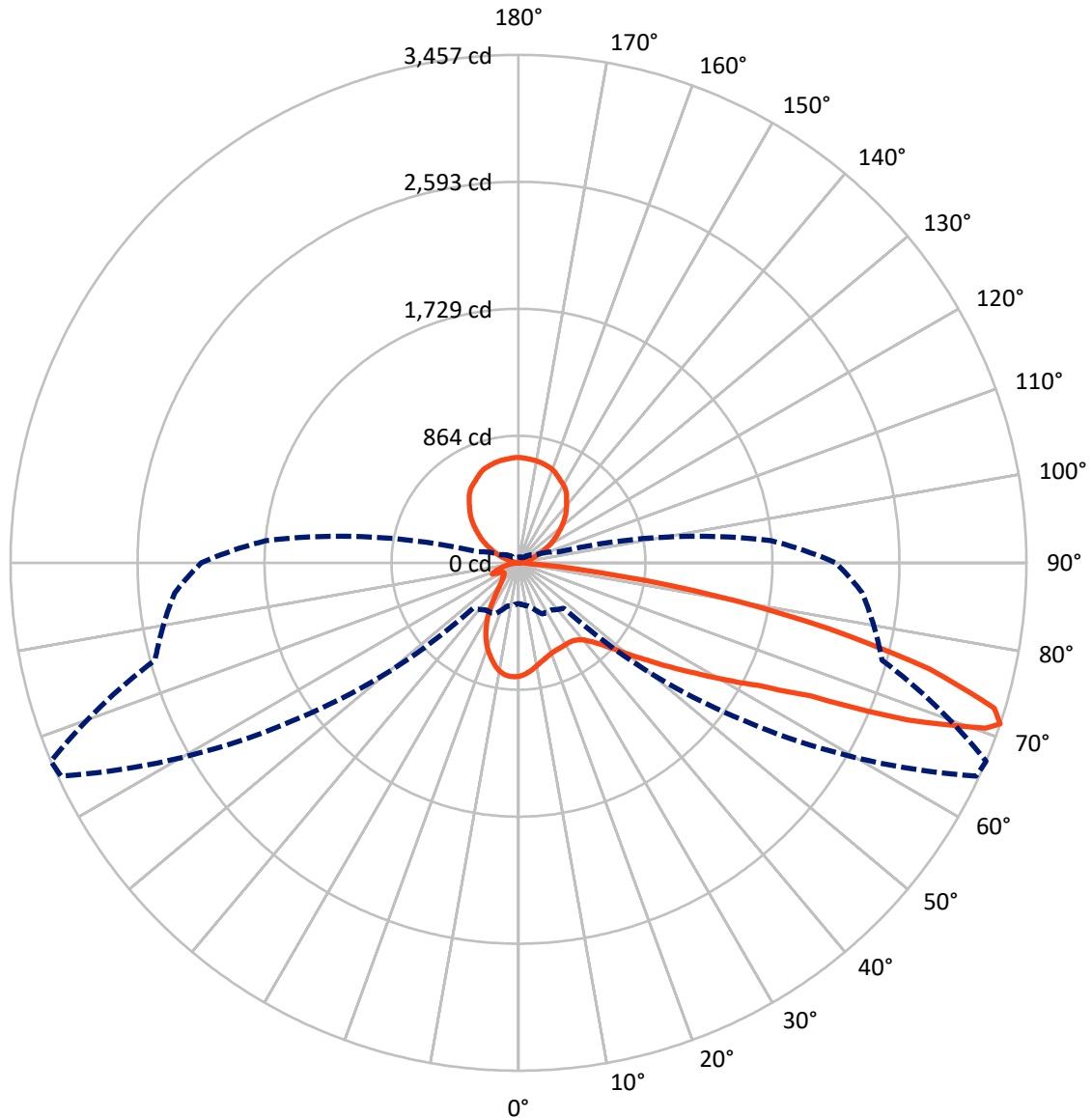
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.7 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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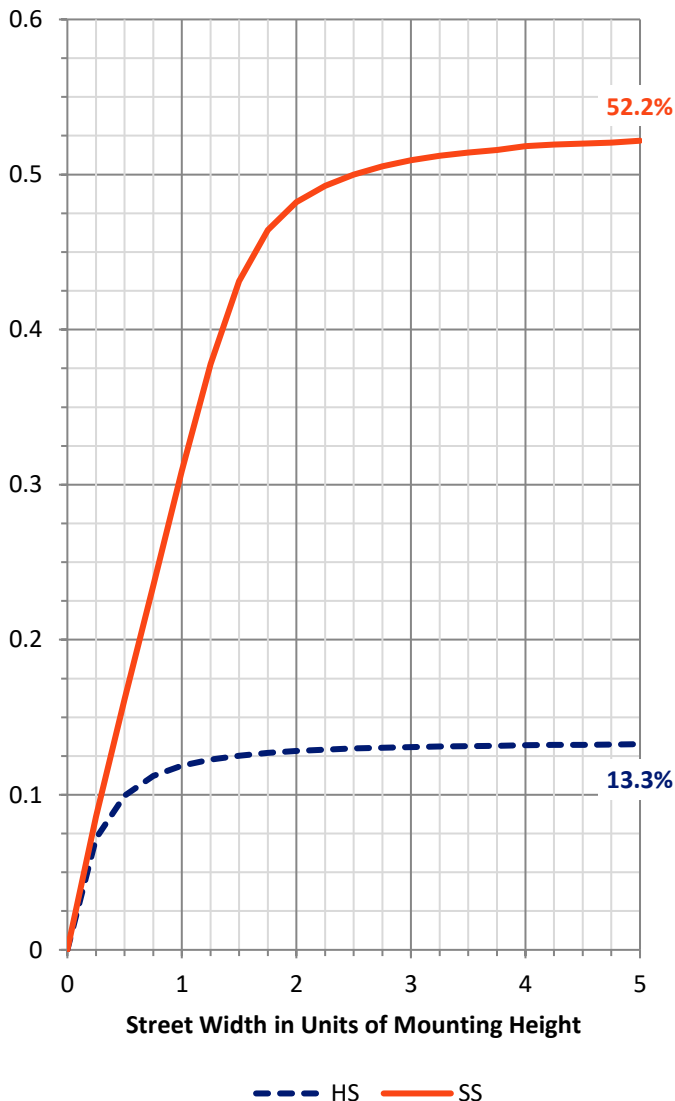
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	693.7	887.0	1580.7
	% Fixture	13.4	17.2	30.6
Street Side	Lumens	2692.3	887.0	3579.2
	% Fixture	52.2	17.2	69.4
Total	Lumens	3386.0	1773.9	5159.9
	% Fixture	65.6	34.4	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.4	1.3
10°-20°	168.1	3.3
20°-30°	227.0	4.4
30°-40°	299.0	5.8
40°-50°	425.9	8.3
50°-60°	650.6	12.6
60°-70°	812.3	15.7
70°-80°	655.7	12.7
80°-90°	79.0	1.5
90°-100°	8.4	0.2
100°-110°	58.7	1.1
110°-120°	169.9	3.3
120°-130°	279.4	5.4
130°-140°	344.6	6.7
140°-150°	352.5	6.8
150°-160°	297.0	5.8
160°-170°	195.5	3.8
170°-180°	67.8	1.3
0°-90°	3386.0	65.6
0°-180°	5159.9	100.0

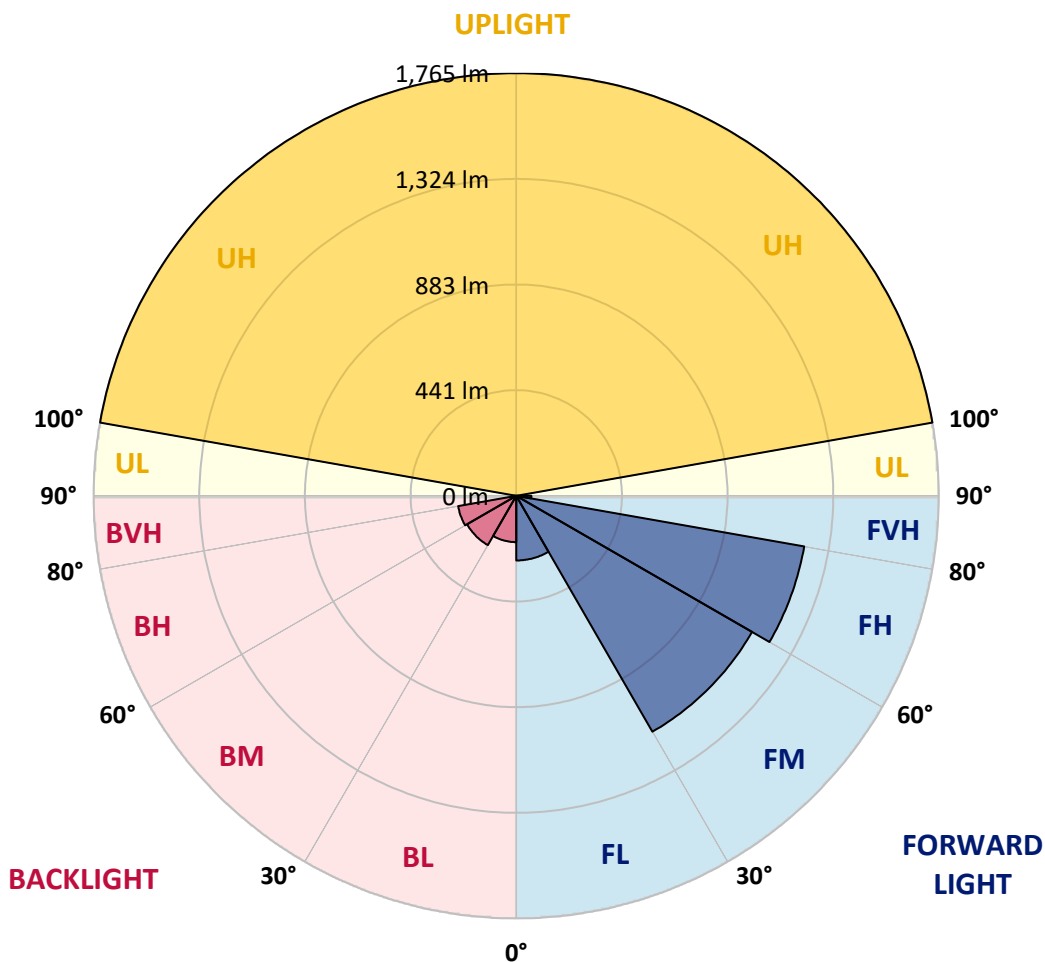


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	270.0	5.2			
FM (30°-60°)	1137.7	22.0			
FH (60°-80°)	1221.5	23.7			G1/1800
FVH (80°-90°)	63.0	1.2			G1/100
BL (0°-30°)	193.5	3.8	B1/500		
BM (30°-60°)	237.7	4.6	B1/1000		
BH (60°-80°)	246.5	4.8	B1/500		G1/500
BVH (80°-90°)	16.0	0.3			G1/100
UL (90°-100°)	8.4	0.2		U1/10	
UH (100°-180°)	1765.5	34.2		U5	

BUG Rating: B1-U5-G1
 Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	772.1	772.1	772.1	772.1	772.1	772.1	772.1	772.1	772.1	772.1	772.1
2.5°	728.2	731.6	732.1	739.0	741.4	749.2	753.6	760.9	761.9	766.2	769.2
5°	680.9	681.4	684.4	690.2	699.5	713.6	724.3	742.4	745.8	758.4	769.7
7.5°	638.5	641.0	645.9	654.6	665.3	681.9	698.5	723.4	728.2	748.7	770.1
10°	609.8	612.2	616.1	625.9	636.6	655.1	675.1	703.9	709.2	737.5	768.7
12.5°	586.9	589.3	592.2	603.0	614.7	633.2	653.7	685.8	691.2	723.8	765.3
15°	571.8	572.2	576.1	584.9	598.1	616.1	636.6	669.7	676.1	713.1	764.3
17.5°	562.5	563.5	566.9	573.7	585.4	603.0	622.9	656.6	663.9	704.3	764.8
20°	563.0	564.0	565.9	568.3	576.6	591.7	612.7	646.8	654.1	699.0	768.2
22.5°	573.2	573.7	574.2	570.8	573.7	584.4	604.9	640.0	647.8	696.5	772.1
25°	592.7	592.7	591.7	583.9	577.6	582.0	600.5	637.6	645.4	694.6	776.0
27.5°	619.5	621.5	616.6	607.3	592.7	585.4	599.5	635.6	643.4	694.6	777.9
30°	656.1	657.1	655.1	642.9	619.0	599.1	602.5	634.2	642.0	693.6	778.4
32.5°	693.1	696.1	698.5	687.8	659.0	623.4	614.2	636.1	642.9	693.1	777.0
35°	730.7	732.6	744.3	742.4	711.2	660.0	633.2	643.9	649.8	695.6	777.9
37.5°	762.8	767.2	784.3	797.4	773.1	709.7	665.8	661.0	664.4	707.8	783.3
40°	797.4	803.8	829.1	854.0	843.3	772.1	712.1	691.7	690.7	730.2	796.5
42.5°	836.4	843.8	876.4	912.5	915.9	851.5	774.0	735.1	734.1	768.7	825.2
45°	882.3	889.1	933.4	976.3	997.3	940.3	850.1	796.5	797.0	822.3	871.0
47.5°	938.8	949.5	992.4	1047.0	1084.5	1040.2	942.2	882.3	878.4	903.2	946.1
50°	1018.3	1027.0	1062.6	1115.7	1181.5	1161.1	1058.2	985.6	982.7	994.4	1046.5
52.5°	1101.6	1104.5	1121.6	1176.7	1287.3	1307.8	1201.0	1113.8	1102.6	1108.9	1171.3
55°	1106.5	1112.8	1124.0	1193.7	1382.4	1483.8	1358.5	1264.9	1250.3	1245.9	1313.2
57.5°	1005.1	1015.3	1030.0	1120.1	1386.3	1687.0	1582.2	1441.3	1415.0	1393.1	1464.7
60°	790.1	803.3	830.1	940.8	1287.3	1803.0	1955.6	1639.2	1615.8	1541.3	1612.9
62.5°	571.3	576.6	602.5	652.2	1021.7	1809.8	2344.6	1897.6	1839.6	1685.6	1740.6
65°	460.1	468.9	476.7	476.2	604.9	1605.1	2602.9	2357.2	2182.2	1846.9	1881.0
67.5°	379.2	382.1	401.2	434.3	411.4	991.4	2628.7	3028.9	2851.5	2064.3	2047.7
70°	316.8	317.8	336.8	396.3	393.8	511.8	2204.2	3415.5	3372.6	2421.1	2308.5
71°	277.4	285.6	306.6	383.6	391.9	437.2	1872.7	3435.9	3457.4	2561.0	2349.0
72.5°	218.4	218.4	248.1	351.9	395.3	403.6	1379.9	3324.3	3386.2	2719.9	2278.8
75°	128.2	127.2	143.3	245.2	404.1	402.1	753.6	2762.8	2888.1	2748.6	2109.1
77.5°	72.1	73.6	82.4	136.5	320.7	386.0	432.8	2011.6	2159.3	2299.2	1783.5
80°	33.1	35.1	41.4	66.3	189.1	333.4	309.0	1306.3	1362.4	1381.9	842.8
82.5°	8.8	9.7	12.7	25.3	73.1	227.1	228.6	546.9	564.9	326.6	180.8
85°	0.0	0.0	0.0	0.0	1.0	27.8	64.8	98.5	81.9	43.4	37.0
87.5°	0.0	0.0	0.0	0.0	0.0	1.0	1.5	1.9	1.9	1.9	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
92.5°	4.1	4.1	5.1	6.1	6.1	6.1	7.2	7.2	7.0	6.1	6.1
95°	5.1	5.1	6.1	7.2	7.2	7.2	7.2	8.2	8.0	7.2	7.2
97.5°	7.2	7.2	8.2	8.2	9.2	9.2	12.3	10.2	10.0	9.2	8.2
100°	8.2	8.2	9.2	10.2	12.3	21.5	29.7	26.6	26.0	23.5	19.4
102.5°	11.3	11.3	13.3	18.4	27.6	40.9	51.1	48.1	47.1	43.0	39.9
105°	21.5	22.5	27.6	36.8	49.1	64.4	73.7	71.6	70.6	66.5	62.4
107.5°	41.9	43.0	50.1	59.3	74.7	90.0	97.2	96.2	95.3	92.1	89.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
110°	67.5	69.6	75.7	89.0	104.3	116.6	122.8	123.8	123.4	121.7	118.7
112.5°	101.3	101.3	108.4	123.8	137.1	146.3	151.4	153.4	153.2	152.4	150.4
115°	143.2	142.2	150.4	162.6	171.9	178.0	183.1	186.2	185.6	183.1	181.1
117.5°	188.2	188.2	193.3	201.5	206.6	209.7	215.8	219.9	218.9	214.8	212.8
120°	230.2	228.1	231.2	238.3	242.4	248.6	251.6	255.7	254.7	250.6	248.6
122.5°	269.0	266.0	267.0	273.1	277.2	283.4	285.4	289.5	288.5	284.4	282.3
125°	304.8	300.7	302.8	305.9	312.0	317.1	320.2	322.2	321.2	317.1	317.1
127.5°	337.6	336.6	336.6	340.6	346.8	347.8	352.9	353.9	353.9	353.9	352.9
130°	371.3	369.3	370.3	374.4	378.5	380.5	385.7	389.7	389.7	389.7	387.7
132.5°	405.1	403.0	402.0	410.2	413.3	414.3	420.4	425.5	425.1	423.5	423.5
135°	438.8	435.8	435.8	441.9	445.0	447.0	453.2	458.3	458.1	457.3	460.3
137.5°	470.6	467.5	469.5	470.6	474.6	478.7	483.9	485.9	486.1	486.9	492.0
140°	499.2	496.1	498.2	500.2	502.3	508.4	511.5	513.5	513.9	515.6	520.7
142.5°	529.9	526.8	528.9	529.9	533.0	537.0	539.1	545.2	545.2	545.2	546.3
145°	562.6	558.5	556.5	559.6	562.6	563.6	568.8	574.9	574.7	573.9	570.8
147.5°	588.2	585.1	584.1	587.2	587.2	588.2	593.3	598.4	598.6	599.4	596.4
150°	608.7	605.6	606.6	606.6	606.6	606.6	610.7	613.8	614.4	616.8	619.9
152.5°	625.0	622.0	622.0	623.0	624.0	624.0	625.0	628.1	628.9	632.2	637.3
155°	643.4	639.3	639.3	641.4	644.5	642.4	640.4	645.5	646.5	650.6	652.6
157.5°	660.8	657.8	657.8	658.8	660.8	659.8	658.8	662.9	663.3	664.9	664.9
160°	678.2	675.1	674.1	671.1	670.0	670.0	673.1	679.2	678.6	676.2	675.1
162.5°	688.4	684.4	684.4	680.3	676.2	678.2	682.3	686.4	686.2	685.4	683.3
165°	696.6	693.6	691.5	691.5	688.4	688.4	687.4	692.5	693.2	695.6	693.6
167.5°	705.8	702.8	699.7	701.7	703.8	700.7	693.6	699.7	700.5	703.8	703.8
170°	714.0	711.0	707.9	707.9	708.9	706.9	701.7	704.8	705.8	709.9	712.0
172.5°	715.0	713.0	711.0	708.9	705.8	705.8	704.8	707.9	708.3	709.9	712.0
175°	716.1	714.0	713.0	711.0	706.9	705.8	705.8	711.0	711.2	712.0	709.9
177.5°	723.2	721.2	716.1	715.0	713.0	711.0	709.9	715.0	715.5	717.1	714.0
180°	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	772.1	772.1	772.1	772.1	772.1	772.1	772.1	772.1	772.1	772.1	772.1
2.5°	771.6	773.6	777.0	776.5	775.5	769.7	773.1	769.7	769.2	767.7	768.2
5°	773.6	776.5	778.4	774.0	766.7	754.1	749.7	738.5	731.2	727.3	725.3
7.5°	776.5	778.4	777.5	765.3	746.3	722.4	701.9	685.8	668.8	665.8	664.9
10°	776.5	778.4	770.6	747.2	714.6	677.0	645.9	619.5	593.2	583.5	584.9
12.5°	774.5	775.5	757.5	719.9	672.7	621.5	577.6	534.2	500.6	480.1	476.2
15°	773.1	771.6	739.9	685.8	622.9	559.6	493.3	434.8	394.8	368.0	364.6
17.5°	773.1	767.7	719.0	646.8	568.8	481.6	393.8	330.5	286.1	270.5	270.0
20°	774.0	762.3	696.5	606.4	501.6	389.0	293.9	239.8	223.2	220.8	221.3
22.5°	775.0	755.0	672.2	560.6	426.5	290.0	210.1	190.6	192.0	197.9	197.4
25°	774.0	745.3	643.4	509.4	344.6	209.1	169.6	164.8	173.5	180.4	182.3
27.5°	771.6	732.6	612.7	448.4	262.7	164.8	148.2	147.7	156.5	162.8	162.3
30°	764.3	717.5	577.1	384.1	189.6	140.4	133.6	135.0	140.9	146.7	146.7
32.5°	756.5	700.4	539.6	313.9	145.7	127.2	124.8	125.3	129.2	133.6	133.1
35°	748.2	683.9	501.1	240.8	127.7	119.4	118.4	118.0	119.4	120.4	120.4
37.5°	743.3	669.2	458.7	181.3	118.0	114.5	112.6	110.6	110.2	109.2	108.2
40°	745.3	659.5	417.7	140.4	112.1	109.2	106.3	103.3	101.4	100.4	99.9
42.5°	758.9	656.6	372.4	120.9	106.7	104.3	100.4	95.5	93.6	93.6	93.1
45°	790.6	665.3	330.0	111.1	101.9	98.9	92.6	89.2	87.7	88.2	88.2
47.5°	840.3	690.2	292.0	106.3	98.5	94.1	86.8	83.4	82.4	82.9	82.9
50°	914.9	737.0	253.0	101.9	94.6	88.7	82.4	78.5	77.0	77.0	77.0
52.5°	1024.1	814.0	224.7	98.9	91.2	84.3	78.0	73.6	71.7	71.7	71.2
55°	1157.2	914.4	214.0	97.0	86.8	80.4	73.6	69.2	66.3	65.3	65.8
57.5°	1302.9	1044.6	229.6	96.5	81.9	76.0	69.2	63.9	60.9	60.4	60.0
60°	1453.0	1173.7	274.4	94.1	78.0	70.7	64.3	59.5	56.5	55.6	55.1
62.5°	1582.7	1302.4	348.5	92.1	75.1	65.8	59.0	54.6	52.2	50.7	50.7
65°	1739.2	1450.1	461.6	94.6	73.6	60.9	54.1	50.2	48.3	46.8	46.8
67.5°	1952.7	1669.0	547.4	106.3	77.0	57.0	48.7	45.8	44.4	43.4	43.4
70°	2162.8	1791.8	380.7	124.8	85.8	53.6	43.9	41.9	40.9	40.0	40.0
71°	2159.8	1726.0	286.1	129.2	88.7	52.6	41.9	40.5	39.5	39.0	38.5
72.5°	2051.6	1569.1	205.2	125.3	87.3	49.7	39.5	38.0	37.0	37.0	36.6
75°	1840.1	1382.9	160.4	104.8	73.1	44.4	35.1	34.1	33.1	32.7	33.1
77.5°	1507.6	1106.5	126.2	82.9	55.6	36.6	31.2	29.7	29.2	28.8	29.2
80°	692.6	482.1	92.1	64.3	41.4	29.2	26.3	25.8	25.3	24.9	24.9
82.5°	166.7	135.0	49.2	42.9	28.3	22.4	21.0	21.0	21.0	20.5	20.5
85°	36.6	36.6	20.0	20.0	17.1	15.6	16.6	16.6	16.6	15.6	15.6
87.5°	1.9	5.8	6.3	9.3	9.7	9.3	11.2	11.7	11.2	10.7	10.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	6.1	6.1	6.1	7.2	7.2	6.1	6.1	6.1	5.1	4.1	4.1
95°	7.2	7.2	7.2	8.2	7.2	7.2	7.2	7.2	6.1	5.1	5.1
97.5°	8.2	8.2	9.2	10.2	12.3	9.2	9.2	8.2	8.2	7.2	7.2
100°	19.4	19.4	23.5	26.6	29.7	21.5	12.3	10.2	9.2	8.2	8.2
102.5°	38.9	39.9	43.0	48.1	51.1	40.9	27.6	18.4	13.3	11.3	11.3
105°	62.4	62.4	66.5	71.6	73.7	64.4	49.1	36.8	27.6	22.5	21.5
107.5°	88.0	89.0	92.1	96.2	97.2	90.0	74.7	59.3	50.1	43.0	41.9



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	119.7	118.7	121.7	123.8	122.8	116.6	104.3	89.0	75.7	69.6	67.5
112.5°	150.4	150.4	152.4	153.4	151.4	146.3	137.1	123.8	108.4	101.3	101.3
115°	182.1	181.1	183.1	186.2	183.1	178.0	171.9	162.6	150.4	142.2	143.2
117.5°	213.8	212.8	214.8	219.9	215.8	209.7	206.6	201.5	193.3	188.2	188.2
120°	248.6	248.6	250.6	255.7	251.6	248.6	242.4	238.3	231.2	228.1	230.2
122.5°	283.4	282.3	284.4	289.5	285.4	283.4	277.2	273.1	267.0	266.0	269.0
125°	317.1	317.1	317.1	322.2	320.2	317.1	312.0	305.9	302.8	300.7	304.8
127.5°	355.0	352.9	353.9	353.9	352.9	347.8	346.8	340.6	336.6	336.6	337.6
130°	388.7	387.7	389.7	389.7	385.7	380.5	378.5	374.4	370.3	369.3	371.3
132.5°	424.5	423.5	423.5	425.5	420.4	414.3	413.3	410.2	402.0	403.0	405.1
135°	461.4	460.3	457.3	458.3	453.2	447.0	445.0	441.9	435.8	435.8	438.8
137.5°	493.1	492.0	486.9	485.9	483.9	478.7	474.6	470.6	469.5	467.5	470.6
140°	522.7	520.7	515.6	513.5	511.5	508.4	502.3	500.2	498.2	496.1	499.2
142.5°	548.3	546.3	545.2	545.2	539.1	537.0	533.0	529.9	528.9	526.8	529.9
145°	572.9	570.8	573.9	574.9	568.8	563.6	562.6	559.6	556.5	558.5	562.6
147.5°	598.4	596.4	599.4	598.4	593.3	588.2	587.2	587.2	584.1	585.1	588.2
150°	624.0	619.9	616.8	613.8	610.7	606.6	606.6	606.6	606.6	605.6	608.7
152.5°	642.4	637.3	632.2	628.1	625.0	624.0	624.0	623.0	622.0	622.0	625.0
155°	655.7	652.6	650.6	645.5	640.4	642.4	644.5	641.4	639.3	639.3	643.4
157.5°	670.0	664.9	664.9	662.9	658.8	659.8	660.8	658.8	657.8	657.8	660.8
160°	681.3	675.1	676.2	679.2	673.1	670.0	670.0	671.1	674.1	675.1	678.2
162.5°	689.5	683.3	685.4	686.4	682.3	678.2	676.2	680.3	684.4	684.4	688.4
165°	697.7	693.6	695.6	692.5	687.4	688.4	688.4	691.5	691.5	693.6	696.6
167.5°	709.9	703.8	703.8	699.7	693.6	700.7	703.8	701.7	699.7	702.8	705.8
170°	717.1	712.0	709.9	704.8	701.7	706.9	708.9	707.9	707.9	711.0	714.0
172.5°	717.1	712.0	709.9	707.9	704.8	705.8	705.8	708.9	711.0	713.0	715.0
175°	715.0	709.9	712.0	711.0	705.8	705.8	706.9	711.0	713.0	714.0	716.1
177.5°	718.1	714.0	717.1	715.0	709.9	711.0	713.0	715.0	716.1	721.2	723.2
180°	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1

(END OF REPORT)