

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: P676199

Luminaire Tested: **CCW-SA-1D-840-U-T1**

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P676199
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-SA-1D-840-U-T1
Description: INVUE CLEAR CURVE Wall Pack MOUNT LIGHT SQUARE LUMINAIRE @800mA w/
T1 distribution lens
Light Source: (16) 4000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

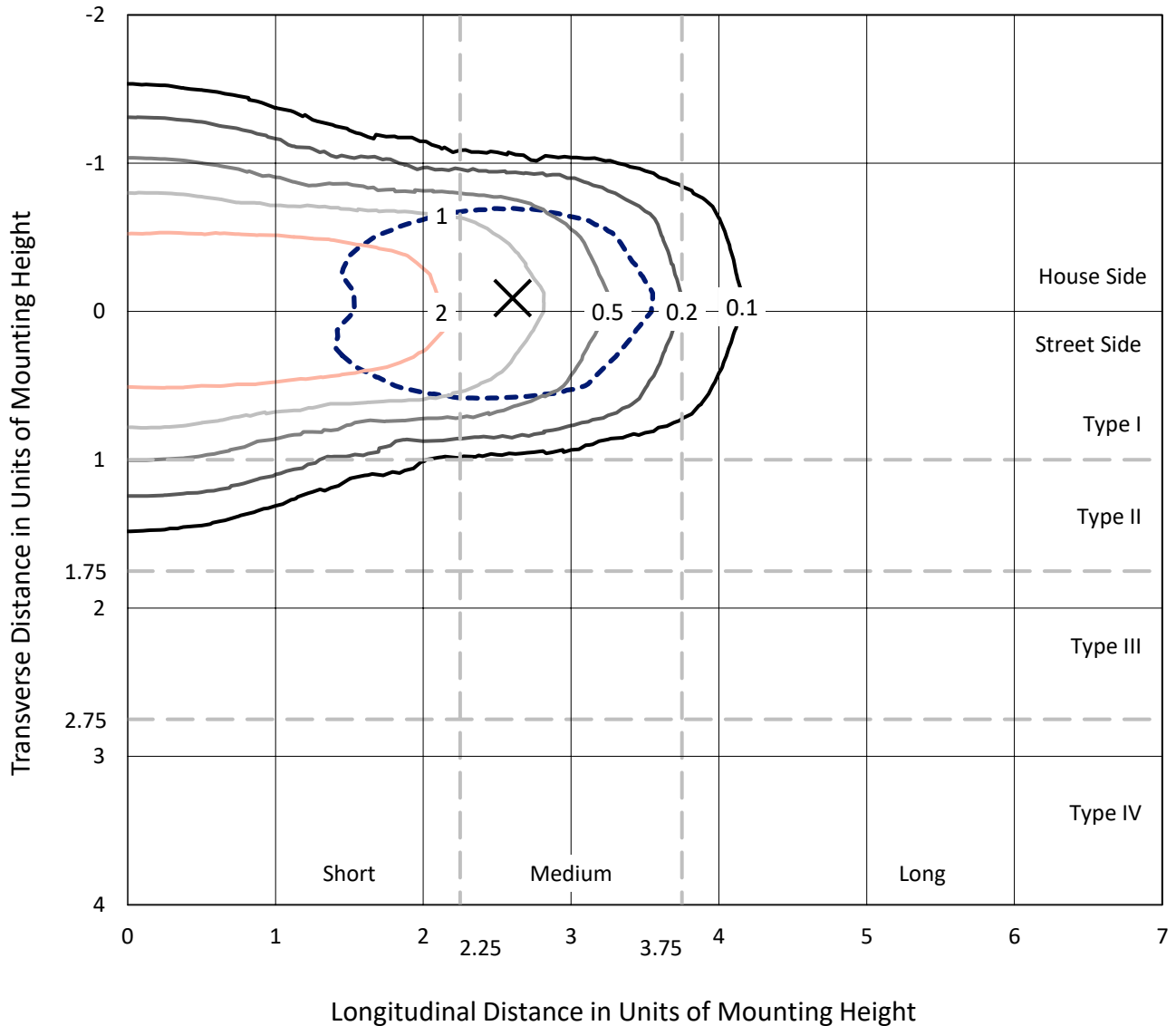
Lumens per Lamp: N/A
Luminaire Lumens: 4630.2 lumens
Efficiency: N/A
Efficacy: 105.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type I - Short
BUG Rating: B2 - U0 - G2

Input Watts (W): 44
Input Voltage (V): 120
Input Current (A_{in}): 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

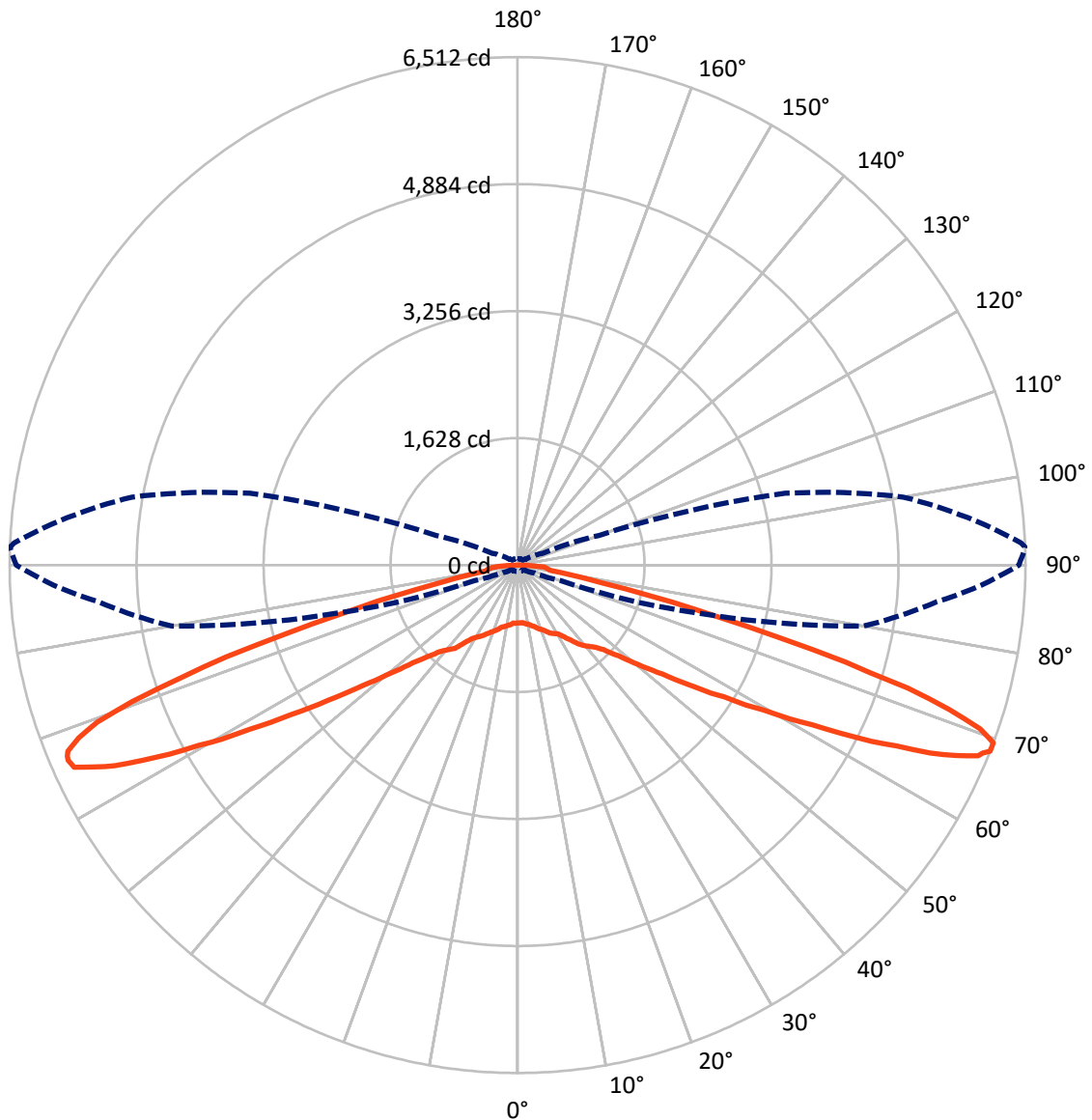
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 3.6 fc
 Type I - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 92-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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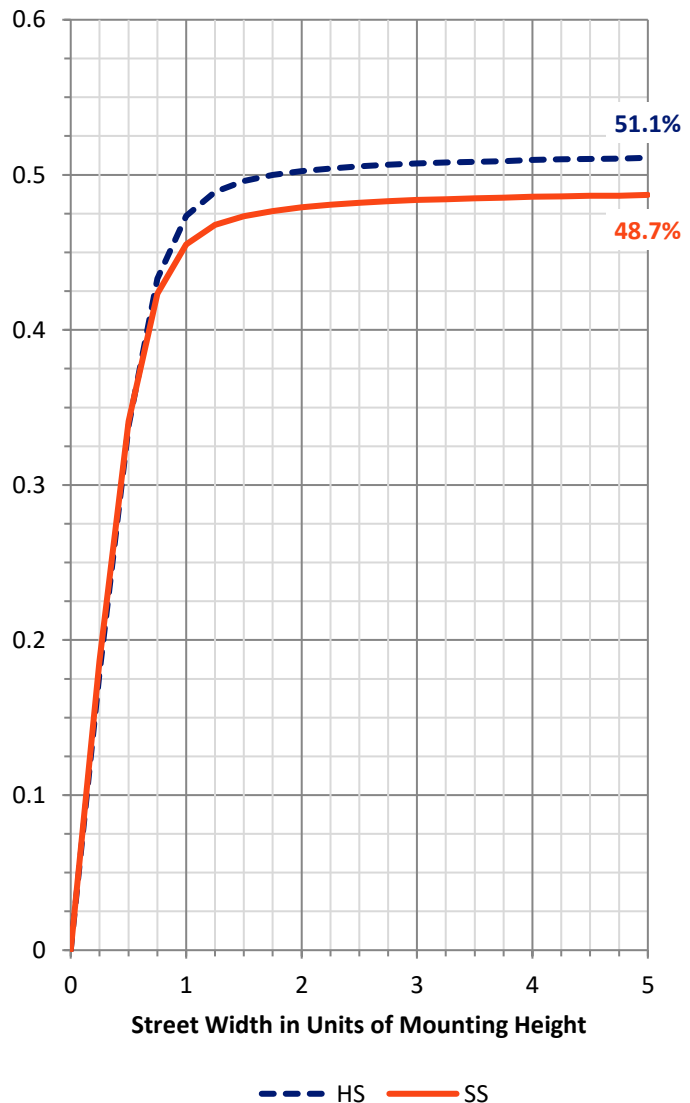
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2384.5	0.0	2384.5
	% Fixture	51.5	0.0	51.5
Street Side	Lumens	2245.7	0.0	2245.7
	% Fixture	48.5	0.0	48.5
Total	Lumens	4630.2	0.0	4630.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.2	1.6
10°-20°	240.2	5.2
20°-30°	409.9	8.9
30°-40°	572.3	12.4
40°-50°	728.0	15.7
50°-60°	920.5	19.9
60°-70°	1135.3	24.5
70°-80°	495.9	10.7
80°-90°	53.8	1.2
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°	4630.2	100.0
0°-180°	4630.2	100.0



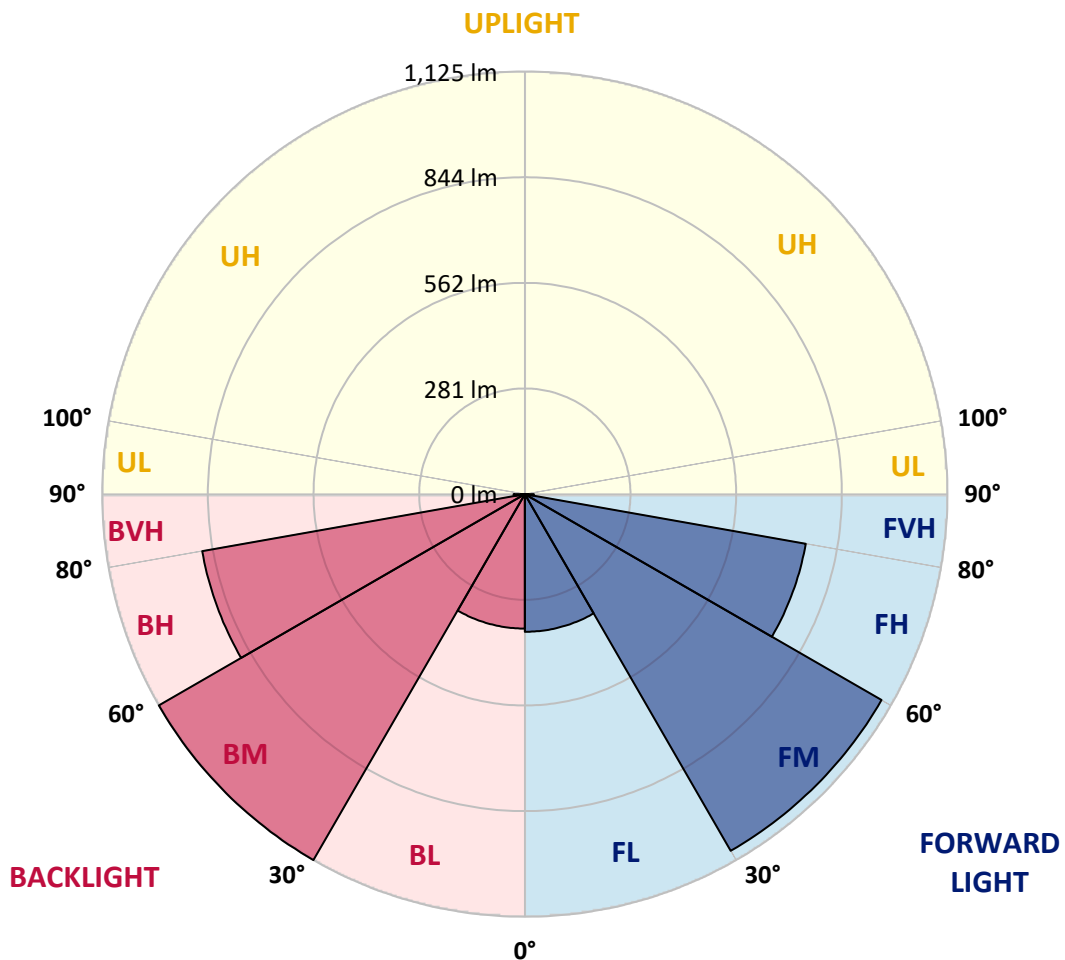
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	366.4	7.9			
FM (30°-60°)	1096.2	23.7			
FH (60°-80°)	759.3	16.4			G1/1800
FVH (80°-90°)	23.8	0.5			G1/100
BL (0°-30°)	357.8	7.7	B1/500		
BM (30°-60°)	1124.8	24.3	B2/2500		
BH (60°-80°)	871.9	18.8	B2/1000		G2/1000
BVH (80°-90°)	29.9	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type I Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
0°	740.4	740.4	740.4	740.4	740.4	740.4	740.4	740.4	740.4	740.4	740.4
2.5°	756.0	755.2	757.8	759.5	751.7	754.3	752.6	750.8	744.7	742.1	736.9
5°	776.9	779.5	788.2	780.4	783.9	779.5	765.6	770.0	762.1	760.4	755.2
7.5°	813.4	808.2	820.4	811.7	814.3	805.6	799.5	791.7	789.9	777.8	778.6
10°	821.2	831.7	836.9	835.1	836.9	841.2	829.9	817.7	801.2	797.8	785.6
12.5°	816.0	825.6	839.5	850.8	858.6	860.3	856.0	853.4	846.4	826.4	825.6
15°	810.8	803.8	812.5	851.6	877.7	895.1	901.2	886.4	888.1	862.1	851.6
17.5°	776.0	765.6	799.5	837.7	869.9	908.1	937.7	933.3	933.3	912.5	897.7
20°	730.0	747.4	764.7	813.4	872.5	929.8	986.3	983.7	973.3	967.2	935.1
22.5°	690.9	698.7	730.8	782.1	856.0	935.9	1002.8	1050.6	1026.3	1002.0	982.9
25°	663.9	657.0	697.8	750.8	840.3	925.5	1034.1	1083.7	1096.7	1078.5	1042.0
27.5°	625.7	625.7	657.8	708.3	789.9	920.3	1064.5	1140.2	1159.3	1132.3	1079.3
30°	582.2	587.5	615.3	672.6	752.6	882.1	1076.7	1205.3	1221.0	1197.5	1142.8
32.5°	548.4	548.4	579.6	640.5	726.5	864.7	1068.9	1269.6	1299.2	1281.8	1225.3
35°	511.9	509.2	531.8	598.8	684.8	830.8	1066.3	1320.9	1387.0	1387.8	1328.7
37.5°	459.7	470.1	498.8	551.8	651.8	797.8	1058.5	1382.6	1500.8	1520.8	1479.9
40°	425.0	429.3	455.4	513.6	600.5	758.7	1047.2	1433.0	1576.4	1645.1	1588.6
42.5°	374.5	380.6	400.6	472.7	551.0	703.0	997.6	1468.6	1684.2	1762.4	1714.6
45°	321.5	325.0	354.6	413.7	497.9	637.0	944.6	1526.0	1788.4	1948.3	1920.5
47.5°	258.1	259.8	285.0	346.7	434.5	570.9	862.9	1523.4	1872.7	2134.3	2212.5
50°	201.6	206.0	225.1	275.5	358.0	490.1	768.2	1502.5	1978.8	2346.3	2500.2
52.5°	160.8	161.6	173.8	213.8	276.3	409.3	666.5	1436.5	2078.7	2554.0	2853.0
55°	133.0	133.0	139.9	164.2	212.0	311.1	547.5	1327.0	2090.9	2783.5	3238.0
56°	127.7	126.0	132.1	152.9	191.2	280.7	491.9	1253.1	2108.2	2889.5	3430.9
57°	120.8	121.7	125.1	139.9	172.1	248.5	430.2	1181.0	2096.1	2976.4	3573.4
58°	117.3	115.6	122.5	132.1	152.1	220.7	387.6	1095.8	2077.0	3047.6	3781.1
59°	112.1	111.2	115.6	124.3	141.7	196.4	335.4	1003.7	2039.6	3139.8	3935.8
60°	110.4	109.5	111.2	118.2	130.4	172.1	295.5	896.0	1939.6	3234.5	4127.8
61°	105.2	106.0	109.5	113.8	123.4	154.7	265.9	785.6	1874.5	3314.4	4339.9
62°	106.0	104.3	106.0	109.5	116.4	142.5	232.9	677.0	1758.0	3404.8	4498.9
63°	100.8	99.9	102.5	106.9	110.4	128.6	203.4	584.8	1625.9	3425.7	4633.6
64°	99.1	98.2	99.1	105.2	106.0	120.8	179.9	499.7	1434.7	3461.3	4806.5
65°	94.7	94.7	96.5	99.1	102.5	113.8	160.8	433.6	1244.4	3367.4	4859.6
66°	91.2	92.1	92.1	96.5	99.1	106.0	147.7	368.5	1061.9	3218.0	4910.8
67°	88.6	88.6	89.5	93.0	95.6	99.9	133.0	318.9	896.0	3039.8	4831.7
67.5°	86.9	87.8	87.8	91.2	93.9	99.9	126.9	302.4	801.2	2844.3	4772.6
68°	84.3	85.2	85.2	88.6	91.2	96.5	122.5	276.3	738.7	2717.4	4663.2
69°	82.6	81.7	81.7	85.2	88.6	92.1	113.8	241.6	587.5	2362.9	4503.3
70°	77.3	77.3	79.1	81.7	84.3	87.8	105.2	212.9	497.1	1956.2	4091.3
71°	74.7	73.9	74.7	77.3	79.9	84.3	96.5	188.6	406.7	1624.2	3686.4
72°	69.5	71.3	71.3	73.9	76.5	79.1	90.4	164.2	341.5	1298.3	3240.6
72.5°	68.7	68.7	69.5	72.1	73.9	78.2	86.9	157.3	312.0	1144.5	3053.7
73°	66.0	66.0	66.9	69.5	71.3	75.6	84.3	141.7	284.2	1018.5	2704.4
74°	63.4	62.6	62.6	66.0	66.9	71.3	79.1	125.1	238.1	767.3	2170.8
75°	59.1	59.1	60.0	61.7	62.6	66.0	73.0	111.2	200.7	595.3	1698.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
77.5°	48.7	49.5	50.4	52.1	52.1	54.7	60.0	77.3	122.5	301.5	779.5
80°	35.6	37.4	40.0	42.6	41.7	41.7	46.9	55.6	73.0	135.6	298.9
82.5°	28.7	30.4	27.8	31.3	31.3	29.5	33.9	40.8	49.5	66.9	106.9
85°	19.1	20.0	16.5	19.1	18.2	18.2	22.6	24.3	30.4	37.4	53.0
87.5°	8.7	8.7	7.0	7.8	7.8	7.8	11.3	8.7	13.0	18.2	31.3
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):

	85°	87.5°	90°	92°	92.5°	95°	100°	105°	110°	115°	125°
0°	740.4	740.4	740.4	740.4	740.4	740.4	740.4	740.4	740.4	740.4	740.4
2.5°	742.1	745.6	745.6	742.1	739.5	742.1	740.4	736.1	740.4	742.1	743.0
5°	752.6	745.6	749.1	741.3	746.5	745.6	743.9	748.2	749.1	749.1	755.2
7.5°	763.9	772.6	761.3	762.1	764.7	754.3	757.8	759.5	756.0	763.0	768.2
10°	783.9	787.3	783.9	770.8	779.5	772.6	770.0	777.8	776.0	777.8	785.6
12.5°	802.1	808.2	798.6	797.8	793.4	787.3	790.8	789.9	802.1	803.8	813.4
15°	839.5	823.8	820.4	819.5	817.7	815.1	816.9	817.7	833.4	836.0	858.6
17.5°	871.6	869.0	849.9	856.9	856.9	846.4	842.1	856.9	869.0	882.1	897.7
20°	904.6	902.0	881.2	882.1	874.2	883.8	878.6	892.5	913.3	917.7	931.6
22.5°	943.8	932.5	917.7	919.4	922.0	915.1	911.6	930.7	951.6	963.7	964.6
25°	1005.5	976.8	964.6	966.3	962.9	957.7	960.3	984.6	995.0	1021.1	1015.9
27.5°	1038.5	1022.0	1013.3	993.3	994.2	986.3	996.8	1033.3	1054.1	1074.1	1034.1
30°	1078.5	1068.0	1029.8	1022.8	1022.0	1018.5	1037.6	1084.5	1115.8	1127.1	1069.8
32.5°	1156.7	1115.0	1105.4	1099.3	1085.4	1089.7	1099.3	1161.0	1210.5	1207.9	1102.8
35°	1246.2	1217.5	1190.6	1185.3	1183.6	1171.4	1187.9	1260.1	1298.3	1287.0	1115.0
37.5°	1389.6	1346.1	1309.6	1289.6	1286.1	1277.5	1316.6	1373.9	1423.5	1379.1	1124.5
40°	1460.0	1411.3	1377.4	1365.2	1367.8	1380.0	1418.2	1506.0	1527.7	1446.0	1132.3
42.5°	1560.8	1507.7	1440.8	1434.7	1426.9	1433.0	1506.9	1625.1	1643.3	1536.4	1102.8
45°	1739.8	1659.8	1582.5	1547.7	1549.5	1566.0	1680.7	1810.2	1776.3	1599.0	1055.9
47.5°	1965.7	1848.4	1785.8	1738.9	1761.5	1743.3	1925.7	2029.2	1913.6	1678.1	998.5
50°	2305.5	2141.3	2056.1	1999.6	2009.2	2024.8	2209.9	2297.7	2065.7	1716.3	910.7
52.5°	2733.9	2522.8	2397.6	2322.0	2329.0	2362.9	2601.8	2574.9	2239.5	1748.5	793.4
55°	3246.7	3029.4	2786.9	2755.7	2747.8	2828.7	3092.0	2865.2	2395.9	1697.2	671.8
56°	3517.8	3286.6	3034.6	2970.3	2951.2	3007.7	3317.0	3010.3	2449.8	1639.8	613.5
57°	3748.1	3527.3	3251.0	3141.5	3165.8	3271.9	3540.4	3146.7	2499.3	1580.7	558.8
58°	4064.4	3812.4	3520.4	3437.0	3415.2	3499.5	3781.1	3284.0	2515.8	1519.9	508.4
59°	4379.9	4077.4	3814.1	3662.0	3668.1	3821.9	4018.3	3447.4	2541.0	1442.6	444.1
60°	4619.7	4467.6	4115.7	4001.8	3986.2	4208.7	4254.7	3556.9	2567.9	1338.3	398.9
61°	4959.5	4761.4	4433.7	4286.9	4329.4	4507.6	4510.2	3694.2	2528.0	1206.2	343.3
62°	5203.7	5151.5	4807.4	4667.5	4654.5	4890.8	4776.1	3815.0	2493.2	1081.1	303.3
63°	5489.6	5489.6	5175.9	5066.4	5072.5	5259.3	4891.7	3935.8	2453.2	942.9	266.8
64°	5638.2	5825.0	5535.6	5381.8	5421.8	5583.4	5097.7	4014.9	2329.8	803.0	234.6
65°	5766.8	6047.5	5886.7	5815.5	5754.6	5850.2	5275.8	4088.7	2141.3	683.0	208.6
66°	5875.4	6256.9	6203.9	6127.4	6121.4	6099.6	5310.6	4086.1	1946.6	577.0	182.5
67°	5820.7	6261.3	6357.7	6389.9	6380.3	6150.9	5249.7	3993.1	1697.2	487.5	162.5
67.5°	5771.2	6225.6	6449.9	6431.6	6471.6	6194.4	5260.2	3879.3	1519.9	441.5	152.9
68°	5727.7	6177.9	6487.2	6510.7	6490.7	6199.6	5202.8	3788.9	1399.1	414.5	144.3
69°	5398.3	5951.0	6427.3	6511.6	6460.3	6000.6	5020.3	3553.4	1111.5	353.7	133.0
70°	5068.1	5657.3	6136.1	6290.8	6227.4	5615.6	4790.0	3178.9	916.8	302.4	119.9
71°	4611.0	5111.6	5748.6	5841.5	5765.1	5177.6	4313.8	2783.5	713.5	256.4	106.9
72°	3990.5	4415.5	5023.8	5248.9	5135.9	4547.6	3832.4	2300.3	577.9	215.5	97.3
72.5°	3682.9	4118.3	4704.9	4723.1	4744.8	4273.8	3628.2	2020.5	504.0	199.9	94.7
73°	3390.9	3817.6	4325.1	4389.4	4297.3	3812.4	3323.1	1806.7	460.6	182.5	91.2
74°	2747.8	2991.2	3411.8	3474.3	3393.5	3108.5	2715.7	1385.2	366.7	157.3	83.4
75°	2162.1	2295.9	2676.6	2638.3	2517.5	2417.6	2105.6	1058.5	297.2	138.2	77.3



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CANDELA DISTRIBUTION (continued):

	85°	87.5°	90°	92°	92.5°	95°	100°	105°	110°	115°	125°
77.5°	971.6	1052.4	1115.8	1115.8	1122.8	1071.5	970.7	485.8	183.4	99.9	63.4
80°	370.2	414.5	428.4	429.3	435.4	451.0	419.7	239.0	108.6	71.3	51.3
82.5°	268.5	375.4	404.1	383.2	385.0	347.6	160.8	106.0	68.7	49.5	37.4
85°	243.3	326.8	345.9	343.3	344.1	321.5	94.7	52.1	40.0	31.3	26.1
87.5°	118.2	115.6	122.5	138.2	134.7	174.7	79.9	26.1	17.4	13.0	13.0
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):

	135°	145°	155°	165°	175°	180°
0°	740.4	740.4	740.4	740.4	740.4	740.4
2.5°	736.1	735.2	747.4	735.2	742.1	736.9
5°	744.7	748.2	750.8	756.0	743.9	756.0
7.5°	770.8	774.3	775.2	779.5	774.3	773.4
10°	790.8	799.5	804.7	787.3	797.8	796.9
12.5°	829.9	821.2	820.4	816.9	807.3	803.8
15°	857.7	844.7	836.9	823.0	811.7	807.3
17.5°	896.8	871.6	839.5	810.8	790.8	775.2
20°	921.2	876.0	811.7	777.8	747.4	754.3
22.5°	936.8	871.6	786.5	743.0	712.6	721.3
25°	942.0	849.9	769.1	715.2	685.7	679.6
27.5°	927.2	824.7	735.2	674.4	648.3	653.5
30°	920.3	788.2	703.9	643.9	609.2	614.4
32.5°	902.0	750.8	662.2	601.4	576.2	567.5
35°	876.0	719.5	622.2	564.9	534.4	527.5
37.5°	843.8	680.4	587.5	517.9	491.0	485.8
40°	796.0	633.5	537.1	477.1	445.8	444.9
42.5°	754.3	588.3	490.1	428.4	397.1	398.9
45°	701.3	527.5	436.2	383.2	352.0	353.7
47.5°	633.5	471.0	385.0	325.9	299.8	298.1
50°	553.6	406.7	322.4	272.0	250.3	245.9
52.5°	477.1	341.5	264.2	219.0	200.7	199.0
55°	380.6	265.9	206.0	172.1	158.2	159.0
56°	345.9	245.1	187.7	157.3	146.9	146.9
57°	312.8	217.3	170.3	145.1	135.6	135.6
58°	276.3	191.2	154.7	131.2	126.9	123.4
59°	251.1	173.8	139.9	124.3	117.3	116.4
60°	221.6	156.4	130.4	116.4	111.2	110.4
61°	196.4	140.8	119.9	108.6	106.9	106.9
62°	175.5	130.4	111.2	105.2	104.3	101.7
63°	157.3	119.9	106.9	99.9	97.3	99.9
64°	140.8	110.4	103.4	98.2	94.7	96.5
65°	127.7	106.0	99.1	95.6	92.1	93.0
66°	119.1	99.1	95.6	91.2	89.5	90.4
67°	107.8	95.6	92.1	87.8	86.9	87.8
67.5°	104.3	93.0	90.4	86.0	85.2	86.0
68°	101.7	91.2	89.5	85.2	84.3	83.4
69°	94.7	87.8	85.2	83.4	81.7	80.8
70°	88.6	84.3	82.6	79.9	78.2	77.3
71°	85.2	79.9	79.1	76.5	74.7	73.9
72°	80.8	77.3	75.6	72.1	71.3	72.1
72.5°	79.9	75.6	74.7	71.3	70.4	70.4
73°	77.3	72.1	73.0	69.5	67.8	69.5
74°	72.1	70.4	68.7	66.0	65.2	65.2
75°	67.8	66.0	64.3	62.6	62.6	62.6



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CANDELA DISTRIBUTION (continued):

	135°	145°	155°	165°	175°	180°
77.5°	57.4	56.5	57.4	53.9	53.0	52.1
80°	46.1	46.1	46.9	44.3	42.6	41.7
82.5°	34.8	35.6	37.4	34.8	33.0	31.3
85°	22.6	23.5	23.5	20.9	24.3	22.6
87.5°	11.3	12.2	11.3	10.4	12.2	12.2
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)