

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: P401744

Luminaire Tested: **ENV-SA1E-827-U-SLL**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401744
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-7)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1E-827-U-SLL
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 2700K, 1050mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT ELIMINATOR LEFT OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4572 lumens
Efficiency: N/A
Efficacy: 79.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G1

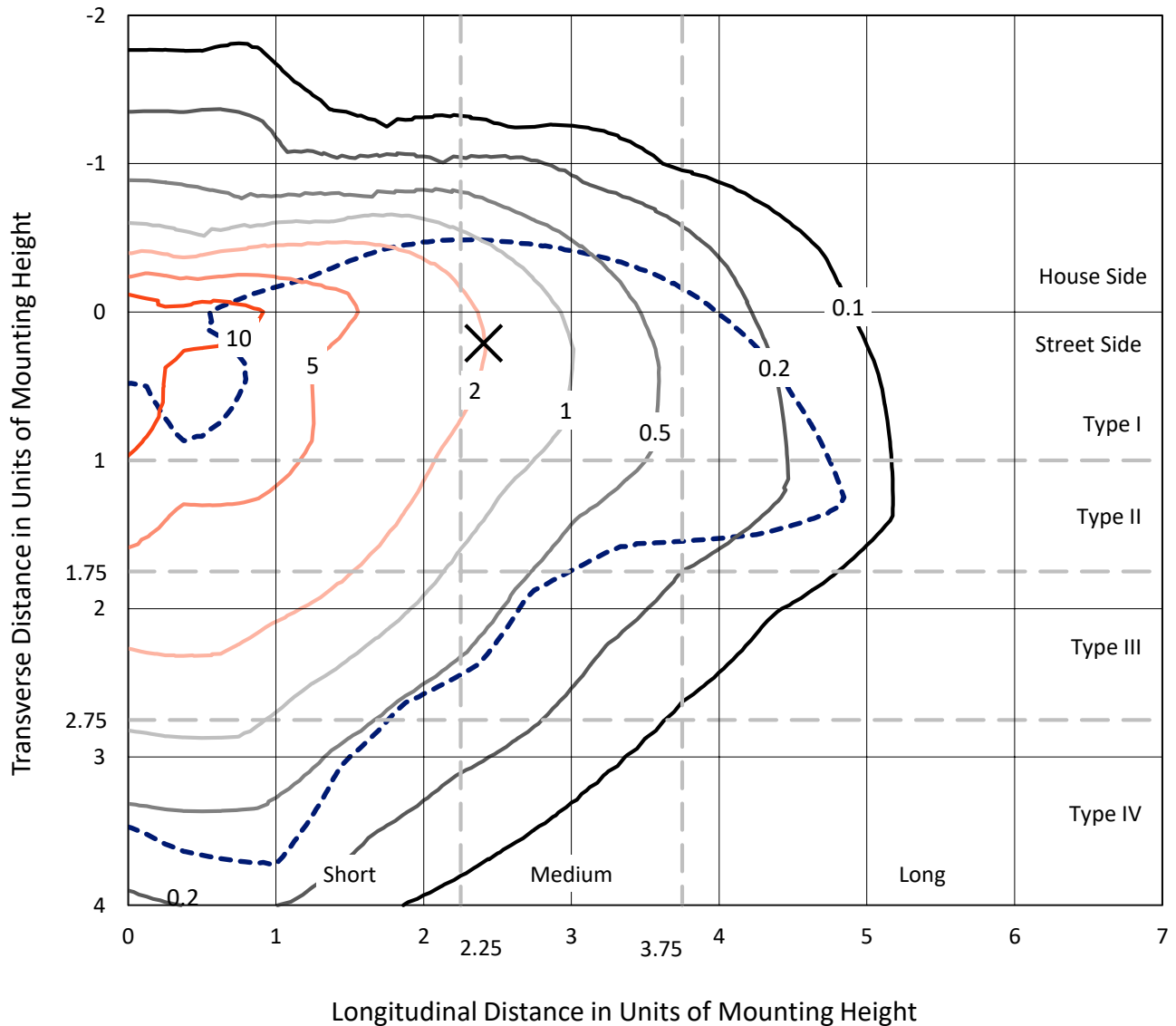
Input Watts (W): 57.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

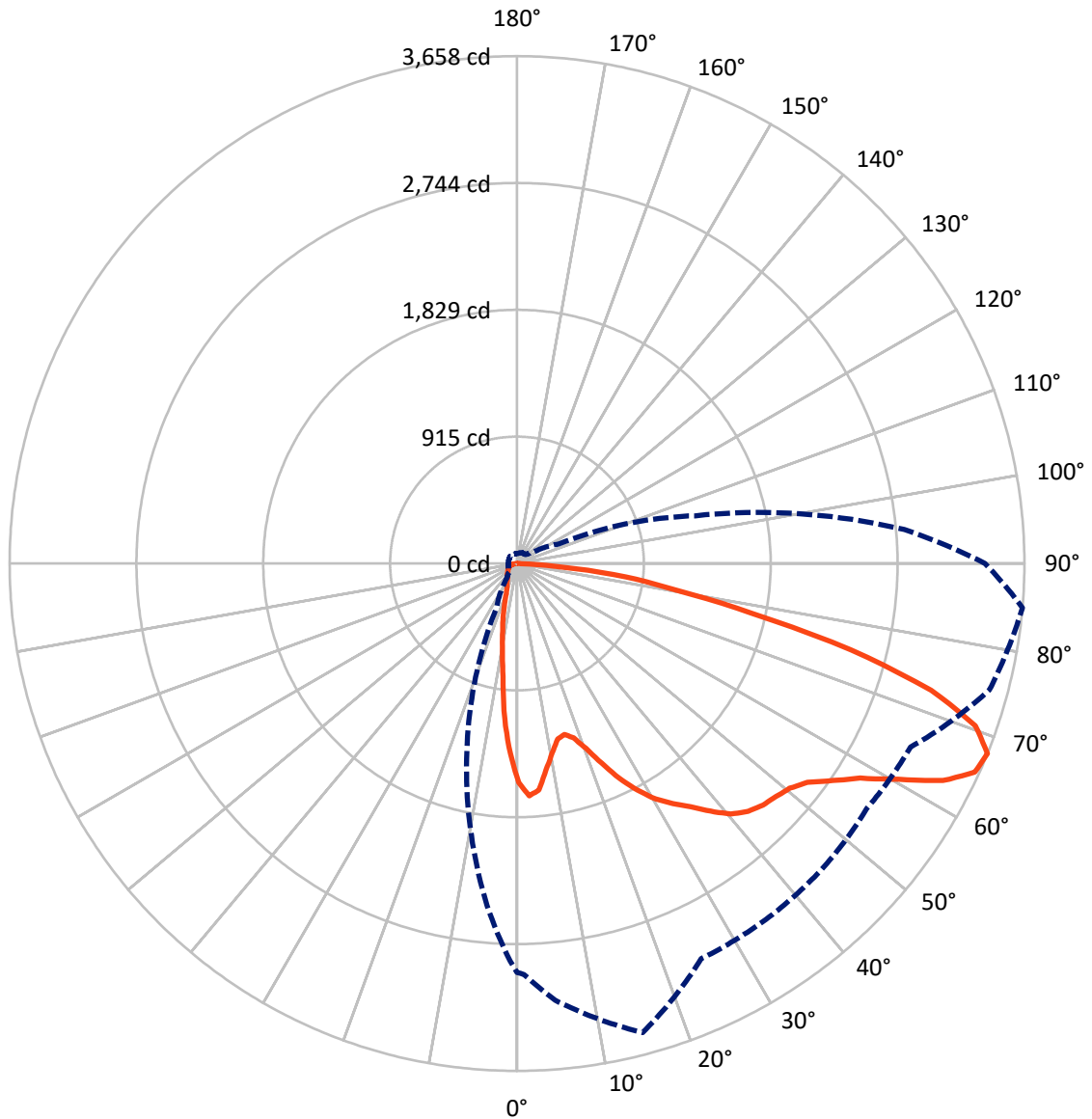


Based on 10 foot mounting height. Maximum calculated value = 16.9 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 85-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	921.2	0.0	921.2
	% Fixture	20.1	0.0	20.1
Street Side	Lumens	3650.8	0.0	3650.8
	% Fixture	79.9	0.0	79.9
Total	Lumens	4572.0	0.0	4572.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.1	2.6
10°-20°	236.9	5.2
20°-30°	330.9	7.2
30°-40°	466.5	10.2
40°-50°	646.4	14.1
50°-60°	908.3	19.9
60°-70°	1110.4	24.3
70°-80°	652.6	14.3
80°-90°	99.9	2.2
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°	4572.0	100.0
0°-180°	4572.0	100.0



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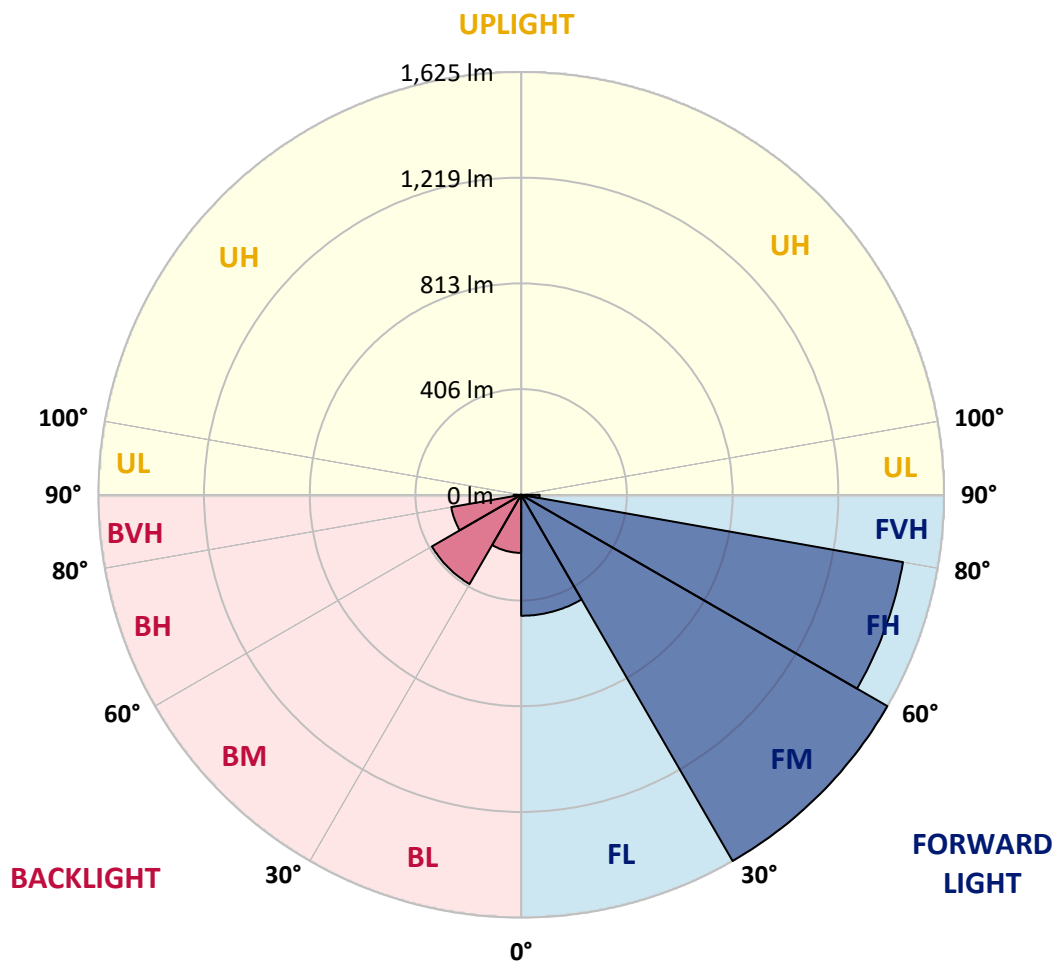
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	464.8	10.2			
FM	(30°-60°)	1625.2	35.5			
FH	(60°-80°)	1490.1	32.6			G1/1800
FVH	(80°-90°)	70.7	1.5			G1/100
BL	(0°-30°)	223.1	4.9	B1/500		
BM	(30°-60°)	396.0	8.7	B1/1000		
BH	(60°-80°)	272.9	6.0	B1/500		G1/500
BVH	(80°-90°)	29.2	0.6			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1579.5	1579.5	1579.5	1579.5	1579.5	1579.5	1579.5	1579.5	1579.5	1579.5	1579.5
2.5°	1622.9	1615.6	1640.5	1677.3	1702.3	1719.9	1725.8	1725.1	1719.9	1706.0	1676.6
5°	1550.9	1544.3	1595.0	1676.6	1747.9	1799.3	1814.0	1793.4	1767.7	1713.3	1641.3
7.5°	1414.2	1424.5	1489.1	1603.8	1718.5	1800.0	1819.9	1787.5	1734.6	1623.6	1502.4
10°	1310.5	1315.7	1388.4	1526.6	1648.6	1732.4	1767.0	1738.3	1669.2	1528.8	1388.4
12.5°	1246.6	1251.7	1322.3	1450.2	1580.3	1645.7	1656.0	1655.2	1597.9	1461.9	1299.5
15°	1255.4	1262.0	1332.6	1438.4	1511.9	1540.6	1541.3	1549.4	1532.5	1428.9	1278.2
17.5°	1340.7	1340.7	1408.3	1472.2	1455.3	1434.7	1450.2	1464.9	1494.3	1448.7	1321.6
20°	1475.2	1481.0	1543.5	1532.5	1429.6	1378.1	1359.8	1385.5	1476.6	1508.2	1423.7
22.5°	1620.7	1636.1	1701.6	1620.7	1425.2	1325.2	1304.6	1332.6	1478.8	1602.3	1564.1
25°	1781.7	1800.8	1844.9	1723.6	1438.4	1295.8	1281.9	1308.3	1484.7	1689.1	1715.5
27.5°	1928.7	1930.1	1973.5	1810.3	1473.0	1298.8	1275.2	1309.8	1500.9	1757.4	1849.3
30°	2033.0	2033.0	2052.2	1854.4	1515.6	1317.1	1281.1	1331.8	1523.7	1794.9	1970.6
32.5°	2128.6	2133.7	2124.2	1900.7	1556.0	1343.6	1295.1	1375.9	1559.7	1825.8	2063.9
35°	2249.9	2249.1	2206.5	1937.5	1593.5	1372.3	1329.6	1431.8	1611.9	1871.3	2152.8
37.5°	2399.8	2392.5	2302.1	1970.6	1639.1	1421.5	1395.1	1508.2	1681.7	1925.0	2265.3
40°	2535.8	2524.0	2389.5	2001.4	1675.1	1517.1	1501.6	1603.1	1769.9	1991.9	2374.8
42.5°	2641.6	2624.0	2463.8	2023.5	1729.5	1667.0	1680.2	1773.6	1858.8	2051.4	2443.2
45°	2730.6	2712.2	2519.6	2034.5	1861.0	1880.9	1906.6	1984.5	1953.7	2067.6	2485.1
47.5°	2794.5	2764.4	2543.9	2066.9	2038.9	2130.8	2210.2	2215.3	2087.4	2066.9	2510.8
50°	2832.0	2798.9	2566.7	2147.0	2245.5	2414.5	2499.0	2459.3	2226.4	2080.1	2547.6
52.5°	2907.7	2873.2	2661.5	2277.1	2457.1	2701.9	2747.5	2683.5	2370.4	2148.4	2621.1
55°	3098.1	3082.6	2845.2	2452.0	2665.2	2934.2	2954.7	2890.8	2521.1	2266.8	2761.4
57.5°	3313.4	3279.6	3093.7	2671.8	2864.3	3115.7	3148.8	3060.6	2679.1	2432.9	2918.0
60°	3373.7	3367.1	3303.9	2928.3	3070.1	3309.8	3312.0	3199.5	2863.6	2630.6	3156.9
62.5°	3285.5	3306.8	3391.3	3165.7	3242.9	3439.9	3421.5	3304.6	3056.9	2945.2	3447.2
65°	3131.9	3162.0	3331.8	3389.9	3282.6	3414.1	3375.2	3300.9	3178.9	3284.0	3627.3
67.5°	2947.4	2963.6	3161.3	3501.6	3143.6	3131.1	3112.8	3079.0	3130.4	3525.1	3658.2
70°	2755.6	2769.5	2951.8	3348.0	2726.9	2583.6	2568.1	2538.7	2739.4	3522.2	3506.7
72.5°	2322.6	2313.8	2482.1	2794.5	2082.3	1887.5	2018.3	1954.4	2216.1	3164.2	3123.8
75°	1442.8	1491.3	1702.3	1959.5	1426.7	1292.9	1473.7	1457.5	1799.3	2724.7	2487.3
77.5°	879.1	888.6	1007.7	1221.6	859.2	896.0	947.4	1047.4	1334.0	2208.7	1733.9
80°	460.1	427.8	515.2	670.3	510.1	601.2	694.6	804.8	846.7	1439.9	1159.1
82.5°	133.0	132.3	174.2	280.8	241.8	295.5	350.6	505.7	554.9	856.3	793.8
85°	0.7	0.7	0.7	1.5	2.2	3.7	15.4	130.1	172.0	396.9	326.3
87.5°	0.0	0.0	0.7	1.5	1.5	2.9	4.4	5.9	7.4	8.8	32.3
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1579.5	1579.5	1579.5	1579.5	1579.5	1579.5	1579.5	1579.5	1579.5	1579.5	1579.5
2.5°	1667.0	1656.0	1632.5	1600.9	1578.8	1540.6	1532.5	1508.2	1484.0	1464.1	1464.9
5°	1606.7	1569.2	1511.9	1445.8	1382.6	1326.0	1314.9	1281.9	1272.3	1262.7	1236.3
7.5°	1448.7	1404.6	1324.5	1226.7	1147.4	1093.7	1036.4	1001.8	971.0	935.7	944.5
10°	1327.4	1264.2	1154.0	1039.3	940.1	868.0	804.8	772.5	727.7	695.3	690.9
12.5°	1234.1	1165.7	1033.4	898.9	805.6	763.7	723.3	672.5	622.6	579.9	557.9
15°	1203.2	1126.0	972.4	838.6	765.1	714.4	657.8	599.8	538.8	493.2	475.6
17.5°	1239.2	1148.1	971.7	812.9	721.0	646.8	576.2	510.8	438.8	393.2	379.3
20°	1338.5	1224.5	992.3	788.7	667.4	566.7	467.5	396.9	323.4	291.1	276.4
22.5°	1476.6	1328.2	1023.9	759.3	607.9	468.9	357.2	268.3	232.3	216.1	212.4
25°	1618.5	1459.7	1068.7	734.3	542.4	373.4	256.5	214.6	197.7	190.4	190.4
27.5°	1774.3	1591.3	1117.2	704.1	474.8	277.8	208.7	188.9	180.1	175.7	174.9
30°	1900.7	1698.6	1172.3	668.9	413.8	227.9	185.2	172.0	163.9	161.7	161.7
32.5°	1991.9	1778.7	1230.4	633.6	358.0	205.8	172.0	160.2	151.4	149.9	149.9
35°	2098.5	1855.2	1256.9	613.7	324.1	191.8	162.4	150.7	142.6	138.9	138.9
37.5°	2226.4	1946.3	1271.6	594.6	309.4	178.6	155.8	142.6	134.5	130.1	130.1
40°	2388.8	2049.9	1287.0	575.5	300.6	167.6	148.5	135.2	128.6	123.5	123.5
42.5°	2504.9	2145.5	1298.8	559.3	285.2	162.4	142.6	130.1	122.0	117.6	116.9
45°	2565.9	2234.4	1303.9	549.8	267.5	166.8	138.2	125.7	116.1	111.7	111.0
47.5°	2607.1	2307.9	1310.5	542.4	253.6	158.8	137.4	121.3	111.7	105.8	105.8
50°	2672.5	2405.0	1327.4	528.5	245.5	148.5	148.5	119.1	106.6	101.4	100.7
52.5°	2789.4	2543.9	1373.0	513.0	236.7	138.2	152.9	119.8	102.9	97.0	95.6
55°	2965.8	2765.1	1448.7	491.0	224.2	125.7	142.6	120.5	99.2	94.1	91.9
57.5°	3195.1	3032.7	1536.9	473.3	202.9	115.4	130.1	116.9	94.8	90.4	88.9
60°	3349.4	3211.3	1592.8	450.6	172.7	108.8	111.7	113.2	90.4	85.3	84.5
62.5°	3432.5	3214.2	1593.5	419.0	144.8	102.9	100.0	115.4	86.7	80.1	79.4
65°	3438.4	3057.6	1513.4	378.5	135.2	96.3	91.9	102.2	83.1	76.4	75.7
67.5°	3374.4	2802.6	1330.4	332.2	138.9	91.1	85.3	86.0	78.6	72.8	72.0
70°	3145.1	2472.6	1067.2	295.5	139.7	84.5	80.1	77.9	74.2	69.1	67.6
72.5°	2713.7	2066.1	808.5	283.7	141.9	79.4	74.2	72.0	69.1	64.7	63.2
75°	2047.7	1611.9	607.1	264.6	143.3	73.5	67.6	66.2	63.2	58.8	58.1
77.5°	1414.9	1195.1	421.9	223.4	127.9	66.9	61.0	59.5	57.3	52.9	52.2
80°	955.5	819.5	258.7	167.6	97.0	58.8	52.9	52.9	50.7	46.3	46.3
82.5°	665.2	612.3	149.2	109.5	70.6	48.5	46.3	46.3	44.1	39.7	39.0
85°	277.8	370.4	66.9	59.5	49.2	38.2	38.2	39.0	36.8	33.1	32.3
87.5°	9.6	39.7	26.5	27.9	29.4	26.5	29.4	29.4	28.7	25.7	25.0
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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	1579.5	1579.5	1579.5	1579.5	1579.5	1579.5	1579.5	1579.5	1579.5	1579.5	1579.5
2.5°	1443.6	1434.0	1404.6	1400.9	1378.9	1377.4	1387.0	1370.8	1372.3	1392.1	1389.2
5°	1242.2	1220.1	1219.4	1195.1	1167.9	1161.3	1137.8	1129.0	1125.3	1117.2	1146.6
7.5°	971.7	961.4	970.2	967.3	942.3	928.3	878.3	840.1	821.0	829.1	831.3
10°	690.9	706.3	729.9	752.7	735.0	688.7	667.4	636.5	632.8	630.6	645.3
12.5°	547.6	529.9	541.0	549.1	532.1	512.3	503.5	490.3	497.6	514.5	524.1
15°	455.0	424.1	410.1	400.6	405.0	393.2	397.6	393.2	398.4	403.5	421.2
17.5°	359.4	348.4	321.9	309.4	310.2	305.0	306.5	305.8	302.8	314.6	328.6
20°	270.5	267.5	261.7	252.8	254.3	250.6	248.4	235.9	230.8	234.5	246.2
22.5°	210.9	214.6	218.3	217.6	221.2	211.7	202.9	191.8	190.4	191.1	194.0
25°	188.9	190.4	193.3	197.0	199.2	190.4	177.9	171.3	170.5	172.0	172.0
27.5°	175.7	174.2	177.9	182.3	185.2	174.2	163.9	158.0	156.6	155.1	154.4
30°	161.7	161.7	164.6	169.1	171.3	161.7	152.9	147.0	143.3	141.1	140.4
32.5°	151.4	152.1	153.6	156.6	160.2	150.7	143.3	138.2	131.6	129.4	127.9
35°	139.7	142.6	144.8	145.5	148.5	141.9	134.5	126.4	120.5	118.3	118.3
37.5°	130.1	132.3	136.0	135.2	137.4	133.0	125.0	116.1	113.2	112.5	111.7
40°	122.7	122.7	125.7	128.6	131.6	123.5	113.9	109.5	107.3	105.8	106.6
42.5°	116.1	115.4	115.4	120.5	125.7	113.9	105.8	102.9	102.2	100.7	101.4
45°	110.3	109.5	107.3	109.5	116.9	104.4	99.2	97.0	96.3	96.3	96.3
47.5°	105.1	103.6	100.7	101.4	106.6	97.0	92.6	91.9	91.1	91.1	91.9
50°	99.2	97.8	95.6	94.8	96.3	91.9	88.2	86.7	86.7	86.7	88.2
52.5°	94.1	93.3	90.4	89.7	90.4	87.5	83.8	83.1	83.1	83.1	85.3
55°	90.4	88.9	87.5	86.0	87.5	83.8	80.9	79.4	79.4	80.9	82.3
57.5°	86.7	85.3	84.5	83.1	84.5	80.9	77.9	76.4	77.2	77.9	77.9
60°	83.1	81.6	80.9	79.4	81.6	77.9	75.0	74.2	74.2	73.5	73.5
62.5°	79.4	78.6	77.2	75.7	78.6	74.2	72.0	70.6	69.8	69.8	69.8
65°	75.0	74.2	73.5	72.8	74.2	70.6	68.4	67.6	66.2	65.4	66.2
67.5°	71.3	71.3	69.8	68.4	70.6	66.2	64.7	63.9	61.7	61.0	61.7
70°	66.9	66.9	65.4	64.7	67.6	61.7	60.3	59.5	58.1	57.3	57.3
72.5°	62.5	62.5	61.0	60.3	63.9	57.3	55.9	55.1	52.9	52.2	52.2
75°	58.1	57.3	56.6	55.9	60.3	52.9	50.7	49.2	47.0	46.3	45.6
77.5°	52.9	52.2	50.7	51.5	54.4	47.0	44.1	43.4	41.2	40.4	39.7
80°	46.3	45.6	44.8	46.3	46.3	41.2	37.5	36.0	33.8	32.3	31.6
82.5°	39.7	39.0	39.0	40.4	38.2	36.0	31.6	28.7	25.0	22.8	22.1
85°	32.3	33.8	32.3	33.8	28.7	28.7	22.1	16.9	11.8	9.6	8.8
87.5°	25.0	25.7	25.0	25.7	19.8	19.1	10.3	5.9	0.7	0.0	0.0
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):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1579.5	1579.5	1579.5	1579.5	1579.5	1579.5	1579.5	1579.5	1579.5	1579.5
2.5°	1411.2	1412.7	1444.3	1475.9	1495.0	1542.8	1566.3	1592.8	1606.7	1622.9
5°	1132.7	1160.6	1186.3	1249.5	1281.9	1357.6	1412.7	1500.9	1528.8	1550.9
7.5°	855.6	897.4	929.1	1007.7	1068.7	1162.8	1259.1	1364.2	1394.3	1414.2
10°	679.9	718.1	777.6	839.4	907.7	1021.7	1126.0	1234.8	1287.7	1310.5
12.5°	571.1	632.1	701.9	759.3	813.7	897.4	1029.8	1167.2	1222.3	1246.6
15°	471.1	539.5	610.8	681.4	749.0	843.8	982.7	1161.3	1231.1	1255.4
17.5°	374.1	430.0	502.0	587.3	685.8	806.3	991.5	1223.8	1309.1	1340.7
20°	266.1	320.5	394.0	499.1	615.9	767.4	1012.1	1317.9	1439.2	1475.2
22.5°	200.7	230.8	298.4	402.1	553.5	736.5	1044.5	1446.5	1588.4	1620.7
25°	176.4	186.7	221.2	321.2	491.0	708.6	1087.1	1574.4	1746.4	1781.7
27.5°	156.6	162.4	180.1	258.0	444.7	679.9	1137.8	1712.6	1882.4	1928.7
30°	141.1	148.5	163.2	216.1	399.8	638.7	1184.1	1836.8	1997.8	2033.0
32.5°	129.4	137.4	150.7	195.5	361.6	607.9	1210.6	1929.4	2096.3	2128.6
35°	121.3	128.6	141.9	177.1	327.8	586.5	1218.6	2021.3	2216.8	2249.9
37.5°	113.9	121.3	133.0	158.8	304.3	558.6	1231.1	2130.8	2356.4	2399.8
40°	108.8	114.7	125.7	146.3	272.0	528.5	1245.8	2258.7	2492.4	2535.8
42.5°	103.6	110.3	119.8	147.0	239.6	502.7	1255.4	2357.2	2600.5	2641.6
45°	99.2	106.6	117.6	144.1	215.4	479.2	1251.0	2439.5	2699.0	2730.6
47.5°	94.8	103.6	123.5	138.2	208.0	457.9	1254.7	2518.9	2769.5	2794.5
50°	91.9	102.9	132.3	129.4	209.5	448.4	1289.9	2613.7	2822.4	2832.0
52.5°	89.7	105.1	125.0	116.9	209.5	443.9	1357.6	2766.6	2914.3	2907.7
55°	86.0	104.4	116.9	105.8	200.7	446.2	1421.5	2968.7	3134.8	3098.1
57.5°	83.1	100.0	105.1	97.8	180.1	446.9	1516.3	3139.2	3308.3	3313.4
60°	79.4	107.3	91.1	91.1	154.4	443.2	1600.1	3136.3	3339.9	3373.7
62.5°	75.7	105.1	81.6	84.5	136.7	429.2	1650.8	2953.3	3223.0	3285.5
65°	71.3	83.1	75.0	78.6	129.4	394.7	1578.8	2726.2	3065.0	3131.9
67.5°	66.2	68.4	68.4	72.8	126.4	342.5	1397.3	2475.5	2866.5	2947.4
70°	60.3	61.0	62.5	69.1	117.6	294.7	1137.8	2208.7	2653.4	2755.6
72.5°	54.4	55.1	55.1	62.5	110.3	254.3	805.6	1750.1	2215.3	2322.6
75°	47.8	48.5	47.8	54.4	96.3	190.4	478.5	1106.9	1321.6	1442.8
77.5°	40.4	40.4	39.0	42.6	66.2	120.5	261.7	672.5	804.1	879.1
80°	33.1	30.1	25.0	25.7	36.0	69.1	116.9	385.9	441.0	460.1
82.5°	22.1	16.9	10.3	9.6	11.8	19.1	27.2	152.9	140.4	133.0
85°	4.4	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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