

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: P401113

Luminaire Tested: **ENV-SA1B-735-U-SLL-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401113
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-8)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1B-735-U-SLL-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3500K, 450mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT
ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2421 lumens
Efficiency: N/A
Efficacy: 95.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

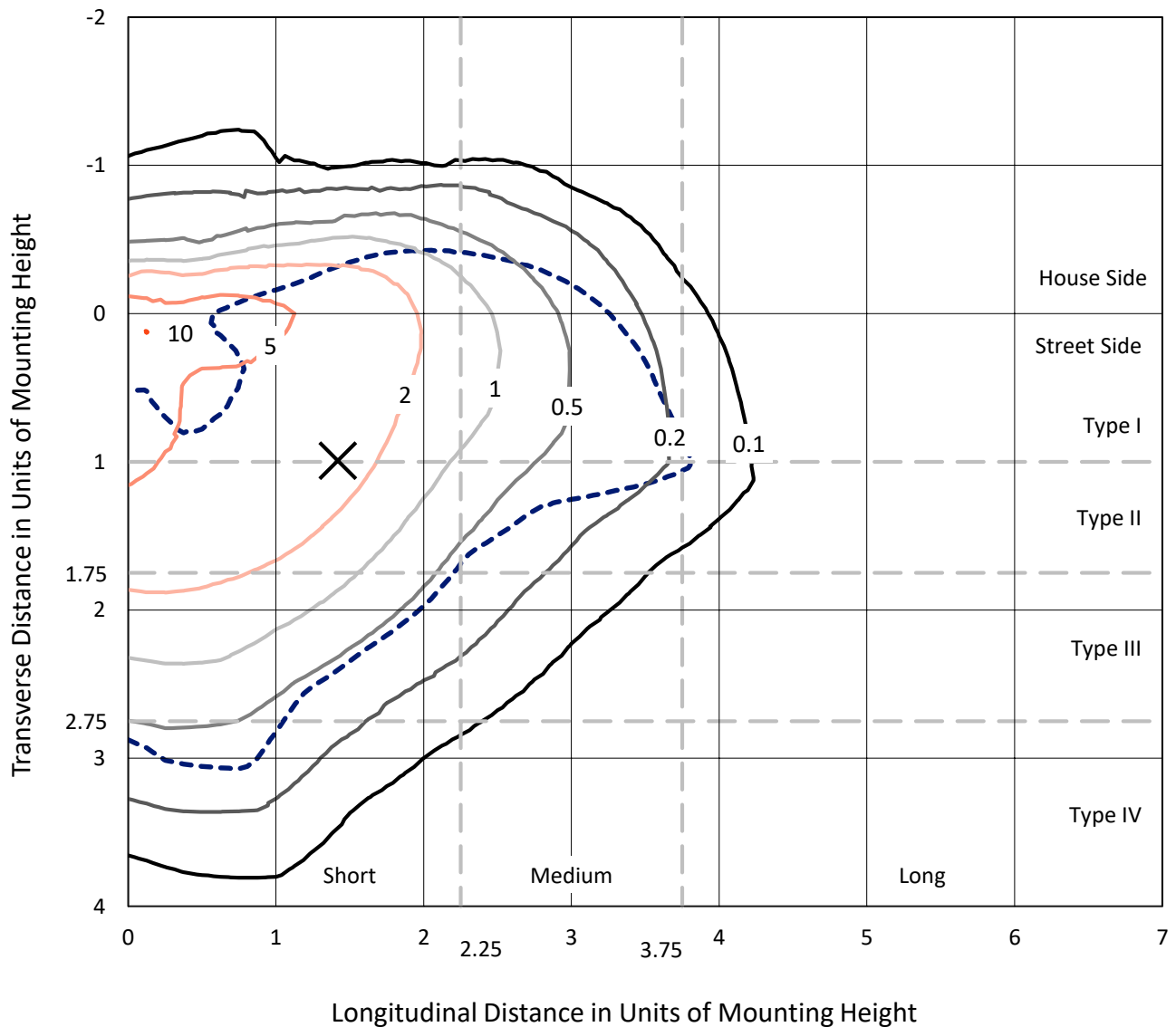
Input Watts (W): 25.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

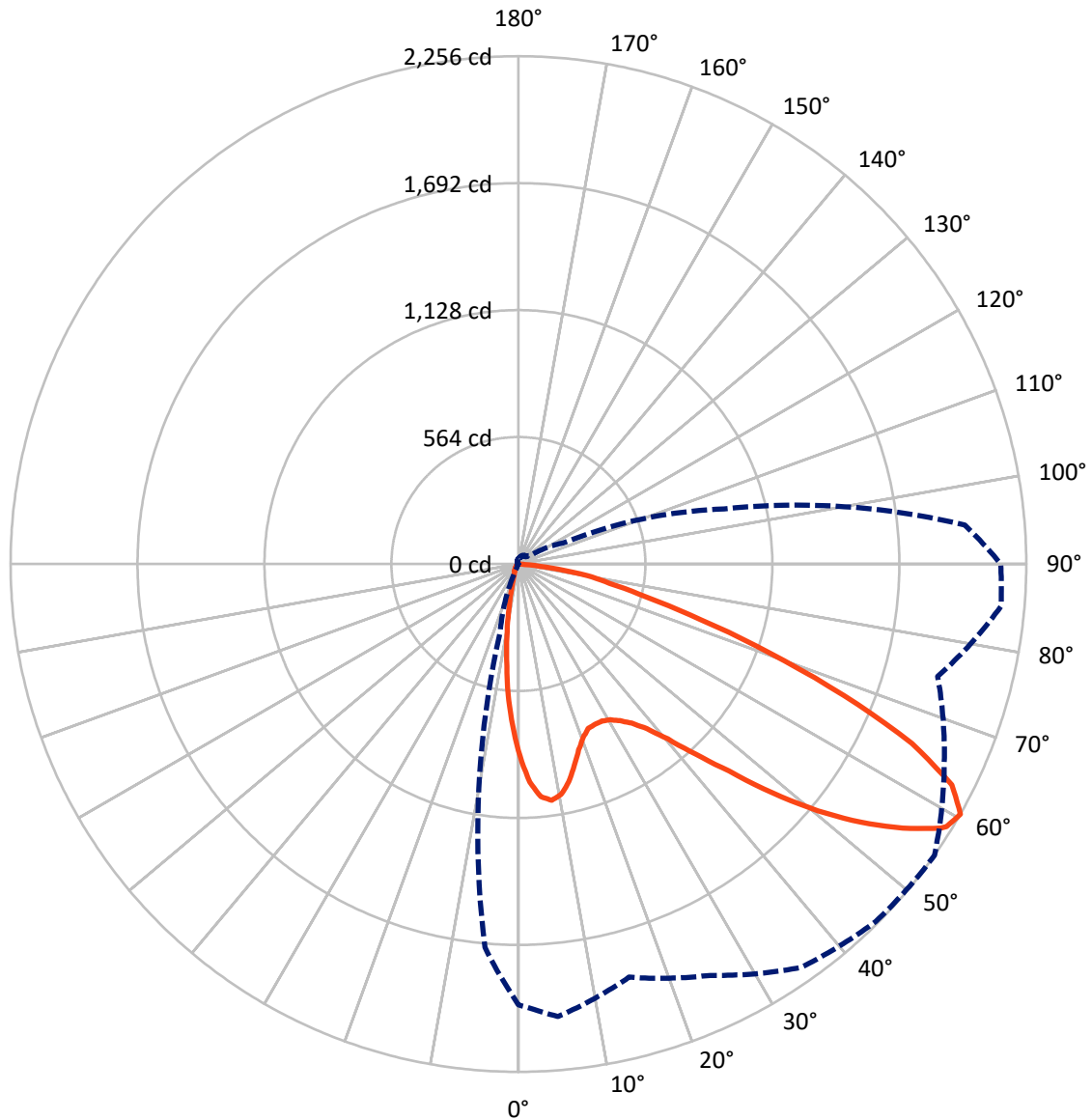


Based on 10 foot mounting height. Maximum calculated value = 10.1 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	428.7	0.0	428.7
	% Fixture	17.7	0.0	17.7
Street Side	Lumens	1992.3	0.0	1992.3
	% Fixture	82.3	0.0	82.3
Total	Lumens	2421.0	0.0	2421.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.3	2.7
10°-20°	122.4	5.1
20°-30°	174.6	7.2
30°-40°	256.0	10.6
40°-50°	377.5	15.6
50°-60°	559.3	23.1
60°-70°	596.0	24.6
70°-80°	247.2	10.2
80°-90°	23.8	1.0
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°	2421.0	100.0
0°-180°	2421.0	100.0



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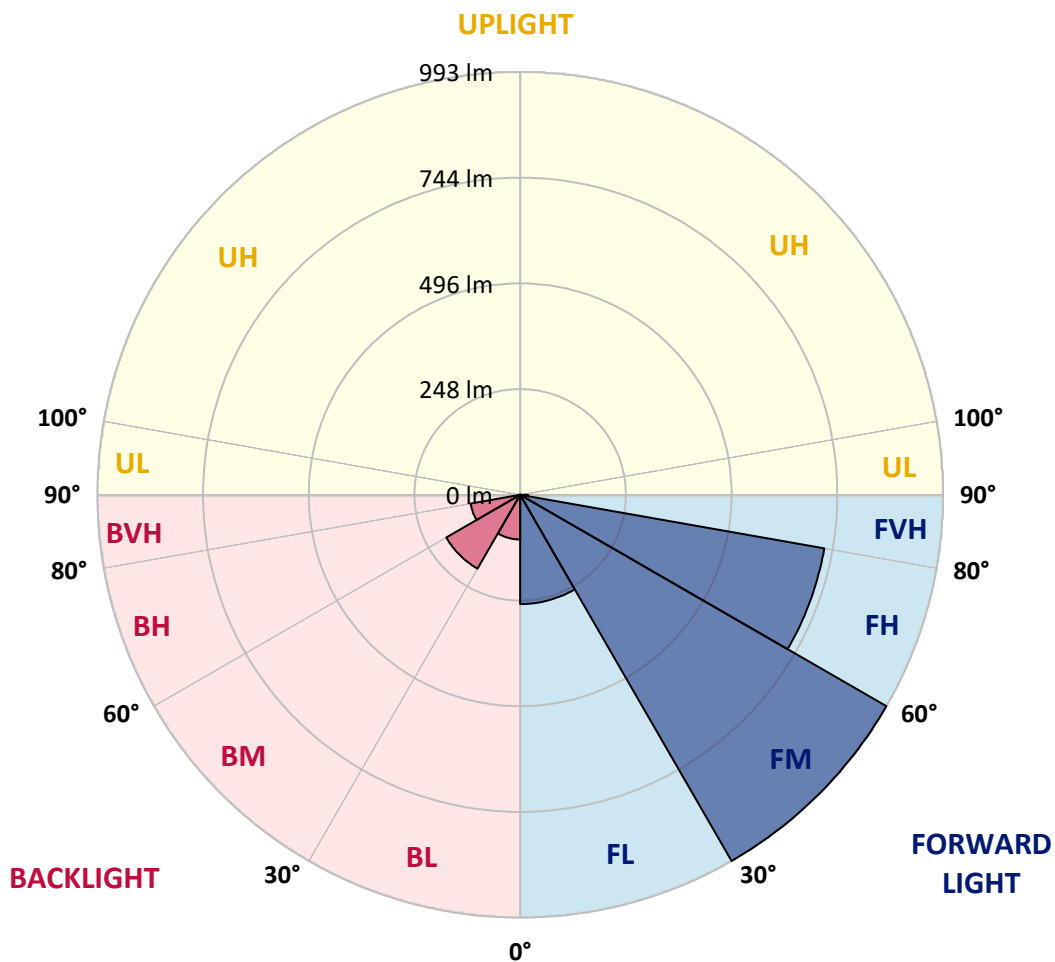
CATALOG NUMBER: ENV-SA1B-735-U-SLL-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	256.4	10.6			
FM (30°-60°)	992.6	41.0			
FH (60°-80°)	725.0	29.9			G1/1800
FVH (80°-90°)	18.2	0.8			G1/100
BL (0°-30°)	104.8	4.3	B0/110		
BM (30°-60°)	200.2	8.3	B0/220		
BH (60°-80°)	118.2	4.9	B1/500		G1/500
BVH (80°-90°)	5.6	0.2			G0/10
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 Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	855.0	855.0	855.0	855.0	855.0	855.0	855.0	855.0	855.0	855.0	855.0
2.5°	893.0	891.6	904.4	931.0	947.4	957.5	959.3	969.9	959.3	953.9	934.2
5°	866.9	866.4	891.1	949.3	996.9	1032.6	1050.0	1038.1	1019.8	983.6	939.7
7.5°	794.6	794.6	841.3	919.1	998.7	1060.5	1081.6	1059.6	1016.1	943.3	864.6
10°	735.5	741.0	785.9	878.8	967.1	1034.9	1058.2	1041.3	984.5	890.2	797.8
12.5°	700.3	703.5	753.4	846.7	929.1	984.1	998.2	993.2	952.0	849.5	751.5
15°	703.5	708.1	765.3	841.7	895.3	917.2	922.3	928.7	911.7	833.0	736.4
17.5°	753.8	757.0	814.7	864.1	861.9	855.0	856.8	867.3	887.5	846.7	767.1
20°	834.4	842.6	900.8	901.7	844.5	812.4	804.2	821.6	876.0	882.9	832.6
22.5°	937.8	941.0	1000.1	964.8	846.3	783.1	773.5	793.2	879.7	941.5	923.2
25°	1057.7	1069.2	1101.2	1046.8	872.8	779.0	772.6	789.1	893.0	1003.7	1016.6
27.5°	1138.8	1147.9	1178.6	1102.6	896.6	781.3	769.4	789.5	909.0	1062.3	1116.3
30°	1211.1	1217.5	1228.9	1131.9	923.6	792.7	773.5	802.4	917.7	1074.7	1180.9
32.5°	1279.3	1287.1	1280.2	1167.1	953.4	814.3	781.3	829.4	936.5	1099.4	1237.2
35°	1367.2	1367.6	1344.3	1202.4	987.3	839.9	804.2	867.8	973.1	1137.8	1297.6
37.5°	1471.5	1472.4	1413.4	1238.5	1025.7	882.9	858.2	927.3	1026.2	1182.2	1384.1
40°	1562.6	1566.3	1488.0	1280.2	1072.9	966.7	964.4	1021.6	1094.4	1241.3	1477.0
42.5°	1641.8	1652.3	1556.6	1315.0	1139.7	1095.3	1100.8	1153.0	1177.2	1290.7	1534.7
45°	1721.9	1721.4	1612.9	1349.8	1251.4	1261.0	1313.1	1310.9	1271.0	1317.3	1580.0
47.5°	1771.8	1769.5	1647.3	1406.5	1401.9	1493.9	1549.3	1519.1	1374.9	1345.6	1636.7
50°	1791.0	1790.1	1674.3	1478.8	1555.3	1704.9	1784.1	1723.7	1502.2	1393.2	1704.5
52.5°	1845.5	1840.9	1736.5	1561.2	1694.0	1908.2	1973.6	1906.3	1629.0	1478.8	1783.2
55°	1930.6	1932.0	1843.6	1657.8	1805.2	2051.4	2131.5	2071.6	1758.5	1596.5	1891.2
57.5°	1987.8	1991.9	1962.2	1765.4	1924.2	2151.7	2229.5	2212.5	1931.0	1737.0	2018.0
58°	1993.3	1996.5	1980.9	1786.0	1942.0	2163.1	2242.7	2230.8	1969.0	1781.8	2048.2
60°	1958.0	1967.7	2017.6	1899.5	2015.7	2187.4	2245.0	2255.6	2086.7	1927.4	2151.7
62.5°	1862.4	1865.6	1956.2	2026.7	2066.1	2127.4	2132.9	2160.4	2135.2	2098.1	2244.1
65°	1745.2	1745.2	1843.2	2032.7	1935.6	1925.6	1893.5	1921.0	1993.8	2205.2	2237.7
67.5°	1541.5	1542.9	1667.9	1810.7	1604.7	1569.9	1549.3	1559.4	1714.6	2116.0	2113.2
70°	1245.9	1244.9	1373.6	1466.0	1190.9	1161.2	1185.9	1182.7	1392.8	1880.2	1845.0
72.5°	881.1	888.9	1021.1	1132.4	808.8	697.1	806.0	848.1	1047.7	1585.0	1427.6
75°	496.1	506.7	614.7	786.8	510.3	471.4	527.3	587.2	757.5	1261.9	958.9
77.5°	249.0	253.1	314.9	378.5	309.4	359.3	356.1	413.3	519.5	851.3	548.3
80°	143.7	152.0	173.0	195.4	173.0	227.9	264.6	311.2	319.9	440.3	305.7
82.5°	57.7	64.5	81.0	92.0	71.9	67.7	46.2	145.5	192.7	212.8	117.2
85°	0.0	0.0	0.5	0.9	1.4	1.4	2.3	25.6	47.1	10.5	19.2
87.5°	0.0	0.0	0.5	0.5	0.9	1.4	1.8	3.2	4.1	5.0	17.4
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°	855.0	855.0	855.0	855.0	855.0	855.0	855.0	855.0	855.0	855.0	855.0
2.5°	926.8	921.8	904.9	879.2	863.2	838.5	828.4	805.1	793.2	773.5	773.5
5°	917.7	897.1	854.5	799.1	759.8	718.6	705.3	677.9	658.2	634.8	625.2
7.5°	834.4	805.6	739.2	674.7	611.9	570.3	529.1	501.2	474.6	455.4	458.2
10°	758.0	716.8	644.0	562.1	497.1	453.6	416.5	384.0	356.5	329.5	325.4
12.5°	708.1	660.9	574.0	486.1	437.6	405.5	371.2	335.5	301.6	271.9	260.0
15°	687.0	635.7	538.7	455.9	411.5	370.3	330.5	286.5	247.6	211.9	202.3
17.5°	709.9	648.6	535.5	435.7	373.9	322.2	266.8	218.8	173.0	147.4	139.6
20°	772.1	692.5	546.0	415.6	332.3	265.5	197.7	143.3	117.6	102.1	97.0
22.5°	862.3	765.3	563.9	395.9	290.2	197.7	136.4	103.4	88.3	80.1	77.8
25°	960.3	859.1	596.8	379.4	248.1	146.9	101.2	84.7	75.5	69.6	67.3
27.5°	1070.6	952.0	637.1	367.1	209.2	117.6	87.0	74.6	67.3	63.2	61.3
30°	1139.7	1018.8	667.8	345.1	182.6	107.1	82.8	70.5	62.7	59.5	58.1
32.5°	1203.3	1071.5	697.1	319.9	162.5	94.7	80.6	74.1	65.0	58.6	55.8
35°	1273.3	1125.5	711.3	304.8	149.2	82.4	66.4	57.7	52.6	51.7	50.3
37.5°	1377.7	1189.6	720.4	296.6	141.0	75.1	61.8	52.2	46.2	40.7	38.4
40°	1476.5	1255.9	725.0	288.8	136.9	70.5	59.0	49.4	43.0	38.0	35.7
42.5°	1553.9	1316.4	727.7	283.3	129.5	67.7	56.8	47.6	40.7	35.7	33.4
45°	1617.1	1386.4	725.5	281.5	123.6	69.6	55.8	46.2	38.9	33.9	31.6
47.5°	1678.9	1462.4	734.2	279.2	117.6	66.8	56.3	45.8	37.5	32.5	30.2
50°	1759.9	1554.4	765.7	272.8	113.5	62.7	60.9	46.2	37.1	31.6	29.8
52.5°	1864.7	1681.6	822.9	265.9	108.5	59.0	63.6	46.2	36.2	30.7	28.4
55°	1991.9	1824.4	886.1	255.9	99.8	54.5	60.9	46.2	35.2	30.2	27.5
57.5°	2095.8	1951.6	936.0	244.0	83.8	49.0	55.8	44.4	33.0	28.4	26.1
58°	2105.0	1966.3	942.9	240.8	81.9	48.1	54.5	43.9	32.0	27.9	25.6
60°	2142.0	1990.1	945.6	223.4	68.2	45.8	47.1	42.6	30.2	26.1	24.3
62.5°	2129.2	1911.4	887.5	192.7	60.9	41.7	39.4	43.5	27.9	23.8	22.0
65°	2065.6	1756.7	777.6	172.6	61.3	37.1	33.9	38.0	25.6	21.5	19.7
67.5°	1914.1	1521.9	631.6	161.6	64.1	33.0	29.3	28.4	22.9	19.2	17.9
70°	1632.6	1247.2	478.8	152.0	67.7	29.3	27.0	25.2	21.1	17.9	16.0
72.5°	1202.4	923.6	348.3	142.3	65.9	26.1	25.2	22.9	19.2	16.0	15.1
75°	750.2	536.4	238.5	116.3	59.0	22.9	23.3	21.5	17.4	15.1	13.7
77.5°	438.0	376.7	117.6	86.5	40.7	20.1	20.6	19.7	17.9	14.2	13.3
80°	262.3	234.3	50.3	37.1	22.4	17.9	17.4	18.3	16.9	13.3	12.4
82.5°	113.5	101.6	24.3	20.6	18.3	15.6	15.1	15.6	14.6	11.0	10.5
85°	6.4	16.9	11.4	15.1	13.7	11.4	11.4	11.9	10.5	8.7	8.7
87.5°	6.0	12.8	7.3	9.2	10.1	8.7	9.2	9.2	8.7	7.8	7.3
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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	855.0	855.0	855.0	855.0	855.0	855.0	855.0	855.0	855.0	855.0	855.0
2.5°	763.0	758.0	742.9	737.4	713.6	719.5	721.3	719.0	720.0	721.8	728.7
5°	632.1	623.8	604.2	591.4	584.5	579.9	558.4	558.9	562.1	549.7	565.7
7.5°	449.0	458.2	460.0	448.1	440.8	425.2	405.5	394.5	375.8	386.3	388.6
10°	321.3	316.7	325.4	321.3	309.9	303.9	282.9	281.0	279.2	277.8	291.1
12.5°	244.9	231.1	221.1	223.4	214.7	200.0	196.4	196.8	198.6	198.6	202.3
15°	194.1	173.0	157.0	147.4	148.8	134.1	130.0	116.3	114.4	110.3	111.2
17.5°	135.9	127.2	117.6	106.6	102.1	88.8	72.8	65.5	60.0	60.9	63.6
20°	93.8	90.2	87.4	81.9	77.4	61.8	51.7	48.5	48.1	49.0	49.9
22.5°	75.5	71.9	69.1	67.3	61.3	49.9	44.4	42.1	42.1	42.1	42.6
25°	65.0	61.3	57.7	57.7	52.2	43.5	39.4	37.5	37.1	36.6	37.5
27.5°	60.4	55.4	51.7	49.4	45.3	38.4	34.8	33.0	32.5	32.5	33.0
30°	55.8	50.8	47.1	43.9	39.4	34.3	30.7	29.3	28.4	28.4	28.8
32.5°	53.1	48.1	43.5	39.4	34.3	30.2	27.0	25.2	24.3	24.7	25.2
35°	47.1	43.0	38.9	34.8	30.2	26.5	23.3	21.5	21.1	21.1	21.5
37.5°	37.1	33.9	33.0	30.7	26.5	22.9	19.7	17.9	17.4	17.4	17.9
40°	33.4	29.3	27.5	26.5	24.3	19.7	16.0	14.2	14.2	13.7	14.6
42.5°	30.7	26.5	23.3	22.4	21.1	16.9	12.8	11.4	11.0	11.0	11.4
45°	28.8	24.3	20.1	17.9	17.9	13.7	10.5	8.7	8.2	8.2	8.7
47.5°	27.9	22.9	17.9	14.6	14.2	11.4	8.2	6.4	6.0	6.0	6.0
50°	27.0	21.1	16.0	12.4	11.0	9.6	6.4	5.0	4.6	4.6	4.6
52.5°	25.6	20.1	14.6	11.0	8.7	7.3	5.0	3.7	3.2	2.7	3.2
55°	24.7	18.8	14.2	10.1	7.3	5.5	3.7	2.7	2.3	2.3	2.3
57.5°	23.3	17.4	12.8	9.6	6.9	4.1	2.7	1.8	1.4	1.4	1.8
58°	22.9	17.4	12.4	9.2	6.4	4.1	2.7	1.8	1.4	1.4	1.8
60°	21.5	16.0	11.9	8.2	6.0	3.7	2.3	1.4	0.9	0.9	1.4
62.5°	20.1	14.6	10.5	7.3	5.0	3.2	1.8	0.9	0.5	0.5	0.5
65°	17.9	13.3	9.2	6.9	4.1	2.3	1.4	0.5	0.0	0.0	0.0
67.5°	16.0	12.4	8.2	6.0	3.7	1.8	0.9	0.0	0.0	0.0	0.0
70°	14.6	11.4	7.3	5.0	3.2	1.4	0.5	0.0	0.0	0.0	0.0
72.5°	13.7	10.5	6.9	4.6	2.3	1.4	0.5	0.0	0.0	0.0	0.0
75°	13.3	10.1	6.9	4.1	2.3	1.4	0.9	0.5	0.0	0.0	0.5
77.5°	12.8	10.1	6.9	4.1	2.7	1.4	1.4	0.9	0.9	0.5	1.4
80°	11.9	9.2	6.0	3.7	2.3	1.8	1.4	0.9	0.0	0.0	0.0
82.5°	10.1	7.3	5.0	3.7	2.3	1.4	0.5	0.0	0.0	0.0	0.0
85°	8.2	6.0	4.1	2.3	1.4	0.5	0.0	0.0	0.0	0.0	0.0
87.5°	7.3	4.6	3.2	1.8	0.9	0.5	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	0.0



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CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	855.0	855.0	855.0	855.0	855.0	855.0	855.0	855.0	855.0	855.0
2.5°	734.6	755.7	764.4	793.7	806.5	833.0	855.9	875.6	885.2	893.0
5°	569.8	590.0	611.5	655.0	692.5	732.8	783.1	835.3	850.4	866.9
7.5°	397.7	427.5	463.7	502.6	556.1	617.0	689.3	753.8	786.3	794.6
10°	308.9	344.2	382.6	421.1	465.5	530.5	603.3	686.6	721.3	735.5
12.5°	232.1	279.2	325.0	370.3	408.7	465.0	544.2	643.5	682.0	700.3
15°	139.6	192.7	249.0	309.9	363.4	429.3	518.6	634.4	682.9	703.5
17.5°	69.6	95.2	146.9	238.5	317.6	399.6	518.1	667.3	727.3	753.8
20°	51.7	58.6	78.3	148.8	264.1	374.9	523.6	723.6	812.0	834.4
22.5°	44.4	49.4	56.3	87.0	197.7	352.0	542.8	798.2	908.1	937.8
25°	38.9	43.0	48.5	60.0	135.5	325.0	579.0	903.5	1017.0	1057.7
27.5°	34.3	38.0	42.6	50.3	90.6	274.2	599.6	991.8	1104.9	1138.8
30°	30.2	33.0	37.5	43.0	66.8	211.9	618.8	1069.6	1184.5	1211.1
32.5°	26.5	28.8	32.5	36.6	50.8	160.7	619.7	1136.5	1254.1	1279.3
35°	22.4	25.2	27.9	31.6	40.3	125.4	601.0	1202.8	1336.5	1367.2
37.5°	18.8	21.1	24.3	27.5	36.6	97.0	562.1	1280.7	1436.7	1471.5
40°	16.0	18.3	21.1	24.7	32.5	70.5	499.8	1351.1	1530.6	1562.6
42.5°	12.8	15.1	18.3	24.3	27.0	50.8	437.1	1418.9	1612.0	1641.8
45°	10.1	12.8	16.9	23.3	22.4	35.7	383.1	1478.8	1682.1	1721.9
47.5°	7.3	10.5	16.9	21.1	18.3	25.6	355.6	1536.5	1744.8	1771.8
50°	5.5	8.7	18.3	17.9	15.6	22.0	359.8	1600.6	1773.6	1791.0
52.5°	4.1	7.3	14.2	12.8	13.3	19.2	375.8	1685.3	1833.1	1845.5
55°	3.7	5.5	8.7	9.6	11.9	18.3	371.7	1765.4	1909.1	1930.6
57.5°	3.2	4.6	6.9	7.8	10.5	17.4	348.3	1800.6	1958.0	1987.8
58°	2.7	4.6	6.4	7.8	10.5	16.9	342.4	1791.0	1955.8	1993.3
60°	2.3	4.1	6.0	6.9	9.2	15.1	313.5	1709.5	1905.4	1958.0
62.5°	1.8	2.7	4.6	5.0	7.3	12.4	258.1	1577.7	1797.4	1862.4
65°	0.9	1.8	2.7	3.7	5.0	9.2	183.5	1421.6	1681.6	1745.2
67.5°	0.0	0.9	1.8	2.3	3.2	6.9	105.7	1206.5	1491.2	1541.5
70°	0.0	0.5	0.9	1.4	1.8	4.6	55.8	885.7	1155.2	1245.9
72.5°	0.5	0.5	0.5	0.0	0.9	3.7	24.7	525.4	787.7	881.1
75°	0.5	0.5	0.0	0.0	0.0	1.8	10.5	276.9	451.8	496.1
77.5°	1.8	0.9	0.0	0.0	0.0	0.5	5.0	149.2	234.3	249.0
80°	0.5	0.0	0.0	0.0	0.0	0.0	1.8	49.9	140.5	143.7
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	60.4	57.7
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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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