

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: P401138

Luminaire Tested: **ENT-SA1B-740-U-SLL-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401138  
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: ENT-SA1B-740-U-SLL-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 4000K, 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: 2577 lumens  
Efficiency: N/A  
Efficacy: 101.5 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

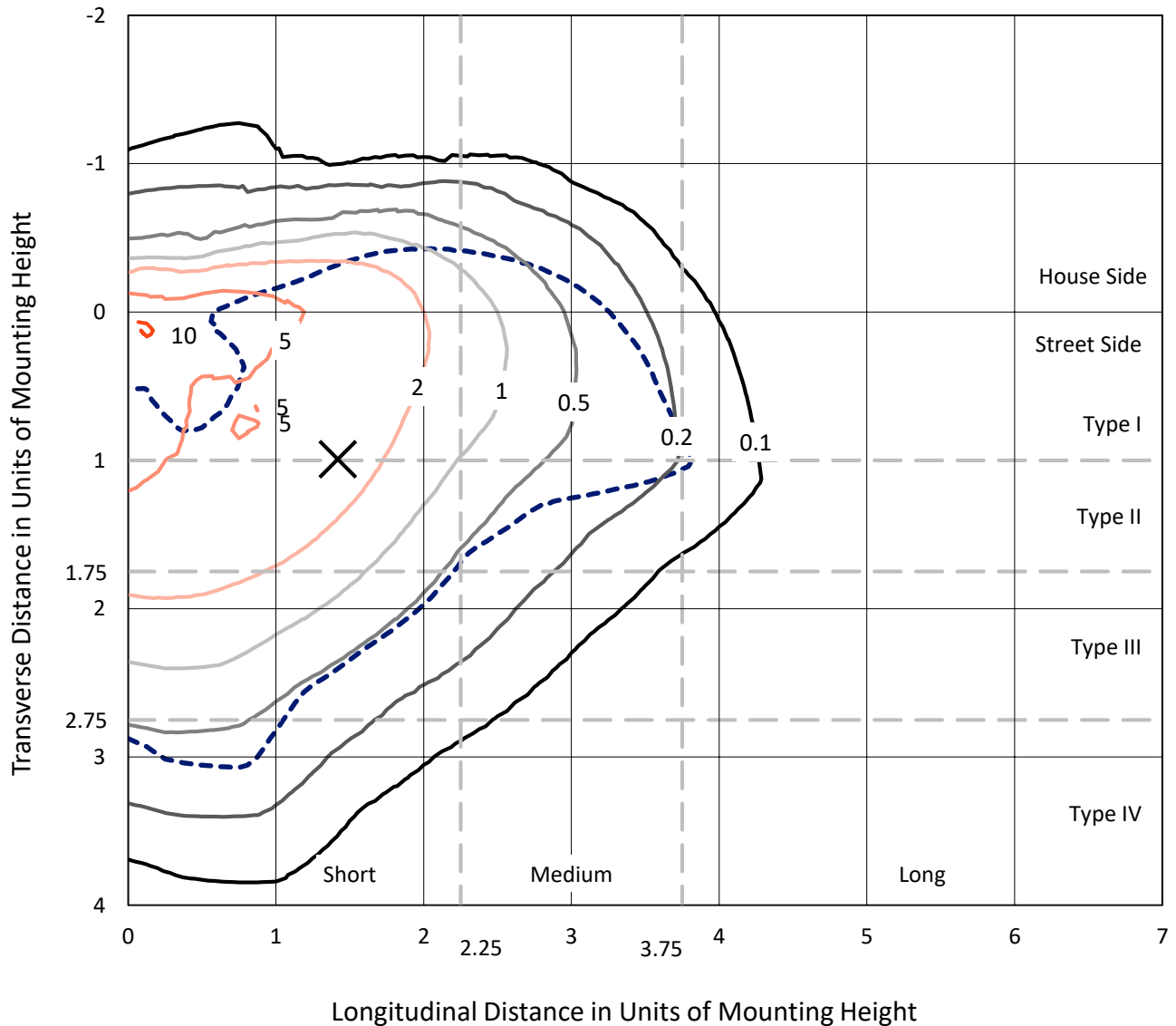


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

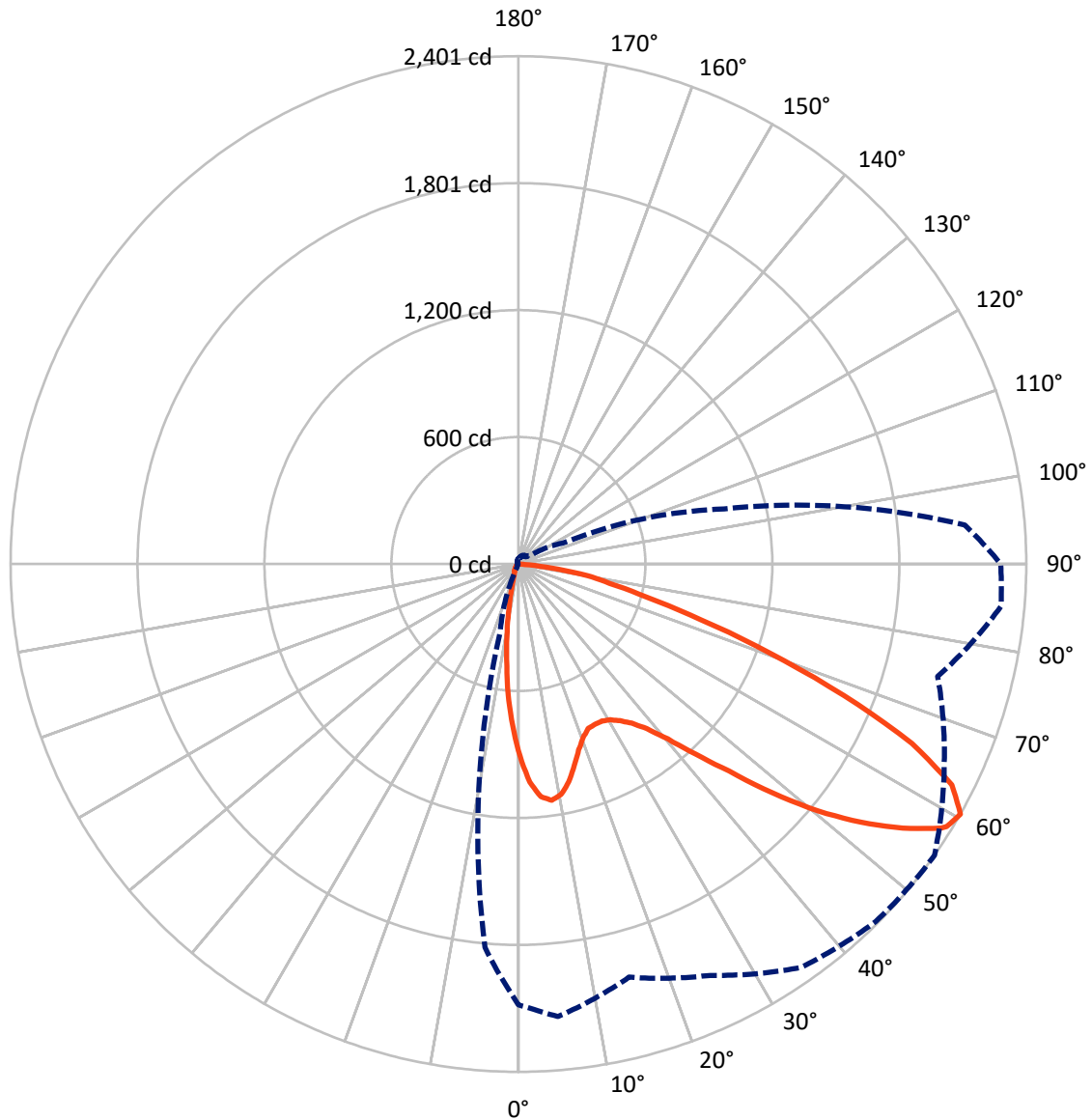


Based on 10 foot mounting height. Maximum calculated value = 10.7 fc  
 Type III - Short - Semi-Cutoff

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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
<b>House Side</b>	Lumens	456.4	0.0	456.4
	% Fixture	17.7	0.0	17.7
<b>Street Side</b>	Lumens	2120.6	0.0	2120.6
	% Fixture	82.3	0.0	82.3
<b>Total</b>	Lumens	2577.0	0.0	2577.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.5	2.7
10°-20°	130.2	5.1
20°-30°	185.8	7.2
30°-40°	272.5	10.6
40°-50°	401.8	15.6
50°-60°	595.3	23.1
60°-70°	634.4	24.6
70°-80°	263.1	10.2
80°-90°	25.3	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°	2577.0	100.0
0°-180°	2577.0	100.0



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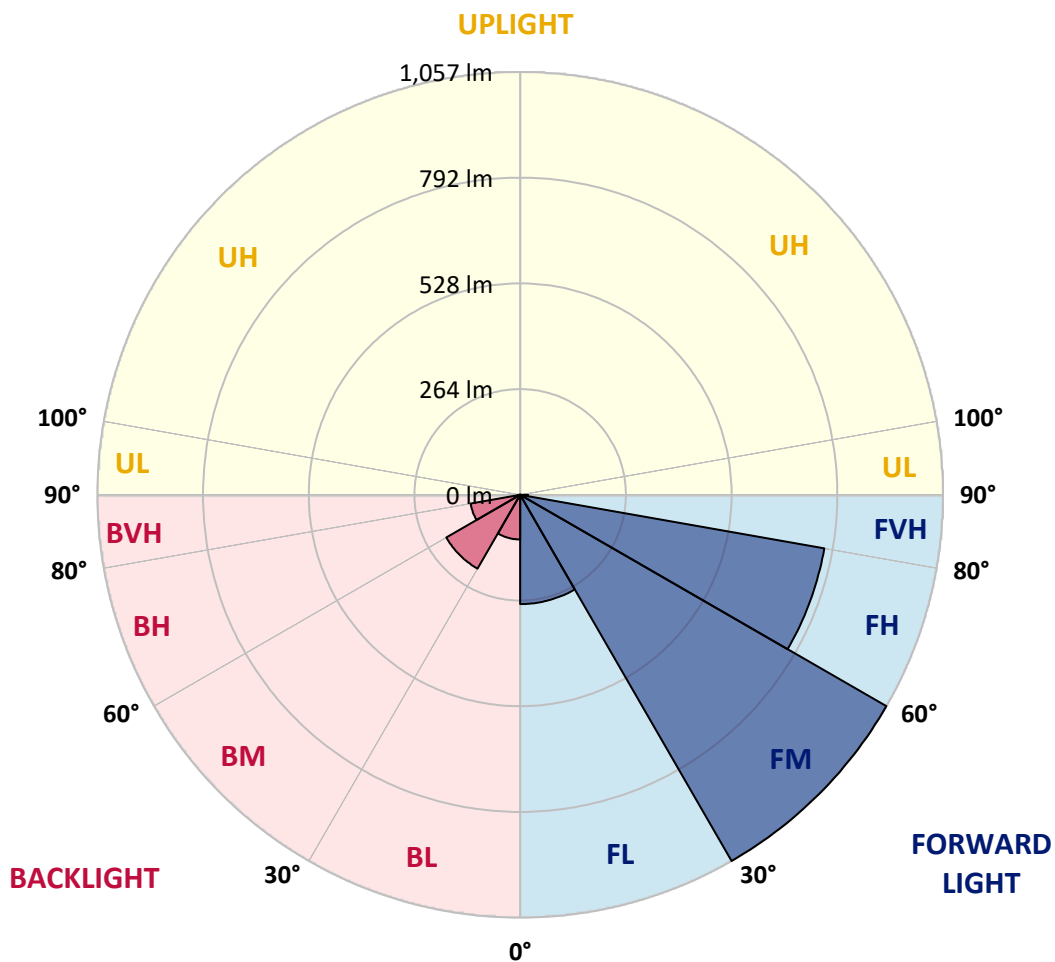
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	273.0	10.6			
FM	(30°-60°)	1056.6	41.0			
FH	(60°-80°)	771.7	29.9			G1/1800
FVH	(80°-90°)	19.4	0.8			G1/100
BL	(0°-30°)	111.6	4.3	B1/500		
BM	(30°-60°)	213.1	8.3	B0/220		
BH	(60°-80°)	125.8	4.9	B1/500		G1/500
BVH	(80°-90°)	5.9	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°	910.1	910.1	910.1	910.1	910.1	910.1	910.1	910.1	910.1	910.1	910.1
2.5°	950.5	949.1	962.7	991.0	1008.5	1019.2	1021.2	1032.4	1021.2	1015.3	994.4
5°	922.7	922.3	948.6	1010.4	1061.1	1099.1	1117.6	1105.0	1085.5	1047.0	1000.2
7.5°	845.8	845.8	895.5	978.3	1063.1	1128.8	1151.2	1127.9	1081.6	1004.1	920.3
10°	782.9	788.8	836.5	935.4	1029.4	1101.5	1126.4	1108.4	1048.0	947.6	849.2
12.5°	745.4	748.8	801.9	901.3	989.0	1047.5	1062.6	1057.2	1013.4	904.2	800.0
15°	748.8	753.7	814.6	896.0	953.0	976.3	981.7	988.5	970.5	886.7	783.9
17.5°	802.4	805.8	867.2	919.8	917.4	910.1	912.0	923.2	944.7	901.3	816.5
20°	888.2	896.9	958.8	959.8	898.9	864.8	856.0	874.5	932.5	939.8	886.2
22.5°	998.3	1001.7	1064.5	1027.0	900.8	833.6	823.4	844.3	936.4	1002.2	982.7
25°	1125.9	1138.1	1172.2	1114.2	929.1	829.2	822.4	839.9	950.5	1068.4	1082.1
27.5°	1212.1	1221.9	1254.5	1173.7	954.4	831.6	819.0	840.4	967.6	1130.8	1188.3
30°	1289.1	1295.9	1308.1	1204.8	983.2	843.8	823.4	854.1	976.8	1143.9	1257.0
32.5°	1361.7	1370.0	1362.7	1242.3	1014.8	866.7	831.6	882.8	996.8	1170.2	1316.9
35°	1455.3	1455.7	1430.9	1279.9	1050.9	894.0	856.0	923.7	1035.8	1211.2	1381.2
37.5°	1566.3	1567.3	1504.5	1318.3	1091.8	939.8	913.5	987.1	1092.3	1258.4	1473.3
40°	1663.3	1667.2	1583.9	1362.7	1142.0	1029.0	1026.5	1087.4	1164.9	1321.3	1572.2
42.5°	1747.6	1758.8	1656.9	1399.7	1213.1	1165.9	1171.7	1227.2	1253.1	1373.9	1633.6
45°	1832.8	1832.3	1716.9	1436.7	1332.0	1342.2	1397.8	1395.3	1352.9	1402.1	1681.8
47.5°	1885.9	1883.5	1753.4	1497.1	1492.3	1590.2	1649.2	1617.0	1463.5	1432.4	1742.2
50°	1906.4	1905.4	1782.2	1574.1	1655.5	1814.8	1899.1	1834.8	1599.0	1483.0	1814.3
52.5°	1964.4	1959.5	1848.4	1661.8	1803.1	2031.1	2100.8	2029.2	1733.9	1574.1	1898.1
55°	2055.0	2056.4	1962.4	1764.6	1921.5	2183.6	2268.9	2205.0	1871.8	1699.3	2013.1
57.5°	2115.9	2120.3	2088.6	1879.1	2048.2	2290.3	2373.1	2355.1	2055.5	1848.9	2148.0
58°	2121.7	2125.1	2108.6	1901.0	2067.2	2302.5	2387.3	2374.6	2095.9	1896.6	2180.2
60°	2084.2	2094.4	2147.6	2021.9	2145.6	2328.3	2389.7	2400.9	2221.1	2051.6	2290.3
62.5°	1982.4	1985.8	2082.3	2157.3	2199.2	2264.5	2270.3	2299.6	2272.8	2233.3	2388.7
65°	1857.7	1857.7	1961.9	2163.6	2060.3	2049.6	2015.5	2044.8	2122.2	2347.3	2381.9
67.5°	1640.9	1642.3	1775.3	1927.3	1708.1	1671.1	1649.2	1659.9	1825.0	2252.3	2249.4
70°	1326.1	1325.2	1462.1	1560.5	1267.7	1236.0	1262.3	1258.9	1482.5	2001.4	1963.9
72.5°	937.8	946.1	1086.9	1205.3	860.9	742.0	857.9	902.8	1115.2	1687.2	1519.6
75°	528.1	539.3	654.3	837.5	543.2	501.8	561.2	625.1	806.3	1343.2	1020.7
77.5°	265.0	269.4	335.2	402.9	329.3	382.4	379.0	439.9	553.0	906.2	583.7
80°	153.0	161.7	184.2	208.0	184.2	242.6	281.6	331.3	340.5	468.7	325.4
82.5°	61.4	68.7	86.2	97.9	76.5	72.1	49.2	154.9	205.1	226.5	124.7
85°	0.0	0.0	0.5	1.0	1.5	1.5	2.4	27.3	50.2	11.2	20.5
87.5°	0.0	0.0	0.5	0.5	1.0	1.5	1.9	3.4	4.4	5.4	18.5
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°	910.1	910.1	910.1	910.1	910.1	910.1	910.1	910.1	910.1	910.1	910.1
2.5°	986.6	981.2	963.2	935.9	918.8	892.5	881.8	857.0	844.3	823.4	823.4
5°	976.8	954.9	909.6	850.6	808.7	764.9	750.8	721.5	700.6	675.7	665.5
7.5°	888.2	857.5	786.8	718.1	651.4	607.0	563.2	533.5	505.2	484.8	487.7
10°	806.8	762.9	685.5	598.3	529.1	482.8	443.3	408.8	379.5	350.8	346.4
12.5°	753.7	703.5	610.9	517.4	465.8	431.7	395.1	357.1	321.1	289.4	276.7
15°	731.3	676.7	573.4	485.2	438.0	394.1	351.8	305.0	263.6	225.6	215.3
17.5°	755.6	690.4	570.0	463.8	398.0	343.0	284.0	232.9	184.2	156.9	148.6
20°	821.9	737.1	581.2	442.4	353.7	282.6	210.5	152.5	125.2	108.6	103.3
22.5°	917.9	814.6	600.2	421.4	308.9	210.5	145.2	110.1	94.0	85.3	82.8
25°	1022.1	914.5	635.3	403.9	264.1	156.4	107.7	90.1	80.4	74.1	71.6
27.5°	1139.5	1013.4	678.2	390.7	222.6	125.2	92.6	79.4	71.6	67.2	65.3
30°	1213.1	1084.5	710.8	367.3	194.4	114.0	88.2	75.0	66.7	63.3	61.9
32.5°	1280.8	1140.5	742.0	340.5	173.0	100.8	85.7	78.9	69.2	62.4	59.4
35°	1355.4	1198.0	757.1	324.5	158.8	87.7	70.6	61.4	56.0	55.1	53.6
37.5°	1466.5	1266.2	766.8	315.7	150.1	79.9	65.8	55.5	49.2	43.4	40.9
40°	1571.7	1336.9	771.7	307.4	145.7	75.0	62.8	52.6	45.8	40.4	38.0
42.5°	1654.0	1401.2	774.6	301.6	137.9	72.1	60.4	50.7	43.4	38.0	35.6
45°	1721.3	1475.7	772.2	299.6	131.5	74.1	59.4	49.2	41.4	36.1	33.6
47.5°	1787.0	1556.6	781.5	297.2	125.2	71.1	59.9	48.7	39.9	34.6	32.2
50°	1873.3	1654.5	815.1	290.4	120.8	66.7	64.8	49.2	39.5	33.6	31.7
52.5°	1984.8	1790.0	876.0	283.1	115.5	62.8	67.7	49.2	38.5	32.6	30.2
55°	2120.3	1942.0	943.2	272.3	106.2	58.0	64.8	49.2	37.5	32.2	29.2
57.5°	2230.9	2077.4	996.3	259.7	89.2	52.1	59.4	47.3	35.1	30.2	27.8
58°	2240.6	2093.0	1003.6	256.3	87.2	51.2	58.0	46.8	34.1	29.7	27.3
60°	2280.1	2118.3	1006.5	237.8	72.6	48.7	50.2	45.3	32.2	27.8	25.8
62.5°	2266.4	2034.5	944.7	205.1	64.8	44.3	41.9	46.3	29.7	25.3	23.4
65°	2198.7	1869.9	827.7	183.7	65.3	39.5	36.1	40.4	27.3	22.9	20.9
67.5°	2037.4	1619.9	672.3	172.0	68.2	35.1	31.2	30.2	24.4	20.5	19.0
70°	1737.8	1327.6	509.6	161.7	72.1	31.2	28.7	26.8	22.4	19.0	17.1
72.5°	1279.9	983.2	370.8	151.5	70.2	27.8	26.8	24.4	20.5	17.1	16.1
75°	798.5	571.0	253.8	123.7	62.8	24.4	24.8	22.9	18.5	16.1	14.6
77.5°	466.2	401.0	125.2	92.1	43.4	21.4	21.9	20.9	19.0	15.1	14.1
80°	279.2	249.4	53.6	39.5	23.9	19.0	18.5	19.5	18.0	14.1	13.2
82.5°	120.8	108.2	25.8	21.9	19.5	16.6	16.1	16.6	15.6	11.7	11.2
85°	6.8	18.0	12.2	16.1	14.6	12.2	12.2	12.7	11.2	9.3	9.3
87.5°	6.3	13.6	7.8	9.7	10.7	9.3	9.7	9.7	9.3	8.3	7.8
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):**

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	910.1	910.1	910.1	910.1	910.1	910.1	910.1	910.1	910.1	910.1	910.1
2.5°	812.2	806.8	790.7	784.9	759.5	765.9	767.8	765.4	766.4	768.3	775.6
5°	672.8	664.0	643.1	629.5	622.1	617.3	594.4	594.9	598.3	585.1	602.2
7.5°	477.9	487.7	489.6	477.0	469.2	452.6	431.7	420.0	400.0	411.2	413.6
10°	342.0	337.1	346.4	342.0	329.8	323.5	301.1	299.1	297.2	295.7	309.9
12.5°	260.6	246.0	235.3	237.8	228.5	212.9	209.0	209.5	211.4	211.4	215.3
15°	206.6	184.2	167.1	156.9	158.3	142.7	138.4	123.7	121.8	117.4	118.4
17.5°	144.7	135.4	125.2	113.5	108.6	94.5	77.5	69.7	63.8	64.8	67.7
20°	99.9	96.0	93.1	87.2	82.3	65.8	55.1	51.6	51.2	52.1	53.1
22.5°	80.4	76.5	73.6	71.6	65.3	53.1	47.3	44.8	44.8	44.8	45.3
25°	69.2	65.3	61.4	61.4	55.5	46.3	41.9	39.9	39.5	39.0	39.9
27.5°	64.3	59.0	55.1	52.6	48.2	40.9	37.0	35.1	34.6	34.6	35.1
30°	59.4	54.1	50.2	46.8	41.9	36.5	32.6	31.2	30.2	30.2	30.7
32.5°	56.5	51.2	46.3	41.9	36.5	32.2	28.7	26.8	25.8	26.3	26.8
35°	50.2	45.8	41.4	37.0	32.2	28.3	24.8	22.9	22.4	22.4	22.9
37.5°	39.5	36.1	35.1	32.6	28.3	24.4	20.9	19.0	18.5	18.5	19.0
40°	35.6	31.2	29.2	28.3	25.8	20.9	17.1	15.1	15.1	14.6	15.6
42.5°	32.6	28.3	24.8	23.9	22.4	18.0	13.6	12.2	11.7	11.7	12.2
45°	30.7	25.8	21.4	19.0	19.0	14.6	11.2	9.3	8.8	8.8	9.3
47.5°	29.7	24.4	19.0	15.6	15.1	12.2	8.8	6.8	6.3	6.3	6.3
50°	28.7	22.4	17.1	13.2	11.7	10.2	6.8	5.4	4.9	4.9	4.9
52.5°	27.3	21.4	15.6	11.7	9.3	7.8	5.4	3.9	3.4	2.9	3.4
55°	26.3	20.0	15.1	10.7	7.8	5.8	3.9	2.9	2.4	2.4	2.4
57.5°	24.8	18.5	13.6	10.2	7.3	4.4	2.9	1.9	1.5	1.5	1.9
58°	24.4	18.5	13.2	9.7	6.8	4.4	2.9	1.9	1.5	1.5	1.9
60°	22.9	17.1	12.7	8.8	6.3	3.9	2.4	1.5	1.0	1.0	1.5
62.5°	21.4	15.6	11.2	7.8	5.4	3.4	1.9	1.0	0.5	0.5	0.5
65°	19.0	14.1	9.7	7.3	4.4	2.4	1.5	0.5	0.0	0.0	0.0
67.5°	17.1	13.2	8.8	6.3	3.9	1.9	1.0	0.0	0.0	0.0	0.0
70°	15.6	12.2	7.8	5.4	3.4	1.5	0.5	0.0	0.0	0.0	0.0
72.5°	14.6	11.2	7.3	4.9	2.4	1.5	0.5	0.0	0.0	0.0	0.0
75°	14.1	10.7	7.3	4.4	2.4	1.5	1.0	0.5	0.0	0.0	0.5
77.5°	13.6	10.7	7.3	4.4	2.9	1.5	1.5	1.0	1.0	0.5	1.5
80°	12.7	9.7	6.3	3.9	2.4	1.9	1.5	1.0	0.0	0.0	0.0
82.5°	10.7	7.8	5.4	3.9	2.4	1.5	0.5	0.0	0.0	0.0	0.0
85°	8.8	6.3	4.4	2.4	1.5	0.5	0.0	0.0	0.0	0.0	0.0
87.5°	7.8	4.9	3.4	1.9	1.0	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°	910.1	910.1	910.1	910.1	910.1	910.1	910.1	910.1	910.1	910.1
2.5°	781.9	804.4	813.6	844.8	858.4	886.7	911.1	932.0	942.2	950.5
5°	606.6	628.0	650.9	697.2	737.1	780.0	833.6	889.1	905.2	922.7
7.5°	423.4	455.0	493.5	534.9	591.9	656.7	733.7	802.4	837.0	845.8
10°	328.9	366.4	407.3	448.2	495.5	564.7	642.1	730.8	767.8	782.9
12.5°	247.0	297.2	345.9	394.1	435.1	495.0	579.3	685.0	725.9	745.4
15°	148.6	205.1	265.0	329.8	386.8	457.0	552.0	675.3	726.9	748.8
17.5°	74.1	101.3	156.4	253.8	338.1	425.3	551.5	710.3	774.2	802.4
20°	55.1	62.4	83.3	158.3	281.1	399.0	557.4	770.3	864.3	888.2
22.5°	47.3	52.6	59.9	92.6	210.5	374.7	577.8	849.7	966.6	998.3
25°	41.4	45.8	51.6	63.8	144.2	345.9	616.3	961.7	1082.5	1125.9
27.5°	36.5	40.4	45.3	53.6	96.5	291.8	638.2	1055.8	1176.1	1212.1
30°	32.2	35.1	39.9	45.8	71.1	225.6	658.7	1138.6	1260.9	1289.1
32.5°	28.3	30.7	34.6	39.0	54.1	171.0	659.7	1209.7	1334.9	1361.7
35°	23.9	26.8	29.7	33.6	42.9	133.5	639.7	1280.3	1422.6	1455.3
37.5°	20.0	22.4	25.8	29.2	39.0	103.3	598.3	1363.2	1529.3	1566.3
40°	17.1	19.5	22.4	26.3	34.6	75.0	532.0	1438.2	1629.2	1663.3
42.5°	13.6	16.1	19.5	25.8	28.7	54.1	465.3	1510.3	1715.9	1747.6
45°	10.7	13.6	18.0	24.8	23.9	38.0	407.8	1574.1	1790.4	1832.8
47.5°	7.8	11.2	18.0	22.4	19.5	27.3	378.6	1635.5	1857.2	1885.9
50°	5.8	9.3	19.5	19.0	16.6	23.4	382.9	1703.7	1887.9	1906.4
52.5°	4.4	7.8	15.1	13.6	14.1	20.5	400.0	1793.9	1951.2	1964.4
55°	3.9	5.8	9.3	10.2	12.7	19.5	395.6	1879.1	2032.1	2055.0
57.5°	3.4	4.9	7.3	8.3	11.2	18.5	370.8	1916.6	2084.2	2115.9
58°	2.9	4.9	6.8	8.3	11.2	18.0	364.4	1906.4	2081.8	2121.7
60°	2.4	4.4	6.3	7.3	9.7	16.1	333.7	1819.7	2028.2	2084.2
62.5°	1.9	2.9	4.9	5.4	7.8	13.2	274.8	1679.4	1913.2	1982.4
65°	1.0	1.9	2.9	3.9	5.4	9.7	195.4	1513.2	1790.0	1857.7
67.5°	0.0	1.0	1.9	2.4	3.4	7.3	112.5	1284.2	1587.3	1640.9
70°	0.0	0.5	1.0	1.5	1.9	4.9	59.4	942.7	1229.7	1326.1
72.5°	0.5	0.5	0.5	0.0	1.0	3.9	26.3	559.3	838.5	937.8
75°	0.5	0.5	0.0	0.0	0.0	1.9	11.2	294.8	480.9	528.1
77.5°	1.9	1.0	0.0	0.0	0.0	0.5	5.4	158.8	249.4	265.0
80°	0.5	0.0	0.0	0.0	0.0	0.0	1.9	53.1	149.6	153.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	64.3	61.4
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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