

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: **ENT-SA1D-740-U-T2-ULG**

Issue Date: 3/30/2022

**Test Information**

Test Method: LM-79-08  
Report Number: REPORT IS A COMBINATION OF REPORTS P401508 AND P226775  
Test Lab: INNOVATION CENTER  
Issue Date: 3/30/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENT-SA1D-740-U-T2-ULG  
Description: ENTRI LED LUMINAIRE WITH UPLIGHT  
(1) 70 CRI, 4000K, 800mA LIGHTSQUARE WITH 16 LEDS AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

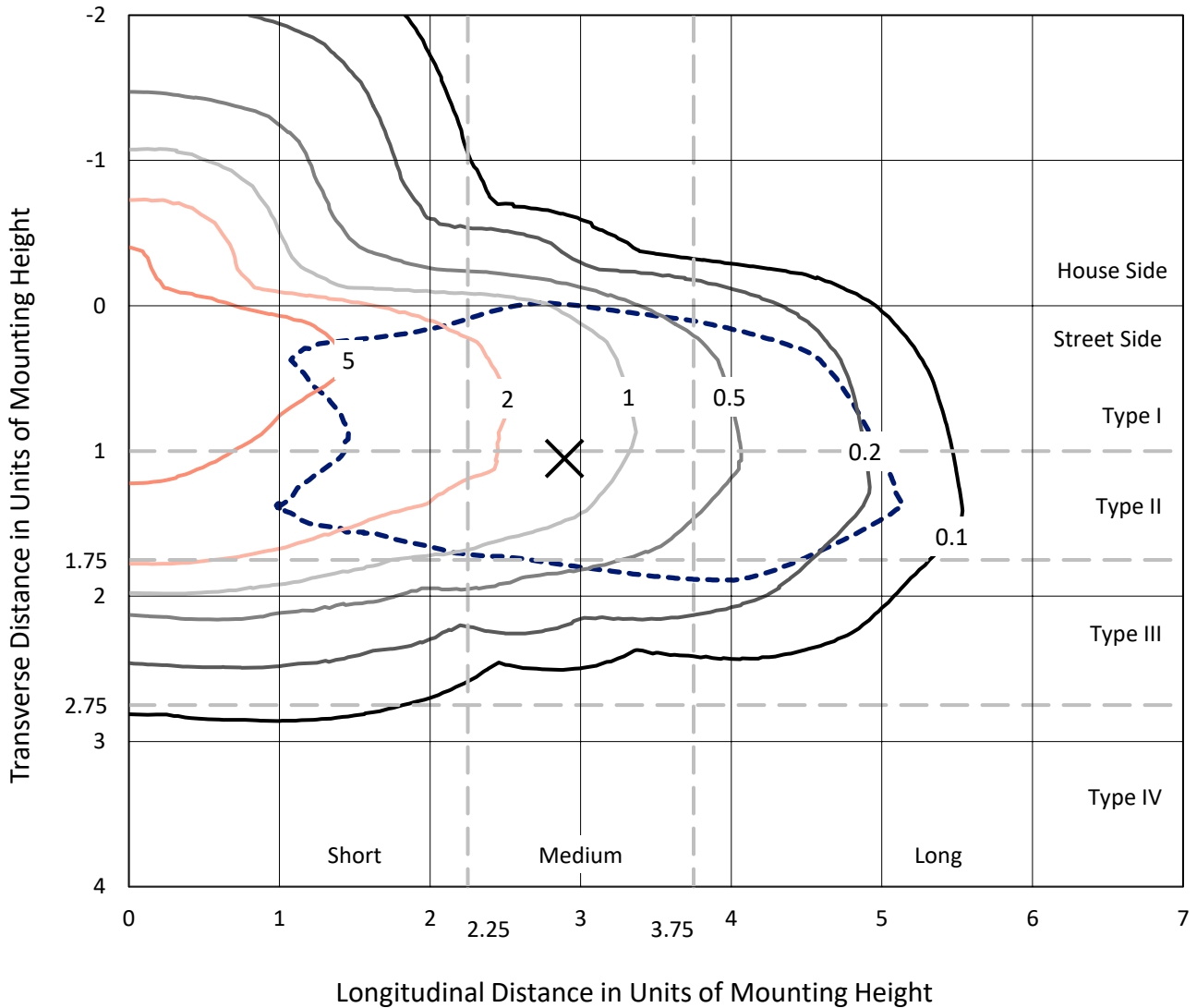
Lumens per Lamp: N/A  
Luminaire Lumens: 7392.9 lumens  
Efficiency: N/A  
Efficacy: 123.6 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.1')  
IES Classification: Type III - Medium  
BUG Rating: B1 - U5 - G2  
  
Input Watts (W): 59.8  
Input Voltage (V): NR  
Input Current (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

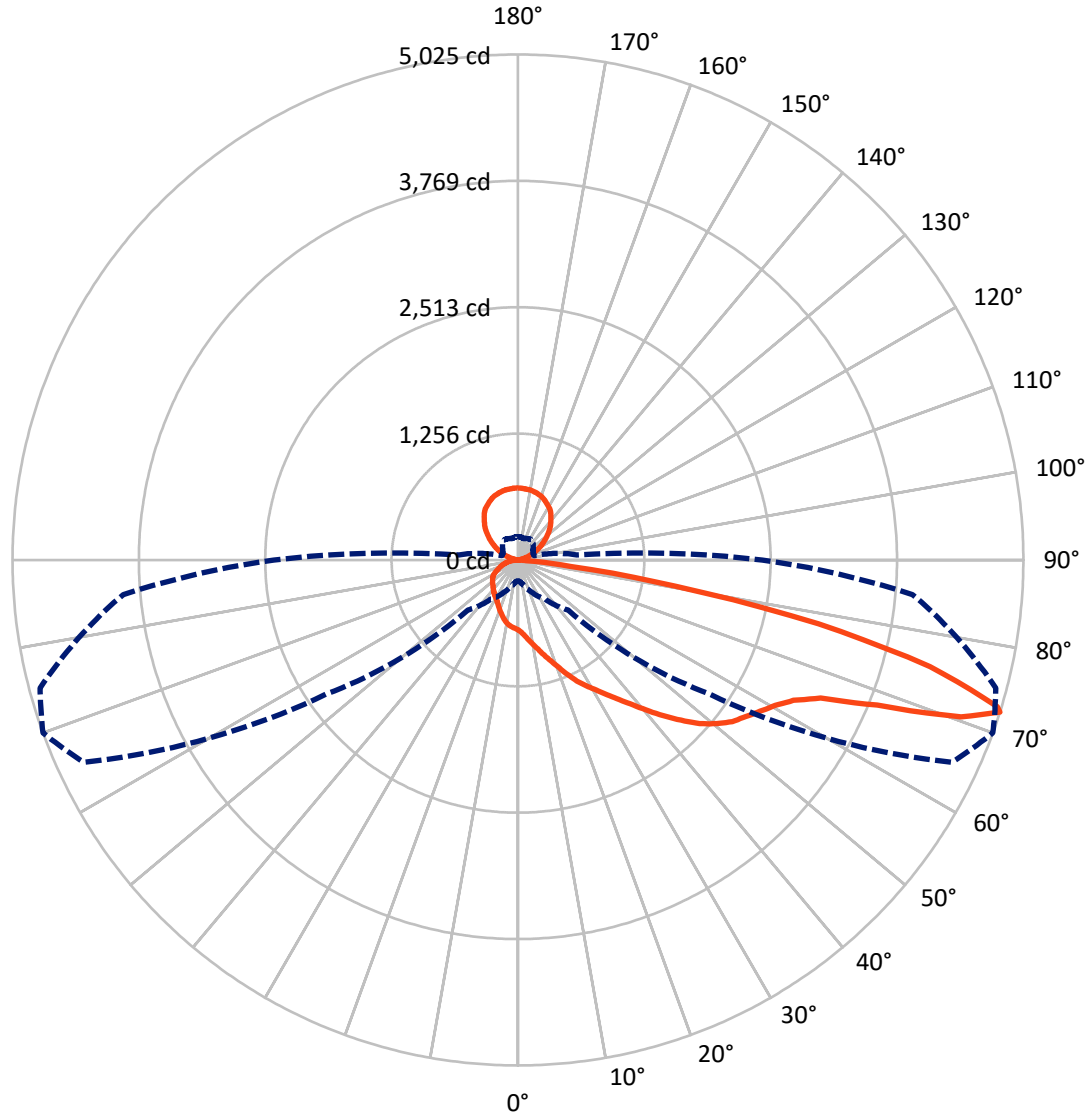
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.7 fc  
 Type III - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral      - - - Horizontal Cone Through 72-Deg Vertical

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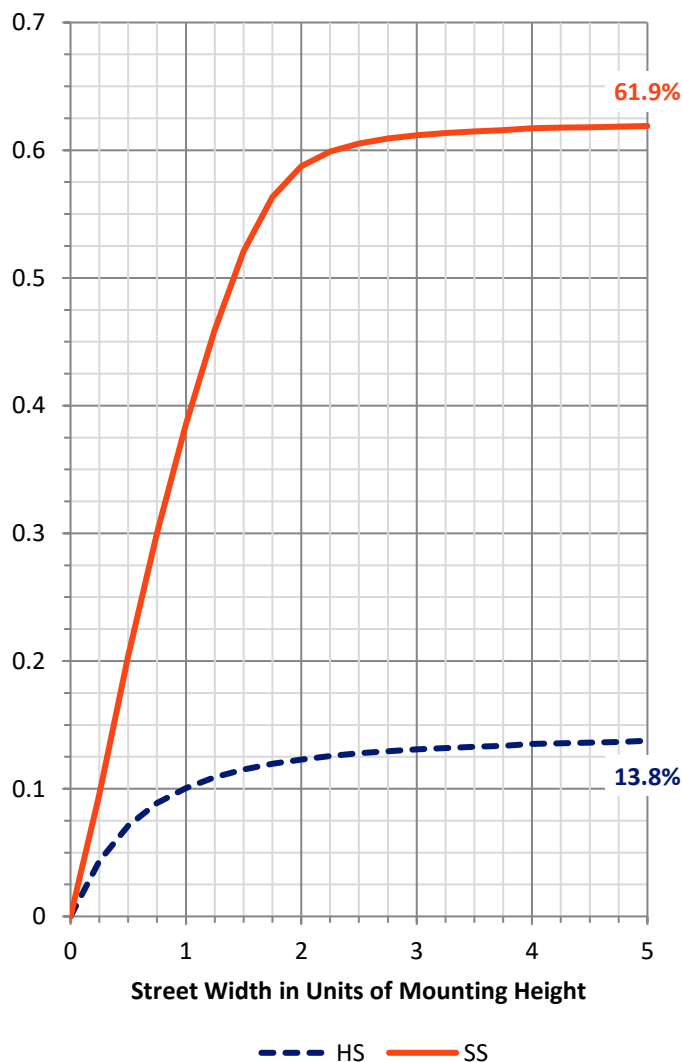
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1044.1	887.0	1931.0
	% Fixture	14.1	12.0	26.1
<b>Street Side</b>	Lumens	4574.9	887.0	5461.9
	% Fixture	61.9	12.0	73.9
<b>Total</b>	Lumens	5619.0	1773.9	7392.9
	% Fixture	76.0	24.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	70.0	0.9
10°-20°	224.4	3.0
20°-30°	397.4	5.4
30°-40°	590.8	8.0
40°-50°	857.1	11.6
50°-60°	1170.9	15.8
60°-70°	1282.0	17.3
70°-80°	911.9	12.3
80°-90°	114.5	1.5
90°-100°	8.4	0.1
100°-110°	58.7	0.8
110°-120°	169.9	2.3
120°-130°	279.4	3.8
130°-140°	344.6	4.7
140°-150°	352.5	4.8
150°-160°	297.0	4.0
160°-170°	195.5	2.6
170°-180°	67.8	0.9
0°-90°	5619.0	76.0
0°-180°	7392.9	100.0

**Coefficient of Utilization**



REPORT NUMBER:

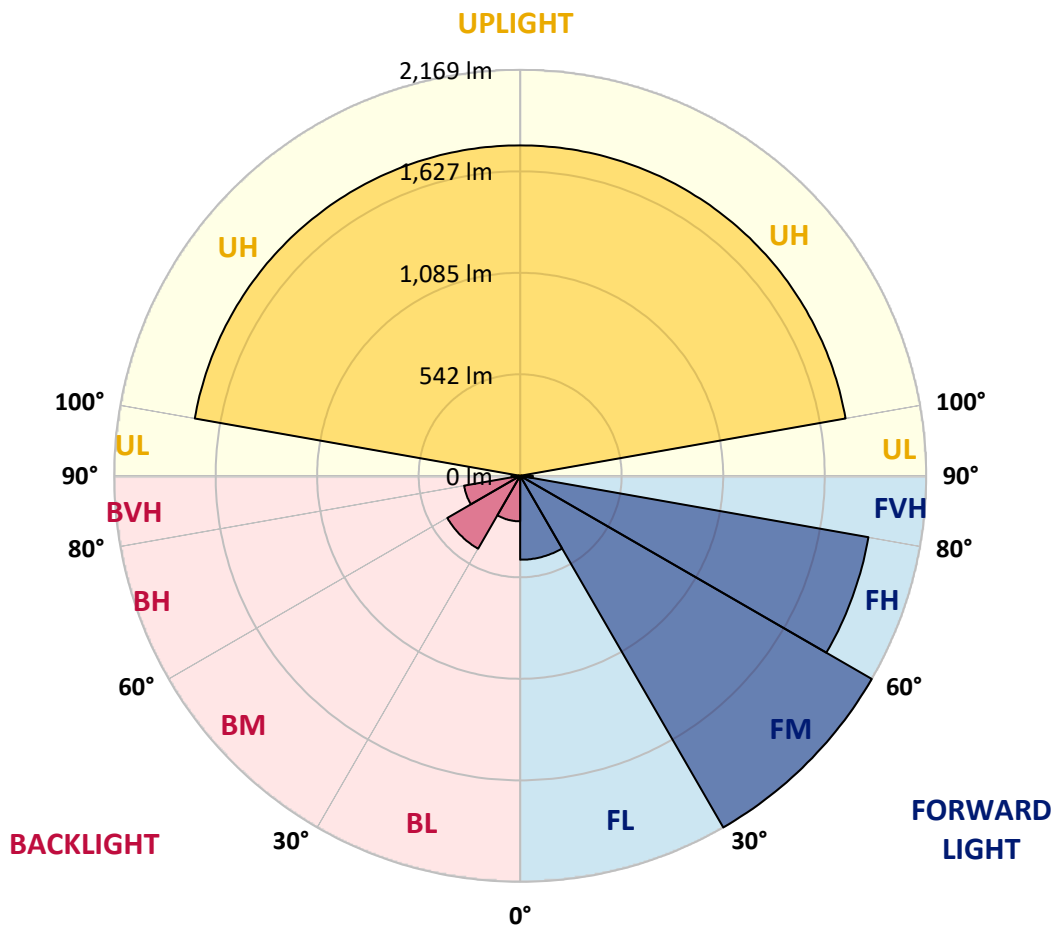
CATALOG NUMBER: ENT-SA1D-740-U-T2-ULG

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	448.5	6.1			
FM (30°-60°)	2169.3	29.3			
FH (60°-80°)	1889.5	25.6			G2/5000
FVH (80°-90°)	67.6	0.9			G1/100
BL (0°-30°)	243.3	3.3	B1/500		
BM (30°-60°)	449.5	6.1	B1/1000		
BH (60°-80°)	304.4	4.1	B1/500		G1/500
BVH (80°-90°)	46.9	0.6			G1/100
UL (90°-100°)	8.4	0.1		U1/10	
UH (100°-180°)	1765.5	23.9		U5	

**BUG Rating: B1-U5-G2**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	695.9	695.9	695.9	695.9	695.9	695.9	695.9	695.9	695.9	695.9	695.9
2.5°	773.7	769.7	770.5	763.3	759.3	749.6	739.2	728.0	722.4	718.3	704.7
5°	849.2	849.2	852.4	846.8	831.5	815.5	797.0	772.1	761.7	747.2	720.0
7.5°	911.8	913.4	913.4	911.8	898.1	880.5	856.4	825.9	809.0	788.2	745.6
10°	943.9	947.9	951.1	953.5	951.9	941.5	914.2	882.9	859.6	832.3	775.3
12.5°	959.9	961.5	967.2	979.2	988.8	996.9	976.8	939.9	916.6	883.7	807.4
15°	977.6	977.6	983.2	998.5	1016.9	1038.6	1036.2	1007.3	982.4	941.5	848.4
17.5°	988.8	992.0	1002.5	1018.5	1044.2	1080.3	1098.8	1082.7	1050.6	1007.3	892.5
20°	982.4	984.8	1005.7	1037.0	1069.9	1116.4	1163.0	1163.0	1132.5	1082.7	941.5
22.5°	994.4	998.5	1012.9	1042.6	1087.6	1147.7	1224.0	1250.5	1224.0	1169.4	998.5
25°	1041.0	1039.4	1051.4	1063.5	1102.0	1176.6	1276.2	1344.4	1320.3	1260.1	1053.8
27.5°	1108.4	1108.4	1114.8	1114.0	1127.7	1200.7	1321.9	1427.1	1407.0	1334.8	1099.6
30°	1186.3	1187.9	1186.3	1185.5	1183.1	1233.6	1362.9	1500.9	1490.5	1419.0	1141.3
32.5°	1281.0	1285.0	1278.6	1262.5	1252.9	1281.0	1397.4	1583.6	1586.8	1502.5	1182.3
35°	1399.8	1406.2	1382.1	1358.8	1334.8	1347.6	1437.5	1661.4	1693.5	1597.2	1232.0
37.5°	1518.6	1529.0	1525.0	1462.4	1428.7	1427.9	1496.9	1758.5	1812.3	1720.8	1302.7
40°	1618.9	1627.7	1632.5	1575.5	1529.0	1527.4	1584.4	1859.7	1958.4	1862.9	1386.1
42.5°	1685.5	1693.5	1708.0	1674.3	1630.9	1651.0	1680.7	1960.0	2115.7	2036.3	1488.9
45°	1757.7	1764.2	1773.0	1753.7	1731.3	1789.0	1802.7	2071.6	2273.0	2222.5	1609.3
47.5°	1834.8	1841.2	1846.0	1831.6	1823.6	1904.6	1922.3	2185.5	2431.9	2415.1	1726.4
50°	1919.9	1922.3	1927.1	1919.9	1922.3	2009.8	2021.0	2285.9	2558.0	2615.7	1848.4
52.5°	2065.9	2069.2	2070.8	2036.3	2024.2	2076.4	2100.5	2392.6	2668.7	2782.7	1956.0
55°	2181.5	2192.8	2243.3	2220.9	2192.0	2123.7	2166.3	2478.5	2747.4	2938.4	2068.4
57.5°	2086.8	2112.5	2238.5	2344.5	2425.5	2262.6	2244.1	2566.8	2838.1	3072.4	2199.2
60°	1811.5	1849.2	2032.2	2253.0	2515.4	2581.2	2403.9	2676.7	2936.8	3212.1	2339.6
62.5°	1256.1	1294.6	1547.5	1899.8	2363.7	2763.4	2841.3	2871.8	3074.0	3355.0	2522.6
65°	602.0	641.3	850.0	1221.6	1866.9	2646.2	3350.9	3276.3	3305.2	3536.4	2792.3
67.5°	382.9	403.7	485.6	665.4	1085.9	2061.1	3533.9	4082.1	3852.6	3954.5	3329.3
70°	280.1	284.9	355.6	460.7	644.5	1203.9	3120.6	4853.5	4673.7	4662.4	3977.0
72°	207.1	215.1	269.7	367.6	476.8	703.9	2322.0	4759.5	5025.2	4918.5	3938.5
72.5°	195.0	201.5	248.8	347.5	450.3	618.0	2080.4	4650.4	4981.9	4925.7	3864.6
75°	142.1	146.9	170.2	247.2	348.3	358.0	1110.8	3569.3	4230.6	4702.6	3503.4
77.5°	97.9	101.1	113.2	151.7	238.4	242.4	471.1	2436.8	3053.2	3760.3	2694.4
80°	59.4	61.0	68.2	82.7	151.7	143.7	194.2	1273.8	1593.2	2044.3	1249.7
82.5°	24.9	25.7	29.7	32.9	64.2	68.2	78.7	415.8	527.3	638.9	360.4
85°	0.0	0.0	0.8	0.8	1.6	7.2	11.2	51.4	77.9	93.1	65.0
87.5°	0.0	0.0	0.8	0.8	0.8	1.6	1.6	2.4	3.2	3.2	4.8
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	6.6	6.1	6.1
95°	5.1	5.1	6.1	7.2	7.2	7.2	7.2	8.2	7.7	7.2	7.2
97.5°	7.2	7.2	8.2	8.2	9.2	9.2	12.3	10.2	9.7	9.2	8.2
100°	8.2	8.2	9.2	10.2	12.3	21.5	29.7	26.6	25.1	23.5	19.4
102.5°	11.3	11.3	13.3	18.4	27.6	40.9	51.1	48.1	45.5	43.0	39.9
105°	21.5	22.5	27.6	36.8	49.1	64.4	73.7	71.6	69.0	66.5	62.4
107.5°	41.9	43.0	50.1	59.3	74.7	90.0	97.2	96.2	94.1	92.1	89.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
110°	67.5	69.6	75.7	89.0	104.3	116.6	122.8	123.8	122.8	121.7	118.7
112.5°	101.3	101.3	108.4	123.8	137.1	146.3	151.4	153.4	152.9	152.4	150.4
115°	143.2	142.2	150.4	162.6	171.9	178.0	183.1	186.2	184.6	183.1	181.1
117.5°	188.2	188.2	193.3	201.5	206.6	209.7	215.8	219.9	217.4	214.8	212.8
120°	230.2	228.1	231.2	238.3	242.4	248.6	251.6	255.7	253.2	250.6	248.6
122.5°	269.0	266.0	267.0	273.1	277.2	283.4	285.4	289.5	286.9	284.4	282.3
125°	304.8	300.7	302.8	305.9	312.0	317.1	320.2	322.2	319.7	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	424.5	423.5	423.5
135°	438.8	435.8	435.8	441.9	445.0	447.0	453.2	458.3	457.8	457.3	460.3
137.5°	470.6	467.5	469.5	470.6	474.6	478.7	483.9	485.9	486.4	486.9	492.0
140°	499.2	496.1	498.2	500.2	502.3	508.4	511.5	513.5	514.5	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	574.4	573.9	570.8
147.5°	588.2	585.1	584.1	587.2	587.2	588.2	593.3	598.4	598.9	599.4	596.4
150°	608.7	605.6	606.6	606.6	606.6	606.6	610.7	613.8	615.3	616.8	619.9
152.5°	625.0	622.0	622.0	623.0	624.0	624.0	625.0	628.1	630.1	632.2	637.3
155°	643.4	639.3	639.3	641.4	644.5	642.4	640.4	645.5	648.0	650.6	652.6
157.5°	660.8	657.8	657.8	658.8	660.8	659.8	658.8	662.9	663.9	664.9	664.9
160°	678.2	675.1	674.1	671.1	670.0	670.0	673.1	679.2	677.7	676.2	675.1
162.5°	688.4	684.4	684.4	680.3	676.2	678.2	682.3	686.4	685.9	685.4	683.3
165°	696.6	693.6	691.5	691.5	688.4	688.4	687.4	692.5	694.1	695.6	693.6
167.5°	705.8	702.8	699.7	701.7	703.8	700.7	693.6	699.7	701.7	703.8	703.8
170°	714.0	711.0	707.9	707.9	708.9	706.9	701.7	704.8	707.4	709.9	712.0
172.5°	715.0	713.0	711.0	708.9	705.8	705.8	704.8	707.9	708.9	709.9	712.0
175°	716.1	714.0	713.0	711.0	706.9	705.8	705.8	711.0	711.5	712.0	709.9
177.5°	723.2	721.2	716.1	715.0	713.0	711.0	709.9	715.0	716.1	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°	695.9	695.9	695.9	695.9	695.9	695.9	695.9	695.9	695.9	695.9	695.9
2.5°	698.3	695.1	685.4	677.4	671.0	660.6	659.8	651.7	651.7	649.3	647.7
5°	709.5	699.1	679.8	662.2	649.3	634.1	626.8	618.0	612.4	609.2	610.0
7.5°	724.0	706.3	673.4	643.7	619.6	600.4	589.1	581.9	577.9	576.3	576.3
10°	744.0	716.7	663.0	618.0	587.5	573.1	567.5	566.7	567.5	568.3	569.1
12.5°	766.5	724.0	643.7	587.5	563.4	557.8	561.0	568.3	574.7	577.1	577.1
15°	789.8	728.8	617.2	559.4	545.0	550.6	561.8	575.5	585.9	592.3	593.9
17.5°	813.9	729.6	589.1	533.7	528.9	543.4	563.4	585.1	602.0	612.4	614.0
20°	839.5	728.0	556.2	510.5	512.9	537.0	565.0	594.7	617.2	630.9	632.5
22.5°	867.6	721.6	524.1	488.0	499.2	530.5	563.4	598.0	622.0	638.1	641.3
25°	894.9	708.7	492.0	467.9	489.6	524.1	555.4	585.1	608.4	623.6	627.7
27.5°	909.4	681.4	461.5	452.7	482.4	514.5	537.0	557.0	569.9	579.5	583.5
30°	911.8	642.9	436.6	442.2	474.3	500.8	513.7	516.9	514.5	517.7	513.7
32.5°	907.0	601.2	416.6	434.2	461.5	481.6	484.8	475.2	460.7	440.6	441.4
35°	903.8	555.4	400.5	423.0	444.7	457.5	451.9	436.6	409.3	385.3	383.7
37.5°	909.4	513.7	386.9	408.5	423.0	428.6	420.6	400.5	376.4	355.6	353.2
40°	925.4	483.2	374.0	392.5	399.7	403.7	394.1	376.4	366.8	351.5	349.1
42.5°	956.7	462.3	362.0	374.8	378.0	382.0	372.4	360.4	369.2	366.0	366.0
45°	1000.1	452.7	351.5	358.0	361.2	367.6	362.0	351.5	361.2	342.7	339.5
47.5°	1056.3	455.9	344.3	341.1	350.7	362.0	355.6	342.7	339.5	306.6	301.0
50°	1115.6	472.7	337.1	327.5	339.5	354.8	346.7	326.7	307.4	290.5	287.3
52.5°	1185.5	500.8	330.7	312.2	326.7	346.7	341.1	319.4	299.4	287.3	284.9
55°	1262.5	528.1	322.7	294.6	309.8	344.3	342.7	314.6	288.1	282.5	280.9
57.5°	1349.2	550.6	313.0	274.5	293.0	337.1	335.5	303.4	284.9	280.1	279.3
60°	1457.6	577.1	296.2	251.2	276.1	323.5	321.9	297.8	277.7	273.7	272.1
62.5°	1605.2	626.0	267.3	229.5	258.4	299.4	309.0	286.5	267.3	266.5	266.5
65°	1848.4	720.8	237.6	211.1	238.4	276.1	292.2	273.7	257.6	261.7	261.7
67.5°	2308.3	848.4	207.1	193.4	219.1	253.6	277.7	260.9	247.2	255.2	255.2
70°	2663.1	801.0	183.0	176.6	199.9	233.6	259.2	247.2	234.4	248.0	246.4
72°	2429.5	586.7	166.9	162.9	183.8	216.7	243.2	234.4	220.7	232.0	228.7
72.5°	2332.4	532.9	162.1	158.9	179.0	213.5	240.0	231.2	216.7	227.9	223.1
75°	2034.6	449.5	141.3	139.7	158.9	191.8	219.1	214.3	199.9	206.3	201.5
77.5°	1683.9	378.8	118.8	122.0	135.6	171.0	197.4	192.6	179.0	178.2	177.4
80°	789.8	211.1	97.9	100.3	114.0	146.1	170.2	166.9	154.1	152.5	150.1
82.5°	228.7	101.1	75.4	77.1	91.5	119.6	146.1	144.5	134.8	132.4	126.8
85°	42.5	32.9	40.9	48.2	66.6	99.5	133.2	130.0	115.6	105.1	97.1
87.5°	2.4	6.4	13.6	23.3	42.5	74.6	107.6	105.1	92.3	79.5	80.3
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)