

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-SA1E-740-U-T4W-ULG**

Issue Date: 3/30/2022

Test Information

Test Method: LM-79-08
Report Number: REPORT IS A COMBINATION OF REPORTS P401700 AND P226775
Test Lab: INNOVATION CENTER
Issue Date: 3/30/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1E-740-U-T4W-ULG
Description: ENTRI LED LUMINAIRE WITH UPLIGHT
(1) 70 CRI, 4000K, 1050mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8808 lumens
Efficiency: N/A
Efficacy: 119.2 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.1')
IES Classification: Type IV - Short
BUG Rating: B1 - U5 - G2

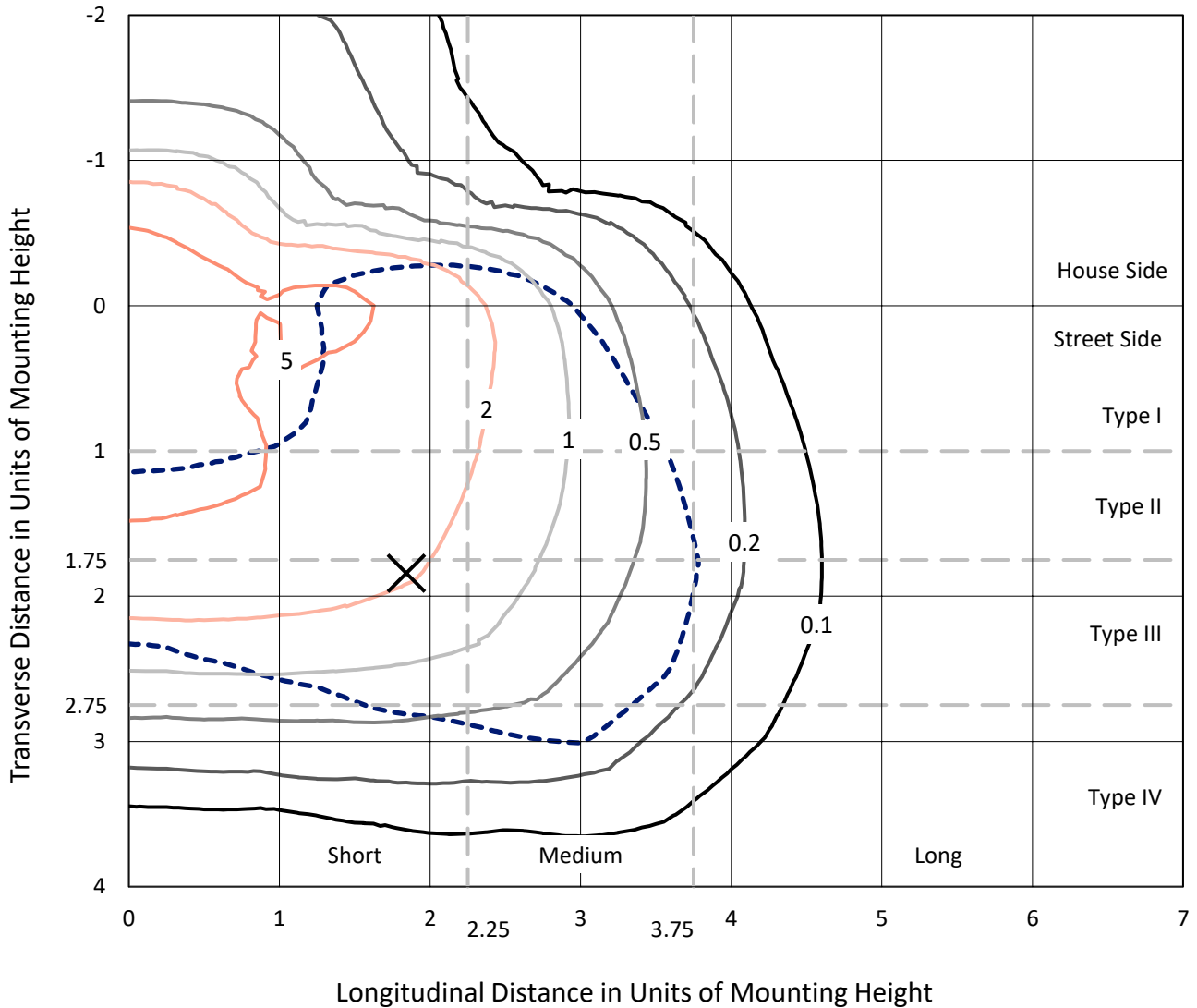
Input Watts (W): 73.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

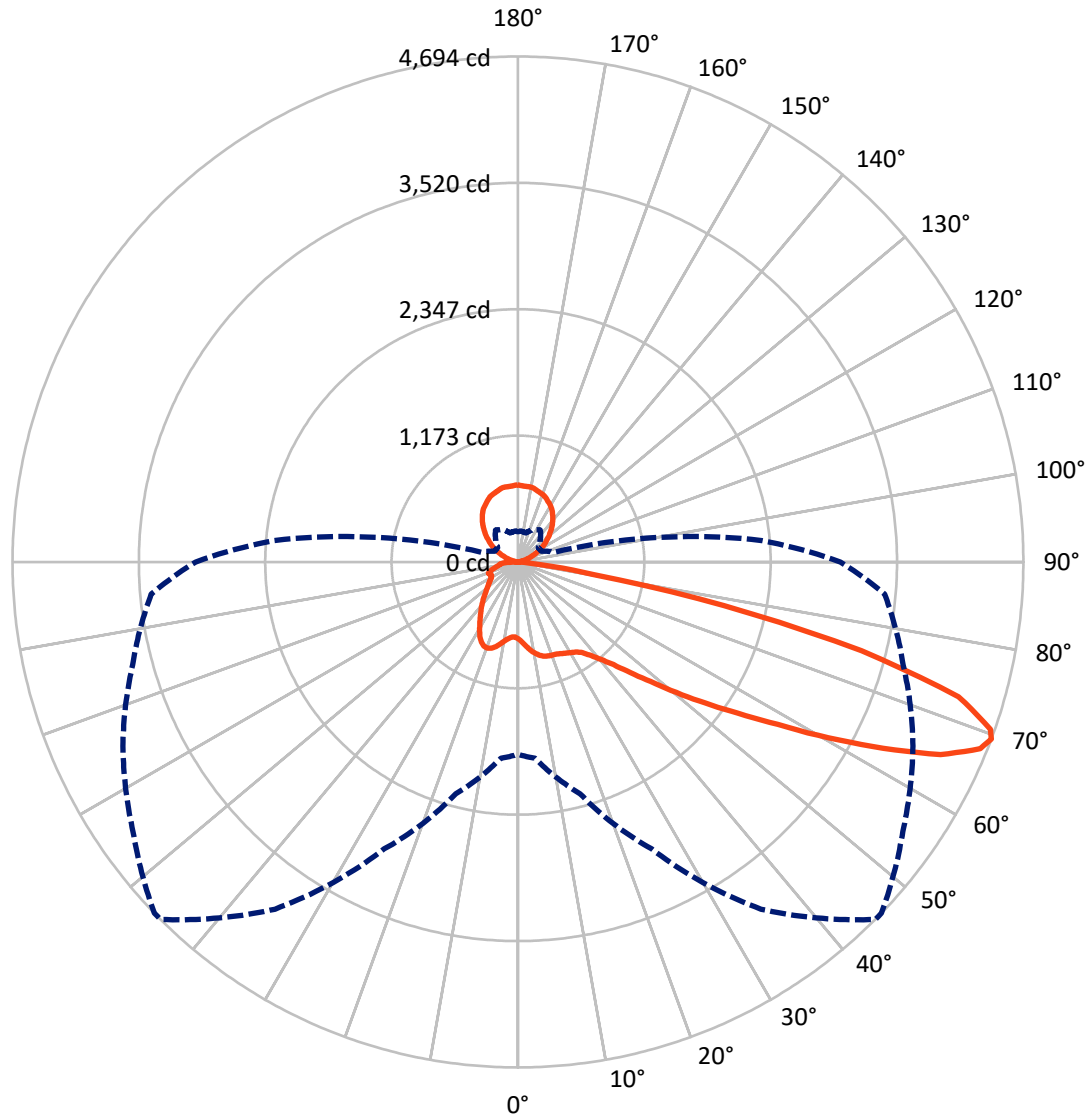
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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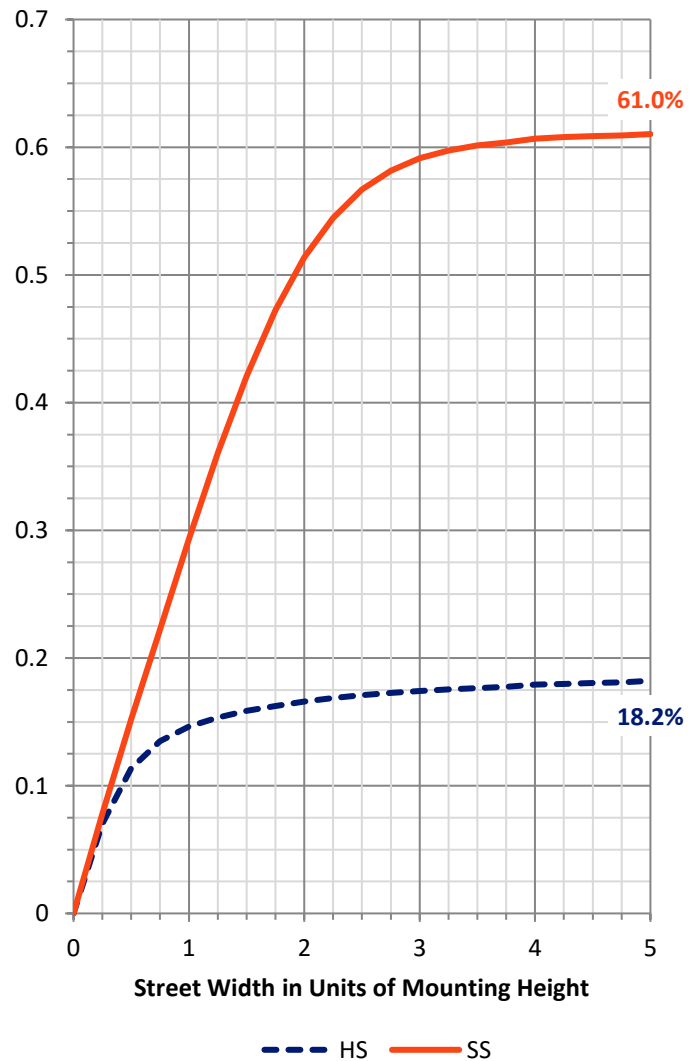
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1656.1	887.0	2543.1
	% Fixture	18.8	10.1	28.9
Street Side	Lumens	5378.0	887.0	6264.9
	% Fixture	61.1	10.1	71.1
Total	Lumens	7034.1	1773.9	8808.0
	% Fixture	79.9	20.1	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.7	0.8
10°-20°	241.1	2.7
20°-30°	407.4	4.6
30°-40°	589.4	6.7
40°-50°	889.9	10.1
50°-60°	1500.6	17.0
60°-70°	2064.4	23.4
70°-80°	1144.0	13.0
80°-90°	124.5	1.4
90°-100°	8.4	0.1
100°-110°	58.7	0.7
110°-120°	169.9	1.9
120°-130°	279.4	3.2
130°-140°	344.6	3.9
140°-150°	352.5	4.0
150°-160°	297.0	3.4
160°-170°	195.5	2.2
170°-180°	67.8	0.8
0°-90°	7034.1	79.9
0°-180°	8808.0	100.0

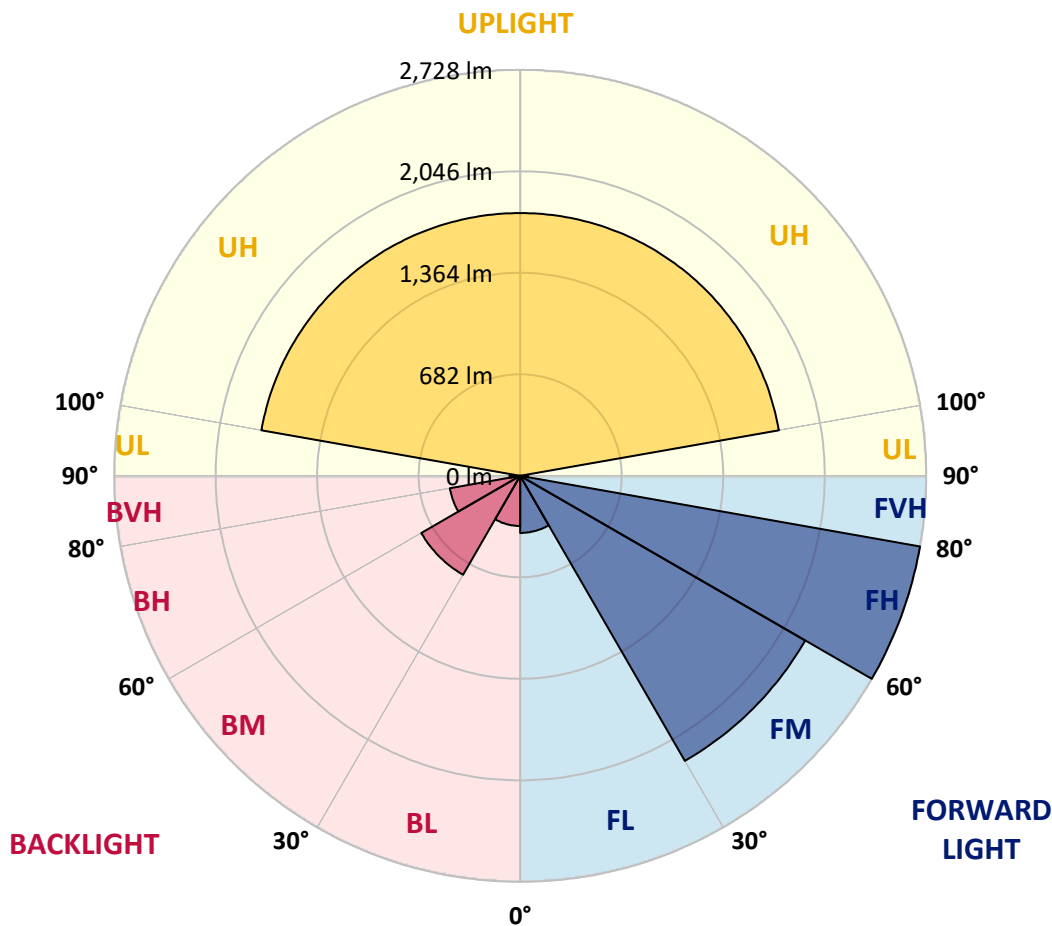


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	383.9	4.4			
FM (30°-60°)	2212.3	25.1			
FH (60°-80°)	2728.4	31.0			G2/5000
FVH (80°-90°)	53.3	0.6			G1/100
BL (0°-30°)	337.2	3.8	B1/500		
BM (30°-60°)	767.7	8.7	B1/1000		
BH (60°-80°)	480.0	5.4	B1/500		G1/500
BVH (80°-90°)	71.2	0.8			G1/100
UL (90°-100°)	8.4	0.1		U1/10	
UH (100°-180°)	1765.5	20.0		U5	

BUG Rating: B1-U5-G2
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0
2.5°	759.0	758.0	759.0	755.0	751.0	745.0	743.0	736.0	731.0	724.0	718.0
5°	815.0	818.0	817.0	812.0	796.0	784.0	784.0	769.0	753.0	738.0	724.0
7.5°	876.0	876.0	870.0	860.0	844.0	826.0	824.0	804.0	781.0	760.0	738.0
10°	920.0	922.0	913.0	899.0	879.0	860.0	858.0	835.0	813.0	786.0	759.0
12.5°	951.0	951.0	943.0	930.0	906.0	888.0	886.0	865.0	842.0	814.0	783.0
15°	967.0	965.0	958.0	944.0	923.0	908.0	905.0	887.0	868.0	840.0	807.0
17.5°	964.0	964.0	958.0	944.0	929.0	917.0	915.0	902.0	888.0	861.0	828.0
20°	951.0	950.0	948.0	937.0	927.0	922.0	920.0	914.0	905.0	882.0	851.0
22.5°	939.0	938.0	935.0	928.0	924.0	927.0	927.0	926.0	925.0	907.0	877.0
25°	946.0	945.0	939.0	929.0	928.0	942.0	943.0	946.0	948.0	933.0	902.0
27.5°	995.0	992.0	975.0	949.0	940.0	958.0	960.0	969.0	967.0	951.0	924.0
30°	1091.0	1092.0	1054.0	998.0	968.0	976.0	977.0	987.0	984.0	971.0	949.0
32.5°	1235.9	1235.9	1173.9	1089.0	1013.0	997.0	994.0	1003.0	1015.0	998.0	976.0
35°	1419.9	1414.9	1339.9	1208.9	1090.0	1033.0	1031.0	1027.0	1048.0	1032.0	1000.0
37.5°	1604.9	1586.9	1513.9	1369.9	1197.9	1102.9	1095.0	1083.0	1095.0	1061.0	1033.0
40°	1753.9	1750.9	1690.9	1544.9	1325.9	1187.9	1181.9	1128.9	1136.9	1109.9	1098.9
42.5°	1917.9	1919.9	1879.9	1732.9	1478.9	1302.9	1286.9	1204.9	1227.9	1217.9	1212.9
45°	2097.9	2095.9	2065.9	1911.9	1665.9	1462.9	1442.9	1341.9	1388.9	1382.9	1410.9
47.5°	2235.9	2246.9	2229.9	2120.9	1887.9	1656.9	1641.9	1518.9	1589.9	1637.9	1690.9
50°	2423.9	2422.9	2376.9	2331.9	2145.9	1904.9	1889.9	1752.9	1854.9	1924.9	2021.9
52.5°	2656.9	2648.9	2553.9	2537.9	2459.9	2175.9	2162.9	2019.9	2165.9	2226.9	2423.9
55°	2802.9	2801.9	2752.9	2780.9	2782.9	2477.9	2461.9	2334.9	2499.9	2569.9	2867.9
57.5°	2924.9	2925.9	2966.9	3064.9	3130.9	2844.9	2838.9	2683.9	2850.9	2948.9	3300.8
60°	3018.9	3038.9	3153.9	3377.8	3487.8	3312.8	3286.9	3122.9	3234.9	3273.9	3631.8
62.5°	2980.9	3006.9	3232.9	3562.8	3845.8	3808.8	3799.8	3562.8	3561.8	3541.8	3878.8
65°	2680.9	2736.9	3092.9	3555.8	4081.8	4312.8	4299.8	3977.8	3865.8	3765.8	3952.8
67.5°	2193.9	2205.9	2634.9	3283.9	4079.8	4629.8	4615.8	4279.8	4054.8	3809.8	3735.8
69°	1785.9	1829.9	2226.9	2939.9	3935.8	4693.8	4693.8	4363.8	4047.8	3704.8	3417.8
70°	1544.9	1546.9	1929.9	2665.9	3739.8	4655.8	4664.8	4363.8	3990.8	3567.8	3135.9
72.5°	724.0	769.0	1011.0	1739.9	3020.9	4279.8	4301.8	4075.8	3659.8	3073.9	2352.9
75°	217.0	225.0	337.0	825.0	1730.9	3296.8	3345.8	3390.8	2980.9	2262.9	1448.9
77.5°	129.0	128.0	163.0	280.0	801.0	1954.9	1976.9	2168.9	1933.9	1257.9	658.0
80°	63.0	65.0	87.0	136.0	300.0	710.0	781.0	1014.0	857.0	492.0	241.0
82.5°	21.0	23.0	36.0	55.0	127.0	229.0	253.0	318.0	274.0	179.0	103.0
85°	0.0	0.0	1.0	2.0	7.0	17.0	17.0	38.0	57.0	63.0	34.0
87.5°	0.0	0.0	1.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0
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	6.2	7.2	7.2	6.1	6.1
95°	5.1	5.1	6.1	7.2	7.2	7.2	7.2	7.2	8.2	7.2	7.2
97.5°	7.2	7.2	8.2	8.2	9.2	9.2	9.5	12.3	10.2	9.2	8.2
100°	8.2	8.2	9.2	10.2	12.3	21.5	22.3	29.7	26.6	23.5	19.4
102.5°	11.3	11.3	13.3	18.4	27.6	40.9	41.9	51.1	48.1	43.0	39.9
105°	21.5	22.5	27.6	36.8	49.1	64.4	65.3	73.7	71.6	66.5	62.4
107.5°	41.9	43.0	50.1	59.3	74.7	90.0	90.7	97.2	96.2	92.1	89.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
110°	67.5	69.6	75.7	89.0	104.3	116.6	117.2	122.8	123.8	121.7	118.7
112.5°	101.3	101.3	108.4	123.8	137.1	146.3	146.8	151.4	153.4	152.4	150.4
115°	143.2	142.2	150.4	162.6	171.9	178.0	178.5	183.1	186.2	183.1	181.1
117.5°	188.2	188.2	193.3	201.5	206.6	209.7	210.3	215.8	219.9	214.8	212.8
120°	230.2	228.1	231.2	238.3	242.4	248.6	248.9	251.6	255.7	250.6	248.6
122.5°	269.0	266.0	267.0	273.1	277.2	283.4	283.6	285.4	289.5	284.4	282.3
125°	304.8	300.7	302.8	305.9	312.0	317.1	317.4	320.2	322.2	317.1	317.1
127.5°	337.6	336.6	336.6	340.6	346.8	347.8	348.3	352.9	353.9	353.9	352.9
130°	371.3	369.3	370.3	374.4	378.5	380.5	381.0	385.7	389.7	389.7	387.7
132.5°	405.1	403.0	402.0	410.2	413.3	414.3	414.9	420.4	425.5	423.5	423.5
135°	438.8	435.8	435.8	441.9	445.0	447.0	447.6	453.2	458.3	457.3	460.3
137.5°	470.6	467.5	469.5	470.6	474.6	478.7	479.2	483.9	485.9	486.9	492.0
140°	499.2	496.1	498.2	500.2	502.3	508.4	508.7	511.5	513.5	515.6	520.7
142.5°	529.9	526.8	528.9	529.9	533.0	537.0	537.2	539.1	545.2	545.2	546.3
145°	562.6	558.5	556.5	559.6	562.6	563.6	564.1	568.8	574.9	573.9	570.8
147.5°	588.2	585.1	584.1	587.2	587.2	588.2	588.7	593.3	598.4	599.4	596.4
150°	608.7	605.6	606.6	606.6	606.6	606.6	607.0	610.7	613.8	616.8	619.9
152.5°	625.0	622.0	622.0	623.0	624.0	624.0	624.1	625.0	628.1	632.2	637.3
155°	643.4	639.3	639.3	641.4	644.5	642.4	642.2	640.4	645.5	650.6	652.6
157.5°	660.8	657.8	657.8	658.8	660.8	659.8	659.7	658.8	662.9	664.9	664.9
160°	678.2	675.1	674.1	671.1	670.0	670.0	670.3	673.1	679.2	676.2	675.1
162.5°	688.4	684.4	684.4	680.3	676.2	678.2	678.6	682.3	686.4	685.4	683.3
165°	696.6	693.6	691.5	691.5	688.4	688.4	688.3	687.4	692.5	695.6	693.6
167.5°	705.8	702.8	699.7	701.7	703.8	700.7	700.0	693.6	699.7	703.8	703.8
170°	714.0	711.0	707.9	707.9	708.9	706.9	706.4	701.7	704.8	709.9	712.0
172.5°	715.0	713.0	711.0	708.9	705.8	705.8	705.7	704.8	707.9	709.9	712.0
175°	716.1	714.0	713.0	711.0	706.9	705.8	705.8	705.8	711.0	712.0	709.9
177.5°	723.2	721.2	716.1	715.0	713.0	711.0	710.9	709.9	715.0	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°	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0
2.5°	715.0	713.0	709.0	705.0	703.0	698.0	699.0	697.0	696.0	696.0	697.0
5°	717.0	714.0	708.0	704.0	700.0	698.0	703.0	705.0	707.0	707.0	708.0
7.5°	729.0	723.0	716.0	711.0	712.0	715.0	723.0	729.0	732.0	734.0	736.0
10°	749.0	742.0	732.0	731.0	733.0	741.0	752.0	761.0	769.0	774.0	774.0
12.5°	770.0	761.0	753.0	755.0	764.0	776.0	787.0	797.0	804.0	809.0	810.0
15°	793.0	784.0	776.0	781.0	796.0	810.0	820.0	824.0	827.0	832.0	833.0
17.5°	814.0	806.0	799.0	812.0	825.0	836.0	839.0	837.0	833.0	836.0	838.0
20°	836.0	829.0	825.0	839.0	848.0	849.0	841.0	832.0	822.0	822.0	823.0
22.5°	863.0	854.0	852.0	859.0	856.0	844.0	824.0	810.0	796.0	794.0	797.0
25°	889.0	880.0	879.0	874.0	848.0	817.0	790.0	774.0	763.0	764.0	770.0
27.5°	915.0	909.0	910.0	883.0	825.0	778.0	742.0	729.0	732.0	734.0	740.0
30°	941.0	941.0	945.0	883.0	793.0	723.0	689.0	688.0	696.0	702.0	709.0
32.5°	971.0	980.0	973.0	872.0	750.0	667.0	640.0	642.0	651.0	661.0	667.0
35°	1000.0	1021.0	1001.0	847.0	691.0	616.0	594.0	591.0	598.0	607.0	610.0
37.5°	1046.0	1080.0	1025.0	808.0	630.0	571.0	549.0	541.0	534.0	541.0	540.0
40°	1125.9	1166.9	1043.0	743.0	571.0	529.0	506.0	491.0	474.0	459.0	459.0
42.5°	1253.9	1280.9	1053.0	664.0	512.0	487.0	464.0	442.0	416.0	389.0	389.0
45°	1462.9	1468.9	1057.0	580.0	458.0	445.0	421.0	400.0	366.0	339.0	333.0
47.5°	1741.9	1715.9	1067.0	499.0	411.0	408.0	388.0	364.0	327.0	302.0	299.0
50°	2116.9	2004.9	1110.9	434.0	373.0	376.0	361.0	333.0	298.0	280.0	276.0
52.5°	2538.9	2369.9	1144.9	382.0	340.0	349.0	338.0	311.0	281.0	266.0	263.0
55°	2999.9	2720.9	1136.9	347.0	315.0	325.0	321.0	298.0	271.0	258.0	255.0
57.5°	3375.8	2967.9	1067.0	316.0	290.0	304.0	308.0	290.0	265.0	253.0	250.0
60°	3657.8	3102.9	923.0	290.0	270.0	287.0	298.0	285.0	264.0	257.0	254.0
62.5°	3785.8	3090.9	736.0	270.0	255.0	275.0	299.0	293.0	279.0	284.0	285.0
65°	3713.8	2939.9	552.0	255.0	246.0	277.0	316.0	316.0	295.0	304.0	305.0
67.5°	3344.8	2544.9	402.0	244.0	237.0	287.0	348.0	328.0	288.0	295.0	292.0
69°	2993.9	2276.9	345.0	238.0	230.0	292.0	362.0	330.0	280.0	288.0	280.0
70°	2735.9	2034.9	310.0	233.0	227.0	292.0	366.0	328.0	276.0	282.0	273.0
72.5°	1946.9	1412.9	255.0	223.0	216.0	270.0	359.0	317.0	265.0	258.0	241.0
75°	1131.9	781.0	217.0	212.0	191.0	237.0	341.0	305.0	254.0	241.0	229.0
77.5°	475.0	349.0	185.0	193.0	169.0	211.0	319.0	293.0	241.0	223.0	217.0
80°	193.0	174.0	154.0	167.0	147.0	186.0	294.0	273.0	222.0	204.0	195.0
82.5°	101.0	96.0	118.0	135.0	122.0	171.0	277.0	259.0	206.0	188.0	177.0
85°	30.0	40.0	67.0	92.0	93.0	154.0	269.0	240.0	179.0	155.0	153.0
87.5°	2.0	8.0	23.0	48.0	61.0	118.0	218.0	197.0	145.0	122.0	123.0
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)