

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: P565348

Luminaire Tested: **MSA-SA1A-740-U-T1**

Issue Date: 8/19/2021

Test Information

Test Method: LM-79-08
Report Number: P565348
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2108-334-1)
Test Lab: INNOVATIONS CENTER
Issue Date: 8/19/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1A-740-U-T1
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE I OPTICS.
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3654 lumens
Efficiency: N/A
Efficacy: 107.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type I - Medium
BUG Rating: B2 - U0 - G2

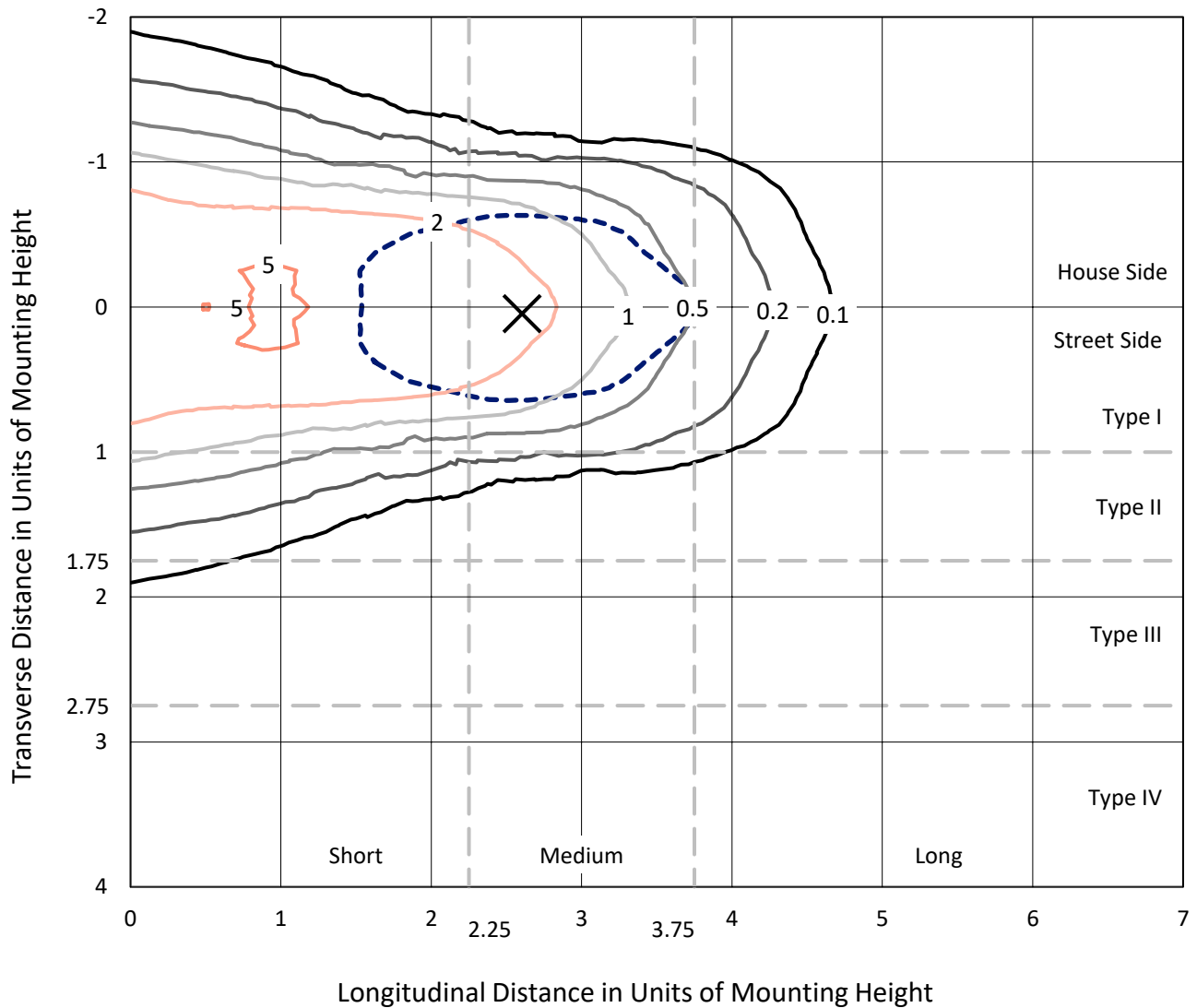
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

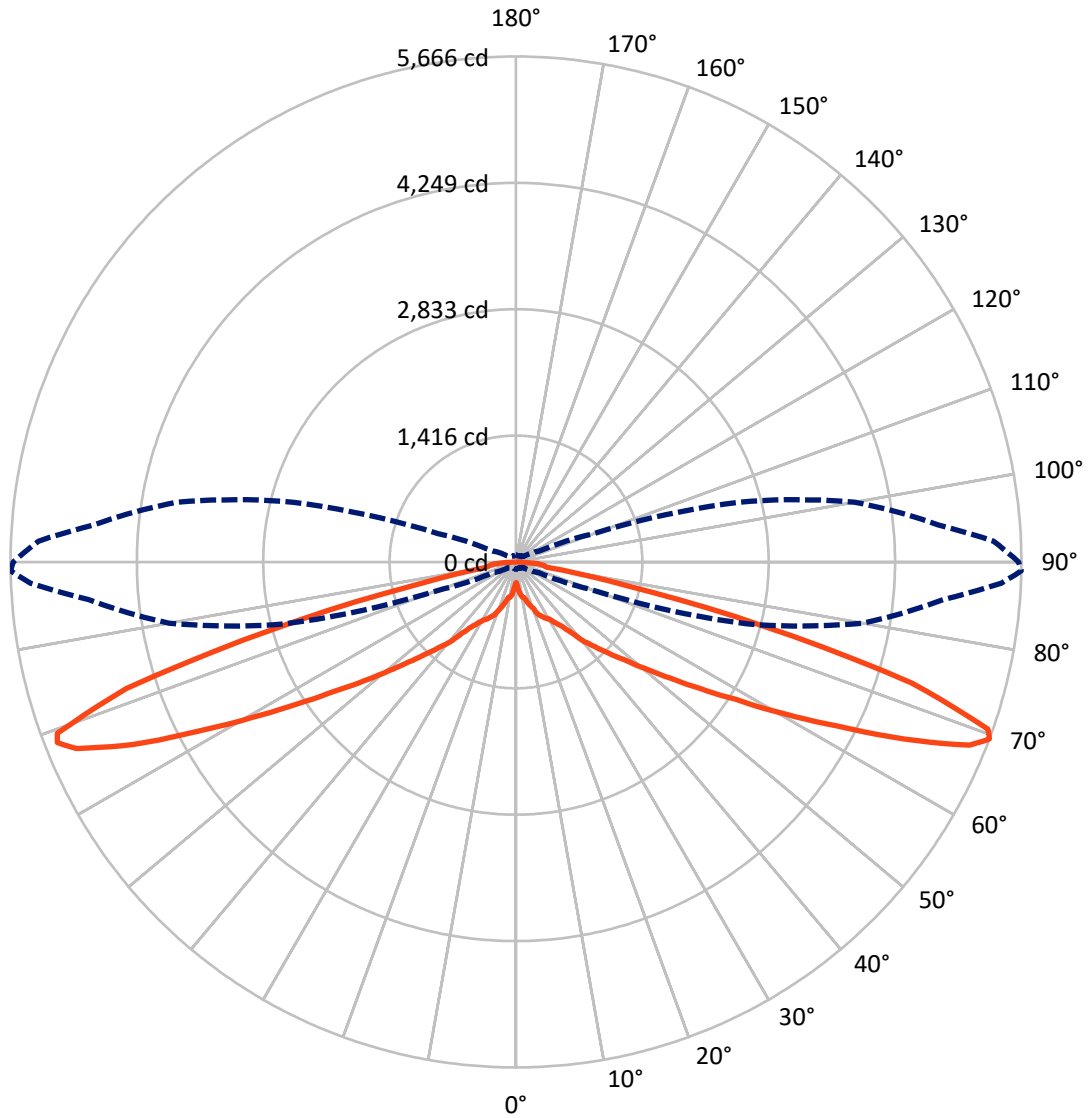
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.2 fc
 Type I - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 89-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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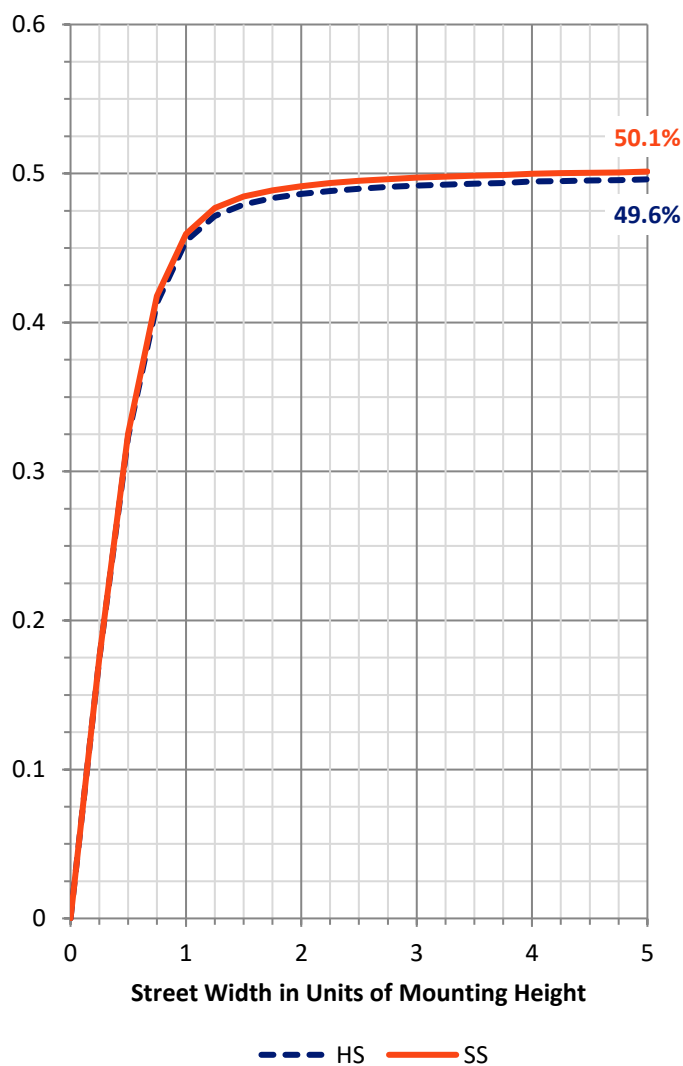
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1827.0	0.0	1827.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	1827.0	0.0	1827.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	3654.0	0.0	3654.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.1	0.8
10°-20°	134.0	3.7
20°-30°	267.3	7.3
30°-40°	404.3	11.1
40°-50°	586.9	16.1
50°-60°	771.0	21.1
60°-70°	940.6	25.7
70°-80°	475.5	13.0
80°-90°	45.3	1.2
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°	3654.0	100.0
0°-180°	3654.0	100.0

Coefficient of Utilization



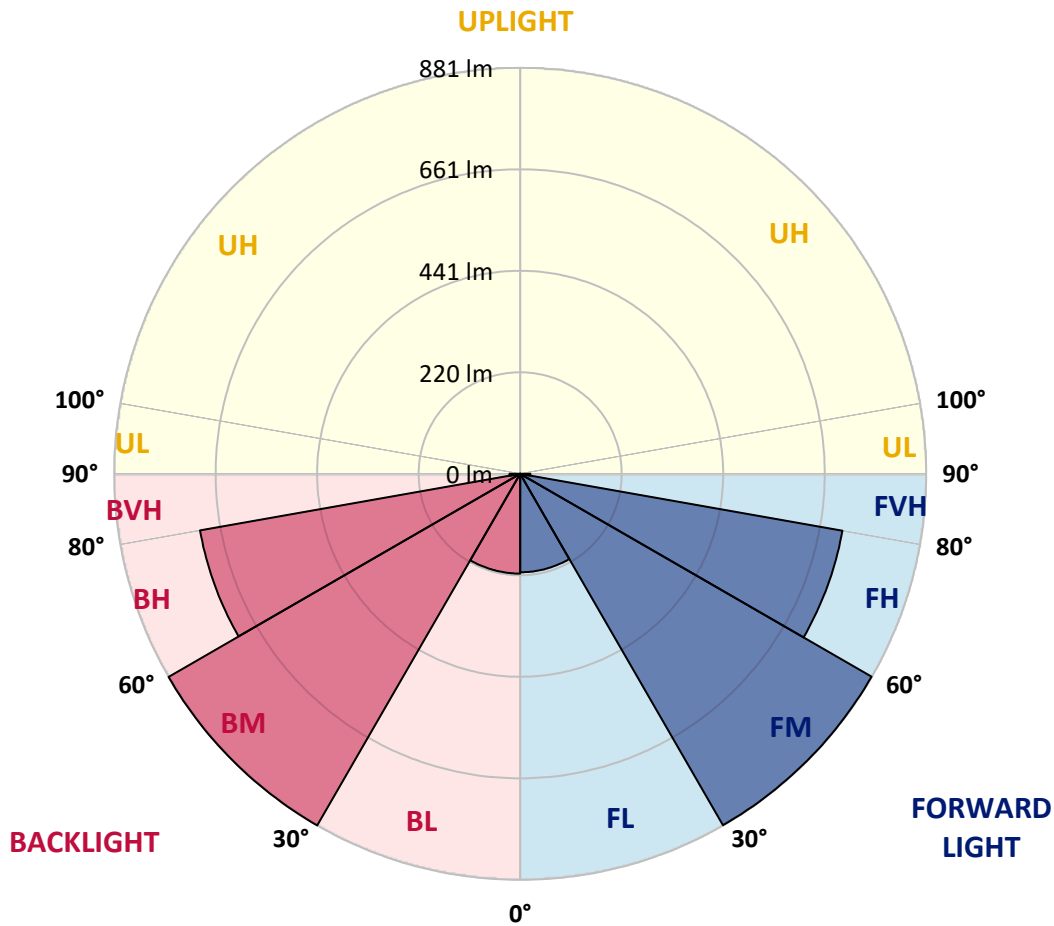
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	213.7	5.8			
FM (30°-60°)	880.8	24.1			
FH (60°-80°)	710.3	19.4			G1/1800
FVH (80°-90°)	22.2	0.6			G1/100
BL (0°-30°)	216.7	5.9	B1/500		
BM (30°-60°)	881.4	24.1	B1/1000		
BH (60°-80°)	705.8	19.3	B2/1000		G2/1000
BVH (80°-90°)	23.1	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type I Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
0°	231.4	231.4	231.4	231.4	231.4	231.4	231.4	231.4	231.4	231.4	231.4
2.5°	271.6	240.3	237.6	230.1	235.5	237.6	232.8	226.0	233.5	237.6	230.1
5°	342.4	296.1	280.5	267.5	241.7	230.8	241.7	269.6	273.0	290.0	285.2
7.5°	377.1	369.6	349.9	307.0	265.5	242.3	271.6	311.8	332.2	348.5	365.5
10°	403.0	398.9	364.2	333.6	316.5	317.9	318.6	331.5	349.2	376.4	386.0
12.5°	409.1	407.8	413.2	406.4	407.8	415.2	407.8	404.3	414.6	423.4	413.9
15°	448.6	447.9	450.0	451.3	478.5	490.1	478.5	468.3	460.8	453.4	469.0
17.5°	475.8	472.4	473.1	486.0	516.7	548.7	542.5	528.9	511.9	522.1	535.0
20°	490.8	484.7	488.8	494.2	545.9	581.3	585.4	567.0	556.8	569.8	580.7
22.5°	505.1	495.6	481.3	486.7	534.4	585.4	605.2	600.4	607.9	612.0	609.9
25°	488.1	494.2	478.5	494.2	542.5	589.5	629.0	656.9	657.6	655.5	670.5
27.5°	477.9	473.1	446.6	486.7	526.9	556.1	656.9	703.9	718.2	674.6	703.9
30°	460.2	467.7	431.6	464.9	516.0	565.0	688.9	756.3	735.2	729.7	736.5
32.5°	449.3	444.5	427.5	445.9	484.7	591.5	709.3	786.9	813.5	800.5	799.2
35°	431.6	435.0	408.4	428.2	482.6	569.1	722.9	863.8	904.7	894.5	886.3
37.5°	434.3	422.7	403.7	418.0	469.7	581.3	757.0	938.0	1002.7	1008.1	970.7
40°	413.9	407.1	378.5	402.3	445.2	573.8	765.1	1022.4	1132.0	1156.5	1102.8
42.5°	384.6	375.8	359.4	386.0	430.9	537.1	776.7	1123.9	1263.4	1314.5	1265.5
45°	342.4	330.8	322.7	358.1	399.6	527.6	764.4	1208.3	1389.3	1459.5	1458.1
47.5°	291.3	283.9	279.8	317.2	373.7	503.7	739.3	1261.4	1477.2	1656.9	1629.6
50°	233.5	228.0	227.4	266.8	330.1	454.7	710.7	1287.9	1610.6	1837.9	1861.8
52.5°	187.2	183.1	182.4	214.4	276.4	388.7	650.8	1308.3	1737.9	2043.5	2166.0
55°	146.4	142.3	143.0	169.5	219.9	317.9	559.6	1285.2	1849.5	2253.9	2486.0
57.5°	119.8	115.7	116.4	131.4	168.1	243.0	445.9	1234.8	1899.9	2513.9	2859.0
60°	105.5	101.4	99.4	106.2	129.3	183.1	331.5	1038.8	1908.1	2729.7	3264.0
62.5°	98.0	93.9	91.9	93.9	106.9	140.2	238.9	823.0	1861.1	2914.2	3635.0
65°	91.2	87.8	85.1	87.1	93.9	111.6	174.3	563.6	1615.3	2998.6	3904.6
67.5°	83.7	81.0	78.3	81.0	85.8	93.9	135.5	356.7	1211.0	2889.0	4016.9
69°	79.6	75.6	74.2	76.2	81.0	86.5	117.1	284.5	921.0	2680.7	3948.8
70°	75.6	72.8	70.8	74.2	78.3	82.4	105.5	241.7	722.2	2413.1	3780.0
72.5°	66.7	64.7	63.3	66.7	70.1	72.8	86.5	172.2	418.6	1643.3	2997.9
75°	58.5	56.5	55.8	58.5	61.3	62.6	72.8	118.4	247.1	859.7	1798.5
77.5°	49.0	46.3	47.0	50.4	52.4	53.1	61.3	85.1	145.7	389.4	833.2
80°	36.1	36.1	38.8	41.5	41.5	41.5	49.0	61.9	88.5	179.0	345.8
82.5°	25.2	25.9	26.5	30.6	31.3	28.6	37.4	44.9	55.1	78.3	119.8
85°	14.3	15.0	15.7	18.4	19.1	17.0	24.5	28.6	32.0	38.8	62.6
87.5°	5.4	6.1	8.2	9.5	10.2	7.5	11.6	13.6	13.6	16.3	27.9
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):

	85°	87.5°	89°	90°	92.5°	95°	100°	105°	110°	115°	125°
0°	231.4	231.4	231.4	231.4	231.4	231.4	231.4	231.4	231.4	231.4	231.4
2.5°	245.7	250.5	259.4	261.4	253.9	245.7	227.4	238.9	243.7	234.8	237.6
5°	304.3	314.5	325.4	312.4	304.3	298.8	290.0	290.7	285.9	270.2	244.4
7.5°	370.3	358.7	366.9	375.8	362.8	363.5	371.7	354.7	341.7	315.2	266.8
10°	400.9	400.9	403.0	403.0	397.5	397.5	396.9	369.6	354.0	342.4	328.8
12.5°	403.0	402.3	410.5	404.3	405.7	407.1	410.5	422.7	418.6	403.7	415.9
15°	459.5	456.8	459.5	458.8	460.8	467.0	464.2	461.5	462.2	473.1	491.5
17.5°	512.6	513.9	511.2	516.0	516.0	520.1	529.6	520.1	511.9	532.3	546.6
20°	573.8	569.1	558.2	566.4	568.4	569.1	584.7	573.2	561.6	569.1	586.1
22.5°	635.8	635.1	636.5	637.2	639.9	629.7	608.6	605.2	612.6	602.4	604.5
25°	673.9	674.6	678.0	678.7	667.1	678.0	685.5	663.0	663.0	661.0	647.4
27.5°	720.2	710.0	714.1	719.5	714.8	717.5	708.6	676.0	710.7	715.4	661.0
30°	751.5	746.7	742.0	747.4	752.2	764.4	739.3	735.9	738.6	763.8	692.3
32.5°	817.5	824.4	815.5	806.7	815.5	812.8	801.9	797.1	831.2	797.8	714.1
35°	878.8	881.5	882.2	880.8	886.3	876.8	876.8	894.5	904.7	868.6	720.9
37.5°	1026.5	1017.0	997.3	987.7	1004.7	1019.0	976.8	997.9	993.8	932.6	771.9
40°	1132.7	1154.5	1160.6	1157.9	1160.6	1119.8	1128.6	1144.3	1125.9	1024.5	754.2
42.5°	1287.9	1301.5	1296.8	1290.6	1293.4	1285.9	1259.3	1317.2	1251.2	1127.3	781.5
45°	1429.5	1460.1	1462.2	1441.1	1458.1	1431.6	1442.4	1462.9	1396.2	1204.2	774.0
47.5°	1598.3	1661.6	1637.8	1637.8	1654.8	1597.6	1623.5	1650.7	1473.8	1255.9	733.1
50°	1848.2	1882.2	1880.8	1874.7	1882.2	1851.6	1847.5	1844.1	1592.9	1304.9	707.9
52.5°	2130.6	2176.9	2159.2	2166.0	2176.3	2118.4	2164.0	2039.4	1742.0	1323.3	650.8
55°	2491.4	2523.4	2505.7	2471.0	2517.3	2480.5	2495.5	2252.5	1845.4	1270.9	555.5
57.5°	2921.0	2937.3	2908.0	2904.6	2935.3	2895.8	2870.6	2492.1	1899.2	1231.4	443.8
60°	3422.7	3473.7	3455.3	3426.1	3454.0	3419.2	3228.6	2695.6	1888.3	1046.9	343.8
62.5°	4024.4	4076.1	4055.7	4036.0	4053.7	3963.1	3564.9	2856.3	1839.3	829.8	251.2
65°	4521.3	4754.8	4785.5	4786.1	4700.4	4490.7	3833.1	2918.9	1580.6	579.3	183.8
67.5°	4848.1	5333.4	5484.5	5430.1	5233.4	4754.8	3941.4	2796.4	1220.5	366.2	137.5
69°	4810.6	5447.1	5665.6	5635.0	5358.6	4750.7	3857.0	2590.1	932.6	291.3	116.4
70°	4637.7	5353.9	5613.2	5626.8	5279.0	4568.3	3706.5	2353.2	754.2	248.5	106.9
72.5°	3701.1	4411.7	4639.8	4729.0	4383.8	3658.2	3039.4	1660.3	437.0	173.6	86.5
75°	2292.7	2675.2	2864.5	2916.2	2707.2	2278.4	1844.7	923.7	266.2	122.5	72.8
77.5°	1027.9	1138.8	1247.8	1247.8	1166.1	1040.1	845.5	446.6	151.1	87.1	61.3
80°	344.4	357.4	347.8	351.3	337.6	324.7	339.7	192.6	93.3	65.3	49.7
82.5°	234.2	294.1	312.4	312.4	293.4	231.4	130.7	88.5	57.2	47.0	38.1
85°	190.6	232.8	249.8	257.3	242.3	195.4	68.8	42.9	34.0	30.0	25.9
87.5°	64.0	59.9	56.5	55.1	57.9	60.6	34.0	18.4	15.7	14.3	13.6
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):

	135°	145°	155°	165°	175°	180°
0°	231.4	231.4	231.4	231.4	231.4	231.4
2.5°	242.3	234.2	237.6	241.0	265.5	283.9
5°	241.0	252.5	278.4	311.1	326.1	362.8
7.5°	247.8	290.0	338.3	372.4	386.0	397.5
10°	331.5	339.0	355.3	388.0	415.2	420.0
12.5°	428.2	426.1	414.6	429.5	415.9	425.4
15°	503.7	481.3	465.6	463.6	458.8	458.8
17.5°	545.3	525.5	503.7	498.3	484.0	495.6
20°	594.3	560.2	505.8	500.3	495.6	484.7
22.5°	584.7	550.7	494.2	487.4	512.6	511.2
25°	596.3	550.7	496.9	489.4	501.0	501.0
27.5°	567.7	530.3	491.5	446.6	481.9	490.1
30°	560.2	518.0	473.1	432.9	469.0	461.5
32.5°	599.7	487.4	443.1	430.9	457.4	452.0
35°	569.1	481.9	435.7	413.2	444.5	439.1
37.5°	582.0	475.1	422.7	403.7	428.9	437.0
40°	579.3	443.1	407.8	383.2	408.4	412.5
42.5°	533.7	418.6	382.6	358.1	371.0	384.6
45°	520.1	403.7	358.1	324.0	324.7	340.4
47.5°	494.9	369.6	313.1	281.8	281.8	294.8
50°	452.7	324.0	262.1	233.5	232.8	243.0
52.5°	390.1	279.8	221.2	189.9	187.9	198.1
55°	319.3	225.3	174.3	153.8	149.8	153.8
57.5°	248.5	175.6	137.5	121.2	120.5	123.9
60°	192.6	137.5	109.6	100.1	101.4	106.9
62.5°	145.7	109.6	93.3	89.9	91.9	97.3
65°	115.7	94.6	85.1	83.0	85.1	90.5
67.5°	93.9	85.8	79.0	76.2	77.6	83.0
69°	86.5	81.0	75.6	72.2	73.5	77.6
70°	82.4	78.3	72.8	69.4	70.8	74.9
72.5°	72.2	70.1	66.0	62.6	63.3	66.7
75°	63.3	61.9	59.2	55.1	55.1	59.2
77.5°	53.1	53.8	51.1	47.0	46.3	48.3
80°	42.2	43.6	42.2	38.1	36.8	36.8
82.5°	30.6	33.4	32.0	27.9	27.2	27.2
85°	19.1	21.1	20.4	17.7	17.7	15.7
87.5°	8.8	11.6	10.9	9.5	8.8	6.1
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)