

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: McGRAW-EDISON

Report Number: P228361

Luminaire Tested: **ISS-AF-350-LED-E1-SL4-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P228361
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29763)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: ISS-AF-350-LED-E1-SL4-8030
Description: IMPACT ELITE LED QUATER SPHERE LUMINAIRE
LIGHT SQUARE WITH ACCULED OPTICS-TYPE IV W/SPILL CONTROL
Light Source: (16) 3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1721 lumens
Efficiency: N/A
Efficacy: 85.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B0 - U0 - G1

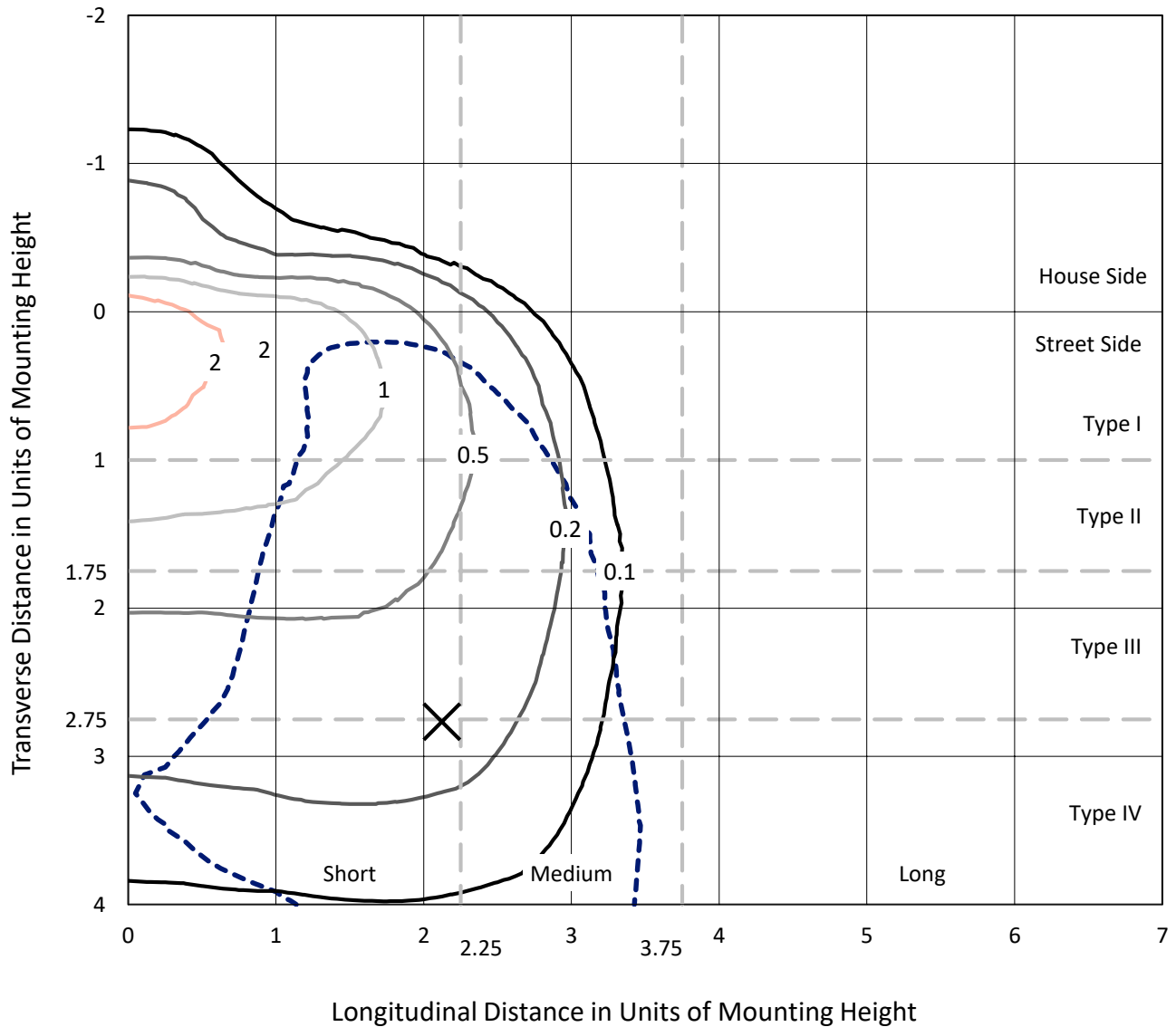
Input Watts (W): 20.09
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

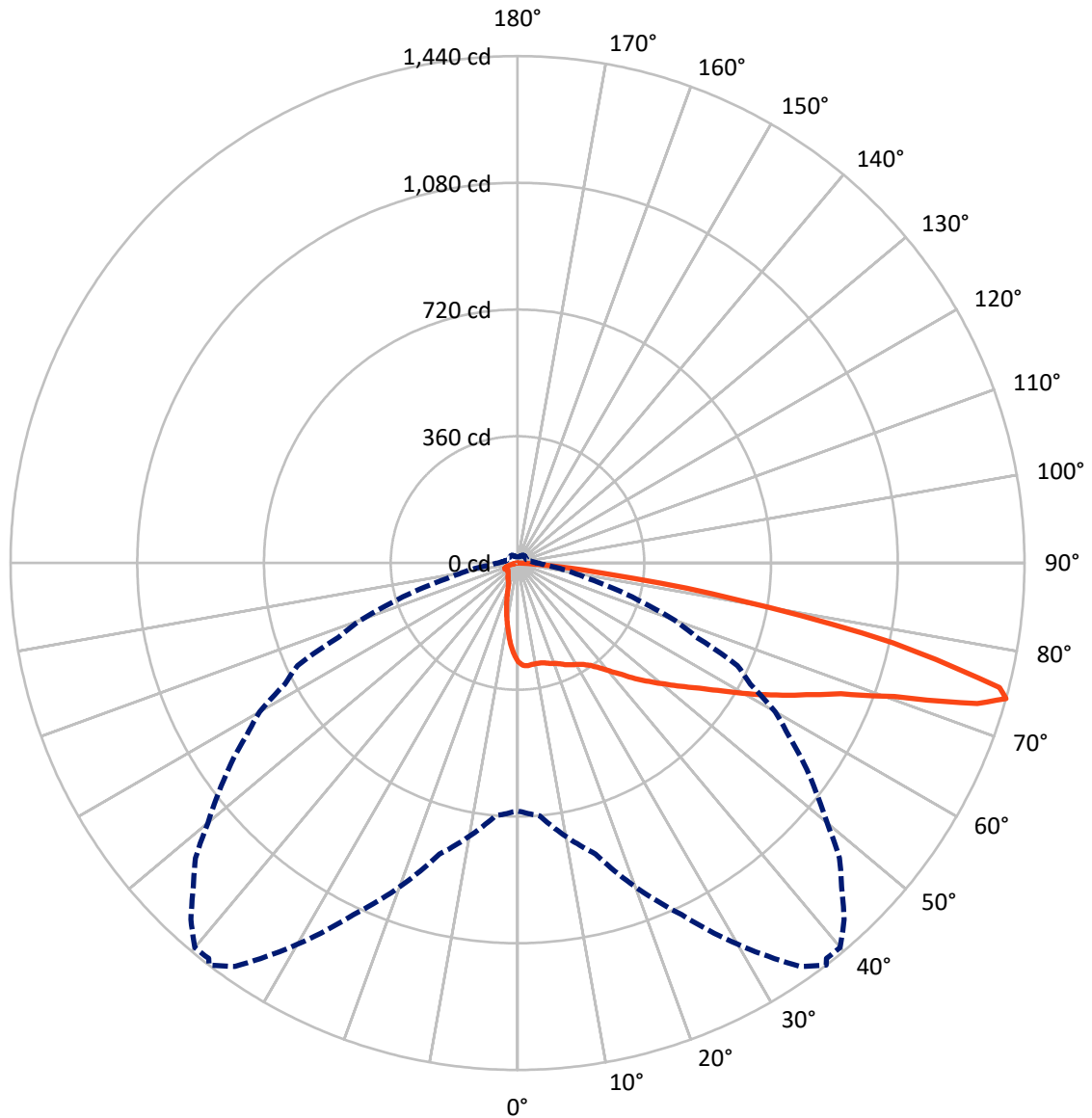
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 37.5-Deg Lateral - - - Horizontal Cone Through 74-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	204.1	0.0	204.1
	% Fixture	11.9	0.0	11.9
Street Side	Lumens	1516.9	0.0	1516.9
	% Fixture	88.1	0.0	88.1
Total	Lumens	1721.0	0.0	1721.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.5	1.4
10°-20°	62.3	3.6
20°-30°	96.5	5.6
30°-40°	143.2	8.3
40°-50°	220.2	12.8
50°-60°	325.5	18.9
60°-70°	433.9	25.2
70°-80°	374.6	21.8
80°-90°	40.3	2.3
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°	1721.0	100.0
0°-180°	1721.0	100.0



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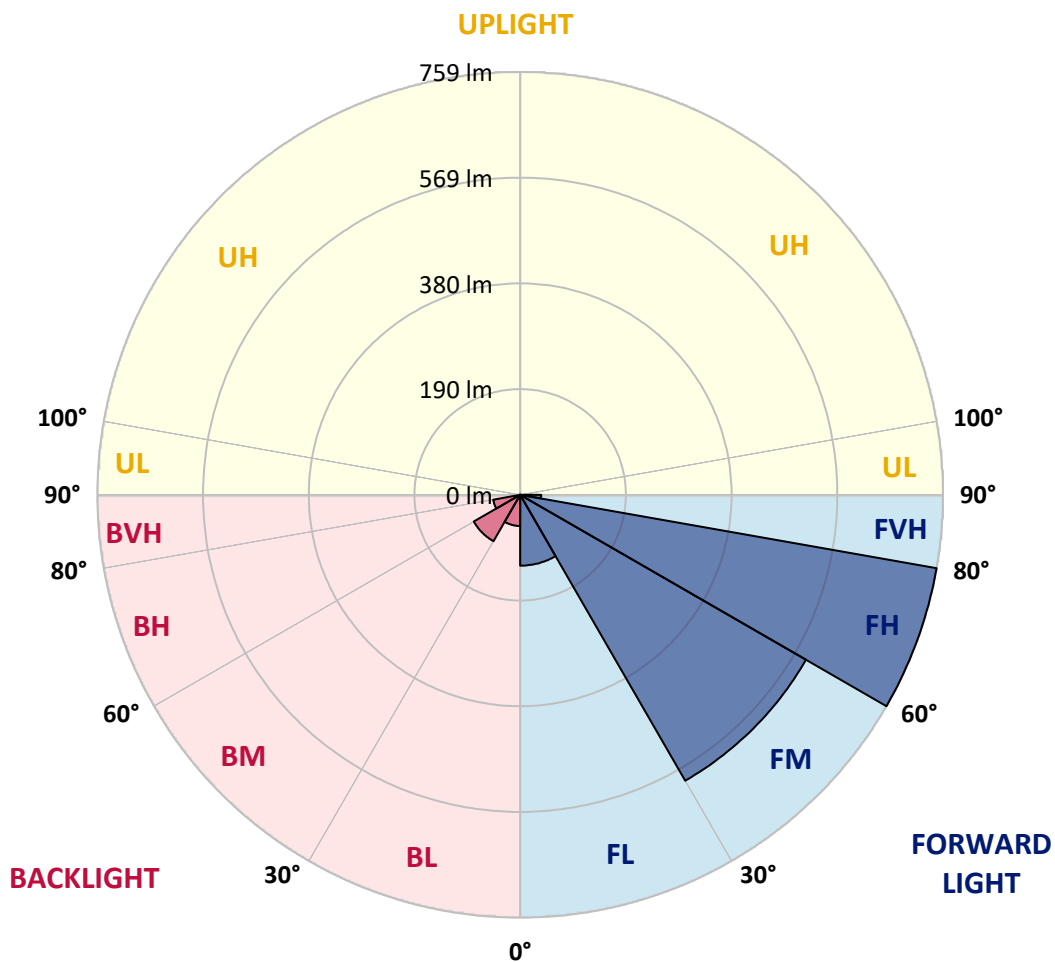
CATALOG NUMBER: ISS-AF-350-LED-E1-SL4-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	127.2	7.4			
FM (30°-60°)	592.8	34.4			
FH (60°-80°)	759.3	44.1			G1/1800
FVH (80°-90°)	37.6	2.2			G1/100
BL (0°-30°)	56.0	3.3	B0/110		
BM (30°-60°)	96.2	5.6	B0/220		
BH (60°-80°)	49.2	2.9	B0/110		G0/110
BVH (80°-90°)	2.6	0.2			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	37.5°	38°	40°	42.5°	45°	47.5°
0°	280.8	280.8	280.8	280.8	280.8	280.8	280.8	280.8	280.8	280.8	280.8
2.5°	296.9	296.3	295.0	294.3	293.1	291.1	293.1	290.5	289.2	290.5	287.9
5°	302.0	301.4	300.1	297.5	296.3	293.1	295.0	291.8	291.1	292.4	289.2
7.5°	302.7	301.4	299.5	296.3	295.0	291.1	292.4	288.6	287.3	288.6	286.6
10°	300.8	300.1	298.2	293.1	291.8	290.5	289.8	287.3	286.6	286.0	285.3
12.5°	297.5	297.5	296.3	294.3	293.7	291.1	291.8	289.2	289.8	288.6	287.3
15°	296.3	295.6	296.9	298.2	298.2	294.3	296.9	295.0	293.7	294.3	292.4
17.5°	295.0	295.6	300.1	302.7	304.0	300.1	304.0	300.1	297.5	300.8	297.5
20°	294.3	296.3	304.0	309.8	310.4	304.0	310.4	304.0	304.0	307.8	302.0
22.5°	297.5	300.8	311.7	318.1	319.4	311.0	318.8	310.4	310.4	313.6	307.8
25°	307.8	311.0	323.3	330.3	329.0	320.0	327.1	318.8	318.1	322.0	314.3
27.5°	321.3	325.8	337.4	343.8	339.3	327.1	337.4	325.2	325.2	331.0	320.7
30°	340.6	343.8	354.1	354.7	349.0	334.2	345.7	332.3	330.3	340.6	327.8
32.5°	361.8	364.4	372.1	367.6	359.2	343.8	357.3	341.2	340.6	351.5	336.8
35°	384.3	386.9	389.4	381.7	374.0	357.3	372.1	356.0	355.4	367.6	353.5
37.5°	407.4	407.4	407.4	398.4	393.3	377.2	390.7	377.9	376.6	389.4	376.0
40°	426.1	427.4	425.4	417.1	414.5	402.9	414.5	402.9	404.9	416.4	405.5
42.5°	441.5	442.8	443.4	436.4	438.9	432.5	441.5	433.1	433.8	446.6	440.2
45°	456.9	456.3	461.4	459.5	467.2	467.9	473.0	469.8	471.1	480.7	478.8
47.5°	473.0	469.8	475.6	483.9	498.1	502.6	505.8	507.1	512.2	516.7	521.2
50°	488.4	485.2	489.1	507.7	530.2	539.8	540.5	546.9	552.7	559.1	568.1
52.5°	504.5	501.9	505.8	532.1	568.1	581.6	579.7	590.6	599.0	606.0	620.8
55°	521.2	518.6	522.5	561.7	608.6	627.2	625.3	640.7	656.8	659.4	676.1
57.5°	537.3	534.0	545.0	596.4	656.8	685.1	676.1	699.9	715.3	714.0	737.1
60°	554.6	552.0	569.4	638.8	717.2	753.8	740.3	771.8	782.8	778.3	800.1
62.5°	571.3	570.7	599.6	688.3	790.5	825.8	813.6	841.2	848.9	843.2	854.1
65°	586.7	590.6	632.4	737.8	861.2	901.6	884.9	912.6	921.6	917.1	935.7
67.5°	612.4	616.9	672.9	800.7	948.6	990.3	976.2	1005.1	1018.6	1017.3	1037.9
70°	650.4	658.7	732.6	890.1	1081.6	1134.9	1127.2	1162.6	1195.3	1192.8	1213.3
72.5°	716.6	730.1	831.0	1028.9	1300.1	1365.0	1356.0	1375.9	1370.1	1323.2	1285.3
74°	703.7	720.4	855.4	1101.5	1398.4	1439.5	1424.8	1425.4	1372.7	1301.4	1240.3
75°	656.8	674.1	820.0	1092.5	1391.3	1413.8	1392.6	1366.3	1302.7	1230.0	1154.9
77.5°	450.5	473.0	602.8	882.4	1120.1	1089.3	1084.2	1034.0	949.8	868.2	771.8
80°	230.7	246.8	311.7	461.4	664.5	633.7	643.9	603.5	533.4	474.3	376.0
82.5°	55.3	59.1	91.9	178.7	287.9	263.5	267.3	236.5	196.0	160.0	124.0
85°	28.9	32.8	45.0	49.5	75.8	78.4	76.5	73.9	60.4	50.8	44.3
87.5°	0.0	0.0	0.0	1.3	0.6	0.0	0.6	0.0	0.0	0.6	1.3
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):

	50°	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°
0°	280.8	280.8	280.8	280.8	280.8	280.8	280.8	280.8	280.8	280.8	280.8
2.5°	289.8	288.6	289.8	286.0	287.9	284.7	286.0	282.8	284.1	281.5	282.1
5°	291.1	287.9	289.8	286.6	287.3	284.7	284.1	282.8	282.1	280.2	278.9
7.5°	287.9	285.3	284.7	283.4	281.5	282.1	279.6	278.9	277.0	277.0	273.1
10°	284.7	285.3	281.5	282.8	279.6	280.2	275.7	277.0	273.8	276.3	270.6
12.5°	287.3	287.9	284.7	286.6	280.8	282.1	278.3	280.2	275.7	278.9	271.8
15°	293.1	292.4	291.1	291.1	285.3	287.9	283.4	284.7	280.2	284.1	276.3
17.5°	298.2	297.5	295.6	295.0	291.1	291.8	287.3	289.8	284.7	287.9	280.2
20°	304.0	300.8	300.1	299.5	295.0	295.0	291.8	293.1	287.9	291.8	282.8
22.5°	308.5	305.9	305.3	302.7	299.5	300.8	296.3	296.9	291.8	295.6	287.9
25°	315.5	312.3	312.3	308.5	306.5	305.9	303.3	305.3	300.1	302.7	295.6
27.5°	325.2	318.1	320.7	316.8	315.5	314.9	313.6	314.9	311.0	313.0	305.9
30°	334.2	325.2	329.0	323.9	326.5	323.9	325.8	323.9	323.9	323.9	320.7
32.5°	346.4	335.5	343.2	335.5	340.6	336.8	343.2	339.3	341.9	341.2	340.0
35°	363.7	350.9	361.8	351.5	360.5	355.4	364.4	362.5	367.6	365.0	367.6
37.5°	386.9	373.4	386.2	376.6	387.5	379.8	392.7	391.4	402.3	398.4	402.3
40°	415.8	406.2	415.8	408.7	420.3	417.1	430.6	431.2	443.4	441.5	446.0
42.5°	447.9	440.9	450.5	446.6	458.2	460.8	476.2	480.1	491.6	494.8	495.5
45°	482.6	481.3	489.1	492.9	504.5	512.2	525.7	535.3	548.2	555.3	554.0
47.5°	523.1	528.3	533.4	543.0	553.3	569.4	582.9	595.1	609.9	614.4	616.3
50°	568.7	577.7	582.2	595.7	606.0	625.9	644.6	660.0	676.1	674.1	675.4
52.5°	616.9	628.5	634.9	651.0	664.5	687.6	703.7	718.5	738.4	733.3	731.3
55°	670.3	687.6	692.8	710.8	722.3	746.1	760.3	786.0	794.3	789.2	778.3
57.5°	726.8	747.4	753.2	777.6	783.4	809.1	821.3	838.7	845.7	837.4	823.2
60°	791.1	809.7	814.2	836.1	843.8	867.6	876.6	892.0	897.1	876.6	856.7
62.5°	855.4	874.7	877.2	896.5	904.2	924.8	935.1	944.1	941.5	911.3	886.2
65°	928.6	947.3	953.7	973.0	977.5	992.9	1001.3	991.0	985.2	939.6	911.3
67.5°	1045.0	1064.9	1067.4	1071.9	1071.3	1063.6	1059.7	1024.4	998.7	914.5	874.0
70°	1197.9	1183.1	1154.2	1120.8	1096.4	1052.7	1027.0	954.3	900.4	805.9	737.8
72.5°	1225.5	1177.3	1106.0	1048.8	989.7	920.9	865.7	755.8	679.9	581.0	509.0
74°	1147.1	1068.7	993.5	913.2	845.1	744.8	688.9	550.1	474.9	374.7	287.3
75°	1052.7	960.8	875.9	773.8	710.1	590.0	537.3	387.5	312.3	222.4	149.7
77.5°	671.6	561.7	480.7	362.5	313.0	215.9	158.1	98.3	72.6	63.6	55.3
80°	301.4	214.6	170.3	117.6	98.3	75.2	63.6	51.4	46.9	41.1	39.2
82.5°	96.4	77.1	73.3	65.6	65.6	52.7	45.0	35.3	32.1	27.6	25.1
85°	41.8	39.2	40.5	37.3	37.9	28.9	23.1	17.4	17.4	12.2	10.9
87.5°	1.3	0.0	0.6	0.0	1.3	0.0	0.6	0.0	0.6	0.0	0.6
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):

	77.5°	80°	85°	90°	95°	100°	102.5°	105°	107.5°	110°	112.5°
0°	280.8	280.8	280.8	280.8	280.8	280.8	280.8	280.8	280.8	280.8	280.8
2.5°	279.6	280.8	280.2	277.6	277.0	275.1	270.6	271.2	268.6	270.6	267.3
5°	277.0	276.3	273.8	270.6	267.3	263.5	260.3	259.0	256.4	255.1	253.2
7.5°	273.1	270.6	266.1	260.9	256.4	251.3	248.7	244.2	242.9	238.4	237.8
10°	271.8	267.3	262.2	255.8	248.1	240.4	239.7	232.0	231.4	224.3	222.4
12.5°	274.4	268.6	262.2	254.5	245.5	234.6	234.6	223.0	222.4	212.7	209.5
15°	279.6	272.5	264.1	255.1	243.6	230.1	229.4	215.9	214.6	203.1	199.2
17.5°	284.1	274.4	266.7	254.5	241.0	225.6	222.4	208.9	206.3	192.8	187.7
20°	287.3	276.3	267.3	253.2	236.5	218.5	214.0	199.9	194.1	180.6	173.5
22.5°	291.1	280.8	268.6	252.6	233.9	212.7	203.1	190.2	181.9	167.7	158.1
25°	296.9	287.9	273.1	254.5	232.0	206.9	194.1	180.6	169.0	154.9	140.7
27.5°	305.9	296.9	279.6	257.1	231.4	201.2	187.0	170.3	156.2	140.7	124.7
30°	318.8	309.1	290.5	264.1	232.0	196.7	179.3	161.3	144.6	126.6	109.9
32.5°	335.5	327.8	304.6	271.8	234.6	192.8	172.2	151.7	131.1	113.7	99.0
35°	358.6	353.5	324.5	286.6	241.0	190.9	165.2	142.7	119.5	102.2	86.1
37.5°	392.7	385.6	353.5	307.8	251.3	189.6	160.0	131.7	109.9	91.3	77.8
40°	435.7	426.1	387.5	333.5	267.3	190.2	155.5	123.4	101.5	81.6	70.7
42.5°	487.1	473.0	429.3	365.0	283.4	191.5	153.0	115.7	95.1	73.9	65.6
45°	545.0	528.9	478.8	404.2	306.5	194.7	151.0	109.3	89.3	68.1	62.3
47.5°	601.5	585.5	529.5	443.4	330.3	200.5	152.3	105.4	85.5	64.9	58.5
50°	656.8	640.1	574.5	478.8	350.9	208.2	157.5	106.0	84.8	63.6	56.6
52.5°	705.6	685.1	613.1	506.4	365.7	213.4	161.9	108.0	85.5	63.0	55.9
55°	754.5	728.1	643.9	528.3	374.7	214.0	161.9	108.6	86.1	63.0	55.3
57.5°	791.1	760.9	667.7	541.1	377.9	210.8	158.1	105.4	82.3	62.3	54.0
60°	814.2	782.1	684.4	549.5	373.4	197.3	137.5	93.2	72.6	57.8	50.1
62.5°	833.5	800.7	689.6	535.3	335.5	156.8	107.3	75.8	60.4	51.4	46.3
65°	838.0	798.8	653.6	473.0	262.2	108.6	77.8	59.8	49.5	45.6	41.8
67.5°	769.9	723.0	549.5	370.2	178.7	74.5	57.8	48.8	42.4	40.5	39.2
70°	625.9	574.5	402.3	242.3	99.6	52.1	44.3	40.5	36.6	36.6	34.7
72.5°	403.6	350.2	206.3	103.5	50.8	39.8	36.0	34.7	31.5	32.1	30.2
74°	206.3	160.7	84.2	54.6	41.8	35.3	32.1	31.5	28.3	28.9	27.0
75°	104.8	82.9	59.1	45.6	38.6	33.4	29.6	29.6	25.7	26.3	24.4
77.5°	48.8	46.9	40.5	36.0	32.8	28.3	24.4	23.8	19.9	21.2	18.6
80°	34.1	34.1	31.5	30.2	27.0	23.1	18.6	18.6	14.8	15.4	13.5
82.5°	19.3	18.0	18.0	20.6	21.2	17.4	13.5	12.9	10.9	10.9	9.0
85°	8.4	9.6	11.6	14.1	15.4	13.5	9.6	9.0	5.8	5.8	3.2
87.5°	0.0	0.6	0.6	1.3	2.6	2.6	0.0	1.3	0.0	0.6	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):

	115°	117.5°	120°	122.5°	125°	127.5°	130°	135°	145°	155°	165°
0°	280.8	280.8	280.8	280.8	280.8	280.8	280.8	280.8	280.8	280.8	280.8
2.5°	268.6	265.4	267.3	264.1	265.4	262.2	263.5	261.6	259.6	257.1	256.4
5°	251.3	248.7	248.1	244.9	245.5	242.9	240.4	237.1	233.3	228.1	226.2
7.5°	232.0	231.4	226.9	224.9	222.4	219.8	215.3	210.1	202.4	195.4	190.9
10°	215.3	213.4	206.9	203.7	199.9	196.7	190.2	183.2	172.2	161.3	155.5
12.5°	201.2	198.6	190.2	186.4	180.6	176.7	169.0	160.0	144.6	129.2	122.1
15°	189.6	185.7	176.1	170.3	162.6	158.7	150.4	137.5	118.9	102.8	93.2
17.5°	176.1	170.9	160.7	153.6	145.9	138.8	130.5	117.0	95.8	81.0	71.3
20°	161.3	154.9	144.0	134.3	126.0	119.5	111.2	97.7	76.5	64.9	59.8
22.5°	145.9	135.6	126.0	117.6	108.0	101.5	93.2	81.0	64.9	58.5	56.6
25°	129.8	118.2	108.6	100.3	91.3	85.5	78.4	68.8	59.1	57.2	57.2
27.5°	113.7	102.2	93.2	84.8	77.1	73.3	66.8	60.4	55.9	56.6	57.2
30°	99.0	87.4	79.0	72.6	65.6	63.0	57.8	54.0	53.3	55.3	55.9
32.5°	86.1	75.8	68.1	63.0	57.2	55.9	51.4	49.5	51.4	54.0	53.3
35°	75.2	66.8	59.1	55.9	50.8	50.1	46.9	45.6	48.2	51.4	51.4
37.5°	66.8	59.1	53.3	50.8	46.9	46.3	43.7	42.4	44.3	48.8	50.1
40°	59.8	55.3	49.5	46.9	44.3	43.1	41.8	40.5	41.1	46.9	47.6
42.5°	55.3	52.1	46.9	45.6	42.4	41.8	39.8	38.6	39.2	43.7	45.6
45°	52.1	49.5	45.0	44.3	41.1	40.5	38.6	37.3	37.9	41.8	43.7
47.5°	49.5	46.9	43.1	41.8	39.8	39.2	37.9	36.6	36.6	40.5	42.4
50°	48.2	45.6	41.8	40.5	38.6	37.9	36.6	35.3	36.0	39.2	40.5
52.5°	47.6	44.3	41.1	39.2	37.9	36.6	35.3	34.1	34.7	37.9	39.2
55°	47.6	43.7	41.1	39.2	37.3	35.3	34.7	32.8	34.1	36.6	38.6
57.5°	47.6	43.7	41.1	39.2	37.9	36.0	34.7	33.4	34.1	36.6	38.6
60°	46.3	43.1	41.8	39.8	39.2	37.3	36.6	35.3	35.3	38.6	41.8
62.5°	44.3	42.4	41.8	40.5	40.5	39.2	39.2	37.9	37.9	41.8	45.0
65°	41.8	40.5	41.1	40.5	40.5	40.5	39.8	39.8	39.8	43.1	46.9
67.5°	39.2	38.6	39.2	39.2	39.8	39.2	39.8	39.2	39.2	42.4	46.3
70°	35.3	35.3	36.0	35.3	36.0	36.0	36.6	36.6	36.6	38.6	42.4
72.5°	30.8	30.2	30.8	30.2	31.5	30.2	31.5	32.1	31.5	32.1	34.1
74°	27.6	27.0	27.6	27.0	28.3	27.0	27.6	27.6	27.0	21.9	18.6
75°	25.1	24.4	25.1	24.4	25.7	24.4	25.7	25.1	23.8	16.1	15.4
77.5°	19.9	18.0	19.9	18.0	19.3	17.4	18.6	16.1	12.2	11.6	11.6
80°	14.8	12.9	14.1	12.2	11.6	9.0	9.6	9.0	8.4	9.0	9.0
82.5°	9.0	6.4	7.7	5.8	7.1	5.1	6.4	5.8	5.1	5.1	5.1
85°	4.5	3.2	4.5	2.6	3.9	2.6	3.2	3.2	1.9	1.9	1.9
87.5°	0.6	0.0	1.3	0.0	1.3	0.0	0.6	0.6	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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	175°	180°
0°	280.8	280.8
2.5°	254.5	255.1
5°	223.0	224.9
7.5°	188.3	189.6
10°	151.7	153.0
12.5°	117.0	118.2
15°	88.0	86.8
17.5°	67.5	66.2
20°	57.2	57.2
22.5°	55.9	55.3
25°	56.6	55.9
27.5°	56.6	55.9
30°	55.3	54.6
32.5°	53.3	52.7
35°	51.4	51.4
37.5°	50.1	50.8
40°	48.2	48.8
42.5°	46.3	46.9
45°	44.3	45.0
47.5°	42.4	42.4
50°	39.8	39.8
52.5°	39.2	39.2
55°	39.2	39.2
57.5°	40.5	40.5
60°	44.3	45.0
62.5°	52.1	52.7
65°	59.8	61.1
67.5°	60.4	62.3
70°	58.5	60.4
72.5°	40.5	40.5
74°	18.0	17.4
75°	15.4	14.8
77.5°	11.6	11.6
80°	8.4	7.7
82.5°	4.5	4.5
85°	1.3	1.3
87.5°	0.0	0.0
90°	0.0	0.0

(END OF REPORT)