

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: P228748

Luminaire Tested: **ISS-AF-450-LED-E1-RW-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P228748  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29765)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: ISS-AF-450-LED-E1-RW-7050  
Description: IMPACT ELITE LED QUATER SPHERE LUMINAIRE  
LIGHT SQUARE WITH ACCULED OPTICS-RECTANGULAR WIDE TYPE I  
Light Source: (16) 5000K CCT, 70 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

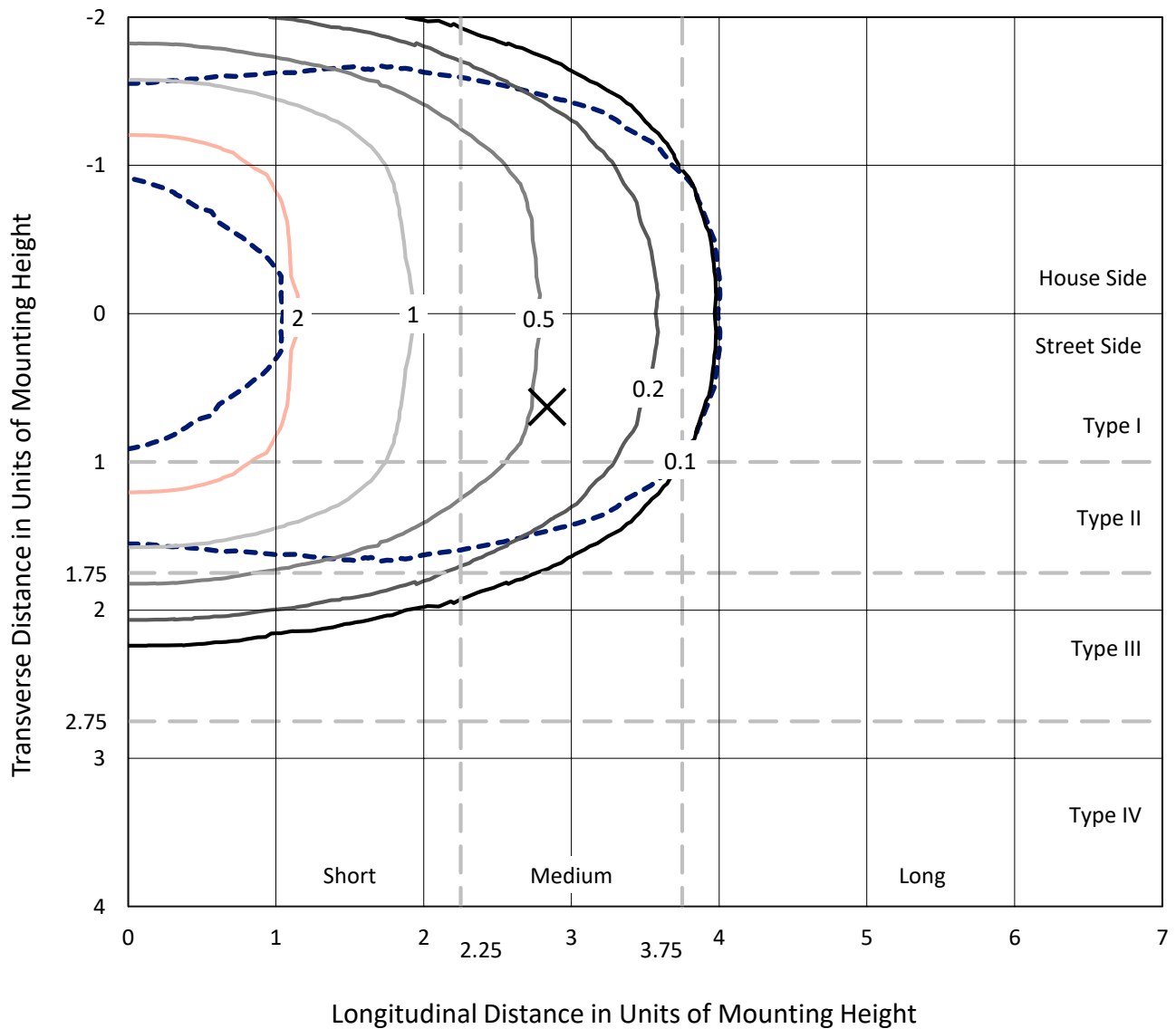
Lumens per Lamp: N/A  
Luminaire Lumens: 2988 lumens  
Efficiency: N/A  
Efficacy: 118.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 25.31  
Input Voltage (V): 120  
Input 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

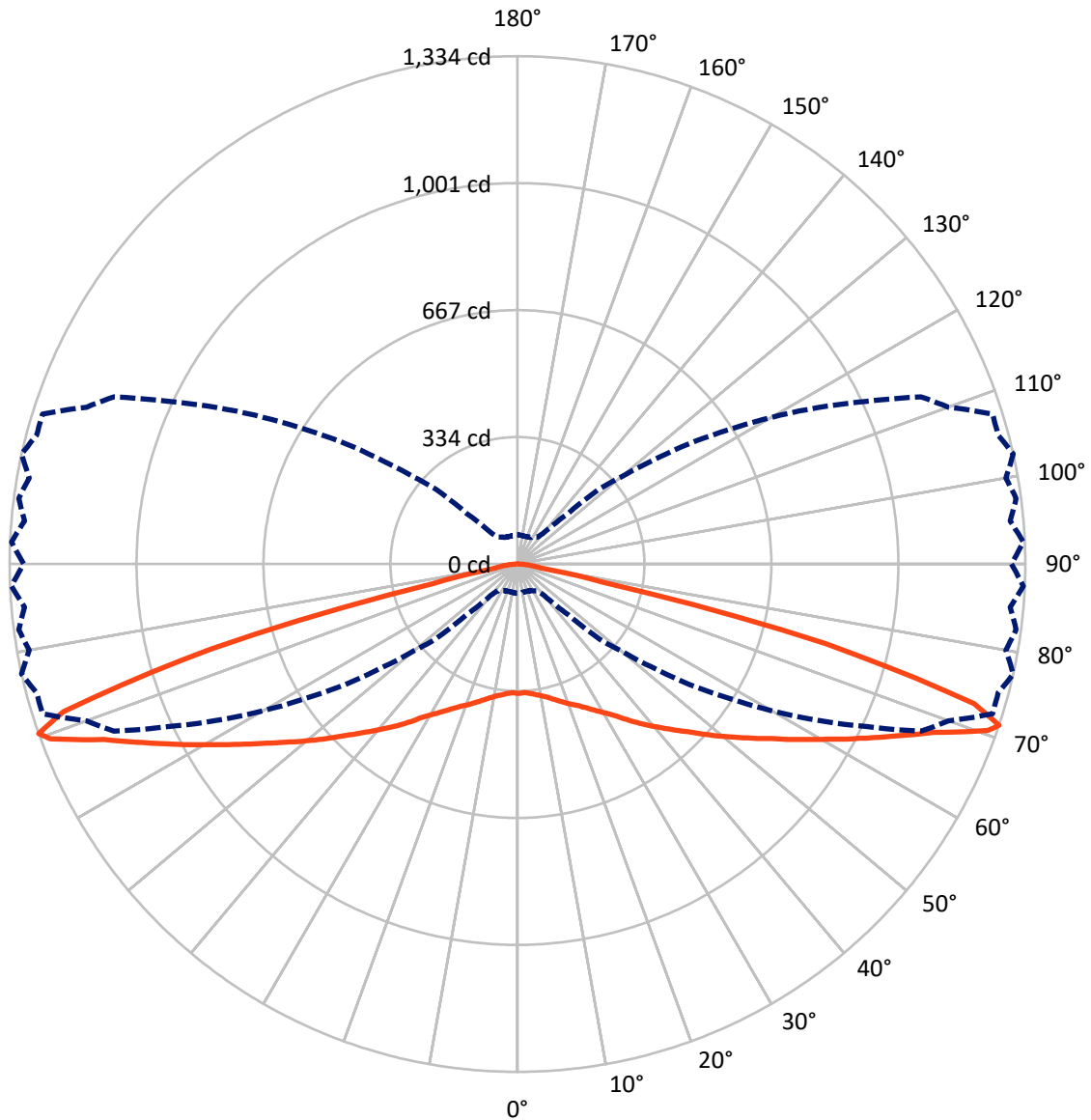
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.5 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral    - - - Horizontal Cone Through 71-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1494.0	0.0	1494.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	1494.0	0.0	1494.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	2988.0	0.0	2988.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	32.9	1.1
10°-20°	102.7	3.4
20°-30°	192.2	6.4
30°-40°	334.6	11.2
40°-50°	545.9	18.3
50°-60°	753.3	25.2
60°-70°	714.6	23.9
70°-80°	294.1	9.8
80°-90°	17.8	0.6
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°	2988.0	100.0
0°-180°	2988.0	100.0



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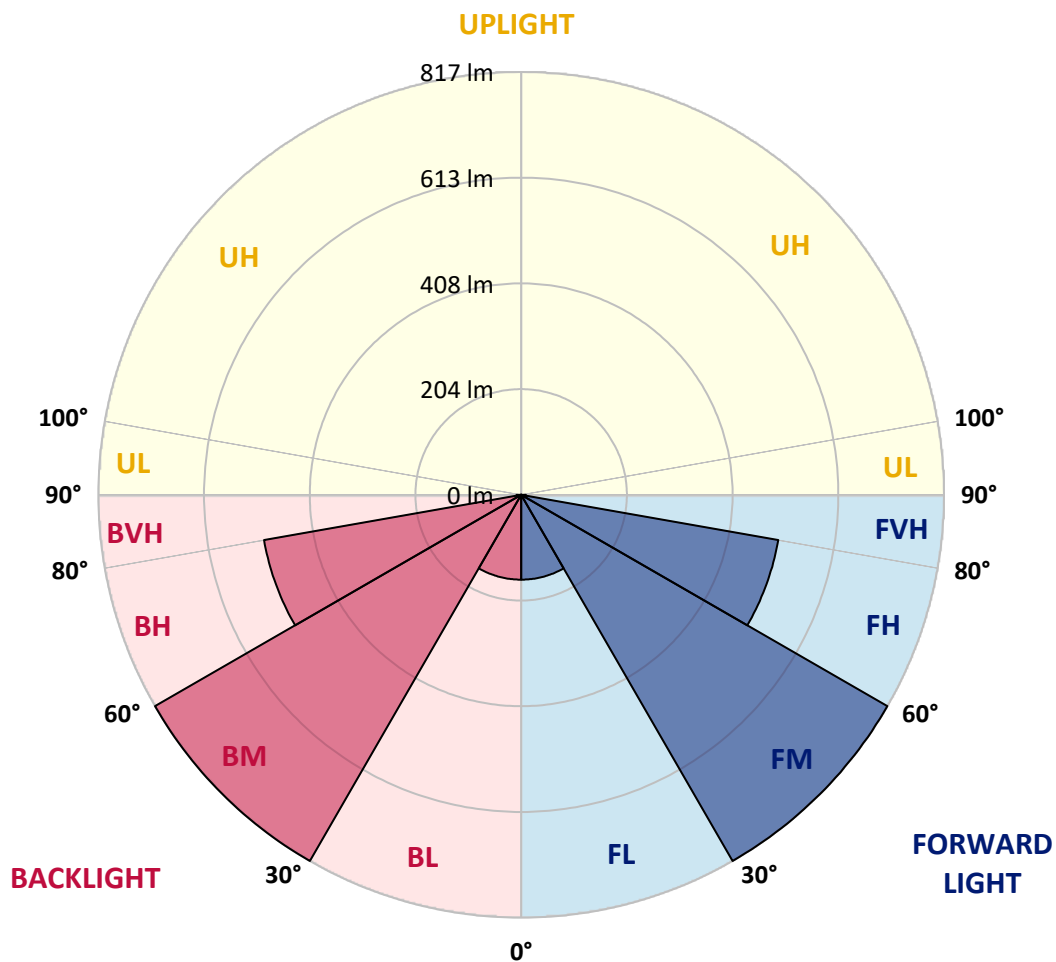
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	163.9	5.5			
FM	(30°-60°)	816.9	27.3			
FH	(60°-80°)	504.4	16.9			G0/660
FVH	(80°-90°)	8.9	0.3			G0/10
BL	(0°-30°)	163.9	5.5	B1/500		
BM	(30°-60°)	816.9	27.3	B1/1000		
BH	(60°-80°)	504.4	16.9	B2/1000		G2/1000
BVH	(80°-90°)	8.9	0.3			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	37.5°	40°	42.5°	45°	47.5°	50°
0°	340.2	340.2	340.2	340.2	340.2	340.2	340.2	340.2	340.2	340.2	340.2
2.5°	339.2	338.3	339.2	339.2	340.2	340.2	340.2	340.2	339.2	341.2	341.2
5°	339.2	339.2	340.2	340.2	342.2	344.2	341.2	342.2	343.2	342.2	344.2
7.5°	339.2	339.2	339.2	341.2	344.2	346.2	344.2	345.2	347.2	347.2	349.1
10°	336.3	335.3	337.3	341.2	346.2	349.1	348.1	352.1	351.1	352.1	354.1
12.5°	331.3	331.3	335.3	341.2	350.1	352.1	353.1	355.1	358.0	357.1	360.0
15°	332.3	333.3	337.3	345.2	356.1	358.0	359.0	359.0	364.0	362.0	367.9
17.5°	339.2	340.2	344.2	352.1	365.0	365.0	366.0	367.9	374.9	370.9	378.8
20°	350.1	351.1	355.1	364.0	375.8	374.9	376.8	378.8	387.7	383.8	391.7
22.5°	363.0	365.0	369.9	379.8	392.7	386.7	390.7	394.6	403.5	396.6	407.5
25°	380.8	383.8	388.7	399.6	413.4	406.5	410.5	413.4	423.3	413.4	424.3
27.5°	406.5	408.5	412.4	424.3	436.2	431.2	433.2	435.2	447.1	436.2	448.0
30°	437.2	440.1	444.1	455.0	466.8	458.9	462.9	464.9	474.7	463.9	473.8
32.5°	475.7	478.7	483.7	493.5	503.4	491.6	492.6	495.5	505.4	494.5	505.4
35°	521.2	523.2	530.1	542.0	548.9	530.1	531.1	531.1	544.0	529.1	541.0
37.5°	568.7	570.7	578.6	590.5	598.4	577.6	577.6	578.6	590.5	573.7	584.5
40°	618.2	624.1	633.0	644.9	650.8	627.1	629.0	628.1	641.9	622.1	633.0
42.5°	667.6	672.6	685.4	699.3	706.2	682.5	683.4	680.5	694.3	673.5	682.5
45°	710.1	714.1	729.9	749.7	760.6	735.9	735.9	735.9	749.7	724.0	734.9
47.5°	744.8	747.7	764.5	793.2	811.0	786.3	788.3	784.3	805.1	773.4	788.3
50°	769.5	770.5	792.2	824.9	855.5	832.8	835.8	837.7	857.5	829.8	842.7
52.5°	777.4	779.4	804.1	843.7	888.2	873.3	884.2	888.2	906.0	876.3	894.1
55°	749.7	754.7	792.2	850.6	910.9	906.0	918.8	926.7	949.5	924.8	943.6
57.5°	656.7	662.7	715.1	811.0	915.9	923.8	941.6	954.4	987.1	972.2	993.0
60°	524.2	529.1	582.6	698.3	853.6	902.0	942.6	979.2	1012.8	1015.8	1042.5
62.5°	360.0	366.9	418.4	529.1	718.1	782.3	840.7	901.0	957.4	1025.7	1060.3
65°	176.1	180.0	223.5	330.3	527.2	609.3	677.5	762.6	815.0	912.9	969.3
67.5°	96.9	96.9	103.9	137.5	281.9	363.0	436.2	543.0	596.4	717.1	789.3
70°	81.1	81.1	79.1	84.1	106.8	126.6	164.2	225.5	299.7	421.3	486.6
71°	77.1	76.2	75.2	77.1	86.0	90.0	105.8	138.5	187.9	290.8	355.1
72.5°	72.2	70.2	67.3	68.2	73.2	73.2	76.2	81.1	99.9	136.5	183.0
75°	62.3	60.3	57.4	57.4	58.4	59.3	60.3	62.3	63.3	65.3	73.2
77.5°	51.4	49.5	46.5	46.5	45.5	46.5	48.5	49.5	47.5	51.4	52.4
80°	39.6	36.6	35.6	35.6	34.6	33.6	33.6	33.6	34.6	36.6	37.6
82.5°	24.7	22.7	23.7	22.7	21.8	21.8	21.8	21.8	22.7	22.7	24.7
85°	11.9	11.9	12.9	11.9	9.9	9.9	8.9	7.9	8.9	7.9	9.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
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):**

	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°
0°	340.2	340.2	340.2	340.2	340.2	340.2	340.2	340.2	340.2	340.2	340.2
2.5°	338.3	340.2	339.2	340.2	338.3	340.2	337.3	340.2	339.2	340.2	338.3
5°	341.2	344.2	341.2	345.2	341.2	345.2	341.2	345.2	342.2	345.2	341.2
7.5°	344.2	350.1	346.2	351.1	346.2	352.1	346.2	352.1	348.1	353.1	346.2
10°	350.1	357.1	351.1	357.1	351.1	358.0	351.1	359.0	353.1	361.0	352.1
12.5°	355.1	363.0	357.1	365.0	356.1	366.9	358.0	369.9	360.0	371.9	360.0
15°	362.0	371.9	366.0	374.9	366.0	377.8	366.9	380.8	369.9	382.8	369.9
17.5°	371.9	382.8	374.9	385.7	375.8	388.7	376.8	391.7	380.8	393.6	380.8
20°	385.7	394.6	386.7	398.6	387.7	399.6	389.7	401.6	392.7	404.5	392.7
22.5°	401.6	409.5	403.5	410.5	400.6	410.5	400.6	410.5	403.5	413.4	403.5
25°	419.4	425.3	418.4	425.3	416.4	424.3	415.4	423.3	416.4	425.3	418.4
27.5°	443.1	446.1	438.2	444.1	433.2	441.1	431.2	439.1	432.2	440.1	435.2
30°	468.8	471.8	463.9	467.8	456.0	460.9	450.0	456.9	451.0	456.9	454.0
32.5°	497.5	501.5	492.6	494.5	484.6	485.6	476.7	479.7	474.7	476.7	475.7
35°	530.1	535.1	525.2	528.2	517.3	517.3	509.4	508.4	506.4	504.4	504.4
37.5°	571.7	573.7	565.7	565.7	552.9	552.9	543.0	543.0	539.0	535.1	533.1
40°	617.2	618.2	605.3	604.3	591.5	591.5	580.6	577.6	570.7	565.7	562.8
42.5°	665.6	664.6	645.9	647.8	629.0	630.0	616.2	613.2	606.3	600.4	594.4
45°	715.1	711.1	692.3	691.4	669.6	670.6	653.8	651.8	641.9	636.0	629.0
47.5°	765.5	763.6	742.8	737.8	715.1	714.1	692.3	692.3	682.5	676.5	669.6
50°	818.0	817.0	793.2	790.3	766.5	762.6	736.8	736.8	725.0	723.0	713.1
52.5°	875.3	871.4	845.6	844.7	821.9	818.9	791.2	789.3	771.5	770.5	759.6
55°	931.7	924.8	908.0	900.0	877.3	876.3	851.6	846.6	823.9	823.9	810.0
57.5°	983.1	977.2	963.3	956.4	934.7	931.7	905.0	905.0	885.2	884.2	869.4
60°	1036.5	1038.5	1023.7	1020.7	999.9	999.0	972.2	972.2	952.5	951.5	934.7
62.5°	1082.0	1101.8	1095.9	1097.9	1080.1	1077.1	1050.4	1048.4	1025.7	1022.7	1008.8
65°	1037.5	1106.8	1151.3	1180.9	1179.0	1178.0	1152.3	1148.3	1119.6	1111.7	1089.0
67.5°	871.4	961.4	1042.5	1131.5	1196.8	1246.2	1261.1	1255.1	1230.4	1207.6	1179.9
70°	583.5	687.4	790.3	901.0	1012.8	1121.6	1233.4	1281.8	1333.3	1315.4	1310.5
71°	444.1	550.9	653.8	770.5	889.2	1009.8	1147.3	1204.7	1308.5	1307.5	1334.2
72.5°	250.2	345.2	455.0	556.8	668.6	793.2	934.7	998.0	1147.3	1177.0	1254.1
75°	80.1	109.8	145.4	229.5	298.7	412.4	517.3	580.6	679.5	728.9	836.7
77.5°	53.4	59.3	61.3	71.2	80.1	113.7	154.3	188.9	207.7	217.6	228.5
80°	38.6	41.5	43.5	48.5	49.5	55.4	55.4	61.3	60.3	64.3	61.3
82.5°	24.7	27.7	28.7	30.7	31.6	35.6	37.6	41.5	41.5	43.5	42.5
85°	11.9	13.8	13.8	15.8	15.8	18.8	18.8	21.8	21.8	24.7	23.7
87.5°	1.0	1.0	1.0	2.0	2.0	2.0	3.0	4.0	4.0	4.0	4.0
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):**

	80°	82.5°	85°	87.5°	90°
0°	340.2	340.2	340.2	340.2	340.2
2.5°	341.2	340.2	341.2	339.2	341.2
5°	346.2	342.2	347.2	342.2	347.2
7.5°	354.1	349.1	355.1	347.2	354.1
10°	361.0	354.1	362.0	354.1	361.0
12.5°	372.9	362.0	374.9	362.0	374.9
15°	384.7	371.9	387.7	373.9	386.7
17.5°	395.6	383.8	398.6	384.7	397.6
20°	405.5	394.6	407.5	393.6	407.5
22.5°	415.4	408.5	418.4	408.5	418.4
25°	428.3	423.3	430.2	423.3	430.2
27.5°	443.1	441.1	445.1	440.1	446.1
30°	459.9	460.9	461.9	460.9	462.9
32.5°	480.7	485.6	483.7	483.7	483.7
35°	509.4	518.3	512.3	514.3	513.3
37.5°	536.1	548.9	541.0	544.0	542.0
40°	565.7	574.6	572.7	572.7	570.7
42.5°	598.4	609.3	606.3	607.3	605.3
45°	634.0	643.9	639.9	638.9	639.9
47.5°	674.5	685.4	680.5	679.5	680.5
50°	717.1	729.9	726.0	724.0	726.0
52.5°	763.6	779.4	777.4	775.4	778.4
55°	818.0	832.8	830.8	832.8	833.8
57.5°	872.4	889.2	885.2	890.2	892.1
60°	940.6	950.5	951.5	952.5	953.5
62.5°	1009.8	1013.8	1016.8	1019.7	1020.7
65°	1089.9	1090.9	1092.9	1089.9	1092.9
67.5°	1167.1	1160.2	1159.2	1162.1	1164.1
70°	1286.8	1286.8	1276.9	1290.7	1278.9
71°	1302.6	1321.4	1299.6	1330.3	1297.6
72.5°	1225.4	1260.1	1235.3	1263.0	1230.4
75°	852.6	932.7	931.7	971.3	939.6
77.5°	236.4	221.5	236.4	203.7	194.8
80°	64.3	58.4	63.3	53.4	60.3
82.5°	42.5	36.6	35.6	28.7	30.7
85°	24.7	18.8	18.8	14.8	15.8
87.5°	4.0	1.0	4.0	2.0	3.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)