

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: P299377

Luminaire Tested: **GLNA-AF-08-LED-E1-SLR-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299377  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194679)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-08-LED-E1-SLR-7027  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(8) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill  
Light Eliminator Right OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 36305.2 lumens  
Efficiency: N/A  
Efficacy: 81.6 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B3 - U0 - G5

Input Watts (W): 445  
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: 25 FT

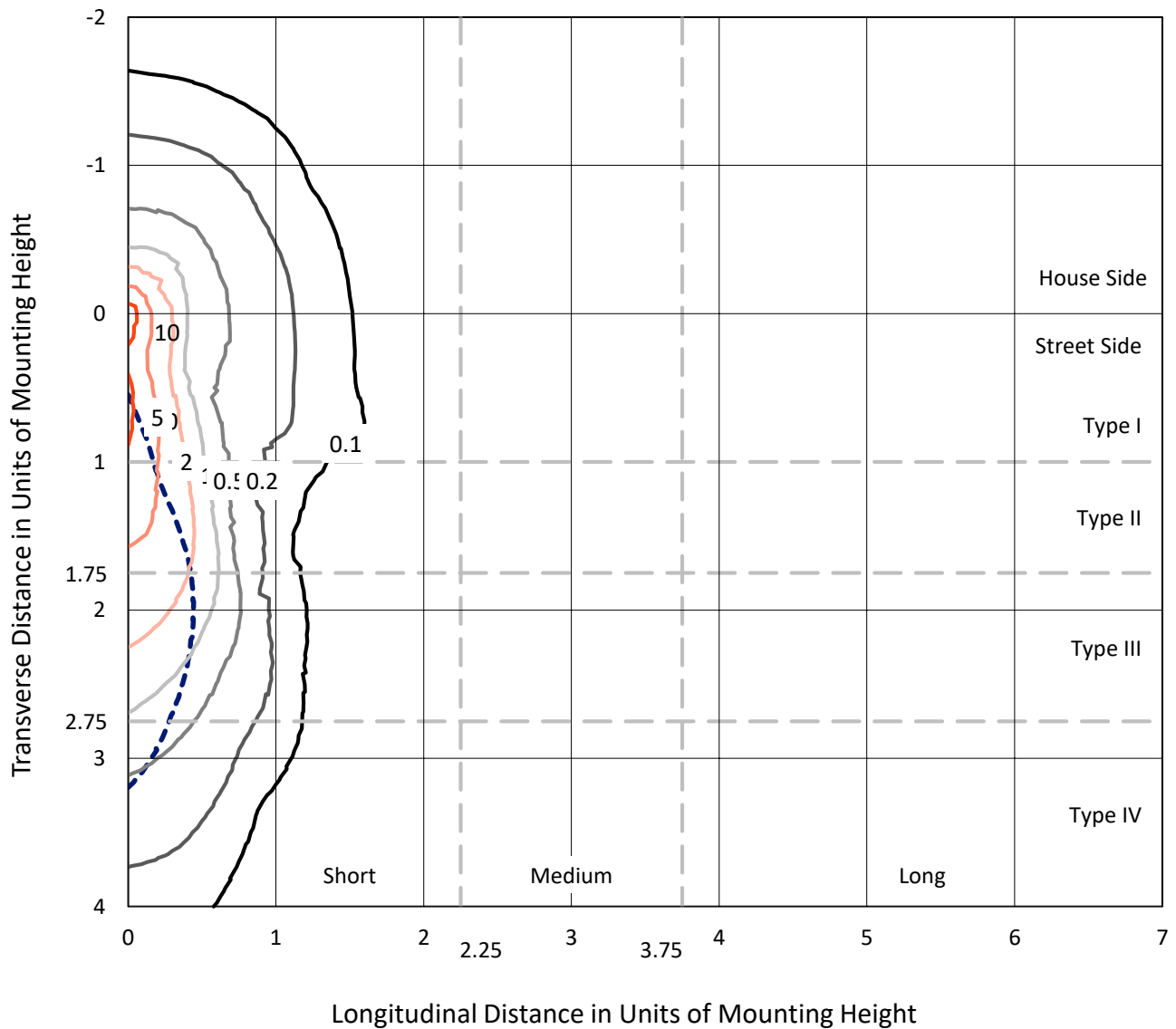


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### Iso-Footcandle Lines of Horizontal Illumination

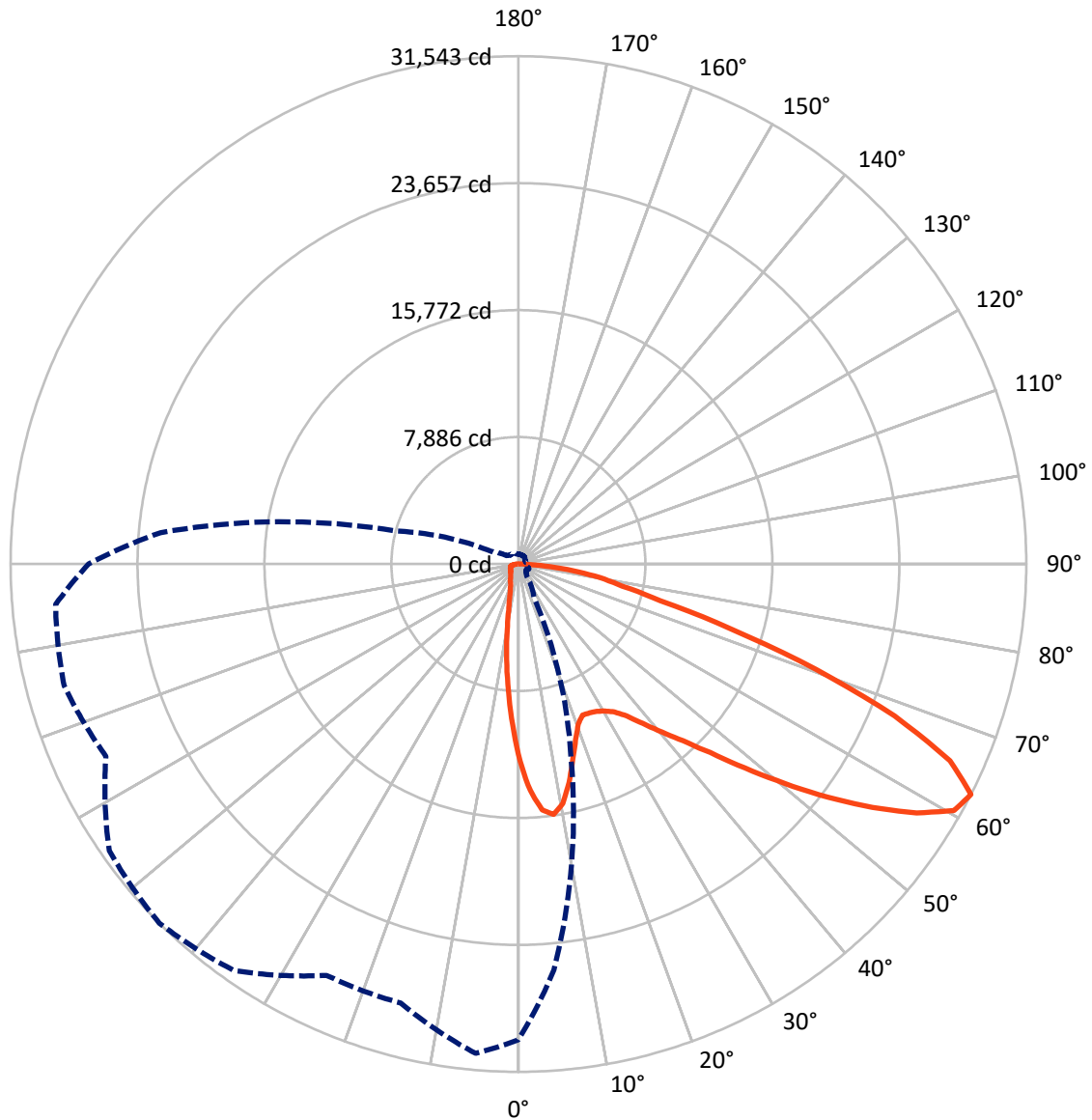
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 13.6 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral    - - - Horizontal Cone Through 62.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6008.0	0.0	6008.0
	% Fixture	16.5	0.0	16.5
<b>Street Side</b>	Lumens	30297.1	0.0	30297.1
	% Fixture	83.5	0.0	83.5
<b>Total</b>	Lumens	36305.2	0.0	36305.2
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	892.9	2.5
10°-20°	1637.3	4.5
20°-30°	2387.2	6.6
30°-40°	3676.7	10.1
40°-50°	5411.1	14.9
50°-60°	7936.9	21.9
60°-70°	8872.3	24.4
70°-80°	4343.8	12.0
80°-90°	1146.9	3.2
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°	36305.2	100.0
0°-180°	36305.2	100.0

**Coefficient of Utilization**



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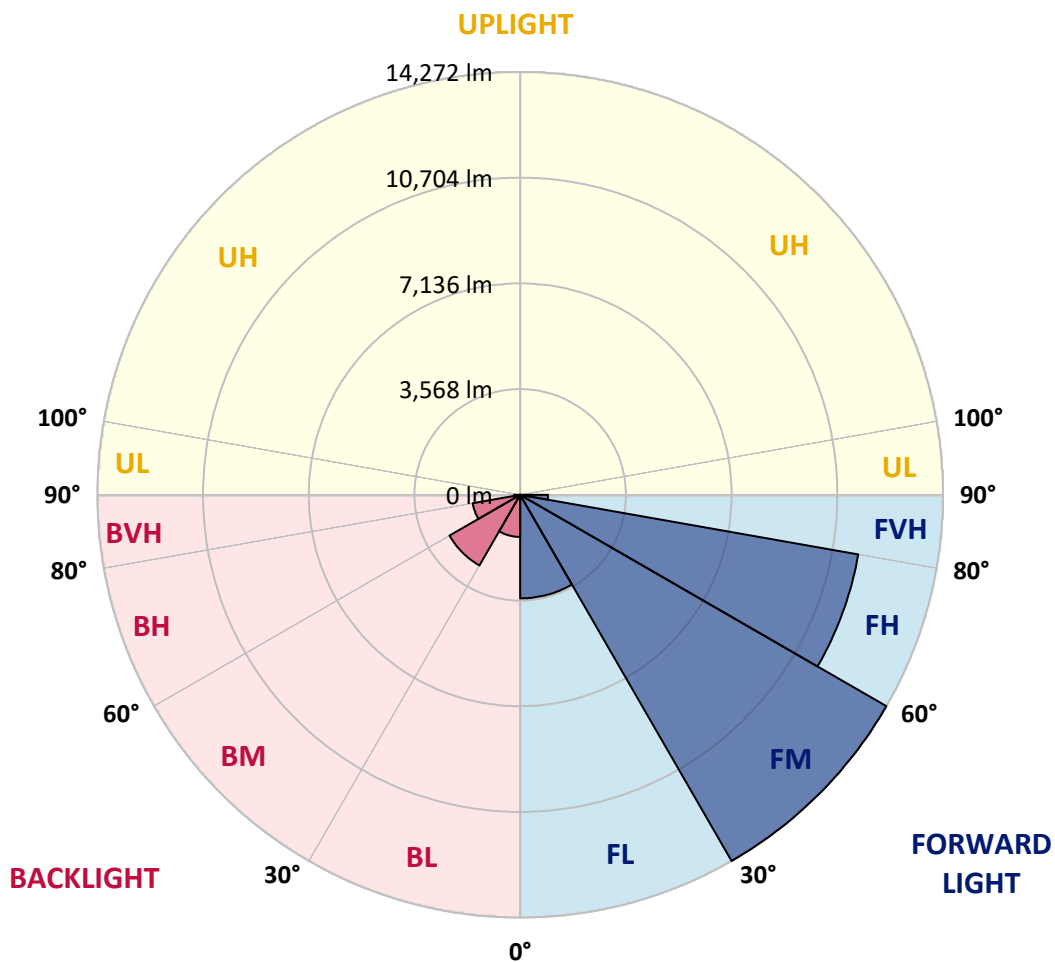
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3496.1	9.6			
FM (30°-60°)	14271.9	39.3			
FH (60°-80°)	11587.3	31.9			G4/12000
FVH (80°-90°)	941.8	2.6			G5
BL (0°-30°)	1421.4	3.9	B3/2500		
BM (30°-60°)	2752.8	7.6	B3/5000		
BH (60°-80°)	1628.8	4.5	B3/2500		G3/2500
BVH (80°-90°)	205.0	0.6			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	12266.1	12266.1	12266.1	12266.1	12266.1	12266.1	12266.1	12266.1	12266.1	12266.1	12266.1
2.5°	12744.6	12485.4	12054.0	11605.1	11332.0	11012.4	10762.9	10543.5	10104.3	10018.5	10096.4
5°	11984.5	11463.7	10651.1	9833.0	9288.1	8703.2	8248.3	7883.3	7326.3	7228.4	7346.2
7.5°	10765.3	10142.4	9068.7	8024.7	7254.4	6523.9	6033.3	5641.8	5206.8	5019.5	5031.0
10°	9713.4	9010.7	7741.4	6606.1	5975.3	5482.3	5069.1	4667.9	4226.8	3937.4	3857.7
12.5°	9124.3	8316.5	6853.2	5839.4	5254.6	4736.2	4290.9	3861.9	3390.7	3095.2	3011.8
15°	9022.8	8144.3	6520.3	5348.8	4615.9	3959.8	3434.8	2955.6	2470.5	2231.2	2181.1
17.5°	9463.9	8451.9	6412.2	4911.4	4015.4	3205.2	2560.5	2025.8	1630.7	1511.1	1500.8
20°	10309.7	9042.8	6398.3	4500.5	3422.7	2472.9	1784.1	1395.1	1221.7	1187.2	1189.6
22.5°	11497.5	9958.7	6569.9	4191.2	2877.7	1844.0	1341.3	1167.3	1099.6	1067.6	1067.6
25°	13034.0	11220.2	6965.0	3965.8	2404.6	1473.0	1183.6	1079.7	1015.6	993.9	998.1
27.5°	14523.3	12447.3	7424.2	3788.2	2095.3	1337.0	1121.4	1027.7	972.1	949.8	960.0
30°	15684.5	13537.3	7807.2	3546.5	1937.6	1299.0	1143.7	1047.6	967.9	934.1	935.9
32.5°	16646.4	14491.3	8128.6	3372.5	1798.0	1113.5	986.0	943.7	934.1	894.2	874.2
35°	17875.9	15531.0	8344.3	3376.8	1732.2	993.9	877.9	804.2	750.4	704.5	704.5
37.5°	19316.8	16724.3	8573.9	3422.7	1708.6	923.8	840.4	766.1	716.6	672.5	664.6
40°	20741.5	17894.0	8783.6	3466.8	1694.1	882.1	810.2	742.5	696.6	652.5	640.4
42.5°	21953.5	18855.8	8970.9	3488.5	1646.4	877.9	788.5	726.2	682.7	634.4	622.9
45°	22849.5	19661.8	9172.7	3522.4	1598.7	894.2	788.5	724.4	670.6	624.7	612.6
47.5°	23649.4	20608.0	9509.8	3522.4	1540.7	864.0	814.4	726.2	668.8	620.5	610.8
50°	24721.2	21905.1	10148.4	3440.8	1459.1	832.0	857.9	718.4	650.7	612.6	600.6
52.5°	26197.8	23567.8	11162.2	3298.8	1333.4	770.3	851.9	714.7	632.6	592.7	578.8
55°	27944.5	25347.8	12267.9	3133.3	1145.5	726.2	822.3	704.5	612.6	568.5	554.6
57.5°	29307.5	26573.0	13046.1	2877.7	981.8	702.7	728.6	694.8	588.5	542.6	531.1
60°	29850.1	26525.3	13259.9	2536.3	902.0	682.7	636.8	778.2	568.5	522.6	508.7
62.5°	29557.1	25300.0	12661.2	2297.1	883.9	656.7	596.9	720.2	552.8	508.7	488.8
65°	28201.9	23128.6	11074.6	2233.0	935.9	630.8	570.9	564.9	531.1	488.8	468.8
67.5°	25249.9	19883.6	8866.9	2239.1	1001.7	604.8	545.0	517.2	500.9	467.0	448.9
70°	20566.3	15720.8	6609.7	2255.4	1035.6	574.6	517.2	487.0	468.8	435.0	422.9
72.5°	15122.0	12116.2	4802.0	2151.5	1041.6	540.7	479.1	453.1	435.0	399.4	389.1
75°	10346.0	9268.1	3330.8	1782.3	908.1	493.0	436.8	413.3	401.2	357.1	351.0
77.5°	7557.7	6957.1	2131.5	1323.2	700.2	433.2	385.5	367.3	359.5	311.2	303.3
80°	6065.4	5504.1	1333.4	906.3	512.9	363.1	323.2	313.6	305.1	257.4	251.3
82.5°	4206.9	3686.1	856.1	588.5	385.5	281.5	255.6	251.3	239.3	195.8	189.7
85°	2219.2	2001.6	542.6	401.2	279.1	193.3	177.6	177.6	171.6	129.9	125.7
87.5°	283.4	461.0	275.5	209.7	153.5	85.8	85.8	84.0	90.0	73.7	64.0
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):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	12266.1	12266.1	12266.1	12266.1	12266.1	12266.1	12266.1	12266.1	12266.1	12266.1	12266.1
2.5°	9912.8	10008.8	9917.0	9923.0	10024.5	10327.8	10465.6	10579.2	10701.2	10781.0	10816.6
5°	7184.9	7408.5	7484.0	7643.5	7879.1	8266.4	8419.8	8531.6	8605.9	8649.4	8667.6
7.5°	4913.8	5049.1	5200.8	5458.2	5971.1	6198.9	6300.4	6274.4	6191.0	6160.8	6131.2
10°	3704.2	3650.5	3622.1	3764.0	4179.1	4408.7	4480.6	4410.5	4364.6	4374.9	4424.4
12.5°	2869.9	2776.2	2662.6	2646.3	2920.0	3125.4	3171.3	3175.0	3258.9	3332.7	3442.6
15°	2091.7	2081.4	2025.8	1992.0	2147.3	2315.2	2335.2	2370.8	2446.9	2500.7	2596.2
17.5°	1474.8	1528.6	1572.7	1594.4	1712.2	1831.9	1810.1	1792.0	1778.1	1778.1	1824.0
20°	1189.6	1225.3	1281.5	1344.9	1465.1	1548.5	1494.7	1422.8	1370.9	1355.2	1361.2
22.5°	1071.8	1099.6	1131.6	1187.2	1295.4	1353.4	1295.4	1243.4	1191.4	1173.3	1167.3
25°	1012.0	1047.6	1077.9	1119.5	1199.3	1239.2	1183.6	1145.5	1113.5	1091.8	1075.4
27.5°	978.2	1009.6	1018.0	1038.0	1105.6	1141.3	1113.5	1097.8	1077.9	1057.9	1038.0
30°	941.9	935.9	922.0	923.8	978.2	1013.8	1012.0	1015.6	1013.8	1007.8	1004.1
32.5°	860.4	848.3	836.2	848.3	897.8	929.8	932.2	940.1	940.1	938.3	954.0
35°	716.6	738.3	752.2	788.5	848.3	876.1	864.0	844.0	808.4	786.0	784.2
37.5°	662.8	666.4	690.6	740.1	806.6	832.0	814.4	768.5	744.3	740.1	746.2
40°	636.8	640.4	654.3	700.2	766.1	792.1	776.4	742.5	720.2	718.4	728.6
42.5°	618.7	622.9	630.8	662.8	716.6	748.6	750.4	726.2	700.2	702.7	712.3
45°	608.4	610.8	608.4	624.7	674.3	712.3	728.6	712.3	690.6	694.8	706.3
47.5°	606.6	600.6	592.7	596.9	648.9	686.3	706.3	700.2	690.6	694.8	704.5
50°	598.7	584.8	574.6	572.8	624.7	664.6	682.7	682.7	686.3	694.8	704.5
52.5°	574.6	558.9	558.9	552.8	608.4	646.5	658.6	660.4	666.4	680.3	694.8
55°	545.0	538.9	545.0	534.7	596.9	632.6	638.6	642.8	646.5	658.6	678.5
57.5°	519.0	511.1	525.0	520.8	586.7	618.7	618.7	626.5	626.5	642.8	658.6
60°	505.1	488.8	494.8	499.1	572.8	606.6	603.0	610.8	614.5	629.0	640.4
62.5°	487.0	473.1	473.1	482.7	557.1	588.5	586.7	592.7	608.4	612.6	624.7
65°	465.2	459.2	453.1	465.2	540.7	568.5	570.9	578.8	592.7	596.9	606.6
67.5°	442.9	445.3	433.2	445.3	526.8	548.6	548.6	564.9	570.9	578.8	588.5
70°	419.3	421.1	410.8	425.3	517.2	526.8	525.0	546.8	551.0	557.1	566.7
72.5°	389.1	389.1	385.5	405.4	500.9	505.1	500.9	519.0	520.8	526.8	531.1
75°	357.1	357.1	353.4	381.2	491.2	480.9	468.8	482.7	487.0	491.2	491.2
77.5°	315.4	319.6	319.6	353.4	456.8	471.3	430.8	439.2	445.3	447.1	441.1
80°	263.4	273.7	277.3	321.4	383.0	435.0	385.5	390.9	393.3	393.3	385.5
82.5°	201.8	219.3	229.6	277.3	293.6	364.9	335.3	341.4	335.3	323.2	319.6
85°	139.6	163.7	175.8	211.5	221.7	281.5	279.1	279.1	267.7	251.3	249.5
87.5°	76.1	90.0	97.9	125.7	151.6	189.7	205.4	199.4	189.7	179.4	181.9
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):**

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	12266.1	12266.1	12266.1	12266.1	12266.1	12266.1	12266.1	12266.1	12266.1	12266.1	12266.1
2.5°	11004.5	11275.8	11709.0	12040.1	12373.6	12695.0	13042.4	13307.7	13533.0	13621.2	13888.3
5°	8849.4	9188.4	9597.4	10335.7	10858.9	11435.3	12102.3	12984.4	13323.4	13792.8	14560.7
7.5°	6256.9	6563.8	7222.4	7819.3	8560.0	9376.3	10275.9	11493.3	11938.6	12690.8	13942.1
10°	4672.1	5029.2	5557.8	6061.1	6713.6	7548.0	8581.8	9943.0	10483.7	11300.0	12740.9
12.5°	3764.0	4185.2	4745.8	5218.9	5724.0	6312.5	7316.6	8808.9	9534.0	10248.1	11704.8
15°	2891.6	3332.7	3854.1	4454.6	5011.1	5646.1	6697.9	8330.4	9164.2	9909.2	11151.9
17.5°	2001.6	2378.7	3035.4	3661.9	4374.9	5186.9	6526.3	8431.9	9427.6	10286.2	11248.0
20°	1419.2	1634.3	2173.2	2900.1	3788.2	4807.5	6494.3	8966.6	10262.0	11242.0	11862.5
22.5°	1193.3	1273.0	1586.6	2253.0	3278.9	4524.1	6606.1	9717.0	11387.6	12638.8	12842.4
25°	1087.5	1135.9	1299.0	1768.4	2825.7	4318.7	6983.1	10834.8	12780.8	14036.3	14000.1
27.5°	1029.5	1079.7	1187.2	1492.9	2485.0	4191.2	7360.1	12160.3	14373.4	15552.8	15105.7
30°	1012.0	1079.7	1193.3	1407.1	2241.5	3989.4	7669.5	13323.4	15598.7	16576.9	15609.0
32.5°	998.1	1007.8	1059.7	1213.2	2009.5	3753.8	7879.1	14367.4	16798.0	17550.8	16333.4
35°	806.6	856.1	940.1	1087.5	1874.2	3612.4	7879.1	15267.6	17979.8	18534.4	17024.0
37.5°	776.4	820.5	894.2	1019.9	1798.0	3542.3	7721.4	16135.8	19186.9	19650.3	17592.5
40°	760.7	796.3	866.4	967.9	1766.0	3462.6	7491.8	16901.9	20366.3	20767.5	18123.6
42.5°	748.6	780.6	846.5	935.9	1724.3	3374.9	7306.3	17516.4	21390.4	21721.5	18630.5
45°	742.5	776.4	848.3	952.2	1640.3	3258.9	7244.7	18181.0	22232.6	22517.8	19179.1
47.5°	742.5	782.4	857.9	986.0	1540.7	3139.3	7438.1	19057.6	23028.9	23168.5	19825.6
50°	736.5	780.6	886.3	952.2	1395.1	2987.7	7893.0	20160.9	23891.1	23906.8	20644.2
52.5°	724.4	776.4	954.0	932.2	1227.1	2788.3	8508.1	21578.3	25166.5	25262.0	21925.1
55°	710.5	770.3	935.9	886.3	1089.9	2550.8	9010.7	23300.2	26958.5	27223.7	23809.5
57.5°	692.4	762.5	906.3	822.3	999.9	2245.1	9192.6	24561.7	28209.8	28876.2	25932.6
60°	676.7	756.4	818.1	784.2	943.7	1987.8	8841.0	24312.2	28124.0	29560.7	27814.6
62.5°	660.4	762.5	746.2	760.7	917.7	1822.2	7923.2	22314.2	26701.1	28854.4	29209.7
65°	642.8	708.7	704.5	740.1	912.3	1756.4	6568.0	19318.6	23950.9	26621.4	29539.0
67.5°	618.7	654.3	674.3	714.7	932.2	1698.3	5300.5	15935.8	20128.9	23274.2	27822.5
70°	592.7	622.9	644.7	682.7	920.2	1672.4	4408.7	12566.9	15972.1	19075.2	24436.0
72.5°	558.9	584.8	604.8	640.4	908.1	1658.5	3724.2	10120.6	11924.7	14169.8	19867.8
75°	519.0	542.6	557.1	592.7	870.0	1518.9	2927.9	8563.6	8923.1	9857.2	15824.1
77.5°	473.1	491.2	502.7	542.6	770.3	1263.3	2117.6	6606.1	6929.3	7156.5	12131.9
80°	419.3	436.8	442.9	480.9	638.6	987.8	1381.2	4879.4	5182.7	5234.6	7923.2
82.5°	357.1	375.2	375.2	410.8	522.6	710.5	906.3	3342.9	3402.7	3578.6	5600.1
85°	287.6	301.5	301.5	319.6	405.4	531.1	622.9	1678.4	1660.3	1895.9	4851.6
87.5°	205.4	215.7	225.4	229.6	289.4	351.0	375.2	511.1	337.1	387.3	3115.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P299377

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**CANDELA DISTRIBUTION (continued):**

	295°	305°	315°	325°	335°	345°	355°	360°
0°	12266.1	12266.1	12266.1	12266.1	12266.1	12266.1	12266.1	12266.1
2.5°	14090.1	14203.7	14087.7	14004.3	13643.0	13345.7	12948.2	12744.6
5°	15145.6	15435.0	15337.1	14986.1	14231.5	13383.2	12419.5	11984.5
7.5°	15018.1	15690.5	15706.3	15050.1	13938.4	12689.0	11384.0	10765.3
10°	14024.2	14884.0	15129.9	14493.1	13313.7	11916.8	10419.7	9713.4
12.5°	12914.3	13756.6	13944.5	13724.5	12739.1	11335.6	9817.3	9124.3
15°	12006.3	12383.9	12606.8	12798.9	12246.1	11104.2	9782.9	9022.8
17.5°	11453.4	11411.7	11475.8	11808.7	11902.3	11369.5	10301.9	9463.9
20°	11254.1	10613.6	10597.3	11056.5	11741.0	12002.6	11315.7	10309.7
22.5°	11364.0	10326.0	10194.3	10739.3	11826.8	12914.3	12644.9	11497.5
25°	11742.8	10350.2	10243.9	10771.3	12138.0	13886.5	14079.8	13034.0
27.5°	12339.8	10501.9	10361.7	10903.0	12551.2	14702.7	15493.0	14523.3
30°	12906.5	10765.3	10591.3	11162.2	12928.2	15025.9	16359.4	15684.5
32.5°	13595.3	11258.3	10952.6	11638.9	13395.3	15540.7	17131.5	16646.4
35°	14269.5	11960.3	11581.5	12375.4	13916.1	16181.7	18013.6	17875.9
37.5°	15010.2	12878.7	12565.1	13327.6	14629.0	16785.9	19139.2	19316.8
40°	15800.5	14096.1	13724.5	14716.6	15734.7	17544.8	20314.9	20741.5
42.5°	16596.8	15447.1	15004.2	16009.6	16949.7	18292.7	21320.3	21953.5
45°	17508.5	16914.0	16704.4	17791.9	18117.5	19005.7	22062.8	22849.5
47.5°	18570.7	18578.5	18915.7	19350.7	19295.1	19811.7	22809.6	23649.4
50°	19809.8	20655.7	21400.6	21689.4	20508.3	20678.1	23845.2	24721.2
52.5°	21298.5	23140.7	24062.7	23873.0	21815.7	21735.4	25485.5	26197.8
55°	23160.6	25771.3	26687.2	26551.3	23318.3	23176.3	27529.4	27944.5
57.5°	25315.7	28319.7	29161.9	28551.1	25122.4	24757.5	29219.9	29307.5
60°	27209.8	30339.5	31077.8	30401.1	26942.8	26439.5	30275.4	29850.1
62.5°	28263.5	31024.0	31543.0	30814.4	28189.8	28231.5	30506.8	29557.1
65°	27792.9	29293.7	29461.0	29401.2	27868.4	29271.3	29674.9	28201.9
67.5°	25214.2	24918.8	25200.3	25589.4	25114.5	27902.2	27369.3	25249.9
70°	20672.0	19049.2	19610.5	19871.5	20087.2	24010.7	23755.1	20566.3
72.5°	15578.8	13345.7	13788.6	13734.8	14732.3	19258.8	18474.6	15122.0
75°	11038.4	9048.8	9104.4	9082.6	10280.1	15067.6	13377.7	10346.0
77.5°	7723.2	6556.0	6586.2	6709.4	6911.2	11364.0	9557.5	7557.7
80°	5310.7	4975.4	5141.0	5151.2	4789.9	7633.8	7061.0	6065.4
82.5°	3955.6	3458.3	3418.4	3476.5	3753.8	6185.0	5426.1	4206.9
85°	3239.0	2047.6	1646.4	2063.9	3326.6	6125.2	3604.5	2219.2
87.5°	1824.0	972.1	439.2	814.4	1327.4	4055.3	1041.6	283.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)