

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: P298891

Luminaire Tested: **GLNA-AF-07-LED-E1-SLL-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298891
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P191289)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-07-LED-E1-SLL-7027
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill
Light Eliminator Left OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 32042.1 lumens
Efficiency: N/A
Efficacy: 81.9 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

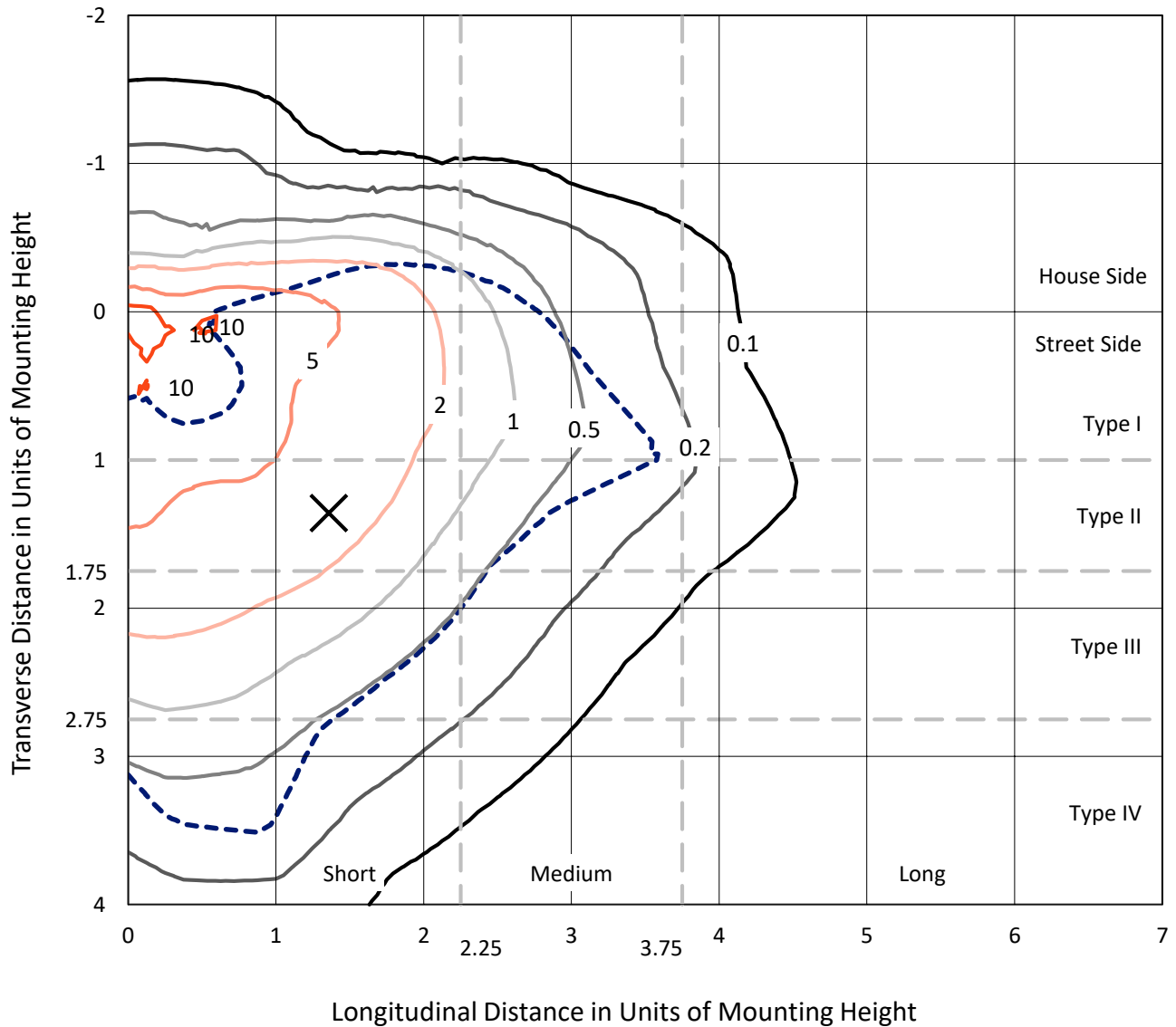
Input Watts (W): 391
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

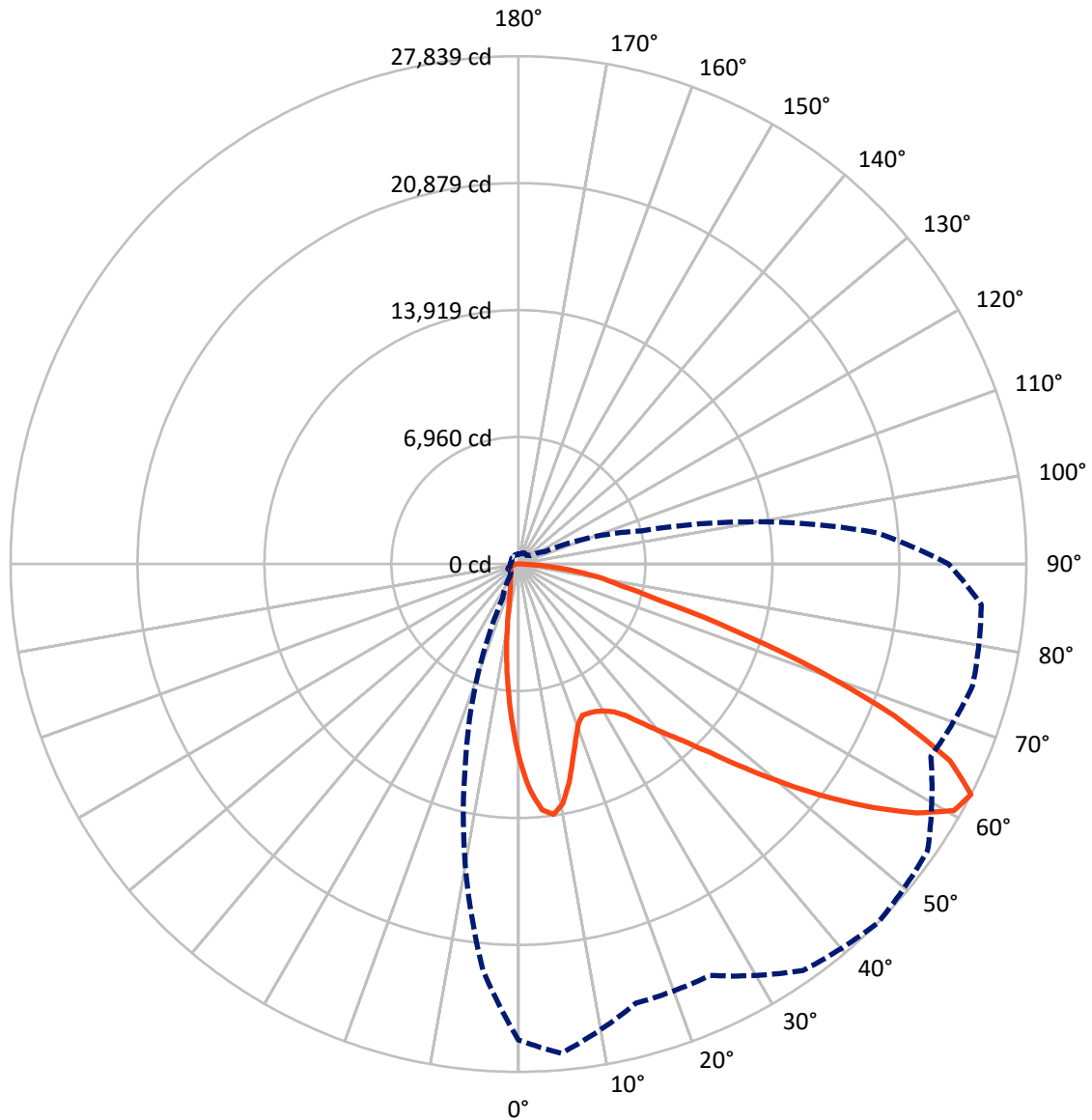
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 14.2 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5302.5	0.0	5302.5
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	26739.6	0.0	26739.6
	% Fixture	83.5	0.0	83.5
Total	Lumens	32042.1	0.0	32042.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	788.1	2.5
10°-20°	1445.1	4.5
20°-30°	2106.9	6.6
30°-40°	3245.0	10.1
40°-50°	4775.7	14.9
50°-60°	7005.0	21.9
60°-70°	7830.5	24.4
70°-80°	3833.7	12.0
80°-90°	1012.2	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°	32042.1	100.0
0°-180°	32042.1	100.0



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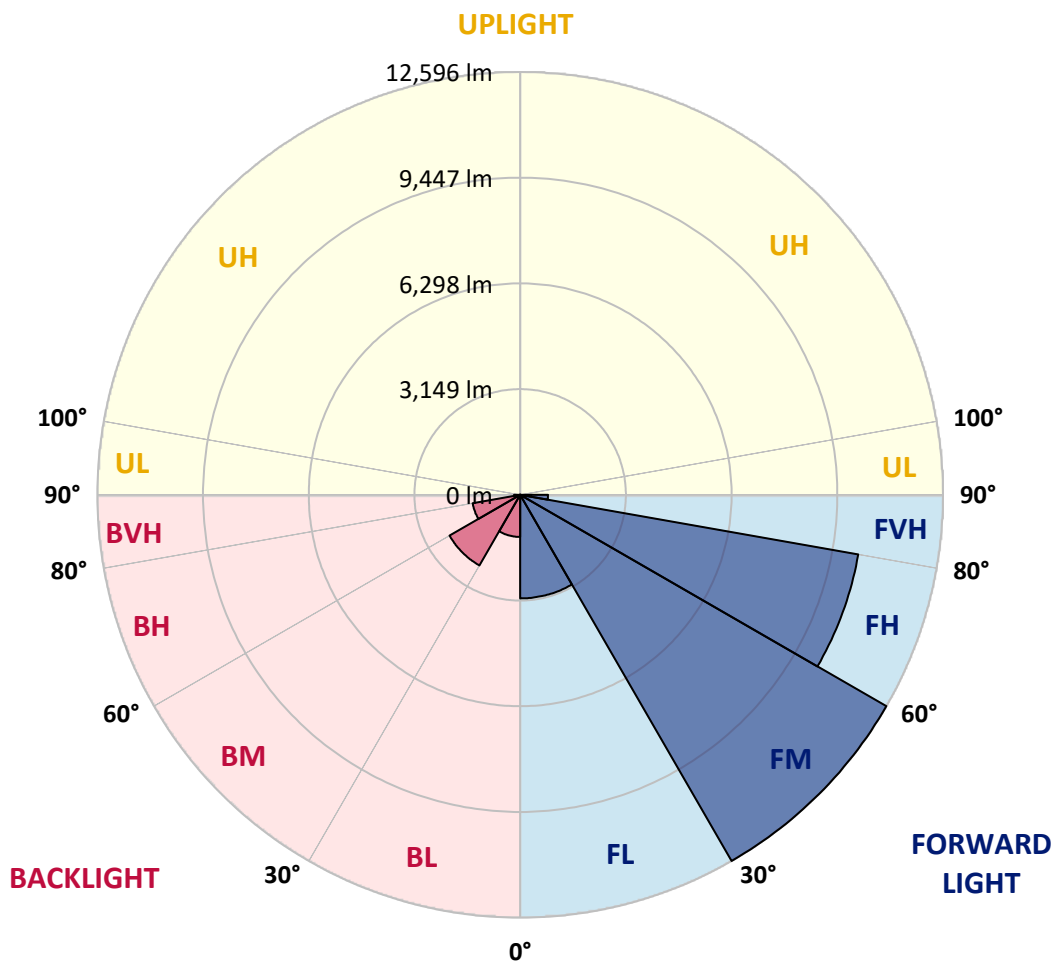
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3085.6	9.6			
FM	(30°-60°)	12596.1	39.3			
FH	(60°-80°)	10226.7	31.9			G4/12000
FVH	(80°-90°)	831.2	2.6			G5
BL	(0°-30°)	1254.5	3.9	B3/2500		
BM	(30°-60°)	2429.6	7.6	B2/2500		
BH	(60°-80°)	1437.5	4.5	B3/2500		G3/2500
BVH	(80°-90°)	181.0	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°	10825.9	10825.9	10825.9	10825.9	10825.9	10825.9	10825.9	10825.9	10825.9	10825.9	10825.9
2.5°	11247.9	11428.0	11778.5	12040.4	12360.1	12433.8	12536.2	12435.5	12257.7	12021.6	11944.4
5°	10577.2	10961.4	11811.7	12560.8	13226.3	13536.3	13623.2	13367.0	12851.2	12173.1	11759.1
7.5°	9501.1	10047.1	11198.7	12301.7	13282.4	13862.2	13847.9	13254.4	12305.2	11200.4	10536.6
10°	8572.4	9196.3	10517.7	11750.5	12791.2	13353.3	13136.0	12377.8	11244.5	9972.8	9252.9
12.5°	8053.3	8664.5	10004.8	11242.8	12113.0	12306.9	12141.1	11397.7	10330.2	9044.8	8414.1
15°	7962.9	8634.8	9800.7	10808.2	11295.9	11127.3	10929.4	10596.6	9842.4	8745.1	8088.1
17.5°	8352.9	9092.2	10035.1	10505.1	10422.2	10127.7	10071.7	10108.9	9927.6	9077.9	8320.9
20°	9099.6	9987.1	10593.2	10362.8	9758.4	9353.0	9367.3	9932.8	10469.7	9921.9	9056.8
22.5°	10147.2	11160.4	11397.7	10438.2	9478.2	8997.3	9113.9	10030.0	11334.8	11155.3	10050.6
25°	11503.5	12427.0	12256.0	10712.7	9506.2	9041.3	9134.5	10364.5	12356.1	12388.1	11280.5
27.5°	12817.5	13674.1	12975.9	11077.5	9622.8	9145.4	9268.9	10890.5	13332.1	13726.7	12686.0
30°	13842.7	14438.6	13261.2	11410.3	9851.6	9347.8	9501.1	11390.9	13776.4	14630.1	13767.3
32.5°	14691.9	15119.6	13715.8	11822.6	10272.4	9666.3	9936.2	11998.7	14415.7	15490.1	14825.7
35°	15776.6	15898.4	14281.3	12282.3	10922.6	10221.5	10556.0	12593.9	15025.2	16358.1	15868.6
37.5°	17048.8	16892.2	14814.8	12911.3	11763.1	11089.5	11366.3	13247.5	15526.7	17342.7	16933.9
40°	18306.2	17928.8	15485.0	13886.8	12989.0	12113.0	12440.7	13945.1	15995.6	18329.1	17975.1
42.5°	19375.5	18816.8	16144.8	14959.5	14129.8	13242.3	13633.5	14647.8	16442.7	19170.8	18878.6
45°	20166.3	19472.1	16773.8	15989.9	15702.8	14742.8	14928.0	15452.4	16927.0	19874.1	19621.9
47.5°	20872.5	20130.8	17485.1	17029.4	17078.6	16694.3	16396.4	16389.5	17498.3	20448.2	20324.7
50°	21818.2	21045.2	18249.6	18099.8	19142.8	18887.2	18230.2	17483.4	18219.9	21100.0	21085.7
52.5°	23121.9	22493.5	19183.4	19253.7	21070.3	21237.3	20423.0	18798.0	19350.3	22295.7	22211.6
55°	24663.5	24296.4	20455.6	20580.3	23433.6	23553.6	22744.5	20440.8	21013.7	24027.7	23793.2
57.5°	25866.0	25788.8	21850.2	22172.7	25198.7	25737.9	24994.6	22343.7	22887.5	25485.8	24897.4
60°	26345.2	26720.3	23335.2	23778.9	26831.8	27428.2	26776.9	24014.5	24548.6	26090.2	24821.9
62.5°	26086.7	26924.4	24916.8	24879.7	27196.0	27838.7	27380.7	24944.8	25780.2	25466.3	23566.2
65°	24890.5	26190.2	25834.6	24596.0	25948.9	26001.5	25853.4	24529.1	26070.7	23495.3	21138.4
67.5°	22284.8	24155.8	24625.8	22165.9	22584.4	22241.4	21992.6	22253.4	24555.4	20541.4	17765.3
70°	18151.3	20966.2	21191.0	17728.7	17538.3	17307.3	16812.7	18244.5	21566.6	16835.5	14096.6
72.5°	13346.4	16305.5	16997.4	13002.8	12122.2	12169.1	11778.5	13749.0	17534.9	12505.9	10524.6
75°	9131.1	11806.6	13299.0	9072.8	8016.7	8035.5	7985.8	9742.4	13966.2	8699.4	7875.4
77.5°	6670.6	8435.2	10030.0	6099.4	5921.6	5812.4	5786.1	6816.4	10707.6	6316.7	6115.4
80°	5352.6	6232.1	6737.0	4227.3	4545.8	4537.2	4390.9	4687.1	6992.6	4620.2	4573.8
82.5°	3713.3	4789.4	5458.4	3313.0	3068.3	3016.8	3052.8	3490.8	4942.7	3158.1	3003.1
85°	1959.0	3180.9	5405.8	2936.2	1821.2	1452.9	1807.5	2858.4	4282.2	1673.7	1465.0
87.5°	250.4	919.5	3578.9	1171.6	718.8	387.1	858.3	1609.6	2749.8	341.4	297.9
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	10825.9	10825.9	10825.9	10825.9	10825.9	10825.9	10825.9	10825.9	10825.9	10825.9	10825.9
2.5°	11745.4	11510.9	11204.4	10920.3	10626.4	10333.6	9951.6	9712.0	9546.8	9514.8	9445.0
5°	11460.0	10681.3	10092.9	9584.0	9122.5	8470.1	8109.3	7809.7	7649.6	7634.1	7595.2
7.5°	10143.8	9069.3	8275.1	7554.6	6901.1	6374.4	5792.9	5522.5	5411.0	5437.3	5463.6
10°	8774.9	7574.1	6661.5	5925.0	5349.2	4905.5	4438.9	4123.8	3904.8	3860.8	3852.2
12.5°	7774.8	6457.4	5571.6	5051.3	4606.4	4188.4	3693.8	3321.6	3038.6	2941.3	2876.7
15°	7351.7	5911.3	4983.2	4422.9	3931.1	3401.1	2941.3	2551.9	2291.8	2207.2	2159.7
17.5°	7442.0	5759.8	4577.8	3860.8	3232.4	2678.9	2099.7	1766.3	1609.6	1569.6	1569.6
20°	7914.3	5731.7	4242.8	3343.3	2558.8	1917.8	1442.7	1252.2	1201.4	1196.2	1209.9
22.5°	8576.4	5830.7	3993.5	2894.5	1988.7	1400.3	1123.6	1053.3	1030.4	1036.1	1051.5
25°	9562.8	6163.4	3812.2	2494.2	1560.4	1146.5	1001.8	960.1	949.2	963.5	982.9
27.5°	10732.1	6496.2	3699.0	2192.9	1317.4	1048.1	952.6	909.2	916.0	933.8	950.9
30°	11759.1	6769.6	3521.2	1978.4	1242.0	1053.3	952.6	893.2	886.3	889.7	894.9
32.5°	12680.8	6954.2	3313.0	1773.7	1071.0	935.5	889.7	881.1	841.7	827.4	829.7
35°	13475.1	6954.2	3188.4	1654.2	960.1	829.7	755.9	711.9	691.9	693.6	713.6
37.5°	14241.3	6814.7	3126.6	1586.7	900.0	789.1	723.9	685.0	658.7	653.6	657.0
40°	14917.2	6612.3	3056.3	1558.7	854.3	764.5	703.3	670.7	642.7	634.1	635.8
42.5°	15459.8	6448.2	2978.5	1522.1	825.7	746.8	688.4	660.4	629.0	619.8	618.1
45°	16046.5	6393.9	2876.7	1447.8	840.0	748.5	685.0	655.3	623.3	613.0	609.5
47.5°	16819.5	6564.9	2770.9	1359.7	870.3	757.6	690.2	655.3	621.5	613.0	609.5
50°	17793.3	6966.3	2636.6	1231.1	840.0	782.2	688.4	649.6	621.5	613.0	606.1
52.5°	19044.4	7508.9	2461.0	1083.6	822.3	841.7	685.0	639.3	613.0	601.0	588.4
55°	20564.3	7952.6	2250.6	961.8	782.2	825.7	679.9	627.3	599.2	581.5	570.7
57.5°	21677.6	8112.7	1981.9	882.9	725.6	799.4	672.4	611.3	581.5	567.2	553.5
60°	21457.4	7802.8	1754.3	833.1	691.9	722.2	667.3	597.0	565.5	555.2	542.1
62.5°	19694.6	6992.6	1607.9	810.2	670.7	658.7	672.4	583.2	551.8	540.4	536.9
65°	17050.5	5796.4	1550.2	805.1	653.6	621.5	625.6	567.2	535.2	526.6	523.2
67.5°	14064.6	4678.5	1499.3	822.3	630.7	595.2	578.1	546.1	519.2	510.6	503.8
70°	11091.2	3891.1	1475.8	812.0	602.7	568.9	550.1	523.2	500.3	491.2	486.0
72.5°	8931.5	3286.7	1463.2	801.1	565.5	533.5	515.8	492.9	468.3	464.9	459.7
75°	7558.6	2584.0	1340.9	767.9	523.2	491.2	479.2	458.0	433.4	433.4	430.0
77.5°	5830.7	1868.6	1115.0	679.9	479.2	443.7	433.4	417.4	389.4	394.5	392.8
80°	4306.8	1219.1	872.0	563.8	424.8	391.1	385.4	370.0	339.7	347.1	347.1
82.5°	2950.5	799.4	627.3	461.4	362.5	331.1	331.1	315.1	281.9	285.3	296.2
85°	1481.5	550.1	468.3	357.4	281.9	265.9	265.9	253.9	220.1	221.9	236.2
87.5°	451.2	331.1	309.9	255.6	202.4	199.0	189.8	181.3	160.1	158.4	167.5
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°	10825.9	10825.9	10825.9	10825.9	10825.9	10825.9	10825.9	10825.9	10825.9	10825.9	10825.9
2.5°	9336.9	9236.3	9115.7	8847.5	8757.7	8752.0	8833.8	8748.6	8911.0	8842.3	8917.8
5°	7529.5	7431.7	7295.6	6954.2	6746.1	6604.9	6538.5	6341.3	6483.7	6379.6	6466.5
7.5°	5537.9	5560.8	5471.0	5270.3	4817.4	4590.4	4456.6	4336.5	4440.6	4429.7	4595.6
10°	3892.8	3954.0	3891.1	3688.7	3321.6	3196.9	3221.5	3269.0	3405.1	3474.8	3730.4
12.5°	2802.4	2799.0	2758.4	2577.1	2335.8	2349.5	2450.2	2532.5	2657.7	2732.1	2992.2
15°	2092.2	2060.8	2043.0	1894.9	1757.7	1788.0	1837.2	1845.8	1925.3	1969.3	2180.9
17.5°	1581.6	1597.6	1616.5	1511.3	1407.2	1387.8	1349.5	1301.4	1324.9	1333.4	1438.7
20°	1255.7	1319.1	1367.2	1292.8	1187.6	1130.5	1081.3	1049.8	1049.8	1048.1	1077.8
22.5°	1097.3	1143.0	1194.5	1143.0	1048.1	998.4	970.3	945.8	942.3	942.3	970.3
25°	1011.5	1044.7	1093.9	1059.0	988.1	950.9	924.6	893.2	881.1	877.1	896.6
27.5°	968.6	982.9	1007.5	975.5	916.0	898.3	891.4	863.4	846.8	838.3	858.3
30°	896.6	893.2	894.9	863.4	815.4	813.7	825.7	831.4	825.7	824.0	854.3
32.5°	829.7	822.3	820.5	792.5	748.5	738.2	748.5	759.4	771.4	789.1	824.0
35°	745.1	762.8	773.1	748.5	695.3	663.9	651.9	632.4	621.5	621.5	662.1
37.5°	678.2	718.8	734.8	711.9	653.6	609.5	588.4	585.0	586.7	593.5	632.4
40°	655.3	685.0	698.7	676.4	618.1	578.1	565.5	562.1	565.5	576.4	614.7
42.5°	641.0	662.1	660.4	632.4	585.0	556.9	550.1	546.1	550.1	560.4	602.7
45°	629.0	642.7	629.0	595.2	551.8	536.9	538.6	536.9	540.4	551.8	591.8
47.5°	618.1	623.3	606.1	572.4	526.6	523.2	530.1	535.2	538.6	548.4	590.1
50°	602.7	602.7	586.7	551.8	505.5	507.2	515.8	528.3	530.1	540.4	574.7
52.5°	583.2	581.5	570.7	536.9	487.7	492.9	492.9	507.2	510.6	523.2	558.6
55°	567.2	563.8	558.6	526.6	472.3	480.9	475.7	480.9	489.5	502.0	540.4
57.5°	553.5	546.1	546.1	517.5	459.7	463.2	451.2	458.0	468.3	479.2	519.2
60°	538.6	531.8	535.2	505.5	440.3	436.9	431.7	445.4	449.4	461.4	502.0
62.5°	523.2	517.5	519.2	491.2	426.6	417.4	417.4	430.0	431.7	449.4	487.7
65°	510.6	503.8	502.0	477.5	410.6	400.3	405.4	410.6	414.0	431.7	468.3
67.5°	498.6	484.3	484.3	464.9	392.8	382.0	392.8	391.1	396.8	412.3	442.0
70°	482.6	463.2	464.9	456.3	375.1	362.5	371.7	370.0	373.4	383.7	414.0
72.5°	458.0	442.0	445.4	442.0	357.4	339.7	343.1	343.1	343.1	352.2	383.7
75°	426.6	414.0	424.8	433.4	336.2	311.6	315.1	315.1	309.9	315.1	353.9
77.5°	387.1	380.2	415.7	403.7	311.6	281.9	281.9	278.5	268.2	275.0	316.8
80°	345.4	339.7	383.7	337.9	283.6	245.3	241.3	232.2	221.9	227.0	269.9
82.5°	301.3	296.2	322.5	259.0	245.3	202.4	193.8	177.8	167.5	172.7	211.0
85°	247.0	247.0	248.7	195.6	186.4	155.0	144.7	123.5	110.9	114.4	151.5
87.5°	176.1	181.3	167.5	133.8	110.9	86.3	79.5	66.9	56.0	65.2	79.5
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):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	10825.9	10825.9	10825.9	10825.9	10825.9	10825.9	10825.9	10825.9
2.5°	9305.5	9499.3	9719.5	10000.8	10242.7	10638.4	11019.2	11247.9
5°	6957.7	7280.2	7681.0	8197.9	8678.8	9400.4	10117.5	10577.2
7.5°	4979.2	5324.6	5758.0	6402.5	7082.9	8003.5	8951.6	9501.1
10°	4120.4	4474.3	4838.6	5273.7	5830.7	6832.5	7952.6	8572.4
12.5°	3408.5	3787.0	4179.9	4637.9	5153.6	6048.5	7339.6	8053.3
15°	2608.6	3031.1	3494.3	4074.1	4720.2	5754.6	7188.1	7962.9
17.5°	1788.0	2260.3	2828.7	3544.0	4334.8	5659.1	7459.7	8352.9
20°	1231.1	1574.7	2182.6	3020.8	3972.3	5647.1	7980.6	9099.6
22.5°	1030.4	1183.6	1627.3	2539.9	3699.0	5798.6	8789.7	10147.2
25°	952.6	1044.7	1299.7	2122.5	3500.0	6147.4	9903.0	11503.5
27.5°	907.4	989.8	1180.2	1849.8	3343.3	6552.3	10986.0	12817.5
30°	924.6	1009.2	1146.5	1710.3	3130.0	6890.2	11947.8	13842.7
32.5°	833.1	870.3	982.9	1586.7	2976.8	7173.8	12789.5	14691.9
35°	710.2	774.8	877.1	1529.0	2980.2	7364.2	13707.2	15776.6
37.5°	676.4	741.6	815.4	1507.8	3020.8	7567.2	14760.5	17048.8
40°	655.3	715.3	778.8	1495.8	3059.7	7751.9	15793.2	18306.2
42.5°	641.0	695.3	774.8	1452.9	3079.2	7917.7	16641.7	19375.5
45°	639.3	695.3	789.1	1410.6	3108.9	8095.6	17353.6	20166.3
47.5°	641.0	718.8	762.8	1359.7	3108.9	8392.9	18188.4	20872.5
50°	634.1	757.6	734.8	1287.7	3036.8	8956.7	19333.2	21818.2
52.5°	630.7	752.5	679.9	1176.8	2911.6	9851.6	20800.4	23121.9
55°	621.5	725.6	641.0	1011.5	2765.8	10827.6	22371.7	24663.5
57.5°	613.0	642.7	619.8	866.9	2539.9	11514.4	23453.0	25866.0
60°	686.7	562.1	602.7	795.9	2238.6	11702.5	23411.3	26345.2
62.5°	635.8	526.6	579.8	780.5	2027.6	11174.1	22329.4	26086.7
65°	498.6	503.8	556.9	825.7	1971.0	9774.4	20412.7	24890.5
67.5°	456.3	480.9	533.5	884.6	1976.7	7825.7	17549.2	22284.8
70°	430.0	456.3	507.2	914.3	1990.4	5834.1	13874.2	18151.3
72.5°	400.3	423.1	477.5	919.5	1898.4	4237.6	10693.8	13346.4
75°	364.2	385.4	435.1	801.1	1573.0	2939.6	8180.2	9131.1
77.5°	324.2	339.7	382.0	618.1	1168.2	1881.2	6140.0	6670.6
80°	276.8	285.3	320.8	452.9	799.4	1176.8	4858.0	5352.6
82.5°	221.9	225.3	248.7	339.7	519.2	755.9	3253.6	3713.3
85°	156.7	156.7	171.0	247.0	353.9	479.2	1766.3	1959.0
87.5°	73.8	75.5	75.5	135.5	184.7	243.6	407.1	250.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)