

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: P453712

Luminaire Tested: **GALN-SA4D-730-U-SLL**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453712
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-20)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4D-730-U-SLL
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT
ELIMINATOR LEFT OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24024 lumens
Efficiency: N/A
Efficacy: 98.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G4

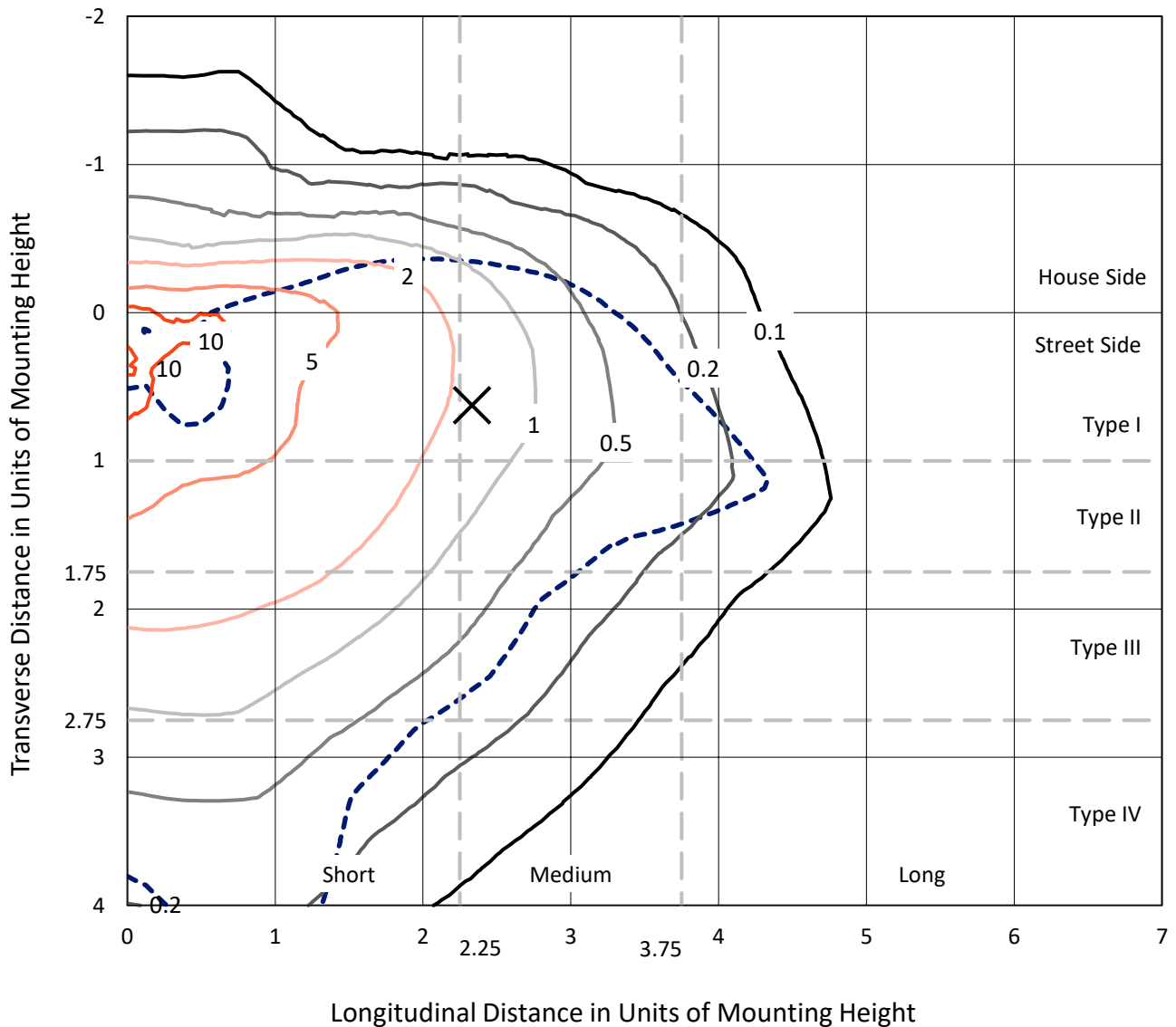
Input Watts (W): 245
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

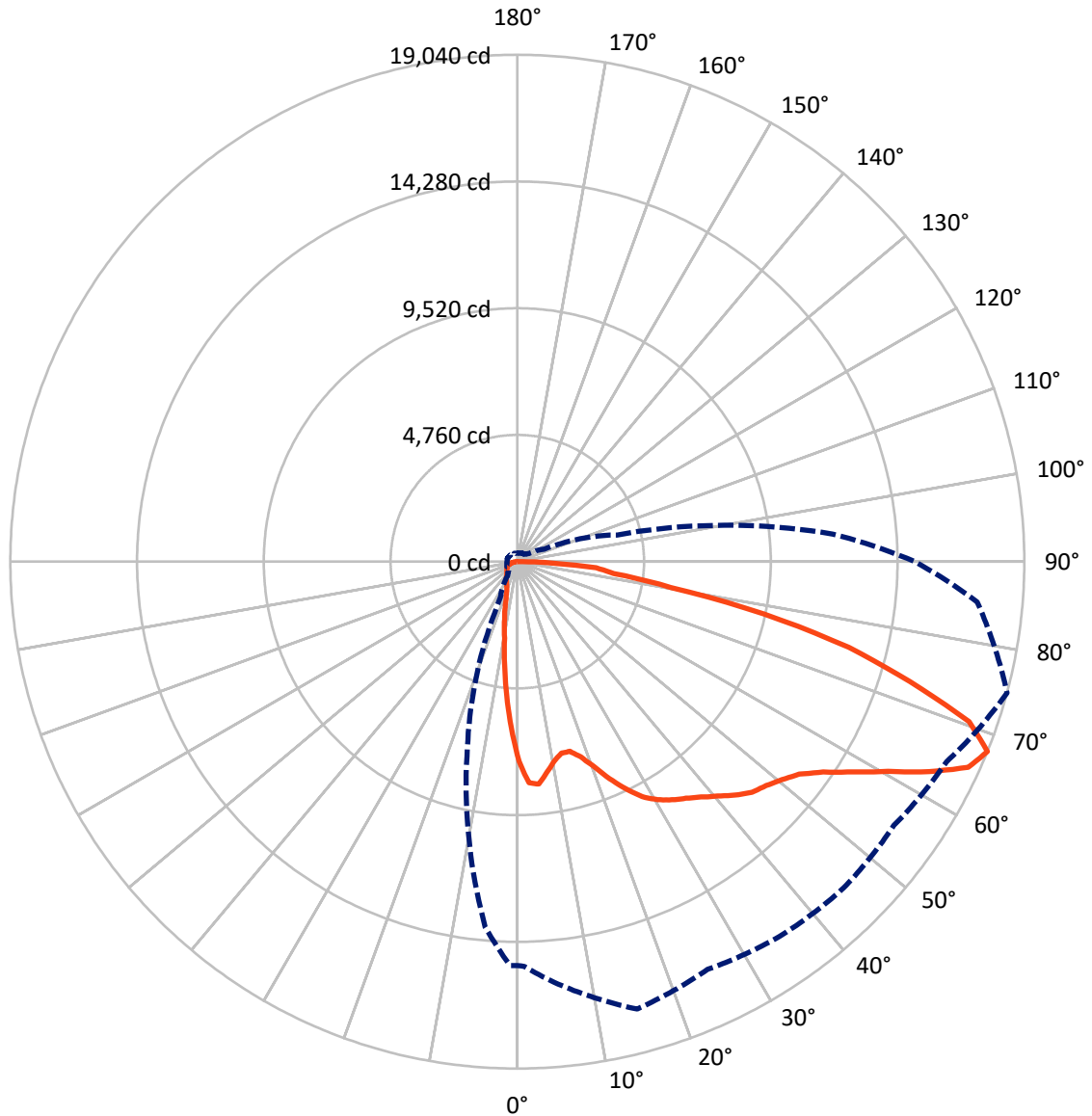
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 14.8 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4060.6	0.0	4060.6
	% Fixture	16.9	0.0	16.9
Street Side	Lumens	19963.4	0.0	19963.4
	% Fixture	83.1	0.0	83.1
Total	Lumens	24024.0	0.0	24024.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	569.3	2.4
10°-20°	1187.3	4.9
20°-30°	1708.5	7.1
30°-40°	2460.7	10.2
40°-50°	3456.6	14.4
50°-60°	4820.7	20.1
60°-70°	5731.6	23.9
70°-80°	3375.6	14.1
80°-90°	713.8	3.0
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°	24024.0	100.0
0°-180°	24024.0	100.0

Coefficient of Utilization



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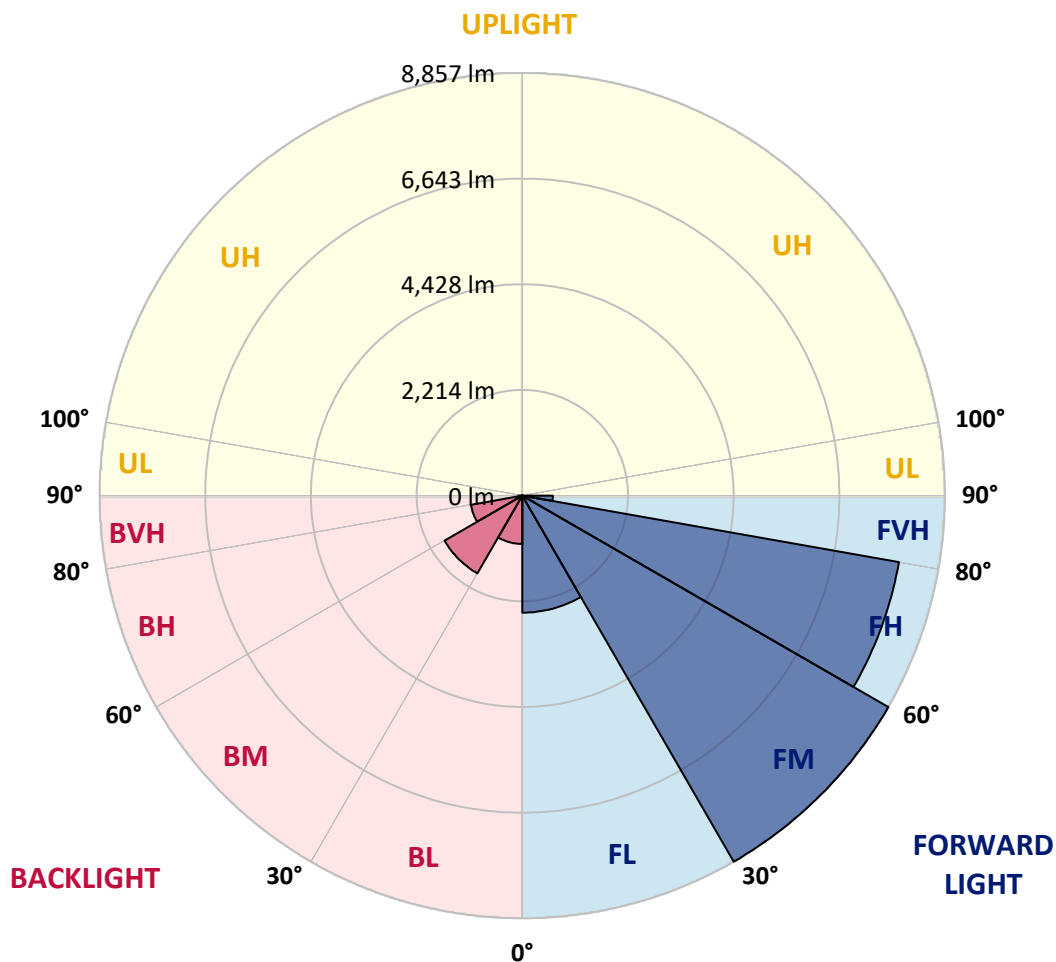
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2452.2	10.2			
FM	(30°-60°)	8856.8	36.9			
FH	(60°-80°)	8014.5	33.4			G4/12000
FVH	(80°-90°)	640.0	2.7			G4/750
BL	(0°-30°)	1012.8	4.2	B3/2500		
BM	(30°-60°)	1881.3	7.8	B2/2500		
BH	(60°-80°)	1092.6	4.5	B3/2500		G3/2500
BVH	(80°-90°)	73.8	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	7505.7	7505.7	7505.7	7505.7	7505.7	7505.7	7505.7	7505.7	7505.7	7505.7	7505.7
2.5°	8092.6	8103.4	8172.7	8374.5	8513.2	8564.0	8599.5	8533.2	8468.5	8311.4	8074.1
5°	8068.0	8131.1	8311.4	8764.3	9121.7	9275.8	9322.0	9123.3	8795.1	8391.5	7906.2
7.5°	7596.6	7681.3	7958.6	8718.1	9348.2	9708.7	9660.9	9302.0	8710.4	7990.9	7313.1
10°	7037.3	7131.3	7465.6	8383.8	9195.7	9691.7	9691.7	9254.2	8468.5	7613.5	6832.4
12.5°	6593.6	6692.2	7074.3	8040.2	8878.3	9348.2	9426.8	9050.9	8294.4	7374.7	6516.6
15°	6447.3	6542.8	6954.1	7832.3	8542.5	8829.0	8855.2	8732.0	8209.7	7391.7	6502.8
17.5°	6629.1	6752.3	7168.3	7893.9	8234.4	8251.3	8271.3	8368.4	8219.0	7701.3	6783.1
20°	7154.4	7286.9	7721.3	8092.6	7964.8	7789.1	7799.9	8049.5	8328.3	8212.8	7453.3
22.5°	7912.4	8027.9	8473.1	8442.3	7850.8	7488.7	7413.2	7761.4	8490.1	8850.6	8166.6
25°	8730.4	8866.0	9377.5	8961.5	7883.1	7310.0	7262.3	7591.9	8658.0	9446.8	8990.8
27.5°	9667.1	9799.6	10203.2	9485.3	8052.6	7296.1	7239.1	7576.5	8809.0	9998.3	9778.0
30°	10363.4	10485.1	10759.4	9925.9	8260.5	7388.6	7317.7	7698.2	8938.4	10375.8	10545.2
32.5°	10910.3	11036.7	11186.1	10200.1	8534.8	7556.5	7425.6	7920.1	9107.9	10663.8	11113.7
35°	11480.3	11629.8	11619.0	10443.5	8790.5	7750.6	7622.7	8240.5	9374.4	10915.0	11834.7
37.5°	12202.9	12263.0	12185.9	10662.3	9097.1	8100.3	8029.5	8716.6	9753.4	11218.4	12677.4
40°	12936.2	13056.3	12660.4	10927.3	9469.9	8758.2	8750.4	9420.6	10203.2	11574.3	13493.9
42.5°	13564.7	13666.4	13104.1	11158.4	9921.3	9560.8	9619.3	10365.0	10793.2	11987.2	14150.2
45°	14037.7	14128.6	13513.9	11381.7	10515.9	10488.2	10833.3	11377.1	11537.3	12358.5	14535.3
47.5°	14439.8	14527.6	13798.9	11720.7	11250.8	11595.9	12196.7	12432.4	12173.6	12571.1	14966.7
50°	14778.7	14804.9	13994.6	12124.3	12162.8	12953.1	13535.5	13688.0	12802.2	12876.1	15341.0
52.5°	15131.5	15097.6	14331.9	12632.7	13148.8	14241.0	14664.7	14823.4	13404.5	13252.0	15886.4
55°	15921.8	15954.2	15088.4	13273.6	14145.5	15505.9	16063.5	15911.0	14071.6	13943.7	16579.6
57.5°	16877.0	16849.2	16152.9	14276.5	15160.8	16682.9	17098.8	16853.9	14962.0	14894.2	17282.1
60°	17248.2	17285.2	17043.3	15354.9	16162.1	17713.5	18138.7	17758.2	16029.7	15998.8	17812.1
62.5°	16875.4	17083.4	17246.7	16314.7	17015.6	18471.5	18893.6	18459.1	17143.5	17366.9	18183.4
65°	16132.9	16177.5	16733.7	17128.1	17426.9	18596.2	18816.5	18585.5	18074.0	18613.2	18166.4
67.5°	15168.5	15207.0	15858.6	17394.6	16897.0	17178.9	17333.0	17265.2	17785.9	19039.9	17329.9
70°	14250.3	14219.5	14908.1	16715.2	14709.4	14281.1	14409.0	14196.4	15347.2	17997.0	15689.2
72.5°	12463.2	12574.1	13313.6	14826.5	11646.7	10950.4	11229.2	10679.2	11803.9	15413.4	12734.4
75°	9762.6	9788.8	11022.8	12443.2	8785.9	7687.5	8064.9	7835.3	9041.6	12857.6	8793.6
77.5°	6760.0	6701.5	8027.9	9503.8	6265.5	5627.7	5633.9	5524.5	6313.3	9466.8	5974.3
80°	4293.6	4204.2	5025.3	5871.1	4305.9	4606.3	4455.3	4450.7	4110.2	5840.3	3612.6
82.5°	2320.1	2418.7	3175.1	3680.4	3088.8	3560.3	3262.9	3167.4	2820.8	3655.8	2310.9
85°	1056.8	1149.3	1693.1	2503.4	2346.3	2372.5	1585.2	1870.3	2334.0	2968.7	1234.0
87.5°	103.2	132.5	349.7	1181.6	801.1	631.6	235.7	454.5	587.0	1055.3	98.6
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	7505.7	7505.7	7505.7	7505.7	7505.7	7505.7	7505.7	7505.7	7505.7	7505.7	7505.7
2.5°	7977.1	7897.0	7624.3	7399.4	7160.6	6978.8	6741.5	6582.9	6473.5	6308.6	6288.6
5°	7610.4	7414.8	6940.3	6456.5	6039.0	5724.8	5405.9	5113.2	4940.6	4886.7	4817.4
7.5°	6992.7	6663.0	6052.9	5498.3	5019.2	4550.8	4190.4	3934.6	3763.6	3663.5	3543.3
10°	6484.3	6102.2	5359.6	4680.3	4285.9	3994.7	3677.3	3403.1	3192.1	3011.8	2913.2
12.5°	6142.3	5710.9	4875.9	4324.4	4019.4	3709.7	3338.4	3030.3	2719.1	2514.2	2426.4
15°	6039.0	5583.0	4726.5	4147.2	3709.7	3304.5	2888.6	2486.5	2178.4	1984.3	1919.6
17.5°	6291.7	5740.2	4724.9	3911.5	3346.1	2862.4	2329.3	1951.9	1636.1	1491.3	1445.1
20°	6763.1	6042.1	4738.8	3678.9	2951.7	2270.8	1694.6	1385.0	1234.0	1172.4	1149.3
22.5°	7420.9	6502.8	4780.4	3449.3	2520.4	1743.9	1269.4	1112.3	1058.4	1047.6	1043.0
25°	8231.3	7072.8	4920.6	3242.9	2156.8	1331.1	1061.5	990.6	959.8	949.0	947.5
27.5°	8976.9	7809.2	5090.0	3065.7	1805.6	1147.7	959.8	899.7	868.9	867.3	870.4
30°	9650.1	8425.4	5231.8	2867.0	1539.0	1019.9	893.5	833.4	804.2	802.6	811.9
32.5°	10232.5	8932.2	5336.5	2671.4	1391.1	941.3	833.4	768.7	744.1	739.5	744.1
35°	10854.9	9437.5	5288.8	2518.8	1306.4	876.6	788.8	725.6	696.3	682.5	682.5
37.5°	11565.1	9958.3	5207.1	2392.5	1267.9	822.7	750.3	688.6	659.4	645.5	644.0
40°	12340.0	10479.0	5094.7	2280.0	1229.4	790.3	724.1	659.4	623.9	610.1	607.0
42.5°	13024.0	10924.2	5002.2	2206.1	1166.2	796.5	701.0	637.8	593.1	574.6	573.1
45°	13618.7	11372.5	4985.3	2163.0	1113.8	787.2	694.8	620.9	568.5	548.4	545.4
47.5°	14083.9	11839.3	5082.3	2138.3	1056.8	737.9	734.9	610.1	546.9	525.3	522.3
50°	14650.8	12501.7	5304.2	2087.5	1004.5	691.7	776.4	608.5	530.0	502.2	494.5
52.5°	15405.7	13364.5	5604.6	1996.6	929.0	648.6	741.0	608.5	509.9	482.2	473.0
55°	16547.3	14464.4	5898.8	1868.7	822.7	591.6	668.6	590.0	480.7	456.0	449.8
57.5°	17303.7	15268.6	6086.8	1691.5	690.2	550.0	576.2	560.8	451.4	425.2	425.2
60°	17342.2	15484.3	5997.4	1468.2	607.0	511.5	500.7	565.4	425.2	397.5	394.4
62.5°	16898.5	14955.9	5532.2	1267.9	562.3	469.9	452.9	496.1	399.0	371.3	366.7
65°	16205.3	13607.9	4724.9	1172.4	537.7	432.9	408.3	406.7	371.3	345.1	338.9
67.5°	14931.2	11891.7	3882.2	1116.9	525.3	391.3	368.2	360.5	338.9	317.4	314.3
70°	13053.3	9959.8	3113.5	1093.8	519.2	348.2	329.7	320.4	302.0	285.0	283.5
72.5°	10155.4	8078.8	2569.7	1078.4	516.1	308.1	288.1	275.8	265.0	249.6	249.6
75°	7294.6	5943.5	1961.1	972.1	477.6	265.0	243.4	235.7	220.3	208.0	211.1
77.5°	4598.6	4002.4	1291.0	714.8	369.7	212.6	194.1	189.5	177.2	160.2	171.0
80°	3105.8	2814.6	753.3	449.8	232.6	155.6	149.4	147.9	134.0	115.5	117.1
82.5°	2113.7	2073.6	391.3	255.7	134.0	90.9	87.8	90.9	75.5	61.6	61.6
85°	825.7	1127.7	184.9	100.1	43.1	13.9	20.0	21.6	12.3	6.2	7.7
87.5°	15.4	115.5	4.6	0.0	0.0	0.0	0.0	0.0	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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CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	7505.7	7505.7	7505.7	7505.7	7505.7	7505.7	7505.7	7505.7	7505.7	7505.7	7505.7
2.5°	6257.8	6243.9	6267.0	6168.4	6188.5	6225.5	6243.9	6254.7	6407.2	6371.8	6468.9
5°	4882.1	4868.2	4957.6	4969.9	5016.1	5006.9	5051.5	5062.3	5117.8	5137.8	5273.4
7.5°	3551.0	3611.1	3712.8	3765.2	3843.7	3868.4	3845.3	3902.3	3786.7	3869.9	3894.6
10°	2853.1	2780.7	2737.6	2857.8	2873.2	2987.2	2941.0	2904.0	2971.8	2974.8	3039.5
12.5°	2375.6	2220.0	2116.7	2150.6	2187.6	2236.9	2244.6	2318.6	2367.9	2414.1	2452.6
15°	1862.6	1808.6	1714.7	1668.4	1720.8	1740.8	1788.6	1850.2	1902.6	1916.5	1968.9
17.5°	1429.7	1438.9	1423.5	1395.8	1428.1	1443.5	1446.6	1448.1	1462.0	1452.8	1529.8
20°	1150.8	1183.2	1221.7	1227.8	1238.6	1246.3	1232.5	1180.1	1181.6	1214.0	1238.6
22.5°	1041.4	1047.6	1090.7	1104.6	1138.5	1124.6	1084.6	1059.9	1056.8	1064.5	1076.9
25°	955.2	964.4	995.2	1016.8	1043.0	1018.3	989.0	965.9	962.9	970.6	982.9
27.5°	878.1	892.0	919.7	941.3	965.9	942.8	915.1	895.1	893.5	892.0	899.7
30°	816.5	831.9	851.9	876.6	893.5	873.5	847.3	836.5	835.0	831.9	835.0
32.5°	754.9	779.5	799.6	811.9	828.8	813.4	793.4	787.2	776.4	767.2	762.6
35°	685.6	711.7	742.6	758.0	774.9	759.5	745.6	719.4	701.0	699.4	702.5
37.5°	645.5	656.3	680.9	707.1	724.1	716.4	690.2	664.0	659.4	659.4	662.4
40°	610.1	614.7	625.5	659.4	690.2	667.1	634.7	627.0	627.0	625.5	627.0
42.5°	574.6	579.3	579.3	605.4	654.7	617.8	593.1	593.1	593.1	594.7	599.3
45°	542.3	543.8	542.3	560.8	607.0	576.2	559.2	563.8	566.9	570.0	573.1
47.5°	514.6	516.1	514.6	530.0	553.1	540.7	531.5	537.7	543.8	548.4	551.5
50°	489.9	488.4	491.4	500.7	511.5	514.6	508.4	517.6	520.7	526.9	534.6
52.5°	468.3	466.8	469.9	474.5	489.9	489.9	489.9	497.6	503.8	509.9	520.7
55°	443.7	445.2	449.8	456.0	476.0	473.0	474.5	480.7	486.8	496.1	502.2
57.5°	420.6	423.7	429.8	439.1	459.1	457.5	459.1	462.2	469.9	474.5	480.7
60°	394.4	400.5	408.3	414.4	434.4	432.9	440.6	446.8	451.4	451.4	454.5
62.5°	368.2	377.4	385.1	389.8	411.3	412.9	423.7	428.3	431.4	428.3	432.9
65°	342.0	355.9	359.0	365.1	386.7	388.2	400.5	411.3	408.3	405.2	412.9
67.5°	315.8	332.8	331.2	338.9	360.5	363.6	374.4	392.8	386.7	383.6	389.8
70°	286.5	298.9	300.4	305.0	334.3	329.7	346.6	363.6	359.0	360.5	360.5
72.5°	254.2	265.0	265.0	274.2	305.0	297.3	311.2	329.7	329.7	328.1	328.1
75°	215.7	221.8	228.0	241.9	274.2	265.0	274.2	291.2	294.2	291.2	291.2
77.5°	174.1	183.3	186.4	204.9	228.0	226.5	235.7	243.4	249.6	246.5	246.5
80°	123.2	132.5	144.8	164.8	178.7	183.3	187.9	194.1	197.2	197.2	200.3
82.5°	69.3	83.2	94.0	114.0	120.2	143.3	141.7	146.4	141.7	124.8	138.7
85°	15.4	29.3	41.6	52.4	60.1	83.2	87.8	98.6	81.7	75.5	75.5
87.5°	0.0	0.0	0.0	0.0	0.0	12.3	24.6	33.9	29.3	24.6	24.6
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):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	7505.7	7505.7	7505.7	7505.7	7505.7	7505.7	7505.7	7505.7	7505.7	7505.7
2.5°	6550.5	6684.5	6846.3	7125.1	7320.8	7531.9	7744.5	7970.9	8031.0	8092.6
5°	5310.4	5573.8	5717.1	6091.4	6484.3	6983.4	7391.7	7838.4	8024.8	8068.0
7.5°	4022.4	4201.1	4577.0	4956.0	5442.8	5966.6	6592.1	7288.4	7505.7	7596.6
10°	3189.0	3432.4	3762.1	4168.8	4595.5	5159.4	5865.0	6678.4	6986.5	7037.3
12.5°	2714.5	2985.6	3344.6	3774.4	4178.0	4603.2	5315.0	6154.6	6484.3	6593.6
15°	2170.7	2498.8	2913.2	3366.1	3805.2	4270.5	4991.5	5938.9	6319.4	6447.3
17.5°	1705.4	1970.4	2418.7	2910.1	3430.9	4019.4	4923.7	6042.1	6510.5	6629.1
20°	1304.9	1494.4	1871.8	2391.0	3001.0	3771.3	4940.6	6431.9	6992.7	7154.4
22.5°	1127.7	1224.8	1454.3	1948.8	2631.3	3555.6	5009.9	6966.5	7642.8	7912.4
25°	1021.4	1072.2	1201.6	1525.2	2278.5	3346.1	5168.6	7685.9	8551.7	8730.4
27.5°	930.5	967.5	1047.6	1280.2	1958.1	3152.0	5353.5	8483.9	9400.6	9667.1
30°	844.2	893.5	969.0	1136.9	1753.2	2974.8	5586.1	9131.0	10115.4	10363.4
32.5°	778.0	827.3	896.6	1036.8	1579.1	2788.4	5724.8	9699.4	10699.3	10910.3
35°	724.1	765.7	838.1	956.7	1446.6	2646.7	5697.0	10150.8	11264.7	11480.3
37.5°	685.6	721.0	793.4	881.2	1346.5	2498.8	5683.2	10747.0	11953.3	12202.9
40°	650.1	687.1	753.3	831.9	1246.3	2324.7	5690.9	11338.6	12686.6	12936.2
42.5°	622.4	664.0	717.9	818.0	1143.1	2184.5	5690.9	11853.2	13324.4	13564.7
45°	599.3	644.0	696.3	816.5	1061.5	2078.2	5652.4	12295.3	13832.8	14037.7
47.5°	579.3	628.6	704.0	788.8	1041.4	2001.2	5618.5	12649.6	14247.2	14439.8
50°	565.4	623.9	748.7	756.4	1047.6	1978.1	5781.8	13096.4	14612.3	14778.7
52.5°	554.6	625.5	747.2	708.7	1036.8	1993.5	6122.2	13794.3	15119.2	15131.5
55°	533.0	623.9	708.7	654.7	992.1	2019.7	6559.8	14808.0	15912.6	15921.8
57.5°	511.5	607.0	657.8	608.5	901.2	2019.7	7086.6	15767.8	16869.3	16877.0
60°	489.9	631.6	577.7	568.5	782.6	1982.7	7642.8	16189.9	17169.7	17248.2
62.5°	468.3	636.3	516.1	533.0	696.3	1893.4	8057.2	15723.1	16763.0	16875.4
65°	443.7	513.0	476.0	496.1	651.7	1743.9	7926.2	14868.1	15998.8	16132.9
67.5°	414.4	434.4	432.9	457.5	636.3	1523.6	7236.1	13786.6	15176.2	15168.5
70°	379.0	389.8	394.4	420.6	607.0	1352.6	6029.8	12383.1	14077.7	14250.3
72.5°	342.0	351.3	355.9	379.0	577.7	1255.6	4680.3	10449.7	12193.6	12463.2
75°	302.0	308.1	314.3	334.3	546.9	1112.3	3333.8	7977.1	9338.9	9762.6
77.5°	260.4	260.4	268.1	288.1	460.6	918.2	2236.9	5595.4	6327.1	6760.0
80°	211.1	212.6	209.5	231.1	338.9	628.6	1271.0	3737.4	4210.4	4293.6
82.5°	161.8	157.1	158.7	169.5	252.7	428.3	677.9	2321.6	2366.3	2320.1
85°	101.7	101.7	98.6	110.9	161.8	223.4	369.7	1421.9	1110.8	1056.8
87.5°	41.6	33.9	38.5	44.7	77.0	90.9	144.8	292.7	112.5	103.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)