

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: P192217

Luminaire Tested: **GLEON-AF-09-LED-E1-T2R-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P192217
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24657)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLEON-AF-09-LED-E1-T2R-7050
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 5000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 55439 lumens
Efficiency: N/A
Efficacy: 110.7 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B4 - U0 - G5

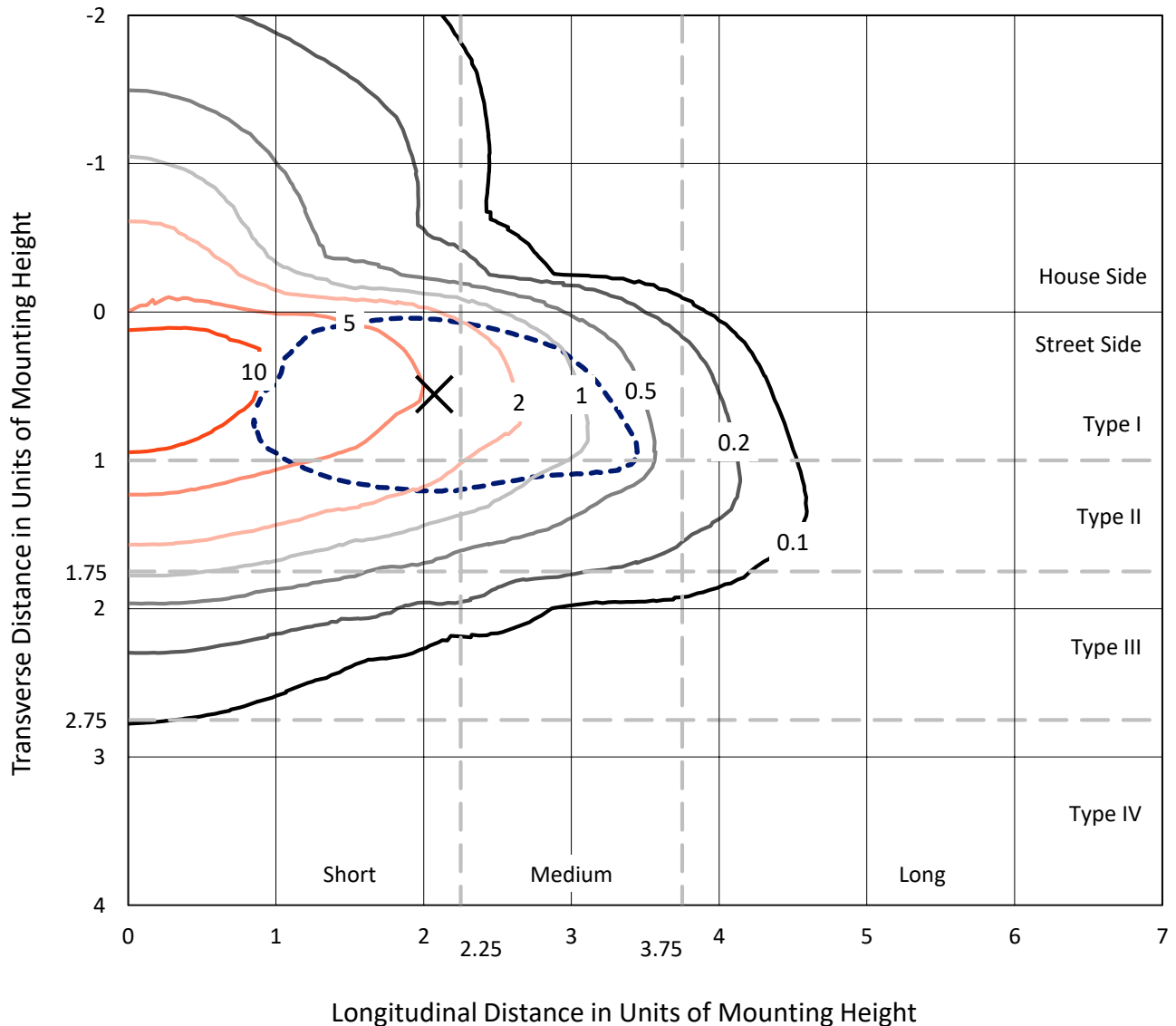
Input Watts (W): 501
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

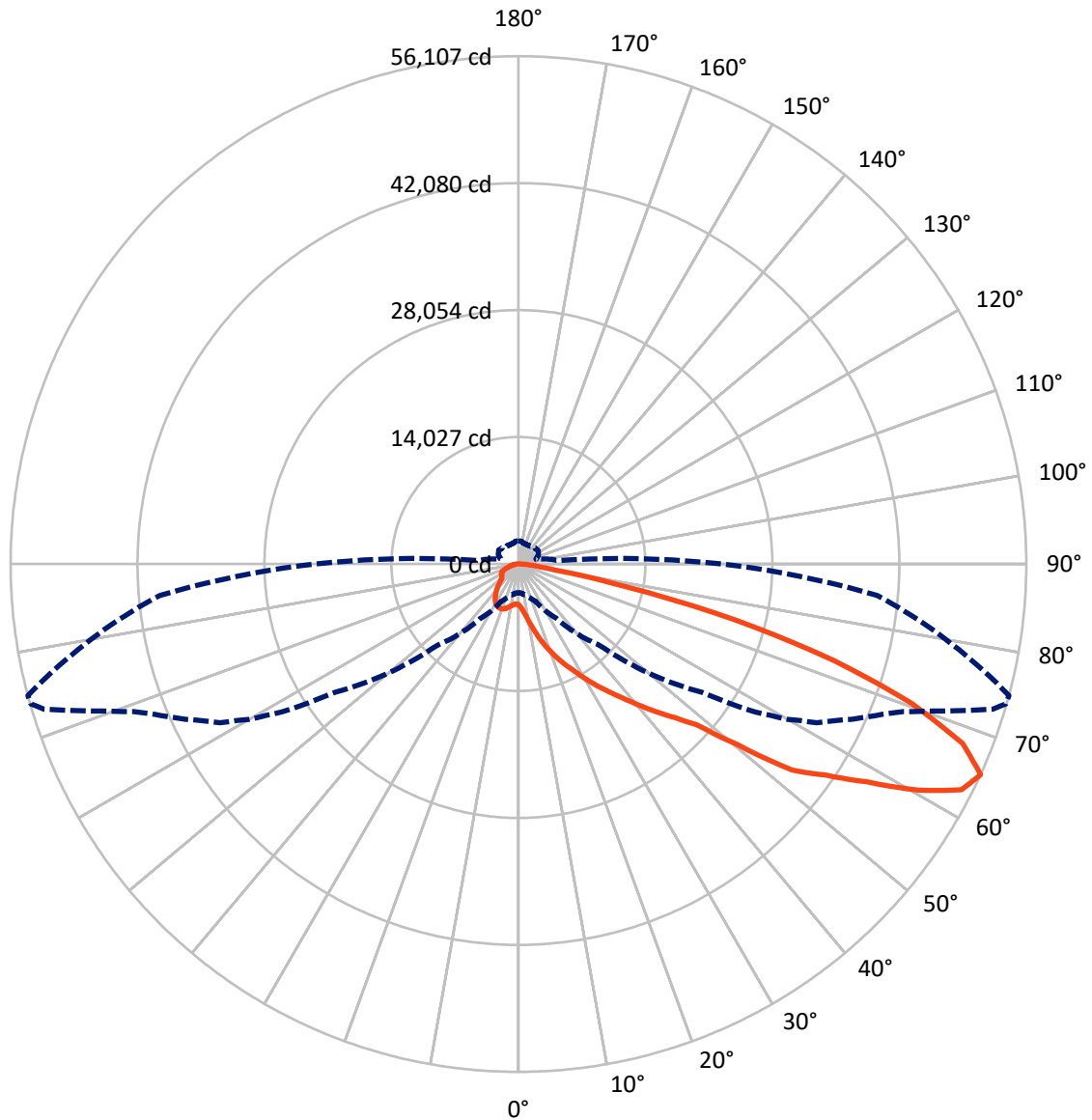
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 15.5 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8547.4	0.0	8547.4
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	46891.6	0.0	46891.6
	% Fixture	84.6	0.0	84.6
Total	Lumens	55439.0	0.0	55439.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	556.9	1.0
10°-20°	2175.9	3.9
20°-30°	4464.2	8.1
30°-40°	7510.9	13.5
40°-50°	10377.9	18.7
50°-60°	12954.7	23.4
60°-70°	11657.9	21.0
70°-80°	4886.9	8.8
80°-90°	853.7	1.5
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°	55439.0	100.0
0°-180°	55439.0	100.0



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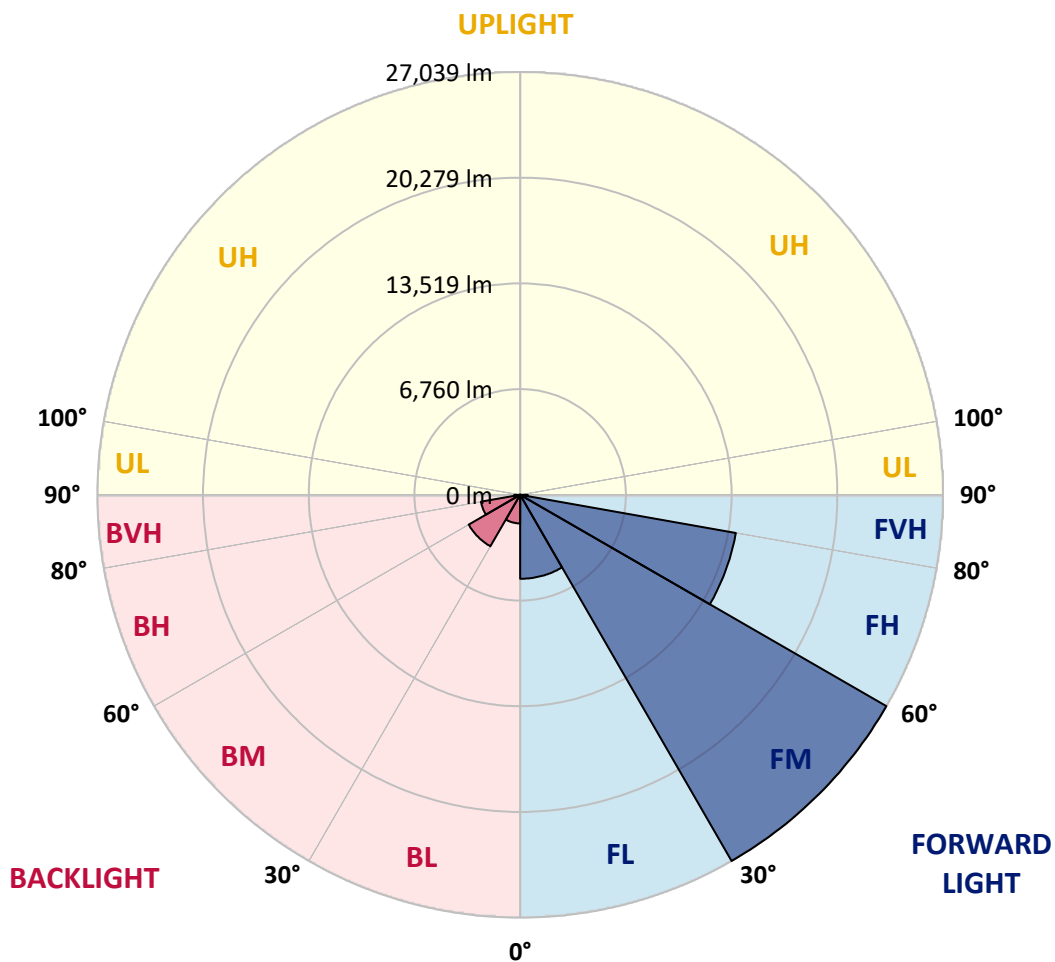
CATALOG NUMBER: GLEON-AF-09-LED-E1-T2R-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	5369.1	9.7			
FM (30°-60°)	27038.9	48.8			
FH (60°-80°)	14003.7	25.3			G5
FVH (80°-90°)	479.9	0.9			G3/500
BL (0°-30°)	1827.9	3.3	B3/2500		
BM (30°-60°)	3804.5	6.9	B3/5000		
BH (60°-80°)	2541.0	4.6	B4/5000		G4/5000
BVH (80°-90°)	373.9	0.7			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	4505.5	4505.5	4505.5	4505.5	4505.5	4505.5	4505.5	4505.5	4505.5	4505.5	4505.5
2.5°	5720.4	5657.4	5673.2	5568.2	5439.6	5271.7	5085.4	5082.8	5085.4	5067.0	4998.8
5°	7932.5	7856.4	7827.5	7591.4	7245.0	6751.7	6216.4	6158.6	6135.0	6074.7	5935.6
7.5°	9546.3	9504.3	9459.7	9281.2	8966.3	8415.3	7696.3	7573.0	7454.9	7426.0	7268.6
10°	10588.0	10577.5	10483.0	10435.8	10239.0	9761.4	9060.8	8942.7	8814.2	8769.5	8604.2
12.5°	11412.0	11409.3	11364.7	11377.8	11207.3	10860.9	10257.4	10149.8	10055.3	9918.9	9800.8
15°	11981.4	11984.0	12049.6	12123.1	12096.8	11863.3	11296.5	11249.3	11167.9	11073.5	10934.4
17.5°	12448.5	12461.6	12529.8	12663.6	12807.9	12789.6	12340.9	12301.5	12230.7	12102.1	12028.6
20°	13503.3	13553.2	13422.0	13422.0	13437.7	13508.6	13293.4	13261.9	13162.2	13094.0	13036.2
22.5°	15285.0	15342.8	15046.3	14744.5	14448.0	14232.8	14017.6	14057.0	13988.8	13941.5	13907.4
25°	17599.4	17644.1	17163.9	16654.8	16051.3	15264.0	14731.4	14707.8	14671.0	14642.2	14626.4
27.5°	19777.4	19795.8	19341.8	18596.6	17896.0	16765.0	15455.6	15426.7	15382.1	15327.0	15279.8
30°	21640.5	21635.2	21168.1	20457.0	19706.6	18454.9	16555.1	16465.9	16334.7	16185.1	16069.6
32.5°	23254.3	23246.4	22734.7	21997.3	21210.1	20129.0	18061.3	17877.6	17672.9	17381.7	17205.8
35°	24524.3	24519.0	24036.2	23267.4	22364.7	21706.1	19787.9	19562.2	19302.4	18911.5	18641.2
37.5°	25004.5	25004.5	24734.2	24209.4	23411.7	22960.4	21706.1	21433.2	21155.0	20711.6	20407.2
40°	24723.7	24729.0	24786.7	24689.6	24301.2	23954.9	23495.7	23333.0	23094.2	22695.3	22377.8
42.5°	23781.7	23810.6	24193.7	24663.4	24857.5	24802.4	25083.2	25009.7	24841.8	24534.8	24282.9
45°	22587.7	22677.0	23096.8	23983.7	25012.4	25534.5	26413.6	26421.5	26390.0	26224.7	26030.5
47.5°	20947.7	21073.7	21627.3	22826.5	24650.2	26245.7	27765.0	27835.8	27901.4	27793.8	27704.6
50°	18769.8	18919.3	19748.5	21338.7	23912.9	26983.0	30318.2	30638.3	30937.4	30900.7	30961.1
52.5°	16437.0	16612.8	17628.3	19399.5	22645.5	27153.6	31950.3	32472.5	32994.7	33422.4	33876.4
55°	14332.5	14238.0	15253.6	17119.2	20562.0	26384.7	33417.2	34046.9	34629.5	35154.3	35694.8
57.5°	11480.2	11635.0	12653.1	14497.8	17804.1	24214.7	34427.4	35348.5	36185.5	37054.1	37820.3
60°	8391.7	8546.5	9651.2	11524.8	14810.1	20924.1	33656.0	35051.9	36392.8	37723.2	38762.3
62.5°	5067.0	5182.5	6156.0	7940.3	11419.8	17022.2	30218.5	32050.0	34023.3	35613.5	37206.3
65°	3154.1	3219.7	3579.2	4560.6	7334.2	12708.2	24689.6	26686.5	28812.0	30829.9	32485.6
67.5°	2582.1	2605.7	2671.3	2881.2	4027.9	8286.7	18376.2	20144.8	22062.9	24015.2	25857.3
70°	2322.3	2306.5	2306.5	2319.7	2582.1	4455.6	12031.2	13183.2	14781.2	16479.0	18163.6
72.5°	2096.6	2080.9	2052.0	2012.6	2107.1	2718.5	6219.0	7087.5	8239.5	9748.3	11362.1
75°	1884.1	1863.1	1829.0	1779.1	1844.7	2052.0	2986.2	3350.9	3912.4	4715.4	5615.4
77.5°	1663.6	1637.4	1605.9	1569.2	1653.1	1595.4	1750.2	1881.4	2096.6	2353.8	2692.3
80°	1414.4	1390.7	1380.2	1361.9	1461.6	1214.9	1235.9	1317.3	1443.2	1582.3	1739.7
82.5°	1107.3	1107.3	1149.3	1157.2	1267.4	873.8	923.7	994.5	1060.1	1133.6	1207.1
85°	729.5	734.7	876.4	931.5	999.8	587.8	692.7	716.4	768.8	810.8	842.3
87.5°	228.3	246.7	535.3	593.0	574.7	333.3	425.1	435.6	472.3	501.2	527.4
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):

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	4505.5	4505.5	4505.5	4505.5	4505.5	4505.5	4505.5	4505.5	4505.5	4505.5	4505.5
2.5°	4998.8	4967.3	4938.4	4935.8	4914.8	4886.0	4896.5	4851.9	4854.5	4830.9	4804.6
5°	5877.9	5856.9	5751.9	5723.0	5644.3	5594.5	5586.6	5481.6	5468.5	5408.1	5342.5
7.5°	7142.6	7074.4	6927.5	6856.6	6722.8	6623.1	6575.8	6436.8	6368.5	6211.1	6140.3
10°	8467.8	8381.2	8200.1	8100.4	7971.8	7811.8	7725.2	7523.1	7444.4	7300.1	7126.9
12.5°	9695.8	9609.2	9422.9	9346.8	9176.3	9005.7	8911.2	8683.0	8580.6	8349.7	8213.2
15°	10832.0	10745.4	10582.8	10504.0	10333.5	10194.4	10068.4	9842.8	9722.1	9506.9	9328.5
17.5°	11934.1	11842.3	11700.6	11629.8	11464.4	11322.7	11186.3	10973.7	10850.4	10635.2	10475.2
20°	12957.5	12889.3	12787.0	12692.5	12527.2	12398.6	12235.9	12052.2	11873.8	11716.3	11564.2
22.5°	13849.7	13823.5	13713.2	13671.3	13529.6	13419.3	13277.6	13096.6	12968.0	12768.6	12626.9
25°	14618.5	14610.7	14558.2	14545.1	14445.3	14340.4	14308.9	14159.3	14041.2	13865.4	13718.5
27.5°	15279.8	15287.7	15274.5	15311.3	15285.0	15237.8	15240.4	15190.6	15122.4	14975.4	14846.8
30°	16014.5	15972.5	15996.2	16048.6	16064.4	16069.6	16156.2	16185.1	16179.8	16082.8	16019.8
32.5°	17053.6	16953.9	16862.1	16854.2	16906.7	16927.7	17074.6	17150.7	17216.3	17240.0	17250.4
35°	18378.8	18179.4	17987.8	17885.5	17796.2	17819.9	17924.8	18048.2	18192.5	18292.2	18410.3
37.5°	20047.7	19803.6	19465.1	19223.7	19163.4	19032.2	19100.4	19197.5	19339.2	19494.0	19698.7
40°	22070.8	21700.8	21320.3	21000.2	20827.0	20585.6	20583.0	20564.6	20651.2	20795.5	21084.2
42.5°	24017.9	23689.8	23285.7	22949.9	22724.2	22401.4	22335.8	22165.3	22204.6	22330.6	22611.4
45°	25841.6	25571.3	25324.6	24936.3	24744.7	24395.7	24285.5	24083.5	23970.6	24028.3	24309.1
47.5°	27607.5	27434.4	27177.2	26925.3	26778.3	26466.1	26324.4	26180.1	26035.7	26030.5	26324.4
50°	31050.3	30958.4	30654.1	30391.6	30462.5	30079.4	30103.0	29714.6	29890.5	29911.4	30528.1
52.5°	34285.7	34605.9	34831.5	35107.1	35285.5	35319.6	35437.7	35613.5	35826.0	36245.9	36817.9
55°	36138.3	36539.8	36773.3	36983.2	37329.6	37403.1	37599.9	37833.4	38019.7	38492.1	38977.5
57.5°	38339.9	39085.1	39447.2	39780.5	40247.5	40426.0	40754.0	41008.5	41249.9	41808.9	42396.6
60°	39696.5	40604.4	41341.8	41869.2	42454.4	42874.2	43370.2	43769.0	44335.8	45004.9	45881.4
62.5°	38618.0	39951.0	40929.8	41835.1	42630.2	43433.1	44144.2	44889.5	45750.2	46763.0	48122.3
65°	34322.5	35679.1	37355.9	38295.3	39347.5	40586.0	41667.2	42874.2	44047.2	45521.9	47531.9
67.5°	27631.2	29208.2	31092.3	32039.5	33249.2	34632.1	35844.4	37319.1	38688.9	40475.8	42960.8
70°	19916.5	21955.4	23540.3	24529.5	25941.3	27366.1	28536.5	30252.6	31386.2	33217.7	35786.7
72.5°	12611.1	14219.7	16161.5	17407.9	18662.2	20105.4	21302.0	22781.9	23839.4	25508.3	27835.8
75°	6780.5	7966.6	9672.2	10855.7	12199.2	13432.5	14833.7	15825.6	16607.6	17927.5	19816.8
77.5°	3177.7	3899.3	4762.6	5673.2	6583.7	7533.6	8457.3	9260.2	9596.1	10351.8	11467.1
80°	1928.7	2162.2	2414.1	2694.9	3075.4	3382.4	3789.1	4083.0	4104.0	4342.8	4683.9
82.5°	1288.4	1375.0	1451.1	1521.9	1619.0	1695.1	1781.7	1884.1	1926.0	1981.2	2091.4
85°	879.1	921.0	936.8	981.4	970.9	997.1	1031.2	1065.4	1083.7	1081.1	1131.0
87.5°	540.6	561.5	572.0	582.5	574.7	564.2	579.9	598.3	603.5	587.8	593.0
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):

	71°	72°	73°	74°	75°	85°	90°	95°	105°	115°	125°
0°	4505.5	4505.5	4505.5	4505.5	4505.5	4505.5	4505.5	4505.5	4505.5	4505.5	4505.5
2.5°	4809.9	4786.3	4762.6	4746.9	4741.6	4602.6	4542.2	4502.9	4418.9	4350.7	4295.6
5°	5305.8	5256.0	5216.6	5169.4	5143.1	4791.5	4662.9	4573.7	4426.8	4340.2	4261.4
7.5°	6103.5	5964.4	5883.1	5791.3	5712.5	5077.5	4865.0	4725.9	4521.2	4405.8	4316.5
10°	7008.8	6864.5	6735.9	6594.2	6470.9	5458.0	5148.4	4933.2	4662.9	4513.4	4395.3
12.5°	8019.1	7877.4	7714.7	7533.6	7376.2	5940.8	5510.5	5203.5	4833.5	4634.1	4468.7
15°	9213.0	8963.7	8766.9	8557.0	8373.3	6518.1	5933.0	5507.9	5014.5	4744.3	4523.8
17.5°	10323.0	10060.6	9792.9	9609.2	9396.7	7166.3	6358.1	5817.5	5164.1	4815.1	4534.3
20°	11406.7	11120.7	10889.8	10643.1	10420.1	7838.0	6812.0	6090.4	5261.2	4817.7	4468.7
22.5°	12361.9	12183.4	11926.3	11658.6	11432.9	8509.8	7237.1	6321.3	5297.9	4757.4	4353.3
25°	13448.2	13259.3	12944.4	12718.7	12466.8	9194.6	7654.3	6499.8	5276.9	4644.6	4174.8
27.5°	14608.0	14398.1	14075.4	13839.2	13534.8	9905.8	8037.4	6628.3	5198.2	4460.9	3936.1
30°	15817.7	15626.2	15308.7	15069.9	14762.9	10658.9	8465.2	6714.9	5040.8	4206.3	3657.9
32.5°	17116.6	16956.6	16641.7	16392.4	16064.4	11474.9	8864.0	6741.2	4802.0	3904.6	3364.0
35°	18349.9	18239.7	17974.7	17741.1	17400.0	12246.4	9286.5	6728.0	4518.6	3573.9	3096.4
37.5°	19738.0	19672.4	19541.2	19244.7	18827.5	13293.4	9792.9	6672.9	4172.2	3245.9	2891.7
40°	21218.0	21223.2	21081.5	20879.5	20491.1	14563.4	10396.5	6565.4	3794.4	2957.3	2705.4
42.5°	22784.6	22865.9	22797.7	22653.4	22280.7	15844.0	11118.1	6434.1	3427.0	2676.5	2521.7
45°	24579.4	24679.1	24784.1	24571.5	24209.4	17533.8	12068.0	6263.6	3030.8	2443.0	2395.7
47.5°	26649.8	26807.2	26901.7	26904.3	26542.2	19627.8	13610.9	6161.2	2679.1	2285.5	2335.4
50°	31018.8	31068.7	31291.7	31680.1	31401.9	24474.4	16305.8	6098.3	2440.4	2188.5	2290.8
52.5°	37313.9	37862.3	38248.0	38221.8	37843.9	27552.4	17791.0	5772.9	2298.7	2151.7	2269.8
55°	39877.6	40562.4	41276.2	41465.1	41171.2	30179.1	19194.9	5447.5	2230.4	2178.0	2277.7
57.5°	43294.1	44448.6	45427.4	45839.4	45414.3	33540.5	21042.2	5276.9	2209.4	2248.8	2327.5
60°	47285.2	48712.7	49998.5	50738.5	50738.5	37403.1	22957.7	5206.1	2180.6	2353.8	2411.5
62.5°	49848.9	51945.5	53887.3	54971.0	54939.6	40092.7	23807.9	4964.7	2115.0	2427.2	2527.0
65°	49859.4	52352.3	54826.7	56044.3	56107.3	39762.1	22404.1	4384.8	1994.3	2437.7	2642.4
67.5°	45702.9	48361.1	51244.9	52606.8	52921.7	36602.8	19394.3	3605.4	1797.5	2332.8	2684.4
70°	38599.7	41194.8	44139.0	45477.3	46036.2	31202.5	15620.9	2778.9	1545.6	2101.9	2597.8
72.5°	30410.0	32955.3	35004.7	35983.5	36419.1	23849.9	11375.2	2099.2	1267.4	1771.2	2364.3
75°	21530.3	23440.6	24529.5	24747.3	24815.6	14377.1	6911.7	1561.3	1044.4	1377.6	1996.9
77.5°	12151.9	12970.6	12881.4	12978.5	12170.3	5549.8	3009.8	1117.8	860.7	1047.0	1548.2
80°	4744.3	4891.2	4594.7	4502.9	4130.2	2065.1	1327.8	779.3	687.5	792.5	1083.7
82.5°	2091.4	2159.6	2096.6	2112.4	2020.5	1065.4	795.1	564.2	524.8	579.9	719.0
85°	1152.0	1172.9	1167.7	1201.8	1152.0	425.1	377.9	346.4	367.4	393.6	461.8
87.5°	561.5	566.8	548.4	577.3	558.9	215.2	186.3	196.8	215.2	220.4	220.4
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):

	135°	145°	155°	165°	175°	180°
0°	4505.5	4505.5	4505.5	4505.5	4505.5	4505.5
2.5°	4256.2	4235.2	4237.8	4232.6	4222.1	4222.1
5°	4219.5	4198.5	4198.5	4193.2	4180.1	4182.7
7.5°	4256.2	4222.1	4209.0	4190.6	4172.2	4172.2
10°	4298.2	4237.8	4201.1	4169.6	4146.0	4146.0
12.5°	4329.7	4235.2	4174.8	4132.9	4109.2	4109.2
15°	4340.2	4216.8	4132.9	4083.0	4062.0	4059.4
17.5°	4306.1	4146.0	4043.6	3985.9	3959.7	3951.8
20°	4201.1	4017.4	3894.1	3828.5	3791.7	3778.6
22.5°	4043.6	3833.7	3689.4	3621.2	3573.9	3566.1
25°	3823.2	3597.6	3455.9	3390.3	3364.0	3356.1
27.5°	3566.1	3356.1	3235.4	3193.5	3169.8	3167.2
30°	3322.0	3143.6	3054.4	3022.9	2994.0	2988.8
32.5°	3093.7	2980.9	2946.8	2902.2	2834.0	2826.1
35°	2931.1	2920.6	2896.9	2797.2	2713.3	2689.6
37.5°	2831.3	2928.4	2807.7	2610.9	2550.6	2545.3
40°	2773.6	2847.1	2639.8	2571.6	2576.8	2571.6
42.5°	2642.4	2718.5	2645.0	2613.5	2634.5	2639.8
45°	2511.2	2595.2	2684.4	2663.4	2713.3	2713.3
47.5°	2437.7	2563.7	2681.8	2681.8	2755.2	2781.5
50°	2353.8	2537.4	2639.8	2676.5	2734.3	2713.3
52.5°	2348.5	2492.8	2579.4	2645.0	2671.3	2647.7
55°	2356.4	2456.1	2519.1	2592.6	2624.0	2626.7
57.5°	2366.9	2435.1	2477.1	2511.2	2605.7	2605.7
60°	2393.1	2416.7	2440.4	2458.7	2582.1	2584.7
62.5°	2435.1	2398.4	2393.1	2411.5	2568.9	2558.4
65°	2500.7	2372.1	2332.8	2351.1	2555.8	2524.3
67.5°	2589.9	2332.8	2256.7	2269.8	2545.3	2477.1
70°	2671.3	2269.8	2162.2	2149.1	2445.6	2324.9
72.5°	2679.1	2196.3	2031.0	1991.6	2125.5	2010.0
75°	2547.9	2146.5	1886.7	1771.2	1755.5	1739.7
77.5°	2296.0	2117.6	1718.7	1537.7	1506.2	1516.7
80°	1920.8	2010.0	1516.7	1301.5	1472.1	1453.7
82.5°	1435.4	1773.9	1288.4	1152.0	1149.3	1015.5
85°	797.7	1382.9	1049.6	863.3	600.9	582.5
87.5°	223.0	768.8	734.7	488.1	333.3	346.4
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)