

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: P191418

Luminaire Tested: **GLEON-AF-10-LED-E1-T2R**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P191418
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-10-LED-E1-T2R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 4000K, 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: 62788.7 lumens
Efficiency: N/A
Efficacy: 112.5 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): 558
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

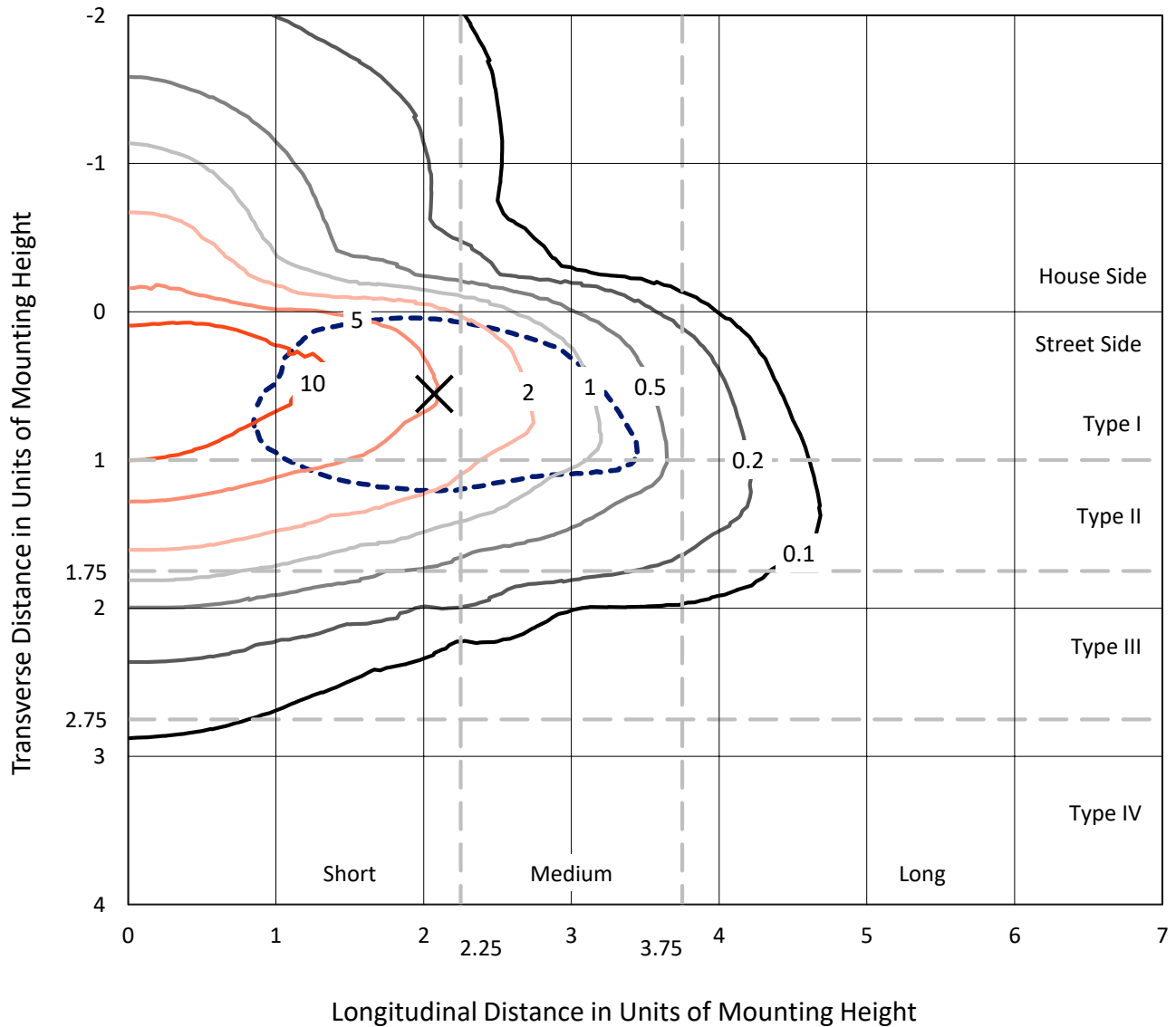


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Iso-Footcandle Lines of Horizontal Illumination

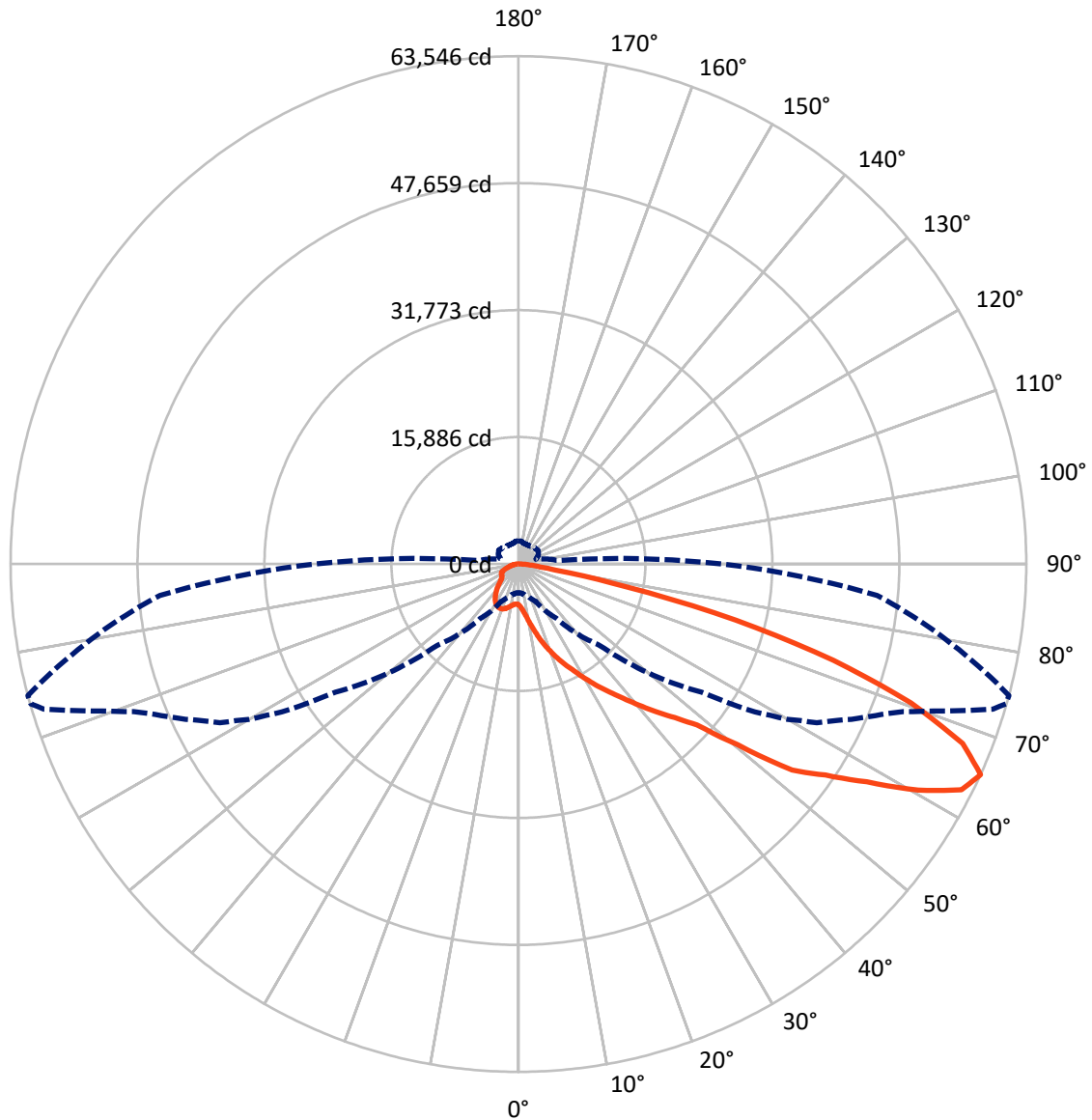
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 17.6 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	9680.5	0.0	9680.5
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	53108.2	0.0	53108.2
	% Fixture	84.6	0.0	84.6
Total	Lumens	62788.7	0.0	62788.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	630.7	1.0
10°-20°	2464.4	3.9
20°-30°	5056.1	8.1
30°-40°	8506.6	13.5
40°-50°	11753.7	18.7
50°-60°	14672.2	23.4
60°-70°	13203.4	21.0
70°-80°	5534.7	8.8
80°-90°	966.9	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°	62788.7	100.0
0°-180°	62788.7	100.0

Coefficient of Utilization



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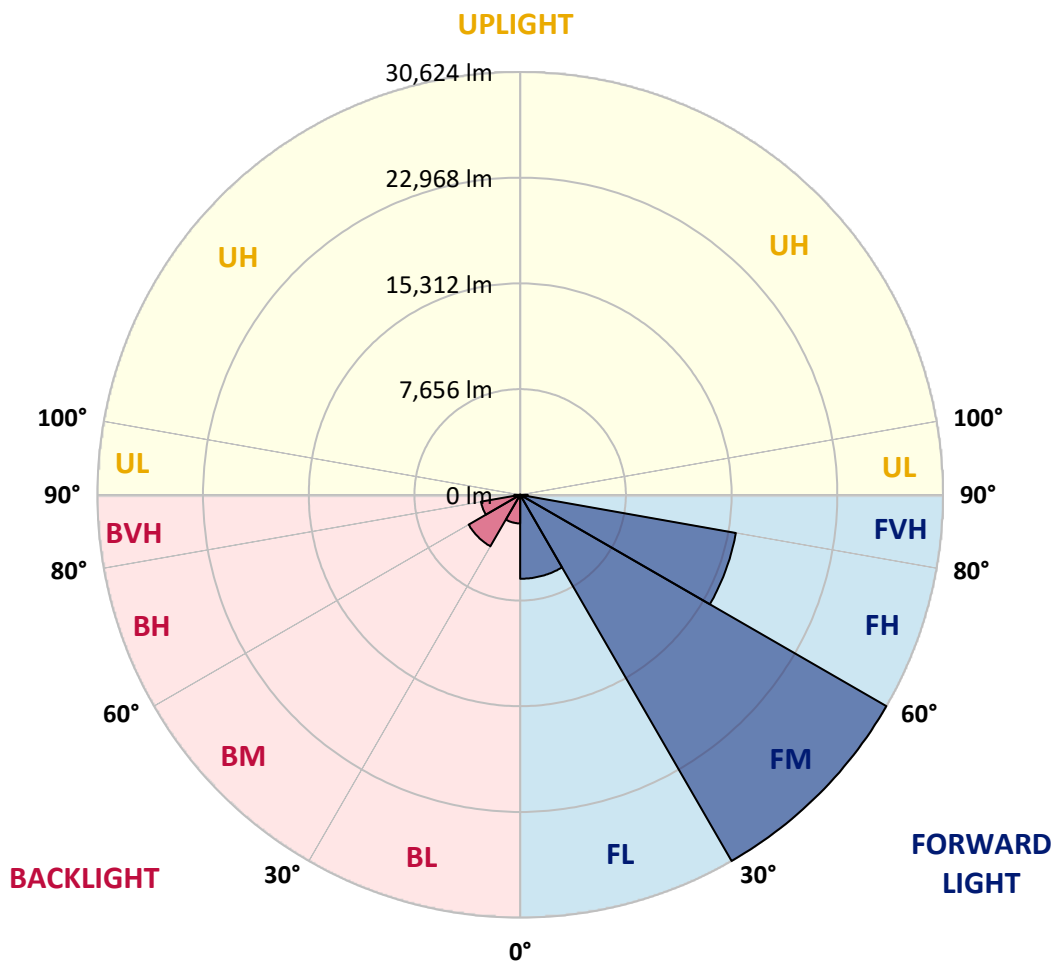
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	6080.9	9.7			
FM	(30°-60°)	30623.6	48.8			
FH	(60°-80°)	15860.2	25.3			G5
FVH	(80°-90°)	543.5	0.9			G4/750
BL	(0°-30°)	2070.3	3.3	B3/2500		
BM	(30°-60°)	4308.9	6.9	B3/5000		
BH	(60°-80°)	2877.9	4.6	B4/5000		G4/5000
BVH	(80°-90°)	423.4	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°	5102.8	5102.8	5102.8	5102.8	5102.8	5102.8	5102.8	5102.8	5102.8	5102.8	5102.8
2.5°	6478.8	6407.5	6425.3	6306.4	6160.8	5970.6	5759.6	5756.7	5759.6	5738.8	5661.5
5°	8984.1	8897.9	8865.2	8597.8	8205.5	7646.8	7040.5	6975.1	6948.4	6880.0	6722.5
7.5°	10811.9	10764.3	10713.8	10511.6	10155.0	9530.9	8716.7	8576.9	8443.2	8410.5	8232.2
10°	11991.6	11979.8	11872.8	11819.3	11596.5	11055.5	10262.0	10128.3	9982.7	9932.1	9744.9
12.5°	12924.9	12921.9	12871.4	12886.2	12693.1	12300.8	11617.2	11495.4	11388.4	11233.8	11100.1
15°	13569.7	13572.7	13647.1	13730.3	13700.6	13436.0	12794.1	12740.6	12648.5	12541.5	12383.9
17.5°	14098.8	14113.7	14190.9	14342.5	14506.0	14485.1	13976.9	13932.4	13852.1	13706.5	13623.2
20°	15293.5	15350.0	15201.4	15201.4	15219.2	15299.5	15055.8	15020.1	14907.2	14829.9	14764.5
22.5°	17311.4	17376.8	17041.0	16699.3	16363.4	16119.7	15876.0	15920.6	15843.3	15789.8	15751.2
25°	19932.7	19983.1	19439.3	18862.8	18179.3	17287.7	16684.3	16657.6	16616.0	16583.3	16565.5
27.5°	22399.3	22420.1	21906.0	21061.9	20268.4	18987.6	17504.6	17471.9	17421.4	17359.0	17305.5
30°	24509.4	24503.5	23974.5	23169.1	22319.2	20901.5	18749.9	18648.8	18500.2	18330.8	18200.0
32.5°	26337.1	26328.2	25748.7	24913.6	24022.1	22797.6	20455.7	20247.7	20015.9	19686.0	19486.9
35°	27775.6	27769.6	27222.8	26352.0	25329.7	24583.8	22411.2	22155.7	21861.5	21418.6	21112.5
37.5°	28319.4	28319.4	28013.3	27419.0	26515.5	26004.3	24583.8	24274.6	23959.7	23457.4	23112.7
40°	28001.4	28007.4	28072.7	27962.8	27522.9	27130.6	26610.5	26426.3	26155.8	25704.1	25344.5
42.5°	26934.5	26967.2	27401.1	27933.1	28152.9	28090.5	28408.6	28325.4	28135.1	27787.4	27502.1
45°	25582.3	25683.3	26158.8	27163.3	28328.4	28919.7	29915.4	29924.3	29888.6	29701.4	29481.4
47.5°	23724.8	23867.5	24494.6	25852.7	27918.2	29725.1	31445.9	31526.1	31600.4	31478.5	31377.5
50°	21258.1	21427.5	22366.6	24167.6	27083.1	30560.2	34337.6	34700.1	35038.9	34997.3	35065.6
52.5°	18616.1	18815.2	19965.3	21971.3	25647.6	30753.4	36186.1	36777.5	37368.9	37853.4	38367.5
55°	16232.6	16125.6	17275.8	19388.8	23288.0	29882.6	37847.3	38560.6	39220.4	39814.8	40427.0
57.5°	13002.1	13177.4	14330.6	16419.9	20164.5	27424.9	38991.6	40034.7	40982.8	41966.5	42834.2
60°	9504.2	9679.6	10930.7	13052.6	16773.5	23698.1	38117.8	39698.9	41217.6	42724.3	43901.2
62.5°	5738.8	5869.6	6972.1	8993.1	12933.8	19278.8	34224.7	36299.0	38533.9	40334.8	42138.8
65°	3572.2	3646.5	4053.6	5165.2	8306.5	14393.0	27962.8	30224.4	32631.6	34917.1	36792.4
67.5°	2924.4	2951.1	3025.4	3263.2	4561.8	9385.4	20812.3	22815.4	24987.9	27199.0	29285.2
70°	2630.1	2612.3	2612.3	2627.1	2924.4	5046.3	13626.2	14930.9	16740.8	18663.6	20571.6
72.5°	2374.6	2356.8	2324.0	2279.4	2386.4	3078.9	7043.4	8027.2	9331.9	11040.7	12868.4
75°	2133.9	2110.0	2071.5	2015.0	2089.3	2324.0	3382.1	3795.1	4431.1	5340.5	6359.9
77.5°	1884.2	1854.5	1818.8	1777.2	1872.3	1806.9	1982.3	2130.9	2374.6	2665.8	3049.2
80°	1601.8	1575.1	1563.3	1542.4	1655.3	1376.0	1399.8	1491.9	1634.6	1792.1	1970.4
82.5°	1254.1	1254.1	1301.7	1310.6	1435.4	989.6	1046.1	1126.4	1200.6	1283.9	1367.1
85°	826.2	832.2	992.7	1055.1	1132.3	665.7	784.6	811.3	870.7	918.3	954.0
87.5°	258.6	279.4	606.3	671.7	650.8	377.5	481.4	493.4	534.9	567.6	597.4
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°	5102.8	5102.8	5102.8	5102.8	5102.8	5102.8	5102.8	5102.8	5102.8	5102.8	5102.8
2.5°	5661.5	5625.8	5593.2	5590.2	5566.4	5533.8	5545.6	5495.1	5498.1	5471.3	5441.6
5°	6657.1	6633.3	6514.5	6481.7	6392.6	6336.2	6327.3	6208.3	6193.5	6125.1	6050.9
7.5°	8089.6	8012.3	7845.8	7765.6	7614.0	7501.1	7447.6	7290.2	7212.8	7034.5	6954.3
10°	9590.4	9492.3	9287.3	9174.3	9028.7	8847.4	8749.3	8520.5	8431.4	8267.9	8071.7
12.5°	10981.3	10883.2	10672.1	10586.0	10392.8	10199.6	10092.6	9834.0	9718.1	9456.7	9302.1
15°	12268.0	12170.0	11985.7	11896.6	11703.4	11545.9	11403.2	11147.7	11010.9	10767.3	10565.1
17.5°	13516.2	13412.3	13251.8	13171.5	12984.3	12823.8	12669.2	12428.5	12288.9	12045.1	11863.9
20°	14675.4	14598.0	14482.1	14375.2	14187.9	14042.4	13858.0	13650.1	13447.9	13269.6	13097.2
22.5°	15685.8	15656.1	15531.3	15483.7	15323.2	15198.4	15037.9	14832.9	14687.2	14461.4	14300.9
25°	16556.6	16547.7	16488.2	16473.4	16360.5	16241.5	16205.9	16036.5	15902.7	15703.6	15537.2
27.5°	17305.5	17314.4	17299.5	17341.2	17311.4	17257.9	17260.9	17204.4	17127.2	16960.7	16815.2
30°	18137.6	18090.1	18116.9	18176.3	18194.1	18200.0	18298.1	18330.8	18324.8	18214.9	18143.6
32.5°	19314.5	19201.6	19097.6	19088.7	19148.1	19171.8	19338.3	19424.5	19498.8	19525.5	19537.4
35°	20815.3	20589.4	20372.5	20256.6	20155.5	20182.3	20301.2	20440.8	20604.3	20717.2	20851.0
37.5°	22705.4	22429.1	22045.7	21772.3	21703.9	21555.3	21632.6	21742.5	21903.0	22078.3	22310.1
40°	24996.8	24577.7	24146.9	23784.2	23588.1	23314.7	23311.7	23291.0	23389.0	23552.4	23879.4
42.5°	27202.0	26830.5	26372.8	25992.4	25736.8	25371.2	25297.0	25103.8	25148.4	25291.0	25609.1
45°	29267.4	28961.4	28682.0	28242.1	28025.2	27629.9	27505.1	27276.3	27148.5	27213.9	27531.9
47.5°	31267.5	31071.4	30780.2	30494.9	30328.4	29974.8	29814.3	29650.8	29487.4	29481.4	29814.3
50°	35166.7	35062.7	34717.9	34420.8	34501.0	34067.1	34093.8	33654.1	33853.1	33876.9	34575.3
52.5°	38831.1	39193.6	39449.3	39761.3	39963.4	40002.0	40135.8	40334.8	40575.7	41051.1	41699.0
55°	40929.3	41384.0	41648.4	41886.3	42278.6	42361.7	42584.6	42849.2	43060.1	43595.1	44144.9
57.5°	43422.7	44266.8	44676.9	45054.3	45583.3	45785.3	46156.9	46445.1	46718.6	47351.6	48017.3
60°	44959.2	45987.5	46822.6	47419.9	48082.7	48558.1	49119.8	49571.6	50213.6	50971.4	51964.0
62.5°	43737.7	45247.5	46356.0	47381.3	48281.7	49191.2	49996.6	50840.7	51815.4	52962.6	54502.0
65°	38872.7	40409.2	42308.2	43372.2	44563.9	45966.7	47191.1	48558.1	49886.7	51556.8	53833.3
67.5°	31294.3	33080.4	35214.3	36287.1	37657.2	39223.4	40596.4	42266.6	43818.0	45841.8	48656.2
70°	22556.9	24866.1	26661.1	27781.5	29380.4	30994.2	32319.6	34263.2	35547.1	37621.5	40531.1
72.5°	14283.1	16104.8	18304.1	19715.7	21136.3	22770.9	24126.0	25802.2	26999.9	28890.0	31526.1
75°	7679.4	9022.7	10954.5	12294.8	13816.5	15213.2	16800.2	17923.6	18809.3	20304.1	22444.0
77.5°	3598.9	4416.3	5394.0	6425.3	7456.6	8532.3	9578.5	10487.9	10868.3	11724.2	12987.3
80°	2184.4	2448.8	2734.1	3052.2	3483.0	3830.8	4291.5	4624.4	4648.1	4918.6	5304.9
82.5°	1459.2	1557.2	1643.5	1723.7	1833.6	1919.9	2018.0	2133.9	2181.3	2243.8	2368.6
85°	995.6	1043.1	1061.0	1111.5	1099.6	1129.3	1168.0	1206.6	1227.4	1224.5	1280.9
87.5°	612.2	636.0	647.8	659.8	650.8	638.9	656.8	677.6	683.5	665.7	671.7
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°	5102.8	5102.8	5102.8	5102.8	5102.8	5102.8	5102.8	5102.8	5102.8	5102.8	5102.8
2.5°	5447.5	5420.8	5394.0	5376.2	5370.3	5212.8	5144.4	5099.8	5004.7	4927.5	4865.1
5°	6009.2	5952.8	5908.2	5854.7	5825.0	5426.8	5281.1	5180.0	5013.6	4915.6	4826.4
7.5°	6912.7	6755.2	6663.1	6559.1	6469.9	5750.6	5509.9	5352.4	5120.6	4989.9	4888.8
10°	7938.0	7774.5	7629.0	7468.5	7328.7	6181.6	5830.9	5587.3	5281.1	5111.7	4978.0
12.5°	9082.2	8921.7	8737.4	8532.3	8354.0	6728.5	6241.0	5893.3	5474.3	5248.5	5061.2
15°	10434.4	10152.1	9929.2	9691.4	9483.4	7382.2	6719.6	6238.1	5679.3	5373.3	5123.6
17.5°	11691.5	11394.3	11091.2	10883.2	10642.5	8116.3	7201.0	6588.7	5848.7	5453.5	5135.5
20°	12918.9	12595.0	12333.5	12054.1	11801.5	8877.2	7715.1	6897.9	5958.7	5456.4	5061.2
22.5°	14000.7	13798.6	13507.3	13204.2	12948.6	9637.9	8196.6	7159.3	6000.3	5388.1	4930.4
25°	15231.1	15017.1	14660.5	14404.9	14119.6	10413.6	8669.1	7361.5	5976.5	5260.3	4728.3
27.5°	16544.7	16307.0	15941.4	15673.9	15329.1	11219.0	9103.0	7507.0	5887.4	5052.3	4457.9
30°	17914.7	17697.8	17338.2	17067.7	16720.0	12071.9	9587.4	7605.1	5709.1	4764.0	4142.8
32.5°	19385.8	19204.6	18847.9	18565.5	18194.1	12996.2	10039.1	7634.9	5438.6	4422.2	3810.0
35°	20782.7	20657.8	20357.6	20093.1	19706.8	13870.0	10517.6	7620.0	5117.6	4047.7	3506.9
37.5°	22354.7	22280.5	22131.8	21796.0	21323.5	15055.8	11091.2	7557.6	4725.3	3676.3	3275.1
40°	24031.0	24036.9	23876.4	23647.6	23207.7	16494.2	11774.8	7435.7	4297.4	3349.3	3064.0
42.5°	25805.2	25897.3	25820.0	25656.5	25234.6	17944.4	12592.0	7287.2	3881.3	3031.3	2856.0
45°	27838.0	27950.9	28069.8	27829.1	27419.0	19858.3	13667.9	7094.0	3432.6	2766.9	2713.4
47.5°	30182.8	30361.1	30468.1	30471.0	30060.9	22229.9	15415.4	6978.1	3034.4	2588.6	2645.0
50°	35131.1	35187.6	35440.1	35880.0	35564.9	27719.1	18467.5	6906.8	2763.9	2478.6	2594.5
52.5°	42260.7	42881.8	43318.7	43288.9	42861.0	31205.1	20149.6	6538.2	2603.4	2437.0	2570.7
55°	45164.3	45939.9	46748.2	46962.2	46629.4	34180.1	21739.5	6169.7	2526.2	2466.7	2579.6
57.5°	49033.7	50341.4	51449.8	51916.5	51435.0	37987.1	23831.8	5976.5	2502.3	2546.9	2636.0
60°	53553.9	55170.7	56627.0	57465.0	57465.0	42361.7	26001.4	5896.3	2469.7	2665.8	2731.2
62.5°	56457.6	58832.2	61031.3	62258.7	62223.0	45408.0	26964.3	5622.9	2395.3	2749.0	2861.9
65°	56469.4	59292.8	62095.3	63474.2	63545.6	45033.5	25374.2	4966.1	2258.7	2760.9	2992.7
67.5°	51761.9	54772.5	58038.6	59581.1	59937.7	41455.3	21965.4	4083.4	2035.8	2642.1	3040.3
70°	43716.9	46656.2	49990.7	51506.3	52139.4	35339.1	17691.8	3147.3	1750.5	2380.5	2942.2
72.5°	34441.5	37324.3	39645.4	40754.0	41247.2	27011.7	12883.2	2377.5	1435.4	2006.0	2677.7
75°	24384.6	26548.1	27781.5	28028.1	28105.5	16283.1	7828.0	1768.3	1182.8	1560.3	2261.6
77.5°	13763.0	14690.2	14589.1	14699.1	13783.8	6285.6	3408.8	1266.0	974.8	1185.8	1753.4
80°	5373.3	5539.7	5203.9	5099.8	4677.7	2338.9	1503.8	882.7	778.7	897.5	1227.4
82.5°	2368.6	2445.9	2374.6	2392.4	2288.3	1206.6	900.5	638.9	594.3	656.8	814.3
85°	1304.7	1328.4	1322.5	1361.1	1304.7	481.4	428.0	392.3	416.0	445.8	523.0
87.5°	636.0	641.9	621.1	653.9	633.0	243.7	211.0	222.9	243.7	249.6	249.6
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):

	135°	145°	155°	165°	175°	180°
0°	5102.8	5102.8	5102.8	5102.8	5102.8	5102.8
2.5°	4820.5	4796.7	4799.7	4793.8	4781.8	4781.8
5°	4778.8	4755.1	4755.1	4749.2	4734.2	4737.3
7.5°	4820.5	4781.8	4767.0	4746.2	4725.3	4725.3
10°	4868.0	4799.7	4758.1	4722.4	4695.7	4695.7
12.5°	4903.6	4796.7	4728.3	4680.8	4654.0	4654.0
15°	4915.6	4775.9	4680.8	4624.4	4600.5	4597.6
17.5°	4876.9	4695.7	4579.8	4514.4	4484.6	4475.7
20°	4758.1	4550.0	4410.4	4336.0	4294.4	4279.5
22.5°	4579.8	4342.0	4178.5	4101.2	4047.7	4038.8
25°	4330.0	4074.5	3914.0	3839.7	3810.0	3801.1
27.5°	4038.8	3801.1	3664.4	3616.8	3590.0	3587.1
30°	3762.4	3560.4	3459.3	3423.6	3391.0	3385.0
32.5°	3503.9	3376.1	3337.5	3286.9	3209.7	3200.7
35°	3319.7	3307.7	3281.0	3168.1	3072.9	3046.2
37.5°	3206.7	3316.6	3179.9	2957.0	2888.7	2882.8
40°	3141.3	3224.5	2989.8	2912.4	2918.4	2912.4
42.5°	2992.7	3078.9	2995.7	2960.0	2983.8	2989.8
45°	2844.1	2939.2	3040.3	3016.5	3072.9	3072.9
47.5°	2760.9	2903.5	3037.3	3037.3	3120.5	3150.3
50°	2665.8	2873.9	2989.8	3031.3	3096.8	3072.9
52.5°	2659.9	2823.3	2921.4	2995.7	3025.4	2998.7
55°	2668.8	2781.7	2853.0	2936.3	2971.9	2974.8
57.5°	2680.6	2758.0	2805.4	2844.1	2951.1	2951.1
60°	2710.4	2737.1	2763.9	2784.7	2924.4	2927.4
62.5°	2758.0	2716.3	2710.4	2731.2	2909.5	2897.6
65°	2832.2	2686.6	2642.1	2662.8	2894.6	2858.9
67.5°	2933.3	2642.1	2555.8	2570.7	2882.8	2805.4
70°	3025.4	2570.7	2448.8	2434.0	2769.8	2633.1
72.5°	3034.4	2487.5	2300.3	2255.7	2407.2	2276.5
75°	2885.7	2431.0	2136.8	2006.0	1988.2	1970.4
77.5°	2600.4	2398.3	1946.6	1741.6	1705.9	1717.7
80°	2175.4	2276.5	1717.7	1474.1	1667.2	1646.4
82.5°	1625.7	2009.0	1459.2	1304.7	1301.7	1150.1
85°	903.5	1566.2	1188.8	977.7	680.6	659.8
87.5°	252.6	870.7	832.2	552.8	377.5	392.3
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)