

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: P299209

Luminaire Tested: **GLNA-AF-10-LED-E1-SL2-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299209
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24286)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-10-LED-E1-SL2-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Narrow OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 40372.6 lumens
Efficiency: N/A
Efficacy: 96.4 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G5

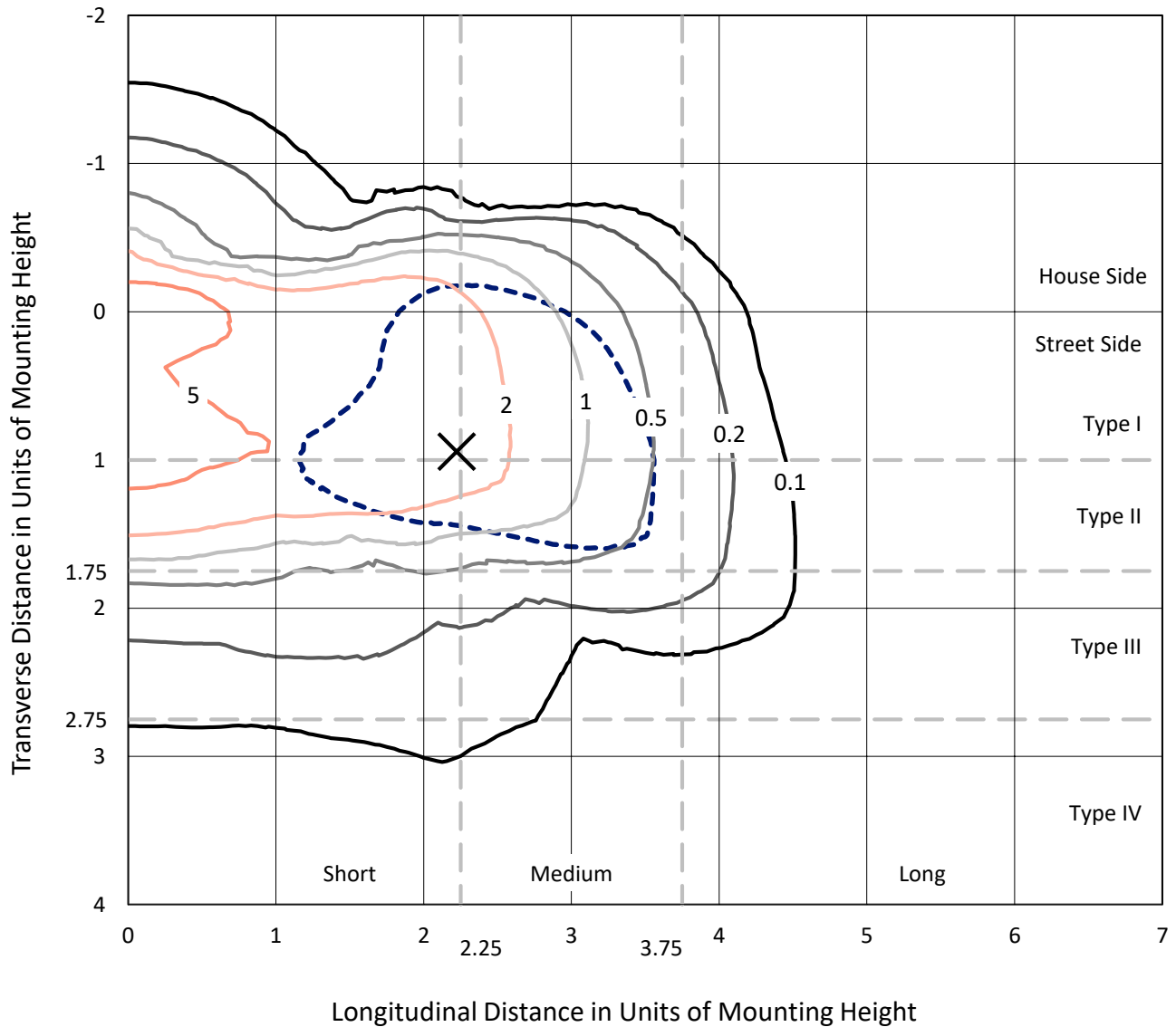
Input Watts (W): 419
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

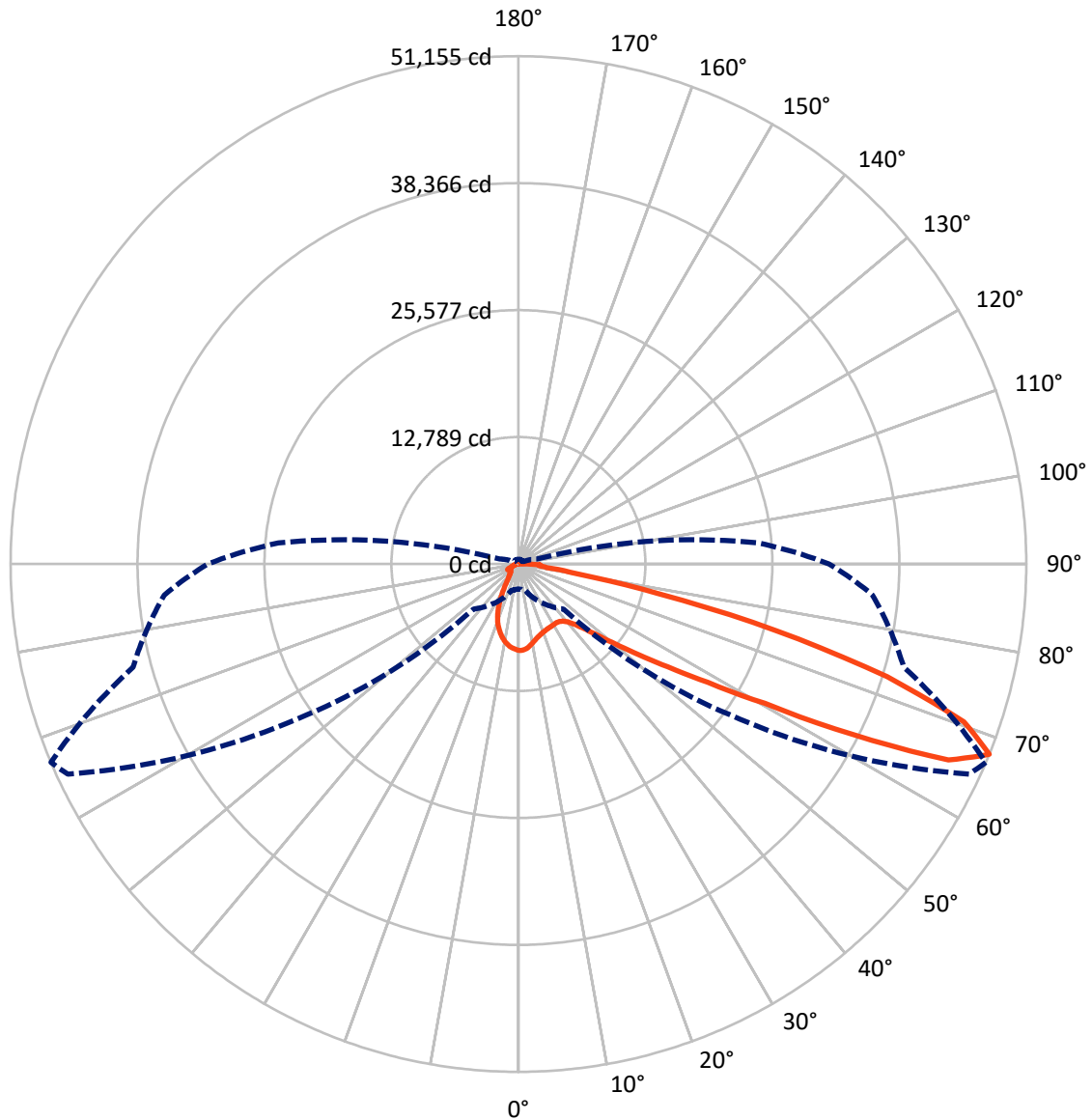
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.7 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6689.3	0.0	6689.3
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	33683.3	0.0	33683.3
	% Fixture	83.4	0.0	83.4
Total	Lumens	40372.6	0.0	40372.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	743.0	1.8
10°-20°	1719.1	4.3
20°-30°	2330.2	5.8
30°-40°	3312.6	8.2
40°-50°	5542.2	13.7
50°-60°	8767.7	21.7
60°-70°	11169.2	27.7
70°-80°	5850.4	14.5
80°-90°	938.3	2.3
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°	40372.6	100.0
0°-180°	40372.6	100.0

Coefficient of Utilization



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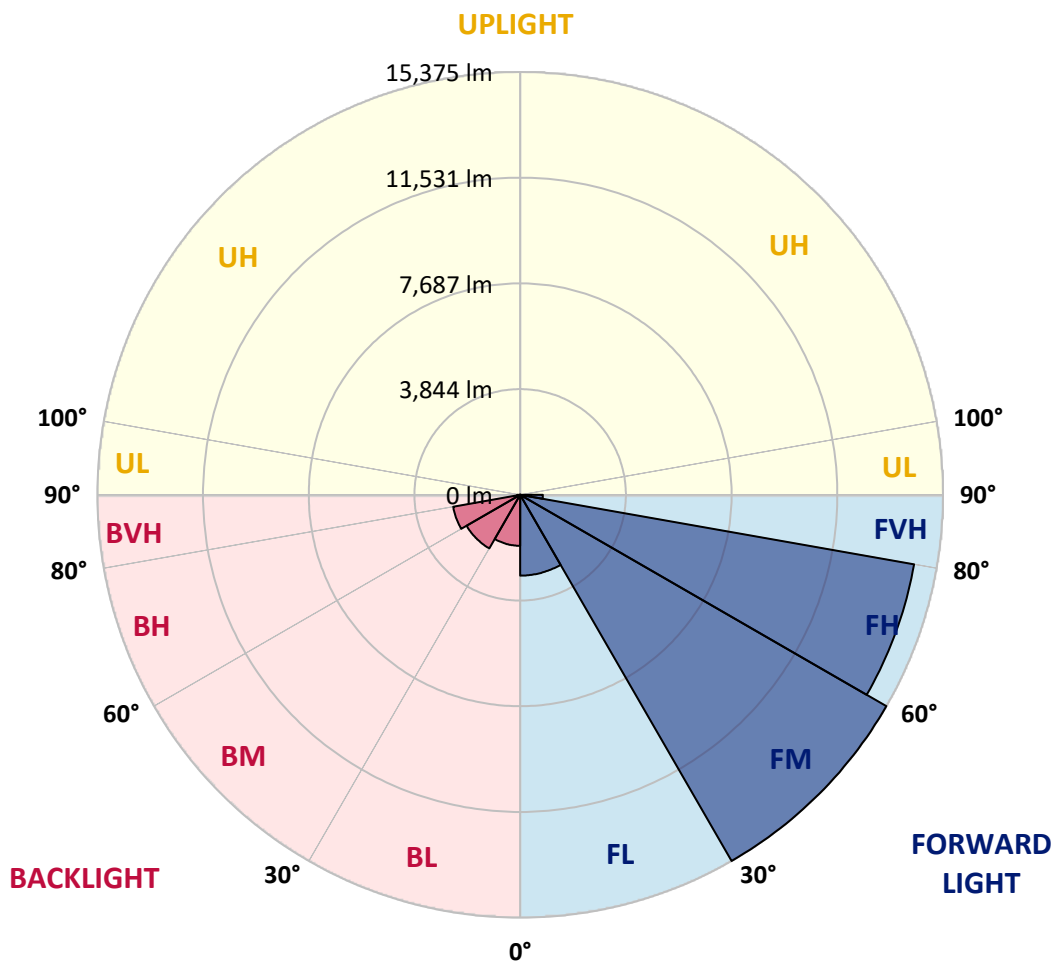
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2938.1	7.3			
FM (30°-60°)	15374.7	38.1			
FH (60°-80°)	14545.4	36.0			G5
FVH (80°-90°)	825.0	2.0			G5
BL (0°-30°)	1854.1	4.6	B3/2500		
BM (30°-60°)	2247.8	5.6	B2/2500		
BH (60°-80°)	2474.1	6.1	B3/2500		G3/2500
BVH (80°-90°)	113.2	0.3			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 II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	8708.3	8708.3	8708.3	8708.3	8708.3	8708.3	8708.3	8708.3	8708.3	8708.3	8708.3
2.5°	8349.9	8363.8	8407.6	8435.5	8560.9	8614.7	8652.5	8690.3	8696.3	8714.2	8696.3
5°	7473.9	7503.8	7585.4	7677.0	7919.9	8111.0	8312.1	8521.1	8558.9	8694.3	8732.2
7.5°	6795.0	6787.0	6854.7	6964.2	7213.1	7477.9	7830.3	8246.4	8328.0	8632.6	8779.9
10°	6299.3	6293.3	6365.0	6478.4	6715.4	6966.2	7364.4	7933.8	8049.3	8535.1	8825.7
12.5°	5932.9	5934.9	6006.6	6132.0	6372.9	6625.8	7029.9	7631.2	7778.5	8421.6	8873.5
15°	5690.0	5706.0	5763.7	5897.1	6132.0	6384.9	6781.1	7404.2	7569.5	8332.0	8927.3
17.5°	5608.4	5634.3	5654.2	5751.8	5952.8	6205.7	6593.9	7237.0	7412.2	8270.3	8975.0
20°	5684.1	5713.9	5676.1	5709.9	5837.4	6060.3	6446.6	7105.6	7284.8	8200.6	8981.0
22.5°	6008.6	6036.5	5925.0	5827.4	5819.4	5954.8	6325.1	7002.1	7187.2	8148.8	8983.0
25°	6580.0	6597.9	6410.7	6183.8	5962.8	5917.0	6239.5	6930.4	7127.5	8103.0	8945.2
27.5°	7280.8	7294.7	7079.7	6745.2	6301.2	6006.6	6209.7	6888.6	7093.6	8063.2	8881.5
30°	8132.9	8198.6	7909.9	7487.8	6840.8	6271.4	6269.4	6866.7	7055.8	7995.5	8756.0
32.5°	9004.9	9032.8	8833.7	8405.6	7567.5	6737.3	6436.6	6882.6	7045.9	7913.9	8596.8
35°	9888.9	9924.7	9795.3	9450.9	8560.9	7420.1	6763.1	6976.2	7107.6	7886.0	8485.3
37.5°	11033.7	11081.4	10902.3	10504.1	9769.4	8345.9	7306.7	7211.1	7296.7	7965.7	8451.4
40°	12843.4	12821.5	12297.9	11704.6	11091.4	9530.5	8083.1	7609.3	7659.1	8222.5	8555.0
42.5°	14949.8	14896.0	13994.1	13062.4	12544.8	10964.0	9110.4	8300.1	8290.2	8728.2	8919.3
45°	16630.1	16586.3	15774.0	14625.3	14211.2	12596.5	10438.4	9329.4	9255.8	9530.5	9592.2
47.5°	17540.0	17542.0	17074.1	16136.4	16126.4	14671.1	12144.6	10818.6	10691.2	10820.6	10754.9
50°	17221.4	17263.2	17213.5	16914.8	17874.4	17390.6	14372.4	12895.2	12638.3	12765.8	12512.9
52.5°	15680.5	15734.2	16028.9	16486.8	18609.1	20677.6	17645.5	15475.4	15176.7	15131.0	14850.2
55°	12948.9	13014.6	13615.9	14860.2	17997.9	22885.6	22809.9	18764.4	18288.6	17856.5	17737.1
57.5°	8925.3	9034.8	10002.4	11849.9	16020.9	23552.5	28959.9	23453.0	22485.4	20976.3	21004.2
60°	5031.0	5158.5	6299.3	7977.6	12031.1	22827.8	33638.5	30554.6	28511.9	24629.6	24836.7
62.5°	3199.4	3336.8	4202.8	5542.7	7219.1	18925.6	35555.8	40427.5	37833.4	29133.1	29336.1
65°	2590.2	2649.9	3058.0	4575.1	5242.1	11402.0	34100.4	48560.4	47592.8	34849.0	33901.3
67.5°	2528.5	2548.4	2759.4	3840.5	5027.1	6408.8	27199.9	50081.5	51154.6	40186.6	35802.6
70°	2498.6	2568.3	3109.8	3665.3	4814.0	5405.3	16345.4	45912.5	47606.8	41582.3	33272.2
72.5°	1212.5	1208.5	1564.9	3314.9	5423.3	5606.4	8397.7	37148.5	38848.7	36025.6	27341.2
75°	977.5	893.9	854.1	1214.5	5214.2	5789.6	5351.6	25561.4	26791.8	24153.8	16807.3
77.5°	927.8	828.2	758.5	760.5	2203.9	6140.0	4533.3	14147.4	14505.8	10910.2	4605.0
80°	768.5	676.9	627.1	706.8	1067.1	5847.3	4901.6	6402.8	5875.2	2679.8	1533.0
82.5°	533.6	485.8	471.8	593.3	854.1	4167.0	5700.0	3440.3	2884.8	1341.9	945.7
85°	340.4	290.7	322.5	432.0	665.0	1923.2	5871.2	2681.8	2132.3	852.1	533.6
87.5°	157.3	127.4	159.3	238.9	434.0	663.0	5586.5	3012.3	2196.0	449.9	336.5
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	8708.3	8708.3	8708.3	8708.3	8708.3	8708.3	8708.3	8708.3	8708.3	8708.3	8708.3
2.5°	8712.2	8674.4	8644.6	8588.8	8527.1	8467.4	8413.6	8345.9	8326.0	8308.1	8336.0
5°	8740.1	8702.3	8592.8	8421.6	8232.4	8055.2	7878.1	7726.7	7633.2	7581.4	7611.3
7.5°	8781.9	8728.2	8501.2	8186.6	7846.2	7535.6	7215.1	6958.3	6769.1	6679.5	6705.4
10°	8819.8	8716.2	8345.9	7874.1	7376.3	6914.4	6408.8	5990.7	5680.1	5516.8	5556.6
12.5°	8835.7	8670.4	8128.9	7483.9	6801.0	6124.1	5379.5	4754.3	4308.3	4145.1	4111.2
15°	8851.6	8618.7	7890.0	7039.9	6106.1	5148.5	4105.3	3356.7	2986.4	2904.7	2886.8
17.5°	8855.6	8529.1	7619.2	6558.1	5291.9	3987.8	2807.2	2331.4	2333.4	2464.8	2480.7
20°	8813.8	8395.7	7290.7	5958.8	4316.3	2757.4	1927.2	1845.6	2146.2	2474.7	2514.5
22.5°	8718.2	8218.5	6918.4	5260.0	3199.4	1815.7	1491.2	1580.8	1969.0	2371.2	2417.0
25°	8596.8	8003.5	6478.4	4449.7	2118.3	1298.1	1250.3	1359.8	1622.6	1891.4	1917.3
27.5°	8431.5	7748.6	5984.7	3521.9	1375.7	1069.1	1101.0	1174.6	1282.1	1401.6	1413.6
30°	8218.5	7444.0	5457.1	2568.3	1039.3	961.6	1007.4	1047.2	1093.0	1160.7	1166.7
32.5°	7973.6	7151.4	4915.6	1773.9	921.8	905.9	941.7	961.6	997.4	1039.3	1043.2
35°	7768.6	6872.6	4354.1	1254.3	872.0	864.1	887.9	895.9	929.8	975.5	979.5
37.5°	7651.1	6645.7	3774.8	1011.4	838.2	826.2	840.2	840.2	887.9	955.6	965.6
40°	7659.1	6520.2	3195.4	913.8	810.3	794.4	796.4	796.4	858.1	931.7	937.7
42.5°	7876.1	6552.1	2681.8	876.0	788.4	770.5	760.5	766.5	818.3	866.0	870.0
45°	8385.7	6777.1	2200.0	852.1	766.5	760.5	738.6	736.6	756.5	778.4	778.4
47.5°	9221.9	7221.1	1873.5	836.2	748.6	746.6	720.7	694.8	692.8	700.8	700.8
50°	10581.7	7985.6	1654.5	818.3	736.6	720.7	690.8	651.0	637.1	643.1	643.1
52.5°	12620.4	9349.3	1570.8	794.4	710.8	684.9	651.0	611.2	599.3	601.3	601.3
55°	15294.2	11443.8	1558.9	766.5	682.9	641.1	613.2	583.3	569.4	573.4	573.4
57.5°	18561.3	14340.6	1771.9	722.7	645.1	597.3	581.3	561.4	551.5	557.5	555.5
60°	22533.2	18131.3	2628.0	676.9	607.2	557.5	557.5	541.5	533.6	539.5	537.5
62.5°	27108.3	22485.4	3695.1	643.1	567.4	525.6	533.6	525.6	517.6	521.6	519.6
65°	31165.8	25322.5	3460.2	617.2	527.6	495.7	509.7	505.7	499.7	503.7	501.7
67.5°	31283.3	24271.3	1943.1	589.3	489.8	465.9	485.8	483.8	479.8	483.8	481.8
70°	27918.6	20494.5	1095.0	537.5	449.9	430.0	457.9	455.9	451.9	459.9	457.9
72.5°	22367.9	14872.1	800.3	473.8	410.1	392.2	424.1	422.1	422.1	434.0	428.0
75°	12871.3	7653.1	639.1	406.1	368.3	354.4	382.3	384.2	388.2	404.2	392.2
77.5°	3669.3	2385.1	521.6	344.4	316.6	310.6	338.5	342.4	344.4	362.3	346.4
80°	1363.8	1099.0	430.0	288.7	258.8	260.8	286.7	292.7	294.7	312.6	292.7
82.5°	870.0	724.7	348.4	223.0	203.1	201.1	232.9	240.9	240.9	242.9	230.9
85°	507.7	434.0	262.8	161.3	143.3	137.4	173.2	187.1	181.2	177.2	169.2
87.5°	340.4	298.6	161.3	89.6	77.6	73.7	101.5	111.5	107.5	101.5	95.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)