

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: P299971

Luminaire Tested: **GLNA-AF-07-LED-E1-SL3-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299971
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24288)
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-SL3-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Medium OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24016.7 lumens
Efficiency: N/A
Efficacy: 106.3 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B3 - U0 - G4

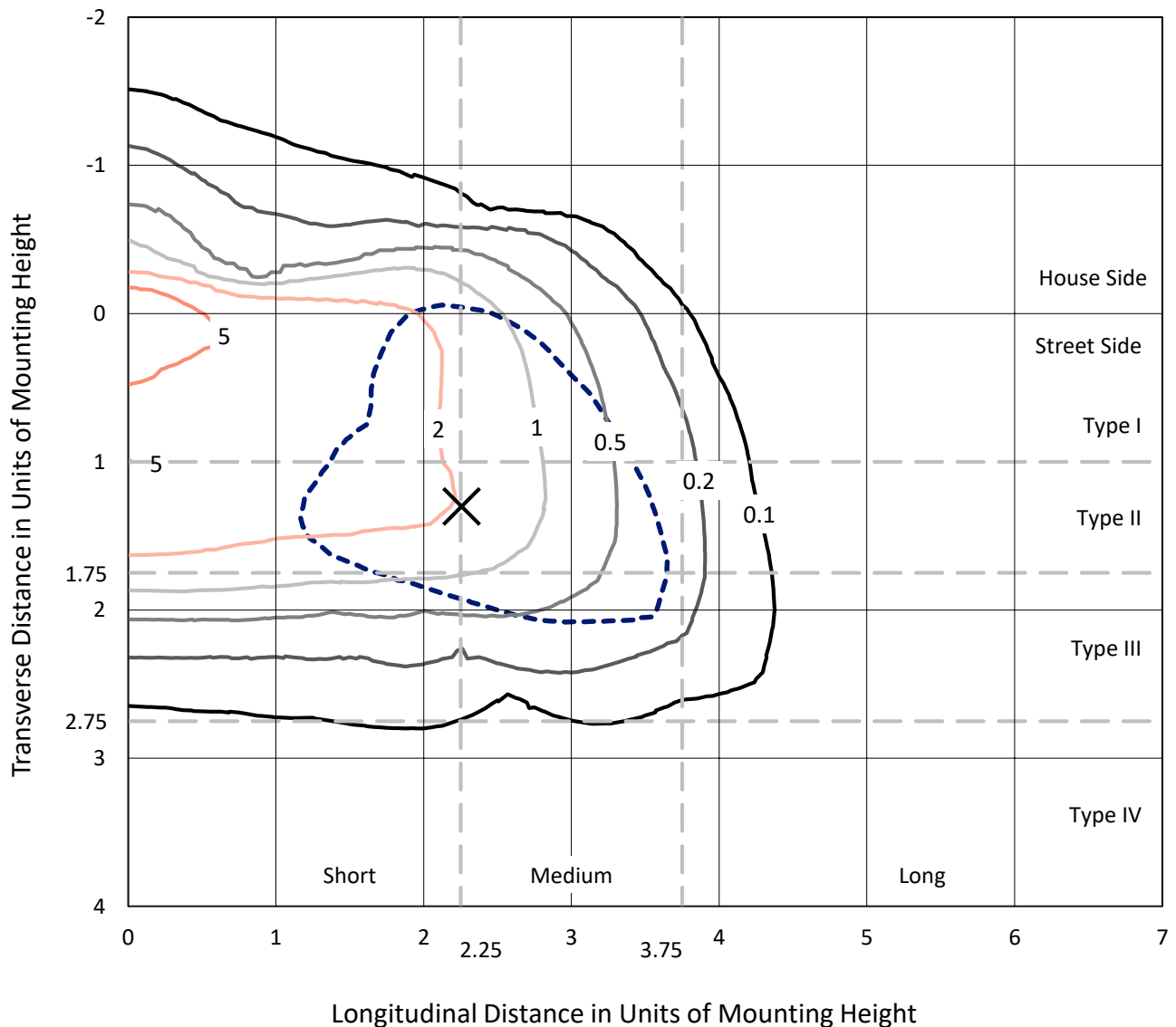
Input Watts (W): 226
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

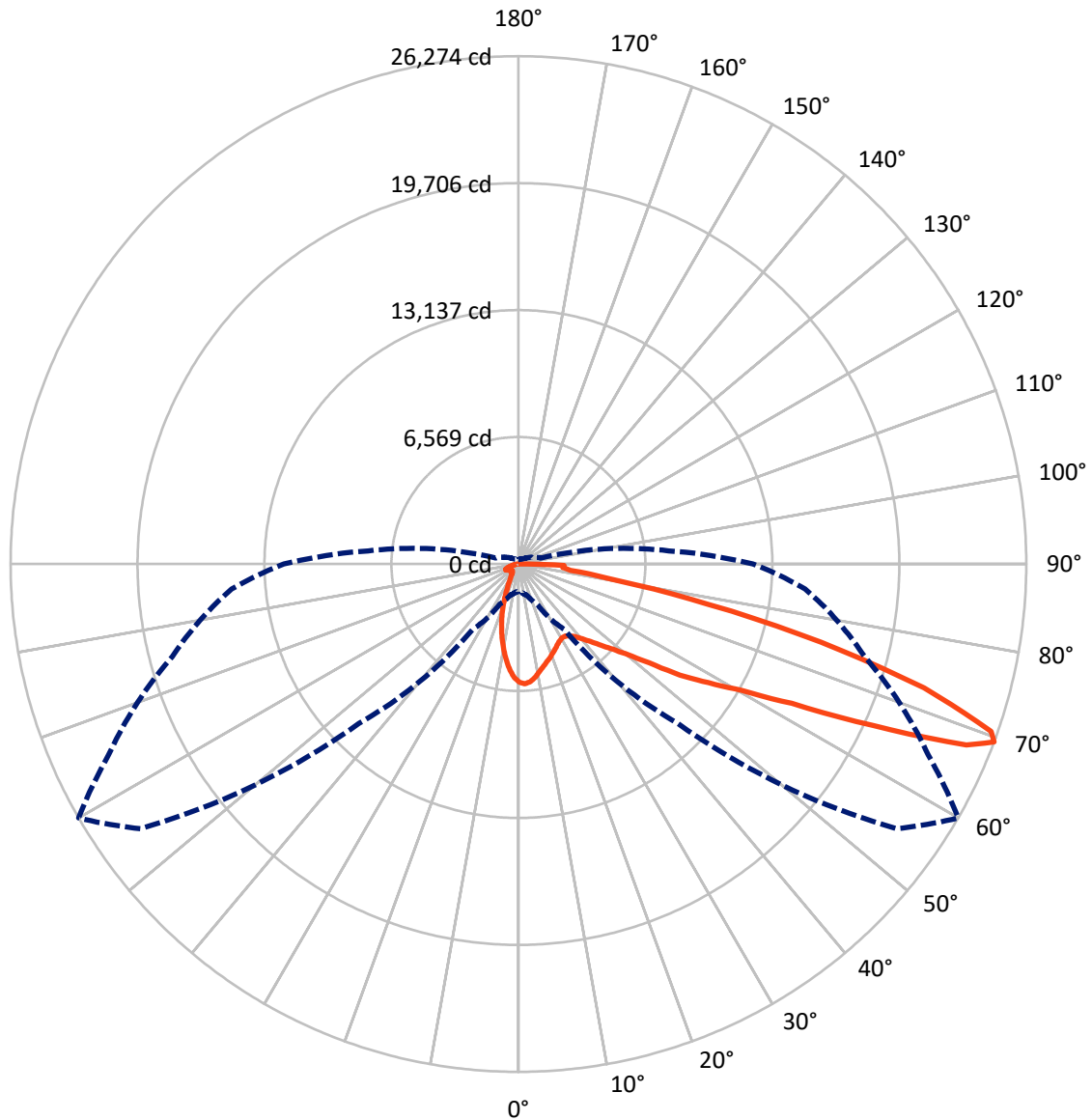
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.8 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3416.8	0.0	3416.8
	% Fixture	14.2	0.0	14.2
Street Side	Lumens	20599.9	0.0	20599.9
	% Fixture	85.8	0.0	85.8
Total	Lumens	24016.7	0.0	24016.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	517.5	2.2
10°-20°	1102.5	4.6
20°-30°	1404.7	5.8
30°-40°	1931.2	8.0
40°-50°	3133.5	13.0
50°-60°	5025.3	20.9
60°-70°	6688.3	27.8
70°-80°	3611.2	15.0
80°-90°	602.6	2.5
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°	24016.7	100.0
0°-180°	24016.7	100.0



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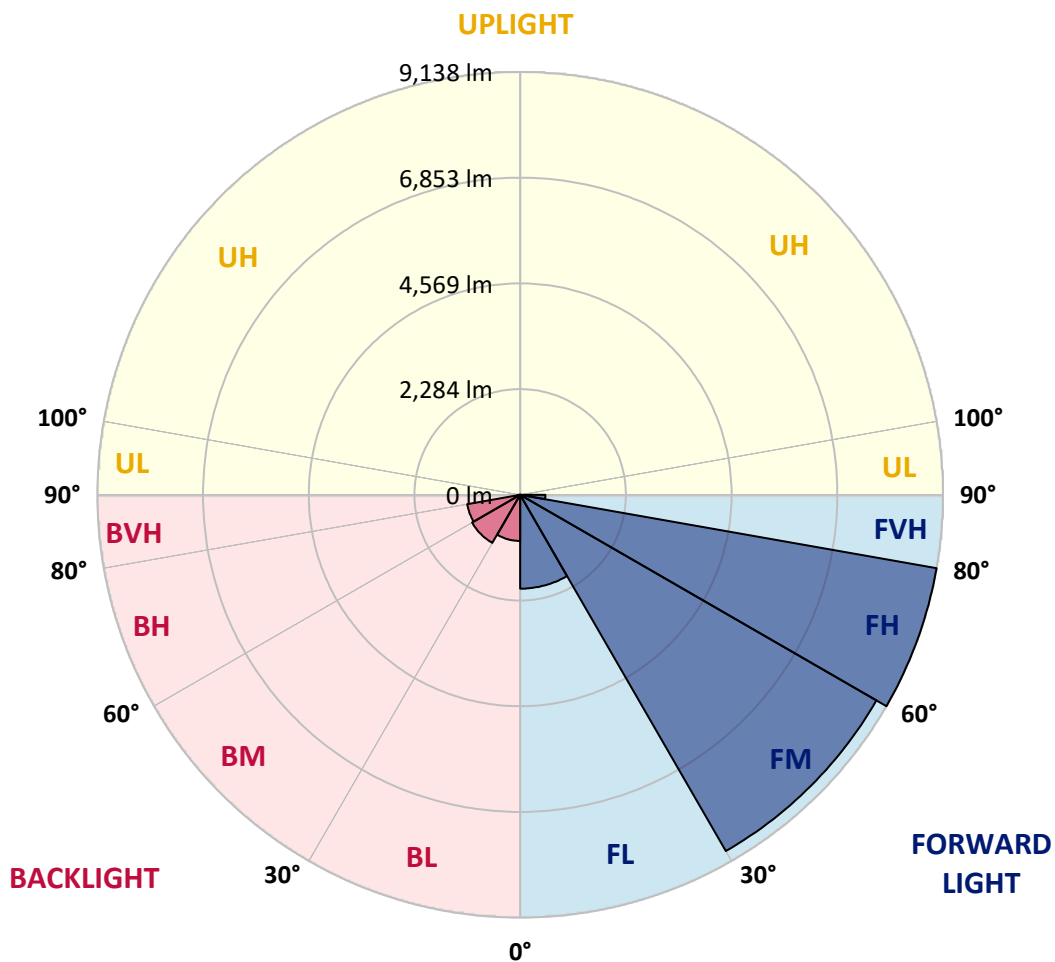
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2027.9	8.4			
FM	(30°-60°)	8889.6	37.0			
FH	(60°-80°)	9137.9	38.0			G4/12000
FVH	(80°-90°)	544.5	2.3			G4/750
BL	(0°-30°)	996.8	4.2	B2/1000		
BM	(30°-60°)	1200.4	5.0	B2/2500		
BH	(60°-80°)	1161.6	4.8	B3/2500		G3/2500
BVH	(80°-90°)	58.0	0.2			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°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	6119.8	6119.8	6119.8	6119.8	6119.8	6119.8	6119.8	6119.8	6119.8	6119.8	6119.8
2.5°	6245.1	6259.0	6253.2	6249.8	6260.2	6244.0	6210.3	6199.9	6183.6	6145.3	6080.4
5°	6010.8	6052.5	6050.2	6081.5	6133.7	6147.7	6132.6	6134.9	6104.7	6057.2	5949.3
7.5°	5605.9	5623.3	5632.6	5701.0	5796.1	5872.7	5937.7	5958.6	5944.6	5904.0	5764.8
10°	5188.2	5202.1	5224.2	5304.2	5424.9	5530.5	5653.4	5724.2	5754.4	5747.4	5592.0
12.5°	4829.7	4843.7	4872.7	4963.1	5107.0	5236.9	5415.6	5503.8	5575.7	5618.6	5451.6
15°	4508.4	4538.5	4566.4	4670.8	4832.1	5002.6	5204.5	5315.8	5427.2	5523.5	5327.4
17.5°	4257.8	4287.9	4304.2	4399.3	4571.0	4779.8	5016.5	5147.6	5286.8	5444.6	5204.5
20°	4112.8	4126.7	4119.7	4173.1	4327.4	4549.0	4829.7	4981.7	5149.9	5370.4	5081.5
22.5°	4072.1	4073.3	4047.8	4042.0	4141.8	4328.5	4630.2	4814.6	5021.2	5321.6	4975.9
25°	4170.8	4167.3	4097.7	4040.8	4051.3	4160.3	4437.6	4652.2	4913.3	5311.2	4894.7
27.5°	4390.0	4400.5	4297.2	4190.5	4084.9	4081.4	4291.4	4517.6	4825.1	5358.8	4859.9
30°	4697.5	4714.9	4604.7	4468.9	4270.5	4107.0	4234.6	4437.6	4770.6	5457.4	4854.1
32.5°	5033.9	5052.5	4969.0	4826.3	4566.4	4264.7	4274.0	4444.6	4768.2	5595.4	4893.5
35°	5392.4	5413.3	5370.4	5249.7	4960.8	4555.9	4424.8	4557.1	4843.7	5806.6	4999.1
37.5°	5792.7	5825.1	5836.7	5721.9	5413.3	4939.9	4672.0	4770.6	5014.2	6100.1	5192.9
40°	6369.3	6414.5	6411.0	6246.3	5931.9	5458.5	5053.6	5079.2	5279.9	6492.2	5502.6
42.5°	7473.7	7483.0	7194.1	6835.6	6502.7	6003.8	5503.8	5482.9	5646.5	6988.8	5958.6
45°	8878.7	8840.4	8197.7	7505.1	7099.0	6630.3	6089.7	5987.6	6111.7	7594.4	6529.4
47.5°	10044.6	9956.5	9144.4	8188.4	7730.1	7311.3	6777.6	6599.0	6667.4	8281.2	7267.2
50°	10449.5	10383.4	9710.5	8756.9	8327.6	8142.0	7624.5	7371.6	7390.2	9100.3	8131.5
52.5°	10362.5	10353.2	9904.3	9131.6	8886.8	9014.4	8824.2	8481.9	8300.9	10009.8	9064.3
55°	10157.2	10176.9	10014.5	9567.8	9526.0	9856.7	10391.5	10138.6	9575.9	10927.5	10028.4
57.5°	9443.7	9494.7	9852.0	10116.6	10555.1	11047.0	11653.8	11581.8	10948.4	11919.4	11174.6
60°	7608.3	7726.6	8684.9	10009.8	11614.3	13152.7	13424.2	13257.1	12363.8	13150.4	12688.6
62.5°	5330.9	5453.9	6593.2	8666.4	11440.3	15531.0	16589.1	15868.6	14396.4	14963.7	14648.1
65°	2854.0	2913.2	3783.3	6013.1	9658.3	16021.8	21214.6	20118.3	17614.7	17199.3	16324.6
67.5°	1574.3	1606.8	1939.8	3036.1	6186.0	14108.7	24161.4	24989.8	21636.9	18687.8	16019.4
69°	1423.5	1453.7	1671.8	2299.4	4139.4	11665.4	23873.7	26274.1	23400.4	18540.5	14891.8
70°	1392.2	1420.0	1616.1	2119.6	3350.5	9615.4	22909.6	25945.7	23820.3	18012.6	13908.0
72.5°	1253.0	1283.1	1473.4	1903.8	2863.3	4793.8	18147.2	21937.4	21626.5	15618.0	10549.3
75°	1168.3	1196.1	1518.6	1864.4	2741.4	3033.8	11963.5	16167.9	15897.6	10925.2	5688.2
77.5°	500.0	497.7	704.2	1577.8	2782.1	2937.5	6428.4	10100.3	9215.1	4669.6	1633.5
80°	334.1	328.3	334.1	464.1	2551.2	2953.8	3367.9	5126.7	3872.6	1190.3	805.1
82.5°	287.7	283.1	293.5	283.1	896.8	3371.4	2863.3	2726.4	1841.2	676.4	399.1
85°	193.7	185.6	252.9	254.1	423.5	2995.5	3225.2	2302.9	1489.6	401.4	197.2
87.5°	92.8	90.5	147.3	179.8	248.3	1217.0	3618.5	2359.8	1502.4	205.3	94.0
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6119.8	6119.8	6119.8	6119.8	6119.8	6119.8	6119.8	6119.8	6119.8	6119.8	6119.8
2.5°	6060.7	6013.1	5966.7	5911.0	5853.0	5788.0	5755.5	5723.1	5714.9	5705.6	5673.2
5°	5893.6	5826.3	5710.3	5582.7	5448.1	5317.0	5217.2	5154.6	5107.0	5082.6	5039.7
7.5°	5677.8	5579.2	5376.2	5155.7	4929.5	4723.0	4544.3	4431.8	4325.1	4275.2	4218.3
10°	5472.5	5325.1	5009.6	4684.7	4359.9	4047.8	3754.3	3546.6	3362.1	3258.9	3185.8
12.5°	5296.1	5094.2	4656.9	4217.2	3771.7	3327.3	2887.6	2541.9	2253.0	2101.0	2023.3
15°	5124.4	4880.8	4321.6	3763.5	3191.6	2587.1	2009.4	1617.3	1378.3	1283.1	1250.6
17.5°	4969.0	4656.9	3985.1	3306.4	2592.9	1862.1	1350.4	1134.6	1043.0	1011.7	1001.2
20°	4800.7	4430.6	3635.9	2828.5	1968.8	1301.7	1054.6	959.4	922.3	913.0	908.4
22.5°	4638.3	4207.9	3301.8	2316.8	1414.2	1004.7	906.1	866.6	860.8	869.0	869.0
25°	4500.2	4008.3	2941.0	1782.0	1038.3	845.8	810.9	801.7	823.7	853.9	859.7
27.5°	4397.0	3844.8	2557.0	1315.6	827.2	735.5	734.4	749.5	804.0	862.0	873.6
30°	4326.2	3689.3	2146.3	949.0	693.8	647.4	665.9	698.4	778.5	860.8	882.9
32.5°	4290.3	3574.4	1718.2	734.4	594.0	568.5	599.8	639.2	718.1	794.7	823.7
35°	4318.1	3489.8	1314.5	612.6	524.4	504.7	537.2	575.4	621.8	654.3	676.4
37.5°	4422.5	3456.1	991.9	548.8	476.8	458.3	483.8	505.8	524.4	533.7	544.1
40°	4647.6	3492.1	794.7	516.3	450.1	426.9	437.4	445.5	457.1	466.4	471.0
42.5°	4979.4	3600.0	712.3	503.5	436.2	402.6	400.3	403.7	418.8	436.2	439.7
45°	5443.5	3790.2	706.5	511.6	429.3	382.9	372.4	377.1	400.3	426.9	431.6
47.5°	6036.3	4080.3	752.9	536.0	435.1	372.4	355.0	360.8	389.8	425.8	431.6
50°	6754.4	4485.2	830.7	572.0	460.6	374.7	349.2	352.7	382.9	422.3	428.1
52.5°	7602.5	5059.4	915.4	606.8	487.3	389.8	353.8	345.7	373.6	408.4	415.3
55°	8545.7	5796.1	1002.4	638.1	501.2	408.4	363.1	336.4	356.2	385.2	391.0
57.5°	9703.5	6826.4	1153.2	668.3	510.5	421.1	372.4	327.2	334.1	355.0	359.6
60°	11270.9	8283.5	1418.9	718.1	531.4	425.8	371.3	319.0	312.1	323.7	326.0
62.5°	13149.2	9866.0	1640.5	780.8	566.2	429.3	364.3	313.2	293.5	293.5	295.8
65°	14264.1	10289.4	1517.5	833.0	595.2	425.8	356.2	307.4	279.6	266.8	268.0
67.5°	13318.6	9049.2	1300.5	843.4	594.0	409.5	343.4	297.0	265.7	246.0	244.8
69°	12134.1	7807.9	1203.1	815.6	566.2	388.7	327.2	285.4	255.2	234.4	233.2
70°	11179.3	7050.3	1139.3	785.4	536.0	373.6	314.4	275.0	247.1	227.4	225.1
72.5°	8128.1	4619.7	973.4	675.2	442.0	313.2	271.5	241.3	220.4	208.8	206.5
75°	4061.7	2203.1	790.1	547.6	338.8	250.6	222.8	201.9	191.4	189.1	187.9
77.5°	1334.2	1009.3	565.0	408.4	251.8	196.1	179.8	164.7	162.4	169.4	167.1
80°	733.2	587.0	358.5	270.3	171.7	143.9	141.5	133.4	136.9	148.5	146.2
82.5°	373.6	305.1	221.6	162.4	116.0	103.3	112.5	107.9	112.5	123.0	121.8
85°	184.5	167.1	140.4	98.6	76.6	66.1	80.1	83.5	85.9	94.0	94.0
87.5°	106.7	98.6	74.3	46.4	38.3	34.8	46.4	45.2	53.4	58.0	56.8
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)