

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: P301019

Luminaire Tested: **GLNA-AF-10-LED-E1-SL4-7060-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301019
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)
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-SL4-7060-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 5700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 36751.1 lumens
Efficiency: N/A
Efficacy: 113.8 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G5

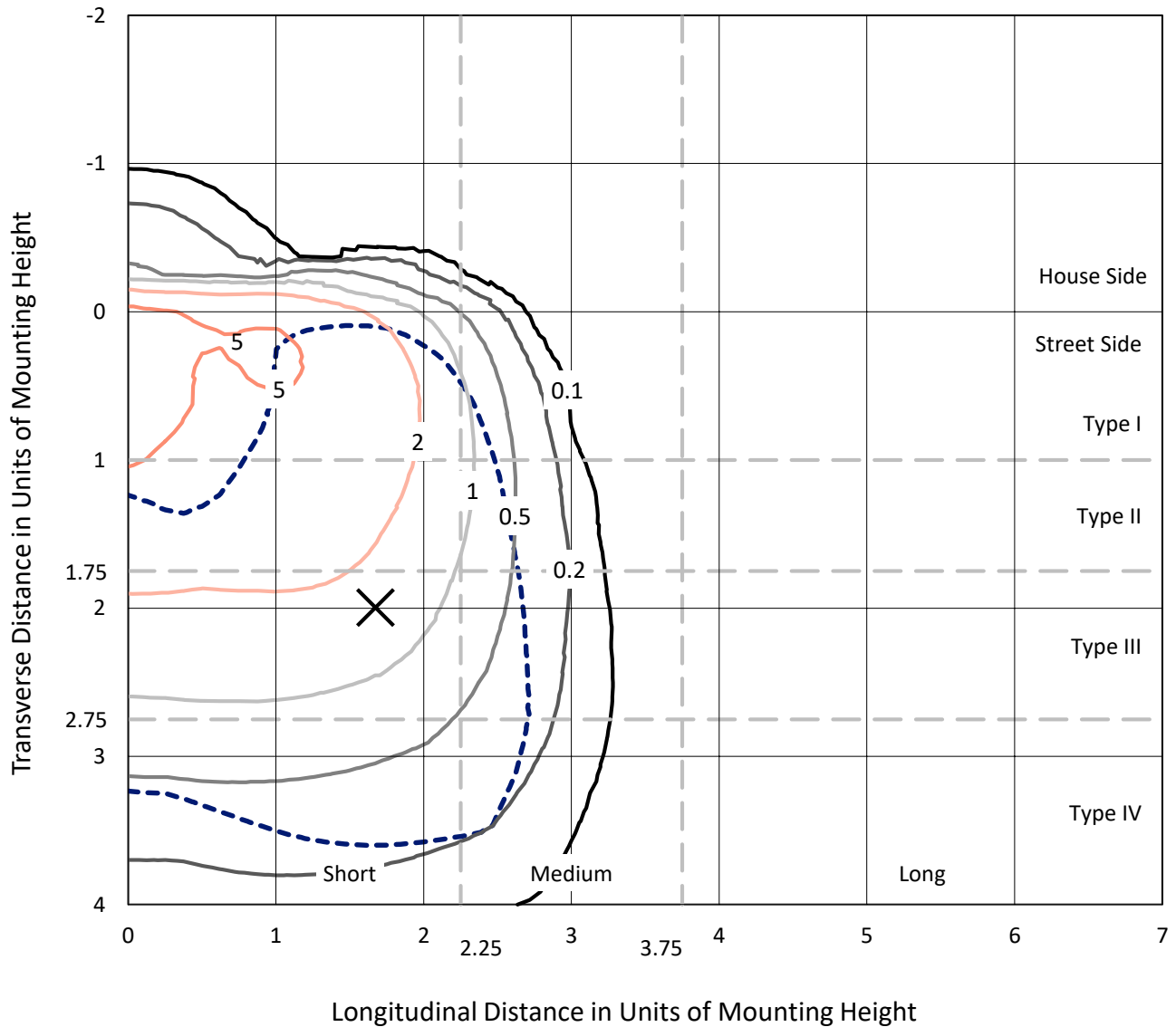
Input Watts (W): 323
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

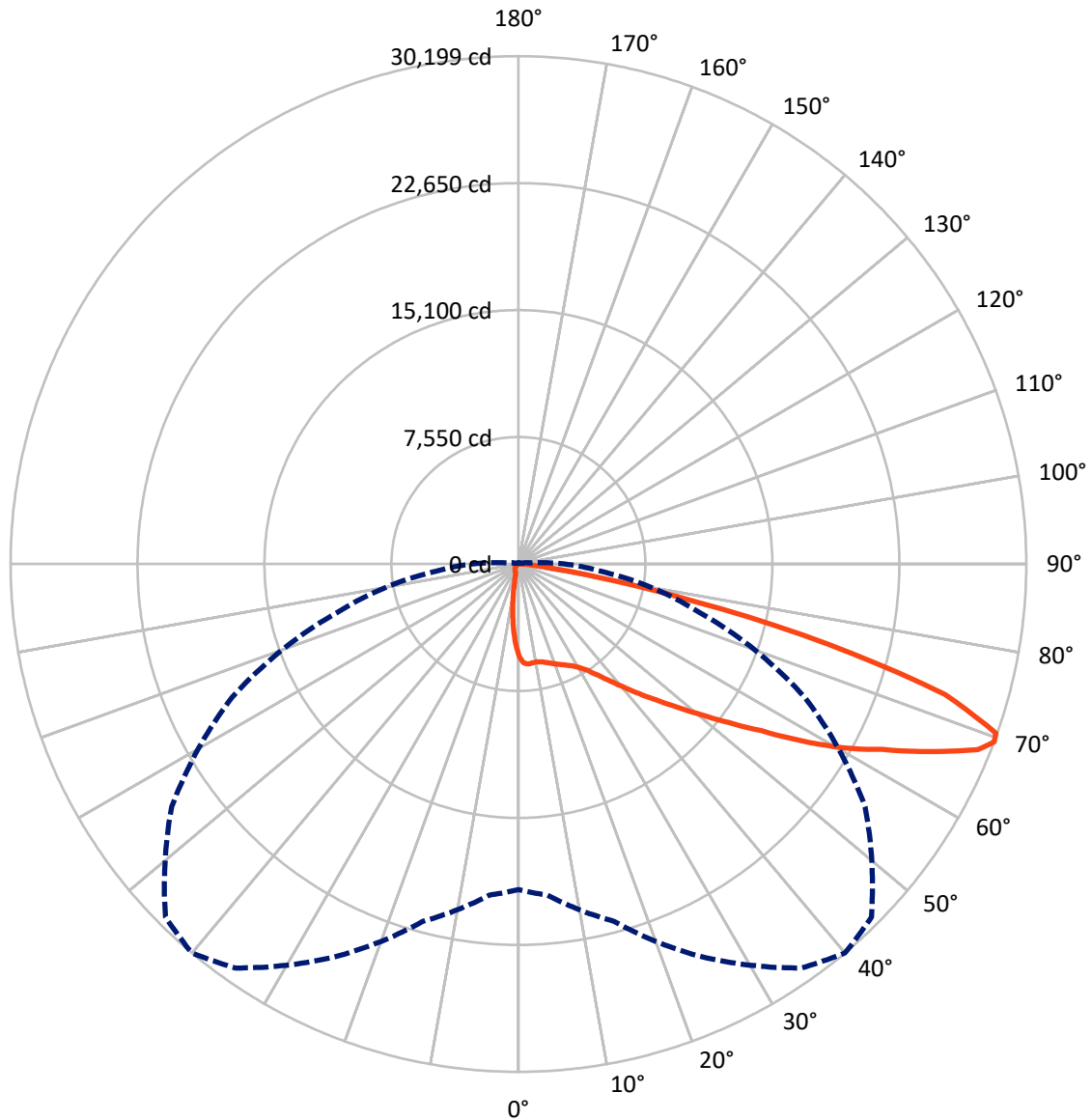
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.7 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2150.2	0.0	2150.2
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	34601.0	0.0	34601.0
	% Fixture	94.1	0.0	94.1
Total	Lumens	36751.1	0.0	36751.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	445.2	1.2
10°-20°	1094.8	3.0
20°-30°	1844.1	5.0
30°-40°	3018.8	8.2
40°-50°	5226.9	14.2
50°-60°	8232.9	22.4
60°-70°	10751.8	29.3
70°-80°	5537.7	15.1
80°-90°	599.0	1.6
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°	36751.1	100.0
0°-180°	36751.1	100.0



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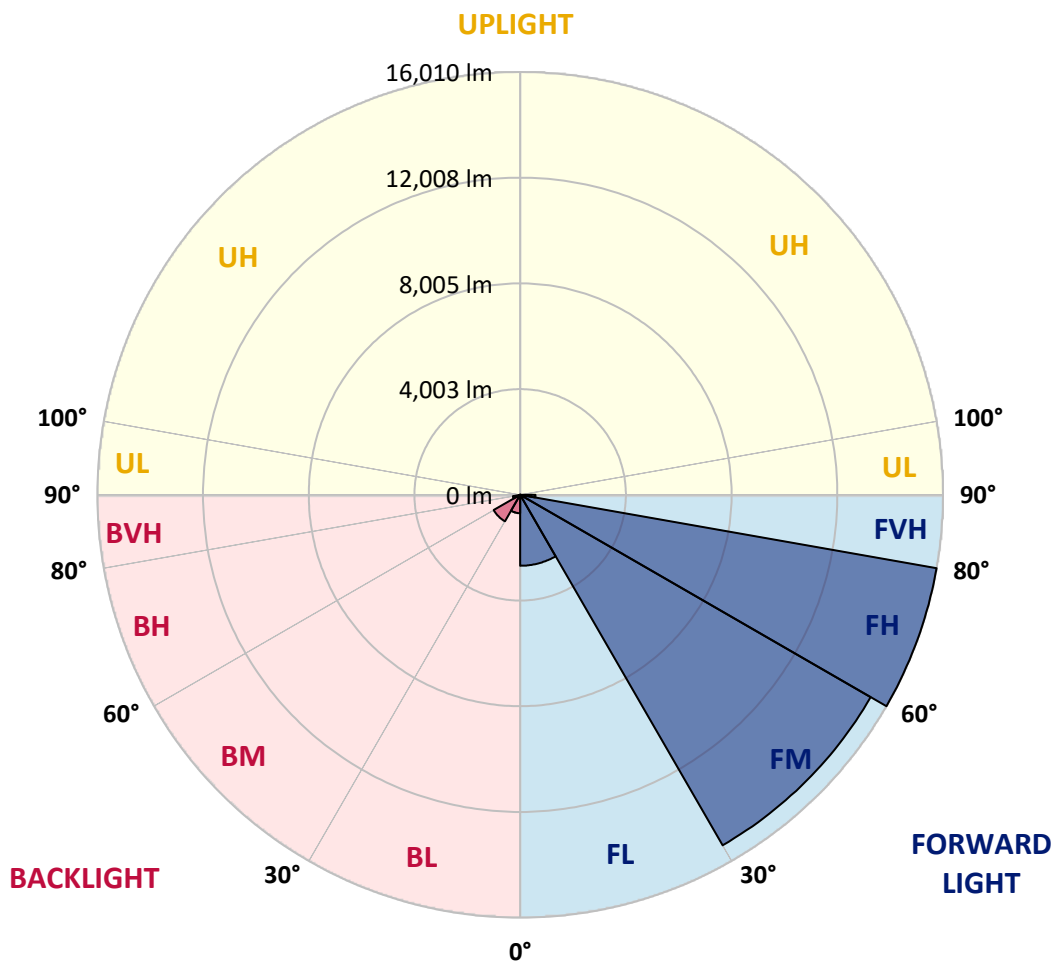
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2687.6	7.3			
FM	(30°-60°)	15322.9	41.7			
FH	(60°-80°)	16010.3	43.6			G5
FVH	(80°-90°)	580.2	1.6			G4/750
BL	(0°-30°)	696.5	1.9	B2/1000		
BM	(30°-60°)	1155.6	3.1	B2/2500		
BH	(60°-80°)	279.2	0.8	B1/500		G1/500
BVH	(80°-90°)	18.8	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	5490.8	5490.8	5490.8	5490.8	5490.8	5490.8	5490.8	5490.8	5490.8	5490.8	5490.8
2.5°	6029.0	5996.1	5976.4	5950.2	5917.4	5888.9	5878.0	5797.1	5720.5	5615.5	5495.2
5°	6140.5	6129.6	6094.6	6059.6	6020.2	5976.4	5952.4	5856.1	5746.8	5593.6	5383.6
7.5°	6151.5	6138.3	6094.6	6046.5	5991.8	5939.3	5897.7	5801.4	5700.8	5545.5	5289.6
10°	6134.0	6118.6	6085.8	6033.3	5965.5	5915.2	5873.6	5781.8	5696.4	5556.4	5272.1
12.5°	6114.3	6099.0	6083.6	6057.4	5998.3	5963.3	5928.3	5840.8	5764.3	5646.1	5335.5
15°	6134.0	6125.2	6142.7	6131.8	6099.0	6068.3	6033.3	5954.6	5884.6	5786.1	5451.4
17.5°	6217.1	6217.1	6271.8	6278.3	6247.7	6204.0	6153.6	6074.9	6015.8	5932.7	5589.2
20°	6411.8	6405.2	6475.2	6488.3	6414.0	6346.1	6271.8	6175.5	6129.6	6077.1	5724.9
22.5°	6746.5	6715.8	6757.4	6744.3	6597.7	6492.7	6400.8	6282.7	6258.6	6234.6	5875.8
25°	7181.8	7164.3	7192.7	7063.7	6805.5	6663.3	6554.0	6420.5	6420.5	6444.6	6046.5
27.5°	7814.0	7748.4	7652.1	7424.6	7037.4	6855.9	6737.7	6595.5	6632.7	6722.4	6271.8
30°	8461.5	8389.3	8168.4	7818.4	7319.6	7129.3	6991.5	6842.7	6930.2	7094.3	6573.7
32.5°	9100.3	9019.4	8706.5	8264.6	7724.3	7534.0	7400.6	7236.5	7383.1	7658.7	7015.5
35°	9719.4	9647.2	9286.2	8765.6	8262.5	8105.0	7982.5	7840.3	8028.4	8413.4	7639.0
37.5°	10415.0	10336.3	9896.6	9332.2	8916.5	8802.8	8713.1	8570.9	8899.0	9463.4	8507.5
40°	11270.4	11136.9	10544.1	9981.9	9673.4	9618.8	9557.5	9537.8	10047.5	10828.5	9664.7
42.5°	12250.4	12031.6	11222.2	10666.6	10504.7	10544.1	10528.8	10616.3	11484.8	12526.0	11073.5
45°	13230.4	12948.2	11977.0	11397.3	11419.1	11556.9	11642.3	11992.3	13285.1	14473.0	12589.5
47.5°	14061.7	13783.9	12701.0	12187.0	12449.5	12720.7	12952.6	13615.5	15135.8	16389.3	13768.6
50°	14772.7	14510.2	13468.9	13055.4	13646.1	14083.6	14459.9	15442.1	17126.5	17848.4	14595.5
52.5°	15354.6	15179.6	14265.2	14050.8	15013.3	15654.3	16205.5	17382.5	18889.7	19034.1	15238.6
55°	15921.2	15796.5	15120.5	15234.3	16619.0	17491.8	18189.7	19441.0	20407.9	20022.9	15855.5
57.5°	16573.1	16459.3	16096.2	16734.9	18730.0	19828.2	20589.4	21265.4	21744.5	21033.5	16437.4
60°	17238.1	17172.4	17181.2	18401.9	21153.8	22208.2	22628.3	22803.3	23057.0	21985.1	16470.2
62.5°	17872.5	17997.2	18421.5	20256.9	23474.8	24284.2	24496.4	24669.3	24371.7	22136.0	15216.8
65°	18946.6	19150.0	20162.9	22739.8	26027.7	26894.0	27112.8	26519.9	24579.6	20184.7	12377.3
67.5°	19471.6	19843.5	21650.4	25054.3	28504.1	29466.6	29385.7	26640.3	22057.3	15391.8	7943.1
69°	19362.2	19758.2	21993.9	25763.0	29326.6	30199.4	29685.4	25168.0	18791.2	11150.1	4876.1
70°	18929.1	19329.4	21816.7	25736.8	29431.6	30122.9	29129.7	23350.2	15888.3	8153.1	3049.5
72.5°	15807.4	16153.0	19368.8	23262.6	27112.8	26550.6	24369.6	16177.1	7741.8	2220.4	686.9
75°	9730.3	9922.8	13897.6	17524.6	20477.9	19034.1	16236.2	8048.1	2307.9	627.8	380.6
77.5°	5140.8	5228.3	7608.4	10329.7	12981.1	10741.0	8321.5	3139.2	1063.2	393.8	275.6
80°	3038.5	3104.2	4097.3	4723.0	5617.7	4692.3	3327.3	1927.3	761.3	247.2	245.0
82.5°	1739.1	1780.7	2970.7	2625.1	2213.8	1890.1	1656.0	1826.6	457.2	166.3	253.8
85°	638.8	647.5	1671.3	1997.3	1316.9	783.2	822.5	1513.8	122.5	105.0	199.1
87.5°	297.5	290.9	859.7	1222.9	770.0	496.6	641.0	332.5	48.1	67.8	54.7
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5490.8	5490.8	5490.8	5490.8	5490.8	5490.8	5490.8	5490.8	5490.8	5490.8	5490.8
2.5°	5425.2	5344.2	5197.7	5046.7	4893.6	4775.5	4659.5	4567.7	4537.0	4480.1	4484.5
5°	5258.9	5110.2	4803.9	4493.3	4169.5	3902.6	3651.1	3447.6	3349.2	3248.5	3248.5
7.5°	5114.5	4898.0	4418.9	3913.6	3390.7	2951.0	2555.1	2257.6	2093.5	1962.3	1960.1
10°	5059.9	4766.7	4097.3	3373.2	2644.8	2045.4	1575.1	1273.2	1117.8	1017.2	1012.8
12.5°	5083.9	4720.8	3850.1	2874.5	1960.1	1314.7	912.2	717.5	651.9	621.3	621.3
15°	5153.9	4707.7	3602.9	2386.6	1384.7	822.5	606.0	553.5	549.1	549.1	549.1
17.5°	5239.2	4712.0	3349.2	1911.9	942.8	588.5	522.8	516.3	520.6	520.6	520.6
20°	5326.7	4714.2	3075.7	1472.2	665.0	511.9	492.2	490.0	494.4	494.4	496.6
22.5°	5433.9	4725.2	2802.3	1100.3	549.1	483.5	468.1	468.1	470.3	470.3	468.1
25°	5556.4	4747.0	2517.9	816.0	501.0	463.8	450.6	448.5	450.6	448.5	446.3
27.5°	5709.6	4777.7	2200.7	638.8	479.1	444.1	433.1	433.1	431.0	428.8	426.6
30°	5902.1	4812.7	1844.1	542.5	457.2	426.6	415.6	413.5	411.3	406.9	406.9
32.5°	6195.2	4889.2	1491.9	492.2	433.1	402.5	393.8	393.8	389.4	385.0	382.8
35°	6645.8	5040.2	1176.9	461.6	406.9	376.3	365.3	365.3	360.9	358.8	356.6
37.5°	7269.3	5269.9	914.4	433.1	380.6	347.8	336.9	334.7	330.3	325.9	323.8
40°	8098.4	5554.2	719.7	406.9	354.4	319.4	310.6	306.3	297.5	290.9	290.9
42.5°	9139.7	5878.0	584.1	378.5	323.8	293.1	286.6	280.0	264.7	258.1	255.9
45°	10229.1	6169.0	494.4	345.6	293.1	266.9	262.5	251.6	231.9	225.3	225.3
47.5°	11014.4	6236.8	435.3	315.0	264.7	238.4	236.3	216.6	199.1	194.7	192.5
50°	11504.4	6103.3	387.2	284.4	238.4	212.2	205.6	181.6	170.6	166.3	164.1
52.5°	11834.8	5864.9	347.8	258.1	214.4	188.1	172.8	155.3	146.6	142.2	142.2
55°	12099.5	5528.0	308.4	234.1	194.7	168.4	146.6	133.4	124.7	120.3	120.3
57.5°	12173.8	5070.8	269.1	214.4	175.0	148.8	124.7	115.9	105.0	102.8	102.8
60°	11633.5	4246.1	238.4	190.3	157.5	129.1	109.4	98.4	87.5	85.3	83.1
62.5°	10209.4	3285.7	210.0	168.4	137.8	111.6	94.1	80.9	72.2	72.2	72.2
65°	7787.8	2202.9	183.8	146.6	120.3	94.1	80.9	65.6	61.3	61.3	63.4
67.5°	4661.7	1198.8	157.5	124.7	102.8	78.8	67.8	56.9	54.7	56.9	56.9
69°	2732.3	704.4	142.2	111.6	89.7	70.0	59.1	50.3	54.7	56.9	56.9
70°	1686.6	474.7	131.3	100.6	80.9	63.4	54.7	48.1	52.5	54.7	54.7
72.5°	470.3	245.0	105.0	78.8	65.6	52.5	43.8	43.8	50.3	52.5	52.5
75°	306.3	181.6	80.9	59.1	50.3	41.6	37.2	41.6	48.1	50.3	50.3
77.5°	253.8	148.8	65.6	48.1	41.6	39.4	35.0	37.2	43.8	45.9	45.9
80°	231.9	105.0	52.5	43.8	37.2	35.0	32.8	30.6	39.4	41.6	41.6
82.5°	220.9	83.1	45.9	39.4	35.0	30.6	28.4	30.6	35.0	37.2	39.4
85°	137.8	54.7	41.6	37.2	30.6	28.4	28.4	28.4	32.8	35.0	35.0
87.5°	50.3	43.8	37.2	30.6	26.3	26.3	26.3	26.3	28.4	32.8	32.8
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)