

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: P301909

Luminaire Tested: **GLNA-AF-09-LED-E1-SL4-7030-800-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301909  
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-09-LED-E1-SL4-7030-800-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 3000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
w/Spill Control WITH HOUSESIDE SHEILD OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 30665.1 lumens  
Efficiency: N/A  
Efficacy: 82.0 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): 374  
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

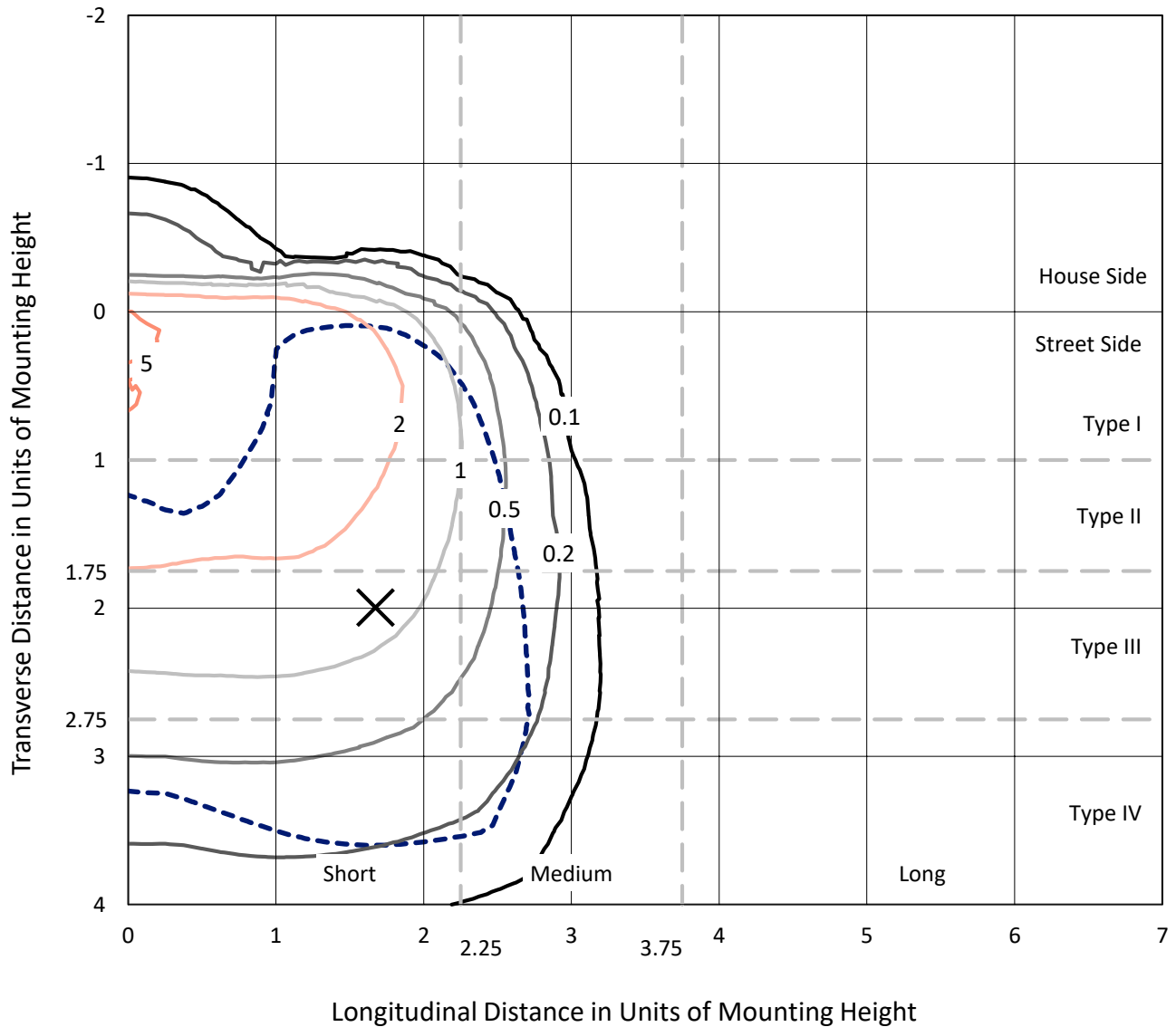


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

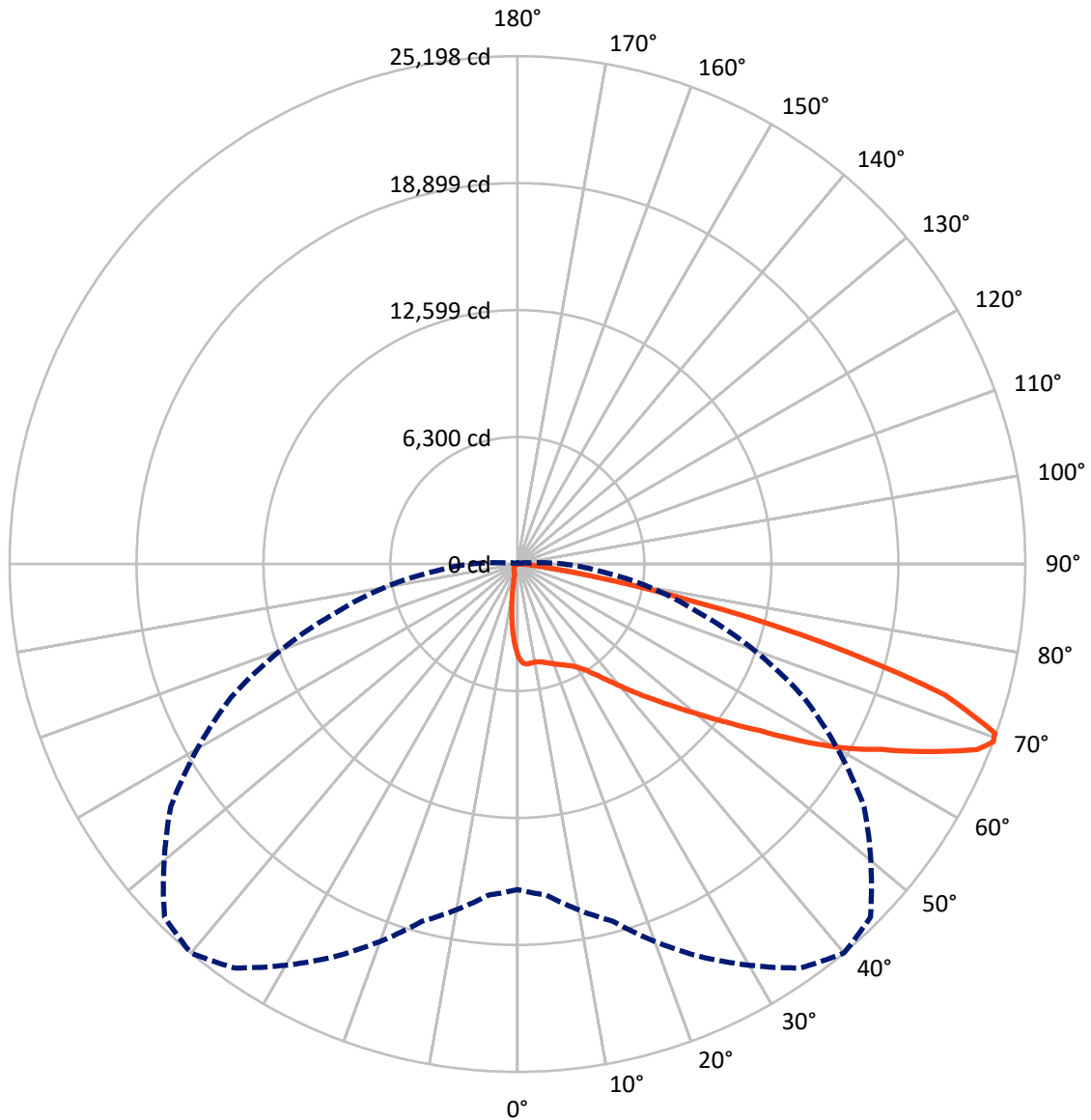


Based on 30 foot mounting height. Maximum calculated value = 5.6 fc  
 Type IV - Short - Semi-Cutoff

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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
<b>House Side</b>	Lumens	1794.1	0.0	1794.1
	% Fixture	5.9	0.0	5.9
<b>Street Side</b>	Lumens	28871.1	0.0	28871.1
	% Fixture	94.1	0.0	94.1
<b>Total</b>	Lumens	30665.1	0.0	30665.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	371.5	1.2
10°-20°	913.5	3.0
20°-30°	1538.7	5.0
30°-40°	2518.9	8.2
40°-50°	4361.3	14.2
50°-60°	6869.5	22.4
60°-70°	8971.3	29.3
70°-80°	4620.6	15.1
80°-90°	499.8	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°	30665.1	100.0
0°-180°	30665.1	100.0



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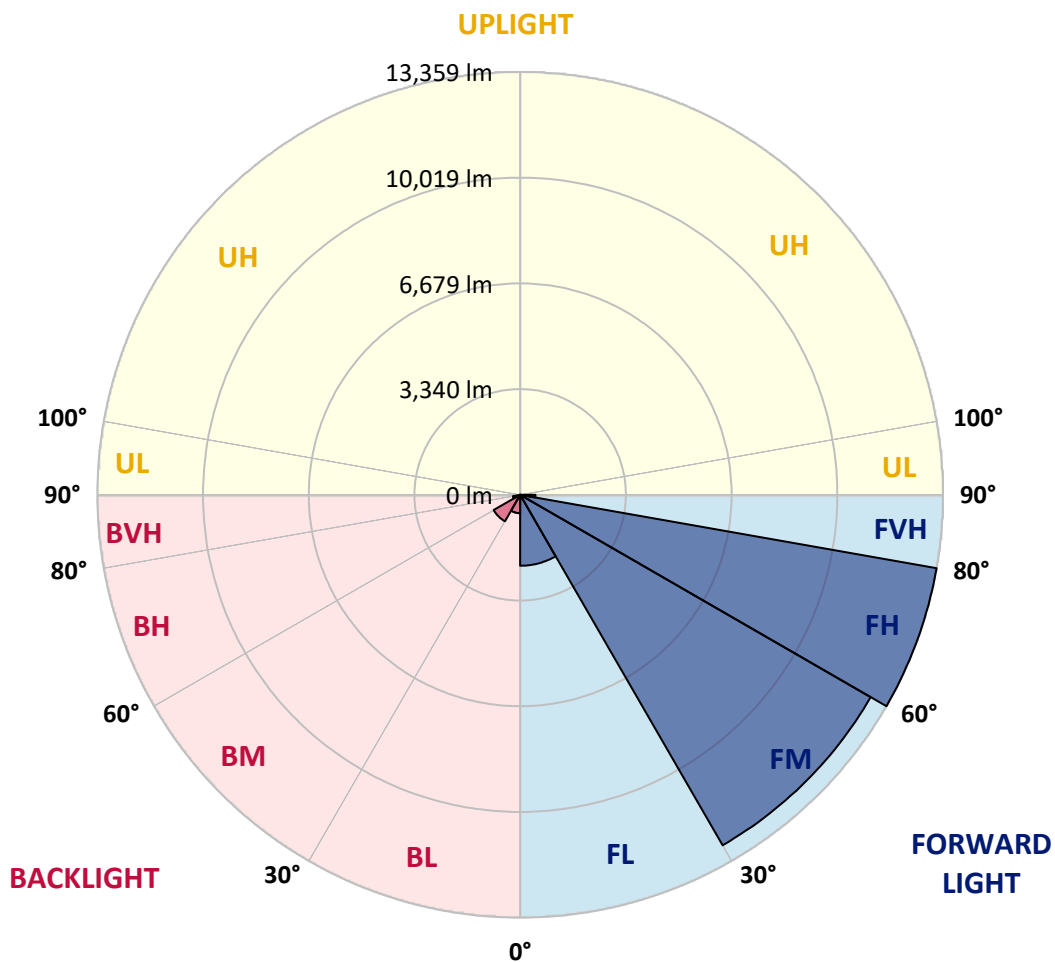
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2242.5	7.3			
FM	(30°-60°)	12785.4	41.7			
FH	(60°-80°)	13359.0	43.6			G5
FVH	(80°-90°)	484.1	1.6			G3/500
BL	(0°-30°)	581.2	1.9	B2/1000		
BM	(30°-60°)	964.3	3.1	B1/1000		
BH	(60°-80°)	233.0	0.8	B1/500		G1/500
BVH	(80°-90°)	15.7	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°	4581.5	4581.5	4581.5	4581.5	4581.5	4581.5	4581.5	4581.5	4581.5	4581.5	4581.5
2.5°	5030.6	5003.2	4986.8	4964.8	4937.5	4913.7	4904.6	4837.1	4773.2	4685.6	4585.2
5°	5123.6	5114.5	5085.3	5056.1	5023.3	4986.8	4966.7	4886.4	4795.1	4667.3	4492.1
7.5°	5132.8	5121.8	5085.3	5045.2	4999.5	4955.7	4921.0	4840.7	4756.8	4627.2	4413.6
10°	5118.2	5105.4	5078.0	5034.2	4977.6	4935.6	4901.0	4824.3	4753.1	4636.3	4399.0
12.5°	5101.7	5089.0	5076.2	5054.3	5005.0	4975.8	4946.6	4873.6	4809.7	4711.1	4451.9
15°	5118.2	5110.9	5125.5	5116.3	5089.0	5063.4	5034.2	4968.5	4910.1	4827.9	4548.7
17.5°	5187.5	5187.5	5233.2	5238.6	5213.1	5176.6	5134.6	5068.9	5019.6	4950.2	4663.7
20°	5350.0	5344.5	5402.9	5413.9	5351.8	5295.2	5233.2	5152.9	5114.5	5070.7	4776.8
22.5°	5629.3	5603.7	5638.4	5627.4	5505.1	5417.5	5340.9	5242.3	5222.2	5202.1	4902.8
25°	5992.5	5977.9	6001.6	5893.9	5678.5	5559.9	5468.6	5357.3	5357.3	5377.4	5045.2
27.5°	6520.0	6465.3	6384.9	6195.1	5872.0	5720.5	5622.0	5503.3	5534.3	5609.2	5233.2
30°	7060.3	7000.1	6815.7	6523.7	6107.5	5948.7	5833.7	5709.6	5782.6	5919.5	5485.1
32.5°	7593.3	7525.8	7264.7	6896.0	6445.2	6286.4	6175.0	6038.1	6160.4	6390.4	5853.8
35°	8109.9	8049.6	7748.4	7314.0	6894.2	6762.8	6660.6	6541.9	6698.9	7020.1	6374.0
37.5°	8690.3	8624.6	8257.7	7786.8	7440.0	7345.1	7270.2	7151.6	7425.4	7896.3	7098.6
40°	9404.0	9292.7	8798.0	8328.9	8071.5	8025.9	7974.8	7958.4	8383.7	9035.3	8064.2
42.5°	10221.7	10039.2	9363.8	8900.2	8765.1	8798.0	8785.2	8858.2	9582.9	10451.7	9239.7
45°	11039.5	10804.0	9993.6	9509.9	9528.1	9643.1	9714.3	10006.4	11085.1	12076.3	10504.7
47.5°	11733.1	11501.3	10597.8	10168.8	10387.8	10614.2	10807.7	11360.7	12629.3	13675.2	11488.5
50°	12326.3	12107.3	11238.4	10893.5	11386.3	11751.4	12065.3	12884.9	14290.4	14892.7	12178.5
52.5°	12811.9	12665.8	11902.9	11724.0	12527.1	13061.9	13521.9	14503.9	15761.6	15882.0	12715.1
55°	13284.6	13180.6	12616.6	12711.5	13866.9	14595.2	15177.5	16221.5	17028.3	16707.1	13229.9
57.5°	13828.6	13733.6	13430.6	13963.6	15628.3	16544.6	17179.8	17743.9	18143.6	17550.4	13715.4
60°	14383.5	14328.7	14336.0	15354.5	17650.8	18530.6	18881.0	19027.0	19238.8	18344.4	13742.8
62.5°	14912.8	15016.8	15370.9	16902.4	19587.4	20262.8	20439.8	20584.0	20335.8	18470.3	12696.9
65°	15809.0	15978.8	16823.9	18974.1	21717.6	22440.4	22622.9	22128.3	20509.2	16842.1	10327.6
67.5°	16247.1	16557.4	18065.1	20905.3	23783.8	24586.9	24519.4	22228.6	18404.6	12842.9	6627.7
69°	16155.8	16486.2	18351.7	21496.7	24470.1	25198.4	24769.5	21000.2	15679.4	9303.6	4068.6
70°	15794.4	16128.5	18203.8	21474.8	24557.7	25134.5	24305.8	19483.4	13257.2	6802.9	2544.5
72.5°	13189.7	13478.1	16161.3	19410.4	22622.9	22153.8	20334.0	13498.2	6459.8	1852.7	573.1
75°	8119.0	8279.6	11596.2	14622.6	17086.7	15882.0	13547.5	6715.3	1925.7	523.9	317.6
77.5°	4289.5	4362.5	6348.4	8619.1	10831.4	8962.3	6943.5	2619.3	887.1	328.6	230.0
80°	2535.4	2590.1	3418.8	3940.8	4687.4	3915.3	2776.3	1608.1	635.2	206.3	204.4
82.5°	1451.1	1485.8	2478.8	2190.4	1847.2	1577.1	1381.8	1524.1	381.5	138.7	211.7
85°	533.0	540.3	1394.5	1666.5	1098.8	653.5	686.3	1263.1	102.2	87.6	166.1
87.5°	248.2	242.8	717.3	1020.3	642.5	414.3	534.8	277.4	40.2	56.6	45.6
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4581.5	4581.5	4581.5	4581.5	4581.5	4581.5	4581.5	4581.5	4581.5	4581.5	4581.5
2.5°	4526.8	4459.2	4336.9	4211.0	4083.2	3984.7	3887.9	3811.3	3785.7	3738.2	3741.9
5°	4388.0	4263.9	4008.4	3749.2	3479.0	3256.4	3046.4	2876.7	2794.6	2710.6	2710.6
7.5°	4267.6	4086.9	3687.1	3265.5	2829.2	2462.3	2132.0	1883.7	1746.8	1637.3	1635.5
10°	4221.9	3977.4	3418.8	2814.6	2206.8	1706.7	1314.2	1062.3	932.7	848.8	845.1
12.5°	4242.0	3939.0	3212.5	2398.5	1635.5	1097.0	761.2	598.7	543.9	518.4	518.4
15°	4300.4	3928.1	3006.3	1991.4	1155.4	686.3	505.6	461.8	458.2	458.2	458.2
17.5°	4371.6	3931.7	2794.6	1595.3	786.7	491.0	436.2	430.8	434.4	434.4	434.4
20°	4444.6	3933.5	2566.4	1228.4	554.9	427.1	410.7	408.9	412.5	412.5	414.3
22.5°	4534.1	3942.7	2338.2	918.1	458.2	403.4	390.6	390.6	392.4	392.4	390.6
25°	4636.3	3960.9	2100.9	680.8	418.0	387.0	376.0	374.2	376.0	374.2	372.4
27.5°	4764.1	3986.5	1836.3	533.0	399.7	370.5	361.4	361.4	359.6	357.8	355.9
30°	4924.7	4015.7	1538.7	452.7	381.5	355.9	346.8	345.0	343.2	339.5	339.5
32.5°	5169.3	4079.6	1244.9	410.7	361.4	335.9	328.6	328.6	324.9	321.3	319.4
35°	5545.3	4205.5	982.0	385.1	339.5	314.0	304.8	304.8	301.2	299.4	297.5
37.5°	6065.5	4397.2	763.0	361.4	317.6	290.2	281.1	279.3	275.6	272.0	270.1
40°	6757.3	4634.5	600.5	339.5	295.7	266.5	259.2	255.5	248.2	242.8	242.8
42.5°	7626.2	4904.6	487.4	315.8	270.1	244.6	239.1	233.6	220.9	215.4	213.6
45°	8535.2	5147.4	412.5	288.4	244.6	222.7	219.0	209.9	193.5	188.0	188.0
47.5°	9190.4	5204.0	363.2	262.8	220.9	199.0	197.1	180.7	166.1	162.5	160.6
50°	9599.3	5092.6	323.1	237.3	199.0	177.1	171.6	151.5	142.4	138.7	136.9
52.5°	9874.9	4893.7	290.2	215.4	178.9	157.0	144.2	129.6	122.3	118.6	118.6
55°	10095.8	4612.6	257.4	195.3	162.5	140.5	122.3	111.3	104.0	100.4	100.4
57.5°	10157.9	4231.1	224.5	178.9	146.0	124.1	104.0	96.7	87.6	85.8	85.8
60°	9707.0	3542.9	199.0	158.8	131.4	107.7	91.3	82.1	73.0	71.2	69.4
62.5°	8518.7	2741.6	175.2	140.5	115.0	93.1	78.5	67.5	60.2	60.2	60.2
65°	6498.1	1838.1	153.3	122.3	100.4	78.5	67.5	54.8	51.1	51.1	52.9
67.5°	3889.7	1000.3	131.4	104.0	85.8	65.7	56.6	47.5	45.6	47.5	47.5
69°	2279.8	587.8	118.6	93.1	74.8	58.4	49.3	42.0	45.6	47.5	47.5
70°	1407.3	396.1	109.5	84.0	67.5	52.9	45.6	40.2	43.8	45.6	45.6
72.5°	392.4	204.4	87.6	65.7	54.8	43.8	36.5	36.5	42.0	43.8	43.8
75°	255.5	151.5	67.5	49.3	42.0	34.7	31.0	34.7	40.2	42.0	42.0
77.5°	211.7	124.1	54.8	40.2	34.7	32.9	29.2	31.0	36.5	38.3	38.3
80°	193.5	87.6	43.8	36.5	31.0	29.2	27.4	25.6	32.9	34.7	34.7
82.5°	184.4	69.4	38.3	32.9	29.2	25.6	23.7	25.6	29.2	31.0	32.9
85°	115.0	45.6	34.7	31.0	25.6	23.7	23.7	23.7	27.4	29.2	29.2
87.5°	42.0	36.5	31.0	25.6	21.9	21.9	21.9	21.9	23.7	27.4	27.4
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)