

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: P301969

Luminaire Tested: **GLNA-AF-09-LED-E1-SL4-7030-600-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301969  
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-SL4-7030-600-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 3000K CCT 600mA 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: 25005 lumens  
Efficiency: N/A  
Efficacy: 86.2 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G4

Input Watts (W): 290  
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

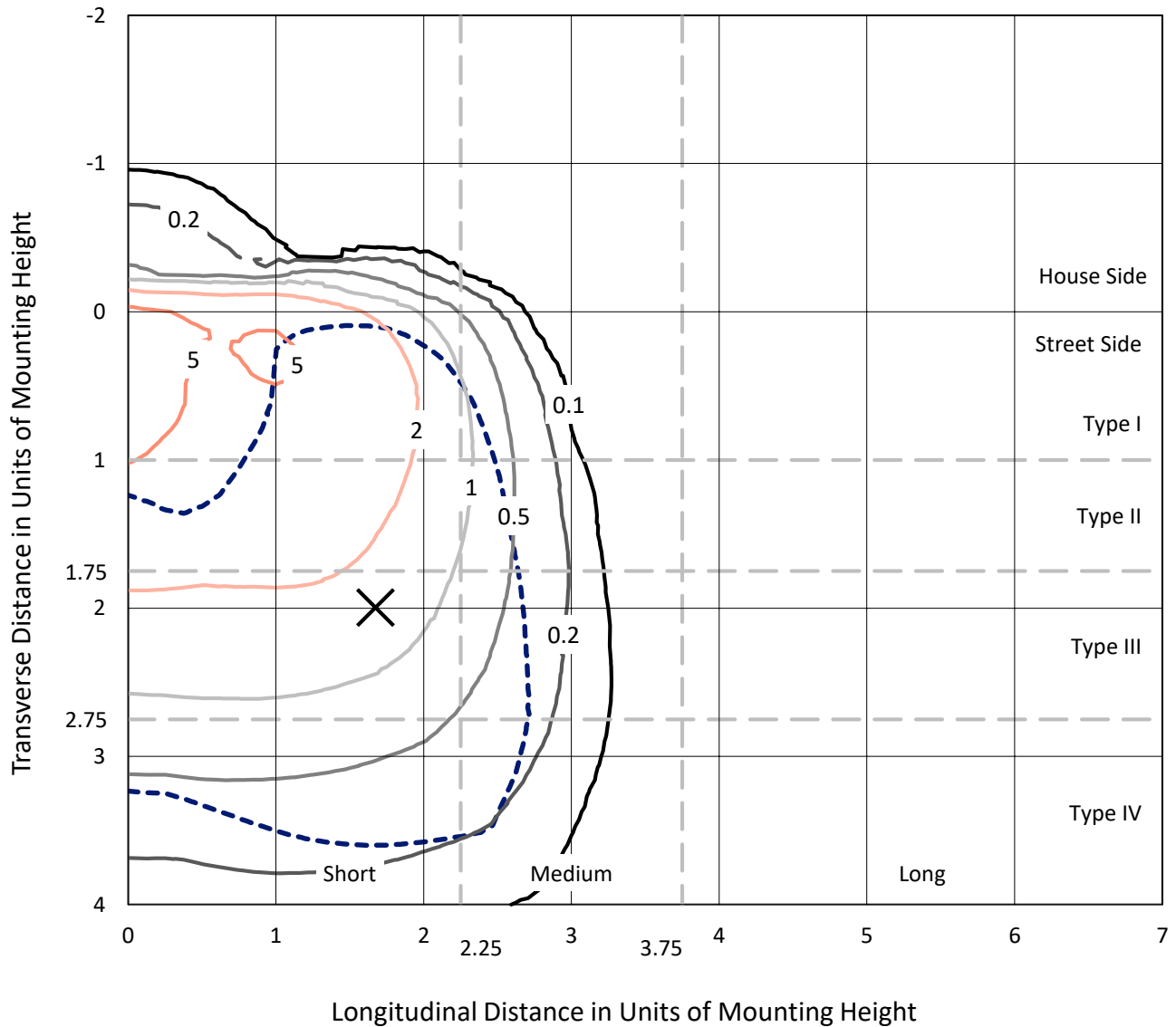


REPORT NUMBER: P301969

CATALOG NUMBER: GLNA-AF-09-LED-E1-SL4-7030-600-HSS

### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

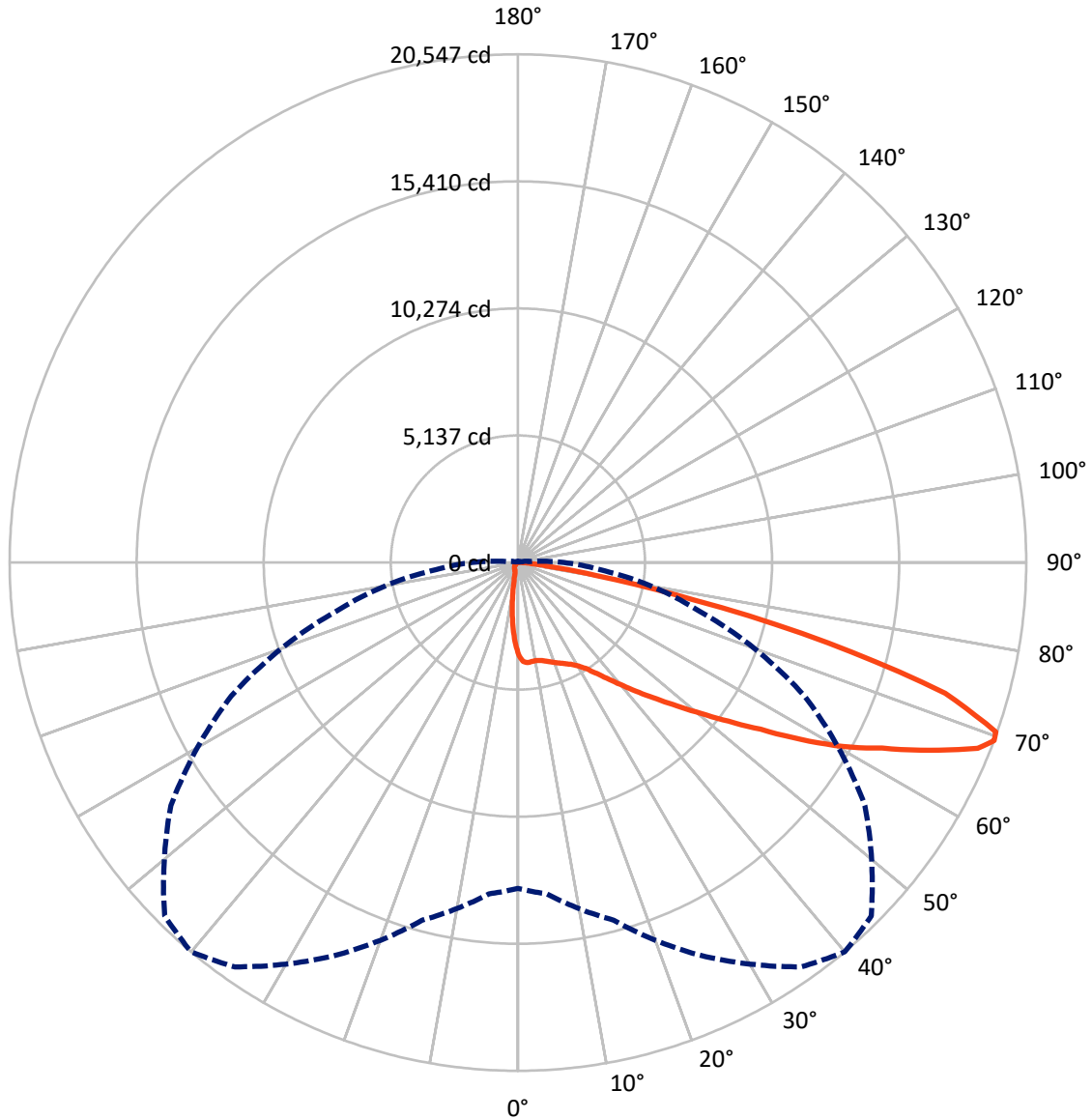


Based on 25 foot mounting height. Maximum calculated value = 6.5 fc  
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P301969

CATALOG NUMBER: GLNA-AF-09-LED-E1-SL4-7030-600-HSS

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P301969

CATALOG NUMBER: GLNA-AF-09-LED-E1-SL4-7030-600-HSS

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1462.9	0.0	1462.9
	% Fixture	5.9	0.0	5.9
<b>Street Side</b>	Lumens	23542.1	0.0	23542.1
	% Fixture	94.1	0.0	94.1
<b>Total</b>	Lumens	25005.0	0.0	25005.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	302.9	1.2
10°-20°	744.9	3.0
20°-30°	1254.7	5.0
30°-40°	2053.9	8.2
40°-50°	3556.3	14.2
50°-60°	5601.6	22.4
60°-70°	7315.4	29.3
70°-80°	3767.8	15.1
80°-90°	407.6	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°	25005.0	100.0
0°-180°	25005.0	100.0



REPORT NUMBER: P301969

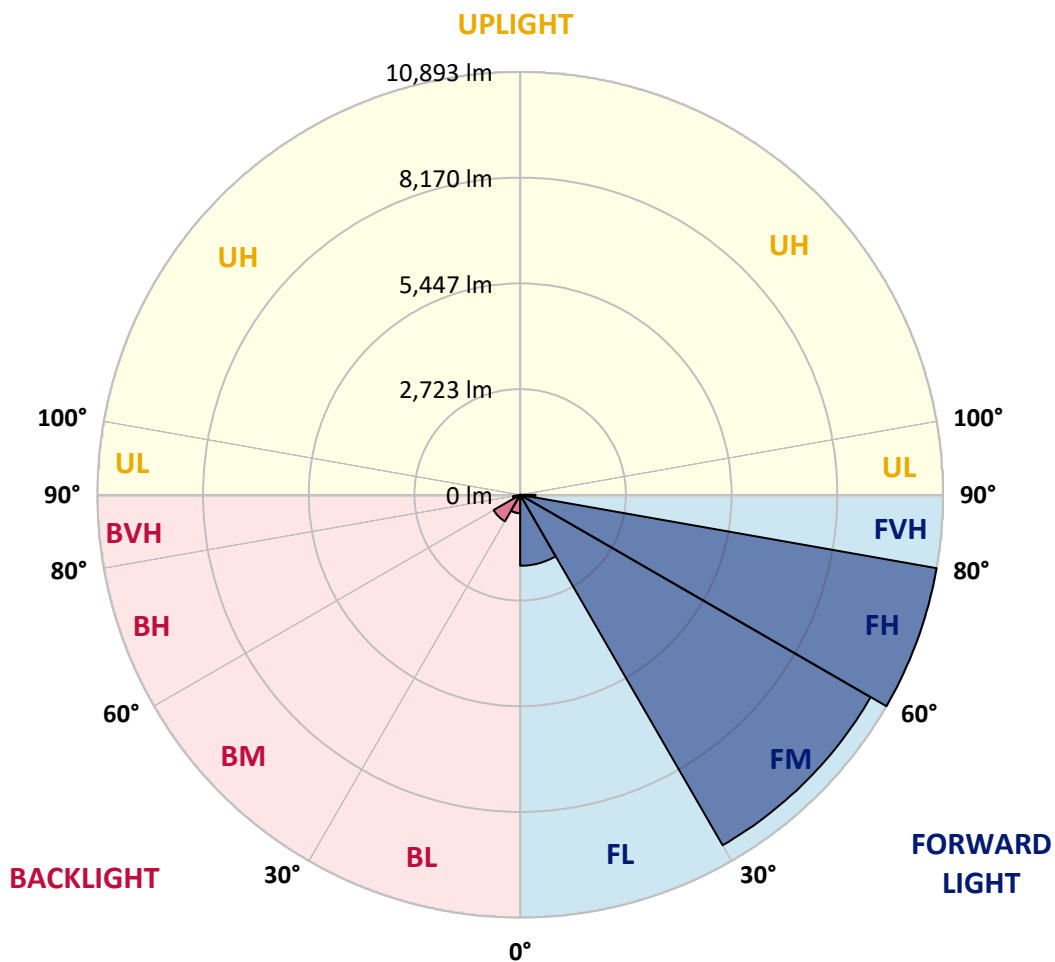
CATALOG NUMBER: GLNA-AF-09-LED-E1-SL4-7030-600-HSS

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1828.6	7.3			
FM	(30°-60°)	10425.5	41.7			
FH	(60°-80°)	10893.2	43.6			G4/12000
FVH	(80°-90°)	394.8	1.6			G3/500
BL	(0°-30°)	473.9	1.9	B1/500		
BM	(30°-60°)	786.3	3.1	B1/1000		
BH	(60°-80°)	190.0	0.8	B1/500		G1/500
BVH	(80°-90°)	12.8	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G4**

Type IV Short





REPORT NUMBER: P301969

CATALOG NUMBER: GLNA-AF-09-LED-E1-SL4-7030-600-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	3735.9	3735.9	3735.9	3735.9	3735.9	3735.9	3735.9	3735.9	3735.9	3735.9	3735.9
2.5°	4102.0	4079.7	4066.3	4048.4	4026.1	4006.8	3999.3	3944.3	3892.2	3820.7	3738.9
5°	4177.9	4170.5	4146.7	4122.9	4096.1	4066.3	4049.9	3984.4	3910.0	3805.8	3663.0
7.5°	4185.4	4176.4	4146.7	4113.9	4076.7	4041.0	4012.7	3947.2	3878.8	3773.1	3598.9
10°	4173.5	4163.1	4140.7	4105.0	4058.9	4024.6	3996.4	3933.8	3875.8	3780.5	3587.0
12.5°	4160.1	4149.7	4139.2	4121.4	4081.2	4057.4	4033.6	3974.0	3921.9	3841.6	3630.2
15°	4173.5	4167.5	4179.4	4172.0	4149.7	4128.8	4105.0	4051.4	4003.8	3936.8	3709.1
17.5°	4230.0	4230.0	4267.2	4271.7	4250.9	4221.1	4186.9	4133.3	4093.1	4036.5	3802.9
20°	4362.5	4358.0	4405.7	4414.6	4364.0	4317.8	4267.2	4201.8	4170.5	4134.8	3895.1
22.5°	4590.2	4569.4	4597.7	4588.7	4489.0	4417.6	4355.1	4274.7	4258.3	4241.9	3997.8
25°	4886.4	4874.5	4893.9	4806.0	4630.4	4533.7	4459.2	4368.5	4368.5	4384.8	4113.9
27.5°	5316.6	5271.9	5206.4	5051.6	4788.2	4664.6	4584.3	4487.5	4512.8	4573.9	4267.2
30°	5757.1	5708.0	5557.7	5319.5	4980.2	4850.7	4756.9	4655.7	4715.2	4826.9	4472.6
32.5°	6191.7	6136.7	5923.8	5623.2	5255.5	5126.0	5035.3	4923.6	5023.3	5210.9	4773.3
35°	6613.0	6563.8	6318.3	5964.0	5621.7	5514.5	5431.2	5334.4	5462.4	5724.4	5197.5
37.5°	7086.3	7032.7	6733.5	6349.5	6066.7	5989.3	5928.3	5831.5	6054.8	6438.8	5788.4
40°	7668.2	7577.4	7174.1	6791.6	6581.7	6544.5	6502.8	6489.4	6836.2	7367.6	6575.7
42.5°	8335.0	8186.2	7635.5	7257.4	7147.3	7174.1	7163.7	7223.2	7814.1	8522.6	7534.3
45°	9001.8	8809.8	8149.0	7754.6	7769.4	7863.2	7921.3	8159.4	9039.0	9847.2	8565.7
47.5°	9567.4	9378.4	8641.6	8291.9	8470.5	8655.0	8812.8	9263.8	10298.2	11151.1	9368.0
50°	10051.2	9872.6	9164.1	8882.8	9284.6	9582.3	9838.3	10506.6	11652.7	12143.8	9930.6
52.5°	10447.1	10328.0	9705.9	9560.0	10214.9	10651.0	11026.1	11826.8	12852.3	12950.6	10368.2
55°	10832.6	10747.7	10287.8	10365.2	11307.4	11901.2	12376.0	13227.4	13885.3	13623.3	10787.9
57.5°	11276.1	11198.7	10951.6	11386.3	12743.7	13490.8	14008.8	14468.7	14794.7	14311.0	11183.8
60°	11728.6	11683.9	11689.9	12520.4	14392.8	15110.2	15396.0	15515.1	15687.7	14958.4	11206.2
62.5°	12160.2	12245.1	12533.8	13782.6	15972.0	16522.7	16667.1	16784.7	16582.3	15061.1	10353.3
65°	12891.0	13029.4	13718.6	15471.9	17709.0	18298.4	18447.2	18043.9	16723.7	13733.5	8421.4
67.5°	13248.2	13501.3	14730.7	17046.6	19393.8	20048.7	19993.7	18125.7	15007.5	10472.4	5404.4
69°	13173.8	13443.2	14964.4	17528.9	19953.5	20547.3	20197.6	17124.0	12785.3	7586.4	3317.6
70°	12879.1	13151.5	14843.8	17511.0	20024.9	20495.3	19819.5	15887.2	10810.2	5547.3	2074.8
72.5°	10755.2	10990.3	13178.3	15827.6	18447.2	18064.7	16580.8	11006.7	5267.4	1510.7	467.4
75°	6620.4	6751.4	9455.8	11923.6	13932.9	12950.6	11046.9	5475.8	1570.3	427.2	259.0
77.5°	3497.7	3557.3	5176.7	7028.2	8832.2	7308.0	5661.9	2135.9	723.4	267.9	187.5
80°	2067.4	2112.0	2787.8	3213.5	3822.2	3192.6	2263.9	1311.3	518.0	168.2	166.7
82.5°	1183.3	1211.6	2021.2	1786.1	1506.3	1286.0	1126.7	1242.8	311.1	113.1	172.7
85°	434.6	440.6	1137.1	1358.9	896.0	532.8	559.6	1030.0	83.4	71.4	135.4
87.5°	202.4	198.0	584.9	832.0	523.9	337.9	436.1	226.2	32.7	46.1	37.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P301969

CATALOG NUMBER: GLNA-AF-09-LED-E1-SL4-7030-600-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3735.9	3735.9	3735.9	3735.9	3735.9	3735.9	3735.9	3735.9	3735.9	3735.9	3735.9
2.5°	3691.2	3636.2	3536.4	3433.7	3329.5	3249.2	3170.3	3107.8	3086.9	3048.2	3051.2
5°	3578.1	3476.9	3268.5	3057.2	2836.9	2655.3	2484.1	2345.7	2278.7	2210.3	2210.3
7.5°	3479.9	3332.5	3006.6	2662.7	2307.0	2007.9	1738.5	1536.0	1424.4	1335.1	1333.6
10°	3442.7	3243.2	2787.8	2295.1	1799.5	1391.7	1071.6	866.2	760.6	692.1	689.1
12.5°	3459.0	3212.0	2619.6	1955.8	1333.6	894.5	620.7	488.2	443.5	422.7	422.7
15°	3506.7	3203.0	2451.4	1623.8	942.2	559.6	412.3	376.6	373.6	373.6	373.6
17.5°	3564.7	3206.0	2278.7	1300.9	641.5	400.4	355.7	351.3	354.2	354.2	354.2
20°	3624.3	3207.5	2092.7	1001.7	452.5	348.3	334.9	333.4	336.4	336.4	337.9
22.5°	3697.2	3214.9	1906.6	748.7	373.6	328.9	318.5	318.5	320.0	320.0	318.5
25°	3780.5	3229.8	1713.1	555.2	340.8	315.5	306.6	305.1	306.6	305.1	303.6
27.5°	3884.7	3250.7	1497.3	434.6	326.0	302.1	294.7	294.7	293.2	291.7	290.2
30°	4015.7	3274.5	1254.7	369.1	311.1	290.2	282.8	281.3	279.8	276.8	276.8
32.5°	4215.1	3326.6	1015.1	334.9	294.7	273.9	267.9	267.9	264.9	262.0	260.5
35°	4521.8	3429.3	800.8	314.1	276.8	256.0	248.6	248.6	245.6	244.1	242.6
37.5°	4946.0	3585.6	622.2	294.7	259.0	236.7	229.2	227.7	224.7	221.8	220.3
40°	5510.1	3779.0	489.7	276.8	241.1	217.3	211.4	208.4	202.4	198.0	198.0
42.5°	6218.5	3999.3	397.4	257.5	220.3	199.4	195.0	190.5	180.1	175.6	174.1
45°	6959.8	4197.3	336.4	235.2	199.4	181.6	178.6	171.2	157.8	153.3	153.3
47.5°	7494.1	4243.4	296.2	214.3	180.1	162.2	160.7	147.4	135.4	132.5	131.0
50°	7827.5	4152.6	263.4	193.5	162.2	144.4	139.9	123.5	116.1	113.1	111.6
52.5°	8052.2	3990.4	236.7	175.6	145.9	128.0	117.6	105.7	99.7	96.7	96.7
55°	8232.3	3761.2	209.9	159.3	132.5	114.6	99.7	90.8	84.8	81.9	81.9
57.5°	8282.9	3450.1	183.1	145.9	119.1	101.2	84.8	78.9	71.4	70.0	70.0
60°	7915.3	2889.0	162.2	129.5	107.2	87.8	74.4	67.0	59.5	58.0	56.6
62.5°	6946.4	2235.6	142.9	114.6	93.8	75.9	64.0	55.1	49.1	49.1	49.1
65°	5298.7	1498.8	125.0	99.7	81.9	64.0	55.1	44.7	41.7	41.7	43.2
67.5°	3171.8	815.6	107.2	84.8	70.0	53.6	46.1	38.7	37.2	38.7	38.7
69°	1859.0	479.3	96.7	75.9	61.0	47.6	40.2	34.2	37.2	38.7	38.7
70°	1147.6	323.0	89.3	68.5	55.1	43.2	37.2	32.7	35.7	37.2	37.2
72.5°	320.0	166.7	71.4	53.6	44.7	35.7	29.8	29.8	34.2	35.7	35.7
75°	208.4	123.5	55.1	40.2	34.2	28.3	25.3	28.3	32.7	34.2	34.2
77.5°	172.7	101.2	44.7	32.7	28.3	26.8	23.8	25.3	29.8	31.3	31.3
80°	157.8	71.4	35.7	29.8	25.3	23.8	22.3	20.8	26.8	28.3	28.3
82.5°	150.3	56.6	31.3	26.8	23.8	20.8	19.3	20.8	23.8	25.3	26.8
85°	93.8	37.2	28.3	25.3	20.8	19.3	19.3	19.3	22.3	23.8	23.8
87.5°	34.2	29.8	25.3	20.8	17.9	17.9	17.9	17.9	19.3	22.3	22.3
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)