

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: P300768

Luminaire Tested: **GLNA-AF-09-LED-E1-AFL-7027-600-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300768  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24297)  
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-AFL-7027-600-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline WITH HOUSESIDE SHIELD OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 22651.2 lumens  
Efficiency: N/A  
Efficacy: 78.1 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B2 - U0 - G2

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

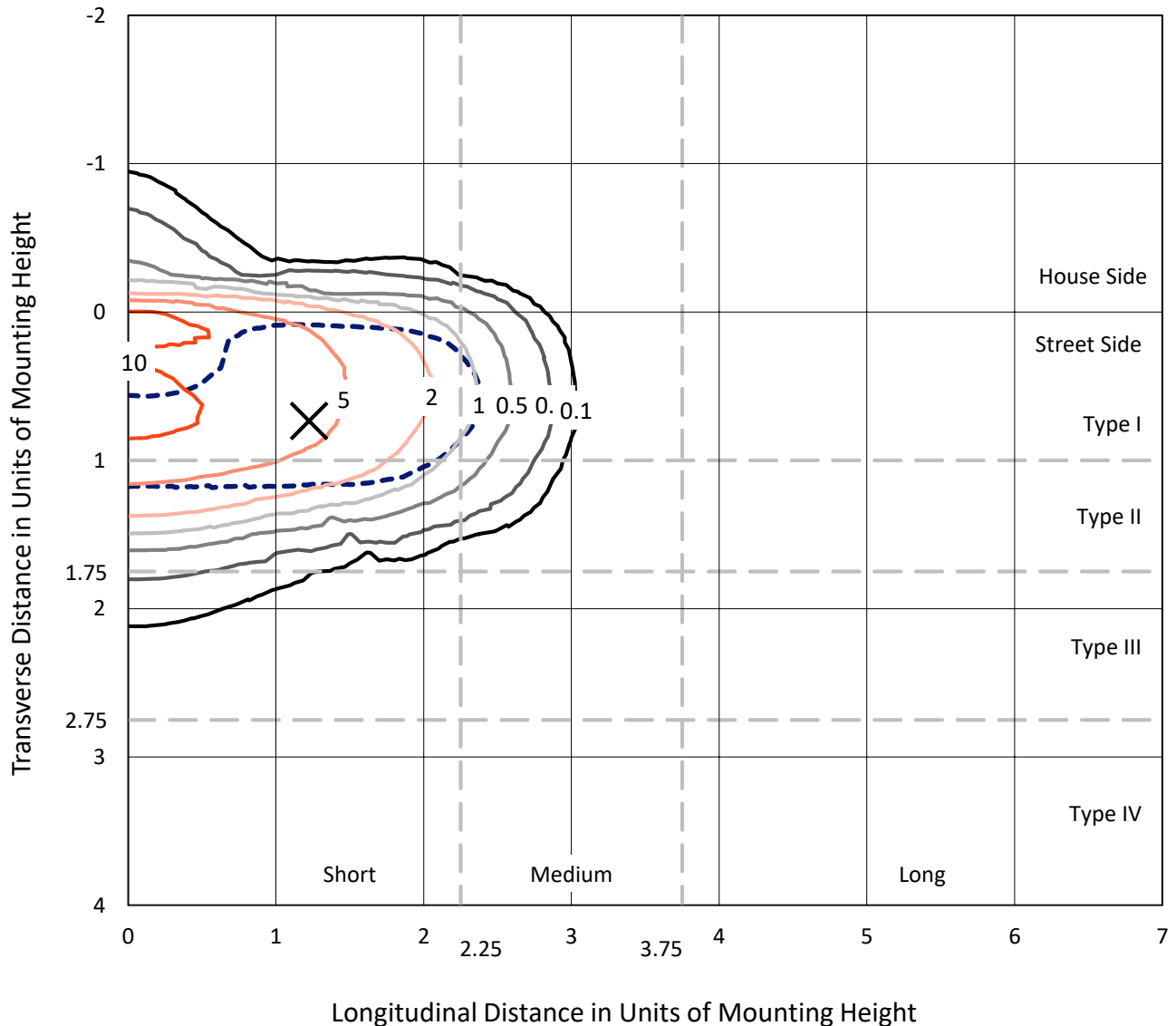


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

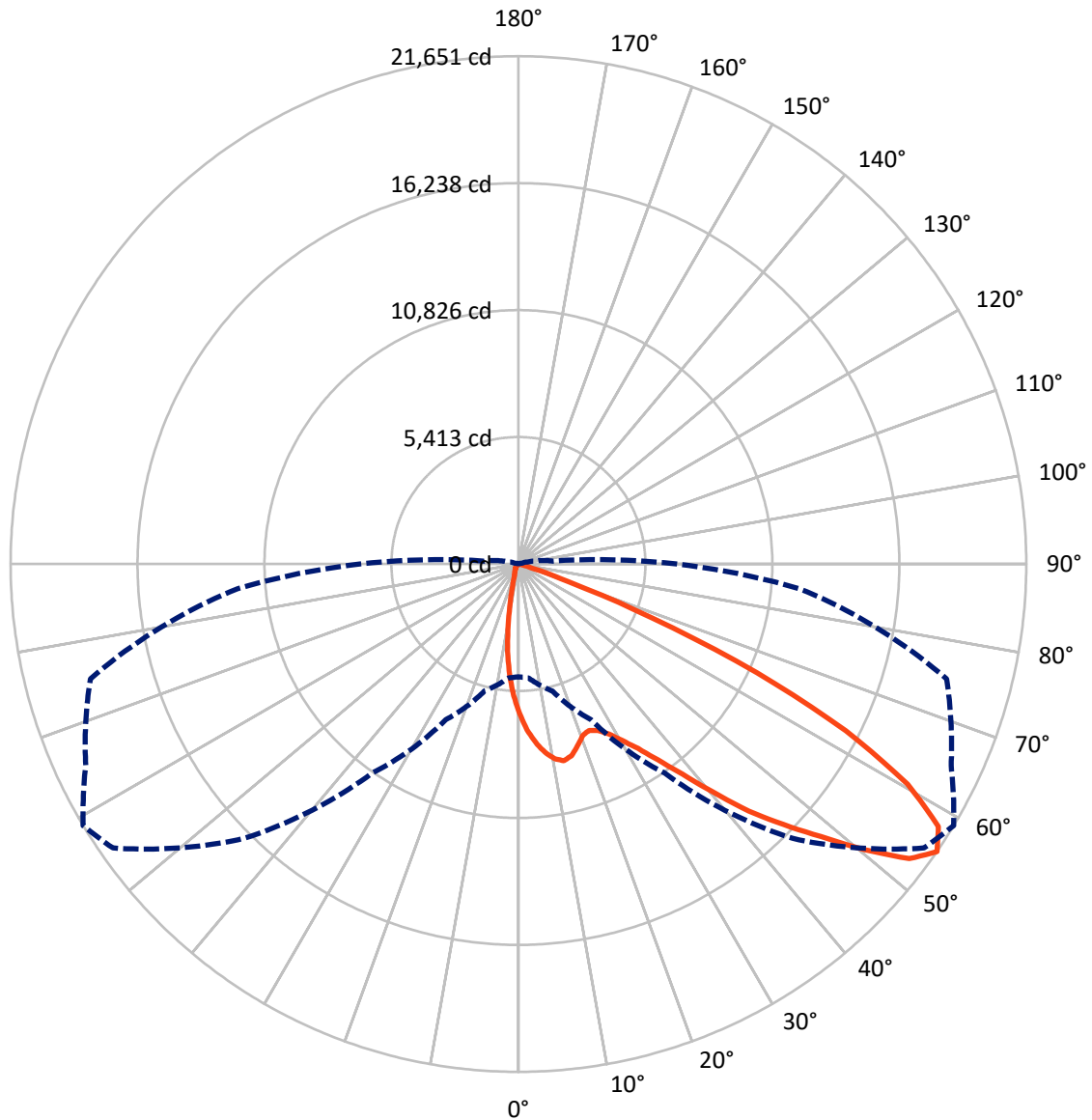


Based on 25 foot mounting height. Maximum calculated value = 12.7 fc  
 Type II - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral    - - - Horizontal Cone Through 55-Deg Vertical

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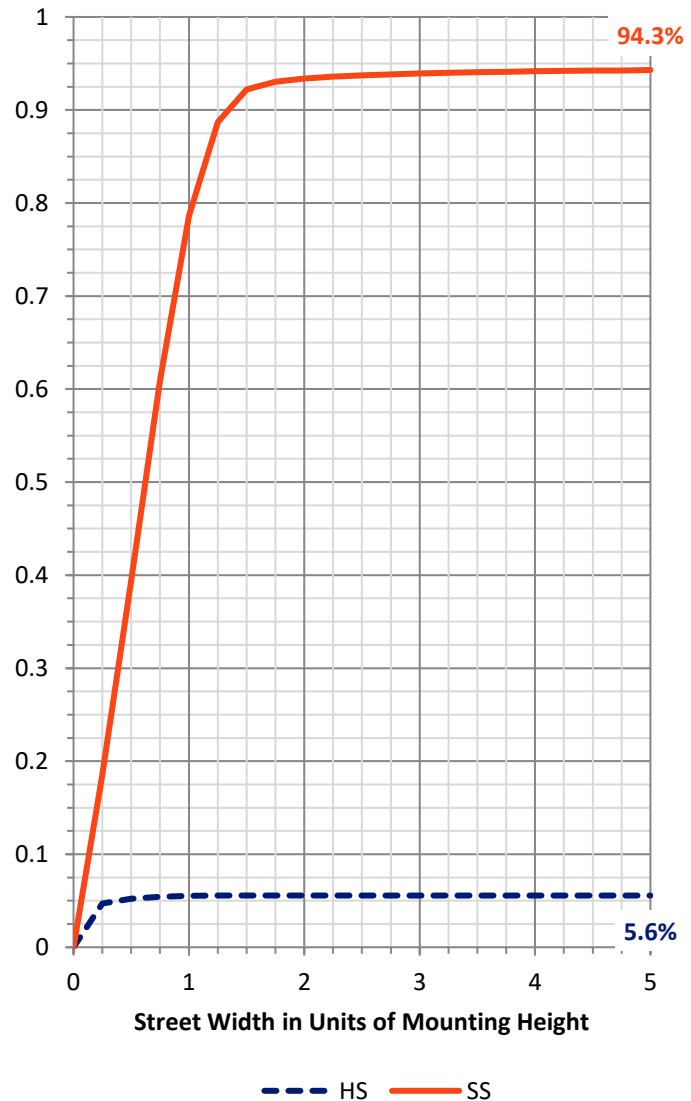
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1265.2	0.0	1265.2
	% Fixture	5.6	0.0	5.6
<b>Street Side</b>	Lumens	21386.0	0.0	21386.0
	% Fixture	94.4	0.0	94.4
<b>Total</b>	Lumens	22651.2	0.0	22651.2
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	534.1	2.4
10°-20°	1278.7	5.6
20°-30°	2175.9	9.6
30°-40°	3742.1	16.5
40°-50°	5777.4	25.5
50°-60°	5808.1	25.6
60°-70°	2978.4	13.1
70°-80°	322.8	1.4
80°-90°	33.7	0.1
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°	22651.2	100.0
0°-180°	22651.2	100.0

**Coefficient of Utilization**



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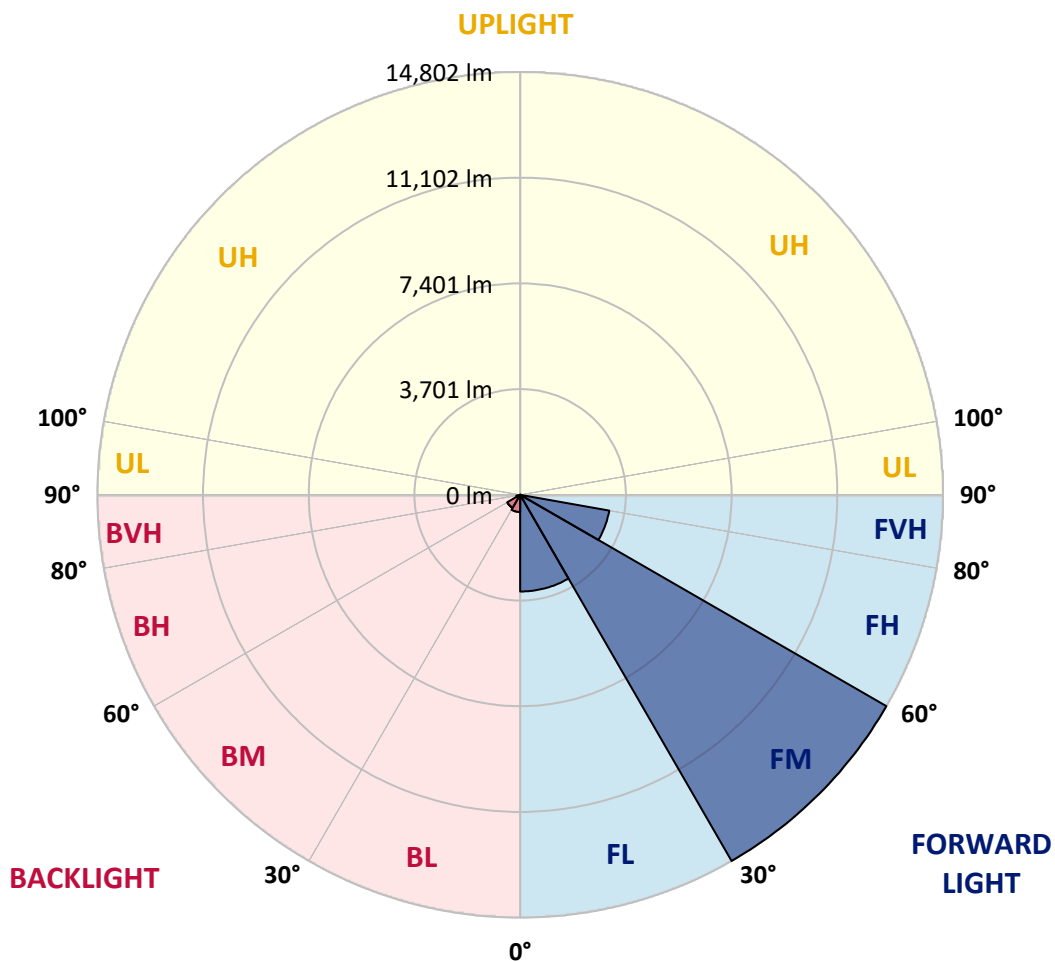
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3384.8	14.9			
FM	(30°-60°)	14802.5	65.3			
FH	(60°-80°)	3165.7	14.0			G2/5000
FVH	(80°-90°)	33.0	0.1			G1/100
BL	(0°-30°)	603.9	2.7	B2/1000		
BM	(30°-60°)	525.1	2.3	B1/1000		
BH	(60°-80°)	135.5	0.6	B1/500		G1/500
BVH	(80°-90°)	0.7	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	6376.2	6376.2	6376.2	6376.2	6376.2	6376.2	6376.2	6376.2	6376.2	6376.2	6376.2
2.5°	7544.5	7464.3	7440.3	7424.2	7350.7	7258.5	7132.8	7074.0	6953.7	6759.9	6521.9
5°	8235.6	8220.9	8167.5	8138.1	8059.2	7928.2	7727.7	7631.4	7440.3	7114.1	6687.7
7.5°	7933.5	8025.8	8099.3	8222.3	8377.3	8372.0	8203.6	8103.3	7889.4	7459.0	6872.2
10°	6766.6	6841.4	6961.7	7241.1	7810.6	8313.2	8511.0	8438.8	8267.7	7775.8	7050.0
12.5°	6538.0	6530.0	6551.4	6632.9	6931.0	7647.5	8458.9	8604.6	8569.8	8065.9	7218.4
15°	6659.6	6650.3	6647.6	6675.7	6747.9	7050.0	8067.2	8485.6	8754.3	8334.6	7361.4
17.5°	7000.5	6960.4	6939.0	6916.3	6894.9	6969.8	7596.7	8152.8	8782.4	8569.8	7480.4
20°	7584.7	7517.8	7438.9	7310.6	7190.3	7152.9	7398.8	7810.6	8682.1	8748.9	7557.9
22.5°	8318.5	8233.0	8096.6	7862.7	7618.1	7476.4	7496.4	7702.3	8532.4	8944.1	7594.0
25°	9143.3	9033.7	8851.9	8527.1	8167.5	7916.2	7785.2	7857.3	8464.2	9172.7	7635.4
27.5°	10026.9	9905.2	9667.3	9224.8	8817.1	8477.6	8210.2	8200.9	8580.5	9472.1	7702.3
30°	10902.4	10883.7	10573.6	10105.7	9565.7	9152.6	8767.7	8718.2	8905.3	9886.5	7834.6
32.5°	12070.7	11930.4	11550.8	11069.5	10446.6	9950.7	9494.8	9379.9	9404.0	10369.1	8039.1
35°	13543.8	13390.1	12855.4	12191.0	11494.6	10909.1	10405.2	10248.8	10190.0	11159.1	8384.0
37.5°	14495.6	14492.9	14157.4	13481.0	12733.8	12088.1	11540.1	11356.9	11238.0	12113.5	8918.7
40°	14521.0	14583.8	14627.9	14621.2	14089.2	13494.4	13007.8	12781.9	12505.2	13388.8	9609.8
42.5°	13741.7	13903.4	14292.4	14952.7	15268.2	15031.6	14621.2	14399.3	13987.6	14753.6	10452.0
45°	12688.3	12800.6	13481.0	14697.4	15907.2	16555.5	16242.7	15845.7	15303.0	16177.2	11207.2
47.5°	12216.4	12236.5	12676.3	14011.7	15955.3	17804.0	17993.8	17348.2	16498.0	17324.1	11798.0
50°	10806.2	10842.3	11449.2	12823.3	15391.2	18393.5	19753.0	19140.7	17801.3	18207.7	12013.3
52.5°	8144.7	8195.5	8965.5	10870.4	13840.6	18142.2	21012.2	20863.8	19229.0	18639.5	12025.3
55°	4805.6	4872.4	5607.6	7317.3	10886.4	16543.5	21105.8	21651.1	20355.8	18894.8	12006.6
57.5°	2244.4	2291.2	2712.2	3769.6	6770.6	13074.6	19696.8	21111.1	20977.4	19029.8	12138.9
60°	1192.4	1205.7	1307.3	1632.2	3059.8	8290.4	16947.2	19063.2	20410.7	19216.9	12300.7
62.5°	911.7	915.7	910.3	949.1	1285.9	3680.0	12810.0	15671.9	18128.8	19076.6	12121.5
65°	790.0	796.7	759.3	749.9	824.8	1312.7	7610.0	11171.1	14245.6	17182.4	10901.1
67.5°	708.5	711.1	665.7	626.9	640.3	709.8	3002.3	6115.6	9429.3	12594.7	7901.5
70°	652.3	649.7	600.2	538.7	521.3	485.2	954.4	2241.7	4506.1	6386.9	3674.7
72.5°	577.5	578.8	554.7	474.5	433.1	339.5	442.5	653.7	1344.8	1740.4	860.9
75°	512.0	505.3	475.9	425.1	356.9	223.2	219.2	291.4	414.4	411.7	185.8
77.5°	370.3	363.6	372.9	348.9	274.0	144.4	109.6	140.4	168.4	163.1	52.1
80°	271.4	267.3	240.6	290.1	241.9	98.9	68.2	74.9	86.9	73.5	16.0
82.5°	185.8	184.5	169.8	160.4	137.7	60.2	42.8	46.8	56.1	41.4	8.0
85°	29.4	33.4	123.0	97.6	81.5	26.7	29.4	32.1	37.4	22.7	2.7
87.5°	0.0	0.0	57.5	50.8	16.0	10.7	17.4	18.7	18.7	12.0	0.0
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°	6376.2	6376.2	6376.2	6376.2	6376.2	6376.2	6376.2	6376.2	6376.2	6376.2	6376.2
2.5°	6400.3	6266.6	6019.3	5764.0	5527.4	5245.4	5051.5	4905.8	4737.4	4691.9	4790.9
5°	6444.4	6191.8	5659.7	5080.9	4536.9	3934.0	3472.8	3107.9	2777.7	2665.5	2767.0
7.5°	6513.9	6138.3	5270.8	4317.7	3371.3	2430.2	1785.9	1362.1	1092.1	1011.9	1054.7
10°	6583.4	6060.8	4820.3	3414.0	2120.1	1183.0	770.0	614.9	557.4	545.4	552.1
12.5°	6640.9	5956.5	4270.9	2427.5	1133.6	633.6	504.0	478.6	470.5	470.5	473.2
15°	6675.7	5798.8	3619.9	1543.9	652.3	478.6	439.8	431.8	431.8	433.1	435.8
17.5°	6671.7	5598.3	2907.4	934.4	487.9	423.7	401.0	394.3	393.0	395.7	397.0
20°	6622.2	5336.3	2192.3	616.2	425.1	386.3	363.6	351.6	350.2	352.9	355.6
22.5°	6528.6	5012.8	1568.0	474.5	383.6	350.2	322.2	311.5	311.5	314.1	316.8
25°	6415.0	4617.1	1072.1	402.4	346.2	311.5	284.7	275.4	278.0	284.7	286.1
27.5°	6273.3	4172.0	728.5	344.9	300.8	272.7	252.6	246.0	252.6	262.0	264.7
30°	6151.7	3708.1	520.0	298.1	255.3	235.3	223.2	223.2	232.6	250.0	254.0
32.5°	6058.1	3259.0	401.0	263.3	221.9	204.5	197.8	204.5	219.2	236.6	240.6
35°	6046.1	2888.7	339.5	235.3	197.8	180.5	177.8	189.8	204.5	217.9	220.6
37.5°	6138.3	2546.5	306.1	212.5	176.4	160.4	157.7	172.4	187.1	203.2	207.2
40°	6313.4	2277.8	282.1	191.2	159.1	141.7	136.3	147.0	167.1	188.5	193.8
42.5°	6540.7	2055.9	255.3	169.8	141.7	117.6	110.9	123.0	144.4	167.1	173.8
45°	6757.2	1864.7	225.9	145.7	119.0	90.9	88.2	104.3	115.0	137.7	143.0
47.5°	6876.2	1696.3	200.5	119.0	92.2	73.5	73.5	77.5	88.2	115.0	120.3
50°	6836.1	1561.3	173.8	88.2	64.2	56.1	56.1	54.8	70.8	92.2	96.2
52.5°	6755.9	1483.8	149.7	68.2	44.1	40.1	36.1	40.1	49.5	58.8	60.2
55°	6743.8	1470.4	125.7	54.8	30.7	26.7	20.1	20.1	20.1	18.7	16.0
57.5°	6837.4	1491.8	105.6	44.1	22.7	17.4	10.7	0.0	0.0	0.0	0.0
60°	6933.7	1514.5	90.9	30.7	16.0	9.4	1.3	0.0	0.0	0.0	0.0
62.5°	6773.3	1463.7	76.2	18.7	12.0	4.0	0.0	0.0	0.0	0.0	0.0
65°	5949.8	1245.8	60.2	13.4	8.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	4232.1	834.1	40.1	8.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0
70°	1931.6	348.9	25.4	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	413.1	108.3	17.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	84.2	78.9	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	26.7	124.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	16.0	89.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	2.7	13.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)