

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: STREETWORKS

Report Number: P300681

Luminaire Tested: **GAA-AF-04-LED-U-AFL-800-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300681  
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: STREETWORKS  
Catalog Number: GAA-AF-04-LED-U-AFL-800-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline WITH HOUSESIDE SHIELD OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

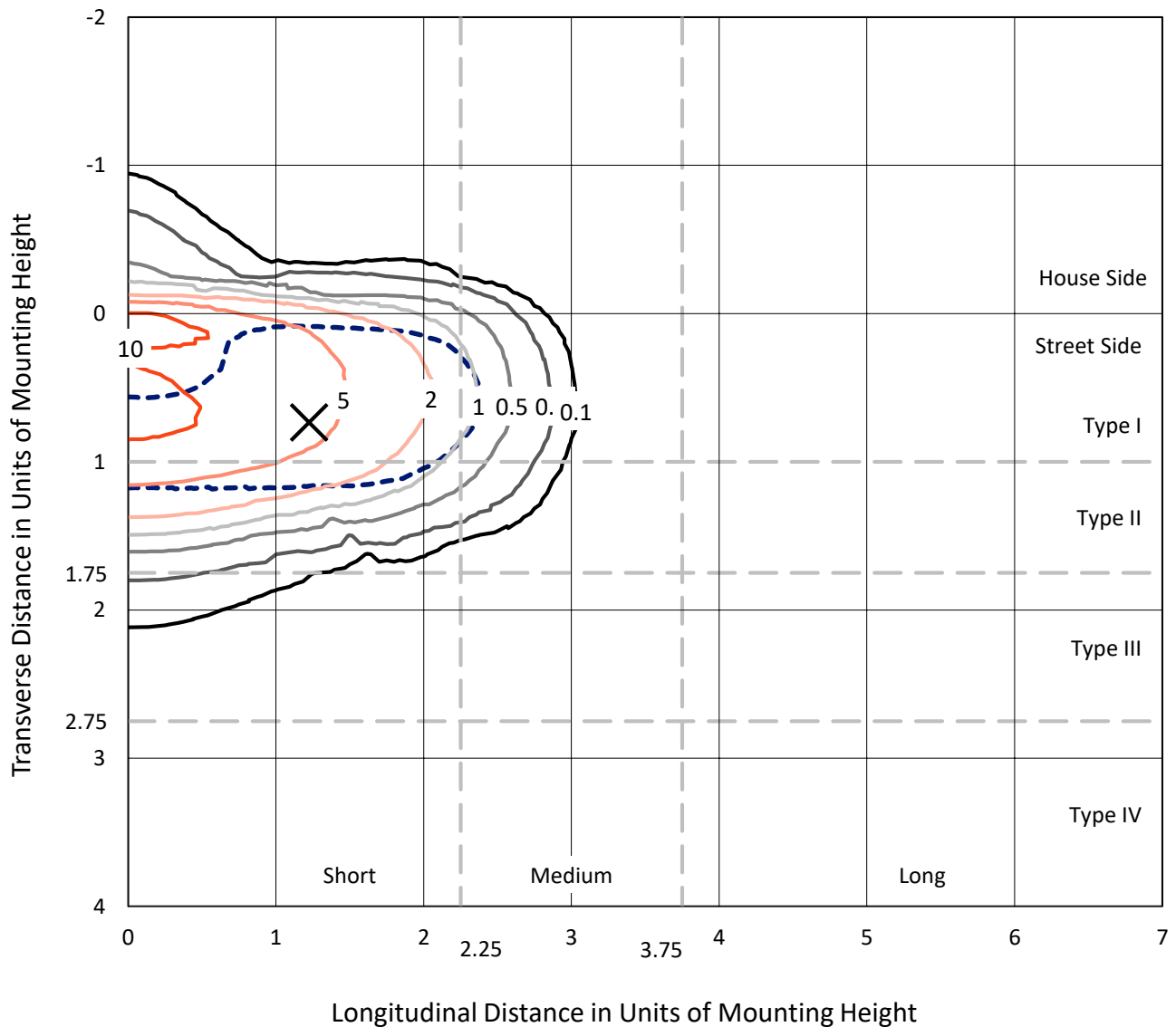
Lumens per Lamp: N/A  
Luminaire Lumens: 14426.3 lumens  
Efficiency: N/A  
Efficacy: 84.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 171  
Input Voltage (V): NR  
Input Current (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: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

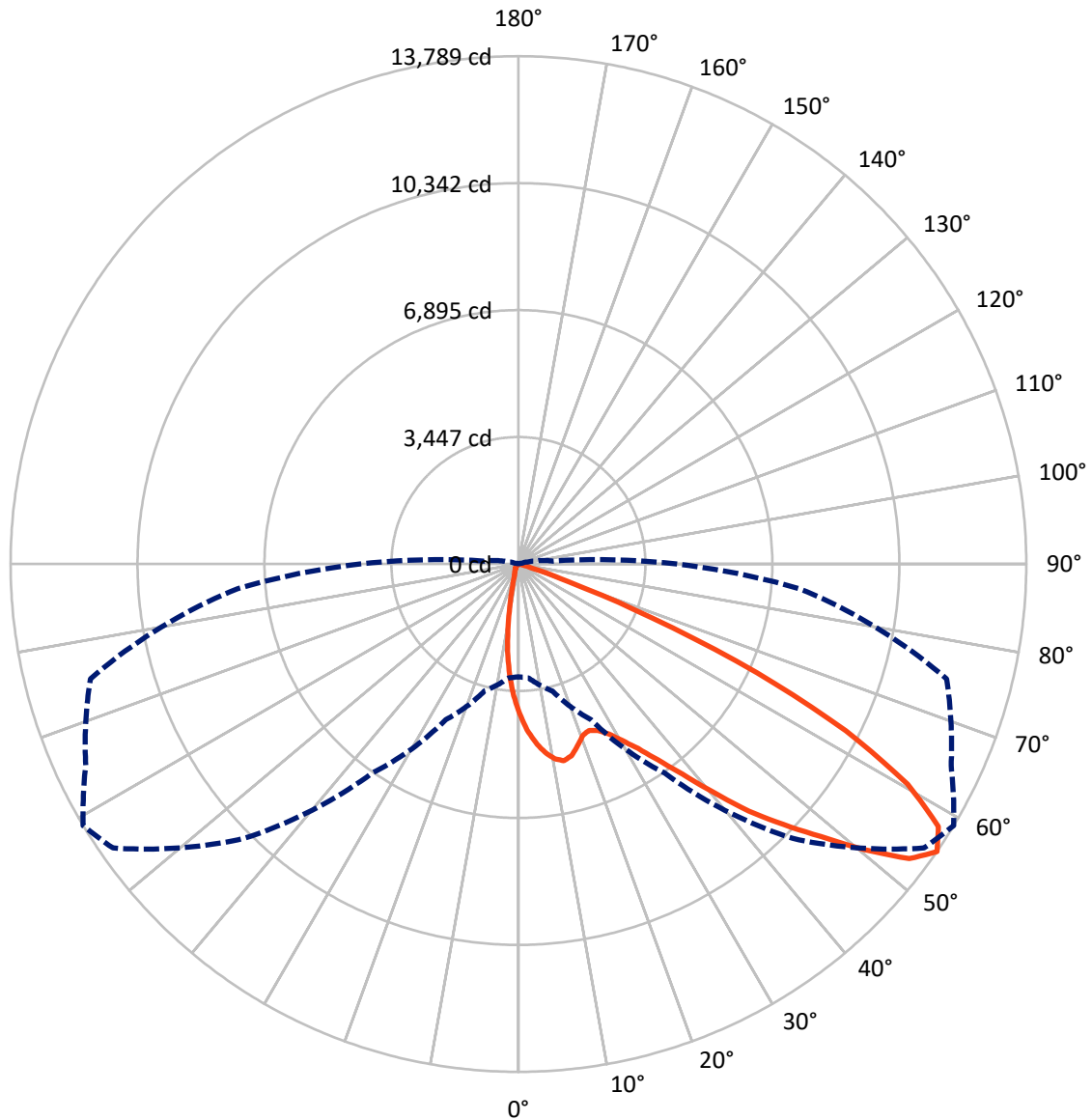
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 12.6 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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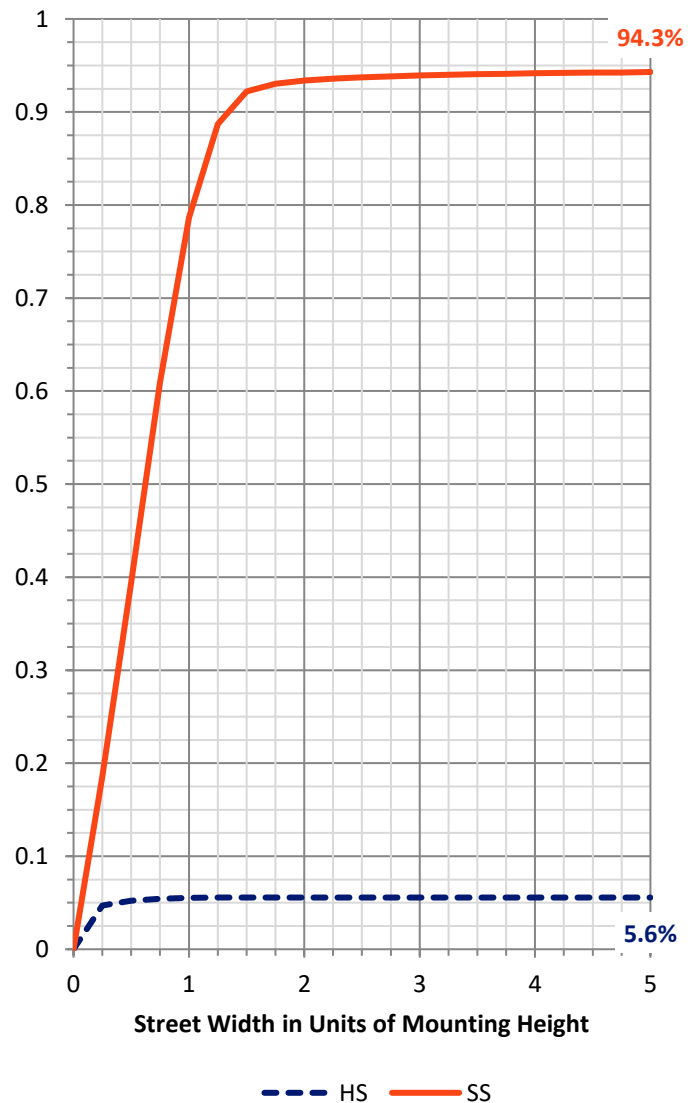
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	805.8	0.0	805.8
	% Fixture	5.6	0.0	5.6
<b>Street Side</b>	Lumens	13620.5	0.0	13620.5
	% Fixture	94.4	0.0	94.4
<b>Total</b>	Lumens	14426.3	0.0	14426.3
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	340.1	2.4
10°-20°	814.4	5.6
20°-30°	1385.8	9.6
30°-40°	2383.3	16.5
40°-50°	3679.5	25.5
50°-60°	3699.1	25.6
60°-70°	1896.9	13.1
70°-80°	205.6	1.4
80°-90°	21.5	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°	14426.3	100.0
0°-180°	14426.3	100.0

**Coefficient of Utilization**



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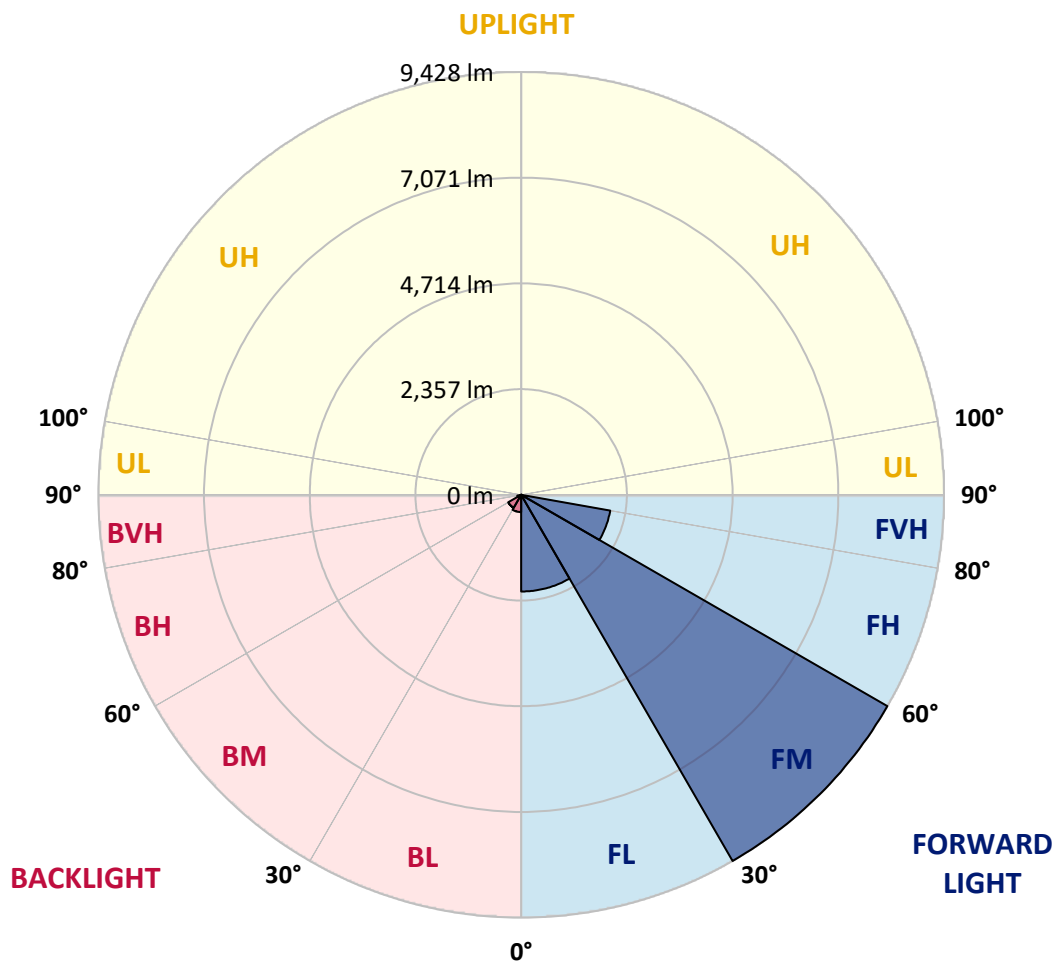
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2155.8	14.9			
FM	(30°-60°)	9427.5	65.3			
FH	(60°-80°)	2016.2	14.0			G2/5000
FVH	(80°-90°)	21.0	0.1			G1/100
BL	(0°-30°)	384.6	2.7	B1/500		
BM	(30°-60°)	334.4	2.3	B1/1000		
BH	(60°-80°)	86.3	0.6	B0/110		G0/110
BVH	(80°-90°)	0.4	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	4061.0	4061.0	4061.0	4061.0	4061.0	4061.0	4061.0	4061.0	4061.0	4061.0	4061.0
2.5°	4805.0	4754.0	4738.6	4728.4	4681.6	4622.9	4542.8	4505.4	4428.7	4305.3	4153.8
5°	5245.2	5235.8	5201.8	5183.0	5132.8	5049.4	4921.7	4860.4	4738.6	4530.9	4259.3
7.5°	5052.8	5111.5	5158.4	5236.7	5335.4	5332.0	5224.8	5160.9	5024.7	4750.6	4376.8
10°	4309.6	4357.2	4433.9	4611.8	4974.5	5294.6	5420.6	5374.6	5265.6	4952.3	4490.0
12.5°	4164.0	4158.9	4172.5	4224.4	4414.3	4870.6	5387.4	5480.2	5458.0	5137.1	4597.3
15°	4241.4	4235.5	4233.8	4251.7	4297.6	4490.0	5137.9	5404.4	5575.5	5308.2	4688.4
17.5°	4458.5	4433.0	4419.4	4404.9	4391.3	4439.0	4838.2	5192.4	5593.4	5458.0	4764.2
20°	4830.6	4788.0	4737.8	4656.1	4579.4	4555.6	4712.2	4974.5	5529.5	5572.1	4813.6
22.5°	5298.0	5243.5	5156.6	5007.7	4851.9	4761.6	4774.4	4905.5	5434.2	5696.4	4836.5
25°	5823.3	5753.4	5637.7	5430.8	5201.8	5041.7	4958.3	5004.3	5390.8	5842.0	4862.9
27.5°	6386.0	6308.5	6157.0	5875.2	5615.5	5399.3	5229.0	5223.1	5464.8	6032.7	4905.5
30°	6943.6	6931.7	6734.2	6436.2	6092.3	5829.2	5584.0	5552.5	5671.7	6296.6	4989.8
32.5°	7687.7	7598.3	7356.5	7050.1	6653.3	6337.5	6047.2	5973.9	5989.3	6604.0	5120.0
35°	8625.9	8528.0	8187.5	7764.3	7320.8	6947.9	6626.9	6527.3	6489.9	7107.1	5339.7
37.5°	9232.1	9230.4	9016.7	8585.9	8110.0	7698.8	7349.7	7233.1	7157.3	7715.0	5680.2
40°	9248.3	9288.3	9316.4	9312.1	8973.3	8594.4	8284.5	8140.6	7964.4	8527.2	6120.4
42.5°	8751.9	8854.9	9102.7	9523.2	9724.2	9573.5	9312.1	9170.8	8908.6	9396.4	6656.7
45°	8081.0	8152.6	8585.9	9360.6	10131.1	10544.0	10344.8	10091.9	9746.3	10303.1	7137.7
47.5°	7780.5	7793.3	8073.4	8923.9	10161.8	11339.2	11460.1	11048.9	10507.4	11033.5	7514.0
50°	6882.3	6905.3	7291.8	8167.0	9802.5	11714.6	12580.5	12190.5	11337.5	11596.3	7651.1
52.5°	5187.3	5219.6	5710.0	6923.2	8814.9	11554.6	13382.4	13287.9	12246.7	11871.3	7658.8
55°	3060.6	3103.2	3571.4	4660.3	6933.4	10536.4	13442.0	13789.4	12964.4	12033.9	7646.9
57.5°	1429.4	1459.2	1727.4	2400.8	4312.1	8327.1	12544.7	13445.4	13360.3	12119.9	7731.1
60°	759.4	767.9	832.6	1039.5	1948.7	5280.1	10793.5	12141.2	12999.3	12239.1	7834.2
62.5°	580.6	583.2	579.8	604.5	819.0	2343.8	8158.5	9981.3	11546.1	12149.7	7720.1
65°	503.2	507.4	483.6	477.6	525.3	836.0	4846.8	7114.8	9072.9	10943.3	6942.8
67.5°	451.2	452.9	424.0	399.3	407.8	452.1	1912.1	3894.9	6005.4	8021.5	5032.4
70°	415.5	413.8	382.3	343.1	332.0	309.0	607.9	1427.7	2869.9	4067.8	2340.4
72.5°	367.8	368.6	353.3	302.2	275.8	216.2	281.8	416.3	856.5	1108.5	548.3
75°	326.1	321.8	303.1	270.7	227.3	142.2	139.6	185.6	263.9	262.2	118.3
77.5°	235.8	231.6	237.5	222.2	174.5	91.9	69.8	89.4	107.3	103.9	33.2
80°	172.8	170.3	153.2	184.7	154.1	63.0	43.4	47.7	55.3	46.8	10.2
82.5°	118.3	117.5	108.1	102.2	87.7	38.3	27.2	29.8	35.8	26.4	5.1
85°	18.7	21.3	78.3	62.1	51.9	17.0	18.7	20.4	23.8	14.5	1.7
87.5°	0.0	0.0	36.6	32.4	10.2	6.8	11.1	11.9	11.9	7.7	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°	4061.0	4061.0	4061.0	4061.0	4061.0	4061.0	4061.0	4061.0	4061.0	4061.0	4061.0
2.5°	4076.3	3991.1	3833.6	3671.0	3520.3	3340.7	3217.3	3124.5	3017.2	2988.3	3051.3
5°	4104.4	3943.5	3604.6	3236.0	2889.5	2505.5	2211.8	1979.4	1769.1	1697.6	1762.3
7.5°	4148.6	3909.4	3356.9	2749.9	2147.1	1547.8	1137.4	867.5	695.6	644.5	671.7
10°	4192.9	3860.0	3070.0	2174.4	1350.2	753.4	490.4	391.6	355.0	347.4	351.6
12.5°	4229.5	3793.6	2720.1	1546.1	721.9	403.5	321.0	304.8	299.7	299.7	301.4
15°	4251.7	3693.2	2305.5	983.3	415.5	304.8	280.1	275.0	275.0	275.8	277.5
17.5°	4249.1	3565.5	1851.7	595.1	310.7	269.9	255.4	251.1	250.3	252.0	252.9
20°	4217.6	3398.6	1396.2	392.5	270.7	246.0	231.6	223.9	223.1	224.8	226.5
22.5°	4158.0	3192.6	998.6	302.2	244.3	223.1	205.2	198.4	198.4	200.1	201.8
25°	4085.6	2940.6	682.8	256.3	220.5	198.4	181.3	175.4	177.1	181.3	182.2
27.5°	3995.4	2657.1	464.0	219.6	191.6	173.7	160.9	156.6	160.9	166.9	168.6
30°	3917.9	2361.7	331.2	189.9	162.6	149.8	142.2	142.2	148.1	159.2	161.8
32.5°	3858.3	2075.6	255.4	167.7	141.3	130.3	126.0	130.3	139.6	150.7	153.2
35°	3850.7	1839.8	216.2	149.8	126.0	114.9	113.2	120.9	130.3	138.8	140.5
37.5°	3909.4	1621.8	195.0	135.4	112.4	102.2	100.5	109.8	119.2	129.4	132.0
40°	4020.9	1450.7	179.6	121.7	101.3	90.2	86.8	93.6	106.4	120.0	123.4
42.5°	4165.7	1309.4	162.6	108.1	90.2	74.9	70.7	78.3	91.9	106.4	110.7
45°	4303.6	1187.6	143.9	92.8	75.8	57.9	56.2	66.4	73.2	87.7	91.1
47.5°	4379.4	1080.4	127.7	75.8	58.7	46.8	46.8	49.4	56.2	73.2	76.6
50°	4353.8	994.4	110.7	56.2	40.9	35.8	35.8	34.9	45.1	58.7	61.3
52.5°	4302.7	945.0	95.4	43.4	28.1	25.5	23.0	25.5	31.5	37.5	38.3
55°	4295.1	936.5	80.0	34.9	19.6	17.0	12.8	12.8	12.8	11.9	10.2
57.5°	4354.7	950.1	67.3	28.1	14.5	11.1	6.8	0.0	0.0	0.0	0.0
60°	4416.0	964.6	57.9	19.6	10.2	6.0	0.9	0.0	0.0	0.0	0.0
62.5°	4313.8	932.2	48.5	11.9	7.7	2.6	0.0	0.0	0.0	0.0	0.0
65°	3789.4	793.5	38.3	8.5	5.1	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	2695.4	531.2	25.5	5.1	0.9	0.0	0.0	0.0	0.0	0.0	0.0
70°	1230.2	222.2	16.2	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	263.1	69.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	53.6	50.2	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	17.0	79.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	10.2	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	1.7	8.5	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)