

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: P300628

Luminaire Tested: **GLNA-AF-05-LED-E1-AFL-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300628
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-05-LED-E1-AFL-7050-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 5000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline WITH HOUSESIDE SHIELD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22125.1 lumens
Efficiency: N/A
Efficacy: 79.3 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 279
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

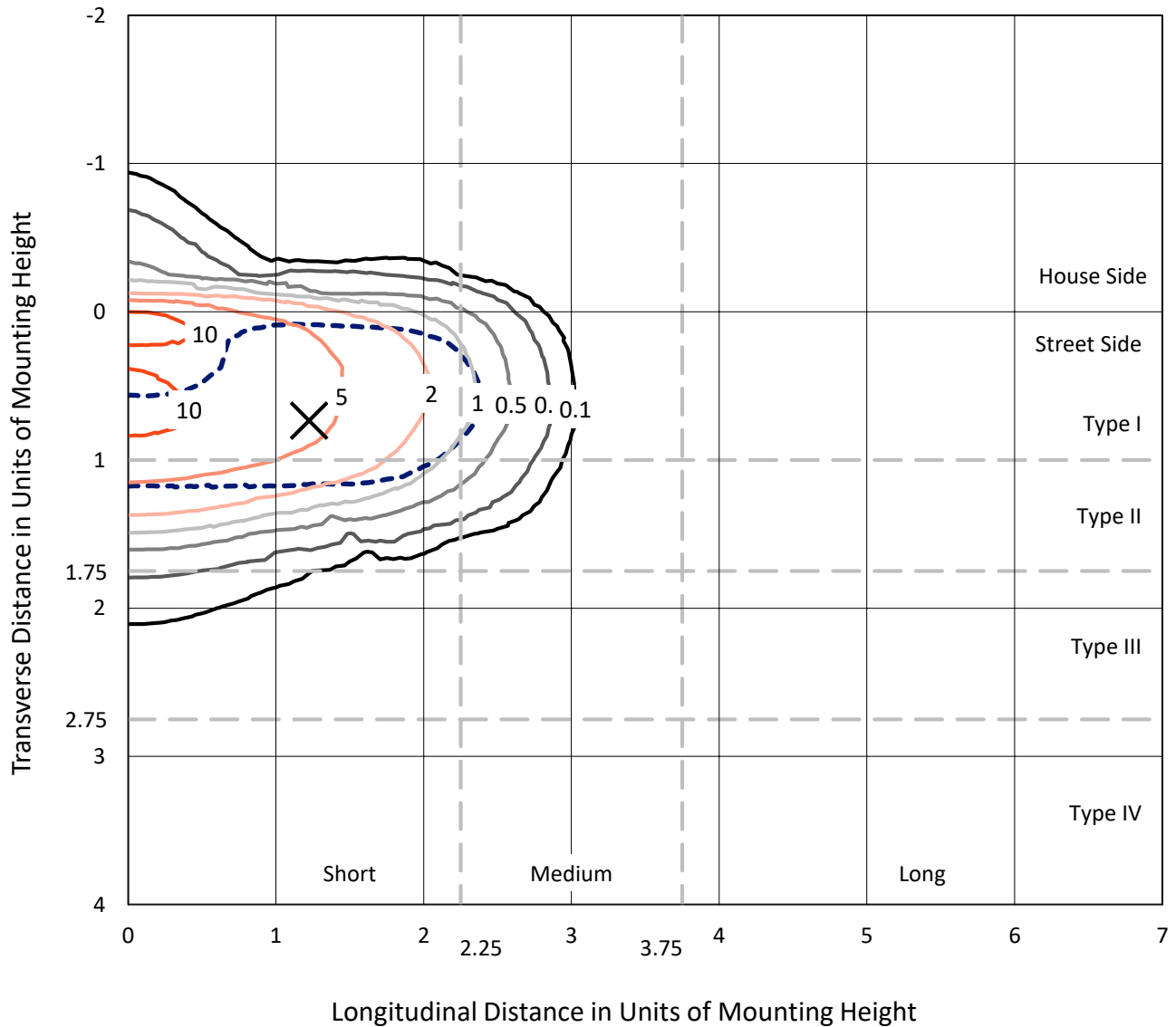


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Iso-Footcandle Lines of Horizontal Illumination

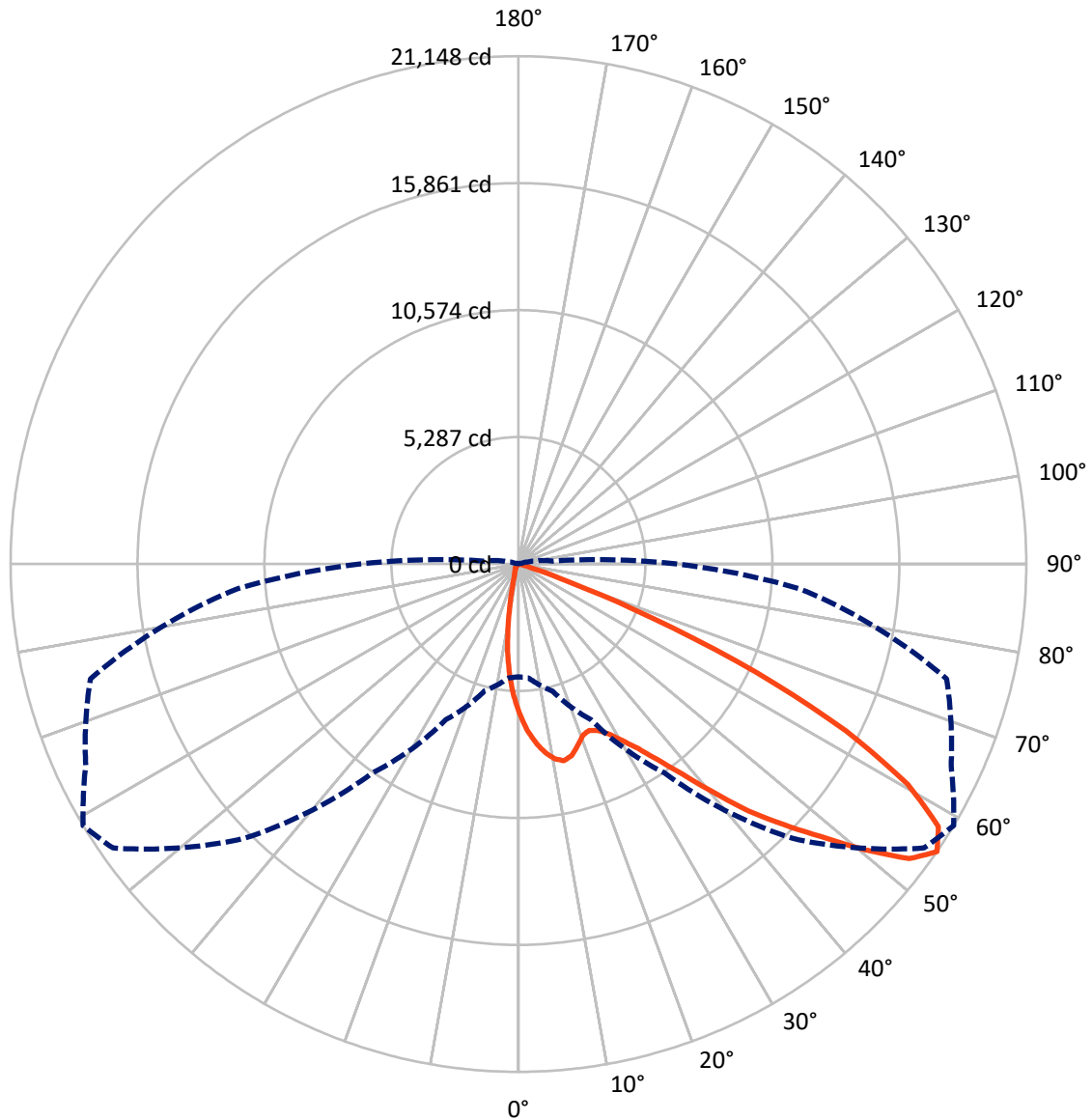
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.4 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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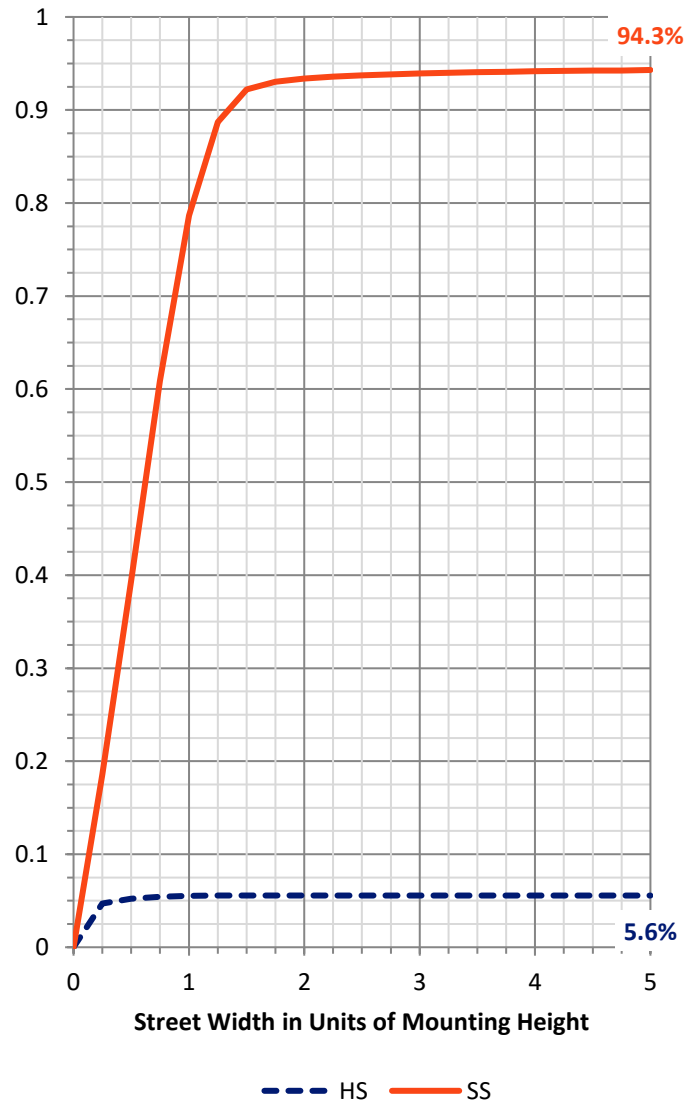
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1235.8	0.0	1235.8
	% Fixture	5.6	0.0	5.6
Street Side	Lumens	20889.3	0.0	20889.3
	% Fixture	94.4	0.0	94.4
Total	Lumens	22125.1	0.0	22125.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	521.7	2.4
10°-20°	1249.0	5.6
20°-30°	2125.4	9.6
30°-40°	3655.2	16.5
40°-50°	5643.2	25.5
50°-60°	5673.2	25.6
60°-70°	2909.3	13.1
70°-80°	315.3	1.4
80°-90°	33.0	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°	22125.1	100.0
0°-180°	22125.1	100.0

Coefficient of Utilization



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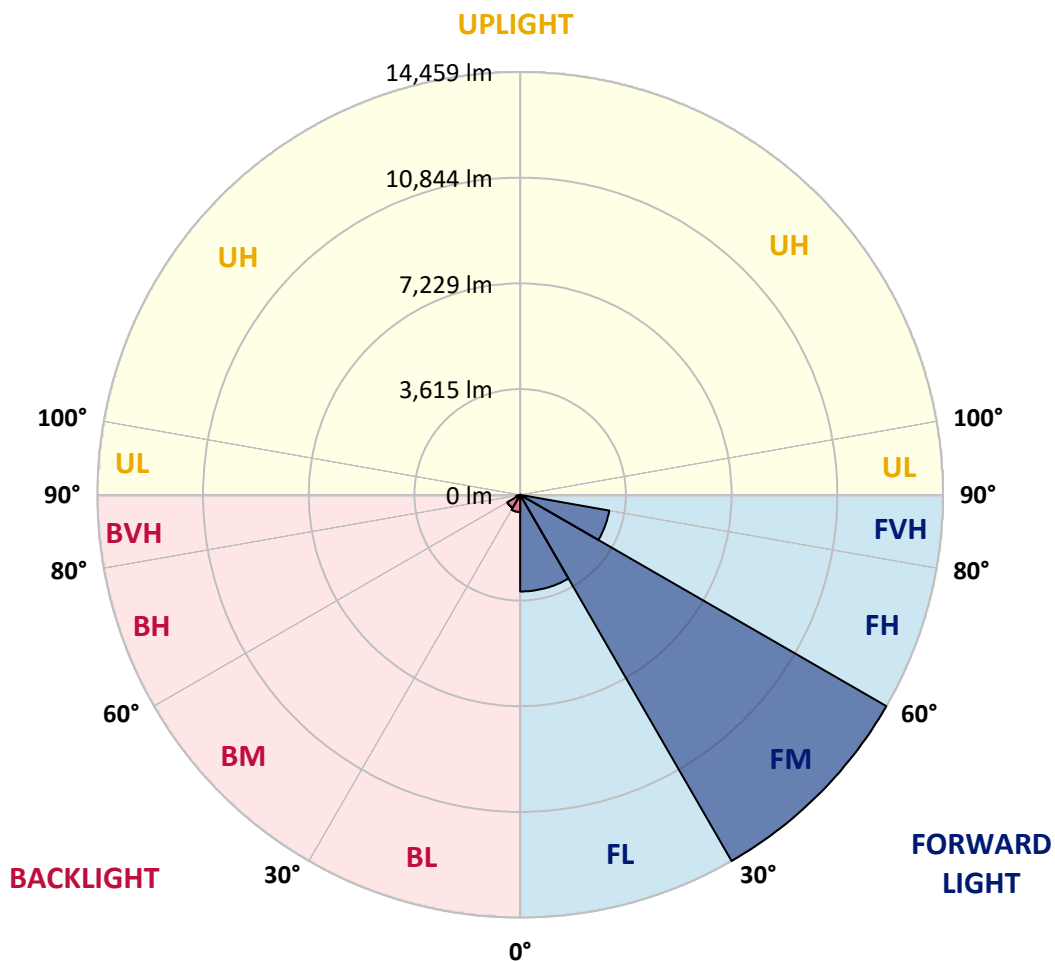
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3306.2	14.9			
FM	(30°-60°)	14458.7	65.3			
FH	(60°-80°)	3092.1	14.0			G2/5000
FVH	(80°-90°)	32.3	0.1			G1/100
BL	(0°-30°)	589.9	2.7	B2/1000		
BM	(30°-60°)	512.9	2.3	B1/1000		
BH	(60°-80°)	132.4	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°	6228.1	6228.1	6228.1	6228.1	6228.1	6228.1	6228.1	6228.1	6228.1	6228.1	6228.1
2.5°	7369.3	7291.0	7267.5	7251.8	7180.0	7089.9	6967.2	6909.7	6792.2	6602.9	6370.5
5°	8044.4	8030.0	7977.8	7949.0	7872.0	7744.1	7548.2	7454.2	7267.5	6948.9	6532.4
7.5°	7749.3	7839.4	7911.2	8031.3	8182.8	8177.5	8013.0	7915.1	7706.2	7285.8	6712.6
10°	6609.4	6682.5	6800.0	7072.9	7629.2	8120.1	8313.3	8242.8	8075.7	7595.2	6886.2
12.5°	6386.1	6378.3	6399.2	6478.8	6770.0	7469.9	8262.4	8404.7	8370.8	7878.5	7050.7
15°	6505.0	6495.8	6493.2	6520.6	6591.1	6886.2	7879.8	8288.5	8551.0	8141.0	7190.4
17.5°	6837.9	6798.7	6777.8	6755.6	6734.8	6807.9	7420.2	7963.4	8578.4	8370.8	7306.6
20°	7408.5	7343.2	7266.2	7140.8	7023.3	6986.8	7227.0	7629.2	8480.5	8545.8	7382.4
22.5°	8125.3	8041.8	7908.6	7680.1	7441.1	7302.7	7322.3	7523.4	8334.2	8736.4	7417.6
25°	8930.9	8823.9	8646.3	8329.0	7977.8	7732.3	7604.3	7674.9	8267.6	8959.7	7458.1
27.5°	9794.0	9675.2	9442.8	9010.6	8612.3	8280.7	8019.6	8010.4	8381.2	9252.1	7523.4
30°	10649.2	10630.9	10328.0	9871.0	9343.5	8940.1	8564.0	8515.7	8698.5	9656.9	7652.7
32.5°	11790.4	11653.3	11282.5	10812.4	10204.0	9719.6	9274.3	9162.0	9185.5	10128.2	7852.4
35°	13229.3	13079.1	12556.8	11907.9	11227.6	10655.7	10163.5	10010.7	9953.3	10899.9	8189.3
37.5°	14158.9	14156.3	13828.6	13167.9	12438.0	11807.4	11272.0	11093.2	10976.9	11832.2	8711.6
40°	14183.7	14245.1	14288.2	14281.7	13762.0	13181.0	12705.7	12485.0	12214.7	13077.8	9386.6
42.5°	13422.5	13580.5	13960.5	14605.5	14913.6	14682.5	14281.7	14064.9	13662.8	14410.9	10209.2
45°	12393.6	12503.3	13167.9	14356.1	15537.7	16171.0	15865.5	15477.7	14947.6	15801.5	10946.9
47.5°	11932.7	11952.3	12381.9	13686.3	15584.7	17390.5	17575.9	16945.3	16114.8	16921.8	11524.0
50°	10555.2	10590.5	11183.2	12525.5	15033.7	17966.3	19294.2	18696.2	17387.9	17784.8	11734.2
52.5°	7955.6	8005.2	8757.3	10617.9	13519.1	17720.8	20524.2	20379.2	18782.4	18206.6	11746.0
55°	4694.0	4759.2	5477.4	7147.4	10633.6	16159.2	20615.6	21148.3	19883.1	18455.9	11727.7
57.5°	2192.3	2238.0	2649.2	3682.0	6613.3	12771.0	19239.4	20620.8	20490.2	18587.8	11857.0
60°	1164.7	1177.7	1277.0	1594.2	2988.7	8097.9	16553.6	18620.5	19936.6	18770.6	12015.0
62.5°	890.5	894.4	889.2	927.0	1256.1	3594.6	12512.4	15307.9	17707.8	18633.5	11840.0
65°	771.7	778.2	741.6	732.5	805.6	1282.2	7433.3	10911.7	13914.8	16783.4	10647.9
67.5°	692.0	694.6	650.2	612.4	625.4	693.3	2932.6	5973.5	9210.3	12302.2	7717.9
70°	637.2	634.6	586.3	526.2	509.2	474.0	932.3	2189.6	4401.5	6238.6	3589.3
72.5°	564.1	565.4	541.9	463.5	423.0	331.6	432.2	638.5	1313.5	1700.0	840.9
75°	500.1	493.6	464.8	415.2	348.6	218.1	214.1	284.6	404.8	402.2	181.5
77.5°	361.7	355.1	364.3	340.8	267.7	141.0	107.1	137.1	164.5	159.3	50.9
80°	265.1	261.1	235.0	283.3	236.3	96.6	66.6	73.1	84.9	71.8	15.7
82.5°	181.5	180.2	165.8	156.7	134.5	58.8	41.8	45.7	54.8	40.5	7.8
85°	28.7	32.6	120.1	95.3	79.6	26.1	28.7	31.3	36.6	22.2	2.6
87.5°	0.0	0.0	56.1	49.6	15.7	10.4	17.0	18.3	18.3	11.8	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°	6228.1	6228.1	6228.1	6228.1	6228.1	6228.1	6228.1	6228.1	6228.1	6228.1	6228.1
2.5°	6251.7	6121.1	5879.5	5630.1	5399.0	5123.5	4934.2	4791.9	4627.4	4583.0	4679.6
5°	6294.7	6048.0	5528.3	4962.9	4431.5	3842.6	3392.2	3035.7	2713.2	2603.5	2702.8
7.5°	6362.6	5995.7	5148.3	4217.4	3293.0	2373.7	1744.4	1330.5	1066.7	988.4	1030.2
10°	6430.5	5920.0	4708.3	3334.7	2070.8	1155.5	752.1	600.6	544.5	532.7	539.3
12.5°	6486.7	5818.2	4171.7	2371.1	1107.2	618.9	492.2	467.4	459.6	459.6	462.2
15°	6520.6	5664.1	3535.8	1508.1	637.2	467.4	429.6	421.7	421.7	423.0	425.7
17.5°	6516.7	5468.2	2839.9	912.7	476.6	413.9	391.7	385.2	383.9	386.5	387.8
20°	6468.4	5212.3	2141.3	601.9	415.2	377.3	355.1	343.4	342.1	344.7	347.3
22.5°	6377.0	4896.3	1531.6	463.5	374.7	342.1	314.7	304.2	304.2	306.8	309.4
25°	6266.0	4509.9	1047.2	393.0	338.2	304.2	278.1	269.0	271.6	278.1	279.4
27.5°	6127.6	4075.1	711.6	336.9	293.8	266.4	246.8	240.2	246.8	255.9	258.5
30°	6008.8	3622.0	507.9	291.2	249.4	229.8	218.1	218.1	227.2	244.2	248.1
32.5°	5917.4	3183.3	391.7	257.2	216.7	199.8	193.2	199.8	214.1	231.1	235.0
35°	5905.6	2821.6	331.6	229.8	193.2	176.3	173.7	185.4	199.8	212.8	215.4
37.5°	5995.7	2487.3	299.0	207.6	172.4	156.7	154.1	168.4	182.8	198.5	202.4
40°	6166.8	2224.9	275.5	186.7	155.4	138.4	133.2	143.6	163.2	184.1	189.3
42.5°	6388.7	2008.2	249.4	165.8	138.4	114.9	108.4	120.1	141.0	163.2	169.7
45°	6600.3	1821.4	220.7	142.3	116.2	88.8	86.2	101.8	112.3	134.5	139.7
47.5°	6716.5	1656.9	195.9	116.2	90.1	71.8	71.8	75.7	86.2	112.3	117.5
50°	6677.3	1525.0	169.7	86.2	62.7	54.8	54.8	53.5	69.2	90.1	94.0
52.5°	6599.0	1449.3	146.2	66.6	43.1	39.2	35.3	39.2	48.3	57.5	58.8
55°	6587.2	1436.3	122.7	53.5	30.0	26.1	19.6	19.6	19.6	18.3	15.7
57.5°	6678.6	1457.2	103.1	43.1	22.2	17.0	10.4	0.0	0.0	0.0	0.0
60°	6772.6	1479.3	88.8	30.0	15.7	9.1	1.3	0.0	0.0	0.0	0.0
62.5°	6615.9	1429.7	74.4	18.3	11.8	3.9	0.0	0.0	0.0	0.0	0.0
65°	5811.6	1216.9	58.8	13.1	7.8	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	4133.8	814.8	39.2	7.8	1.3	0.0	0.0	0.0	0.0	0.0	0.0
70°	1886.7	340.8	24.8	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	403.5	105.8	17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	82.3	77.0	6.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	26.1	121.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	15.7	87.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	2.6	13.1	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)